

**RCRA Part B Permit Renewal Application
Compliance Plan Attachment XI.D - Vol II
Response Action Plan - Attachment 1A
Union Pacific Railroad Company
Houston Wood Preserving Works
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Houston, Texas**

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Prepared for:
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**RCRA PART B APPLICATION
COMPLIANCE PLAN ATTACHMENT XI.D – VOL II**

RESPONSE ACTION PLAN - ATTACHMENT 1A

ADDITIONAL SITE INVESTIGATION RESULTS

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TABLE OF CONTENTS

	<u>Page</u>
1.0 INTRODUCTION	1
2.0 ADDITIONAL INVESTIGATIONS.....	2
3.0 GROUNDWATER RESOURCE CLASSIFICATION	7
3.1 Groundwater Resource Classification.....	7
4.0 SOIL PCLE ZONE ASSESSMENT.....	13
4.1 Soil Critical PCLs	13
4.2 Surface and Subsurface PCLE Zones and NAPL in Soil	13
4.3 NAPL Evaluation.....	18
5.0 GROUNDWATER PCLE ZONE ASSESSMENT	20
5.1 Groundwater PCLE Zones.....	20
5.2 Occurrence of NAPL	32
5.3 DNAPL Recovery Pilot Test	36
6.0 NOTIFICATIONS	39
7.0 REFERENCES	40

LIST OF FIGURES

Figure 1A	Site Plan
Figure 1B	Affected Property Map
Figure 1C	Conceptual Site Model (SW – NE Section)
Figure 1D	Conceptual Site Model (S – N Section)
Figure 3A	Groundwater Classification – B-TZ/B-CZ, July 2014
Figure 4A	Surface Soil COC PCLE Zone Map
Figure 4A-1	Surface Soil COC Concentration Map – 1,2-Diphenylhydrazine
Figure 4A-2	Surface Soil COC Concentration Map – 2,4-Dinitrotoluene
Figure 4A-3	Surface Soil COC Concentration Map – 2-Methylnaphthalene
Figure 4A-4	Surface Soil COC Concentration Map – Benzene
Figure 4A-5	Surface Soil COC Concentration Map – Benzo(a)anthracene
Figure 4A-6	Surface Soil COC Concentration Map – Benzo(a)pyrene
Figure 4A-7	Surface Soil COC Concentration Map – Dibenzofuran
Figure 4A-8	Surface Soil COC Concentration Map – Fluoranthene
Figure 4A-9	Surface Soil COC Concentration Map – Naphthalene
Figure 4A-10	Surface Soil COC Concentration Map – Pentachlorophenol
Figure 4A-11	Surface Soil COC Concentration Map – Phenanthrene
Figure 4A-12	Surface Soil COC Concentration Map – Arsenic
Figure 4A-13	Surface Soil COC Concentration Map – Lead
Figure 4A-14	Surface Soil Affected Property and PCLE Zone – SWMU No. 8 Area
Figure 4B	Subsurface Soil PCLE Map
Figure 4B-1	Subsurface Soil COC Concentration Map – 2,4-Dimethylphenol
Figure 4B-2	Subsurface Soil COC Concentration Map – 2-Methylnaphthalene
Figure 4B-3	Subsurface Soil COC Concentration Map – Benzene
Figure 4B-4	Subsurface Soil COC Concentration Map – Benzo(a)pyrene
Figure 4B-5	Subsurface Soil COC Concentration Map – Dibenzofuran
Figure 4B-6	Subsurface Soil COC Concentration Map – Naphthalene
Figure 4B-7	Subsurface Soil COC Concentration Map – Pentachlorophenol
Figure 4B-8	Subsurface Soil COC Concentration Map – Arsenic
Figure 4B-9	Subsurface Soil COC Concentration Map – Lead
Figure 4C-1	Geologic Cross Sections (A-A' and B-B')
Figure 4C-2	Geologic Cross Sections (C-C' and BB-BB')
Figure 4C-3	Geologic Cross Sections (D-D' and E-E')
Figure 4C-4	Geologic Cross Sections (F-F', G-G', and H-H')
Figure 4C-5	Geologic Cross Sections (I-I' and AA-AA')
Figure 4C-6	Surface/Subsurface Soil Cross Section A-A' & B-B'
Figure 4C-7	Surface/Subsurface Soil Cross Section C-C'
Figure 4C-8	Surface/Subsurface Soil Cross Section BB-BB'
Figure 4C-9	Surface/Subsurface Soil Cross Section D-D' & E-E'
Figure 4C-10	Surface/Subsurface Soil Cross Section F-F'
Figure 4C-11	Surface/Subsurface Soil Cross Section G-G' & H-H'
Figure 4D	Vadose Zone NAPL Observation and ROST Contours
Figure 5A	Monitoring Well Locations
Figure 5A-1	Groundwater Gradient Map – A-TZ – July 2014
Figure 5A-2	Groundwater Gradient Map – B-TZ/B-CZ – July 2014
Figure 5A-3	Groundwater Gradient Map – C-TZ – July 2014
Figure 5A-4	Groundwater Gradient Map – D-TZ – July 2014

LIST OF FIGURES (CONT)

Figure 5A-5	DNAPL Distribution Map – A-TZ – July 2014
Figure 5A-6	DNAPL Distribution Map – B-TZ/B-CZ – July 2014
Figure 5A-7	DNAPL Distribution Map – C-TZ – July 2014
Figure 5B-1	Groundwater COC Concentration Map – A-TZ – July/August 2014
Figure 5B-2	Groundwater COC Concentration Map – B-TZ and B-CZ – July/August 2014
Figure 5B-3	Groundwater COC Concentration Map – C-TZ – July/August 2014
Figure 5B-4	Groundwater COC Concentration Map – D-TZ – July/August 2014
Figure 5B-5	A-TZ Groundwater COC Concentration Map Benzene – July 2014
Figure 5B-6	A-TZ Groundwater COC Concentration Map 2,4-Dimethylphenol – July 2014
Figure 5B-7	A-TZ Groundwater COC Concentration Map 2-Methylnaphthalene – July 2014
Figure 5B-8	A-TZ Groundwater COC Concentration Map Dibenzofuran – July 2014
Figure 5B-9	A-TZ Groundwater COC Concentration Map Naphthalene – July 2014
Figure 5B-10	B-TZ/B-CZ Groundwater COC Concentration Map Benzene – July 2014
Figure 5B-11	B-TZ/B-CZ Groundwater COC Concentration Map 2,4-Dimethylphenol – July 2014
Figure 5B-12	B-TZ/B-CZ Groundwater COC Concentration Map 2-Methylnaphthalene – July 2014
Figure 5B-13	B-TZ/B-CZ Groundwater COC Concentration Map Dibenzofuran – July 2014
Figure 5B-14	B-TZ/B-CZ Groundwater COC Concentration Map Naphthalene – July 2014
Figure 5B-15	C-TZ Groundwater COC Concentration Map Benzene – July 2014
Figure 5B-16	C-TZ Groundwater COC Concentration Map 2,4-Dimethylphenol – July 2014
Figure 5B-17	C-TZ Groundwater COC Concentration Map 2-Methylnaphthalene – July 2014
Figure 5B-18	C-TZ Groundwater COC Concentration Map Dibenzofuran – July 2014
Figure 5B-19	C-TZ Groundwater COC Concentration Map Naphthalene – July 2014
Figure 5B-20	A-TZ Groundwater Plume Map - 2011 – 2014
Figure 5B-21	B-TZ/B-CZ Groundwater Plume Map - 2011 – 2014
Figure 5B-22	C-TZ Groundwater Plume Map - 2011 – 2014

LIST OF APPENDICES

Appendix 1A-1	Analytical Data Reports and Data Usability Summaries – 2011-2014
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1.0 INTRODUCTION

This Attachment 1A to the Response Action Plan (RAP) for the Union Pacific Railroad (UPRR) Houston Wood Preserving Works Facility at 4910 Liberty Road, Houston, Texas, (the Site) details the additional investigation activities, results, and associated data tables and figures for the Site following submittal of the Updated Affected Property Assessment Report (APAR) Addendum (PBW, 2010). A Site Plan is provided on Figure 1A. The following media have been evaluated for potential chemical of concern (COC) releases as part of investigations conducted at the Site: surface soils, subsurface soils, and groundwater. Both the soil and groundwater exposure pathways were evaluated as part of the additional Site assessment and considered to be complete and/or anticipated to be complete. In addition, details on the Monitored Natural Attenuation (MNA) for the groundwater COCs are also evaluated in this document.

From 2011 through 2014, additional site assessment activities were conducted to further evaluate the groundwater classification for the B-CZ, better define the soil and groundwater Protective Concentration Level (PCL) Exceedance (PCLE) Zones, and to evaluate the extent of dense non-aqueous phase liquid (DNAPL) in the Englewood Intermodal Yard. Based on the additional data collected at the Site, the Affected Property Map was updated and presented as Figure 1A. Generalized conceptual site model for the Site was prepared and presented as Figures 1C (Southwest-Northeast) and 1D (South-North) showing the groundwater bearing units (GWBU), Affected Property (soil and groundwater), relative potentiometric elevations for the GWBUs, and soil and groundwater pathways. Many of the figures presented in this document are updated figures from the Updated APAR Addendum submitted to the TCEQ in October 2010. Therefore, the figure numbers are the same or similar to the figures in the Updated APAR Addendum (PBW, 2010).

Details on the additional investigations, additional groundwater classification, and soil and groundwater PCLE Zone assessment are provided in the following sections. In addition, information regarding off-site property notification in accordance with Texas Risk Reduction Program (TRRP) Rules 350.55(a) is also provided.

2.0 ADDITIONAL INVESTIGATIONS

Assessment Methods

The additional site investigations were conducted to better understand the TRRP PCLE Zones within the Site's Affected Property for surface soil, subsurface soil, and groundwater. The additional data were collected after completing the Updated APAR Addendum (PBW, 2010) that was submitted to the TCEQ in 2010. The assessment methods used during the investigations are discussed below.

2014 Additional Soil and Groundwater Investigation. In May 2014, Pastor, Behling & Wheeler, LLC (PBW), on behalf of UPRR, conducted a supplemental soil and groundwater investigation at the Site to evaluate the lateral extent of COCs above TRRP PCLs in soils and groundwater and to evaluate DNAPL in the Englewood Intermodal Yard. The following locations were sampled or monitoring wells were installed (locations shown on Figure 1A):

- *Soil Sampling* – Soil samples were collected on May 7, 2014 from soil borings SB-148 through SB-155 along the northern perimeter of the Site near the Former Aboveground Storage Tank (AST) Area (Solid Waste Management Unit (SWMU) 8) between the fence line and Liberty Road in the City of Houston right-of-way (ROW) (Figure 4A-14). Soil samples were collected where a leaky Centerpoint Energy natural gas line was identified. Soil samples along the northern perimeter were drilled to evaluate potential off-site impacts from the historical operations at the Site. Soil samples were selected from each boring and analyzed for the Site-specific COCs. After each soil sample was collected, the boring was backfilled with the soil cuttings from the hand augering. Each soil boring was surveyed in the field with the differential global positioning satellite (GPS) meter.
- *Monitoring Well Installation/Development* – During the May 2014 investigation, the following monitoring wells were installed:
 - i. Three A-TZ wells, MW-77A, MW-78A, and MW-79A, were installed to evaluate potential DNAPL in the Englewood Intermodal Yard area;
 - ii. Two B-CZ wells MW-80B and MW-81B, were installed by sonic drilling techniques to evaluate dissolved COC concentrations in the B-CZ unit downgradient of MW-75B in the Englewood Intermodal Yard area.
 - iii. One C-TZ well, MW-76C, was installed in the Englewood Intermodal Yard using sonic drilling techniques to evaluate the downgradient edge of the C-TZ PCLE zone; and
 - iv. Damaged monitoring wells MW-24AR, MW-24B, and MW-24C were plugged and abandoned per TCEQ approval.

Monitoring well locations were selected based on the results of the cone penetrometer tests with rapid optical screening tool (CPT/ROST) investigation conducted in 2013. After each monitoring well was installed, the wells were developed to remove sediment from the wells. Permanent monitoring wells were surveyed by a licensed, professional surveyor to Texas State Plane coordinates (NAD 27, Texas South Central, U.S. Feet).

Soil samples were analyzed for site-specific COCs to evaluate the Affected Property. Each soil sample was placed in a laboratory-supplied container, preserved as appropriate, immediately placed on ice and delivered to TestAmerica Laboratories in Houston, Texas for analysis. The samples were analyzed in accordance with EPA protocol for the analytical methods requested. Chain-of-custody procedures were maintained from the field through the reporting of laboratory results. Field quality assurance/quality control (QA/QC) samples (i.e., field duplicates, equipment blanks) were also collected.

DNAPL Recovery Testing – February 2013. PBW initiated a 24-month pilot study in February 2013 to evaluate DNAPL recovery by conducting tests on selected wells

Well Name	Zone	Min. DNAPL Thickness (ft.)	Max DNAPL Thickness (ft.)
MW-57A	A-TZ	4.11	4.25
MW-12B	B-TZ	0.41	5.70
MW-41B	B-TZ	5.06	24.14
MW-57B	B-CZ	0.44	0.50
MW-32B	B-CZ	5.77	6.13
MW-33BR	B-CZ	0.30	0.30
MW-70B	B-CZ	1.44	1.53
MW-75B	B-CZ	1.84	1.90
MW-34C	C-TZ	7.24	7.60
MW-44C	C-TZ	0.75	7.10
MW-45C	C-TZ	0.39	1.50
MW-46C	C-TZ	0.10	1.25

The pilot test procedures consisted of measuring the depth to groundwater surface, the depth to the groundwater/DNAPL interface, and the total depth of the well relative to the top of well casing prior to DNAPL recovery. Using a peristaltic pump, DNAPL was pumped from the bottom of the well until groundwater is returned in the pump discharge. The volume of recovered DNAPL was estimated from each well, and the well was gauged to measure the total depth of the well and depth to residual DNAPL following pumping. Recovered DNAPL was temporarily stored at the Containment Storage Area. Results to date from the pilot test are discussed in Appendix 3 of the RAP.

2013 Englewood Intermodal Yard Soil, Groundwater and CPT/ROST Investigation. In January 2013, PBW conducted a soil, groundwater, and cone penetrometer with rapid optical screening tool (CPT/ROST) investigation at the Site focused in the Englewood Intermodal Yard area to evaluate the lateral and vertical extent of COCs above TRRP PCLs in soils and preliminarily evaluate the presence of DNAPL in the subsurface. The following locations were sampled or investigated using direct push sampling, hydropunch, and CPT/ROST techniques (locations shown on Figure 1A):

- *Soil Sampling* - Soil samples were collected from soil borings adjacent to CPT/ROST borings IM-CPT-01 through IM-CPT-22 along the southern and eastern perimeters of the Englewood Intermodal Yard to evaluate COCs in surface and subsurface soils. Soil borings along the southern and eastern perimeters were advanced to evaluate potential for off-site impacts from the historical operations at the Site. Soil samples were selected from each boring based on field screening organic vapor meter (OVM) readings, high ROST signatures and/or visual observations. After each soil boring was drilled to the target depth, the boring was backfilled with granular bentonite or bentonite pellets. Each soil boring was surveyed in the field with the differential global positioning satellite (GPS) meter.
- *Hydropunch Groundwater Sampling* – Groundwater samples were collected at locations IM-CPT-01, IM-CPT-03 through IM-CPT-06, IM-CPT-08 and IM-CPT-09 using Hydropunch sampling technology, which allowed for groundwater sampling to be conducted while advancing the soil boring. Samples were collected along the southern and eastern perimeters of the Englewood Intermodal Yard to evaluate potential creosote impacts to groundwater within the yard and to evaluate potential off-site impacts.
- *CPT/ROST* – CPT/ROST data were collected at locations IM-CPT-01 through IM-CPT-23 along the southern and eastern perimeters of the Site, in the Englewood Intermodal Yard, to evaluate lithology and potential creosote impacts within the yard. CPT/ROST data were used to help determine soil and groundwater sampling intervals for the hydropunch samples.

2013 Englewood Intermodal Yard Pavement Reconstruction Soil Investigation. In March 2013, PBW conducted a shallow soil investigation at the Englewood Intermodal Yard to evaluate COCs in surface soils. Samples were collected in areas where repair to the concrete pavement were planned to be conducted. Soil samples were collected from soil borings SB-1 through SB-13 along the main lines and loading/unloading areas within the Englewood Intermodal Yard, to evaluate COCs in the shallow surface soils. After each shallow soil boring was drilled, it was backfilled with granular bentonite or bentonite pellets. Each soil boring was surveyed in the field with the differential GPS meter. Locations are shown on Figure 1A.

2012 Additional Aquifer Testing, B-CZ Zone Wells In March 2012, PBW conducted a series of pump-down tests and slug tests on the following wells:

Well Number	Test Type
MW-15B	Constant Discharge
MW-32B	Slug Test
MW-33BR	Constant Discharge
MW-68B	Constant Discharge
MW-70B	Slug Test
MW-71B	Constant Discharge
MW-74B	Constant Discharge

Slug tests were conducted on wells MW-32B and MW-70B using a solid slug for conducting slug in and slug out tests. The other wells (MW-15B, MW-33BR, MW-68B, MW-71B, and MW-74B) were tested using constant discharge tests to evaluate well yield. These wells were pumped continuously at a discharge rate equivalent to 0.1 gallons per minute (gpm), or 150 gallons per day (gpm).

Semi-Annual Groundwater Monitoring Events. PBW conducted Site wide semi-annual groundwater monitoring to evaluate COC trends in the groundwater at the Site. Site-wide events were conducted in the following months (number of wells sampled, not including the 10 SWMU 1 point of compliance (POC) wells):

- January 2011 (70 wells);
- July 2011 (70 wells);
- January-February 2012 (75 wells);
- July 2012 (67 wells);
- January 2013 (68 wells);
- July 2013 (76 wells);
- January 2014 (74 wells); and
- July/August 2014 (89 wells).

Groundwater samples were collected using low-flow sampling techniques described in the EPA guidance document Low-Flow (Minimal Drawdown) Ground Water Sampling Procedures (EPA, 1995). Each sample was analyzed for the site-specific COC list (VOCs by EPA Method 8260 and SVOCs by EPA Method 8270C).

Prior to sampling, the depth to water and the thickness or presence of NAPL was measured using an oil-water interface probe. Purging was accomplished in such a way as to minimize disturbance of sediments at the bottom of the well, and therefore minimize turbidity of the water samples. This was accomplished by purging at a low flow rate with the pump intake near the base of the screened interval, unless DNAPL was present. For wells with DNAPL, water samples were collected at least 5 to 10 feet above the top of the measured DNAPL. A peristaltic pump with dedicated tubing was used during the purging and sampling of each well. Since dedicated tubing was used in each well, no equipment rinse sample was collected.

Well purging was accomplished by purging at low-flow rates while monitoring the following field parameters: specific conductance, pH, temperature, dissolved oxygen, oxidation/reduction potential (redox), and turbidity. Meters were calibrated before sampling each day, using the manufacturer's

procedure. Odor and color of the purge water were also noted on the groundwater sampling record. Each monitoring well was purged until the field parameters pH, specific conductance, and temperature had stabilized, or until the well purged dry.

After purging, groundwater samples were collected from the discharge of the pump following low-flow sampling techniques. Sampling information (i.e., sample time, bottle sets, sampler name, use of filter, etc.) was recorded on the groundwater sampling forms. Groundwater samples were placed in coolers and delivered to ALS Laboratory Group and TestAmerica Laboratory in Houston, Texas for analysis. The samples were analyzed in accordance with EPA protocol for the analytical methods requested.

Data Quality

Samples collected from the Site in the recent investigations were analyzed in accordance with the guidelines of *EPA SW-846, Test Methods for Evaluating Solid Waste-Physical/Chemical Methods*. The procedures for laboratory analysis, with any modifications, are further documented in the laboratory standard operating procedures, which are maintained at the laboratory, and are listed in the laboratory's quality assurance plan. Data obtained from field and laboratory measurements were reviewed for conformance to project requirements, ensuring the lowest method quantitation limit (MQL) was used in the evaluation.

Analytical data from the critical soil and groundwater samples collected during the soil and groundwater investigations from 2011 through 2014 were reviewed for adherence to established QA/QC criteria, and Data Usability Summaries (DUSs) were prepared to demonstrate the quality of the laboratory analytical data and present any deviations from the established QA/QC criteria. Copies of the analytical data reports and details of the DUSs are provided in Appendix 1A-1 with this attachment. For the data included in Attachment 1A, the soil and groundwater data are considered usable for the purpose of evaluating COCs in the environmental media to assess the affected property based on the COCs and establish PCLE zones.

3.0 GROUNDWATER RESOURCE CLASSIFICATION

3.1 Groundwater Resource Classification

Groundwater classification of the A-TZ, B-TZ, B-CZ, C-TZ, and D-TZ wells was previously evaluated in the Revised APAR (ERM, 2004), the APAR Addendum (PBW, 2009), and the Updated APAR Addendum (PBW, 2010). In the Updated APAR Addendum (PBW, 2010), additional aquifer testing results were presented to address the hydraulic conductivity and well yields for three additional wells completed in the B-CZ to evaluate if the groundwater classification for the B-CZ would be considered Class 3 in accordance with the procedures outlined in the TCEQ TRRP Groundwater Classification Guidance Document TRRP-8 (TCEQ, 2010). According to the guidance, a groundwater-bearing unit is defined as a saturated geologic formation, group of formations, or part of a formation that has a hydraulic conductivity equal to or greater than 1×10^{-5} centimeters per second (cm/sec). Saturated zones with hydraulic conductivities values less than 1×10^{-5} cm/sec are considered to be non-groundwater bearing zones (or “saturated soils”). The difference between a Class 2 and Class 3 groundwater-bearing zone is that a Class 3 zone is incapable of yielding 150 gallons per day (gpd) from a properly completed well.

Based on the aquifer testing results conducted in 2010, as well as evaluating the aquifer testing conducted in 2009 (wells MW-33B, MW-35B, MW-49B, and MW-63B), the hydraulic conductivity estimated using the Bouwer-Rice analysis ranged from 6×10^{-8} cm/sec to 1×10^{-7} cm/sec for six of the seven wells completed in the B-CZ. Well MW-35B had a hydraulic conductivity estimate at 1×10^{-4} cm/sec. As discussed in the APAR Addendum (PBW, 2009), MW-35B is located near the lateral transitional boundary where the B-TZ pinches out and becomes the B-CZ.

Aquifer testing conducted on the B-CZ indicated that the B-CZ, with the exception of the area near MW-35B, would be classified as saturated soils as defined by the TCEQ east and northeast of MW-35B.

To further evaluate the hydraulic conductivity of the B-TZ and properly determine the groundwater classification of the unit, PBW conducted additional aquifer tests on other B-CZ wells:

- MW-15B
- MW-33BR
- MW-70B
- MW-74B
- MW-32B
- MW-68B
- MW-71B

Aquifer Testing

In March 2012, PBW conducted aquifer tests on the recently installed groundwater monitoring wells that were completed in the B-CZ clay unit. The objective of the testing was to evaluate the variability of the hydraulic conductivity of the cohesive unit and effects of the carbonate seams on the hydraulic conductivity of the B-CZ.

Each of the B-CZ wells that were tested fully penetrates the targeted carbonate seams in the B-CZ and is constructed with 2-inch PVC casing and screen. Monitoring well boring logs for the wells tested are provided in RAP Appendix 2. Below is a summary of the screened intervals for the B-CZ wells tested in 2012.

WELL NO.	Top Screen Interval (FT BGS)	Bottom Screen Interval (FT BGS)	Screen length (FT)	Intervals of Carbonaceous Gravels Seams (FT BGS)
MW-15B	28	38	10	28.8-37.4, 37.9
MW-32B	26	36	10	26.6, 29.0-29.2
MW-33BR	28	38	10	28.1, 31.8, 32.9
MW-68B	28	38	10	22.5, 24.0, 24.6, 32.4, 33.1, 36.3, 37.1, 37.7
MW-70B	25	35	10	26.8-27.2, 30.5, 32.2, 33.2
MW-71B	32	37	5	26.8, 28.4
MW-74B	26.5	36.5	10	36.3, 37.6, 38.0, 38.7

The wells listed above were designed so that the screened interval for the wells penetrated each of the carbonate gravel seams noted in the B-CZ soil boring logs. Except for one interval at MW-49B (27.5 ft bgs) and MW-63B (26-31 ft bgs), the wells were screened across each carbonate intervals observed and are considered fully penetrating for evaluating the hydraulic properties of the carbonate seams within the cohesive zone.

Slug tests were conducted on wells MW-32B and MW-70B using a solid slug for conducting slug in and slug out tests. The slug used for the tests displaced approximately 2.9 feet of water in a 2-inch well (1^{5/8}” diameter by 5 feet long). The other wells (MW-15B, MW-33BR, MW-68B, MW-71B, and MW-74B) were tested using constant discharge tests to evaluate well yield. These wells were pumped continuously at a discharge rate equivalent to 0.1 gallons per minute (gpm), or 150 gpd.

For the constant discharge tests, a peristaltic pump was used to pump water from the wells and water levels were measured using an electronic water-level meter to monitor drawdown. Flow was monitored during the test and the pump was adjusted to maintain a consistent pumping rate of 0.1 gpm. Pumping was stopped if the water level reached the pumping level or if drawdown stabilized. Measurements from the constant yield tests are provided in RAP Appendix 3 - Table 3.1, and graphs of drawdown are provided in RAP Appendix 3 - Figures 3B-1 through 3B-5.

Calculation of Hydraulic Conductivity

The slug test data were analyzed using AQTESOLV v4.0 software (HydroSOLVE, Inc.). Hydraulic conductivity (K) was calculated using the Bouwer – Rice solution for confined aquifers. The following items are provided in Appendix 3 of the RAP:

- Input parameters used in the slug test analysis are summarized in Appendix 3 - Table 3.2.
- Results are summarized in Appendix 3 - Table 3.3.
- Field measurements are provided in Appendix 3 - Attachment 3A and solutions for individual aquifer tests are provided in Appendix 3 - Attachment 3B.

For the analysis, the ratio of horizontal to vertical conductivity was assumed to be 10:1. Saturated thicknesses were estimated from boring logs for the C-TZ and D-TZ unit wells and from the cross-sections presented in Section 4. This differs from previous groundwater classification demonstrations for the Site, where the thickness of the calcareous nodule layer(s) in each well was instead used as the saturated thickness. This methodology was altered for the current demonstration to obtain results representative of the bulk properties of the water-bearing units, instead of isolating the calcareous nodule intervals. This change is consistent with the TCEQ Guidance document TRRP-8, which states, “small-scale stratigraphic variations, such as thin alternating fine-grained/coarse-grained sequences may exist within a given GWBU.” Because the calcareous nodule intervals are part of a larger GWBU, it is more appropriate to base the groundwater classification on the bulk hydraulic properties of the unit rather than attempting to isolate small scale variations within it. Regardless, the updated hydraulic conductivity results are similar to those previously submitted. For the slug tests conducted in the D-TZ well, a

saturated thickness of 35 feet was assumed.

To determine representative K values for the different GWBUs, test results were averaged in accordance with TCEQ Guidance document TRRP-8. As explained in the document, the representative hydraulic conductivity value for a single well is defined as the arithmetic mean of the individual slug test results from the well. The representative hydraulic conductivity value for a water-bearing unit is defined as the geometric mean of the inter-well results, as shown in the following equation:

$$\bar{K} = \sqrt[n]{K_1 \cdot K_2 \cdot \dots \cdot K_n}$$

where,

- \bar{K} = representative hydraulic conductivity for the water-bearing unit;
- K_n = inter-well hydraulic conductivity values; and
- n = the number of measurements.

Using the geometric mean approach, the average hydraulic conductivity value for the B-CZ water-bearing unit was calculated to be 1.1×10^{-7} cm/sec, which is nearly two orders of magnitude below the threshold for saturated soils classification. Conductivity values in the unit ranged from 1.1×10^{-6} cm/sec to 8.0×10^{-9} cm/sec. The average hydraulic conductivity of MW-35B is 1.6×10^{-4} cm/sec, which exceeds the threshold for saturated soil classification. Based on this finding, the area near MW-35B has been included in the B-TZ GWBU. Although the B-TZ sand unit is not present at MW-35B, the well is included in the B-TZ GWBU because of its significantly higher K value than the eastern B-CZ wells.

The well yield tests results summarized in Table 3.4 (RAP Appendix 3) are consistent with the results above and help better delineate the boundary between the B-TZ and B-CZ water-bearing units. Based on the constant yield test results, MW-15B, MW-68B, and MW-74B have also been included in the B-TZ GWBU because they may be capable of sustaining a yield of 150 GPD or more. The remaining wells that were tested (MW-33B, MW-33BR, MW-36B, MW-49B, MW-59B, MW-63B, MW-67B, and MW-71B) all had sustainable yields of considerably less than 150 GPD and were included in the B-CZ water-bearing unit.

Groundwater Classification Summary

Based on the hydraulic testing discussed above, the B-TZ unit, as delineated in Figure 3A, should remain classified as a Class 2 groundwater resource. Wells completed in the unit may have a sustainable yield of

more than 150 GPD, and K values in the unit are likely greater than 1×10^{-5} cm/sec. However, wells completed in the B-CZ unit have an average K value of 2×10^{-7} cm/sec, which is considerably less than the 1×10^{-5} cm/sec threshold for saturated soils. This finding, which is supported by the well yield test results, indicates B-CZ should be classified as saturated soils rather than a GWBU. The change from a Class 2 groundwater resource to saturated soils results from a lateral lithologic transition from the B-TZ to the B-CZ near well MW-35B. Classifying the B-CZ based on this transition is consistent with the TRRP-8 guidance document for groundwater classification, which states, “A GWBU is assigned the highest water-quality classification for which all of the citation’s applicable potential use and current use conditions are true. However, different classifications can apply to different portions of a single GWBU. For example, a GWBU can transition laterally from Class 2 to Class 3” (TCEQ, 2010).

As stated in the TCEQ Guidance (TRRP-8), “the applicable groundwater resource classification for a given hydraulically-interconnected GWBU will be determined based on consideration of the current use, water quality, and well yield of that GWBU only” (TCEQ, 2010). Therefore, the objective of evaluating the hydraulic properties of the B-CZ is to assess the hydraulic conductivity of the cohesive zone for determining the appropriate potential pathway for that individual hydrostratigraphic unit. The pathway of concern for exposure to the COCs in groundwater is human health groundwater ingestion ($^{GW}GW_{ing}$). The question to be addressed through the hydraulic testing is whether or not the B-CZ yields sufficient groundwater to be considered a groundwater-bearing unit. The aquifer testing discussed above indicates that the B-CZ unit exhibits a hydraulic conductivity that is too low to meet the criteria for a GWBU and should be classified as saturated soils.

Preferential Flowpaths within B-CZ

The TCEQ March 18, 2011 IOM for the Site references the layer(s) of calcareous nodules in the eastern half of the Site, stating “the layer of calcareous nodules: 1) appears to be continuous and ubiquitous on the eastern half of the subject site; 2) contains NAPL; 3) is significantly transmissive (based on its coarse-grained nature and presence of NAPL); and 4) possesses basal elevations that dip in at least two directions.” The IOM further states “The NAPL-containing layer of calcareous nodules (Item A.5) appears to be a shallow conduit for NAPL transport and from which NAPL recovery might be effective and rapid; this unit should be delineated separately in the dimensions for the purpose of determining the most advantageous location(s) for NAPL recovery.”

Based on the presence of NAPL within the calcareous unit, the carbonate seams do appear to have provided a preferential pathway for COCs and NAPL to migrate from the Site to the north. However, the

results from the slug, baildown, and constant yield tests indicate very low hydraulic conductivity and transmissivity, despite the test wells purposefully being screened across the calcareous nodule layers, where hydraulic conductivity within B-CZ is expected to be the highest. The hydraulic testing suggests NAPL recovery from the interbedded carbonate nodule layers within the B-CZ would not be effective. In addition, even though the carbonate gravel seems have allowed the migration of NAPL within the B-CZ off-site, continued migration does not appear likely because the source of the NAPL (tanks, spills from the former Process Areas) has been removed, and there is no longer a source of NAPL hydraulic head to force the migration of NAPL through the seams.

Pending review of the saturated soils for the B-CZ groundwater classification by the TCEQ, COCs detected in the B-CZ will be preliminarily compared to Class 2 groundwater PCLs as was done for the previous Updated APAR Addendum (PBW, 2010). Once the saturated soil for the B-CZ is approved, the Affected Property and PCLE Zone for the B-CZ will be revised accordingly.

4.0 SOIL PCLE ZONE ASSESSMENT

The current land use of the Site is commercial/industrial, and will likely remain commercial/industrial land use for the foreseeable future. The off-site adjacent properties consist of residential and commercial/industrial. Therefore, the critical PCL evaluation was conducted using the TCEQ Commercial/Industrial PCLs for both soil and groundwater pathways on site and Residential PCLs for pathways off site. Below is a discussion of the soil critical PCL development.

4.1 Soil Critical PCLs

The soil critical PCLs (cPCLs) were established for the Site by using the lower commercial/industrial PCLs for on-site soils and residential PCLs for off-site soils for the following pathways:

- $^{Tot}Soil_{Comb}$;
- $^{Air}Soil_{Inh-v}$ (Tier 1); and
- $^{GW}Soil_{Ing}$ (Tier 1 or 2).

The $^{Tot}Soil_{Comb}$ pathway was evaluated as potentially complete since although the Site is partially covered with crushed gravel and soil, potential future construction activities could occur at the Site. Most of the Englewood Intermodal Yard has a concrete pavement cover, and the rail area between the HWPW and the Englewood Intermodal Yard is covered with railroad ballast, which both prevents exposure to surface and subsurface soils in the area.

The same RALs and commercial/industrial cPCLs developed for the Updated APAR Addendum (PBW, 2010) were used for the additional data collected from the Site from 2011 through 2014. Details of the affected property and PCLE Zones for the COCs in soil are discussed in the following sections.

4.2 Surface and Subsurface PCLE Zones and NAPL in Soil

The recent soil data were incorporated with the previous soil data collected as part of the original APAR (ERM, 2000), Revised APAR (ERM, 2004), APAR Addendum (PBW, 2009), and Updated APAR Addendum (PBW, 2010). Additional surface and subsurface soils collected at the Site in 2013 and 2014 were sampled and analyzed for the list of 34 site-specific COCs (Updated APAR Addendum, PBW, 2010), with additional analyses (arsenic and lead for samples collected in February 2013, and total

petroleum hydrocarbons (TPH) by TX1005 Method, and arsenic and lead for samples collected in March 2013) conducted for soil samples collected in the Englewood Intermodal Yard. Through discussions with the TCEQ, site-specific COCs (i.e., benzo(a)pyrene, naphthalene, etc.) are better indicators of impacts to media at the Site than TPH concentrations (PBW, 2009), in which the TCEQ agreed in a meeting in 2009. Therefore, the Affected Property Assessment focused on the site-specific COCs, excluding TPH.

A summary of soil analytical data from 2013 and 2014 are presented on the following tables (provided in Appendix 2 of the RAP):

<u>Table</u>	<u>Description</u>
4-1	Summary of Surface Soil Sampling Results – Englewood Intermodal Yard
4-2	Summary of Subsurface Soil Sampling Results – Englewood Intermodal Yard
4-3	Summary of Surface Soil Sampling Results – North Perimeter along Liberty Road

Comparing the maximum surface and subsurface soil analytical data to the cPCLs for on-site and residential PCLs for off-site, concentrations of the following COCs exceeded their respective assessment levels in the surface and subsurface soils for samples collected in 2013 and 2014:

Surface Soils

- 2,4-Dinitrotoluene
- 2,6- Dinitrotoluene
- 2-Methylnaphthalene
- Benzo(a)anthracene
- Benzo(a)pyrene
- Dibenzofuran
- Naphthalene
- Lead
- Arsenic

Subsurface Soils

- Naphthalene

For comparison, the following COCs were detected above RALs in the soil samples collected from the Site during the previous investigations (figures referenced updated with 2013 and 2014 soil data).

Surface Soils

- 1,2-Diphenylhydrazine (Figure 4A-1)
- 2,4-Dinitrotoluene (Figure 4A-2)
- 2-Methylnaphthalene (Figure 4A-3)
- Benzene (Figure 4A-4)
- Benzo(a)anthracene (Figure 4A-5)
- Benzo(a)pyrene (Figure 4A-6)
- Dibenzofuran (Figure 4A-7)
- Fluoranthene (Figure 4A-8)

Subsurface Soils

- 2,4-Dimethylphenol (Figure 4B-1)
- 2-Methylnaphthalene (Figure 4B-2)
- Benzene (Figure 4B-3)
- Dibenzofuran (Figure 4B-5)
- Naphthalene (Figure 4B-6)
- Pentachlorophenol (Figure 4B-7)

Surface Soils

- Naphthalene (Figure 4A-9)
- Pentachlorophenol (Figure 4A-10)
- Phenanthrene (Figure 4A-11)

Subsurface Soils

The figures listed for each COC were updated with the 2013 and 2014 soil data to include surface soils from 0 to 15 feet and subsurface soils from 15 feet to the uppermost GWBU. Figures for surface soil concentrations of arsenic and lead (Figures 4A-12 and 4A-13, respectively) and subsurface soil for arsenic and lead (Figure 4B-8 and 4B-9, respectively) were prepared using the 2013 soil data. Concentrations shown on these figures are based on the highest concentration detected in the media (i.e., if multiple samples collected in the surface soils (0 to 15 feet bgs), the highest concentration was used for the Affected Property and PCLE Zone evaluation). Surface/subsurface soil cross sections (A-A' through H-H') were prepared showing the PCLE zones (Figures 4C-6 through 4C-12) for surface and subsurface soils. The Affected Property for the Surface Soils and Subsurface Soils are shown on Figures 4A and 4B, respectively. Based on the additional samples collected in 2013 and 2014, COCs in surface and subsurface soils were delineated on Site to the appropriate critical PCLs or RALs.

With the focus of the additional soil sampling conducted in 2013 within the Englewood Intermodal Yard and the sampling in 2014 along the northern perimeter of the Site along Liberty Street, extents of the COCs detected in surface and subsurface soils in that area are discussed below.

Surface Soils

The summary of surface soil data from samples collected in 2013 and 2014 is provided on Table 4-1 in RAP Appendix 2. Details of the results from the Englewood Intermodal Yard sampling in 2013 and the northern perimeter of the Site in 2014 are provided below.

Thirty-three soil borings were drilled and sampled in the Englewood Intermodal Yard during the 2013 investigation. Using those data, Figures 4A-1 through 4A-13 were updated to show the distribution of COCs in the surface soils. From those samples, the following COCs exceeded their respective RALs in at least one instance: 2,4-dinitrotoluene, 2,6-dinitrotoluene, benzo(a)anthracene, benzo(a)pyrene, dibenzofuran, naphthalene, arsenic, and lead:

- At two soil borings, IM-CPT-11 and IM-CPT-06, had RAL exceedances for 2,4-dinitrotoluene and 2,6-dinitrotoluene. IM-CPT-11(1.4-2.5) had concentrations of 2,4-dinitrotoluene at 0.0261 mg/kg (Figure 4A-2) and for 2,6-dinitrotoluene at 0.0219 mg/kg, both of which were greater than the RALs of 0.0218 mg/kg and 0.0179 mg/kg, respectively. IM-CPT-06 (13-15) had concentrations of 2,4-dinitrotoluene at 0.0234 mg/kg and for 2,6-

dinitrotoluene at 0.0234 mg/kg, both of which were just slightly greater than their respective RALs. No other exceedances of either 2,4-dinitrotoluene or 2,6-dinitrotoluene are observed.

- Eight surface soil samples had concentrations of benzo(a)anthracene greater than the RAL of 5.65 mg/kg, three of which exceeded the Commercial/Industrial PCL of 23.6 mg/kg mainly near the northern portion of the Englewood Intermodal Yard (Figure 4A-5). The highest exceedance, 87.2 mg/kg, occurred at SB-08(2.25-4.5). Benzo(a)anthracene concentrations are delineated to RALs along the perimeter of the Englewood Intermodal Yard.
- Of the 33 soil borings sampled in the Englewood Intermodal Yard area, 20 surface soil samples had concentrations of benzo(a)pyrene greater than the RAL of 0.56 mg/kg, of which 13 exceeded the Commercial/Industrial PCL of 2.36 mg/kg. The highest exceedance, 27.5 mg/kg, occurred at SB-08(2.25-4.5) (Figure 4A-6). The highest concentrations tend to be on the northern portion of the Englewood Intermodal Yard (area with concrete pavement) joining with the surface soil benzo(a)pyrene plume in the former Wood Preserving Works area. Benzo(a)pyrene concentrations are delineated to RALs in the Englewood Intermodal Yard area. There are three RAL exceedances along the eastern extent of the Site at locations IM-CPT-06, IM-CPT-07 and IM-CPT-18; however soil borings from the previous investigations (SB-126, SB-127, and SB-128) show concentrations less than RALs along the eastern perimeter of the Site (Figure 4A-6).
- One surface soil sample, SB-08(2.25-4.5), had a concentration of dibenzofuran of 372 mg/kg, greater than the RAL of 249 mg/kg. Soil boring SB-08 is located within the interior of the Site, where the cPCL (Commercial/Industrial PCL) is 744 mg/kg, which it does not exceed. Dibenzofuran concentrations are delineated to the RAL within the Englewood Intermodal Yard perimeter (Figure 4A-7).
- Three surface soil samples (SB-07(3-5), SB-08(2.25-4.5), and IM-CPT-21 (2.5-5)) had naphthalene concentrations greater than the RAL of 124 mg/kg. Two of these samples SB-08(2.25-4.5), and IM-CPT-21 (2.5-5) at 2,010 mg/kg and 226 mg/kg, respectively, exceeded the cPCL of 190 mg/kg, which is the commercial/industrial $^{Air}Soil_{Inh-V}$ PCL assuming a 30-acre source area.
- Arsenic concentrations were detected above the RAL (5.9 mg/kg) in 18 of the 33 soil samples collected from the Englewood Intermodal Yard. Of these 18 samples, arsenic concentrations ranged from 9.73 mg/kg (IM-CPT-10 (2-5 ft)) to 60.5 mg/kg (SB-04 (3.5-5ft)). None of the arsenic concentrations exceeded the commercial/industrial $^{Tot}Soil_{Comb}$ of 200 mg/kg. All of the soil borings where the arsenic exceeded the RAL is covered with concrete pavement.
- Lead concentrations were detected greater than the RAL Tier 2 PCL of 275 mg/kg (TCEQ, 2001) assuming pH>5 and 30-acre source area. Of the 33 samples from the Englewood Intermodal Yard, 18 samples had lead concentrations greater than the RAL. Eight surface soil samples had lead concentrations greater than the commercial/industrial $^{Tot}Soil_{Comb}$ of 1,600 mg/kg with maximum concentrations at 5,460 mg/kg (IM-CPT-16 (1.9-5 ft)). As with the arsenic PCLE Zone, the soil borings where the lead exceeded the $^{Tot}Soil_{Comb}$ PCL is covered with concrete pavement.

For the northern perimeter of the Site near SWMU 8 (Aboveground Storage Tank Area), Figure 4A-14

shows COCs that exceed RALs and cPCLs within and along the northeast corner of the Site. The figure was updated with analytical data from soil borings SB-148 through SB-155 that were collected along the area where a Centerpoint Energy natural gas line was leaking in May 2014. Soil samples were collected from the top foot of surface soils. Of the 34 site-specific COCs analyzed in these soil samples, six of the locations (SB-150 through SB-155) had the benzo(a)pyrene and pentachlorophenol concentrations detected above their respective RALs, as discussed below:

- Benzo(a)pyrene concentrations exceeded the RAL of 0.54 mg/kg in six of the eight soil borings sampled along the northern perimeter, with three samples SB-153, SB-154, and SB-155 with concentrations greater than commercial/industrial PCL of 2.36 mg/kg at 3.31 mg/kg, 3.16 mg/kg, and 5.14 mg/kg, respectively.
- Pentachlorophenol concentrations exceeded the RAL of 0.12 mg/kg in two of the soil samples SB-153 and SB-154 at 0.856 mg/kg and 0.561 mg/kg, respectively. Pentachlorophenol concentrations were not detected in the other six samples, but the sample detection limit was elevated above the RAL in those samples due to dilution of the sample.

The surface soil Affected Property extends to the south edge of Liberty Road between SB-121 to SB-125 as shown on Figure 4A-14. These additional soil samples confirm the presence of the Affected Property extending to Liberty Road. Surface soil COCs had been previously delineated to RALs along the north side of Liberty Road across from SWMU Nos. 6, 7, 8, 10 and 11 (PBW, 2010). One surface soil sample, SB-60(0-0.5ft) had a benzo(a)pyrene detection at 0.733 mg/kg above the RAL of 0.54 mg/kg; however, the detection is likely from historical asphaltting of Liberty Road and not from activities at the Site (PBW, 2010). This conclusion is further supported by the seven surface soil samples collected along the north side of Liberty Road (SB-138 through SB-142, SB-59, and SB-61) where the detections of COCs were less than RALs.

Based on the conceptual site model that the on-site surface soils were impacted from spills and releases from operations at the Site (PBW, 2009), surface soil impacts would not be likely have migrated across Liberty Road as supported by the soil data discussed above. Therefore, the surface soil Affected Property and PCLE Zone in this area is defined by the southern edge of Liberty Road (Figure 4A-14).

The surface soil PCLE zone extends across the Original Process Area (SWMU 5) and Recent Process Area (SWMU 4), down the SDD (SWMU 2), and across the Former Inactive Wastewater Lagoon (AOC 6) (Figure 4A). The PCLE zone includes the COCs listed above, with benzo(a)anthracene (Figure 4A-5), benzo(a)pyrene (Figure 4A-6), naphthalene (Figure 4A-9), and pentachlorophenol (Figure 4A-10) being the primary COCs defining the surface soil PCLE zone. Additional soil sampling conducted in 2014 indicates that surface soil COCs (benzo(a)pyrene and pentachlorophenol) extend beyond the fence to the

edge of Liberty Road, but are delineated along the northeast side of the Site (Figure 4A-12).

Subsurface Soils

Of the 33 soil borings drilled in 2013 in the Englewood Intermodal Yard, eight samples were collected and analyzed for site-specific COCs to evaluate lateral delineation of the COCs in subsurface soils (>15 feet bgs). Analytical data of the subsurface soils are summarized on Table 4-2 in RAP Appendix 2, and presented on (Figures 4B-1 through 4B-8). Of the eight subsurface soil samples collected in the Englewood Intermodal Yard, naphthalene and arsenic were the only COCs detected at concentrations exceeding RALs. Naphthalene was detected at IM-CPT-14 (15-16.4) at 168 mg/kg (Figure 4B-6), above the RAL of 137 mg/kg, but less than the on-site cPCL of 192 mg/kg. Arsenic was detected at IM-CPT-01 (17.5-20ft) at 6.72 mg/kg, at IM-CPT-08 (15-16 ft) at 7.88 mg/kg, and at IM-CPT-12 (15-15.9ft) at 10.7 mg/kg. In all three cases, the shallower sample from IM-CPT-01 (10-12.5ft), IM-CPT08 (5-7.5 ft), and IM-CPT-12 (5-7.5ft) had arsenic concentrations well below 5.9 mg/kg at 2.12 mg/kg, 1.66 mg/kg, and 1.09 mg/kg, respectively, indicating likely naturally occurring arsenic concentrations at depth. Benzene concentrations were detected at the RAL of 0.105 mg/kg at IM-CPT-16 (15-17.5), but did not exceed the RAL (Figure 4B-3). None of the lead concentrations were detected above the RAL, with the highest concentration at 21.5 mg/kg.

4.3 NAPL Evaluation

Since 1995, site investigations have included activities to evaluate surface and subsurface soils for the presence of NAPL. Specifically, CPT/ROST investigations were conducted in 1995, 2001, and 2008 at the Site using laser-induced fluorescence (LIF) as a tool to evaluate the presence of NAPL. In 2013 as part of the investigation of the Englewood Intermodal Yard, CPT/ROST borings were conducted to evaluate potential NAPL in the vadose zone and water-bearing zones. A total of 99 CPT/ROST locations have been drilled at and around the Site (Figure 1A). CPT/ROST borings that intersect the geologic cross section lines are posted on Figures 4C-1 through 4C-5.

ROST/LIF method is used as qualitative screening data to estimate the approximate *in situ* distribution of petroleum hydrocarbon NAPL based on the fluorescence response induced in the PAH compounds, which are commonly found in creosote. ROST/LIF results do not conclusively indicate NAPL is present at a location given the qualitative nature of the screening tool. However, NAPL has been detected in soil borings drilled at the Site in areas where elevated ROST responses were observed, and also NAPL has been detected in monitoring wells completed in the A-TZ, B-TZ, B-CZ, and C-TZ zones where elevated ROST responses were also observed.

As was presented in the Updated APAR Addendum (PBW, 2010), the vadose zone (ground surface to the top of the A-TZ (generally between 15 and 20 feet bgs)) was evaluated using ROST data and soil boring logs at the Site to identify potential areas where NAPL may be present. To evaluate areas of elevated ROST readings (units of fluorescence percent response (%RE)) in the vadose zone, ROST readings in the CPT borings greater than 25% RE were contoured, as shown on Figure 4D. This figure was updated for this report using the ROST data collected from the Englewood Intermodal Yard in 2013.

It's important to note that ROST readings greater than 25% RE do not necessarily indicate presence of NAPL; however, some soil borings located near CPT/ROST borings with ROST readings greater than 25% RE generally had some NAPL or staining observed in that soil boring. In addition to the contoured ROST readings in the vadose zone, soil borings where NAPL was documented on the boring logs in the vadose zone are highlighted on Figure 4D. The ROST readings and NAPL observations in soil borings are also presented on the surface/subsurface cross sections (Figure 4C-6 through 4C-12).

Most of the areas with elevated ROST/LIF readings have been observed around the former process areas (SWMUs 4 and 5), and around the AST Area (SWMU 8) (Figure 4D). The highest ROST readings were located near SWMU 8, where creosote and drying agents were stored. A more detailed discussion of NAPL occurrence in the groundwater-bearing zones is provided in Section 5.2.

5.0 GROUNDWATER PCLE ZONE ASSESSMENT

The land use for the Site is and will likely remain commercial/industrial for the foreseeable future. However, with residential properties around the Site and apparent groundwater impacts above PCLs off-site, the critical PCL evaluation was conducted using the more conservative TCEQ Residential PCLs for groundwater pathways off-site and commercial/industrial pathways on site. Response actions will be designed to address PCLE zones based on land use (i.e., commercial/industrial PCLs for on-site PCLE zone). A discussion of the groundwater PCLE Zones is presented below.

5.1 Groundwater PCLE Zones

Groundwater analytical data were compared to the TCEQ TRRP Residential Groundwater PCLs, dated March 2010, assuming the source area greater than 0.5 acre in size (30-acre source area). Critical PCLs were established as the lesser value between residential and commercial/industrial $^{GW}GW_{Ing}$ and $^{Air}GW_{Inh}$ PCLs. The groundwater Affected Property and PCLE Zones were updated based on groundwater COC results using the July-August 2014 site-wide groundwater analytical data. However, semi-annual groundwater monitoring data from January 2010 through July/August 2014 were used to evaluate groundwater trends and evaluate plume stability.

Groundwater samples were collected from monitoring wells installed in the four units of the uppermost GWBUs at the Site. Locations of monitoring wells are presented on Figure 5A. Laboratory data packages for the data collected in July/August 2014, as well as data from 2011, 2012, 2013, and January 2014 are provided in Appendix 2 of the RAP. A complete summary of groundwater analytical data for the Site from 2010 through 2014 is presented on the following tables (RAP Appendix 2):

<u>Table</u>	<u>Description</u>
5B-1	Summary of Groundwater Sampling Results – A-TZ
5B-2	Summary of Groundwater Sampling Results – B-TZ and B-CZ
5B-3	Summary of Groundwater Sampling Results – C-TZ
5B-4	Summary of Groundwater Sampling Results – D-TZ

COCs evaluated for the purpose of the APAR were site-specific COCs identified in the RFI Work Plan (IC, 1994) prepared for the Site. In addition to the 34 site-specific COCs, selected wells were analyzed for vinyl chloride by EPA Method 8260 based on groundwater sampling in 2010. Comparing the maximum groundwater analytical data from the July/August 2014 groundwater sampling event to cPCLs, concentrations of 23 target COCs exceeded their respective RALs or had a SDL greater than the cPCL

(>SDL) for COCs with no detections:

VOCs

- Benzene (A-TZ, B-TZ, C-TZ)
- Ethylbenzene (B-CZ only)
- Methylene Chloride (A-TZ, B-TZ/B-CZ, & C-TZ)
- Toluene (B-CZ only)
- Vinyl Chloride (A-TZ and B-TZ)

SVOCs

- 2,4-Dimethylphenol (A-TZ, B-TZ, C-TZ)
- 2,6-Dinitrotoluene (B-TZ & C-TZ)
- 2-Methylnaphthalene (A-TZ, B-CZ/B-TZ, & C-TZ)
- Acenaphthene (C-TZ only, one well*)
- Anthracene (C-TZ only, one well*)
- Benzo(a)anthracene (A-TZ, B-CZ, & C-TZ)
- Benzo(a)pyrene (A-TZ, C-TZ, and D-TZ)
- Bis(2-chloroethoxy)methane (A-TZ & C-TZ*)
- Chlorobenzene (A-TZ only, one well)
- Chrysene (C-TZ only, one well*)
- Dibenzofuran (A-TZ, B-CZ/B-TZ, & C-TZ)
- Fluoranthene (C-TZ only, one well*)
- Fluorene (C-TZ only, one well*)
- Naphthalene (A-TZ, B-CZ/B-TZ, & C-TZ)
- Pentachlorophenol (C-TZ)
- Phenanthrene (C-TZ only, one well*)
- Phenol (A-TZ, B-CZ, & C-TZ)
- Pyrene (C-TZ only, one well*)

* - COC only detected in wells with DNAPL present

As noted above, SVOCs acenaphthalene, anthracene, chrysene, fluoranthene, fluorene, phenanthrene, and pyrene concentrations were detected above cPCLs in only one well, MW-23C, which contained DNAPL during the sampling event. Therefore, these concentrations may overestimate the dissolved fraction in the groundwater. As an example, naphthalene concentrations were detected in MW-23C at 57.9 mg/L, which is above the solubility of naphthalene in water at 41 mg/L.

PBW evaluated the groundwater flow conditions at the Site based on multiple fluid measurements collected since 2004, with the potentiometric surface relatively consistent in the transmissive zones over that time period. Groundwater data collected from the July 2014 gauging event are consistent with data collected previously at the Site, and with the additional wells installed in units A-TZ, B-CZ, and C-TZ in May 2014. Potentiometric surface maps from the July 2014 sampling event for each of the four transmissive zones, A-TZ, B-TZ, C-TZ, and D-TZ, are presented on Figures 5A-1 through and 5A-4, respectively.

The NAPL distribution at the Site based on DNAPL measurements from monitoring wells completed in

the A-TZ, B-TZ/B-CZ, and C-TZ units are presented for July 2014 on Figures 5A-5 through 5A-7, respectively. Table 5D in RAP Appendix 2 provides a summary of the fluid-level measurements for the wells.

The spatial distributions of the COCs exceeding RALs in each GWBU from the July/August 2014 monitoring events are presented on the following figures:

- Figure 5B-1 for unit A-TZ,
- Figure 5B-2 for B-TZ/B-CZ,
- Figure 5B-3 for C-TZ, and
- Figure 5B-4 for D-TZ.

In addition to the figures listed above, individual COC concentration maps for the most common groundwater COCs at the Site (benzene, 2,4-dimethylphenol, 2-methylnaphthalene, dibenzofuran, and naphthalene) were prepared for the three zones at the Site using the July/August 2014 groundwater data:

- A-TZ - Figures 5B-5 through 5B-9,
- B-CZ/B-TZ - Figures 5B-10 through 5B-14, and
- C-TZ - Figures 5B-15 through 5B-19.

Details of the potentiometric surface, distribution of the COCs, and the occurrence of NAPL for each transmissive zone are discussed below.

Section 5.1.1 Groundwater Flow Conditions and COC Distribution – Transmissive Zone A-TZ

Groundwater in the A-TZ generally flows from west to east across the Site at a gradient ranging from approximately 0.0009 ft/ft to 0.011 ft/ft (approximate average of 0.006 ft/ft), with a groundwater divide on the east side of the Site just west of the Lockwood Road Bridge (Figure 5A-1). As discussed in the Updated APAR Addendum (PBW, 2010), the 60-in wastewater line runs north to south just west of the Lockwood Bridge and appears to intersect the A-TZ (see Cross Section A-A', B-B', and C-C', Figure 4C-1). Groundwater flow in the A-TZ flows to the east on the west side of the wastewater line, and flows to the west on the east side of the wastewater line. The highest groundwater elevation in the A-TZ during the July 2014 event was near the west side of the Site at SWMU 1 (42.85 feet relative to the City of Houston Vertical Datum (HVD) (MW-22A, July 2014)), with the lowest elevations near the east side of the Site along Lockwood Drive (33.43 feet HVD (MW-18A, July 2010)) near the area where the wastewater line is located. Although these groundwater flow directions suggest potential discharge to the

wastewater line, as discussed in the Updated APAR Addendum (PBW, 2010), fluid samples collected from the sanitary sewer line suggested there is not a significant loading of COCs from groundwater into the wastewater line. There also appears to be a groundwater high in the A-TZ in the Englewood Intermodal Yard at MW-77A (42.43 feet HVD). However, the well has only been gauged once since installed in May 2014.

VOCs – A-TZ

During the July/August 2014 groundwater monitoring event, benzene concentrations were detected above the RAL of 0.005 mg/L in A-TZ wells located predominantly on the eastern portion of the Site near SWMUs 4, 5, and 8 (Figures 5B-1 and 5B-5). The maximum benzene concentration detected in the A-TZ wells in July/August 2014 was 0.576 mg/L at on-site well MW-17. The highest off-site benzene concentration detected was at MW-32AR at 0.0404 mg/L. Benzene concentrations are delineated to the RAL (0.005 mg/L) off-site to the north at MW-33A (0.00236 mg/L), and to the east at MW-44A (0.0042 mg/L), MW-25A (<0.00008U mg/L), MW-59A (<0.00008U mg/L), MW-60A (<0.00008U mg/L), and MW-61A (<0.00008U mg/L). Benzene concentrations are also delineated to the RAL to the south at MW-69A (<0.00008U mg/L), MW-50A (<0.00008U mg/L), and MW-77A (<0.00008U mg/L), and to the west at MW-15A (0.00161 mg/L). As previously discussed, the groundwater gradient is to the east-northeast in the A-TZ up to near the Lockwood Street bridge.

Other VOC compounds detected in the groundwater samples from A-TZ wells above their respective RALs included four PCL exceedances for methylene chloride (RAL: 0.005 mg/L) at MW-17 (0.0187J mg/L), MW-18A (0.0138J mg/L), MW-49A (0.0212 mg/L), and MW-55A (0.0179J mg/L), all from possible laboratory contaminant; and two PCL exceedances for vinyl chloride (RAL: 0.002 mg/L) at MW-18A (0.02J mg/L) and MW-58A (0.0101J mg/L). The horizontal distribution of VOCs has been delineated to RALs based on the monitoring points located in all directions around the area with detections of VOCs less than RALs or sample quantitation limits (SQLs) at downgradient, cross-gradient, and up-gradient well locations.

SVOCs – A-TZ

Similar to the VOC detections, SVOCs were detected above the applicable RALs in A-TZ wells located generally on the eastern portion of the Site near SWMU Nos. 4, 5, and 8; and one A-TZ well located on the western portion of the Site (MW-22A) (Figures 5B-1 and 5B- through 5B-9). The predominant SVOCs detected in the A-TZ above RALs include 2,4-dimethylphenol, 2-methylnaphthalene,

dibenzofuran, and naphthalene. The highest concentrations for 2,4-dimethylphenol (Figure 5B-6) and naphthalene (Figure 5B-9) were detected at MW-17. The highest concentrations for 2-methylnaphthalene and dibenzofuran were detected at MW-78A in the Englewood Intermodal Yard. Naphthalene concentrations were detected in MW-22A during the July/August 2014 sampling event at concentrations above the RAL(0.49 mg/L) at 0.792 mg/L for the first time in this well. Monitoring well MW-22A has been sampled numerous times since 2000, with the previous highest naphthalene concentration at 0.0035 mg/L in January 2011 (Table 5B-1). No other A-TZ monitoring wells in the area have naphthalene concentrations near the RAL. In addition, the groundwater gradient during the latest gauging event showed groundwater flow from west to east, indicating that MW-22A was upgradient of the Site. PBW attempted to collect a resample from MW-22A in August 2014, but the well surface completion was damaged and the well casing was compromised. Therefore, a replacement well will be installed and sampled to confirm the detection.

Other SVOCs, including benz(a)anthracene, benzo(a)pyrene, bis(2-chloroethoxy)methane, chlorobenzene, and phenol were also detected at concentrations greater than RALs. Benzo(a)pyrene and bis(2-chloroethoxy)methane were detected in only one sample above RALs, in the MW-57A sample collected during the July/August 2014 sampling event. These concentrations may be influenced by the presence of DNAPL in the well (see Section 5.2).

Except for naphthalene in MW-22A, the horizontal distribution of SVOCs in the A-TZ GWBU has been delineated to RALs based on the monitoring points located in all directions around the area with detections of SVOCs less than RALs or not detected above SQLs. Further evaluation for naphthalene in the area of MW-22A will be conducted.

Groundwater Plume Stability – A-TZ

For the A-TZ groundwater Affected Property, the configuration of the groundwater plume based on the data collected from 2011 through 2014 has been stable or shrinking (concentrations in MW-12A decreasing below cPCLs) as shown on Figure 5B-20. Using primary lines of evidence (PLOE), groundwater data from the A-TZ wells suggests the plume is not migrating and COC concentrations are predominantly limited to the on-site property except for areas near wells MW-32AR and MW-33A and along the east portion of the Site at wells MW-18A and MW-49A. Unit A-TZ groundwater flow conditions near the wastewater utility on the east side of the Site likely controls the migration of COCs in the A-TZ downgradient to the southeast; however, as discussed in Section 3.0, there does not appear to be significant mass loading of COCs into the wastewater line.

Section 5.1.2 Groundwater Flow Conditions and COC Distribution – Transmissive Zone B-TZ/B-CZ

Groundwater in the B-TZ/B-CZ generally flows from west to east-northeast across the Site at gradients ranging from 0.005 ft/ft to 0.011 ft/ft, with an average of approximately 0.008 ft/ft (Figure 5A-2). As shown on Figure 5A-2, there is a piezometric high near the west perimeter of the Site, similar to the A-TZ. The highest groundwater elevation in the B-TZ in July 2014 was 43.15 feet HVD (MW-42B), and lowest elevation in the B-TZ wells was 37.22 feet HVD (MW-68B). The highest groundwater elevation in the B-CZ in July 2014 was 40.46 feet HVD (MW-36B), and the lowest elevation in the B-CZ wells was 32.71 feet HVD (MW-67B).

As discussed in Section 3.0, there is a lateral change in the hydrogeology of the B-TZ as it pinches out into the B-CZ clay unit, where groundwater is encountered in very thin carbonate seams (typically less than 0.1 feet thick) within the clay unit at relatively the same elevation as the B-TZ. Groundwater flow in the B-CZ during the July 2014 gauging event shows flow to the east-northeast on the east portion of the Site, with groundwater potentiometric elevations from the off-site wells north of the Site (i.e., MW-36B and MW-59B) indicating flow to the north toward MW-67B. There is also a groundwater elevation high near MW-36B showing flow to the west southwest (Figure 5A-2).

As detailed in the Updated APAR Addendum (PBW, 2010) and discussed in Section 3.1, the B-CZ yields less than 0.1 gpm and the hydraulic conductivity ranged from 8×10^{-9} cm/sec to 1.1×10^{-6} cm/sec for the wells completed in the B-CZ. Monitoring wells MW-35B and MW-68B appear to be installed in the area of the lateral transitional boundary where the B-TZ pinches out into the B-CZ with some hydraulic connection between the more transmissive sands to the southwest and the carbonate seams encountered in MW-35B. For the purposes of evaluating the Affected Property, COCs detected in groundwater encountered in the B-CZ were conservatively evaluated to Class 2 groundwater PCLs, as discussed below. However, the response action objectives for the B-CZ may be revised pending TCEQ review of the additional aquifer testing for the B-CZ (Section 3.0).

Based on the potentiometric elevations within the A-TZ and B-TZ, there appears to be communication between the two GWBUs on the west side of the Site as shown with the relatively similar groundwater elevations shown for the two units on Figures 5A-1 and 5A-2 for the A-TZ wells and the B-TZ/B-CZ wells.

VOCs – B-TZ/B-CZ

Benzene was detected above the RAL in the B-TZ on the west side of the Site at only one monitoring well, MW-40B, at 0.0103 mg/L in July/August 2014, with no detections above the SDL (<0.0005 mg/L) at any B-TZ monitoring points located downgradient from this area (i.e., MW-14, MW-39B, and MW-38B) (Figure 5B-10). With benzene concentrations less than the PCL in on-site monitoring wells MW-14, MW-39B, P-11, and off-site well MW-38B, benzene concentrations are delineated on-site on the west side of the Site to the RAL in the B-TZ. Monitoring wells that fall within the B-TZ to B-CZ transition zone include wells MW-35B, MW-68B, MW-74B, MW-75B, and MW-80B. Benzene concentrations greater than the RAL in these transition zone wells range from 0.0539 mg/L (MW-35B) to 2.18 mg/L (MW-68B). No other VOCs were detected in Unit B-TZ monitoring wells at concentrations exceeding the applicable RALs.

The B-CZ, where monitoring wells MW-32B, MW-33BR, MW-36B, MW-49B, MW-55B, MW-57B, MW-59B, MW-63B, MW-67B, MW-70B and MW-71B are completed across the carbonate seams within the B-CZ, does not yield a sufficient quantity of groundwater to be considered a current or future usable water resource. However as previously discussed, COC concentrations detected in groundwater samples from these wells were preliminarily compared to Class 2 groundwater PCLs to conservatively evaluate the Affected Property. Using the Class 2 Tier 1 PCLs, benzene was detected above the RAL in the six B-CZ wells MW-33BR, MW-49B, MW-55B, MW-57B, MW-63B, and MW-70B during the July/August 2014 monitoring event ranging from 0.108 mg/L (MW-63B) to 2.55 mg/L (MW-70B, where DNAPL was encountered (Figure 5B-10)). The highest concentrations were detected in the off-site wells. The benzene concentrations are delineated to the RAL in the B-CZ to the north at MW-67B (0.00008U mg/L); to the east at MW-71B (0.00155 mg/L), MW-36B (0.00008U mg/L), and MW-59B (0.00008U mg/L); to the south at MW-80B (0.0000898J mg/L) and MW-81B (0.00008U mg/L); and west in the B-TZ as previously discussed. Well MW-32B was not sampled in July/August 2014.

Other VOCs detected above RALs in the B-TZ or B-CZ included ethylbenzene (MW-70B at 0.742 mg/L), methylene chloride (MW-49B at 0.0212 mg/L and MW-55B at 0.0155J mg/L), toluene (MW-57B at 1.33 mg/L and MW-70B at 2.76 mg/L), and vinyl chloride (MW-57B at 0.00299J mg/L and MW-68B at 0.007J mg/L). However, each of these VOCs is delineated to less than RALs at the Site (Figure 5B-2).

SVOCs – B-TZ/B-CZ

SVOCs exceeding the applicable RALs in the B-TZ were detected at MW-40B on the west side of the Site. SVOCs detected above RALs consisted of 2-methylnaphthalene, dibenzofuran, and naphthalene

(Figures 5B-12, 5B-13, and 5B-14, respectively). SVOCs were not detected above RALs at any of the monitoring wells located downgradient of MW-40B during the July/August 2014 event (Figures 5B-2), demonstrating delineation to the RALs in this portion of the B-TZ. The general absence of COCs in monitoring wells MW-38B and MW-39B located downgradient of MW-12B and MW-41B, which contain DNAPL and were not sampled in July/August 2014, show that COCs in groundwater attenuate below RALs over a short distance (<100 feet). Well TW-41B, located within 50 feet of MW-41B, had no COCs detected at concentrations greater than RALs (Figure 5B-2).

The only other well in the B-TZ to have a RAL exceedance was at MW-22B on the far west end of the Site. Similar to the A-TZ well MW-22A, naphthalene concentrations from the July/August 2014 sampling event were detected above the RAL (0.49 mg/L) at MW-22B at 0.832 mg/L. A resample was collected on August 28, 2014 with a naphthalene concentration of 0.977 mg/L. The well pad was noted as damaged in August; however, the well casing appeared to be uncompromised. As with MW-22A, naphthalene concentrations had been below the RAL in this well since 2000. However, from February 2012 through January 2014, naphthalene concentrations showed an increase from 0.0032 mg/L to 0.13J mg/L (RAP Appendix 2 Table 5B-2). No samples were collected from MW-22B in 2013 because the well (and MW-22A) was covered with soil placed there by the City of Houston (well is located in the City of Houston right of way (ROW) but within the UPRR property). With the well pad damaged, UPRR proposes to re-install well MW-22B to the same construction specifications in the same area (keep within the UPRR property but out of the City ROW). Monitoring wells upgradient of MW-22B (MW-10B, MW-11B, and P-10 (Figure 5A-2) located about 200 feet east) have not had naphthalene concentrations above the RAL since September 2002 (MW-11B at 0.7 mg/L). The highest concentration detected in these upgradient wells was at P-10 at 5.8 mg/L in March 1998. Since January 2009, naphthalene concentrations in P-10 have not been detected above SDLs. It is uncertain if the naphthalene detections in MW-22B, as well as MW-22A, are from migration in the B-TZ, or as a result of the well casings being compromised. After the replacement wells have been installed, UPRR will assess if additional downgradient wells are needed to delineate the naphthalene concentrations in the B-TZ.

SVOC 2,6-dinitrotoluene concentrations were detected in MW-14 at a concentration of 0.0788 mg/L above the RAL of 0.0013 mg/L. Over the entire Site, 2,6-dinitrotoluene concentrations were only detected above either the SDL or RAL in MW-14 and MW-12C during the July/August 2014 sampling event. No other concentrations above the SDL were detected. 2,4-Dinitrotoluene concentrations have never been detected in MW-14 dating back to 1997. Both of these wells have no other COC detected at concentrations above the respective RALs. In addition, 2,6-dinitrotoluene is sold as an explosive and is a

typically released from facilities that manufacture or process dinitrotoluene, which was neither processed nor handled at the Site. Therefore, the detection in July/August 2014 may be from a laboratory bias and will be confirmed during the next scheduled sampling event.

For the B-TZ-B-CZ transition zone wells, 2-methylnaphthalene (Figure 5B-12), dibenzofuran (Figure 5B-13), and naphthalene (Figure 5B-14) concentrations exceeded their respective RALs. However, the highest concentrations of these COCs were detected further east in the B-CZ wells.

On the northeastern portion of the Site in the B-CZ wells where the B-TZ is absent, 2,4-dimethylphenol (Figure 5B-11), 2-methylnaphthalene (Figure 5B-12), dibenzofuran (Figure 5B-13), and naphthalene (Figure 5B-14) concentrations exceeded their respective RALs during the July/August 2014 sampling event. The highest concentrations for these COCs were typically detected at MW-57B (well historically has DNAPL), MW-70B (DNAPL measured in the well) and MW-74B. These four COCs are delineated to RALs in the B-CZ as discussed below:

- 2,4-Dimethylphenol (Figure 5B-11) – Concentrations of 2,4-dimethylphenol were less than the RAL (0.49 mg/L) in downgradient wells to the north in MW-33BR (0.000301U mg/L) and MW-63B (0.0031U mg/L); to the east in MW-59B (0.000307U mg/L); to the south in MW-80B (0.00031U mg/L) and MW-81B (0.000301U mg/L); and to the west (upgradient) in MW-15B (0.000292U mg/L).
- 2-Methylnaphthalene (Figure 5B-12) – Concentrations of 2-methylnaphthalene were less than the RAL (0.098 mg/L) in downgradient wells to the north in MW-63B (0.0302 mg/L) and MW-67B (0.0000673U mg/L); to the east in MW-59B (0.0000693U mg/L), to the south in MW-80B (0.000158J mg/L) and MW-81B (0.000068U mg/L); and to the west (upgradient) in MW-15B (0.00622 mg/L).
- Dibenzofuran (Figure 5B-13) - Concentrations of dibenzofuran were less than the RAL (0.098 mg/L) in downgradient wells to the north in MW-33BR (0.0868 mg/L), MW-63B (0.00663 mg/L), and MW-67B (0.0000769U mg/L); to the east in MW-59B (0.000201J mg/L), to the south in MW-80B (0.00008U mg/L) and MW-81B (0.0000777U mg/L); and to the west (upgradient) in MW-15B (0.0272 mg/L).
- Naphthalene (Figure 5B-14) - Concentrations of naphthalene were less than the RAL (0.49 mg/L) in the downgradient well to the north in MW-67B (0.000275U mg/L); to the east in MW-59B (0.00627 mg/L), to the south in MW-80B (0.00157 mg/L) and MW-81B (0.0000777U mg/L); and to the west (upgradient) in MW-15B (0.452 mg/L).

Other SVOCs detected in the B-CZ wells above RALs included benzo(a)anthracene and phenol.

Benzo(a)anthracene concentrations were detected above the RAL (0.0013 mg/L) in only MW-75B at 0.00748J mg/L. Phenol concentrations detected above the RAL (7.3 mg/L) were detected at MW-55B (127 mg/L) and MW-74B (53.3 mg/L), both in the middle of the groundwater PCLE Zone for the B-CZ unit.

Using the July 2014 groundwater data, SVOCs are shown to be delineated to RALs within the B-CZ.

Groundwater Plume Stability – B-TZ/B-CZ

The groundwater Affected Property in the B-TZ and the B-CZ appears to be stable based on the groundwater data collected from 2011 through 2014. The groundwater PCLE Zone in the B-TZ on the west side of the Site is stable and limited in extent laterally (Figure 5B-21). UPRR will continue to evaluate the naphthalene concentrations at MW-22B. For the B-CZ, the PLOE indicates that the PCLE Zone appears to be stable with some minor fluctuations over time.

Section 5.1.3 Groundwater Flow Conditions and COC Distribution – Transmissive Zone C-TZ

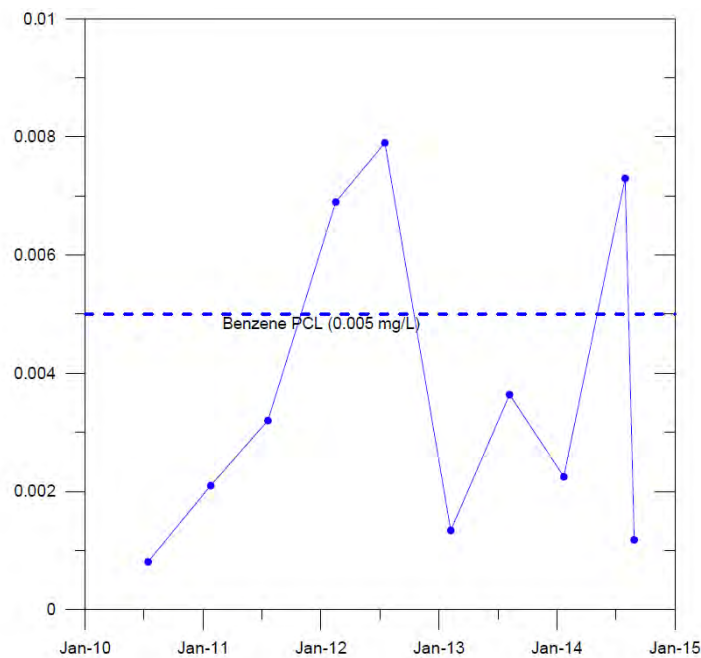
During the July 2014 event, the groundwater gradient in the C-TZ is from northeast to southwest across the Site (Figure 5A-3) at a gradient about 0.001 ft/ft. The flow direction is similar to previous gauging events. Groundwater elevations measured in July 2014 ranged from a high of approximately 28.12 feet HVD (MW-53C) to 24.44 feet HVD (MW-21C). There are two areas showing relatively low potentiometric elevations, near MW-23C and in the vicinity of MW-25C, MW-45C, and MW-46C. Both areas have potentiometric elevations about 2 to 3 feet lower than the surrounding potentiometric elevations (Figure 5A-3).

VOCs – C-TZ

Of the VOCs analyzed during the July/August 2014 groundwater monitoring event, benzene and methylene chloride were the only VOCs detected above their respective RALs in the C-TZ wells. Benzene concentrations were detected above the RAL (0.005 mg/L) in five C-TZ monitoring wells located on the northeastern portion of the Site: MW-17C, MW-18C, MW-23C, MW-25C, and MW-68C (Figure 5B-15). The concentrations in these wells ranged from 0.00596J mg/L (MW-23C) to 1.45 mg/L (MW-18C). Benzene was not detected above the RAL in monitoring wells MW-12C (0.00008U mg/L), MW-15C (0.000781J mg/L), MW-21C (0.00008U mg/L), or MW-76C (0.000149J mg/L) located downgradient of the benzene PCLE Zone, indicating that benzene is delineated to the RAL downgradient

in the C-TZ. Groundwater data from July/August 2014 sampling event from monitoring wells MW-28C (0.00008U mg/L), MW-47C (0.00008U mg/L), MW-48C (0.00008U mg/L), MW-53C (0.00008U mg/L), and MW-54C (0.00008U mg/L) confirm the horizontal extent of benzene concentrations to the RAL cross gradient and upgradient of the benzene PCLE Zone. Benzene concentrations from the July 2014 sampling event were detected above the RAL in off-site well MW-68C at 0.0073 mg/L, located north and crossgradient of the main portion of the elevated benzene concentrations (Figure 5B-15). PBW collected a resample from MW-68C on August 28, 2014 and the benzene result was 0.00118 mg/L, below the benzene RAL, as shown on the following graph.

Graph 1 – Benzene concentrations (mg/L) in MW-68C – July 2010-August 2014



As shown on the graph, benzene concentrations in MW-68C were greater than the RAL in January and July 2012, then decreased to below the RAL in January 2013 through January 2014. With the initial sample from the July/August 2014 event above the RAL and the resample results now below the RAL, these concentrations suggest slight fluctuations over time. UPRR will continue to monitor the concentrations and assess if additional delineation is necessary.

Methylene chloride concentrations were detected at one location, MW-18C, at a concentration 0.0161J mg/L in July 2014, above the RAL (0.005 mg/L). No other VOCs were detected during the July 2014 sampling event in the C-TZ monitoring wells at concentrations exceeding applicable RALs.

SVOCs– C-TZ

SVOCs were detected above RALs in four monitoring wells, MW-17C, MW-18C, MW-23C, and MW-25C located on the eastern portion of the Site. Site-specific SVOC COCs detected above RALs included 2,4-dimethylphenol (Figure 5B-16), 2-methylnaphthalene (Figure 5B-17), dibenzofuran (Figure 5B-18), naphthalene (Figure 5B-19), and pentachlorophenol. Numerous other SVOCs (acenaphthene, anthracene, benz(a)anthracene, benzo(a)pyrene, bis(2-chloroethoxy)methane, chrysene, fluoranthene, fluorene, phenanthrene, and pyrene) were detected in wells MW-23C and MW-25C, both of which have measureable DNAPL present in the wells. The DNAPL present in the water column in the well likely influenced the dissolved-phase concentrations. Phenol concentrations were detected in monitoring well MW-17C above the RAL (7.3 mg/L) at 8.33 mg/L. Pentachlorophenol concentrations were detected above the RAL (0.001 mg/L) in MW-18C (0.164 mg/L) and newly installed downgradient well MW-76C (0.00272 mg/L); however, no other C-TZ monitoring wells had pentachlorophenol detected above the SDL (Figure 5B-3). Pentachlorophenol concentrations in MW-76C were detected during the initial sampling event for the well after installation. A resampling event was conducted in October 2014 and did not confirm the initial detection with the resample results at <0.000592U mg/L. However, benzo(a)pyrene concentrations were detected in the resample just slightly above the RAL (0.0002 mg/L) at 0.000276J mg/L that were not detected during the initial sampling event. COC concentrations in MW-76C will be monitored during the next sampling event.

Site-related SVOCs were not detected above RALs at monitoring wells MW-21C, MW-12C, MW-28C, MW-47C, MW-48C, MW-51C, MW-53C, MW-54C located downgradient and crossgradient of the PCLE Zone in the C-TZ, indicating that SVOCs are sufficiently delineated in Unit C-TZ. Dissolved-phase data show relatively limited COC migration beyond the area where DNAPL has been observed in monitoring wells.

SVOC 2,6-dinitrotoluene concentrations were detected in MW-12C at a concentration of 0.209 mg/L above the RAL of 0.0013 mg/L. As previously discussed, 2,6-dinitrotoluene concentrations were only detected above the either the SDL or RAL in two wells, MW-14 and MW-12C during this sampling event. No other concentrations above the SDL were detected in the C-TZ wells. 2,4-Dinitrotoluene concentrations have never been detected in MW-12C dating back to 1997, except for September 2000 where an estimated concentration of 0.0004J mg/L was detected. Well MW-12C had no other COC detected at concentrations above the respective RALs during the July 2014 event. Therefore, the detection in July 2014 may be from a laboratory bias and will be confirmed during the next scheduled

sampling event.

Groundwater Plume Stability – C-TZ

VOCs and SVOCs detected in the C-TZ wells appear to be stable with some benzene fluctuations on the north crossgradient side of the PCLE Zone at MW-68C (Figure 5B-22). There does not appear to be any expansion of the C-TZ groundwater Affected Property (Figure 5B-3); however, the low levels of COC concentrations in MW-76C will continue to be evaluated. The PLOE suggest the PCLE Zone for the C-TZ is stable, but will need to be monitored at MW-68C to ensure the PCLE does not expand in that area.

Section 5.1.4 Groundwater Flow Conditions and COC Distribution – Transmissive Zone D-TZ

Using the groundwater elevations measured from the D-TZ wells in July 2014, groundwater in the D-TZ appears to flow from the southeast to northwest at a gradient of 0.0022 ft/ft (Figure 5A-4), similar to previous gauging events. Groundwater elevations range from a high of -38.82 feet HVD (MW-59D) to a low of -41.60 feet HVD (MW-36D).

Except for an estimated result for benzo(a)pyrene in MW-66D at 0.000436J mg/L above the RAL of 0.0002 mg/L, none of the site-specific COCs were detected at concentrations greater than RALs in the other D-TZ wells (Figure 5B-4) during the July/August 2014 sampling event. Monitoring well MW-66D was resampled in October 2014 to confirm the benzo(a)pyrene concentration in MW-66D. The resample results indicated benzo(a)pyrene concentrations at 0.000439J mg/L. This well is located about 800 feet east of the closest C-TZ well with a groundwater PCLE (MW-46C), and is upgradient of the HWPW site. In addition, benzo(a)pyrene concentrations above the cPCL are not common at the Site in the overlying C-TZ groundwater, with only 3 out of 18 C-TZ wells having detections of benzo(a)pyrene. Monitoring well MW-25C in the C-TZ, surrounded by wells with measurable DNAPL, had a benzo(a)pyrene detection of 0.000435J mg/L. Therefore, it is unlikely that the detection is from vertical migration of impacted groundwater from the Site. The concentrations will be evaluated during the next sampling event.

5.2 Occurrence of NAPL

This section includes previous observations of NAPL discussed at the Site discussed in the Updated APAR Addendum (PBW, 2010), as well as observations of NAPL in wells installed and gauged since 2010.

NAPL in the A-TZ

DNAPL has been observed in monitoring wells completed in the A-TZ on the northern edge of the Site (MW-57A) and in the Englewood Intermodal Yard (MW-78A). During the July 2014 monitoring event, approximately 0.81 feet of DNAPL was measured in well MW-57A and approximately 1.38 feet of DNAPL was measured in MW-78A (Figure 5A-5). In both cases, NAPL was noted on the boring log in the A-TZ sand unit. Monitoring well MW-57A is one of the wells included in the on-going DNAPL recovery pilot test where DNAPL is pumped from the well on a monthly basis. Details of the DNAPL recovery pilot test are discussed in Section 5.3.

As discussed in the Updated APAR Addendum (PBW, 2010), DNAPL had been measured in off-site well MW-32A in January and July 2010. Through evaluating the base of MW-32A, which was at 32 feet bgs, the well appeared to be completed straddling the base of the A-TZ and into the B-CZ clay and carbonate stringers. In 2011, PBW plugged MW-32A and reinstalled MW-32AR to 20 feet deep and installed MW-32B screened from 26 feet to 36 feet bgs. The soil boring log for MW-32AR did not indicate DNAPL in the A-TZ, but the soil boring log for MW-32B did note NAPL seeping from the clay at 34 feet bgs. Following installation of the two wells, DNAPL was not detected in MW-32AR, but was detected in MW-32B.

In addition to the measured DNAPL thicknesses in the monitoring wells completed in the A-TZ, Figure 5A-5 presents contours of ROST readings from CPT/ROST borings, including CPT/ROST borings conducted in 2013, that encountered the A-TZ. Also highlighted on the figure are monitoring wells where NAPL was observed in the A-TZ as noted on the soil boring logs. Following the same format for presenting ROST readings in the vadose zone (discussed in Section 4.2), ROST readings greater than 25% RE encountered in the A-TZ unit were contoured (50% RE contour interval) based on ROST data from the CPT/ROST borings. The majority of the elevated ROST readings in the A-TZ are located in and around the Recent Process Area, Original Process Area, and the AST Area (SWMU Nos. 4, 5, and 8, respectively).

ROST profiles are posted on the geologic cross sections for the Site (Figures 4C-1 through 4C-4). Highlighted intervals where ROST readings were greater than 25% RE are posted on the cross sections. Three CPT/ROST borings with the highest ROST readings in the A-TZ include CPT-16R-95 (Cross Section A-A', Figure 4C-1), CPT-34R-95 (Cross Section F-F', Figure 4C-4), and CPT-26R-95 (Cross Section E-E', Figure 4C-3). At each of these locations, elevated ROST readings were also noted in the

vadose zone above the A-TZ.

The elevated ROST readings are generally consistent with intervals where NAPL was visually observed in soil borings for A-TZ wells, except for in the Englewood Intermodal Yard area. NAPL was noted on the boring logs for A-TZ wells MW-78A and MW-79A installed in the Englewood Intermodal Yard. However, there were no significant ROST readings (i.e., >25% RE) in this area of the Site. This may indicate the NAPL may be more weathered in this area of the Site. Also, NAPL in this area may be related to the crude oil/fuel oil ASTs that were located in the area from the early 1900s to the late 1950s.

During the installation of monitoring well MW-79A in May 2014, the A-TZ sand was noted as saturated with creosote from 22 to 27 feet bgs and the well was screened from 17 feet to 27 feet bgs. However, no NAPL has been measured in the well. This phenomenon has been observed at numerous wells at the Site (MW-30A, MW-31A, MW-52A, MW-55A) where significant NAPL is noted in the boring log when the wells were installed, but no NAPL has been observed in the wells. This indicates that areas of the A-TZ may have residual saturation of DNAPL in the sand matrix that is not mobile, especially given the high viscosity of the DNAPL material (ranges from 8.52 to 192 centipoises (PBW, 2009)).

NAPL in the B-TZ/B-CZ

DNAPL has been detected in the B-TZ along the western boundary of the Site at MW-12B and MW-41B (Figure 5A-6). During the July 2014 monitoring event, DNAPL present in these B-TZ wells had a maximum in-well thickness of 6.95 feet observed at MW-41B, with MW-12B having a measured thickness of 0.82 feet. Both of these wells are included in the DNAPL recovery pilot test and are pumped monthly since the test began in February 2013. DNAPL has not been detected in monitoring wells MW-38B, MW-39B, MW-40B, TW-41B (located approximately 50 feet from MW-41B), and P-11, which indicates horizontal delineation and the limited lateral extent of the DNAPL in the B-TZ.

For the B-CZ wells, DNAPL was detected in three of the wells screened across the carbonate seams within the B-CZ unit, with two wells (MW-32B and MW-70B) located off site to the north of the Recent Process Area and one well in the Englewood Intermodal Yard (MW-75B). The in-well DNAPL thicknesses were measured at 2.11 feet in MW-32B, 0.94 feet in MW-70B, and 1.44 feet in MW-75B during the July 2014 gauging event.

Previously, DNAPL was noted in monitoring well MW-33B located north of the Site. Approximately 7.24 feet of DNAPL (in-well thickness) was observed at MW-33B in January 2010 (PBW, 2010). During

the July 2010 monitoring event, an obstruction was encountered in the well that prevented access to the bottom of the well to gauge the DNAPL. The well was plugged and abandoned, and a replacement well MW-33BR was installed within about 10 feet of MW-33B in December 2011 (boring log provided in Appendix 2). The boring log for MW-33BR noted trace NAPL in fractures in the B-CZ. Since the installation of MW-33BR, no DNAPL has been observed in the well.

ROST readings greater than 25% RE from CPT/ROST borings that encountered the B-TZ or B-CZ are also posted on Figure 5A-6, showing the overall distribution of ROST responses in the unit. As shown on the figure, the majority of the elevated ROST readings are in the vicinity of SWMUs 4 and 5. However, elevated ROST readings were observed in the B-CZ north of the Site at CPT/ROST boring CPT-43R-08, near MW-70B. The ROST readings in this area within the B-CZ are consistent with the observations of NAPL in the monitoring well MW-70B soil boring.

Elevated ROST readings were also noted in the Englewood Intermodal Yard area just slightly above the 25% RE (CPT-14-13). Monitoring wells MW-74B (installed within an area noted with >25% RE ROST readings) and MW-75B were installed in December 2011 in the Englewood Intermodal Yard to evaluate the presence of DNAPL in the B-CZ. NAPL was noted in the boring log in the B-CZ for both wells. However, no DNAPL has been detected in MW-74B during the gauging events. In contrast, no significant ROST readings were noted for CPT/ROST borings CPT-07-13 or CPT-10-13 (Figure 5A-6), but DNAPL has been observed in monitoring well MW-75B located in the immediate vicinity of CPT-07-13. Monitoring well MW-75B is included in the on-going DNAPL recovery pilot test. To delineate NAPL in the B-CZ within the Englewood Intermodal Yard, monitoring well MW-80B was installed in May 2014. No NAPL was noted in the soil boring for the well, and no DNAPL has been detected in the well following installation. Therefore, the DNAPL in the B-CZ is delineated at the Site.

No in-well DNAPL has been measured in the B-TZ/B-CZ transition monitoring wells MW-35B, MW-63B, or MW-67B. However, for each of these wells, NAPL was noted in the soil borings at the depth of the B-CZ/B-TZ.

NAPL in the C-TZ

During the July 2014 gauging event, DNAPL was present in the C-TZ wells extending from the northeast side of the Site at MW-23C to approximately 150 feet off site to the northeast near MW-44C, MW-45C, and MW-46C (Figure 5A-7). In-well DNAPL thicknesses were measured at 1.49 feet in MW-44C, 0.69 feet in MW-45C, 1.51 feet in MW-46C, and 2.14 feet in MW-23C. These wells are part of the monthly

DNAPL recovery pilot test. The thickness of DNAPL in the wells does not represent actual thicknesses in the GWBU. The monitoring wells generally extend below the lower confining unit and typically have at least a 0.5-foot to 1-foot sump at the bottom of the well, which allows DNAPL to collect in the bottom of the well. DNAPL thicknesses measured in the C-TZ wells in July 2014 were less than the measurements prior to beginning the DNAPL recovery pilot test in February 2013.

Monitoring well MW-34C, which was located between MW-44C and MW-23C, had a history of measureable DNAPL in the well. MW-34C had an obstruction in the well where the total depth could not be measured, and the well was plugged and abandoned in May 2014. Monitoring well MW-34CR was installed in May 2014 about 65 feet from MW-34C in the City of Houston ROW north of Liberty Road. No measureable DNAPL has been detected in the well.

ROST readings from CPT/ROST borings that encountered the C-TZ unit were contoured and presented on Figures 5A-7 with the measured in-well DNAPL thicknesses for the C-TZ unit. Of the 100 CPT/ROST borings conducted at the Site, 35 CPT/ROST borings were advanced to the top of the C-TZ.

The groundwater gradient of Unit C-TZ is to the southwest; however, DNAPL in this unit was encountered in wells located upgradient to the northeast (i.e., MW-25C, MW-45C, MW-46C) (Figure 5A-7). No DNAPL has been detected in nearby wells MW-28C, MW-47C, MW-53C, or MW-54C. Except for the on-site DNAPL measured in MW-23C, no measureable DNAPL has been observed in wells MW-68C, MW-15C, MW-19C, MW-21C, MW-51C, and MW-76C, indicating that the DNAPL is delineated at the Site.

5.3 DNAPL Recovery Pilot Test

As discussed in Section 2.0, PBW initiated a 24-month pilot study in February 2013 to evaluate DNAPL recovery by conducting tests on selected wells where DNAPL had been observed. Details of the scope of work for the pilot test were submitted to the TCEQ in a letter dated February 5, 2013 (PBW, 2013). A copy of the scope of work is provided in RAP Appendix 3.

The pilot test procedures consisted of measuring the depth to groundwater surface, the depth to the groundwater/DNAPL interface, and the total depth of the well relative to the top of well casing prior to DNAPL recovery. Using a peristaltic pump, DNAPL was pumped from the bottom of the well until groundwater is returned in the pump discharge. The volume of recovered DNAPL was estimated from

each well, and the well was gauged to measure the total depth of the well and depth to residual DNAPL following pumping. Recovered DNAPL was temporarily stored at the Containment Storage Area.

PBW submitted to the TCEQ in a letter dated September 25, 2014 an update after the first 18 months of the pilot test. A copy of the letter is also provided in RAP Appendix 3. Observations from the recovery testing through July 2014 are provided below:

- Monitoring wells with the thickest DNAPL measurements included MW-12B and MW-41B on the west side of the Site. During the monthly testing, DNAPL thicknesses increased following the February 2013 recovery event in MW-12B (May 2013) and in MW-41B (June 2013). However, DNAPL thickness in well MW-12B gradually decreased from 8.18 feet in May 2013 to less than a foot thick measured in the well in January 2014. The thickness in MW-12B slightly increased to about 1.54 feet in April 2014, and decreased to less than 1 foot thick in July 2014. DNAPL thickness in MW-41B decreased from the August 2013 event (measured at 10.26 feet) to about 5.5 feet thick in December 2013, but increased in March 2014 and then leveled off from 6.89 feet to 7.6 feet thick from March to July 2014.
- The other DNAPL wells tested showed significant decreases in DNAPL thicknesses over the first two months of testing, with some sporadic increases from May through August 2013. During the first 12 months DNAPL thicknesses in the wells generally decreased to less than one-foot thick, except in MW-32B. However, since December 2013, three of the C-TZ wells (MW-44C, MW-45C, and MW-46C) have had increasing DNAPL thicknesses with the largest increase of 1.4 feet at MW-44C. Except for MW45C, DNAPL thicknesses are still less than what was measured prior to beginning the pilot test. DNAPL thickness in MW-32B has also shown a slight increase since December 2013.
- DNAPL thickness in well MW-57B decreased from 1.28 feet thick in July 2013 to less than measureable (DNAPL noted on end of probe) thickness in January 2014 through July 2014.
- Of the 12 wells tested as part of the pilot test, well MW-33BR did not have any measureable DNAPL during the 18-month period. Well MW-34C was gauged in October 2013, and no DNAPL was measured in the well. In May 2014, replacement well MW-34CR was installed and is now gauged as part of the pilot test program. No DNAPL has been detected in the well.
- An estimated total of 110 gallons of DNAPL have been recovered during the 18-month period, with monthly DNAPL recovery volumes slightly decreasing over the past six months to around 5 gallons per month. Approximately 50% of the DNAPL recovered is from wells MW-12B and MW-41B.

The preliminary results from the DNAPL recovery pilot test after the first 18 months indicate the following:

- Once per month DNAPL recovery activities are resulting in an overall stable DNAPL thickness trend in the wells tested. Wells showing increasing trends will continue to be evaluated over the next six months of the pilot test program.
- The current monthly recovery frequency appears to be effective with total DNAPL volume recovered becoming stable in the wells over time.

UPRR plans to continue the monthly DNAPL pilot test recovery efforts, and will submit the next status report following the January 2015 recovery event. Concurrently with the pilot test, PBW is assessing the recovery data for evaluating more effective DNAPL recovery efforts. For each of the wells that are part of the pilot test, the little amount of recovery in the wells suggests minor amounts of DNAPL in the units. Further evaluation will be conducted following the 24-month pilot test period that will be submitted to the TCEQ as part of evaluating readily recoverable NAPL in accordance with the TCEQ TRRP-32 Risk-Based NAPL Management guidance document.

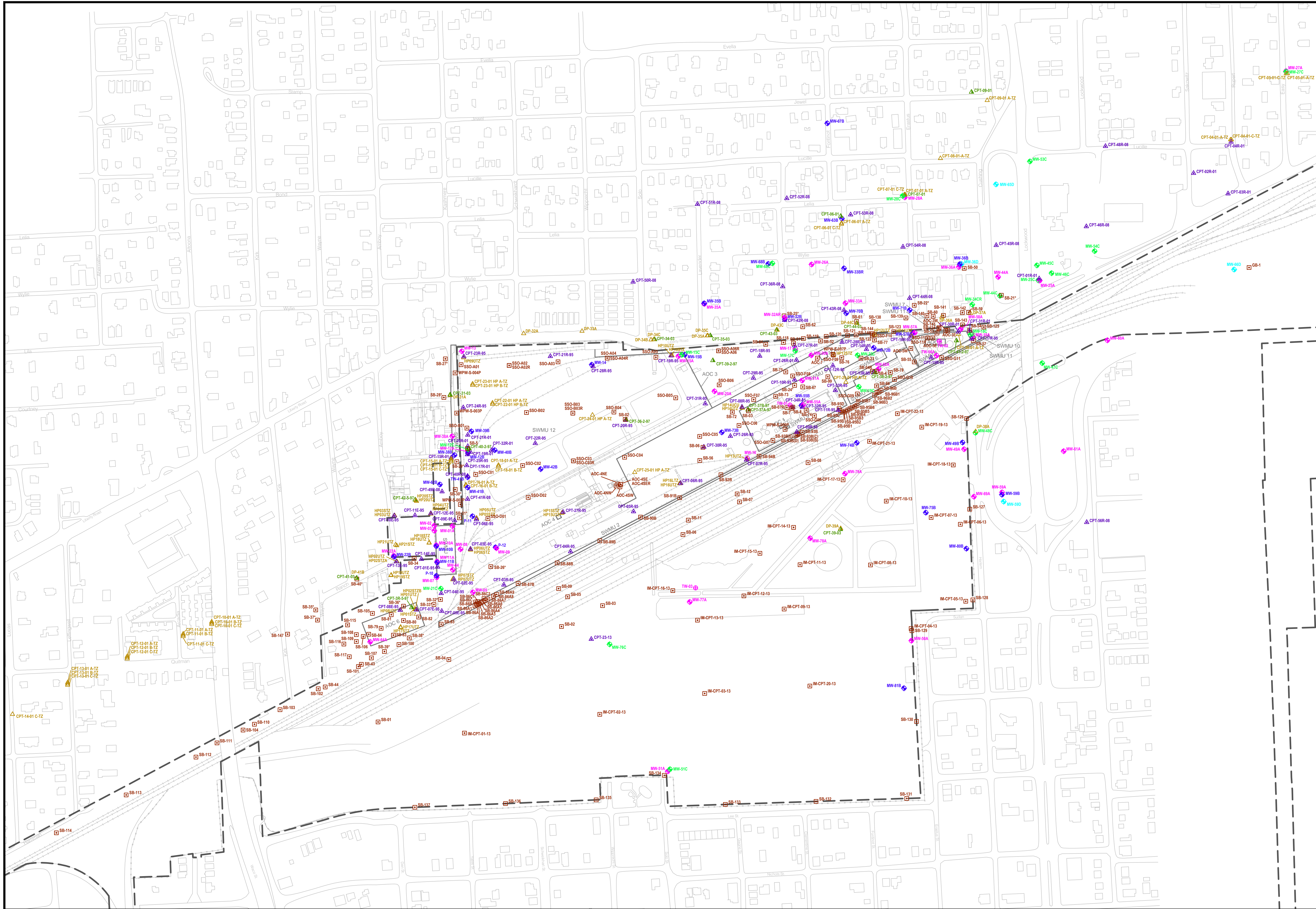
6.0 NOTIFICATIONS

With the additional groundwater and soil data collected in 2013 and 2014 being submitted to the TCEQ in the RAP, property owners identified where the groundwater PCLE Zone extends off-site and the City of Houston will be notified within 60 days of submitting the RAP of the availability of information on the Affected Property. The list of off-site property owners that will be notified is provided on RAP Appendix 5, Table 1, and shown on Figure 1 (off-site properties) and 2 (City of Houston Right of Way (ROW)).

7.0 REFERENCES

- ERM, 2000. *Affected Property Assessment Report (APAR)*, Houston Wood Preserving Works, Houston, Texas, June 10, 2000.
- ERM, 2004. *Revised Affected Property Assessment Report (APAR)*, Houston Wood Preserving Works, Houston, Texas, June 10, 2004.
- Pastor, Behling & Wheeler, LLC (PBW), 2009. *Affected Property Assessment Report Addendum*, Union Pacific Railroad Houston Wood Preserving Works, TCEQ SWR No. 31547, Houston, TX. July.
- PBW, 2010. *Updated Affected Property Assessment Report Addendum*, Union Pacific Railroad Houston Wood Preserving Works, TCEQ SWR No. 31547, Houston, TX. October.
- Texas Commission on Environmental Quality (TCEQ), 2010. *Groundwater Classification. TCEQ Regulatory Guidance RG-366/TRRP-8*, Revised March

FIGURES



EXPLANATION

- UPRR Property Boundary
- ▭ Historic Structure and Feature
- Road, Parking Lot, Sidewalk
- Railroad
- ◆ A-TZ Monitoring Well Location
- ◆ B-CZ/B-TZ Monitoring Well Location
- ◆ C-TZ Monitoring Well Location
- ◆ D-TZ Monitoring Well Location
- ◆ A-TZ Temporary Monitoring Well Location
- ▲ CPT with Rost Location
- ▲ CPT Location
- ▲ Hydropunch Sample Location
- Soil Boring Location

Note:
* Soil analytical data rejected by validator.

No.	Description
SWMU 1	Closed Surface Impoundment
SWMU 2	Northern and Southern Drainage Ditches
SWMU 4	Recent Process Area
SWMU 5	Original Process Area
SWMU 6	Water Treatment and Boiler System
SWMU 7	Tank Car Storage Area
SWMU 8	Aboveground Storage Tank Area
SWMU 9	Location of Former UST No. 44-023-05
SWMU 10	Location of Former Sap Water Treatment Tank
SWMU 11	Oil/Water Separators
SWMU 12	Railroad Tie Storage Area
AOC 1	Diesel Storage Tank
AOC 3	Contaminated Portion of City Water Line
AOC 4	Location of Former Incinerator
AOC 5	City Storm Sewer
AOC 6	Inactive Wastewater Lagoon
AOC 7	Location of Former UST No. 44-023-21

Note:
Locations of SWMU-9 and AOCs 1, 3, 5 and 7 area approximate.



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Source:
Base map from ERM-Southwest, Inc APAR Addendum, Fig 3-1, dated June 2004.

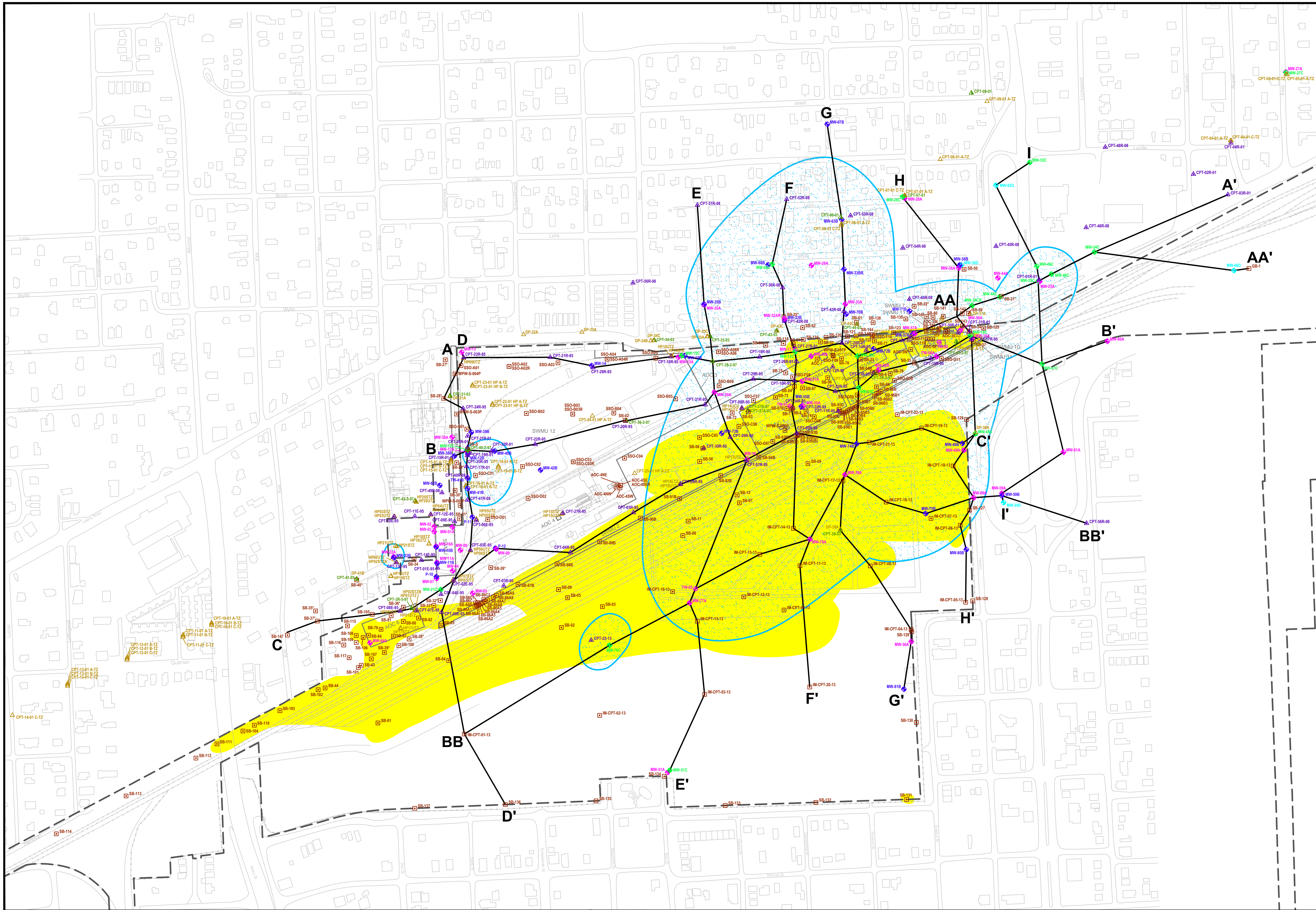
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HOUSTON WOOD PRESERVING WORKS

Figure 1A
SITE PLAN

PROJECT: 1358	BY: ZGK	REVISIONS
DATE: NOV., 2014	CHECKED: ECM	

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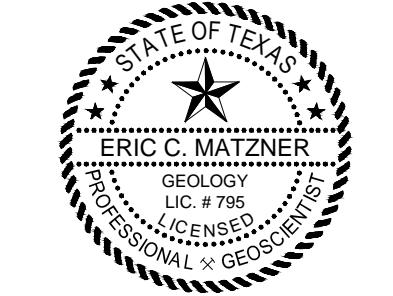
EXPLANATION

- UPRR Property Boundary
- ▭ Historic Structure and Feature
- Road, Parking Lot, Sidewalk
- - - Fence
- Railroad
- ◆ A-TZ Monitoring Well Location
- ◆ B-CZ/B-TZ Monitoring Well Location
- ◆ C-TZ Monitoring Well Location
- ◆ D-TZ Monitoring Well Location
- ◆ A-TZ Temporary Monitoring Well Location
- ▲ CPT with Rost Location
- ▲ CPT Location
- ▲ Hydropunch Sample Location
- Soil Boring Location
- A-A' Cross Section Location
- Soil Affected Property
- Groundwater Affected Property

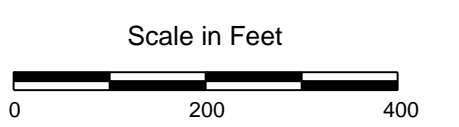
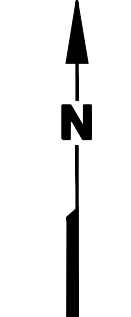
Note:
* Soil analytical data rejected by validator.

No.	Description
SWMU 1	Closed Surface Impoundment
SWMU 2	Northern and Southern Drainage Ditches
SWMU 4	Recent Process Area
SWMU 5	Original Process Area
SWMU 6	Water Treatment and Boiler System
SWMU 7	Tank Car Storage Area
SWMU 8	Aboveground Storage Tank Area
SWMU 9	Location of Former UST No. 44-023-05
SWMU 10	Location of Former Sap Water Treatment Tank
SWMU 11	Oil/Water Separators
SWMU 12	Railroad Tie Storage Area
AOC 1	Diesel Storage Tank
AOC 3	Contaminated Portion of City Water Line
AOC 4	Location of Former Incinerator
AOC 5	City Storm Sewer
AOC 6	Inactive Wastewater Lagoon
AOC 7	Location of Former UST No. 44-023-21

Note:
Locations of SWMU-9 and AOCs 1, 3, 5 and 7 area approximate.



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Source:
Base map from ERM-Southwest, Inc APAR Addendum, Fig 3-1, dated June 2004.

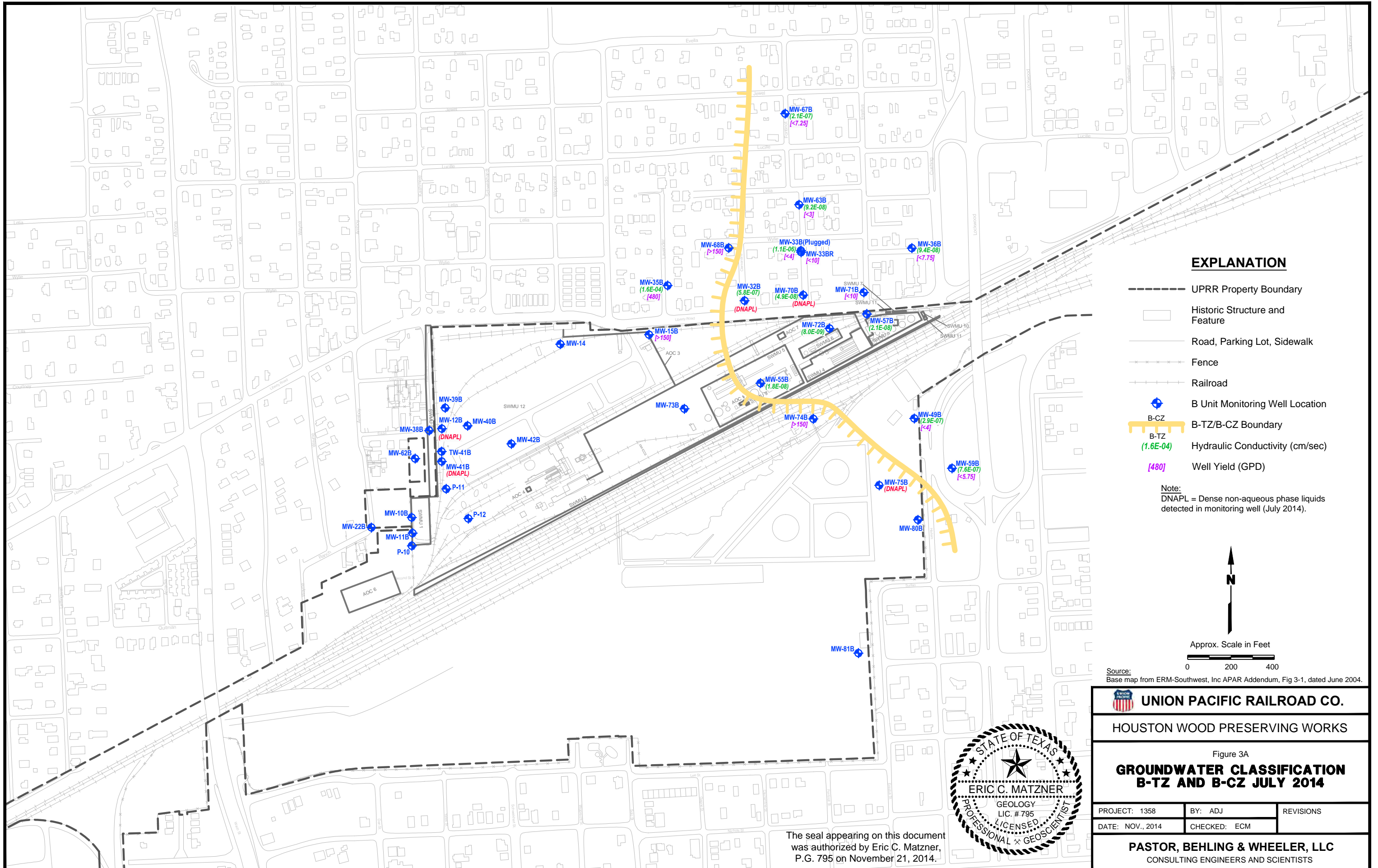
UNION PACIFIC RAILROAD CO.

HOUSTON WOOD PRESERVING WORKS

Figure 1B
AFFECTED PROPERTY MAP

PROJECT: 1358	BY: ZGK	REVISIONS
DATE: NOV., 2014	CHECKED: ECM	

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EXPLANATION

- UPRR Property Boundary
- ▭ Historic Structure and Feature
- Road, Parking Lot, Sidewalk
- Fence
- Railroad
- ⊕ B Unit Monitoring Well Location
- B-CZ
- B-TZ/B-CZ Boundary
- ⊕ (1.6E-04) Hydraulic Conductivity (cm/sec)
- [480] Well Yield (GPD)

Note:
DNAPL = Dense non-aqueous phase liquids detected in monitoring well (July 2014).



Approx. Scale in Feet

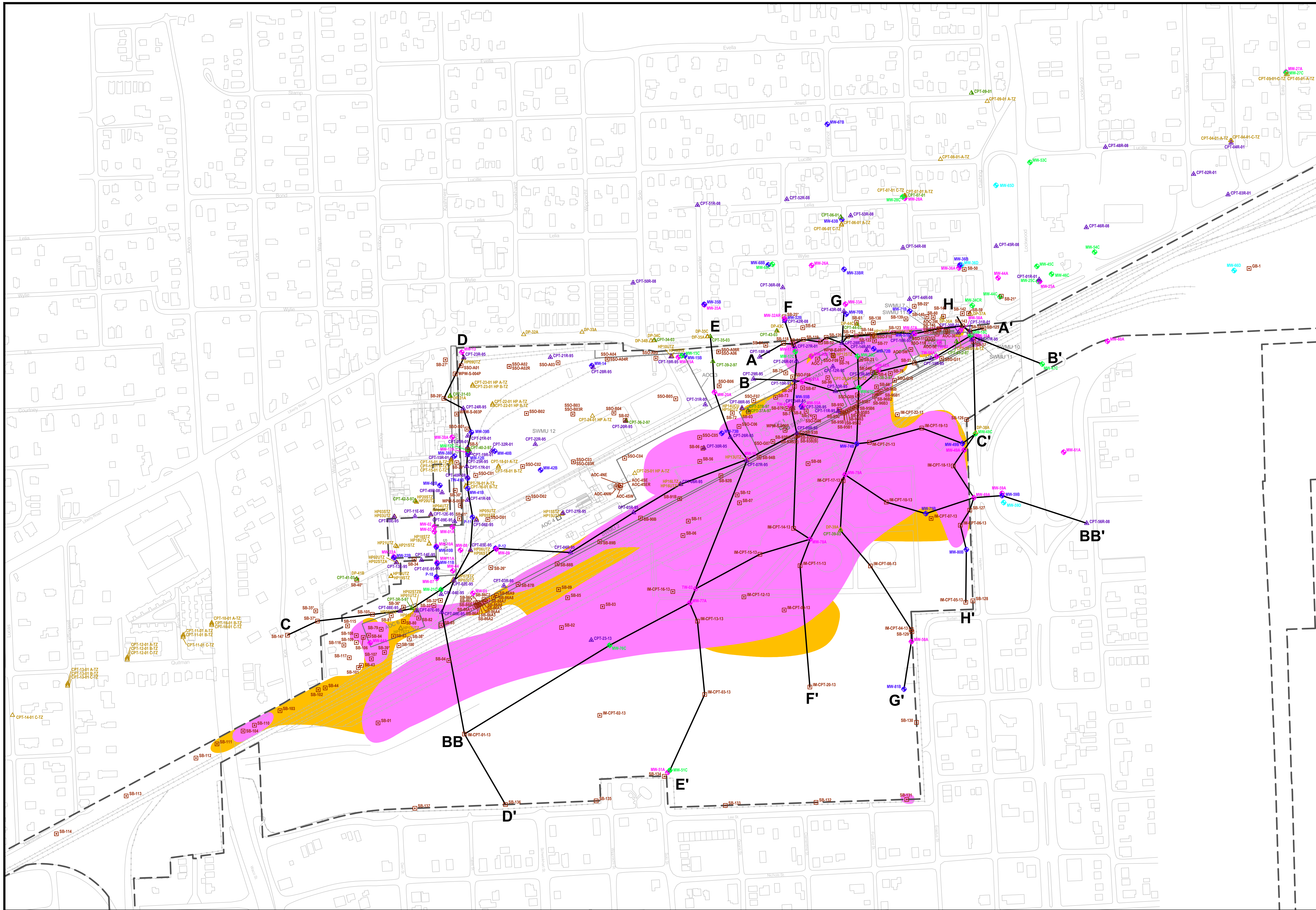


Source:
Base map from ERM-Southwest, Inc APAR Addendum, Fig 3-1, dated June 2004.

UNION PACIFIC RAILROAD CO.		
HOUSTON WOOD PRESERVING WORKS		
Figure 3A		
GROUNDWATER CLASSIFICATION B-TZ AND B-CZ JULY 2014		
PROJECT: 1358	BY: ADJ	REVISIONS
DATE: NOV., 2014	CHECKED: ECM	
PASTOR, BEHLING & WHEELER, LLC CONSULTING ENGINEERS AND SCIENTISTS		



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EXPLANATION

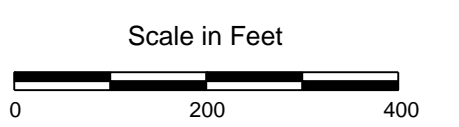
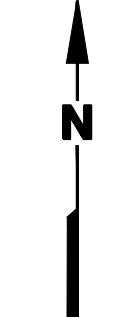
- UPRR Property Boundary
 - ▭ Historic Structure and Feature
 - Road, Parking Lot, Sidewalk
 - Fence
 - Railroad
 - ◆ A-TZ Monitoring Well Location
 - ◆ B-CZ/B-TZ Monitoring Well Location
 - ◆ C-TZ Monitoring Well Location
 - ◆ D-TZ Monitoring Well Location
 - ◆ A-TZ Temporary Monitoring Well Location
 - ▲ CPT with Rost Location
 - ▲ CPT Location
 - ▲ Hydropunch Sample Location
 - Soil Boring Location
 - ▲ A-A' Soil Cross Section Location (Figures 4C-6 through 4C-11)
 - Surface Affected Property
 - Surface PCLE Zone
- Note:
* Soil analytical data rejected by validator.

No.	Description
SWMU 1	Closed Surface Impoundment
SWMU 2	Northern and Southern Drainage Ditches
SWMU 4	Recent Process Area
SWMU 5	Original Process Area
SWMU 6	Water Treatment and Boiler System
SWMU 7	Tank Car Storage Area
SWMU 8	Aboveground Storage Tank Area
SWMU 9	Location of Former UST No. 44-023-05
SWMU 10	Location of Former Sap Water Treatment Tank
SWMU 11	Oil/Water Separators
SWMU 12	Railroad Tie Storage Area
AOC 1	Diesel Storage Tank
AOC 3	Contaminated Portion of City Water Line
AOC 4	Location of Former Incinerator
AOC 5	City Storm Sewer
AOC 6	Inactive Wastewater Lagoon
AOC 7	Location of Former UST No. 44-023-21

Note:
Locations of SWMU-9 and AOCs 1, 3, 5 and 7 area approximate.



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Source:
Base map from ERM-Southwest, Inc APAR Addendum, Fig 3-1, dated June 2004.

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HOUSTON WOOD PRESERVING WORKS

Figure 4A
SURFACE SOIL COC PCLE ZONE MAP

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DATE: NOV., 2014	CHECKED: ECM	
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EXPLANATION

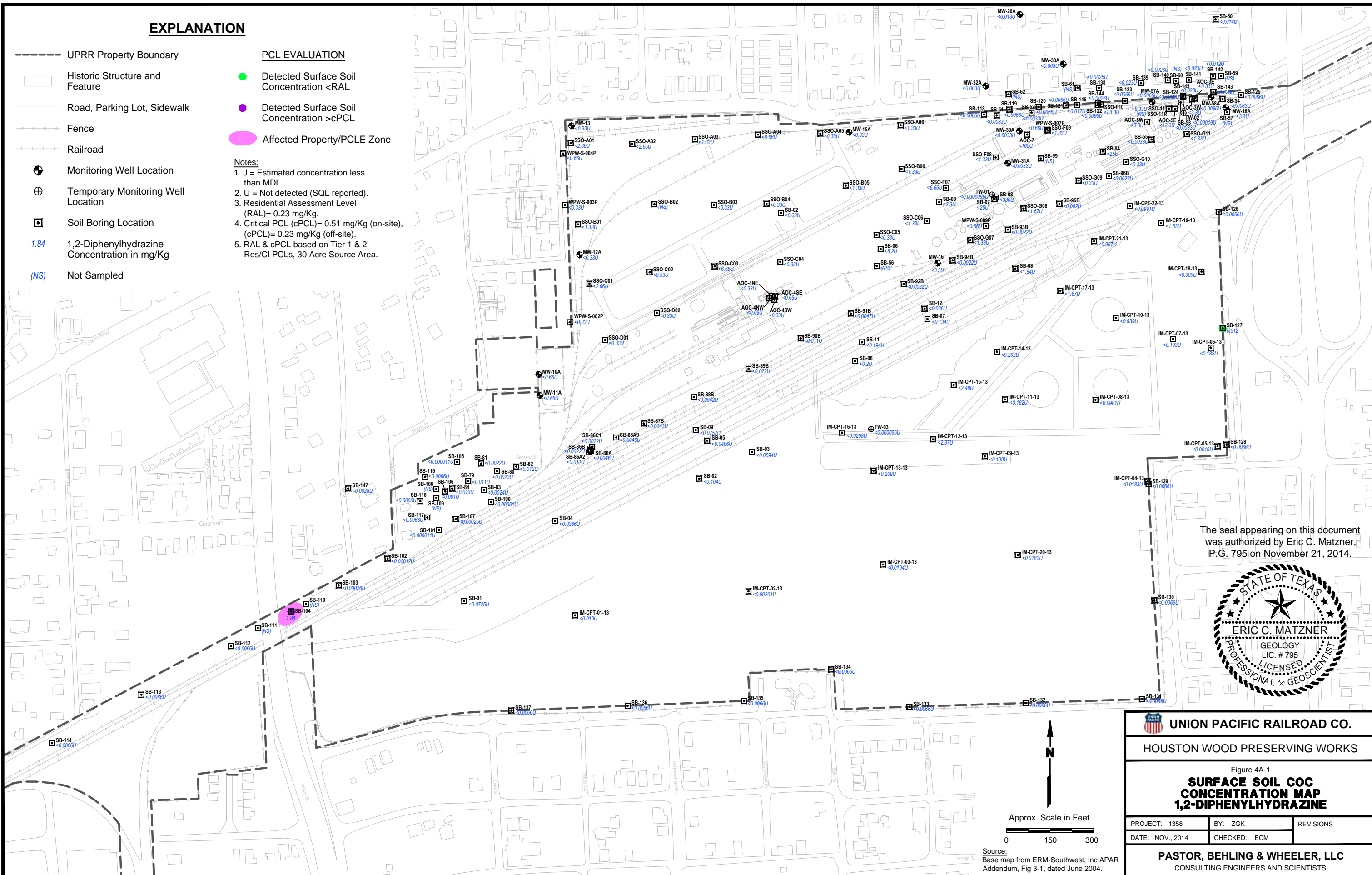
- UPRR Property Boundary
- ▭ Historic Structure and Feature
- Road, Parking Lot, Sidewalk
- Fence
- Railroad
- ⊕ Monitoring Well Location
- ⊕ Temporary Monitoring Well Location
- ▣ Soil Boring Location
- 1.84 1,2-Diphenylhydrazine Concentration in mg/Kg
- (NS) Not Sampled

PCL EVALUATION

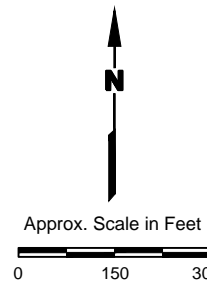
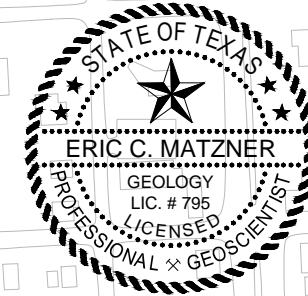
- Detected Surface Soil Concentration <RAL
- Detected Surface Soil Concentration >cPCL
- Affected Property/PCLE Zone

Notes:

1. J = Estimated concentration less than MDL.
2. U = Not detected (SQL reported).
3. Residential Assessment Level (RAL)= 0.23 mg/Kg.
4. Critical PCL (cPCL)= 0.51 mg/Kg (on-site), (cPCL)= 0.23 mg/Kg (off-site).
5. RAL & cPCL based on Tier 1 & 2 Res/CI PCLs, 30 Acre Source Area.



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Source: Base map from ERM-Southwest, Inc APAR Addendum, Fig 3-1, dated June 2004.

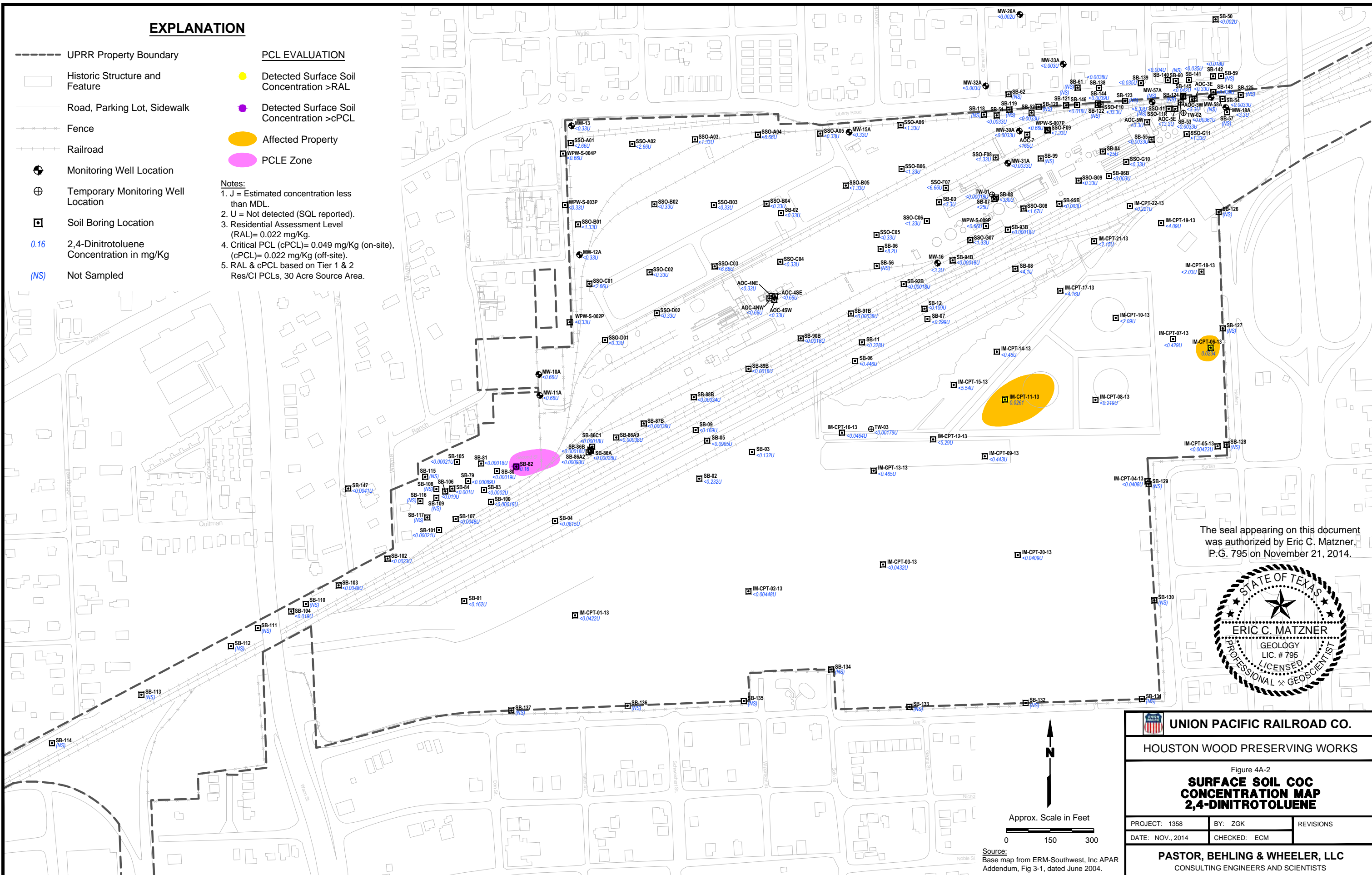
UNION PACIFIC RAILROAD CO.		
HOUSTON WOOD PRESERVING WORKS		
Figure 4A-1 SURFACE SOIL COC CONCENTRATION MAP 1,2-DIPHENYLHYDRAZINE		
PROJECT: 1358	BY: ZGK	REVISIONS
DATE: NOV., 2014	CHECKED: ECM	
PASTOR, BEHLING & WHEELER, LLC CONSULTING ENGINEERS AND SCIENTISTS		

EXPLANATION

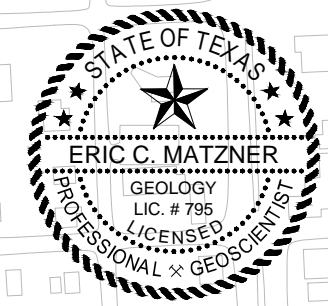
- UPRR Property Boundary
- ▭ Historic Structure and Feature
- Road, Parking Lot, Sidewalk
- Fence
- Railroad
- ⊕ Monitoring Well Location
- ⊕ Temporary Monitoring Well Location
- ▭ Soil Boring Location
- 0.16 2,4-Dinitrotoluene Concentration in mg/Kg
- (NS) Not Sampled

- ### PCL EVALUATION
- Detected Surface Soil Concentration >RAL
 - Detected Surface Soil Concentration >cPCL
 - Affected Property
 - PCLE Zone

- Notes:**
1. J = Estimated concentration less than MDL.
 2. U = Not detected (SQL reported).
 3. Residential Assessment Level (RAL)= 0.022 mg/Kg.
 4. Critical PCL (cPCL)= 0.049 mg/Kg (on-site), (cPCL)= 0.022 mg/Kg (off-site).
 5. RAL & cPCL based on Tier 1 & 2 Res/CI PCLs, 30 Acre Source Area.



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UNION PACIFIC RAILROAD CO.		
HOUSTON WOOD PRESERVING WORKS		
Figure 4A-2 SURFACE SOIL COC CONCENTRATION MAP 2,4-DINITROTOLUENE		
PROJECT: 1358	BY: ZGK	REVISIONS
DATE: NOV., 2014	CHECKED: ECM	
PASTOR, BEHLING & WHEELER, LLC CONSULTING ENGINEERS AND SCIENTISTS		

Source: Base map from ERM-Southwest, Inc APAR Addendum, Fig 3-1, dated June 2004.

EXPLANATION

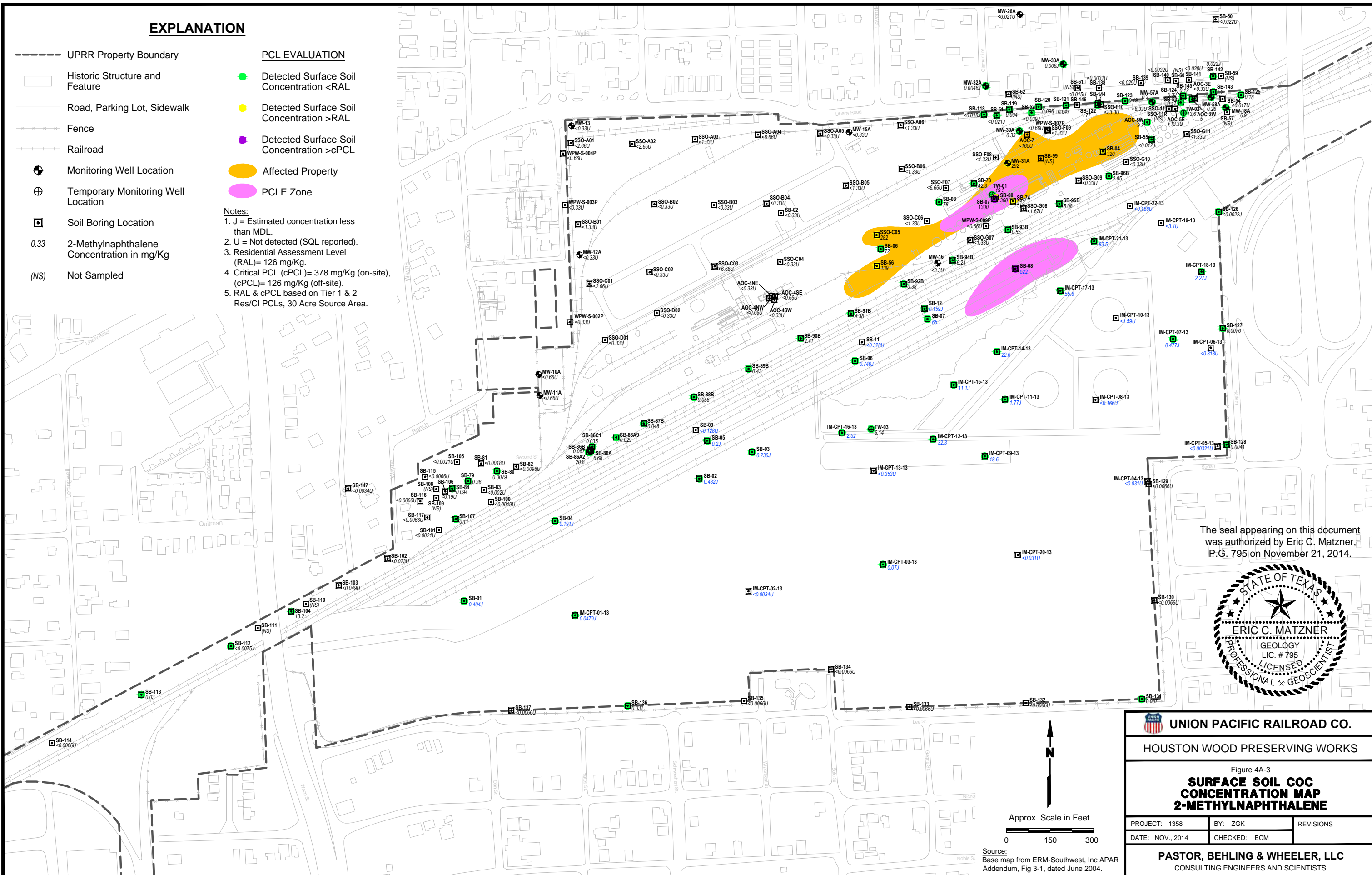
- UPRR Property Boundary
- ▭ Historic Structure and Feature
- Road, Parking Lot, Sidewalk
- Fence
- Railroad
- ⊕ Monitoring Well Location
- ⊕ Temporary Monitoring Well Location
- ▣ Soil Boring Location
- 0.33 2-Methylnaphthalene Concentration in mg/Kg
- (NS) Not Sampled

PCL EVALUATION

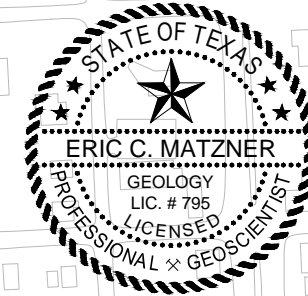
- Detected Surface Soil Concentration <RAL
- Detected Surface Soil Concentration >RAL
- Detected Surface Soil Concentration >cPCL
- Affected Property
- PCLE Zone

Notes:

1. J = Estimated concentration less than MDL.
2. U = Not detected (SQL reported).
3. Residential Assessment Level (RAL)= 126 mg/Kg.
4. Critical PCL (cPCL)= 378 mg/Kg (on-site), (cPCL)= 126 mg/Kg (off-site).
5. RAL & cPCL based on Tier 1 & 2 Res/CI PCLs, 30 Acre Source Area.



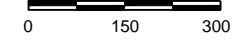
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UNION PACIFIC RAILROAD CO.		
HOUSTON WOOD PRESERVING WORKS		
Figure 4A-3 SURFACE SOIL COC CONCENTRATION MAP 2-METHYLNAPHTHALENE		
PROJECT: 1358	BY: ZGK	REVISIONS
DATE: NOV., 2014	CHECKED: ECM	
PASTOR, BEHLING & WHEELER, LLC CONSULTING ENGINEERS AND SCIENTISTS		



Approx. Scale in Feet



Source: Base map from ERM-Southwest, Inc APAR Addendum, Fig 3-1, dated June 2004.

EXPLANATION

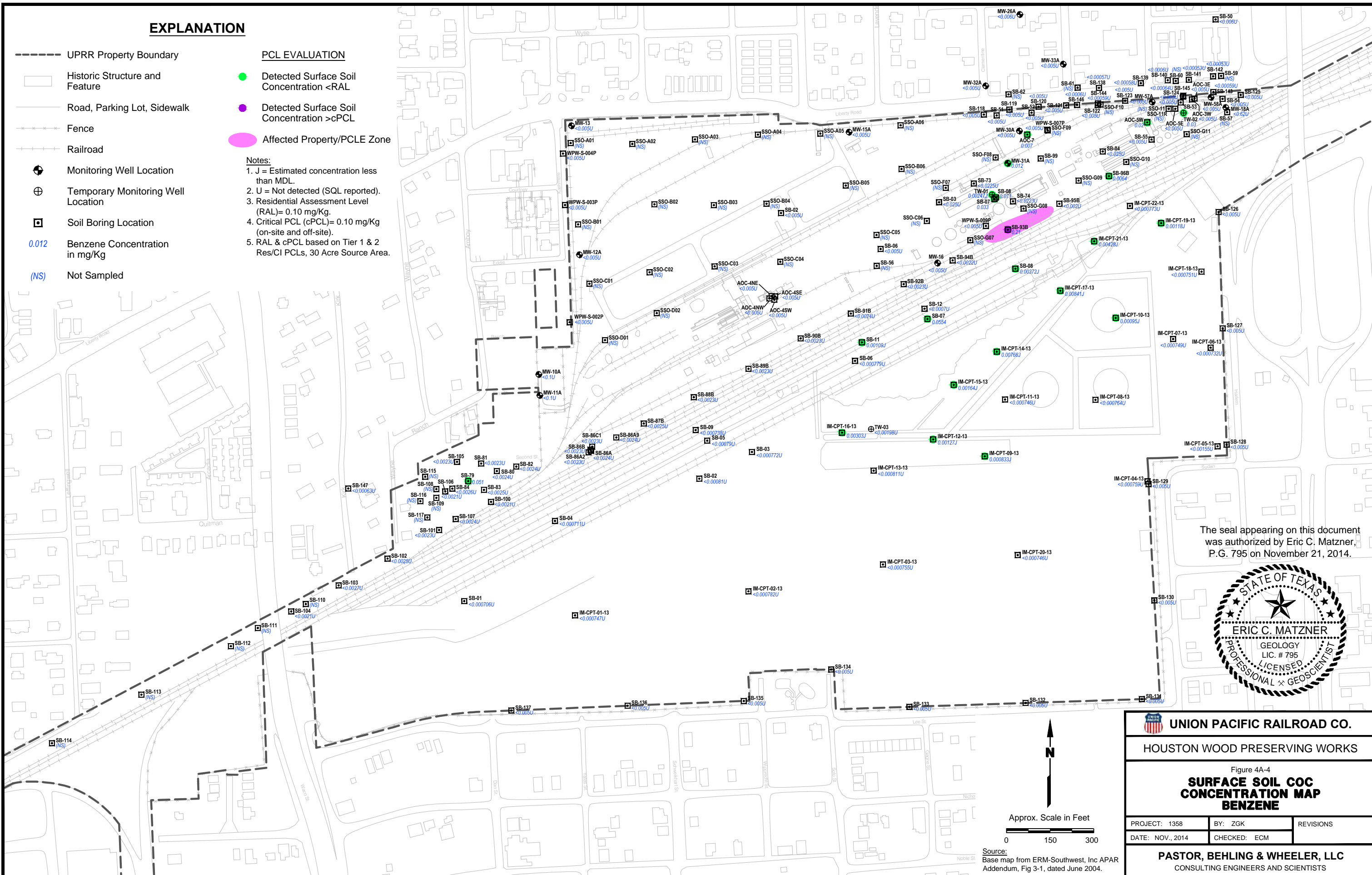
- UPRR Property Boundary
- ▭ Historic Structure and Feature
- Road, Parking Lot, Sidewalk
- Fence
- Railroad
- ⊕ Monitoring Well Location
- ⊕ Temporary Monitoring Well Location
- ▭ Soil Boring Location
- 0.012 Benzene Concentration in mg/Kg
- (NS) Not Sampled

PCL EVALUATION

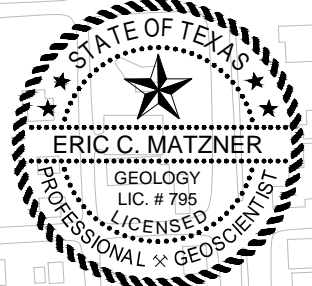
- Detected Surface Soil Concentration <RAL
- Detected Surface Soil Concentration >cPCL
- Affected Property/PCLE Zone

Notes:

1. J = Estimated concentration less than MDL.
2. U = Not detected (SQL reported).
3. Residential Assessment Level (RAL)= 0.10 mg/Kg.
4. Critical PCL (cPCL)= 0.10 mg/Kg (on-site and off-site).
5. RAL & cPCL based on Tier 1 & 2 Res/CI PCLs, 30 Acre Source Area.



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UNION PACIFIC RAILROAD CO.		
HOUSTON WOOD PRESERVING WORKS		
Figure 4A-4 SURFACE SOIL COC CONCENTRATION MAP BENZENE		
PROJECT: 1358	BY: ZGK	REVISIONS
DATE: NOV., 2014	CHECKED: ECM	
PASTOR, BEHLING & WHEELER, LLC CONSULTING ENGINEERS AND SCIENTISTS		

Source: Base map from ERM-Southwest, Inc APAR Addendum, Fig 3-1, dated June 2004.

EXPLANATION

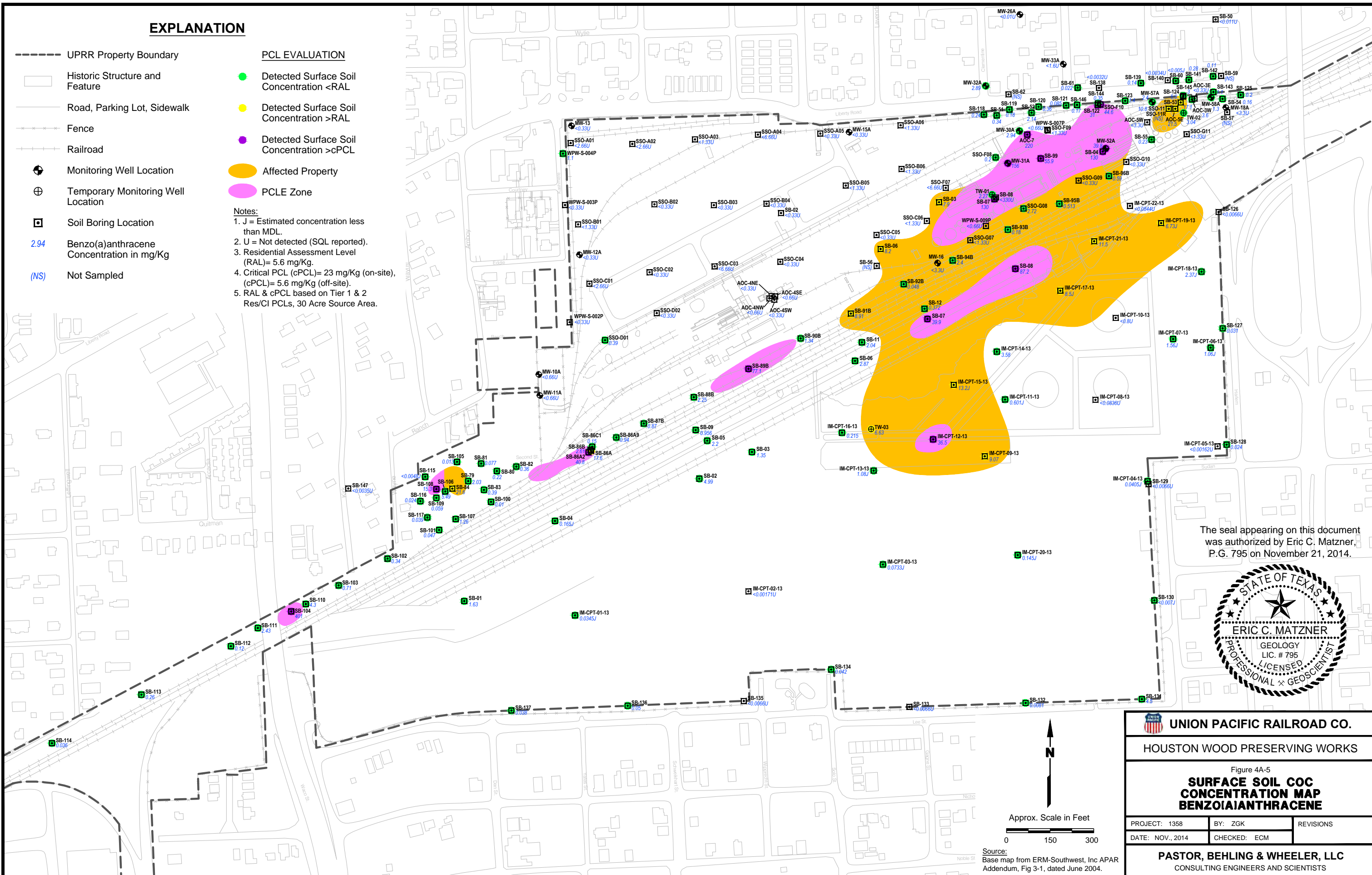
- UPRR Property Boundary
- ▭ Historic Structure and Feature
- Road, Parking Lot, Sidewalk
- Fence
- Railroad
- ⊕ Monitoring Well Location
- ⊕ Temporary Monitoring Well Location
- ▣ Soil Boring Location
- 2.94 Benzo(a)anthracene Concentration in mg/Kg
- (NS) Not Sampled

PCL EVALUATION

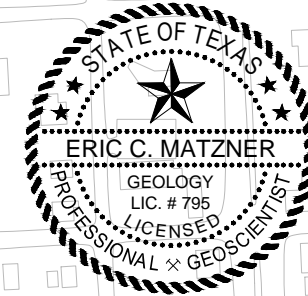
- Detected Surface Soil Concentration <RAL
- Detected Surface Soil Concentration >RAL
- Detected Surface Soil Concentration >cPCL
- Affected Property
- PCLE Zone

Notes:

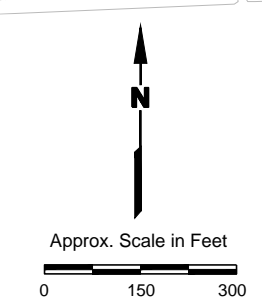
1. J = Estimated concentration less than MDL.
2. U = Not detected (SQL reported).
3. Residential Assessment Level (RAL)= 5.6 mg/Kg.
4. Critical PCL (cPCL)= 23 mg/Kg (on-site), (cPCL)= 5.6 mg/Kg (off-site).
5. RAL & cPCL based on Tier 1 & 2 Res/CI PCLs, 30 Acre Source Area.



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HOUSTON WOOD PRESERVING WORKS		
Figure 4A-5 SURFACE SOIL COC CONCENTRATION MAP BENZO(A)ANTHRACENE		
PROJECT: 1358	BY: ZGK	REVISIONS
DATE: NOV., 2014	CHECKED: ECM	
PASTOR, BEHLING & WHEELER, LLC CONSULTING ENGINEERS AND SCIENTISTS		

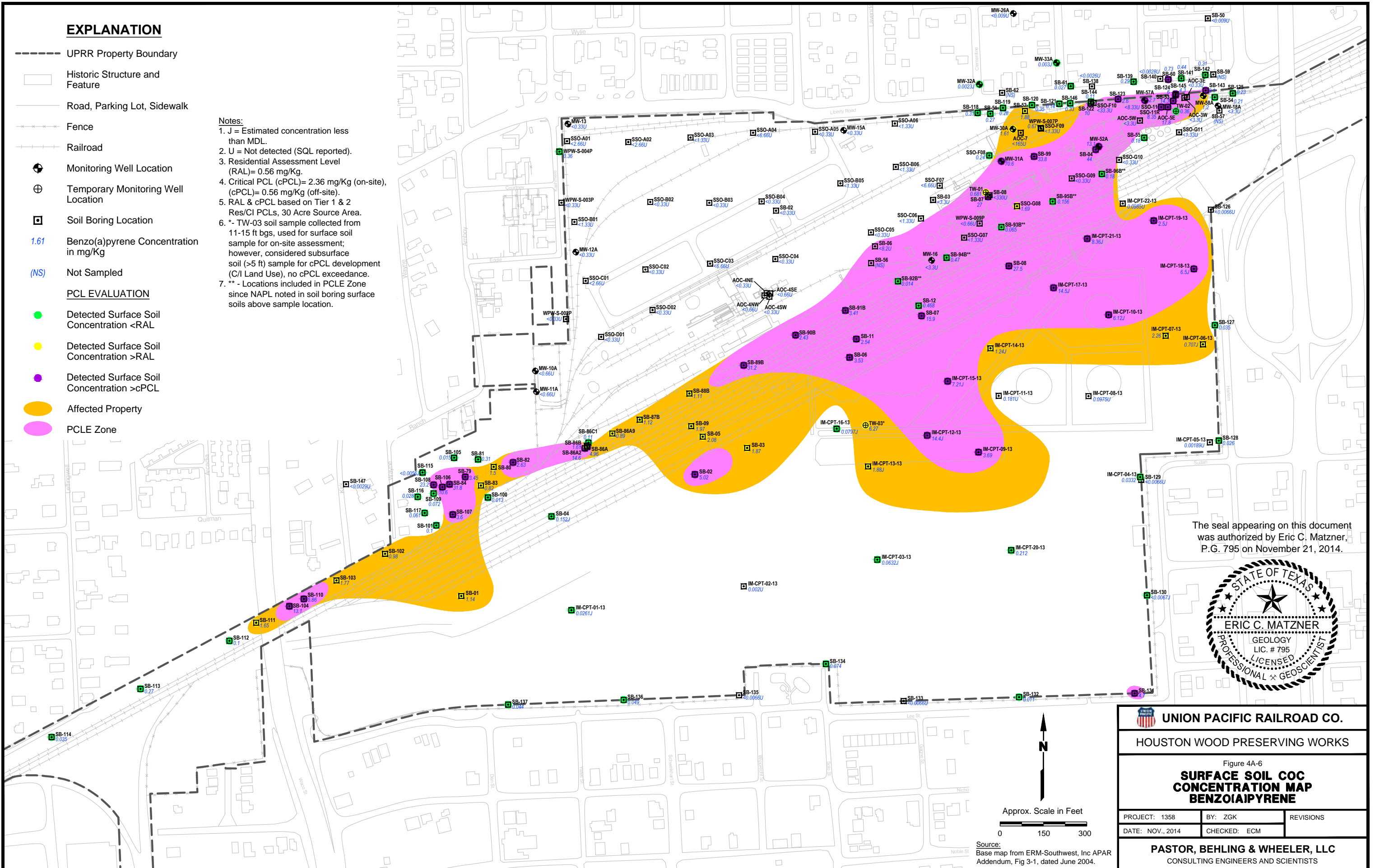


Source: Base map from ERM-Southwest, Inc APAR Addendum, Fig 3-1, dated June 2004.

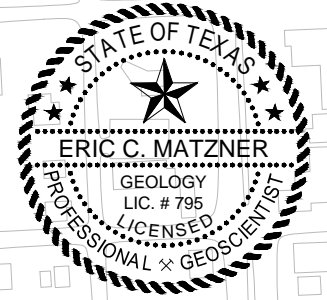
EXPLANATION

- UPRR Property Boundary
- ▭ Historic Structure and Feature
- Road, Parking Lot, Sidewalk
- Fence
- Railroad
- ⊕ Monitoring Well Location
- ⊕ Temporary Monitoring Well Location
- ⊕ Soil Boring Location
- 1.61 Benzo(a)pyrene Concentration in mg/Kg
- (NS) Not Sampled
- PCL EVALUATION
- Detected Surface Soil Concentration <RAL
- Detected Surface Soil Concentration >RAL
- Detected Surface Soil Concentration >cPCL
- Affected Property
- PCLE Zone

- Notes:**
1. J = Estimated concentration less than MDL.
 2. U = Not detected (SQL reported).
 3. Residential Assessment Level (RAL)= 0.56 mg/Kg.
 4. Critical PCL (cPCL)= 2.36 mg/Kg (on-site), (cPCL)= 0.56 mg/Kg (off-site).
 5. RAL & cPCL based on Tier 1 & 2 Res/CI PCLs, 30 Acre Source Area.
 6. * - TW-03 soil sample collected from 11-15 ft bgs, used for surface soil sample for on-site assessment; however, considered subsurface soil (>5 ft) sample for cPCL development (C/I Land Use), no cPCL exceedance.
 7. ** - Locations included in PCLE Zone since NAPL noted in soil boring surface soils above sample location.



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UNION PACIFIC RAILROAD CO.		
HOUSTON WOOD PRESERVING WORKS		
Figure 4A-6 SURFACE SOIL COC CONCENTRATION MAP BENZOAIPIRENE		
PROJECT: 1358	BY: ZGK	REVISIONS
DATE: NOV., 2014	CHECKED: ECM	
PASTOR, BEHLING & WHEELER, LLC CONSULTING ENGINEERS AND SCIENTISTS		

Source: Base map from ERM-Southwest, Inc APAR Addendum, Fig 3-1, dated June 2004.

EXPLANATION

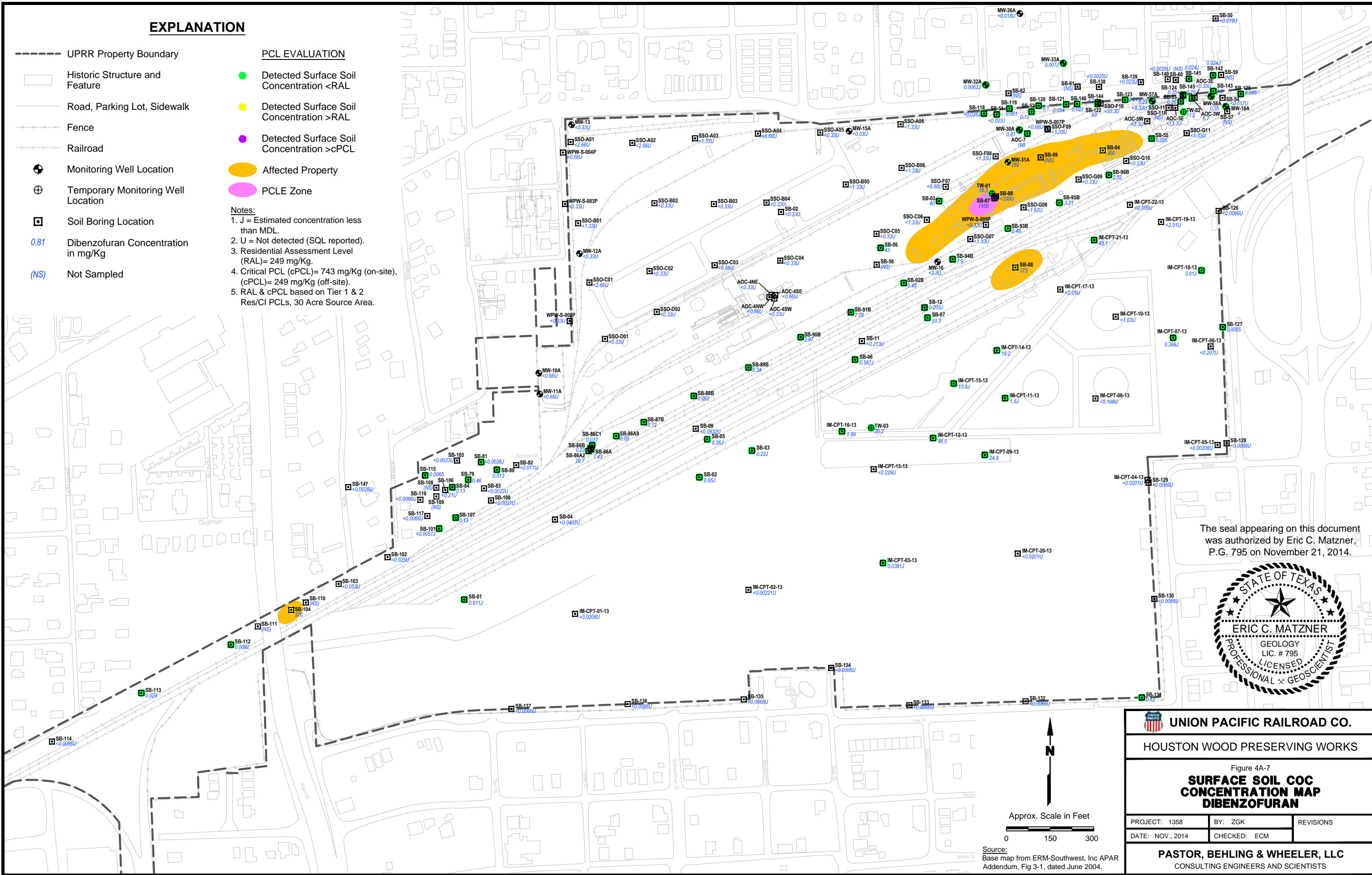
- UPRR Property Boundary
- ▭ Historic Structure and Feature
- Road, Parking Lot, Sidewalk
- Fence
- Railroad
- ⊕ Monitoring Well Location
- ⊕ Temporary Monitoring Well Location
- ▣ Soil Boring Location
- 0.81 Dibenzofuran Concentration in mg/Kg
- (NS) Not Sampled

PCL EVALUATION

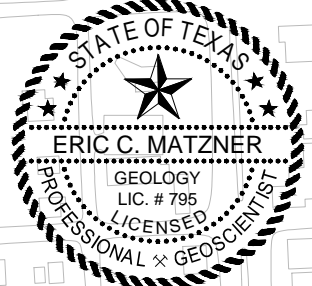
- Detected Surface Soil Concentration <RAL
- Detected Surface Soil Concentration >RAL
- Detected Surface Soil Concentration >cPCL
- Affected Property
- PCLE Zone

Notes:

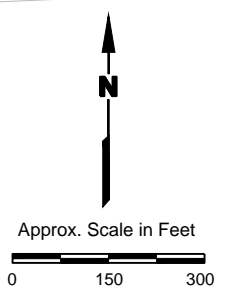
1. J = Estimated concentration less than MDL.
2. U = Not detected (SQL reported).
3. Residential Assessment Level (RAL)= 249 mg/Kg.
4. Critical PCL (cPCL)= 743 mg/Kg (on-site), (cPCL)= 249 mg/Kg (off-site).
5. RAL & cPCL based on Tier 1 & 2 Res/CI PCLs, 30 Acre Source Area.



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UNION PACIFIC RAILROAD CO.		
HOUSTON WOOD PRESERVING WORKS		
Figure 4A-7 SURFACE SOIL COC CONCENTRATION MAP DIBENZOFURAN		
PROJECT: 1358	BY: ZGK	REVISIONS
DATE: NOV., 2014	CHECKED: ECM	
PASTOR, BEHLING & WHEELER, LLC CONSULTING ENGINEERS AND SCIENTISTS		



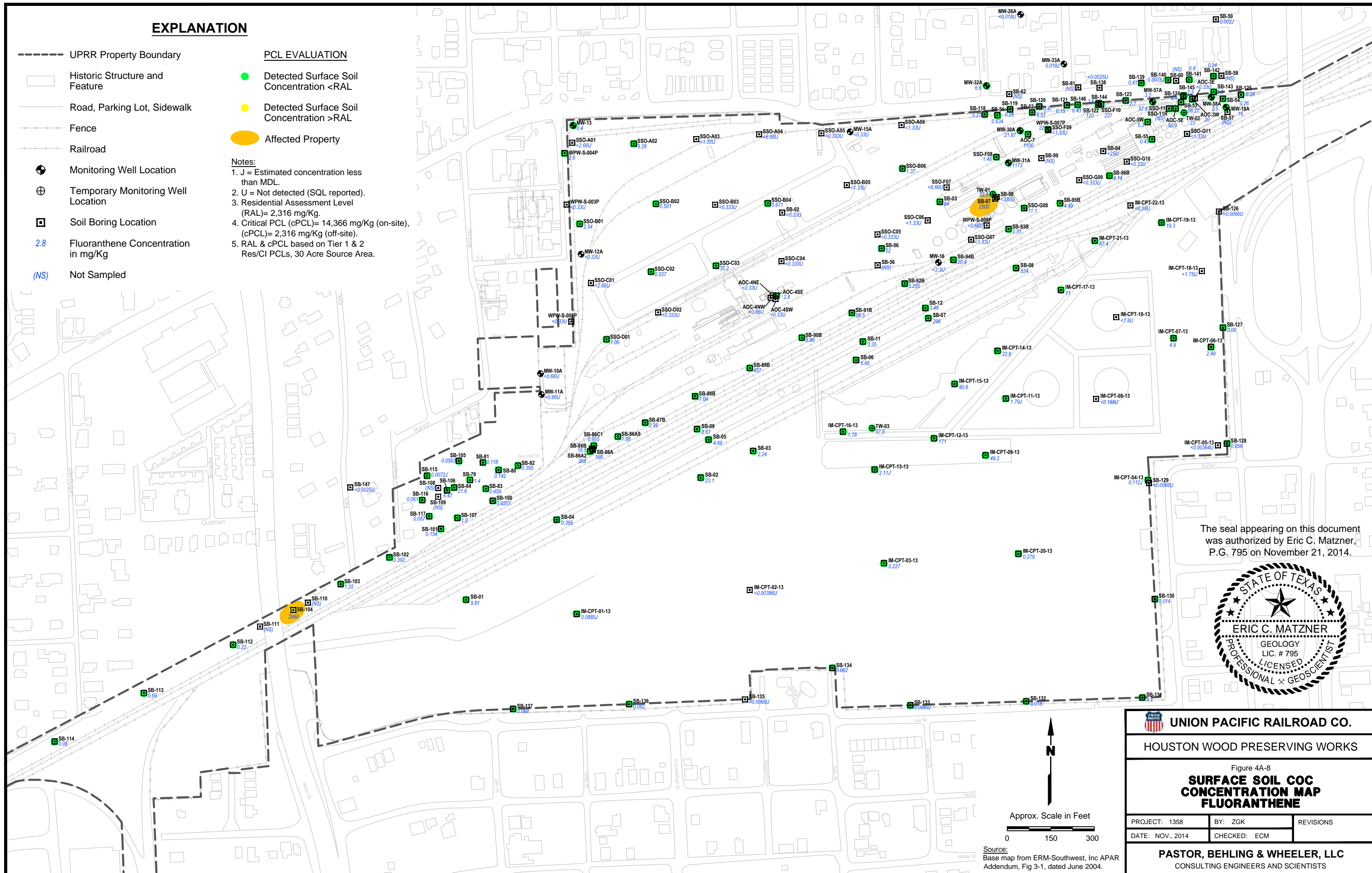
Source: Base map from ERM-Southwest, Inc APAR Addendum, Fig 3-1, dated June 2004.

EXPLANATION

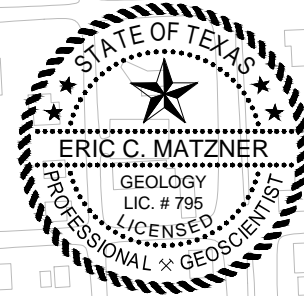
- UPRR Property Boundary
- ▭ Historic Structure and Feature
- Road, Parking Lot, Sidewalk
- Fence
- Railroad
- ⊕ Monitoring Well Location
- ⊕ Temporary Monitoring Well Location
- ▣ Soil Boring Location
- 2.8 Fluoranthene Concentration in mg/Kg
- (NS) Not Sampled

PCL EVALUATION

- Detected Surface Soil Concentration <RAL
 - Detected Surface Soil Concentration >RAL
 - Affected Property
- Notes:
1. J = Estimated concentration less than MDL.
 2. U = Not detected (SQL reported).
 3. Residential Assessment Level (RAL)= 2,316 mg/Kg.
 4. Critical PCL (cPCL)= 14,366 mg/Kg (on-site), (cPCL)= 2,316 mg/Kg (off-site).
 5. RAL & cPCL based on Tier 1 & 2 Res/CI PCLs, 30 Acre Source Area.



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UNION PACIFIC RAILROAD CO.		
HOUSTON WOOD PRESERVING WORKS		
Figure 4A-8 SURFACE SOIL COC CONCENTRATION MAP FLUORANTHENE		
PROJECT: 1358	BY: ZGK	REVISIONS
DATE: NOV., 2014	CHECKED: ECM	
PASTOR, BEHLING & WHEELER, LLC CONSULTING ENGINEERS AND SCIENTISTS		

Source: Base map from ERM-Southwest, Inc APAR Addendum, Fig 3-1, dated June 2004.

EXPLANATION

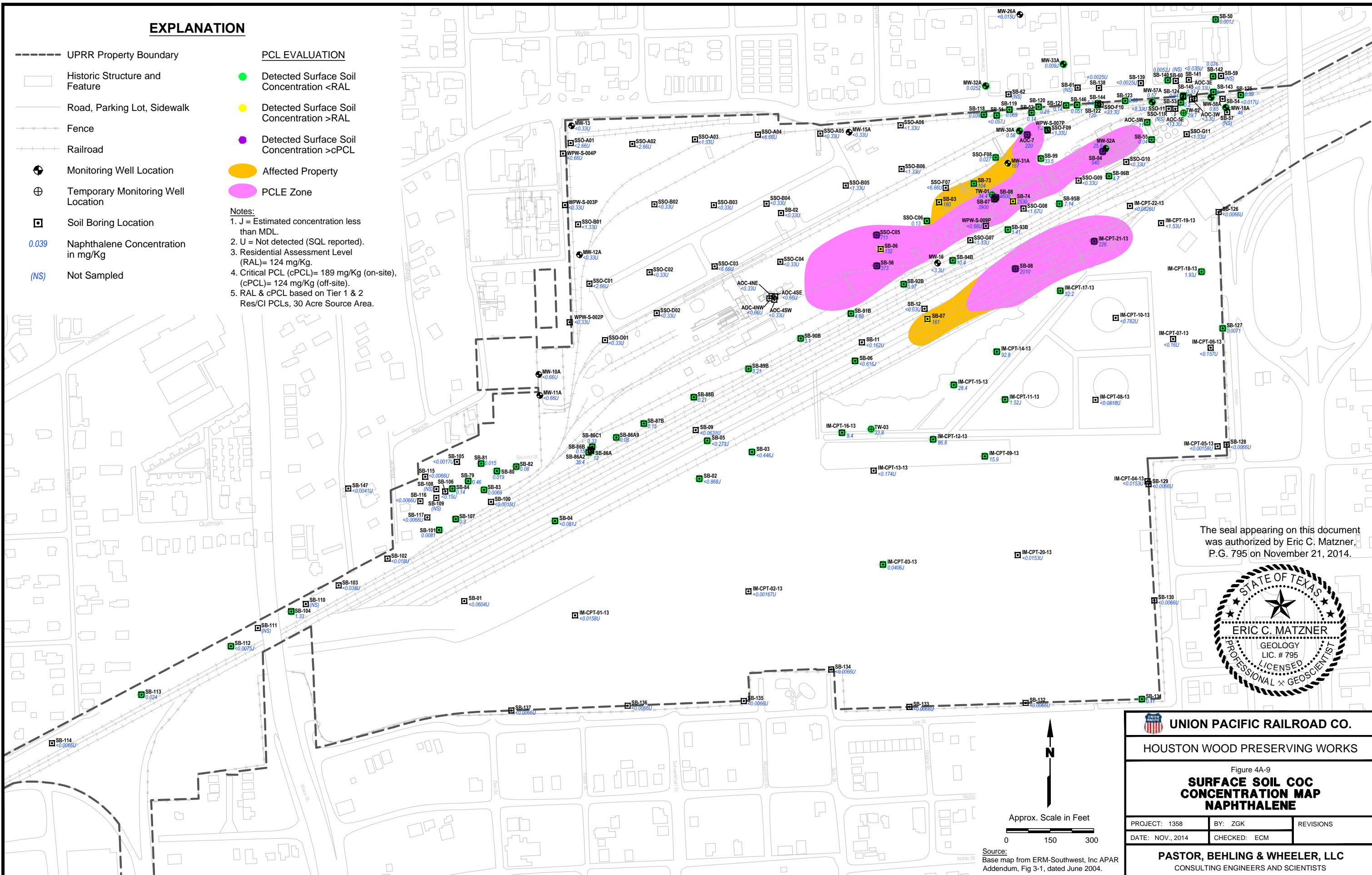
- UPRR Property Boundary
- ▭ Historic Structure and Feature
- Road, Parking Lot, Sidewalk
- Fence
- Railroad
- ⊕ Monitoring Well Location
- ⊕ Temporary Monitoring Well Location
- ▭ Soil Boring Location
- 0.039 Naphthalene Concentration in mg/Kg
- (NS) Not Sampled

PCL EVALUATION

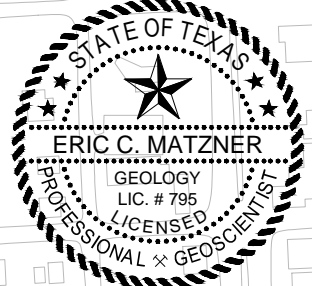
- Detected Surface Soil Concentration <RAL
- Detected Surface Soil Concentration >RAL
- Detected Surface Soil Concentration >cPCL
- Affected Property
- PCLE Zone

Notes:

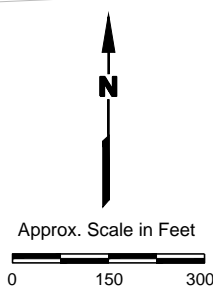
1. J = Estimated concentration less than MDL.
2. U = Not detected (SQL reported).
3. Residential Assessment Level (RAL)= 124 mg/Kg.
4. Critical PCL (cPCL)= 189 mg/Kg (on-site), (cPCL)= 124 mg/Kg (off-site).
5. RAL & cPCL based on Tier 1 & 2 Res/CI PCLs, 30 Acre Source Area.



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UNION PACIFIC RAILROAD CO.		
HOUSTON WOOD PRESERVING WORKS		
Figure 4A-9 SURFACE SOIL COC CONCENTRATION MAP NAPHTHALENE		
PROJECT: 1358	BY: ZGK	REVISIONS
DATE: NOV., 2014	CHECKED: ECM	
PASTOR, BEHLING & WHEELER, LLC CONSULTING ENGINEERS AND SCIENTISTS		



Source: Base map from ERM-Southwest, Inc APAR Addendum, Fig 3-1, dated June 2004.

EXPLANATION

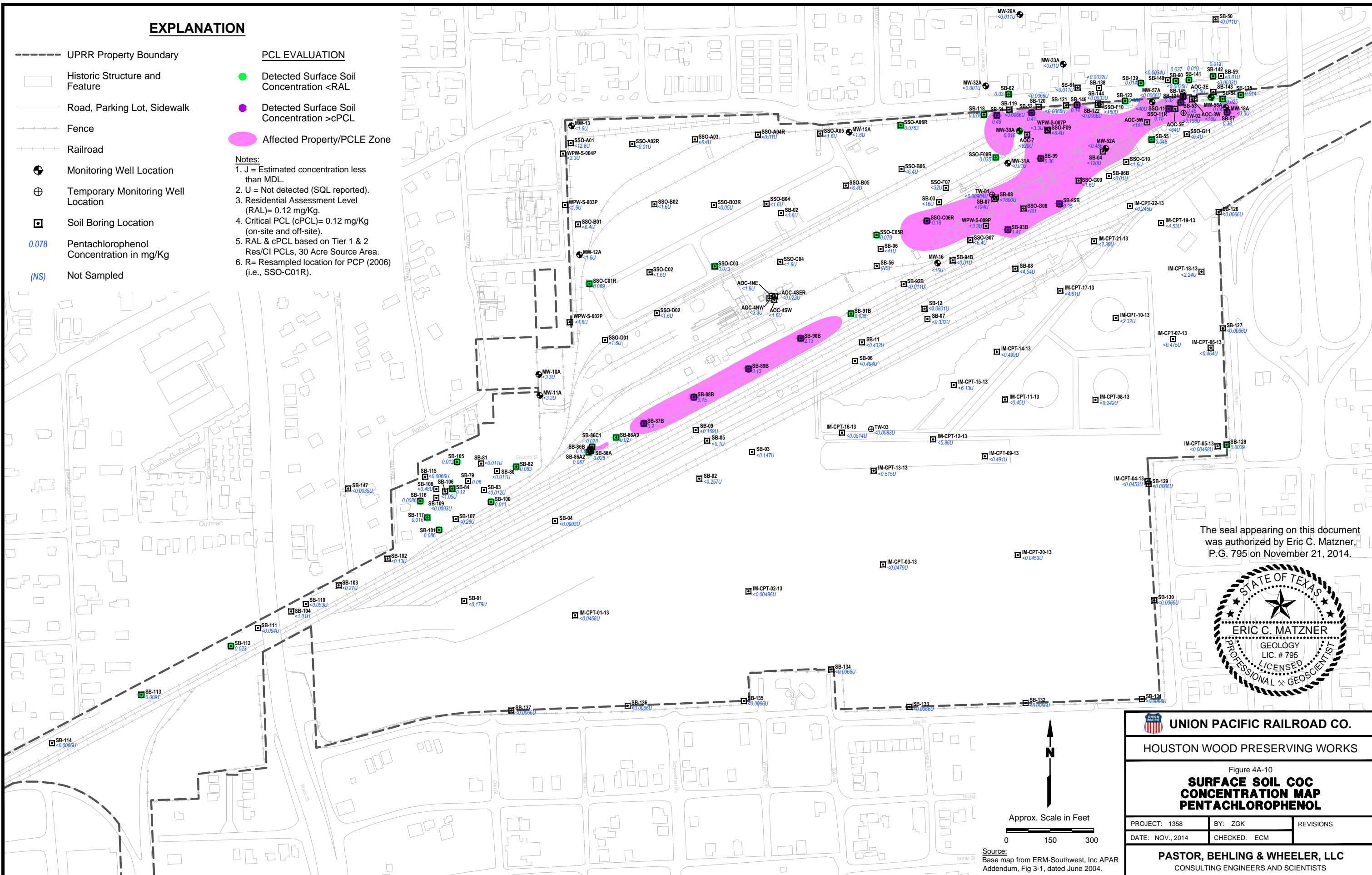
- UPRR Property Boundary
- ▭ Historic Structure and Feature
- Road, Parking Lot, Sidewalk
- Fence
- Railroad
- ⊕ Monitoring Well Location
- ⊕ Temporary Monitoring Well Location
- ▭ Soil Boring Location
- 0.078 Pentachlorophenol Concentration in mg/Kg
- (NS) Not Sampled

PCL EVALUATION

- Detected Surface Soil Concentration <RAL
- Detected Surface Soil Concentration >cPCL
- Affected Property/PCLE Zone

Notes:

1. J = Estimated concentration less than MDL.
2. U = Not detected (SQL reported).
3. Residential Assessment Level (RAL) = 0.12 mg/Kg.
4. Critical PCL (cPCL) = 0.12 mg/Kg (on-site and off-site).
5. RAL & cPCL based on Tier 1 & 2 Res/CI PCLs, 30 Acre Source Area.
6. R = Resampled location for PCP (2006) (i.e., SSO-C01R).



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UNION PACIFIC RAILROAD CO.		
HOUSTON WOOD PRESERVING WORKS		
Figure 4A-10 SURFACE SOIL COC CONCENTRATION MAP PENTACHLOROPHENOL		
PROJECT: 1358	BY: ZGK	REVISIONS
DATE: NOV., 2014	CHECKED: ECM	
PASTOR, BEHLING & WHEELER, LLC CONSULTING ENGINEERS AND SCIENTISTS		

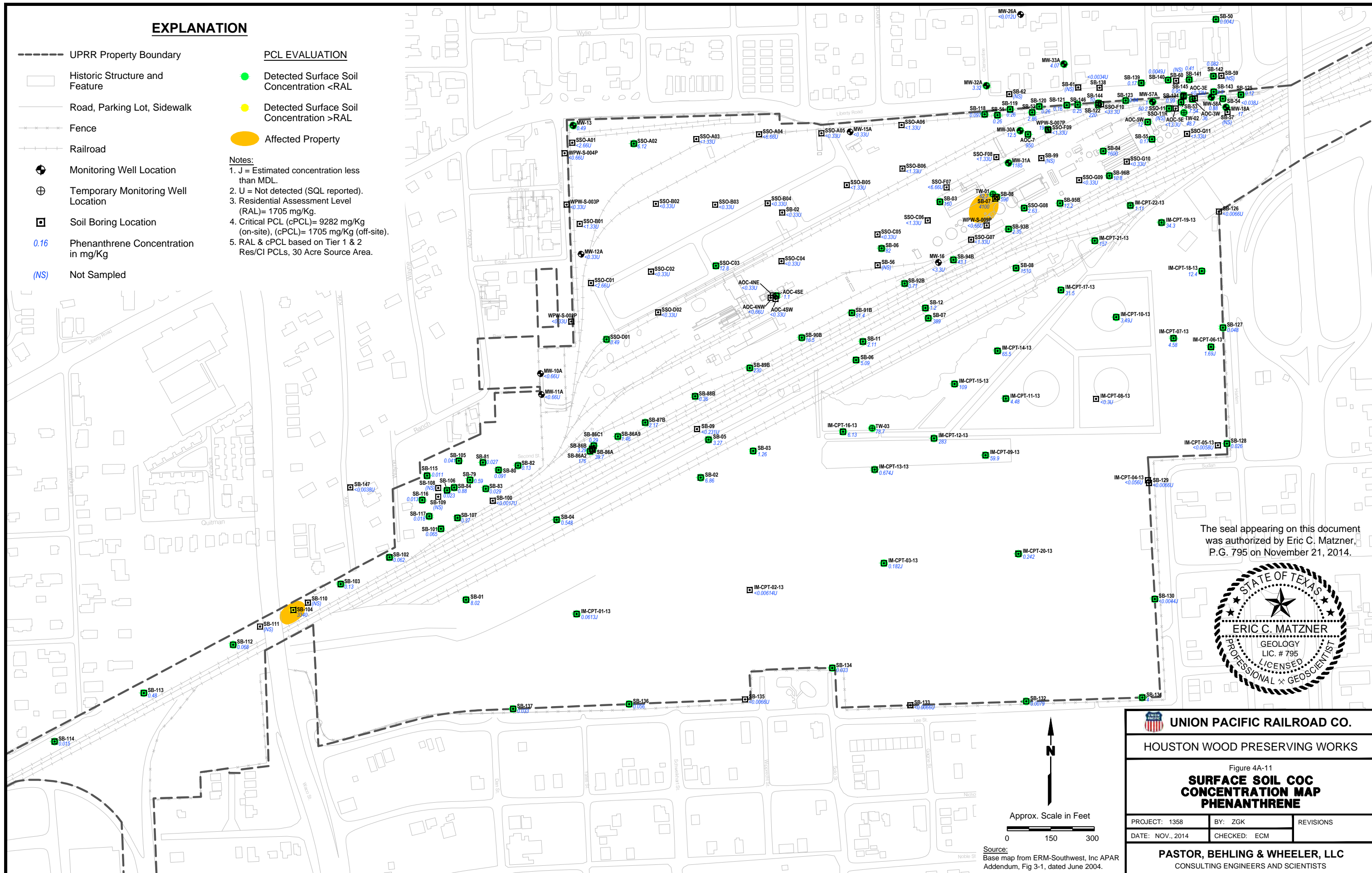
Source: Base map from ERM-Southwest, Inc APAR Addendum, Fig 3-1, dated June 2004.

EXPLANATION

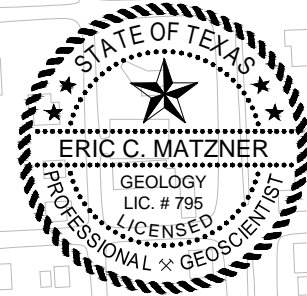
- UPRR Property Boundary
- ▭ Historic Structure and Feature
- Road, Parking Lot, Sidewalk
- Fence
- Railroad
- ⊕ Monitoring Well Location
- ⊕ Temporary Monitoring Well Location
- ▣ Soil Boring Location
- 0.16 Phenanthrene Concentration in mg/Kg
- (NS) Not Sampled

PCL EVALUATION

- Detected Surface Soil Concentration <RAL
 - Detected Surface Soil Concentration >RAL
 - Affected Property
- Notes:
1. J = Estimated concentration less than MDL.
 2. U = Not detected (SQL reported).
 3. Residential Assessment Level (RAL)= 1705 mg/Kg.
 4. Critical PCL (cPCL)= 9282 mg/Kg (on-site), (cPCL)= 1705 mg/Kg (off-site).
 5. RAL & cPCL based on Tier 1 & 2 Res/CI PCLs, 30 Acre Source Area.



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UNION PACIFIC RAILROAD CO.		
HOUSTON WOOD PRESERVING WORKS		
Figure 4A-11 SURFACE SOIL COC CONCENTRATION MAP PHENANTHRENE		
PROJECT: 1358	BY: ZGK	REVISIONS
DATE: NOV., 2014	CHECKED: ECM	
PASTOR, BEHLING & WHEELER, LLC CONSULTING ENGINEERS AND SCIENTISTS		

Source: Base map from ERM-Southwest, Inc APAR Addendum, Fig 3-1, dated June 2004.

EXPLANATION

- UPRR Property Boundary
- ▭ Historic Structure and Feature
- Road, Parking Lot, Sidewalk
- Fence
- Railroad
- Soil Boring Location

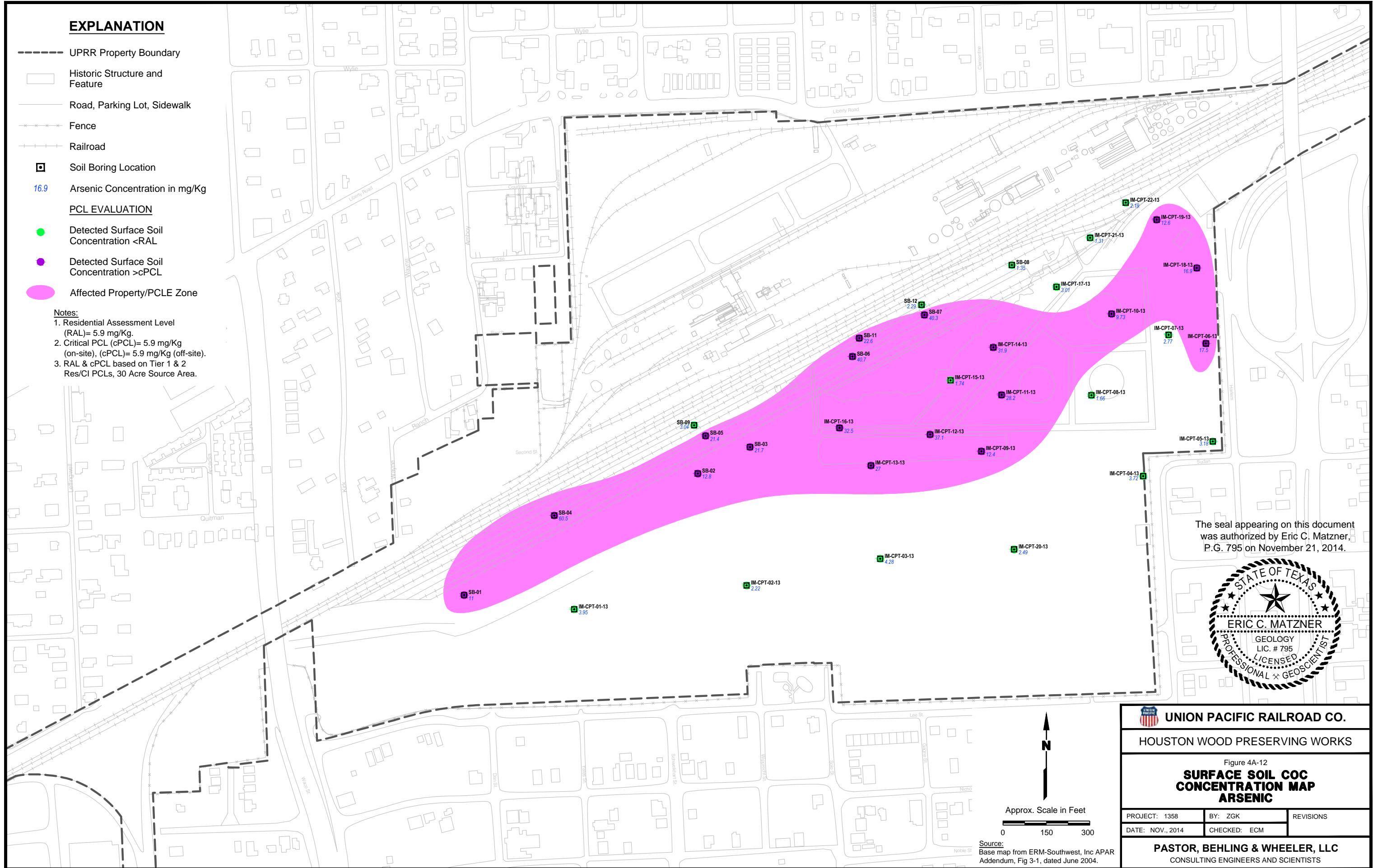
16.9 Arsenic Concentration in mg/Kg

PCL EVALUATION

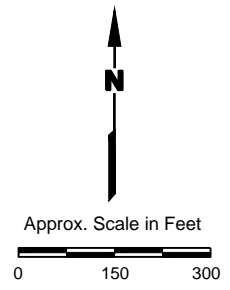
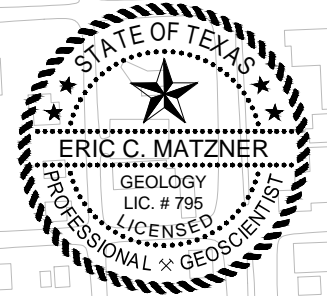
- Detected Surface Soil Concentration <RAL
- Detected Surface Soil Concentration >cPCL
- Affected Property/PCLE Zone

Notes:

1. Residential Assessment Level (RAL)= 5.9 mg/Kg.
2. Critical PCL (cPCL)= 5.9 mg/Kg (on-site), (cPCL)= 5.9 mg/Kg (off-site).
3. RAL & cPCL based on Tier 1 & 2 Res/CI PCLs, 30 Acre Source Area.



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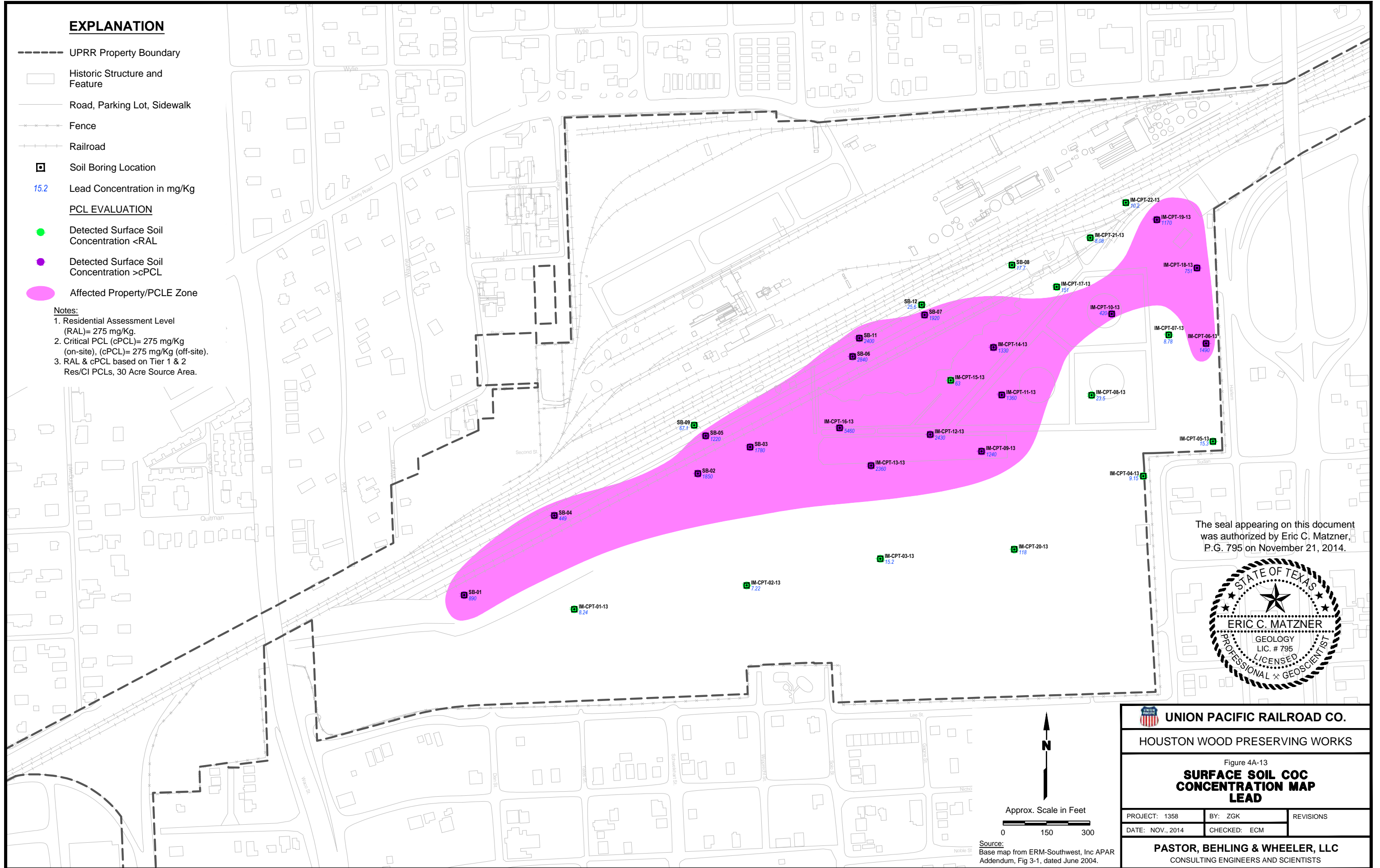
Source: Base map from ERM-Southwest, Inc APAR Addendum, Fig 3-1, dated June 2004.

UNION PACIFIC RAILROAD CO.		
HOUSTON WOOD PRESERVING WORKS		
Figure 4A-12 SURFACE SOIL COC CONCENTRATION MAP ARSENIC		
PROJECT: 1358	BY: ZGK	REVISIONS
DATE: NOV., 2014	CHECKED: ECM	
PASTOR, BEHLING & WHEELER, LLC CONSULTING ENGINEERS AND SCIENTISTS		

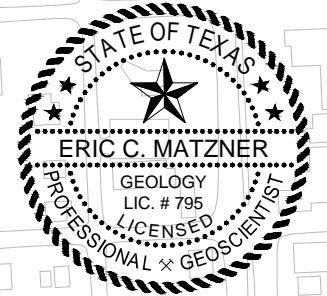
EXPLANATION

- UPRR Property Boundary
- ▭ Historic Structure and Feature
- Road, Parking Lot, Sidewalk
- Fence
- Railroad
- Soil Boring Location
- 15.2 Lead Concentration in mg/Kg
- PCL EVALUATION**
- Detected Surface Soil Concentration <RAL
- Detected Surface Soil Concentration >cPCL
- Affected Property/PCLE Zone

- Notes:**
1. Residential Assessment Level (RAL)= 275 mg/Kg.
 2. Critical PCL (cPCL)= 275 mg/Kg (on-site), (cPCL)= 275 mg/Kg (off-site).
 3. RAL & cPCL based on Tier 1 & 2 Res/CI PCLs, 30 Acre Source Area.



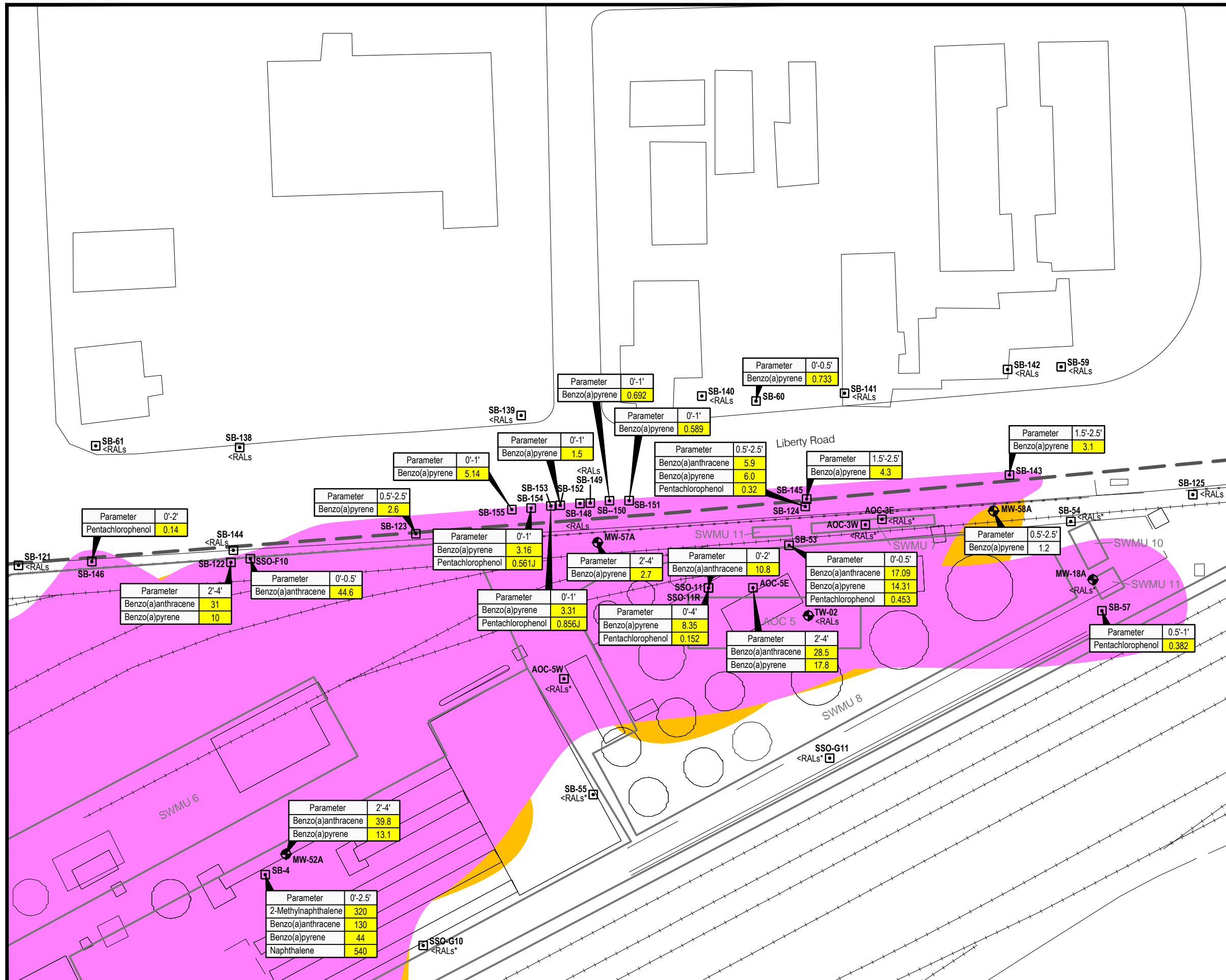
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UNION PACIFIC RAILROAD CO.		
HOUSTON WOOD PRESERVING WORKS		
Figure 4A-13 SURFACE SOIL COC CONCENTRATION MAP LEAD		
PROJECT: 1358	BY: ZGK	REVISIONS
DATE: NOV., 2014	CHECKED: ECM	
PASTOR, BEHLING & WHEELER, LLC CONSULTING ENGINEERS AND SCIENTISTS		

Approx. Scale in Feet

Source: Base map from ERM-Southwest, Inc APAR Addendum, Fig 3-1, dated June 2004.



EXPLANATION

- UPRR Property Boundary
- Historic Structure and Feature
- Road, Parking Lot, Sidewalk
- - - - - Fence
- +—+—+— Railroad
- ⊕ Monitoring Well Location
- Soil Boring Location
- Surface Soil Affected Property
- Surface Soil PCLE Zone

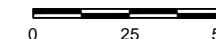
- Notes:
1. Concentration are in mg/Kg.
 2. Highlighted concentrations exceed cPCLs.
 3. * Some MQLs > RALs.
 4. RAL and cPCL based on Tier 1 & 2 Res/CI PCLs, 30 Acre Source Area.
 5. Benzo(a)pyrene at SB-60 was not included in the Affected Property, likely from asphaltting activities on Liberty Road.



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Approx. Scale in Feet



Source: Base map from ERM-Southwest, Inc APAR Addendum, Fig 3-1, dated June 2004.

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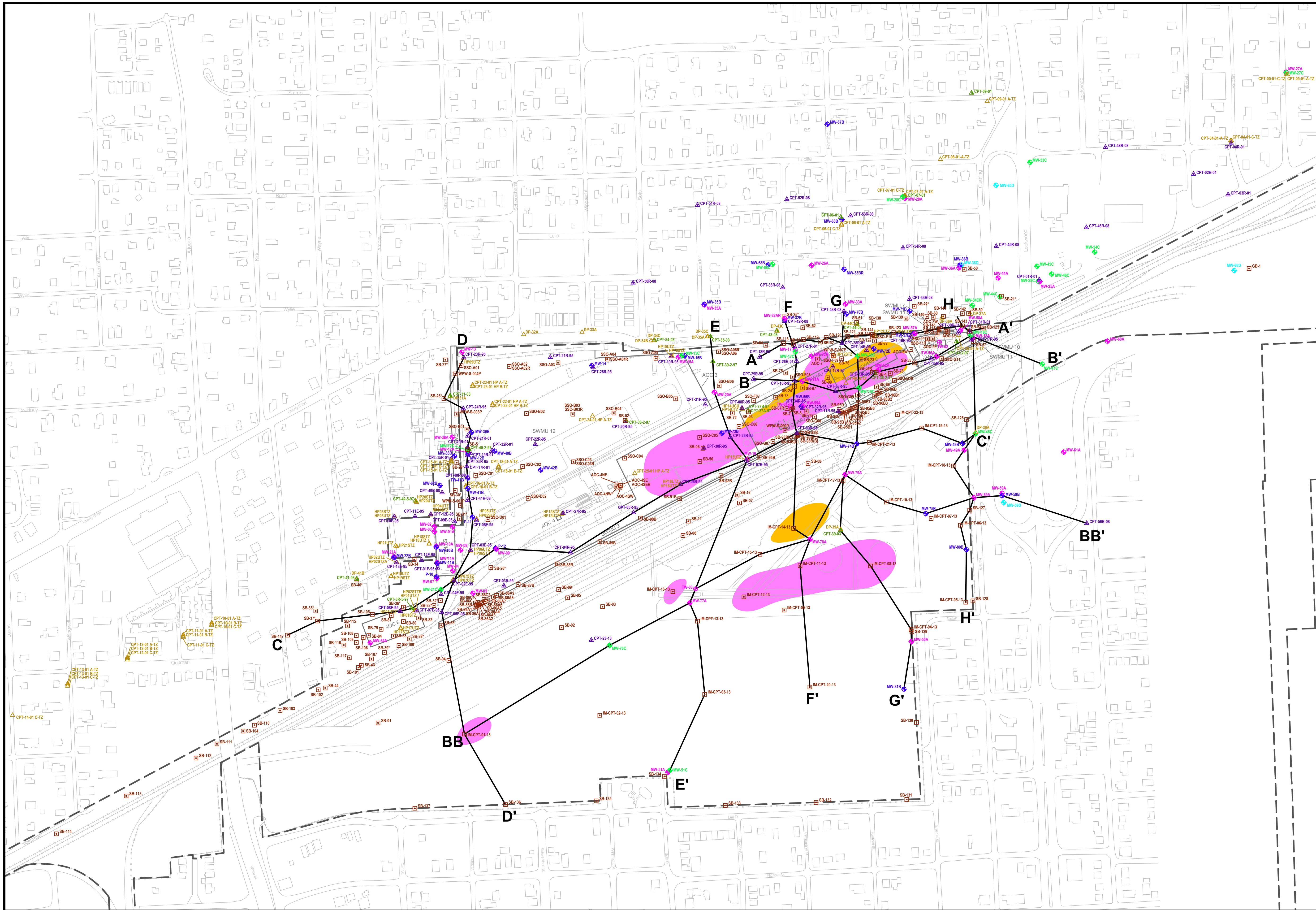
HOUSTON WOOD PRESERVING WORKS

Figure 4A-14

SURFACE SOIL AFFECTED PROPERTY PCLE ZONE - SWMU NO. 8 AREA

PROJECT: 1358	BY: ZGK	REVISIONS
DATE: NOV., 2014	CHECKED: ECM	

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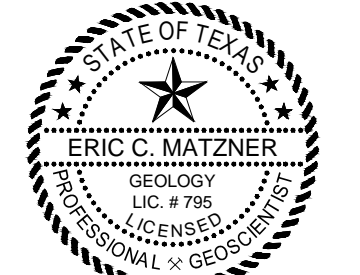


EXPLANATION

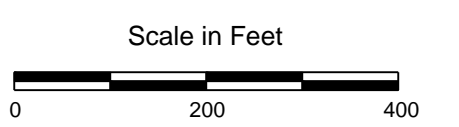
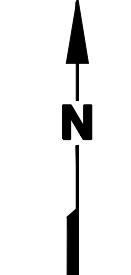
- UPRR Property Boundary
 - ▭ Historic Structure and Feature
 - Road, Parking Lot, Sidewalk
 - Fence
 - Railroad
 - ◆ A-TZ Monitoring Well Location
 - ◆ B-CZ/B-TZ Monitoring Well Location
 - ◆ C-TZ Monitoring Well Location
 - ◆ D-TZ Monitoring Well Location
 - ◆ A-TZ Temporary Monitoring Well Location
 - ▲ CPT with Rost Location
 - ▲ CPT Location
 - ▲ Hydropunch Sample Location
 - Soil Boring Location
 - ▲ A' Soil Cross Section Location (Figures 4C-6 through 4C-11)
 - Subsurface Affected Property
 - Subsurface PCLE Zone
- Note:
* Soil analytical data rejected by validator.

SWMU/AOC AREAS	
No.	Description
SWMU 1	Closed Surface Impoundment
SWMU 2	Northern and Southern Drainage Ditches
SWMU 4	Recent Process Area
SWMU 5	Original Process Area
SWMU 6	Water Treatment and Boiler System
SWMU 7	Tank Car Storage Area
SWMU 8	Aboveground Storage Tank Area
SWMU 9	Location of Former UST No. 44-023-05
SWMU 10	Location of Former Sap Water Treatment Tank
SWMU 11	Oil/Water Separators
SWMU 12	Railroad Tie Storage Area
AOC 1	Diesel Storage Tank
AOC 3	Contaminated Portion of City Water Line
AOC 4	Location of Former Incinerator
AOC 5	City Storm Sewer
AOC 6	Inactive Wastewater Lagoon
AOC 7	Location of Former UST No. 44-023-21

Note:
Locations of SWMU-9 and AOCs 1, 3, 5 and 7 area approximate.



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Source:
Base map from ERM-Southwest, Inc APAR Addendum, Fig 3-1, dated June 2004.

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HOUSTON WOOD PRESERVING WORKS

Figure 4B
SUBSURFACE SOIL COC PCLE ZONE MAP

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PASTOR, BEHLING & WHEELER, LLC CONSULTING ENGINEERS AND SCIENTISTS		

EXPLANATION

- UPRR Property Boundary
- ▭ Historic Structure and Feature
- Road, Parking Lot, Sidewalk
- Fence
- Railroad

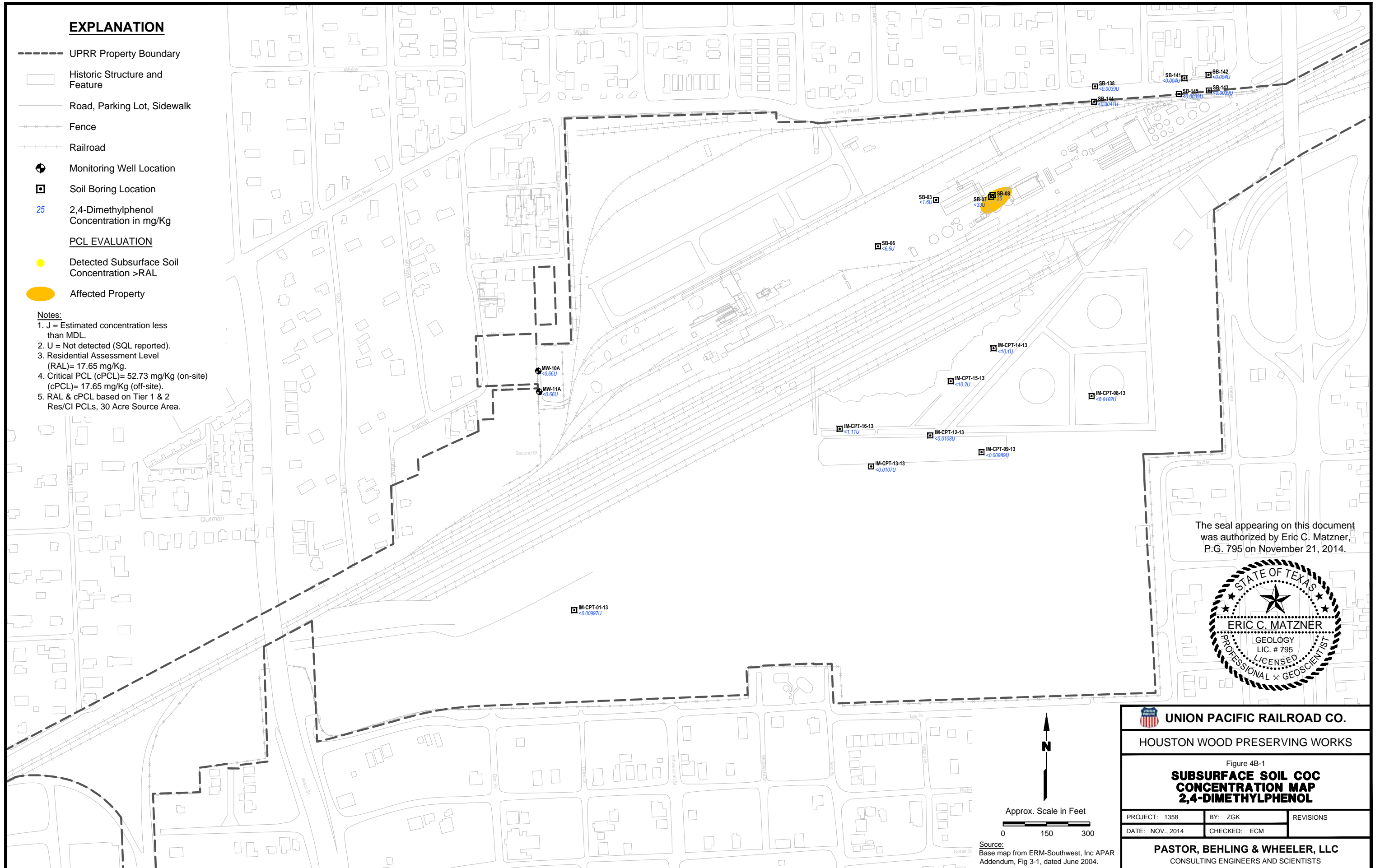
- ⊕ Monitoring Well Location
- ▣ Soil Boring Location
- 25 2,4-Dimethylphenol Concentration in mg/Kg

PCL EVALUATION

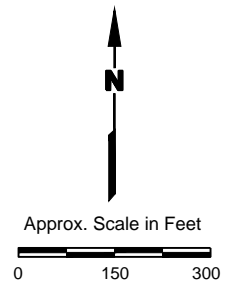
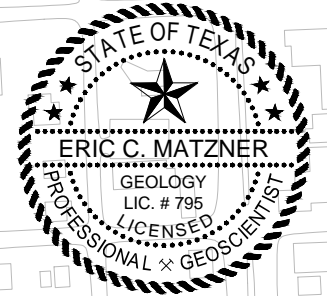
- Detected Subsurface Soil Concentration >RAL
- Affected Property

Notes:

1. J = Estimated concentration less than MDL.
2. U = Not detected (SQL reported).
3. Residential Assessment Level (RAL)= 17.65 mg/Kg.
4. Critical PCL (cPCL)= 52.73 mg/Kg (on-site) (cPCL)= 17.65 mg/Kg (off-site).
5. RAL & cPCL based on Tier 1 & 2 Res/CI PCLs, 30 Acre Source Area.



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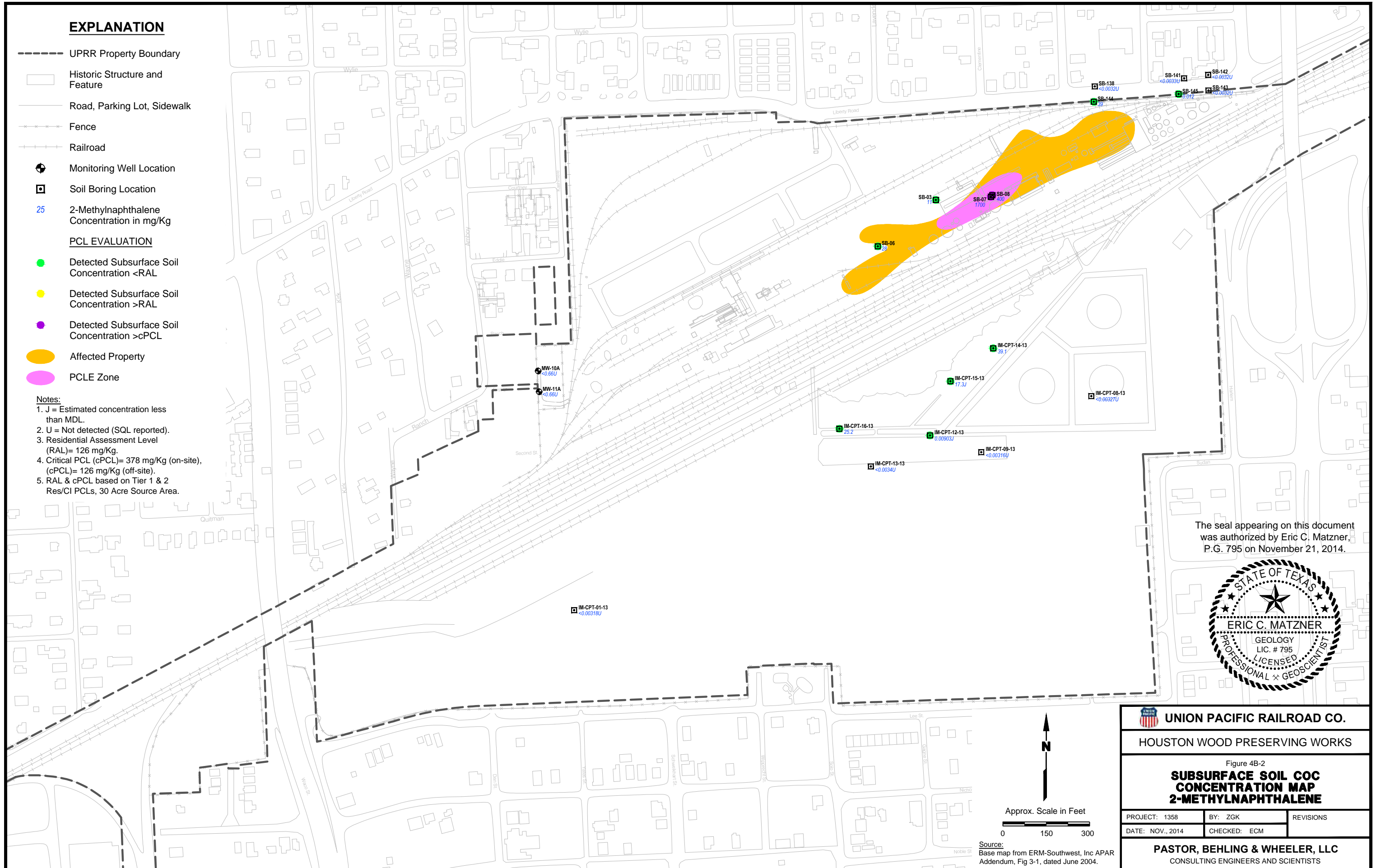
Source: Base map from ERM-Southwest, Inc APAR Addendum, Fig 3-1, dated June 2004.

UNION PACIFIC RAILROAD CO.		
HOUSTON WOOD PRESERVING WORKS		
Figure 4B-1 SUBSURFACE SOIL COC CONCENTRATION MAP 2,4-DIMETHYLPHENOL		
PROJECT: 1358	BY: ZGK	REVISIONS
DATE: NOV., 2014	CHECKED: ECM	
PASTOR, BEHLING & WHEELER, LLC CONSULTING ENGINEERS AND SCIENTISTS		

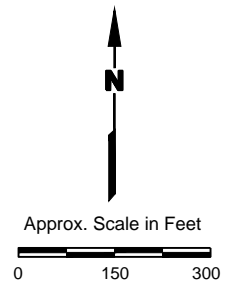
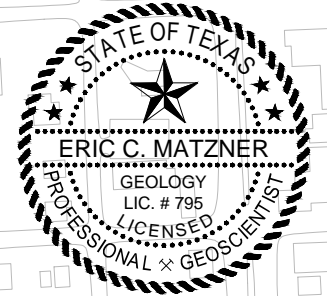
EXPLANATION

- UPRR Property Boundary
- ▭ Historic Structure and Feature
- Road, Parking Lot, Sidewalk
- Fence
- Railroad
- ⊕ Monitoring Well Location
- ▣ Soil Boring Location
- 25 2-Methylnaphthalene Concentration in mg/Kg
- PCL EVALUATION**
- Detected Subsurface Soil Concentration <RAL
- Detected Subsurface Soil Concentration >RAL
- Detected Subsurface Soil Concentration >cPCL
- Affected Property
- PCLE Zone

- Notes:**
1. J = Estimated concentration less than MDL.
 2. U = Not detected (SQL reported).
 3. Residential Assessment Level (RAL)= 126 mg/Kg.
 4. Critical PCL (cPCL)= 378 mg/Kg (on-site), (cPCL)= 126 mg/Kg (off-site).
 5. RAL & cPCL based on Tier 1 & 2 Res/Ci PCLs, 30 Acre Source Area.



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Source: Base map from ERM-Southwest, Inc APAR Addendum, Fig 3-1, dated June 2004.

UNION PACIFIC RAILROAD CO.		
HOUSTON WOOD PRESERVING WORKS		
Figure 4B-2 SUBSURFACE SOIL COC CONCENTRATION MAP 2-METHYLNAPHTHALENE		
PROJECT: 1358	BY: ZGK	REVISIONS
DATE: NOV., 2014	CHECKED: ECM	
PASTOR, BEHLING & WHEELER, LLC CONSULTING ENGINEERS AND SCIENTISTS		

EXPLANATION

- UPRR Property Boundary
- ▭ Historic Structure and Feature
- Road, Parking Lot, Sidewalk
- Fence
- Railroad

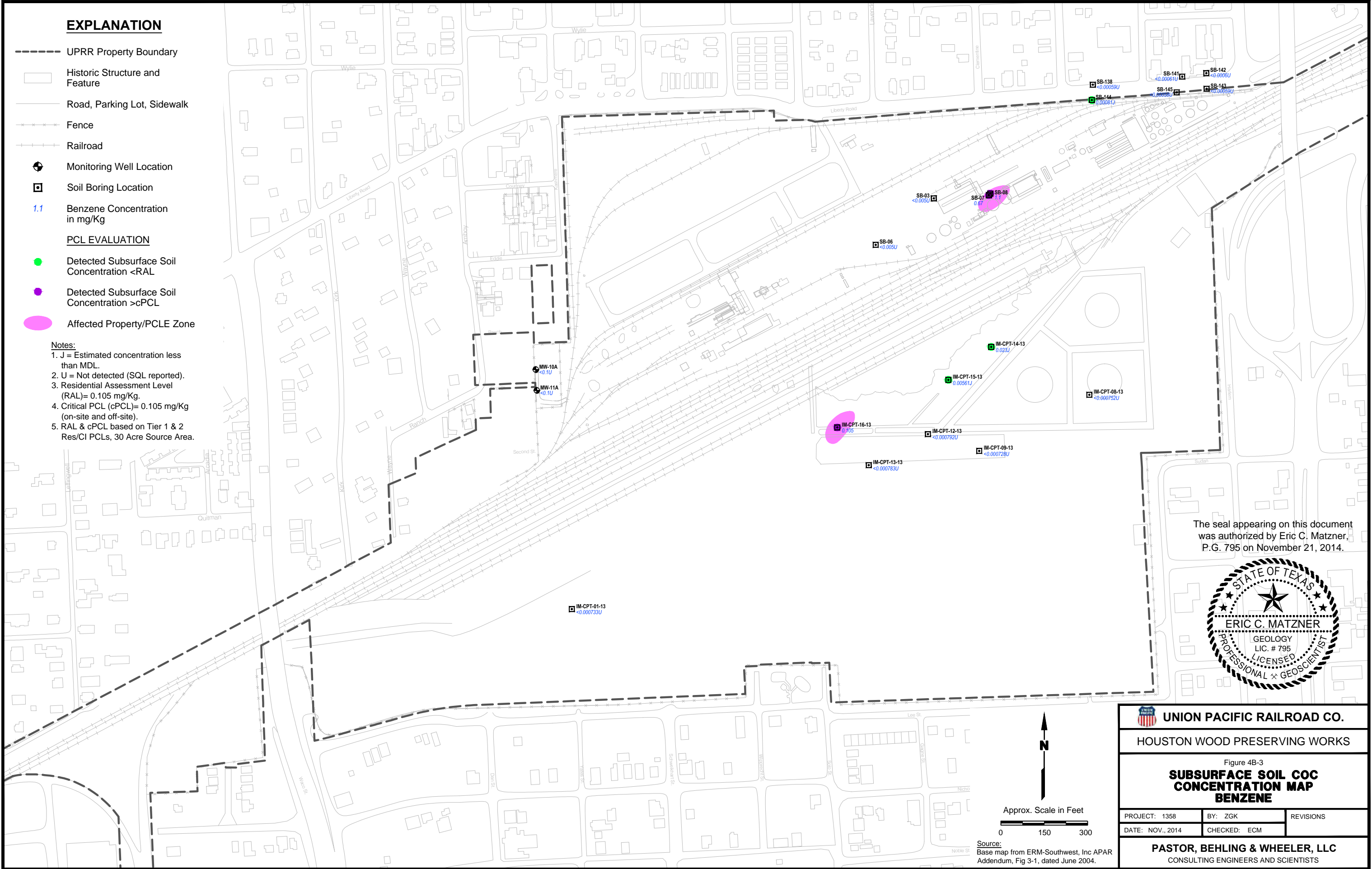
- ⊕ Monitoring Well Location
- ▣ Soil Boring Location

1.1 Benzene Concentration in mg/Kg

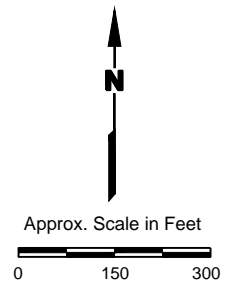
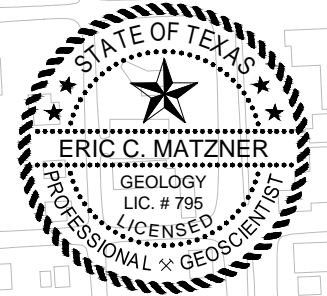
PCL EVALUATION

- Detected Subsurface Soil Concentration <RAL
- Detected Subsurface Soil Concentration >cPCL
- Affected Property/PCLE Zone


- Notes:**
1. J = Estimated concentration less than MDL.
 2. U = Not detected (SQL reported).
 3. Residential Assessment Level (RAL)= 0.105 mg/Kg.
 4. Critical PCL (cPCL)= 0.105 mg/Kg (on-site and off-site).
 5. RAL & cPCL based on Tier 1 & 2 Res/CI PCLs, 30 Acre Source Area.



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Source: Base map from ERM-Southwest, Inc APAR Addendum, Fig 3-1, dated June 2004.

 UNION PACIFIC RAILROAD CO.		
HOUSTON WOOD PRESERVING WORKS		
Figure 4B-3 SUBSURFACE SOIL COC CONCENTRATION MAP BENZENE		
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DATE: NOV., 2014	CHECKED: ECM	
PASTOR, BEHLING & WHEELER, LLC CONSULTING ENGINEERS AND SCIENTISTS		

EXPLANATION

- UPRR Property Boundary
- ▭ Historic Structure and Feature
- Road, Parking Lot, Sidewalk
- Fence
- Railroad

- ⊕ Monitoring Well Location
- ▣ Soil Boring Location

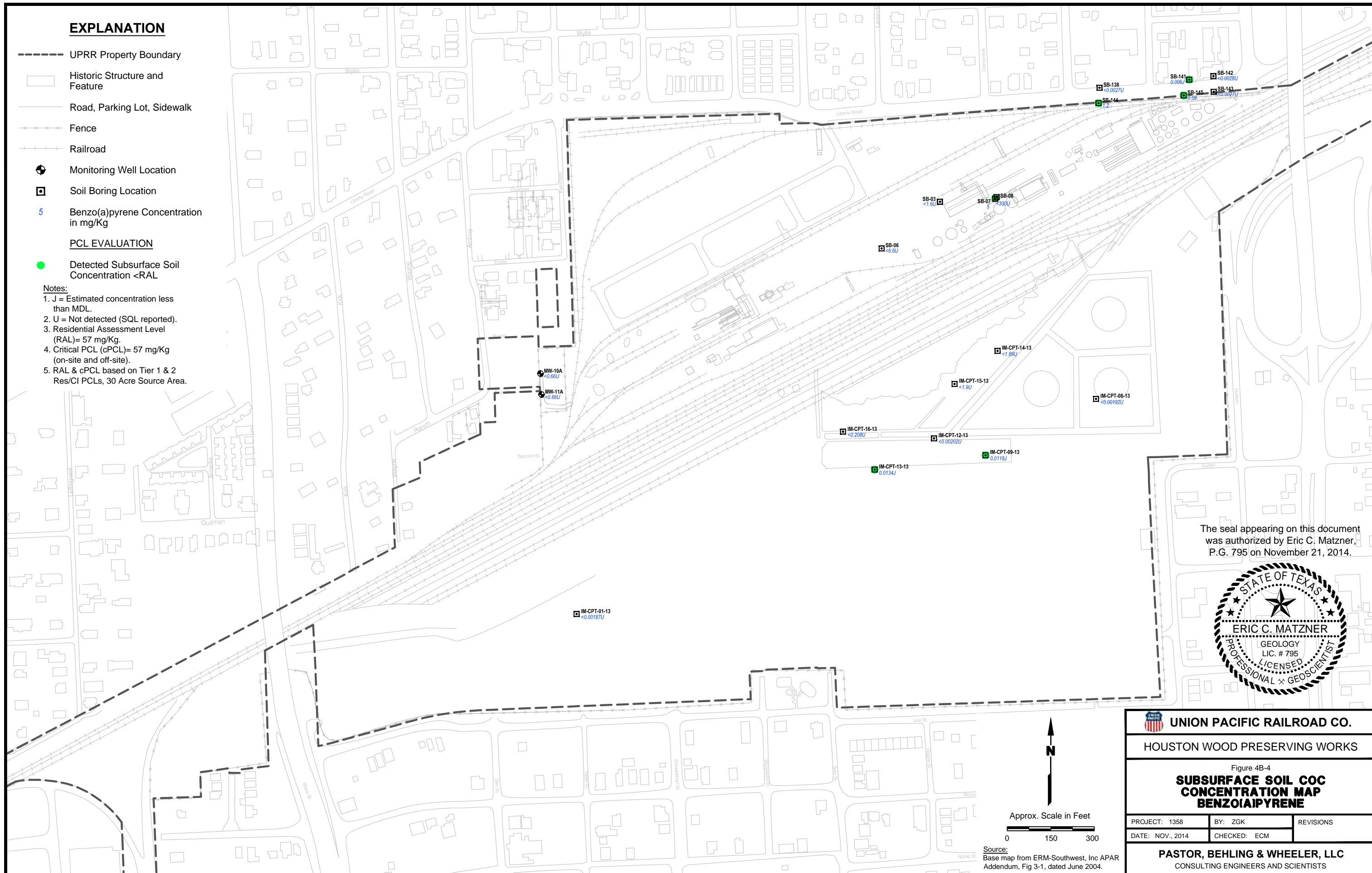
5 Benzo(a)pyrene Concentration in mg/Kg

PCL EVALUATION

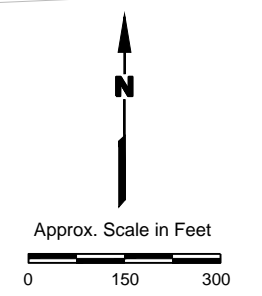
● Detected Subsurface Soil Concentration <RAL

Notes:

1. J = Estimated concentration less than MDL.
2. U = Not detected (SQL reported).
3. Residential Assessment Level (RAL)= 57 mg/Kg.
4. Critical PCL (cPCL)= 57 mg/Kg (on-site and off-site).
5. RAL & cPCL based on Tier 1 & 2 Res/CI PCLs, 30 Acre Source Area.



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Source:
Base map from ERM-Southwest, Inc APAR Addendum, Fig 3-1, dated June 2004.

UNION PACIFIC RAILROAD CO.		
HOUSTON WOOD PRESERVING WORKS		
Figure 4B-4		
SUBSURFACE SOIL COC CONCENTRATION MAP BENZOAIPIRENE		
PROJECT: 1358	BY: ZGK	REVISIONS
DATE: NOV., 2014	CHECKED: ECM	
PASTOR, BEHLING & WHEELER, LLC CONSULTING ENGINEERS AND SCIENTISTS		

EXPLANATION

- UPRR Property Boundary
- ▭ Historic Structure and Feature
- Road, Parking Lot, Sidewalk
- Fence
- Railroad

- ⊕ Monitoring Well Location
- ▣ Soil Boring Location

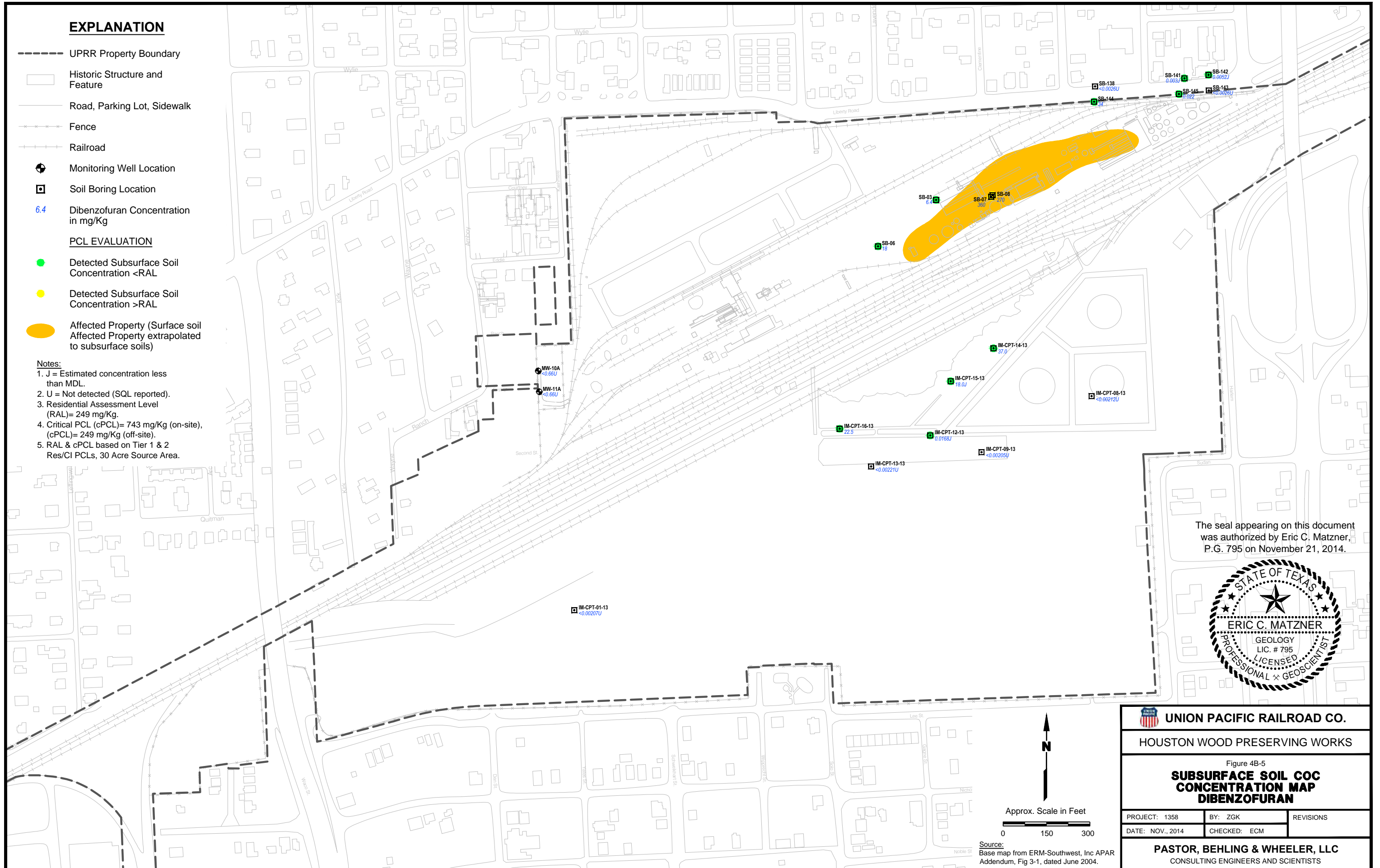
6.4 Dibenzofuran Concentration in mg/Kg

PCL EVALUATION

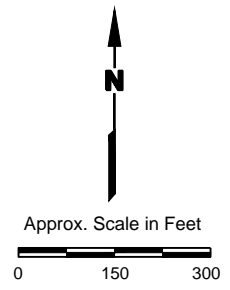
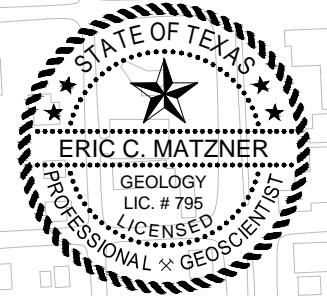
- Detected Subsurface Soil Concentration <RAL
- Detected Subsurface Soil Concentration >RAL
- Affected Property (Surface soil Affected Property extrapolated to subsurface soils)

Notes:

1. J = Estimated concentration less than MDL.
2. U = Not detected (SQL reported).
3. Residential Assessment Level (RAL)= 249 mg/Kg.
4. Critical PCL (cPCL)= 743 mg/Kg (on-site), (cPCL)= 249 mg/Kg (off-site).
5. RAL & cPCL based on Tier 1 & 2 Res/CI PCLs, 30 Acre Source Area.



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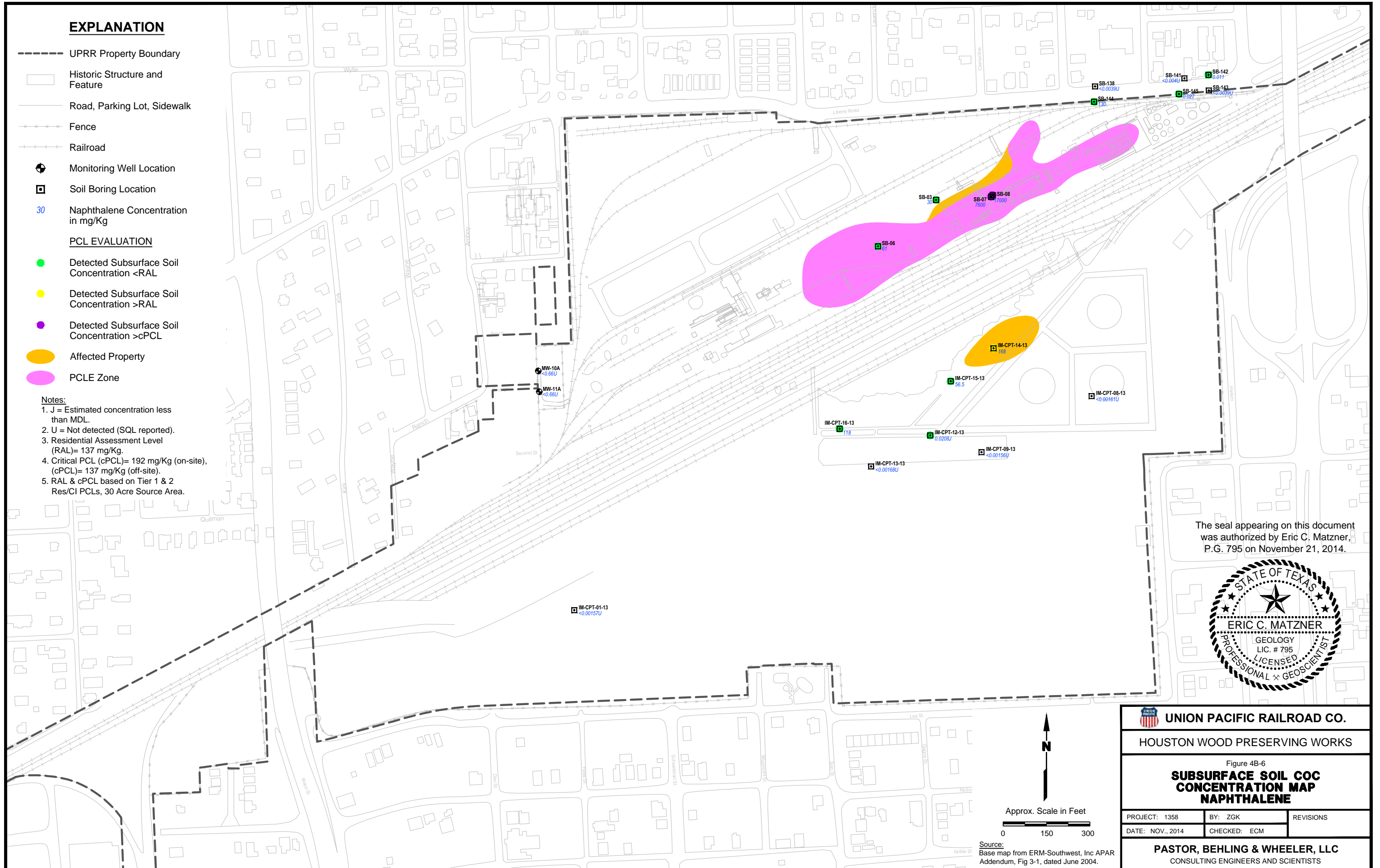
Source: Base map from ERM-Southwest, Inc APAR Addendum, Fig 3-1, dated June 2004.

UNION PACIFIC RAILROAD CO.		
HOUSTON WOOD PRESERVING WORKS		
Figure 4B-5		
SUBSURFACE SOIL COC CONCENTRATION MAP		
DIBENZOFURAN		
PROJECT: 1358	BY: ZGK	REVISIONS
DATE: NOV., 2014	CHECKED: ECM	
PASTOR, BEHLING & WHEELER, LLC		
CONSULTING ENGINEERS AND SCIENTISTS		

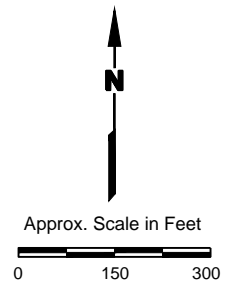
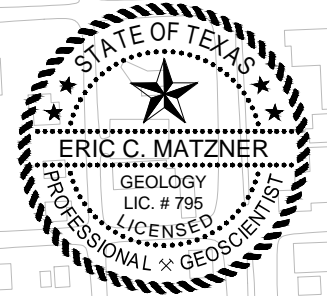
EXPLANATION

- UPRR Property Boundary
- ▭ Historic Structure and Feature
- Road, Parking Lot, Sidewalk
- Fence
- Railroad
- ⊕ Monitoring Well Location
- ▣ Soil Boring Location
- 30 Naphthalene Concentration in mg/Kg
- PCL EVALUATION**
- Detected Subsurface Soil Concentration <RAL
- Detected Subsurface Soil Concentration >RAL
- Detected Subsurface Soil Concentration >cPCL
- Affected Property
- PCLE Zone

- Notes:**
1. J = Estimated concentration less than MDL.
 2. U = Not detected (SQL reported).
 3. Residential Assessment Level (RAL)= 137 mg/Kg.
 4. Critical PCL (cPCL)= 192 mg/Kg (on-site), (cPCL)= 137 mg/Kg (off-site).
 5. RAL & cPCL based on Tier 1 & 2 Res/CI PCLs, 30 Acre Source Area.



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Source: Base map from ERM-Southwest, Inc APAR Addendum, Fig 3-1, dated June 2004.

UNION PACIFIC RAILROAD CO.		
HOUSTON WOOD PRESERVING WORKS		
Figure 4B-6 SUBSURFACE SOIL COC CONCENTRATION MAP NAPHTHALENE		
PROJECT: 1358	BY: ZGK	REVISIONS
DATE: NOV., 2014	CHECKED: ECM	
PASTOR, BEHLING & WHEELER, LLC CONSULTING ENGINEERS AND SCIENTISTS		

EXPLANATION

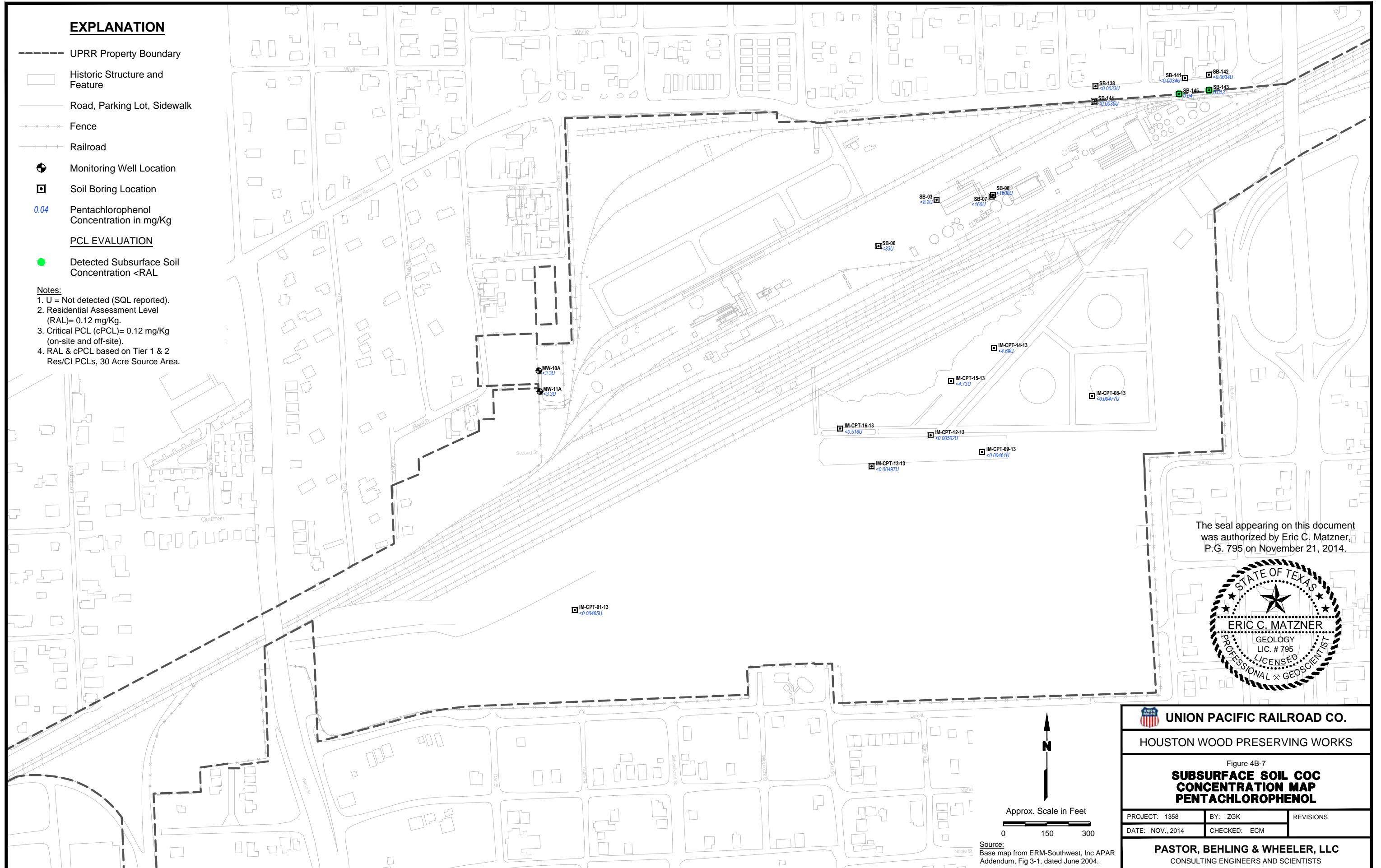
- UPRR Property Boundary
- Historic Structure and Feature
- Road, Parking Lot, Sidewalk
- Fence
- Railroad

- ⊕ Monitoring Well Location
- Soil Boring Location
- 0.04 Pentachlorophenol Concentration in mg/Kg

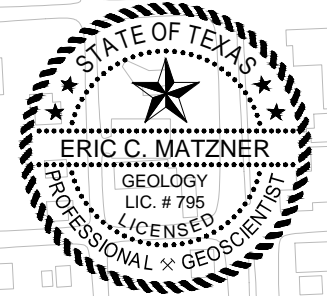
PCL EVALUATION

- Detected Subsurface Soil Concentration <RAL

- Notes:
1. U = Not detected (SQL reported).
 2. Residential Assessment Level (RAL)= 0.12 mg/Kg.
 3. Critical PCL (cPCL)= 0.12 mg/Kg (on-site and off-site).
 4. RAL & cPCL based on Tier 1 & 2 Res/CI PCLs, 30 Acre Source Area.



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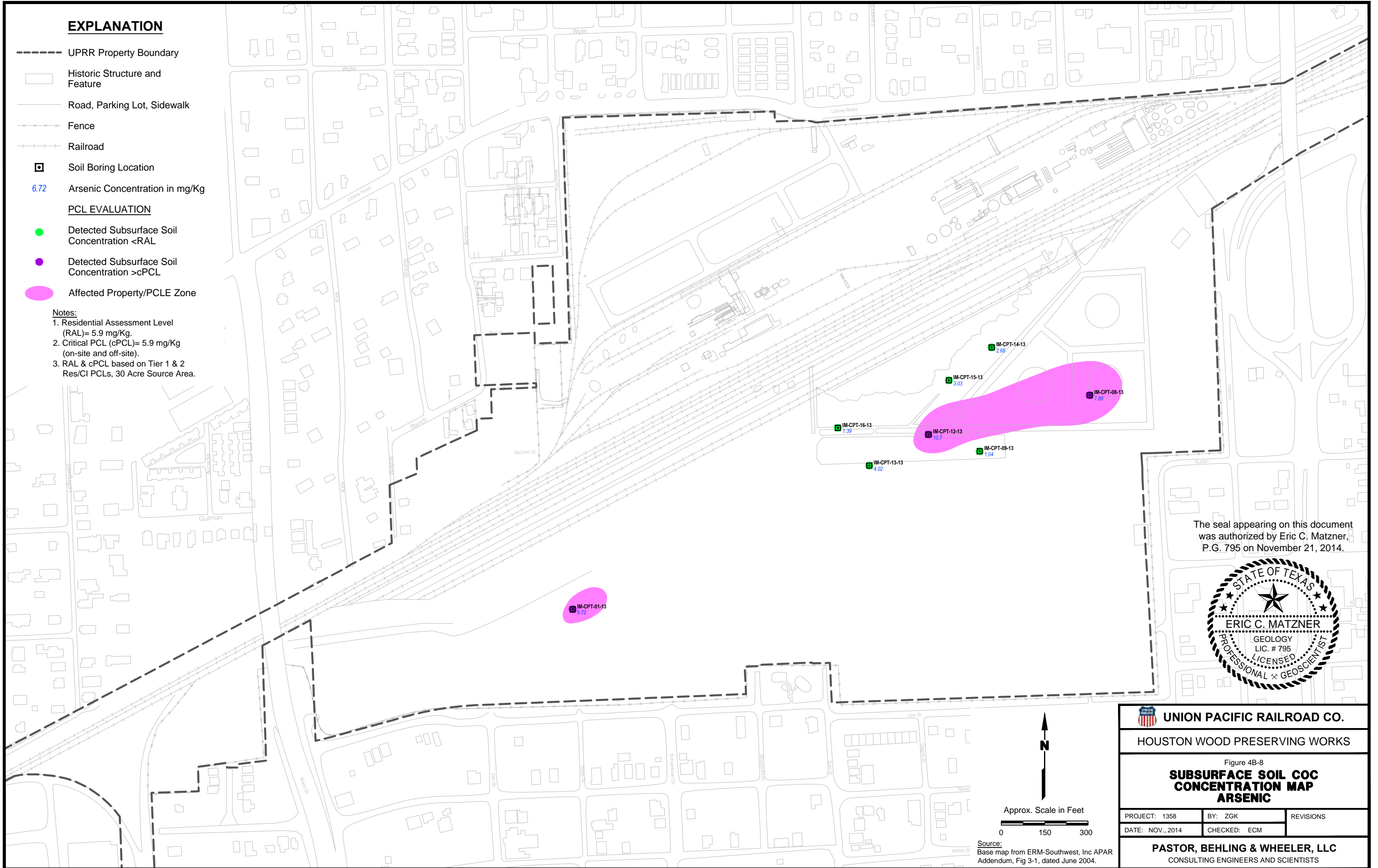
UNION PACIFIC RAILROAD CO.		
HOUSTON WOOD PRESERVING WORKS		
Figure 4B-7 SUBSURFACE SOIL COC CONCENTRATION MAP PENTACHLOROPHENOL		
PROJECT: 1358	BY: ZGK	REVISIONS
DATE: NOV., 2014	CHECKED: ECM	
PASTOR, BEHLING & WHEELER, LLC CONSULTING ENGINEERS AND SCIENTISTS		

Approx. Scale in Feet
 0 150 300
 Source: Base map from ERM-Southwest, Inc APAR Addendum, Fig 3-1, dated June 2004.

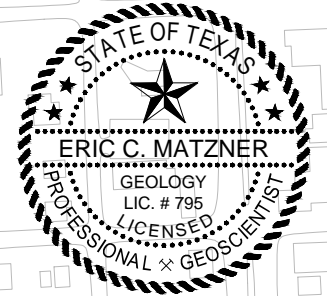
EXPLANATION

- UPRR Property Boundary
- ▭ Historic Structure and Feature
- Road, Parking Lot, Sidewalk
- Fence
- +— Railroad
- ▣ Soil Boring Location
- 6.72 Arsenic Concentration in mg/Kg
- PCL EVALUATION**
- Detected Subsurface Soil Concentration <RAL
- Detected Subsurface Soil Concentration >cPCL
- Affected Property/PCLE Zone

- Notes:**
1. Residential Assessment Level (RAL)= 5.9 mg/Kg.
 2. Critical PCL (cPCL)= 5.9 mg/Kg (on-site and off-site).
 3. RAL & cPCL based on Tier 1 & 2 Res/CI PCLs, 30 Acre Source Area.



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HOUSTON WOOD PRESERVING WORKS		
Figure 4B-8 SUBSURFACE SOIL COC CONCENTRATION MAP ARSENIC		
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DATE: NOV., 2014	CHECKED: ECM	
PASTOR, BEHLING & WHEELER, LLC CONSULTING ENGINEERS AND SCIENTISTS		

N
↑

Approx. Scale in Feet
0 150 300

Source:
Base map from ERM-Southwest, Inc APAR Addendum, Fig 3-1, dated June 2004.

EXPLANATION

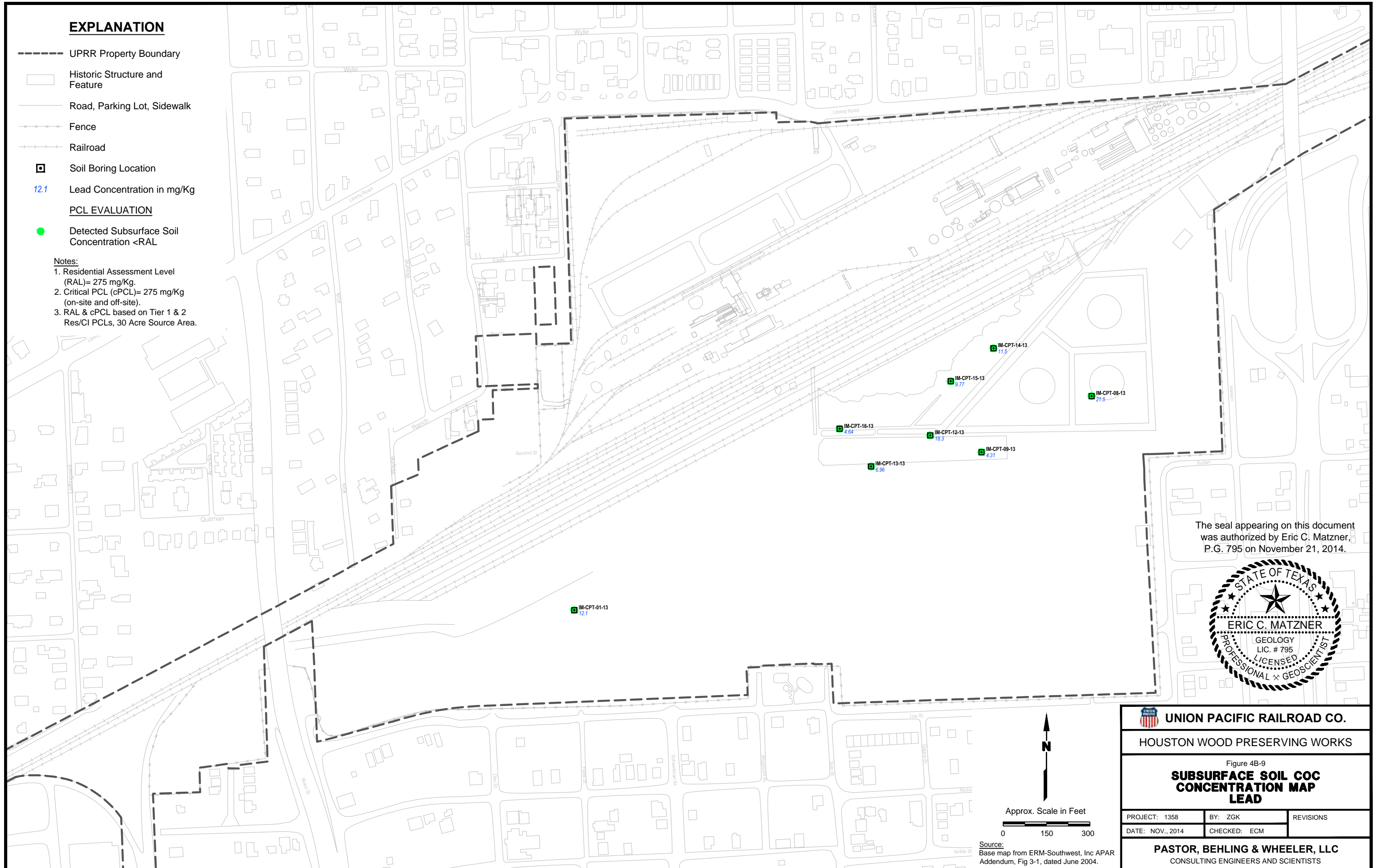
- UPRR Property Boundary
- ▭ Historic Structure and Feature
- Road, Parking Lot, Sidewalk
- Fence
- +— Railroad
- Soil Boring Location

12.1 Lead Concentration in mg/Kg

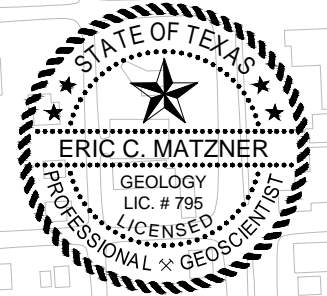
PCL EVALUATION

- Detected Subsurface Soil Concentration <RAL

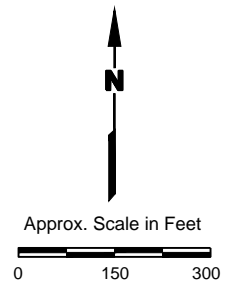
- Notes:
1. Residential Assessment Level (RAL)= 275 mg/Kg.
 2. Critical PCL (cPCL)= 275 mg/Kg (on-site and off-site).
 3. RAL & cPCL based on Tier 1 & 2 Res/CI PCLs, 30 Acre Source Area.



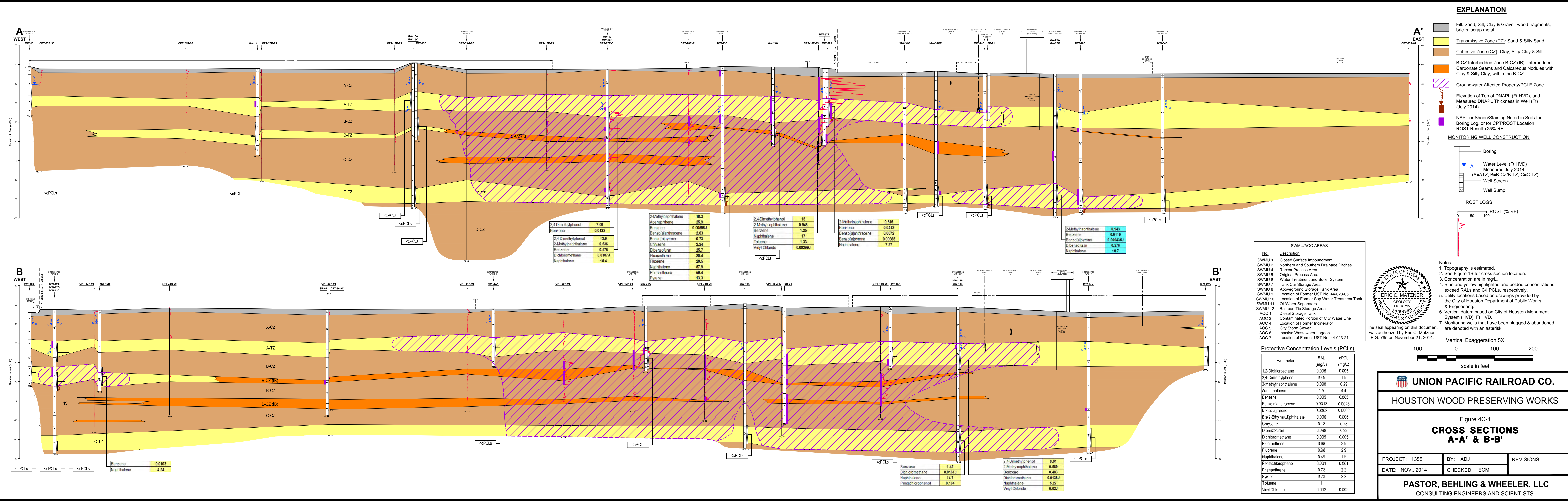
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UNION PACIFIC RAILROAD CO.		
HOUSTON WOOD PRESERVING WORKS		
Figure 4B-9 SUBSURFACE SOIL COC CONCENTRATION MAP LEAD		
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DATE: NOV., 2014	CHECKED: ECM	
PASTOR, BEHLING & WHEELER, LLC CONSULTING ENGINEERS AND SCIENTISTS		



Source:
Base map from ERM-Southwest, Inc APAR Addendum, Fig 3-1, dated June 2004.



Notes:

- Topography is estimated.
- See Figure 1B for cross section location.
- Concentration are in mg/L.
- Blue and yellow highlighted and bolded concentrations exceed RALs and C/I PCLs, respectively.
- Utility locations based on drawings provided by the City of Houston Department of Public Works & Engineering.
- Vertical datum based on City of Houston Monument System (HVD), Ft HVD.
- Monitoring wells that have been plugged & abandoned, are denoted with an asterisk.

Vertical Exaggeration 5X

100 0 100 200
scale in feet

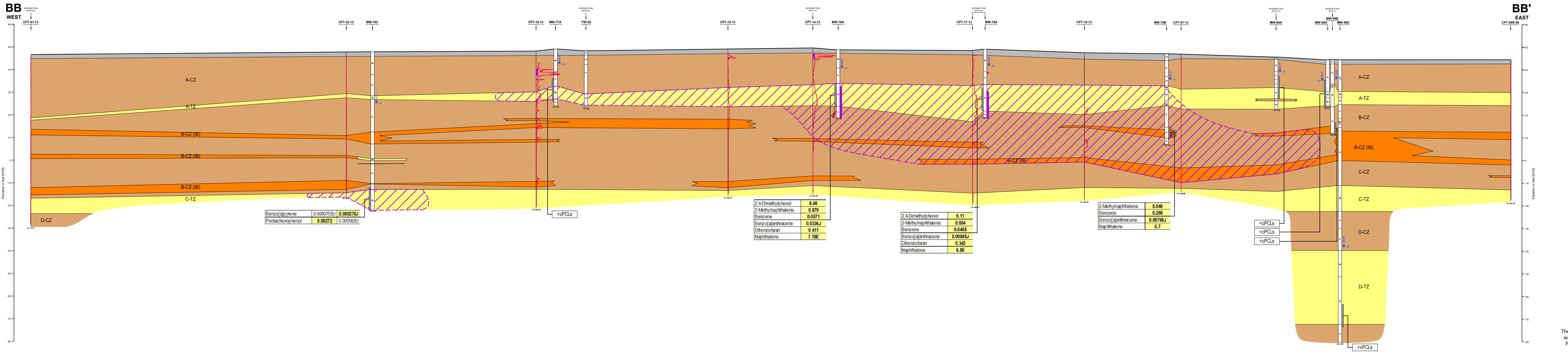
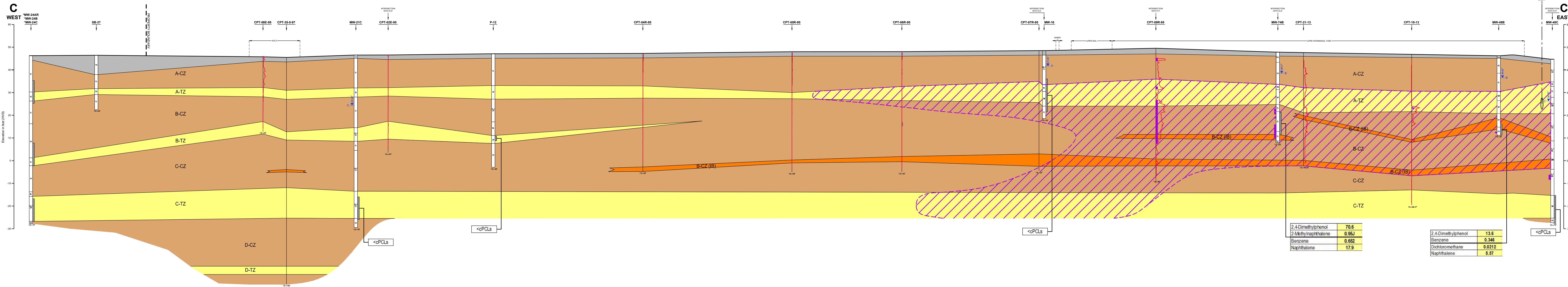
UNION PACIFIC RAILROAD CO.

HOUSTON WOOD PRESERVING WORKS

Figure 4C-1
CROSS SECTIONS A-A' & B-B'

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EXPLANATION

- Fill: Sand, Silt, Clay & Gravel, wood fragments, bricks, scrap metal
- Transmissive Zone (TZ): Sand & Silty Sand
- Cohesive Zone (CZ): Clay, Silty Clay & Silt
- B-CZ Interbedded Zone B-CZ (IB): Interbedded Carbonate Seams and Calcareous Nodules with Clay & Silty Clay, within the B-CZ
- Groundwater Affected Property/PCLE Zone
- Elevation of Top of DNAPL (Fl. HVD), and Measured DNAPL Thickness in Well (Ft) (July 2014)
- NAPL or Sheen/Staining Noted in Soils for Boring Log, or for CPT/ROST Location ROST Result >25% RE

MONITORING WELL CONSTRUCTION

- Boring
- Water Level (Ft HVD) Measured July 2014 (A=ATZ, B=B-CZ/B-TZ, C=C-TZ)
- Well Screen
- Well Sump

ROST LOGS

ROST (% RE)

0 50 100

SWMU/AOC AREAS

No.	Description
SWMU 1	Closed Surface Impoundment
SWMU 2	Northern and Southern Drainage Ditches
SWMU 4	Recent Process Area
SWMU 5	Original Process Area
SWMU 6	Water Treatment and Boiler System
SWMU 7	Tank Car Storage Area
SWMU 8	Aboveground Storage Tank Area
SWMU 9	Location of Former UST No. 44-023-05
SWMU 10	Location of Former Sap Water Treatment Tank
SWMU 11	Oil/Water Separators
SWMU 12	Railroad Tie Storage Area
AOC 1	Diesel Storage Tank
AOC 3	Contaminated Portion of City Water Line
AOC 4	Location of Former Incinerator
AOC 5	City Storm Sewer
AOC 6	Inactive Wastewater Lagoon
AOC 7	Location of Former UST No. 44-023-21

Protective Concentration Levels (PCLs)

Parameter	RAL (mg/L)	cPCL (mg/L)
1,2-Dichloroethane	0.005	0.005
2,4-Dimethylphenol	0.49	1.5
2-Methylnaphthalene	0.098	0.29
Acenaphthene	1.5	4.4
Benzene	0.005	0.005
Benzofluoranthracene	0.0013	0.0028
Benzofluorene	0.0002	0.0002
Bis(2-Ethylhexyl)phthalate	0.005	0.006
Chrysene	0.13	0.28
Dibenzofuran	0.098	0.29
Dichloromethane	0.005	0.005
Fluoranthene	0.98	2.9
Fluorene	0.98	2.9
Naphthalene	0.49	1.5
Pentachlorophenol	0.001	0.001
Phenanthrene	0.73	2.2
Pyrene	0.73	2.2
Toluene	1	1
Vinyl Chloride	0.002	0.002

Notes:

- Topography is estimated.
- See Figure 1B for cross section location.
- Concentration are in mg/L.
- Blue and yellow highlighted and bolded concentrations exceed RALs and C/PCLs, respectively.
- Utility locations based on drawings provided by the City of Houston Department of Public Works & Engineering.
- Elevation datum based on City of Houston Monument System (HVD), Ft HVD.
- Monitoring wells that have been plugged & abandoned, are denoted with an asterisk.

Vertical Exaggeration 5X

100 0 100 200

scale in feet

UNION PACIFIC RAILROAD CO.

HOUSTON WOOD PRESERVING WORKS

Figure 4C-2

CROSS SECTIONS C-C' & BB-BB'

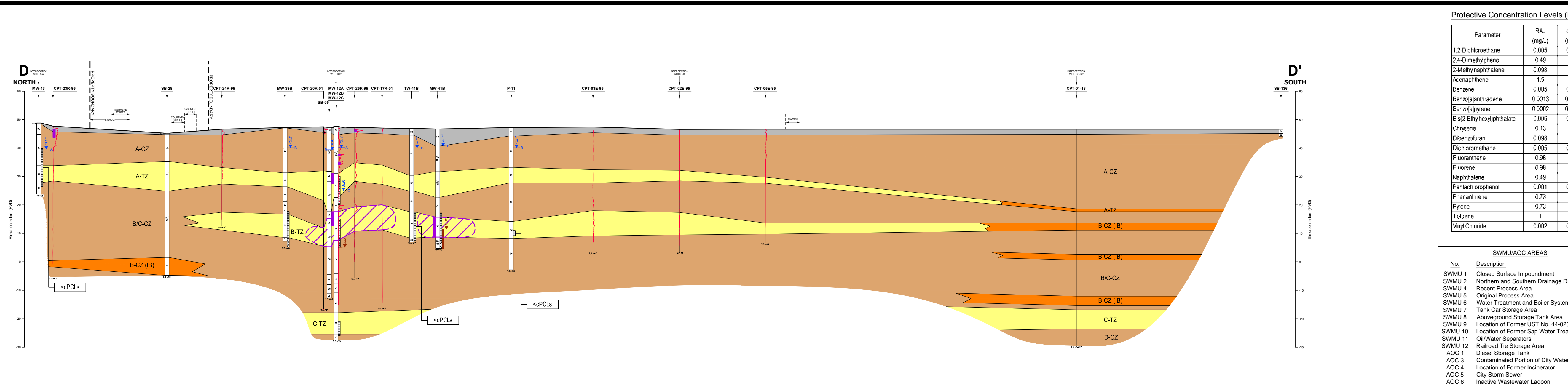
PROJECT: 1358 BY: ADJ REVISIONS

DATE: NOV., 2014 CHECKED: ECM

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EXPLANATION

- Fill: Sand, Silt, Clay & Gravel, wood fragments, bricks, scrap metal
- Transmissive Zone (TZ): Sand & Silty Sand
- Cohesive Zone (CZ): Clay, Silty Clay & Silt
- B-CZ Interbedded Zone B-CZ (IB): Interbedded Carbonate Seams and Calcareous Nodules with Clay & Silty Clay, within the B-CZ
- Groundwater Affected Property/PCL Zone
- Elevation of Top of DNAPL (Ft HVD), and Measured DNAPL Thickness in Well (Ft) (July 2014)
- NAPL or Sheen/Staining Noted in Soils for Boring Log, or for CPT/ROST Location ROST Result >25% RE

MONITORING WELL CONSTRUCTION

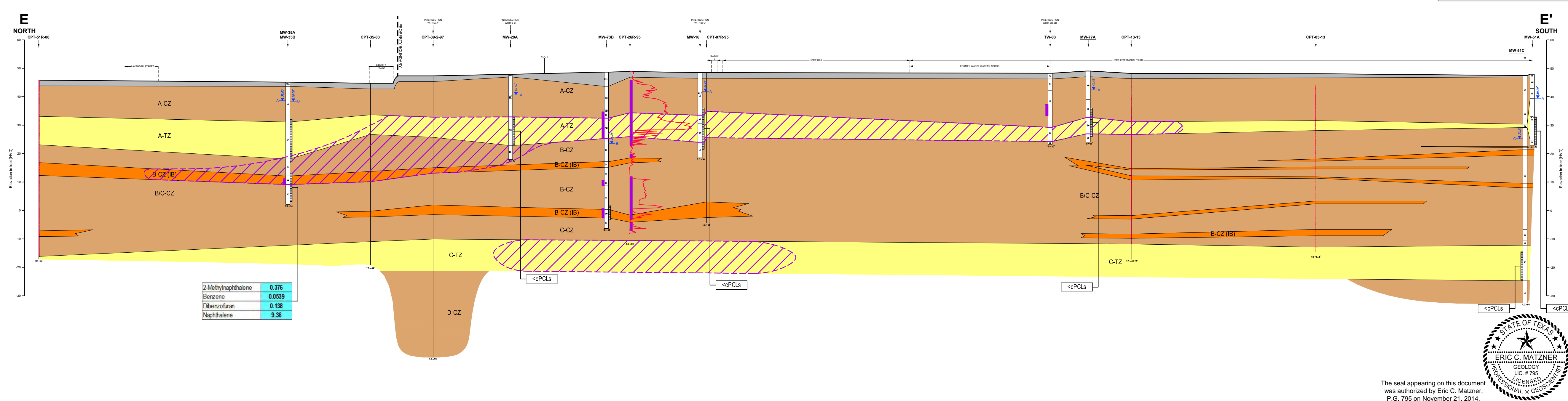
- Boring
- Water Level (Ft HVD) Measured July 2014 (A=ATZ, B=B-CZ/B-TZ, C=C-TZ)
- Well Screen
- Well Sump

ROST LOGS

ROST (% RE)

Vertical Exaggeration 5X

scale in feet



Notes:

- Topography is estimated.
- See Figure 1B for cross section location.
- Concentration are in mg/L.
- Blue and yellow highlighted and bolded concentrations exceed RALs and C/I PCLs, respectively.
- Utility locations based on drawings provided by the City of Houston Department of Public Works & Engineering.
- Vertical datum based on City of Houston Monument System (HVD), Ft HVD.
- Monitoring wells that have been plugged & abandoned, are denoted with an asterisk.

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HOUSTON WOOD PRESERVING WORKS

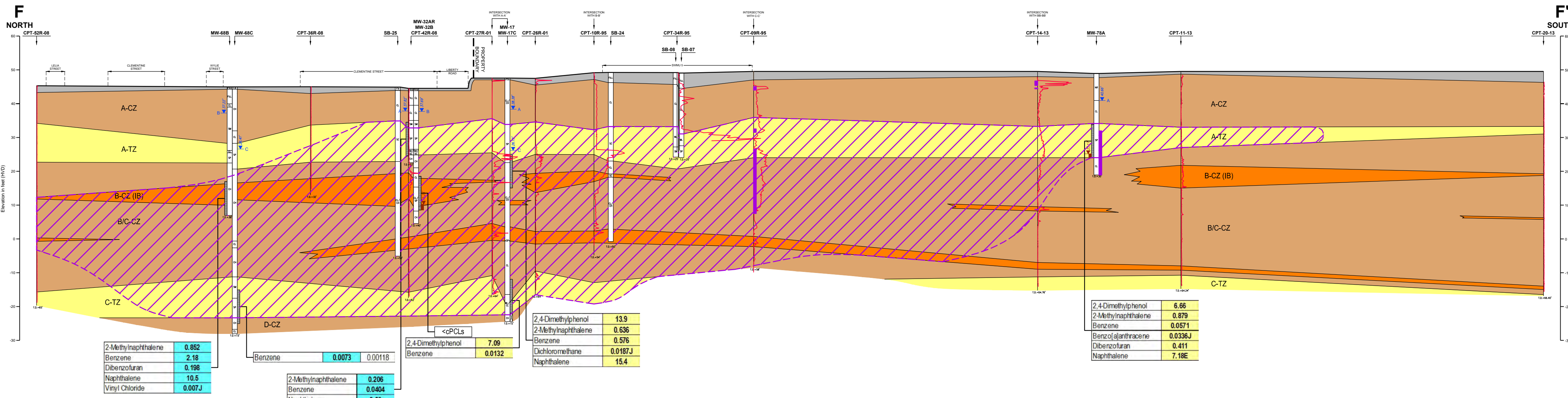
Figure 4C-3
CROSS SECTIONS D-D' & E-E'

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DATE: NOV., 2014	CHECKED: ECM	

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CONSULTING ENGINEERS AND SCIENTISTS

STATE OF TEXAS
ERIC C. MATZNER
GEOLOGY
LIC. # 795
LICENSED PROFESSIONAL GEOLOGIST

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EXPLANATION

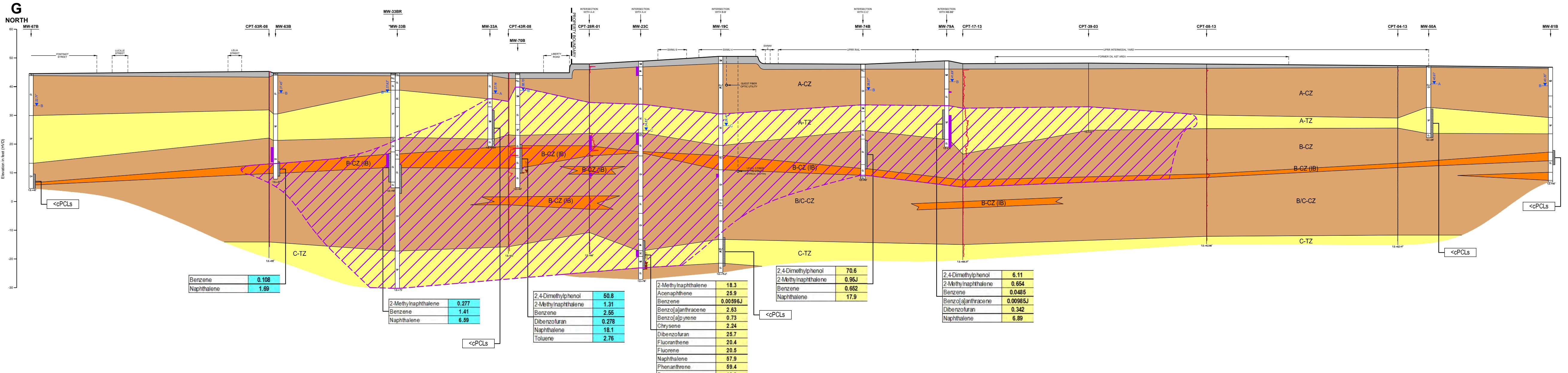
- Fill: Sand, Silt, Clay & Gravel, wood fragments, bricks, scrap metal
- Transmissive Zone (TZ): Sand & Silty Sand
- Cohesive Zone (CZ): Clay, Silty Clay & Silt
- B-CZ Interbedded Zone B-CZ (IB): Interbedded Carbonate Seams and Calcareous Nodules with Clay & Silty Clay, within the B-CZ
- Groundwater Affected Property/PCLE Zone
- Elevation of Top of DNAPL (Fl HVD), and Measured DNAPL Thickness in Well (Fl) (July 2014)
- NAPL or Sheen/Staining Noted in Soils for Boring Log, or for CPT/ROST Location ROST Result >25% RE

MONITORING WELL CONSTRUCTION

- Boring
- Water Level (Fl HVD) Measured July 2014 (A=ATZ, B=B-CZ/B-TZ, C=C-TZ)
- Well Screen
- Well Sump

ROST LOGS

ROST (% RE)

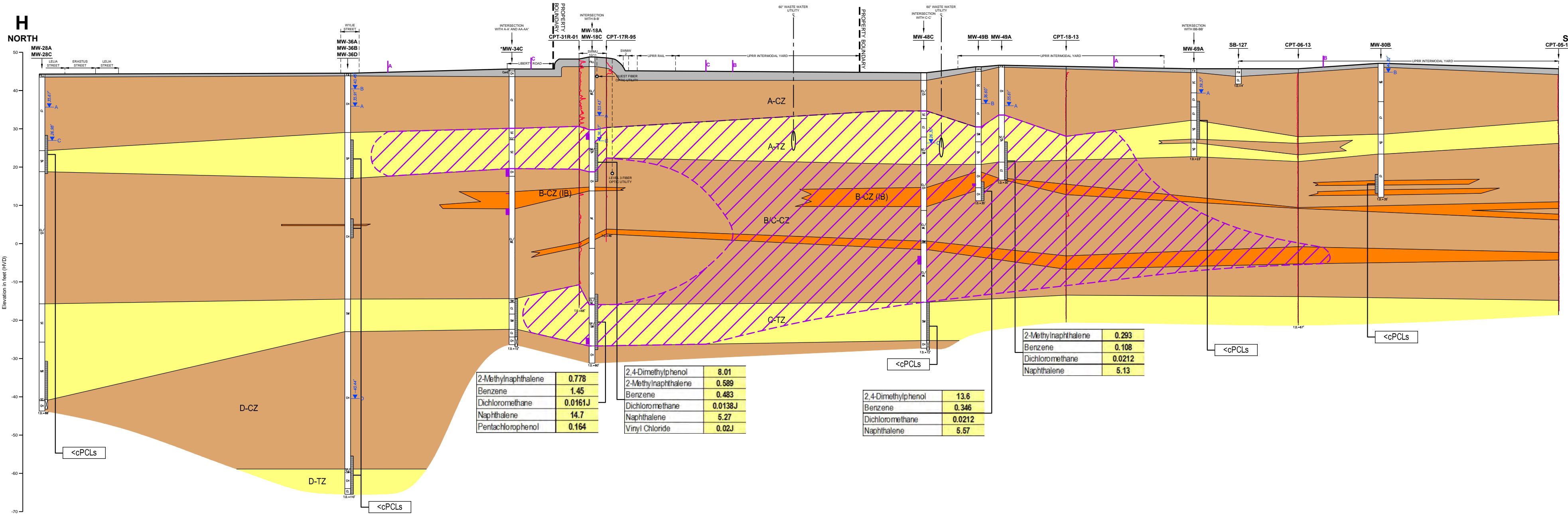


Notes:

- Topography is estimated.
- See Figure 1B for cross section location.
- Concentration are in mg/L.
- Blue and yellow highlighted and bolded concentrations exceed RALs and C/I PCLs, respectively.
- Utility locations based on drawings provided by the City of Houston Department of Public Works & Engineering.
- Vertical datum based on City of Houston Monument System (HVD), Ft HVD.
- Monitoring wells that have been plugged & abandoned, are denoted with an asterisk.

No.	Description
SWMU 1	Closed Surface Impoundment
SWMU 2	Northern and Southern Drainage Ditches
SWMU 4	Recent Process Area
SWMU 5	Original Process Area
SWMU 6	Water Treatment and Boiler System
SWMU 7	Tank Car Storage Area
SWMU 8	Aboveground Storage Tank Area
SWMU 9	Location of Former UST No. 44-023-05
SWMU 10	Location of Former Sap Water Treatment Tank
SWMU 11	Oil/Water Separators
SWMU 12	Railroad Tie Storage Area
AOC 1	Diesel Storage Tank
AOC 2	Contaminated Portion of City Water Line
AOC 4	Location of Former Incinerator
AOC 5	City Storm Sewer
AOC 6	Inactive Wastewater Lagoon
AOC 7	Location of Former UST No. 44-023-21

Parameter	RAL (mg/L)	cPCL (mg/L)
1,2-Dichloroethane	0.005	0.005
2,4-Dimethylphenol	0.49	1.5
2-Methylnaphthalene	0.058	0.29
Acenaphthene	1.5	4.4
Benzene	0.005	0.005
Benzo[a]anthracene	0.0013	0.0028
Benzo[a]pyrene	0.0002	0.0002
Bis[2-Ethylhexyl]phthalate	0.005	0.005
Chrysene	0.13	0.28
Dibenzofuran	0.058	0.29
Dichloromethane	0.005	0.005
Fluoranthene	0.98	2.9
Fluorene	0.98	2.9
Naphthalene	0.49	1.5
Pentachlorophenol	0.001	0.001
Phenanthrene	0.73	2.2
Pyrene	0.73	2.2
Toluene	1	1
Vinyl Chloride	0.002	0.002



Vertical Exaggeration 5X

100 0 100 200
scale in feet

UNION PACIFIC RAILROAD CO.

HOUSTON WOOD PRESERVING WORKS

Figure 4C-4
**CROSS SECTIONS
F-F', G-G' & H-H'**

PROJECT: 1358	BY: ADJ	REVISIONS
DATE: NOV., 2014	CHECKED: ECM	

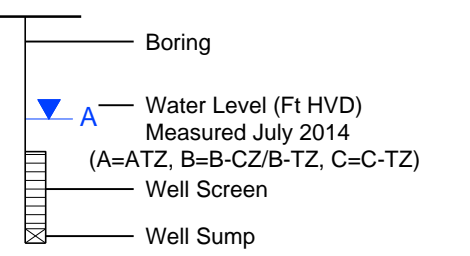
PASTOR, BEHLING & WHEELER, LLC
CONSULTING ENGINEERS AND SCIENTISTS

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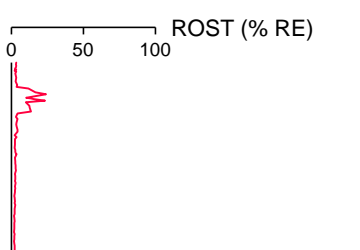
EXPLANATION

- Fill: Sand, Silt, Clay & Gravel, wood fragments, bricks, scrap metal
- Transmissive Zone (TZ): Sand & Silty Sand
- Cohesive Zone (CZ): Clay, Silty Clay & Silt
- B-CZ Interbedded Zone B-CZ (IB): Interbedded Carbonate Seams and Calcareous Nodules with Clay & Silty Clay, within the B-CZ
- Groundwater Affected Property/PCL Zone
- Elevation of Top of DNAPL (Ft HVD), and Measured DNAPL Thickness in Well (Ft) (July 2014)
- NAPL or Sheen/Staining Noted in Soils for Boring Log, or for CPT/ROST Location ROST Result >25% RE

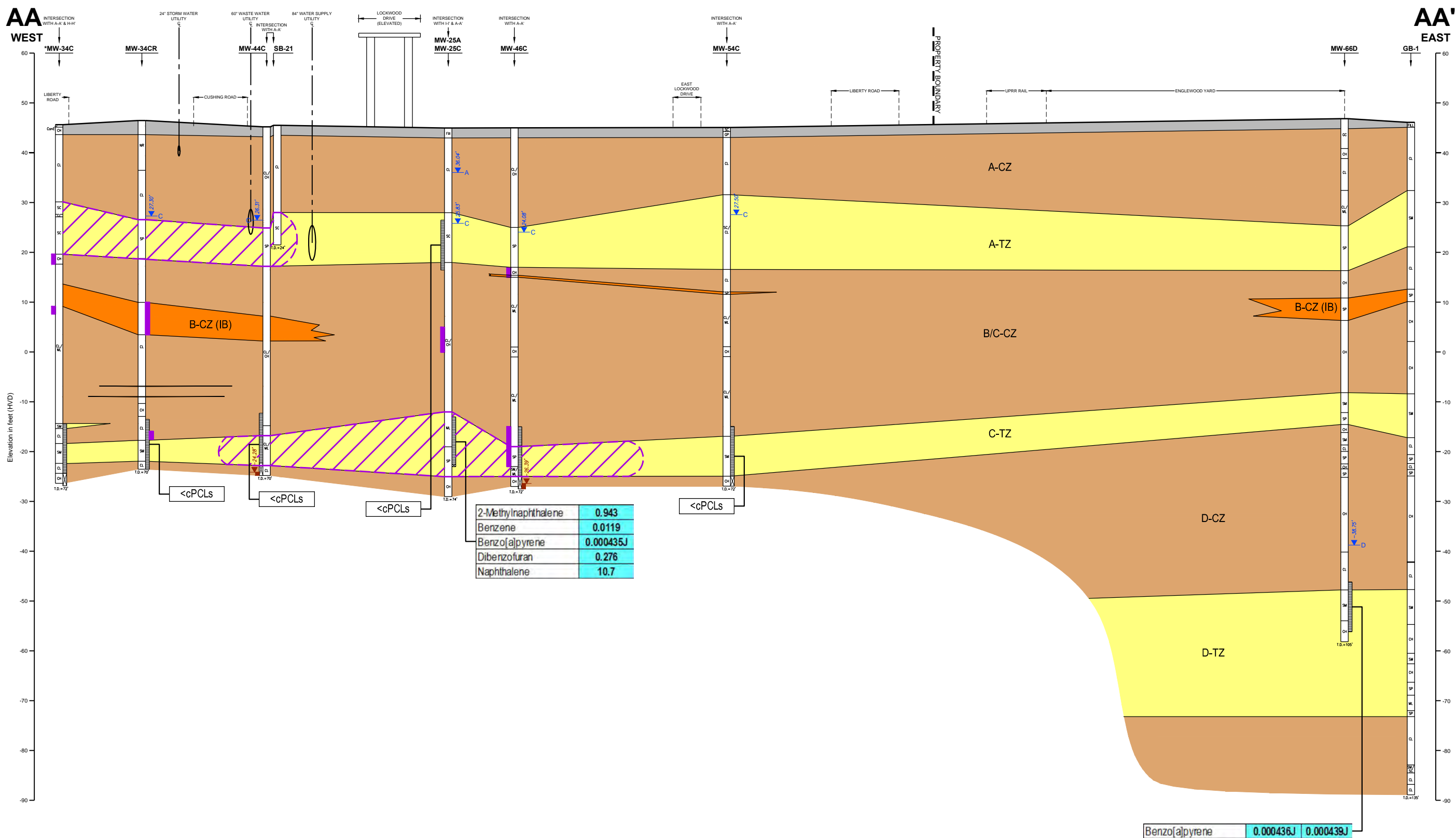
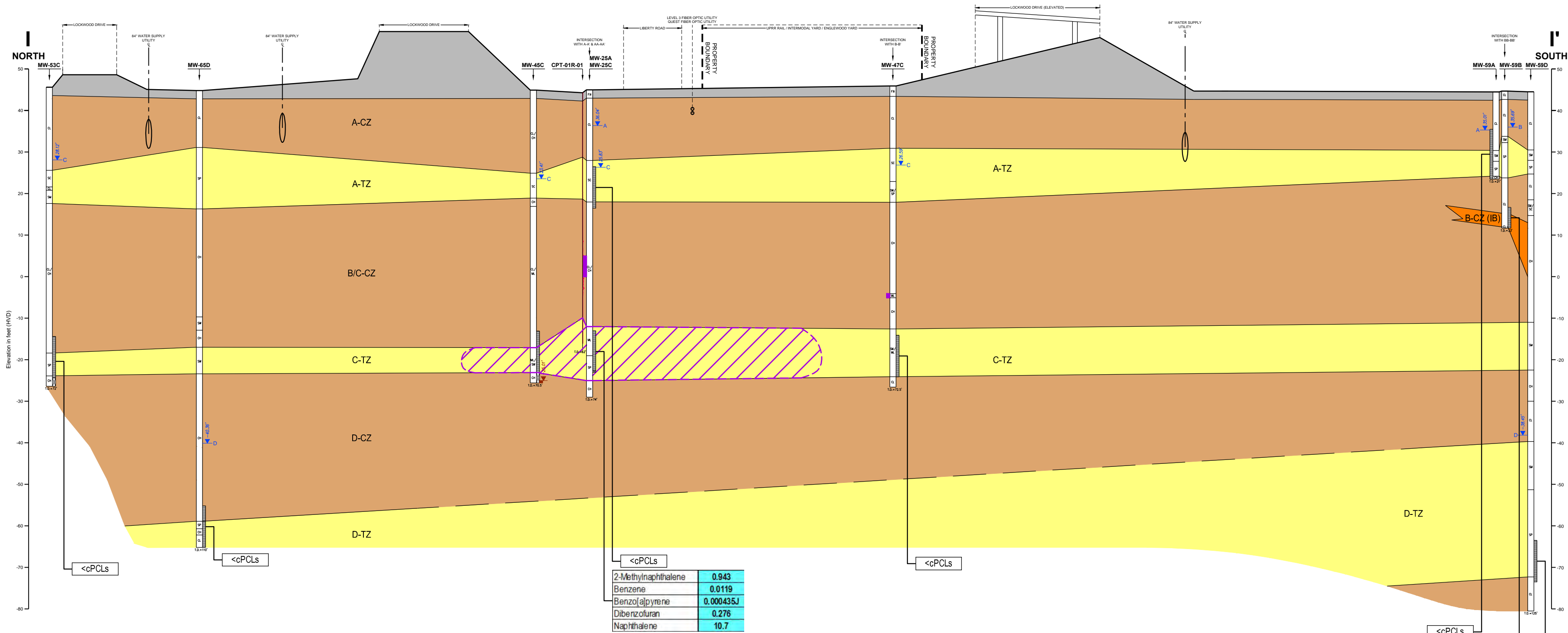
MONITORING WELL CONSTRUCTION



ROST LOGS



- Notes:**
1. Topography is estimated.
 2. See Figure 1B for cross section location.
 3. Concentration are in mg/L.
 4. Blue and yellow highlighted and bolded concentrations exceed RALs and C/ PCLs, respectively.
 5. Utility locations based on drawings provided by the City of Houston Department of Public Works & Engineering.
 6. Vertical datum based on City of Houston Monument System (HVD), Ft HVD.
 7. Monitoring wells that have been plugged & abandoned, are denoted with an asterisk.

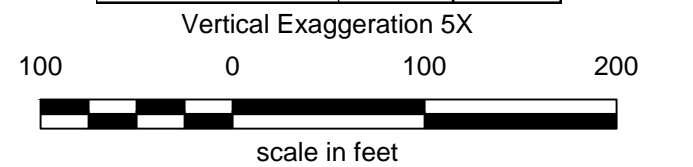


SWMU/AOC AREAS

No.	Description
SWMU 1	Closed Surface Impoundment
SWMU 2	Northern and Southern Drainage Ditches
SWMU 4	Recent Process Area
SWMU 5	Original Process Area
SWMU 6	Water Treatment and Boiler System
SWMU 7	Tank Car Storage Area
SWMU 8	Aboveground Storage Tank Area
SWMU 9	Location of Former UST No. 44-023-05
SWMU 10	Location of Former Sap Water Treatment Tank
SWMU 11	Oil/Water Separators
SWMU 12	Railroad Tie Storage Area
AOC 1	Diesel Storage Tank
AOC 3	Contaminated Portion of City Water Line
AOC 4	Location of Former Incinerator
AOC 5	City Storm Sewer
AOC 6	Inactive Wastewater Lagoon
AOC 7	Location of Former UST No. 44-023-21

Protective Concentration Levels (PCLs)

Parameter	RAL (mg/L)	cPCL (mg/L)
1,2-Dichloroethane	0.005	0.005
2,4-Dimethylphenol	0.49	1.5
2-Methylnaphthalene	0.098	0.29
Acenaphthene	1.5	4.4
Benzene	0.005	0.005
Benzo[a]anthracene	0.0013	0.0028
Benzo[a]pyrene	0.0002	0.0002
Bis(2-Ethylhexyl)phthalate	0.006	0.006
Chrysene	0.13	0.28
Dibenzofuran	0.098	0.29
Dichloromethane	0.005	0.005
Fluoranthene	0.98	2.9
Fluorene	0.98	2.9
Naphthalene	0.49	1.5
Pentachlorophenol	0.001	0.001
Phenanthrene	0.73	2.2
Pyrene	0.73	2.2
Toluene	1	1
Vinyl Chloride	0.002	0.002



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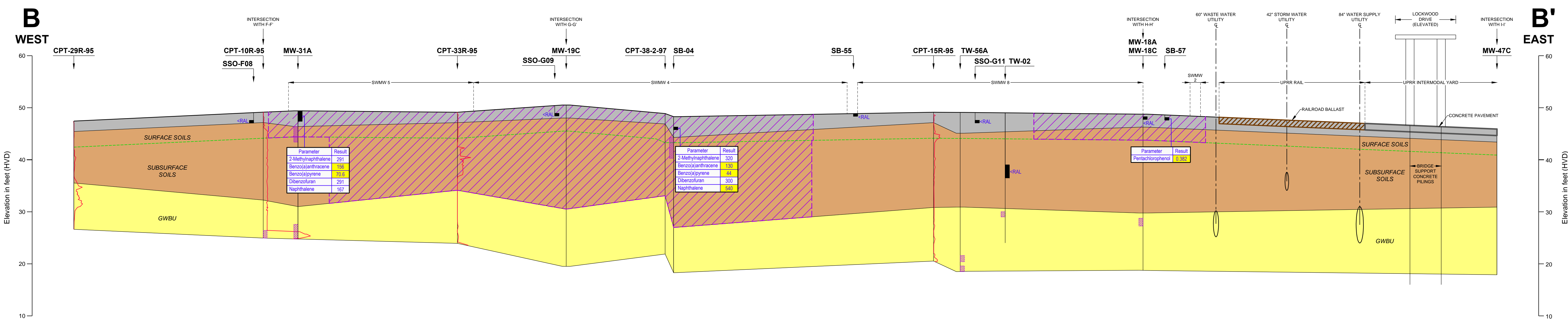
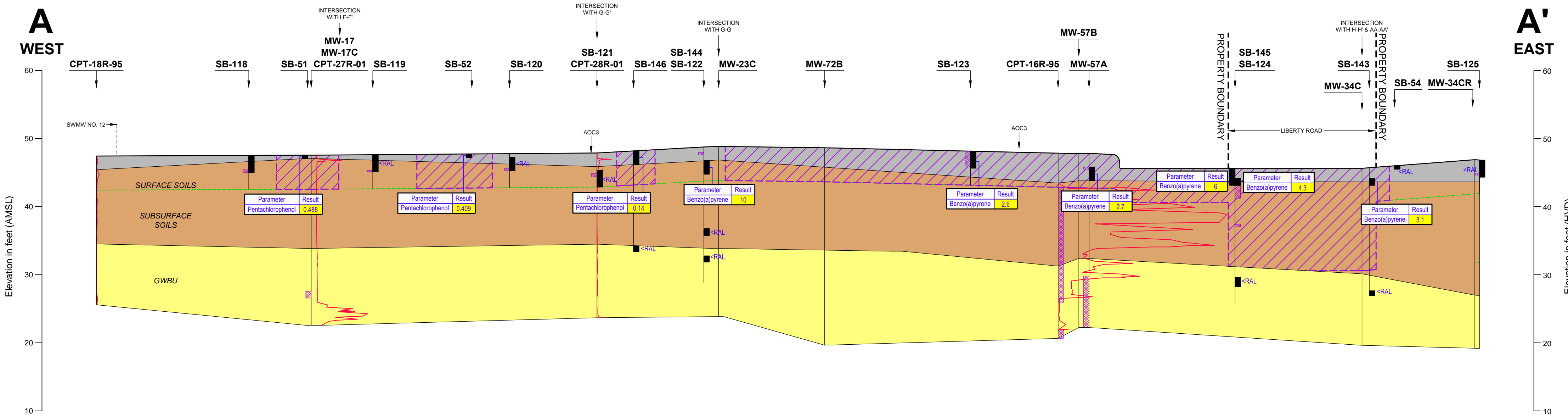
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HOUSTON WOOD PRESERVING WORKS

Figure 4C-5
CROSS SECTIONS I-I' & AA-AA'

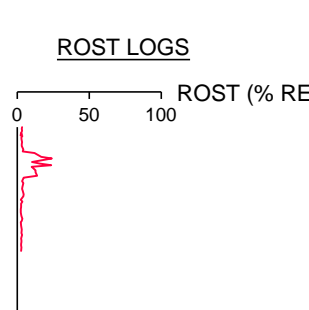
PROJECT: 1358	BY: ADJ	REVISIONS
DATE: NOV., 2014	CHECKED: ECM	

PASTOR, BEHLING & WHEELER, LLC
CONSULTING ENGINEERS AND SCIENTISTS



EXPLANATION

- Fill: Sand, Silt, Clay & Gravel, wood fragments, bricks, scrap metal
- Transmissive Zone (TZ): Sand & Silty Sand
- Cohesive Zone (CZ): Clay, Silty Clay & Silt
- Surface and Subsurface Soils PCLE Zone
- Line Denotes Surface (0-5 Ft on-site, 0-15 Ft off-site) / Subsurface (>5 Ft on-site, >15 Ft off-site) Soil Boundary
- Sample Interval
- Visual Indication of NAPL or ROST Result >25% RE



- Notes:**
1. Topography is estimated.
 2. See Figure 1B for cross section location.
 3. Concentration are in mg/L.
 4. Highlighted concentrations exceed cPCLs.
 5. Utility locations based on drawings provided by the City of Houston Department of Public Works & Engineering.
 6. Vertical datum based on City of Houston Monument System (HVD), Ft HVD.
 7. cPCL based on TRPP Tier 1 & 2 PCLs ($\frac{GW}{Soil} + \frac{Tot}{Ing} Soil Comb$) for 30 acre source

Surface Soil PCLs

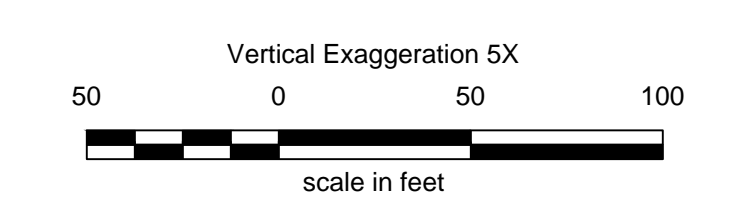
Parameter	RAL & Off-Site cPCL (mg/Kg)	On-Site cPCL (C/I) (mg/Kg)
1,2-Dichloroethane	0.03	0.03
2,4-Dinitrotoluene	0.02	0.05
2,6-Dinitrotoluene	0.02	0.04
2-Methylnaphthalene	126.65	378.27
Benzene	0.10	0.10
Benzo(a)anthracene	5.65	23.58
Benzo(a)pyrene	0.56	2.37
Dibenzofuran	249.02	743.73
Naphthalene	124.10	189.76
Pentachlorophenol	0.12	0.12
Phenanthrene	1705.20	9282.29
Arsenic	5.90	5.90
Lead	275.00	275.00

Subsurface Soil PCLs

Parameter	RAL & Off-Site cPCL (mg/Kg)	On-Site cPCL (C/I) (mg/Kg)
Benzene	0.10	0.10
2,4-Dinitrotoluene	0.02	0.05
2,6-Dinitrotoluene	0.02	0.04
Naphthalene	137.65	192.73
2-Methylnaphthalene	126.65	378.27
Benzo(a)pyrene	57.30	57.30
Dibenzofuran	249.02	743.73
Arsenic	5.90	5.90
Lead	275.00	275.00

SWMU/AOC AREAS

No.	Description
SWMU 1	Closed Surface Impoundment
SWMU 2	Northern and Southern Drainage Ditches
SWMU 4	Recent Process Area
SWMU 5	Original Process Area
SWMU 6	Water Treatment and Boiler System
SWMU 7	Tank Car Storage Area
SWMU 8	Aboveground Storage Tank Area
SWMU 9	Location of Former UST No. 44-023-05
SWMU 10	Location of Former Sap Water Treatment Tank
SWMU 11	Oil/Water Separators
SWMU 12	Railroad Tie Storage Area
AOC 1	Diesel Storage Tank
AOC 3	Contaminated Portion of City Water Line
AOC 4	Location of Former Incinerator
AOC 5	City Storm Sewer
AOC 6	Inactive Wastewater Lagoon
AOC 7	Location of Former UST No. 44-023-21



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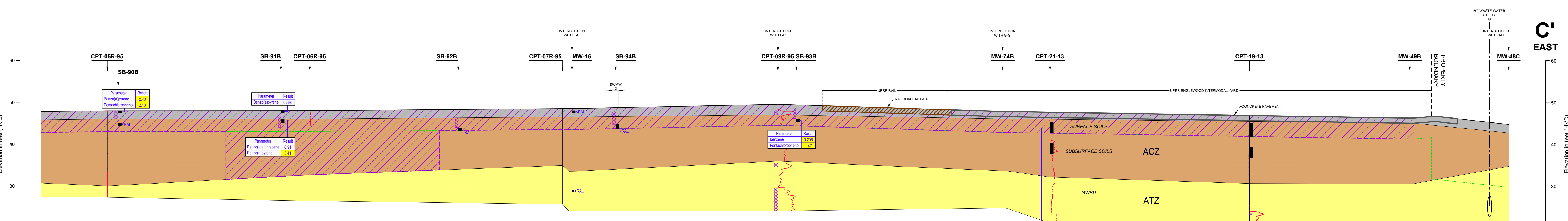
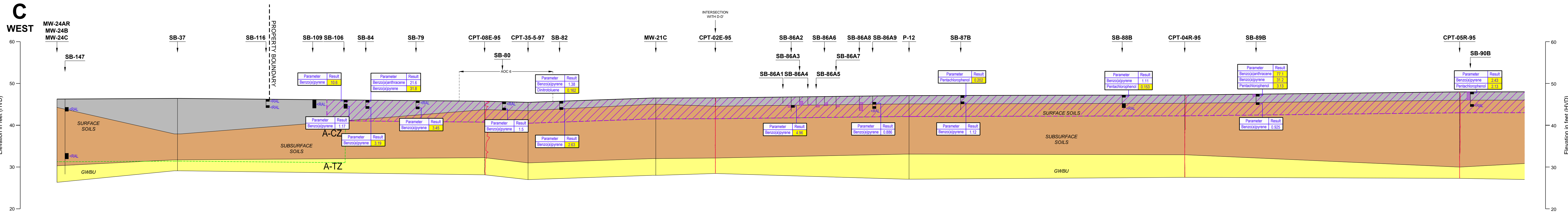
HOUSTON WOOD PRESERVING WORKS

Figure 4C-6

SURFACE/SUBSURFACE SOIL CROSS SECTION A-A' & B-B'

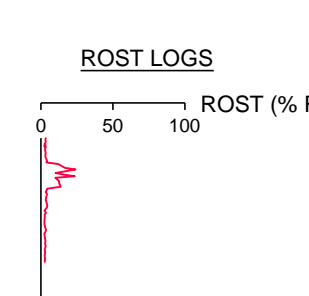
PROJECT: 1358	BY: ADJ	REVISIONS
DATE: NOV., 2014	CHECKED: ECM	

PASTOR, BEHLING & WHEELER, LLC
CONSULTING ENGINEERS AND SCIENTISTS



EXPLANATION

- Fill: Sand, Silt, Clay & Gravel, wood fragments, bricks, scrap metal
- Transmissive Zone (TZ): Sand & Silty Sand
- Cohesive Zone (CZ): Clay, Silty Clay & Silt
- Surface and Subsurface Soils
- PCLE Zone
- Line Denotes Surface (0-5 Ft on-site, 0-15 Ft off-site) / Subsurface (>5 Ft on-site, >15 Ft off-site) Soil Boundary
- Sample Interval
- Visual Indication of NAPL or ROST Result >25% RE



- Notes:
1. Topography is estimated.
 2. See Figure 1B for cross section location.
 3. Concentration are in mg/L.
 4. Highlighted concentrations exceed cPCLs.
 5. Utility locations based on drawings provided by the City of Houston Department of Public Works & Engineering.
 6. Vertical datum based on City of Houston Monument System (HVD), Ft HVD.
 7. cPCL based on TRPP Tier 1 & 2 PCLs ($\frac{GW}{Soil} + \frac{Tot}{Ing} \frac{Soil}{Comb}$) for 30 acre source

Surface Soil PCLs

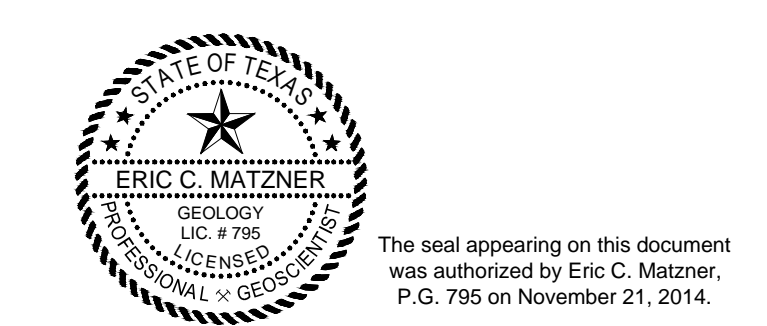
Parameter	RAL & Off-Site cPCL (mg/Kg)	On-Site cPCL (C/I) (mg/Kg)
1,2-Dichloroethane	0.03	0.03
2,4-Dinitrotoluene	0.02	0.05
2,6-Dinitrotoluene	0.02	0.04
2-Methylnaphthalene	126.65	378.27
Benzene	0.10	0.10
Benzo[a]anthracene	5.65	23.58
Benzo[a]pyrene	0.56	2.37
Dibenzofuran	249.02	743.73
Naphthalene	124.10	189.76
Pentachlorophenol	0.12	0.12
Phenanthrene	1705.20	9282.29
Arsenic	5.90	5.90
Lead	275.00	275.00

Subsurface Soil PCLs

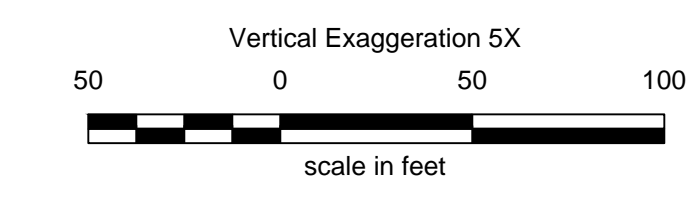
Parameter	RAL & Off-Site cPCL (mg/Kg)	On-Site cPCL (C/I) (mg/Kg)
Benzene	0.10	0.10
2,4-Dinitrotoluene	0.02	0.05
2,6-Dinitrotoluene	0.02	0.04
Naphthalene	137.66	192.73
2-Methylnaphthalene	126.65	378.27
Benzo[a]pyrene	57.30	57.30
Dibenzofuran	249.02	743.73
Arsenic	5.90	5.90
Lead	275.00	275.00

SWMU/AOC AREAS

No.	Description
SWMU 1	Closed Surface Impoundment
SWMU 2	Northern and Southern Drainage Ditches
SWMU 4	Recent Process Area
SWMU 5	Original Process Area
SWMU 6	Water Treatment and Boiler System
SWMU 7	Tank Car Storage Area
SWMU 8	Aboveground Storage Tank Area
SWMU 9	Location of Former UST No. 44-023-05
SWMU 10	Location of Former Sap Water Treatment Tank
SWMU 11	Oil/Water Separators
SWMU 12	Railroad Tie Storage Area
AOC 1	Diesel Storage Tank
AOC 3	Contaminated Portion of City Water Line
AOC 4	Location of Former Incinerator
AOC 5	City Storm Sewer
AOC 6	Inactive Wastewater Lagoon
AOC 7	Location of Former UST No. 44-023-21



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UNION PACIFIC RAILROAD CO.

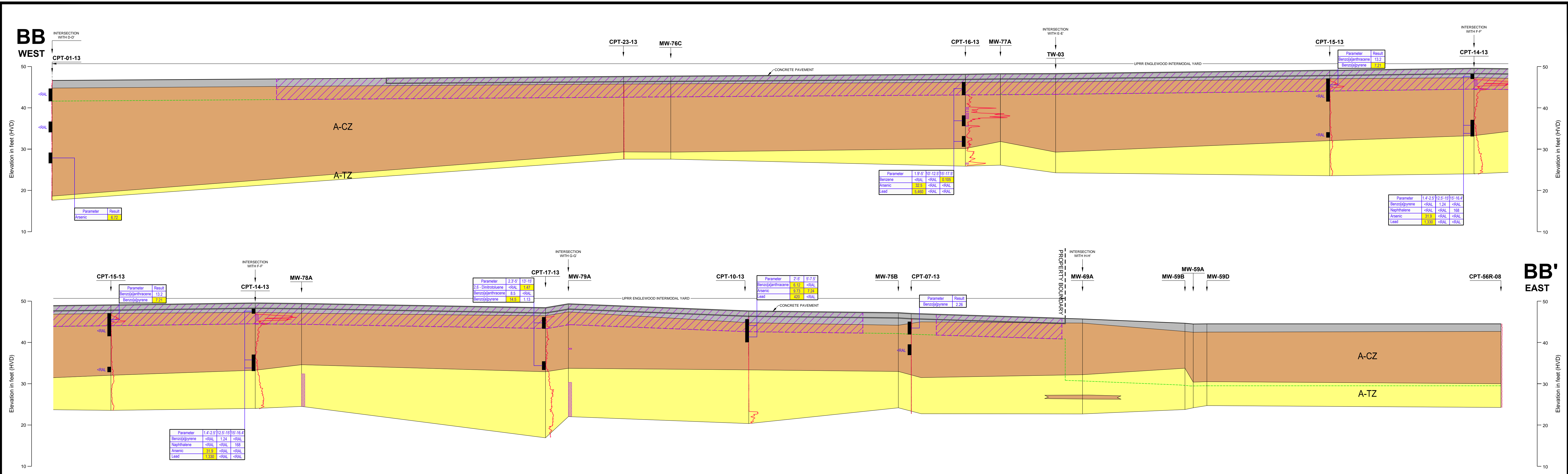
HOUSTON WOOD PRESERVING WORKS

Figure 4C-7

SURFACE/SUBSURFACE SOIL CROSS SECTION C-C'

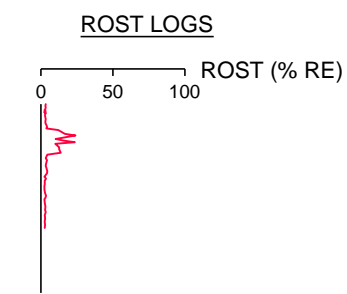
PROJECT: 1358	BY: ADJ	REVISIONS
DATE: NOV., 2014	CHECKED: ECM	

PASTOR, BEHLING & WHEELER, LLC
CONSULTING ENGINEERS AND SCIENTISTS



EXPLANATION

- Fill: Sand, Silt, Clay & Gravel, wood fragments, bricks, scrap metal
- Transmissive Zone (TZ): Sand & Silty Sand
- Cohesive Zone (CZ): Clay, Silty Clay & Silt
- Surface and Subsurface Soils
- PCLE Zone
- Line Denotes Surface (0-5 Ft on-site, 0-15 Ft off-site) / Subsurface (>5 Ft on-site, >15 Ft off-site) Soil Boundary
- Sample Interval
- Visual Indication of NAPL or ROST Result >25% RE



- Notes:**
- Topography is estimated.
 - See Figure 1B for cross section location.
 - Concentration are in mg/L.
 - Highlighted concentrations exceed cPCLs.
 - Utility locations based on drawings provided by the City of Houston Department of Public Works & Engineering.
 - Vertical datum based on City of Houston Monument System (HVD), Ft HVD.
 - cPCL based on TRPP Tier 1 & 2 PCLs ($GW_{Soil} + Tot_{Soil} Comb$) for 30 acre source

Surface Soil PCLs

Parameter	RAL & Off-Site cPCL (mg/Kg)	On-Site cPCL (C/I) (mg/Kg)
1,2-Dichloroethane	0.03	0.03
2,4-Dinitrotoluene	0.02	0.05
2,6-Dinitrotoluene	0.02	0.04
2-Methylnaphthalene	126.65	378.27
Benzene	0.10	0.10
Benzo[a]anthracene	5.65	23.58
Benzo[a]pyrene	0.56	2.37
Dibenzofuran	249.02	743.73
Naphthalene	124.10	189.76
Pentachlorophenol	0.12	0.12
Phenanthrene	1705.20	9282.29
Arsenic	5.90	5.90
Lead	275.00	275.00

Subsurface Soil PCLs

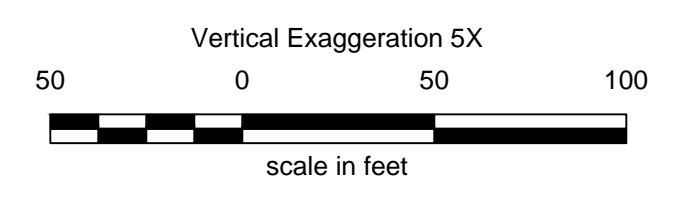
Parameter	RAL & Off-Site cPCL (mg/Kg)	On-Site cPCL (C/I) (mg/Kg)
Benzene	0.10	0.10
2,4-Dinitrotoluene	0.02	0.05
2,6-Dinitrotoluene	0.02	0.04
Naphthalene	137.66	192.73
2-Methylnaphthalene	126.65	378.27
Benzo[a]pyrene	57.30	57.30
Dibenzofuran	249.02	743.73
Arsenic	5.90	5.90
Lead	275.00	275.00

SWMU/AOC AREAS

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SWMU 8	Aboveground Storage Tank Area
SWMU 9	Location of Former UST No. 44-023-05
SWMU 10	Location of Former Sap Water Treatment Tank
SWMU 11	Oil/Water Separators
SWMU 12	Railroad Tie Storage Area
AOC 1	Diesel Storage Tank
AOC 3	Contaminated Portion of City Water Line
AOC 4	Location of Former Incinerator
AOC 5	City Storm Sewer
AOC 6	Inactive Wastewater Lagoon
AOC 7	Location of Former UST No. 44-023-21



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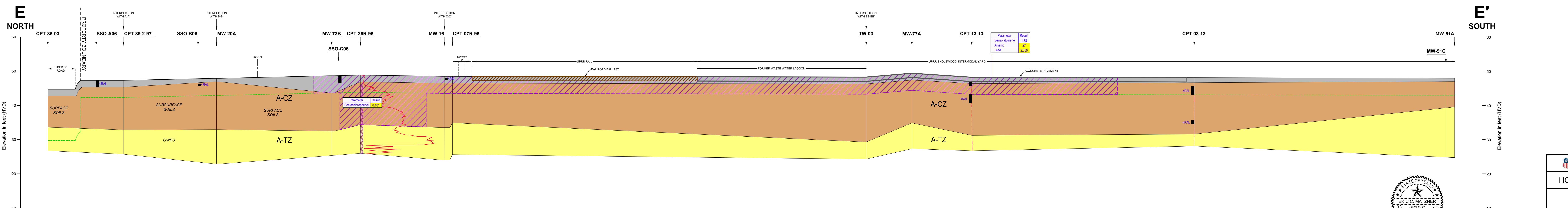
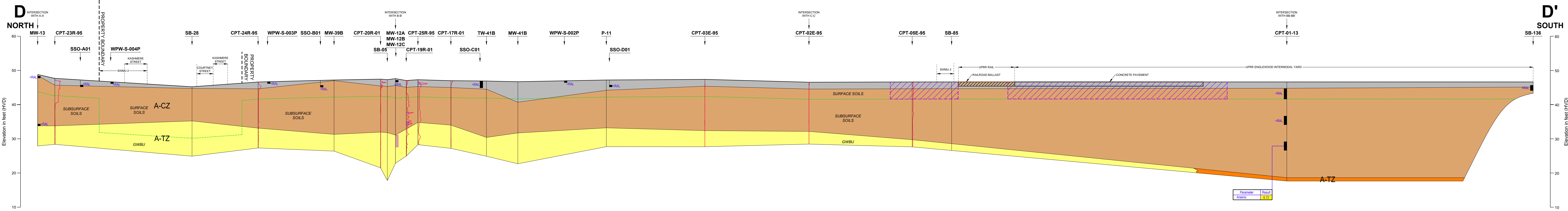
UNION PACIFIC RAILROAD CO.

HOUSTON WOOD PRESERVING WORKS

Figure 4C-8
SURFACE/SUBSURFACE SOIL CROSS SECTION BB-BB'

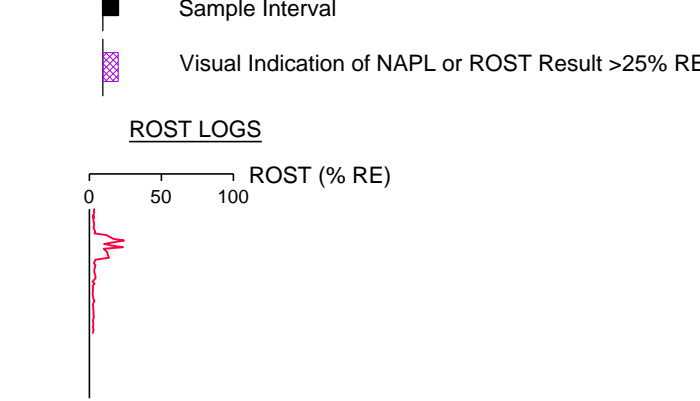
PROJECT: 1358	BY: ADJ	REVISIONS
DATE: NOV., 2014	CHECKED: ECM	

PASTOR, BEHLING & WHEELER, LLC
CONSULTING ENGINEERS AND SCIENTISTS



EXPLANATION

- Fill: Sand, Silt, Clay & Gravel, wood fragments, bricks, scrap metal
- Transmissive Zone (TZ): Sand & Silty Sand
- Cohesive Zone (CZ): Clay, Silty Clay & Silt
- Surface and Subsurface Soils PCL Zone
- Line Denotes Surface (0-5 Ft on-site, 0-15 Ft off-site) / Subsurface (>5 Ft on-site, >15 Ft off-site) Soil Boundary
- Sample Interval
- Visual Indication of NAPL or ROST Result >25% RE



- Notes:**
- Topography is estimated.
 - See Figure 1B for cross section location.
 - Concentration are in mg/L.
 - Highlighted concentrations exceed cPCLs.
 - Utility locations based on drawings provided by the City of Houston Department of Public Works & Engineering.
 - Vertical datum based on City of Houston Monument System (HVD), Ft HVD.
 - cPCL based on TRPP Tier 1 & 2 PCLs (GW, Soil, Ing, Comb) for 30 acre source

Surface Soil PCLs

Parameter	RAI & Off-Site cPCL (mg/Kg)	On-Site cPCL (C/F) (mg/Kg)
1,2-Dichloroethane	0.03	0.03
2,4-Dinitrotoluene	0.02	0.05
2,6-Dinitrotoluene	0.02	0.04
2-Methylnaphthalene	126.65	378.27
Benzene	0.10	0.10
Benzo(a)anthracene	5.65	23.58
Benzo(a)pyrene	0.56	2.37
Dibenzofuran	249.02	743.73
Naphthalene	124.10	189.75
Pentachlorobenzene	0.12	0.12
Phenanthrene	1705.20	9282.29
Arsenic	5.90	5.90
Lead	275.00	275.00

Subsurface Soil PCLs

Parameter	RAI & Off-Site cPCL (mg/Kg)	On-Site cPCL (C/F) (mg/Kg)
Benzene	0.10	0.10
2,4-Dinitrotoluene	0.02	0.05
2,6-Dinitrotoluene	0.02	0.04
Naphthalene	137.68	192.73
2-Methylnaphthalene	126.65	378.27
Benzo(a)pyrene	57.30	57.30
Dibenzofuran	249.02	743.73
Arsenic	5.90	5.90
Lead	275.00	275.00

SWMU/ACC AREAS

No.	Description
SWMU 1	Closed Surface Impoundment
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SWMU 4	Recent Process Area
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SWMU 7	Tank Car Storage Area
SWMU 8	Aboveground Storage Tank Area
SWMU 9	Location of Former UST No. 44-023-05
SWMU 10	Location of Former Sap Water Treatment Tank
SWMU 11	Oil/Water Separators
SWMU 12	Railroad Tie Storage Area
SWMU 13	Diesel Storage Tank
ACC 1	Contaminated Portion of City Water Line
ACC 4	Location of Former Incinerator
ACC 5	City Storm Sewer
ACC 6	Inactive Wastewater Lagoon
ACC 7	Location of Former UST No. 44-023-21

Vertical Exaggeration 5X

scale in feet



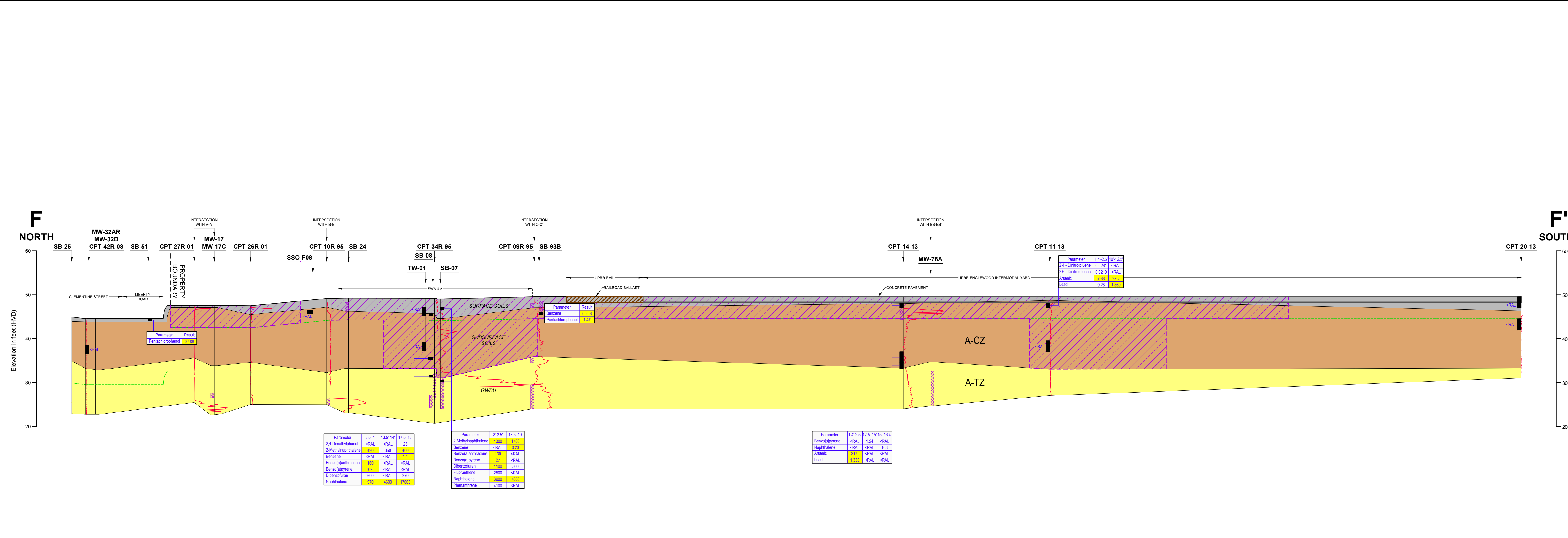
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UNION PACIFIC RAILROAD CO.
HOUSTON WOOD PRESERVING WORKS

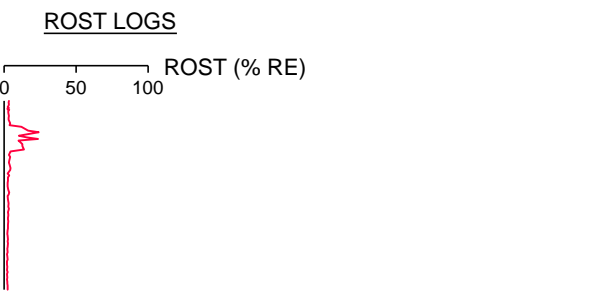
Figure 4C-9
SURFACE/SUBSURFACE SOIL CROSS SECTION D-D' & E-E'

PROJECT: 1358 BY: ADJ REVISIONS
 DATE: NOV., 2014 CHECKED: ECM

PASTOR, BEHLING & WHEELER, LLC
 CONSULTING ENGINEERS AND SCIENTISTS



- EXPLANATION**
- Fill: Sand, Silt, Clay & Gravel, wood fragments, bricks, scrap metal
 - Transmissive Zone (TZ): Sand & Silty Sand
 - Cohesive Zone (CZ): Clay, Silty Clay & Silt
 - Surface and Subsurface Soils
 - PCL Zone
 - Line Denotes Surface (0-5 Ft on-site, 0-15 Ft off-site) / Subsurface (>5 Ft on-site, >15 Ft off-site) Soil Boundary
 - Sample Interval
 - Visual Indication of NAPL or ROST Result >25% RE



- Notes:**
- Topography is estimated.
 - See Figure 1B for cross section location.
 - Concentration are in mg/L.
 - Highlighted concentrations exceed cPCLs.
 - Utility locations based on drawings provided by the City of Houston Department of Public Works & Engineering.
 - Vertical datum based on City of Houston Monument System (HVD), FHVD.
 - cPCL based on TRPP Tier 1 & 2 PCLs ($\frac{GW}{Soil} + \frac{Tot}{Ing} Soil Comb$) for 30 acre source

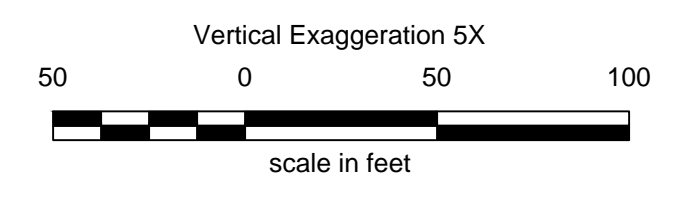
Surface Soil PCLs

Parameter	RAL & Off-Site cPCL (mg/Kg)	On-Site cPCL (C/1) (mg/Kg)
1,2-Dichloroethane	0.03	0.03
2,4-Dinitrochlorobenzene	0.02	0.05
2,6-Dinitrochlorobenzene	0.02	0.04
2-Methylnaphthalene	126.65	378.27
Benzene	0.10	0.10
Benzo[a]anthracene	5.65	23.58
Benzo[a]pyrene	0.56	2.37
Dibenzofuran	249.02	743.73
Naphthalene	124.10	189.76
Pentachlorophenol	0.12	0.12
Phenanthrene	1705.20	9282.29
Arsenic	5.90	5.90
Lead	275.00	275.00

Subsurface Soil PCLs

Parameter	RAL & Off-Site cPCL (mg/Kg)	On-Site cPCL (C/1) (mg/Kg)
Benzene	0.10	0.10
2,4-Dinitrochlorobenzene	0.02	0.05
2,6-Dinitrochlorobenzene	0.02	0.04
Naphthalene	137.66	192.73
2-Methylnaphthalene	126.65	378.27
Benzo[a]pyrene	57.30	57.30
Dibenzofuran	249.02	743.73
Arsenic	5.90	5.90
Lead	275.00	275.00

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SWMU/AOC AREAS

No.	Description
SWMU 1	Closed Surface Impoundment
SWMU 2	Northern and Southern Drainage Ditches
SWMU 4	Recent Process Area
SWMU 5	Original Process Area
SWMU 6	Water Treatment and Boiler System
SWMU 7	Tank Car Storage Area
SWMU 8	Aboveground Storage Tank Area
SWMU 9	Location of Former UST No. 44-023-05
SWMU 10	Location of Former Sap Water Treatment Tank
SWMU 11	Oil/Water Separators
SWMU 12	Railroad Tie Storage Area
AOC 1	Diesel Storage Tank
AOC 3	Contaminated Portion of City Water Line
AOC 4	Location of Former Incinerator
AOC 5	City Storm Sewer
AOC 6	Inactive Wastewater Lagoon
AOC 7	Location of Former UST No. 44-023-21

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HOUSTON WOOD PRESERVING WORKS

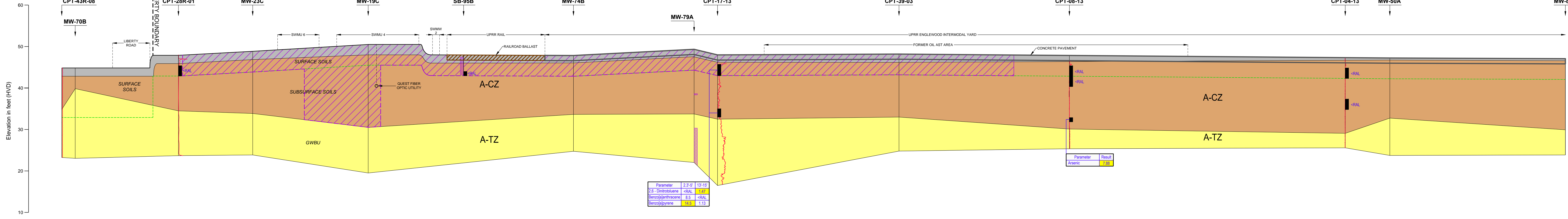
Figure 4C-10

SURFACE/SUBSURFACE SOIL CROSS SECTION F-F'

PROJECT: 1358	BY: ADJ	REVISIONS
DATE: NOV., 2014	CHECKED: ECM	

PASTOR, BEHLING & WHEELER, LLC
CONSULTING ENGINEERS AND SCIENTISTS

G
NORTH

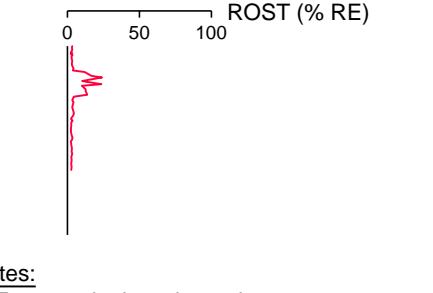


G'
SOUTH

EXPLANATION

- Fill: Sand, Silt, Clay & Gravel, wood fragments, bricks, scrap metal
- Transmissive Zone (TZ): Sand & Silty Sand
- Cohesive Zone (CZ): Clay, Silty Clay & Silt
- Surface and Subsurface Soils PCLE Zone
- Line Denotes Surface (0-5 Ft on-site, 0-15 Ft off-site) Subsurface (>5 Ft on-site, >15 Ft off-site) Soil Boundary
- Sample Interval
- Visual Indication of NAPL or ROST Result >25% RE

ROST LOGS



- Notes:
- Topography is estimated.
 - See Figure 1B for cross section location.
 - Concentration are in mg/L.
 - Highlighted concentrations exceed cPCLs.
 - Utility locations based on drawings provided by the City of Houston Department of Public Works & Engineering.
 - Vertical datum based on City of Houston Monument System (HVD), Ft HVD.
 - cPCL based on TRPP Tier 1 & 2 PCLs ($\frac{Soil + Tot}{Ing + Comb}$) for 30 acre source

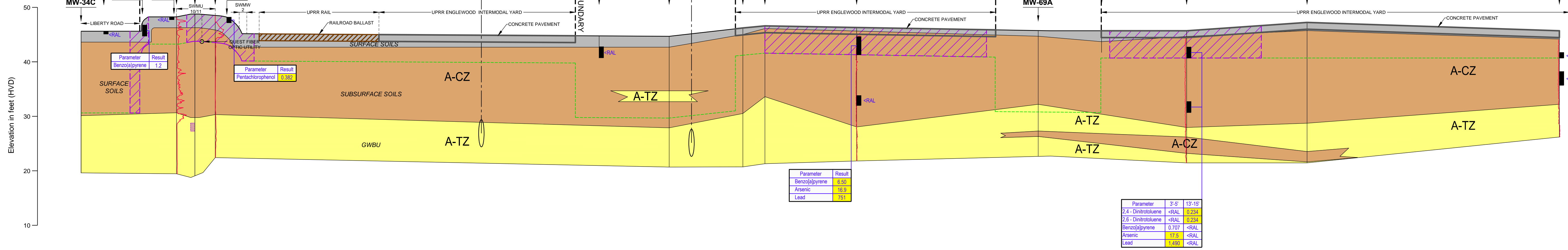
Surface Soil PCLs

Parameter	RAL & Off-Site cPCL (mg/kg)	On-Site cPCL (C/I) (mg/kg)
1,2-Dichloroethane	0.03	0.03
2,4-Dinitrotoluene	0.02	0.05
2,6-Dinitrotoluene	0.02	0.04
2-Methylnaphthalene	126.65	378.27
Benzene	0.10	0.10
Benzo[a]anthracene	5.65	23.58
Benzo[a]pyrene	0.96	2.37
Dibenzofuran	249.02	743.73
Naphthalene	124.10	689.76
Phenanthrene	0.12	0.12
Phenanthrene	1705.20	9282.29
Arsenic	5.90	5.90
Lead	275.00	275.00

Subsurface Soil PCLs

Parameter	RAL & Off-Site cPCL (mg/kg)	On-Site cPCL (C/I) (mg/kg)
Benzene	0.10	0.10
2,4-Dinitrotoluene	0.02	0.05
2,6-Dinitrotoluene	0.02	0.04
Naphthalene	137.66	192.73
2-Methylnaphthalene	126.65	378.27
Benzo[a]pyrene	57.30	57.30
Dibenzofuran	249.02	743.73
Arsenic	5.90	5.90
Lead	275.00	275.00

H
NORTH

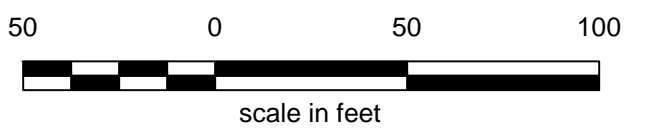


H'
SOUTH

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Vertical Exaggeration 5X



SWMU/AOC AREAS

No.	Description
SWMU 1	Closed Surface Impoundment
SWMU 2	Northern and Southern Drainage Ditches
SWMU 4	Recent Process Area
SWMU 5	Original Process Area
SWMU 6	Water Treatment and Boiler System
SWMU 7	Tank Car Storage Area
SWMU 8	Aboveground Storage Tank Area
SWMU 9	Location of Former UST No. 44-023-05
SWMU 10	Location of Former Sap Water Treatment Tank
SWMU 11	Oil/Water Separators
SWMU 12	Railroad Tie Storage Area
AOC 1	Diesel Storage Tank
AOC 3	Contaminated Portion of City Water Line
AOC 4	Location of Former Incinerator
AOC 5	City Storm Sewer
AOC 6	Inactive Wastewater Lagoon
AOC 7	Location of Former UST No. 44-023-21

UNION PACIFIC RAILROAD CO.

HOUSTON WOOD PRESERVING WORKS

Figure 4C-11
SURFACE/SUBSURFACE SOIL CROSS SECTION G-G' & H-H'

PROJECT: 1358	BY: ADJ	REVISIONS
DATE: NOV., 2014	CHECKED: ECM	

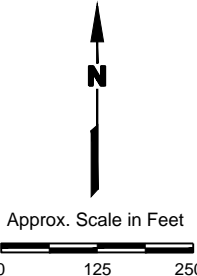
PASTOR, BEHLING & WHEELER, LLC
CONSULTING ENGINEERS AND SCIENTISTS

EXPLANATION

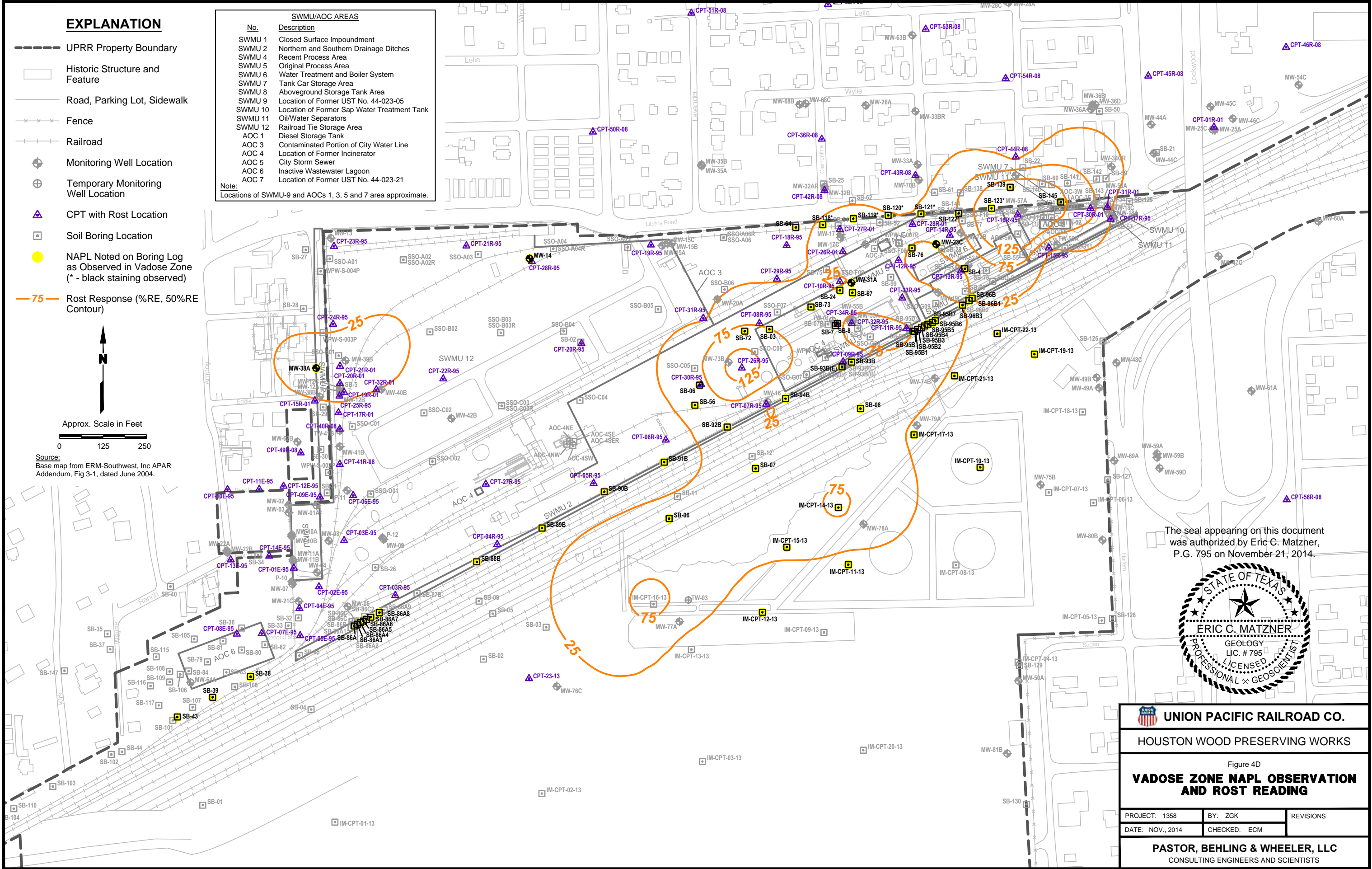
- UPRR Property Boundary
- ▭ Historic Structure and Feature
- Road, Parking Lot, Sidewalk
- Fence
- Railroad
- ⊕ Monitoring Well Location
- ⊕ Temporary Monitoring Well Location
- ▲ CPT with Rost Location
- Soil Boring Location
- NAPL Noted on Boring Log as Observed in Vadose Zone (* - black staining observed)
- 75— Rost Response (%RE, 50%RE Contour)

SWMU/AOC AREAS	
No.	Description
SWMU 1	Closed Surface Impoundment
SWMU 2	Northern and Southern Drainage Ditches
SWMU 4	Recent Process Area
SWMU 5	Original Process Area
SWMU 6	Water Treatment and Boiler System
SWMU 7	Tank Car Storage Area
SWMU 8	Aboveground Storage Tank Area
SWMU 9	Location of Former UST No. 44-023-05
SWMU 10	Location of Former Sap Water Treatment Tank
SWMU 11	Oil/Water Separators
SWMU 12	Railroad Tie Storage Area
AOC 1	Diesel Storage Tank
AOC 3	Contaminated Portion of City Water Line
AOC 4	Location of Former Incinerator
AOC 5	City Storm Sewer
AOC 6	Inactive Wastewater Lagoon
AOC 7	Location of Former UST No. 44-023-21

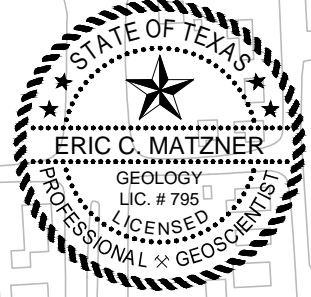
Note:
Locations of SWMU-9 and AOCs 1, 3, 5 and 7 area approximate.



Source:
Base map from ERM-Southwest, Inc APAR Addendum, Fig 3-1, dated June 2004.



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UNION PACIFIC RAILROAD CO.		
HOUSTON WOOD PRESERVING WORKS		
Figure 4D		
VADOSE ZONE NAPL OBSERVATION AND ROST READING		
PROJECT: 1358	BY: ZGK	REVISIONS
DATE: NOV., 2014	CHECKED: ECM	
PASTOR, BEHLING & WHEELER, LLC		
CONSULTING ENGINEERS AND SCIENTISTS		

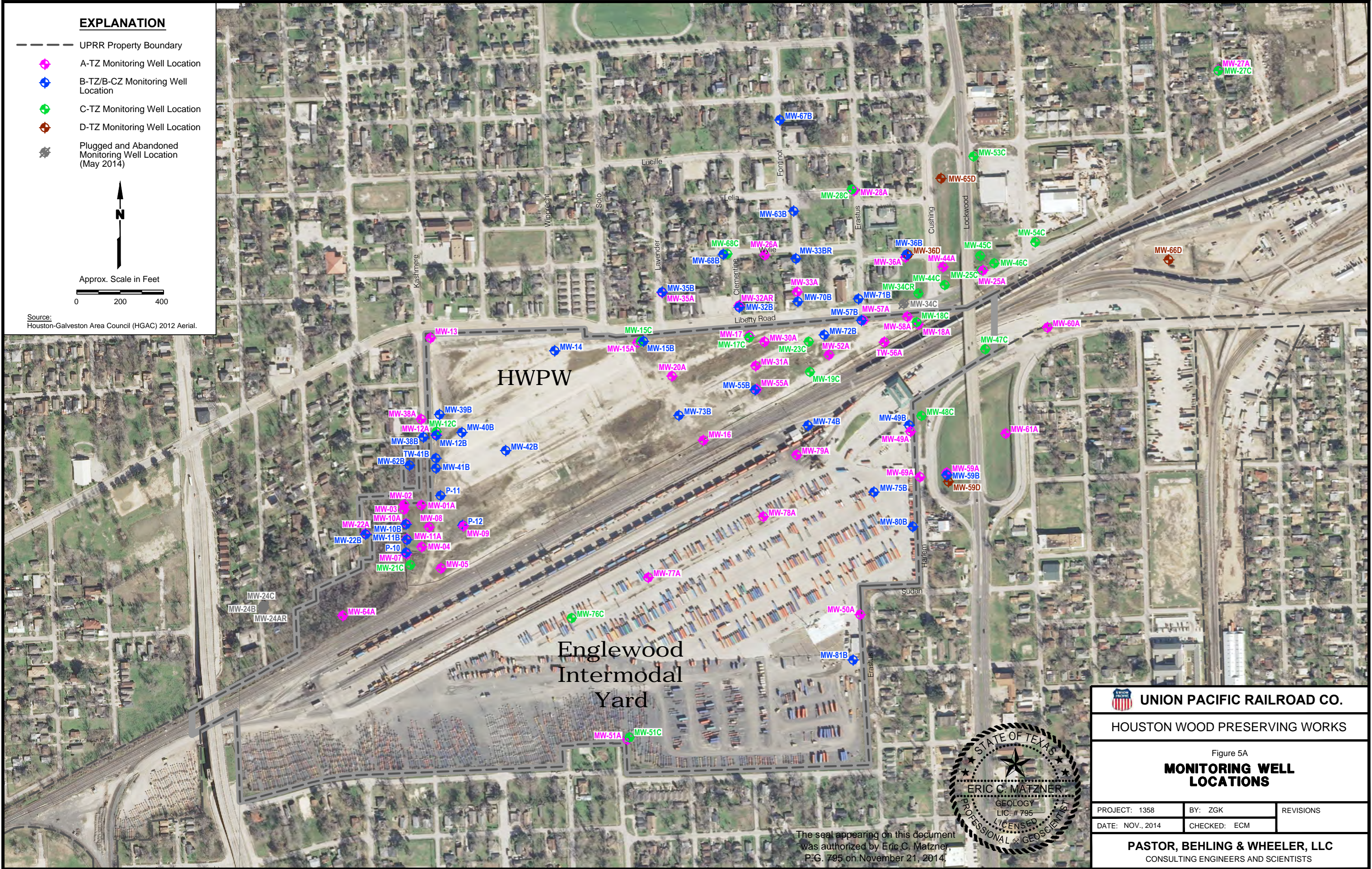
EXPLANATION

- UPRR Property Boundary
- ◆ A-TZ Monitoring Well Location
- ◆ B-TZ/B-CZ Monitoring Well Location
- ◆ C-TZ Monitoring Well Location
- ◆ D-TZ Monitoring Well Location
- ◆ Plugged and Abandoned Monitoring Well Location (May 2014)



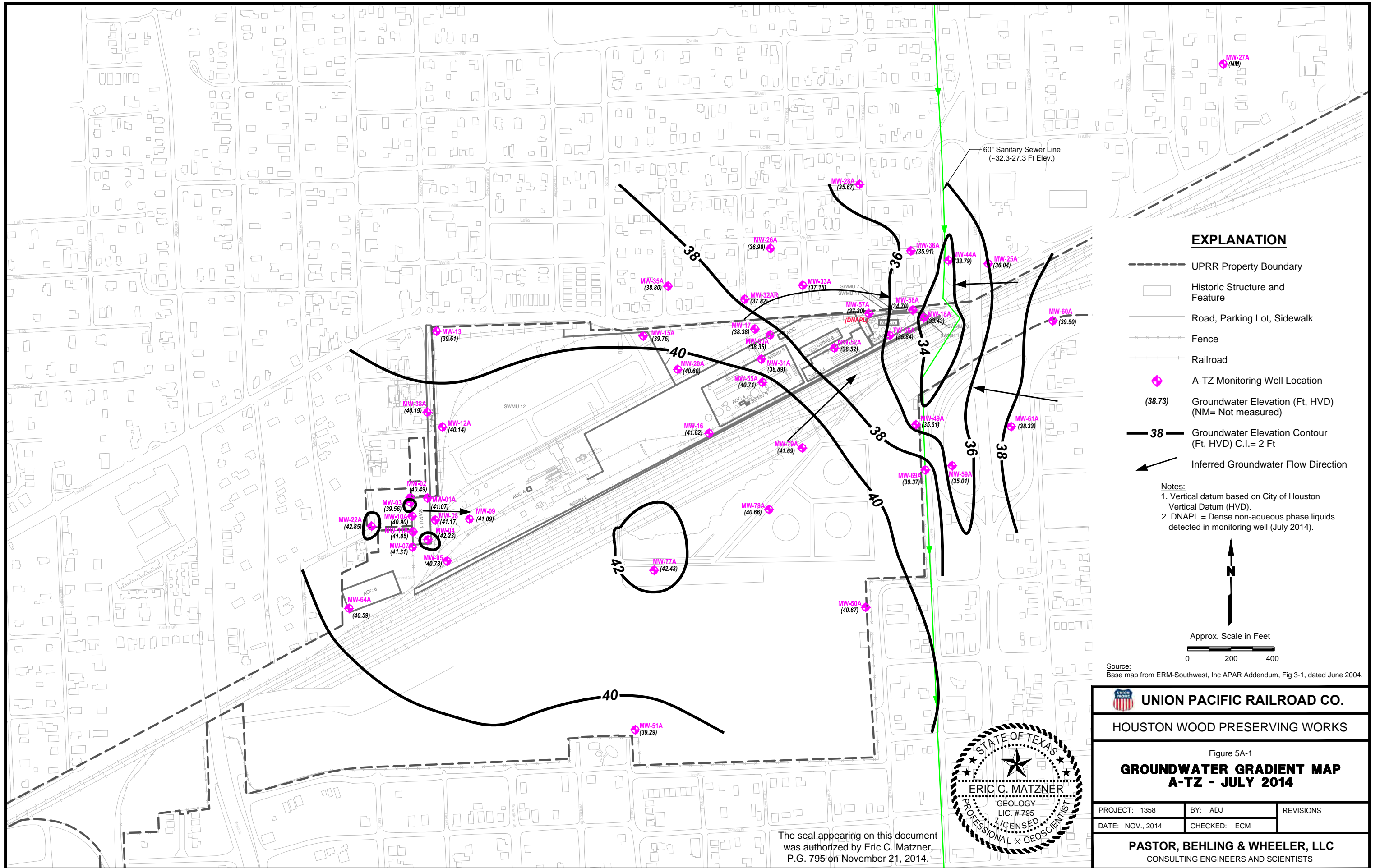
Approx. Scale in Feet
 0 200 400

Source:
 Houston-Galveston Area Council (HGAC) 2012 Aerial.



UNION PACIFIC RAILROAD CO. HOUSTON WOOD PRESERVING WORKS		
Figure 5A MONITORING WELL LOCATIONS		
PROJECT: 1358	BY: ZGK	REVISIONS
DATE: NOV., 2014	CHECKED: ECM	
PASTOR, BEHLING & WHEELER, LLC CONSULTING ENGINEERS AND SCIENTISTS		

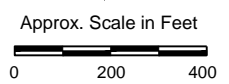
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EXPLANATION

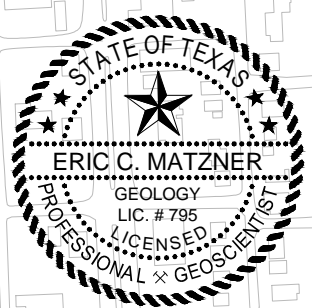
- UPRR Property Boundary
- ▭ Historic Structure and Feature
- Road, Parking Lot, Sidewalk
- - - Fence
- Railroad
- ◆ A-TZ Monitoring Well Location
- (38.73) Groundwater Elevation (Ft, HVD)
(NM= Not measured)
- 38** Groundwater Elevation Contour
(Ft, HVD) C.I.= 2 Ft
- ↖ Inferred Groundwater Flow Direction

Notes:
 1. Vertical datum based on City of Houston Vertical Datum (HVD).
 2. DNAPL = Dense non-aqueous phase liquids detected in monitoring well (July 2014).

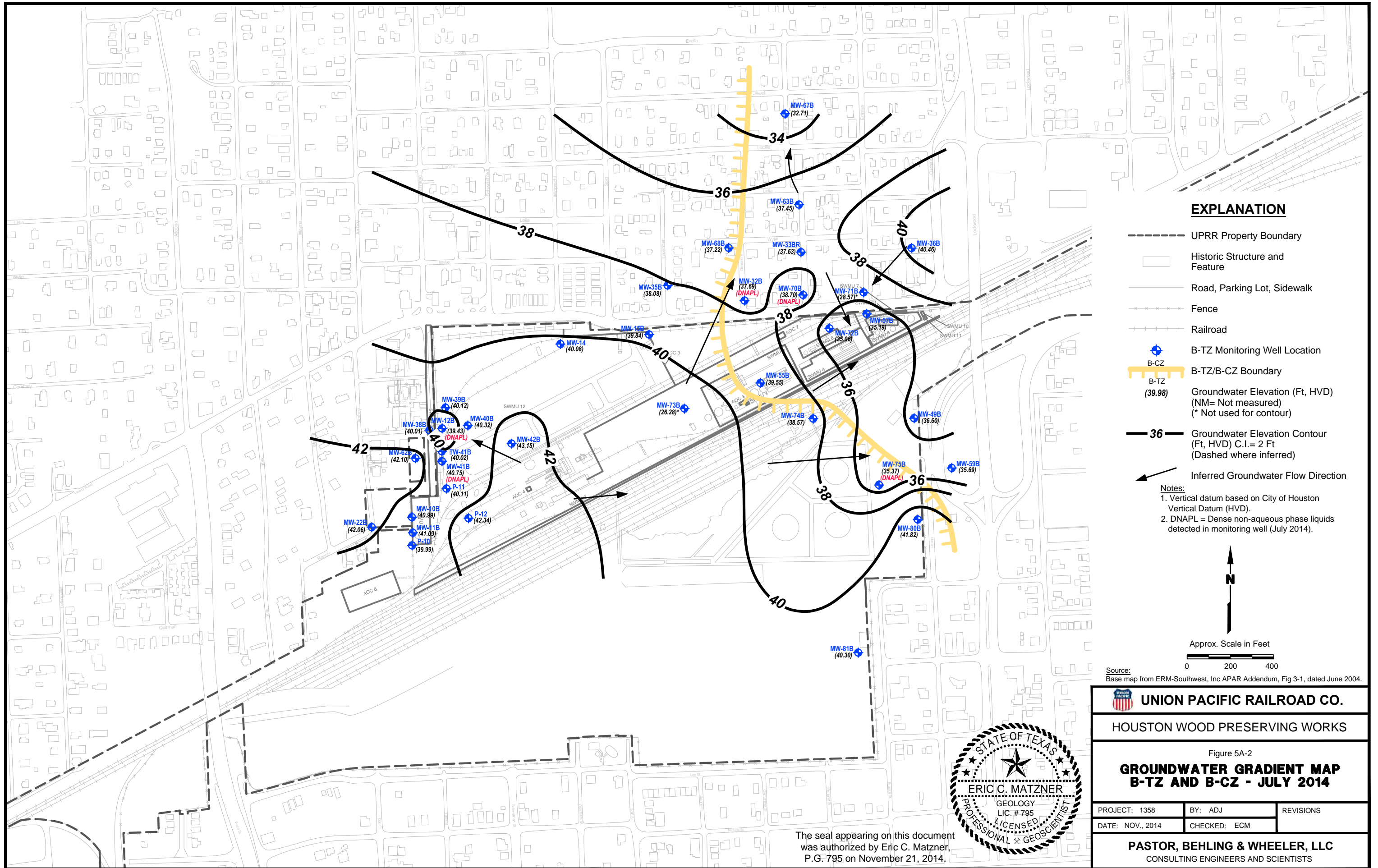


Source:
 Base map from ERM-Southwest, Inc APAR Addendum, Fig 3-1, dated June 2004.

UNION PACIFIC RAILROAD CO.		
HOUSTON WOOD PRESERVING WORKS		
Figure 5A-1 GROUNDWATER GRADIENT MAP A-TZ - JULY 2014		
PROJECT: 1358	BY: ADJ	REVISIONS
DATE: NOV., 2014	CHECKED: ECM	
PASTOR, BEHLING & WHEELER, LLC CONSULTING ENGINEERS AND SCIENTISTS		



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EXPLANATION

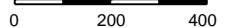
- UPRR Property Boundary
- Historic Structure and Feature
- Road, Parking Lot, Sidewalk
- Fence
- Railroad
- ⊕ B-TZ Monitoring Well Location
- B-CZ
- B-TZ
- (39.98) Groundwater Elevation (Ft, HVD)
(NM= Not measured)
(* Not used for contour)
- 36 Groundwater Elevation Contour
(Ft, HVD) C.I.= 2 Ft
(Dashed where inferred)
- ↖ Inferred Groundwater Flow Direction

Notes:

1. Vertical datum based on City of Houston Vertical Datum (HVD).
2. DNAPL = Dense non-aqueous phase liquids detected in monitoring well (July 2014).



Approx. Scale in Feet



Source:
Base map from ERM-Southwest, Inc APAR Addendum, Fig 3-1, dated June 2004.

UNION PACIFIC RAILROAD CO.
HOUSTON WOOD PRESERVING WORKS

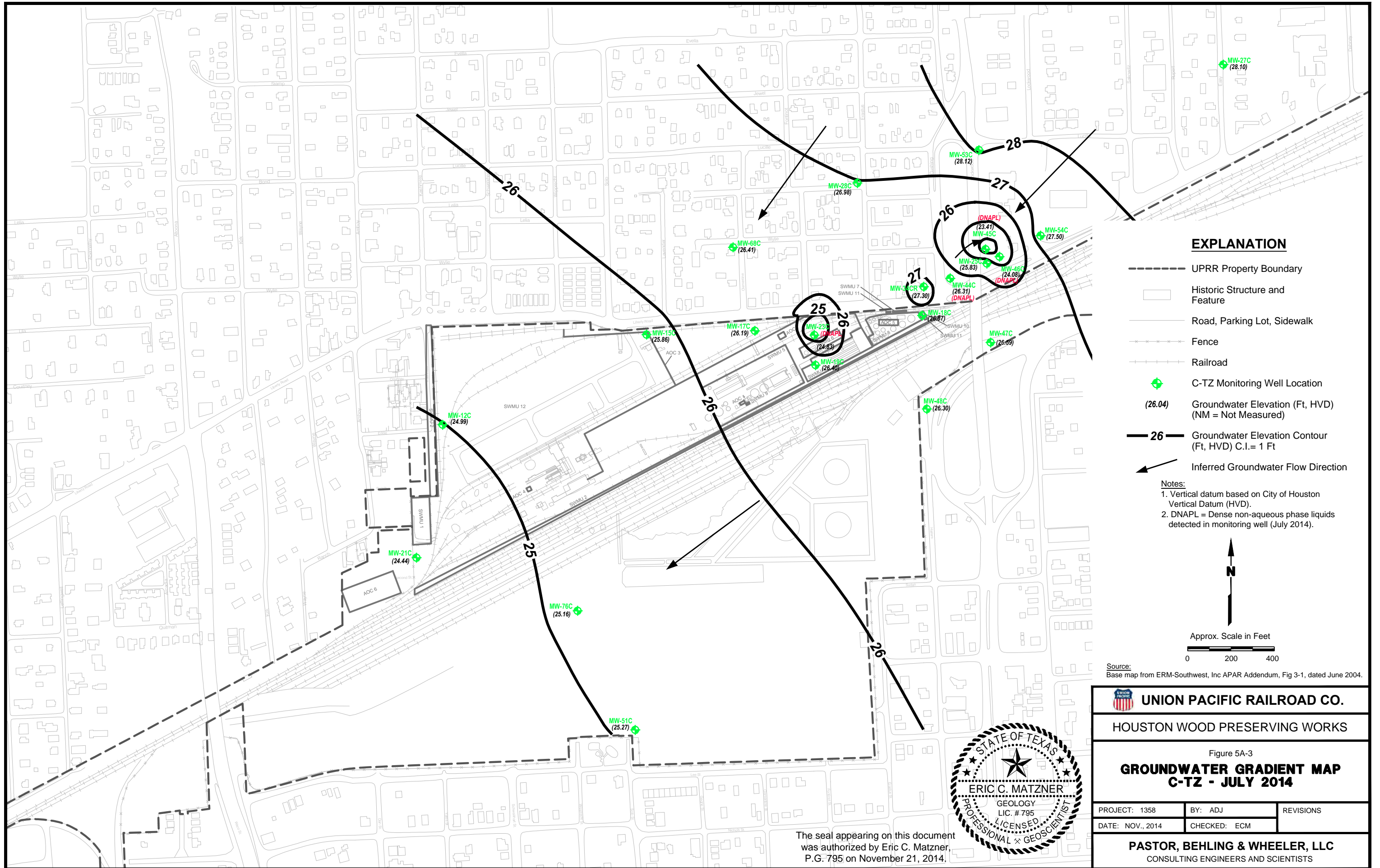
Figure 5A-2
GROUNDWATER GRADIENT MAP
B-TZ AND B-CZ - JULY 2014

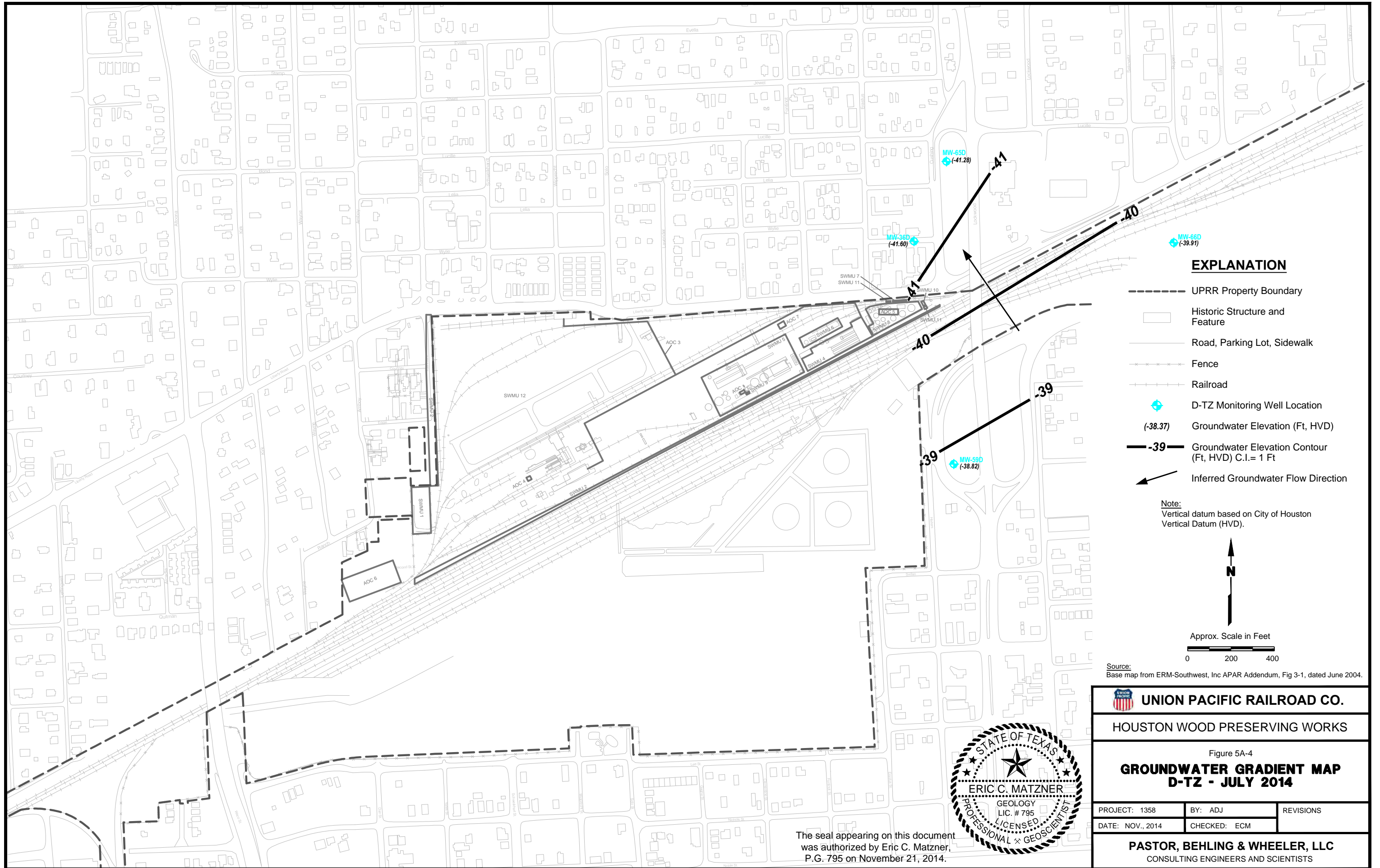
PROJECT: 1358	BY: ADJ	REVISIONS
DATE: NOV., 2014	CHECKED: ECM	

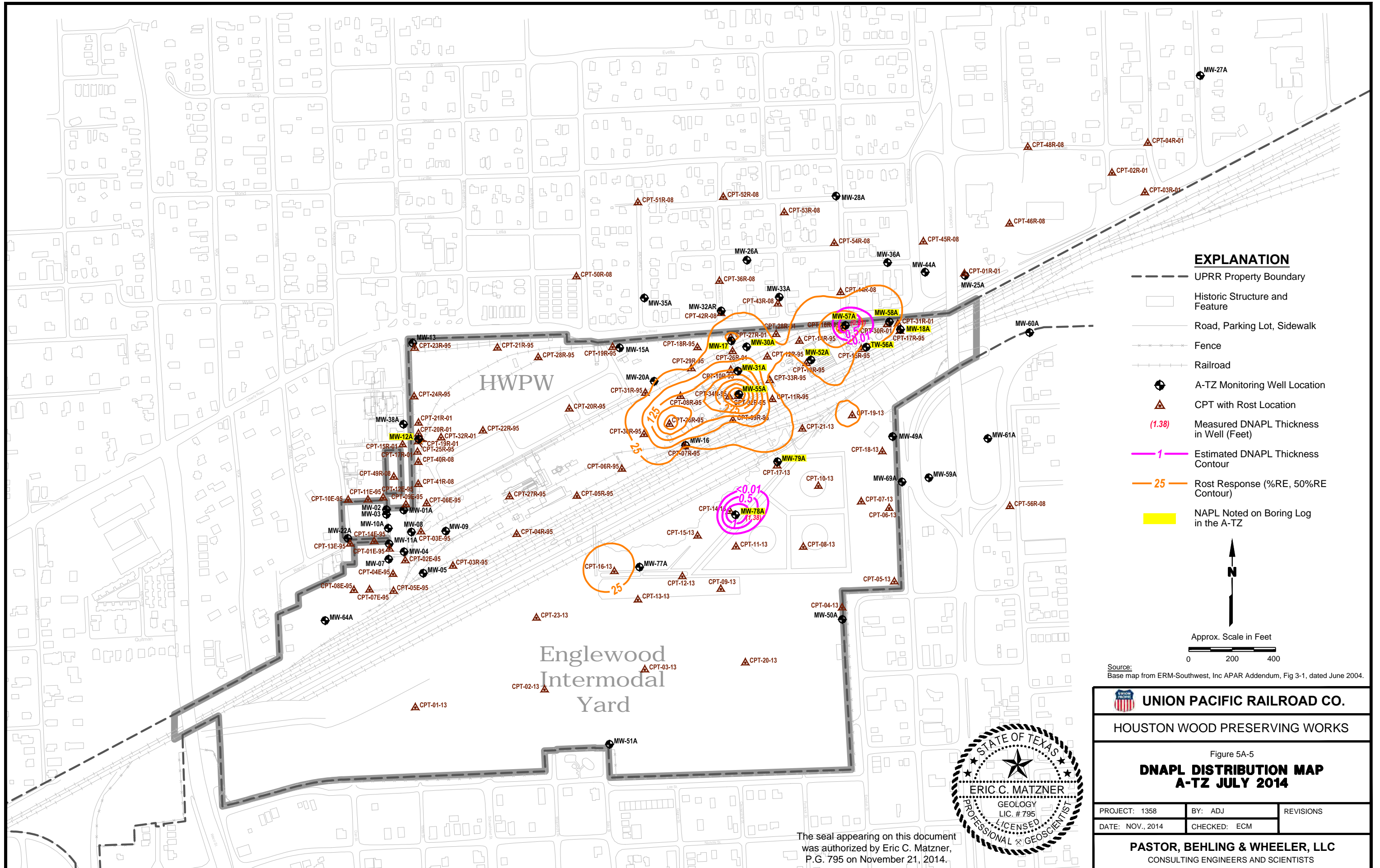
PASTOR, BEHLING & WHEELER, LLC
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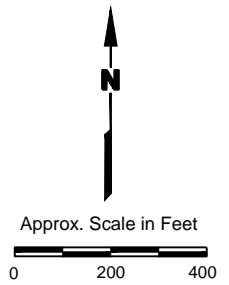







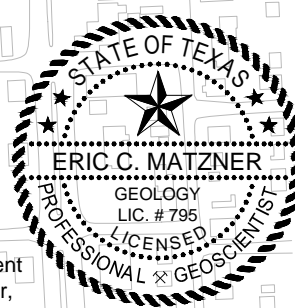
EXPLANATION

- UPRR Property Boundary
- ▭ Historic Structure and Feature
- Road, Parking Lot, Sidewalk
- - - Fence
- +— Railroad
- ⊕ A-TZ Monitoring Well Location
- ▲ CPT with Rost Location
- (1.38) Measured DNAPL Thickness in Well (Feet)
- Estimated DNAPL Thickness Contour
- 25 Rost Response (%RE, 50%RE Contour)
- NAPL Noted on Boring Log in the A-TZ

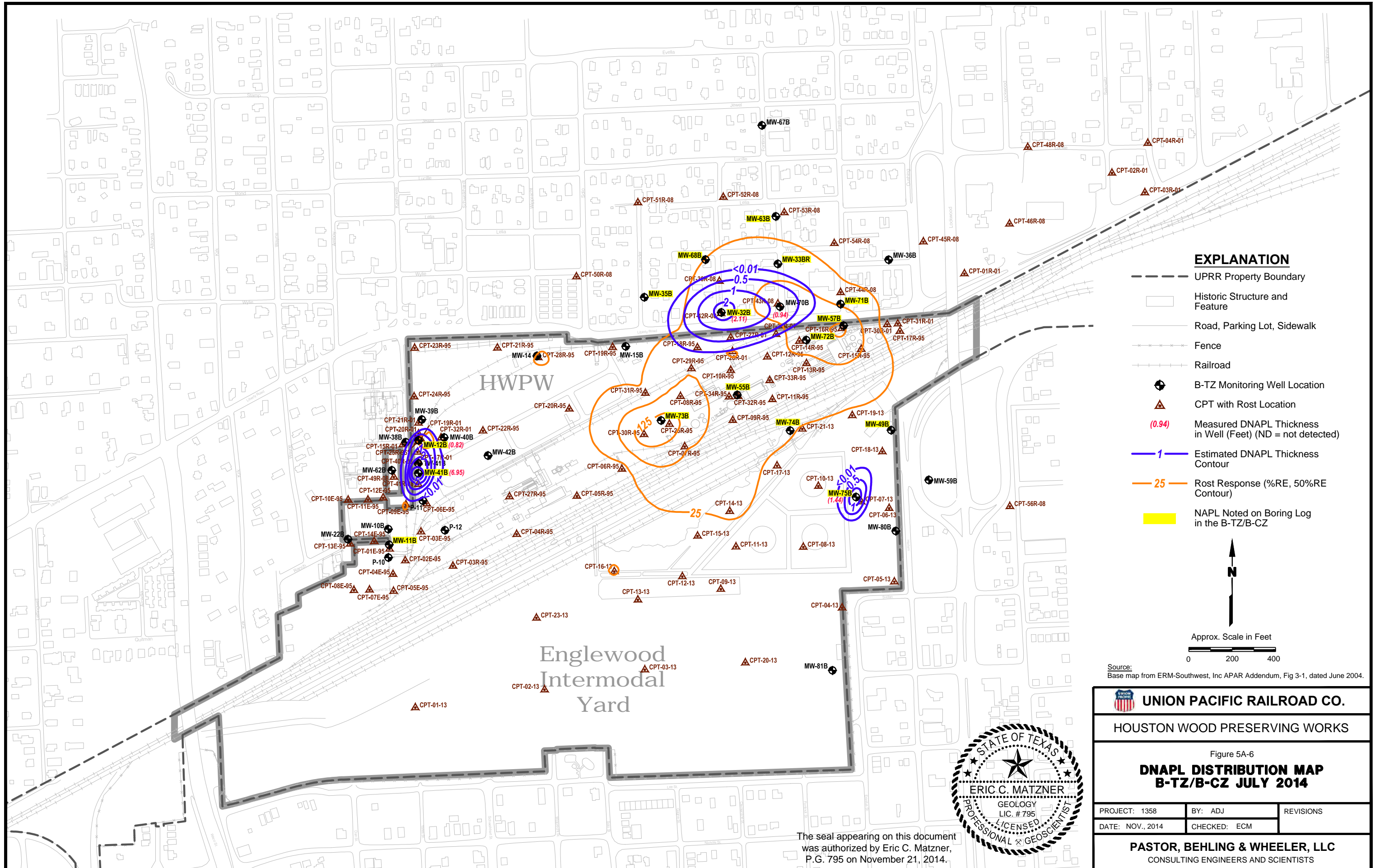


Source: Base map from ERM-Southwest, Inc APAR Addendum, Fig 3-1, dated June 2004.


 UNION PACIFIC RAILROAD CO.		
HOUSTON WOOD PRESERVING WORKS		
Figure 5A-5 DNAPL DISTRIBUTION MAP A-TZ JULY 2014		
PROJECT: 1358	BY: ADJ	REVISIONS
DATE: NOV., 2014	CHECKED: ECM	
PASTOR, BEHLING & WHEELER, LLC CONSULTING ENGINEERS AND SCIENTISTS		

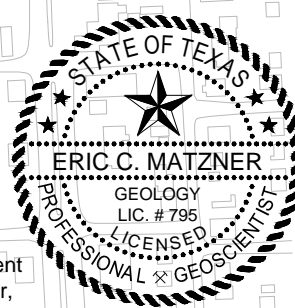


The seal appearing on this document was authorized by Eric C. Matzner, P.G. 795 on November 21, 2014.

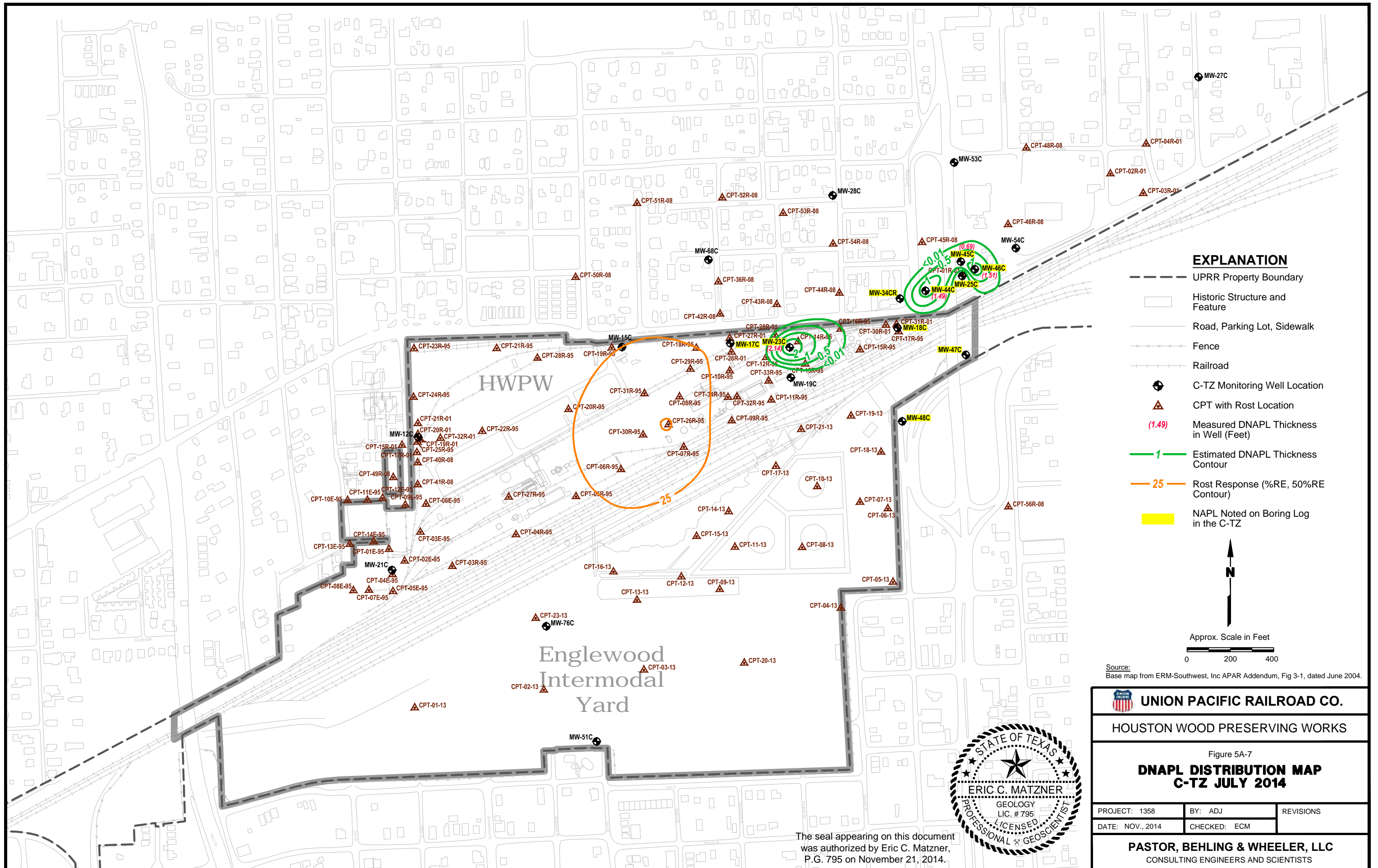


Source:
Base map from ERM-Southwest, Inc APAR Addendum, Fig 3-1, dated June 2004.

 UNION PACIFIC RAILROAD CO.		
HOUSTON WOOD PRESERVING WORKS		
Figure 5A-6 DNAPL DISTRIBUTION MAP B-TZ/B-CZ JULY 2014		
PROJECT: 1358	BY: ADJ	REVISIONS
DATE: NOV., 2014	CHECKED: ECM	
PASTOR, BEHLING & WHEELER, LLC CONSULTING ENGINEERS AND SCIENTISTS		

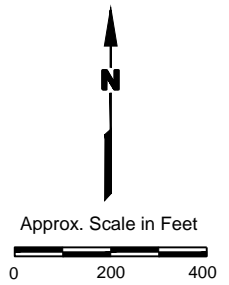


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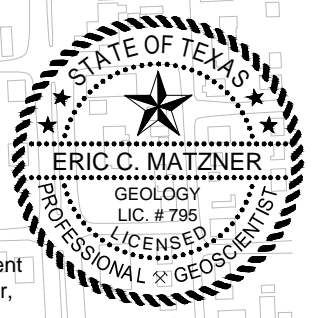
EXPLANATION

- UPRR Property Boundary
- ▭ Historic Structure and Feature
- Road, Parking Lot, Sidewalk
- Fence
- Railroad
- ⊕ C-TZ Monitoring Well Location
- ▲ CPT with Rost Location
- (1.49) Measured DNAPL Thickness in Well (Feet)
- 1 Estimated DNAPL Thickness Contour
- 25 Rost Response (%RE, 50%RE Contour)
- NAPL Noted on Boring Log in the C-TZ

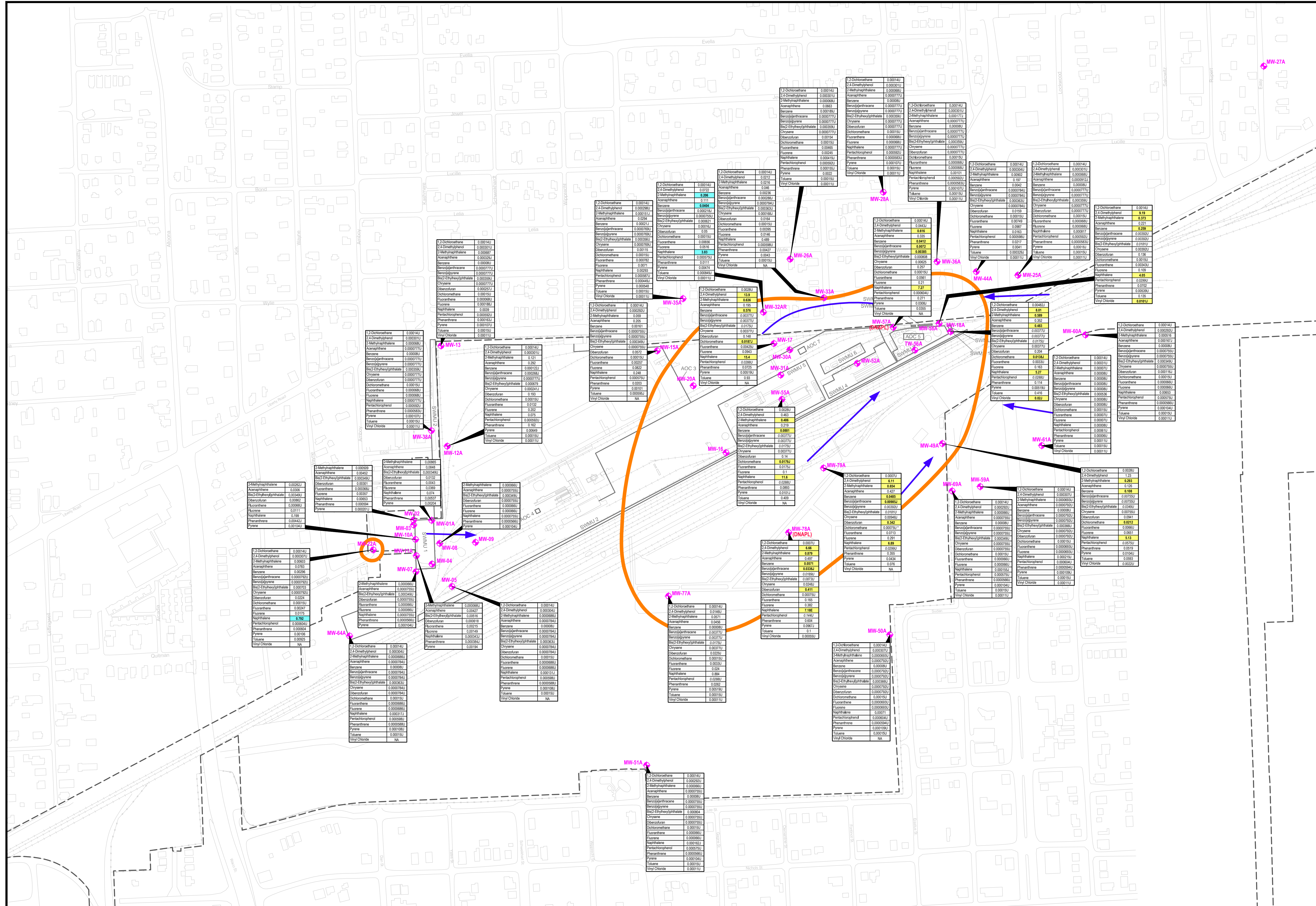


Source: Base map from ERM-Southwest, Inc APAR Addendum, Fig 3-1, dated June 2004.

UNION PACIFIC RAILROAD CO.		
HOUSTON WOOD PRESERVING WORKS		
Figure 5A-7 DNAPL DISTRIBUTION MAP C-TZ JULY 2014		
PROJECT: 1358	BY: ADJ	REVISIONS
DATE: NOV., 2014	CHECKED: ECM	
PASTOR, BEHLING & WHEELER, LLC CONSULTING ENGINEERS AND SCIENTISTS		



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EXPLANATION

- UPRR Property
- Historic Structure and Feature
- Road, Parking Lot, Sidewalk
- Fence
- Railroad
- A-TZ Monitoring Well Location
- Inferred Groundwater Flow Direction
- Affected Property/PCL Zone

- Notes:
1. All concentrations are in mg/L.
 2. U = Estimated value between SOL and MDL.
 3. U = Not detected (RL/SOL reported).
 4. NA = Not analyzed.
 5. Blue highlighted and bolded concentrations exceed Residential Assessment Level (RAL).
 6. Yellow highlighted and bolded concentrations exceed Commercial Industrial PCLs.
 7. DNAPL = Dense non-aqueous phase liquids detected in monitoring well (July/Aug. 2014).

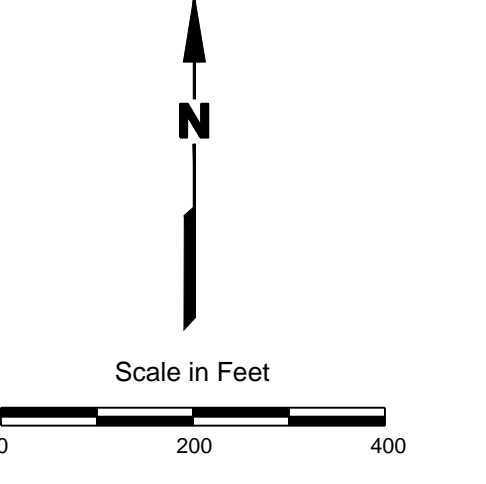
Protective Concentration Levels (PCLs)

Parameter	RAL (mg/L)	dPCL (mg/L)
1,2-Dichlorobenzene	0.020	0.050
2,4-Dimethylphenol	0.40	1.5
1,2,4-Trichlorobenzene	0.050	0.20
Acetophenone	1.5	4.4
Benzocyclopentadiene	0.015	0.020
Chrysene	0.050	0.20
Benzopyrene	0.002	0.002
Benz[e]pyrene	0.006	0.006
Chrysene	0.15	0.28
Fluorene	0.98	2.9
Fluoranthene	0.050	0.050
Fluorene	0.98	2.9
Naphthalene	0.45	1.5
Phenanthrene	0.75	2.2
Phenanthrene	0.75	2.2
Pyrene	0.75	2.2
Toluene	1	1
Vinyl Chloride	0.02	0.02

- SWMU/AOC AREAS**
- | No. | Description |
|---------|---|
| SWMU 1 | Closed Surface Impoundment |
| SWMU 2 | Northern and Southern Drainage Ditches |
| SWMU 4 | Recent Process Area |
| SWMU 5 | Original Process Area |
| SWMU 6 | Water Treatment and Boiler System |
| SWMU 7 | Tank Car Storage Area |
| SWMU 8 | Aboveground Storage Tank Area |
| SWMU 9 | Location of Former UST No. 44-023-05 |
| SWMU 10 | Location of Former Sap Water Treatment Tank |
| SWMU 11 | Oil/Water Separators |
| SWMU 12 | Railroad Tie Storage Area |
- AOC 1** Diesel Storage Tank
AOC 3 Contaminated Portion of City Water Line
AOC 4 Location of Former Incinerator
AOC 5 City Storm Sewer
AOC 6 Inactive Wastewater Lagoon
AOC 7 Location of Former UST No. 44-023-21
- Note: Locations of SWMU-9 and AOCs 1, 3, 5 and 7 area approximate.



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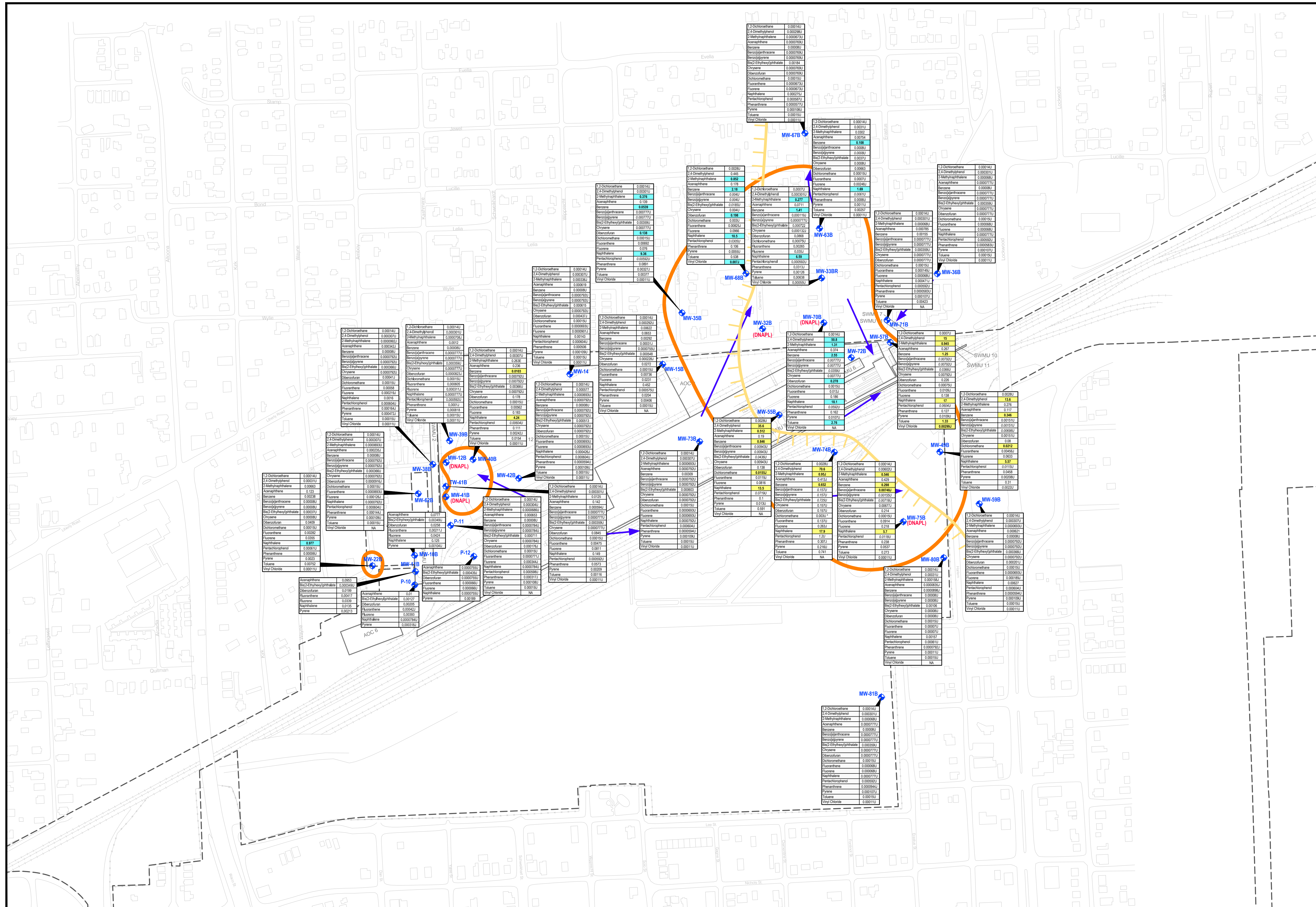


Source: Base map from ERM-Southwest, Inc. APAR Addendum, Fig. 3-1, dated June 2004.

UNION PACIFIC RAILROAD CO.
HOUSTON WOOD PRESERVING WORKS

**Figure 5B-1
GROUND WATER COC
CONCENTRATION MAP
A-TZ - JULY/AUGUST 2014**

PROJECT: 1358	BY: ZGK	REVISIONS
DATE: NOV., 2014	CHECKED: ECM	
PASTOR, BEHLING & WHEELER, LLC CONSULTING ENGINEERS AND SCIENTISTS		



EXPLANATION

- UPRR Property
- Historic Structure and Feature
- Road, Parking Lot, Sidewalk
- Fence
- Railroad
- B-TZ/B-CZ Monitoring Well Location
- Inferred Groundwater Flow Direction
- Affected Property/PCLE Zone B-TZ/B-CZ
- B-CZ
- B-TZ

- Notes:
1. All concentrations are in mg/L.
 2. J = Estimated value between SQL and MDL.
 3. U = Not detected (R/S/SQL reported).
 4. NA = Not analyzed.
 5. Blue highlighted and bolded concentrations exceed Residential Assessment Level (RAL).
 6. Yellow highlighted and bolded concentrations exceed Commercial Industrial PCLs.
 7. DNAPL = Dense non-aqueous phase liquids detected in monitoring well (July/Aug. 2014).
 8. Possible laboratory contaminant.

Protective Concentration Levels (PCLs)

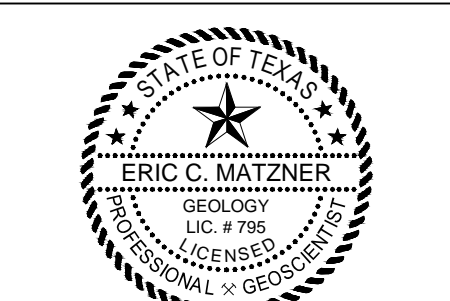
Parameter	RAL (mg/L)	PCL (mg/L)
1,2-Dichlorobenzene	0.020	0.020
2,4-Dimethylphenol	0.40	1.5
2-Methylphenol	0.08	0.28
Acephenanthrene	1.5	4.4
Benzosilole	0.002	0.002
Diethylstilbestrol	0.005	0.005
Benzene	0.001	0.001
Benzopyrene	0.0002	0.0002
Diethylstilbestrol	0.005	0.005
Fluorene	0.08	0.28
Dibenzofuran	0.005	0.005
Fluorene	0.08	0.28
Naphthalene	0.40	1.5
Phenanthrene	0.001	0.001
Pyrene	0.73	2.2
Toluene	1	1
Vinyl chloride	0.02	0.02

SWMU/AOC AREAS

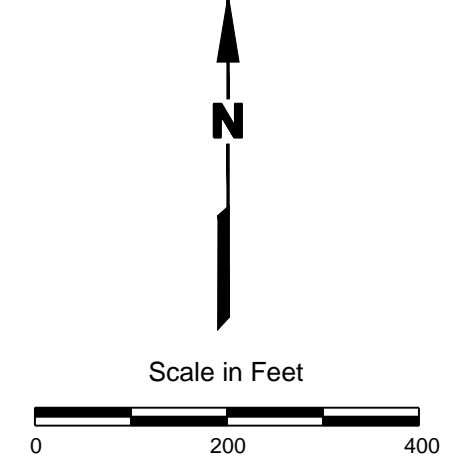
No.	Description
SWMU 1	Closed Surface Impoundment
SWMU 2	Northern and Southern Drainage Ditches
SWMU 4	Recent Process Area
SWMU 5	Original Process Area
SWMU 6	Water Treatment and Boiler System
SWMU 7	Tank Car Storage Area
SWMU 8	Aboveground Storage Tank Area
SWMU 9	Location of Former UST No. 44-023-05
SWMU 10	Location of Former Sap Water Treatment Tank
SWMU 11	Oil/Water Separators
SWMU 12	Railroad Tie Storage Area

AOC	Description
AOC 1	Diesel Storage Tank
AOC 3	Contaminated Portion of City Water Line
AOC 4	Location of Former Incinerator
AOC 5	City Storm Sewer
AOC 6	Inactive Wastewater Lagoon
AOC 7	Location of Former UST No. 44-023-21

Notes:
Locations of SWMU-9 and AOCs 1, 3, 5 and 7 area approximate.



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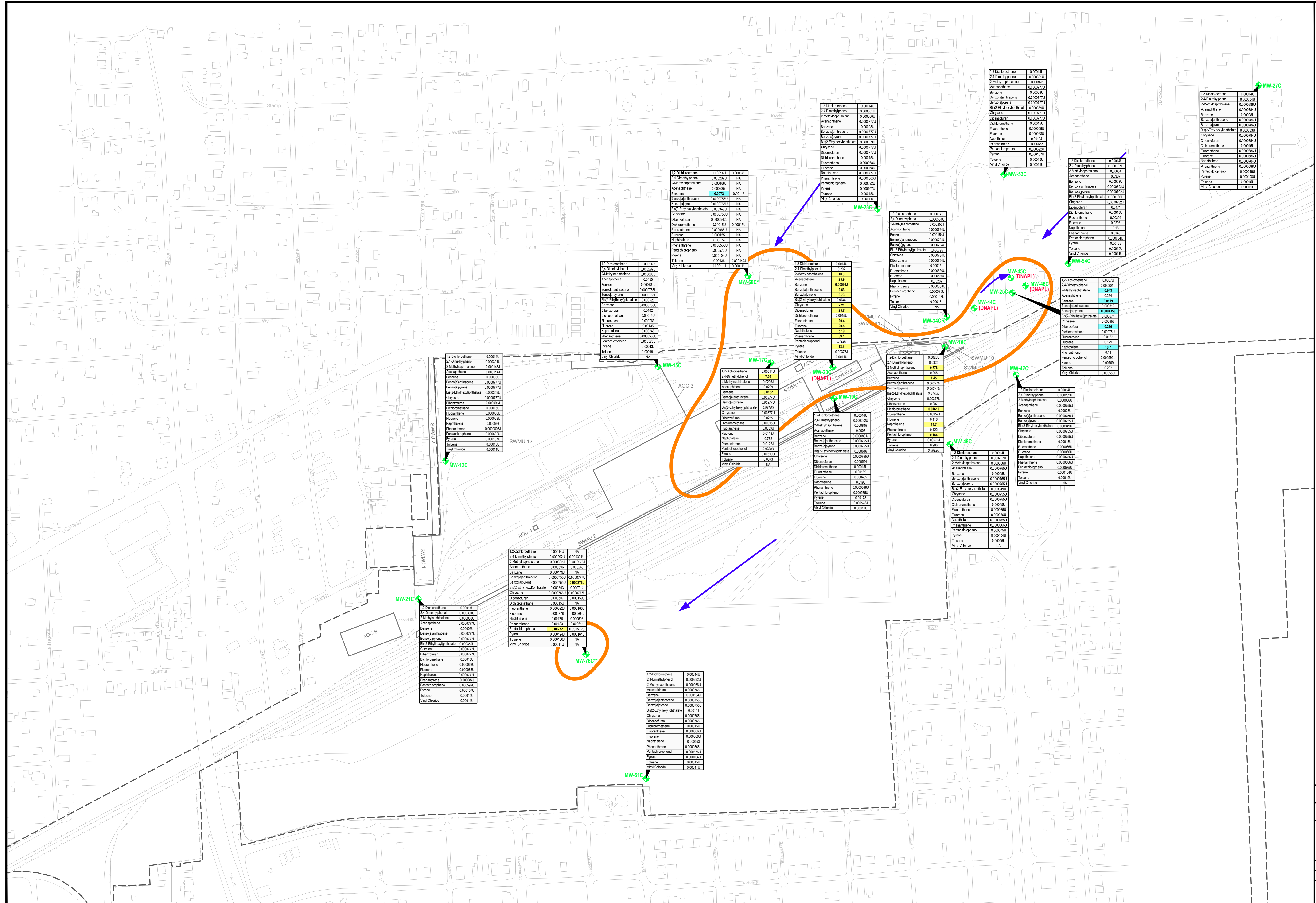
Source: Base map from ERM-Southwest, Inc. APAR Addendum, Fig 3-1, dated June 2004.

UNION PACIFIC RAILROAD CO.
HOUSTON WOOD PRESERVING WORKS

**Figure 5B-2
GROUNDWATER COC
CONCENTRATION MAP
B-TZ & B-CZ - JULY/AUGUST 2014**

PROJECT:	1368	BY:	ZGK	REVISIONS:
DATE:	NOV. 2014	CHECKED:	ECM	

PASTOR, BEHLING & WHEELER, LLC
CONSULTING ENGINEERS AND SCIENTISTS



EXPLANATION

- UPRR Property
- Historic Structure and Feature
- Road, Parking Lot, Sidewalk
- Railroad
- C-TZ Monitoring Well Location
- Inferred Groundwater Flow Direction
- Affected Property/PCL Zone

Notes:

- All concentrations are in mg/L.
- J = Estimated value between SQL and MDL.
- U = Not detected (RL/SQL reported).
- NA = Not analyzed.
- Blue highlighted and bolded concentrations exceed Residential Assessment Level (RALs).
- Yellow highlighted and bolded concentrations exceed Commercial Industrial PCLs.
- DNAPL = Dense non-aqueous phase liquids detected in monitoring well (July/Aug. 2014).
- * Verification sample taken at MW-68C collected on August 28, 2014.
- ** Verification sample taken at MW-76C collected on October 3, 2014.

Protective Concentration Levels (PCLs)

Parameter	RAL (mg/L)	dPCL (mg/L)
1,2-Dichlorobenzene	0.050	0.050
2,4-Dimethylphenol	0.40	0.35
2-Methylnaphthalene	1.5	2.9
Acenaphthene	1.5	4.4
Benzofluoranthene	0.013	0.028
Benzo[a]anthracene	0.005	0.005
Benzo[a]pyrene	0.002	0.002
Benz[e]fluoranthene	0.005	0.006
Chrysene	0.15	0.28
Dibenzofuran	0.098	0.29
Dibenzophenanthrene	0.025	0.035
Fluorene	0.98	2.9
Fluoranthene	0.45	1.3
Naphthalene	0.73	2.2
Perfluorobiphenyl	0.001	0.001
Phenanthrene	0.73	2.2
Pyrene	0.73	2.2
Toluene	1	1
Vinyl chloride	0.02	0.02

SWMU/AOC AREAS

No.	Description
SWMU 1	Closed Surface Impoundment
SWMU 2	Northern and Southern Drainage Ditches
SWMU 4	Recent Process Area
SWMU 5	Original Process Area
SWMU 6	Water Treatment and Boiler System
SWMU 7	Tank Car Storage Area
SWMU 8	Aboveground Storage Tank Area
SWMU 9	Location of Former UST No. 44-023-05
SWMU 10	Location of Former Sap Water Treatment Tank
SWMU 11	Oil/Water Separator
SWMU 12	Railroad Tie Storage Area

AOC Locations

- AOC 1 Diesel Storage Tank
- AOC 3 Contaminated Portion of City Water Line
- AOC 4 Location of Former Incinerator
- AOC 5 City Storm Sewer
- AOC 6 Inactive Wastewater Lagoon
- AOC 7 Location of Former UST No. 44-023-21

Note: Locations of SWMU-9 and AOCs 1, 3, 5 and 7 area approximate.

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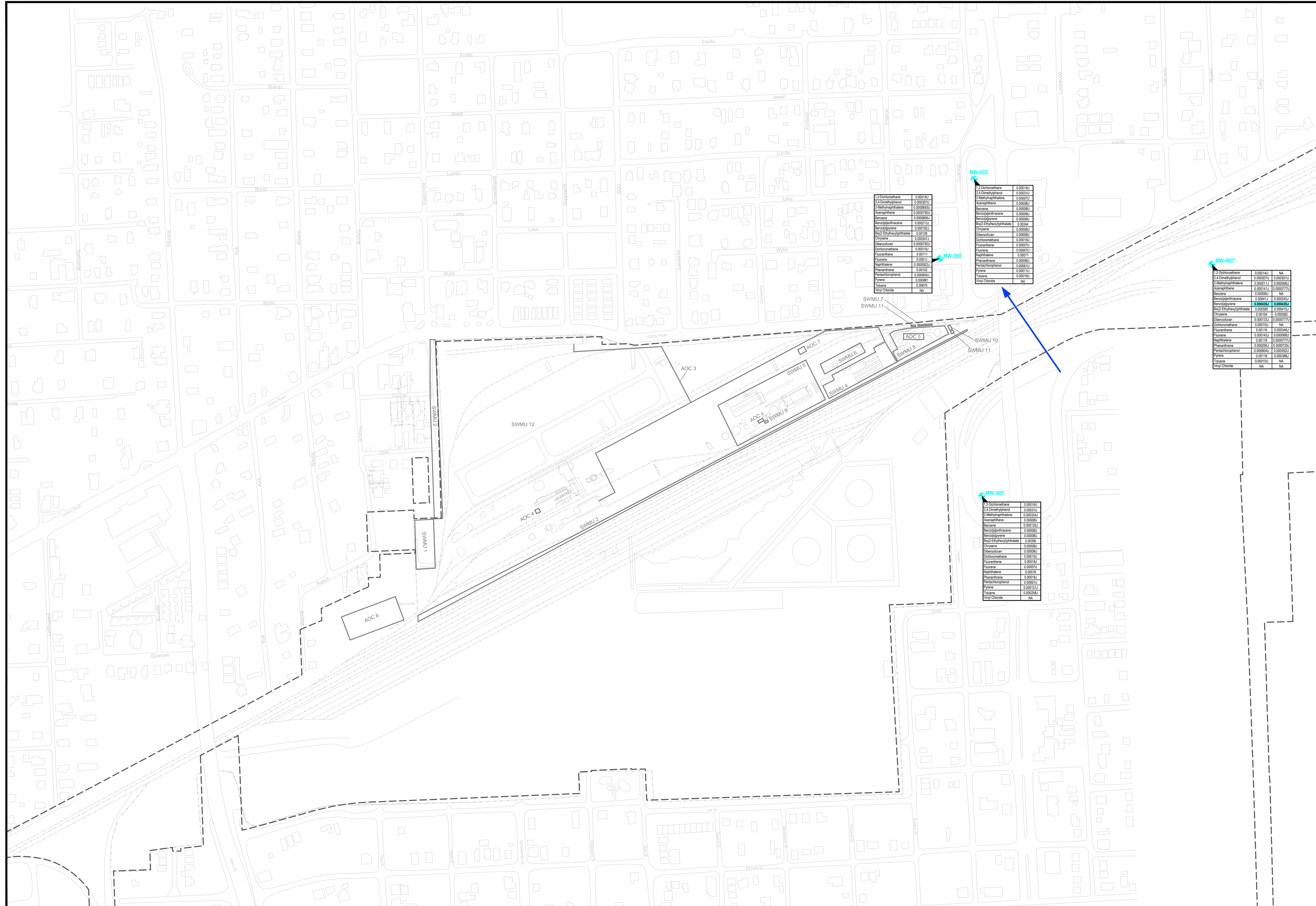
Source: Base map from ERM-Southwest, Inc APAR Addendum, Fig 3-1, dated June 2004.

UNION PACIFIC RAILROAD CO.
HOUSTON WOOD PRESERVING WORKS

Figure 5B-3
GROUNDWATER C-TZ CONCENTRATION MAP
C-TZ - JULY/AUGUST 2014

PROJECT: 1358	BY: ZGK	REVISIONS:
DATE: NOV, 2014	CHECKED: ECM	

PASTOR, BEHLING & WHEELER, LLC
CONSULTING ENGINEERS AND SCIENTISTS



EXPLANATION

- UPRR Property
- Historic Structure and Feature
- Road, Parking Lot, Sidewalk
- Fence
- Railroad
- ◆ D-TZ Monitoring Well Location
- Inferred Groundwater Flow Direction

- Notes:
1. All concentrations are in mg/L.
 2. J = Estimated value between SOL and MDL.
 3. U = Not detected (RL/SOL reported).
 4. NA = Not analyzed.
 5. Blue highlighted and bolded concentrations exceed Residential Assessment Level (RALs).
 6. Yellow highlighted and bolded concentrations exceed Commercial Industrial PCLs.
 7. DNAPL = Dense non-aqueous phase liquids detected in monitoring well (Aug. 2014).
 8. * Verification sample taken at MW-660 collected on October 3, 2014.

Protective Concentration Levels (PCLs)

Parameter	RAL (mg/L)	dPCL (mg/L)
1,2-Dichloroethane	0.020	0.005
2,4-Dimethylphenol	0.40	1.5
2,4-Dinitrophenol	0.09	0.20
Arsophenone	1.5	4.4
Benzene	0.013	0.020
Benzonitrile	0.05	0.05
Chrysene	0.002	0.002
Chlorobenzene	0.005	0.005
Chloroethane	0.001	0.001
Fluorene	0.001	0.001
Fluoranthene	0.001	0.001
Hexachlorobenzene	0.001	0.001
Naphthalene	0.001	0.001
Phenanthrene	0.001	0.001
Phenol	0.001	0.001
Pyrene	0.001	0.001
Toluene	0.001	0.001
Vinyl Chloride	NA	NA

SWMU/AOC AREAS

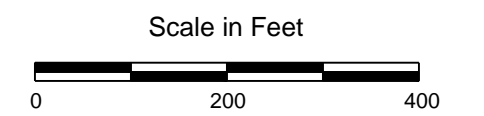
No.	Description
SWMU 1	Closed Surface Impoundment
SWMU 2	Northern and Southern Drainage Ditches
SWMU 4	Recent Process Area
SWMU 5	Original Process Area
SWMU 6	Water Treatment and Boiler System
SWMU 7	Tank Car Storage Area
SWMU 8	Aboveground Storage Tank Area
SWMU 9	Location of Former UST No. 44-023-05
SWMU 10	Location of Former Sap Water Treatment Tank
SWMU 11	Oil/Water Separators
SWMU 12	Railroad Tie Storage Area

AOC	Description
AOC 1	Diesel Storage Tank
AOC 3	Contaminated Portion of City Water Line
AOC 4	Location of Former Incinerator
AOC 5	City Storm Sewer
AOC 6	Inactive Wastewater Lagoon
AOC 7	Location of Former UST No. 44-023-21

Notes:
Locations of SWMU-9 and AOCs 1, 3, 5 and 7 area approximate.



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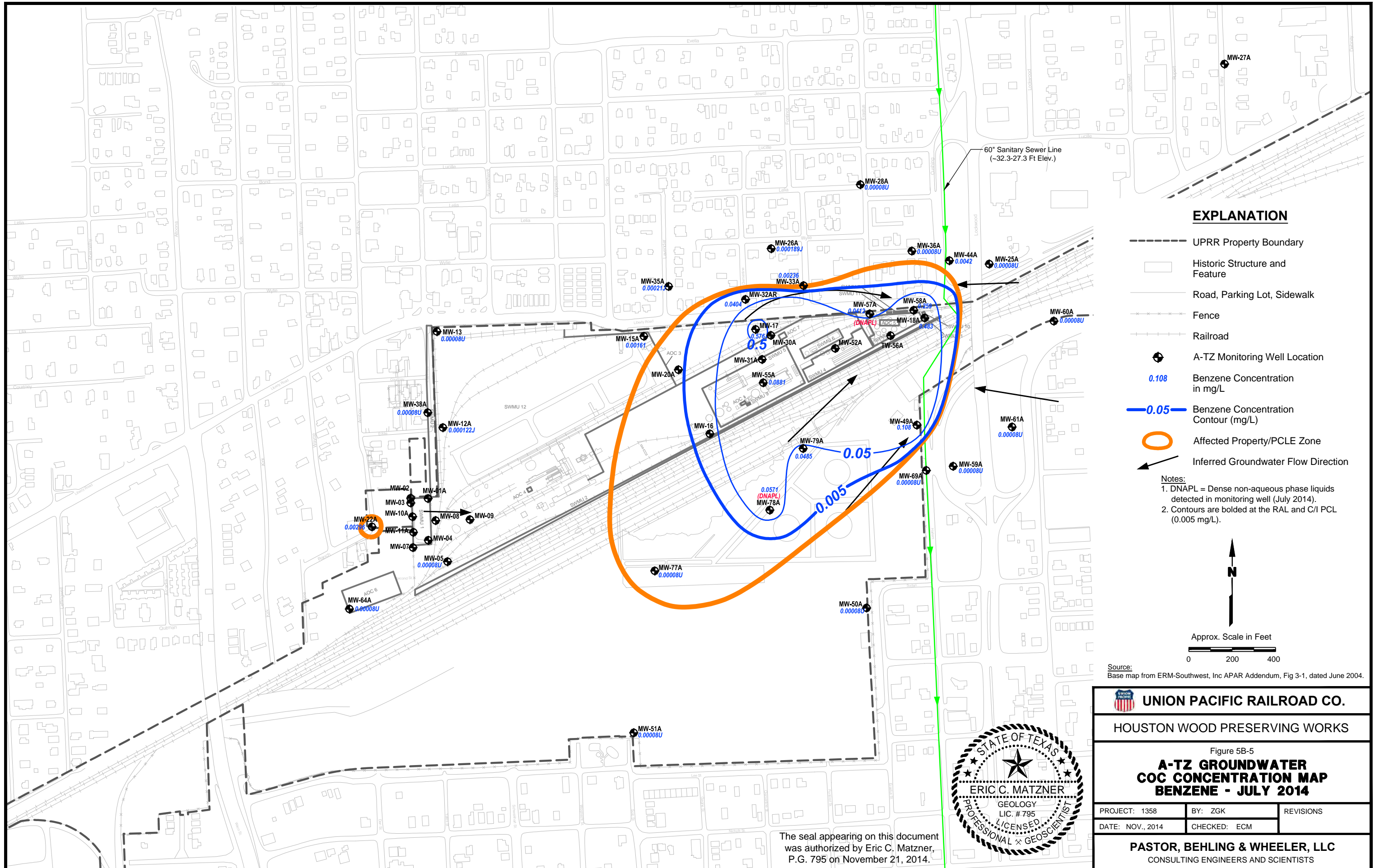
Source: Base map from ERM-Southwest, Inc. APAR Addendum, Fig 3-1, dated June 2004.

UNION PACIFIC RAILROAD CO.

HOUSTON WOOD PRESERVING WORKS

**Figure 5B-4
GROUNDWATER COC
CONCENTRATION MAP
D-TZ - AUGUST 2014**

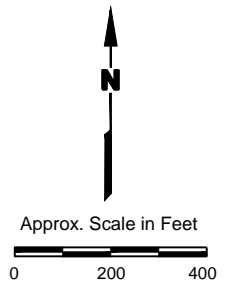
PROJECT: 1368	BY: ZGK	REVISIONS
DATE: NOV. 2014	CHECKED: ECM	
PASTOR, BEHLING & WHEELER, LLC CONSULTING ENGINEERS AND SCIENTISTS		



EXPLANATION

- UPRR Property Boundary
- Historic Structure and Feature
- Road, Parking Lot, Sidewalk
- Fence
- Railroad
- A-TZ Monitoring Well Location
- 0.108 Benzene Concentration in mg/L
- 0.05 Benzene Concentration Contour (mg/L)
- Affected Property/PCLE Zone
- Inferred Groundwater Flow Direction

Notes:
 1. DNAPL = Dense non-aqueous phase liquids detected in monitoring well (July 2014).
 2. Contours are bolded at the RAL and C/I PCL (0.005 mg/L).

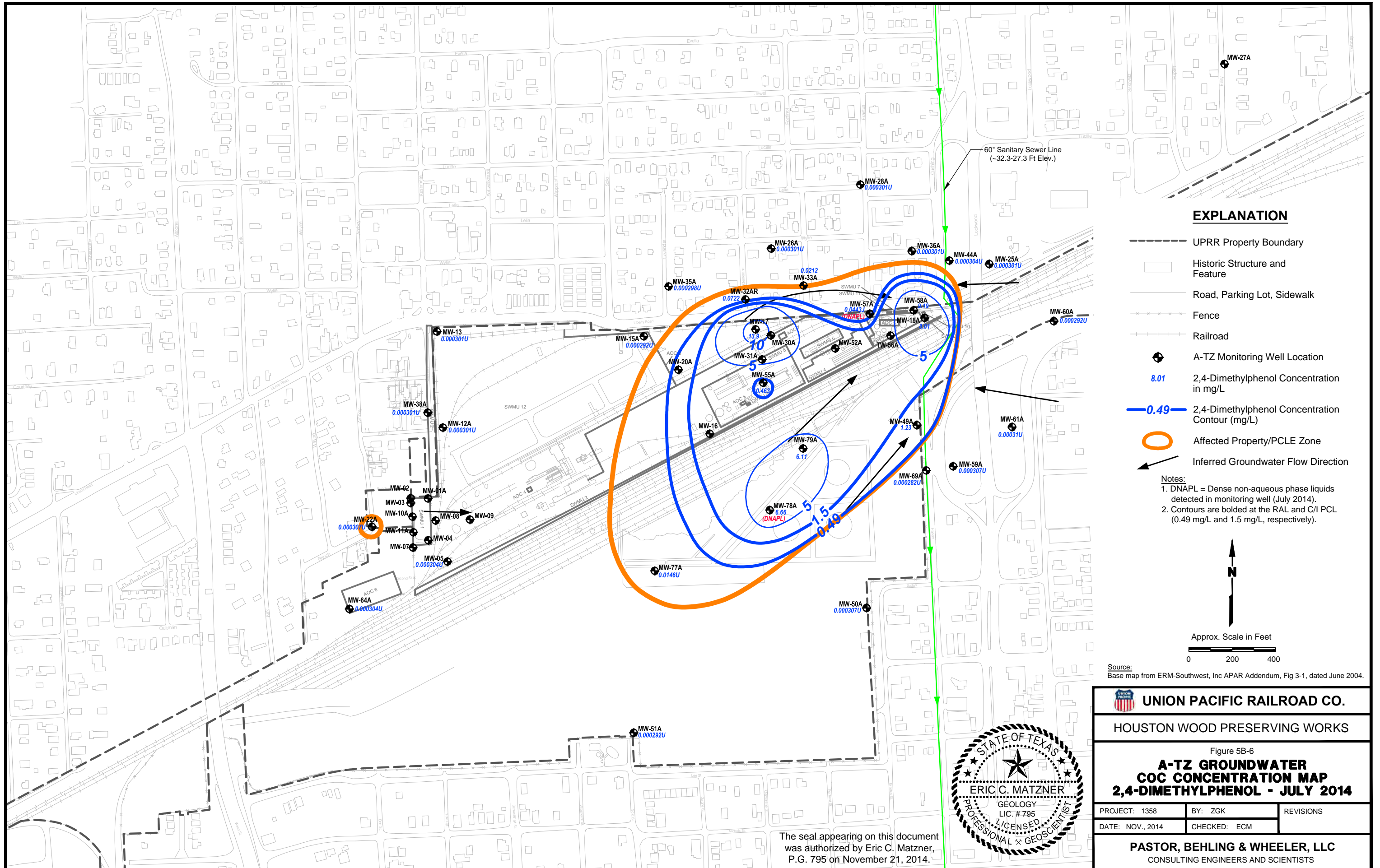


Source:
 Base map from ERM-Southwest, Inc APAR Addendum, Fig 3-1, dated June 2004.

UNION PACIFIC RAILROAD CO.		
HOUSTON WOOD PRESERVING WORKS		
Figure 5B-5 A-TZ GROUNDWATER COC CONCENTRATION MAP BENZENE - JULY 2014		
PROJECT: 1358	BY: ZGK	REVISIONS
DATE: NOV., 2014	CHECKED: ECM	
PASTOR, BEHLING & WHEELER, LLC CONSULTING ENGINEERS AND SCIENTISTS		



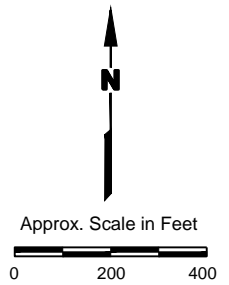
The seal appearing on this document was authorized by Eric C. Matzner, P.G. 795 on November 21, 2014.



- EXPLANATION**
- UPRR Property Boundary
 - ▭ Historic Structure and Feature
 - Road, Parking Lot, Sidewalk
 - Fence
 - Railroad
 - ⊕ A-TZ Monitoring Well Location
 - 8.01** 2,4-Dimethylphenol Concentration in mg/L
 - 0.49** 2,4-Dimethylphenol Concentration Contour (mg/L)
 - Affected Property/PCLE Zone
 - ↖ Inferred Groundwater Flow Direction

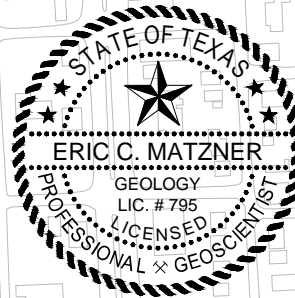
Notes:

1. DNAPL = Dense non-aqueous phase liquids detected in monitoring well (July 2014).
2. Contours are bolded at the RAL and C/I PCL (0.49 mg/L and 1.5 mg/L, respectively).

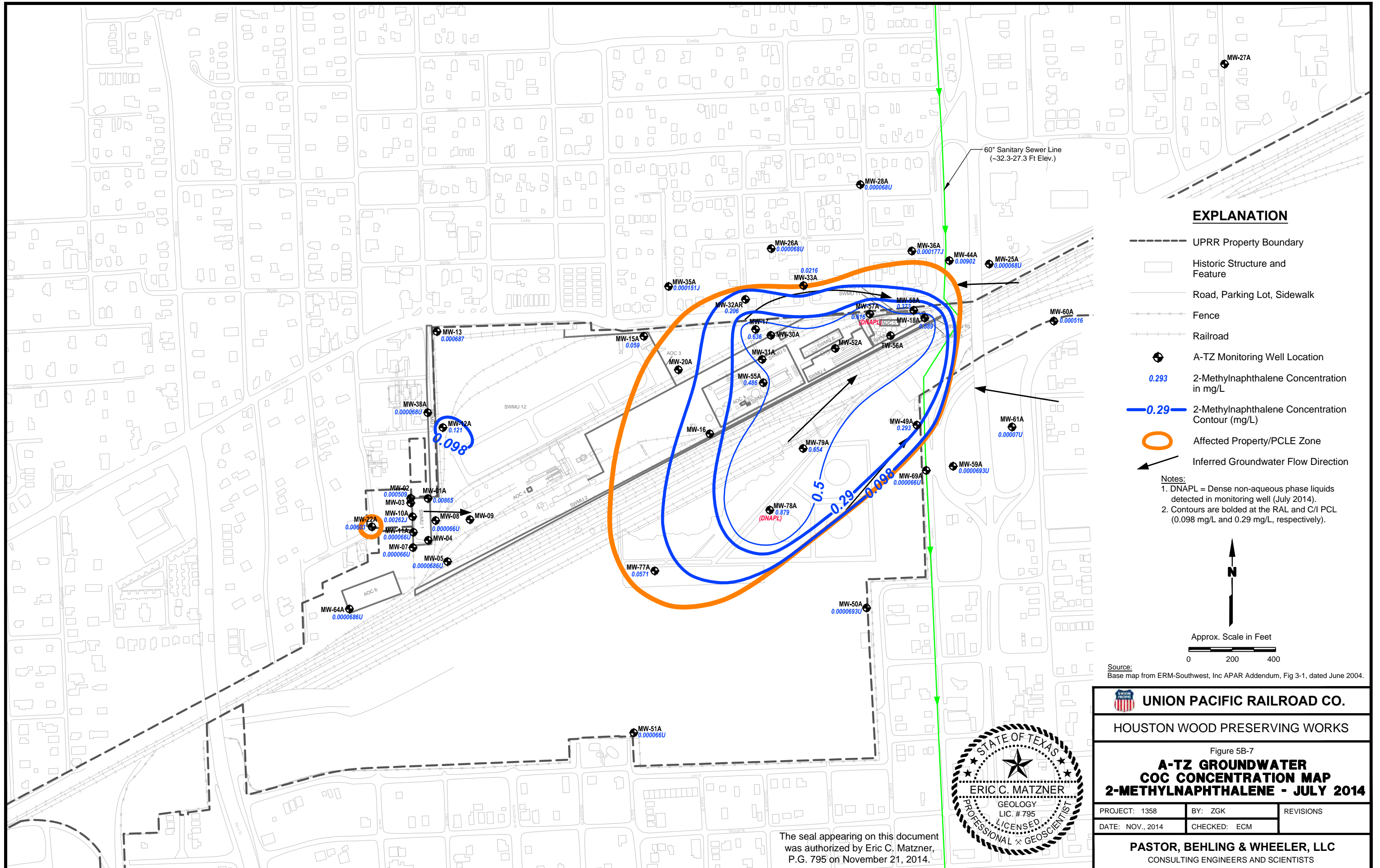


Source: Base map from ERM-Southwest, Inc APAR Addendum, Fig 3-1, dated June 2004.

UNION PACIFIC RAILROAD CO.		
HOUSTON WOOD PRESERVING WORKS		
Figure 5B-6 A-TZ GROUNDWATER COC CONCENTRATION MAP 2,4-DIMETHYLPHENOL - JULY 2014		
PROJECT: 1358	BY: ZGK	REVISIONS
DATE: NOV., 2014	CHECKED: ECM	
PASTOR, BEHLING & WHEELER, LLC CONSULTING ENGINEERS AND SCIENTISTS		



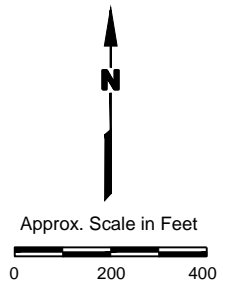
The seal appearing on this document was authorized by Eric C. Matzner, P.G. 795 on November 21, 2014.



EXPLANATION

- UPRR Property Boundary
- Historic Structure and Feature
- Road, Parking Lot, Sidewalk
- Fence
- Railroad
- A-TZ Monitoring Well Location
- 2-Methylnaphthalene Concentration in mg/L
- 2-Methylnaphthalene Concentration Contour (mg/L)
- Affected Property/PCLE Zone
- Inferred Groundwater Flow Direction

Notes:
 1. DNAPL = Dense non-aqueous phase liquids detected in monitoring well (July 2014).
 2. Contours are bolded at the RAL and C/I PCL (0.098 mg/L and 0.29 mg/L, respectively).

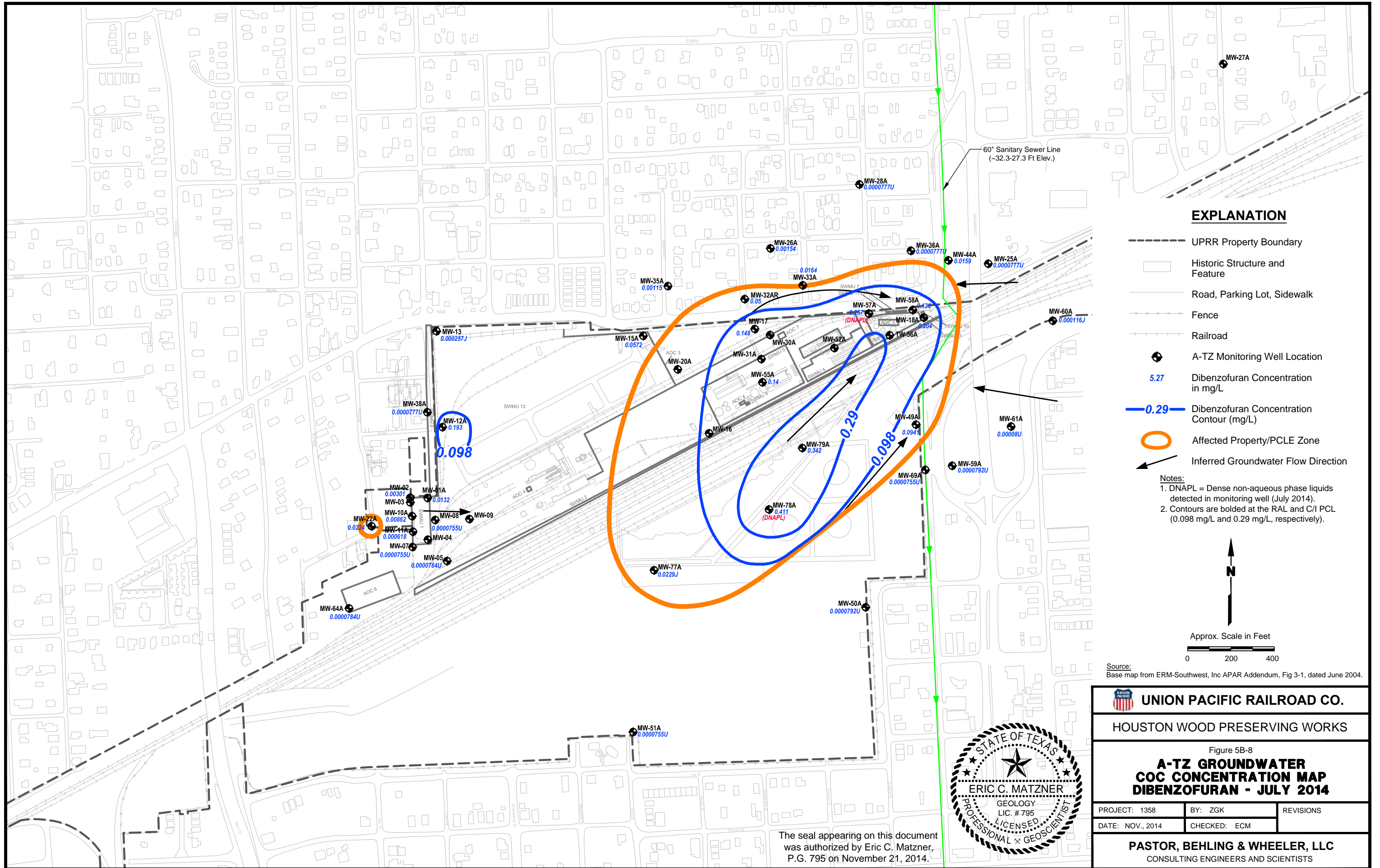


Source:
 Base map from ERM-Southwest, Inc APAR Addendum, Fig 3-1, dated June 2004.

UNION PACIFIC RAILROAD CO.		
HOUSTON WOOD PRESERVING WORKS		
Figure 5B-7 A-TZ GROUNDWATER COC CONCENTRATION MAP 2-METHYLNAPHTHALENE - JULY 2014		
PROJECT: 1358	BY: ZGK	REVISIONS
DATE: NOV., 2014	CHECKED: ECM	
PASTOR, BEHLING & WHEELER, LLC CONSULTING ENGINEERS AND SCIENTISTS		



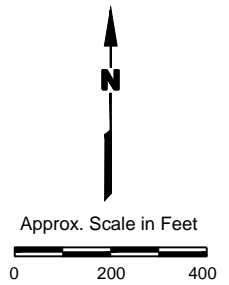
The seal appearing on this document was authorized by Eric C. Matzner, P.G. 795 on November 21, 2014.



EXPLANATION

- UPRR Property Boundary
- Historic Structure and Feature
- Road, Parking Lot, Sidewalk
- Fence
- Railroad
- ⊕ A-TZ Monitoring Well Location
- 5.27 Dibenzofuran Concentration in mg/L
- 0.29** Dibenzofuran Concentration Contour (mg/L)
- Affected Property/PCLE Zone
- ↖ Inferred Groundwater Flow Direction

Notes:
 1. DNAPL = Dense non-aqueous phase liquids detected in monitoring well (July 2014).
 2. Contours are bolded at the RAL and C/I PCL (0.098 mg/L and 0.29 mg/L, respectively).

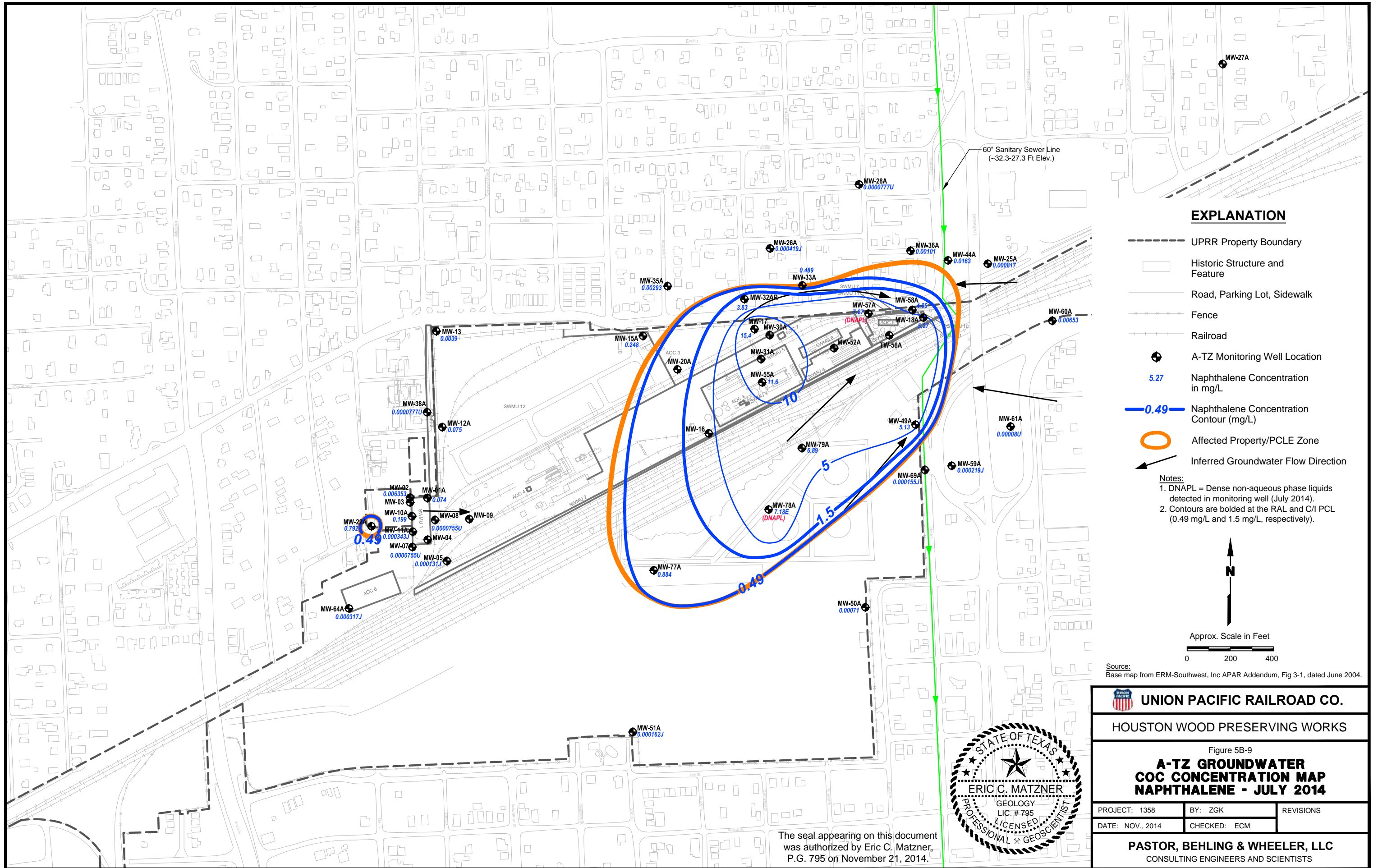


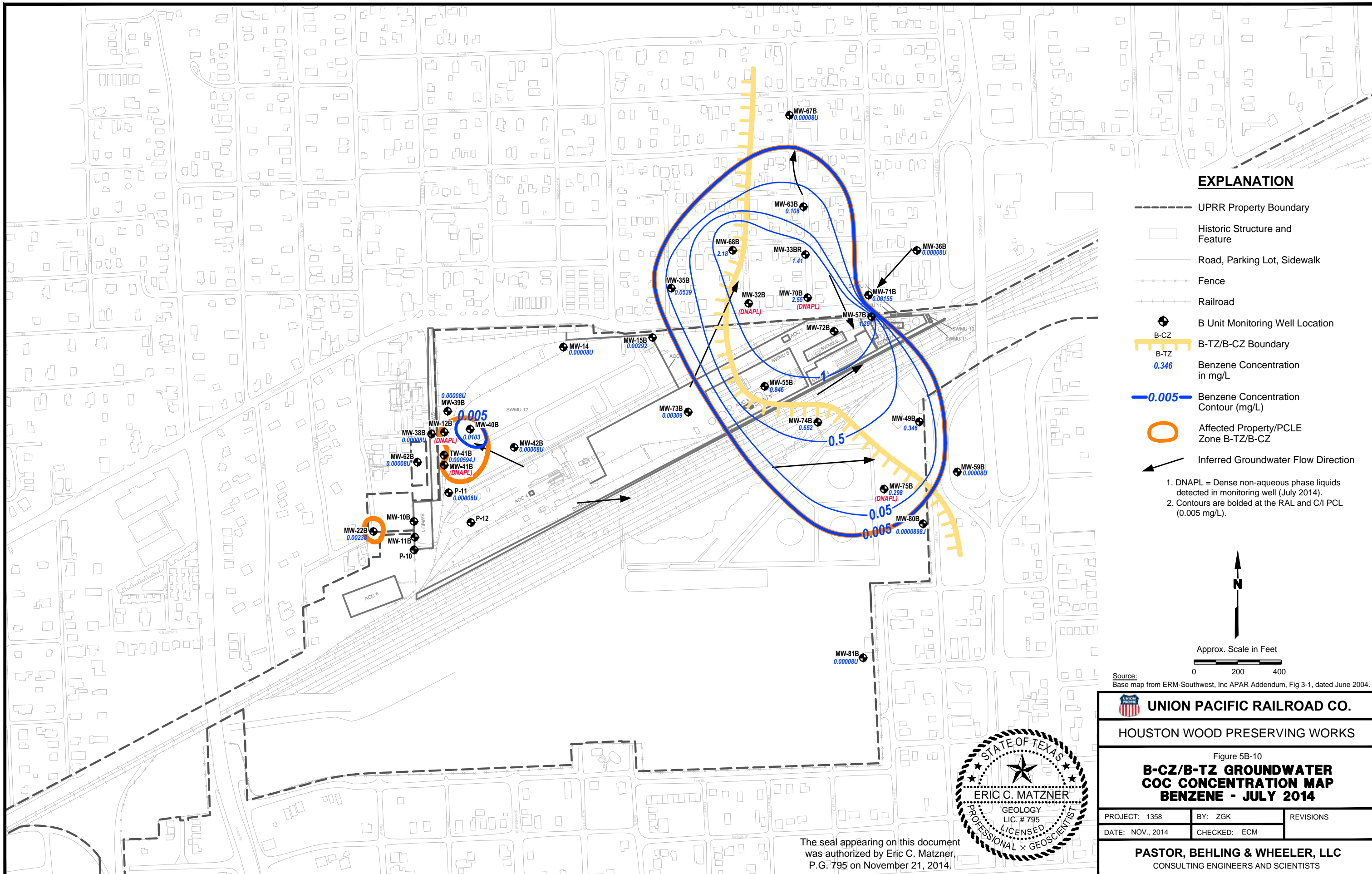
Source:
 Base map from ERM-Southwest, Inc APAR Addendum, Fig 3-1, dated June 2004.

UNION PACIFIC RAILROAD CO.		
HOUSTON WOOD PRESERVING WORKS		
Figure 5B-8 A-TZ GROUNDWATER COC CONCENTRATION MAP DIBENZOFURAN - JULY 2014		
PROJECT: 1358	BY: ZGK	REVISIONS
DATE: NOV., 2014	CHECKED: ECM	
PASTOR, BEHLING & WHEELER, LLC CONSULTING ENGINEERS AND SCIENTISTS		



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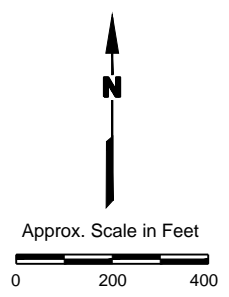




EXPLANATION

- UPRR Property Boundary
- ▭ Historic Structure and Feature
- Road, Parking Lot, Sidewalk
- Fence
- Railroad
- ⊕ B Unit Monitoring Well Location
- B-CZ
- B-TZ
- 0.346 Benzene Concentration in mg/L
- 0.005 Benzene Concentration Contour (mg/L)
- Affected Property/PCLE Zone B-TZ/B-CZ
- Inferred Groundwater Flow Direction

1. DNAPL = Dense non-aqueous phase liquids detected in monitoring well (July 2014).
2. Contours are bolded at the RAL and C/I PCL (0.005 mg/L).

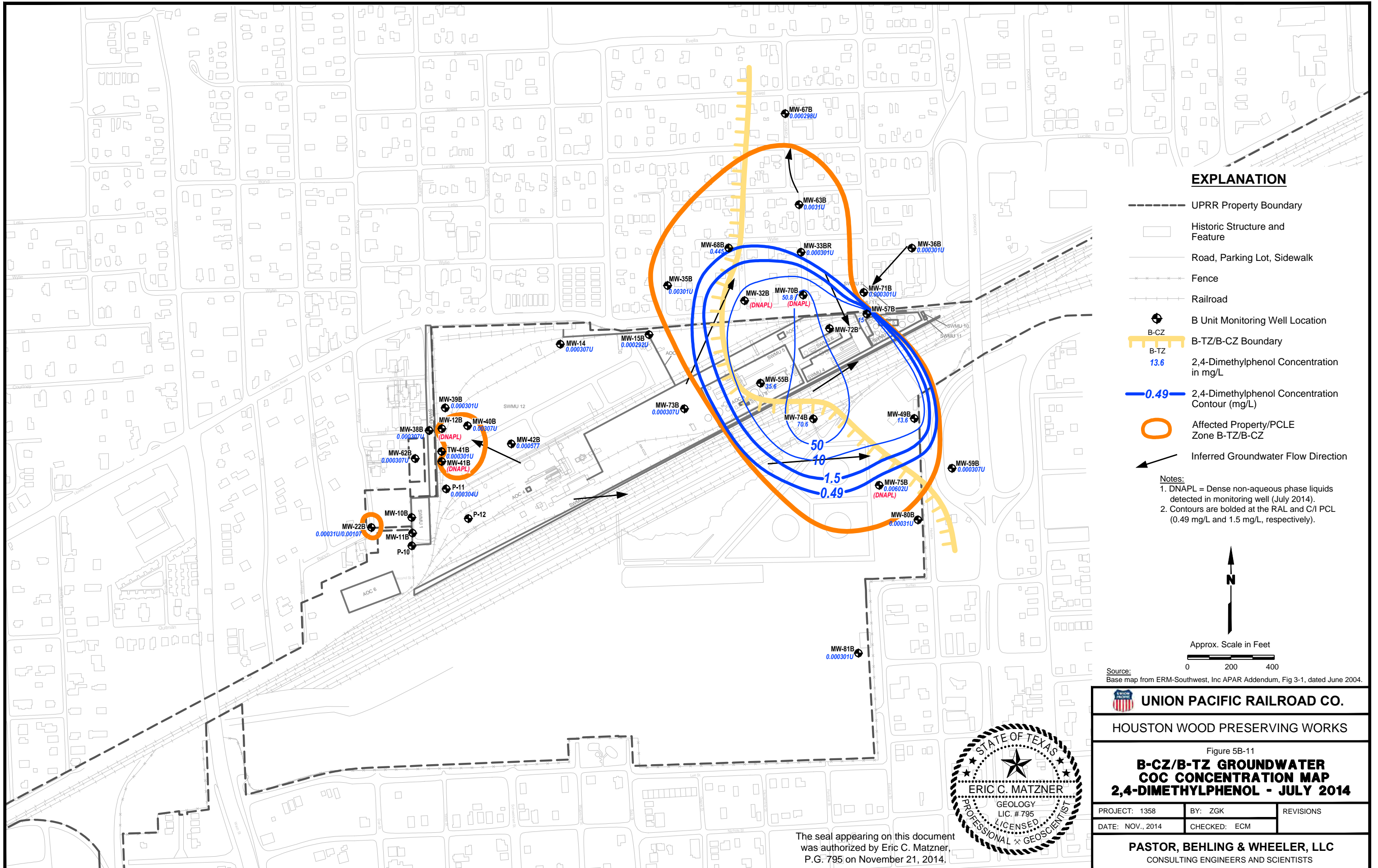


Source: Base map from ERM-Southwest, Inc APAR Addendum, Fig 3-1, dated June 2004.

UNION PACIFIC RAILROAD CO.		
HOUSTON WOOD PRESERVING WORKS		
Figure 5B-10 B-CZ/B-TZ GROUNDWATER COC CONCENTRATION MAP BENZENE - JULY 2014		
PROJECT: 1358	BY: ZGK	REVISIONS
DATE: NOV., 2014	CHECKED: ECM	
PASTOR, BEHLING & WHEELER, LLC CONSULTING ENGINEERS AND SCIENTISTS		



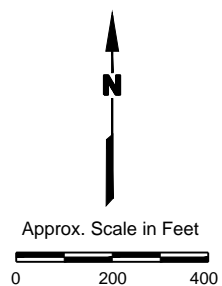
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EXPLANATION

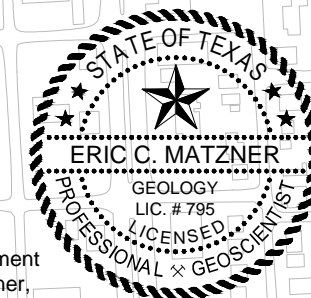
- UPRR Property Boundary
- Historic Structure and Feature
- Road, Parking Lot, Sidewalk
- Fence
- Railroad
- ⊕ B Unit Monitoring Well Location
- B-CZ
- B-TZ
- 13.6 2,4-Dimethylphenol Concentration in mg/L
- 0.49 2,4-Dimethylphenol Concentration Contour (mg/L)
- Affected Property/PCLE Zone B-TZ/B-CZ
- Inferred Groundwater Flow Direction

- Notes:
1. DNAPL = Dense non-aqueous phase liquids detected in monitoring well (July 2014).
 2. Contours are bolded at the RAL and C/I PCL (0.49 mg/L and 1.5 mg/L, respectively).

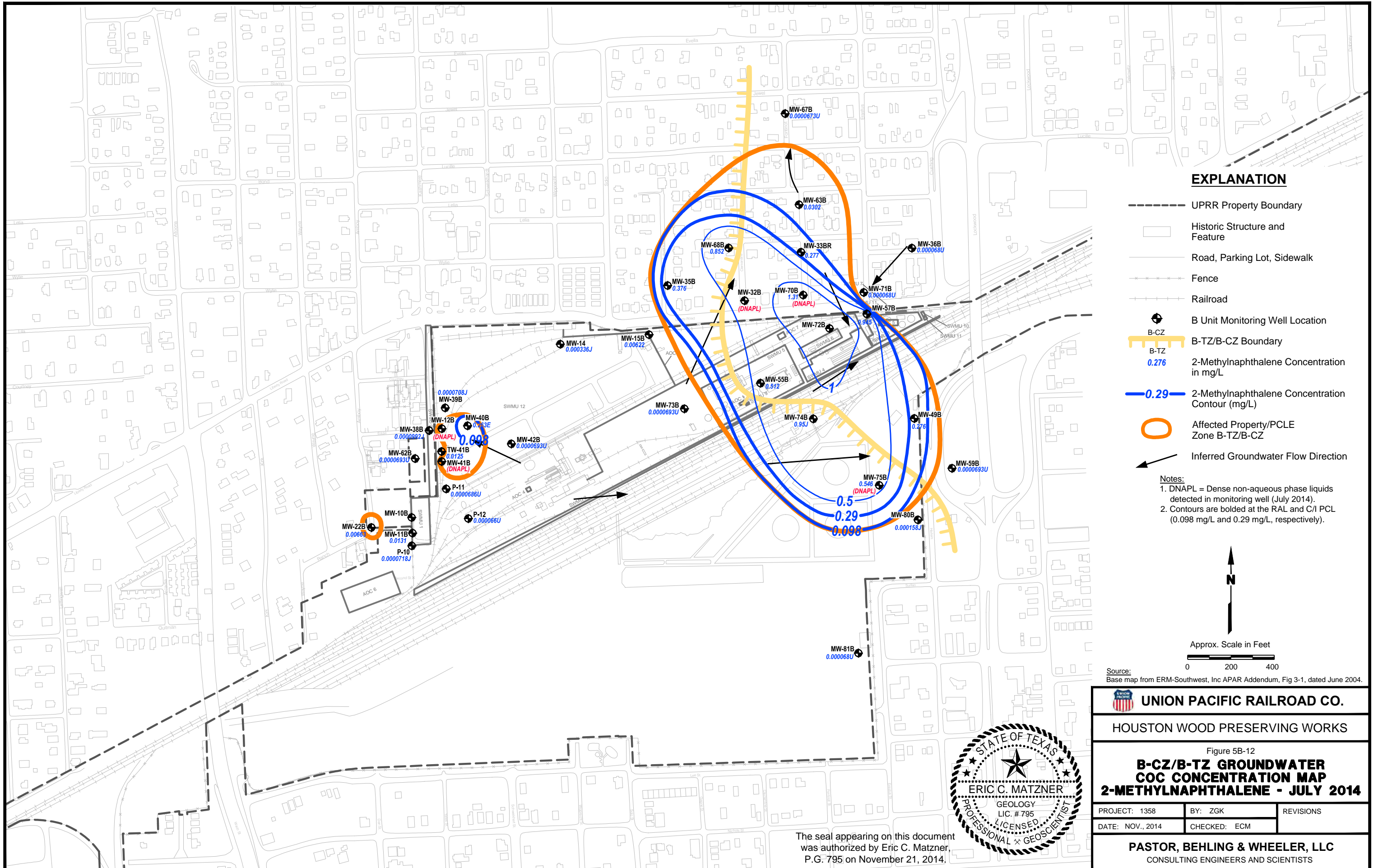


Source: Base map from ERM-Southwest, Inc APAR Addendum, Fig 3-1, dated June 2004.

UNION PACIFIC RAILROAD CO.		
HOUSTON WOOD PRESERVING WORKS		
Figure 5B-11 B-CZ/B-TZ GROUNDWATER COC CONCENTRATION MAP 2,4-DIMETHYLPHENOL - JULY 2014		
PROJECT: 1358	BY: ZGK	REVISIONS
DATE: NOV., 2014	CHECKED: ECM	
PASTOR, BEHLING & WHEELER, LLC CONSULTING ENGINEERS AND SCIENTISTS		



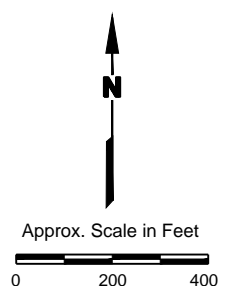
The seal appearing on this document was authorized by Eric C. Matzner, P.G. 795 on November 21, 2014.



EXPLANATION

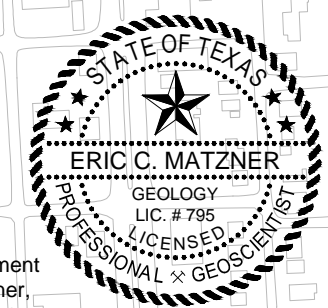
- UPRR Property Boundary
- ▭ Historic Structure and Feature
- Road, Parking Lot, Sidewalk
- Fence
- Railroad
- ⊕ B Unit Monitoring Well Location
- ▭ B-CZ
- ▭ B-TZ
- 0.276 2-Methylnaphthalene Concentration in mg/L
- 0.29 2-Methylnaphthalene Concentration Contour (mg/L)
- Affected Property/PCLE Zone B-TZ/B-CZ
- Inferred Groundwater Flow Direction

Notes:
 1. DNAPL = Dense non-aqueous phase liquids detected in monitoring well (July 2014).
 2. Contours are bolded at the RAL and C/1 PCL (0.098 mg/L and 0.29 mg/L, respectively).

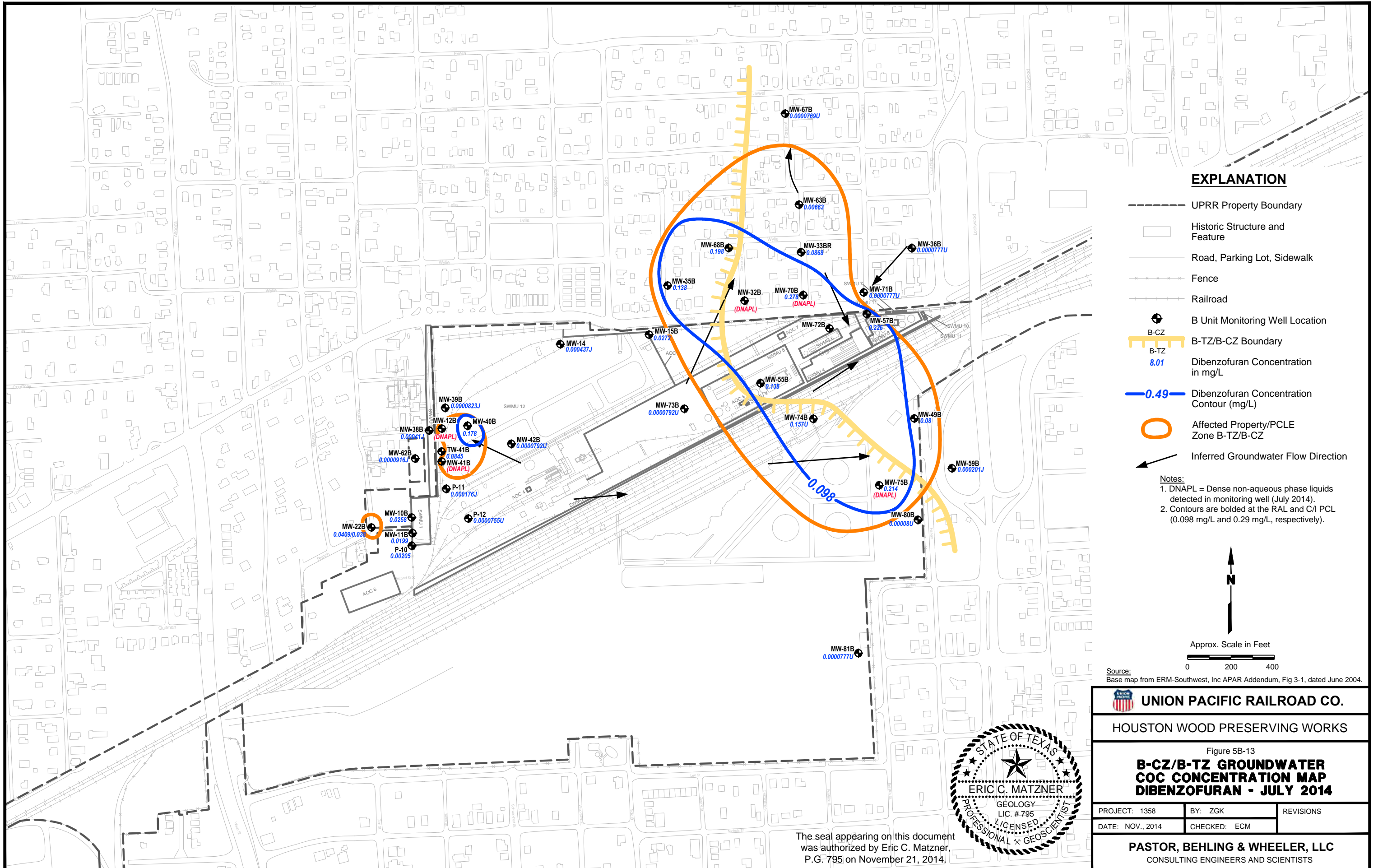


Source: Base map from ERM-Southwest, Inc APAR Addendum, Fig 3-1, dated June 2004.

UNION PACIFIC RAILROAD CO.		
HOUSTON WOOD PRESERVING WORKS		
Figure 5B-12		
B-CZ/B-TZ GROUNDWATER COC CONCENTRATION MAP 2-METHYLNAPHTHALENE - JULY 2014		
PROJECT: 1358	BY: ZGK	REVISIONS
DATE: NOV., 2014	CHECKED: ECM	
PASTOR, BEHLING & WHEELER, LLC CONSULTING ENGINEERS AND SCIENTISTS		



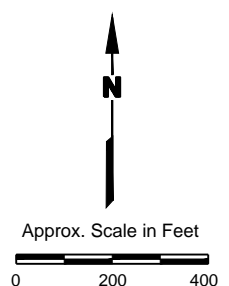
The seal appearing on this document was authorized by Eric C. Matzner, P.G. 795 on November 21, 2014.



EXPLANATION

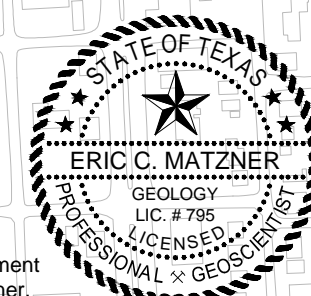
- UPRR Property Boundary
- ▭ Historic Structure and Feature
- Road, Parking Lot, Sidewalk
- Fence
- Railroad
- ⊕ B Unit Monitoring Well Location
- ▭ B-CZ
- ▭ B-TZ
- 8.01 Dibenzofuran Concentration in mg/L
- 0.49 Dibenzofuran Concentration Contour (mg/L)
- Affected Property/PCLE Zone B-TZ/B-CZ
- ↖ Inferred Groundwater Flow Direction

Notes:
 1. DNAPL = Dense non-aqueous phase liquids detected in monitoring well (July 2014).
 2. Contours are bolded at the RAL and C/I PCL (0.098 mg/L and 0.29 mg/L, respectively).

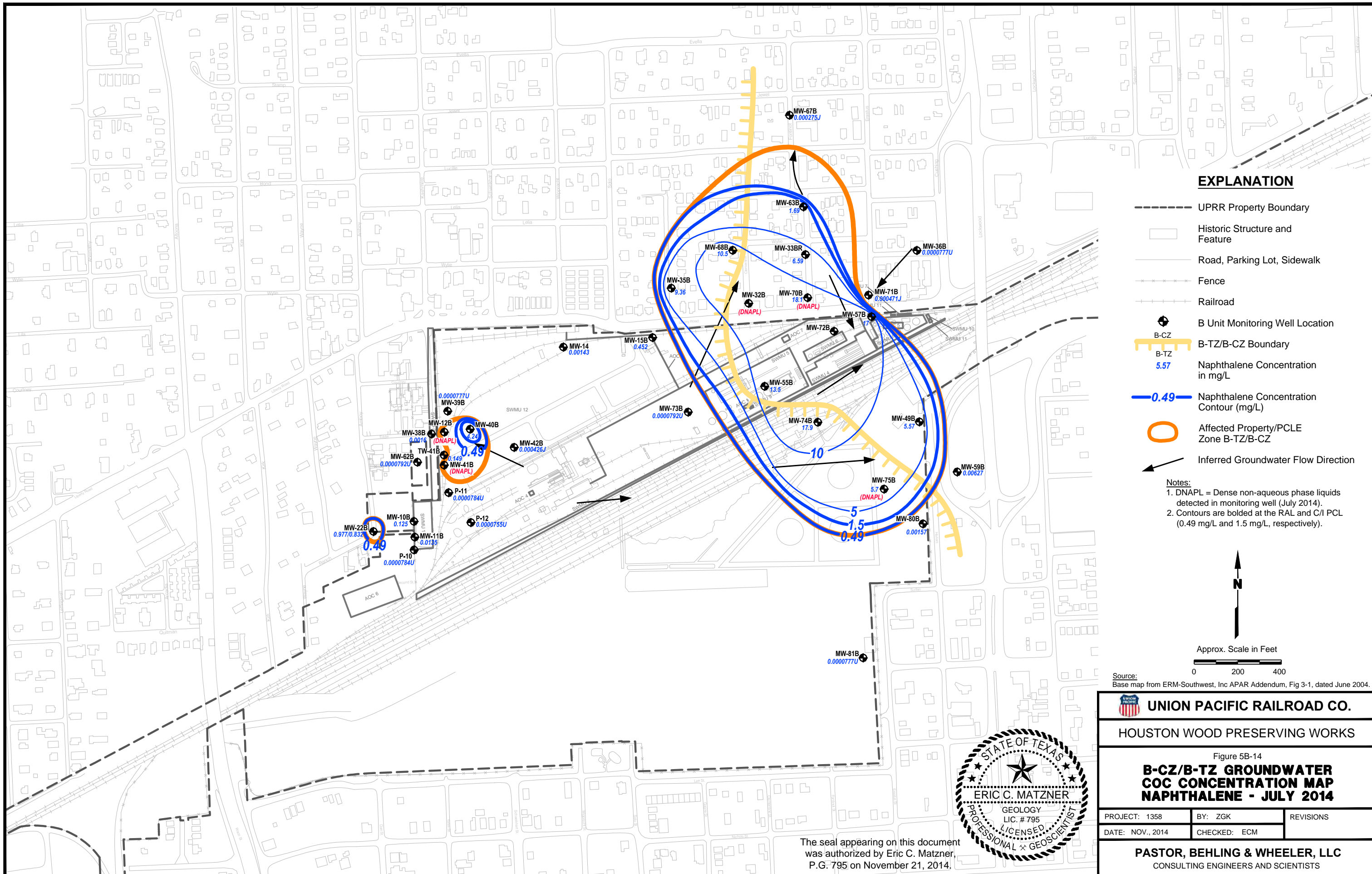


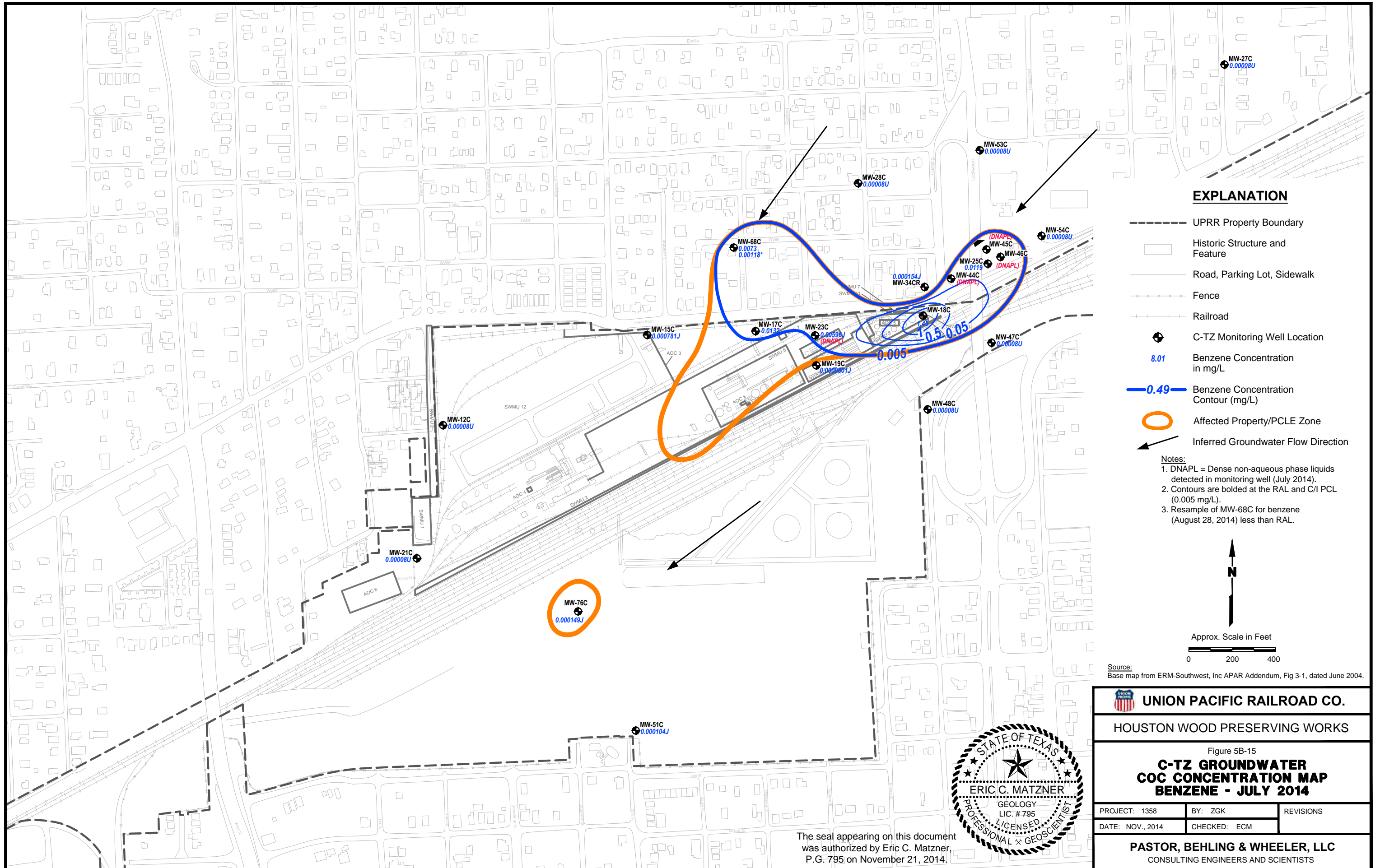
Source: Base map from ERM-Southwest, Inc APAR Addendum, Fig 3-1, dated June 2004.

UNION PACIFIC RAILROAD CO.		
HOUSTON WOOD PRESERVING WORKS		
Figure 5B-13 B-CZ/B-TZ GROUNDWATER COC CONCENTRATION MAP DIBENZOFURAN - JULY 2014		
PROJECT: 1358	BY: ZGK	REVISIONS
DATE: NOV., 2014	CHECKED: ECM	
PASTOR, BEHLING & WHEELER, LLC CONSULTING ENGINEERS AND SCIENTISTS		



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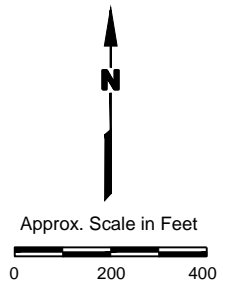




EXPLANATION

- UPRR Property Boundary
- ▭ Historic Structure and Feature
- Road, Parking Lot, Sidewalk
- Fence
- Railroad
- ⊕ C-TZ Monitoring Well Location
- 8.01 Benzene Concentration in mg/L
- 0.49 Benzene Concentration Contour (mg/L)
- Affected Property/PCLE Zone
- ↖ Inferred Groundwater Flow Direction

- Notes:**
1. DNAPL = Dense non-aqueous phase liquids detected in monitoring well (July 2014).
 2. Contours are bolded at the RAL and C/I PCL (0.005 mg/L).
 3. Resample of MW-68C for benzene (August 28, 2014) less than RAL.

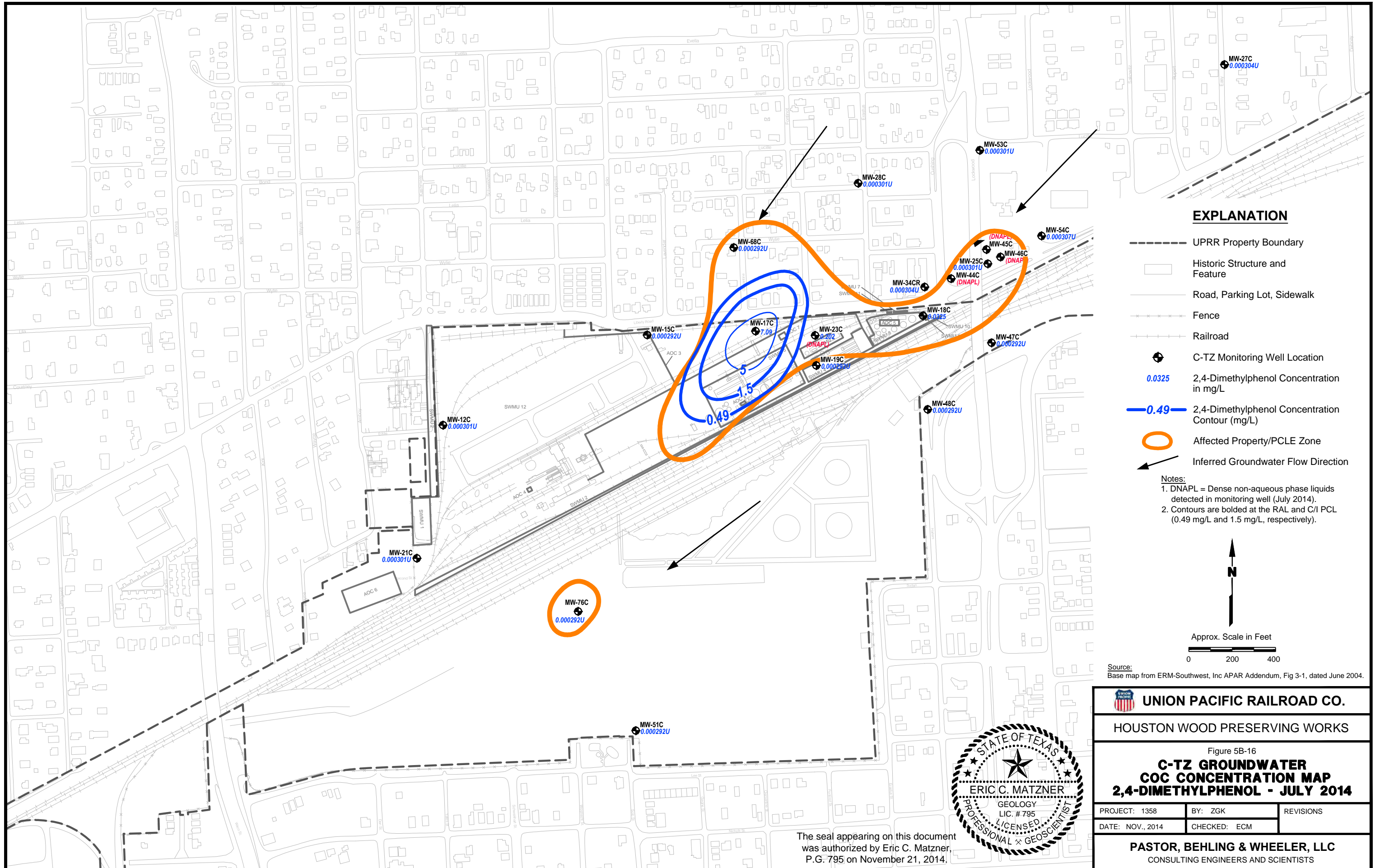


Source: Base map from ERM-Southwest, Inc APAR Addendum, Fig 3-1, dated June 2004.

UNION PACIFIC RAILROAD CO.		
HOUSTON WOOD PRESERVING WORKS		
Figure 5B-15 C-TZ GROUNDWATER COC CONCENTRATION MAP BENZENE - JULY 2014		
PROJECT: 1358	BY: ZGK	REVISIONS
DATE: NOV., 2014	CHECKED: ECM	
PASTOR, BEHLING & WHEELER, LLC CONSULTING ENGINEERS AND SCIENTISTS		



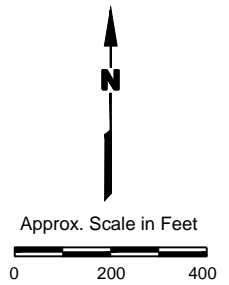
The seal appearing on this document was authorized by Eric C. Matzner, P.G. 795 on November 21, 2014.



EXPLANATION

- UPRR Property Boundary
- ▭ Historic Structure and Feature
- Road, Parking Lot, Sidewalk
- Fence
- Railroad
- ⊕ C-TZ Monitoring Well Location
- 0.0325 2,4-Dimethylphenol Concentration in mg/L
- 0.49** 2,4-Dimethylphenol Concentration Contour (mg/L)
- Affected Property/PCLE Zone
- ↖ Inferred Groundwater Flow Direction

Notes:
 1. DNAPL = Dense non-aqueous phase liquids detected in monitoring well (July 2014).
 2. Contours are bolded at the RAL and C/I PCL (0.49 mg/L and 1.5 mg/L, respectively).

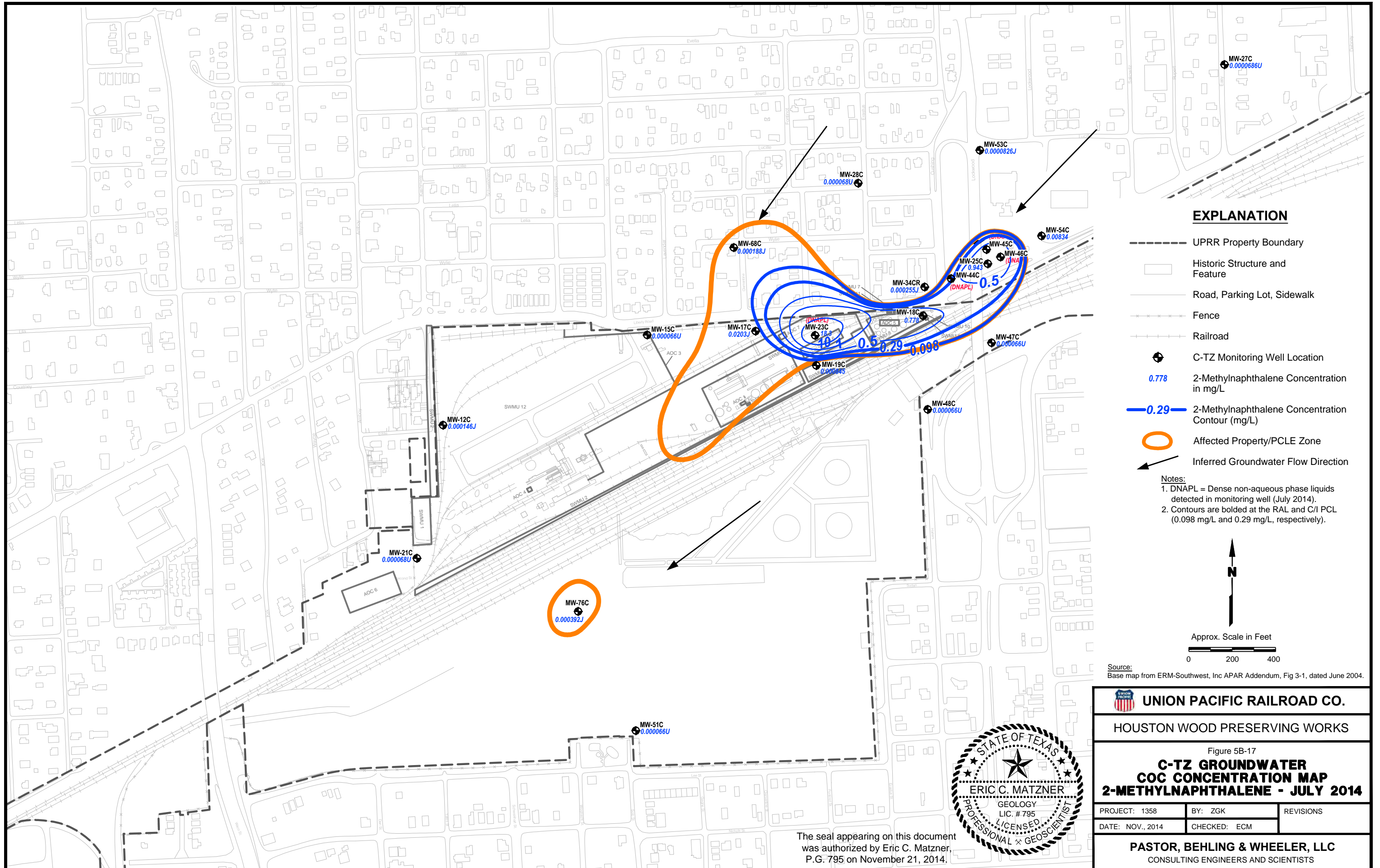



Source:
 Base map from ERM-Southwest, Inc APAR Addendum, Fig 3-1, dated June 2004.

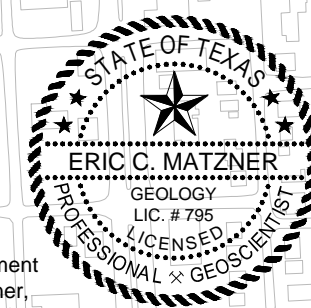
UNION PACIFIC RAILROAD CO.		
HOUSTON WOOD PRESERVING WORKS		
Figure 5B-16 C-TZ GROUNDWATER COC CONCENTRATION MAP 2,4-DIMETHYLPHENOL - JULY 2014		
PROJECT: 1358	BY: ZGK	REVISIONS
DATE: NOV., 2014	CHECKED: ECM	
PASTOR, BEHLING & WHEELER, LLC CONSULTING ENGINEERS AND SCIENTISTS		



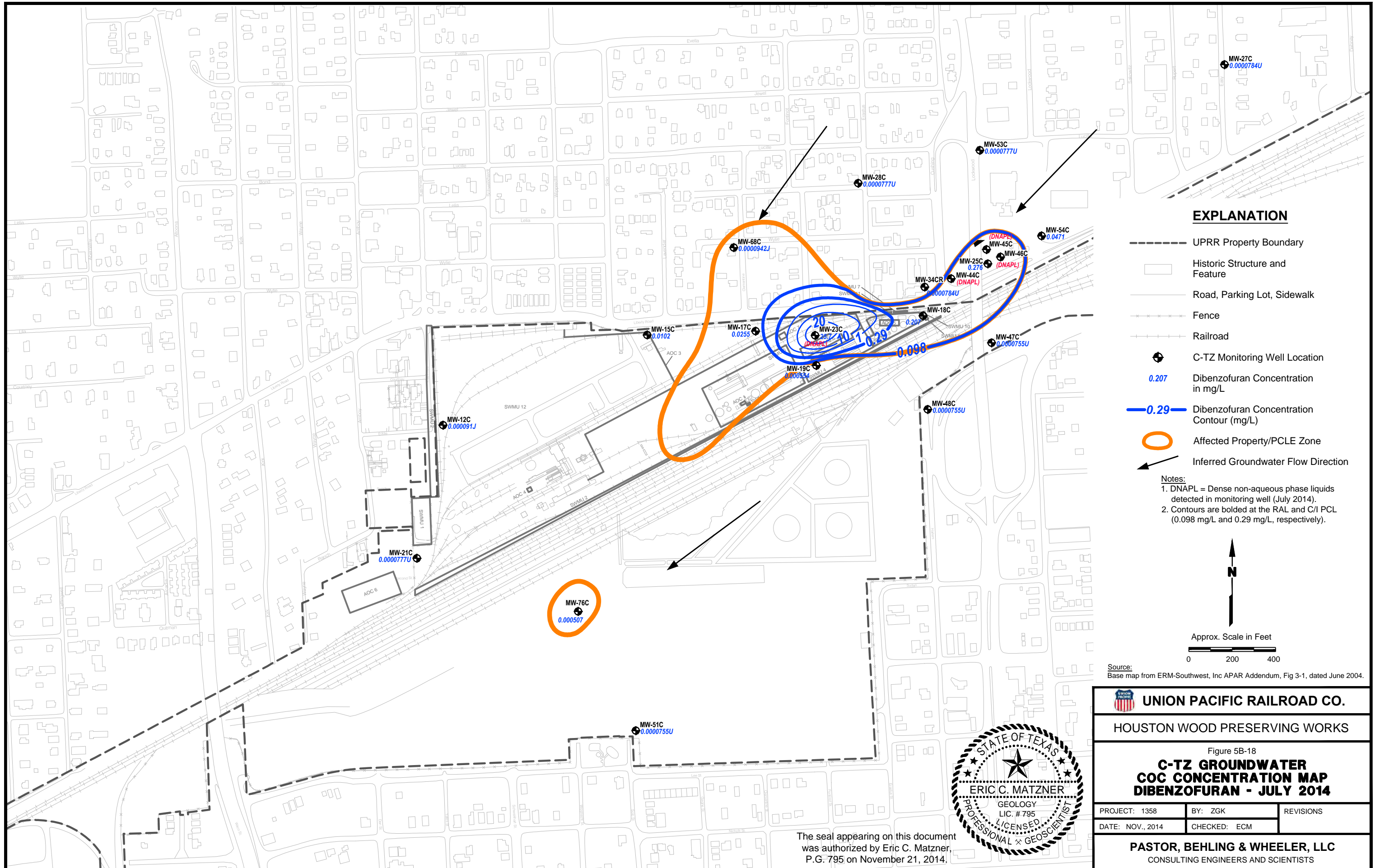
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 UNION PACIFIC RAILROAD CO.		
HOUSTON WOOD PRESERVING WORKS		
Figure 5B-17 C-TZ GROUNDWATER COC CONCENTRATION MAP 2-METHYLNAPHTHALENE - JULY 2014		
PROJECT: 1358	BY: ZGK	REVISIONS
DATE: NOV., 2014	CHECKED: ECM	
PASTOR, BEHLING & WHEELER, LLC CONSULTING ENGINEERS AND SCIENTISTS		



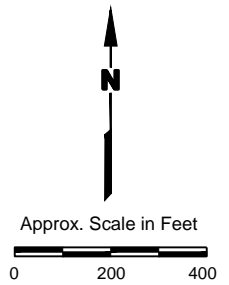
The seal appearing on this document was authorized by Eric C. Matzner, P.G. 795 on November 21, 2014.



EXPLANATION

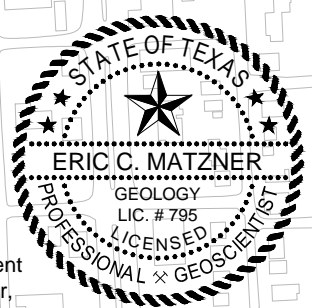
- UPRR Property Boundary
- ▭ Historic Structure and Feature
- Road, Parking Lot, Sidewalk
- Fence
- Railroad
- ⊕ C-TZ Monitoring Well Location
- 0.207 Dibenzofuran Concentration in mg/L
- 0.29** Dibenzofuran Concentration Contour (mg/L)
- Affected Property/PCLE Zone
- ↖ Inferred Groundwater Flow Direction

Notes:
 1. DNAPL = Dense non-aqueous phase liquids detected in monitoring well (July 2014).
 2. Contours are bolded at the RAL and C/I PCL (0.098 mg/L and 0.29 mg/L, respectively).

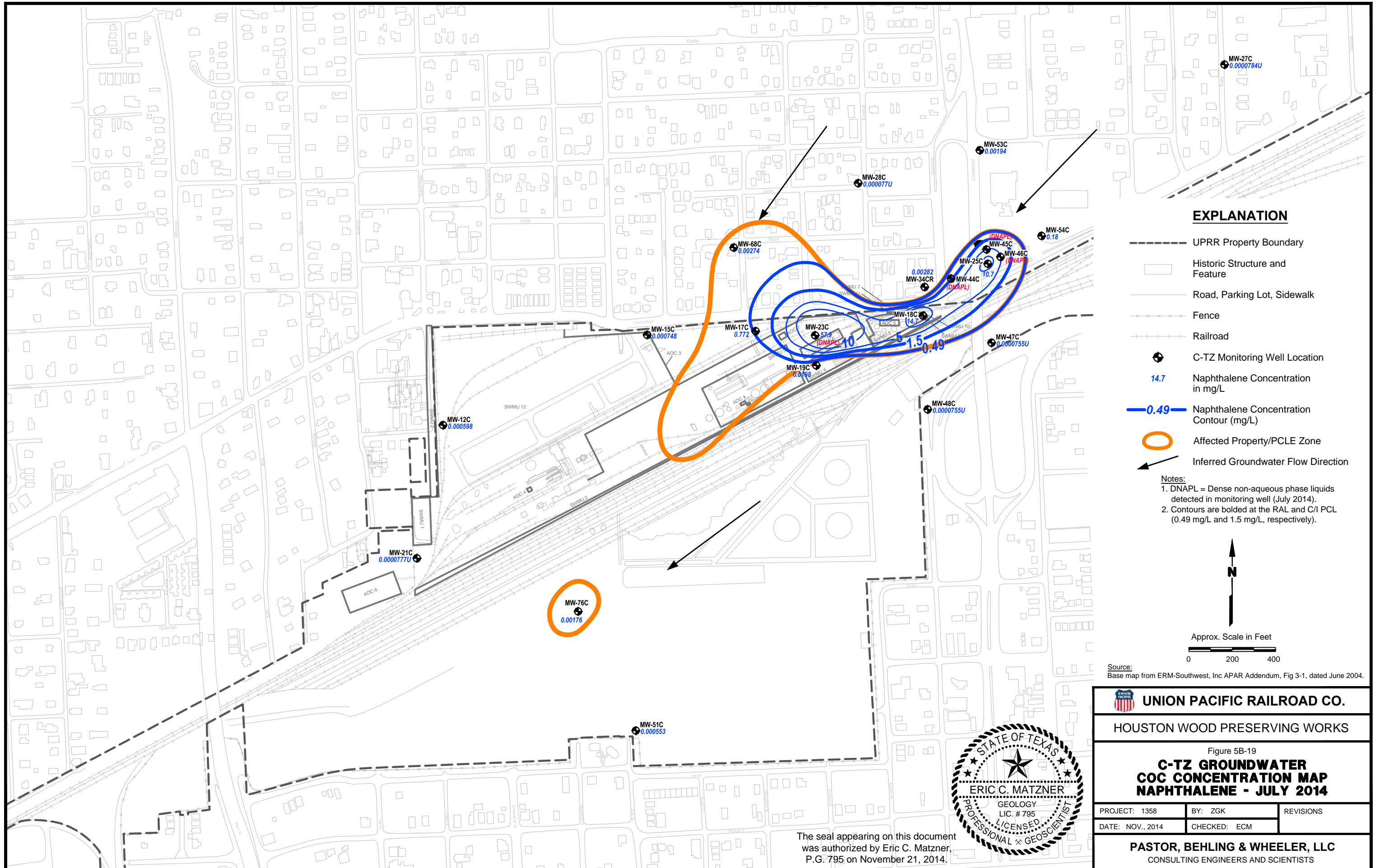



Source:
 Base map from ERM-Southwest, Inc APAR Addendum, Fig 3-1, dated June 2004.

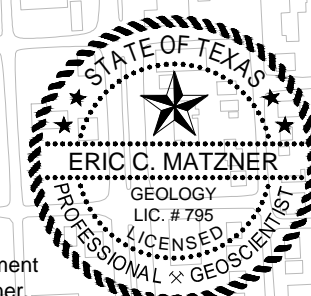
UNION PACIFIC RAILROAD CO.		
HOUSTON WOOD PRESERVING WORKS		
Figure 5B-18 C-TZ GROUNDWATER COC CONCENTRATION MAP DIBENZOFURAN - JULY 2014		
PROJECT: 1358	BY: ZGK	REVISIONS
DATE: NOV., 2014	CHECKED: ECM	
PASTOR, BEHLING & WHEELER, LLC CONSULTING ENGINEERS AND SCIENTISTS		



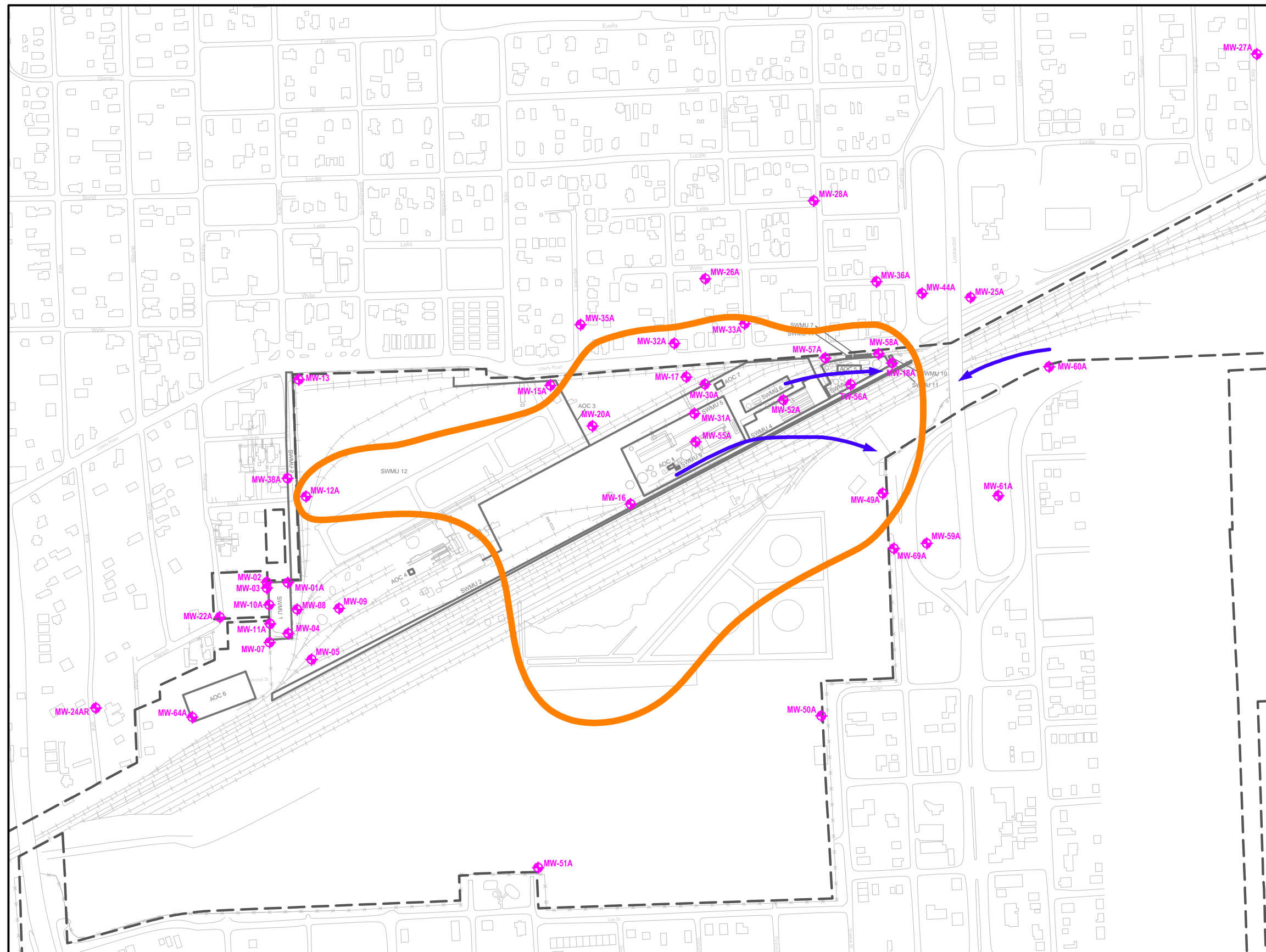
The seal appearing on this document was authorized by Eric C. Matzner, P.G. 795 on November 21, 2014.



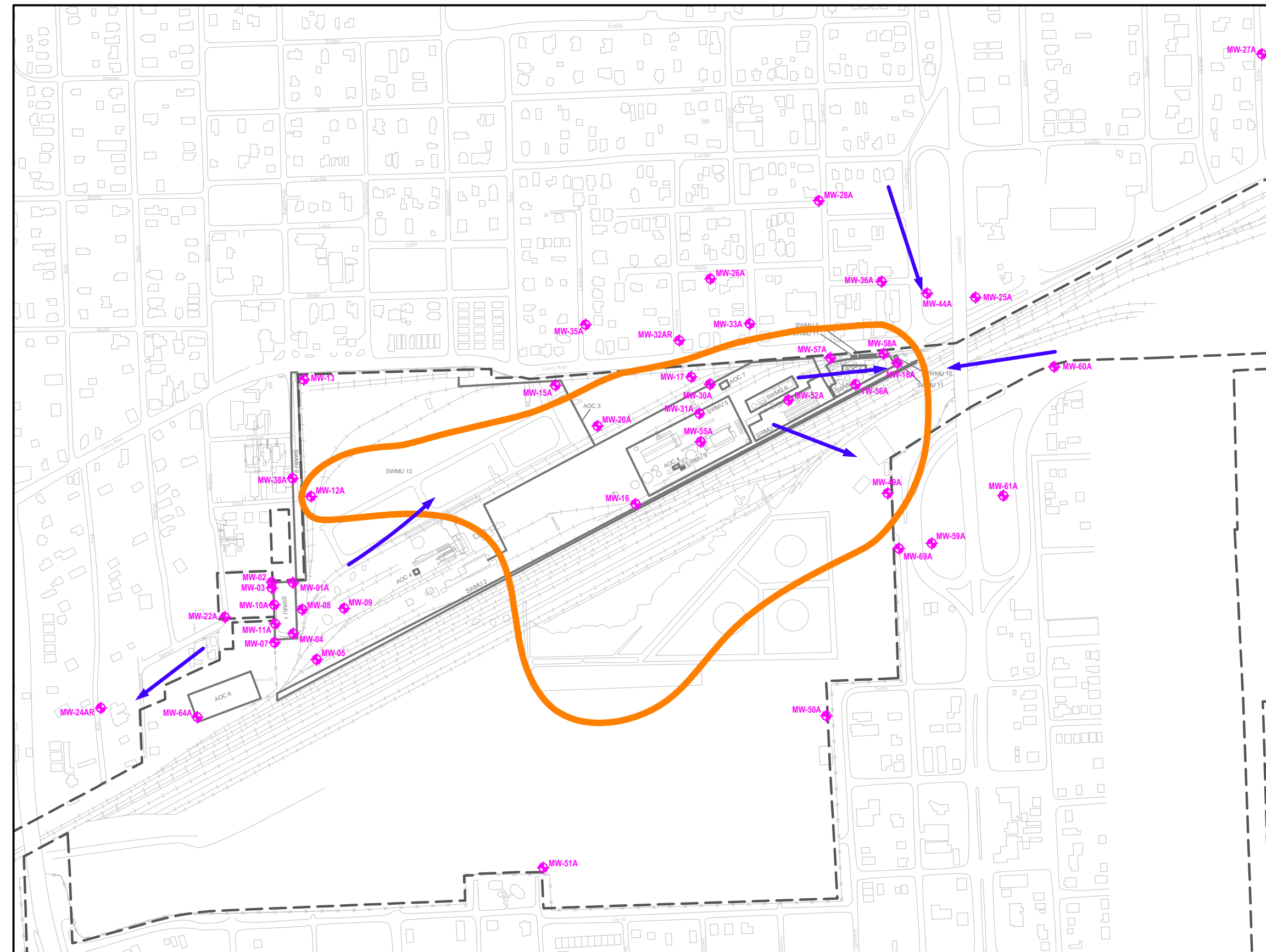
 UNION PACIFIC RAILROAD CO.		
HOUSTON WOOD PRESERVING WORKS		
Figure 5B-19 C-TZ GROUNDWATER COC CONCENTRATION MAP NAPHTHALENE - JULY 2014		
PROJECT: 1358	BY: ZGK	REVISIONS
DATE: NOV., 2014	CHECKED: ECM	
PASTOR, BEHLING & WHEELER, LLC CONSULTING ENGINEERS AND SCIENTISTS		



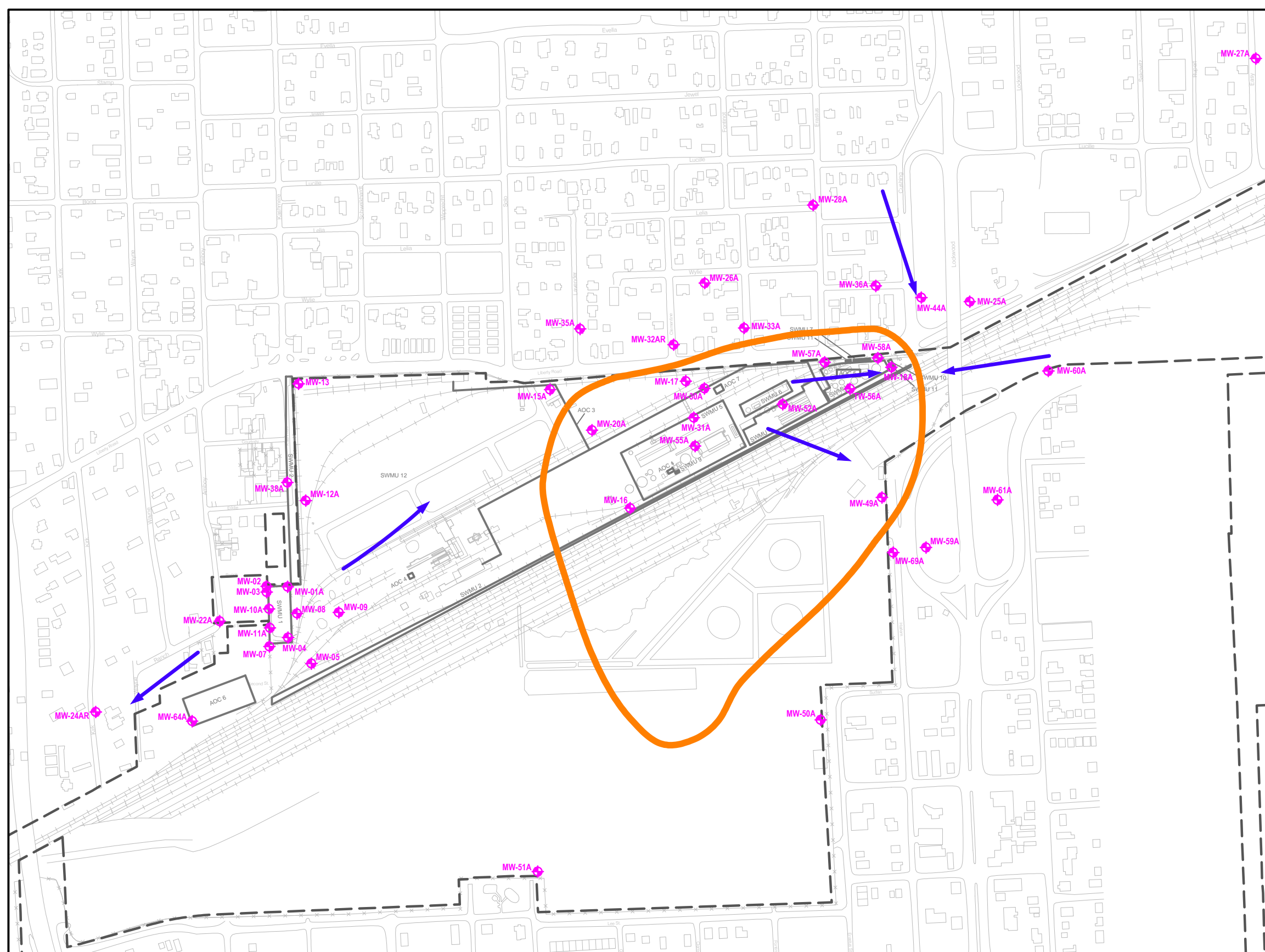
The seal appearing on this document was authorized by Eric C. Matzner, P.G. 795 on November 21, 2014.



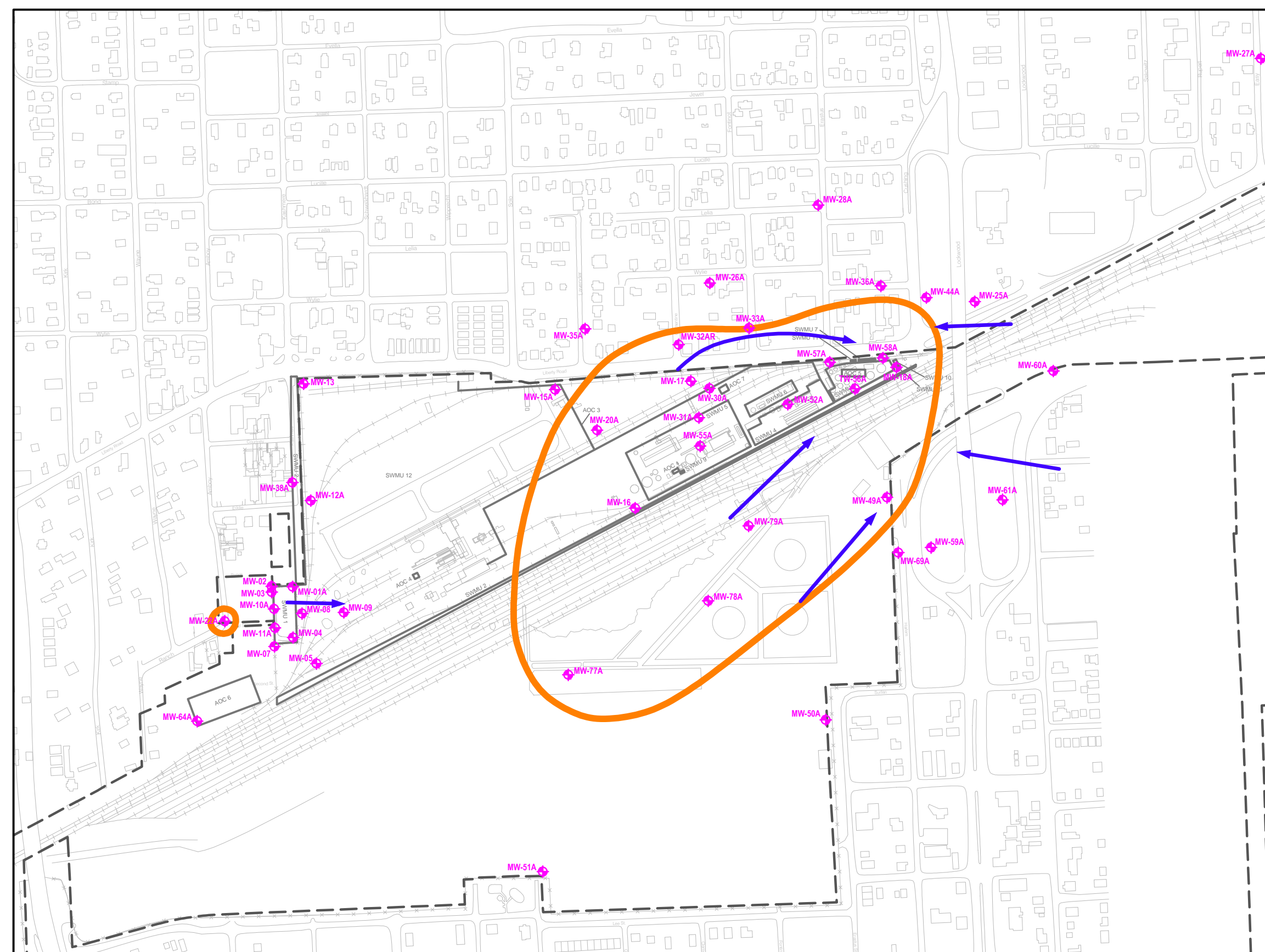
JANUARY 2011



JULY 2012



JULY/AUGUST 2013



JULY/AUGUST 2014

EXPLANATION

- UPRR Property
- Historic Structure and Feature
- Road, Parking Lot, Sidewalk
- Fence
- Railroad
- A-TZ Monitoring Well Location
- ↙ Inferred Groundwater Flow Direction
- Affected Property/PCLE Zone

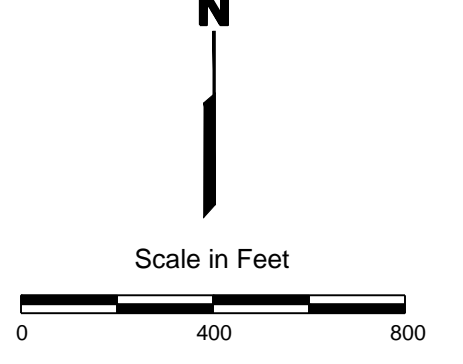
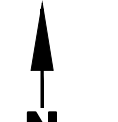
SWMU/AOC AREAS

No.	Description
SWMU 1	Closed Surface Impoundment
SWMU 2	Northern and Southern Drainage Ditches
SWMU 4	Recent Process Area
SWMU 5	Original Process Area
SWMU 6	Water Treatment and Boiler System
SWMU 7	Tank Car Storage Area
SWMU 8	Aboveground Storage Tank Area
SWMU 9	Location of Former UST No. 44-023-05
SWMU 10	Location of Former Sap Water Treatment Tank
SWMU 11	Oil/Water Separators
SWMU 12	Railroad Tie Storage Area
AOC 1	Diesel Storage Tank
AOC 3	Contaminated Portion of City Water Line
AOC 4	Location of Former Incinerator
AOC 5	City Storm Sewer
AOC 6	Inactive Wastewater Lagoon
AOC 7	Location of Former UST No. 44-023-21

Note: Locations of SWMU-9 and AOCs 1, 3, 5 and 7 area approximate.

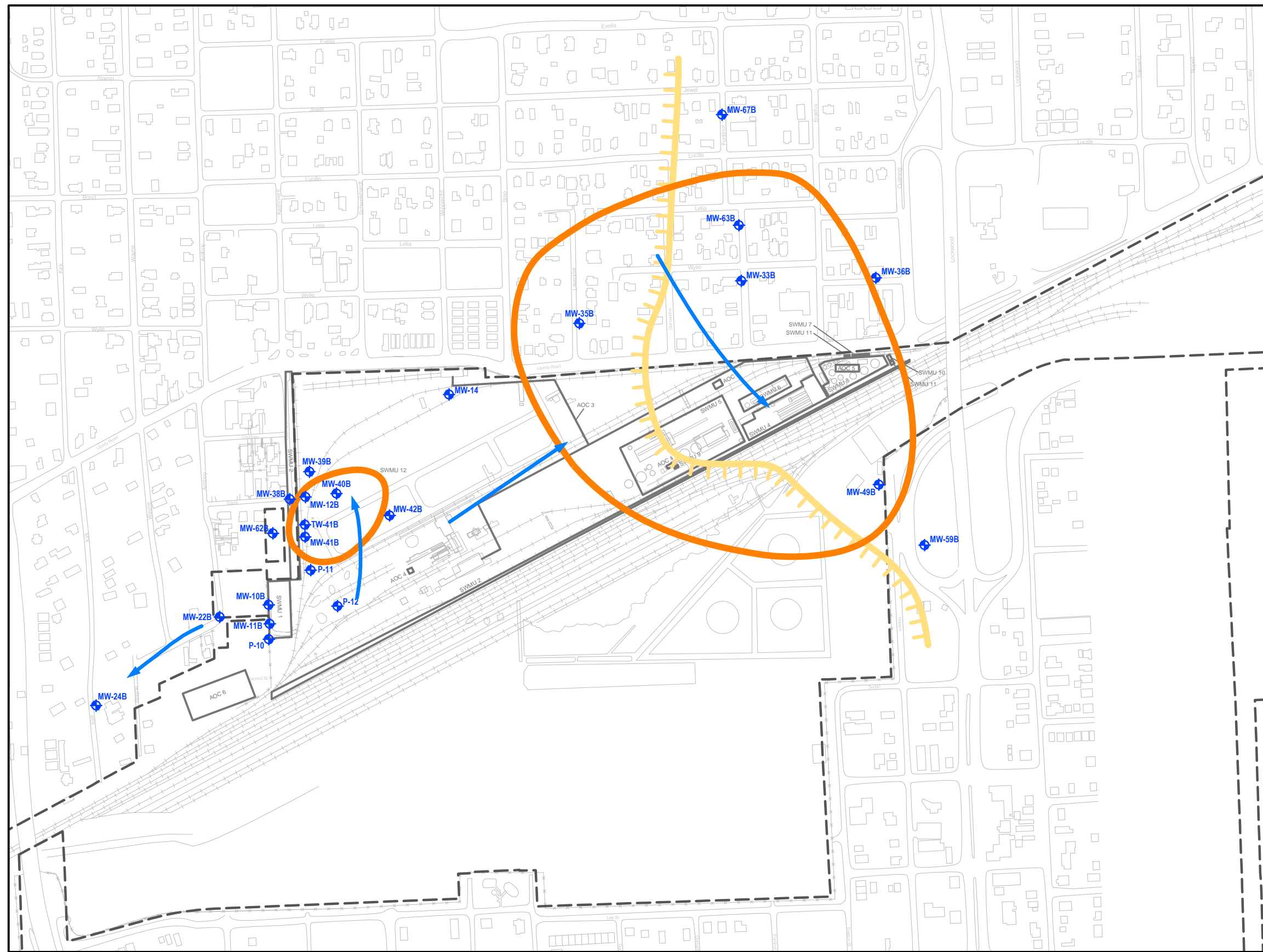


The seal appearing on this document was authorized by Eric C. Matzner, P.G. 795 on November 21, 2014.

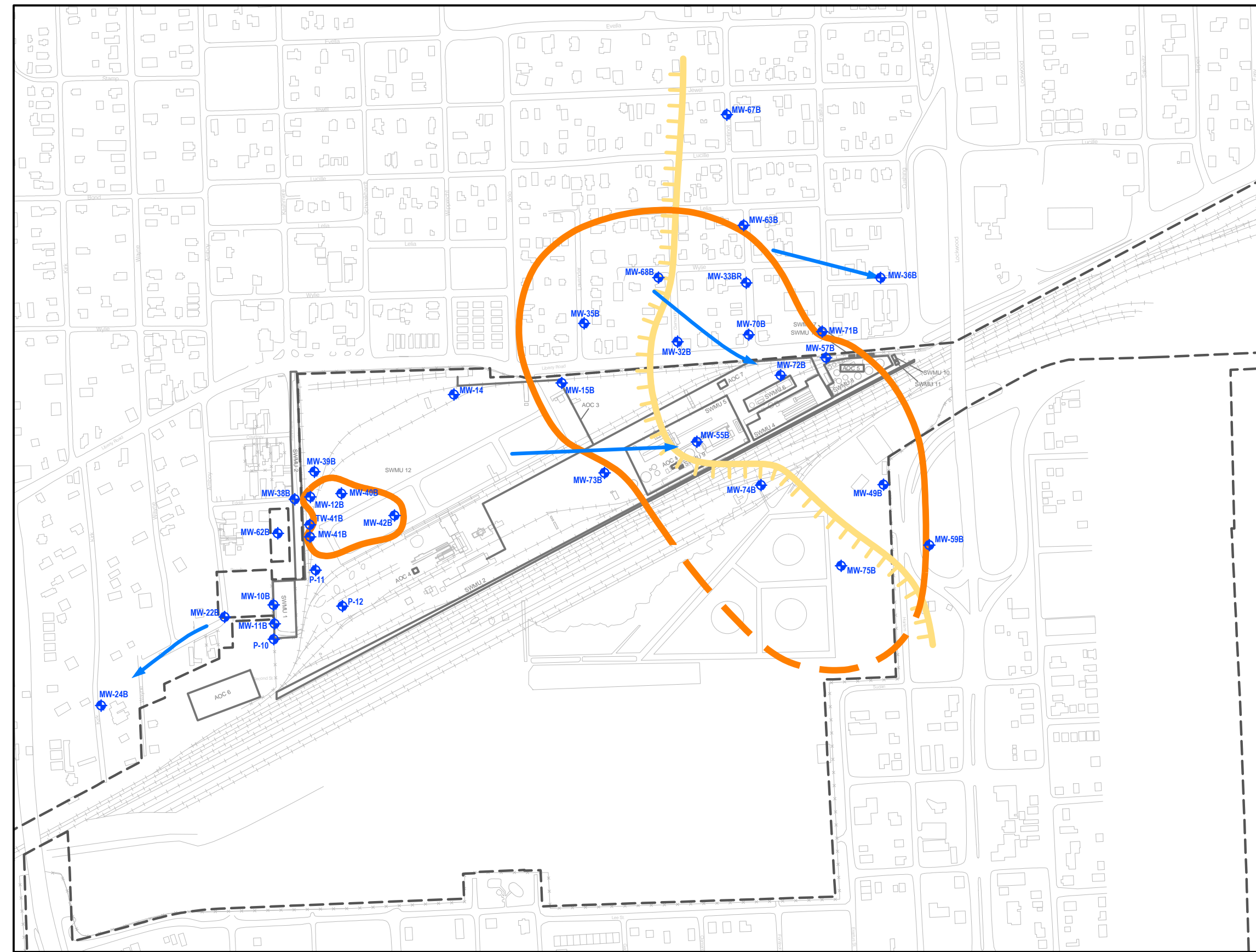


Source: Base map from ERM-Southwest, Inc APAR Addendum, Fig 3-1, dated June 2004.

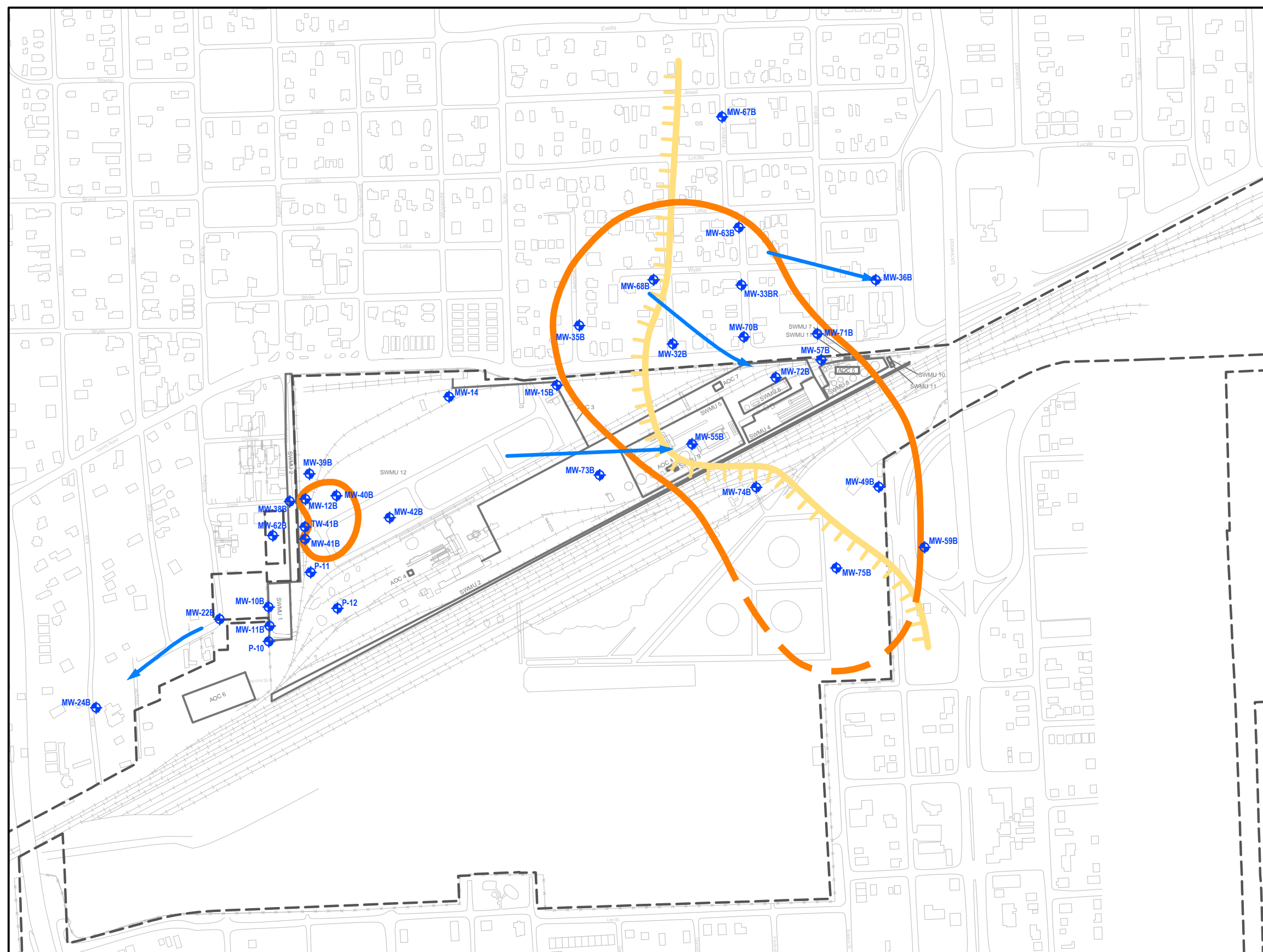
UNION PACIFIC RAILROAD CO.		
HOUSTON WOOD PRESERVING WORKS		
Figure 5B-20		
A-TZ GROUNDWATER PLUME MAP 2011-2014		
PROJECT: 1358	BY: ZGK	REVISIONS
DATE: NOV., 2014	CHECKED: ECM	
PASTOR, BEHLING & WHEELER, LLC		
CONSULTING ENGINEERS AND SCIENTISTS		



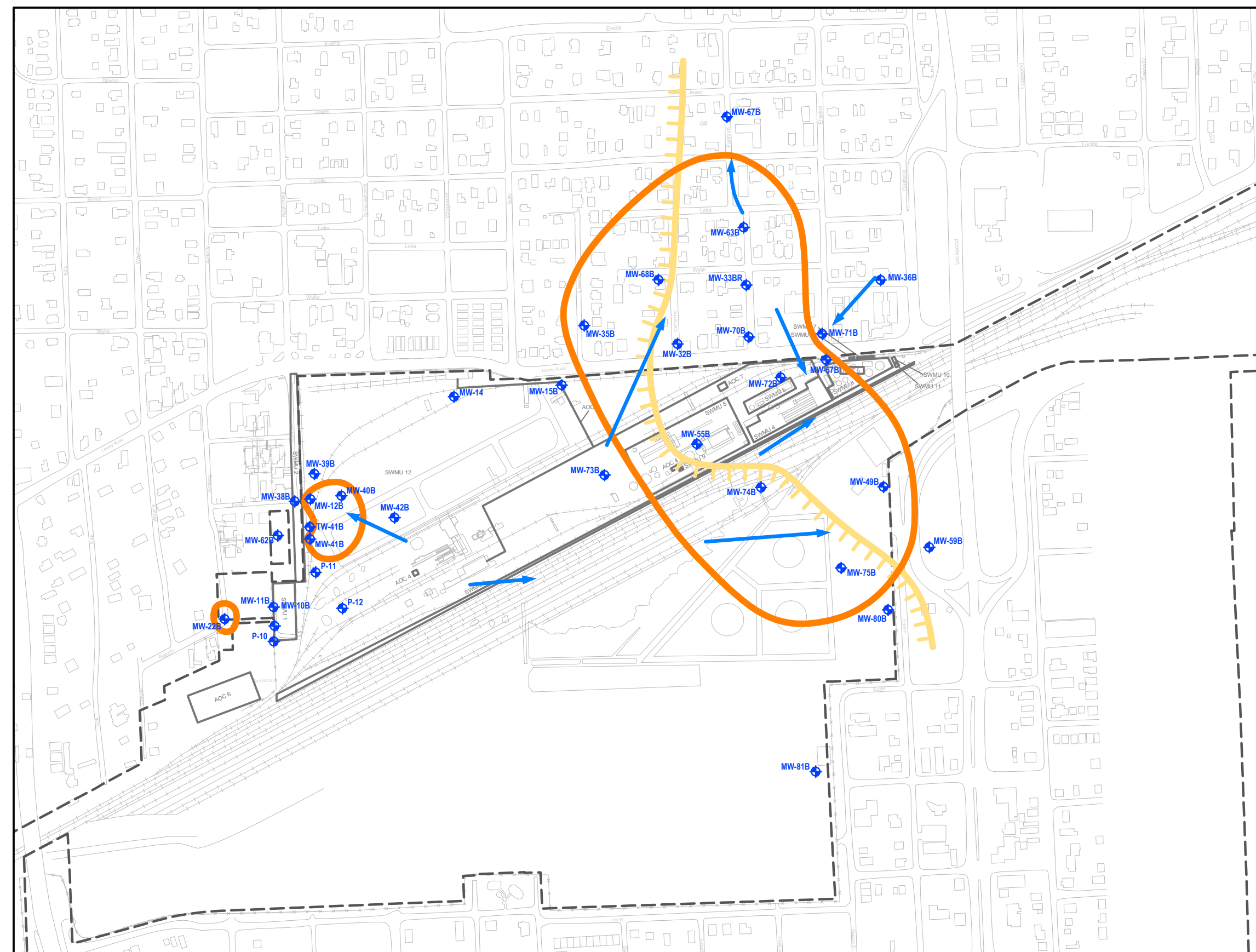
JANUARY 2011



JULY 2012



JULY/AUGUST 2013



JULY/AUGUST 2014

EXPLANATION

- UPRR Property
- Historic Structure and Feature
- Road, Parking Lot, Sidewalk
- Fence
- Railroad
- B-TZ/B-CZ Monitoring Well Location
- Inferred Groundwater Flow Direction
- Affected Property/PCLE Zone B-TZ/B-CZ
- B-CZ
- B-TZ

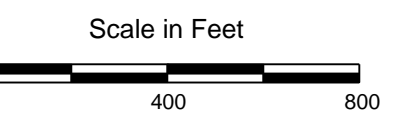
SWMU/AOC AREAS

- | No. | Description |
|---------|---|
| SWMU 1 | Closed Surface Impoundment |
| SWMU 2 | Northern and Southern Drainage Ditches |
| SWMU 4 | Recent Process Area |
| SWMU 5 | Original Process Area |
| SWMU 6 | Water Treatment and Boiler System |
| SWMU 7 | Tank Car Storage Area |
| SWMU 8 | Aboveground Storage Tank Area |
| SWMU 9 | Location of Former UST No. 44-023-05 |
| SWMU 9 | Location of Former Sap Water Treatment Tank |
| SWMU 10 | Oil/Water Separators |
| SWMU 11 | Railroad Tie Storage Area |
| SWMU 12 | Railroad Tie Storage Area |
| AOC 1 | Diesel Storage Tank |
| AOC 3 | Contaminated Portion of City Water Line |
| AOC 4 | Location of Former Incinerator |
| AOC 5 | City Storm Sewer |
| AOC 6 | Inactive Wastewater Lagoon |
| AOC 7 | Location of Former UST No. 44-023-21 |

Note: Locations of SWMU-9 and AOCs 1, 3, 5 and 7 area approximate.

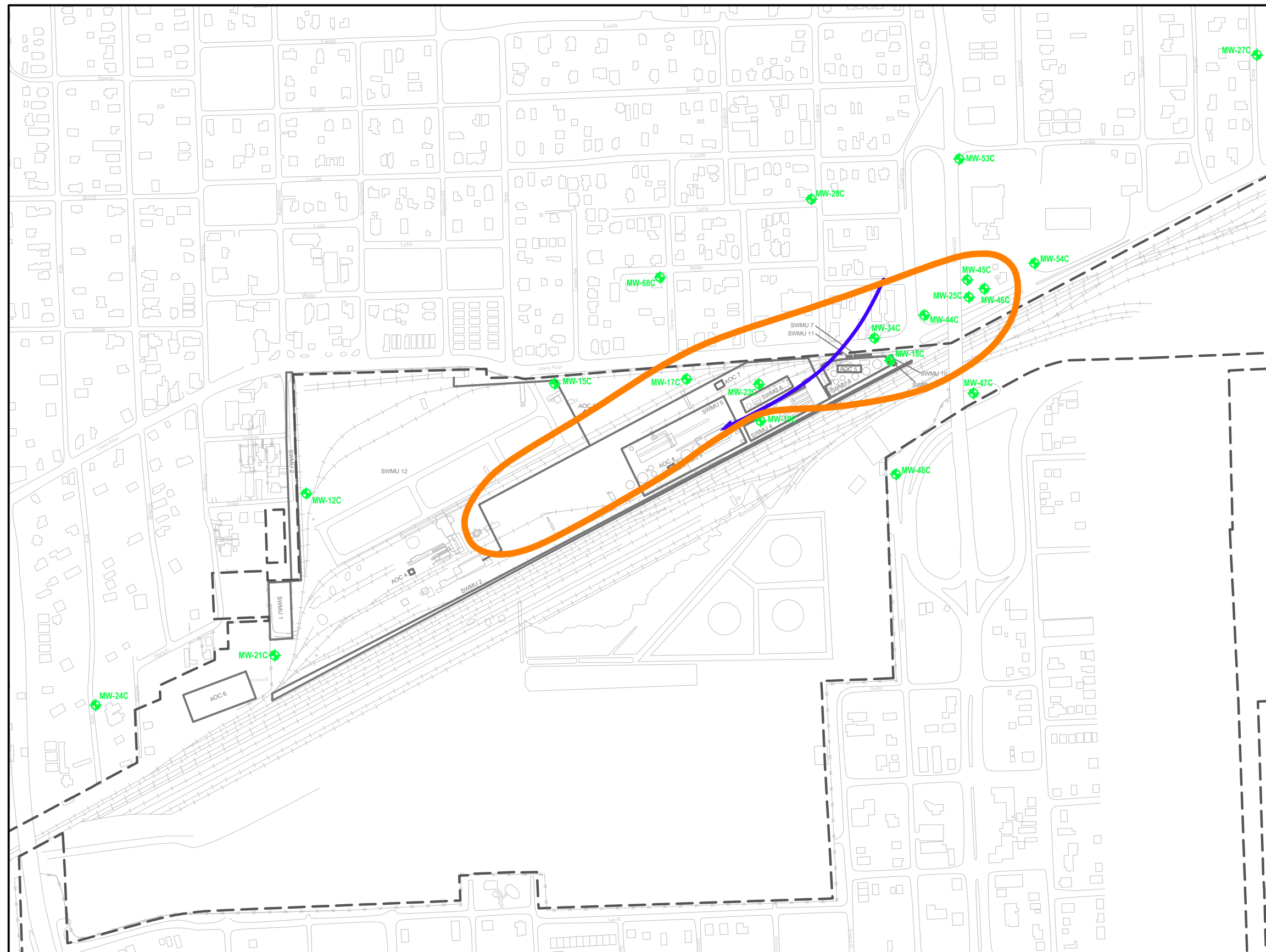


The seal appearing on this document was authorized by Eric C. Matzner, P.G. 795 on November 21, 2014.

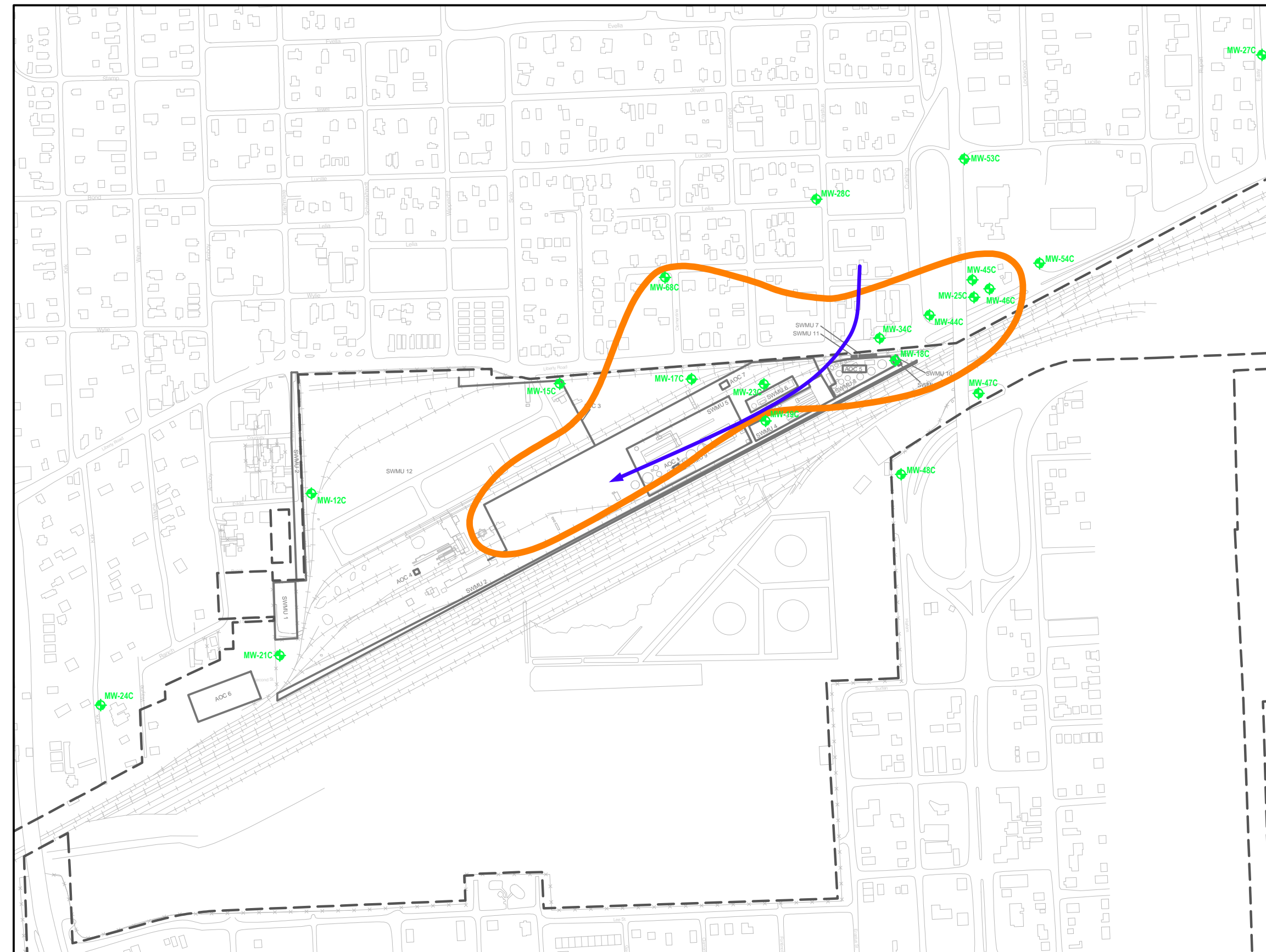


Source: Base map from ERM-Southwest, Inc APAR Addendum, Fig 3-1, dated June 2004.

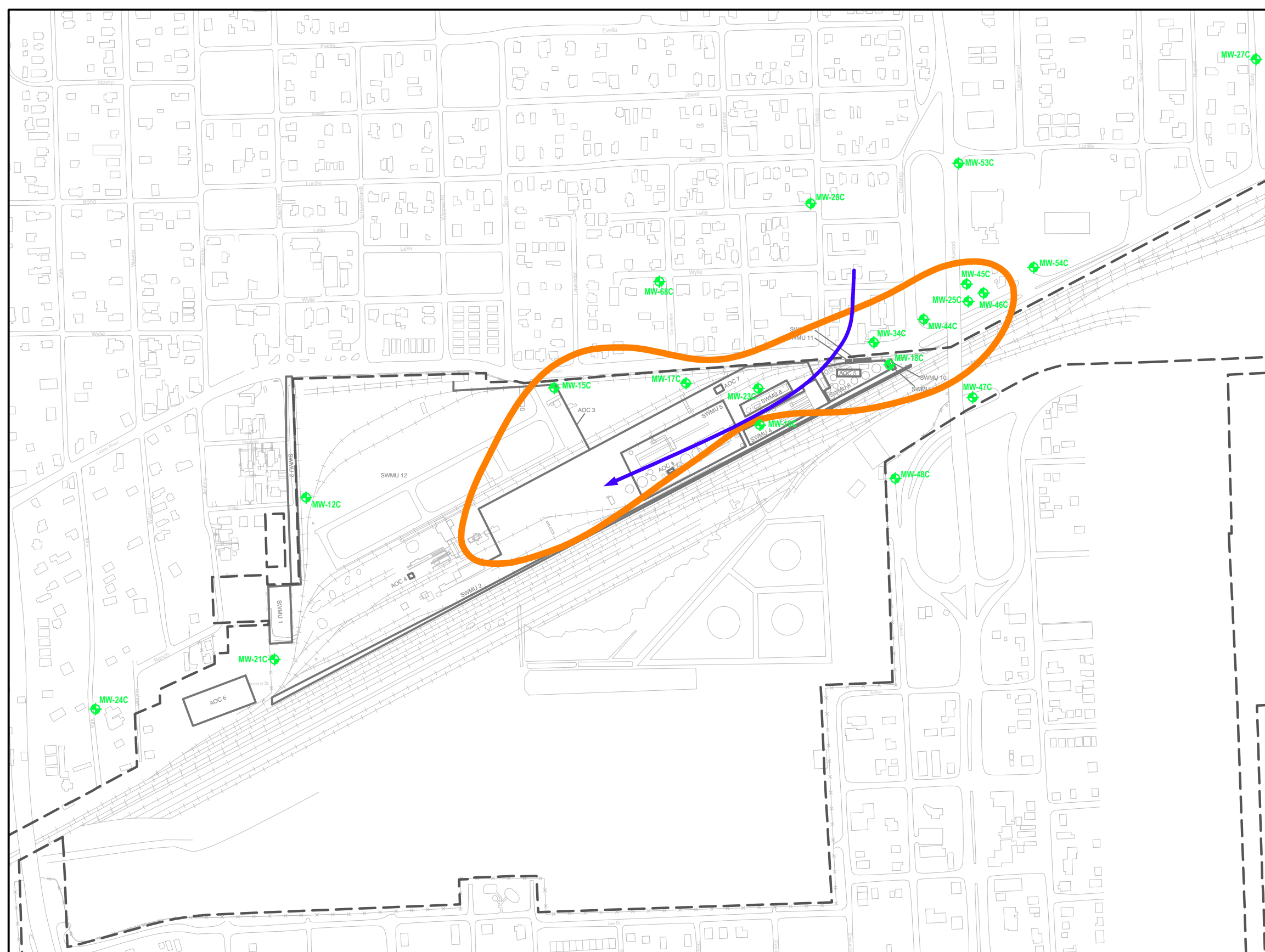
UNION PACIFIC RAILROAD CO.		
HOUSTON WOOD PRESERVING WORKS		
Figure 5B-21		
B-TZ/B-CZ GROUNDWATER PLUME MAP 2011-2014		
PROJECT: 1358	BY: ZGK	REVISIONS
DATE: NOV., 2014	CHECKED: ECM	
PASTOR, BEHLING & WHEELER, LLC		
CONSULTING ENGINEERS AND SCIENTISTS		



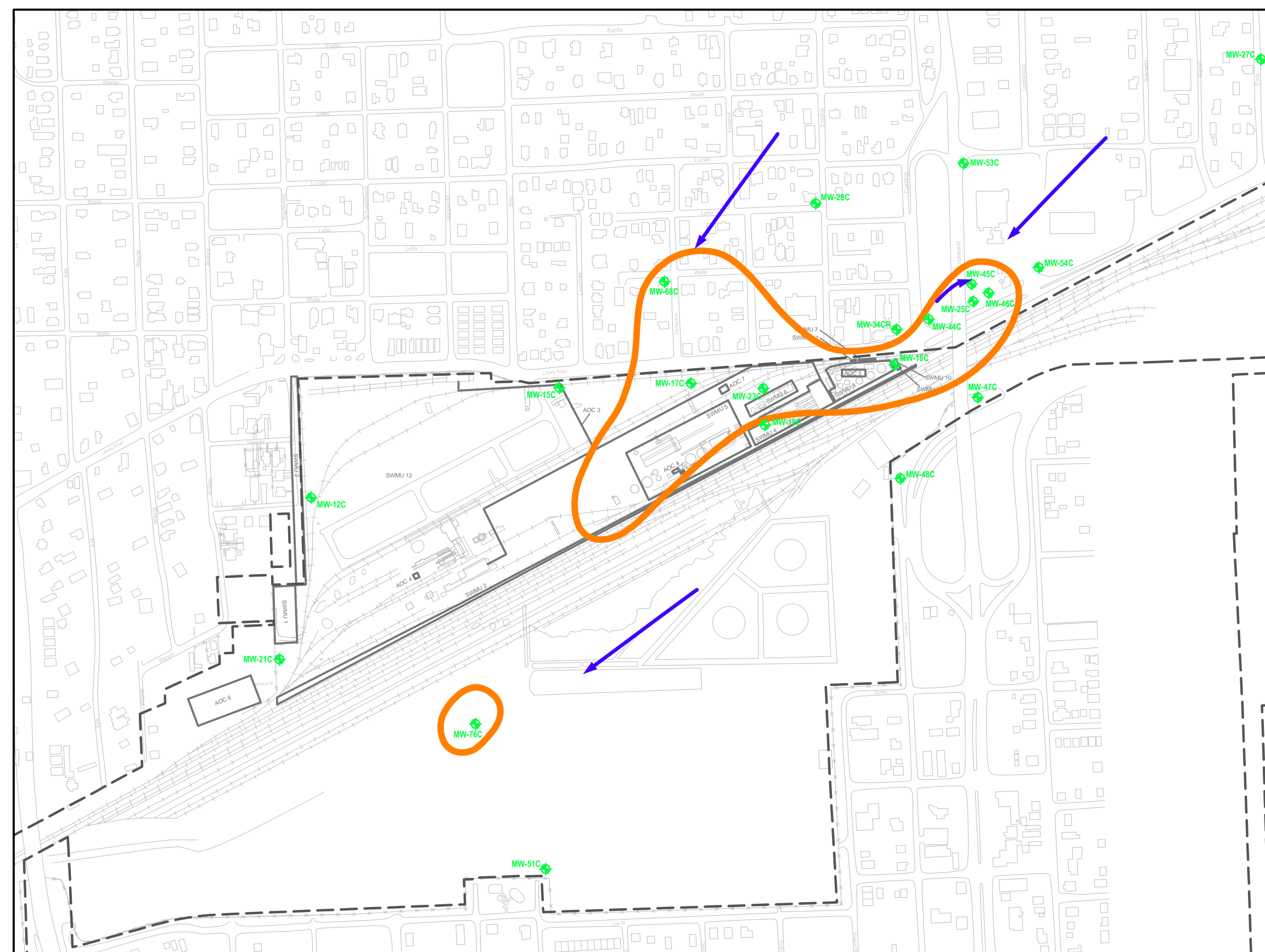
JANUARY 2011



JULY 2012



JULY/AUGUST 2013



JULY/AUGUST 2014

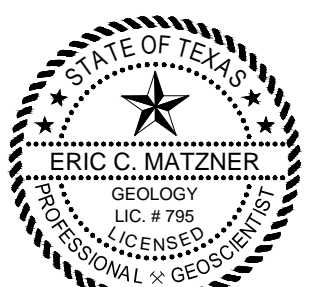
EXPLANATION

- UPRR Property
- Historic Structure and Feature
- Road, Parking Lot, Sidewalk
- Fence
- Railroad
- C-TZ Monitoring Well Location
- Inferred Groundwater Flow Direction
- Affected Property/PCLE Zone

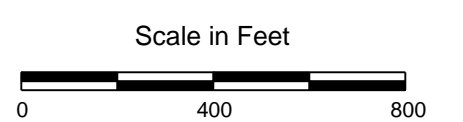
SWMU/AOC AREAS

No.	Description
SWMU 1	Closed Surface Impoundment
SWMU 2	Northern and Southern Drainage Ditches
SWMU 4	Recent Process Area
SWMU 5	Original Process Area
SWMU 6	Water Treatment and Boiler System
SWMU 7	Tank Car Storage Area
SWMU 8	Aboveground Storage Tank Area
SWMU 9	Location of Former UST No. 44-023-05
SWMU 10	Location of Former Sap Water Treatment Tank
SWMU 11	Oil/Water Separators
SWMU 12	Railroad Tie Storage Area
AOC 1	Diesel Storage Tank
AOC 3	Contaminated Portion of City Water Line
AOC 4	Location of Former Incinerator
AOC 5	City Storm Sewer
AOC 6	Inactive Wastewater Lagoon
AOC 7	Location of Former UST No. 44-023-21

Note: Locations of SWMU-9 and AOCs 1, 3, 5 and 7 area approximate.



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Source: Base map from ERM-Southwest, Inc APAR Addendum, Fig 3-1, dated June 2004.

UNION PACIFIC RAILROAD CO.		
HOUSTON WOOD PRESERVING WORKS		
Figure 5B-22		
C-TZ GROUNDWATER PLUME MAP 2011-2014		
PROJECT: 1358	BY: ZGK	REVISIONS
DATE: NOV., 2014	CHECKED: ECM	
PASTOR, BEHLING & WHEELER, LLC CONSULTING ENGINEERS AND SCIENTISTS		

APPENDIX 1A-1

ANALYTICAL DATA REPORTS AND DATA USABILITY SUMMARIES – 2011-2014



**CONESTOGA-ROVERS
& ASSOCIATES**

E-Mail Date: April 11, 2011
E-Mail To: Eric Matzner/ Pastor, Behling & Wheeler, LLC
E-Mail and Hard Copy if Requested

**DATA USABILITY SUMMARY
UNION PACIFIC RAILROAD (UPRR)
HOUSTON WOOD PRESERVING WORKS
SEMI-ANNUAL GROUNDWATER MONITORING
HOUSTON, TEXAS
JANUARY 2011**

PREPARED BY:
CONESTOGA-ROVERS & ASSOCIATES
9033 Meridian Way
West Chester, Ohio 45069
Telephone: 513-942-4750 Fax: 513-942-8585
Contact: Angela Bown *AB*
Date: April 11, 2011
www.CRAworld.com

Data Usability Summary

Reviewer:	Angela Bown – Conestoga-Rovers & Associates, Inc.
Contract Laboratory:	ALS Laboratory Group – Houston, Texas
Project/Area of Interest:	UPRR Houston Wood Preserving Works – Houston, Texas
Description of Data Packages Reviewed:	Groundwater sample results in data packages 1101465, 1101566, 1101672 & 1101771
Sample Collection Date(s):	January 17 -20, 2011 & January 24 – 27, 2011
Intended Use of Data:	To monitor the COCs in groundwater at the site and to evaluate whether migration of COCs could result in risk to human or ecological health.

1.0 Scope of Data Usability Summary

Data were reviewed and validated in accordance with Title 30 of the Texas Administrative Code Section 350.54 (30 TAC 350.54) as described in *Review and Reporting of COC Concentration Data*, (RG-366/TRRP-13) and the results of the review/validation are discussed in this Data Usability Summary (DUS). The review included examination of the reported data, the laboratory review checklists (LRCs), and field/laboratory quality assurance/quality control (QA/QC) samples collected at the Site. Tables summarizing data qualifications discussed in this DUS can be found in Appendix A.

Groundwater samples plus field duplicates and trip blanks were analyzed for the following:

- i. Volatile organic compounds (VOCs) by SW-846 Method 8260B¹
- ii. Semi-volatile organic compounds (SVOCs) by SW-846 Method 8270D¹

A sampling and analysis summary is presented in Table 1. This summary includes a cross-reference of field sample identification numbers and laboratory sample numbers. Each sample was assigned a unique field identification number. The lists of VOC and SVOC target compounds are presented in Table 2.

2.0 Laboratory Qualifications

Analytical services were provided by ALS Laboratory Group (ALS) located in Houston, Texas. The laboratory's quality assurance program is consistent with the quality standards outlined in the National Environmental Laboratory Accreditation Program (NELAP). The laboratory was accredited under Texas Certification Number T104704231-10-3 at the time the analyses were performed. All requested analytes were included in the NELAP certification.

¹ "Test Methods for Evaluating Solid Waste Physical/Chemical Methods", SW-846, 3rd Edition, September 1986 (with subsequent revisions).

3.0 Project Objectives

3.1 Levels of Required Performance (LORP)

Prior to sampling, the LORP for each COC was established for the investigation. Standard available analytical methods were selected and minimal detection limits that are at or below the Texas Risk Reduction Tier 1 Residential Protective Concentration Levels (PCLs), ^{GW} GW_{ING} for groundwater were sought.

3.2 Sampling/ Analytical QA/QC Objectives

Pastor, Behling & Wheeler, LLC designed the QA/QC program to identify contamination resulting from sample collection, sample transport and the analytical process.

- The trip blank is a zero headspace sample container filled by the laboratory with analyte-free water. Trip blanks were submitted and analyzed with the samples requiring volatile organic analysis. The trip blank samples were kept in the same environment in which the other field samples were collected.
- Method blanks of a similar matrix to that of the associated samples are prepared by the laboratory and analyzed to determine if laboratory contaminants are affecting the analytical results. Method blanks are prepared and analyzed with each batch.
- Field blanks were collected and analyzed to determine if the chemicals of concern would be detected based on the ambient field conditions. The field blanks were kept in the same environment in which the other field samples were collected.

Similarly, the QA/QC program was designed to evaluate the quality of the resulting data with respect to bias and precision. First, a laboratory control sample (LCS) or laboratory control sample duplicate (LCSD) was prepared and analyzed with each batch. The recovery ranges established by the laboratory are adopted as the acceptance criteria for the project. Second, a matrix spike/matrix spike duplicate (MS/MSD) was prepared and analyzed with each batch. The recovery ranges and RPDs established by the laboratory are adopted as the acceptance criteria for the project. Third, field duplicates were collected and submitted for analysis. The RPD acceptance criterion for the water field duplicates is 30 percent. This RPD criterion is only used when sample concentrations are above the estimated regions of detection.

4.0 Data Review/Validation Results

4.1 Analytical Results

Summaries of the qualified analytical results are reported in Tables 3, 4, 5 and 6. Analytes with concentrations above the Sample Detection Limits (SDLs) but below the Method Quantitation Limits (MQL) have been qualified as estimated on the analytical tables per the TRRP-13 document.

4.2 LORP

All SDLs and unadjusted MQLs met the LORP for this investigation. Data for some analyses were reported from dilutions due to the concentrations of target or non-target compounds in the samples. The SDLs and MQLs were adjusted for the dilution factors in these cases.

Detectability Check Standard (DCS) data were included with the reports, and a review of the data indicated that some of the DCS results did not confirm within two to three times the Method Detection Limits (MDLs). However, all of the DCS results were below the critical PCLs.

4.3 Preservation and Holding Times

Samples were properly preserved in the field and cooled to 4°C ($\pm 2^\circ\text{C}$). Samples were shipped with chains of custody, and the paperwork was filled out properly. All samples were shipped on ice. All samples were prepared and analyzed within the applicable holding times.

4.4 Sample Containers

Sample containers were certified pre-cleaned glass provided by the laboratory. These containers meet or exceed analyte specifications established in the USEPA *Specifications and Guidance for Contaminant-free Sample Containers*.

4.5 Calibrations

According to the LRCs, initial calibration and continuing calibration data met the criteria for the selected methods.

4.6 Blanks

Method Blanks: As these were not discrete samples handled in the field, the method blanks are not listed on the sample identification cross-reference table (Table 1). Results are reported in the data package on a laboratory batch basis. All of the laboratory blank results were reported as ND (not detected).

Trip Blanks: The trip blanks, which were discrete samples handled in the field, are listed on the sample summary table. Results are reported in the data packages with the other project sample results. All of the trip blank results were reported as ND (not detected).

Field Blanks: Field blanks were collected and analyzed for volatiles and semi-volatiles and are listed on the sample summary table. Some target analytes were detected in some of the field blanks. Results for these compounds in samples with similar concentrations to the field blanks were qualified as non-detect (see Table 3).

4.7 Internal Standard and Surrogate Recoveries

Recoveries of internal standards and surrogates for VOCs and SVOCs are addressed in the LRCs of the laboratory data packages. All surrogate recoveries were within the acceptance

limits or did not warrant qualification. Many SVOC surrogate recoveries could not be assessed due to necessary sample dilutions. However, data for these samples were also reported from lesser dilutions, and the recoveries in these dilutions were acceptable.

All internal standard areas and retention limits were acceptable per the LRCs.

4.8 Laboratory Control Samples (LCS)/ Laboratory Control Sample Duplicates (LCSD)

LCS or LCS/LCSD data for all COCs were reported for each batch. Most LCS spike recoveries and RPDs for all COCs were within the project objectives. Table 4 presents the sample data that were qualified due to outlying LCS/LCSD recoveries and/or RPDs.

4.9 Matrix Spikes

Several project samples were selected for matrix spike/matrix spike duplicate analyses for VOCs and SVOCs, and the results are reported in the data packages. All recoveries and RPDs were within the laboratory established control limits with the exception of the sample data presented with qualifiers in Table 5.

The laboratory also performed MS/MSD analyses on unrelated samples from other projects, but the data for these unrelated samples cannot be used to assess precision and accuracy for the associated project samples.

4.10 Field Duplicate

Field duplicates of samples listed below were collected and analyzed.

- WG-1620-FD01-20110118 is a duplicate of WG-1620-MW19C-20110118.
- WG-1620-FD02-20110120 is a duplicate of WG-1620-MW49B-20110120.
- WG-1620-FD03-20110126 is a duplicate of WG-1620-MW25A-20110126.

Most results showed good precision above the estimated regions of detection. Many results were non-detect, and the RPDs could not be calculated. Duplicate RPDs that exceed the criteria of 30 percent for groundwater are summarized on Table 6.

4.11 Field Procedures

Pastor, Behling & Wheeler, LLC collected groundwater samples in accordance with their Standard Operating Procedures (SOP) for sample collection.

4.13 Summary

The analytical data in this report are usable to assess the impact of COCs in groundwater at the site. Qualifications of the data as discussed in this report are summarized in Appendix A.

APPENDIX A

TABLES

TABLE 1

**SAMPLE COLLECTION AND ANALYSIS SUMMARY
SEMI-ANNUAL COMPLIANCE MONITORING
UNION PACIFIC RAILROAD (UPRR)
HOUSTON WOOD PRESERVING WORKS
HOUSTON, TEXAS
JANUARY 2011**

Sample I.D.	Location I.D.	Collection Date (mm/dd/yy)	Collection Time (hr:min)	Analysis/Parameters		Comments
				Select VOCs	Select SVOCs	
WG-1620-MW18A-20110117	MW-18A	01/17/11	10:45:00 AM	X	X	
WG-1620-MW18C-20110117	MW-18C	01/17/11	11:35:00 AM	X	X	
WG-1620-MW17C-20110117	MW-17C	01/17/11	2:00:00 PM	X	X	MS/MSD
WG-1620-MW17-20110117	MW-17	01/17/11	1:00:00 PM	X	X	
WG-1620-MW15A-20110117	MW-15A	01/17/11	3:15:00 PM	X	X	
WG-1620-MW15C-20110117	MW-15C	01/17/11	4:15:00 PM	X	X	
WG-1620-MW14-20110117	MW-14	01/17/11	5:20:00 PM	X	X	
WG-1620-MW40B-20110118	MW-40B	01/18/11	7:40:00 AM	X	X	
WG-1620-MW13-20110118	MW-13	01/18/11	9:00:00 AM	X	X	
WG-1620-MW39B-20110118	MW-39B	01/18/11	10:00:00 AM	X	X	
WG-1620-MW12C-20110118	MW-12C	01/18/11	11:05:00 AM	X	X	
WG-1620-MW12A-20110118	MW-12A	01/18/11	12:15:00 PM	X	X	
WG-1620-MW16-20110118	MW-16	01/18/11	1:45:00 PM	X	X	
WG-1620-FB01-20110118	Field Blank	01/18/11	2:00:00 PM	X	X	Field Blank
WG-1620-MW19C-20110118	MW-19C	01/18/11	3:30:00 PM	X	X	
WG-1620-FD01-20110118	MW-19C	01/18/11	3:30:00 PM	X	X	WG-1620-MW19C-20110118
WG-1620-TB01-20110118	Trip Blank	01/18/11	-	X		Trip Blank
WG-1620-P11-20110118	P-11	01/18/11	4:20:00 PM	X	X	
WG-1620-MW57A-20110118	MW-57A	01/18/11	5:20:00 PM	X	X	
WG-1620-MW58A-20110119	MW-58A	01/19/11	9:20:00 AM	X	X	
WG-1620-MW23C-20110119	MW-23C	01/19/11	10:35:00 AM	X	X	
WG-1620-MW21C-20110119	MW-21C	01/19/11	11:50:00 AM	X	X	
WG-1620-MW69A-20110119	MW-69A	01/19/11	1:00:00 PM	X	X	
WG-1620-MW48C-20110119	MW-48C	01/19/11	2:00:00 PM	X	X	
WG-1620-MW60A-20110119	MW-60A	01/19/11	3:10:00 PM	X	X	
WG-1620-MW47C-20110119	MW-47C	01/19/11	4:20:00 PM	X	X	
WG-1620-MW59A-20110120	MW-59A	01/20/11	7:45:00 AM	X	X	
WG-1620-MW59B-20110120	MW-59B	01/20/11	8:45:00 AM	X	X	
WG-1620-MW59D-20110120	MW-59D	01/20/11	10:15:00 AM	X	X	
WG-1620-MW49A-20110120	MW-49A	01/20/11	11:30:00 AM	X	X	
WG-1620-MW49B-20110120	MW-49B	01/20/11	1:45:00 PM	X	X	
WG-1620-FD02-20110120	MW-49B	01/20/11	1:45:00 PM	X	X	WG-1620-MW49B-20110120
WG-1620-MW51A-20110120	MW-51A	01/20/11	3:00:00 PM	X	X	
WG-1620-MW36A-20110120	MW-36A	01/20/11	4:20:00 PM	X	X	
WG-1620-MW36B-20110120	MW-36B	01/20/11	5:25:00 PM	X	X	
WG-1620-FB02-20110120	Field Blank	01/20/11	5:45:00 PM	X	X	Field Blank
WG-1620-TB02-20110120	Trip Blank	01/20/11	-	X		Trip Blank
WG-1620-MW33A-20110124	MW-33A	01/24/11	2:50:00 PM	X	X	
WG-1620-MW33B-20110124	MW-33B	01/24/11	4:00:00 PM	X	X	
WG-1620-MW26A-20110124	MW-26A	01/24/11	5:00:00 PM	X	X	

TABLE 1

**SAMPLE COLLECTION AND ANALYSIS SUMMARY
SEMI-ANNUAL COMPLIANCE MONITORING
UNION PACIFIC RAILROAD (UPRR)
HOUSTON WOOD PRESERVING WORKS
HOUSTON, TEXAS
JANUARY 2011**

Sample I.D.	Location I.D.	Collection Date (mm/dd/yy)	Collection Time (hr:min)	Analysis/Parameters		Comments
				Select VOCs	Select SVOCs	
WG-1620-MW68C-20110125	MW-68C	01/25/11	7:45:00 AM	X	X	
WG-1620-MW32A-20110125	MW-32A	01/25/11	8:50:00 AM	X	X	
WG-1620-MW38A-20110125	MW-38A	01/25/11	10:00:00 AM	X	X	
WG-1620-MW38B-20110125	MW-38B	01/25/11	11:00:00 AM	X	X	
WG-1620-MW22A-20110125	MW-22A	01/25/11	11:50:00 AM	X	X	
WG-1620-MW22B-20110125	MW-22B	01/25/11	12:45:00 PM	X	X	
WG-1620-MW24AR-20110125	MW-24AR	01/25/11	2:00:00 PM	X	X	
WG-1620-MW24B-20110125	MW-24B	01/25/11	3:00:00 PM	X	X	
WG-1620-MW24C-20110125	MW-24C	01/25/11	3:50:00 PM	X	X	MS/MSD
WG-1620-MW28A-20110125	MW-28A	01/25/11	5:05:00 PM	X	X	
WG-1620-MW28C-20110125	MW-28C	01/25/11	6:00:00 PM	X	X	
WG-1620-TB03-20110125	Trip Blank	01/25/11	-	X		Trip Blank
WG-1620-MW53C-20110126	MW-53C	01/26/11	9:45:00 AM	X	X	
WG-1620-MW36D-20110126	MW-36D	01/26/11	11:05:00 AM	X	X	
WG-1620-MW54C-20110126	MW-54C	01/26/11	12:05:00 PM	X	X	
WG-1620-MW25A-20110126	MW-25A	01/26/11	2:30:00 PM	X	X	
WG-1620-FD03-20110126	MW-25A	01/26/11	2:30:00 PM	X	X	WG-1620-MW25A-20110126
WG-1620-MW25C-20110126	MW-25C	01/26/11	3:40:00 PM	X	X	
WG-1620-MW44A-20110126	MW-44A	01/26/11	4:40:00 PM	X	X	
WG-1620-MW65D-20110126	MW-65D	01/26/11	5:45:00 PM	X	X	
WG-1620-MW67B-20110127	MW-67B	01/27/11	8:00:00 AM	X	X	MS/MSD
WG-1620-MW35A-20110127	MW-35A	01/27/11	9:00:00 AM	X	X	
WG-1620-MW35B-20110127	MW-35B	01/27/11	9:50:00 AM	X	X	
WG-1620-MW27C-20110127	MW-27C	01/27/11	11:05:00 AM	X	X	
WG-1620-MW64A-20110127	MW-64A	01/27/11	12:20:00 PM	X	X	
WG-1620-MW63B-20110127	MW-63B	01/27/11	1:20:00 PM	X	X	
WG-1620-MW62B-20110127	MW-62B	01/27/11	2:50:00 PM	X	X	
WG-1620-MW61A-20110127	MW-61A	01/27/11	4:15:00 PM	X	X	
WG-1620-MW50A-20110127	MW-50A	01/27/11	5:30:00 PM	X	X	MS/MSD
WG-1620-FB03-20110127	Field Blank	01/27/11	6:00:00 PM	X	X	Field Blank
WG-1620-TB04-20110127	Trip Blank	01/27/11	-	X		Trip Blank

Notes:

MS Matrix Spike.
MSD Matrix Spike Duplicate.
SVOCs Semivolatile Organic Compounds.
VOCs Volatile Organic Compounds.

TABLE 2

**TARGET COMPOUND SUMMARY
SEMI-ANNUAL COMPLIANCE MONITORING
UNION PACIFIC RAILROAD (UPRR)
HOUSTON WOOD PRESERVING WORKS
HOUSTON, TEXAS
JANUARY 2011**

Select VOCs	Select SVOCs
1,2-Dichloroethane	1,2-Diphenylhydrazine
Benzene	2,4-Dimethylphenol
Chlorobenzene	2,4-Dinitrotoluene
Ethylbenzene	2,6-Dinitrotoluene
Methylene Chloride	2-Chloronaphthalene
Toluene	2-Methyl-4,6-dinitrophenol
Xylenes (total)	2-Methylnaphthalene
Vinyl Chloride	4-Nitrophenol
	Acenaphthene
	Acenaphthylene
	Anthracene
	Benzo(a)anthracene
	Benzo(a)pyrene
	bis(2-chloroethoxy)methane
	bis(2-ethylhexyl)phthalate
	Chrysene
	Dibenzofuran
	Di-n-butyl Phthalate
	Fluoranthene
	Fluorene
	Naphthalene
	Nitrobenzene
	n-Nitrosodiphenylamine
	Pentachlorophenol
	Phenanthrene
	Phenol
	Pyrene

Notes:

SVOCs Semi-Volatile Organic Compounds

VOCs Volatile Organic Compounds

TABLE 3

QUALIFIED SAMPLE RESULTS DUE TO ANALYTE CONCENTRATIONS IN THE FIELD BLANKS
 SEMI-ANNUAL COMPLIANCE MONITORING
 UNION PACIFIC RAILROAD (UPRR)
 HOUSTON WOOD PRESERVING WORKS
 HOUSTON, TEXAS
 JANUARY 2011

<i>Parameter</i>	<i>Field Blank Date</i>	<i>Analyte</i>	<i>Blank Result</i>	<i>Sample ID</i>	<i>Qualified Sample Result</i>	<i>Units</i>
SVOCs	01/20/11	bis(2-Ethylhexyl)phthalate (DEHP)	0.75	WG-1620-FD02-20110120	1.5 U	µg/L
				WG-1620-MW36A-20110120	0.48 U	µg/L
				WG-1620-MW36B-20110120	0.48 U	µg/L
				WG-1620-MW49A-20110120	0.29 U	µg/L
				WG-1620-MW49B-20110120	0.55 U	µg/L
				WG-1620-MW51A-20110120	0.29 U	µg/L
				WG-1620-MW59A-20110120	0.31 U	µg/L
				WG-1620-MW59B-20110120	0.21 U	µg/L
				WG-1620-MW59D-20110120	1.5 U	µg/L
SVOCs	01/20/11	Phenanthrene	0.081	WG-1620-FD02-20110120	0.30 U	µg/L
				WG-1620-MW49B-20110120	0.21 U	µg/L
SVOCs	01/20/11	Naphthalene	0.17	WG-1620-FD02-20110120	0.20 U	µg/L
				WG-1620-MW49B-20110120	0.52 U	µg/L
				WG-1620-MW51A-20110120	0.11 U	µg/L
				WG-1620-MW59B-20110120	0.10 U	µg/L

Notes:

SVOCs Semivolatile Organic Compounds.
 U Not detected at reported concentration.

TABLE 4

QUALIFIED SAMPLE RESULTS DUE TO OUTLYING LABORATORY CONTROL SAMPLE/LABORATORY CONTROL SAMPLE DUPLICATE RESULTS
 SEMI-ANNUAL COMPLIANCE MONITORING
 UNION PACIFIC RAILROAD (UPRR)
 HOUSTON WOOD PRESERVING WORKS
 HOUSTON, TEXAS
 JANUARY 2011

<i>Parameter</i>	<i>Compound</i>	<i>LCS Date</i>	<i>Associated Sample ID</i>	<i>LCS %Rec</i>	<i>LCSD %Rec</i>	<i>RPD (percent)</i>	<i>Control Limits</i>		<i>Qualified Sample Results</i>	<i>Units</i>
							<i>%Rec</i>	<i>%RPD</i>		
SVOCs	2,4-Dimethylphenol	01/20/11	WG-1620-MW12A-20110118	85.3	69.1	21	35-120	0-20	0.10 J	µg/L
			WG-1620-MW16-20110118						2.2 J	µg/L
			WG-1620-MW17-20110117						3900 J	µg/L
			WG-1620-MW17C-20110117						3.5 J	µg/L
			WG-1620-MW18A-20110117						9600 J	µg/L
			WG-1620-MW18C-20110117						12 J	µg/L
			WG-1620-MW40B-20110118						0.33 J	µg/L

Notes:

- J Estimated Concentration.
- LCS Laboratory Control Sample.
- LCSD Laboratory Control Sample Duplicate.
- RPD Relative Percent Difference.
- SVOCs Semivolatile Organic Compounds.

TABLE 5

**QUALIFIED SAMPLE RESULTS DUE TO OUTLYING MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERIES
SEMI-ANNUAL COMPLIANCE MONITORING
UNION PACIFIC RAILROAD (UPRR)
HOUSTON WOOD PRESERVING WORKS
HOUSTON, TEXAS
JANUARY 2011**

<i>Parameter</i>	<i>Associated Sample ID</i>	<i>Analyte</i>	<i>MS Recovery (percent)</i>	<i>MSD Recovery (percent)</i>	<i>RPD</i>	<i>Control Limits</i>		<i>Qualified Sample Result</i>	<i>Units</i>
						<i>Recovery (percent)</i>	<i>RPD (percent)</i>		
VOCs	WG-1620-MW17C-20110117	Xylenes (total)	64.3	48	4.9	80-120	0-20	420 JL	µg/L
SVOC	WG-1620-MW50A-20110127	Naphthalene	5.3	0.8	8.3	45-120	0-20	2.6 JL	µg/L
SVOC	WG-1620-MW67B-20110127	bis(2-Chloroethoxy)methane	42.1	44.8	6.3	45-120	0-20	0.090 UJL	µg/L
		bis(2-Ethylhexyl)phthalate (DEHP)	49.7	77.8	26.2	40-139	0-20	2.2 J	µg/L
		Dibenzofuran	48.6	48.3	0.6	50-120	0-20	0.080 UJL	µg/L
		Acenaphthylene	46.6	45.8	1.9	47-120	0-20	0.070 UJL	µg/L
		2-Methylnaphthalene	43.4	49.4	13	50-120	0-20	0.070 UJL	µg/L
		Nitrobenzene	40.8	50.2	20.7	44-120	0-20	0.090 UJL	µg/L

Notes:

- J Estimated Concentration.
- JL Estimated concentration; low bias
- MS Matrix Spike.
- MSD Matrix Spike Duplicate.
- RPD Relative Percent Difference.
- SVOCs Semivolatile Organic Compounds.
- UJL Not Detected; estimated Sample Detection Limit (SDL); low bias.
- VOCs Volatile Organic Compounds.

TABLE 6

**QUALIFIED SAMPLE RESULTS DUE TO VARIABILITY IN FIELD DUPLICATE RESULTS
SEMI-ANNUAL COMPLIANCE MONITORING
UNION PACIFIC RAILROAD (UPRR)
HOUSTON WOOD PRESERVING WORKS
HOUSTON, TEXAS
JANUARY 2011**

<i>Parameter</i>	<i>Analyte</i>	<i>Original Sample ID</i>	<i>Qualified Sample Result</i>	<i>Duplicate Sample ID</i>	<i>Qualified Sample Result</i>	<i>RPD</i>	<i>Units</i>
SVOCs	Fluoranthene	WG-1620-MW19C-20110118	2.6 J	WG-1620-FD01-20110118	0.62 J	123	µg/L
	Naphthalene		6.1 J		8.4 J	32	µg/L
	Pyrene		1.6 J		0.40 J	120	µg/L

Notes:

J Estimated Concentration.
 RPD Relative Percent Difference.
 SVOCs Semivolatile Organic Compounds.



04-Feb-2011

Eric Matzner
Pastor, Behling & Wheeler, LLC
2201 Double Creek Drive
Suite 4004
Round Rock, TX 78664

Tel: (512) 671-3434
Fax: (512) 671-3446

Re: HWPW-Site Wide Monitoring

Work Order: **1101465**

Dear Eric,

ALS Environmental received 17 samples on 19-Jan-2011 07:50 AM for the analyses presented in the following report.

The analytical data provided relates directly to the samples received by ALS Environmental and for only the analyses requested. Results are expressed as "as received" unless otherwise noted.

QC sample results for this data met EPA or laboratory specifications except as noted in the Case Narrative or as noted with qualifiers in the QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained by ALS Environmental. Samples will be disposed in 30 days unless storage arrangements are made.

The total number of pages in this report is 54.

If you have any questions regarding this report, please feel free to call me.

Sincerely,

R. Kevin Given

Electronically approved by: Mary K. Knowles

R. Kevin Given
Project Manager



Certificate No: TX: T104704231-10-3

ADDRESS 10450 Stancliff Rd, Suite 210 Houston, Texas 77099-4338 | PHONE (281) 530-5656 | FAX (281) 530-5887

ALS GROUP USA, CORP Part of the ALS Laboratory Group A Campbell Brothers Limited Company

Environmental 

www.alsglobal.com

RIGHT SOLUTIONS RIGHT PARTNER

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW-Site Wide Monitoring
Work Order: 1101465

**TRRP Laboratory Data
Package Cover Page**

This data package consists of all or some of the following as applicable:

This signature page, the laboratory review checklist, and the following reportable data:

- R1 Field chain-of-custody documentation;
- R2 Sample identification cross-reference;
- R3 Test reports (analytical data sheets) for each environmental sample that includes:
 - a) Items consistent with NELAC Chapter 5,
 - b) dilution factors,
 - c) preparation methods,
 - d) cleanup methods, and
 - e) if required for the project, tentatively identified compounds (TICs).
- R4 Surrogate recovery data including:
 - a) Calculated recovery (%R), and
 - b) The laboratory's surrogate QC limits.
- R5 Test reports/summary forms for blank samples;
- R6 Test reports/summary forms for laboratory control samples (LCSs) including:
 - a) LCS spiking amounts,
 - b) Calculated %R for each analyte, and
 - c) The laboratory's LCS QC limits.
- R7 Test reports for project matrix spike/matrix spike duplicates (MS/MSDs) including:
 - a) Samples associated with the MS/MSD clearly identified,
 - b) MS/MSD spiking amounts,
 - c) Concentration of each MS/MSD analyte measured in the parent and spiked samples,
 - d) Calculated %Rs and relative percent differences (RPDs), and
 - e) The laboratory's MS/MSD QC limits.
- R8 Laboratory analytical duplicate (if applicable) recovery and precision:
 - a) the amount of analyte measured in the duplicate,
 - b) the calculated RPD, and
 - c) the laboratory's QC limits for analytical duplicates.
- R9 List of method quantitation limits (MQLs) and detectability check sample results for each analyte for each method and matrix.
- R10 Other problems or anomalies.
The Exception Report for each "No" or "Not Reviewed (NR)" item in Laboratory Review Checklist and for each analyte, matrix, and method for which the laboratory does not hold NELAC accreditation under the Texas Laboratory Accreditation Program.

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW-Site Wide Monitoring
Work Order: 1101465

**TRRP Laboratory Data
Package Cover Page**

Release Statement: I am responsible for the release of this laboratory data package. This laboratory is NELAC accredited under the Texas Laboratory Accreditation Program for all the methods, analytes and matrices reported in this data package except as noted in the Exception Reports. The data have been reviewed and are technically compliant with the requirements of the methods used, except where noted by the laboratory in the attached exception reports. By my signature below, I affirm to the best of my knowledge, all problems/anomalies, observed by the laboratory have been identified by the laboratory in the Laboratory Review Checklist, and no information affecting the quality of the data has been knowingly withheld.

Check, if applicable: [NA] This laboratory meets an exception under 30 TAC §25.6 and was last inspected by TCEQ or _____ on (enter date of last inspection). Any findings affecting the data in this laboratory data package are noted in the Exception Reports herein. The official signing the cover page of the report in which these data are used is responsible for releasing this data package and is by signature affirming the above release statement is true.

R . K evin Given

R. Kevin Given
Project Manager

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW-Site Wide Monitoring
Work Order: 1101465

Work Order Sample Summary

<u>Lab Samp ID</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Tag Number</u>	<u>Collection Date</u>	<u>Date Received</u>	<u>Hold</u>
1101465-01	WG-1620-MW18A-20110117	Water		1/17/2011 10:45	1/19/2011 07:50	<input type="checkbox"/>
1101465-02	WG-1620-MW18C-20110117	Water		1/17/2011 11:35	1/19/2011 07:50	<input type="checkbox"/>
1101465-03	WG-1620-MW17C-20110117	Water		1/17/2011 14:00	1/19/2011 07:50	<input type="checkbox"/>
1101465-04	WG-1620-MW17-20110117	Water		1/17/2011 13:00	1/19/2011 07:50	<input type="checkbox"/>
1101465-05	WG-1620-MW15A-20110117	Water		1/17/2011 15:15	1/19/2011 07:50	<input type="checkbox"/>
1101465-06	WG-1620-MW15C-20110117	Water		1/17/2011 16:15	1/19/2011 07:50	<input type="checkbox"/>
1101465-07	WG-1620-MW14-20110117	Water		1/17/2011 17:20	1/19/2011 07:50	<input type="checkbox"/>
1101465-08	WG-1620-MW40B-20110118	Water		1/18/2011 07:40	1/19/2011 07:50	<input type="checkbox"/>
1101465-09	WG-1620-MW13-20110118	Water		1/18/2011 09:00	1/19/2011 07:50	<input type="checkbox"/>
1101465-10	WG-1620-MW39B-20110118	Water		1/18/2011 10:00	1/19/2011 07:50	<input type="checkbox"/>
1101465-11	WG-1620-MW12C-20110118	Water		1/18/2011 11:05	1/19/2011 07:50	<input type="checkbox"/>
1101465-12	WG-1620-MW12A-20110118	Water		1/18/2011 12:15	1/19/2011 07:50	<input type="checkbox"/>
1101465-13	WG-1620-MW16-20110118	Water		1/18/2011 13:45	1/19/2011 07:50	<input type="checkbox"/>
1101465-14	WG-1620-FB01-20110118	Water		1/18/2011 14:00	1/19/2011 07:50	<input type="checkbox"/>
1101465-15	WG-1620-MW19C-20110118	Water		1/18/2011 15:30	1/19/2011 07:50	<input type="checkbox"/>
1101465-16	WG-1620-FD01-20110118	Water		1/18/2011 15:30	1/19/2011 07:50	<input type="checkbox"/>
1101465-17	WG-1620-TB01-20110118	Water		1/18/2011	1/19/2011 07:50	<input type="checkbox"/>

Laboratory Review Checklist: Reportable Data

Laboratory Name: ALS Laboratory Group		LRC Date: 1/31/2011					
Project Name: HWPW-Site Wide Monitoring		Laboratory Job Number: 1101465					
Reviewer Name: R. Kevin Given		Prep Batch Number(s): 49436a, R104201, R104229					
# ¹	A ²	Description	Yes	No	NA ³	NR ⁴	ER# ⁵
R1	OI	Chain-of-custody (C-O-C)					
		Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?	X				
		Were all departures from standard conditions described in an exception report?	X				
R2	OI	Sample and quality control (QC) identification					
		Are all field sample ID numbers cross-referenced to the laboratory ID numbers?	X				
		Are all laboratory ID numbers cross-referenced to the corresponding QC data?	X				
R3	OI	Test reports					
		Were all samples prepared and analyzed within holding times?	X				
		Other than those results < MQL, were all other raw values bracketed by calibration standards?	X				
		Were calculations checked by a peer or supervisor?	X				
		Were all analyte identifications checked by a peer or supervisor?	X				
		Were sample detection limits reported for all analytes not detected?	X				
		Were all results for soil and sediment samples reported on a dry weight basis?			X		
		Were % moisture (or solids) reported for all soil and sediment samples?			X		
		Were bulk soils/solids samples for volatile analysis extracted with methanol per SW-846 Method 5035?			X		
		If required for the project, TICs reported?			X		
R4	O	Surrogate recovery data					
		Were surrogates added prior to extraction?	X				
		Were surrogate percent recoveries in all samples within the laboratory QC limits?		X			1
R5	OI	Test reports/summary forms for blank samples					
		Were appropriate type(s) of blanks analyzed?	X				
		Were blanks analyzed at the appropriate frequency?	X				
		Were method blanks taken through the entire analytical process, including preparation and, if applicable, cleanup procedures?	X				
		Were blank concentrations < MQL?	X				
R6	OI	Laboratory control samples (LCS):					
		Were all COCs included in the LCS?	X				
		Was each LCS taken through the entire analytical procedure, including prep and cleanup steps?	X				
		Were LCSs analyzed at the required frequency?	X				
		Were LCS (and LCSD, if applicable) %Rs within the laboratory QC limits?	X				
		Does the detectability data document the laboratory's capability to detect the COCs at the MDL used to calculate the SQLs?	X				
		Was the LCSD RPD within QC limits?		X			2
R7	OI	Matrix spike (MS) and matrix spike duplicate (MSD) data					
		Were the project/method specified analytes included in the MS and MSD?	X				
		Were MS/MSD analyzed at the appropriate frequency?	X				
		Were MS (and MSD, if applicable) %Rs within the laboratory QC limits?		X			3
		Were MS/MSD RPDs within laboratory QC limits?	X				
R8	OI	Analytical duplicate data					
		Were appropriate analytical duplicates analyzed for each matrix?			X		
		Were analytical duplicates analyzed at the appropriate frequency?			X		
		Were RPDs or relative standard deviations within the laboratory QC limits?			X		
R9	OI	Method quantitation limits (MQLs):					
		Are the MQLs for each method analyte included in the laboratory data package?	X				
		Do the MQLs correspond to the concentration of the lowest non-zero calibration standard?	X				
		Are unadjusted MQLs and DCSs included in the laboratory data package?	X				
R10	OI	Other problems/anomalies					
		Are all known problems/anomalies/special conditions noted in this LRC and ER?	X				
		Were all necessary corrective actions performed for the reported data?	X				
		Was applicable and available technology used to lower the SDL minimize the matrix interference affects on the sample results?	X				
		Is the laboratory NELAC-accredited under the Texas Laboratory Program for the analytes, matrices and methods associated with this laboratory data package?	X				

Laboratory Review Checklist: Reportable Data

Laboratory Name: ALS Laboratory Group		LRC Date: 1/31/2011					
Project Name: HWPW-Site Wide Monitoring		Laboratory Job Number: 1101465					
Reviewer Name: R. Kevin Given		Prep Batch Number(s): 49436a, R104201, R104229					
# ¹	A ²	Description	Yes	No	NA ³	NR ⁴	ER# ⁵
S1	OI	Initial calibration (ICAL)					
		Were response factors and/or relative response factors for each analyte within QC limits?	X				
		Were percent RSDs or correlation coefficient criteria met?	X				
		Was the number of standards recommended in the method used for all analytes?	X				
		Were all points generated between the lowest and highest standard used to calculate the curve?	X				
		Are ICAL data available for all instruments used?	X				
		Has the initial calibration curve been verified using an appropriate second source standard?	X				
S2	OI	Initial and continuing calibration verification (ICCV and CCV) and continuing calibration blank (CCB)					
		Was the CCV analyzed at the method-required frequency?	X				
		Were percent differences for each analyte within the method-required QC limits?	X				
		Was the ICAL curve verified for each analyte?	X				
		Was the absolute value of the analyte concentration in the inorganic CCB < MDL?			X		
S3	O	Mass spectral tuning:					
		Was the appropriate compound for the method used for tuning?	X				
		Were ion abundance data within the method-required QC limits?	X				
S4	O	Internal standards (IS):					
		Were IS area counts and retention times within the method-required QC limits?	X				
S5	OI	Raw data (NELAC section 1 appendix A glossary, and section 5.12 or ISO/IEC 17025 section)					
		Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?	X				
		Were data associated with manual integrations flagged on the raw data?	X				
S6	O	Dual column confirmation					
		Did dual column confirmation results meet the method-required QC?			X		
S7	O	Tentatively identified compounds (TICs):					
		If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?			X		
S8	I	Interference Check Sample (ICS) results:					
		Were percent recoveries within method QC limits?			X		
S9	I	Serial dilutions, post digestion spikes, and method of standard additions					
		Were percent differences, recoveries, and the linearity within the QC limits specified in the method?			X		
S10	OI	Method detection limit (MDL) studies					
		Was a MDL study performed for each reported analyte?	X				
		Is the MDL either adjusted or supported by the analysis of DCSs?	X				
S11	OI	Proficiency test reports:					
		Was the laboratory's performance acceptable on the applicable proficiency tests or evaluation studies?	X				
S12	OI	Standards documentation					
		Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?	X				
S13	OI	Compound/analyte identification procedures					
		Are the procedures for compound/analyte identification documented?	X				
S14	OI	Demonstration of analyst competency (DOC)					
		Was DOC conducted consistent with NELAC Chapter 5C or ISO/IEC 4?	X				
		Is documentation of the analyst's competency up-to-date and on file?	X				
S15	OI	Verification/validation documentation for methods (NELAC Chap 5 or ISO/IEC 17025 Section 5)					
		Are all the methods used to generate the data documented, verified, and validated, where applicable?	X				
S16	OI	Laboratory standard operating procedures (SOPs):					
		Are laboratory SOPs current and on file for each method performed?	X				

Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.

O = Organic Analyses; I = Inorganic Analyses (and general chemistry, when applicable);

NA = Not Applicable;

NR = Not Reviewed;

R# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

Laboratory Review Checklist: Reportable Data

Laboratory Name: ALS Laboratory Group		LRC Date: 1/31/2011
Project Name: HWPW-Site Wide Monitoring		Laboratory Job Number: 1101465
Reviewer Name: R. Kevin Given		Prep Batch Number(s): 49436a, R104201, R104229
ER# ⁵	Description	
1	<p>Low-Level Semivolatile Organics, Sample WG-1620-MW18A-20110117 : Surrogate recoveries were diluted out in the 100X and 1000X dilution.</p> <p>Low-Level Semivolatile Organics, Sample WG-1620-MW18C-20110117 : Surrogate recoveries were diluted out in the 2000X dilution.</p> <p>Low-Level Semivolatile Organics, Samples WG-1620-MW17C-20110117 and WG-1620-MW40B-20110118 : Surrogate recoveries were diluted out in the 1000X dilution.</p> <p>Low-Level Semivolatile Organics, Sample WG-1620-MW17-20110117 : Surrogate recoveries were diluted out in the 200X and 2000X dilution.</p> <p>Low-Level Semivolatile Organics, Sample WG-1620-MW15A-20110117 : Surrogate recoveries were diluted out in the 100X dilution.</p> <p>Low-Level Semivolatile Organics, Sample WG-1620-MW16-20110118 : Surrogate recoveries were diluted out in the 200X dilution.</p>	
2	Batch 49436a, Semivolatile Organics : LCSD RPD was above the control limits for 2,4-Dimethylphenol. The individual recoveries were in control.	
3	Batch R104201, Semivolatile Organics, Sample WG-1620-MW17C-20110117 : MS/MSD recoveries were below the control limits for Ethylbenzene and Xylenes, Total. The associated RPD not within the control limits. Results are flagged with an E and an O qualifier as applicable.	
<p>Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.</p> <p>O = Organic Analyses; I = Inorganic Analyses (and general chemistry, when applicable);</p> <p>NA = Not Applicable;</p> <p>NR = Not Reviewed;</p> <p>R# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).</p>		

ALS Environmental

Date: 31-Jan-11

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW-Site Wide Monitoring
Sample ID: WG-1620-MW18A-20110117
Collection Date: 1/17/2011 10:45 AM

Work Order: 1101465
Lab ID: 1101465-01
Matrix: WATER

Analyses	Result	Qual	SDL	MQL	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270			Analyst: LG	
1,2-Diphenylhydrazine	U		0.10	0.20	µg/L	1	1/20/2011 17:56
2,4-Dimethylphenol	9,600		80	200	µg/L	1000	1/26/2011 18:14
2,4-Dinitrotoluene	U		0.090	0.20	µg/L	1	1/20/2011 17:56
2,6-Dinitrotoluene	U		0.070	0.20	µg/L	1	1/20/2011 17:56
2-Chloronaphthalene	U		0.10	0.20	µg/L	1	1/20/2011 17:56
2-Methylnaphthalene	440		7.0	20	µg/L	100	1/26/2011 02:54
4,6-Dinitro-2-methylphenol	U		0.080	0.20	µg/L	1	1/20/2011 17:56
4-Nitrophenol	U		0.070	1.0	µg/L	1	1/20/2011 17:56
Acenaphthene	240		9.0	20	µg/L	100	1/26/2011 02:54
Acenaphthylene	7.2		0.070	0.20	µg/L	1	1/20/2011 17:56
Anthracene	7.3		0.070	0.20	µg/L	1	1/20/2011 17:56
Benz(a)anthracene	U		0.070	0.20	µg/L	1	1/20/2011 17:56
Benzo(a)pyrene	U		0.080	0.20	µg/L	1	1/20/2011 17:56
Bis(2-chloroethoxy)methane	U		0.090	0.20	µg/L	1	1/20/2011 17:56
Bis(2-ethylhexyl)phthalate	U		0.20	0.20	µg/L	1	1/20/2011 17:56
Chrysene	U		0.070	0.20	µg/L	1	1/20/2011 17:56
Di-n-butyl phthalate	U		0.070	0.20	µg/L	1	1/20/2011 17:56
Dibenzofuran	150		8.0	20	µg/L	100	1/26/2011 02:54
Fluoranthene	1.4		0.070	0.20	µg/L	1	1/20/2011 17:56
Fluorene	94		0.70	2.0	µg/L	10	1/20/2011 19:38
N-Nitrosodiphenylamine	U		0.090	0.20	µg/L	1	1/20/2011 17:56
Naphthalene	5,900		100	200	µg/L	1000	1/26/2011 18:14
Nitrobenzene	U		0.090	0.20	µg/L	1	1/20/2011 17:56
Pentachlorophenol	U		0.080	0.20	µg/L	1	1/20/2011 17:56
Phenanthrene	63		0.70	2.0	µg/L	10	1/20/2011 19:38
Phenol	20		0.70	2.0	µg/L	10	1/20/2011 19:38
Pyrene	0.85		0.070	0.20	µg/L	1	1/20/2011 17:56
Surr: 2,4,6-Tribromophenol	66.3			34-129	%REC	1	1/20/2011 17:56
Surr: 2,4,6-Tribromophenol	79.0			34-129	%REC	10	1/20/2011 19:38
Surr: 2,4,6-Tribromophenol	0	S		34-129	%REC	100	1/26/2011 02:54
Surr: 2,4,6-Tribromophenol	0	S		34-129	%REC	1000	1/26/2011 18:14
Surr: 2-Fluorobiphenyl	45.6			40-125	%REC	1	1/20/2011 17:56
Surr: 2-Fluorobiphenyl	71.4			40-125	%REC	10	1/20/2011 19:38
Surr: 2-Fluorobiphenyl	0	S		40-125	%REC	100	1/26/2011 02:54
Surr: 2-Fluorobiphenyl	0	S		40-125	%REC	1000	1/26/2011 18:14
Surr: 2-Fluorophenol	59.2			20-120	%REC	1	1/20/2011 17:56
Surr: 2-Fluorophenol	78.8			20-120	%REC	10	1/20/2011 19:38
Surr: 2-Fluorophenol	0	S		20-120	%REC	100	1/26/2011 02:54

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 31-Jan-11

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW-Site Wide Monitoring
Sample ID: WG-1620-MW18A-20110117
Collection Date: 1/17/2011 10:45 AM

Work Order: 1101465
Lab ID: 1101465-01
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
Surr: 2-Fluorophenol	0	S		20-120	%REC	1000	1/26/2011 18:14
Surr: 4-Terphenyl-d14	72.5			40-135	%REC	1	1/20/2011 17:56
Surr: 4-Terphenyl-d14	71.0			40-135	%REC	10	1/20/2011 19:38
Surr: 4-Terphenyl-d14	0	S		40-135	%REC	100	1/26/2011 02:54
Surr: 4-Terphenyl-d14	0	S		40-135	%REC	1000	1/26/2011 18:14
Surr: Nitrobenzene-d5	70.2			41-120	%REC	1	1/20/2011 17:56
Surr: Nitrobenzene-d5	81.3			41-120	%REC	10	1/20/2011 19:38
Surr: Nitrobenzene-d5	0	S		41-120	%REC	100	1/26/2011 02:54
Surr: Nitrobenzene-d5	0	S		41-120	%REC	1000	1/26/2011 18:14
Surr: Phenol-d6	71.7			20-120	%REC	1	1/20/2011 17:56
Surr: Phenol-d6	65.3			20-120	%REC	10	1/20/2011 19:38
Surr: Phenol-d6	0	S		20-120	%REC	100	1/26/2011 02:54
Surr: Phenol-d6	0	S		20-120	%REC	1000	1/26/2011 18:14

TCL VOLATILES

Method: SW8260

Analyst: PC

1,2-Dichloroethane	U		2.5	25	µg/L	5	1/21/2011 15:55
Benzene	550		2.5	25	µg/L	5	1/21/2011 15:55
Chlorobenzene	U		2.5	25	µg/L	5	1/21/2011 15:55
Dichloromethane	U		2.5	50	µg/L	5	1/21/2011 15:55
Ethylbenzene	550		2.5	25	µg/L	5	1/21/2011 15:55
Toluene	350		2.5	25	µg/L	5	1/21/2011 15:55
Vinyl chloride	70		2.5	10	µg/L	5	1/21/2011 15:55
Xylenes, Total	1,000		5.0	75	µg/L	5	1/21/2011 15:55
Surr: 1,2-Dichloroethane-d4	101			70-125	%REC	5	1/21/2011 15:55
Surr: 4-Bromofluorobenzene	104			72-125	%REC	5	1/21/2011 15:55
Surr: Dibromofluoromethane	101			71-125	%REC	5	1/21/2011 15:55
Surr: Toluene-d8	104			75-125	%REC	5	1/21/2011 15:55

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 31-Jan-11

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW-Site Wide Monitoring
Sample ID: WG-1620-MW18C-20110117
Collection Date: 1/17/2011 11:35 AM

Work Order: 1101465
Lab ID: 1101465-02
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270			Analyst: LG	
1,2-Diphenylhydrazine	U		0.10	0.20	µg/L	1	1/20/2011 18:17
2,4-Dimethylphenol	12		0.80	2.0	µg/L	10	1/20/2011 19:59
2,4-Dinitrotoluene	U		0.090	0.20	µg/L	1	1/20/2011 18:17
2,6-Dinitrotoluene	U		0.070	0.20	µg/L	1	1/20/2011 18:17
2-Chloronaphthalene	U		0.10	0.20	µg/L	1	1/20/2011 18:17
2-Methylnaphthalene	310		7.0	20	µg/L	100	1/26/2011 03:14
4,6-Dinitro-2-methylphenol	U		0.080	0.20	µg/L	1	1/20/2011 18:17
4-Nitrophenol	U		0.070	1.0	µg/L	1	1/20/2011 18:17
Acenaphthene	140		9.0	20	µg/L	100	1/26/2011 03:14
Acenaphthylene	1.9		0.070	0.20	µg/L	1	1/20/2011 18:17
Anthracene	15		0.70	2.0	µg/L	10	1/20/2011 19:59
Benz(a)anthracene	U		0.070	0.20	µg/L	1	1/20/2011 18:17
Benzo(a)pyrene	0.35		0.080	0.20	µg/L	1	1/20/2011 18:17
Bis(2-chloroethoxy)methane	U		0.090	0.20	µg/L	1	1/20/2011 18:17
Bis(2-ethylhexyl)phthalate	U		0.20	0.20	µg/L	1	1/20/2011 18:17
Chrysene	U		0.070	0.20	µg/L	1	1/20/2011 18:17
Di-n-butyl phthalate	U		0.070	0.20	µg/L	1	1/20/2011 18:17
Dibenzofuran	130		8.0	20	µg/L	100	1/26/2011 03:14
Fluoranthene	5.9		0.070	0.20	µg/L	1	1/20/2011 18:17
Fluorene	51		0.70	2.0	µg/L	10	1/20/2011 19:59
N-Nitrosodiphenylamine	U		0.090	0.20	µg/L	1	1/20/2011 18:17
Naphthalene	13,000		200	400	µg/L	2000	1/26/2011 19:33
Nitrobenzene	U		0.090	0.20	µg/L	1	1/20/2011 18:17
Pentachlorophenol	64		0.80	2.0	µg/L	10	1/20/2011 19:59
Phenanthrene	55		0.70	2.0	µg/L	10	1/20/2011 19:59
Phenol	43		0.70	2.0	µg/L	10	1/20/2011 19:59
Pyrene	2.8		0.070	0.20	µg/L	1	1/20/2011 18:17
Surr: 2,4,6-Tribromophenol	66.4			34-129	%REC	1	1/20/2011 18:17
Surr: 2,4,6-Tribromophenol	107	J		34-129	%REC	100	1/26/2011 03:14
Surr: 2,4,6-Tribromophenol	0	S		34-129	%REC	2000	1/26/2011 19:33
Surr: 2-Fluorobiphenyl	40.9			40-125	%REC	1	1/20/2011 18:17
Surr: 2-Fluorobiphenyl	66.1	J		40-125	%REC	100	1/26/2011 03:14
Surr: 2-Fluorobiphenyl	0	S		40-125	%REC	2000	1/26/2011 19:33
Surr: 2-Fluorophenol	86.1			20-120	%REC	1	1/20/2011 18:17
Surr: 2-Fluorophenol	91.5	J		20-120	%REC	100	1/26/2011 03:14
Surr: 2-Fluorophenol	0	S		20-120	%REC	2000	1/26/2011 19:33
Surr: 4-Terphenyl-d14	50.4			40-135	%REC	1	1/20/2011 18:17
Surr: 4-Terphenyl-d14	95.5	J		40-135	%REC	100	1/26/2011 03:14

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 31-Jan-11

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW-Site Wide Monitoring
Sample ID: WG-1620-MW18C-20110117
Collection Date: 1/17/2011 11:35 AM

Work Order: 1101465
Lab ID: 1101465-02
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
Surr: 4-Terphenyl-d14	0	S		40-135	%REC	2000	1/26/2011 19:33
Surr: Nitrobenzene-d5	101			41-120	%REC	1	1/20/2011 18:17
Surr: Nitrobenzene-d5	45.7	J		41-120	%REC	100	1/26/2011 03:14
Surr: Nitrobenzene-d5	0	S		41-120	%REC	2000	1/26/2011 19:33
Surr: Phenol-d6	66.8			20-120	%REC	1	1/20/2011 18:17
Surr: Phenol-d6	102	J		20-120	%REC	100	1/26/2011 03:14
Surr: Phenol-d6	0	S		20-120	%REC	2000	1/26/2011 19:33

TCL VOLATILES

Method: SW8260

Analyst: PC

1,2-Dichloroethane	U		2.5	25	µg/L	5	1/21/2011 16:21
Benzene	1,300		12	120	µg/L	25	1/21/2011 19:42
Chlorobenzene	U		2.5	25	µg/L	5	1/21/2011 16:21
Dichloromethane	U		2.5	50	µg/L	5	1/21/2011 16:21
Ethylbenzene	180		2.5	25	µg/L	5	1/21/2011 16:21
Toluene	830		12	120	µg/L	25	1/21/2011 19:42
Vinyl chloride	U		2.5	10	µg/L	5	1/21/2011 16:21
Xylenes, Total	1,000		5.0	75	µg/L	5	1/21/2011 16:21
Surr: 1,2-Dichloroethane-d4	95.3			70-125	%REC	5	1/21/2011 16:21
Surr: 1,2-Dichloroethane-d4	93.0			70-125	%REC	25	1/21/2011 19:42
Surr: 4-Bromofluorobenzene	96.8			72-125	%REC	5	1/21/2011 16:21
Surr: 4-Bromofluorobenzene	95.4			72-125	%REC	25	1/21/2011 19:42
Surr: Dibromofluoromethane	95.4			71-125	%REC	5	1/21/2011 16:21
Surr: Dibromofluoromethane	98.4			71-125	%REC	25	1/21/2011 19:42
Surr: Toluene-d8	104			75-125	%REC	5	1/21/2011 16:21
Surr: Toluene-d8	104			75-125	%REC	25	1/21/2011 19:42

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 31-Jan-11

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW-Site Wide Monitoring
Sample ID: WG-1620-MW17C-20110117
Collection Date: 1/17/2011 02:00 PM

Work Order: 1101465
Lab ID: 1101465-03
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270			Analyst: LG	
1,2-Diphenylhydrazine	U		0.10	0.20	µg/L	1	1/20/2011 13:50
2,4-Dimethylphenol	3.5		0.080	0.20	µg/L	1	1/20/2011 13:50
2,4-Dinitrotoluene	U		0.090	0.20	µg/L	1	1/20/2011 13:50
2,6-Dinitrotoluene	U		0.070	0.20	µg/L	1	1/20/2011 13:50
2-Chloronaphthalene	U		0.10	0.20	µg/L	1	1/20/2011 13:50
2-Methylnaphthalene	75		0.70	2.0	µg/L	10	1/26/2011 00:53
4,6-Dinitro-2-methylphenol	U		0.080	0.20	µg/L	1	1/20/2011 13:50
4-Nitrophenol	U		0.070	1.0	µg/L	1	1/20/2011 13:50
Acenaphthene	180		4.5	10	µg/L	50	1/26/2011 03:54
Acenaphthylene	1.7		0.070	0.20	µg/L	1	1/20/2011 13:50
Anthracene	15		0.70	2.0	µg/L	10	1/26/2011 00:53
Benz(a)anthracene	1.2		0.070	0.20	µg/L	1	1/20/2011 13:50
Benzo(a)pyrene	0.27		0.080	0.20	µg/L	1	1/20/2011 13:50
Bis(2-chloroethoxy)methane	U		0.090	0.20	µg/L	1	1/20/2011 13:50
Bis(2-ethylhexyl)phthalate	1.5		0.20	0.20	µg/L	1	1/20/2011 13:50
Chrysene	1.0		0.070	0.20	µg/L	1	1/20/2011 13:50
Di-n-butyl phthalate	U		0.070	0.20	µg/L	1	1/20/2011 13:50
Dibenzofuran	190		4.0	10	µg/L	50	1/26/2011 03:54
Fluoranthene	19		0.70	2.0	µg/L	10	1/26/2011 00:53
Fluorene	83		0.70	2.0	µg/L	10	1/26/2011 00:53
N-Nitrosodiphenylamine	U		0.090	0.20	µg/L	1	1/20/2011 13:50
Naphthalene	4,100		100	200	µg/L	1000	1/26/2011 04:14
Nitrobenzene	U		0.090	0.20	µg/L	1	1/20/2011 13:50
Pentachlorophenol	U		0.080	0.20	µg/L	1	1/20/2011 13:50
Phenanthrene	76		0.70	2.0	µg/L	10	1/26/2011 00:53
Phenol	0.78		0.070	0.20	µg/L	1	1/20/2011 13:50
Pyrene	9.0		0.070	0.20	µg/L	1	1/20/2011 13:50
Surr: 2,4,6-Tribromophenol	56.8			34-129	%REC	1	1/20/2011 13:50
Surr: 2,4,6-Tribromophenol	65.2			34-129	%REC	10	1/26/2011 00:53
Surr: 2,4,6-Tribromophenol	92.6	J		34-129	%REC	50	1/26/2011 03:54
Surr: 2,4,6-Tribromophenol	0	S		34-129	%REC	1000	1/26/2011 04:14
Surr: 2-Fluorobiphenyl	42.7			40-125	%REC	1	1/20/2011 13:50
Surr: 2-Fluorobiphenyl	51.5			40-125	%REC	10	1/26/2011 00:53
Surr: 2-Fluorobiphenyl	75.6	J		40-125	%REC	50	1/26/2011 03:54
Surr: 2-Fluorobiphenyl	0	S		40-125	%REC	1000	1/26/2011 04:14
Surr: 2-Fluorophenol	86.6			20-120	%REC	1	1/20/2011 13:50
Surr: 2-Fluorophenol	70.7			20-120	%REC	10	1/26/2011 00:53
Surr: 2-Fluorophenol	85.5	J		20-120	%REC	50	1/26/2011 03:54

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 31-Jan-11

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW-Site Wide Monitoring
Sample ID: WG-1620-MW17C-20110117
Collection Date: 1/17/2011 02:00 PM

Work Order: 1101465
Lab ID: 1101465-03
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
Surr: 2-Fluorophenol	0	S		20-120	%REC	1000	1/26/2011 04:14
Surr: 4-Terphenyl-d14	71.0			40-135	%REC	1	1/20/2011 13:50
Surr: 4-Terphenyl-d14	66.5			40-135	%REC	10	1/26/2011 00:53
Surr: 4-Terphenyl-d14	77.5	J		40-135	%REC	50	1/26/2011 03:54
Surr: 4-Terphenyl-d14	0	S		40-135	%REC	1000	1/26/2011 04:14
Surr: Nitrobenzene-d5	50.0			41-120	%REC	1	1/20/2011 13:50
Surr: Nitrobenzene-d5	41.3			41-120	%REC	10	1/26/2011 00:53
Surr: Nitrobenzene-d5	65.8	J		41-120	%REC	50	1/26/2011 03:54
Surr: Nitrobenzene-d5	0	S		41-120	%REC	1000	1/26/2011 04:14
Surr: Phenol-d6	61.5			20-120	%REC	1	1/20/2011 13:50
Surr: Phenol-d6	41.2			20-120	%REC	10	1/26/2011 00:53
Surr: Phenol-d6	51.8	J		20-120	%REC	50	1/26/2011 03:54
Surr: Phenol-d6	0	S		20-120	%REC	1000	1/26/2011 04:14

TCL VOLATILES

Method: SW8260

Analyst: PC

1,2-Dichloroethane	U		0.50	5.0	µg/L	1	1/20/2011 14:26
Benzene	23		0.50	5.0	µg/L	1	1/20/2011 14:26
Chlorobenzene	U		0.50	5.0	µg/L	1	1/20/2011 14:26
Dichloromethane	U		0.50	10	µg/L	1	1/20/2011 14:26
Ethylbenzene	210		5.0	50	µg/L	10	1/20/2011 15:42
Toluene	8.1		0.50	5.0	µg/L	1	1/20/2011 14:26
Xylenes, Total	420		1.0	15	µg/L	1	1/20/2011 14:26
Surr: 1,2-Dichloroethane-d4	98.8			70-125	%REC	1	1/20/2011 14:26
Surr: 1,2-Dichloroethane-d4	96.6			70-125	%REC	10	1/20/2011 15:42
Surr: 4-Bromofluorobenzene	102			72-125	%REC	1	1/20/2011 14:26
Surr: 4-Bromofluorobenzene	90.5			72-125	%REC	10	1/20/2011 15:42
Surr: Dibromofluoromethane	98.8			71-125	%REC	1	1/20/2011 14:26
Surr: Dibromofluoromethane	96.6			71-125	%REC	10	1/20/2011 15:42
Surr: Toluene-d8	98.6			75-125	%REC	1	1/20/2011 14:26
Surr: Toluene-d8	101			75-125	%REC	10	1/20/2011 15:42

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 31-Jan-11

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW-Site Wide Monitoring
Sample ID: WG-1620-MW17-20110117
Collection Date: 1/17/2011 01:00 PM

Work Order: 1101465
Lab ID: 1101465-04
Matrix: WATER

Analyses	Result	Qual	SDL	MQL	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270			Analyst: LG	
1,2-Diphenylhydrazine	U		0.10	0.20	µg/L	1	1/20/2011 18:58
2,4-Dimethylphenol	3,900		160	400	µg/L	2000	1/26/2011 06:15
2,4-Dinitrotoluene	U		0.090	0.20	µg/L	1	1/20/2011 18:58
2,6-Dinitrotoluene	U		0.070	0.20	µg/L	1	1/20/2011 18:58
2-Chloronaphthalene	U		0.10	0.20	µg/L	1	1/20/2011 18:58
2-Methylnaphthalene	970		14	40	µg/L	200	1/26/2011 05:55
4,6-Dinitro-2-methylphenol	U		0.080	0.20	µg/L	1	1/20/2011 18:58
4-Nitrophenol	U		0.070	1.0	µg/L	1	1/20/2011 18:58
Acenaphthene	520		18	40	µg/L	200	1/26/2011 05:55
Acenaphthylene	8.0		0.070	0.20	µg/L	1	1/20/2011 18:58
Anthracene	120		1.4	4.0	µg/L	20	1/26/2011 02:33
Benz(a)anthracene	33		1.4	4.0	µg/L	20	1/26/2011 02:33
Benzo(a)pyrene	9.7		0.080	0.20	µg/L	1	1/20/2011 18:58
Bis(2-chloroethoxy)methane	U		0.090	0.20	µg/L	1	1/20/2011 18:58
Bis(2-ethylhexyl)phthalate	2.2		0.20	0.20	µg/L	1	1/20/2011 18:58
Chrysene	25		1.4	4.0	µg/L	20	1/26/2011 02:33
Di-n-butyl phthalate	U		0.070	0.20	µg/L	1	1/20/2011 18:58
Dibenzofuran	470		16	40	µg/L	200	1/26/2011 05:55
Fluoranthene	170		1.4	4.0	µg/L	20	1/26/2011 02:33
Fluorene	420		14	40	µg/L	200	1/26/2011 05:55
N-Nitrosodiphenylamine	U		0.090	0.20	µg/L	1	1/20/2011 18:58
Naphthalene	16,000		200	400	µg/L	2000	1/26/2011 06:15
Nitrobenzene	U		0.090	0.20	µg/L	1	1/20/2011 18:58
Pentachlorophenol	U		0.080	0.20	µg/L	1	1/20/2011 18:58
Phenanthrene	910		14	40	µg/L	200	1/26/2011 05:55
Phenol	3,600		140	400	µg/L	2000	1/26/2011 06:15
Pyrene	120		1.4	4.0	µg/L	20	1/26/2011 02:33
Surr: 2,4,6-Tribromophenol	61.4			34-129	%REC	1	1/20/2011 18:58
Surr: 2,4,6-Tribromophenol	70.1	J		34-129	%REC	20	1/26/2011 02:33
Surr: 2,4,6-Tribromophenol	0	S		34-129	%REC	200	1/26/2011 05:55
Surr: 2,4,6-Tribromophenol	0	S		34-129	%REC	2000	1/26/2011 06:15
Surr: 2-Fluorobiphenyl	44.1			40-125	%REC	1	1/20/2011 18:58
Surr: 2-Fluorobiphenyl	48.4	J		40-125	%REC	20	1/26/2011 02:33
Surr: 2-Fluorobiphenyl	0	S		40-125	%REC	200	1/26/2011 05:55
Surr: 2-Fluorobiphenyl	0	S		40-125	%REC	2000	1/26/2011 06:15
Surr: 2-Fluorophenol	99.5			20-120	%REC	1	1/20/2011 18:58
Surr: 2-Fluorophenol	95.4			20-120	%REC	20	1/26/2011 02:33
Surr: 2-Fluorophenol	0	S		20-120	%REC	200	1/26/2011 05:55

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 31-Jan-11

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW-Site Wide Monitoring
Sample ID: WG-1620-MW17-20110117
Collection Date: 1/17/2011 01:00 PM

Work Order: 1101465
Lab ID: 1101465-04
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
Surr: 2-Fluorophenol	0	S		20-120	%REC	2000	1/26/2011 06:15
Surr: 4-Terphenyl-d14	59.9			40-135	%REC	1	1/20/2011 18:58
Surr: 4-Terphenyl-d14	70.5	J		40-135	%REC	20	1/26/2011 02:33
Surr: 4-Terphenyl-d14	0	S		40-135	%REC	200	1/26/2011 05:55
Surr: 4-Terphenyl-d14	0	S		40-135	%REC	2000	1/26/2011 06:15
Surr: Nitrobenzene-d5	94.9			41-120	%REC	1	1/20/2011 18:58
Surr: Nitrobenzene-d5	53.7	J		41-120	%REC	20	1/26/2011 02:33
Surr: Nitrobenzene-d5	0	S		41-120	%REC	200	1/26/2011 05:55
Surr: Nitrobenzene-d5	0	S		41-120	%REC	2000	1/26/2011 06:15
Surr: Phenol-d6	56.9			20-120	%REC	1	1/20/2011 18:58
Surr: Phenol-d6	110			20-120	%REC	20	1/26/2011 02:33
Surr: Phenol-d6	0	S		20-120	%REC	200	1/26/2011 05:55
Surr: Phenol-d6	0	S		20-120	%REC	2000	1/26/2011 06:15

TCL VOLATILES

Method: SW8260

Analyst: PC

1,2-Dichloroethane	U		2.5	25	µg/L	5	1/21/2011 17:11
Benzene	310		2.5	25	µg/L	5	1/21/2011 17:11
Chlorobenzene	U		2.5	25	µg/L	5	1/21/2011 17:11
Dichloromethane	U		2.5	50	µg/L	5	1/21/2011 17:11
Ethylbenzene	210		2.5	25	µg/L	5	1/21/2011 17:11
Toluene	970		2.5	25	µg/L	5	1/21/2011 17:11
Xylenes, Total	640		5.0	75	µg/L	5	1/21/2011 17:11
Surr: 1,2-Dichloroethane-d4	95.8			70-125	%REC	5	1/21/2011 17:11
Surr: 4-Bromofluorobenzene	97.0			72-125	%REC	5	1/21/2011 17:11
Surr: Dibromofluoromethane	98.5			71-125	%REC	5	1/21/2011 17:11
Surr: Toluene-d8	97.8			75-125	%REC	5	1/21/2011 17:11

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 31-Jan-11

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW-Site Wide Monitoring
Sample ID: WG-1620-MW15A-20110117
Collection Date: 1/17/2011 03:15 PM

Work Order: 1101465
Lab ID: 1101465-05
Matrix: WATER

Analyses	Result	Qual	SDL	MQL	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270			Analyst: LG	
1,2-Diphenylhydrazine	U		0.10	0.20	µg/L	1	1/20/2011 14:11
2,4-Dimethylphenol	U		0.080	0.20	µg/L	1	1/20/2011 14:11
2,4-Dinitrotoluene	U		0.090	0.20	µg/L	1	1/20/2011 14:11
2,6-Dinitrotoluene	U		0.070	0.20	µg/L	1	1/20/2011 14:11
2-Chloronaphthalene	U		0.10	0.20	µg/L	1	1/20/2011 14:11
2-Methylnaphthalene	38		0.70	2.0	µg/L	10	1/26/2011 01:13
4,6-Dinitro-2-methylphenol	U		0.080	0.20	µg/L	1	1/20/2011 14:11
4-Nitrophenol	U		0.070	1.0	µg/L	1	1/20/2011 14:11
Acenaphthene	270		9.0	20	µg/L	100	1/26/2011 04:34
Acenaphthylene	1.1		0.070	0.20	µg/L	1	1/20/2011 14:11
Anthracene	6.3		0.070	0.20	µg/L	1	1/20/2011 14:11
Benz(a)anthracene	U		0.070	0.20	µg/L	1	1/20/2011 14:11
Benzo(a)pyrene	U		0.080	0.20	µg/L	1	1/20/2011 14:11
Bis(2-chloroethoxy)methane	U		0.090	0.20	µg/L	1	1/20/2011 14:11
Bis(2-ethylhexyl)phthalate	1.6		0.20	0.20	µg/L	1	1/20/2011 14:11
Chrysene	U		0.070	0.20	µg/L	1	1/20/2011 14:11
Di-n-butyl phthalate	U		0.070	0.20	µg/L	1	1/20/2011 14:11
Dibenzofuran	50		0.80	2.0	µg/L	10	1/26/2011 01:13
Fluoranthene	2.3		0.070	0.20	µg/L	1	1/20/2011 14:11
Fluorene	76		0.70	2.0	µg/L	10	1/26/2011 01:13
N-Nitrosodiphenylamine	U		0.090	0.20	µg/L	1	1/20/2011 14:11
Naphthalene	2.3		0.10	0.20	µg/L	1	1/20/2011 14:11
Nitrobenzene	U		0.090	0.20	µg/L	1	1/20/2011 14:11
Pentachlorophenol	U		0.080	0.20	µg/L	1	1/20/2011 14:11
Phenanthrene	19		0.70	2.0	µg/L	10	1/26/2011 01:13
Phenol	U		0.070	0.20	µg/L	1	1/20/2011 14:11
Pyrene	0.95		0.070	0.20	µg/L	1	1/20/2011 14:11
Surr: 2,4,6-Tribromophenol	82.0			34-129	%REC	1	1/20/2011 14:11
Surr: 2,4,6-Tribromophenol	77.8			34-129	%REC	10	1/26/2011 01:13
Surr: 2,4,6-Tribromophenol	0	S		34-129	%REC	100	1/26/2011 04:34
Surr: 2-Fluorobiphenyl	58.1			40-125	%REC	1	1/20/2011 14:11
Surr: 2-Fluorobiphenyl	69.9			40-125	%REC	10	1/26/2011 01:13
Surr: 2-Fluorobiphenyl	0	S		40-125	%REC	100	1/26/2011 04:34
Surr: 2-Fluorophenol	58.3			20-120	%REC	1	1/20/2011 14:11
Surr: 2-Fluorophenol	41.9			20-120	%REC	10	1/26/2011 01:13
Surr: 2-Fluorophenol	0	S		20-120	%REC	100	1/26/2011 04:34
Surr: 4-Terphenyl-d14	74.9			40-135	%REC	1	1/20/2011 14:11
Surr: 4-Terphenyl-d14	73.3			40-135	%REC	10	1/26/2011 01:13

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 31-Jan-11

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW-Site Wide Monitoring
Sample ID: WG-1620-MW15A-20110117
Collection Date: 1/17/2011 03:15 PM

Work Order: 1101465
Lab ID: 1101465-05
Matrix: WATER

Analyses	Result	Qual	SDL	MQL	Units	Dilution Factor	Date Analyzed
Surr: 4-Terphenyl-d14	0	S		40-135	%REC	100	1/26/2011 04:34
Surr: Nitrobenzene-d5	57.0			41-120	%REC	1	1/20/2011 14:11
Surr: Nitrobenzene-d5	59.0			41-120	%REC	10	1/26/2011 01:13
Surr: Nitrobenzene-d5	0	S		41-120	%REC	100	1/26/2011 04:34
Surr: Phenol-d6	50.1			20-120	%REC	1	1/20/2011 14:11
Surr: Phenol-d6	53.2			20-120	%REC	10	1/26/2011 01:13
Surr: Phenol-d6	0	S		20-120	%REC	100	1/26/2011 04:34
TCL VOLATILES			Method: SW8260				Analyst: PC
1,2-Dichloroethane	U		0.50	5.0	µg/L	1	1/20/2011 16:07
Benzene	0.74	J	0.50	5.0	µg/L	1	1/20/2011 16:07
Chlorobenzene	U		0.50	5.0	µg/L	1	1/20/2011 16:07
Dichloromethane	U		0.50	10	µg/L	1	1/20/2011 16:07
Ethylbenzene	U		0.50	5.0	µg/L	1	1/20/2011 16:07
Toluene	U		0.50	5.0	µg/L	1	1/20/2011 16:07
Xylenes, Total	U		1.0	15	µg/L	1	1/20/2011 16:07
Surr: 1,2-Dichloroethane-d4	98.6			70-125	%REC	1	1/20/2011 16:07
Surr: 4-Bromofluorobenzene	91.4			72-125	%REC	1	1/20/2011 16:07
Surr: Dibromofluoromethane	101			71-125	%REC	1	1/20/2011 16:07
Surr: Toluene-d8	101			75-125	%REC	1	1/20/2011 16:07

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 31-Jan-11

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW-Site Wide Monitoring
Sample ID: WG-1620-MW15C-20110117
Collection Date: 1/17/2011 04:15 PM

Work Order: 1101465
Lab ID: 1101465-06
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270			Analyst: LG	
1,2-Diphenylhydrazine	U		0.10	0.20	µg/L	1	1/20/2011 14:31
2,4-Dimethylphenol	U		0.080	0.20	µg/L	1	1/20/2011 14:31
2,4-Dinitrotoluene	U		0.090	0.20	µg/L	1	1/20/2011 14:31
2,6-Dinitrotoluene	U		0.070	0.20	µg/L	1	1/20/2011 14:31
2-Chloronaphthalene	U		0.10	0.20	µg/L	1	1/20/2011 14:31
2-Methylnaphthalene	U		0.070	0.20	µg/L	1	1/20/2011 14:31
4,6-Dinitro-2-methylphenol	U		0.080	0.20	µg/L	1	1/20/2011 14:31
4-Nitrophenol	U		0.070	1.0	µg/L	1	1/20/2011 14:31
Acenaphthene	32		0.90	2.0	µg/L	10	1/26/2011 01:33
Acenaphthylene	1.1		0.070	0.20	µg/L	1	1/20/2011 14:31
Anthracene	U		0.070	0.20	µg/L	1	1/20/2011 14:31
Benz(a)anthracene	U		0.070	0.20	µg/L	1	1/20/2011 14:31
Benzo(a)pyrene	U		0.080	0.20	µg/L	1	1/20/2011 14:31
Bis(2-chloroethoxy)methane	U		0.090	0.20	µg/L	1	1/20/2011 14:31
Bis(2-ethylhexyl)phthalate	0.44		0.20	0.20	µg/L	1	1/20/2011 14:31
Chrysene	U		0.070	0.20	µg/L	1	1/20/2011 14:31
Di-n-butyl phthalate	U		0.070	0.20	µg/L	1	1/20/2011 14:31
Dibenzofuran	18		0.80	2.0	µg/L	10	1/26/2011 01:33
Fluoranthene	0.30		0.070	0.20	µg/L	1	1/20/2011 14:31
Fluorene	1.7		0.070	0.20	µg/L	1	1/20/2011 14:31
N-Nitrosodiphenylamine	U		0.090	0.20	µg/L	1	1/20/2011 14:31
Naphthalene	0.91		0.10	0.20	µg/L	1	1/20/2011 14:31
Nitrobenzene	U		0.090	0.20	µg/L	1	1/20/2011 14:31
Pentachlorophenol	U		0.080	0.20	µg/L	1	1/20/2011 14:31
Phenanthrene	U		0.070	0.20	µg/L	1	1/20/2011 14:31
Phenol	U		0.070	0.20	µg/L	1	1/20/2011 14:31
Pyrene	0.15	J	0.070	0.20	µg/L	1	1/20/2011 14:31
Surr: 2,4,6-Tribromophenol	62.5			34-129	%REC	1	1/20/2011 14:31
Surr: 2,4,6-Tribromophenol	67.5			34-129	%REC	10	1/26/2011 01:33
Surr: 2-Fluorobiphenyl	43.3			40-125	%REC	1	1/20/2011 14:31
Surr: 2-Fluorobiphenyl	54.5			40-125	%REC	10	1/26/2011 01:33
Surr: 2-Fluorophenol	49.3			20-120	%REC	1	1/20/2011 14:31
Surr: 2-Fluorophenol	40.9			20-120	%REC	10	1/26/2011 01:33
Surr: 4-Terphenyl-d14	67.6			40-135	%REC	1	1/20/2011 14:31
Surr: 4-Terphenyl-d14	77.1			40-135	%REC	10	1/26/2011 01:33
Surr: Nitrobenzene-d5	50.6			41-120	%REC	1	1/20/2011 14:31
Surr: Nitrobenzene-d5	54.6			41-120	%REC	10	1/26/2011 01:33
Surr: Phenol-d6	51.7			20-120	%REC	1	1/20/2011 14:31

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 31-Jan-11

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW-Site Wide Monitoring
Sample ID: WG-1620-MW15C-20110117
Collection Date: 1/17/2011 04:15 PM

Work Order: 1101465
Lab ID: 1101465-06
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
<i>Surr: Phenol-d6</i>	47.6			20-120	%REC	10	1/26/2011 01:33
TCL VOLATILES			Method: SW8260				Analyst: PC
1,2-Dichloroethane	U		0.50	5.0	µg/L	1	1/20/2011 16:32
Benzene	0.96	J	0.50	5.0	µg/L	1	1/20/2011 16:32
Chlorobenzene	U		0.50	5.0	µg/L	1	1/20/2011 16:32
Dichloromethane	U		0.50	10	µg/L	1	1/20/2011 16:32
Ethylbenzene	U		0.50	5.0	µg/L	1	1/20/2011 16:32
Toluene	U		0.50	5.0	µg/L	1	1/20/2011 16:32
Xylenes, Total	U		1.0	15	µg/L	1	1/20/2011 16:32
<i>Surr: 1,2-Dichloroethane-d4</i>	99.8			70-125	%REC	1	1/20/2011 16:32
<i>Surr: 4-Bromofluorobenzene</i>	95.7			72-125	%REC	1	1/20/2011 16:32
<i>Surr: Dibromofluoromethane</i>	102			71-125	%REC	1	1/20/2011 16:32
<i>Surr: Toluene-d8</i>	106			75-125	%REC	1	1/20/2011 16:32

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 31-Jan-11

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW-Site Wide Monitoring
Sample ID: WG-1620-MW14-20110117
Collection Date: 1/17/2011 05:20 PM

Work Order: 1101465
Lab ID: 1101465-07
Matrix: WATER

Analyses	Result	Qual	SDL	MQL	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270			Analyst: LG	
1,2-Diphenylhydrazine	U		0.10	0.20	µg/L	1	1/20/2011 14:52
2,4-Dimethylphenol	U		0.080	0.20	µg/L	1	1/20/2011 14:52
2,4-Dinitrotoluene	U		0.090	0.20	µg/L	1	1/20/2011 14:52
2,6-Dinitrotoluene	U		0.070	0.20	µg/L	1	1/20/2011 14:52
2-Chloronaphthalene	U		0.10	0.20	µg/L	1	1/20/2011 14:52
2-Methylnaphthalene	0.39		0.070	0.20	µg/L	1	1/20/2011 14:52
4,6-Dinitro-2-methylphenol	U		0.080	0.20	µg/L	1	1/20/2011 14:52
4-Nitrophenol	U		0.070	1.0	µg/L	1	1/20/2011 14:52
Acenaphthene	0.33		0.090	0.20	µg/L	1	1/20/2011 14:52
Acenaphthylene	U		0.070	0.20	µg/L	1	1/20/2011 14:52
Anthracene	U		0.070	0.20	µg/L	1	1/20/2011 14:52
Benz(a)anthracene	U		0.070	0.20	µg/L	1	1/20/2011 14:52
Benzo(a)pyrene	U		0.080	0.20	µg/L	1	1/20/2011 14:52
Bis(2-chloroethoxy)methane	U		0.090	0.20	µg/L	1	1/20/2011 14:52
Bis(2-ethylhexyl)phthalate	0.29		0.20	0.20	µg/L	1	1/20/2011 14:52
Chrysene	U		0.070	0.20	µg/L	1	1/20/2011 14:52
Di-n-butyl phthalate	U		0.070	0.20	µg/L	1	1/20/2011 14:52
Dibenzofuran	0.30		0.080	0.20	µg/L	1	1/20/2011 14:52
Fluoranthene	U		0.070	0.20	µg/L	1	1/20/2011 14:52
Fluorene	0.079	J	0.070	0.20	µg/L	1	1/20/2011 14:52
N-Nitrosodiphenylamine	U		0.090	0.20	µg/L	1	1/20/2011 14:52
Naphthalene	2.4		0.10	0.20	µg/L	1	1/20/2011 14:52
Nitrobenzene	U		0.090	0.20	µg/L	1	1/20/2011 14:52
Pentachlorophenol	U		0.080	0.20	µg/L	1	1/20/2011 14:52
Phenanthrene	0.30		0.070	0.20	µg/L	1	1/20/2011 14:52
Phenol	U		0.070	0.20	µg/L	1	1/20/2011 14:52
Pyrene	U		0.070	0.20	µg/L	1	1/20/2011 14:52
Surr: 2,4,6-Tribromophenol	62.7			34-129	%REC	1	1/20/2011 14:52
Surr: 2-Fluorobiphenyl	47.7			40-125	%REC	1	1/20/2011 14:52
Surr: 2-Fluorophenol	44.6			20-120	%REC	1	1/20/2011 14:52
Surr: 4-Terphenyl-d14	61.9			40-135	%REC	1	1/20/2011 14:52
Surr: Nitrobenzene-d5	53.4			41-120	%REC	1	1/20/2011 14:52
Surr: Phenol-d6	49.7			20-120	%REC	1	1/20/2011 14:52
TCL VOLATILES			Method: SW8260			Analyst: PC	
1,2-Dichloroethane	U		0.50	5.0	µg/L	1	1/20/2011 19:29
Benzene	U		0.50	5.0	µg/L	1	1/20/2011 19:29
Chlorobenzene	U		0.50	5.0	µg/L	1	1/20/2011 19:29
Dichloromethane	U		0.50	10	µg/L	1	1/20/2011 19:29

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 31-Jan-11

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW-Site Wide Monitoring
Sample ID: WG-1620-MW14-20110117
Collection Date: 1/17/2011 05:20 PM

Work Order: 1101465
Lab ID: 1101465-07
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
Ethylbenzene	U		0.50	5.0	µg/L	1	1/20/2011 19:29
Toluene	U		0.50	5.0	µg/L	1	1/20/2011 19:29
Xylenes, Total	U		1.0	15	µg/L	1	1/20/2011 19:29
Surr: 1,2-Dichloroethane-d4	95.7			70-125	%REC	1	1/20/2011 19:29
Surr: 4-Bromofluorobenzene	96.9			72-125	%REC	1	1/20/2011 19:29
Surr: Dibromofluoromethane	97.6			71-125	%REC	1	1/20/2011 19:29
Surr: Toluene-d8	103			75-125	%REC	1	1/20/2011 19:29

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 31-Jan-11

Client: Pastor, Behling & Wheeler, LLC
 Project: HWPW-Site Wide Monitoring
 Sample ID: WG-1620-MW40B-20110118
 Collection Date: 1/18/2011 07:40 AM

Work Order: 1101465
 Lab ID: 1101465-08
 Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270			Analyst: LG	
1,2-Diphenylhydrazine	U		0.10	0.20	µg/L	1	1/20/2011 15:12
2,4-Dimethylphenol	0.33		0.080	0.20	µg/L	1	1/20/2011 15:12
2,4-Dinitrotoluene	U		0.090	0.20	µg/L	1	1/20/2011 15:12
2,6-Dinitrotoluene	U		0.070	0.20	µg/L	1	1/20/2011 15:12
2-Chloronaphthalene	U		0.10	0.20	µg/L	1	1/20/2011 15:12
2-Methylnaphthalene	270		3.5	10	µg/L	50	1/26/2011 04:54
4,6-Dinitro-2-methylphenol	U		0.080	0.20	µg/L	1	1/20/2011 15:12
4-Nitrophenol	U		0.070	1.0	µg/L	1	1/20/2011 15:12
Acenaphthene	250		4.5	10	µg/L	50	1/26/2011 04:54
Acenaphthylene	2.5		0.070	0.20	µg/L	1	1/20/2011 15:12
Anthracene	17		0.70	2.0	µg/L	10	1/26/2011 01:53
Benz(a)anthracene	0.16	J	0.070	0.20	µg/L	1	1/20/2011 15:12
Benzo(a)pyrene	U		0.080	0.20	µg/L	1	1/20/2011 15:12
Bis(2-chloroethoxy)methane	U		0.090	0.20	µg/L	1	1/20/2011 15:12
Bis(2-ethylhexyl)phthalate	0.75		0.20	0.20	µg/L	1	1/20/2011 15:12
Chrysene	0.13	J	0.070	0.20	µg/L	1	1/20/2011 15:12
Di-n-butyl phthalate	U		0.070	0.20	µg/L	1	1/20/2011 15:12
Dibenzofuran	92		0.80	2.0	µg/L	10	1/26/2011 01:53
Fluoranthene	6.8		0.070	0.20	µg/L	1	1/20/2011 15:12
Fluorene	93		0.70	2.0	µg/L	10	1/26/2011 01:53
N-Nitrosodiphenylamine	U		0.090	0.20	µg/L	1	1/20/2011 15:12
Naphthalene	6,100		100	200	µg/L	1000	1/26/2011 05:15
Nitrobenzene	U		0.090	0.20	µg/L	1	1/20/2011 15:12
Pentachlorophenol	U		0.080	0.20	µg/L	1	1/20/2011 15:12
Phenanthrene	83		0.70	2.0	µg/L	10	1/26/2011 01:53
Phenol	U		0.070	0.20	µg/L	1	1/20/2011 15:12
Pyrene	3.9		0.070	0.20	µg/L	1	1/20/2011 15:12
Surr: 2,4,6-Tribromophenol	69.2			34-129	%REC	1	1/20/2011 15:12
Surr: 2,4,6-Tribromophenol	59.1			34-129	%REC	10	1/26/2011 01:53
Surr: 2,4,6-Tribromophenol	79.4	J		34-129	%REC	50	1/26/2011 04:54
Surr: 2,4,6-Tribromophenol	0	S		34-129	%REC	1000	1/26/2011 05:15
Surr: 2-Fluorobiphenyl	44.4			40-125	%REC	1	1/20/2011 15:12
Surr: 2-Fluorobiphenyl	45.9			40-125	%REC	10	1/26/2011 01:53
Surr: 2-Fluorobiphenyl	62.7	J		40-125	%REC	50	1/26/2011 04:54
Surr: 2-Fluorobiphenyl	0	S		40-125	%REC	1000	1/26/2011 05:15
Surr: 2-Fluorophenol	76.7			20-120	%REC	1	1/20/2011 15:12
Surr: 2-Fluorophenol	87.7			20-120	%REC	10	1/26/2011 01:53
Surr: 2-Fluorophenol	83.2	J		20-120	%REC	50	1/26/2011 04:54

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 31-Jan-11

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW-Site Wide Monitoring
Sample ID: WG-1620-MW40B-20110118
Collection Date: 1/18/2011 07:40 AM

Work Order: 1101465
Lab ID: 1101465-08
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
Surr: 2-Fluorophenol	0	S		20-120	%REC	1000	1/26/2011 05:15
Surr: 4-Terphenyl-d14	73.7			40-135	%REC	1	1/20/2011 15:12
Surr: 4-Terphenyl-d14	82.1			40-135	%REC	10	1/26/2011 01:53
Surr: 4-Terphenyl-d14	86.3	J		40-135	%REC	50	1/26/2011 04:54
Surr: 4-Terphenyl-d14	0	S		40-135	%REC	1000	1/26/2011 05:15
Surr: Nitrobenzene-d5	52.9			41-120	%REC	1	1/20/2011 15:12
Surr: Nitrobenzene-d5	42.9			41-120	%REC	10	1/26/2011 01:53
Surr: Nitrobenzene-d5	59.8	J		41-120	%REC	50	1/26/2011 04:54
Surr: Nitrobenzene-d5	0	S		41-120	%REC	1000	1/26/2011 05:15
Surr: Phenol-d6	62.1			20-120	%REC	1	1/20/2011 15:12
Surr: Phenol-d6	58.6			20-120	%REC	10	1/26/2011 01:53
Surr: Phenol-d6	83.4	J		20-120	%REC	50	1/26/2011 04:54
Surr: Phenol-d6	0	S		20-120	%REC	1000	1/26/2011 05:15

TCL VOLATILES

Method: SW8260

Analyst: PC

1,2-Dichloroethane	U		0.50	5.0	µg/L	1	1/20/2011 18:38
Benzene	19		0.50	5.0	µg/L	1	1/20/2011 18:38
Chlorobenzene	U		0.50	5.0	µg/L	1	1/20/2011 18:38
Dichloromethane	U		0.50	10	µg/L	1	1/20/2011 18:38
Ethylbenzene	130		0.50	5.0	µg/L	1	1/20/2011 18:38
Toluene	45		0.50	5.0	µg/L	1	1/20/2011 18:38
Xylenes, Total	210		1.0	15	µg/L	1	1/20/2011 18:38
Surr: 1,2-Dichloroethane-d4	98.9			70-125	%REC	1	1/20/2011 18:38
Surr: 4-Bromofluorobenzene	98.1			72-125	%REC	1	1/20/2011 18:38
Surr: Dibromofluoromethane	99.2			71-125	%REC	1	1/20/2011 18:38
Surr: Toluene-d8	95.7			75-125	%REC	1	1/20/2011 18:38

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 31-Jan-11

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW-Site Wide Monitoring
Sample ID: WG-1620-MW13-20110118
Collection Date: 1/18/2011 09:00 AM

Work Order: 1101465
Lab ID: 1101465-09
Matrix: WATER

Analyses	Result	Qual	SDL	ML	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270			Analyst: LG	
1,2-Diphenylhydrazine	U		0.10	0.20	µg/L	1	1/20/2011 15:33
2,4-Dimethylphenol	U		0.080	0.20	µg/L	1	1/20/2011 15:33
2,4-Dinitrotoluene	U		0.090	0.20	µg/L	1	1/20/2011 15:33
2,6-Dinitrotoluene	U		0.070	0.20	µg/L	1	1/20/2011 15:33
2-Chloronaphthalene	U		0.10	0.20	µg/L	1	1/20/2011 15:33
2-Methylnaphthalene	0.075	J	0.070	0.20	µg/L	1	1/20/2011 15:33
4,6-Dinitro-2-methylphenol	U		0.080	0.20	µg/L	1	1/20/2011 15:33
4-Nitrophenol	U		0.070	1.0	µg/L	1	1/20/2011 15:33
Acenaphthene	U		0.090	0.20	µg/L	1	1/20/2011 15:33
Acenaphthylene	U		0.070	0.20	µg/L	1	1/20/2011 15:33
Anthracene	U		0.070	0.20	µg/L	1	1/20/2011 15:33
Benz(a)anthracene	U		0.070	0.20	µg/L	1	1/20/2011 15:33
Benzo(a)pyrene	U		0.080	0.20	µg/L	1	1/20/2011 15:33
Bis(2-chloroethoxy)methane	U		0.090	0.20	µg/L	1	1/20/2011 15:33
Bis(2-ethylhexyl)phthalate	U		0.20	0.20	µg/L	1	1/20/2011 15:33
Chrysene	U		0.070	0.20	µg/L	1	1/20/2011 15:33
Di-n-butyl phthalate	U		0.070	0.20	µg/L	1	1/20/2011 15:33
Dibenzofuran	U		0.080	0.20	µg/L	1	1/20/2011 15:33
Fluoranthene	U		0.070	0.20	µg/L	1	1/20/2011 15:33
Fluorene	0.072	J	0.070	0.20	µg/L	1	1/20/2011 15:33
N-Nitrosodiphenylamine	U		0.090	0.20	µg/L	1	1/20/2011 15:33
Naphthalene	0.50		0.10	0.20	µg/L	1	1/20/2011 15:33
Nitrobenzene	U		0.090	0.20	µg/L	1	1/20/2011 15:33
Pentachlorophenol	U		0.080	0.20	µg/L	1	1/20/2011 15:33
Phenanthrene	U		0.070	0.20	µg/L	1	1/20/2011 15:33
Phenol	U		0.070	0.20	µg/L	1	1/20/2011 15:33
Pyrene	U		0.070	0.20	µg/L	1	1/20/2011 15:33
Surr: 2,4,6-Tribromophenol	86.8			34-129	%REC	1	1/20/2011 15:33
Surr: 2-Fluorobiphenyl	67.2			40-125	%REC	1	1/20/2011 15:33
Surr: 2-Fluorophenol	59.3			20-120	%REC	1	1/20/2011 15:33
Surr: 4-Terphenyl-d14	72.7			40-135	%REC	1	1/20/2011 15:33
Surr: Nitrobenzene-d5	61.0			41-120	%REC	1	1/20/2011 15:33
Surr: Phenol-d6	50.0			20-120	%REC	1	1/20/2011 15:33
TCL VOLATILES			Method: SW8260			Analyst: PC	
1,2-Dichloroethane	U		0.50	5.0	µg/L	1	1/20/2011 19:54
Benzene	U		0.50	5.0	µg/L	1	1/20/2011 19:54
Chlorobenzene	U		0.50	5.0	µg/L	1	1/20/2011 19:54
Dichloromethane	U		0.50	10	µg/L	1	1/20/2011 19:54

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 31-Jan-11

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW-Site Wide Monitoring
Sample ID: WG-1620-MW13-20110118
Collection Date: 1/18/2011 09:00 AM

Work Order: 1101465
Lab ID: 1101465-09
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
Ethylbenzene	U		0.50	5.0	µg/L	1	1/20/2011 19:54
Toluene	U		0.50	5.0	µg/L	1	1/20/2011 19:54
Xylenes, Total	U		1.0	15	µg/L	1	1/20/2011 19:54
Surr: 1,2-Dichloroethane-d4	96.6			70-125	%REC	1	1/20/2011 19:54
Surr: 4-Bromofluorobenzene	89.5			72-125	%REC	1	1/20/2011 19:54
Surr: Dibromofluoromethane	98.7			71-125	%REC	1	1/20/2011 19:54
Surr: Toluene-d8	102			75-125	%REC	1	1/20/2011 19:54

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 31-Jan-11

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW-Site Wide Monitoring
Sample ID: WG-1620-MW39B-20110118
Collection Date: 1/18/2011 10:00 AM

Work Order: 1101465
Lab ID: 1101465-10
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270			Analyst: LG	
1,2-Diphenylhydrazine	U		0.10	0.20	µg/L	1	1/20/2011 15:53
2,4-Dimethylphenol	U		0.080	0.20	µg/L	1	1/20/2011 15:53
2,4-Dinitrotoluene	U		0.090	0.20	µg/L	1	1/20/2011 15:53
2,6-Dinitrotoluene	U		0.070	0.20	µg/L	1	1/20/2011 15:53
2-Chloronaphthalene	U		0.10	0.20	µg/L	1	1/20/2011 15:53
2-Methylnaphthalene	0.086	J	0.070	0.20	µg/L	1	1/20/2011 15:53
4,6-Dinitro-2-methylphenol	U		0.080	0.20	µg/L	1	1/20/2011 15:53
4-Nitrophenol	U		0.070	1.0	µg/L	1	1/20/2011 15:53
Acenaphthene	0.39		0.090	0.20	µg/L	1	1/20/2011 15:53
Acenaphthylene	U		0.070	0.20	µg/L	1	1/20/2011 15:53
Anthracene	U		0.070	0.20	µg/L	1	1/20/2011 15:53
Benz(a)anthracene	U		0.070	0.20	µg/L	1	1/20/2011 15:53
Benzo(a)pyrene	U		0.080	0.20	µg/L	1	1/20/2011 15:53
Bis(2-chloroethoxy)methane	U		0.090	0.20	µg/L	1	1/20/2011 15:53
Bis(2-ethylhexyl)phthalate	0.24		0.20	0.20	µg/L	1	1/20/2011 15:53
Chrysene	U		0.070	0.20	µg/L	1	1/20/2011 15:53
Di-n-butyl phthalate	U		0.070	0.20	µg/L	1	1/20/2011 15:53
Dibenzofuran	U		0.080	0.20	µg/L	1	1/20/2011 15:53
Fluoranthene	0.13	J	0.070	0.20	µg/L	1	1/20/2011 15:53
Fluorene	0.13	J	0.070	0.20	µg/L	1	1/20/2011 15:53
N-Nitrosodiphenylamine	U		0.090	0.20	µg/L	1	1/20/2011 15:53
Naphthalene	0.76		0.10	0.20	µg/L	1	1/20/2011 15:53
Nitrobenzene	U		0.090	0.20	µg/L	1	1/20/2011 15:53
Pentachlorophenol	U		0.080	0.20	µg/L	1	1/20/2011 15:53
Phenanthrene	0.18	J	0.070	0.20	µg/L	1	1/20/2011 15:53
Phenol	U		0.070	0.20	µg/L	1	1/20/2011 15:53
Pyrene	U		0.070	0.20	µg/L	1	1/20/2011 15:53
Surr: 2,4,6-Tribromophenol	61.9			34-129	%REC	1	1/20/2011 15:53
Surr: 2-Fluorobiphenyl	45.8			40-125	%REC	1	1/20/2011 15:53
Surr: 2-Fluorophenol	46.0			20-120	%REC	1	1/20/2011 15:53
Surr: 4-Terphenyl-d14	75.1			40-135	%REC	1	1/20/2011 15:53
Surr: Nitrobenzene-d5	61.3			41-120	%REC	1	1/20/2011 15:53
Surr: Phenol-d6	44.5			20-120	%REC	1	1/20/2011 15:53
TCL VOLATILES			Method: SW8260			Analyst: PC	
1,2-Dichloroethane	U		0.50	5.0	µg/L	1	1/20/2011 20:19
Benzene	U		0.50	5.0	µg/L	1	1/20/2011 20:19
Chlorobenzene	U		0.50	5.0	µg/L	1	1/20/2011 20:19
Dichloromethane	U		0.50	10	µg/L	1	1/20/2011 20:19

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 31-Jan-11

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW-Site Wide Monitoring
Sample ID: WG-1620-MW39B-20110118
Collection Date: 1/18/2011 10:00 AM

Work Order: 1101465
Lab ID: 1101465-10
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
Ethylbenzene	U		0.50	5.0	µg/L	1	1/20/2011 20:19
Toluene	U		0.50	5.0	µg/L	1	1/20/2011 20:19
Xylenes, Total	U		1.0	15	µg/L	1	1/20/2011 20:19
Surr: 1,2-Dichloroethane-d4	97.7			70-125	%REC	1	1/20/2011 20:19
Surr: 4-Bromofluorobenzene	93.7			72-125	%REC	1	1/20/2011 20:19
Surr: Dibromofluoromethane	94.3			71-125	%REC	1	1/20/2011 20:19
Surr: Toluene-d8	96.0			75-125	%REC	1	1/20/2011 20:19

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 31-Jan-11

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW-Site Wide Monitoring
Sample ID: WG-1620-MW12C-20110118
Collection Date: 1/18/2011 11:05 AM

Work Order: 1101465
Lab ID: 1101465-11
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270			Analyst: LG	
1,2-Diphenylhydrazine	U		0.10	0.20	µg/L	1	1/20/2011 16:14
2,4-Dimethylphenol	U		0.080	0.20	µg/L	1	1/20/2011 16:14
2,4-Dinitrotoluene	U		0.090	0.20	µg/L	1	1/20/2011 16:14
2,6-Dinitrotoluene	U		0.070	0.20	µg/L	1	1/20/2011 16:14
2-Chloronaphthalene	U		0.10	0.20	µg/L	1	1/20/2011 16:14
2-Methylnaphthalene	0.12	J	0.070	0.20	µg/L	1	1/20/2011 16:14
4,6-Dinitro-2-methylphenol	U		0.080	0.20	µg/L	1	1/20/2011 16:14
4-Nitrophenol	U		0.070	1.0	µg/L	1	1/20/2011 16:14
Acenaphthene	0.12	J	0.090	0.20	µg/L	1	1/20/2011 16:14
Acenaphthylene	U		0.070	0.20	µg/L	1	1/20/2011 16:14
Anthracene	U		0.070	0.20	µg/L	1	1/20/2011 16:14
Benz(a)anthracene	U		0.070	0.20	µg/L	1	1/20/2011 16:14
Benzo(a)pyrene	U		0.080	0.20	µg/L	1	1/20/2011 16:14
Bis(2-chloroethoxy)methane	U		0.090	0.20	µg/L	1	1/20/2011 16:14
Bis(2-ethylhexyl)phthalate	U		0.20	0.20	µg/L	1	1/20/2011 16:14
Chrysene	U		0.070	0.20	µg/L	1	1/20/2011 16:14
Di-n-butyl phthalate	U		0.070	0.20	µg/L	1	1/20/2011 16:14
Dibenzofuran	0.11	J	0.080	0.20	µg/L	1	1/20/2011 16:14
Fluoranthene	U		0.070	0.20	µg/L	1	1/20/2011 16:14
Fluorene	0.099	J	0.070	0.20	µg/L	1	1/20/2011 16:14
N-Nitrosodiphenylamine	U		0.090	0.20	µg/L	1	1/20/2011 16:14
Naphthalene	0.99		0.10	0.20	µg/L	1	1/20/2011 16:14
Nitrobenzene	U		0.090	0.20	µg/L	1	1/20/2011 16:14
Pentachlorophenol	0.15	J	0.080	0.20	µg/L	1	1/20/2011 16:14
Phenanthrene	0.11	J	0.070	0.20	µg/L	1	1/20/2011 16:14
Phenol	U		0.070	0.20	µg/L	1	1/20/2011 16:14
Pyrene	U		0.070	0.20	µg/L	1	1/20/2011 16:14
Surr: 2,4,6-Tribromophenol	54.8			34-129	%REC	1	1/20/2011 16:14
Surr: 2-Fluorobiphenyl	40.4			40-125	%REC	1	1/20/2011 16:14
Surr: 2-Fluorophenol	49.0			20-120	%REC	1	1/20/2011 16:14
Surr: 4-Terphenyl-d14	68.2			40-135	%REC	1	1/20/2011 16:14
Surr: Nitrobenzene-d5	50.5			41-120	%REC	1	1/20/2011 16:14
Surr: Phenol-d6	46.1			20-120	%REC	1	1/20/2011 16:14
TCL VOLATILES			Method: SW8260			Analyst: PC	
1,2-Dichloroethane	U		0.50	5.0	µg/L	1	1/20/2011 21:09
Benzene	U		0.50	5.0	µg/L	1	1/20/2011 21:09
Chlorobenzene	U		0.50	5.0	µg/L	1	1/20/2011 21:09
Dichloromethane	U		0.50	10	µg/L	1	1/20/2011 21:09

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 31-Jan-11

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW-Site Wide Monitoring
Sample ID: WG-1620-MW12C-20110118
Collection Date: 1/18/2011 11:05 AM

Work Order: 1101465
Lab ID: 1101465-11
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
Ethylbenzene	U		0.50	5.0	µg/L	1	1/20/2011 21:09
Toluene	U		0.50	5.0	µg/L	1	1/20/2011 21:09
Xylenes, Total	U		1.0	15	µg/L	1	1/20/2011 21:09
Surr: 1,2-Dichloroethane-d4	99.3			70-125	%REC	1	1/20/2011 21:09
Surr: 4-Bromofluorobenzene	92.4			72-125	%REC	1	1/20/2011 21:09
Surr: Dibromofluoromethane	97.4			71-125	%REC	1	1/20/2011 21:09
Surr: Toluene-d8	97.1			75-125	%REC	1	1/20/2011 21:09

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 31-Jan-11

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW-Site Wide Monitoring
Sample ID: WG-1620-MW12A-20110118
Collection Date: 1/18/2011 12:15 PM

Work Order: 1101465
Lab ID: 1101465-12
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270			Analyst: LG	
1,2-Diphenylhydrazine	U		0.10	0.20	µg/L	1	1/20/2011 16:34
2,4-Dimethylphenol	0.10	J	0.080	0.20	µg/L	1	1/20/2011 16:34
2,4-Dinitrotoluene	U		0.090	0.20	µg/L	1	1/20/2011 16:34
2,6-Dinitrotoluene	U		0.070	0.20	µg/L	1	1/20/2011 16:34
2-Chloronaphthalene	U		0.10	0.20	µg/L	1	1/20/2011 16:34
2-Methylnaphthalene	33		0.70	2.0	µg/L	10	1/26/2011 02:13
4,6-Dinitro-2-methylphenol	U		0.080	0.20	µg/L	1	1/20/2011 16:34
4-Nitrophenol	U		0.070	1.0	µg/L	1	1/20/2011 16:34
Acenaphthene	190		4.5	10	µg/L	50	1/26/2011 05:35
Acenaphthylene	1.6		0.070	0.20	µg/L	1	1/20/2011 16:34
Anthracene	12		0.70	2.0	µg/L	10	1/26/2011 02:13
Benz(a)anthracene	0.82		0.070	0.20	µg/L	1	1/20/2011 16:34
Benzo(a)pyrene	0.30		0.080	0.20	µg/L	1	1/20/2011 16:34
Bis(2-chloroethoxy)methane	U		0.090	0.20	µg/L	1	1/20/2011 16:34
Bis(2-ethylhexyl)phthalate	0.36		0.20	0.20	µg/L	1	1/20/2011 16:34
Chrysene	0.74		0.070	0.20	µg/L	1	1/20/2011 16:34
Di-n-butyl phthalate	U		0.070	0.20	µg/L	1	1/20/2011 16:34
Dibenzofuran	150		4.0	10	µg/L	50	1/26/2011 05:35
Fluoranthene	8.6		0.070	0.20	µg/L	1	1/20/2011 16:34
Fluorene	140		3.5	10	µg/L	50	1/26/2011 05:35
N-Nitrosodiphenylamine	U		0.090	0.20	µg/L	1	1/20/2011 16:34
Naphthalene	220		5.0	10	µg/L	50	1/26/2011 05:35
Nitrobenzene	U		0.090	0.20	µg/L	1	1/20/2011 16:34
Pentachlorophenol	U		0.080	0.20	µg/L	1	1/20/2011 16:34
Phenanthrene	61		0.70	2.0	µg/L	10	1/26/2011 02:13
Phenol	U		0.070	0.20	µg/L	1	1/20/2011 16:34
Pyrene	4.4		0.070	0.20	µg/L	1	1/20/2011 16:34
Surr: 2,4,6-Tribromophenol	59.6			34-129	%REC	1	1/20/2011 16:34
Surr: 2,4,6-Tribromophenol	60.8			34-129	%REC	10	1/26/2011 02:13
Surr: 2,4,6-Tribromophenol	72.2	J		34-129	%REC	50	1/26/2011 05:35
Surr: 2-Fluorobiphenyl	43.6			40-125	%REC	1	1/20/2011 16:34
Surr: 2-Fluorobiphenyl	59.7			40-125	%REC	10	1/26/2011 02:13
Surr: 2-Fluorobiphenyl	65.5	J		40-125	%REC	50	1/26/2011 05:35
Surr: 2-Fluorophenol	47.2			20-120	%REC	1	1/20/2011 16:34
Surr: 2-Fluorophenol	34.4	J		20-120	%REC	10	1/26/2011 02:13
Surr: 2-Fluorophenol	39.3	J		20-120	%REC	50	1/26/2011 05:35
Surr: 4-Terphenyl-d14	60.6			40-135	%REC	1	1/20/2011 16:34
Surr: 4-Terphenyl-d14	60.3			40-135	%REC	10	1/26/2011 02:13

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 31-Jan-11

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW-Site Wide Monitoring
Sample ID: WG-1620-MW12A-20110118
Collection Date: 1/18/2011 12:15 PM

Work Order: 1101465
Lab ID: 1101465-12
Matrix: WATER

Analyses	Result	Qual	SDL	MQL	Units	Dilution Factor	Date Analyzed
Surr: 4-Terphenyl-d14	67.6	J		40-135	%REC	50	1/26/2011 05:35
Surr: Nitrobenzene-d5	45.9			41-120	%REC	1	1/20/2011 16:34
Surr: Nitrobenzene-d5	45.7			41-120	%REC	10	1/26/2011 02:13
Surr: Nitrobenzene-d5	66.9	J		41-120	%REC	50	1/26/2011 05:35
Surr: Phenol-d6	46.4			20-120	%REC	1	1/20/2011 16:34
Surr: Phenol-d6	40.2			20-120	%REC	10	1/26/2011 02:13
Surr: Phenol-d6	60.6	J		20-120	%REC	50	1/26/2011 05:35
TCL VOLATILES			Method: SW8260			Analyst: PC	
1,2-Dichloroethane	U		0.50	5.0	µg/L	1	1/21/2011 12:56
Benzene	U		0.50	5.0	µg/L	1	1/21/2011 12:56
Chlorobenzene	U		0.50	5.0	µg/L	1	1/21/2011 12:56
Dichloromethane	U		0.50	10	µg/L	1	1/21/2011 12:56
Ethylbenzene	1.4	J	0.50	5.0	µg/L	1	1/21/2011 12:56
Toluene	U		0.50	5.0	µg/L	1	1/21/2011 12:56
Xylenes, Total	2.5	J	1.0	15	µg/L	1	1/21/2011 12:56
Surr: 1,2-Dichloroethane-d4	95.5			70-125	%REC	1	1/21/2011 12:56
Surr: 4-Bromofluorobenzene	95.5			72-125	%REC	1	1/21/2011 12:56
Surr: Dibromofluoromethane	95.6			71-125	%REC	1	1/21/2011 12:56
Surr: Toluene-d8	99.9			75-125	%REC	1	1/21/2011 12:56

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 31-Jan-11

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW-Site Wide Monitoring
Sample ID: WG-1620-MW16-20110118
Collection Date: 1/18/2011 01:45 PM

Work Order: 1101465
Lab ID: 1101465-13
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270			Analyst: LG	
1,2-Diphenylhydrazine	U		0.10	0.20	µg/L	1	1/20/2011 18:37
2,4-Dimethylphenol	2.2		0.080	0.20	µg/L	1	1/20/2011 18:37
2,4-Dinitrotoluene	U		0.090	0.20	µg/L	1	1/20/2011 18:37
2,6-Dinitrotoluene	U		0.070	0.20	µg/L	1	1/20/2011 18:37
2-Chloronaphthalene	U		0.10	0.20	µg/L	1	1/20/2011 18:37
2-Methylnaphthalene	38		0.70	2.0	µg/L	10	1/20/2011 20:19
4,6-Dinitro-2-methylphenol	U		0.080	0.20	µg/L	1	1/20/2011 18:37
4-Nitrophenol	U		0.070	1.0	µg/L	1	1/20/2011 18:37
Acenaphthene	210		4.5	10	µg/L	50	1/26/2011 03:34
Acenaphthylene	3.5		0.070	0.20	µg/L	1	1/20/2011 18:37
Anthracene	12		0.70	2.0	µg/L	10	1/20/2011 20:19
Benz(a)anthracene	0.17	J	0.070	0.20	µg/L	1	1/20/2011 18:37
Benzo(a)pyrene	U		0.080	0.20	µg/L	1	1/20/2011 18:37
Bis(2-chloroethoxy)methane	U		0.090	0.20	µg/L	1	1/20/2011 18:37
Bis(2-ethylhexyl)phthalate	U		0.20	0.20	µg/L	1	1/20/2011 18:37
Chrysene	0.11	J	0.070	0.20	µg/L	1	1/20/2011 18:37
Di-n-butyl phthalate	U		0.070	0.20	µg/L	1	1/20/2011 18:37
Dibenzofuran	130		4.0	10	µg/L	50	1/26/2011 03:34
Fluoranthene	5.9		0.070	0.20	µg/L	1	1/20/2011 18:37
Fluorene	120		3.5	10	µg/L	50	1/26/2011 03:34
N-Nitrosodiphenylamine	U		0.090	0.20	µg/L	1	1/20/2011 18:37
Naphthalene	1,200		20	40	µg/L	200	1/26/2011 18:54
Nitrobenzene	U		0.090	0.20	µg/L	1	1/20/2011 18:37
Pentachlorophenol	U		0.080	0.20	µg/L	1	1/20/2011 18:37
Phenanthrene	45		0.70	2.0	µg/L	10	1/20/2011 20:19
Phenol	0.074	J	0.070	0.20	µg/L	1	1/20/2011 18:37
Pyrene	3.4		0.070	0.20	µg/L	1	1/20/2011 18:37
Surr: 2,4,6-Tribromophenol	66.1			34-129	%REC	1	1/20/2011 18:37
Surr: 2,4,6-Tribromophenol	72.0			34-129	%REC	10	1/20/2011 20:19
Surr: 2,4,6-Tribromophenol	84.8	J		34-129	%REC	50	1/26/2011 03:34
Surr: 2,4,6-Tribromophenol	0	S		34-129	%REC	200	1/26/2011 18:54
Surr: 2-Fluorobiphenyl	44.8			40-125	%REC	1	1/20/2011 18:37
Surr: 2-Fluorobiphenyl	47.8			40-125	%REC	10	1/20/2011 20:19
Surr: 2-Fluorobiphenyl	73.5	J		40-125	%REC	50	1/26/2011 03:34
Surr: 2-Fluorobiphenyl	0	S		40-125	%REC	200	1/26/2011 18:54
Surr: 2-Fluorophenol	55.3			20-120	%REC	1	1/20/2011 18:37
Surr: 2-Fluorophenol	72.8			20-120	%REC	10	1/20/2011 20:19
Surr: 2-Fluorophenol	38.6	J		20-120	%REC	50	1/26/2011 03:34

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 31-Jan-11

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW-Site Wide Monitoring
Sample ID: WG-1620-MW16-20110118
Collection Date: 1/18/2011 01:45 PM

Work Order: 1101465
Lab ID: 1101465-13
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
Surr: 2-Fluorophenol	0	S		20-120	%REC	200	1/26/2011 18:54
Surr: 4-Terphenyl-d14	67.8			40-135	%REC	1	1/20/2011 18:37
Surr: 4-Terphenyl-d14	62.1			40-135	%REC	10	1/20/2011 20:19
Surr: 4-Terphenyl-d14	71.3	J		40-135	%REC	50	1/26/2011 03:34
Surr: 4-Terphenyl-d14	0	S		40-135	%REC	200	1/26/2011 18:54
Surr: Nitrobenzene-d5	52.4			41-120	%REC	1	1/20/2011 18:37
Surr: Nitrobenzene-d5	51.8			41-120	%REC	10	1/20/2011 20:19
Surr: Nitrobenzene-d5	60.7	J		41-120	%REC	50	1/26/2011 03:34
Surr: Nitrobenzene-d5	0	S		41-120	%REC	200	1/26/2011 18:54
Surr: Phenol-d6	54.9			20-120	%REC	1	1/20/2011 18:37
Surr: Phenol-d6	49.6			20-120	%REC	10	1/20/2011 20:19
Surr: Phenol-d6	55.0	J		20-120	%REC	50	1/26/2011 03:34
Surr: Phenol-d6	0	S		20-120	%REC	200	1/26/2011 18:54

TCL VOLATILES

Method: SW8260

Analyst: PC

1,2-Dichloroethane	U		2.5	25	µg/L	5	1/21/2011 18:27
Benzene	25	J	2.5	25	µg/L	5	1/21/2011 18:27
Chlorobenzene	U		2.5	25	µg/L	5	1/21/2011 18:27
Dichloromethane	U		2.5	50	µg/L	5	1/21/2011 18:27
Ethylbenzene	23	J	2.5	25	µg/L	5	1/21/2011 18:27
Toluene	U		2.5	25	µg/L	5	1/21/2011 18:27
Xylenes, Total	25	J	5.0	75	µg/L	5	1/21/2011 18:27
Surr: 1,2-Dichloroethane-d4	99.2			70-125	%REC	5	1/21/2011 18:27
Surr: 4-Bromofluorobenzene	95.6			72-125	%REC	5	1/21/2011 18:27
Surr: Dibromofluoromethane	99.6			71-125	%REC	5	1/21/2011 18:27
Surr: Toluene-d8	105			75-125	%REC	5	1/21/2011 18:27

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 31-Jan-11

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW-Site Wide Monitoring
Sample ID: WG-1620-FB01-20110118
Collection Date: 1/18/2011 02:00 PM

Work Order: 1101465
Lab ID: 1101465-14
Matrix: WATER

Analyses	Result	Qual	SDL	ML	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270			Analyst: LG	
1,2-Diphenylhydrazine	U		0.10	0.20	µg/L	1	1/20/2011 16:55
2,4-Dimethylphenol	U		0.080	0.20	µg/L	1	1/20/2011 16:55
2,4-Dinitrotoluene	U		0.090	0.20	µg/L	1	1/20/2011 16:55
2,6-Dinitrotoluene	U		0.070	0.20	µg/L	1	1/20/2011 16:55
2-Chloronaphthalene	U		0.10	0.20	µg/L	1	1/20/2011 16:55
2-Methylnaphthalene	U		0.070	0.20	µg/L	1	1/20/2011 16:55
4,6-Dinitro-2-methylphenol	U		0.080	0.20	µg/L	1	1/20/2011 16:55
4-Nitrophenol	U		0.070	1.0	µg/L	1	1/20/2011 16:55
Acenaphthene	U		0.090	0.20	µg/L	1	1/20/2011 16:55
Acenaphthylene	U		0.070	0.20	µg/L	1	1/20/2011 16:55
Anthracene	U		0.070	0.20	µg/L	1	1/20/2011 16:55
Benz(a)anthracene	U		0.070	0.20	µg/L	1	1/20/2011 16:55
Benzo(a)pyrene	U		0.080	0.20	µg/L	1	1/20/2011 16:55
Bis(2-chloroethoxy)methane	U		0.090	0.20	µg/L	1	1/20/2011 16:55
Bis(2-ethylhexyl)phthalate	U		0.20	0.20	µg/L	1	1/20/2011 16:55
Chrysene	U		0.070	0.20	µg/L	1	1/20/2011 16:55
Di-n-butyl phthalate	U		0.070	0.20	µg/L	1	1/20/2011 16:55
Dibenzofuran	U		0.080	0.20	µg/L	1	1/20/2011 16:55
Fluoranthene	U		0.070	0.20	µg/L	1	1/20/2011 16:55
Fluorene	U		0.070	0.20	µg/L	1	1/20/2011 16:55
N-Nitrosodiphenylamine	U		0.090	0.20	µg/L	1	1/20/2011 16:55
Naphthalene	0.11	J	0.10	0.20	µg/L	1	1/20/2011 16:55
Nitrobenzene	U		0.090	0.20	µg/L	1	1/20/2011 16:55
Pentachlorophenol	U		0.080	0.20	µg/L	1	1/20/2011 16:55
Phenanthrene	U		0.070	0.20	µg/L	1	1/20/2011 16:55
Phenol	U		0.070	0.20	µg/L	1	1/20/2011 16:55
Pyrene	U		0.070	0.20	µg/L	1	1/20/2011 16:55
Surr: 2,4,6-Tribromophenol	45.8			34-129	%REC	1	1/20/2011 16:55
Surr: 2-Fluorobiphenyl	40.3			40-125	%REC	1	1/20/2011 16:55
Surr: 2-Fluorophenol	46.3			20-120	%REC	1	1/20/2011 16:55
Surr: 4-Terphenyl-d14	66.5			40-135	%REC	1	1/20/2011 16:55
Surr: Nitrobenzene-d5	55.3			41-120	%REC	1	1/20/2011 16:55
Surr: Phenol-d6	42.8			20-120	%REC	1	1/20/2011 16:55
TCL VOLATILES			Method: SW8260			Analyst: PC	
1,2-Dichloroethane	U		0.50	5.0	µg/L	1	1/20/2011 12:44
Benzene	U		0.50	5.0	µg/L	1	1/20/2011 12:44
Chlorobenzene	U		0.50	5.0	µg/L	1	1/20/2011 12:44
Dichloromethane	U		0.50	10	µg/L	1	1/20/2011 12:44

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 31-Jan-11

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW-Site Wide Monitoring
Sample ID: WG-1620-FB01-20110118
Collection Date: 1/18/2011 02:00 PM

Work Order: 1101465
Lab ID: 1101465-14
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
Ethylbenzene	U		0.50	5.0	µg/L	1	1/20/2011 12:44
Toluene	0.58	J	0.50	5.0	µg/L	1	1/20/2011 12:44
Vinyl chloride	U		0.50	2.0	µg/L	1	1/20/2011 12:44
Xylenes, Total	U		1.0	15	µg/L	1	1/20/2011 12:44
Surr: 1,2-Dichloroethane-d4	97.5			70-125	%REC	1	1/20/2011 12:44
Surr: 4-Bromofluorobenzene	96.9			72-125	%REC	1	1/20/2011 12:44
Surr: Dibromofluoromethane	97.5			71-125	%REC	1	1/20/2011 12:44
Surr: Toluene-d8	99.8			75-125	%REC	1	1/20/2011 12:44

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 31-Jan-11

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW-Site Wide Monitoring
Sample ID: WG-1620-MW19C-20110118
Collection Date: 1/18/2011 03:30 PM

Work Order: 1101465
Lab ID: 1101465-15
Matrix: WATER

Analyses	Result	Qual	SDL	ML	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270			Analyst: LG	
1,2-Diphenylhydrazine	U		0.10	0.20	µg/L	1	1/20/2011 17:15
2,4-Dimethylphenol	U		0.080	0.20	µg/L	1	1/20/2011 17:15
2,4-Dinitrotoluene	U		0.090	0.20	µg/L	1	1/20/2011 17:15
2,6-Dinitrotoluene	U		0.070	0.20	µg/L	1	1/20/2011 17:15
2-Chloronaphthalene	U		0.10	0.20	µg/L	1	1/20/2011 17:15
2-Methylnaphthalene	0.15	J	0.070	0.20	µg/L	1	1/20/2011 17:15
4,6-Dinitro-2-methylphenol	U		0.080	0.20	µg/L	1	1/20/2011 17:15
4-Nitrophenol	U		0.070	1.0	µg/L	1	1/20/2011 17:15
Acenaphthene	0.15	J	0.090	0.20	µg/L	1	1/20/2011 17:15
Acenaphthylene	U		0.070	0.20	µg/L	1	1/20/2011 17:15
Anthracene	U		0.070	0.20	µg/L	1	1/20/2011 17:15
Benz(a)anthracene	U		0.070	0.20	µg/L	1	1/20/2011 17:15
Benzo(a)pyrene	U		0.080	0.20	µg/L	1	1/20/2011 17:15
Bis(2-chloroethoxy)methane	U		0.090	0.20	µg/L	1	1/20/2011 17:15
Bis(2-ethylhexyl)phthalate	0.26		0.20	0.20	µg/L	1	1/20/2011 17:15
Chrysene	0.072	J	0.070	0.20	µg/L	1	1/20/2011 17:15
Di-n-butyl phthalate	U		0.070	0.20	µg/L	1	1/20/2011 17:15
Dibenzofuran	0.13	J	0.080	0.20	µg/L	1	1/20/2011 17:15
Fluoranthene	2.6		0.070	0.20	µg/L	1	1/20/2011 17:15
Fluorene	0.32		0.070	0.20	µg/L	1	1/20/2011 17:15
N-Nitrosodiphenylamine	U		0.090	0.20	µg/L	1	1/20/2011 17:15
Naphthalene	6.1		0.10	0.20	µg/L	1	1/20/2011 17:15
Nitrobenzene	U		0.090	0.20	µg/L	1	1/20/2011 17:15
Pentachlorophenol	U		0.080	0.20	µg/L	1	1/20/2011 17:15
Phenanthrene	U		0.070	0.20	µg/L	1	1/20/2011 17:15
Phenol	U		0.070	0.20	µg/L	1	1/20/2011 17:15
Pyrene	1.6		0.070	0.20	µg/L	1	1/20/2011 17:15
Surr: 2,4,6-Tribromophenol	66.9			34-129	%REC	1	1/20/2011 17:15
Surr: 2-Fluorobiphenyl	41.0			40-125	%REC	1	1/20/2011 17:15
Surr: 2-Fluorophenol	49.3			20-120	%REC	1	1/20/2011 17:15
Surr: 4-Terphenyl-d14	79.3			40-135	%REC	1	1/20/2011 17:15
Surr: Nitrobenzene-d5	53.6			41-120	%REC	1	1/20/2011 17:15
Surr: Phenol-d6	46.0			20-120	%REC	1	1/20/2011 17:15
TCL VOLATILES			Method: SW8260			Analyst: PC	
1,2-Dichloroethane	U		0.50	5.0	µg/L	1	1/20/2011 13:35
Benzene	U		0.50	5.0	µg/L	1	1/20/2011 13:35
Chlorobenzene	U		0.50	5.0	µg/L	1	1/20/2011 13:35
Dichloromethane	U		0.50	10	µg/L	1	1/20/2011 13:35

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 31-Jan-11

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW-Site Wide Monitoring
Sample ID: WG-1620-MW19C-20110118
Collection Date: 1/18/2011 03:30 PM

Work Order: 1101465
Lab ID: 1101465-15
Matrix: WATER

Analyses	Result	Qual	SDL	MQL	Units	Dilution Factor	Date Analyzed
Ethylbenzene	U		0.50	5.0	µg/L	1	1/20/2011 13:35
Toluene	U		0.50	5.0	µg/L	1	1/20/2011 13:35
Xylenes, Total	U		1.0	15	µg/L	1	1/20/2011 13:35
Surr: 1,2-Dichloroethane-d4	99.6			70-125	%REC	1	1/20/2011 13:35
Surr: 4-Bromofluorobenzene	93.8			72-125	%REC	1	1/20/2011 13:35
Surr: Dibromofluoromethane	102			71-125	%REC	1	1/20/2011 13:35
Surr: Toluene-d8	101			75-125	%REC	1	1/20/2011 13:35

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 31-Jan-11

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW-Site Wide Monitoring
Sample ID: WG-1620-FD01-20110118
Collection Date: 1/18/2011 03:30 PM

Work Order: 1101465
Lab ID: 1101465-16
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270			Analyst: LG	
1,2-Diphenylhydrazine	U		0.10	0.20	µg/L	1	1/20/2011 17:36
2,4-Dimethylphenol	U		0.080	0.20	µg/L	1	1/20/2011 17:36
2,4-Dinitrotoluene	U		0.090	0.20	µg/L	1	1/20/2011 17:36
2,6-Dinitrotoluene	U		0.070	0.20	µg/L	1	1/20/2011 17:36
2-Chloronaphthalene	U		0.10	0.20	µg/L	1	1/20/2011 17:36
2-Methylnaphthalene	0.22		0.070	0.20	µg/L	1	1/20/2011 17:36
4,6-Dinitro-2-methylphenol	U		0.080	0.20	µg/L	1	1/20/2011 17:36
4-Nitrophenol	U		0.070	1.0	µg/L	1	1/20/2011 17:36
Acenaphthene	0.30		0.090	0.20	µg/L	1	1/20/2011 17:36
Acenaphthylene	U		0.070	0.20	µg/L	1	1/20/2011 17:36
Anthracene	U		0.070	0.20	µg/L	1	1/20/2011 17:36
Benz(a)anthracene	U		0.070	0.20	µg/L	1	1/20/2011 17:36
Benzo(a)pyrene	U		0.080	0.20	µg/L	1	1/20/2011 17:36
Bis(2-chloroethoxy)methane	U		0.090	0.20	µg/L	1	1/20/2011 17:36
Bis(2-ethylhexyl)phthalate	0.25		0.20	0.20	µg/L	1	1/20/2011 17:36
Chrysene	0.084	J	0.070	0.20	µg/L	1	1/20/2011 17:36
Di-n-butyl phthalate	U		0.070	0.20	µg/L	1	1/20/2011 17:36
Dibenzofuran	0.20	J	0.080	0.20	µg/L	1	1/20/2011 17:36
Fluoranthene	0.62		0.070	0.20	µg/L	1	1/20/2011 17:36
Fluorene	0.22		0.070	0.20	µg/L	1	1/20/2011 17:36
N-Nitrosodiphenylamine	U		0.090	0.20	µg/L	1	1/20/2011 17:36
Naphthalene	8.4		0.10	0.20	µg/L	1	1/20/2011 17:36
Nitrobenzene	U		0.090	0.20	µg/L	1	1/20/2011 17:36
Pentachlorophenol	U		0.080	0.20	µg/L	1	1/20/2011 17:36
Phenanthrene	0.14	J	0.070	0.20	µg/L	1	1/20/2011 17:36
Phenol	U		0.070	0.20	µg/L	1	1/20/2011 17:36
Pyrene	0.40		0.070	0.20	µg/L	1	1/20/2011 17:36
Surr: 2,4,6-Tribromophenol	55.5			34-129	%REC	1	1/20/2011 17:36
Surr: 2-Fluorobiphenyl	41.1			40-125	%REC	1	1/20/2011 17:36
Surr: 2-Fluorophenol	42.6			20-120	%REC	1	1/20/2011 17:36
Surr: 4-Terphenyl-d14	71.8			40-135	%REC	1	1/20/2011 17:36
Surr: Nitrobenzene-d5	50.9			41-120	%REC	1	1/20/2011 17:36
Surr: Phenol-d6	39.8			20-120	%REC	1	1/20/2011 17:36
TCL VOLATILES			Method: SW8260			Analyst: PC	
1,2-Dichloroethane	U		0.50	5.0	µg/L	1	1/20/2011 14:00
Benzene	U		0.50	5.0	µg/L	1	1/20/2011 14:00
Chlorobenzene	U		0.50	5.0	µg/L	1	1/20/2011 14:00
Dichloromethane	U		0.50	10	µg/L	1	1/20/2011 14:00

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 31-Jan-11

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW-Site Wide Monitoring
Sample ID: WG-1620-FD01-20110118
Collection Date: 1/18/2011 03:30 PM

Work Order: 1101465
Lab ID: 1101465-16
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
Ethylbenzene	U		0.50	5.0	µg/L	1	1/20/2011 14:00
Toluene	U		0.50	5.0	µg/L	1	1/20/2011 14:00
Xylenes, Total	U		1.0	15	µg/L	1	1/20/2011 14:00
Surr: 1,2-Dichloroethane-d4	97.5			70-125	%REC	1	1/20/2011 14:00
Surr: 4-Bromofluorobenzene	94.1			72-125	%REC	1	1/20/2011 14:00
Surr: Dibromofluoromethane	97.0			71-125	%REC	1	1/20/2011 14:00
Surr: Toluene-d8	104			75-125	%REC	1	1/20/2011 14:00

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 31-Jan-11

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW-Site Wide Monitoring
Sample ID: WG-1620-TB01-20110118
Collection Date: 1/18/2011

Work Order: 1101465
Lab ID: 1101465-17
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
TCL VOLATILES			Method: SW8260			Analyst: PC	
1,2-Dichloroethane	U		0.50	5.0	µg/L	1	1/20/2011 13:10
Benzene	U		0.50	5.0	µg/L	1	1/20/2011 13:10
Chlorobenzene	U		0.50	5.0	µg/L	1	1/20/2011 13:10
Dichloromethane	U		0.50	10	µg/L	1	1/20/2011 13:10
Ethylbenzene	U		0.50	5.0	µg/L	1	1/20/2011 13:10
Toluene	U		0.50	5.0	µg/L	1	1/20/2011 13:10
Vinyl chloride	U		0.50	2.0	µg/L	1	1/20/2011 13:10
Xylenes, Total	U		1.0	15	µg/L	1	1/20/2011 13:10
Surr: 1,2-Dichloroethane-d4	101			70-125	%REC	1	1/20/2011 13:10
Surr: 4-Bromofluorobenzene	96.9			72-125	%REC	1	1/20/2011 13:10
Surr: Dibromofluoromethane	99.3			71-125	%REC	1	1/20/2011 13:10
Surr: Toluene-d8	106			75-125	%REC	1	1/20/2011 13:10

Note: See Qualifiers Page for a list of qualifiers and their explanation.

WorkOrder: 1101465
InstrumentID: SV-2
Test Code: 8270_LOW_W
Test Number: SW8270
Test Name: Low-Level Semivolatiles

**METHOD DETECTION /
 REPORTING LIMITS**

Matrix: Aqueous **Units:** µg/L

Type	Analyte	CAS	DCS	MDL	Unadjusted MQL
A	2,4-Dimethylphenol	105-67-9	0.039	0.080	0.20
A	2-Methylnaphthalene	91-57-6	0.088	0.070	0.20
A	Acenaphthene	83-32-9	0.095	0.090	0.20
A	Anthracene	120-12-7	0.083	0.070	0.20
A	Benz(a)anthracene	56-55-3	0.091	0.070	0.20
A	Chrysene	218-01-9	0.099	0.070	0.20
A	Dibenzofuran	132-64-9	0.090	0.080	0.20
A	Fluoranthene	206-44-0	0.078	0.070	0.20
A	Fluorene	86-73-7	0.085	0.070	0.20
A	Naphthalene	91-20-3	0.14	0.10	0.20
A	Phenanthrene	85-01-8	0.088	0.070	0.20
A	Phenol	108-95-2	0.16	0.070	0.20
A	Pyrene	129-00-0	0.084	0.070	0.20
S	Surr: 2,4,6-Tribromophenol	118-79-6	0	0	0.20
S	Surr: 2-Fluorobiphenyl	321-60-8	0	0	0.20
S	Surr: 2-Fluorophenol	367-12-4	0	0	0.20
S	Surr: 4-Terphenyl-d14	1718-51-0	0	0	0.20
S	Surr: Nitrobenzene-d5	4165-60-0	0	0	0.20
S	Surr: Phenol-d6	13127-88-3	0	0	0.20

WorkOrder: 1101465
 InstrumentID: SV-4
 Test Code: 8270_LOW_W
 Test Number: SW8270
 Test Name: Low-Level Semivolatiles

**METHOD DETECTION /
 REPORTING LIMITS**

Matrix: Aqueous Units: µg/L

Type	Analyte	CAS	DCS	MDL	Unadjusted MQL
A	1,2-Diphenylhydrazine	122-66-7	0.081	0.10	0.20
A	2,4-Dimethylphenol	105-67-9	0.057	0.080	0.20
A	2,4-Dinitrotoluene	121-14-2	0.066	0.090	0.20
A	2,6-Dinitrotoluene	606-20-2	0.091	0.070	0.20
A	2-Chloronaphthalene	91-58-7	0.10	0.10	0.20
A	2-Methylnaphthalene	91-57-6	0.089	0.070	0.20
A	4,6-Dinitro-2-methylphenol	534-52-1	0.090	0.080	0.20
A	4-Nitrophenol	100-02-7	0.12	0.070	1.0
A	Acenaphthene	83-32-9	0.094	0.090	0.20
A	Acenaphthylene	208-96-8	0.080	0.070	0.20
A	Anthracene	120-12-7	0.083	0.070	0.20
A	Benz(a)anthracene	56-55-3	0.11	0.070	0.20
A	Benzo(a)pyrene	50-32-8	0.087	0.080	0.20
A	Bis(2-chloroethoxy)methane	111-91-1	0.089	0.090	0.20
A	Bis(2-ethylhexyl)phthalate	117-81-7	0.11	0.20	0.20
A	Chrysene	218-01-9	0.098	0.070	0.20
A	Di-n-butyl phthalate	84-74-2	0.092	0.070	0.20
A	Dibenzofuran	132-64-9	0.082	0.080	0.20
A	Fluoranthene	206-44-0	0.082	0.070	0.20
A	Fluorene	86-73-7	0.087	0.070	0.20
A	N-Nitrosodiphenylamine	86-30-6	0.081	0.090	0.20
A	Naphthalene	91-20-3	0.13	0.10	0.20
A	Nitrobenzene	98-95-3	0.11	0.090	0.20
A	Pentachlorophenol	87-86-5	0.10	0.080	0.20
A	Phenanthrene	85-01-8	0.089	0.070	0.20
A	Phenol	108-95-2	0.14	0.070	0.20
A	Pyrene	129-00-0	0.084	0.070	0.20
S	Surr: 2,4,6-Tribromophenol	118-79-6	0	0	0.20
S	Surr: 2-Fluorobiphenyl	321-60-8	0	0	0.20
S	Surr: 2-Fluorophenol	367-12-4	0	0	0.20
S	Surr: 4-Terphenyl-d14	1718-51-0	0	0	0.20
S	Surr: Nitrobenzene-d5	4165-60-0	0	0	0.20
S	Surr: Phenol-d6	13127-88-3	0	0	0.20

WorkOrder: 1101465
InstrumentID: VOA1
Test Code: 8260_TCL_W
Test Number: SW8260
Test Name: TCL Volatiles

**METHOD DETECTION /
 REPORTING LIMITS**

Matrix: Aqueous **Units:** µg/L

Type	Analyte	CAS	DCS	MDL	Unadjusted MQL
A	1,2-Dichloroethane	107-06-2	1.0	0.50	5.0
A	Benzene	71-43-2	1.2	0.50	5.0
A	Chlorobenzene	108-90-7	1.0	0.50	5.0
A	Dichloromethane	75-09-2	1.2	0.50	10
A	Ethylbenzene	100-41-4	0.96	0.50	5.0
A	Toluene	108-88-3	1.1	0.50	5.0
A	Vinyl chloride	75-01-4	1.1	0.50	2.0
M	Xylenes, Total	1330-20-7	3.2	1.0	15
S	Surr: 1,2-Dichloroethane-d4	17060-07-0	0	0	5.0
S	Surr: 4-Bromofluorobenzene	460-00-4	0	0	5.0
S	Surr: Dibromofluoromethane	1868-53-7	0	0	5.0
S	Surr: Toluene-d8	2037-26-5	0	0	5.0

ALS Environmental

Date: 31-Jan-11

Client: Pastor, Behling & Wheeler, LLC
Work Order: 1101465
Project: HWPW-Site Wide Monitoring

QC BATCH REPORT

Batch ID: **49436a** Instrument ID **SV-4** Method: **SW8270**

MBLK	Sample ID: SBLKW1-110119-49436a			Units: µg/L	Analysis Date: 1/20/2011 12:08 PM					
Client ID:	Run ID: SV-4_110120A			SeqNo: 2259913	Prep Date: 1/19/2011		DF: 1			
Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Diphenylhydrazine	U	0.20								
2,4-Dimethylphenol	U	0.20								
2,4-Dinitrotoluene	U	0.20								
2,6-Dinitrotoluene	U	0.20								
2-Chloronaphthalene	U	0.20								
2-Methylnaphthalene	U	0.20								
4,6-Dinitro-2-methylphenol	U	0.20								
4-Nitrophenol	U	1.0								
Acenaphthene	U	0.20								
Acenaphthylene	U	0.20								
Anthracene	U	0.20								
Benz(a)anthracene	U	0.20								
Benzo(a)pyrene	U	0.20								
Bis(2-chloroethoxy)methane	U	0.20								
Bis(2-ethylhexyl)phthalate	U	0.20								
Chrysene	U	0.20								
Di-n-butyl phthalate	U	0.20								
Dibenzofuran	U	0.20								
Fluoranthene	U	0.20								
Fluorene	U	0.20								
N-Nitrosodiphenylamine	U	0.20								
Naphthalene	U	0.20								
Nitrobenzene	U	0.20								
Pentachlorophenol	U	0.20								
Phenanthrene	U	0.20								
Phenol	U	0.20								
Pyrene	U	0.20								
<i>Surr: 2,4,6-Tribromophenol</i>	3.768	0.20	5	0	75.4	34-129		0		
<i>Surr: 2-Fluorobiphenyl</i>	4.338	0.20	5	0	86.8	40-125		0		
<i>Surr: 2-Fluorophenol</i>	4.22	0.20	5	0	84.4	20-120		0		
<i>Surr: 4-Terphenyl-d14</i>	4.238	0.20	5	0	84.8	40-135		0		
<i>Surr: Nitrobenzene-d5</i>	4.161	0.20	5	0	83.2	41-120		0		
<i>Surr: Phenol-d6</i>	4.37	0.20	5	0	87.4	20-120		0		

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Pastor, Behling & Wheeler, LLC
 Work Order: 1101465
 Project: HWPW-Site Wide Monitoring

QC BATCH REPORT

Batch ID: 49436a Instrument ID SV-4 Method: SW8270

LCS		Sample ID: SLCSW1-110119-49436a			Units: µg/L		Analysis Date: 1/20/2011 12:28 PM			
Client ID:		Run ID: SV-4_110120A			SeqNo: 2259914		Prep Date: 1/19/2011		DF: 1	
Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Diphenylhydrazine	4.34	0.20	5	0	86.8	39-127	0			
2,4-Dimethylphenol	4.263	0.20	5	0	85.3	35-120	0			
2,4-Dinitrotoluene	4.348	0.20	5	0	87	50-122	0			
2,6-Dinitrotoluene	4.35	0.20	5	0	87	50-120	0			
2-Chloronaphthalene	4.123	0.20	5	0	82.5	50-120	0			
2-Methylnaphthalene	4.147	0.20	5	0	82.9	50-120	0			
4,6-Dinitro-2-methylphenol	4.351	0.20	5	0	87	25-121	0			
4-Nitrophenol	3.647	1.0	5	0	72.9	30-130	0			
Acenaphthene	4.556	0.20	5	0	91.1	45-120	0			
Acenaphthylene	4.166	0.20	5	0	83.3	47-120	0			
Anthracene	4.201	0.20	5	0	84	45-120	0			
Benz(a)anthracene	4.451	0.20	5	0	89	40-120	0			
Benzo(a)pyrene	4.452	0.20	5	0	89	45-120	0			
Bis(2-chloroethoxy)methane	4.393	0.20	5	0	87.9	45-120	0			
Bis(2-ethylhexyl)phthalate	4.14	0.20	5	0	82.8	40-139	0			
Chrysene	4.472	0.20	5	0	89.4	43-120	0			
Di-n-butyl phthalate	4.315	0.20	5	0	86.3	45-123	0			
Dibenzofuran	4.262	0.20	5	0	85.2	50-120	0			
Fluoranthene	4.31	0.20	5	0	86.2	45-125	0			
Fluorene	4.101	0.20	5	0	82	49-120	0			
N-Nitrosodiphenylamine	4.577	0.20	5	0	91.5	40-125	0			
Naphthalene	4.243	0.20	5	0	84.9	45-120	0			
Nitrobenzene	3.989	0.20	5	0	79.8	44-120	0			
Pentachlorophenol	3.905	0.20	5	0	78.1	19-121	0			
Phenanthrene	4.22	0.20	5	0	84.4	45-121	0			
Phenol	3.882	0.20	5	0	77.6	20-124	0			
Pyrene	4.423	0.20	5	0	88.5	40-130	0			
Surr: 2,4,6-Tribromophenol	4.068	0.20	5	0	81.4	34-129	0			
Surr: 2-Fluorobiphenyl	4.159	0.20	5	0	83.2	40-125	0			
Surr: 2-Fluorophenol	4.204	0.20	5	0	84.1	20-120	0			
Surr: 4-Terphenyl-d14	4.271	0.20	5	0	85.4	40-135	0			
Surr: Nitrobenzene-d5	4.166	0.20	5	0	83.3	41-120	0			
Surr: Phenol-d6	4.287	0.20	5	0	85.7	20-120	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Pastor, Behling & Wheeler, LLC
 Work Order: 1101465
 Project: HWPW-Site Wide Monitoring

QC BATCH REPORT

Batch ID: 49436a Instrument ID SV-4 Method: SW8270

LCSD	Sample ID: SLCS DW1-110119-49436a	Units: µg/L					Analysis Date: 1/20/2011 12:49 PM				
Client ID:	Run ID: SV-4_110120A	SeqNo: 2259915			Prep Date: 1/19/2011		DF: 1				
Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
1,2-Diphenylhydrazine	3.978	0.20	5	0	79.6	39-127	4.34	8.71	20		
2,4-Dimethylphenol	3.453	0.20	5	0	69.1	35-120	4.263	21	20	R	
2,4-Dinitrotoluene	3.974	0.20	5	0	79.5	50-122	4.348	8.99	20		
2,6-Dinitrotoluene	4.046	0.20	5	0	80.9	50-120	4.35	7.23	20		
2-Chloronaphthalene	3.621	0.20	5	0	72.4	50-120	4.123	12.9	20		
2-Methylnaphthalene	3.89	0.20	5	0	77.8	50-120	4.147	6.39	20		
4,6-Dinitro-2-methylphenol	4.141	0.20	5	0	82.8	25-121	4.351	4.96	20		
4-Nitrophenol	3.543	1.0	5	0	70.9	30-130	3.647	2.88	20		
Acenaphthene	4.106	0.20	5	0	82.1	45-120	4.556	10.4	20		
Acenaphthylene	3.861	0.20	5	0	77.2	47-120	4.166	7.62	20		
Anthracene	3.852	0.20	5	0	77	45-120	4.201	8.65	20		
Benz(a)anthracene	4.036	0.20	5	0	80.7	40-120	4.451	9.79	20		
Benzo(a)pyrene	4.196	0.20	5	0	83.9	45-120	4.452	5.93	20		
Bis(2-chloroethoxy)methane	4.055	0.20	5	0	81.1	45-120	4.393	8	20		
Bis(2-ethylhexyl)phthalate	3.911	0.20	5	0	78.2	40-139	4.14	5.7	20		
Chrysene	4.119	0.20	5	0	82.4	43-120	4.472	8.22	20		
Di-n-butyl phthalate	4.009	0.20	5	0	80.2	45-123	4.315	7.33	20		
Dibenzofuran	3.859	0.20	5	0	77.2	50-120	4.262	9.93	20		
Fluoranthene	4.018	0.20	5	0	80.4	45-125	4.31	7	20		
Fluorene	3.733	0.20	5	0	74.7	49-120	4.101	9.39	20		
N-Nitrosodiphenylamine	4.284	0.20	5	0	85.7	40-125	4.577	6.61	20		
Naphthalene	3.979	0.20	5	0	79.6	45-120	4.243	6.43	20		
Nitrobenzene	3.786	0.20	5	0	75.7	44-120	3.989	5.25	20		
Pentachlorophenol	3.763	0.20	5	0	75.3	19-121	3.905	3.7	20		
Phenanthrene	3.827	0.20	5	0	76.5	45-121	4.22	9.79	20		
Phenol	3.982	0.20	5	0	79.6	20-124	3.882	2.55	20		
Pyrene	4.071	0.20	5	0	81.4	40-130	4.423	8.28	20		
Surr: 2,4,6-Tribromophenol	3.781	0.20	5	0	75.6	34-129	4.068	7.31	0		
Surr: 2-Fluorobiphenyl	3.774	0.20	5	0	75.5	40-125	4.159	9.71	0		
Surr: 2-Fluorophenol	3.82	0.20	5	0	76.4	20-120	4.204	9.55	0		
Surr: 4-Terphenyl-d14	3.901	0.20	5	0	78	40-135	4.271	9.07	0		
Surr: Nitrobenzene-d5	3.929	0.20	5	0	78.6	41-120	4.166	5.87	0		
Surr: Phenol-d6	4.132	0.20	5	0	82.6	20-120	4.287	3.67	0		

The following samples were analyzed in this batch:

1101465-01B	1101465-02B	1101465-03B
1101465-04B	1101465-05B	1101465-06B
1101465-07B	1101465-08B	1101465-09B
1101465-10B	1101465-11B	1101465-12B
1101465-13B	1101465-14B	1101465-15B
1101465-16B		

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Pastor, Behling & Wheeler, LLC
 Work Order: 1101465
 Project: HWPW-Site Wide Monitoring

QC BATCH REPORT

Batch ID: **R104201** Instrument ID **VOA1** Method: **SW8260**

MBLK		Sample ID: VBLKW-012011-R104201			Units: µg/L		Analysis Date: 1/20/2011 12:19 PM			
Client ID:		Run ID: VOA1_110120A			SeqNo: 2254640		Prep Date:		DF: 1	
Analyte	Result	MLQ	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Dichloroethane	U	5.0								
Benzene	U	5.0								
Chlorobenzene	U	5.0								
Dichloromethane	U	10								
Ethylbenzene	U	5.0								
Toluene	U	5.0								
Vinyl chloride	U	2.0								
Xylenes, Total	U	15								
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>49.5</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>99</i>	<i>70-125</i>	<i>0</i>			
<i>Surr: 4-Bromofluorobenzene</i>	<i>45.88</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>91.8</i>	<i>72-125</i>	<i>0</i>			
<i>Surr: Dibromofluoromethane</i>	<i>48.09</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>96.2</i>	<i>71-125</i>	<i>0</i>			
<i>Surr: Toluene-d8</i>	<i>50.57</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>101</i>	<i>75-125</i>	<i>0</i>			

LCS		Sample ID: VLCSW-012011-R104201			Units: µg/L		Analysis Date: 1/20/2011 11:04 AM			
Client ID:		Run ID: VOA1_110120A			SeqNo: 2254639		Prep Date:		DF: 1	
Analyte	Result	MLQ	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Dichloroethane	46	5.0	50	0	92	78-120	0			
Benzene	46.08	5.0	50	0	92.2	73-121	0			
Chlorobenzene	46.24	5.0	50	0	92.5	80-120	0			
Dichloromethane	49.35	10	50	0	98.7	65-133	0			
Ethylbenzene	47.22	5.0	50	0	94.4	80-120	0			
Toluene	48.38	5.0	50	0	96.8	80-120	0			
Vinyl chloride	43.82	2.0	50	0	87.6	70-127	0			
Xylenes, Total	138.9	15	150	0	92.6	80-120	0			
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>47.35</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>94.7</i>	<i>70-125</i>	<i>0</i>			
<i>Surr: 4-Bromofluorobenzene</i>	<i>52.92</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>106</i>	<i>72-125</i>	<i>0</i>			
<i>Surr: Dibromofluoromethane</i>	<i>49.62</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>99.2</i>	<i>71-125</i>	<i>0</i>			
<i>Surr: Toluene-d8</i>	<i>49.63</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>99.3</i>	<i>75-125</i>	<i>0</i>			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Pastor, Behling & Wheeler, LLC
 Work Order: 1101465
 Project: HWPW-Site Wide Monitoring

QC BATCH REPORT

Batch ID: R104201 Instrument ID VOA1 Method: SW8260

MS		Sample ID: 1101465-03ZMS			Units: µg/L			Analysis Date: 1/20/2011 02:51 PM		
Client ID: WG-1620-MW17C-20110117		Run ID: VOA1_110120A			SeqNo: 2254642		Prep Date:		DF: 1	
Analyte	Result	ML	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Dichloroethane	45.63	5.0	50	0	91.3	78-120	0			
Benzene	64.44	5.0	50	23.26	82.3	73-121	0			
Chlorobenzene	45.87	5.0	50	0	91.7	80-120	0			
Dichloromethane	45.93	10	50	0	91.9	65-133	0			
Ethylbenzene	289.6	5.0	50	271.8	35.6	80-120	0			SEO
Toluene	54.03	5.0	50	8.076	91.9	80-120	0			
Vinyl chloride	37.35	2.0	50	0	74.7	70-127	0			
Xylenes, Total	512.9	15	150	416.4	64.3	80-120	0			S
<i>Surr: 1,2-Dichloroethane-d4</i>		<i>45.88</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>91.8</i>	<i>70-125</i>	<i>0</i>		
<i>Surr: 4-Bromofluorobenzene</i>		<i>51.39</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>103</i>	<i>72-125</i>	<i>0</i>		
<i>Surr: Dibromofluoromethane</i>		<i>49</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>98</i>	<i>71-125</i>	<i>0</i>		
<i>Surr: Toluene-d8</i>		<i>50.4</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>101</i>	<i>75-125</i>	<i>0</i>		

MSD		Sample ID: 1101465-03ZMSD			Units: µg/L			Analysis Date: 1/20/2011 03:17 PM		
Client ID: WG-1620-MW17C-20110117		Run ID: VOA1_110120A			SeqNo: 2254643		Prep Date:		DF: 1	
Analyte	Result	ML	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Dichloroethane	48.65	5.0	50	0	97.3	78-120	45.63	6.41	20	
Benzene	68.72	5.0	50	23.26	90.9	73-121	64.44	6.43	20	
Chlorobenzene	45.67	5.0	50	0	91.3	80-120	45.87	0.444	20	
Dichloromethane	47.94	10	50	0	95.9	65-133	45.93	4.29	20	
Ethylbenzene	269.2	5.0	50	271.8	-5.09	80-120	289.6	7.28	20	SEO
Toluene	52.3	5.0	50	8.076	88.5	80-120	54.03	3.26	20	
Vinyl chloride	37.84	2.0	50	0	75.7	70-127	37.35	1.29	20	
Xylenes, Total	488.5	15	150	416.4	48	80-120	512.9	4.88	20	S
<i>Surr: 1,2-Dichloroethane-d4</i>		<i>47.64</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>95.3</i>	<i>70-125</i>	<i>45.88</i>	<i>3.78</i>	<i>20</i>
<i>Surr: 4-Bromofluorobenzene</i>		<i>47.4</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>94.8</i>	<i>72-125</i>	<i>51.39</i>	<i>8.09</i>	<i>20</i>
<i>Surr: Dibromofluoromethane</i>		<i>49.65</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>99.3</i>	<i>71-125</i>	<i>49</i>	<i>1.31</i>	<i>20</i>
<i>Surr: Toluene-d8</i>		<i>49.61</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>99.2</i>	<i>75-125</i>	<i>50.4</i>	<i>1.58</i>	<i>20</i>

The following samples were analyzed in this batch:

1101465-03A	1101465-05A	1101465-06A
1101465-07A	1101465-08A	1101465-09A
1101465-10A	1101465-11A	1101465-14A
1101465-15A	1101465-16A	1101465-17A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Pastor, Behling & Wheeler, LLC
Work Order: 1101465
Project: HWPW-Site Wide Monitoring

QC BATCH REPORT

Batch ID: **R104229** Instrument ID **VOA1** Method: **SW8260**

MBLK		Sample ID: VBLKW-012111-R104229			Units: µg/L			Analysis Date: 1/21/2011 11:40 AM		
Client ID:		Run ID: VOA1_110121A			SeqNo: 2255154		Prep Date:		DF: 1	
Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Dichloroethane	U	5.0								
Benzene	U	5.0								
Chlorobenzene	U	5.0								
Dichloromethane	U	10								
Ethylbenzene	U	5.0								
Toluene	U	5.0								
Vinyl chloride	U	2.0								
Xylenes, Total	U	15								
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>46.43</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>92.9</i>	<i>70-125</i>	<i>0</i>			
<i>Surr: 4-Bromofluorobenzene</i>	<i>44.87</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>89.7</i>	<i>72-125</i>	<i>0</i>			
<i>Surr: Dibromofluoromethane</i>	<i>47.95</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>95.9</i>	<i>71-125</i>	<i>0</i>			
<i>Surr: Toluene-d8</i>	<i>50.39</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>101</i>	<i>75-125</i>	<i>0</i>			

LCS		Sample ID: VLCSW-012111-R104229			Units: µg/L			Analysis Date: 1/21/2011 10:50 AM		
Client ID:		Run ID: VOA1_110121A			SeqNo: 2255153		Prep Date:		DF: 1	
Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Dichloroethane	45.93	5.0	50	0	91.9	78-120	0			
Benzene	46.09	5.0	50	0	92.2	73-121	0			
Chlorobenzene	47.49	5.0	50	0	95	80-120	0			
Dichloromethane	50.33	10	50	0	101	65-133	0			
Ethylbenzene	45.74	5.0	50	0	91.5	80-120	0			
Toluene	46.33	5.0	50	0	92.7	80-120	0			
Vinyl chloride	43.81	2.0	50	0	87.6	70-127	0			
Xylenes, Total	136.5	15	150	0	91	80-120	0			
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>48.21</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>96.4</i>	<i>70-125</i>	<i>0</i>			
<i>Surr: 4-Bromofluorobenzene</i>	<i>50.45</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>101</i>	<i>72-125</i>	<i>0</i>			
<i>Surr: Dibromofluoromethane</i>	<i>51.78</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>104</i>	<i>71-125</i>	<i>0</i>			
<i>Surr: Toluene-d8</i>	<i>49.22</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>98.4</i>	<i>75-125</i>	<i>0</i>			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Pastor, Behling & Wheeler, LLC
 Work Order: 1101465
 Project: HWPW-Site Wide Monitoring

QC BATCH REPORT

Batch ID: R104229 Instrument ID VOA1 Method: SW8260

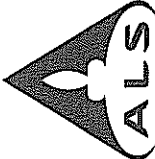
MS		Sample ID: 1101395-09AMS			Units: µg/L			Analysis Date: 1/21/2011 01:21 PM		
Client ID:		Run ID: VOA1_110121A			SeqNo: 2255157			Prep Date:		DF: 100
Analyte	Result	ML	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Dichloroethane	5035	500	5000	0	101	78-120	0			
Benzene	19230	500	5000	14990	84.8	73-121	0			
Chlorobenzene	4356	500	5000	0	87.1	80-120	0			
Dichloromethane	4755	1,000	5000	0	95.1	65-133	0			
Ethylbenzene	6934	500	5000	2228	94.1	80-120	0			
Toluene	4760	500	5000	106.2	93.1	80-120	0			
Vinyl chloride	3818	200	5000	0	76.4	70-127	0			
Xylenes, Total	13240	1,500	15000	559.5	84.5	80-120	0			
<i>Surr: 1,2-Dichloroethane-d4</i>		<i>4934</i>	<i>500</i>	<i>5000</i>	<i>0</i>	<i>98.7</i>	<i>70-125</i>	<i>0</i>		
<i>Surr: 4-Bromofluorobenzene</i>		<i>5064</i>	<i>500</i>	<i>5000</i>	<i>0</i>	<i>101</i>	<i>72-125</i>	<i>0</i>		
<i>Surr: Dibromofluoromethane</i>		<i>4986</i>	<i>500</i>	<i>5000</i>	<i>0</i>	<i>99.7</i>	<i>71-125</i>	<i>0</i>		
<i>Surr: Toluene-d8</i>		<i>4887</i>	<i>500</i>	<i>5000</i>	<i>0</i>	<i>97.7</i>	<i>75-125</i>	<i>0</i>		

MSD		Sample ID: 1101395-09AMSD			Units: µg/L			Analysis Date: 1/21/2011 01:47 PM		
Client ID:		Run ID: VOA1_110121A			SeqNo: 2255159			Prep Date:		DF: 100
Analyte	Result	ML	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Dichloroethane	5110	500	5000	0	102	78-120	5035	1.49	20	
Benzene	20050	500	5000	14990	101	73-121	19230	4.16	20	E
Chlorobenzene	4617	500	5000	0	92.3	80-120	4356	5.83	20	
Dichloromethane	5040	1,000	5000	0	101	65-133	4755	5.82	20	
Ethylbenzene	6781	500	5000	2228	91.1	80-120	6934	2.24	20	
Toluene	4433	500	5000	106.2	86.5	80-120	4760	7.1	20	
Vinyl chloride	3559	200	5000	0	71.2	70-127	3818	7.04	20	
Xylenes, Total	13290	1,500	15000	559.5	84.8	80-120	13240	0.366	20	
<i>Surr: 1,2-Dichloroethane-d4</i>		<i>4887</i>	<i>500</i>	<i>5000</i>	<i>0</i>	<i>97.7</i>	<i>70-125</i>	<i>4934</i>	<i>0.969</i>	<i>20</i>
<i>Surr: 4-Bromofluorobenzene</i>		<i>4812</i>	<i>500</i>	<i>5000</i>	<i>0</i>	<i>96.2</i>	<i>72-125</i>	<i>5064</i>	<i>5.11</i>	<i>20</i>
<i>Surr: Dibromofluoromethane</i>		<i>5119</i>	<i>500</i>	<i>5000</i>	<i>0</i>	<i>102</i>	<i>71-125</i>	<i>4986</i>	<i>2.64</i>	<i>20</i>
<i>Surr: Toluene-d8</i>		<i>4816</i>	<i>500</i>	<i>5000</i>	<i>0</i>	<i>96.3</i>	<i>75-125</i>	<i>4887</i>	<i>1.48</i>	<i>20</i>

The following samples were analyzed in this batch:

1101465-01A	1101465-02A	1101465-04A
1101465-12A	1101465-13A	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.



ALS Laboratory Group
 10450 Stancil Rd., Suite 210
 Houston, Texas 77099
 Tel. +1 281 530 5656
 Fax. +1 281 530 5887

Chain of Custody Form

ALS Laboratory Group
 3352 128th Ave.
 Holland, MI 49424-9263
 Tel: +1 616 399 6070
 Fax: +1 616 399 6185

Page 2 of 2

Customer Information				Project Information				ALS Project Manager:				ALS Work Order #					
Purchase Order	Project Name	Project Number	Invoice Attn.	HWPAW-Site Wide Monitoring	A	VOC (8260) Select											
Work Order	Project Number	Bill To Company	Invoice Address	1620	B	LOW SVOC (8270) Select											
Company Name	Bill To Company	Invoice Attn.	Address	Union Pacific Railroad	C												
Send Report To	Eric Matzner	2201 Double Creek Drive	City/State/Zip	Omaha, NE 681790750	D												
Address	Suite 4004	Round Rock, TX 78664	Phone	(512) 671-3434	E												
City/State/Zip	Round Rock, TX 78664	(512) 671-3434	Fax	(512) 671-3446	F												
Phone			e-Mail Address		G												
Fax					H												
e-Mail Address					I												
					J												
No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	WG-1620-MW12C-20110118	1-18-11	1105	GW		5	X	X									
2	WG-1620-MW12A-20110118		1215	GW		5	X	X									
3	WG-1620-MW16-20110118		1345	GW		5	X	X									
4	WG-1620-FB01-20110118		1400	GW		5	X	X									
5	WG-1620-MW19C-20110118		1530	GW		5	X	X									
6	WG-1620-FD01-20110118		1530	GW		5	X	X									
7	WG-1620-TB01-20110118					2	X										
8																	
9																	
10																	

Sampler(s) Please Print & Sign: *John Beaton*

Relinquished by: *John Beaton* Date: 1-19-11

Relinquished by: *John Beaton* Date: 1-19-11

Logged by (Laboratory): *John Beaton* Date: 1-19-11

Preservative Key: 1-HCl 2-HNO₃ 3-H₂SO₄ 4-NaOH 5-Na₂S₂O₃ 6-NaHSO₃ 7-Other: 8-4°C 9-5035

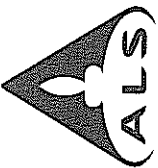
Notes: 10 Day TAT.

QC Package: (Check One Box Below) Level II Std QC Level III Std QC Level IV SWDAG/CLP Other / EDD

TRRP Checklist: TRRP Level IV

Note: 1. Any changes must be made in writing once samples and COC Form have been submitted to ALS Laboratory Group.
 2. Unless otherwise agreed in a formal contract, services provided by ALS Laboratory Group are expressly limited to the terms and conditions stated on the reverse.
 3. The Chain of Custody is a legal document. All information must be completed accurately.

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Chain of Custody Form

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3352 128th Ave.
Holland, MI 49424-9263
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Page 1 of 2

ALS Project Manager: LOI 465

ALS Work Order #: 101465

Customer Information		Project Information	
Project Name	Project Number	HW/PW/Site	Monitoring
Company Name	Bill To Company	Matrix	Pres.
Send/Report To	Invoice Attn	Date	Time
Address	Address	Sample Description	# Bottles
City/State/Zip	City/State/Zip	Matrix	Pres.
Phone	Phone	Date	Time
Fax	Fax	Sample Description	# Bottles
e-Mail Address	e-Mail Address	Date	Time
	Paator, Belling & Wheeler, LLC	1-17-11	1045
	Erb Matzner		1135
	2201 Double Creek Drive		1400
	Suite 4004		1300
	Round Rock, TX 78664		1515
	(512) 671-3434		1615
	(512) 671-3446		1720
			0740
			0900
			1000

Parameter/Method Request for Analysis

Parameter/Method	A	B	C	D	E	F	G	H	I	J
VOC (8260) Select	X	X	X	X	X	X	X	X	X	X
LOW SVOC (8270) Select	X	X	X	X	X	X	X	X	X	X

No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	Time	Matrix	Pres.	# Bottles
1	WG-1620-MW18A-20110117	1-17-11	1045	GW		5				
2	WG-1620-MW19C-20110117		1135	GW		5				
3	WG-1620-MW17C-20110117		1400	GW		5				
4	WG-1620-MW17-20110117		1300	GW		5				
5	WG-1620-MW15A-20110117		1515	GW		5				
6	WG-1620-MW15C-20110117		1615	GW		5				
7	WG-1620-MW14-20110117		1720	GW		5				
8	WG-1620-MW40B-20110118	1-18-11	0740	GW		5				
9	WG-1620-MW13-20110118		0900	GW		5				
10	WG-1620-MW39B-20110118		1000	GW		5				

Sampler(s) Please Print & Sign: JOHN BRAYTON WV
Received by (Laboratory): RW
Received by (Laboratory): ALS
Checked by (Laboratory):
Preservative Key: 1-HCl, 2-HNO₃, 3-H₂SO₄, 4-NaOH, 5-Na₂S₂O₃, 6-NaHSO₃, 7-Other, 8-4°C, 9-5035

Shipment Method: HAND DELIVERED
Required Turnaround Time (Check Box): 5 WK DAYS 10 WK DAYS 15 WK DAYS Other
Notes: 10 Day TAT.
QC Package: (Check One Box Below) Level II SIK CC TRRP Check/Level II
 Level III SIK CC Raw Data TRRP Level III
 Level IV SIK CC Raw Data TRRP Level IV
 Other (EDD)

Note: 1. Any changes must be made in writing once samples and COC form have been submitted to ALS Laboratory Group.
 2. Unless otherwise agreed in a formal contract, services provided by ALS Laboratory Group are expressly limited to the terms and conditions stated on the reverse.
 3. The Chain of Custody is a legal document. All information must be completed accurately.

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW-Site Wide Monitoring
WorkOrder: 1101465

**QUALIFIERS,
ACRONYMS, UNITS**

<u>Qualifier</u>	<u>Description</u>
*	Value exceeds Regulatory Limit
a	Not accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
J	Analyte detected below quantitation limit
M	Manually integrated, see raw data for justification
n	Not offered for accreditation
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL

<u>Acronym</u>	<u>Description</u>
DCS	Detectability Check Study
DUP	Method Duplicate
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
MBLK	Method Blank
MDL	Method Detection Limit
MQL	Method Quantitation Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PDS	Post Digestion Spike
PQL	Practical Quantitation Limit
SD	Serial Dilution
SDL	Sample Detection Limit
TRRP	Texas Risk Reduction Program

<u>Units Reported</u>	<u>Description</u>
µg/L	Micrograms per Liter

Sample Receipt Checklist

Client Name: PBW

Date/Time Received: 19-Jan-11 07:50

Work Order: 1101465

Received by: RDN

Checklist completed by Rishel D. Naran 19-Jan-11
eSignature Date

Reviewed by: R. Kevin Given 20-Jan-11
eSignature Date

Matrices: Water

Carrier name: Client

Shipping container/cooler in good condition? Yes No Not Present

Custody seals intact on shipping container/cooler? Yes No Not Present

Custody seals intact on sample bottles? Yes No Not Present

Chain of custody present? Yes No

Chain of custody signed when relinquished and received? Yes No

Chain of custody agrees with sample labels? Yes No

Samples in proper container/bottle? Yes No

Sample containers intact? Yes No

Sufficient sample volume for indicated test? Yes No

All samples received within holding time? Yes No

Container/Temp Blank temperature in compliance? Yes No

Temperature(s)/Thermometer(s): 1.4.1.7.0.9 002

Cooler(s)/Kit(s): 3573,1599,1383

Water - VOA vials have zero headspace? Yes No No VOA vials submitted

Water - pH acceptable upon receipt? Yes No N/A

pH adjusted? Yes No N/A

pH adjusted by: _____

Login Notes:

Client Contacted:

Date Contacted:

Person Contacted:

Contacted By:

Regarding:

Comments:

CorrectiveAction:



07-Feb-2011

Eric Matzner
Pastor, Behling & Wheeler, LLC
2201 Double Creek Drive
Suite 4004
Round Rock, TX 78664

Tel: (512) 671-3434
Fax: (512) 671-3446

Re: HWPW-Site Wide Monitoring

Work Order: **1101566**

Dear Eric,

ALS Environmental received 20 samples on 21-Jan-2011 08:40 AM for the analyses presented in the following report.

The analytical data provided relates directly to the samples received by ALS Environmental and for only the analyses requested. Results are expressed as "as received" unless otherwise noted.

QC sample results for this data met EPA or laboratory specifications except as noted in the Case Narrative or as noted with qualifiers in the QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained by ALS Environmental. Samples will be disposed in 30 days unless storage arrangements are made.

The total number of pages in this report is 62.

If you have any questions regarding this report, please feel free to call me.

Sincerely,

R. Kevin Given

Electronically approved by: Mary K. Knowles

R. Kevin Given
Project Manager



Certificate No: TX: T104704231-10-3

ADDRESS 10450 Stancliff Rd, Suite 210 Houston, Texas 77099-4338 | PHONE (281) 530-5656 | FAX (281) 530-5887

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www.alsglobal.com

RIGHT SOLUTIONS RIGHT PARTNER

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW-Site Wide Monitoring
Work Order: 1101566

**TRRP Laboratory Data
Package Cover Page**

This data package consists of all or some of the following as applicable:

This signature page, the laboratory review checklist, and the following reportable data:

- R1 Field chain-of-custody documentation;
- R2 Sample identification cross-reference;
- R3 Test reports (analytical data sheets) for each environmental sample that includes:
 - a) Items consistent with NELAC Chapter 5,
 - b) dilution factors,
 - c) preparation methods,
 - d) cleanup methods, and
 - e) if required for the project, tentatively identified compounds (TICs).
- R4 Surrogate recovery data including:
 - a) Calculated recovery (%R), and
 - b) The laboratory's surrogate QC limits.
- R5 Test reports/summary forms for blank samples;
- R6 Test reports/summary forms for laboratory control samples (LCSs) including:
 - a) LCS spiking amounts,
 - b) Calculated %R for each analyte, and
 - c) The laboratory's LCS QC limits.
- R7 Test reports for project matrix spike/matrix spike duplicates (MS/MSDs) including:
 - a) Samples associated with the MS/MSD clearly identified,
 - b) MS/MSD spiking amounts,
 - c) Concentration of each MS/MSD analyte measured in the parent and spiked samples,
 - d) Calculated %Rs and relative percent differences (RPDs), and
 - e) The laboratory's MS/MSD QC limits.
- R8 Laboratory analytical duplicate (if applicable) recovery and precision:
 - a) the amount of analyte measured in the duplicate,
 - b) the calculated RPD, and
 - c) the laboratory's QC limits for analytical duplicates.
- R9 List of method quantitation limits (MQLs) and detectability check sample results for each analyte for each method and matrix.
- R10 Other problems or anomalies.
The Exception Report for each "No" or "Not Reviewed (NR)" item in Laboratory Review Checklist and for each analyte, matrix, and method for which the laboratory does not hold NELAC accreditation under the Texas Laboratory Accreditation Program.

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW-Site Wide Monitoring
Work Order: 1101566

**TRRP Laboratory Data
Package Cover Page**

Release Statement: I am responsible for the release of this laboratory data package. This laboratory is NELAC accredited under the Texas Laboratory Accreditation Program for all the methods, analytes and matrices reported in this data package except as noted in the Exception Reports. The data have been reviewed and are technically compliant with the requirements of the methods used, except where noted by the laboratory in the attached exception reports. By my signature below, I affirm to the best of my knowledge, all problems/anomalies, observed by the laboratory have been identified by the laboratory in the Laboratory Review Checklist, and no information affecting the quality of the data has been knowingly withheld.

Check, if applicable: [NA] This laboratory meets an exception under 30 TAC §25.6 and was last inspected by TCEQ or _____ on (enter date of last inspection). Any findings affecting the data in this laboratory data package are noted in the Exception Reports herein. The official signing the cover page of the report in which these data are used is responsible for releasing this data package and is by signature affirming the above release statement is true.

R . K evin Given

R. Kevin Given
Project Manager

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW-Site Wide Monitoring
Work Order: 1101566

Work Order Sample Summary

<u>Lab Samp ID</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Tag Number</u>	<u>Collection Date</u>	<u>Date Received</u>	<u>Hold</u>
1101566-01	WG-1620-P11-20110118	Groundwater		1/18/2011 16:20	1/21/2011 08:40	<input type="checkbox"/>
1101566-02	WG-1620-MW57A-20110118	Groundwater		1/18/2011 17:20	1/21/2011 08:40	<input type="checkbox"/>
1101566-03	WG-1620-MW58A-20110119	Groundwater		1/19/2011 09:20	1/21/2011 08:40	<input type="checkbox"/>
1101566-04	WG-1620-MW23C-20110119	Groundwater		1/19/2011 10:35	1/21/2011 08:40	<input type="checkbox"/>
1101566-05	WG-1620-MW21C-20110119	Groundwater		1/19/2011 11:50	1/21/2011 08:40	<input type="checkbox"/>
1101566-06	WG-1620-MW69A-20110119	Groundwater		1/19/2011 13:00	1/21/2011 08:40	<input type="checkbox"/>
1101566-07	WG-1620-MW48C-20110119	Groundwater		1/19/2011 14:00	1/21/2011 08:40	<input type="checkbox"/>
1101566-08	WG-1620-MW60A-20110119	Groundwater		1/19/2011 15:10	1/21/2011 08:40	<input type="checkbox"/>
1101566-09	WG-1620-MW47C-20110119	Groundwater		1/19/2011 16:20	1/21/2011 08:40	<input type="checkbox"/>
1101566-10	WG-1620-MW59A-20110120	Groundwater		1/20/2011 07:45	1/21/2011 08:40	<input type="checkbox"/>
1101566-11	WG-1620-MW59B-20110120	Groundwater		1/20/2011 08:45	1/21/2011 08:40	<input type="checkbox"/>
1101566-12	WG-1620-MW59D-20110120	Groundwater		1/20/2011 10:15	1/21/2011 08:40	<input type="checkbox"/>
1101566-13	WG-1620-MW49A-20110120	Groundwater		1/20/2011 11:30	1/21/2011 08:40	<input type="checkbox"/>
1101566-14	WG-1620-MW49B-20110120	Groundwater		1/20/2011 13:45	1/21/2011 08:40	<input type="checkbox"/>
1101566-15	WG-1620-FD02-20110120	Groundwater		1/20/2011 13:45	1/21/2011 08:40	<input type="checkbox"/>
1101566-16	WG-1620-MW51A-20110120	Groundwater		1/20/2011 15:00	1/21/2011 08:40	<input type="checkbox"/>
1101566-17	WG-1620-MW36A-20110120	Groundwater		1/20/2011 16:20	1/21/2011 08:40	<input type="checkbox"/>
1101566-18	WG-1620-MW36B-20110120	Groundwater		1/20/2011 17:25	1/21/2011 08:40	<input type="checkbox"/>
1101566-19	WG-1620-FB02-20110120	Groundwater		1/20/2011 17:45	1/21/2011 08:40	<input type="checkbox"/>
1101566-20	WG-1620-TB02-20110120	Water		1/20/2011	1/21/2011 08:40	<input type="checkbox"/>

Laboratory Review Checklist: Reportable Data

Laboratory Name: ALS Laboratory Group		LRC Date: 2/7/2011					
Project Name: HWPW-Site Wide Monitoring		Laboratory Job Number: 1101566					
Reviewer Name: R. Kevin Given		Prep Batch Number(s): 49515, R104380, R104392, R104405					
# ¹	A ²	Description	Yes	No	NA ³	NR ⁴	ER# ⁵
R1	OI	Chain-of-custody (C-O-C)					
		Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?	X				
		Were all departures from standard conditions described in an exception report?	X				
R2	OI	Sample and quality control (QC) identification					
		Are all field sample ID numbers cross-referenced to the laboratory ID numbers?	X				
		Are all laboratory ID numbers cross-referenced to the corresponding QC data?	X				
R3	OI	Test reports					
		Were all samples prepared and analyzed within holding times?	X				
		Other than those results < MQL, were all other raw values bracketed by calibration standards?	X				
		Were calculations checked by a peer or supervisor?	X				
		Were all analyte identifications checked by a peer or supervisor?	X				
		Were sample detection limits reported for all analytes not detected?	X				
		Were all results for soil and sediment samples reported on a dry weight basis?			X		
		Were % moisture (or solids) reported for all soil and sediment samples?			X		
		Were bulk soils/solids samples for volatile analysis extracted with methanol per SW-846 Method 5035?			X		
		If required for the project, TICs reported?			X		
R4	O	Surrogate recovery data					
		Were surrogates added prior to extraction?	X				
		Were surrogate percent recoveries in all samples within the laboratory QC limits?		X			1
R5	OI	Test reports/summary forms for blank samples					
		Were appropriate type(s) of blanks analyzed?	X				
		Were blanks analyzed at the appropriate frequency?	X				
		Were method blanks taken through the entire analytical process, including preparation and, if applicable, cleanup procedures?	X				
		Were blank concentrations < MQL?	X				
R6	OI	Laboratory control samples (LCS):					
		Were all COCs included in the LCS?	X				
		Was each LCS taken through the entire analytical procedure, including prep and cleanup steps?	X				
		Were LCSs analyzed at the required frequency?	X				
		Were LCS (and LCSD, if applicable) %Rs within the laboratory QC limits?	X				
		Does the detectability data document the laboratory's capability to detect the COCs at the MDL used to calculate the SQLs?	X				
		Was the LCSD RPD within QC limits?	X				
R7	OI	Matrix spike (MS) and matrix spike duplicate (MSD) data					
		Were the project/method specified analytes included in the MS and MSD?	X				
		Were MS/MSD analyzed at the appropriate frequency?	X				
		Were MS (and MSD, if applicable) %Rs within the laboratory QC limits?		X			2
		Were MS/MSD RPDs within laboratory QC limits?	X				
R8	OI	Analytical duplicate data					
		Were appropriate analytical duplicates analyzed for each matrix?			X		
		Were analytical duplicates analyzed at the appropriate frequency?			X		
		Were RPDs or relative standard deviations within the laboratory QC limits?			X		
R9	OI	Method quantitation limits (MQLs):					
		Are the MQLs for each method analyte included in the laboratory data package?	X				
		Do the MQLs correspond to the concentration of the lowest non-zero calibration standard?	X				
		Are unadjusted MQLs and DCSs included in the laboratory data package?	X				
R10	OI	Other problems/anomalies					
		Are all known problems/anomalies/special conditions noted in this LRC and ER?	X				
		Were all necessary corrective actions performed for the reported data?	X				
		Was applicable and available technology used to lower the SDL minimize the matrix interference affects on the sample results?	X				
		Is the laboratory NELAC-accredited under the Texas Laboratory Program for the analytes, matrices and methods associated with this laboratory data package?	X				

Laboratory Review Checklist: Reportable Data							
Laboratory Name: ALS Laboratory Group				LRC Date: 2/7/2011			
Project Name: HWPW-Site Wide Monitoring				Laboratory Job Number: 1101566			
Reviewer Name: R. Kevin Given				Prep Batch Number(s): 49515, R104380, R104392, R104405			
# ¹	A ²	Description	Yes	No	NA ³	NR ⁴	ER# ⁵
S1	OI	Initial calibration (ICAL)					
		Were response factors and/or relative response factors for each analyte within QC limits?	X				
		Were percent RSDs or correlation coefficient criteria met?	X				
		Was the number of standards recommended in the method used for all analytes?	X				
		Were all points generated between the lowest and highest standard used to calculate the curve?	X				
		Are ICAL data available for all instruments used?	X				
		Has the initial calibration curve been verified using an appropriate second source standard?	X				
S2	OI	Initial and continuing calibration verification (ICCV and CCV) and continuing calibration blank (CCB)					
		Was the CCV analyzed at the method-required frequency?	X				
		Were percent differences for each analyte within the method-required QC limits?	X				
		Was the ICAL curve verified for each analyte?	X				
		Was the absolute value of the analyte concentration in the inorganic CCB < MDL?			X		
S3	O	Mass spectral tuning:					
		Was the appropriate compound for the method used for tuning?	X				
		Were ion abundance data within the method-required QC limits?	X				
S4	O	Internal standards (IS):					
		Were IS area counts and retention times within the method-required QC limits?	X				
S5	OI	Raw data (NELAC section 1 appendix A glossary, and section 5.12 or ISO/IEC 17025 section					
		Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?	X				
		Were data associated with manual integrations flagged on the raw data?	X				
S6	O	Dual column confirmation					
		Did dual column confirmation results meet the method-required QC?			X		
S7	O	Tentatively identified compounds (TICs):					
		If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?			X		
S8	I	Interference Check Sample (ICS) results:					
		Were percent recoveries within method QC limits?			X		
S9	I	Serial dilutions, post digestion spikes, and method of standard additions					
		Were percent differences, recoveries, and the linearity within the QC limits specified in the method?			X		
S10	OI	Method detection limit (MDL) studies					
		Was a MDL study performed for each reported analyte?	X				
		Is the MDL either adjusted or supported by the analysis of DCSs?	X				
S11	OI	Proficiency test reports:					
		Was the laboratory's performance acceptable on the applicable proficiency tests or evaluation studies?	X				
S12	OI	Standards documentation					
		Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?	X				
S13	OI	Compound/analyte identification procedures					
		Are the procedures for compound/analyte identification documented?	X				
S14	OI	Demonstration of analyst competency (DOC)					
		Was DOC conducted consistent with NELAC Chapter 5C or ISO/IEC 4?	X				
		Is documentation of the analyst's competency up-to-date and on file?	X				
S15	OI	Verification/validation documentation for methods (NELAC Chap 5 or ISO/IEC 17025 Section 5)					
		Are all the methods used to generate the data documented, verified, and validated, where applicable?	X				
S16	OI	Laboratory standard operating procedures (SOPs):					
		Are laboratory SOPs current and on file for each method performed?	X				

Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.

O = Organic Analyses; I = Inorganic Analyses (and general chemistry, when applicable);

NA = Not Applicable;

NR = Not Reviewed;

R# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

Laboratory Review Checklist: Reportable Data

Laboratory Name: ALS Laboratory Group		LRC Date: 2/7/2011
Project Name: HWPW-Site Wide Monitoring		Laboratory Job Number: 1101566
Reviewer Name: R. Kevin Given		Prep Batch Number(s): 49515, R104380, R104392, R104405
ER# ⁵	Description	
1	<p>Low-Level Semivolatile Organics, Sample WG-1620-MW57A-20110118 : Surrogate recoveries were diluted out in the 1000X and 5000X dilution.</p> <p>Low-Level Semivolatile Organics, Sample WG-1620-MW58A-20110119 : Surrogate recoveries were diluted out in the 200X dilution.</p> <p>Low-Level Semivolatile Organics, Samples WG-1620-MW23C-20110119 and WG-1620-MW49A-20110120 : Surrogate recoveries were diluted out in the 1000X dilution.</p>	
2	Batch R104380, Volatile Organics, Sample 1101521-01 : MS/MSD is for an unrelated sample.	
3	TCL Volatiles, Samples WG-1620-MW58A-20110119, WG-1620-MW23C-20110119, and WG-1620-MW49A-20110120 could not be analyzed at a lower dilution due to the high concentration of non-target analytes.	
<p>Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.</p> <p>O = Organic Analyses; I = Inorganic Analyses (and general chemistry, when applicable);</p> <p>NA = Not Applicable;</p> <p>NR = Not Reviewed;</p> <p>R# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).</p>		

ALS Environmental

Date: 01-Feb-11

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW-Site Wide Monitoring
Sample ID: WG-1620-P11-20110118
Collection Date: 1/18/2011 04:20 PM

Work Order: 1101566
Lab ID: 1101566-01
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES		Method: SW8270		Prep: SW3510 / 1/22/11		Analyst: LG	
1,2-Diphenylhydrazine	U		0.10	0.20	µg/L	1	1/26/2011 22:49
2,4-Dimethylphenol	U		0.080	0.20	µg/L	1	1/26/2011 22:49
2,4-Dinitrotoluene	U		0.090	0.20	µg/L	1	1/26/2011 22:49
2,6-Dinitrotoluene	U		0.070	0.20	µg/L	1	1/26/2011 22:49
2-Chloronaphthalene	U		0.10	0.20	µg/L	1	1/26/2011 22:49
2-Methylnaphthalene	U		0.070	0.20	µg/L	1	1/26/2011 22:49
4,6-Dinitro-2-methylphenol	U		0.080	0.20	µg/L	1	1/26/2011 22:49
4-Nitrophenol	U		0.070	1.0	µg/L	1	1/26/2011 22:49
Acenaphthene	U		0.090	0.20	µg/L	1	1/26/2011 22:49
Acenaphthylene	U		0.070	0.20	µg/L	1	1/26/2011 22:49
Anthracene	U		0.070	0.20	µg/L	1	1/26/2011 22:49
Benz(a)anthracene	U		0.070	0.20	µg/L	1	1/26/2011 22:49
Benzo(a)pyrene	U		0.080	0.20	µg/L	1	1/26/2011 22:49
Bis(2-chloroethoxy)methane	U		0.090	0.20	µg/L	1	1/26/2011 22:49
Bis(2-ethylhexyl)phthalate	1.6		0.20	0.20	µg/L	1	1/26/2011 22:49
Chrysene	U		0.070	0.20	µg/L	1	1/26/2011 22:49
Di-n-butyl phthalate	U		0.070	0.20	µg/L	1	1/26/2011 22:49
Dibenzofuran	U		0.080	0.20	µg/L	1	1/26/2011 22:49
Fluoranthene	U		0.070	0.20	µg/L	1	1/26/2011 22:49
Fluorene	U		0.070	0.20	µg/L	1	1/26/2011 22:49
N-Nitrosodiphenylamine	U		0.090	0.20	µg/L	1	1/26/2011 22:49
Naphthalene	U		0.10	0.20	µg/L	1	1/26/2011 22:49
Nitrobenzene	U		0.090	0.20	µg/L	1	1/26/2011 22:49
Pentachlorophenol	U		0.080	0.20	µg/L	1	1/26/2011 22:49
Phenanthrene	U		0.070	0.20	µg/L	1	1/26/2011 22:49
Phenol	U		0.070	0.20	µg/L	1	1/26/2011 22:49
Pyrene	U		0.070	0.20	µg/L	1	1/26/2011 22:49
Surr: 2,4,6-Tribromophenol	82.5			34-129	%REC	1	1/26/2011 22:49
Surr: 2-Fluorobiphenyl	44.1			40-125	%REC	1	1/26/2011 22:49
Surr: 2-Fluorophenol	45.2			20-120	%REC	1	1/26/2011 22:49
Surr: 4-Terphenyl-d14	58.7			40-135	%REC	1	1/26/2011 22:49
Surr: Nitrobenzene-d5	60.3			41-120	%REC	1	1/26/2011 22:49
Surr: Phenol-d6	44.6			20-120	%REC	1	1/26/2011 22:49
TCL VOLATILES		Method: SW8260				Analyst: PC	
1,2-Dichloroethane	U		0.50	5.0	µg/L	1	1/24/2011 20:31
Benzene	U		0.50	5.0	µg/L	1	1/24/2011 20:31
Chlorobenzene	U		0.50	5.0	µg/L	1	1/24/2011 20:31
Dichloromethane	U		0.50	10	µg/L	1	1/24/2011 20:31

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 01-Feb-11

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW-Site Wide Monitoring
Sample ID: WG-1620-P11-20110118
Collection Date: 1/18/2011 04:20 PM

Work Order: 1101566
Lab ID: 1101566-01
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
Ethylbenzene	U		0.50	5.0	µg/L	1	1/24/2011 20:31
Toluene	U		0.50	5.0	µg/L	1	1/24/2011 20:31
Xylenes, Total	U		1.0	15	µg/L	1	1/24/2011 20:31
Surr: 1,2-Dichloroethane-d4	94.7			70-125	%REC	1	1/24/2011 20:31
Surr: 4-Bromofluorobenzene	97.7			72-125	%REC	1	1/24/2011 20:31
Surr: Dibromofluoromethane	96.9			71-125	%REC	1	1/24/2011 20:31
Surr: Toluene-d8	98.7			75-125	%REC	1	1/24/2011 20:31

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 01-Feb-11

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW-Site Wide Monitoring
Sample ID: WG-1620-MW57A-20110118
Collection Date: 1/18/2011 05:20 PM

Work Order: 1101566
Lab ID: 1101566-02
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270		Prep: SW3510 / 1/22/11		Analyst: LG
1,2-Diphenylhydrazine		U	0.10	0.20	µg/L	1	1/27/2011 01:06
2,4-Dimethylphenol	2,000		80	200	µg/L	1000	1/27/2011 22:07
2,4-Dinitrotoluene		U	0.090	0.20	µg/L	1	1/27/2011 01:06
2,6-Dinitrotoluene		U	0.070	0.20	µg/L	1	1/27/2011 01:06
2-Chloronaphthalene		U	0.10	0.20	µg/L	1	1/27/2011 01:06
2-Methylnaphthalene	3,500		70	200	µg/L	1000	1/27/2011 22:07
4,6-Dinitro-2-methylphenol		U	0.080	0.20	µg/L	1	1/27/2011 01:06
4-Nitrophenol		U	0.070	1.0	µg/L	1	1/27/2011 01:06
Acenaphthene	1,900		90	200	µg/L	1000	1/27/2011 22:07
Acenaphthylene	22		0.70	2.0	µg/L	10	1/27/2011 03:04
Anthracene	620		7.0	20	µg/L	100	1/27/2011 19:30
Benz(a)anthracene	120		7.0	20	µg/L	100	1/27/2011 19:30
Benzo(a)pyrene	28		0.80	2.0	µg/L	10	1/27/2011 03:04
Bis(2-chloroethoxy)methane		U	0.090	0.20	µg/L	1	1/27/2011 01:06
Bis(2-ethylhexyl)phthalate		U	0.20	0.20	µg/L	1	1/27/2011 01:06
Chrysene	110		7.0	20	µg/L	100	1/27/2011 19:30
Di-n-butyl phthalate		U	0.070	0.20	µg/L	1	1/27/2011 01:06
Dibenzofuran	1,700		80	200	µg/L	1000	1/27/2011 22:07
Fluoranthene	990		7.0	20	µg/L	100	1/27/2011 19:30
Fluorene	1,400		70	200	µg/L	1000	1/27/2011 22:07
N-Nitrosodiphenylamine		U	0.090	0.20	µg/L	1	1/27/2011 01:06
Naphthalene	18,000		500	1,000	µg/L	5000	1/28/2011 01:42
Nitrobenzene		U	0.090	0.20	µg/L	1	1/27/2011 01:06
Pentachlorophenol		U	0.080	0.20	µg/L	1	1/27/2011 01:06
Phenanthrene	3,500		70	200	µg/L	1000	1/27/2011 22:07
Phenol	20		0.70	2.0	µg/L	10	1/27/2011 03:04
Pyrene	670		7.0	20	µg/L	100	1/27/2011 19:30
Surr: 2,4,6-Tribromophenol	48.0			34-129	%REC	1	1/27/2011 01:06
Surr: 2,4,6-Tribromophenol	48.4			34-129	%REC	10	1/27/2011 03:04
Surr: 2,4,6-Tribromophenol	109	J		34-129	%REC	100	1/27/2011 19:30
Surr: 2,4,6-Tribromophenol	0	S		34-129	%REC	1000	1/27/2011 22:07
Surr: 2,4,6-Tribromophenol	0	S		34-129	%REC	5000	1/28/2011 01:42
Surr: 2-Fluorobiphenyl	40.1			40-125	%REC	1	1/27/2011 01:06
Surr: 2-Fluorobiphenyl	48.1			40-125	%REC	10	1/27/2011 03:04
Surr: 2-Fluorobiphenyl	78.6	J		40-125	%REC	100	1/27/2011 19:30
Surr: 2-Fluorobiphenyl	0	S		40-125	%REC	1000	1/27/2011 22:07
Surr: 2-Fluorobiphenyl	0	S		40-125	%REC	5000	1/28/2011 01:42
Surr: 2-Fluorophenol	77.1			20-120	%REC	1	1/27/2011 01:06

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 01-Feb-11

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW-Site Wide Monitoring
Sample ID: WG-1620-MW57A-20110118
Collection Date: 1/18/2011 05:20 PM

Work Order: 1101566
Lab ID: 1101566-02
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
Surr: 2-Fluorophenol	103			20-120	%REC	10	1/27/2011 03:04
Surr: 2-Fluorophenol	70.8	J		20-120	%REC	100	1/27/2011 19:30
Surr: 2-Fluorophenol	0	S		20-120	%REC	1000	1/27/2011 22:07
Surr: 2-Fluorophenol	0	S		20-120	%REC	5000	1/28/2011 01:42
Surr: 4-Terphenyl-d14	83.3			40-135	%REC	1	1/27/2011 01:06
Surr: 4-Terphenyl-d14	92.3			40-135	%REC	10	1/27/2011 03:04
Surr: 4-Terphenyl-d14	101	J		40-135	%REC	100	1/27/2011 19:30
Surr: 4-Terphenyl-d14	0	S		40-135	%REC	1000	1/27/2011 22:07
Surr: 4-Terphenyl-d14	0	S		40-135	%REC	5000	1/28/2011 01:42
Surr: Nitrobenzene-d5	42.6			41-120	%REC	1	1/27/2011 01:06
Surr: Nitrobenzene-d5	88.2			41-120	%REC	10	1/27/2011 03:04
Surr: Nitrobenzene-d5	57.7	J		41-120	%REC	100	1/27/2011 19:30
Surr: Nitrobenzene-d5	0	S		41-120	%REC	1000	1/27/2011 22:07
Surr: Nitrobenzene-d5	0	S		41-120	%REC	5000	1/28/2011 01:42
Surr: Phenol-d6	48.1			20-120	%REC	1	1/27/2011 01:06
Surr: Phenol-d6	74.7			20-120	%REC	10	1/27/2011 03:04
Surr: Phenol-d6	100	J		20-120	%REC	100	1/27/2011 19:30
Surr: Phenol-d6	0	S		20-120	%REC	1000	1/27/2011 22:07
Surr: Phenol-d6	0	S		20-120	%REC	5000	1/28/2011 01:42

TCL VOLATILES	Method: SW8260				Analyst: PC		
1,2-Dichloroethane	U		5.0	50	µg/L	10	1/25/2011 04:07
Benzene	230		5.0	50	µg/L	10	1/25/2011 04:07
Chlorobenzene	U		5.0	50	µg/L	10	1/25/2011 04:07
Dichloromethane	U		5.0	100	µg/L	10	1/25/2011 04:07
Ethylbenzene	290		5.0	50	µg/L	10	1/25/2011 04:07
Toluene	380		5.0	50	µg/L	10	1/25/2011 04:07
Vinyl chloride	U		5.0	20	µg/L	10	1/25/2011 04:07
Xylenes, Total	680		10	150	µg/L	10	1/25/2011 04:07
Surr: 1,2-Dichloroethane-d4	96.3			70-125	%REC	10	1/25/2011 04:07
Surr: 4-Bromofluorobenzene	99.0			72-125	%REC	10	1/25/2011 04:07
Surr: Dibromofluoromethane	102			71-125	%REC	10	1/25/2011 04:07
Surr: Toluene-d8	102			75-125	%REC	10	1/25/2011 04:07

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 01-Feb-11

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW-Site Wide Monitoring
Sample ID: WG-1620-MW58A-20110119
Collection Date: 1/19/2011 09:20 AM

Work Order: 1101566
Lab ID: 1101566-03
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270		Prep: SW3510 / 1/22/11		Analyst: LG
1,2-Diphenylhydrazine		U	0.10	0.20	µg/L	1	1/26/2011 23:48
2,4-Dimethylphenol	680		16	40	µg/L	200	1/27/2011 21:28
2,4-Dinitrotoluene		U	0.090	0.20	µg/L	1	1/26/2011 23:48
2,6-Dinitrotoluene		U	0.070	0.20	µg/L	1	1/26/2011 23:48
2-Chloronaphthalene		U	0.10	0.20	µg/L	1	1/26/2011 23:48
2-Methylnaphthalene	57		0.70	2.0	µg/L	10	1/27/2011 22:46
4,6-Dinitro-2-methylphenol		U	0.080	0.20	µg/L	1	1/26/2011 23:48
4-Nitrophenol		U	0.070	1.0	µg/L	1	1/26/2011 23:48
Acenaphthene	120		18	40	µg/L	200	1/27/2011 21:28
Acenaphthylene	0.72		0.070	0.20	µg/L	1	1/26/2011 23:48
Anthracene	5.1		0.070	0.20	µg/L	1	1/26/2011 23:48
Benz(a)anthracene		U	0.070	0.20	µg/L	1	1/26/2011 23:48
Benzo(a)pyrene		U	0.080	0.20	µg/L	1	1/26/2011 23:48
Bis(2-chloroethoxy)methane		U	0.090	0.20	µg/L	1	1/26/2011 23:48
Bis(2-ethylhexyl)phthalate	0.35		0.20	0.20	µg/L	1	1/26/2011 23:48
Chrysene		U	0.070	0.20	µg/L	1	1/26/2011 23:48
Di-n-butyl phthalate		U	0.070	0.20	µg/L	1	1/26/2011 23:48
Dibenzofuran	79		0.80	2.0	µg/L	10	1/27/2011 22:46
Fluoranthene	4.9		0.070	0.20	µg/L	1	1/26/2011 23:48
Fluorene	65		0.70	2.0	µg/L	10	1/27/2011 22:46
N-Nitrosodiphenylamine		U	0.090	0.20	µg/L	1	1/26/2011 23:48
Naphthalene	450		20	40	µg/L	200	1/27/2011 21:28
Nitrobenzene		U	0.090	0.20	µg/L	1	1/26/2011 23:48
Pentachlorophenol		U	0.080	0.20	µg/L	1	1/26/2011 23:48
Phenanthrene	37		0.70	2.0	µg/L	10	1/27/2011 22:46
Phenol	0.37		0.070	0.20	µg/L	1	1/26/2011 23:48
Pyrene	2.2		0.070	0.20	µg/L	1	1/26/2011 23:48
Surr: 2,4,6-Tribromophenol	61.1			34-129	%REC	1	1/26/2011 23:48
Surr: 2,4,6-Tribromophenol	0	S		34-129	%REC	200	1/27/2011 21:28
Surr: 2,4,6-Tribromophenol	85.8			34-129	%REC	10	1/27/2011 22:46
Surr: 2-Fluorobiphenyl	43.9			40-125	%REC	1	1/26/2011 23:48
Surr: 2-Fluorobiphenyl	0	S		40-125	%REC	200	1/27/2011 21:28
Surr: 2-Fluorobiphenyl	60.5			40-125	%REC	10	1/27/2011 22:46
Surr: 2-Fluorophenol	45.4			20-120	%REC	1	1/26/2011 23:48
Surr: 2-Fluorophenol	0	S		20-120	%REC	200	1/27/2011 21:28
Surr: 2-Fluorophenol	71.0			20-120	%REC	10	1/27/2011 22:46
Surr: 4-Terphenyl-d14	63.6			40-135	%REC	1	1/26/2011 23:48
Surr: 4-Terphenyl-d14	0	S		40-135	%REC	200	1/27/2011 21:28

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 01-Feb-11

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW-Site Wide Monitoring
Sample ID: WG-1620-MW58A-20110119
Collection Date: 1/19/2011 09:20 AM

Work Order: 1101566
Lab ID: 1101566-03
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
Surr: 4-Terphenyl-d14	74.4			40-135	%REC	10	1/27/2011 22:46
Surr: Nitrobenzene-d5	79.6			41-120	%REC	1	1/26/2011 23:48
Surr: Nitrobenzene-d5	0	S		41-120	%REC	200	1/27/2011 21:28
Surr: Nitrobenzene-d5	49.7			41-120	%REC	10	1/27/2011 22:46
Surr: Phenol-d6	54.2			20-120	%REC	1	1/26/2011 23:48
Surr: Phenol-d6	0	S		20-120	%REC	200	1/27/2011 21:28
Surr: Phenol-d6	57.4			20-120	%REC	10	1/27/2011 22:46

TCL VOLATILES		Method: SW8260				Analyst: PC	
1,2-Dichloroethane	U		2.5	25	µg/L	5	1/25/2011 19:29
Benzene	34		2.5	25	µg/L	5	1/25/2011 19:29
Chlorobenzene	2.9	J	2.5	25	µg/L	5	1/25/2011 19:29
Dichloromethane	U		2.5	50	µg/L	5	1/25/2011 19:29
Ethylbenzene	30		2.5	25	µg/L	5	1/25/2011 19:29
Toluene	5.9	J	2.5	25	µg/L	5	1/25/2011 19:29
Vinyl chloride	U		2.5	10	µg/L	5	1/25/2011 19:29
Xylenes, Total	29	J	5.0	75	µg/L	5	1/25/2011 19:29
Surr: 1,2-Dichloroethane-d4	99.0			70-125	%REC	5	1/25/2011 19:29
Surr: 4-Bromofluorobenzene	99.6			72-125	%REC	5	1/25/2011 19:29
Surr: Dibromofluoromethane	97.6			71-125	%REC	5	1/25/2011 19:29
Surr: Toluene-d8	103			75-125	%REC	5	1/25/2011 19:29

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 01-Feb-11

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW-Site Wide Monitoring
Sample ID: WG-1620-MW23C-20110119
Collection Date: 1/19/2011 10:35 AM

Work Order: 1101566
Lab ID: 1101566-04
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270		Prep: SW3510 / 1/22/11		Analyst: LG
1,2-Diphenylhydrazine		U	0.10	0.20	µg/L	1	1/27/2011 01:26
2,4-Dimethylphenol		U	0.080	0.20	µg/L	1	1/27/2011 01:26
2,4-Dinitrotoluene		U	0.090	0.20	µg/L	1	1/27/2011 01:26
2,6-Dinitrotoluene		U	0.070	0.20	µg/L	1	1/27/2011 01:26
2-Chloronaphthalene		U	0.10	0.20	µg/L	1	1/27/2011 01:26
2-Methylnaphthalene	1,200		70	200	µg/L	1000	1/27/2011 22:26
4,6-Dinitro-2-methylphenol		U	0.080	0.20	µg/L	1	1/27/2011 01:26
4-Nitrophenol		U	0.070	1.0	µg/L	1	1/27/2011 01:26
Acenaphthene	1,600		90	200	µg/L	1000	1/27/2011 22:26
Acenaphthylene	12		0.70	2.0	µg/L	10	1/27/2011 03:23
Anthracene	400		7.0	20	µg/L	100	1/27/2011 19:50
Benz(a)anthracene	120		7.0	20	µg/L	100	1/27/2011 19:50
Benzo(a)pyrene	40		0.80	2.0	µg/L	10	1/27/2011 03:23
Bis(2-chloroethoxy)methane		U	0.090	0.20	µg/L	1	1/27/2011 01:26
Bis(2-ethylhexyl)phthalate	1.4		0.20	0.20	µg/L	1	1/27/2011 01:26
Chrysene	99		7.0	20	µg/L	100	1/27/2011 19:50
Di-n-butyl phthalate		U	0.070	0.20	µg/L	1	1/27/2011 01:26
Dibenzofuran	1,600		80	200	µg/L	1000	1/27/2011 22:26
Fluoranthene	990		7.0	20	µg/L	100	1/27/2011 19:50
Fluorene	880		7.0	20	µg/L	100	1/27/2011 19:50
N-Nitrosodiphenylamine		U	0.090	0.20	µg/L	1	1/27/2011 01:26
Naphthalene	8,500		100	200	µg/L	1000	1/27/2011 22:26
Nitrobenzene		U	0.090	0.20	µg/L	1	1/27/2011 01:26
Pentachlorophenol		U	0.080	0.20	µg/L	1	1/27/2011 01:26
Phenanthrene	3,600		70	200	µg/L	1000	1/27/2011 22:26
Phenol		U	0.070	0.20	µg/L	1	1/27/2011 01:26
Pyrene	600		7.0	20	µg/L	100	1/27/2011 19:50
Surr: 2,4,6-Tribromophenol	55.3			34-129	%REC	1	1/27/2011 01:26
Surr: 2,4,6-Tribromophenol	54.9			34-129	%REC	10	1/27/2011 03:23
Surr: 2,4,6-Tribromophenol	63.8	J		34-129	%REC	100	1/27/2011 19:50
Surr: 2,4,6-Tribromophenol	0	S		34-129	%REC	1000	1/27/2011 22:26
Surr: 2-Fluorobiphenyl	53.4			40-125	%REC	1	1/27/2011 01:26
Surr: 2-Fluorobiphenyl	42.6			40-125	%REC	10	1/27/2011 03:23
Surr: 2-Fluorobiphenyl	54.5	J		40-125	%REC	100	1/27/2011 19:50
Surr: 2-Fluorobiphenyl	0	S		40-125	%REC	1000	1/27/2011 22:26
Surr: 2-Fluorophenol	62.5			20-120	%REC	1	1/27/2011 01:26
Surr: 2-Fluorophenol	78.2			20-120	%REC	10	1/27/2011 03:23
Surr: 2-Fluorophenol	105	J		20-120	%REC	100	1/27/2011 19:50

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 01-Feb-11

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW-Site Wide Monitoring
Sample ID: WG-1620-MW23C-20110119
Collection Date: 1/19/2011 10:35 AM

Work Order: 1101566
Lab ID: 1101566-04
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
Surr: 2-Fluorophenol	0	S		20-120	%REC	1000	1/27/2011 22:26
Surr: 4-Terphenyl-d14	75.4			40-135	%REC	1	1/27/2011 01:26
Surr: 4-Terphenyl-d14	83.9			40-135	%REC	10	1/27/2011 03:23
Surr: 4-Terphenyl-d14	86.2	J		40-135	%REC	100	1/27/2011 19:50
Surr: 4-Terphenyl-d14	0	S		40-135	%REC	1000	1/27/2011 22:26
Surr: Nitrobenzene-d5	95.6			41-120	%REC	1	1/27/2011 01:26
Surr: Nitrobenzene-d5	53.2			41-120	%REC	10	1/27/2011 03:23
Surr: Nitrobenzene-d5	59.7	J		41-120	%REC	100	1/27/2011 19:50
Surr: Nitrobenzene-d5	0	S		41-120	%REC	1000	1/27/2011 22:26
Surr: Phenol-d6	65.7			20-120	%REC	1	1/27/2011 01:26
Surr: Phenol-d6	69.7			20-120	%REC	10	1/27/2011 03:23
Surr: Phenol-d6	45.7	J		20-120	%REC	100	1/27/2011 19:50
Surr: Phenol-d6	0	S		20-120	%REC	1000	1/27/2011 22:26

TCL VOLATILES	Method: SW8260					Analyst: PC	
1,2-Dichloroethane	U		5.0	50	µg/L	10	1/25/2011 19:54
Benzene	7.2	J	5.0	50	µg/L	10	1/25/2011 19:54
Chlorobenzene	U		5.0	50	µg/L	10	1/25/2011 19:54
Dichloromethane	U		5.0	100	µg/L	10	1/25/2011 19:54
Ethylbenzene	130		5.0	50	µg/L	10	1/25/2011 19:54
Toluene	U		5.0	50	µg/L	10	1/25/2011 19:54
Vinyl chloride	U		5.0	20	µg/L	10	1/25/2011 19:54
Xylenes, Total	59	J	10	150	µg/L	10	1/25/2011 19:54
Surr: 1,2-Dichloroethane-d4	96.7			70-125	%REC	10	1/25/2011 19:54
Surr: 4-Bromofluorobenzene	92.7			72-125	%REC	10	1/25/2011 19:54
Surr: Dibromofluoromethane	98.9			71-125	%REC	10	1/25/2011 19:54
Surr: Toluene-d8	97.4			75-125	%REC	10	1/25/2011 19:54

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 01-Feb-11

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW-Site Wide Monitoring
Sample ID: WG-1620-MW21C-20110119
Collection Date: 1/19/2011 11:50 AM

Work Order: 1101566
Lab ID: 1101566-05
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270		Prep: SW3510 / 1/22/11		Analyst: LG
1,2-Diphenylhydrazine	U		0.10	0.20	µg/L	1	1/27/2011 01:45
2,4-Dimethylphenol	U		0.080	0.20	µg/L	1	1/27/2011 01:45
2,4-Dinitrotoluene	U		0.090	0.20	µg/L	1	1/27/2011 01:45
2,6-Dinitrotoluene	U		0.070	0.20	µg/L	1	1/27/2011 01:45
2-Chloronaphthalene	U		0.10	0.20	µg/L	1	1/27/2011 01:45
2-Methylnaphthalene	U		0.070	0.20	µg/L	1	1/27/2011 01:45
4,6-Dinitro-2-methylphenol	U		0.080	0.20	µg/L	1	1/27/2011 01:45
4-Nitrophenol	U		0.070	1.0	µg/L	1	1/27/2011 01:45
Acenaphthene	0.34		0.090	0.20	µg/L	1	1/27/2011 01:45
Acenaphthylene	U		0.070	0.20	µg/L	1	1/27/2011 01:45
Anthracene	U		0.070	0.20	µg/L	1	1/27/2011 01:45
Benz(a)anthracene	U		0.070	0.20	µg/L	1	1/27/2011 01:45
Benzo(a)pyrene	0.13	J	0.080	0.20	µg/L	1	1/27/2011 01:45
Bis(2-chloroethoxy)methane	U		0.090	0.20	µg/L	1	1/27/2011 01:45
Bis(2-ethylhexyl)phthalate	0.62		0.20	0.20	µg/L	1	1/27/2011 01:45
Chrysene	U		0.070	0.20	µg/L	1	1/27/2011 01:45
Di-n-butyl phthalate	U		0.070	0.20	µg/L	1	1/27/2011 01:45
Dibenzofuran	U		0.080	0.20	µg/L	1	1/27/2011 01:45
Fluoranthene	U		0.070	0.20	µg/L	1	1/27/2011 01:45
Fluorene	U		0.070	0.20	µg/L	1	1/27/2011 01:45
N-Nitrosodiphenylamine	U		0.090	0.20	µg/L	1	1/27/2011 01:45
Naphthalene	U		0.10	0.20	µg/L	1	1/27/2011 01:45
Nitrobenzene	U		0.090	0.20	µg/L	1	1/27/2011 01:45
Pentachlorophenol	U		0.080	0.20	µg/L	1	1/27/2011 01:45
Phenanthrene	U		0.070	0.20	µg/L	1	1/27/2011 01:45
Phenol	U		0.070	0.20	µg/L	1	1/27/2011 01:45
Pyrene	U		0.070	0.20	µg/L	1	1/27/2011 01:45
Surr: 2,4,6-Tribromophenol	61.6			34-129	%REC	1	1/27/2011 01:45
Surr: 2-Fluorobiphenyl	42.8			40-125	%REC	1	1/27/2011 01:45
Surr: 2-Fluorophenol	39.2			20-120	%REC	1	1/27/2011 01:45
Surr: 4-Terphenyl-d14	55.3			40-135	%REC	1	1/27/2011 01:45
Surr: Nitrobenzene-d5	52.5			41-120	%REC	1	1/27/2011 01:45
Surr: Phenol-d6	39.9			20-120	%REC	1	1/27/2011 01:45
TCL VOLATILES			Method: SW8260				Analyst: PC
1,2-Dichloroethane	U		0.50	5.0	µg/L	1	1/24/2011 20:56
Benzene	U		0.50	5.0	µg/L	1	1/24/2011 20:56
Chlorobenzene	U		0.50	5.0	µg/L	1	1/24/2011 20:56
Dichloromethane	U		0.50	10	µg/L	1	1/24/2011 20:56

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 01-Feb-11

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW-Site Wide Monitoring
Sample ID: WG-1620-MW21C-20110119
Collection Date: 1/19/2011 11:50 AM

Work Order: 1101566
Lab ID: 1101566-05
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
Ethylbenzene	U		0.50	5.0	µg/L	1	1/24/2011 20:56
Toluene	U		0.50	5.0	µg/L	1	1/24/2011 20:56
Xylenes, Total	U		1.0	15	µg/L	1	1/24/2011 20:56
Surr: 1,2-Dichloroethane-d4	95.4			70-125	%REC	1	1/24/2011 20:56
Surr: 4-Bromofluorobenzene	93.7			72-125	%REC	1	1/24/2011 20:56
Surr: Dibromofluoromethane	99.1			71-125	%REC	1	1/24/2011 20:56
Surr: Toluene-d8	102			75-125	%REC	1	1/24/2011 20:56

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 01-Feb-11

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW-Site Wide Monitoring
Sample ID: WG-1620-MW69A-20110119
Collection Date: 1/19/2011 01:00 PM

Work Order: 1101566
Lab ID: 1101566-06
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	MQL	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270		Prep: SW3510 / 1/22/11		Analyst: LG
1,2-Diphenylhydrazine		U	0.10	0.20	µg/L	1	1/26/2011 23:09
2,4-Dimethylphenol		U	0.080	0.20	µg/L	1	1/26/2011 23:09
2,4-Dinitrotoluene		U	0.090	0.20	µg/L	1	1/26/2011 23:09
2,6-Dinitrotoluene		U	0.070	0.20	µg/L	1	1/26/2011 23:09
2-Chloronaphthalene		U	0.10	0.20	µg/L	1	1/26/2011 23:09
2-Methylnaphthalene	0.074	J	0.070	0.20	µg/L	1	1/26/2011 23:09
4,6-Dinitro-2-methylphenol		U	0.080	0.20	µg/L	1	1/26/2011 23:09
4-Nitrophenol		U	0.070	1.0	µg/L	1	1/26/2011 23:09
Acenaphthene	0.25		0.090	0.20	µg/L	1	1/26/2011 23:09
Acenaphthylene		U	0.070	0.20	µg/L	1	1/26/2011 23:09
Anthracene	0.24		0.070	0.20	µg/L	1	1/26/2011 23:09
Benz(a)anthracene		U	0.070	0.20	µg/L	1	1/26/2011 23:09
Benzo(a)pyrene		U	0.080	0.20	µg/L	1	1/26/2011 23:09
Bis(2-chloroethoxy)methane		U	0.090	0.20	µg/L	1	1/26/2011 23:09
Bis(2-ethylhexyl)phthalate	0.81		0.20	0.20	µg/L	1	1/26/2011 23:09
Chrysene	0.11	J	0.070	0.20	µg/L	1	1/26/2011 23:09
Di-n-butyl phthalate		U	0.070	0.20	µg/L	1	1/26/2011 23:09
Dibenzofuran	0.22		0.080	0.20	µg/L	1	1/26/2011 23:09
Fluoranthene	0.57		0.070	0.20	µg/L	1	1/26/2011 23:09
Fluorene	0.36		0.070	0.20	µg/L	1	1/26/2011 23:09
N-Nitrosodiphenylamine		U	0.090	0.20	µg/L	1	1/26/2011 23:09
Naphthalene	0.11	J	0.10	0.20	µg/L	1	1/26/2011 23:09
Nitrobenzene		U	0.090	0.20	µg/L	1	1/26/2011 23:09
Pentachlorophenol		U	0.080	0.20	µg/L	1	1/26/2011 23:09
Phenanthrene	1.2		0.070	0.20	µg/L	1	1/26/2011 23:09
Phenol		U	0.070	0.20	µg/L	1	1/26/2011 23:09
Pyrene	0.37		0.070	0.20	µg/L	1	1/26/2011 23:09
Surr: 2,4,6-Tribromophenol	77.0			34-129	%REC	1	1/26/2011 23:09
Surr: 2-Fluorobiphenyl	43.7			40-125	%REC	1	1/26/2011 23:09
Surr: 2-Fluorophenol	41.5			20-120	%REC	1	1/26/2011 23:09
Surr: 4-Terphenyl-d14	53.5			40-135	%REC	1	1/26/2011 23:09
Surr: Nitrobenzene-d5	49.7			41-120	%REC	1	1/26/2011 23:09
Surr: Phenol-d6	48.4			20-120	%REC	1	1/26/2011 23:09
TCL VOLATILES			Method: SW8260				Analyst: PC
1,2-Dichloroethane		U	0.50	5.0	µg/L	1	1/24/2011 21:47
Benzene		U	0.50	5.0	µg/L	1	1/24/2011 21:47
Chlorobenzene		U	0.50	5.0	µg/L	1	1/24/2011 21:47
Dichloromethane		U	0.50	10	µg/L	1	1/24/2011 21:47

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 01-Feb-11

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW-Site Wide Monitoring
Sample ID: WG-1620-MW69A-20110119
Collection Date: 1/19/2011 01:00 PM

Work Order: 1101566
Lab ID: 1101566-06
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
Ethylbenzene	U		0.50	5.0	µg/L	1	1/24/2011 21:47
Toluene	U		0.50	5.0	µg/L	1	1/24/2011 21:47
Xylenes, Total	U		1.0	15	µg/L	1	1/24/2011 21:47
Surr: 1,2-Dichloroethane-d4	95.7			70-125	%REC	1	1/24/2011 21:47
Surr: 4-Bromofluorobenzene	101			72-125	%REC	1	1/24/2011 21:47
Surr: Dibromofluoromethane	98.9			71-125	%REC	1	1/24/2011 21:47
Surr: Toluene-d8	94.8			75-125	%REC	1	1/24/2011 21:47

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 01-Feb-11

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW-Site Wide Monitoring
Sample ID: WG-1620-MW48C-20110119
Collection Date: 1/19/2011 02:00 PM

Work Order: 1101566
Lab ID: 1101566-07
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES		Method: SW8270		Prep: SW3510 / 1/22/11		Analyst: LG	
1,2-Diphenylhydrazine	U		0.10	0.20	µg/L	1	1/26/2011 19:53
2,4-Dimethylphenol	U		0.080	0.20	µg/L	1	1/26/2011 19:53
2,4-Dinitrotoluene	U		0.090	0.20	µg/L	1	1/26/2011 19:53
2,6-Dinitrotoluene	U		0.070	0.20	µg/L	1	1/26/2011 19:53
2-Chloronaphthalene	U		0.10	0.20	µg/L	1	1/26/2011 19:53
2-Methylnaphthalene	U		0.070	0.20	µg/L	1	1/26/2011 19:53
4,6-Dinitro-2-methylphenol	U		0.080	0.20	µg/L	1	1/26/2011 19:53
4-Nitrophenol	U		0.070	1.0	µg/L	1	1/26/2011 19:53
Acenaphthene	U		0.090	0.20	µg/L	1	1/26/2011 19:53
Acenaphthylene	U		0.070	0.20	µg/L	1	1/26/2011 19:53
Anthracene	U		0.070	0.20	µg/L	1	1/26/2011 19:53
Benz(a)anthracene	U		0.070	0.20	µg/L	1	1/26/2011 19:53
Benzo(a)pyrene	U		0.080	0.20	µg/L	1	1/26/2011 19:53
Bis(2-chloroethoxy)methane	U		0.090	0.20	µg/L	1	1/26/2011 19:53
Bis(2-ethylhexyl)phthalate	1.0		0.20	0.20	µg/L	1	1/26/2011 19:53
Chrysene	U		0.070	0.20	µg/L	1	1/26/2011 19:53
Di-n-butyl phthalate	U		0.070	0.20	µg/L	1	1/26/2011 19:53
Dibenzofuran	U		0.080	0.20	µg/L	1	1/26/2011 19:53
Fluoranthene	0.19	J	0.070	0.20	µg/L	1	1/26/2011 19:53
Fluorene	U		0.070	0.20	µg/L	1	1/26/2011 19:53
N-Nitrosodiphenylamine	U		0.090	0.20	µg/L	1	1/26/2011 19:53
Naphthalene	U		0.10	0.20	µg/L	1	1/26/2011 19:53
Nitrobenzene	U		0.090	0.20	µg/L	1	1/26/2011 19:53
Pentachlorophenol	U		0.080	0.20	µg/L	1	1/26/2011 19:53
Phenanthrene	U		0.070	0.20	µg/L	1	1/26/2011 19:53
Phenol	U		0.070	0.20	µg/L	1	1/26/2011 19:53
Pyrene	0.12	J	0.070	0.20	µg/L	1	1/26/2011 19:53
Surr: 2,4,6-Tribromophenol	46.8			34-129	%REC	1	1/26/2011 19:53
Surr: 2-Fluorobiphenyl	47.7			40-125	%REC	1	1/26/2011 19:53
Surr: 2-Fluorophenol	48.5			20-120	%REC	1	1/26/2011 19:53
Surr: 4-Terphenyl-d14	60.5			40-135	%REC	1	1/26/2011 19:53
Surr: Nitrobenzene-d5	47.5			41-120	%REC	1	1/26/2011 19:53
Surr: Phenol-d6	49.4			20-120	%REC	1	1/26/2011 19:53
TCL VOLATILES		Method: SW8260				Analyst: PC	
1,2-Dichloroethane	U		0.50	5.0	µg/L	1	1/24/2011 22:12
Benzene	U		0.50	5.0	µg/L	1	1/24/2011 22:12
Chlorobenzene	U		0.50	5.0	µg/L	1	1/24/2011 22:12
Dichloromethane	U		0.50	10	µg/L	1	1/24/2011 22:12

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 01-Feb-11

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW-Site Wide Monitoring
Sample ID: WG-1620-MW48C-20110119
Collection Date: 1/19/2011 02:00 PM

Work Order: 1101566
Lab ID: 1101566-07
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
Ethylbenzene	U		0.50	5.0	µg/L	1	1/24/2011 22:12
Toluene	U		0.50	5.0	µg/L	1	1/24/2011 22:12
Xylenes, Total	U		1.0	15	µg/L	1	1/24/2011 22:12
Surr: 1,2-Dichloroethane-d4	102			70-125	%REC	1	1/24/2011 22:12
Surr: 4-Bromofluorobenzene	101			72-125	%REC	1	1/24/2011 22:12
Surr: Dibromofluoromethane	101			71-125	%REC	1	1/24/2011 22:12
Surr: Toluene-d8	102			75-125	%REC	1	1/24/2011 22:12

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 01-Feb-11

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW-Site Wide Monitoring
Sample ID: WG-1620-MW60A-20110119
Collection Date: 1/19/2011 03:10 PM

Work Order: 1101566
Lab ID: 1101566-08
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES		Method: SW8270		Prep: SW3510 / 1/22/11		Analyst: LG	
1,2-Diphenylhydrazine	U		0.10	0.20	µg/L	1	1/26/2011 20:12
2,4-Dimethylphenol	U		0.080	0.20	µg/L	1	1/26/2011 20:12
2,4-Dinitrotoluene	U		0.090	0.20	µg/L	1	1/26/2011 20:12
2,6-Dinitrotoluene	U		0.070	0.20	µg/L	1	1/26/2011 20:12
2-Chloronaphthalene	U		0.10	0.20	µg/L	1	1/26/2011 20:12
2-Methylnaphthalene	U		0.070	0.20	µg/L	1	1/26/2011 20:12
4,6-Dinitro-2-methylphenol	U		0.080	0.20	µg/L	1	1/26/2011 20:12
4-Nitrophenol	U		0.070	1.0	µg/L	1	1/26/2011 20:12
Acenaphthene	U		0.090	0.20	µg/L	1	1/26/2011 20:12
Acenaphthylene	U		0.070	0.20	µg/L	1	1/26/2011 20:12
Anthracene	U		0.070	0.20	µg/L	1	1/26/2011 20:12
Benz(a)anthracene	U		0.070	0.20	µg/L	1	1/26/2011 20:12
Benzo(a)pyrene	U		0.080	0.20	µg/L	1	1/26/2011 20:12
Bis(2-chloroethoxy)methane	U		0.090	0.20	µg/L	1	1/26/2011 20:12
Bis(2-ethylhexyl)phthalate	3.1		0.20	0.20	µg/L	1	1/26/2011 20:12
Chrysene	U		0.070	0.20	µg/L	1	1/26/2011 20:12
Di-n-butyl phthalate	U		0.070	0.20	µg/L	1	1/26/2011 20:12
Dibenzofuran	U		0.080	0.20	µg/L	1	1/26/2011 20:12
Fluoranthene	0.29		0.070	0.20	µg/L	1	1/26/2011 20:12
Fluorene	U		0.070	0.20	µg/L	1	1/26/2011 20:12
N-Nitrosodiphenylamine	U		0.090	0.20	µg/L	1	1/26/2011 20:12
Naphthalene	U		0.10	0.20	µg/L	1	1/26/2011 20:12
Nitrobenzene	U		0.090	0.20	µg/L	1	1/26/2011 20:12
Pentachlorophenol	U		0.080	0.20	µg/L	1	1/26/2011 20:12
Phenanthrene	U		0.070	0.20	µg/L	1	1/26/2011 20:12
Phenol	U		0.070	0.20	µg/L	1	1/26/2011 20:12
Pyrene	0.79		0.070	0.20	µg/L	1	1/26/2011 20:12
Surr: 2,4,6-Tribromophenol	54.7			34-129	%REC	1	1/26/2011 20:12
Surr: 2-Fluorobiphenyl	57.9			40-125	%REC	1	1/26/2011 20:12
Surr: 2-Fluorophenol	44.7			20-120	%REC	1	1/26/2011 20:12
Surr: 4-Terphenyl-d14	61.2			40-135	%REC	1	1/26/2011 20:12
Surr: Nitrobenzene-d5	48.1			41-120	%REC	1	1/26/2011 20:12
Surr: Phenol-d6	53.0			20-120	%REC	1	1/26/2011 20:12
TCL VOLATILES		Method: SW8260				Analyst: PC	
1,2-Dichloroethane	U		0.50	5.0	µg/L	1	1/24/2011 22:38
Benzene	U		0.50	5.0	µg/L	1	1/24/2011 22:38
Chlorobenzene	U		0.50	5.0	µg/L	1	1/24/2011 22:38
Dichloromethane	U		0.50	10	µg/L	1	1/24/2011 22:38

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 01-Feb-11

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW-Site Wide Monitoring
Sample ID: WG-1620-MW60A-20110119
Collection Date: 1/19/2011 03:10 PM

Work Order: 1101566
Lab ID: 1101566-08
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
Ethylbenzene	U		0.50	5.0	µg/L	1	1/24/2011 22:38
Toluene	U		0.50	5.0	µg/L	1	1/24/2011 22:38
Vinyl chloride	U		0.50	2.0	µg/L	1	1/24/2011 22:38
Xylenes, Total	U		1.0	15	µg/L	1	1/24/2011 22:38
Surr: 1,2-Dichloroethane-d4	97.4			70-125	%REC	1	1/24/2011 22:38
Surr: 4-Bromofluorobenzene	101			72-125	%REC	1	1/24/2011 22:38
Surr: Dibromofluoromethane	103			71-125	%REC	1	1/24/2011 22:38
Surr: Toluene-d8	105			75-125	%REC	1	1/24/2011 22:38

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 01-Feb-11

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW-Site Wide Monitoring
Sample ID: WG-1620-MW47C-20110119
Collection Date: 1/19/2011 04:20 PM

Work Order: 1101566
Lab ID: 1101566-09
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES		Method: SW8270			Prep: SW3510 / 1/22/11		Analyst: LG
1,2-Diphenylhydrazine	U		0.10	0.20	µg/L	1	1/26/2011 20:32
2,4-Dimethylphenol	U		0.080	0.20	µg/L	1	1/26/2011 20:32
2,4-Dinitrotoluene	U		0.090	0.20	µg/L	1	1/26/2011 20:32
2,6-Dinitrotoluene	U		0.070	0.20	µg/L	1	1/26/2011 20:32
2-Chloronaphthalene	U		0.10	0.20	µg/L	1	1/26/2011 20:32
2-Methylnaphthalene	U		0.070	0.20	µg/L	1	1/26/2011 20:32
4,6-Dinitro-2-methylphenol	U		0.080	0.20	µg/L	1	1/26/2011 20:32
4-Nitrophenol	U		0.070	1.0	µg/L	1	1/26/2011 20:32
Acenaphthene	U		0.090	0.20	µg/L	1	1/26/2011 20:32
Acenaphthylene	U		0.070	0.20	µg/L	1	1/26/2011 20:32
Anthracene	U		0.070	0.20	µg/L	1	1/26/2011 20:32
Benz(a)anthracene	U		0.070	0.20	µg/L	1	1/26/2011 20:32
Benzo(a)pyrene	U		0.080	0.20	µg/L	1	1/26/2011 20:32
Bis(2-chloroethoxy)methane	U		0.090	0.20	µg/L	1	1/26/2011 20:32
Bis(2-ethylhexyl)phthalate	U		0.20	0.20	µg/L	1	1/26/2011 20:32
Chrysene	U		0.070	0.20	µg/L	1	1/26/2011 20:32
Di-n-butyl phthalate	U		0.070	0.20	µg/L	1	1/26/2011 20:32
Dibenzofuran	U		0.080	0.20	µg/L	1	1/26/2011 20:32
Fluoranthene	U		0.070	0.20	µg/L	1	1/26/2011 20:32
Fluorene	U		0.070	0.20	µg/L	1	1/26/2011 20:32
N-Nitrosodiphenylamine	U		0.090	0.20	µg/L	1	1/26/2011 20:32
Naphthalene	0.21		0.10	0.20	µg/L	1	1/26/2011 20:32
Nitrobenzene	U		0.090	0.20	µg/L	1	1/26/2011 20:32
Pentachlorophenol	U		0.080	0.20	µg/L	1	1/26/2011 20:32
Phenanthrene	U		0.070	0.20	µg/L	1	1/26/2011 20:32
Phenol	U		0.070	0.20	µg/L	1	1/26/2011 20:32
Pyrene	U		0.070	0.20	µg/L	1	1/26/2011 20:32
Surr: 2,4,6-Tribromophenol	43.3			34-129	%REC	1	1/26/2011 20:32
Surr: 2-Fluorobiphenyl	41.3			40-125	%REC	1	1/26/2011 20:32
Surr: 2-Fluorophenol	44.8			20-120	%REC	1	1/26/2011 20:32
Surr: 4-Terphenyl-d14	50.7			40-135	%REC	1	1/26/2011 20:32
Surr: Nitrobenzene-d5	43.9			41-120	%REC	1	1/26/2011 20:32
Surr: Phenol-d6	48.4			20-120	%REC	1	1/26/2011 20:32
TCL VOLATILES		Method: SW8260			Analyst: PC		
1,2-Dichloroethane	U		0.50	5.0	µg/L	1	1/24/2011 23:03
Benzene	U		0.50	5.0	µg/L	1	1/24/2011 23:03
Chlorobenzene	U		0.50	5.0	µg/L	1	1/24/2011 23:03
Dichloromethane	U		0.50	10	µg/L	1	1/24/2011 23:03

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 01-Feb-11

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW-Site Wide Monitoring
Sample ID: WG-1620-MW47C-20110119
Collection Date: 1/19/2011 04:20 PM

Work Order: 1101566
Lab ID: 1101566-09
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
Ethylbenzene	U		0.50	5.0	µg/L	1	1/24/2011 23:03
Toluene	U		0.50	5.0	µg/L	1	1/24/2011 23:03
Xylenes, Total	U		1.0	15	µg/L	1	1/24/2011 23:03
Surr: 1,2-Dichloroethane-d4	94.1			70-125	%REC	1	1/24/2011 23:03
Surr: 4-Bromofluorobenzene	99.8			72-125	%REC	1	1/24/2011 23:03
Surr: Dibromofluoromethane	97.7			71-125	%REC	1	1/24/2011 23:03
Surr: Toluene-d8	103			75-125	%REC	1	1/24/2011 23:03

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 01-Feb-11

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW-Site Wide Monitoring
Sample ID: WG-1620-MW59A-20110120
Collection Date: 1/20/2011 07:45 AM

Work Order: 1101566
Lab ID: 1101566-10
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270	Prep: SW3510 / 1/22/11		Analyst: LG	
1,2-Diphenylhydrazine	U		0.10	0.20	µg/L	1	1/26/2011 20:51
2,4-Dimethylphenol	U		0.080	0.20	µg/L	1	1/26/2011 20:51
2,4-Dinitrotoluene	U		0.090	0.20	µg/L	1	1/26/2011 20:51
2,6-Dinitrotoluene	U		0.070	0.20	µg/L	1	1/26/2011 20:51
2-Chloronaphthalene	U		0.10	0.20	µg/L	1	1/26/2011 20:51
2-Methylnaphthalene	1.8		0.070	0.20	µg/L	1	1/26/2011 20:51
4,6-Dinitro-2-methylphenol	U		0.080	0.20	µg/L	1	1/26/2011 20:51
4-Nitrophenol	U		0.070	1.0	µg/L	1	1/26/2011 20:51
Acenaphthene	0.79		0.090	0.20	µg/L	1	1/26/2011 20:51
Acenaphthylene	U		0.070	0.20	µg/L	1	1/26/2011 20:51
Anthracene	0.40		0.070	0.20	µg/L	1	1/26/2011 20:51
Benz(a)anthracene	0.15	J	0.070	0.20	µg/L	1	1/26/2011 20:51
Benzo(a)pyrene	U		0.080	0.20	µg/L	1	1/26/2011 20:51
Bis(2-chloroethoxy)methane	U		0.090	0.20	µg/L	1	1/26/2011 20:51
Bis(2-ethylhexyl)phthalate	0.31		0.20	0.20	µg/L	1	1/26/2011 20:51
Chrysene	0.14	J	0.070	0.20	µg/L	1	1/26/2011 20:51
Di-n-butyl phthalate	U		0.070	0.20	µg/L	1	1/26/2011 20:51
Dibenzofuran	0.99		0.080	0.20	µg/L	1	1/26/2011 20:51
Fluoranthene	1.2		0.070	0.20	µg/L	1	1/26/2011 20:51
Fluorene	0.84		0.070	0.20	µg/L	1	1/26/2011 20:51
N-Nitrosodiphenylamine	U		0.090	0.20	µg/L	1	1/26/2011 20:51
Naphthalene	6.6		0.10	0.20	µg/L	1	1/26/2011 20:51
Nitrobenzene	U		0.090	0.20	µg/L	1	1/26/2011 20:51
Pentachlorophenol	U		0.080	0.20	µg/L	1	1/26/2011 20:51
Phenanthrene	2.4		0.070	0.20	µg/L	1	1/26/2011 20:51
Phenol	U		0.070	0.20	µg/L	1	1/26/2011 20:51
Pyrene	0.59		0.070	0.20	µg/L	1	1/26/2011 20:51
Surr: 2,4,6-Tribromophenol	72.5			34-129	%REC	1	1/26/2011 20:51
Surr: 2-Fluorobiphenyl	60.0			40-125	%REC	1	1/26/2011 20:51
Surr: 2-Fluorophenol	53.0			20-120	%REC	1	1/26/2011 20:51
Surr: 4-Terphenyl-d14	63.1			40-135	%REC	1	1/26/2011 20:51
Surr: Nitrobenzene-d5	55.9			41-120	%REC	1	1/26/2011 20:51
Surr: Phenol-d6	56.1			20-120	%REC	1	1/26/2011 20:51
TCL VOLATILES			Method: SW8260			Analyst: PC	
1,2-Dichloroethane	U		0.50	5.0	µg/L	1	1/24/2011 23:28
Benzene	U		0.50	5.0	µg/L	1	1/24/2011 23:28
Chlorobenzene	U		0.50	5.0	µg/L	1	1/24/2011 23:28
Dichloromethane	U		0.50	10	µg/L	1	1/24/2011 23:28

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 01-Feb-11

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW-Site Wide Monitoring
Sample ID: WG-1620-MW59A-20110120
Collection Date: 1/20/2011 07:45 AM

Work Order: 1101566
Lab ID: 1101566-10
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
Ethylbenzene	U		0.50	5.0	µg/L	1	1/24/2011 23:28
Toluene	U		0.50	5.0	µg/L	1	1/24/2011 23:28
Xylenes, Total	U		1.0	15	µg/L	1	1/24/2011 23:28
Surr: 1,2-Dichloroethane-d4	95.4			70-125	%REC	1	1/24/2011 23:28
Surr: 4-Bromofluorobenzene	103			72-125	%REC	1	1/24/2011 23:28
Surr: Dibromofluoromethane	96.3			71-125	%REC	1	1/24/2011 23:28
Surr: Toluene-d8	105			75-125	%REC	1	1/24/2011 23:28

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 01-Feb-11

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW-Site Wide Monitoring
Sample ID: WG-1620-MW59B-20110120
Collection Date: 1/20/2011 08:45 AM

Work Order: 1101566
Lab ID: 1101566-11
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES		Method: SW8270			Prep: SW3510 / 1/22/11		Analyst: LG
1,2-Diphenylhydrazine	U		0.10	0.20	µg/L	1	1/26/2011 21:11
2,4-Dimethylphenol	U		0.080	0.20	µg/L	1	1/26/2011 21:11
2,4-Dinitrotoluene	U		0.090	0.20	µg/L	1	1/26/2011 21:11
2,6-Dinitrotoluene	U		0.070	0.20	µg/L	1	1/26/2011 21:11
2-Chloronaphthalene	U		0.10	0.20	µg/L	1	1/26/2011 21:11
2-Methylnaphthalene	U		0.070	0.20	µg/L	1	1/26/2011 21:11
4,6-Dinitro-2-methylphenol	U		0.080	0.20	µg/L	1	1/26/2011 21:11
4-Nitrophenol	U		0.070	1.0	µg/L	1	1/26/2011 21:11
Acenaphthene	U		0.090	0.20	µg/L	1	1/26/2011 21:11
Acenaphthylene	U		0.070	0.20	µg/L	1	1/26/2011 21:11
Anthracene	U		0.070	0.20	µg/L	1	1/26/2011 21:11
Benz(a)anthracene	U		0.070	0.20	µg/L	1	1/26/2011 21:11
Benzo(a)pyrene	U		0.080	0.20	µg/L	1	1/26/2011 21:11
Bis(2-chloroethoxy)methane	U		0.090	0.20	µg/L	1	1/26/2011 21:11
Bis(2-ethylhexyl)phthalate	0.21		0.20	0.20	µg/L	1	1/26/2011 21:11
Chrysene	U		0.070	0.20	µg/L	1	1/26/2011 21:11
Di-n-butyl phthalate	U		0.070	0.20	µg/L	1	1/26/2011 21:11
Dibenzofuran	U		0.080	0.20	µg/L	1	1/26/2011 21:11
Fluoranthene	U		0.070	0.20	µg/L	1	1/26/2011 21:11
Fluorene	U		0.070	0.20	µg/L	1	1/26/2011 21:11
N-Nitrosodiphenylamine	U		0.090	0.20	µg/L	1	1/26/2011 21:11
Naphthalene	0.10	J	0.10	0.20	µg/L	1	1/26/2011 21:11
Nitrobenzene	U		0.090	0.20	µg/L	1	1/26/2011 21:11
Pentachlorophenol	U		0.080	0.20	µg/L	1	1/26/2011 21:11
Phenanthrene	U		0.070	0.20	µg/L	1	1/26/2011 21:11
Phenol	U		0.070	0.20	µg/L	1	1/26/2011 21:11
Pyrene	U		0.070	0.20	µg/L	1	1/26/2011 21:11
Surr: 2,4,6-Tribromophenol	68.7			34-129	%REC	1	1/26/2011 21:11
Surr: 2-Fluorobiphenyl	52.5			40-125	%REC	1	1/26/2011 21:11
Surr: 2-Fluorophenol	50.3			20-120	%REC	1	1/26/2011 21:11
Surr: 4-Terphenyl-d14	62.7			40-135	%REC	1	1/26/2011 21:11
Surr: Nitrobenzene-d5	59.3			41-120	%REC	1	1/26/2011 21:11
Surr: Phenol-d6	52.9			20-120	%REC	1	1/26/2011 21:11
TCL VOLATILES		Method: SW8260					Analyst: PC
1,2-Dichloroethane	U		0.50	5.0	µg/L	1	1/24/2011 23:54
Benzene	U		0.50	5.0	µg/L	1	1/24/2011 23:54
Chlorobenzene	U		0.50	5.0	µg/L	1	1/24/2011 23:54
Dichloromethane	U		0.50	10	µg/L	1	1/24/2011 23:54

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 01-Feb-11

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW-Site Wide Monitoring
Sample ID: WG-1620-MW59B-20110120
Collection Date: 1/20/2011 08:45 AM

Work Order: 1101566
Lab ID: 1101566-11
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
Ethylbenzene	U		0.50	5.0	µg/L	1	1/24/2011 23:54
Toluene	U		0.50	5.0	µg/L	1	1/24/2011 23:54
Xylenes, Total	U		1.0	15	µg/L	1	1/24/2011 23:54
Surr: 1,2-Dichloroethane-d4	93.5			70-125	%REC	1	1/24/2011 23:54
Surr: 4-Bromofluorobenzene	94.2			72-125	%REC	1	1/24/2011 23:54
Surr: Dibromofluoromethane	97.7			71-125	%REC	1	1/24/2011 23:54
Surr: Toluene-d8	96.8			75-125	%REC	1	1/24/2011 23:54

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 01-Feb-11

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW-Site Wide Monitoring
Sample ID: WG-1620-MW59D-20110120
Collection Date: 1/20/2011 10:15 AM

Work Order: 1101566
Lab ID: 1101566-12
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES		Method: SW8270			Prep: SW3510 / 1/22/11		Analyst: LG
1,2-Diphenylhydrazine	U		0.10	0.20	µg/L	1	1/26/2011 21:30
2,4-Dimethylphenol	U		0.080	0.20	µg/L	1	1/26/2011 21:30
2,4-Dinitrotoluene	U		0.090	0.20	µg/L	1	1/26/2011 21:30
2,6-Dinitrotoluene	U		0.070	0.20	µg/L	1	1/26/2011 21:30
2-Chloronaphthalene	U		0.10	0.20	µg/L	1	1/26/2011 21:30
2-Methylnaphthalene	0.46		0.070	0.20	µg/L	1	1/26/2011 21:30
4,6-Dinitro-2-methylphenol	U		0.080	0.20	µg/L	1	1/26/2011 21:30
4-Nitrophenol	U		0.070	1.0	µg/L	1	1/26/2011 21:30
Acenaphthene	0.95		0.090	0.20	µg/L	1	1/26/2011 21:30
Acenaphthylene	U		0.070	0.20	µg/L	1	1/26/2011 21:30
Anthracene	0.69		0.070	0.20	µg/L	1	1/26/2011 21:30
Benz(a)anthracene	0.27		0.070	0.20	µg/L	1	1/26/2011 21:30
Benzo(a)pyrene	U		0.080	0.20	µg/L	1	1/26/2011 21:30
Bis(2-chloroethoxy)methane	U		0.090	0.20	µg/L	1	1/26/2011 21:30
Bis(2-ethylhexyl)phthalate	1.5		0.20	0.20	µg/L	1	1/26/2011 21:30
Chrysene	0.24		0.070	0.20	µg/L	1	1/26/2011 21:30
Di-n-butyl phthalate	U		0.070	0.20	µg/L	1	1/26/2011 21:30
Dibenzofuran	1.1		0.080	0.20	µg/L	1	1/26/2011 21:30
Fluoranthene	1.8		0.070	0.20	µg/L	1	1/26/2011 21:30
Fluorene	0.79		0.070	0.20	µg/L	1	1/26/2011 21:30
N-Nitrosodiphenylamine	U		0.090	0.20	µg/L	1	1/26/2011 21:30
Naphthalene	3.4		0.10	0.20	µg/L	1	1/26/2011 21:30
Nitrobenzene	U		0.090	0.20	µg/L	1	1/26/2011 21:30
Pentachlorophenol	U		0.080	0.20	µg/L	1	1/26/2011 21:30
Phenanthrene	3.7		0.070	0.20	µg/L	1	1/26/2011 21:30
Phenol	U		0.070	0.20	µg/L	1	1/26/2011 21:30
Pyrene	1.1		0.070	0.20	µg/L	1	1/26/2011 21:30
Surr: 2,4,6-Tribromophenol	53.1			34-129	%REC	1	1/26/2011 21:30
Surr: 2-Fluorobiphenyl	40.4			40-125	%REC	1	1/26/2011 21:30
Surr: 2-Fluorophenol	43.0			20-120	%REC	1	1/26/2011 21:30
Surr: 4-Terphenyl-d14	52.7			40-135	%REC	1	1/26/2011 21:30
Surr: Nitrobenzene-d5	47.8			41-120	%REC	1	1/26/2011 21:30
Surr: Phenol-d6	42.5			20-120	%REC	1	1/26/2011 21:30
TCL VOLATILES		Method: SW8260					Analyst: PC
1,2-Dichloroethane	U		0.50	5.0	µg/L	1	1/25/2011 00:19
Benzene	U		0.50	5.0	µg/L	1	1/25/2011 00:19
Chlorobenzene	U		0.50	5.0	µg/L	1	1/25/2011 00:19
Dichloromethane	U		0.50	10	µg/L	1	1/25/2011 00:19

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 01-Feb-11

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW-Site Wide Monitoring
Sample ID: WG-1620-MW59D-20110120
Collection Date: 1/20/2011 10:15 AM

Work Order: 1101566
Lab ID: 1101566-12
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
Ethylbenzene	U		0.50	5.0	µg/L	1	1/25/2011 00:19
Toluene	U		0.50	5.0	µg/L	1	1/25/2011 00:19
Xylenes, Total	U		1.0	15	µg/L	1	1/25/2011 00:19
Surr: 1,2-Dichloroethane-d4	101			70-125	%REC	1	1/25/2011 00:19
Surr: 4-Bromofluorobenzene	95.8			72-125	%REC	1	1/25/2011 00:19
Surr: Dibromofluoromethane	101			71-125	%REC	1	1/25/2011 00:19
Surr: Toluene-d8	99.8			75-125	%REC	1	1/25/2011 00:19

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 01-Feb-11

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW-Site Wide Monitoring
Sample ID: WG-1620-MW49A-20110120
Collection Date: 1/20/2011 11:30 AM

Work Order: 1101566
Lab ID: 1101566-13
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270		Prep: SW3510 / 1/22/11		Analyst: LG
1,2-Diphenylhydrazine		U	0.10	0.20	µg/L	1	1/27/2011 00:07
2,4-Dimethylphenol	180		4.0	10	µg/L	50	1/27/2011 19:10
2,4-Dinitrotoluene		U	0.090	0.20	µg/L	1	1/27/2011 00:07
2,6-Dinitrotoluene		U	0.070	0.20	µg/L	1	1/27/2011 00:07
2-Chloronaphthalene		U	0.10	0.20	µg/L	1	1/27/2011 00:07
2-Methylnaphthalene	130		3.5	10	µg/L	50	1/27/2011 19:10
4,6-Dinitro-2-methylphenol		U	0.080	0.20	µg/L	1	1/27/2011 00:07
4-Nitrophenol		U	0.070	1.0	µg/L	1	1/27/2011 00:07
Acenaphthene	130		4.5	10	µg/L	50	1/27/2011 19:10
Acenaphthylene	1.8		0.070	0.20	µg/L	1	1/27/2011 00:07
Anthracene	9.6		0.070	0.20	µg/L	1	1/27/2011 00:07
Benz(a)anthracene		U	0.070	0.20	µg/L	1	1/27/2011 00:07
Benzo(a)pyrene		U	0.080	0.20	µg/L	1	1/27/2011 00:07
Bis(2-chloroethoxy)methane		U	0.090	0.20	µg/L	1	1/27/2011 00:07
Bis(2-ethylhexyl)phthalate	0.29		0.20	0.20	µg/L	1	1/27/2011 00:07
Chrysene		U	0.070	0.20	µg/L	1	1/27/2011 00:07
Di-n-butyl phthalate		U	0.070	0.20	µg/L	1	1/27/2011 00:07
Dibenzofuran	75		0.80	2.0	µg/L	10	1/27/2011 02:05
Fluoranthene	3.8		0.070	0.20	µg/L	1	1/27/2011 00:07
Fluorene	73		0.70	2.0	µg/L	10	1/27/2011 02:05
N-Nitrosodiphenylamine		U	0.090	0.20	µg/L	1	1/27/2011 00:07
Naphthalene	1,800		100	200	µg/L	1000	1/27/2011 21:47
Nitrobenzene		U	0.090	0.20	µg/L	1	1/27/2011 00:07
Pentachlorophenol		U	0.080	0.20	µg/L	1	1/27/2011 00:07
Phenanthrene	62		0.70	2.0	µg/L	10	1/27/2011 02:05
Phenol	5.8		0.070	0.20	µg/L	1	1/27/2011 00:07
Pyrene	2.0		0.070	0.20	µg/L	1	1/27/2011 00:07
Surr: 2,4,6-Tribromophenol	62.4			34-129	%REC	1	1/27/2011 00:07
Surr: 2,4,6-Tribromophenol	55.4			34-129	%REC	10	1/27/2011 02:05
Surr: 2,4,6-Tribromophenol	99.0	J		34-129	%REC	50	1/27/2011 19:10
Surr: 2,4,6-Tribromophenol	0	S		34-129	%REC	1000	1/27/2011 21:47
Surr: 2-Fluorobiphenyl	40.5			40-125	%REC	1	1/27/2011 00:07
Surr: 2-Fluorobiphenyl	44.0			40-125	%REC	10	1/27/2011 02:05
Surr: 2-Fluorobiphenyl	55.2	J		40-125	%REC	50	1/27/2011 19:10
Surr: 2-Fluorobiphenyl	0	S		40-125	%REC	1000	1/27/2011 21:47
Surr: 2-Fluorophenol	51.7			20-120	%REC	1	1/27/2011 00:07
Surr: 2-Fluorophenol	39.1	J		20-120	%REC	10	1/27/2011 02:05
Surr: 2-Fluorophenol	66.0	J		20-120	%REC	50	1/27/2011 19:10

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 01-Feb-11

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW-Site Wide Monitoring
Sample ID: WG-1620-MW49A-20110120
Collection Date: 1/20/2011 11:30 AM

Work Order: 1101566
Lab ID: 1101566-13
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
Surr: 2-Fluorophenol	0	S		20-120	%REC	1000	1/27/2011 21:47
Surr: 4-Terphenyl-d14	68.0			40-135	%REC	1	1/27/2011 00:07
Surr: 4-Terphenyl-d14	60.3			40-135	%REC	10	1/27/2011 02:05
Surr: 4-Terphenyl-d14	93.8	J		40-135	%REC	50	1/27/2011 19:10
Surr: 4-Terphenyl-d14	0	S		40-135	%REC	1000	1/27/2011 21:47
Surr: Nitrobenzene-d5	57.9			41-120	%REC	1	1/27/2011 00:07
Surr: Nitrobenzene-d5	47.5			41-120	%REC	10	1/27/2011 02:05
Surr: Nitrobenzene-d5	73.9	J		41-120	%REC	50	1/27/2011 19:10
Surr: Nitrobenzene-d5	0	S		41-120	%REC	1000	1/27/2011 21:47
Surr: Phenol-d6	49.0			20-120	%REC	1	1/27/2011 00:07
Surr: Phenol-d6	46.4			20-120	%REC	10	1/27/2011 02:05
Surr: Phenol-d6	63.9	J		20-120	%REC	50	1/27/2011 19:10
Surr: Phenol-d6	0	S		20-120	%REC	1000	1/27/2011 21:47

TCL VOLATILES	Method: SW8260				Analyst: PC		
1,2-Dichloroethane	U		5.0	50	µg/L	10	1/25/2011 20:19
Benzene	57		5.0	50	µg/L	10	1/25/2011 20:19
Chlorobenzene	8.4	J	5.0	50	µg/L	10	1/25/2011 20:19
Dichloromethane	U		5.0	100	µg/L	10	1/25/2011 20:19
Ethylbenzene	40	J	5.0	50	µg/L	10	1/25/2011 20:19
Toluene	21	J	5.0	50	µg/L	10	1/25/2011 20:19
Vinyl chloride	U		5.0	20	µg/L	10	1/25/2011 20:19
Xylenes, Total	79	J	10	150	µg/L	10	1/25/2011 20:19
Surr: 1,2-Dichloroethane-d4	99.4			70-125	%REC	10	1/25/2011 20:19
Surr: 4-Bromofluorobenzene	91.6			72-125	%REC	10	1/25/2011 20:19
Surr: Dibromofluoromethane	101			71-125	%REC	10	1/25/2011 20:19
Surr: Toluene-d8	101			75-125	%REC	10	1/25/2011 20:19

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 01-Feb-11

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW-Site Wide Monitoring
Sample ID: WG-1620-MW49B-20110120
Collection Date: 1/20/2011 01:45 PM

Work Order: 1101566
Lab ID: 1101566-14
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270		Prep: SW3510 / 1/22/11		Analyst: LG
1,2-Diphenylhydrazine		U	0.10	0.20	µg/L	1	1/27/2011 00:27
2,4-Dimethylphenol	180		4.0	10	µg/L	50	1/27/2011 23:06
2,4-Dinitrotoluene		U	0.090	0.20	µg/L	1	1/27/2011 00:27
2,6-Dinitrotoluene		U	0.070	0.20	µg/L	1	1/27/2011 00:27
2-Chloronaphthalene		U	0.10	0.20	µg/L	1	1/27/2011 00:27
2-Methylnaphthalene		U	0.070	0.20	µg/L	1	1/27/2011 00:27
4,6-Dinitro-2-methylphenol		U	0.080	0.20	µg/L	1	1/27/2011 00:27
4-Nitrophenol		U	0.070	1.0	µg/L	1	1/27/2011 00:27
Acenaphthene	0.67		0.090	0.20	µg/L	1	1/27/2011 00:27
Acenaphthylene		U	0.070	0.20	µg/L	1	1/27/2011 00:27
Anthracene	0.31		0.070	0.20	µg/L	1	1/27/2011 00:27
Benz(a)anthracene		U	0.070	0.20	µg/L	1	1/27/2011 00:27
Benzo(a)pyrene		U	0.080	0.20	µg/L	1	1/27/2011 00:27
Bis(2-chloroethoxy)methane		U	0.090	0.20	µg/L	1	1/27/2011 00:27
Bis(2-ethylhexyl)phthalate	0.55		0.20	0.20	µg/L	1	1/27/2011 00:27
Chrysene		U	0.070	0.20	µg/L	1	1/27/2011 00:27
Di-n-butyl phthalate		U	0.070	0.20	µg/L	1	1/27/2011 00:27
Dibenzofuran	0.18	J	0.080	0.20	µg/L	1	1/27/2011 00:27
Fluoranthene	0.19	J	0.070	0.20	µg/L	1	1/27/2011 00:27
Fluorene	0.18	J	0.070	0.20	µg/L	1	1/27/2011 00:27
N-Nitrosodiphenylamine		U	0.090	0.20	µg/L	1	1/27/2011 00:27
Naphthalene	0.52		0.10	0.20	µg/L	1	1/27/2011 00:27
Nitrobenzene		U	0.090	0.20	µg/L	1	1/27/2011 00:27
Pentachlorophenol		U	0.080	0.20	µg/L	1	1/27/2011 00:27
Phenanthrene	0.21		0.070	0.20	µg/L	1	1/27/2011 00:27
Phenol	0.44		0.070	0.20	µg/L	1	1/27/2011 00:27
Pyrene	0.24		0.070	0.20	µg/L	1	1/27/2011 00:27
Surr: 2,4,6-Tribromophenol	67.1			34-129	%REC	1	1/27/2011 00:27
Surr: 2,4,6-Tribromophenol	78.5	J		34-129	%REC	50	1/27/2011 23:06
Surr: 2-Fluorobiphenyl	41.7			40-125	%REC	1	1/27/2011 00:27
Surr: 2-Fluorobiphenyl	45.3	J		40-125	%REC	50	1/27/2011 23:06
Surr: 2-Fluorophenol	42.9			20-120	%REC	1	1/27/2011 00:27
Surr: 2-Fluorophenol	52.6	J		20-120	%REC	50	1/27/2011 23:06
Surr: 4-Terphenyl-d14	64.4			40-135	%REC	1	1/27/2011 00:27
Surr: 4-Terphenyl-d14	72.4	J		40-135	%REC	50	1/27/2011 23:06
Surr: Nitrobenzene-d5	41.1			41-120	%REC	1	1/27/2011 00:27
Surr: Nitrobenzene-d5	56.1	J		41-120	%REC	50	1/27/2011 23:06
Surr: Phenol-d6	51.1			20-120	%REC	1	1/27/2011 00:27

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 01-Feb-11

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW-Site Wide Monitoring
Sample ID: WG-1620-MW49B-20110120
Collection Date: 1/20/2011 01:45 PM

Work Order: 1101566
Lab ID: 1101566-14
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
<i>Surr: Phenol-d6</i>	66.7	J		20-120	%REC	50	1/27/2011 23:06
TCL VOLATILES		Method: SW8260				Analyst: PC	
1,2-Dichloroethane	U		0.50	5.0	µg/L	1	1/25/2011 02:26
Benzene	5.7		0.50	5.0	µg/L	1	1/25/2011 02:26
Chlorobenzene	U		0.50	5.0	µg/L	1	1/25/2011 02:26
Dichloromethane	U		0.50	10	µg/L	1	1/25/2011 02:26
Ethylbenzene	4.0	J	0.50	5.0	µg/L	1	1/25/2011 02:26
Toluene	7.2		0.50	5.0	µg/L	1	1/25/2011 02:26
Xylenes, Total	6.6	J	1.0	15	µg/L	1	1/25/2011 02:26
<i>Surr: 1,2-Dichloroethane-d4</i>	95.5			70-125	%REC	1	1/25/2011 02:26
<i>Surr: 4-Bromofluorobenzene</i>	97.7			72-125	%REC	1	1/25/2011 02:26
<i>Surr: Dibromofluoromethane</i>	99.1			71-125	%REC	1	1/25/2011 02:26
<i>Surr: Toluene-d8</i>	97.5			75-125	%REC	1	1/25/2011 02:26

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 01-Feb-11

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW-Site Wide Monitoring
Sample ID: WG-1620-FD02-20110120
Collection Date: 1/20/2011 01:45 PM

Work Order: 1101566
Lab ID: 1101566-15
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270		Prep: SW3510 / 1/22/11		Analyst: LG
1,2-Diphenylhydrazine		U	0.10	0.20	µg/L	1	1/27/2011 00:47
2,4-Dimethylphenol	160		4.0	10	µg/L	50	1/27/2011 23:25
2,4-Dinitrotoluene		U	0.090	0.20	µg/L	1	1/27/2011 00:47
2,6-Dinitrotoluene		U	0.070	0.20	µg/L	1	1/27/2011 00:47
2-Chloronaphthalene		U	0.10	0.20	µg/L	1	1/27/2011 00:47
2-Methylnaphthalene		U	0.070	0.20	µg/L	1	1/27/2011 00:47
4,6-Dinitro-2-methylphenol		U	0.080	0.20	µg/L	1	1/27/2011 00:47
4-Nitrophenol		U	0.070	1.0	µg/L	1	1/27/2011 00:47
Acenaphthene	0.49		0.090	0.20	µg/L	1	1/27/2011 00:47
Acenaphthylene	0.072	J	0.070	0.20	µg/L	1	1/27/2011 00:47
Anthracene	0.083	J	0.070	0.20	µg/L	1	1/27/2011 00:47
Benz(a)anthracene		U	0.070	0.20	µg/L	1	1/27/2011 00:47
Benzo(a)pyrene		U	0.080	0.20	µg/L	1	1/27/2011 00:47
Bis(2-chloroethoxy)methane		U	0.090	0.20	µg/L	1	1/27/2011 00:47
Bis(2-ethylhexyl)phthalate	1.5		0.20	0.20	µg/L	1	1/27/2011 00:47
Chrysene		U	0.070	0.20	µg/L	1	1/27/2011 00:47
Di-n-butyl phthalate		U	0.070	0.20	µg/L	1	1/27/2011 00:47
Dibenzofuran	0.12	J	0.080	0.20	µg/L	1	1/27/2011 00:47
Fluoranthene		U	0.070	0.20	µg/L	1	1/27/2011 00:47
Fluorene		U	0.070	0.20	µg/L	1	1/27/2011 00:47
N-Nitrosodiphenylamine		U	0.090	0.20	µg/L	1	1/27/2011 00:47
Naphthalene	0.20	J	0.10	0.20	µg/L	1	1/27/2011 00:47
Nitrobenzene		U	0.090	0.20	µg/L	1	1/27/2011 00:47
Pentachlorophenol		U	0.080	0.20	µg/L	1	1/27/2011 00:47
Phenanthrene	0.30		0.070	0.20	µg/L	1	1/27/2011 00:47
Phenol	0.40		0.070	0.20	µg/L	1	1/27/2011 00:47
Pyrene	0.17	J	0.070	0.20	µg/L	1	1/27/2011 00:47
Surr: 2,4,6-Tribromophenol	65.2			34-129	%REC	1	1/27/2011 00:47
Surr: 2,4,6-Tribromophenol	72.0	J		34-129	%REC	50	1/27/2011 23:25
Surr: 2-Fluorobiphenyl	47.4			40-125	%REC	1	1/27/2011 00:47
Surr: 2-Fluorobiphenyl	45.3	J		40-125	%REC	50	1/27/2011 23:25
Surr: 2-Fluorophenol	41.7			20-120	%REC	1	1/27/2011 00:47
Surr: 2-Fluorophenol	70.4	J		20-120	%REC	50	1/27/2011 23:25
Surr: 4-Terphenyl-d14	61.1			40-135	%REC	1	1/27/2011 00:47
Surr: 4-Terphenyl-d14	66.2	J		40-135	%REC	50	1/27/2011 23:25
Surr: Nitrobenzene-d5	41.1			41-120	%REC	1	1/27/2011 00:47
Surr: Nitrobenzene-d5	54.6	J		41-120	%REC	50	1/27/2011 23:25
Surr: Phenol-d6	53.5			20-120	%REC	1	1/27/2011 00:47

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 01-Feb-11

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW-Site Wide Monitoring
Sample ID: WG-1620-FD02-20110120
Collection Date: 1/20/2011 01:45 PM

Work Order: 1101566
Lab ID: 1101566-15
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed	
<i>Surr: Phenol-d6</i>	76.4	J		20-120	%REC	50	1/27/2011 23:25	
TCL VOLATILES		Method: SW8260					Analyst: PC	
1,2-Dichloroethane	U		0.50	5.0	µg/L	1	1/25/2011 03:16	
Benzene	5.6		0.50	5.0	µg/L	1	1/25/2011 03:16	
Chlorobenzene	U		0.50	5.0	µg/L	1	1/25/2011 03:16	
Dichloromethane	U		0.50	10	µg/L	1	1/25/2011 03:16	
Ethylbenzene	4.6	J	0.50	5.0	µg/L	1	1/25/2011 03:16	
Toluene	7.2		0.50	5.0	µg/L	1	1/25/2011 03:16	
Xylenes, Total	7.3	J	1.0	15	µg/L	1	1/25/2011 03:16	
<i>Surr: 1,2-Dichloroethane-d4</i>	96.3			70-125	%REC	1	1/25/2011 03:16	
<i>Surr: 4-Bromofluorobenzene</i>	99.8			72-125	%REC	1	1/25/2011 03:16	
<i>Surr: Dibromofluoromethane</i>	98.9			71-125	%REC	1	1/25/2011 03:16	
<i>Surr: Toluene-d8</i>	102			75-125	%REC	1	1/25/2011 03:16	

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 01-Feb-11

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW-Site Wide Monitoring
Sample ID: WG-1620-MW51A-20110120
Collection Date: 1/20/2011 03:00 PM

Work Order: 1101566
Lab ID: 1101566-16
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES		Method: SW8270			Prep: SW3510 / 1/22/11		Analyst: LG
1,2-Diphenylhydrazine	U		0.10	0.20	µg/L	1	1/26/2011 23:28
2,4-Dimethylphenol	U		0.080	0.20	µg/L	1	1/26/2011 23:28
2,4-Dinitrotoluene	U		0.090	0.20	µg/L	1	1/26/2011 23:28
2,6-Dinitrotoluene	U		0.070	0.20	µg/L	1	1/26/2011 23:28
2-Chloronaphthalene	U		0.10	0.20	µg/L	1	1/26/2011 23:28
2-Methylnaphthalene	U		0.070	0.20	µg/L	1	1/26/2011 23:28
4,6-Dinitro-2-methylphenol	U		0.080	0.20	µg/L	1	1/26/2011 23:28
4-Nitrophenol	U		0.070	1.0	µg/L	1	1/26/2011 23:28
Acenaphthene	U		0.090	0.20	µg/L	1	1/26/2011 23:28
Acenaphthylene	U		0.070	0.20	µg/L	1	1/26/2011 23:28
Anthracene	U		0.070	0.20	µg/L	1	1/26/2011 23:28
Benz(a)anthracene	U		0.070	0.20	µg/L	1	1/26/2011 23:28
Benzo(a)pyrene	U		0.080	0.20	µg/L	1	1/26/2011 23:28
Bis(2-chloroethoxy)methane	U		0.090	0.20	µg/L	1	1/26/2011 23:28
Bis(2-ethylhexyl)phthalate	0.29		0.20	0.20	µg/L	1	1/26/2011 23:28
Chrysene	U		0.070	0.20	µg/L	1	1/26/2011 23:28
Di-n-butyl phthalate	U		0.070	0.20	µg/L	1	1/26/2011 23:28
Dibenzofuran	U		0.080	0.20	µg/L	1	1/26/2011 23:28
Fluoranthene	U		0.070	0.20	µg/L	1	1/26/2011 23:28
Fluorene	U		0.070	0.20	µg/L	1	1/26/2011 23:28
N-Nitrosodiphenylamine	U		0.090	0.20	µg/L	1	1/26/2011 23:28
Naphthalene	0.11	J	0.10	0.20	µg/L	1	1/26/2011 23:28
Nitrobenzene	U		0.090	0.20	µg/L	1	1/26/2011 23:28
Pentachlorophenol	U		0.080	0.20	µg/L	1	1/26/2011 23:28
Phenanthrene	U		0.070	0.20	µg/L	1	1/26/2011 23:28
Phenol	U		0.070	0.20	µg/L	1	1/26/2011 23:28
Pyrene	U		0.070	0.20	µg/L	1	1/26/2011 23:28
Surr: 2,4,6-Tribromophenol	52.2			34-129	%REC	1	1/26/2011 23:28
Surr: 2-Fluorobiphenyl	42.0			40-125	%REC	1	1/26/2011 23:28
Surr: 2-Fluorophenol	46.5			20-120	%REC	1	1/26/2011 23:28
Surr: 4-Terphenyl-d14	57.0			40-135	%REC	1	1/26/2011 23:28
Surr: Nitrobenzene-d5	66.8			41-120	%REC	1	1/26/2011 23:28
Surr: Phenol-d6	42.2			20-120	%REC	1	1/26/2011 23:28
TCL VOLATILES		Method: SW8260					Analyst: PC
1,2-Dichloroethane	U		0.50	5.0	µg/L	1	1/25/2011 00:44
Benzene	U		0.50	5.0	µg/L	1	1/25/2011 00:44
Chlorobenzene	U		0.50	5.0	µg/L	1	1/25/2011 00:44
Dichloromethane	U		0.50	10	µg/L	1	1/25/2011 00:44

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 01-Feb-11

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW-Site Wide Monitoring
Sample ID: WG-1620-MW51A-20110120
Collection Date: 1/20/2011 03:00 PM

Work Order: 1101566
Lab ID: 1101566-16
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
Ethylbenzene	U		0.50	5.0	µg/L	1	1/25/2011 00:44
Toluene	U		0.50	5.0	µg/L	1	1/25/2011 00:44
Xylenes, Total	U		1.0	15	µg/L	1	1/25/2011 00:44
Surr: 1,2-Dichloroethane-d4	98.3			70-125	%REC	1	1/25/2011 00:44
Surr: 4-Bromofluorobenzene	100			72-125	%REC	1	1/25/2011 00:44
Surr: Dibromofluoromethane	99.9			71-125	%REC	1	1/25/2011 00:44
Surr: Toluene-d8	105			75-125	%REC	1	1/25/2011 00:44

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 01-Feb-11

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW-Site Wide Monitoring
Sample ID: WG-1620-MW36A-20110120
Collection Date: 1/20/2011 04:20 PM

Work Order: 1101566
Lab ID: 1101566-17
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES		Method: SW8270			Prep: SW3510 / 1/22/11		Analyst: LG
1,2-Diphenylhydrazine	U		0.10	0.20	µg/L	1	1/26/2011 21:50
2,4-Dimethylphenol	U		0.080	0.20	µg/L	1	1/26/2011 21:50
2,4-Dinitrotoluene	U		0.090	0.20	µg/L	1	1/26/2011 21:50
2,6-Dinitrotoluene	U		0.070	0.20	µg/L	1	1/26/2011 21:50
2-Chloronaphthalene	U		0.10	0.20	µg/L	1	1/26/2011 21:50
2-Methylnaphthalene	U		0.070	0.20	µg/L	1	1/26/2011 21:50
4,6-Dinitro-2-methylphenol	U		0.080	0.20	µg/L	1	1/26/2011 21:50
4-Nitrophenol	U		0.070	1.0	µg/L	1	1/26/2011 21:50
Acenaphthene	U		0.090	0.20	µg/L	1	1/26/2011 21:50
Acenaphthylene	U		0.070	0.20	µg/L	1	1/26/2011 21:50
Anthracene	U		0.070	0.20	µg/L	1	1/26/2011 21:50
Benz(a)anthracene	U		0.070	0.20	µg/L	1	1/26/2011 21:50
Benzo(a)pyrene	U		0.080	0.20	µg/L	1	1/26/2011 21:50
Bis(2-chloroethoxy)methane	U		0.090	0.20	µg/L	1	1/26/2011 21:50
Bis(2-ethylhexyl)phthalate	0.48		0.20	0.20	µg/L	1	1/26/2011 21:50
Chrysene	U		0.070	0.20	µg/L	1	1/26/2011 21:50
Di-n-butyl phthalate	U		0.070	0.20	µg/L	1	1/26/2011 21:50
Dibenzofuran	U		0.080	0.20	µg/L	1	1/26/2011 21:50
Fluoranthene	U		0.070	0.20	µg/L	1	1/26/2011 21:50
Fluorene	U		0.070	0.20	µg/L	1	1/26/2011 21:50
N-Nitrosodiphenylamine	U		0.090	0.20	µg/L	1	1/26/2011 21:50
Naphthalene	U		0.10	0.20	µg/L	1	1/26/2011 21:50
Nitrobenzene	U		0.090	0.20	µg/L	1	1/26/2011 21:50
Pentachlorophenol	U		0.080	0.20	µg/L	1	1/26/2011 21:50
Phenanthrene	U		0.070	0.20	µg/L	1	1/26/2011 21:50
Phenol	U		0.070	0.20	µg/L	1	1/26/2011 21:50
Pyrene	U		0.070	0.20	µg/L	1	1/26/2011 21:50
Surr: 2,4,6-Tribromophenol	65.9			34-129	%REC	1	1/26/2011 21:50
Surr: 2-Fluorobiphenyl	41.0			40-125	%REC	1	1/26/2011 21:50
Surr: 2-Fluorophenol	39.5			20-120	%REC	1	1/26/2011 21:50
Surr: 4-Terphenyl-d14	60.3			40-135	%REC	1	1/26/2011 21:50
Surr: Nitrobenzene-d5	52.7			41-120	%REC	1	1/26/2011 21:50
Surr: Phenol-d6	44.9			20-120	%REC	1	1/26/2011 21:50
TCL VOLATILES		Method: SW8260					Analyst: PC
1,2-Dichloroethane	U		0.50	5.0	µg/L	1	1/25/2011 01:10
Benzene	U		0.50	5.0	µg/L	1	1/25/2011 01:10
Chlorobenzene	U		0.50	5.0	µg/L	1	1/25/2011 01:10
Dichloromethane	U		0.50	10	µg/L	1	1/25/2011 01:10

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 01-Feb-11

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW-Site Wide Monitoring
Sample ID: WG-1620-MW36A-20110120
Collection Date: 1/20/2011 04:20 PM

Work Order: 1101566
Lab ID: 1101566-17
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
Ethylbenzene	U		0.50	5.0	µg/L	1	1/25/2011 01:10
Toluene	U		0.50	5.0	µg/L	1	1/25/2011 01:10
Xylenes, Total	U		1.0	15	µg/L	1	1/25/2011 01:10
Surr: 1,2-Dichloroethane-d4	97.0			70-125	%REC	1	1/25/2011 01:10
Surr: 4-Bromofluorobenzene	96.7			72-125	%REC	1	1/25/2011 01:10
Surr: Dibromofluoromethane	100			71-125	%REC	1	1/25/2011 01:10
Surr: Toluene-d8	97.0			75-125	%REC	1	1/25/2011 01:10

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 01-Feb-11

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW-Site Wide Monitoring
Sample ID: WG-1620-MW36B-20110120
Collection Date: 1/20/2011 05:25 PM

Work Order: 1101566
Lab ID: 1101566-18
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES		Method: SW8270			Prep: SW3510 / 1/22/11		Analyst: LG
1,2-Diphenylhydrazine	U		0.10	0.20	µg/L	1	1/26/2011 22:29
2,4-Dimethylphenol	U		0.080	0.20	µg/L	1	1/26/2011 22:29
2,4-Dinitrotoluene	U		0.090	0.20	µg/L	1	1/26/2011 22:29
2,6-Dinitrotoluene	U		0.070	0.20	µg/L	1	1/26/2011 22:29
2-Chloronaphthalene	U		0.10	0.20	µg/L	1	1/26/2011 22:29
2-Methylnaphthalene	U		0.070	0.20	µg/L	1	1/26/2011 22:29
4,6-Dinitro-2-methylphenol	U		0.080	0.20	µg/L	1	1/26/2011 22:29
4-Nitrophenol	U		0.070	1.0	µg/L	1	1/26/2011 22:29
Acenaphthene	0.23		0.090	0.20	µg/L	1	1/26/2011 22:29
Acenaphthylene	U		0.070	0.20	µg/L	1	1/26/2011 22:29
Anthracene	U		0.070	0.20	µg/L	1	1/26/2011 22:29
Benz(a)anthracene	U		0.070	0.20	µg/L	1	1/26/2011 22:29
Benzo(a)pyrene	U		0.080	0.20	µg/L	1	1/26/2011 22:29
Bis(2-chloroethoxy)methane	U		0.090	0.20	µg/L	1	1/26/2011 22:29
Bis(2-ethylhexyl)phthalate	0.48		0.20	0.20	µg/L	1	1/26/2011 22:29
Chrysene	U		0.070	0.20	µg/L	1	1/26/2011 22:29
Di-n-butyl phthalate	U		0.070	0.20	µg/L	1	1/26/2011 22:29
Dibenzofuran	U		0.080	0.20	µg/L	1	1/26/2011 22:29
Fluoranthene	U		0.070	0.20	µg/L	1	1/26/2011 22:29
Fluorene	U		0.070	0.20	µg/L	1	1/26/2011 22:29
N-Nitrosodiphenylamine	U		0.090	0.20	µg/L	1	1/26/2011 22:29
Naphthalene	U		0.10	0.20	µg/L	1	1/26/2011 22:29
Nitrobenzene	U		0.090	0.20	µg/L	1	1/26/2011 22:29
Pentachlorophenol	U		0.080	0.20	µg/L	1	1/26/2011 22:29
Phenanthrene	U		0.070	0.20	µg/L	1	1/26/2011 22:29
Phenol	0.089	J	0.070	0.20	µg/L	1	1/26/2011 22:29
Pyrene	U		0.070	0.20	µg/L	1	1/26/2011 22:29
Surr: 2,4,6-Tribromophenol	68.3			34-129	%REC	1	1/26/2011 22:29
Surr: 2-Fluorobiphenyl	40.9			40-125	%REC	1	1/26/2011 22:29
Surr: 2-Fluorophenol	47.4			20-120	%REC	1	1/26/2011 22:29
Surr: 4-Terphenyl-d14	52.6			40-135	%REC	1	1/26/2011 22:29
Surr: Nitrobenzene-d5	50.7			41-120	%REC	1	1/26/2011 22:29
Surr: Phenol-d6	54.9			20-120	%REC	1	1/26/2011 22:29
TCL VOLATILES		Method: SW8260					Analyst: PC
1,2-Dichloroethane	U		0.50	5.0	µg/L	1	1/25/2011 01:35
Benzene	1.8	J	0.50	5.0	µg/L	1	1/25/2011 01:35
Chlorobenzene	U		0.50	5.0	µg/L	1	1/25/2011 01:35
Dichloromethane	U		0.50	10	µg/L	1	1/25/2011 01:35

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 01-Feb-11

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW-Site Wide Monitoring
Sample ID: WG-1620-MW36B-20110120
Collection Date: 1/20/2011 05:25 PM

Work Order: 1101566
Lab ID: 1101566-18
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	ML	Units	Dilution Factor	Date Analyzed
Ethylbenzene	U		0.50	5.0	µg/L	1	1/25/2011 01:35
Toluene	U		0.50	5.0	µg/L	1	1/25/2011 01:35
Xylenes, Total	U		1.0	15	µg/L	1	1/25/2011 01:35
Surr: 1,2-Dichloroethane-d4	99.0			70-125	%REC	1	1/25/2011 01:35
Surr: 4-Bromofluorobenzene	101			72-125	%REC	1	1/25/2011 01:35
Surr: Dibromofluoromethane	101			71-125	%REC	1	1/25/2011 01:35
Surr: Toluene-d8	107			75-125	%REC	1	1/25/2011 01:35

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 01-Feb-11

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW-Site Wide Monitoring
Sample ID: WG-1620-FB02-20110120
Collection Date: 1/20/2011 05:45 PM

Work Order: 1101566
Lab ID: 1101566-19
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	ML	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES		Method: SW8270			Prep: SW3510 / 1/22/11		Analyst: LG
1,2-Diphenylhydrazine	U		0.10	0.20	µg/L	1	1/26/2011 22:10
2,4-Dimethylphenol	U		0.080	0.20	µg/L	1	1/26/2011 22:10
2,4-Dinitrotoluene	U		0.090	0.20	µg/L	1	1/26/2011 22:10
2,6-Dinitrotoluene	U		0.070	0.20	µg/L	1	1/26/2011 22:10
2-Chloronaphthalene	U		0.10	0.20	µg/L	1	1/26/2011 22:10
2-Methylnaphthalene	U		0.070	0.20	µg/L	1	1/26/2011 22:10
4,6-Dinitro-2-methylphenol	U		0.080	0.20	µg/L	1	1/26/2011 22:10
4-Nitrophenol	U		0.070	1.0	µg/L	1	1/26/2011 22:10
Acenaphthene	U		0.090	0.20	µg/L	1	1/26/2011 22:10
Acenaphthylene	U		0.070	0.20	µg/L	1	1/26/2011 22:10
Anthracene	U		0.070	0.20	µg/L	1	1/26/2011 22:10
Benz(a)anthracene	U		0.070	0.20	µg/L	1	1/26/2011 22:10
Benzo(a)pyrene	U		0.080	0.20	µg/L	1	1/26/2011 22:10
Bis(2-chloroethoxy)methane	U		0.090	0.20	µg/L	1	1/26/2011 22:10
Bis(2-ethylhexyl)phthalate	0.75		0.20	0.20	µg/L	1	1/26/2011 22:10
Chrysene	U		0.070	0.20	µg/L	1	1/26/2011 22:10
Di-n-butyl phthalate	U		0.070	0.20	µg/L	1	1/26/2011 22:10
Dibenzofuran	U		0.080	0.20	µg/L	1	1/26/2011 22:10
Fluoranthene	U		0.070	0.20	µg/L	1	1/26/2011 22:10
Fluorene	U		0.070	0.20	µg/L	1	1/26/2011 22:10
N-Nitrosodiphenylamine	U		0.090	0.20	µg/L	1	1/26/2011 22:10
Naphthalene	0.17	J	0.10	0.20	µg/L	1	1/26/2011 22:10
Nitrobenzene	U		0.090	0.20	µg/L	1	1/26/2011 22:10
Pentachlorophenol	U		0.080	0.20	µg/L	1	1/26/2011 22:10
Phenanthrene	0.081	J	0.070	0.20	µg/L	1	1/26/2011 22:10
Phenol	U		0.070	0.20	µg/L	1	1/26/2011 22:10
Pyrene	U		0.070	0.20	µg/L	1	1/26/2011 22:10
Surr: 2,4,6-Tribromophenol	40.2			34-129	%REC	1	1/26/2011 22:10
Surr: 2-Fluorobiphenyl	54.5			40-125	%REC	1	1/26/2011 22:10
Surr: 2-Fluorophenol	52.0			20-120	%REC	1	1/26/2011 22:10
Surr: 4-Terphenyl-d14	58.9			40-135	%REC	1	1/26/2011 22:10
Surr: Nitrobenzene-d5	62.6			41-120	%REC	1	1/26/2011 22:10
Surr: Phenol-d6	51.3			20-120	%REC	1	1/26/2011 22:10
TCL VOLATILES		Method: SW8260					Analyst: PC
1,2-Dichloroethane	U		0.50	5.0	µg/L	1	1/24/2011 20:08
Benzene	U		0.50	5.0	µg/L	1	1/24/2011 20:08
Chlorobenzene	U		0.50	5.0	µg/L	1	1/24/2011 20:08
Dichloromethane	U		0.50	10	µg/L	1	1/24/2011 20:08

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 01-Feb-11

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW-Site Wide Monitoring
Sample ID: WG-1620-FB02-20110120
Collection Date: 1/20/2011 05:45 PM

Work Order: 1101566
Lab ID: 1101566-19
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
Ethylbenzene	U		0.50	5.0	µg/L	1	1/24/2011 20:08
Toluene	U		0.50	5.0	µg/L	1	1/24/2011 20:08
Xylenes, Total	U		1.0	15	µg/L	1	1/24/2011 20:08
Surr: 1,2-Dichloroethane-d4	96.2			70-125	%REC	1	1/24/2011 20:08
Surr: 4-Bromofluorobenzene	94.7			72-125	%REC	1	1/24/2011 20:08
Surr: Dibromofluoromethane	100			71-125	%REC	1	1/24/2011 20:08
Surr: Toluene-d8	98.1			75-125	%REC	1	1/24/2011 20:08

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 01-Feb-11

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW-Site Wide Monitoring
Sample ID: WG-1620-TB02-20110120
Collection Date: 1/20/2011

Work Order: 1101566
Lab ID: 1101566-20
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
TCL VOLATILES		Method: SW8260				Analyst: PC	
1,2-Dichloroethane	U		0.50	5.0	µg/L	1	1/24/2011 20:32
Benzene	U		0.50	5.0	µg/L	1	1/24/2011 20:32
Chlorobenzene	U		0.50	5.0	µg/L	1	1/24/2011 20:32
Dichloromethane	U		0.50	10	µg/L	1	1/24/2011 20:32
Ethylbenzene	U		0.50	5.0	µg/L	1	1/24/2011 20:32
Toluene	U		0.50	5.0	µg/L	1	1/24/2011 20:32
Vinyl chloride	U		0.50	2.0	µg/L	1	1/24/2011 20:32
Xylenes, Total	U		1.0	15	µg/L	1	1/24/2011 20:32
Surr: 1,2-Dichloroethane-d4	94.4			70-125	%REC	1	1/24/2011 20:32
Surr: 4-Bromofluorobenzene	94.8			72-125	%REC	1	1/24/2011 20:32
Surr: Dibromofluoromethane	97.7			71-125	%REC	1	1/24/2011 20:32
Surr: Toluene-d8	99.1			75-125	%REC	1	1/24/2011 20:32

Note: See Qualifiers Page for a list of qualifiers and their explanation.

WorkOrder: 1101566
InstrumentID: SV-4
Test Code: 8270_LOW_W
Test Number: SW8270
Test Name: Low-Level Semivolatiles

**METHOD DETECTION /
REPORTING LIMITS**

Matrix: Aqueous **Units:** µg/L

Type	Analyte	CAS	DCS	MDL	Unadjusted MQL
A	1,2-Diphenylhydrazine	122-66-7	0.081	0.10	0.20
A	2,4-Dimethylphenol	105-67-9	0.057	0.080	0.20
A	2,4-Dinitrotoluene	121-14-2	0.066	0.090	0.20
A	2,6-Dinitrotoluene	606-20-2	0.091	0.070	0.20
A	2-Chloronaphthalene	91-58-7	0.10	0.10	0.20
A	2-Methylnaphthalene	91-57-6	0.089	0.070	0.20
A	4,6-Dinitro-2-methylphenol	534-52-1	0.090	0.080	0.20
A	4-Nitrophenol	100-02-7	0.12	0.070	1.0
A	Acenaphthene	83-32-9	0.094	0.090	0.20
A	Acenaphthylene	208-96-8	0.080	0.070	0.20
A	Anthracene	120-12-7	0.083	0.070	0.20
A	Benz(a)anthracene	56-55-3	0.11	0.070	0.20
A	Benzo(a)pyrene	50-32-8	0.087	0.080	0.20
A	Bis(2-chloroethoxy)methane	111-91-1	0.089	0.090	0.20
A	Bis(2-ethylhexyl)phthalate	117-81-7	0.11	0.20	0.20
A	Chrysene	218-01-9	0.098	0.070	0.20
A	Di-n-butyl phthalate	84-74-2	0.092	0.070	0.20
A	Dibenzofuran	132-64-9	0.082	0.080	0.20
A	Fluoranthene	206-44-0	0.082	0.070	0.20
A	Fluorene	86-73-7	0.087	0.070	0.20
A	N-Nitrosodiphenylamine	86-30-6	0.081	0.090	0.20
A	Naphthalene	91-20-3	0.13	0.10	0.20
A	Nitrobenzene	98-95-3	0.11	0.090	0.20
A	Pentachlorophenol	87-86-5	0.10	0.080	0.20
A	Phenanthrene	85-01-8	0.089	0.070	0.20
A	Phenol	108-95-2	0.14	0.070	0.20
A	Pyrene	129-00-0	0.084	0.070	0.20
S	Surr: 2,4,6-Tribromophenol	118-79-6	0	0	0.20
S	Surr: 2-Fluorobiphenyl	321-60-8	0	0	0.20
S	Surr: 2-Fluorophenol	367-12-4	0	0	0.20
S	Surr: 4-Terphenyl-d14	1718-51-0	0	0	0.20
S	Surr: Nitrobenzene-d5	4165-60-0	0	0	0.20
S	Surr: Phenol-d6	13127-88-3	0	0	0.20

WorkOrder: 1101566
InstrumentID: VOA1
Test Code: 8260_TCL_W
Test Number: SW8260
Test Name: TCL Volatiles

**METHOD DETECTION /
REPORTING LIMITS**

Matrix: Aqueous Units: µg/L

Type	Analyte	CAS	DCS	MDL	Unadjusted MQL
A	1,2-Dichloroethane	107-06-2	1.0	0.50	5.0
A	Benzene	71-43-2	1.2	0.50	5.0
A	Chlorobenzene	108-90-7	1.0	0.50	5.0
A	Dichloromethane	75-09-2	1.2	0.50	10
A	Ethylbenzene	100-41-4	0.96	0.50	5.0
A	Toluene	108-88-3	1.1	0.50	5.0
A	Vinyl chloride	75-01-4	1.1	0.50	2.0
M	Xylenes, Total	1330-20-7	3.2	1.0	15
S	Surr: 1,2-Dichloroethane-d4	17060-07-0	0	0	5.0
S	Surr: 4-Bromofluorobenzene	460-00-4	0	0	5.0
S	Surr: Dibromofluoromethane	1868-53-7	0	0	5.0
S	Surr: Toluene-d8	2037-26-5	0	0	5.0

WorkOrder: 1101566
InstrumentID: VOA2
Test Code: 8260_TCL_W
Test Number: SW8260
Test Name: TCL Volatiles

**METHOD DETECTION /
REPORTING LIMITS**

Matrix: Aqueous Units: µg/L

Type	Analyte	CAS	DCS	MDL	Unadjusted MQL
A	1,2-Dichloroethane	107-06-2	1.2	0.50	5.0
A	Benzene	71-43-2	1.2	0.50	5.0
A	Chlorobenzene	108-90-7	1.4	0.50	5.0
A	Dichloromethane	75-09-2	1.3	0.50	10
A	Ethylbenzene	100-41-4	1.3	0.50	5.0
A	Toluene	108-88-3	1.3	0.50	5.0
A	Vinyl chloride	75-01-4	1.2	0.50	2.0
M	Xylenes, Total	1330-20-7	4.0	1.0	15
S	Surr: 1,2-Dichloroethane-d4	17060-07-0	0	0	5.0
S	Surr: 4-Bromofluorobenzene	460-00-4	0	0	5.0
S	Surr: Dibromofluoromethane	1868-53-7	0	0	5.0
S	Surr: Toluene-d8	2037-26-5	0	0	5.0

ALS Environmental

Date: 01-Feb-11

Client: Pastor, Behling & Wheeler, LLC
Work Order: 1101566
Project: HWPW-Site Wide Monitoring

QC BATCH REPORT

Batch ID: **49515** Instrument ID **SV-4** Method: **SW8270**

MBLK	Sample ID: SBLKW3-110122-49515			Units: µg/L	Analysis Date: 1/26/2011 04:56 PM					
Client ID:	Run ID: SV-4_110126A			SeqNo: 2264417	Prep Date: 1/22/2011	DF: 1				
Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Diphenylhydrazine	U	0.20								
2,4-Dimethylphenol	U	0.20								
2,4-Dinitrotoluene	U	0.20								
2,6-Dinitrotoluene	U	0.20								
2-Chloronaphthalene	U	0.20								
2-Methylnaphthalene	U	0.20								
4,6-Dinitro-2-methylphenol	U	0.20								
4-Nitrophenol	U	1.0								
Acenaphthene	U	0.20								
Acenaphthylene	U	0.20								
Anthracene	U	0.20								
Benz(a)anthracene	U	0.20								
Benzo(a)pyrene	U	0.20								
Bis(2-chloroethoxy)methane	U	0.20								
Bis(2-ethylhexyl)phthalate	U	0.20								
Chrysene	U	0.20								
Di-n-butyl phthalate	U	0.20								
Dibenzofuran	U	0.20								
Fluoranthene	U	0.20								
Fluorene	U	0.20								
N-Nitrosodiphenylamine	U	0.20								
Naphthalene	U	0.20								
Nitrobenzene	U	0.20								
Pentachlorophenol	U	0.20								
Phenanthrene	U	0.20								
Phenol	U	0.20								
Pyrene	U	0.20								
<i>Surr: 2,4,6-Tribromophenol</i>	3.225	0.20	5	0	64.5	34-129		0		
<i>Surr: 2-Fluorobiphenyl</i>	3.771	0.20	5	0	75.4	40-125		0		
<i>Surr: 2-Fluorophenol</i>	3.785	0.20	5	0	75.7	20-120		0		
<i>Surr: 4-Terphenyl-d14</i>	3.735	0.20	5	0	74.7	40-135		0		
<i>Surr: Nitrobenzene-d5</i>	3.707	0.20	5	0	74.1	41-120		0		
<i>Surr: Phenol-d6</i>	4.399	0.20	5	0	88	20-120		0		

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Pastor, Behling & Wheeler, LLC
 Work Order: 1101566
 Project: HWPW-Site Wide Monitoring

QC BATCH REPORT

Batch ID: 49515 Instrument ID SV-4 Method: SW8270

LCS		Sample ID: SLCSW3-110122-49515			Units: µg/L			Analysis Date: 1/26/2011 05:15 PM		
Client ID:		Run ID: SV-4_110126A			SeqNo: 2264420		Prep Date: 1/22/2011		DF: 1	
Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Diphenylhydrazine	3.696	0.20	5	0	73.9	39-127	0			
2,4-Dimethylphenol	2.747	0.20	5	0	54.9	35-120	0			
2,4-Dinitrotoluene	3.985	0.20	5	0	79.7	50-122	0			
2,6-Dinitrotoluene	3.971	0.20	5	0	79.4	50-120	0			
2-Chloronaphthalene	4.02	0.20	5	0	80.4	50-120	0			
2-Methylnaphthalene	3.697	0.20	5	0	73.9	50-120	0			
4,6-Dinitro-2-methylphenol	3.886	0.20	5	0	77.7	25-121	0			
4-Nitrophenol	3.507	1.0	5	0	70.1	30-130	0			
Acenaphthene	3.502	0.20	5	0	70	45-120	0			
Acenaphthylene	3.615	0.20	5	0	72.3	47-120	0			
Anthracene	3.74	0.20	5	0	74.8	45-120	0			
Benz(a)anthracene	3.85	0.20	5	0	77	40-120	0			
Benzo(a)pyrene	3.841	0.20	5	0	76.8	45-120	0			
Bis(2-chloroethoxy)methane	3.78	0.20	5	0	75.6	45-120	0			
Bis(2-ethylhexyl)phthalate	3.753	0.20	5	0	75.1	40-139	0			
Chrysene	3.929	0.20	5	0	78.6	43-120	0			
Di-n-butyl phthalate	4.061	0.20	5	0	81.2	45-123	0			
Dibenzofuran	3.738	0.20	5	0	74.8	50-120	0			
Fluoranthene	3.948	0.20	5	0	79	45-125	0			
Fluorene	3.614	0.20	5	0	72.3	49-120	0			
N-Nitrosodiphenylamine	4.255	0.20	5	0	85.1	40-125	0			
Naphthalene	3.665	0.20	5	0	73.3	45-120	0			
Nitrobenzene	3.422	0.20	5	0	68.4	44-120	0			
Pentachlorophenol	2.927	0.20	5	0	58.5	19-121	0			
Phenanthrene	3.757	0.20	5	0	75.1	45-121	0			
Phenol	3.552	0.20	5	0	71	20-124	0			
Pyrene	3.748	0.20	5	0	75	40-130	0			
Surr: 2,4,6-Tribromophenol	3.872	0.20	5	0	77.4	34-129	0			
Surr: 2-Fluorobiphenyl	3.571	0.20	5	0	71.4	40-125	0			
Surr: 2-Fluorophenol	3.927	0.20	5	0	78.5	20-120	0			
Surr: 4-Terphenyl-d14	3.7	0.20	5	0	74	40-135	0			
Surr: Nitrobenzene-d5	3.558	0.20	5	0	71.2	41-120	0			
Surr: Phenol-d6	4.084	0.20	5	0	81.7	20-120	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Pastor, Behling & Wheeler, LLC
 Work Order: 1101566
 Project: HWPW-Site Wide Monitoring

QC BATCH REPORT

Batch ID: 49515 Instrument ID SV-4 Method: SW8270

LCSD	Sample ID: SLCSDW3-110122-49515	Units: µg/L					Analysis Date: 1/26/2011 05:35 PM				
Client ID:	Run ID: SV-4_110126A	SeqNo: 2264423			Prep Date: 1/22/2011		DF: 1				
Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
1,2-Diphenylhydrazine	3.767	0.20	5	0	75.3	39-127	3.696	1.91	20		
2,4-Dimethylphenol	2.878	0.20	5	0	57.6	35-120	2.747	4.65	20		
2,4-Dinitrotoluene	4.016	0.20	5	0	80.3	50-122	3.985	0.791	20		
2,6-Dinitrotoluene	3.985	0.20	5	0	79.7	50-120	3.971	0.354	20		
2-Chloronaphthalene	4.511	0.20	5	0	90.2	50-120	4.02	11.5	20		
2-Methylnaphthalene	3.69	0.20	5	0	73.8	50-120	3.697	0.179	20		
4,6-Dinitro-2-methylphenol	4.165	0.20	5	0	83.3	25-121	3.886	6.94	20		
4-Nitrophenol	3.773	1.0	5	0	75.5	30-130	3.507	7.28	20		
Acenaphthene	3.608	0.20	5	0	72.2	45-120	3.502	2.98	20		
Acenaphthylene	3.726	0.20	5	0	74.5	47-120	3.615	3.04	20		
Anthracene	3.816	0.20	5	0	76.3	45-120	3.74	2.01	20		
Benz(a)anthracene	3.906	0.20	5	0	78.1	40-120	3.85	1.44	20		
Benzo(a)pyrene	3.842	0.20	5	0	76.8	45-120	3.841	0.0232	20		
Bis(2-chloroethoxy)methane	3.851	0.20	5	0	77	45-120	3.78	1.86	20		
Bis(2-ethylhexyl)phthalate	3.726	0.20	5	0	74.5	40-139	3.753	0.728	20		
Chrysene	3.904	0.20	5	0	78.1	43-120	3.929	0.65	20		
Di-n-butyl phthalate	4.131	0.20	5	0	82.6	45-123	4.061	1.72	20		
Dibenzofuran	3.827	0.20	5	0	76.5	50-120	3.738	2.33	20		
Fluoranthene	4.028	0.20	5	0	80.6	45-125	3.948	2.01	20		
Fluorene	3.736	0.20	5	0	74.7	49-120	3.614	3.32	20		
N-Nitrosodiphenylamine	4.277	0.20	5	0	85.5	40-125	4.255	0.524	20		
Naphthalene	3.701	0.20	5	0	74	45-120	3.665	0.963	20		
Nitrobenzene	3.458	0.20	5	0	69.2	44-120	3.422	1.03	20		
Pentachlorophenol	3.225	0.20	5	0	64.5	19-121	2.927	9.69	20		
Phenanthrene	3.933	0.20	5	0	78.7	45-121	3.757	4.58	20		
Phenol	3.674	0.20	5	0	73.5	20-124	3.552	3.37	20		
Pyrene	3.79	0.20	5	0	75.8	40-130	3.748	1.13	20		
Surr: 2,4,6-Tribromophenol	4.11	0.20	5	0	82.2	34-129	3.872	5.97	0		
Surr: 2-Fluorobiphenyl	3.739	0.20	5	0	74.8	40-125	3.571	4.58	0		
Surr: 2-Fluorophenol	3.813	0.20	5	0	76.3	20-120	3.927	2.94	0		
Surr: 4-Terphenyl-d14	3.701	0.20	5	0	74	40-135	3.7	0.0197	0		
Surr: Nitrobenzene-d5	3.555	0.20	5	0	71.1	41-120	3.558	0.0757	0		
Surr: Phenol-d6	3.94	0.20	5	0	78.8	20-120	4.084	3.59	0		

The following samples were analyzed in this batch:

1101566-01B	1101566-02B	1101566-03B
1101566-04B	1101566-05B	1101566-06B
1101566-07B	1101566-08B	1101566-09B
1101566-10B	1101566-11B	1101566-12B
1101566-13B	1101566-14B	1101566-15B
1101566-16B	1101566-17B	1101566-18B
1101566-19B		

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Pastor, Behling & Wheeler, LLC
Work Order: 1101566
Project: HWPW-Site Wide Monitoring

QC BATCH REPORT

Batch ID: **R104380** Instrument ID **VOA2** Method: **SW8260**

MBLK		Sample ID: VBLKW-012041-R104380			Units: µg/L		Analysis Date: 1/24/2011 12:16 PM			
Client ID:		Run ID: VOA2_110124B			SeqNo: 2258350		Prep Date:		DF: 1	
Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Dichloroethane	U	5.0								
Benzene	U	5.0								
Chlorobenzene	U	5.0								
Dichloromethane	U	10								
Ethylbenzene	U	5.0								
Toluene	U	5.0								
Vinyl chloride	U	2.0								
Xylenes, Total	U	15								
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>48.29</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>96.6</i>	<i>70-125</i>	<i>0</i>			
<i>Surr: 4-Bromofluorobenzene</i>	<i>47.55</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>95.1</i>	<i>72-125</i>	<i>0</i>			
<i>Surr: Dibromofluoromethane</i>	<i>49.13</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>98.3</i>	<i>71-125</i>	<i>0</i>			
<i>Surr: Toluene-d8</i>	<i>48.83</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>97.7</i>	<i>75-125</i>	<i>0</i>			

LCS		Sample ID: VLCSW-012411-R104380			Units: µg/L		Analysis Date: 1/24/2011 11:06 AM			
Client ID:		Run ID: VOA2_110124B			SeqNo: 2258349		Prep Date:		DF: 1	
Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Dichloroethane	45.87	5.0	50	0	91.7	78-120	0			
Benzene	47.77	5.0	50	0	95.5	73-121	0			
Chlorobenzene	47.31	5.0	50	0	94.6	80-120	0			
Dichloromethane	47.13	10	50	0	94.3	65-133	0			
Ethylbenzene	47.81	5.0	50	0	95.6	80-120	0			
Toluene	47.6	5.0	50	0	95.2	80-120	0			
Vinyl chloride	48.15	2.0	50	0	96.3	70-127	0			
Xylenes, Total	143.5	15	150	0	95.7	80-120	0			
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>48.34</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>96.7</i>	<i>70-125</i>	<i>0</i>			
<i>Surr: 4-Bromofluorobenzene</i>	<i>49.88</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>99.8</i>	<i>72-125</i>	<i>0</i>			
<i>Surr: Dibromofluoromethane</i>	<i>49.37</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>98.7</i>	<i>71-125</i>	<i>0</i>			
<i>Surr: Toluene-d8</i>	<i>49.05</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>98.1</i>	<i>75-125</i>	<i>0</i>			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Pastor, Behling & Wheeler, LLC
 Work Order: 1101566
 Project: HWPW-Site Wide Monitoring

QC BATCH REPORT

Batch ID: R104380 Instrument ID VOA2 Method: SW8260

MS		Sample ID: 1101521-01ZMS			Units: µg/L		Analysis Date: 1/24/2011 02:15 PM			
Client ID:		Run ID: VOA2_110124B			SeqNo: 2258354		Prep Date:		DF: 1	
Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Dichloroethane	44.38	5.0	50	0.4133	87.9	78-120	0			
Benzene	44.46	5.0	50	0	88.9	73-121	0			
Chlorobenzene	44.69	5.0	50	0	89.4	80-120	0			
Dichloromethane	44.81	10	50	0	89.6	65-133	0			
Ethylbenzene	43.5	5.0	50	0	87	80-120	0			
Toluene	44.14	5.0	50	0	88.3	80-120	0			
Vinyl chloride	3.261	2.0	50	0	6.52	70-127	0			S
Xylenes, Total	130.1	15	150	0	86.7	80-120	0			
<i>Surr: 1,2-Dichloroethane-d4</i>		<i>48.07</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>96.1</i>	<i>70-125</i>	<i>0</i>		
<i>Surr: 4-Bromofluorobenzene</i>		<i>49.01</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>98</i>	<i>72-125</i>	<i>0</i>		
<i>Surr: Dibromofluoromethane</i>		<i>50.15</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>100</i>	<i>71-125</i>	<i>0</i>		
<i>Surr: Toluene-d8</i>		<i>48.98</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>98</i>	<i>75-125</i>	<i>0</i>		

MSD		Sample ID: 1101521-01ZMSD			Units: µg/L		Analysis Date: 1/24/2011 02:38 PM			
Client ID:		Run ID: VOA2_110124B			SeqNo: 2258355		Prep Date:		DF: 1	
Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Dichloroethane	45.19	5.0	50	0.4133	89.6	78-120	44.38	1.81	20	
Benzene	44.95	5.0	50	0	89.9	73-121	44.46	1.1	20	
Chlorobenzene	45.4	5.0	50	0	90.8	80-120	44.69	1.57	20	
Dichloromethane	45.2	10	50	0	90.4	65-133	44.81	0.859	20	
Ethylbenzene	43.58	5.0	50	0	87.2	80-120	43.5	0.178	20	
Toluene	44.43	5.0	50	0	88.9	80-120	44.14	0.64	20	
Vinyl chloride	U	2.0	50	0	0	70-127	3.261	0	20	S
Xylenes, Total	130.9	15	150	0	87.2	80-120	130.1	0.622	20	
<i>Surr: 1,2-Dichloroethane-d4</i>		<i>48.63</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>97.3</i>	<i>70-125</i>	<i>48.07</i>	<i>1.17</i>	<i>20</i>
<i>Surr: 4-Bromofluorobenzene</i>		<i>48.79</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>97.6</i>	<i>72-125</i>	<i>49.01</i>	<i>0.437</i>	<i>20</i>
<i>Surr: Dibromofluoromethane</i>		<i>50.25</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>100</i>	<i>71-125</i>	<i>50.15</i>	<i>0.199</i>	<i>20</i>
<i>Surr: Toluene-d8</i>		<i>49.34</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>98.7</i>	<i>75-125</i>	<i>48.98</i>	<i>0.721</i>	<i>20</i>

The following samples were analyzed in this batch: | 1101566-19A | 1101566-20A |

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Pastor, Behling & Wheeler, LLC
Work Order: 1101566
Project: HWPW-Site Wide Monitoring

QC BATCH REPORT

Batch ID: **R104392** Instrument ID **VOA1** Method: **SW8260**

MBLK		Sample ID: VBLKW-012411-R104392			Units: µg/L		Analysis Date: 1/24/2011 06:49 PM			
Client ID:		Run ID: VOA1_110124C			SeqNo: 2258607		Prep Date:		DF: 1	
Analyte	Result	MLQ	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Dichloroethane	U	5.0								
Benzene	U	5.0								
Chlorobenzene	U	5.0								
Dichloromethane	U	10								
Ethylbenzene	U	5.0								
Toluene	U	5.0								
Vinyl chloride	U	2.0								
Xylenes, Total	U	15								
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>47.51</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>95</i>	<i>70-125</i>	<i>0</i>			
<i>Surr: 4-Bromofluorobenzene</i>	<i>47.15</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>94.3</i>	<i>72-125</i>	<i>0</i>			
<i>Surr: Dibromofluoromethane</i>	<i>47.82</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>95.6</i>	<i>71-125</i>	<i>0</i>			
<i>Surr: Toluene-d8</i>	<i>50.59</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>101</i>	<i>75-125</i>	<i>0</i>			

LCS		Sample ID: VLCSW-012411-R104392			Units: µg/L		Analysis Date: 1/24/2011 05:59 PM			
Client ID:		Run ID: VOA1_110124C			SeqNo: 2258606		Prep Date:		DF: 1	
Analyte	Result	MLQ	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Dichloroethane	47.79	5.0	50	0	95.6	78-120	0			
Benzene	47.45	5.0	50	0	94.9	73-121	0			
Chlorobenzene	46.12	5.0	50	0	92.2	80-120	0			
Dichloromethane	47.69	10	50	0	95.4	65-133	0			
Ethylbenzene	47.36	5.0	50	0	94.7	80-120	0			
Toluene	45.7	5.0	50	0	91.4	80-120	0			
Vinyl chloride	42.88	2.0	50	0	85.8	70-127	0			
Xylenes, Total	134	15	150	0	89.3	80-120	0			
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>45.87</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>91.7</i>	<i>70-125</i>	<i>0</i>			
<i>Surr: 4-Bromofluorobenzene</i>	<i>49.74</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>99.5</i>	<i>72-125</i>	<i>0</i>			
<i>Surr: Dibromofluoromethane</i>	<i>49.62</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>99.2</i>	<i>71-125</i>	<i>0</i>			
<i>Surr: Toluene-d8</i>	<i>49.2</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>98.4</i>	<i>75-125</i>	<i>0</i>			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Pastor, Behling & Wheeler, LLC
 Work Order: 1101566
 Project: HWPW-Site Wide Monitoring

QC BATCH REPORT

Batch ID: R104392 Instrument ID VOA1 Method: SW8260

MS		Sample ID: 1101550-02ZMS			Units: µg/L			Analysis Date: 1/24/2011 07:40 PM		
Client ID:		Run ID: VOA1_110124C			SeqNo: 2258609			Prep Date:		DF: 25
Analyte	Result	ML	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Dichloroethane	1128	120	1250	0	90.2	78-120	0			
Benzene	1079	120	1250	0	86.3	73-121	0			
Chlorobenzene	1071	120	1250	0	85.7	80-120	0			
Dichloromethane	1141	250	1250	0	91.3	65-133	0			
Ethylbenzene	1086	120	1250	0	86.9	80-120	0			
Toluene	1071	120	1250	0	85.7	80-120	0			
Vinyl chloride	984.8	50	1250	0	78.8	70-127	0			
Xylenes, Total	3018	380	3750	0	80.5	80-120	0			
<i>Surr: 1,2-Dichloroethane-d4</i>	1154	120	1250	0	92.4	70-125	0			
<i>Surr: 4-Bromofluorobenzene</i>	1274	120	1250	0	102	72-125	0			
<i>Surr: Dibromofluoromethane</i>	1236	120	1250	0	98.9	71-125	0			
<i>Surr: Toluene-d8</i>	1242	120	1250	0	99.3	75-125	0			

MSD		Sample ID: 1101550-02ZMSD			Units: µg/L			Analysis Date: 1/24/2011 08:06 PM		
Client ID:		Run ID: VOA1_110124C			SeqNo: 2258610			Prep Date:		DF: 25
Analyte	Result	ML	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Dichloroethane	1167	120	1250	0	93.4	78-120	1128	3.46	20	
Benzene	1102	120	1250	0	88.1	73-121	1079	2.13	20	
Chlorobenzene	1156	120	1250	0	92.5	80-120	1071	7.63	20	
Dichloromethane	1184	250	1250	0	94.7	65-133	1141	3.72	20	
Ethylbenzene	1129	120	1250	0	90.3	80-120	1086	3.9	20	
Toluene	1167	120	1250	0	93.4	80-120	1071	8.57	20	
Vinyl chloride	947.6	50	1250	0	75.8	70-127	984.8	3.85	20	
Xylenes, Total	3161	380	3750	0	84.3	80-120	3018	4.61	20	
<i>Surr: 1,2-Dichloroethane-d4</i>	1151	120	1250	0	92.1	70-125	1154	0.295	20	
<i>Surr: 4-Bromofluorobenzene</i>	1279	120	1250	0	102	72-125	1274	0.337	20	
<i>Surr: Dibromofluoromethane</i>	1233	120	1250	0	98.7	71-125	1236	0.227	20	
<i>Surr: Toluene-d8</i>	1220	120	1250	0	97.6	75-125	1242	1.73	20	

The following samples were analyzed in this batch:

1101566-01A	1101566-02A	1101566-05A
1101566-06A	1101566-07A	1101566-08A
1101566-09A	1101566-10A	1101566-11A
1101566-12A	1101566-14A	1101566-15A
1101566-16A	1101566-17A	1101566-18A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Pastor, Behling & Wheeler, LLC
 Work Order: 1101566
 Project: HWPW-Site Wide Monitoring

QC BATCH REPORT

Batch ID: **R104405** Instrument ID **VOA1** Method: **SW8260**

MBLK		Sample ID: VBLKW-012511-R104405			Units: µg/L		Analysis Date: 1/25/2011 12:19 PM			
Client ID:		Run ID: VOA1_110125A			SeqNo: 2259098		Prep Date:		DF: 1	
Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Dichloroethane	U	5.0								
Benzene	U	5.0								
Chlorobenzene	U	5.0								
Dichloromethane	U	10								
Ethylbenzene	U	5.0								
Toluene	U	5.0								
Vinyl chloride	U	2.0								
Xylenes, Total	U	15								
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>48.51</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>97</i>	<i>70-125</i>	<i>0</i>			
<i>Surr: 4-Bromofluorobenzene</i>	<i>48.72</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>97.4</i>	<i>72-125</i>	<i>0</i>			
<i>Surr: Dibromofluoromethane</i>	<i>47.73</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>95.5</i>	<i>71-125</i>	<i>0</i>			
<i>Surr: Toluene-d8</i>	<i>52.16</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>104</i>	<i>75-125</i>	<i>0</i>			

LCS		Sample ID: VLCSW-012511-R104405			Units: µg/L		Analysis Date: 1/25/2011 11:28 AM			
Client ID:		Run ID: VOA1_110125A			SeqNo: 2259097		Prep Date:		DF: 1	
Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Dichloroethane	46.55	5.0	50	0	93.1	78-120	0			
Benzene	46.84	5.0	50	0	93.7	73-121	0			
Chlorobenzene	46.07	5.0	50	0	92.1	80-120	0			
Dichloromethane	47.24	10	50	0	94.5	65-133	0			
Ethylbenzene	44.65	5.0	50	0	89.3	80-120	0			
Toluene	45.25	5.0	50	0	90.5	80-120	0			
Vinyl chloride	41.99	2.0	50	0	84	70-127	0			
Xylenes, Total	129.6	15	150	0	86.4	80-120	0			
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>45.71</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>91.4</i>	<i>70-125</i>	<i>0</i>			
<i>Surr: 4-Bromofluorobenzene</i>	<i>50.02</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>100</i>	<i>72-125</i>	<i>0</i>			
<i>Surr: Dibromofluoromethane</i>	<i>48.57</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>97.1</i>	<i>71-125</i>	<i>0</i>			
<i>Surr: Toluene-d8</i>	<i>48.62</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>97.2</i>	<i>75-125</i>	<i>0</i>			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Pastor, Behling & Wheeler, LLC
 Work Order: 1101566
 Project: HWPW-Site Wide Monitoring

QC BATCH REPORT

Batch ID: **R104405** Instrument ID **VOA1** Method: **SW8260**

MS		Sample ID: 1101558-04AMS			Units: µg/L			Analysis Date: 1/25/2011 02:25 PM		
Client ID:		Run ID: VOA1_110125A			SeqNo: 2259105		Prep Date:		DF: 1	
Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Dichloroethane	47.7	5.0	50	0	95.4	78-120	0			
Benzene	42.21	5.0	50	0	84.4	73-121	0			
Chlorobenzene	45.43	5.0	50	0	90.9	80-120	0			
Dichloromethane	46.15	10	50	0	92.3	65-133	0			
Ethylbenzene	41.58	5.0	50	0	83.2	80-120	0			
Toluene	44.41	5.0	50	0	88.8	80-120	0			
Vinyl chloride	38.46	2.0	50	0	76.9	70-127	0			
Xylenes, Total	132	15	150	0	88	80-120	0			
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>46.71</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>93.4</i>	<i>70-125</i>	<i>0</i>			
<i>Surr: 4-Bromofluorobenzene</i>	<i>51.93</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>104</i>	<i>72-125</i>	<i>0</i>			
<i>Surr: Dibromofluoromethane</i>	<i>50.88</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>102</i>	<i>71-125</i>	<i>0</i>			
<i>Surr: Toluene-d8</i>	<i>50.04</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>100</i>	<i>75-125</i>	<i>0</i>			

MSD		Sample ID: 1101558-04AMSD			Units: µg/L			Analysis Date: 1/25/2011 02:51 PM		
Client ID:		Run ID: VOA1_110125A			SeqNo: 2259106		Prep Date:		DF: 1	
Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Dichloroethane	50.12	5.0	50	0	100	78-120	47.7	4.96	20	
Benzene	47.16	5.0	50	0	94.3	73-121	42.21	11.1	20	
Chlorobenzene	46.71	5.0	50	0	93.4	80-120	45.43	2.77	20	
Dichloromethane	46.66	10	50	0	93.3	65-133	46.15	1.11	20	
Ethylbenzene	44.02	5.0	50	0	88	80-120	41.58	5.7	20	
Toluene	43.36	5.0	50	0	86.7	80-120	44.41	2.39	20	
Vinyl chloride	39.14	2.0	50	0	78.3	70-127	38.46	1.75	20	
Xylenes, Total	125.5	15	150	0	83.6	80-120	132	5.12	20	
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>46.47</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>92.9</i>	<i>70-125</i>	<i>46.71</i>	<i>0.519</i>	<i>20</i>	
<i>Surr: 4-Bromofluorobenzene</i>	<i>52.38</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>105</i>	<i>72-125</i>	<i>51.93</i>	<i>0.859</i>	<i>20</i>	
<i>Surr: Dibromofluoromethane</i>	<i>49.18</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>98.4</i>	<i>71-125</i>	<i>50.88</i>	<i>3.4</i>	<i>20</i>	
<i>Surr: Toluene-d8</i>	<i>48.33</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>96.7</i>	<i>75-125</i>	<i>50.04</i>	<i>3.48</i>	<i>20</i>	

The following samples were analyzed in this batch: | 1101566-03A | 1101566-04A | 1101566-13A |

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

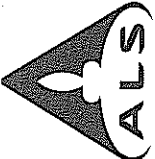
Client: Pastor, Behling & Wheeler, LLC
Project: HWPW-Site Wide Monitoring
WorkOrder: 1101566

**QUALIFIERS,
ACRONYMS, UNITS**

<u>Qualifier</u>	<u>Description</u>
*	Value exceeds Regulatory Limit
a	Not accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
J	Analyte detected below quantitation limit
M	Manually integrated, see raw data for justification
n	Not offered for accreditation
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL

<u>Acronym</u>	<u>Description</u>
DCS	Detectability Check Study
DUP	Method Duplicate
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
MBLK	Method Blank
MDL	Method Detection Limit
MQL	Method Quantitation Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PDS	Post Digestion Spike
PQL	Practical Quantitation Limit
SD	Serial Dilution
SDL	Sample Detection Limit
TRRP	Texas Risk Reduction Program

<u>Units Reported</u>	<u>Description</u>
µg/L	Micrograms per Liter



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Chain of Custody Form

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Page 2 of 2

Customer Information			Project Information			ALS Work Order #: <u>10510</u> Parameter/Method Request for Analysis											
Purchase Order	Project Name	Project Number	Project Name	Project Number	Project Name	A	B	C	D	E	F	G	H	I	J	Hold	
Work Order	1620	1620	HV/PW-Site Wide Monitoring	1620	VOC (8260) Select												
Company Name	Bill To Company	Invoice Attn	Union Pacific Railroad	1400 Douglas Street	LOW SVOC (8270) Select												
Send Report To	Eric Matzner	Address	2201 Double Creek Drive	Stop 0750													
Address	Suite 4004	City/State/Zip	Round Rock, TX 78664	Omaha, NE 681790750													
Phone	(512) 671-3434	Phone															
Fax	(512) 671-3445	Fax															
e-Mail Address		e-Mail Address															
No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	Matrix	Time	Matrix	Pres.	# Bottles	Matrix	Time	Matrix	Pres.	# Bottles	
1	WG-1620-MW59B-20110120	1-20-11	0845	GW		5	GW	0845	GW		5	GW	0845	GW		5	
2	WG-1620-MW59D-20110120	1-20-11	1015	GW		5	GW	1015	GW		5	GW	1015	GW		5	
3	WG-1620-MW49A-20110120	1-20-11	1130	GW		5	GW	1130	GW		5	GW	1130	GW		5	
4	WG-1620-MW49B-20110120	1-20-11	1345	GW		5	GW	1345	GW		5	GW	1345	GW		5	
5	WG-1620-FD02-20110120	1-20-11	1345	GW		5	GW	1345	GW		5	GW	1345	GW		5	
6	WG-1620-MW51A-20110120	1-20-11	1500	GW		5	GW	1500	GW		5	GW	1500	GW		5	
7	WG-1620-MW36A-20110120	1-20-11	1620	GW		5	GW	1620	GW		5	GW	1620	GW		5	
8	WG-1620-MW36B-20110120	1-20-11	1725	GW		5	GW	1725	GW		5	GW	1725	GW		5	
9	WG-1620-FB02-20110120	1-20-11	1745	GW		5	GW	1745	GW		5	GW	1745	GW		5	
10	WG-1620-TB02-20110120	1-20-11	-	GW		2	GW	-	GW		2	GW	-	GW		2	

Sampler(s) Please Print & Sign: JOHN BRAYDEN, John Brayden Shipment Method: HAMP DELIVERED Required Turnaround Time: (Check Box) 5 WK Days 10 WK Days 15 WK Days 20 WK Days 24 Hour

Relinquished by: John Brayden Date: 1-21-11 Time: 08:46 Received by: [Signature] Laboratory: [Signature] Date: 1-21-11 Time: 08:46

Relinquished by: [Signature] Date: 1-21-11 Time: 08:46 Checked by (Laboratory): [Signature] Date: 1-21-11 Time: 08:46

Logged by (Laboratory): [Signature] Date: 1-21-11 Time: 08:46 Cooler ID: [Blank] Cooler Temp: [Blank]

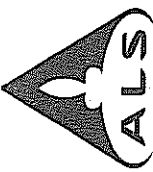
Preservative Key: 1-HCl 2-HNO₃ 3-H₂SO₄ 4-NaOH 5-Na₂S₂O₃ 6-NaHSO₃ 7-Other 8-4°C 9-5035

QC Package: (Check One Box Below) Level II Std QC TRAP Check/LIS Level III Std QC/Raw Data TRAP Level IV Level IV SW/MS/CLP Other / EDD

Notes: 10 Day TAT.

Note: 1. Any changes must be made in writing once samples and COC Form have been submitted to ALS Laboratory Group.
 2. Unless otherwise agreed in a formal contract, services provided by ALS Laboratory Group are expressly limited to the terms and conditions stated on the reverse.
 3. The Chain of Custody is a legal document. All information must be completed accurately.

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Chain of Custody Form

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Page 1 of 2

Customer Information				Project Information				ALS Work Order # <u>1101566</u> Parameter/Method Request for Analysis																									
Purchase Order	Project Name	Project Number	Bill To Company	Invoice Atrn	Address	City/State/Zip	Phone	Fax	e-Mail Address	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold										
1620	HWP/W-Site Monitoring	1620	Union Pacific Railroad		1400 Douglas Street	Omaha, NE 681790750				GW		5	X	X																			
	Company Name		Pastor, Belling & Wheeler, LLC		2291 Double Creek Drive					GW		5	X	X																			
	Send Report To		Erik Matzner		Suite 4004					GW		5	X	X																			
	Address									GW		5	X	X																			
	City/State/Zip									GW		5	X	X																			
	Phone						(512) 671-3434			GW		5	X	X																			
	Fax						(512) 671-3446			GW		5	X	X																			
	e-Mail Address									GW		5	X	X																			
	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold																
1	WG-1620-P11-20110118	1-18-11	1620	GW		5	X	X																									
2	WG-1620-MW57A-20110118	1-18-11	1720	GW		5	X	X																									
3	WG-1620-MW58A-20110119	1-19-11	0920	GW		5	X	X																									
4	WG-1620-MW23C-20110119	1-19-11	1035	GW		5	X	X																									
5	WG-1620-MW21C-20110119	1-19-11	1150	GW		5	X	X																									
6	WG-1620-MW69A-20110119	1-19-11	1300	GW		5	X	X																									
7	WG-1620-MW48C-20110119	1-19-11	1400	GW		5	X	X																									
8	WG-1620-MW60A-20110119	1-19-11	1510	GW		5	X	X																									
9	WG-1620-MW47C-20110119	1-19-11	1620	GW		5	X	X																									
10	WG-1620-MW59A-20110119	1-20-11	0745	GW		5	X	X																									
Sampler(s) Please Print & Sign <i>JOHN DEBARTOLO</i>												Required Turnaround Time: (Check Box) <input checked="" type="checkbox"/> 5 WK DAYS <input type="checkbox"/> 2 WK DAYS <input type="checkbox"/> 24 HOURS												Results Due Date: Other									
Relinquished by: <i>John DeBartolo</i>												HANO DELIVERED												Notes: 10 Day TAT.									
Relinquished Date: 1-21-11												Time: 08:40												Cooler ID		Cooler Temp							
Relinquished by: <i>John DeBartolo</i>												Time: 08:40												QC Package: (Check One Box Below)		Level II Std OC <input type="checkbox"/>		Level III Std OC Raw Data <input type="checkbox"/>		Level IV SW846/CLP <input type="checkbox"/>		Other / EDD <input type="checkbox"/>	
Logged by (Laboratory):												Time: 12:11												TRRP Checklist		Level II Std OC <input checked="" type="checkbox"/>		Level III Std OC Raw Data <input type="checkbox"/>		Level IV SW846/CLP <input type="checkbox"/>		Other / EDD <input type="checkbox"/>	
Preservative Key: 1-HCl 2-HNO ₃ 3-H ₂ SO ₄ 4-NaOH 5-Na ₂ S ₂ O ₈ 6-NaHSO ₃ 7-Other 8-4°C 9-5035																																	

Note: 1. Any changes must be made in writing once samples and COC Form have been submitted to ALS Laboratory Group.
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Sample Receipt Checklist

Client Name: **PBW**

Date/Time Received: **21-Jan-11 08:40**

Work Order: **1101566**

Received by: **RNG**

Checklist completed by Robert D. Harris 21-Jan-11
eSignature Date

Reviewed by: R. Kevin Given 24-Jan-11
eSignature Date

Matrices: waters

Carrier name: Client

- Shipping container/cooler in good condition? Yes No Not Present
- Custody seals intact on shipping container/cooler? Yes No Not Present
- Custody seals intact on sample bottles? Yes No Not Present
- Chain of custody present? Yes No
- Chain of custody signed when relinquished and received? Yes No
- Chain of custody agrees with sample labels? Yes No
- Samples in proper container/bottle? Yes No
- Sample containers intact? Yes No
- Sufficient sample volume for indicated test? Yes No
- All samples received within holding time? Yes No
- Container/Temp Blank temperature in compliance? Yes No

Temperature(s)/Thermometer(s):

Cooler(s)/Kit(s):

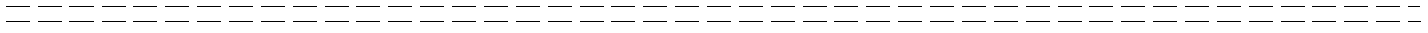
Water - VOA vials have zero headspace? Yes No No VOA vials submitted

Water - pH acceptable upon receipt? Yes No N/A

pH adjusted? Yes No N/A

pH adjusted by:

Login Notes:



Client Contacted: Date Contacted: Person Contacted:

Contacted By: Regarding:

Comments:

CorrectiveAction:



09-Feb-2011

Eric Matzner
Pastor, Behling & Wheeler, LLC
2201 Double Creek Drive
Suite 4004
Round Rock, TX 78664

Tel: (512) 671-3434
Fax: (512) 671-3446

Re: HWPW-Site Wide Monitoring

Work Order: **1101672**

Dear Eric,

ALS Environmental received 15 samples on 26-Jan-2011 08:30 AM for the analyses presented in the following report.

The analytical data provided relates directly to the samples received by ALS Environmental and for only the analyses requested. Results are expressed as "as received" unless otherwise noted.

QC sample results for this data met EPA or laboratory specifications except as noted in the Case Narrative or as noted with qualifiers in the QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained by ALS Environmental. Samples will be disposed in 30 days unless storage arrangements are made.

The total number of pages in this report is 49.

If you have any questions regarding this report, please feel free to call me.

Sincerely,

A handwritten signature in black ink that reads "R. Kevin Given".

Electronically approved by: Glenda H. Ramos

R. Kevin Given
Project Manager



Certificate No: TX: T104704231-10-3

ADDRESS 10450 Stancliff Rd, Suite 210 Houston, Texas 77099-4338 | PHONE (281) 530-5656 | FAX (281) 530-5887

DOV#J UR X S#K VD /#F R US##Sduw#k i#kch#DOV#Dde r#u#u|#J urxs#D #F dp eehg#Eurwkhuv#Dp w#hg#F rp sdq|

Environmental ALS

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RIGHT SOLUTIONS RIGHT PARTNER

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW-Site Wide Monitoring
Work Order: 1101672

**TRRP Laboratory Data
Package Cover Page**

This data package consists of all or some of the following as applicable:

This signature page, the laboratory review checklist, and the following reportable data:

- R1 Field chain-of-custody documentation;
- R2 Sample identification cross-reference;
- R3 Test reports (analytical data sheets) for each environmental sample that includes:
 - a) Items consistent with NELAC Chapter 5,
 - b) dilution factors,
 - c) preparation methods,
 - d) cleanup methods, and
 - e) if required for the project, tentatively identified compounds (TICs).
- R4 Surrogate recovery data including:
 - a) Calculated recovery (%R), and
 - b) The laboratory's surrogate QC limits.
- R5 Test reports/summary forms for blank samples;
- R6 Test reports/summary forms for laboratory control samples (LCSs) including:
 - a) LCS spiking amounts,
 - b) Calculated %R for each analyte, and
 - c) The laboratory's LCS QC limits.
- R7 Test reports for project matrix spike/matrix spike duplicates (MS/MSDs) including:
 - a) Samples associated with the MS/MSD clearly identified,
 - b) MS/MSD spiking amounts,
 - c) Concentration of each MS/MSD analyte measured in the parent and spiked samples,
 - d) Calculated %Rs and relative percent differences (RPDs), and
 - e) The laboratory's MS/MSD QC limits.
- R8 Laboratory analytical duplicate (if applicable) recovery and precision:
 - a) the amount of analyte measured in the duplicate,
 - b) the calculated RPD, and
 - c) the laboratory's QC limits for analytical duplicates.
- R9 List of method quantitation limits (MQLs) and detectability check sample results for each analyte for each method and matrix.
- R10 Other problems or anomalies.
The Exception Report for each "No" or "Not Reviewed (NR)" item in Laboratory Review Checklist and for each analyte, matrix, and method for which the laboratory does not hold NELAC accreditation under the Texas Laboratory Accreditation Program.

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW-Site Wide Monitoring
Work Order: 1101672

**TRRP Laboratory Data
Package Cover Page**

Release Statement: I am responsible for the release of this laboratory data package. This laboratory is NELAC accredited under the Texas Laboratory Accreditation Program for all the methods, analytes and matrices reported in this data package except as noted in the Exception Reports. The data have been reviewed and are technically compliant with the requirements of the methods used, except where noted by the laboratory in the attached exception reports. By my signature below, I affirm to the best of my knowledge, all problems/anomalies, observed by the laboratory have been identified by the laboratory in the Laboratory Review Checklist, and no information affecting the quality of the data has been knowingly withheld.

Check, if applicable: [NA] This laboratory meets an exception under 30 TAC §25.6 and was last inspected by TCEQ or _____ on (enter date of last inspection). Any findings affecting the data in this laboratory data package are noted in the Exception Reports herein. The official signing the cover page of the report in which these data are used is responsible for releasing this data package and is by signature affirming the above release statement is true.

R. Kevin Given

R. Kevin Given
Project Manager

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW-Site Wide Monitoring
Work Order: 1101672

Work Order Sample Summary

<u>Lab Samp ID</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Tag Number</u>	<u>Collection Date</u>	<u>Date Received</u>	<u>Hold</u>
1101672-01	WG-1620-MW33A-20110124	Groundwater		1/24/2011 14:50	1/26/2011 08:30	<input type="checkbox"/>
1101672-02	WG-1620-MW33B-20110124	Groundwater		1/24/2011 16:00	1/26/2011 08:30	<input type="checkbox"/>
1101672-03	WG-1620-MW26A-20110124	Groundwater		1/24/2011 17:00	1/26/2011 08:30	<input type="checkbox"/>
1101672-04	WG-1620-MW68C-20110125	Groundwater		1/25/2011 07:45	1/26/2011 08:30	<input type="checkbox"/>
1101672-05	WG-1620-MW32A-20110125	Groundwater		1/25/2011 08:50	1/26/2011 08:30	<input type="checkbox"/>
1101672-06	WG-1620-MW38A-20110125	Groundwater		1/25/2011 10:00	1/26/2011 08:30	<input type="checkbox"/>
1101672-07	WG-1620-MW38B-20110125	Groundwater		1/25/2011 11:00	1/26/2011 08:30	<input type="checkbox"/>
1101672-08	WG-1620-MW22A-20110125	Groundwater		1/25/2011 11:50	1/26/2011 08:30	<input type="checkbox"/>
1101672-09	WG-1620-MW22B-20110125	Groundwater		1/25/2011 12:45	1/26/2011 08:30	<input type="checkbox"/>
1101672-10	WG-1620-MW24AR-20110125	Groundwater		1/25/2011 14:00	1/26/2011 08:30	<input type="checkbox"/>
1101672-11	WG-1620-MW24B-20110125	Groundwater		1/25/2011 15:00	1/26/2011 08:30	<input type="checkbox"/>
1101672-12	WG-1620-MW24C-20110125	Groundwater		1/25/2011 15:50	1/26/2011 08:30	<input type="checkbox"/>
1101672-13	WG-1620-MW28A-20110125	Groundwater		1/25/2011 17:05	1/26/2011 08:30	<input type="checkbox"/>
1101672-14	WG-1620-MW28C-20110125	Groundwater		1/25/2011 18:00	1/26/2011 08:30	<input type="checkbox"/>
1101672-15	WG-1620-TB03-20110125	Water		1/25/2011	1/26/2011 08:30	<input type="checkbox"/>

Laboratory Review Checklist: Reportable Data

Laboratory Name: ALS Laboratory Group		LRC Date: 02/09/2011					
Project Name: HWPW-Site Wide Monitoring		Laboratory Job Number: 1101672					
Reviewer Name: Kevin Given		Prep Batch Number(s): 49686, R104471, R104531					
# ¹	A ²	Description	Yes	No	NA ³	NR ⁴	ER# ⁵
R1	OI	Chain-of-custody (C-O-C)					
		Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?	X				
		Were all departures from standard conditions described in an exception report?	X				
R2	OI	Sample and quality control (QC) identification					
		Are all field sample ID numbers cross-referenced to the laboratory ID numbers?	X				
		Are all laboratory ID numbers cross-referenced to the corresponding QC data?	X				
R3	OI	Test reports					
		Were all samples prepared and analyzed within holding times?	X				
		Other than those results < MQL, were all other raw values bracketed by calibration standards?	X				
		Were calculations checked by a peer or supervisor?	X				
		Were all analyte identifications checked by a peer or supervisor?	X				
		Were sample detection limits reported for all analytes not detected?	X				
		Were all results for soil and sediment samples reported on a dry weight basis?			X		
		Were % moisture (or solids) reported for all soil and sediment samples?			X		
		Were bulk soils/solids samples for volatile analysis extracted with methanol per SW-846 Method 5035?			X		
		If required for the project, TICs reported?			X		
R4	O	Surrogate recovery data					
		Were surrogates added prior to extraction?	X				
		Were surrogate percent recoveries in all samples within the laboratory QC limits?		X			1
R5	OI	Test reports/summary forms for blank samples					
		Were appropriate type(s) of blanks analyzed?	X				
		Were blanks analyzed at the appropriate frequency?	X				
		Were method blanks taken through the entire analytical process, including preparation and, if applicable, cleanup procedures?	X				
		Were blank concentrations < MQL?	X				
R6	OI	Laboratory control samples (LCS):					
		Were all COCs included in the LCS?	X				
		Was each LCS taken through the entire analytical procedure, including prep and cleanup steps?	X				
		Were LCSs analyzed at the required frequency?	X				
		Were LCS (and LCSD, if applicable) %Rs within the laboratory QC limits?	X				
		Does the detectability data document the laboratory's capability to detect the COCs at the MDL used to calculate the SQLs?	X				
		Was the LCSD RPD within QC limits?	X				
R7	OI	Matrix spike (MS) and matrix spike duplicate (MSD) data					
		Were the project/method specified analytes included in the MS and MSD?	X				
		Were MS/MSD analyzed at the appropriate frequency?	X				
		Were MS (and MSD, if applicable) %Rs within the laboratory QC limits?	X				
		Were MS/MSD RPDs within laboratory QC limits?	X				
R8	OI	Analytical duplicate data					
		Were appropriate analytical duplicates analyzed for each matrix?			X		
		Were analytical duplicates analyzed at the appropriate frequency?			X		
		Were RPDs or relative standard deviations within the laboratory QC limits?			X		
R9	OI	Method quantitation limits (MQLs):					
		Are the MQLs for each method analyte included in the laboratory data package?	X				
		Do the MQLs correspond to the concentration of the lowest non-zero calibration standard?	X				
		Are unadjusted MQLs and DCSs included in the laboratory data package?	X				
R10	OI	Other problems/anomalies					
		Are all known problems/anomalies/special conditions noted in this LRC and ER?	X				
		Were all necessary corrective actions performed for the reported data?	X				
		Was applicable and available technology used to lower the SDL minimize the matrix interference affects on the sample results?	X				2
		Is the laboratory NELAC-accredited under the Texas Laboratory Program for the analytes, matrices and methods associated with this laboratory data package?	X				

Laboratory Review Checklist: Reportable Data

Laboratory Name: ALS Laboratory Group		LRC Date: 02/09/2011					
Project Name: HWPW-Site Wide Monitoring		Laboratory Job Number: 1101672					
Reviewer Name: Kevin Given		Prep Batch Number(s): 49686, R104471, R104531					
# ¹	A ²	Description	Yes	No	NA ³	NR ⁴	ER# ⁵
S1	OI	Initial calibration (ICAL)					
		Were response factors and/or relative response factors for each analyte within QC limits?	X				
		Were percent RSDs or correlation coefficient criteria met?	X				
		Was the number of standards recommended in the method used for all analytes?	X				
		Were all points generated between the lowest and highest standard used to calculate the curve?	X				
		Are ICAL data available for all instruments used?	X				
		Has the initial calibration curve been verified using an appropriate second source standard?	X				
S2	OI	Initial and continuing calibration verification (ICCV and CCV) and continuing calibration blank (CCB)					
		Was the CCV analyzed at the method-required frequency?	X				
		Were percent differences for each analyte within the method-required QC limits?	X				
		Was the ICAL curve verified for each analyte?	X				
		Was the absolute value of the analyte concentration in the inorganic CCB < MDL?			X		
S3	O	Mass spectral tuning:					
		Was the appropriate compound for the method used for tuning?	X				
		Were ion abundance data within the method-required QC limits?	X				
S4	O	Internal standards (IS):					
		Were IS area counts and retention times within the method-required QC limits?	X				
S5	OI	Raw data (NELAC section 1 appendix A glossary, and section 5.12 or ISO/IEC 17025 section)					
		Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?	X				
		Were data associated with manual integrations flagged on the raw data?	X				
S6	O	Dual column confirmation					
		Did dual column confirmation results meet the method-required QC?			X		
S7	O	Tentatively identified compounds (TICs):					
		If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?			X		
S8	I	Interference Check Sample (ICS) results:					
		Were percent recoveries within method QC limits?			X		
S9	I	Serial dilutions, post digestion spikes, and method of standard additions					
		Were percent differences, recoveries, and the linearity within the QC limits specified in the method?			X		
S10	OI	Method detection limit (MDL) studies					
		Was a MDL study performed for each reported analyte?	X				
		Is the MDL either adjusted or supported by the analysis of DCSs?	X				
S11	OI	Proficiency test reports:					
		Was the laboratory's performance acceptable on the applicable proficiency tests or evaluation studies?	X				
S12	OI	Standards documentation					
		Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?	X				
S13	OI	Compound/analyte identification procedures					
		Are the procedures for compound/analyte identification documented?	X				
S14	OI	Demonstration of analyst competency (DOC)					
		Was DOC conducted consistent with NELAC Chapter 5C or ISO/IEC 4?	X				
		Is documentation of the analyst's competency up-to-date and on file?	X				
S15	OI	Verification/validation documentation for methods (NELAC Chap 5 or ISO/IEC 17025 Section 5)					
		Are all the methods used to generate the data documented, verified, and validated, where applicable?	X				
S16	OI	Laboratory standard operating procedures (SOPs):					
		Are laboratory SOPs current and on file for each method performed?	X				
<p>Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.</p> <p>O = Organic Analyses; I = Inorganic Analyses (and general chemistry, when applicable); NA = Not Applicable; NR = Not Reviewed; R# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).</p>							

Laboratory Review Checklist: Reportable Data

Laboratory Name: ALS Laboratory Group		LRC Date: 02/09/2011
Project Name: HWPW-Site Wide Monitoring		Laboratory Job Number: 1101672
Reviewer Name: Kevin Given		Prep Batch Number(s): 49686, R104471, R104531
ER# ⁵	Description	
1	Low-Level Semivolatile Organics, Sample WG-1620-MW33B-20110124 : Surrogate recoveries were diluted out in the 100X and 1000X dilution. Low-Level Semivolatile Organics, Sample WG-1620-MW32A-20110125 : Surrogate recoveries were diluted out in the 500X, 25000X, and 5000X dilution.	
2	Low-Level Semivolatile Organics, Sample WG-1620-MW32A-20110125 could not be analyzed at a lower dilution due to matrix interference. TCL Volatile Organics, Samples WG-1620-MW33B-20110124 and WG-1620-MW32A-20110125 could not be analyzed at a lower dilution due to high concentration of target analytes.	
Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period. O = Organic Analyses; I = Inorganic Analyses (and general chemistry, when applicable); NA = Not Applicable; NR = Not Reviewed; R# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).		

ALS Environmental

Date: 09-Feb-11

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW-Site Wide Monitoring
Sample ID: WG-1620-MW33A-20110124
Collection Date: 1/24/2011 02:50 PM

Work Order: 1101672
Lab ID: 1101672-01
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270		Prep: SW3510 / 1/30/11		Analyst: KMB
1,2-Diphenylhydrazine	U		0.10	0.20	µg/L	1	1/31/2011 17:39
2,4-Dimethylphenol	2.7		0.080	0.20	µg/L	1	1/31/2011 17:39
2,4-Dinitrotoluene	U		0.090	0.20	µg/L	1	1/31/2011 17:39
2,6-Dinitrotoluene	U		0.070	0.20	µg/L	1	1/31/2011 17:39
2-Chloronaphthalene	U		0.10	0.20	µg/L	1	1/31/2011 17:39
2-Methylnaphthalene	6.7		0.070	0.20	µg/L	1	1/31/2011 17:39
4,6-Dinitro-2-methylphenol	U		0.080	0.20	µg/L	1	1/31/2011 17:39
4-Nitrophenol	U		0.070	1.0	µg/L	1	1/31/2011 17:39
Acenaphthene	14		0.45	1.0	µg/L	5	2/1/2011 20:38
Acenaphthylene	0.14	J	0.070	0.20	µg/L	1	1/31/2011 17:39
Anthracene	0.72		0.070	0.20	µg/L	1	1/31/2011 17:39
Benz(a)anthracene	0.25		0.070	0.20	µg/L	1	1/31/2011 17:39
Benzo(a)pyrene	U		0.080	0.20	µg/L	1	1/31/2011 17:39
Bis(2-chloroethoxy)methane	U		0.090	0.20	µg/L	1	1/31/2011 17:39
Bis(2-ethylhexyl)phthalate	0.31		0.20	0.20	µg/L	1	1/31/2011 17:39
Chrysene	0.16	J	0.070	0.20	µg/L	1	1/31/2011 17:39
Dibenzofuran	2.7		0.080	0.20	µg/L	1	1/31/2011 17:39
Di-n-butyl phthalate	U		0.070	0.20	µg/L	1	1/31/2011 17:39
Fluoranthene	3.0		0.070	0.20	µg/L	1	1/31/2011 17:39
Fluorene	2.7		0.070	0.20	µg/L	1	1/31/2011 17:39
Naphthalene	95		2.5	5.0	µg/L	25	2/1/2011 23:23
Nitrobenzene	U		0.090	0.20	µg/L	1	1/31/2011 17:39
N-Nitrosodiphenylamine	U		0.090	0.20	µg/L	1	1/31/2011 17:39
Pentachlorophenol	U		0.080	0.20	µg/L	1	1/31/2011 17:39
Phenanthrene	4.8		0.070	0.20	µg/L	1	1/31/2011 17:39
Phenol	U		0.070	0.20	µg/L	1	1/31/2011 17:39
Pyrene	3.5		0.070	0.20	µg/L	1	1/31/2011 17:39
Surr: 2,4,6-Tribromophenol	60.5			34-129	%REC	1	1/31/2011 17:39
Surr: 2,4,6-Tribromophenol	58.4			34-129	%REC	5	2/1/2011 20:38
Surr: 2,4,6-Tribromophenol	49.8	J		34-129	%REC	25	2/1/2011 23:23
Surr: 2-Fluorobiphenyl	44.1			40-125	%REC	1	1/31/2011 17:39
Surr: 2-Fluorobiphenyl	46.7			40-125	%REC	5	2/1/2011 20:38
Surr: 2-Fluorobiphenyl	50.5	J		40-125	%REC	25	2/1/2011 23:23
Surr: 2-Fluorophenol	44.3			20-120	%REC	1	1/31/2011 17:39
Surr: 2-Fluorophenol	41.5			20-120	%REC	5	2/1/2011 20:38
Surr: 2-Fluorophenol	50.0	J		20-120	%REC	25	2/1/2011 23:23
Surr: 4-Terphenyl-d14	71.1			40-135	%REC	1	1/31/2011 17:39
Surr: 4-Terphenyl-d14	70.9			40-135	%REC	5	2/1/2011 20:38

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 09-Feb-11

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW-Site Wide Monitoring
Sample ID: WG-1620-MW33A-20110124
Collection Date: 1/24/2011 02:50 PM

Work Order: 1101672
Lab ID: 1101672-01
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
Surr: 4-Terphenyl-d14	74.2	J		40-135	%REC	25	2/1/2011 23:23
Surr: Nitrobenzene-d5	46.4			41-120	%REC	1	1/31/2011 17:39
Surr: Nitrobenzene-d5	49.4			41-120	%REC	5	2/1/2011 20:38
Surr: Nitrobenzene-d5	57.0	J		41-120	%REC	25	2/1/2011 23:23
Surr: Phenol-d6	48.0			20-120	%REC	1	1/31/2011 17:39
Surr: Phenol-d6	43.9			20-120	%REC	5	2/1/2011 20:38
Surr: Phenol-d6	54.8	J		20-120	%REC	25	2/1/2011 23:23
TCL VOLATILES			Method: SW8260			Analyst: PC	
1,2-Dichloroethane	U		0.50	5.0	µg/L	1	1/26/2011 14:38
Benzene	5.6		0.50	5.0	µg/L	1	1/26/2011 14:38
Chlorobenzene	U		0.50	5.0	µg/L	1	1/26/2011 14:38
Dichloromethane	U		0.50	10	µg/L	1	1/26/2011 14:38
Ethylbenzene	1.5	J	0.50	5.0	µg/L	1	1/26/2011 14:38
Toluene	U		0.50	5.0	µg/L	1	1/26/2011 14:38
Xylenes, Total	1.6	J	1.0	15	µg/L	1	1/26/2011 14:38
Surr: 1,2-Dichloroethane-d4	95.2			70-125	%REC	1	1/26/2011 14:38
Surr: 4-Bromofluorobenzene	99.5			72-125	%REC	1	1/26/2011 14:38
Surr: Dibromofluoromethane	99.9			71-125	%REC	1	1/26/2011 14:38
Surr: Toluene-d8	100			75-125	%REC	1	1/26/2011 14:38

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 09-Feb-11

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW-Site Wide Monitoring
Sample ID: WG-1620-MW33B-20110124
Collection Date: 1/24/2011 04:00 PM

Work Order: 1101672
Lab ID: 1101672-02
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270		Prep: SW3510 / 1/30/11		Analyst: KMB
1,2-Diphenylhydrazine		U	0.10	0.20	µg/L	1	1/31/2011 18:00
2,4-Dimethylphenol	2.9		0.080	0.20	µg/L	1	1/31/2011 18:00
2,4-Dinitrotoluene		U	0.090	0.20	µg/L	1	1/31/2011 18:00
2,6-Dinitrotoluene		U	0.070	0.20	µg/L	1	1/31/2011 18:00
2-Chloronaphthalene		U	0.10	0.20	µg/L	1	1/31/2011 18:00
2-Methylnaphthalene	520		7.0	20	µg/L	100	2/1/2011 22:21
4,6-Dinitro-2-methylphenol		U	0.080	0.20	µg/L	1	1/31/2011 18:00
4-Nitrophenol		U	0.070	1.0	µg/L	1	1/31/2011 18:00
Acenaphthene	150		9.0	20	µg/L	100	2/1/2011 22:21
Acenaphthylene	1.5		0.070	0.20	µg/L	1	1/31/2011 18:00
Anthracene	27		0.70	2.0	µg/L	10	2/1/2011 22:01
Benz(a)anthracene	1.9		0.070	0.20	µg/L	1	1/31/2011 18:00
Benzo(a)pyrene	0.73		0.080	0.20	µg/L	1	1/31/2011 18:00
Bis(2-chloroethoxy)methane		U	0.090	0.20	µg/L	1	1/31/2011 18:00
Bis(2-ethylhexyl)phthalate	0.91		0.20	0.20	µg/L	1	1/31/2011 18:00
Chrysene	1.8		0.070	0.20	µg/L	1	1/31/2011 18:00
Dibenzofuran	170		8.0	20	µg/L	100	2/1/2011 22:21
Di-n-butyl phthalate		U	0.070	0.20	µg/L	1	1/31/2011 18:00
Fluoranthene	33		0.70	2.0	µg/L	10	2/1/2011 22:01
Fluorene	69		0.70	2.0	µg/L	10	2/1/2011 22:01
Naphthalene	7,000		100	200	µg/L	1000	2/1/2011 22:42
Nitrobenzene		U	0.090	0.20	µg/L	1	1/31/2011 18:00
N-Nitrosodiphenylamine		U	0.090	0.20	µg/L	1	1/31/2011 18:00
Pentachlorophenol		U	0.080	0.20	µg/L	1	1/31/2011 18:00
Phenanthrene	90		0.70	2.0	µg/L	10	2/1/2011 22:01
Phenol		U	0.070	0.20	µg/L	1	1/31/2011 18:00
Pyrene	7.0		0.070	0.20	µg/L	1	1/31/2011 18:00
Surr: 2,4,6-Tribromophenol	65.3			34-129	%REC	1	1/31/2011 18:00
Surr: 2,4,6-Tribromophenol	85.2			34-129	%REC	10	2/1/2011 22:01
Surr: 2,4,6-Tribromophenol	0	S		34-129	%REC	100	2/1/2011 22:21
Surr: 2,4,6-Tribromophenol	0	S		34-129	%REC	1000	2/1/2011 22:42
Surr: 2-Fluorobiphenyl	48.4			40-125	%REC	1	1/31/2011 18:00
Surr: 2-Fluorobiphenyl	69.2			40-125	%REC	10	2/1/2011 22:01
Surr: 2-Fluorobiphenyl	0	S		40-125	%REC	100	2/1/2011 22:21
Surr: 2-Fluorobiphenyl	0	S		40-125	%REC	1000	2/1/2011 22:42
Surr: 2-Fluorophenol	107			20-120	%REC	1	1/31/2011 18:00
Surr: 2-Fluorophenol	116			20-120	%REC	10	2/1/2011 22:01
Surr: 2-Fluorophenol	0	S		20-120	%REC	100	2/1/2011 22:21

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 09-Feb-11

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW-Site Wide Monitoring
Sample ID: WG-1620-MW33B-20110124
Collection Date: 1/24/2011 04:00 PM

Work Order: 1101672
Lab ID: 1101672-02
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
Surr: 2-Fluorophenol	0	S		20-120	%REC	1000	2/1/2011 22:42
Surr: 4-Terphenyl-d14	44.3			40-135	%REC	1	1/31/2011 18:00
Surr: 4-Terphenyl-d14	80.7			40-135	%REC	10	2/1/2011 22:01
Surr: 4-Terphenyl-d14	0	S		40-135	%REC	100	2/1/2011 22:21
Surr: 4-Terphenyl-d14	0	S		40-135	%REC	1000	2/1/2011 22:42
Surr: Nitrobenzene-d5	80.6			41-120	%REC	1	1/31/2011 18:00
Surr: Nitrobenzene-d5	58.4			41-120	%REC	10	2/1/2011 22:01
Surr: Nitrobenzene-d5	0	S		41-120	%REC	100	2/1/2011 22:21
Surr: Nitrobenzene-d5	0	S		41-120	%REC	1000	2/1/2011 22:42
Surr: Phenol-d6	67.8			20-120	%REC	1	1/31/2011 18:00
Surr: Phenol-d6	63.6			20-120	%REC	10	2/1/2011 22:01
Surr: Phenol-d6	0	S		20-120	%REC	100	2/1/2011 22:21
Surr: Phenol-d6	0	S		20-120	%REC	1000	2/1/2011 22:42

TCL VOLATILES

Method: SW8260

Analyst: PC

1,2-Dichloroethane	U		5.0	50	µg/L	10	1/27/2011 12:32
Benzene	1,000		5.0	50	µg/L	10	1/27/2011 12:32
Chlorobenzene	U		5.0	50	µg/L	10	1/27/2011 12:32
Dichloromethane	U		5.0	100	µg/L	10	1/27/2011 12:32
Ethylbenzene	360		5.0	50	µg/L	10	1/27/2011 12:32
Toluene	6.7	J	5.0	50	µg/L	10	1/27/2011 12:32
Xylenes, Total	850		10	150	µg/L	10	1/27/2011 12:32
Surr: 1,2-Dichloroethane-d4	98.1			70-125	%REC	10	1/27/2011 12:32
Surr: 4-Bromofluorobenzene	103			72-125	%REC	10	1/27/2011 12:32
Surr: Dibromofluoromethane	98.1			71-125	%REC	10	1/27/2011 12:32
Surr: Toluene-d8	101			75-125	%REC	10	1/27/2011 12:32

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 09-Feb-11

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW-Site Wide Monitoring
Sample ID: WG-1620-MW26A-20110124
Collection Date: 1/24/2011 05:00 PM

Work Order: 1101672
Lab ID: 1101672-03
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270		Prep: SW3510 / 1/30/11		Analyst: KMB
1,2-Diphenylhydrazine	U		0.10	0.20	µg/L	1	1/31/2011 18:21
2,4-Dimethylphenol	U		0.080	0.20	µg/L	1	1/31/2011 18:21
2,4-Dinitrotoluene	U		0.090	0.20	µg/L	1	1/31/2011 18:21
2,6-Dinitrotoluene	U		0.070	0.20	µg/L	1	1/31/2011 18:21
2-Chloronaphthalene	U		0.10	0.20	µg/L	1	1/31/2011 18:21
2-Methylnaphthalene	0.31		0.070	0.20	µg/L	1	1/31/2011 18:21
4,6-Dinitro-2-methylphenol	U		0.080	0.20	µg/L	1	1/31/2011 18:21
4-Nitrophenol	U		0.070	1.0	µg/L	1	1/31/2011 18:21
Acenaphthene	3.9		0.090	0.20	µg/L	1	1/31/2011 18:21
Acenaphthylene	U		0.070	0.20	µg/L	1	1/31/2011 18:21
Anthracene	0.099	J	0.070	0.20	µg/L	1	1/31/2011 18:21
Benz(a)anthracene	U		0.070	0.20	µg/L	1	1/31/2011 18:21
Benzo(a)pyrene	U		0.080	0.20	µg/L	1	1/31/2011 18:21
Bis(2-chloroethoxy)methane	U		0.090	0.20	µg/L	1	1/31/2011 18:21
Bis(2-ethylhexyl)phthalate	0.43		0.20	0.20	µg/L	1	1/31/2011 18:21
Chrysene	U		0.070	0.20	µg/L	1	1/31/2011 18:21
Dibenzofuran	0.38		0.080	0.20	µg/L	1	1/31/2011 18:21
Di-n-butyl phthalate	U		0.070	0.20	µg/L	1	1/31/2011 18:21
Fluoranthene	0.36		0.070	0.20	µg/L	1	1/31/2011 18:21
Fluorene	0.17	J	0.070	0.20	µg/L	1	1/31/2011 18:21
Naphthalene	4.3		0.10	0.20	µg/L	1	1/31/2011 18:21
Nitrobenzene	U		0.090	0.20	µg/L	1	1/31/2011 18:21
N-Nitrosodiphenylamine	U		0.090	0.20	µg/L	1	1/31/2011 18:21
Pentachlorophenol	U		0.080	0.20	µg/L	1	1/31/2011 18:21
Phenanthrene	0.11	J	0.070	0.20	µg/L	1	1/31/2011 18:21
Phenol	U		0.070	0.20	µg/L	1	1/31/2011 18:21
Pyrene	0.13	J	0.070	0.20	µg/L	1	1/31/2011 18:21
Surr: 2,4,6-Tribromophenol	54.4			34-129	%REC	1	1/31/2011 18:21
Surr: 2-Fluorobiphenyl	46.8			40-125	%REC	1	1/31/2011 18:21
Surr: 2-Fluorophenol	50.7			20-120	%REC	1	1/31/2011 18:21
Surr: 4-Terphenyl-d14	65.3			40-135	%REC	1	1/31/2011 18:21
Surr: Nitrobenzene-d5	41.1			41-120	%REC	1	1/31/2011 18:21
Surr: Phenol-d6	44.7			20-120	%REC	1	1/31/2011 18:21
TCL VOLATILES			Method: SW8260				Analyst: PC
1,2-Dichloroethane	U		0.50	5.0	µg/L	1	1/26/2011 15:54
Benzene	U		0.50	5.0	µg/L	1	1/26/2011 15:54
Chlorobenzene	U		0.50	5.0	µg/L	1	1/26/2011 15:54
Dichloromethane	U		0.50	10	µg/L	1	1/26/2011 15:54

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 09-Feb-11

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW-Site Wide Monitoring
Sample ID: WG-1620-MW26A-20110124
Collection Date: 1/24/2011 05:00 PM

Work Order: 1101672
Lab ID: 1101672-03
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
Ethylbenzene	U		0.50	5.0	µg/L	1	1/26/2011 15:54
Toluene	U		0.50	5.0	µg/L	1	1/26/2011 15:54
Xylenes, Total	U		1.0	15	µg/L	1	1/26/2011 15:54
Surr: 1,2-Dichloroethane-d4	98.2			70-125	%REC	1	1/26/2011 15:54
Surr: 4-Bromofluorobenzene	93.8			72-125	%REC	1	1/26/2011 15:54
Surr: Dibromofluoromethane	102			71-125	%REC	1	1/26/2011 15:54
Surr: Toluene-d8	101			75-125	%REC	1	1/26/2011 15:54

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 09-Feb-11

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW-Site Wide Monitoring
Sample ID: WG-1620-MW68C-20110125
Collection Date: 1/25/2011 07:45 AM

Work Order: 1101672
Lab ID: 1101672-04
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270		Prep: SW3510 / 1/30/11		Analyst: KMB
1,2-Diphenylhydrazine	U		0.10	0.20	µg/L	1	1/31/2011 18:42
2,4-Dimethylphenol	0.12	J	0.080	0.20	µg/L	1	1/31/2011 18:42
2,4-Dinitrotoluene	U		0.090	0.20	µg/L	1	1/31/2011 18:42
2,6-Dinitrotoluene	U		0.070	0.20	µg/L	1	1/31/2011 18:42
2-Chloronaphthalene	U		0.10	0.20	µg/L	1	1/31/2011 18:42
2-Methylnaphthalene	0.16	J	0.070	0.20	µg/L	1	1/31/2011 18:42
4,6-Dinitro-2-methylphenol	U		0.080	0.20	µg/L	1	1/31/2011 18:42
4-Nitrophenol	U		0.070	1.0	µg/L	1	1/31/2011 18:42
Acenaphthene	U		0.090	0.20	µg/L	1	1/31/2011 18:42
Acenaphthylene	U		0.070	0.20	µg/L	1	1/31/2011 18:42
Anthracene	U		0.070	0.20	µg/L	1	1/31/2011 18:42
Benz(a)anthracene	U		0.070	0.20	µg/L	1	1/31/2011 18:42
Benzo(a)pyrene	U		0.080	0.20	µg/L	1	1/31/2011 18:42
Bis(2-chloroethoxy)methane	U		0.090	0.20	µg/L	1	1/31/2011 18:42
Bis(2-ethylhexyl)phthalate	6.0		0.20	0.20	µg/L	1	1/31/2011 18:42
Chrysene	U		0.070	0.20	µg/L	1	1/31/2011 18:42
Dibenzofuran	U		0.080	0.20	µg/L	1	1/31/2011 18:42
Di-n-butyl phthalate	U		0.070	0.20	µg/L	1	1/31/2011 18:42
Fluoranthene	U		0.070	0.20	µg/L	1	1/31/2011 18:42
Fluorene	U		0.070	0.20	µg/L	1	1/31/2011 18:42
Naphthalene	1.4		0.10	0.20	µg/L	1	1/31/2011 18:42
Nitrobenzene	U		0.090	0.20	µg/L	1	1/31/2011 18:42
N-Nitrosodiphenylamine	U		0.090	0.20	µg/L	1	1/31/2011 18:42
Pentachlorophenol	U		0.080	0.20	µg/L	1	1/31/2011 18:42
Phenanthrene	U		0.070	0.20	µg/L	1	1/31/2011 18:42
Phenol	3.9		0.070	0.20	µg/L	1	1/31/2011 18:42
Pyrene	U		0.070	0.20	µg/L	1	1/31/2011 18:42
Surr: 2,4,6-Tribromophenol	82.2			34-129	%REC	1	1/31/2011 18:42
Surr: 2-Fluorobiphenyl	52.4			40-125	%REC	1	1/31/2011 18:42
Surr: 2-Fluorophenol	53.1			20-120	%REC	1	1/31/2011 18:42
Surr: 4-Terphenyl-d14	74.8			40-135	%REC	1	1/31/2011 18:42
Surr: Nitrobenzene-d5	48.0			41-120	%REC	1	1/31/2011 18:42
Surr: Phenol-d6	58.7			20-120	%REC	1	1/31/2011 18:42
TCL VOLATILES			Method: SW8260				Analyst: PC
1,2-Dichloroethane	U		0.50	5.0	µg/L	1	1/26/2011 16:20
Benzene	2.1	J	0.50	5.0	µg/L	1	1/26/2011 16:20
Chlorobenzene	U		0.50	5.0	µg/L	1	1/26/2011 16:20
Dichloromethane	U		0.50	10	µg/L	1	1/26/2011 16:20

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 09-Feb-11

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW-Site Wide Monitoring
Sample ID: WG-1620-MW68C-20110125
Collection Date: 1/25/2011 07:45 AM

Work Order: 1101672
Lab ID: 1101672-04
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
Ethylbenzene	U		0.50	5.0	µg/L	1	1/26/2011 16:20
Toluene	0.67	J	0.50	5.0	µg/L	1	1/26/2011 16:20
Xylenes, Total	U		1.0	15	µg/L	1	1/26/2011 16:20
Surr: 1,2-Dichloroethane-d4	95.8			70-125	%REC	1	1/26/2011 16:20
Surr: 4-Bromofluorobenzene	96.1			72-125	%REC	1	1/26/2011 16:20
Surr: Dibromofluoromethane	99.7			71-125	%REC	1	1/26/2011 16:20
Surr: Toluene-d8	99.3			75-125	%REC	1	1/26/2011 16:20

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 09-Feb-11

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW-Site Wide Monitoring
Sample ID: WG-1620-MW32A-20110125
Collection Date: 1/25/2011 08:50 AM

Work Order: 1101672
Lab ID: 1101672-05
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270		Prep: SW3510 / 1/30/11		Analyst: KMB
1,2-Diphenylhydrazine	U		1.0	2.0	µg/L	10	2/1/2011 08:33
2,4-Dimethylphenol	2,300		40	100	µg/L	500	2/1/2011 23:03
2,4-Dinitrotoluene	U		0.90	2.0	µg/L	10	2/1/2011 08:33
2,6-Dinitrotoluene	U		0.70	2.0	µg/L	10	2/1/2011 08:33
2-Chloronaphthalene	U		1.0	2.0	µg/L	10	2/1/2011 08:33
2-Methylnaphthalene	6,900		180	500	µg/L	2500	2/2/2011 16:47
4,6-Dinitro-2-methylphenol	U		0.80	2.0	µg/L	10	2/1/2011 08:33
4-Nitrophenol	U		0.70	10	µg/L	10	2/1/2011 08:33
Acenaphthene	3,100		45	100	µg/L	500	2/1/2011 23:03
Acenaphthylene	27		0.70	2.0	µg/L	10	2/1/2011 08:33
Anthracene	910		7.0	20	µg/L	100	2/1/2011 21:40
Benz(a)anthracene	300		7.0	20	µg/L	100	2/1/2011 21:40
Benzo(a)pyrene	78		0.80	2.0	µg/L	10	2/1/2011 08:33
Bis(2-chloroethoxy)methane	U		0.90	2.0	µg/L	10	2/1/2011 08:33
Bis(2-ethylhexyl)phthalate	4.6		2.0	2.0	µg/L	10	2/1/2011 08:33
Chrysene	280		7.0	20	µg/L	100	2/1/2011 21:40
Dibenzofuran	3,200		40	100	µg/L	500	2/1/2011 23:03
Di-n-butyl phthalate	U		0.70	2.0	µg/L	10	2/1/2011 08:33
Fluoranthene	2,500		35	100	µg/L	500	2/1/2011 23:03
Fluorene	2,500		35	100	µg/L	500	2/1/2011 23:03
Naphthalene	31,000		500	1,000	µg/L	5000	2/2/2011 18:10
Nitrobenzene	U		0.90	2.0	µg/L	10	2/1/2011 08:33
N-Nitrosodiphenylamine	U		0.90	2.0	µg/L	10	2/1/2011 08:33
Pentachlorophenol	U		0.80	2.0	µg/L	10	2/1/2011 08:33
Phenanthrene	8,900		180	500	µg/L	2500	2/2/2011 16:47
Phenol	1,200		35	100	µg/L	500	2/1/2011 23:03
Pyrene	1,500		35	100	µg/L	500	2/1/2011 23:03
Surr: 2,4,6-Tribromophenol	61.3			34-129	%REC	10	2/1/2011 08:33
Surr: 2,4,6-Tribromophenol	61.8	J		34-129	%REC	100	2/1/2011 21:40
Surr: 2,4,6-Tribromophenol	0	S		34-129	%REC	500	2/1/2011 23:03
Surr: 2,4,6-Tribromophenol	0	S		34-129	%REC	2500	2/2/2011 16:47
Surr: 2,4,6-Tribromophenol	0	S		34-129	%REC	5000	2/2/2011 18:10
Surr: 2-Fluorobiphenyl	43.8			40-125	%REC	10	2/1/2011 08:33
Surr: 2-Fluorobiphenyl	85.0	J		40-125	%REC	100	2/1/2011 21:40
Surr: 2-Fluorobiphenyl	0	S		40-125	%REC	500	2/1/2011 23:03
Surr: 2-Fluorobiphenyl	0	S		40-125	%REC	2500	2/2/2011 16:47
Surr: 2-Fluorobiphenyl	0	S		40-125	%REC	5000	2/2/2011 18:10
Surr: 2-Fluorophenol	92.9			20-120	%REC	10	2/1/2011 08:33

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 09-Feb-11

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW-Site Wide Monitoring
Sample ID: WG-1620-MW32A-20110125
Collection Date: 1/25/2011 08:50 AM

Work Order: 1101672
Lab ID: 1101672-05
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
Surr: 2-Fluorophenol	116	J		20-120	%REC	100	2/1/2011 21:40
Surr: 2-Fluorophenol	0	S		20-120	%REC	500	2/1/2011 23:03
Surr: 2-Fluorophenol	0	S		20-120	%REC	2500	2/2/2011 16:47
Surr: 2-Fluorophenol	0	S		20-120	%REC	5000	2/2/2011 18:10
Surr: 4-Terphenyl-d14	91.8			40-135	%REC	10	2/1/2011 08:33
Surr: 4-Terphenyl-d14	103	J		40-135	%REC	100	2/1/2011 21:40
Surr: 4-Terphenyl-d14	0	S		40-135	%REC	500	2/1/2011 23:03
Surr: 4-Terphenyl-d14	0	S		40-135	%REC	2500	2/2/2011 16:47
Surr: 4-Terphenyl-d14	0	S		40-135	%REC	5000	2/2/2011 18:10
Surr: Nitrobenzene-d5	69.9			41-120	%REC	10	2/1/2011 08:33
Surr: Nitrobenzene-d5	46.5	J		41-120	%REC	100	2/1/2011 21:40
Surr: Nitrobenzene-d5	0	S		41-120	%REC	500	2/1/2011 23:03
Surr: Nitrobenzene-d5	0	S		41-120	%REC	2500	2/2/2011 16:47
Surr: Nitrobenzene-d5	0	S		41-120	%REC	5000	2/2/2011 18:10
Surr: Phenol-d6	110			20-120	%REC	10	2/1/2011 08:33
Surr: Phenol-d6	108	J		20-120	%REC	100	2/1/2011 21:40
Surr: Phenol-d6	0	S		20-120	%REC	500	2/1/2011 23:03
Surr: Phenol-d6	0	S		20-120	%REC	2500	2/2/2011 16:47
Surr: Phenol-d6	0	S		20-120	%REC	5000	2/2/2011 18:10

TCL VOLATILES

Method: SW8260

Analyst: PC

1,2-Dichloroethane	U		2.5	25	µg/L	5	1/27/2011 12:57
Benzene	610		2.5	25	µg/L	5	1/27/2011 12:57
Chlorobenzene	U		2.5	25	µg/L	5	1/27/2011 12:57
Dichloromethane	U		2.5	50	µg/L	5	1/27/2011 12:57
Ethylbenzene	410		2.5	25	µg/L	5	1/27/2011 12:57
Toluene	1,000		2.5	25	µg/L	5	1/27/2011 12:57
Xylenes, Total	1,100		5.0	75	µg/L	5	1/27/2011 12:57
Surr: 1,2-Dichloroethane-d4	98.6			70-125	%REC	5	1/27/2011 12:57
Surr: 4-Bromofluorobenzene	104			72-125	%REC	5	1/27/2011 12:57
Surr: Dibromofluoromethane	105			71-125	%REC	5	1/27/2011 12:57
Surr: Toluene-d8	97.4			75-125	%REC	5	1/27/2011 12:57

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 09-Feb-11

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW-Site Wide Monitoring
Sample ID: WG-1620-MW38A-20110125
Collection Date: 1/25/2011 10:00 AM

Work Order: 1101672
Lab ID: 1101672-06
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	ML	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270		Prep: SW3510 / 1/30/11		Analyst: KMB
1,2-Diphenylhydrazine	U		0.10	0.20	µg/L	1	1/31/2011 20:05
2,4-Dimethylphenol	U		0.080	0.20	µg/L	1	1/31/2011 20:05
2,4-Dinitrotoluene	U		0.090	0.20	µg/L	1	1/31/2011 20:05
2,6-Dinitrotoluene	U		0.070	0.20	µg/L	1	1/31/2011 20:05
2-Chloronaphthalene	U		0.10	0.20	µg/L	1	1/31/2011 20:05
2-Methylnaphthalene	0.085	J	0.070	0.20	µg/L	1	1/31/2011 20:05
4,6-Dinitro-2-methylphenol	U		0.080	0.20	µg/L	1	1/31/2011 20:05
4-Nitrophenol	U		0.070	1.0	µg/L	1	1/31/2011 20:05
Acenaphthene	U		0.090	0.20	µg/L	1	1/31/2011 20:05
Acenaphthylene	U		0.070	0.20	µg/L	1	1/31/2011 20:05
Anthracene	0.23		0.070	0.20	µg/L	1	1/31/2011 20:05
Benz(a)anthracene	U		0.070	0.20	µg/L	1	1/31/2011 20:05
Benzo(a)pyrene	U		0.080	0.20	µg/L	1	1/31/2011 20:05
Bis(2-chloroethoxy)methane	U		0.090	0.20	µg/L	1	1/31/2011 20:05
Bis(2-ethylhexyl)phthalate	0.64		0.20	0.20	µg/L	1	1/31/2011 20:05
Chrysene	U		0.070	0.20	µg/L	1	1/31/2011 20:05
Dibenzofuran	U		0.080	0.20	µg/L	1	1/31/2011 20:05
Di-n-butyl phthalate	U		0.070	0.20	µg/L	1	1/31/2011 20:05
Fluoranthene	0.34		0.070	0.20	µg/L	1	1/31/2011 20:05
Fluorene	U		0.070	0.20	µg/L	1	1/31/2011 20:05
Naphthalene	0.59		0.10	0.20	µg/L	1	1/31/2011 20:05
Nitrobenzene	U		0.090	0.20	µg/L	1	1/31/2011 20:05
N-Nitrosodiphenylamine	U		0.090	0.20	µg/L	1	1/31/2011 20:05
Pentachlorophenol	U		0.080	0.20	µg/L	1	1/31/2011 20:05
Phenanthrene	0.10	J	0.070	0.20	µg/L	1	1/31/2011 20:05
Phenol	U		0.070	0.20	µg/L	1	1/31/2011 20:05
Pyrene	0.21		0.070	0.20	µg/L	1	1/31/2011 20:05
Surr: 2,4,6-Tribromophenol	95.1			34-129	%REC	1	1/31/2011 20:05
Surr: 2-Fluorobiphenyl	65.9			40-125	%REC	1	1/31/2011 20:05
Surr: 2-Fluorophenol	43.7			20-120	%REC	1	1/31/2011 20:05
Surr: 4-Terphenyl-d14	67.1			40-135	%REC	1	1/31/2011 20:05
Surr: Nitrobenzene-d5	52.6			41-120	%REC	1	1/31/2011 20:05
Surr: Phenol-d6	53.2			20-120	%REC	1	1/31/2011 20:05
TCL VOLATILES			Method: SW8260				Analyst: PC
1,2-Dichloroethane	U		0.50	5.0	µg/L	1	1/26/2011 17:10
Benzene	U		0.50	5.0	µg/L	1	1/26/2011 17:10
Chlorobenzene	U		0.50	5.0	µg/L	1	1/26/2011 17:10
Dichloromethane	U		0.50	10	µg/L	1	1/26/2011 17:10

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 09-Feb-11

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW-Site Wide Monitoring
Sample ID: WG-1620-MW38A-20110125
Collection Date: 1/25/2011 10:00 AM

Work Order: 1101672
Lab ID: 1101672-06
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
Ethylbenzene	U		0.50	5.0	µg/L	1	1/26/2011 17:10
Toluene	U		0.50	5.0	µg/L	1	1/26/2011 17:10
Xylenes, Total	U		1.0	15	µg/L	1	1/26/2011 17:10
Surr: 1,2-Dichloroethane-d4	100			70-125	%REC	1	1/26/2011 17:10
Surr: 4-Bromofluorobenzene	97.7			72-125	%REC	1	1/26/2011 17:10
Surr: Dibromofluoromethane	102			71-125	%REC	1	1/26/2011 17:10
Surr: Toluene-d8	97.0			75-125	%REC	1	1/26/2011 17:10

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 09-Feb-11

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW-Site Wide Monitoring
Sample ID: WG-1620-MW38B-20110125
Collection Date: 1/25/2011 11:00 AM

Work Order: 1101672
Lab ID: 1101672-07
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	ML	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270		Prep: SW3510 / 1/30/11		Analyst: KMB
1,2-Diphenylhydrazine	U		0.10	0.20	µg/L	1	1/31/2011 20:26
2,4-Dimethylphenol	U		0.080	0.20	µg/L	1	1/31/2011 20:26
2,4-Dinitrotoluene	U		0.090	0.20	µg/L	1	1/31/2011 20:26
2,6-Dinitrotoluene	U		0.070	0.20	µg/L	1	1/31/2011 20:26
2-Chloronaphthalene	U		0.10	0.20	µg/L	1	1/31/2011 20:26
2-Methylnaphthalene	U		0.070	0.20	µg/L	1	1/31/2011 20:26
4,6-Dinitro-2-methylphenol	U		0.080	0.20	µg/L	1	1/31/2011 20:26
4-Nitrophenol	U		0.070	1.0	µg/L	1	1/31/2011 20:26
Acenaphthene	U		0.090	0.20	µg/L	1	1/31/2011 20:26
Acenaphthylene	U		0.070	0.20	µg/L	1	1/31/2011 20:26
Anthracene	0.11	J	0.070	0.20	µg/L	1	1/31/2011 20:26
Benz(a)anthracene	U		0.070	0.20	µg/L	1	1/31/2011 20:26
Benzo(a)pyrene	U		0.080	0.20	µg/L	1	1/31/2011 20:26
Bis(2-chloroethoxy)methane	U		0.090	0.20	µg/L	1	1/31/2011 20:26
Bis(2-ethylhexyl)phthalate	U		0.20	0.20	µg/L	1	1/31/2011 20:26
Chrysene	U		0.070	0.20	µg/L	1	1/31/2011 20:26
Dibenzofuran	U		0.080	0.20	µg/L	1	1/31/2011 20:26
Di-n-butyl phthalate	U		0.070	0.20	µg/L	1	1/31/2011 20:26
Fluoranthene	U		0.070	0.20	µg/L	1	1/31/2011 20:26
Fluorene	U		0.070	0.20	µg/L	1	1/31/2011 20:26
Naphthalene	0.31		0.10	0.20	µg/L	1	1/31/2011 20:26
Nitrobenzene	U		0.090	0.20	µg/L	1	1/31/2011 20:26
N-Nitrosodiphenylamine	U		0.090	0.20	µg/L	1	1/31/2011 20:26
Pentachlorophenol	U		0.080	0.20	µg/L	1	1/31/2011 20:26
Phenanthrene	U		0.070	0.20	µg/L	1	1/31/2011 20:26
Phenol	U		0.070	0.20	µg/L	1	1/31/2011 20:26
Pyrene	U		0.070	0.20	µg/L	1	1/31/2011 20:26
Surr: 2,4,6-Tribromophenol	66.9			34-129	%REC	1	1/31/2011 20:26
Surr: 2-Fluorobiphenyl	49.6			40-125	%REC	1	1/31/2011 20:26
Surr: 2-Fluorophenol	54.4			20-120	%REC	1	1/31/2011 20:26
Surr: 4-Terphenyl-d14	76.9			40-135	%REC	1	1/31/2011 20:26
Surr: Nitrobenzene-d5	55.8			41-120	%REC	1	1/31/2011 20:26
Surr: Phenol-d6	52.2			20-120	%REC	1	1/31/2011 20:26
TCL VOLATILES			Method: SW8260				Analyst: PC
1,2-Dichloroethane	U		0.50	5.0	µg/L	1	1/26/2011 17:36
Benzene	U		0.50	5.0	µg/L	1	1/26/2011 17:36
Chlorobenzene	U		0.50	5.0	µg/L	1	1/26/2011 17:36
Dichloromethane	U		0.50	10	µg/L	1	1/26/2011 17:36

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 09-Feb-11

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW-Site Wide Monitoring
Sample ID: WG-1620-MW38B-20110125
Collection Date: 1/25/2011 11:00 AM

Work Order: 1101672
Lab ID: 1101672-07
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
Ethylbenzene	U		0.50	5.0	µg/L	1	1/26/2011 17:36
Toluene	U		0.50	5.0	µg/L	1	1/26/2011 17:36
Xylenes, Total	U		1.0	15	µg/L	1	1/26/2011 17:36
Surr: 1,2-Dichloroethane-d4	92.4			70-125	%REC	1	1/26/2011 17:36
Surr: 4-Bromofluorobenzene	97.2			72-125	%REC	1	1/26/2011 17:36
Surr: Dibromofluoromethane	99.0			71-125	%REC	1	1/26/2011 17:36
Surr: Toluene-d8	97.9			75-125	%REC	1	1/26/2011 17:36

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 09-Feb-11

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW-Site Wide Monitoring
Sample ID: WG-1620-MW22A-20110125
Collection Date: 1/25/2011 11:50 AM

Work Order: 1101672
Lab ID: 1101672-08
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270		Prep: SW3510 / 1/30/11		Analyst: KMB
1,2-Diphenylhydrazine	U		0.10	0.20	µg/L	1	1/31/2011 20:47
2,4-Dimethylphenol	U		0.080	0.20	µg/L	1	1/31/2011 20:47
2,4-Dinitrotoluene	U		0.090	0.20	µg/L	1	1/31/2011 20:47
2,6-Dinitrotoluene	U		0.070	0.20	µg/L	1	1/31/2011 20:47
2-Chloronaphthalene	U		0.10	0.20	µg/L	1	1/31/2011 20:47
2-Methylnaphthalene	0.72		0.070	0.20	µg/L	1	1/31/2011 20:47
4,6-Dinitro-2-methylphenol	U		0.080	0.20	µg/L	1	1/31/2011 20:47
4-Nitrophenol	U		0.070	1.0	µg/L	1	1/31/2011 20:47
Acenaphthene	0.15	J	0.090	0.20	µg/L	1	1/31/2011 20:47
Acenaphthylene	U		0.070	0.20	µg/L	1	1/31/2011 20:47
Anthracene	0.11	J	0.070	0.20	µg/L	1	1/31/2011 20:47
Benz(a)anthracene	U		0.070	0.20	µg/L	1	1/31/2011 20:47
Benzo(a)pyrene	U		0.080	0.20	µg/L	1	1/31/2011 20:47
Bis(2-chloroethoxy)methane	U		0.090	0.20	µg/L	1	1/31/2011 20:47
Bis(2-ethylhexyl)phthalate	U		0.20	0.20	µg/L	1	1/31/2011 20:47
Chrysene	U		0.070	0.20	µg/L	1	1/31/2011 20:47
Dibenzofuran	0.15	J	0.080	0.20	µg/L	1	1/31/2011 20:47
Di-n-butyl phthalate	U		0.070	0.20	µg/L	1	1/31/2011 20:47
Fluoranthene	U		0.070	0.20	µg/L	1	1/31/2011 20:47
Fluorene	0.10	J	0.070	0.20	µg/L	1	1/31/2011 20:47
Naphthalene	3.5		0.10	0.20	µg/L	1	1/31/2011 20:47
Nitrobenzene	U		0.090	0.20	µg/L	1	1/31/2011 20:47
N-Nitrosodiphenylamine	U		0.090	0.20	µg/L	1	1/31/2011 20:47
Pentachlorophenol	U		0.080	0.20	µg/L	1	1/31/2011 20:47
Phenanthrene	0.28		0.070	0.20	µg/L	1	1/31/2011 20:47
Phenol	0.17	J	0.070	0.20	µg/L	1	1/31/2011 20:47
Pyrene	U		0.070	0.20	µg/L	1	1/31/2011 20:47
Surr: 2,4,6-Tribromophenol	68.3			34-129	%REC	1	1/31/2011 20:47
Surr: 2-Fluorobiphenyl	63.5			40-125	%REC	1	1/31/2011 20:47
Surr: 2-Fluorophenol	60.9			20-120	%REC	1	1/31/2011 20:47
Surr: 4-Terphenyl-d14	66.4			40-135	%REC	1	1/31/2011 20:47
Surr: Nitrobenzene-d5	60.4			41-120	%REC	1	1/31/2011 20:47
Surr: Phenol-d6	55.0			20-120	%REC	1	1/31/2011 20:47
TCL VOLATILES			Method: SW8260				Analyst: PC
1,2-Dichloroethane	U		0.50	5.0	µg/L	1	1/26/2011 18:01
Benzene	U		0.50	5.0	µg/L	1	1/26/2011 18:01
Chlorobenzene	U		0.50	5.0	µg/L	1	1/26/2011 18:01
Dichloromethane	U		0.50	10	µg/L	1	1/26/2011 18:01

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 09-Feb-11

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW-Site Wide Monitoring
Sample ID: WG-1620-MW22A-20110125
Collection Date: 1/25/2011 11:50 AM

Work Order: 1101672
Lab ID: 1101672-08
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
Ethylbenzene	U		0.50	5.0	µg/L	1	1/26/2011 18:01
Toluene	U		0.50	5.0	µg/L	1	1/26/2011 18:01
Xylenes, Total	U		1.0	15	µg/L	1	1/26/2011 18:01
Surr: 1,2-Dichloroethane-d4	99.0			70-125	%REC	1	1/26/2011 18:01
Surr: 4-Bromofluorobenzene	98.3			72-125	%REC	1	1/26/2011 18:01
Surr: Dibromofluoromethane	99.9			71-125	%REC	1	1/26/2011 18:01
Surr: Toluene-d8	103			75-125	%REC	1	1/26/2011 18:01

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 09-Feb-11

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW-Site Wide Monitoring
Sample ID: WG-1620-MW22B-20110125
Collection Date: 1/25/2011 12:45 PM

Work Order: 1101672
Lab ID: 1101672-09
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270		Prep: SW3510 / 1/30/11		Analyst: KMB
1,2-Diphenylhydrazine	U		0.10	0.20	µg/L	1	2/1/2011 19:11
2,4-Dimethylphenol	U		0.080	0.20	µg/L	1	2/1/2011 19:11
2,4-Dinitrotoluene	U		0.090	0.20	µg/L	1	2/1/2011 19:11
2,6-Dinitrotoluene	U		0.070	0.20	µg/L	1	2/1/2011 19:11
2-Chloronaphthalene	U		0.10	0.20	µg/L	1	2/1/2011 19:11
2-Methylnaphthalene	U		0.070	0.20	µg/L	1	2/1/2011 19:11
4,6-Dinitro-2-methylphenol	U		0.080	0.20	µg/L	1	2/1/2011 19:11
4-Nitrophenol	U		0.070	1.0	µg/L	1	2/1/2011 19:11
Acenaphthene	0.22		0.090	0.20	µg/L	1	2/1/2011 19:11
Acenaphthylene	U		0.070	0.20	µg/L	1	2/1/2011 19:11
Anthracene	U		0.070	0.20	µg/L	1	2/1/2011 19:11
Benz(a)anthracene	U		0.070	0.20	µg/L	1	2/1/2011 19:11
Benzo(a)pyrene	U		0.080	0.20	µg/L	1	2/1/2011 19:11
Bis(2-chloroethoxy)methane	U		0.090	0.20	µg/L	1	2/1/2011 19:11
Bis(2-ethylhexyl)phthalate	U		0.20	0.20	µg/L	1	2/1/2011 19:11
Chrysene	U		0.070	0.20	µg/L	1	2/1/2011 19:11
Dibenzofuran	U		0.080	0.20	µg/L	1	2/1/2011 19:11
Di-n-butyl phthalate	U		0.070	0.20	µg/L	1	2/1/2011 19:11
Fluoranthene	U		0.070	0.20	µg/L	1	2/1/2011 19:11
Fluorene	U		0.070	0.20	µg/L	1	2/1/2011 19:11
Naphthalene	U		0.10	0.20	µg/L	1	2/1/2011 19:11
Nitrobenzene	U		0.090	0.20	µg/L	1	2/1/2011 19:11
N-Nitrosodiphenylamine	U		0.090	0.20	µg/L	1	2/1/2011 19:11
Pentachlorophenol	U		0.080	0.20	µg/L	1	2/1/2011 19:11
Phenanthrene	U		0.070	0.20	µg/L	1	2/1/2011 19:11
Phenol	U		0.070	0.20	µg/L	1	2/1/2011 19:11
Pyrene	U		0.070	0.20	µg/L	1	2/1/2011 19:11
Surr: 2,4,6-Tribromophenol	75.2			34-129	%REC	1	2/1/2011 19:11
Surr: 2-Fluorobiphenyl	70.5			40-125	%REC	1	2/1/2011 19:11
Surr: 2-Fluorophenol	46.4			20-120	%REC	1	2/1/2011 19:11
Surr: 4-Terphenyl-d14	69.1			40-135	%REC	1	2/1/2011 19:11
Surr: Nitrobenzene-d5	55.8			41-120	%REC	1	2/1/2011 19:11
Surr: Phenol-d6	56.3			20-120	%REC	1	2/1/2011 19:11
TCL VOLATILES			Method: SW8260				Analyst: PC
1,2-Dichloroethane	U		0.50	5.0	µg/L	1	1/26/2011 21:23
Benzene	U		0.50	5.0	µg/L	1	1/26/2011 21:23
Chlorobenzene	U		0.50	5.0	µg/L	1	1/26/2011 21:23
Dichloromethane	U		0.50	10	µg/L	1	1/26/2011 21:23

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 09-Feb-11

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW-Site Wide Monitoring
Sample ID: WG-1620-MW22B-20110125
Collection Date: 1/25/2011 12:45 PM

Work Order: 1101672
Lab ID: 1101672-09
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
Ethylbenzene	U		0.50	5.0	µg/L	1	1/26/2011 21:23
Toluene	U		0.50	5.0	µg/L	1	1/26/2011 21:23
Xylenes, Total	U		1.0	15	µg/L	1	1/26/2011 21:23
Surr: 1,2-Dichloroethane-d4	93.3			70-125	%REC	1	1/26/2011 21:23
Surr: 4-Bromofluorobenzene	94.0			72-125	%REC	1	1/26/2011 21:23
Surr: Dibromofluoromethane	99.5			71-125	%REC	1	1/26/2011 21:23
Surr: Toluene-d8	102			75-125	%REC	1	1/26/2011 21:23

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 09-Feb-11

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW-Site Wide Monitoring
Sample ID: WG-1620-MW24AR-20110125
Collection Date: 1/25/2011 02:00 PM

Work Order: 1101672
Lab ID: 1101672-10
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270		Prep: SW3510 / 1/30/11		Analyst: KMB
1,2-Diphenylhydrazine	U		0.10	0.20	µg/L	1	1/31/2011 21:28
2,4-Dimethylphenol	U		0.080	0.20	µg/L	1	1/31/2011 21:28
2,4-Dinitrotoluene	U		0.090	0.20	µg/L	1	1/31/2011 21:28
2,6-Dinitrotoluene	U		0.070	0.20	µg/L	1	1/31/2011 21:28
2-Chloronaphthalene	U		0.10	0.20	µg/L	1	1/31/2011 21:28
2-Methylnaphthalene	0.18	J	0.070	0.20	µg/L	1	1/31/2011 21:28
4,6-Dinitro-2-methylphenol	U		0.080	0.20	µg/L	1	1/31/2011 21:28
4-Nitrophenol	U		0.070	1.0	µg/L	1	1/31/2011 21:28
Acenaphthene	U		0.090	0.20	µg/L	1	1/31/2011 21:28
Acenaphthylene	U		0.070	0.20	µg/L	1	1/31/2011 21:28
Anthracene	U		0.070	0.20	µg/L	1	1/31/2011 21:28
Benz(a)anthracene	U		0.070	0.20	µg/L	1	1/31/2011 21:28
Benzo(a)pyrene	U		0.080	0.20	µg/L	1	1/31/2011 21:28
Bis(2-chloroethoxy)methane	U		0.090	0.20	µg/L	1	1/31/2011 21:28
Bis(2-ethylhexyl)phthalate	U		0.20	0.20	µg/L	1	1/31/2011 21:28
Chrysene	U		0.070	0.20	µg/L	1	1/31/2011 21:28
Dibenzofuran	U		0.080	0.20	µg/L	1	1/31/2011 21:28
Di-n-butyl phthalate	U		0.070	0.20	µg/L	1	1/31/2011 21:28
Fluoranthene	U		0.070	0.20	µg/L	1	1/31/2011 21:28
Fluorene	U		0.070	0.20	µg/L	1	1/31/2011 21:28
Naphthalene	0.81		0.10	0.20	µg/L	1	1/31/2011 21:28
Nitrobenzene	U		0.090	0.20	µg/L	1	1/31/2011 21:28
N-Nitrosodiphenylamine	U		0.090	0.20	µg/L	1	1/31/2011 21:28
Pentachlorophenol	U		0.080	0.20	µg/L	1	1/31/2011 21:28
Phenanthrene	0.10	J	0.070	0.20	µg/L	1	1/31/2011 21:28
Phenol	U		0.070	0.20	µg/L	1	1/31/2011 21:28
Pyrene	U		0.070	0.20	µg/L	1	1/31/2011 21:28
Surr: 2,4,6-Tribromophenol	60.9			34-129	%REC	1	1/31/2011 21:28
Surr: 2-Fluorobiphenyl	49.7			40-125	%REC	1	1/31/2011 21:28
Surr: 2-Fluorophenol	51.4			20-120	%REC	1	1/31/2011 21:28
Surr: 4-Terphenyl-d14	63.1			40-135	%REC	1	1/31/2011 21:28
Surr: Nitrobenzene-d5	52.6			41-120	%REC	1	1/31/2011 21:28
Surr: Phenol-d6	50.2			20-120	%REC	1	1/31/2011 21:28
TCL VOLATILES			Method: SW8260				Analyst: PC
1,2-Dichloroethane	U		0.50	5.0	µg/L	1	1/26/2011 20:58
Benzene	U		0.50	5.0	µg/L	1	1/26/2011 20:58
Chlorobenzene	U		0.50	5.0	µg/L	1	1/26/2011 20:58
Dichloromethane	U		0.50	10	µg/L	1	1/26/2011 20:58

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 09-Feb-11

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW-Site Wide Monitoring
Sample ID: WG-1620-MW24AR-20110125
Collection Date: 1/25/2011 02:00 PM

Work Order: 1101672
Lab ID: 1101672-10
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
Ethylbenzene	U		0.50	5.0	µg/L	1	1/26/2011 20:58
Toluene	U		0.50	5.0	µg/L	1	1/26/2011 20:58
Xylenes, Total	U		1.0	15	µg/L	1	1/26/2011 20:58
Surr: 1,2-Dichloroethane-d4	88.9			70-125	%REC	1	1/26/2011 20:58
Surr: 4-Bromofluorobenzene	107			72-125	%REC	1	1/26/2011 20:58
Surr: Dibromofluoromethane	92.5			71-125	%REC	1	1/26/2011 20:58
Surr: Toluene-d8	107			75-125	%REC	1	1/26/2011 20:58

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 09-Feb-11

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW-Site Wide Monitoring
Sample ID: WG-1620-MW24B-20110125
Collection Date: 1/25/2011 03:00 PM

Work Order: 1101672
Lab ID: 1101672-11
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	MQL	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270		Prep: SW3510 / 1/30/11		Analyst: KMB
1,2-Diphenylhydrazine	U		0.10	0.20	µg/L	1	2/1/2011 23:44
2,4-Dimethylphenol	U		0.080	0.20	µg/L	1	2/1/2011 23:44
2,4-Dinitrotoluene	U		0.090	0.20	µg/L	1	2/1/2011 23:44
2,6-Dinitrotoluene	U		0.070	0.20	µg/L	1	2/1/2011 23:44
2-Chloronaphthalene	U		0.10	0.20	µg/L	1	2/1/2011 23:44
2-Methylnaphthalene	U		0.070	0.20	µg/L	1	2/1/2011 23:44
4,6-Dinitro-2-methylphenol	U		0.080	0.20	µg/L	1	2/1/2011 23:44
4-Nitrophenol	U		0.070	1.0	µg/L	1	2/1/2011 23:44
Acenaphthene	U		0.090	0.20	µg/L	1	2/1/2011 23:44
Acenaphthylene	U		0.070	0.20	µg/L	1	2/1/2011 23:44
Anthracene	U		0.070	0.20	µg/L	1	2/1/2011 23:44
Benz(a)anthracene	U		0.070	0.20	µg/L	1	2/1/2011 23:44
Benzo(a)pyrene	U		0.080	0.20	µg/L	1	2/1/2011 23:44
Bis(2-chloroethoxy)methane	U		0.090	0.20	µg/L	1	2/1/2011 23:44
Bis(2-ethylhexyl)phthalate	U		0.20	0.20	µg/L	1	2/1/2011 23:44
Chrysene	U		0.070	0.20	µg/L	1	2/1/2011 23:44
Dibenzofuran	U		0.080	0.20	µg/L	1	2/1/2011 23:44
Di-n-butyl phthalate	U		0.070	0.20	µg/L	1	2/1/2011 23:44
Fluoranthene	U		0.070	0.20	µg/L	1	2/1/2011 23:44
Fluorene	U		0.070	0.20	µg/L	1	2/1/2011 23:44
Naphthalene	U		0.10	0.20	µg/L	1	2/1/2011 23:44
Nitrobenzene	U		0.090	0.20	µg/L	1	2/1/2011 23:44
N-Nitrosodiphenylamine	U		0.090	0.20	µg/L	1	2/1/2011 23:44
Pentachlorophenol	U		0.080	0.20	µg/L	1	2/1/2011 23:44
Phenanthrene	U		0.070	0.20	µg/L	1	2/1/2011 23:44
Phenol	U		0.070	0.20	µg/L	1	2/1/2011 23:44
Pyrene	U		0.070	0.20	µg/L	1	2/1/2011 23:44
Surr: 2,4,6-Tribromophenol	51.6			34-129	%REC	1	2/1/2011 23:44
Surr: 2-Fluorobiphenyl	46.1			40-125	%REC	1	2/1/2011 23:44
Surr: 2-Fluorophenol	38.0			20-120	%REC	1	2/1/2011 23:44
Surr: 4-Terphenyl-d14	62.9			40-135	%REC	1	2/1/2011 23:44
Surr: Nitrobenzene-d5	41.8			41-120	%REC	1	2/1/2011 23:44
Surr: Phenol-d6	42.8			20-120	%REC	1	2/1/2011 23:44
TCL VOLATILES			Method: SW8260				Analyst: PC
1,2-Dichloroethane	U		0.50	5.0	µg/L	1	1/27/2011 14:13
Benzene	U		0.50	5.0	µg/L	1	1/27/2011 14:13
Chlorobenzene	U		0.50	5.0	µg/L	1	1/27/2011 14:13
Dichloromethane	U		0.50	10	µg/L	1	1/27/2011 14:13

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 09-Feb-11

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW-Site Wide Monitoring
Sample ID: WG-1620-MW24B-20110125
Collection Date: 1/25/2011 03:00 PM

Work Order: 1101672
Lab ID: 1101672-11
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
Ethylbenzene	U		0.50	5.0	µg/L	1	1/27/2011 14:13
Toluene	U		0.50	5.0	µg/L	1	1/27/2011 14:13
Xylenes, Total	U		1.0	15	µg/L	1	1/27/2011 14:13
Surr: 1,2-Dichloroethane-d4	93.2			70-125	%REC	1	1/27/2011 14:13
Surr: 4-Bromofluorobenzene	96.9			72-125	%REC	1	1/27/2011 14:13
Surr: Dibromofluoromethane	97.4			71-125	%REC	1	1/27/2011 14:13
Surr: Toluene-d8	98.1			75-125	%REC	1	1/27/2011 14:13

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 09-Feb-11

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW-Site Wide Monitoring
Sample ID: WG-1620-MW24C-20110125
Collection Date: 1/25/2011 03:50 PM

Work Order: 1101672
Lab ID: 1101672-12
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270		Prep: SW3510 / 1/30/11		Analyst: KMB
1,2-Diphenylhydrazine	U		0.10	0.20	µg/L	1	2/1/2011 19:53
2,4-Dimethylphenol	U		0.080	0.20	µg/L	1	2/1/2011 19:53
2,4-Dinitrotoluene	U		0.090	0.20	µg/L	1	2/1/2011 19:53
2,6-Dinitrotoluene	U		0.070	0.20	µg/L	1	2/1/2011 19:53
2-Chloronaphthalene	U		0.10	0.20	µg/L	1	2/1/2011 19:53
2-Methylnaphthalene	U		0.070	0.20	µg/L	1	2/1/2011 19:53
4,6-Dinitro-2-methylphenol	U		0.080	0.20	µg/L	1	2/1/2011 19:53
4-Nitrophenol	U		0.070	1.0	µg/L	1	2/1/2011 19:53
Acenaphthene	U		0.090	0.20	µg/L	1	2/1/2011 19:53
Acenaphthylene	U		0.070	0.20	µg/L	1	2/1/2011 19:53
Anthracene	U		0.070	0.20	µg/L	1	2/1/2011 19:53
Benz(a)anthracene	U		0.070	0.20	µg/L	1	2/1/2011 19:53
Benzo(a)pyrene	U		0.080	0.20	µg/L	1	2/1/2011 19:53
Bis(2-chloroethoxy)methane	U		0.090	0.20	µg/L	1	2/1/2011 19:53
Bis(2-ethylhexyl)phthalate	U		0.20	0.20	µg/L	1	2/1/2011 19:53
Chrysene	U		0.070	0.20	µg/L	1	2/1/2011 19:53
Dibenzofuran	U		0.080	0.20	µg/L	1	2/1/2011 19:53
Di-n-butyl phthalate	U		0.070	0.20	µg/L	1	2/1/2011 19:53
Fluoranthene	U		0.070	0.20	µg/L	1	2/1/2011 19:53
Fluorene	U		0.070	0.20	µg/L	1	2/1/2011 19:53
Naphthalene	U		0.10	0.20	µg/L	1	2/1/2011 19:53
Nitrobenzene	U		0.090	0.20	µg/L	1	2/1/2011 19:53
N-Nitrosodiphenylamine	U		0.090	0.20	µg/L	1	2/1/2011 19:53
Pentachlorophenol	U		0.080	0.20	µg/L	1	2/1/2011 19:53
Phenanthrene	U		0.070	0.20	µg/L	1	2/1/2011 19:53
Phenol	U		0.070	0.20	µg/L	1	2/1/2011 19:53
Pyrene	U		0.070	0.20	µg/L	1	2/1/2011 19:53
Surr: 2,4,6-Tribromophenol	58.0			34-129	%REC	1	2/1/2011 19:53
Surr: 2-Fluorobiphenyl	49.9			40-125	%REC	1	2/1/2011 19:53
Surr: 2-Fluorophenol	39.5			20-120	%REC	1	2/1/2011 19:53
Surr: 4-Terphenyl-d14	64.4			40-135	%REC	1	2/1/2011 19:53
Surr: Nitrobenzene-d5	52.1			41-120	%REC	1	2/1/2011 19:53
Surr: Phenol-d6	46.2			20-120	%REC	1	2/1/2011 19:53
TCL VOLATILES			Method: SW8260				Analyst: PC
1,2-Dichloroethane	U		0.50	5.0	µg/L	1	1/27/2011 11:41
Benzene	U		0.50	5.0	µg/L	1	1/27/2011 11:41
Chlorobenzene	U		0.50	5.0	µg/L	1	1/27/2011 11:41
Dichloromethane	U		0.50	10	µg/L	1	1/27/2011 11:41

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 09-Feb-11

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW-Site Wide Monitoring
Sample ID: WG-1620-MW24C-20110125
Collection Date: 1/25/2011 03:50 PM

Work Order: 1101672
Lab ID: 1101672-12
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
Ethylbenzene	U		0.50	5.0	µg/L	1	1/27/2011 11:41
Toluene	U		0.50	5.0	µg/L	1	1/27/2011 11:41
Xylenes, Total	U		1.0	15	µg/L	1	1/27/2011 11:41
Surr: 1,2-Dichloroethane-d4	97.8			70-125	%REC	1	1/27/2011 11:41
Surr: 4-Bromofluorobenzene	94.3			72-125	%REC	1	1/27/2011 11:41
Surr: Dibromofluoromethane	98.9			71-125	%REC	1	1/27/2011 11:41
Surr: Toluene-d8	96.8			75-125	%REC	1	1/27/2011 11:41

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 09-Feb-11

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW-Site Wide Monitoring
Sample ID: WG-1620-MW28A-20110125
Collection Date: 1/25/2011 05:05 PM

Work Order: 1101672
Lab ID: 1101672-13
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	ML	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270		Prep: SW3510 / 1/30/11		Analyst: KMB
1,2-Diphenylhydrazine	U		0.10	0.20	µg/L	1	2/2/2011 00:04
2,4-Dimethylphenol	U		0.080	0.20	µg/L	1	2/2/2011 00:04
2,4-Dinitrotoluene	U		0.090	0.20	µg/L	1	2/2/2011 00:04
2,6-Dinitrotoluene	U		0.070	0.20	µg/L	1	2/2/2011 00:04
2-Chloronaphthalene	U		0.10	0.20	µg/L	1	2/2/2011 00:04
2-Methylnaphthalene	0.64		0.070	0.20	µg/L	1	2/2/2011 00:04
4,6-Dinitro-2-methylphenol	U		0.080	0.20	µg/L	1	2/2/2011 00:04
4-Nitrophenol	U		0.070	1.0	µg/L	1	2/2/2011 00:04
Acenaphthene	0.20		0.090	0.20	µg/L	1	2/2/2011 00:04
Acenaphthylene	U		0.070	0.20	µg/L	1	2/2/2011 00:04
Anthracene	0.36		0.070	0.20	µg/L	1	2/2/2011 00:04
Benz(a)anthracene	U		0.070	0.20	µg/L	1	2/2/2011 00:04
Benzo(a)pyrene	U		0.080	0.20	µg/L	1	2/2/2011 00:04
Bis(2-chloroethoxy)methane	U		0.090	0.20	µg/L	1	2/2/2011 00:04
Bis(2-ethylhexyl)phthalate	U		0.20	0.20	µg/L	1	2/2/2011 00:04
Chrysene	U		0.070	0.20	µg/L	1	2/2/2011 00:04
Dibenzofuran	0.50		0.080	0.20	µg/L	1	2/2/2011 00:04
Di-n-butyl phthalate	U		0.070	0.20	µg/L	1	2/2/2011 00:04
Fluoranthene	0.21		0.070	0.20	µg/L	1	2/2/2011 00:04
Fluorene	0.30		0.070	0.20	µg/L	1	2/2/2011 00:04
Naphthalene	2.3		0.10	0.20	µg/L	1	2/2/2011 00:04
Nitrobenzene	U		0.090	0.20	µg/L	1	2/2/2011 00:04
N-Nitrosodiphenylamine	U		0.090	0.20	µg/L	1	2/2/2011 00:04
Pentachlorophenol	U		0.080	0.20	µg/L	1	2/2/2011 00:04
Phenanthrene	0.97		0.070	0.20	µg/L	1	2/2/2011 00:04
Phenol	U		0.070	0.20	µg/L	1	2/2/2011 00:04
Pyrene	0.13	J	0.070	0.20	µg/L	1	2/2/2011 00:04
Surr: 2,4,6-Tribromophenol	57.2			34-129	%REC	1	2/2/2011 00:04
Surr: 2-Fluorobiphenyl	58.7			40-125	%REC	1	2/2/2011 00:04
Surr: 2-Fluorophenol	45.5			20-120	%REC	1	2/2/2011 00:04
Surr: 4-Terphenyl-d14	71.9			40-135	%REC	1	2/2/2011 00:04
Surr: Nitrobenzene-d5	49.3			41-120	%REC	1	2/2/2011 00:04
Surr: Phenol-d6	49.5			20-120	%REC	1	2/2/2011 00:04
TCL VOLATILES			Method: SW8260				Analyst: PC
1,2-Dichloroethane	U		0.50	5.0	µg/L	1	1/26/2011 15:04
Benzene	U		0.50	5.0	µg/L	1	1/26/2011 15:04
Chlorobenzene	U		0.50	5.0	µg/L	1	1/26/2011 15:04
Dichloromethane	U		0.50	10	µg/L	1	1/26/2011 15:04

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 09-Feb-11

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW-Site Wide Monitoring
Sample ID: WG-1620-MW28A-20110125
Collection Date: 1/25/2011 05:05 PM

Work Order: 1101672
Lab ID: 1101672-13
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
Ethylbenzene	U		0.50	5.0	µg/L	1	1/26/2011 15:04
Toluene	U		0.50	5.0	µg/L	1	1/26/2011 15:04
Xylenes, Total	U		1.0	15	µg/L	1	1/26/2011 15:04
Surr: 1,2-Dichloroethane-d4	100			70-125	%REC	1	1/26/2011 15:04
Surr: 4-Bromofluorobenzene	94.4			72-125	%REC	1	1/26/2011 15:04
Surr: Dibromofluoromethane	102			71-125	%REC	1	1/26/2011 15:04
Surr: Toluene-d8	91.8			75-125	%REC	1	1/26/2011 15:04

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 09-Feb-11

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW-Site Wide Monitoring
Sample ID: WG-1620-MW28C-20110125
Collection Date: 1/25/2011 06:00 PM

Work Order: 1101672
Lab ID: 1101672-14
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	ML	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270		Prep: SW3510 / 1/30/11		Analyst: KMB
1,2-Diphenylhydrazine	U		0.10	0.20	µg/L	1	2/1/2011 08:12
2,4-Dimethylphenol	0.086	J	0.080	0.20	µg/L	1	2/1/2011 08:12
2,4-Dinitrotoluene	U		0.090	0.20	µg/L	1	2/1/2011 08:12
2,6-Dinitrotoluene	U		0.070	0.20	µg/L	1	2/1/2011 08:12
2-Chloronaphthalene	U		0.10	0.20	µg/L	1	2/1/2011 08:12
2-Methylnaphthalene	0.079	J	0.070	0.20	µg/L	1	2/1/2011 08:12
4,6-Dinitro-2-methylphenol	U		0.080	0.20	µg/L	1	2/1/2011 08:12
4-Nitrophenol	U		0.070	1.0	µg/L	1	2/1/2011 08:12
Acenaphthene	U		0.090	0.20	µg/L	1	2/1/2011 08:12
Acenaphthylene	U		0.070	0.20	µg/L	1	2/1/2011 08:12
Anthracene	U		0.070	0.20	µg/L	1	2/1/2011 08:12
Benz(a)anthracene	U		0.070	0.20	µg/L	1	2/1/2011 08:12
Benzo(a)pyrene	U		0.080	0.20	µg/L	1	2/1/2011 08:12
Bis(2-chloroethoxy)methane	U		0.090	0.20	µg/L	1	2/1/2011 08:12
Bis(2-ethylhexyl)phthalate	0.63		0.20	0.20	µg/L	1	2/1/2011 08:12
Chrysene	U		0.070	0.20	µg/L	1	2/1/2011 08:12
Dibenzofuran	U		0.080	0.20	µg/L	1	2/1/2011 08:12
Di-n-butyl phthalate	U		0.070	0.20	µg/L	1	2/1/2011 08:12
Fluoranthene	U		0.070	0.20	µg/L	1	2/1/2011 08:12
Fluorene	U		0.070	0.20	µg/L	1	2/1/2011 08:12
Naphthalene	0.29		0.10	0.20	µg/L	1	2/1/2011 08:12
Nitrobenzene	U		0.090	0.20	µg/L	1	2/1/2011 08:12
N-Nitrosodiphenylamine	U		0.090	0.20	µg/L	1	2/1/2011 08:12
Pentachlorophenol	U		0.080	0.20	µg/L	1	2/1/2011 08:12
Phenanthrene	U		0.070	0.20	µg/L	1	2/1/2011 08:12
Phenol	1.4		0.070	0.20	µg/L	1	2/1/2011 08:12
Pyrene	U		0.070	0.20	µg/L	1	2/1/2011 08:12
Surr: 2,4,6-Tribromophenol	67.3			34-129	%REC	1	2/1/2011 08:12
Surr: 2-Fluorobiphenyl	52.8			40-125	%REC	1	2/1/2011 08:12
Surr: 2-Fluorophenol	45.3			20-120	%REC	1	2/1/2011 08:12
Surr: 4-Terphenyl-d14	72.3			40-135	%REC	1	2/1/2011 08:12
Surr: Nitrobenzene-d5	47.0			41-120	%REC	1	2/1/2011 08:12
Surr: Phenol-d6	53.2			20-120	%REC	1	2/1/2011 08:12
TCL VOLATILES			Method: SW8260				Analyst: PC
1,2-Dichloroethane	U		0.50	5.0	µg/L	1	1/27/2011 12:06
Benzene	U		0.50	5.0	µg/L	1	1/27/2011 12:06
Chlorobenzene	U		0.50	5.0	µg/L	1	1/27/2011 12:06
Dichloromethane	U		0.50	10	µg/L	1	1/27/2011 12:06

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 09-Feb-11

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW-Site Wide Monitoring
Sample ID: WG-1620-MW28C-20110125
Collection Date: 1/25/2011 06:00 PM

Work Order: 1101672
Lab ID: 1101672-14
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
Ethylbenzene	U		0.50	5.0	µg/L	1	1/27/2011 12:06
Toluene	U		0.50	5.0	µg/L	1	1/27/2011 12:06
Xylenes, Total	U		1.0	15	µg/L	1	1/27/2011 12:06
Surr: 1,2-Dichloroethane-d4	98.6			70-125	%REC	1	1/27/2011 12:06
Surr: 4-Bromofluorobenzene	98.1			72-125	%REC	1	1/27/2011 12:06
Surr: Dibromofluoromethane	101			71-125	%REC	1	1/27/2011 12:06
Surr: Toluene-d8	98.8			75-125	%REC	1	1/27/2011 12:06

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 09-Feb-11

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW-Site Wide Monitoring
Sample ID: WG-1620-TB03-20110125
Collection Date: 1/25/2011

Work Order: 1101672
Lab ID: 1101672-15
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
TCL VOLATILES			Method: SW8260			Analyst: PC	
1,2-Dichloroethane	U		0.50	5.0	µg/L	1	1/26/2011 13:23
Benzene	U		0.50	5.0	µg/L	1	1/26/2011 13:23
Chlorobenzene	U		0.50	5.0	µg/L	1	1/26/2011 13:23
Dichloromethane	U		0.50	10	µg/L	1	1/26/2011 13:23
Ethylbenzene	U		0.50	5.0	µg/L	1	1/26/2011 13:23
Toluene	U		0.50	5.0	µg/L	1	1/26/2011 13:23
Xylenes, Total	U		1.0	15	µg/L	1	1/26/2011 13:23
Surr: 1,2-Dichloroethane-d4	97.2			70-125	%REC	1	1/26/2011 13:23
Surr: 4-Bromofluorobenzene	94.2			72-125	%REC	1	1/26/2011 13:23
Surr: Dibromofluoromethane	98.9			71-125	%REC	1	1/26/2011 13:23
Surr: Toluene-d8	97.8			75-125	%REC	1	1/26/2011 13:23

Note: See Qualifiers Page for a list of qualifiers and their explanation.

WorkOrder: 1101672
 InstrumentID: SV-2
 Test Code: 8270_LOW_W
 Test Number: SW8270
 Test Name: Low-Level Semivolatiles

**METHOD DETECTION /
 REPORTING LIMITS**

Matrix: Aqueous Units: µg/L

Type	Analyte	CAS	DCS	MDL	Unadjusted MQL
A	1,2-Diphenylhydrazine	122-66-7	0.096	0.10	0.20
A	2,4-Dimethylphenol	105-67-9	0.039	0.080	0.20
A	2,4-Dinitrotoluene	121-14-2	0.059	0.090	0.20
A	2,6-Dinitrotoluene	606-20-2	0.070	0.070	0.20
A	2-Chloronaphthalene	91-58-7	0.13	0.10	0.20
A	2-Methylnaphthalene	91-57-6	0.088	0.070	0.20
A	4,6-Dinitro-2-methylphenol	534-52-1	0.25	0.080	0.20
A	4-Nitrophenol	100-02-7	0.22	0.070	1.0
A	Acenaphthene	83-32-9	0.095	0.090	0.20
A	Acenaphthylene	208-96-8	0.084	0.070	0.20
A	Anthracene	120-12-7	0.083	0.070	0.20
A	Benz(a)anthracene	56-55-3	0.091	0.070	0.20
A	Benzo(a)pyrene	50-32-8	0.059	0.080	0.20
A	Bis(2-chloroethoxy)methane	111-91-1	0.12	0.090	0.20
A	Bis(2-ethylhexyl)phthalate	117-81-7	0.075	0.20	0.20
A	Chrysene	218-01-9	0.099	0.070	0.20
A	Dibenzofuran	132-64-9	0.090	0.080	0.20
A	Di-n-butyl phthalate	84-74-2	0.073	0.070	0.20
A	Fluoranthene	206-44-0	0.078	0.070	0.20
A	Fluorene	86-73-7	0.085	0.070	0.20
A	Naphthalene	91-20-3	0.14	0.10	0.20
A	Nitrobenzene	98-95-3	0.11	0.090	0.20
A	N-Nitrosodiphenylamine	86-30-6	0.085	0.090	0.20
A	Pentachlorophenol	87-86-5	0.24	0.080	0.20
A	Phenanthrene	85-01-8	0.088	0.070	0.20
A	Phenol	108-95-2	0.16	0.070	0.20
A	Pyrene	129-00-0	0.084	0.070	0.20
S	Surr: 2,4,6-Tribromophenol	118-79-6	0	0	0.20
S	Surr: 2-Fluorobiphenyl	321-60-8	0	0	0.20
S	Surr: 2-Fluorophenol	367-12-4	0	0	0.20
S	Surr: 4-Terphenyl-d14	1718-51-0	0	0	0.20
S	Surr: Nitrobenzene-d5	4165-60-0	0	0	0.20
S	Surr: Phenol-d6	13127-88-3	0	0	0.20

WorkOrder: 1101672
InstrumentID: VOA1
Test Code: 8260_TCL_W
Test Number: SW8260
Test Name: TCL Volatiles

**METHOD DETECTION /
REPORTING LIMITS**

Matrix: Aqueous **Units:** µg/L

Type	Analyte	CAS	DCS	MDL	Unadjusted MQL
A	1,2-Dichloroethane	107-06-2	1.0	0.50	5.0
A	Benzene	71-43-2	1.2	0.50	5.0
A	Chlorobenzene	108-90-7	1.0	0.50	5.0
A	Dichloromethane	75-09-2	1.2	0.50	10
A	Ethylbenzene	100-41-4	0.96	0.50	5.0
A	Toluene	108-88-3	1.1	0.50	5.0
M	Xylenes, Total	1330-20-7	3.2	1.0	15
S	Surr: 1,2-Dichloroethane-d4	17060-07-0	0	0	5.0
S	Surr: 4-Bromofluorobenzene	460-00-4	0	0	5.0
S	Surr: Dibromofluoromethane	1868-53-7	0	0	5.0
S	Surr: Toluene-d8	2037-26-5	0	0	5.0

ALS Environmental

Date: 09-Feb-11

Client: Pastor, Behling & Wheeler, LLC
Work Order: 1101672
Project: HWPW-Site Wide Monitoring

QC BATCH REPORT

Batch ID: **49686** Instrument ID **SV-2** Method: **SW8270**

MBLK	Sample ID: SBLKW2-110130-49686			Units: µg/L	Analysis Date: 1/31/2011 10:21 AM					
Client ID:	Run ID: SV-2_110131A			SeqNo: 2264390	Prep Date: 1/30/2011	DF: 1				
Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Diphenylhydrazine	U	0.20								
2,4-Dimethylphenol	U	0.20								
2,4-Dinitrotoluene	U	0.20								
2,6-Dinitrotoluene	U	0.20								
2-Chloronaphthalene	U	0.20								
2-Methylnaphthalene	U	0.20								
4,6-Dinitro-2-methylphenol	U	0.20								
4-Nitrophenol	U	1.0								
Acenaphthene	U	0.20								
Acenaphthylene	U	0.20								
Anthracene	U	0.20								
Benz(a)anthracene	U	0.20								
Benzo(a)pyrene	U	0.20								
Bis(2-chloroethoxy)methane	U	0.20								
Bis(2-ethylhexyl)phthalate	U	0.20								
Chrysene	U	0.20								
Dibenzofuran	U	0.20								
Di-n-butyl phthalate	U	0.20								
Fluoranthene	U	0.20								
Fluorene	U	0.20								
Naphthalene	U	0.20								
Nitrobenzene	U	0.20								
N-Nitrosodiphenylamine	U	0.20								
Pentachlorophenol	U	0.20								
Phenanthrene	U	0.20								
Phenol	U	0.20								
Pyrene	U	0.20								
<i>Surr: 2,4,6-Tribromophenol</i>	<i>3.476</i>	<i>0.20</i>	<i>5</i>	<i>0</i>	<i>0</i>	<i>34-129</i>	<i>0</i>	<i>0</i>		
<i>Surr: 2-Fluorobiphenyl</i>	<i>4.138</i>	<i>0.20</i>	<i>5</i>	<i>0</i>	<i>0</i>	<i>40-125</i>	<i>0</i>	<i>0</i>		
<i>Surr: 2-Fluorophenol</i>	<i>3.836</i>	<i>0.20</i>	<i>5</i>	<i>0</i>	<i>0</i>	<i>20-120</i>	<i>0</i>	<i>0</i>		
<i>Surr: 4-Terphenyl-d14</i>	<i>4.155</i>	<i>0.20</i>	<i>5</i>	<i>0</i>	<i>0</i>	<i>40-135</i>	<i>0</i>	<i>0</i>		
<i>Surr: Nitrobenzene-d5</i>	<i>4.101</i>	<i>0.20</i>	<i>5</i>	<i>0</i>	<i>0</i>	<i>41-120</i>	<i>0</i>	<i>0</i>		
<i>Surr: Phenol-d6</i>	<i>4.245</i>	<i>0.20</i>	<i>5</i>	<i>0</i>	<i>0</i>	<i>20-120</i>	<i>0</i>	<i>0</i>		

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Pastor, Behling & Wheeler, LLC
Work Order: 1101672
Project: HWPW-Site Wide Monitoring

QC BATCH REPORT

Batch ID: **49686** Instrument ID **SV-2** Method: **SW8270**

LCS		Sample ID: SLCSW2-110130-49686			Units: µg/L		Analysis Date: 1/31/2011 10:42 AM			
Client ID:		Run ID: SV-2_110131A			SeqNo: 2264391		Prep Date: 1/30/2011		DF: 1	
Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Diphenylhydrazine	4.084	0.20	5	0	0	39-127	0			
2,4-Dimethylphenol	3.734	0.20	5	0	0	35-120	0			
2,4-Dinitrotoluene	4.386	0.20	5	0	0	50-122	0			
2,6-Dinitrotoluene	4.366	0.20	5	0	0	50-120	0			
2-Chloronaphthalene	4.469	0.20	5	0	0	50-120	0			
2-Methylnaphthalene	4.16	0.20	5	0	0	50-120	0			
4,6-Dinitro-2-methylphenol	4.268	0.20	5	0	0	25-121	0			
4-Nitrophenol	4.083	1.0	5	0	0	30-130	0			
Acenaphthene	4.184	0.20	5	0	0	45-120	0			
Acenaphthylene	3.995	0.20	5	0	0	47-120	0			
Anthracene	4.069	0.20	5	0	0	45-120	0			
Benz(a)anthracene	4.429	0.20	5	0	0	40-120	0			
Benzo(a)pyrene	4.799	0.20	5	0	0	45-120	0			
Bis(2-chloroethoxy)methane	4.387	0.20	5	0	0	45-120	0			
Bis(2-ethylhexyl)phthalate	4.641	0.20	5	0	0	40-139	0			
Chrysene	4.278	0.20	5	0	0	43-120	0			
Dibenzofuran	4.046	0.20	5	0	0	50-120	0			
Di-n-butyl phthalate	4.247	0.20	5	0	0	45-123	0			
Fluoranthene	4.229	0.20	5	0	0	45-125	0			
Fluorene	4.19	0.20	5	0	0	49-120	0			
Naphthalene	4.08	0.20	5	0	0	45-120	0			
Nitrobenzene	3.987	0.20	5	0	0	44-120	0			
N-Nitrosodiphenylamine	4.354	0.20	5	0	0	40-125	0			
Pentachlorophenol	2.457	0.20	5	0	0	19-121	0			
Phenanthrene	4.316	0.20	5	0	0	45-121	0			
Phenol	4.122	0.20	5	0	0	20-124	0			
Pyrene	3.969	0.20	5	0	0	40-130	0			
<i>Surr: 2,4,6-Tribromophenol</i>	4.361	0.20	5	0	0	34-129	0			
<i>Surr: 2-Fluorobiphenyl</i>	4.147	0.20	5	0	0	40-125	0			
<i>Surr: 2-Fluorophenol</i>	3.95	0.20	5	0	0	20-120	0			
<i>Surr: 4-Terphenyl-d14</i>	3.874	0.20	5	0	0	40-135	0			
<i>Surr: Nitrobenzene-d5</i>	4.196	0.20	5	0	0	41-120	0			
<i>Surr: Phenol-d6</i>	4.34	0.20	5	0	0	20-120	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Pastor, Behling & Wheeler, LLC
 Work Order: 1101672
 Project: HWPW-Site Wide Monitoring

QC BATCH REPORT

Batch ID: 49686 Instrument ID SV-2 Method: SW8270

LCSD	Sample ID: SLCS DW2-110130-49686	Units: µg/L					Analysis Date: 1/31/2011 11:03 AM				
Client ID:	Run ID: SV-2_110131A	SeqNo: 2264392			Prep Date: 1/30/2011		DF: 1				
Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
1,2-Diphenylhydrazine	4.009	0.20	5	0	0	39-127	4.084	0	20		
2,4-Dimethylphenol	3.116	0.20	5	0	0	35-120	3.734	0	20		
2,4-Dinitrotoluene	4.242	0.20	5	0	0	50-122	4.386	0	20		
2,6-Dinitrotoluene	4.15	0.20	5	0	0	50-120	4.366	0	20		
2-Chloronaphthalene	4.256	0.20	5	0	0	50-120	4.469	0	20		
2-Methylnaphthalene	3.905	0.20	5	0	0	50-120	4.16	0	20		
4,6-Dinitro-2-methylphenol	4.406	0.20	5	0	0	25-121	4.268	0	20		
4-Nitrophenol	4.462	1.0	5	0	0	30-130	4.083	0	20		
Acenaphthene	3.934	0.20	5	0	0	45-120	4.184	0	20		
Acenaphthylene	3.767	0.20	5	0	0	47-120	3.995	0	20		
Anthracene	3.881	0.20	5	0	0	45-120	4.069	0	20		
Benz(a)anthracene	4.274	0.20	5	0	0	40-120	4.429	0	20		
Benzo(a)pyrene	4.697	0.20	5	0	0	45-120	4.799	0	20		
Bis(2-chloroethoxy)methane	4.047	0.20	5	0	0	45-120	4.387	0	20		
Bis(2-ethylhexyl)phthalate	4.503	0.20	5	0	0	40-139	4.641	0	20		
Chrysene	4.168	0.20	5	0	0	43-120	4.278	0	20		
Dibenzofuran	3.869	0.20	5	0	0	50-120	4.046	0	20		
Di-n-butyl phthalate	3.962	0.20	5	0	0	45-123	4.247	0	20		
Fluoranthene	4.163	0.20	5	0	0	45-125	4.229	0	20		
Fluorene	3.952	0.20	5	0	0	49-120	4.19	0	20		
Naphthalene	3.797	0.20	5	0	0	45-120	4.08	0	20		
Nitrobenzene	3.844	0.20	5	0	0	44-120	3.987	0	20		
N-Nitrosodiphenylamine	4.099	0.20	5	0	0	40-125	4.354	0	20		
Pentachlorophenol	2.384	0.20	5	0	0	19-121	2.457	0	20		
Phenanthrene	3.881	0.20	5	0	0	45-121	4.316	0	20		
Phenol	3.787	0.20	5	0	0	20-124	4.122	0	20		
Pyrene	4.057	0.20	5	0	0	40-130	3.969	0	20		
Surr: 2,4,6-Tribromophenol	4.092	0.20	5	0	0	34-129	4.361	0	0		
Surr: 2-Fluorobiphenyl	3.895	0.20	5	0	0	40-125	4.147	0	0		
Surr: 2-Fluorophenol	3.475	0.20	5	0	0	20-120	3.95	0	0		
Surr: 4-Terphenyl-d14	3.946	0.20	5	0	0	40-135	3.874	0	0		
Surr: Nitrobenzene-d5	3.933	0.20	5	0	0	41-120	4.196	0	0		
Surr: Phenol-d6	3.974	0.20	5	0	0	20-120	4.34	0	0		

The following samples were analyzed in this batch:

1101672-01B	1101672-02B	1101672-03B
1101672-04B	1101672-05B	1101672-06B
1101672-07B	1101672-08B	1101672-09B
1101672-10B	1101672-11B	1101672-12B
1101672-13B	1101672-14B	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Pastor, Behling & Wheeler, LLC
Work Order: 1101672
Project: HWPW-Site Wide Monitoring

QC BATCH REPORT

Batch ID: **R104471** Instrument ID **VOA1** Method: **SW8260**

MBLK Sample ID: **VBLKW-012611-R104471** Units: **µg/L** Analysis Date: **1/26/2011 11:17 AM**

Client ID: Run ID: **VOA1_110126B** SeqNo: **2260680** Prep Date: DF: **1**

Analyte	Result	MLQ	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Dichloroethane	U	5.0								
Benzene	U	5.0								
Chlorobenzene	U	5.0								
Dichloromethane	U	10								
Ethylbenzene	U	5.0								
Toluene	U	5.0								
Xylenes, Total	U	15								
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>48.1</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>96.2</i>	<i>70-125</i>	<i>0</i>			
<i>Surr: 4-Bromofluorobenzene</i>	<i>46.94</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>93.9</i>	<i>72-125</i>	<i>0</i>			
<i>Surr: Dibromofluoromethane</i>	<i>50.51</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>101</i>	<i>71-125</i>	<i>0</i>			
<i>Surr: Toluene-d8</i>	<i>49.44</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>98.9</i>	<i>75-125</i>	<i>0</i>			

LCS Sample ID: **VLCSW-012611-R104471** Units: **µg/L** Analysis Date: **1/26/2011 10:26 AM**

Client ID: Run ID: **VOA1_110126B** SeqNo: **2260679** Prep Date: DF: **1**

Analyte	Result	MLQ	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Dichloroethane	47.65	5.0	50	0	95.3	78-120	0			
Benzene	45.8	5.0	50	0	91.6	73-121	0			
Chlorobenzene	45.22	5.0	50	0	90.4	80-120	0			
Dichloromethane	47.94	10	50	0	95.9	65-133	0			
Ethylbenzene	45.52	5.0	50	0	91	80-120	0			
Toluene	46.54	5.0	50	0	93.1	80-120	0			
Xylenes, Total	138.4	15	150	0	92.3	80-120	0			
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>45.52</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>91</i>	<i>70-125</i>	<i>0</i>			
<i>Surr: 4-Bromofluorobenzene</i>	<i>51.92</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>104</i>	<i>72-125</i>	<i>0</i>			
<i>Surr: Dibromofluoromethane</i>	<i>48.29</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>96.6</i>	<i>71-125</i>	<i>0</i>			
<i>Surr: Toluene-d8</i>	<i>47.61</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>95.2</i>	<i>75-125</i>	<i>0</i>			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Pastor, Behling & Wheeler, LLC
 Work Order: 1101672
 Project: HWPW-Site Wide Monitoring

QC BATCH REPORT

Batch ID: R104471 Instrument ID VOA1 Method: SW8260

MS		Sample ID: 1101614-02ZMS			Units: µg/L			Analysis Date: 1/26/2011 01:48 PM		
Client ID:		Run ID: VOA1_110126B			SeqNo: 2260683		Prep Date:		DF: 20	
Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Dichloroethane	981.2	100	1000	0	98.1	78-120	0			
Benzene	898	100	1000	0	89.8	73-121	0			
Chlorobenzene	899.9	100	1000	0	90	80-120	0			
Dichloromethane	1172	200	1000	232.7	93.9	65-133	0			
Ethylbenzene	876.6	100	1000	37.28	83.9	80-120	0			
Toluene	1027	100	1000	198.6	82.8	80-120	0			
Xylenes, Total	2592	300	3000	145.7	81.5	80-120	0			
Surr: 1,2-Dichloroethane-d4	958.1	100	1000	0	95.8	70-125	0			
Surr: 4-Bromofluorobenzene	1002	100	1000	0	100	72-125	0			
Surr: Dibromofluoromethane	1022	100	1000	0	102	71-125	0			
Surr: Toluene-d8	958.9	100	1000	0	95.9	75-125	0			

MSD		Sample ID: 1101614-02ZMSD			Units: µg/L			Analysis Date: 1/26/2011 02:13 PM		
Client ID:		Run ID: VOA1_110126B			SeqNo: 2260684		Prep Date:		DF: 20	
Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Dichloroethane	978.6	100	1000	0	97.9	78-120	981.2	0.264	20	
Benzene	943.4	100	1000	0	94.3	73-121	898	4.94	20	
Chlorobenzene	917	100	1000	0	91.7	80-120	899.9	1.88	20	
Dichloromethane	1179	200	1000	232.7	94.6	65-133	1172	0.584	20	
Ethylbenzene	907.6	100	1000	37.28	87	80-120	876.6	3.48	20	
Toluene	1087	100	1000	198.6	88.9	80-120	1027	5.74	20	
Xylenes, Total	2880	300	3000	145.7	91.2	80-120	2592	10.5	20	
Surr: 1,2-Dichloroethane-d4	971.3	100	1000	0	97.1	70-125	958.1	1.37	20	
Surr: 4-Bromofluorobenzene	1005	100	1000	0	100	72-125	1002	0.265	20	
Surr: Dibromofluoromethane	1018	100	1000	0	102	71-125	1022	0.398	20	
Surr: Toluene-d8	955.2	100	1000	0	95.5	75-125	958.9	0.382	20	

The following samples were analyzed in this batch:

1101672-01A	1101672-03A	1101672-04A
1101672-06A	1101672-07A	1101672-08A
1101672-09A	1101672-10A	1101672-13A
1101672-15A		

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Pastor, Behling & Wheeler, LLC
Work Order: 1101672
Project: HWPW-Site Wide Monitoring

QC BATCH REPORT

Batch ID: **R104531** Instrument ID **VOA1** Method: **SW8260**

MBLK Sample ID: **VBLKW-012711-R104531** Units: **µg/L** Analysis Date: **1/27/2011 11:16 AM**

Client ID: Run ID: **VOA1_110127A** SeqNo: **2262138** Prep Date: DF: **1**

Analyte	Result	ML	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Dichloroethane	U	5.0								
Benzene	U	5.0								
Chlorobenzene	U	5.0								
Dichloromethane	U	10								
Ethylbenzene	U	5.0								
Toluene	U	5.0								
Xylenes, Total	U	15								
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>46.83</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>93.7</i>	<i>70-125</i>	<i>0</i>			
<i>Surr: 4-Bromofluorobenzene</i>	<i>48.46</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>96.9</i>	<i>72-125</i>	<i>0</i>			
<i>Surr: Dibromofluoromethane</i>	<i>48.9</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>97.8</i>	<i>71-125</i>	<i>0</i>			
<i>Surr: Toluene-d8</i>	<i>48.18</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>96.4</i>	<i>75-125</i>	<i>0</i>			

LCS Sample ID: **VLCSW-012711-R104531** Units: **µg/L** Analysis Date: **1/27/2011 10:25 AM**

Client ID: Run ID: **VOA1_110127A** SeqNo: **2262203** Prep Date: DF: **1**

Analyte	Result	ML	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Dichloroethane	45.51	5.0	50	0	91	78-120	0			
Benzene	44.15	5.0	50	0	88.3	73-121	0			
Chlorobenzene	43.06	5.0	50	0	86.1	80-120	0			
Dichloromethane	46.14	10	50	0	92.3	65-133	0			
Ethylbenzene	42.72	5.0	50	0	85.4	80-120	0			
Toluene	43.7	5.0	50	0	87.4	80-120	0			
Xylenes, Total	124.9	15	150	0	83.2	80-120	0			
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>43.17</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>86.3</i>	<i>70-125</i>	<i>0</i>			
<i>Surr: 4-Bromofluorobenzene</i>	<i>52.73</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>105</i>	<i>72-125</i>	<i>0</i>			
<i>Surr: Dibromofluoromethane</i>	<i>47.87</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>95.7</i>	<i>71-125</i>	<i>0</i>			
<i>Surr: Toluene-d8</i>	<i>48.07</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>96.1</i>	<i>75-125</i>	<i>0</i>			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Pastor, Behling & Wheeler, LLC
 Work Order: 1101672
 Project: HWPW-Site Wide Monitoring

QC BATCH REPORT

Batch ID: R104531 Instrument ID VOA1 Method: SW8260

MS		Sample ID: 1101672-12ZMS			Units: µg/L		Analysis Date: 1/27/2011 01:22 PM			
Client ID: WG-1620-MW24C-20110125		Run ID: VOA1_110127A			SeqNo: 2262140		Prep Date:		DF: 1	
Analyte	Result	ML	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Dichloroethane	44.54	5.0	50	0	89.1	78-120	0			
Benzene	44.41	5.0	50	0	88.8	73-121	0			
Chlorobenzene	43.79	5.0	50	0	87.6	80-120	0			
Dichloromethane	47.18	10	50	0	94.4	65-133	0			
Ethylbenzene	41.18	5.0	50	0	82.4	80-120	0			
Toluene	44.9	5.0	50	0	89.8	80-120	0			
Xylenes, Total	126	15	150	0	84	80-120	0			
Surr: 1,2-Dichloroethane-d4	46.1	5.0	50	0	92.2	70-125	0			
Surr: 4-Bromofluorobenzene	48.69	5.0	50	0	97.4	72-125	0			
Surr: Dibromofluoromethane	50.96	5.0	50	0	102	71-125	0			
Surr: Toluene-d8	47.21	5.0	50	0	94.4	75-125	0			

MSD		Sample ID: 1101672-12ZMSD			Units: µg/L		Analysis Date: 1/27/2011 01:47 PM			
Client ID: WG-1620-MW24C-20110125		Run ID: VOA1_110127A			SeqNo: 2262141		Prep Date:		DF: 1	
Analyte	Result	ML	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Dichloroethane	46.54	5.0	50	0	93.1	78-120	44.54	4.39	20	
Benzene	43.9	5.0	50	0	87.8	73-121	44.41	1.17	20	
Chlorobenzene	46.52	5.0	50	0	93	80-120	43.79	6.06	20	
Dichloromethane	47.1	10	50	0	94.2	65-133	47.18	0.173	20	
Ethylbenzene	45.37	5.0	50	0	90.7	80-120	41.18	9.7	20	
Toluene	43.92	5.0	50	0	87.8	80-120	44.9	2.2	20	
Xylenes, Total	133.5	15	150	0	89	80-120	126	5.76	20	
Surr: 1,2-Dichloroethane-d4	44.32	5.0	50	0	88.6	70-125	46.1	3.94	20	
Surr: 4-Bromofluorobenzene	52.26	5.0	50	0	105	72-125	48.69	7.07	20	
Surr: Dibromofluoromethane	47.92	5.0	50	0	95.8	71-125	50.96	6.15	20	
Surr: Toluene-d8	48.22	5.0	50	0	96.4	75-125	47.21	2.12	20	

The following samples were analyzed in this batch:

1101672-02A	1101672-05A	1101672-11A
1101672-12A	1101672-14A	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

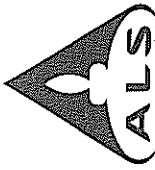
Client: Pastor, Behling & Wheeler, LLC
Project: HWPW-Site Wide Monitoring
WorkOrder: 1101672

**QUALIFIERS,
ACRONYMS, UNITS**

<u>Qualifier</u>	<u>Description</u>
*	Value exceeds Regulatory Limit
a	Not accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
J	Analyte detected below quantitation limit
M	Manually integrated, see raw data for justification
n	Not offered for accreditation
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL

<u>Acronym</u>	<u>Description</u>
DCS	Detectability Check Study
DUP	Method Duplicate
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
MBLK	Method Blank
MDL	Method Detection Limit
MQL	Method Quantitation Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PDS	Post Digestion Spike
PQL	Practical Quantitation Limit
SD	Serial Dilution
SDL	Sample Detection Limit
TRRP	Texas Risk Reduction Program

<u>Units Reported</u>	<u>Description</u>
µg/L	Micrograms per Liter



ALS Laboratory Group
 10450 Standcliff Rd., Suite 210
 Houston, Texas 77099
 Tel. +1 281 530 5656
 Fax. +1 281 530 5887

Chain of Custody Form

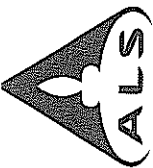
ALS Laboratory Group
 3352 128th Ave.
 Holland, MI 49424-9263
 Tel: +1 616 399 6070
 Fax: +1 616 399 6185

Page 1 of 2

Customer Information				Project Information				ALS Work Order #:											
Purchase Order: _____ Work Order: _____ Company Name: Pastor, Behling & Wheeler, LLC Send Report To: Eric Matzner Address: 2201 Double Creek Drive, Suite 4004 City/State/Zip: Round Rock, TX 79664 Phone: (512) 671-3434 Fax: (512) 671-3446 e-Mail Address: _____				Project Name: HMP(PW)-Site Wide Monitoring Project Number: 1630 Bill To Company: Union Pacific Railroad Invoice Attn: _____ Address: 1400 Douglas Street City/State/Zip: Omaha, NE 681790750 Phone: _____ Fax: _____ e-Mail Address: _____				Parameter/Method Request for Analysis: A VOC (8260) Select B LOW SVOC (8270) Select C D E F G H I J											
No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold		
1	WG-1620-MW33A-20110124	1-24-11	1450	GW		5	X	X											
2	WG-1620-MW33B-20110124	1-24-11	1600	GW		5	X	X											
3	WG-1620-MW26A-20110124	1-24-11	1700	GW		5	X	X											
4	WG-1620-MW68C-20110125	1-25-11	0745	GW		5	X	X											
5	WG-1620-MW32A-20110125	1-25-11	0850	GW		5	X	X											
6	WG-1620-MW38A-20110125	1-25-11	1000	GW		5	X	X											
7	WG-1620-MW38B-20110125	1-25-11	1100	GW		5	X	X											
8	WG-1620-MW29A-20110125	1-25-11	1150	GW		5	X	X											
9	WG-1620-MW28B-20110125	1-25-11	1345	GW		5	X	X											
10	WG-1620-MW24AR-20110125	1-25-11	1400	GW		5	X	X											
Shipper/Print & Sign: JOHN BRAYTON, John Brayton Relinquished by: _____ Date: 1-24-11 Time: 0830 Received by (Laboratory): AKS Date: 1-26-11 Time: 0830				Required Turnaround Time (Check Box): <input checked="" type="checkbox"/> 15 WK Days <input type="checkbox"/> 10 WK Days <input type="checkbox"/> 5 WK Days <input type="checkbox"/> 2 WK Days <input type="checkbox"/> Other: _____				Results Due Date: _____ 10 Day TAT.											
Relinquished by: _____ Date: _____ Time: _____				Received by (Laboratory): _____ Date: _____ Time: _____				Checked by (Laboratory): _____ Date: _____ Time: _____				QC Package: (Check One Box Below) <input type="checkbox"/> Level II Std GC <input type="checkbox"/> Level III Std GC/Row Data <input type="checkbox"/> Level IV SW34/CLP <input type="checkbox"/> Other / EDD							
Preservative Key: 1-HCl, 2-HNO ₃ , 3-H ₂ SO ₄ , 4-NaOH, 5-Na ₂ S ₂ O ₃ , 6-NaHSO ₃ , 7-Other, 8-4°C, 9-5035																			

Note: 1. Any changes must be made in writing once samples and COC Form have been submitted to ALS Laboratory Group.
 2. Unless otherwise agreed in a formal contract, services provided by ALS Laboratory Group are expressly limited to the terms and conditions stated on the reverse.
 3. The Chain of Custody is a legal document. All information must be completed accurately.

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Chain of Custody Form

ALS Laboratory Group
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 Holland, MI 49424-9263
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 Fax: +1 616 399 6185

Page 2 of 2

Customer Information				Project Information													
Purchase Order: _____ Work Order: _____ Company Name: Pastor, Behling & Wheeler, LLC Send Report To: Eric Matzner Address: 2201 Double Creek Drive, Suite 4004 City/State/Zip: Round Rock, TX 78664 Phone: (512) 671-3434 Fax: (512) 671-3446 e-Mail Address: _____				ALS Project Manager: _____ ALS Work Order #: <u>10172</u> Parameter/Method Request for Analysis: VOC (8260) Select A: VOC (8260) Select B: LOW SVOC (8270) Select C: _____ D: _____ E: _____ F: _____ G: _____ H: _____ I: _____ J: _____													
No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	WG-1620-MW24B-20110125	1-25-11	1500	GW		5	X	X									
2	WG-1620-MW24C-20110125	1-25-11	1550	GW		5	X	X									
3	WG-1620-MW28A-20110125	1-25-11	1705	GW		5	X	X									
4	WG-1620-MW28C-20110125	1-25-11	1800	GW		5	X	X									
5	WG-1620-TB03-20110125	1-25-11	-			2	X	X									
6																	
7																	
8																	
9																	
10																	

Sampler(s) Please Print & Sign: John Beaton
 Date: 1-26-11 Time: 0830
 Relinquished to: John Beaton
 Date: 1-26-11 Time: 0830
 Relinquished by: _____
 Date: _____ Time: _____
 Received by (Laboratory): RV ACS
 Checked by (Laboratory): _____
 Date: _____ Time: _____
 Preservative Key: 1-HCl, 2-HNO₃, 3-H₂SO₄, 4-NaOH, 5-Na₂S₂O₃, 6-NaHSO₄, 7-Other, 8-4°C, 9-5035

Notes: 10 DAY TAT.

QC Package: (Check One Box Below)
 Level II Std QC
 Level III Std QC/RAW Data
 Level IV SWM/CLP
 Other / EDD

Note: 1. Any changes must be made in writing once samples and COC Form have been submitted to ALS Laboratory Group.
 2. Unless otherwise agreed in a formal contract, services provided by ALS Laboratory Group are expressly limited to the terms and conditions stated on the reverse.
 3. The Chain of Custody is a legal document. All information must be completed accurately.

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Sample Receipt Checklist

Client Name: **PBW**

Date/Time Received: **26-Jan-11 08:30**

Work Order: **1101672**

Received by: **RDN**

Checklist completed by Salvador A. Yanez 26-Jan-11
eSignature Date

Reviewed by: R. Kevin Given 27-Jan-11
eSignature Date

Matrices: Water

Carrier name: Client

- Shipping container/cooler in good condition? Yes No Not Present
- Custody seals intact on shipping container/cooler? Yes No Not Present
- Custody seals intact on sample bottles? Yes No Not Present
- Chain of custody present? Yes No
- Chain of custody signed when relinquished and received? Yes No
- Chain of custody agrees with sample labels? Yes No
- Samples in proper container/bottle? Yes No
- Sample containers intact? Yes No
- Sufficient sample volume for indicated test? Yes No
- All samples received within holding time? Yes No
- Container/Temp Blank temperature in compliance? Yes No

Temperature(s)/Thermometer(s):

Cooler(s)/Kit(s):

Water - VOA vials have zero headspace? Yes No No VOA vials submitted

Water - pH acceptable upon receipt? Yes No N/A

pH adjusted? Yes No N/A

pH adjusted by:

Login Notes:

Client Contacted: Date Contacted: Person Contacted:

Contacted By: Regarding:

Comments:

CorrectiveAction:



11-Feb-2011

Eric Matzner
Pastor, Behling & Wheeler, LLC
2201 Double Creek Drive
Suite 4004
Round Rock, TX 78664

Tel: (512) 671-3434
Fax: (512) 671-3446

Re: HWPW-Site Wide Monitoring

Work Order: **1101770**

Dear Eric,

ALS Environmental received 19 samples on 28-Jan-2011 07:50 AM for the analyses presented in the following report.

The analytical data provided relates directly to the samples received by ALS Environmental and for only the analyses requested. Results are expressed as "as received" unless otherwise noted.

QC sample results for this data met EPA or laboratory specifications except as noted in the Case Narrative or as noted with qualifiers in the QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained by ALS Environmental. Samples will be disposed in 30 days unless storage arrangements are made.

The total number of pages in this report is 62.

If you have any questions regarding this report, please feel free to call me.

Sincerely,

R. Kevin Given

Electronically approved by: Mary K. Knowles

R. Kevin Given
Project Manager



Certificate No: TX: T104704231-10-3

ADDRESS 10450 Stancliff Rd, Suite 210 Houston, Texas 77099-4338 | PHONE (281) 530-5656 | FAX (281) 530-5887

ALS GROUP USA, CORP Part of the ALS Laboratory Group A Campbell Brothers Limited Company

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RIGHT SOLUTIONS RIGHT PARTNER

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW-Site Wide Monitoring
Work Order: 1101770

**TRRP Laboratory Data
Package Cover Page**

This data package consists of all or some of the following as applicable:

This signature page, the laboratory review checklist, and the following reportable data:

- R1 Field chain-of-custody documentation;
- R2 Sample identification cross-reference;
- R3 Test reports (analytical data sheets) for each environmental sample that includes:
 - a) Items consistent with NELAC Chapter 5,
 - b) dilution factors,
 - c) preparation methods,
 - d) cleanup methods, and
 - e) if required for the project, tentatively identified compounds (TICs).
- R4 Surrogate recovery data including:
 - a) Calculated recovery (%R), and
 - b) The laboratory's surrogate QC limits.
- R5 Test reports/summary forms for blank samples;
- R6 Test reports/summary forms for laboratory control samples (LCSs) including:
 - a) LCS spiking amounts,
 - b) Calculated %R for each analyte, and
 - c) The laboratory's LCS QC limits.
- R7 Test reports for project matrix spike/matrix spike duplicates (MS/MSDs) including:
 - a) Samples associated with the MS/MSD clearly identified,
 - b) MS/MSD spiking amounts,
 - c) Concentration of each MS/MSD analyte measured in the parent and spiked samples,
 - d) Calculated %Rs and relative percent differences (RPDs), and
 - e) The laboratory's MS/MSD QC limits.
- R8 Laboratory analytical duplicate (if applicable) recovery and precision:
 - a) the amount of analyte measured in the duplicate,
 - b) the calculated RPD, and
 - c) the laboratory's QC limits for analytical duplicates.
- R9 List of method quantitation limits (MQLs) and detectability check sample results for each analyte for each method and matrix.
- R10 Other problems or anomalies.
The Exception Report for each "No" or "Not Reviewed (NR)" item in Laboratory Review Checklist and for each analyte, matrix, and method for which the laboratory does not hold NELAC accreditation under the Texas Laboratory Accreditation Program.

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW-Site Wide Monitoring
Work Order: 1101770

**TRRP Laboratory Data
Package Cover Page**

Release Statement: I am responsible for the release of this laboratory data package. This laboratory is NELAC accredited under the Texas Laboratory Accreditation Program for all the methods, analytes and matrices reported in this data package except as noted in the Exception Reports. The data have been reviewed and are technically compliant with the requirements of the methods used, except where noted by the laboratory in the attached exception reports. By my signature below, I affirm to the best of my knowledge, all problems/anomalies, observed by the laboratory have been identified by the laboratory in the Laboratory Review Checklist, and no information affecting the quality of the data has been knowingly withheld.

Check, if applicable: [NA] This laboratory meets an exception under 30 TAC §25.6 and was last inspected by TCEQ or _____ on (enter date of last inspection). Any findings affecting the data in this laboratory data package are noted in the Exception Reports herein. The official signing the cover page of the report in which these data are used is responsible for releasing this data package and is by signature affirming the above release statement is true.

R . K evin Given

R. Kevin Given
Project Manager

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW-Site Wide Monitoring
Work Order: 1101770

Work Order Sample Summary

<u>Lab Samp ID</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Tag Number</u>	<u>Collection Date</u>	<u>Date Received</u>	<u>Hold</u>
1101770-01	WG-1620-MW53C-20110126	Groundwater		1/26/2011 09:45	1/28/2011 07:50	<input type="checkbox"/>
1101770-02	WG-1620-MW36D-20110126	Groundwater		1/26/2011 11:05	1/28/2011 07:50	<input type="checkbox"/>
1101770-03	WG-1620-MW54C-20110126	Groundwater		1/26/2011 12:05	1/28/2011 07:50	<input type="checkbox"/>
1101770-04	WG-1620-MW25A-20110126	Groundwater		1/26/2011 14:30	1/28/2011 07:50	<input type="checkbox"/>
1101770-05	WG-1620-FD03-20110126	Groundwater		1/26/2011 14:30	1/28/2011 07:50	<input type="checkbox"/>
1101770-06	WG-1620-MW25C-20110126	Groundwater		1/26/2011 15:40	1/28/2011 07:50	<input type="checkbox"/>
1101770-07	WG-1620-MW44A-20110126	Groundwater		1/26/2011 16:40	1/28/2011 07:50	<input type="checkbox"/>
1101770-08	WG-1620-MW65D-20110126	Groundwater		1/26/2011 17:45	1/28/2011 07:50	<input type="checkbox"/>
1101770-09	WG-1620-MW67B-20110127	Groundwater		1/27/2011 08:00	1/28/2011 07:50	<input type="checkbox"/>
1101770-10	WG-1620-MW35A-20110127	Groundwater		1/27/2011 09:00	1/28/2011 07:50	<input type="checkbox"/>
1101770-11	WG-1620-MW35B-20110127	Groundwater		1/27/2011 09:50	1/28/2011 07:50	<input type="checkbox"/>
1101770-12	WG-1620-MW27C-20110127	Groundwater		1/27/2011 11:05	1/28/2011 07:50	<input type="checkbox"/>
1101770-13	WG-1620-MW64A-20110127	Groundwater		1/27/2011 12:20	1/28/2011 07:50	<input type="checkbox"/>
1101770-14	WG-1620-MW63B-20110127	Groundwater		1/27/2011 13:20	1/28/2011 07:50	<input type="checkbox"/>
1101770-15	WG-1620-MW62B-20110127	Groundwater		1/27/2011 14:50	1/28/2011 07:50	<input type="checkbox"/>
1101770-16	WG-1620-MW61A-20110127	Groundwater		1/27/2011 16:15	1/28/2011 07:50	<input type="checkbox"/>
1101770-17	WG-1620-MW50A-20110127	Groundwater		1/27/2011 17:30	1/28/2011 07:50	<input type="checkbox"/>
1101770-18	WG-1620-FB03-20110127	Groundwater		1/27/2011 18:00	1/28/2011 07:50	<input type="checkbox"/>
1101770-19	WG-1620-TB04-20110127	Water		1/27/2011	1/28/2011 07:50	<input type="checkbox"/>

Laboratory Review Checklist: Reportable Data

Laboratory Name: ALS Laboratory Group		LRC Date: 2/11/2011					
Project Name: HWPW-Site Wide Monitoring		Laboratory Job Number: 1101770					
Reviewer Name: R. Kevin Given		Prep Batch Number(s): 49687, R104632, R104651					
# ¹	A ²	Description	Yes	No	NA ³	NR ⁴	ER# ⁵
R1	OI	Chain-of-custody (C-O-C)					
		Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?	X				
		Were all departures from standard conditions described in an exception report?	X				
R2	OI	Sample and quality control (QC) identification					
		Are all field sample ID numbers cross-referenced to the laboratory ID numbers?	X				
		Are all laboratory ID numbers cross-referenced to the corresponding QC data?	X				
R3	OI	Test reports					
		Were all samples prepared and analyzed within holding times?	X				
		Other than those results < MQL, were all other raw values bracketed by calibration standards?	X				
		Were calculations checked by a peer or supervisor?	X				
		Were all analyte identifications checked by a peer or supervisor?	X				
		Were sample detection limits reported for all analytes not detected?	X				
		Were all results for soil and sediment samples reported on a dry weight basis?			X		
		Were % moisture (or solids) reported for all soil and sediment samples?			X		
		Were bulk soils/solids samples for volatile analysis extracted with methanol per SW-846 Method 5035?			X		
		If required for the project, TICs reported?			X		
R4	O	Surrogate recovery data					
		Were surrogates added prior to extraction?	X				
		Were surrogate percent recoveries in all samples within the laboratory QC limits?		X			1
R5	OI	Test reports/summary forms for blank samples					
		Were appropriate type(s) of blanks analyzed?	X				
		Were blanks analyzed at the appropriate frequency?	X				
		Were method blanks taken through the entire analytical process, including preparation and, if applicable, cleanup procedures?	X				
		Were blank concentrations < MQL?	X				
R6	OI	Laboratory control samples (LCS):					
		Were all COCs included in the LCS?	X				
		Was each LCS taken through the entire analytical procedure, including prep and cleanup steps?	X				
		Were LCSs analyzed at the required frequency?	X				
		Were LCS (and LCSD, if applicable) %Rs within the laboratory QC limits?	X				
		Does the detectability data document the laboratory's capability to detect the COCs at the MDL used to calculate the SQLs?	X				
		Was the LCSD RPD within QC limits?			X		
R7	OI	Matrix spike (MS) and matrix spike duplicate (MSD) data					
		Were the project/method specified analytes included in the MS and MSD?	X				
		Were MS/MSD analyzed at the appropriate frequency?	X				
		Were MS (and MSD, if applicable) %Rs within the laboratory QC limits?		X			2
		Were MS/MSD RPDs within laboratory QC limits?		X			3
R8	OI	Analytical duplicate data					
		Were appropriate analytical duplicates analyzed for each matrix?			X		
		Were analytical duplicates analyzed at the appropriate frequency?			X		
		Were RPDs or relative standard deviations within the laboratory QC limits?			X		
R9	OI	Method quantitation limits (MQLs):					
		Are the MQLs for each method analyte included in the laboratory data package?	X				
		Do the MQLs correspond to the concentration of the lowest non-zero calibration standard?	X				
		Are unadjusted MQLs and DCSs included in the laboratory data package?	X				
R10	OI	Other problems/anomalies					
		Are all known problems/anomalies/special conditions noted in this LRC and ER?	X				
		Were all necessary corrective actions performed for the reported data?	X				
		Was applicable and available technology used to lower the SDL minimize the matrix interference affects on the sample results?	X				
		Is the laboratory NELAC-accredited under the Texas Laboratory Program for the analytes, matrices and methods associated with this laboratory data package?	X				

Laboratory Review Checklist: Reportable Data

Laboratory Name: ALS Laboratory Group		LRC Date: 2/11/2011					
Project Name: HWPW-Site Wide Monitoring		Laboratory Job Number: 1101770					
Reviewer Name: R. Kevin Given		Prep Batch Number(s): 49687, R104632, R104651					
# ¹	A ²	Description	Yes	No	NA ³	NR ⁴	ER# ⁵
S1	OI	Initial calibration (ICAL)					
		Were response factors and/or relative response factors for each analyte within QC limits?	X				
		Were percent RSDs or correlation coefficient criteria met?	X				
		Was the number of standards recommended in the method used for all analytes?	X				
		Were all points generated between the lowest and highest standard used to calculate the curve?	X				
		Are ICAL data available for all instruments used?	X				
		Has the initial calibration curve been verified using an appropriate second source standard?	X				
S2	OI	Initial and continuing calibration verification (ICCV and CCV) and continuing calibration blank (CCB)					
		Was the CCV analyzed at the method-required frequency?	X				
		Were percent differences for each analyte within the method-required QC limits?	X				
		Was the ICAL curve verified for each analyte?	X				
		Was the absolute value of the analyte concentration in the inorganic CCB < MDL?			X		
S3	O	Mass spectral tuning:					
		Was the appropriate compound for the method used for tuning?	X				
		Were ion abundance data within the method-required QC limits?	X				
S4	O	Internal standards (IS):					
		Were IS area counts and retention times within the method-required QC limits?	X				
S5	OI	Raw data (NELAC section 1 appendix A glossary, and section 5.12 or ISO/IEC 17025 section					
		Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?	X				
		Were data associated with manual integrations flagged on the raw data?	X				
S6	O	Dual column confirmation					
		Did dual column confirmation results meet the method-required QC?			X		
S7	O	Tentatively identified compounds (TICs):					
		If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?			X		
S8	I	Interference Check Sample (ICS) results:					
		Were percent recoveries within method QC limits?			X		
S9	I	Serial dilutions, post digestion spikes, and method of standard additions					
		Were percent differences, recoveries, and the linearity within the QC limits specified in the method?			X		
S10	OI	Method detection limit (MDL) studies					
		Was a MDL study performed for each reported analyte?	X				
		Is the MDL either adjusted or supported by the analysis of DCSs?	X				
S11	OI	Proficiency test reports:					
		Was the laboratory's performance acceptable on the applicable proficiency tests or evaluation studies?	X				
S12	OI	Standards documentation					
		Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?	X				
S13	OI	Compound/analyte identification procedures					
		Are the procedures for compound/analyte identification documented?	X				
S14	OI	Demonstration of analyst competency (DOC)					
		Was DOC conducted consistent with NELAC Chapter 5C or ISO/IEC 4?	X				
		Is documentation of the analyst's competency up-to-date and on file?	X				
S15	OI	Verification/validation documentation for methods (NELAC Chap 5 or ISO/IEC 17025 Section 5)					
		Are all the methods used to generate the data documented, verified, and validated, where applicable?	X				
S16	OI	Laboratory standard operating procedures (SOPs):					
		Are laboratory SOPs current and on file for each method performed?	X				
<p>Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.</p> <p>O = Organic Analyses; I = Inorganic Analyses (and general chemistry, when applicable); NA = Not Applicable; NR = Not Reviewed; R# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).</p>							

Laboratory Review Checklist: Reportable Data

Laboratory Name: ALS Laboratory Group		LRC Date: 2/11/2011
Project Name: HWPW-Site Wide Monitoring		Laboratory Job Number: 1101770
Reviewer Name: R. Kevin Given		Prep Batch Number(s): 49687, R104632, R104651
ER# ⁵	Description	
1	<p>Low-Level Semivolatile Organics, Sample WG-1620-MW25C-20110126 : Surrogate recoveries were diluted out in the 100X, 500X, and 2500X dilution.</p> <p>Low-Level Semivolatile Organics, Sample WG-1620-MW35B-20110127 : Surrogate recoveries were diluted out in the 100X and 500X.</p> <p>Low-Level Semivolatile Organics, Sample WG-1620-MW63B-20110127 : Surrogate recoveries were diluted out in the 250X.</p> <p>Low-Level Semivolatile Organics surrogate recovery was outside the control limits for Sample WG-1620-MW63B-20110127. Results confirmed as matrix interference by re-analysis at dilution.</p>	
2	<p>Batch 49687, Semivolatile Organics, Sample WG-1620-MW67B-20110127 : MS/MSD recoveries were below the control limits for several analytes. The associated RPD's were within the control limits.</p> <p>Batch 49687, Semivolatile Organics, Sample WG-1620-MW50A-20110127 : MS/MSD recoveries were below the control limits for Naphthalene. The associated RPD was within the control limits.</p>	
3	<p>Batch 49687, Semivolatile Organics, Sample WG-1620-MW67B-20110127 : MSD RPD was above the control limits for Bis(2-ethylhexyl)phthalate and Nitrobenzene.</p>	
<p>Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period. O = Organic Analyses; I = Inorganic Analyses (and general chemistry, when applicable); NA = Not Applicable; NR = Not Reviewed; R# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).</p>		

ALS Environmental

Date: 11-Feb-11

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW-Site Wide Monitoring
Sample ID: WG-1620 MW53C-20110126
Collection Date: 1/26/2011 09:45 AM

Work Order: 1101770
Lab ID: 1101770-01
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270		Prep: SW3510 / 1/30/11		Analyst: LG
1,2-Diphenylhydrazine	U		0.10	0.20	µg/L	1	1/31/2011 17:38
2,4-Dimethylphenol	U		0.080	0.20	µg/L	1	1/31/2011 17:38
2,4-Dinitrotoluene	U		0.090	0.20	µg/L	1	1/31/2011 17:38
2,6-Dinitrotoluene	U		0.070	0.20	µg/L	1	1/31/2011 17:38
2-Chloronaphthalene	U		0.10	0.20	µg/L	1	1/31/2011 17:38
2-Methylnaphthalene	U		0.070	0.20	µg/L	1	1/31/2011 17:38
4,6-Dinitro-2-methylphenol	U		0.080	0.20	µg/L	1	1/31/2011 17:38
4-Nitrophenol	U		0.070	1.0	µg/L	1	1/31/2011 17:38
Acenaphthene	U		0.090	0.20	µg/L	1	1/31/2011 17:38
Acenaphthylene	U		0.070	0.20	µg/L	1	1/31/2011 17:38
Anthracene	U		0.070	0.20	µg/L	1	1/31/2011 17:38
Benz(a)anthracene	U		0.070	0.20	µg/L	1	1/31/2011 17:38
Benzo(a)pyrene	U		0.080	0.20	µg/L	1	1/31/2011 17:38
Bis(2-chloroethoxy)methane	U		0.090	0.20	µg/L	1	1/31/2011 17:38
Bis(2-ethylhexyl)phthalate	0.37		0.20	0.20	µg/L	1	1/31/2011 17:38
Chrysene	U		0.070	0.20	µg/L	1	1/31/2011 17:38
Di-n-butyl phthalate	U		0.070	0.20	µg/L	1	1/31/2011 17:38
Dibenzofuran	U		0.080	0.20	µg/L	1	1/31/2011 17:38
Fluoranthene	U		0.070	0.20	µg/L	1	1/31/2011 17:38
Fluorene	U		0.070	0.20	µg/L	1	1/31/2011 17:38
N-Nitrosodiphenylamine	U		0.090	0.20	µg/L	1	1/31/2011 17:38
Naphthalene	0.15	J	0.10	0.20	µg/L	1	1/31/2011 17:38
Nitrobenzene	U		0.090	0.20	µg/L	1	1/31/2011 17:38
Pentachlorophenol	U		0.080	0.20	µg/L	1	1/31/2011 17:38
Phenanthrene	U		0.070	0.20	µg/L	1	1/31/2011 17:38
Phenol	U		0.070	0.20	µg/L	1	1/31/2011 17:38
Pyrene	U		0.070	0.20	µg/L	1	1/31/2011 17:38
Surr: 2,4,6-Tribromophenol	68.5			34-129	%REC	1	1/31/2011 17:38
Surr: 2-Fluorobiphenyl	41.6			40-125	%REC	1	1/31/2011 17:38
Surr: 2-Fluorophenol	35.7			20-120	%REC	1	1/31/2011 17:38
Surr: 4-Terphenyl-d14	65.6			40-135	%REC	1	1/31/2011 17:38
Surr: Nitrobenzene-d5	44.0			41-120	%REC	1	1/31/2011 17:38
Surr: Phenol-d6	21.7			20-120	%REC	1	1/31/2011 17:38
TCL VOLATILES			Method: SW8260				Analyst: PC
1,2-Dichloroethane	U		0.50	5.0	µg/L	1	1/28/2011 17:31
Benzene	U		0.50	5.0	µg/L	1	1/28/2011 17:31
Chlorobenzene	U		0.50	5.0	µg/L	1	1/28/2011 17:31
Dichloromethane	U		0.50	10	µg/L	1	1/28/2011 17:31

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 11-Feb-11

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW-Site Wide Monitoring
Sample ID: WG-1620 MW53C-20110126
Collection Date: 1/26/2011 09:45 AM

Work Order: 1101770
Lab ID: 1101770-01
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
Ethylbenzene	U		0.50	5.0	µg/L	1	1/28/2011 17:31
Toluene	U		0.50	5.0	µg/L	1	1/28/2011 17:31
Xylenes, Total	U		1.0	15	µg/L	1	1/28/2011 17:31
Surr: 1,2-Dichloroethane-d4	96.1			70-125	%REC	1	1/28/2011 17:31
Surr: 4-Bromofluorobenzene	92.8			72-125	%REC	1	1/28/2011 17:31
Surr: Dibromofluoromethane	96.0			71-125	%REC	1	1/28/2011 17:31
Surr: Toluene-d8	95.1			75-125	%REC	1	1/28/2011 17:31

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 11-Feb-11

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW-Site Wide Monitoring
Sample ID: WG-1620-MW36D-20110126
Collection Date: 1/26/2011 11:05 AM

Work Order: 1101770
Lab ID: 1101770-02
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270		Prep: SW3510 / 1/30/11		Analyst: LG
1,2-Diphenylhydrazine		U	0.10	0.20	µg/L	1	2/2/2011 03:41
2,4-Dimethylphenol		U	0.080	0.20	µg/L	1	2/2/2011 03:41
2,4-Dinitrotoluene		U	0.090	0.20	µg/L	1	2/2/2011 03:41
2,6-Dinitrotoluene		U	0.070	0.20	µg/L	1	2/2/2011 03:41
2-Chloronaphthalene		U	0.10	0.20	µg/L	1	2/2/2011 03:41
2-Methylnaphthalene	0.13	J	0.070	0.20	µg/L	1	2/2/2011 03:41
4,6-Dinitro-2-methylphenol		U	0.080	0.20	µg/L	1	2/2/2011 03:41
4-Nitrophenol		U	0.070	1.0	µg/L	1	2/2/2011 03:41
Acenaphthene		U	0.090	0.20	µg/L	1	2/2/2011 03:41
Acenaphthylene		U	0.070	0.20	µg/L	1	2/2/2011 03:41
Anthracene		U	0.070	0.20	µg/L	1	2/2/2011 03:41
Benz(a)anthracene		U	0.070	0.20	µg/L	1	2/2/2011 03:41
Benzo(a)pyrene		U	0.080	0.20	µg/L	1	2/2/2011 03:41
Bis(2-chloroethoxy)methane		U	0.090	0.20	µg/L	1	2/2/2011 03:41
Bis(2-ethylhexyl)phthalate	0.97		0.20	0.20	µg/L	1	2/2/2011 03:41
Chrysene		U	0.070	0.20	µg/L	1	2/2/2011 03:41
Di-n-butyl phthalate		U	0.070	0.20	µg/L	1	2/2/2011 03:41
Dibenzofuran		U	0.080	0.20	µg/L	1	2/2/2011 03:41
Fluoranthene		U	0.070	0.20	µg/L	1	2/2/2011 03:41
Fluorene		U	0.070	0.20	µg/L	1	2/2/2011 03:41
N-Nitrosodiphenylamine		U	0.090	0.20	µg/L	1	2/2/2011 03:41
Naphthalene	0.83		0.10	0.20	µg/L	1	2/2/2011 03:41
Nitrobenzene		U	0.090	0.20	µg/L	1	2/2/2011 03:41
Pentachlorophenol		U	0.080	0.20	µg/L	1	2/2/2011 03:41
Phenanthrene		U	0.070	0.20	µg/L	1	2/2/2011 03:41
Phenol		U	0.070	0.20	µg/L	1	2/2/2011 03:41
Pyrene		U	0.070	0.20	µg/L	1	2/2/2011 03:41
Surr: 2,4,6-Tribromophenol	77.4			34-129	%REC	1	2/2/2011 03:41
Surr: 2-Fluorobiphenyl	46.3			40-125	%REC	1	2/2/2011 03:41
Surr: 2-Fluorophenol	49.9			20-120	%REC	1	2/2/2011 03:41
Surr: 4-Terphenyl-d14	69.5			40-135	%REC	1	2/2/2011 03:41
Surr: Nitrobenzene-d5	53.1			41-120	%REC	1	2/2/2011 03:41
Surr: Phenol-d6	50.6			20-120	%REC	1	2/2/2011 03:41
TCL VOLATILES			Method: SW8260				Analyst: PC
1,2-Dichloroethane		U	0.50	5.0	µg/L	1	1/28/2011 17:57
Benzene	0.71	J	0.50	5.0	µg/L	1	1/28/2011 17:57
Chlorobenzene		U	0.50	5.0	µg/L	1	1/28/2011 17:57
Dichloromethane		U	0.50	10	µg/L	1	1/28/2011 17:57

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 11-Feb-11

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW-Site Wide Monitoring
Sample ID: WG-1620-MW36D-20110126
Collection Date: 1/26/2011 11:05 AM

Work Order: 1101770
Lab ID: 1101770-02
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
Ethylbenzene	U		0.50	5.0	µg/L	1	1/28/2011 17:57
Toluene	U		0.50	5.0	µg/L	1	1/28/2011 17:57
Xylenes, Total	U		1.0	15	µg/L	1	1/28/2011 17:57
Surr: 1,2-Dichloroethane-d4	95.2			70-125	%REC	1	1/28/2011 17:57
Surr: 4-Bromofluorobenzene	99.4			72-125	%REC	1	1/28/2011 17:57
Surr: Dibromofluoromethane	99.6			71-125	%REC	1	1/28/2011 17:57
Surr: Toluene-d8	100			75-125	%REC	1	1/28/2011 17:57

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 11-Feb-11

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW-Site Wide Monitoring
Sample ID: WG-1620-MW54C-20110126
Collection Date: 1/26/2011 12:05 PM

Work Order: 1101770
Lab ID: 1101770-03
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270		Prep: SW3510 / 1/30/11		Analyst: LG
1,2-Diphenylhydrazine		U	0.10	0.20	µg/L	1	1/31/2011 18:17
2,4-Dimethylphenol		U	0.080	0.20	µg/L	1	1/31/2011 18:17
2,4-Dinitrotoluene		U	0.090	0.20	µg/L	1	1/31/2011 18:17
2,6-Dinitrotoluene		U	0.070	0.20	µg/L	1	1/31/2011 18:17
2-Chloronaphthalene		U	0.10	0.20	µg/L	1	1/31/2011 18:17
2-Methylnaphthalene	0.25		0.070	0.20	µg/L	1	1/31/2011 18:17
4,6-Dinitro-2-methylphenol		U	0.080	0.20	µg/L	1	1/31/2011 18:17
4-Nitrophenol		U	0.070	1.0	µg/L	1	1/31/2011 18:17
Acenaphthene	2.3		0.090	0.20	µg/L	1	1/31/2011 18:17
Acenaphthylene		U	0.070	0.20	µg/L	1	1/31/2011 18:17
Anthracene	0.27		0.070	0.20	µg/L	1	1/31/2011 18:17
Benz(a)anthracene		U	0.070	0.20	µg/L	1	1/31/2011 18:17
Benzo(a)pyrene		U	0.080	0.20	µg/L	1	1/31/2011 18:17
Bis(2-chloroethoxy)methane		U	0.090	0.20	µg/L	1	1/31/2011 18:17
Bis(2-ethylhexyl)phthalate	1.6		0.20	0.20	µg/L	1	1/31/2011 18:17
Chrysene		U	0.070	0.20	µg/L	1	1/31/2011 18:17
Di-n-butyl phthalate		U	0.070	0.20	µg/L	1	1/31/2011 18:17
Dibenzofuran	1.8		0.080	0.20	µg/L	1	1/31/2011 18:17
Fluoranthene	0.16	J	0.070	0.20	µg/L	1	1/31/2011 18:17
Fluorene	1.0		0.070	0.20	µg/L	1	1/31/2011 18:17
N-Nitrosodiphenylamine		U	0.090	0.20	µg/L	1	1/31/2011 18:17
Naphthalene	5.5		0.10	0.20	µg/L	1	1/31/2011 18:17
Nitrobenzene		U	0.090	0.20	µg/L	1	1/31/2011 18:17
Pentachlorophenol		U	0.080	0.20	µg/L	1	1/31/2011 18:17
Phenanthrene	1.1		0.070	0.20	µg/L	1	1/31/2011 18:17
Phenol		U	0.070	0.20	µg/L	1	1/31/2011 18:17
Pyrene		U	0.070	0.20	µg/L	1	1/31/2011 18:17
Surr: 2,4,6-Tribromophenol	73.1			34-129	%REC	1	1/31/2011 18:17
Surr: 2-Fluorobiphenyl	47.6			40-125	%REC	1	1/31/2011 18:17
Surr: 2-Fluorophenol	36.0			20-120	%REC	1	1/31/2011 18:17
Surr: 4-Terphenyl-d14	65.7			40-135	%REC	1	1/31/2011 18:17
Surr: Nitrobenzene-d5	44.6			41-120	%REC	1	1/31/2011 18:17
Surr: Phenol-d6	21.2			20-120	%REC	1	1/31/2011 18:17
TCL VOLATILES			Method: SW8260				Analyst: PC
1,2-Dichloroethane		U	0.50	5.0	µg/L	1	1/28/2011 20:03
Benzene		U	0.50	5.0	µg/L	1	1/28/2011 20:03
Chlorobenzene		U	0.50	5.0	µg/L	1	1/28/2011 20:03
Dichloromethane		U	0.50	10	µg/L	1	1/28/2011 20:03

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 11-Feb-11

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW-Site Wide Monitoring
Sample ID: WG-1620-MW54C-20110126
Collection Date: 1/26/2011 12:05 PM

Work Order: 1101770
Lab ID: 1101770-03
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
Ethylbenzene	U		0.50	5.0	µg/L	1	1/28/2011 20:03
Toluene	U		0.50	5.0	µg/L	1	1/28/2011 20:03
Xylenes, Total	U		1.0	15	µg/L	1	1/28/2011 20:03
Surr: 1,2-Dichloroethane-d4	93.8			70-125	%REC	1	1/28/2011 20:03
Surr: 4-Bromofluorobenzene	99.4			72-125	%REC	1	1/28/2011 20:03
Surr: Dibromofluoromethane	102			71-125	%REC	1	1/28/2011 20:03
Surr: Toluene-d8	97.6			75-125	%REC	1	1/28/2011 20:03

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 11-Feb-11

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW-Site Wide Monitoring
Sample ID: WG-1620-MW25A-20110126
Collection Date: 1/26/2011 02:30 PM

Work Order: 1101770
Lab ID: 1101770-04
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270		Prep: SW3510 / 1/30/11		Analyst: LG
1,2-Diphenylhydrazine	U		0.10	0.20	µg/L	1	1/31/2011 18:37
2,4-Dimethylphenol	U		0.080	0.20	µg/L	1	1/31/2011 18:37
2,4-Dinitrotoluene	U		0.090	0.20	µg/L	1	1/31/2011 18:37
2,6-Dinitrotoluene	U		0.070	0.20	µg/L	1	1/31/2011 18:37
2-Chloronaphthalene	U		0.10	0.20	µg/L	1	1/31/2011 18:37
2-Methylnaphthalene	U		0.070	0.20	µg/L	1	1/31/2011 18:37
4,6-Dinitro-2-methylphenol	U		0.080	0.20	µg/L	1	1/31/2011 18:37
4-Nitrophenol	U		0.070	1.0	µg/L	1	1/31/2011 18:37
Acenaphthene	0.54		0.090	0.20	µg/L	1	1/31/2011 18:37
Acenaphthylene	U		0.070	0.20	µg/L	1	1/31/2011 18:37
Anthracene	U		0.070	0.20	µg/L	1	1/31/2011 18:37
Benz(a)anthracene	U		0.070	0.20	µg/L	1	1/31/2011 18:37
Benzo(a)pyrene	U		0.080	0.20	µg/L	1	1/31/2011 18:37
Bis(2-chloroethoxy)methane	U		0.090	0.20	µg/L	1	1/31/2011 18:37
Bis(2-ethylhexyl)phthalate	U		0.20	0.20	µg/L	1	1/31/2011 18:37
Chrysene	U		0.070	0.20	µg/L	1	1/31/2011 18:37
Di-n-butyl phthalate	U		0.070	0.20	µg/L	1	1/31/2011 18:37
Dibenzofuran	U		0.080	0.20	µg/L	1	1/31/2011 18:37
Fluoranthene	U		0.070	0.20	µg/L	1	1/31/2011 18:37
Fluorene	U		0.070	0.20	µg/L	1	1/31/2011 18:37
N-Nitrosodiphenylamine	U		0.090	0.20	µg/L	1	1/31/2011 18:37
Naphthalene	0.18	J	0.10	0.20	µg/L	1	1/31/2011 18:37
Nitrobenzene	U		0.090	0.20	µg/L	1	1/31/2011 18:37
Pentachlorophenol	U		0.080	0.20	µg/L	1	1/31/2011 18:37
Phenanthrene	U		0.070	0.20	µg/L	1	1/31/2011 18:37
Phenol	U		0.070	0.20	µg/L	1	1/31/2011 18:37
Pyrene	U		0.070	0.20	µg/L	1	1/31/2011 18:37
Surr: 2,4,6-Tribromophenol	61.7			34-129	%REC	1	1/31/2011 18:37
Surr: 2-Fluorobiphenyl	48.3			40-125	%REC	1	1/31/2011 18:37
Surr: 2-Fluorophenol	38.1			20-120	%REC	1	1/31/2011 18:37
Surr: 4-Terphenyl-d14	62.9			40-135	%REC	1	1/31/2011 18:37
Surr: Nitrobenzene-d5	50.3			41-120	%REC	1	1/31/2011 18:37
Surr: Phenol-d6	25.5			20-120	%REC	1	1/31/2011 18:37
TCL VOLATILES			Method: SW8260				Analyst: PC
1,2-Dichloroethane	U		0.50	5.0	µg/L	1	1/28/2011 20:28
Benzene	U		0.50	5.0	µg/L	1	1/28/2011 20:28
Chlorobenzene	U		0.50	5.0	µg/L	1	1/28/2011 20:28
Dichloromethane	U		0.50	10	µg/L	1	1/28/2011 20:28

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 11-Feb-11

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW-Site Wide Monitoring
Sample ID: WG-1620-MW25A-20110126
Collection Date: 1/26/2011 02:30 PM

Work Order: 1101770
Lab ID: 1101770-04
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
Ethylbenzene	U		0.50	5.0	µg/L	1	1/28/2011 20:28
Toluene	U		0.50	5.0	µg/L	1	1/28/2011 20:28
Xylenes, Total	U		1.0	15	µg/L	1	1/28/2011 20:28
Surr: 1,2-Dichloroethane-d4	94.3			70-125	%REC	1	1/28/2011 20:28
Surr: 4-Bromofluorobenzene	102			72-125	%REC	1	1/28/2011 20:28
Surr: Dibromofluoromethane	100			71-125	%REC	1	1/28/2011 20:28
Surr: Toluene-d8	103			75-125	%REC	1	1/28/2011 20:28

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 11-Feb-11

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW-Site Wide Monitoring
Sample ID: WG-1620-FD03-20110126
Collection Date: 1/26/2011 02:30 PM

Work Order: 1101770
Lab ID: 1101770-05
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES		Method: SW8270		Prep: SW3510 / 1/30/11		Analyst: LG	
1,2-Diphenylhydrazine	U		0.10	0.20	µg/L	1	2/2/2011 04:19
2,4-Dimethylphenol	U		0.080	0.20	µg/L	1	2/2/2011 04:19
2,4-Dinitrotoluene	U		0.090	0.20	µg/L	1	2/2/2011 04:19
2,6-Dinitrotoluene	U		0.070	0.20	µg/L	1	2/2/2011 04:19
2-Chloronaphthalene	U		0.10	0.20	µg/L	1	2/2/2011 04:19
2-Methylnaphthalene	U		0.070	0.20	µg/L	1	2/2/2011 04:19
4,6-Dinitro-2-methylphenol	U		0.080	0.20	µg/L	1	2/2/2011 04:19
4-Nitrophenol	U		0.070	1.0	µg/L	1	2/2/2011 04:19
Acenaphthene	0.52		0.090	0.20	µg/L	1	2/2/2011 04:19
Acenaphthylene	U		0.070	0.20	µg/L	1	2/2/2011 04:19
Anthracene	U		0.070	0.20	µg/L	1	2/2/2011 04:19
Benz(a)anthracene	U		0.070	0.20	µg/L	1	2/2/2011 04:19
Benzo(a)pyrene	U		0.080	0.20	µg/L	1	2/2/2011 04:19
Bis(2-chloroethoxy)methane	U		0.090	0.20	µg/L	1	2/2/2011 04:19
Bis(2-ethylhexyl)phthalate	0.46		0.20	0.20	µg/L	1	2/2/2011 04:19
Chrysene	U		0.070	0.20	µg/L	1	2/2/2011 04:19
Di-n-butyl phthalate	U		0.070	0.20	µg/L	1	2/2/2011 04:19
Dibenzofuran	U		0.080	0.20	µg/L	1	2/2/2011 04:19
Fluoranthene	U		0.070	0.20	µg/L	1	2/2/2011 04:19
Fluorene	U		0.070	0.20	µg/L	1	2/2/2011 04:19
N-Nitrosodiphenylamine	U		0.090	0.20	µg/L	1	2/2/2011 04:19
Naphthalene	0.27		0.10	0.20	µg/L	1	2/2/2011 04:19
Nitrobenzene	U		0.090	0.20	µg/L	1	2/2/2011 04:19
Pentachlorophenol	U		0.080	0.20	µg/L	1	2/2/2011 04:19
Phenanthrene	U		0.070	0.20	µg/L	1	2/2/2011 04:19
Phenol	U		0.070	0.20	µg/L	1	2/2/2011 04:19
Pyrene	U		0.070	0.20	µg/L	1	2/2/2011 04:19
Surr: 2,4,6-Tribromophenol	90.4			34-129	%REC	1	2/2/2011 04:19
Surr: 2-Fluorobiphenyl	46.2			40-125	%REC	1	2/2/2011 04:19
Surr: 2-Fluorophenol	48.7			20-120	%REC	1	2/2/2011 04:19
Surr: 4-Terphenyl-d14	71.3			40-135	%REC	1	2/2/2011 04:19
Surr: Nitrobenzene-d5	52.5			41-120	%REC	1	2/2/2011 04:19
Surr: Phenol-d6	49.0			20-120	%REC	1	2/2/2011 04:19
TCL VOLATILES		Method: SW8260		Analyst: PC			
1,2-Dichloroethane	U		0.50	5.0	µg/L	1	1/28/2011 20:54
Benzene	U		0.50	5.0	µg/L	1	1/28/2011 20:54
Chlorobenzene	U		0.50	5.0	µg/L	1	1/28/2011 20:54
Dichloromethane	U		0.50	10	µg/L	1	1/28/2011 20:54

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 11-Feb-11

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW-Site Wide Monitoring
Sample ID: WG-1620-FD03-20110126
Collection Date: 1/26/2011 02:30 PM

Work Order: 1101770
Lab ID: 1101770-05
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
Ethylbenzene	U		0.50	5.0	µg/L	1	1/28/2011 20:54
Toluene	U		0.50	5.0	µg/L	1	1/28/2011 20:54
Xylenes, Total	U		1.0	15	µg/L	1	1/28/2011 20:54
Surr: 1,2-Dichloroethane-d4	95.7			70-125	%REC	1	1/28/2011 20:54
Surr: 4-Bromofluorobenzene	93.7			72-125	%REC	1	1/28/2011 20:54
Surr: Dibromofluoromethane	101			71-125	%REC	1	1/28/2011 20:54
Surr: Toluene-d8	98.1			75-125	%REC	1	1/28/2011 20:54

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 11-Feb-11

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW-Site Wide Monitoring
Sample ID: WG-1620-MW25C-20110126
Collection Date: 1/26/2011 03:40 PM

Work Order: 1101770
Lab ID: 1101770-06
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270		Prep: SW3510 / 1/30/11		Analyst: LG
1,2-Diphenylhydrazine		U	0.10	0.20	µg/L	1	1/31/2011 19:16
2,4-Dimethylphenol		U	0.080	0.20	µg/L	1	1/31/2011 19:16
2,4-Dinitrotoluene		U	0.090	0.20	µg/L	1	1/31/2011 19:16
2,6-Dinitrotoluene		U	0.070	0.20	µg/L	1	1/31/2011 19:16
2-Chloronaphthalene		U	0.10	0.20	µg/L	1	1/31/2011 19:16
2-Methylnaphthalene	1,400		35	100	µg/L	500	2/2/2011 20:55
4,6-Dinitro-2-methylphenol		U	0.080	0.20	µg/L	1	1/31/2011 19:16
4-Nitrophenol		U	0.070	1.0	µg/L	1	1/31/2011 19:16
Acenaphthene	550		9.0	20	µg/L	100	2/2/2011 20:35
Acenaphthylene	4.1		0.070	0.20	µg/L	1	1/31/2011 19:16
Anthracene	190		7.0	20	µg/L	100	2/2/2011 20:35
Benz(a)anthracene	47		0.70	2.0	µg/L	10	2/2/2011 07:13
Benzo(a)pyrene	13		0.80	2.0	µg/L	10	2/2/2011 07:13
Bis(2-chloroethoxy)methane		U	0.090	0.20	µg/L	1	1/31/2011 19:16
Bis(2-ethylhexyl)phthalate		U	0.20	0.20	µg/L	1	1/31/2011 19:16
Chrysene	48		0.70	2.0	µg/L	10	2/2/2011 07:13
Di-n-butyl phthalate		U	0.070	0.20	µg/L	1	1/31/2011 19:16
Dibenzofuran	520		8.0	20	µg/L	100	2/2/2011 20:35
Fluoranthene	320		7.0	20	µg/L	100	2/2/2011 20:35
Fluorene	340		7.0	20	µg/L	100	2/2/2011 20:35
N-Nitrosodiphenylamine		U	0.090	0.20	µg/L	1	1/31/2011 19:16
Naphthalene	18,000		250	500	µg/L	2500	2/9/2011 16:00
Nitrobenzene		U	0.090	0.20	µg/L	1	1/31/2011 19:16
Pentachlorophenol		U	0.080	0.20	µg/L	1	1/31/2011 19:16
Phenanthrene	700		7.0	20	µg/L	100	2/2/2011 20:35
Phenol		U	0.070	0.20	µg/L	1	1/31/2011 19:16
Pyrene	240		7.0	20	µg/L	100	2/2/2011 20:35
Surr: 2,4,6-Tribromophenol	56.1			34-129	%REC	1	1/31/2011 19:16
Surr: 2,4,6-Tribromophenol	99.3			34-129	%REC	10	2/2/2011 07:13
Surr: 2,4,6-Tribromophenol	101	J		34-129	%REC	100	2/2/2011 20:35
Surr: 2,4,6-Tribromophenol	0	S		34-129	%REC	500	2/2/2011 20:55
Surr: 2,4,6-Tribromophenol	0	S		34-129	%REC	2500	2/9/2011 16:00
Surr: 2-Fluorobiphenyl	40.3			40-125	%REC	1	1/31/2011 19:16
Surr: 2-Fluorobiphenyl	68.9			40-125	%REC	10	2/2/2011 07:13
Surr: 2-Fluorobiphenyl	0	S		40-125	%REC	100	2/2/2011 20:35
Surr: 2-Fluorobiphenyl	0	S		40-125	%REC	500	2/2/2011 20:55
Surr: 2-Fluorobiphenyl	0	S		40-125	%REC	2500	2/9/2011 16:00
Surr: 2-Fluorophenol	103			20-120	%REC	1	1/31/2011 19:16

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 11-Feb-11

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW-Site Wide Monitoring
Sample ID: WG-1620-MW25C-20110126
Collection Date: 1/26/2011 03:40 PM

Work Order: 1101770
Lab ID: 1101770-06
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
Surr: 2-Fluorophenol	61.7			20-120	%REC	10	2/2/2011 07:13
Surr: 2-Fluorophenol	0	S		20-120	%REC	100	2/2/2011 20:35
Surr: 2-Fluorophenol	0	S		20-120	%REC	500	2/2/2011 20:55
Surr: 2-Fluorophenol	0	S		20-120	%REC	2500	2/9/2011 16:00
Surr: 4-Terphenyl-d14	71.2			40-135	%REC	1	1/31/2011 19:16
Surr: 4-Terphenyl-d14	95.2			40-135	%REC	10	2/2/2011 07:13
Surr: 4-Terphenyl-d14	0	S		40-135	%REC	100	2/2/2011 20:35
Surr: 4-Terphenyl-d14	0	S		40-135	%REC	500	2/2/2011 20:55
Surr: 4-Terphenyl-d14	0	S		40-135	%REC	2500	2/9/2011 16:00
Surr: Nitrobenzene-d5	47.5			41-120	%REC	1	1/31/2011 19:16
Surr: Nitrobenzene-d5	82.1			41-120	%REC	10	2/2/2011 07:13
Surr: Nitrobenzene-d5	117	J		41-120	%REC	100	2/2/2011 20:35
Surr: Nitrobenzene-d5	0	S		41-120	%REC	500	2/2/2011 20:55
Surr: Nitrobenzene-d5	0	S		41-120	%REC	2500	2/9/2011 16:00
Surr: Phenol-d6	66.6			20-120	%REC	1	1/31/2011 19:16
Surr: Phenol-d6	81.7			20-120	%REC	10	2/2/2011 07:13
Surr: Phenol-d6	0	S		20-120	%REC	100	2/2/2011 20:35
Surr: Phenol-d6	0	S		20-120	%REC	500	2/2/2011 20:55
Surr: Phenol-d6	0	S		20-120	%REC	2500	2/9/2011 16:00

TCL VOLATILES	Method: SW8260				Analyst: HLBW		
1,2-Dichloroethane	U		0.50	5.0	µg/L	1	1/31/2011 21:51
Benzene	92		0.50	5.0	µg/L	1	1/31/2011 21:51
Chlorobenzene	U		0.50	5.0	µg/L	1	1/31/2011 21:51
Dichloromethane	U		0.50	10	µg/L	1	1/31/2011 21:51
Ethylbenzene	500		12	120	µg/L	25	1/31/2011 21:26
Toluene	530		12	120	µg/L	25	1/31/2011 21:26
Xylenes, Total	1,200		25	380	µg/L	25	1/31/2011 21:26
Surr: 1,2-Dichloroethane-d4	92.4			70-125	%REC	25	1/31/2011 21:26
Surr: 1,2-Dichloroethane-d4	90.9			70-125	%REC	1	1/31/2011 21:51
Surr: 4-Bromofluorobenzene	100			72-125	%REC	25	1/31/2011 21:26
Surr: 4-Bromofluorobenzene	114			72-125	%REC	1	1/31/2011 21:51
Surr: Dibromofluoromethane	98.6			71-125	%REC	25	1/31/2011 21:26
Surr: Dibromofluoromethane	94.8			71-125	%REC	1	1/31/2011 21:51
Surr: Toluene-d8	98.4			75-125	%REC	25	1/31/2011 21:26
Surr: Toluene-d8	96.3			75-125	%REC	1	1/31/2011 21:51

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 11-Feb-11

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW-Site Wide Monitoring
Sample ID: WG-1620-MW44A-20110126
Collection Date: 1/26/2011 04:40 PM

Work Order: 1101770
Lab ID: 1101770-07
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270		Prep: SW3510 / 1/30/11		Analyst: LG
1,2-Diphenylhydrazine		U	0.10	0.20	µg/L	1	2/2/2011 18:31
2,4-Dimethylphenol	0.81		0.080	0.20	µg/L	1	2/2/2011 18:31
2,4-Dinitrotoluene		U	0.090	0.20	µg/L	1	2/2/2011 18:31
2,6-Dinitrotoluene		U	0.070	0.20	µg/L	1	2/2/2011 18:31
2-Chloronaphthalene		U	0.10	0.20	µg/L	1	2/2/2011 18:31
2-Methylnaphthalene		U	0.070	0.20	µg/L	1	2/2/2011 18:31
4,6-Dinitro-2-methylphenol		U	0.080	0.20	µg/L	1	2/2/2011 18:31
4-Nitrophenol		U	0.070	1.0	µg/L	1	2/2/2011 18:31
Acenaphthene	23		0.45	1.0	µg/L	5	2/9/2011 15:41
Acenaphthylene	1.4		0.070	0.20	µg/L	1	2/2/2011 18:31
Anthracene	0.55		0.070	0.20	µg/L	1	2/2/2011 18:31
Benz(a)anthracene		U	0.070	0.20	µg/L	1	2/2/2011 18:31
Benzo(a)pyrene		U	0.080	0.20	µg/L	1	2/2/2011 18:31
Bis(2-chloroethoxy)methane		U	0.090	0.20	µg/L	1	2/2/2011 18:31
Bis(2-ethylhexyl)phthalate	0.48		0.20	0.20	µg/L	1	2/2/2011 18:31
Chrysene		U	0.070	0.20	µg/L	1	2/2/2011 18:31
Di-n-butyl phthalate		U	0.070	0.20	µg/L	1	2/2/2011 18:31
Dibenzofuran	0.72		0.080	0.20	µg/L	1	2/2/2011 18:31
Fluoranthene	1.4		0.070	0.20	µg/L	1	2/2/2011 18:31
Fluorene	0.27		0.070	0.20	µg/L	1	2/2/2011 18:31
N-Nitrosodiphenylamine		U	0.090	0.20	µg/L	1	2/2/2011 18:31
Naphthalene	0.35		0.10	0.20	µg/L	1	2/2/2011 18:31
Nitrobenzene		U	0.090	0.20	µg/L	1	2/2/2011 18:31
Pentachlorophenol		U	0.080	0.20	µg/L	1	2/2/2011 18:31
Phenanthrene		U	0.070	0.20	µg/L	1	2/2/2011 18:31
Phenol		U	0.070	0.20	µg/L	1	2/2/2011 18:31
Pyrene	1.0		0.070	0.20	µg/L	1	2/2/2011 18:31
Surr: 2,4,6-Tribromophenol	77.5			34-129	%REC	1	2/2/2011 18:31
Surr: 2,4,6-Tribromophenol	92.2			34-129	%REC	5	2/9/2011 15:41
Surr: 2-Fluorobiphenyl	59.3			40-125	%REC	1	2/2/2011 18:31
Surr: 2-Fluorobiphenyl	65.3			40-125	%REC	5	2/9/2011 15:41
Surr: 2-Fluorophenol	54.8			20-120	%REC	1	2/2/2011 18:31
Surr: 2-Fluorophenol	69.2			20-120	%REC	5	2/9/2011 15:41
Surr: 4-Terphenyl-d14	69.6			40-135	%REC	1	2/2/2011 18:31
Surr: 4-Terphenyl-d14	67.6			40-135	%REC	5	2/9/2011 15:41
Surr: Nitrobenzene-d5	63.1			41-120	%REC	1	2/2/2011 18:31
Surr: Nitrobenzene-d5	64.1			41-120	%REC	5	2/9/2011 15:41
Surr: Phenol-d6	57.2			20-120	%REC	1	2/2/2011 18:31

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 11-Feb-11

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW-Site Wide Monitoring
Sample ID: WG-1620-MW44A-20110126
Collection Date: 1/26/2011 04:40 PM

Work Order: 1101770
Lab ID: 1101770-07
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
<i>Surr: Phenol-d6</i>	61.8			20-120	%REC	5	2/9/2011 15:41
TCL VOLATILES	Method: SW8260						Analyst: PC
1,2-Dichloroethane	U		0.50	5.0	µg/L	1	1/28/2011 21:19
Benzene	U		0.50	5.0	µg/L	1	1/28/2011 21:19
Chlorobenzene	U		0.50	5.0	µg/L	1	1/28/2011 21:19
Dichloromethane	U		0.50	10	µg/L	1	1/28/2011 21:19
Ethylbenzene	U		0.50	5.0	µg/L	1	1/28/2011 21:19
Toluene	U		0.50	5.0	µg/L	1	1/28/2011 21:19
Xylenes, Total	U		1.0	15	µg/L	1	1/28/2011 21:19
<i>Surr: 1,2-Dichloroethane-d4</i>	98.3			70-125	%REC	1	1/28/2011 21:19
<i>Surr: 4-Bromofluorobenzene</i>	104			72-125	%REC	1	1/28/2011 21:19
<i>Surr: Dibromofluoromethane</i>	103			71-125	%REC	1	1/28/2011 21:19
<i>Surr: Toluene-d8</i>	102			75-125	%REC	1	1/28/2011 21:19

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 11-Feb-11

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW-Site Wide Monitoring
Sample ID: WG-1620-MW65D-20110126
Collection Date: 1/26/2011 05:45 PM

Work Order: 1101770
Lab ID: 1101770-08
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES		Method: SW8270		Prep: SW3510 / 1/30/11		Analyst: LG	
1,2-Diphenylhydrazine	U		0.10	0.20	µg/L	1	2/2/2011 18:51
2,4-Dimethylphenol	U		0.080	0.20	µg/L	1	2/2/2011 18:51
2,4-Dinitrotoluene	U		0.090	0.20	µg/L	1	2/2/2011 18:51
2,6-Dinitrotoluene	U		0.070	0.20	µg/L	1	2/2/2011 18:51
2-Chloronaphthalene	U		0.10	0.20	µg/L	1	2/2/2011 18:51
2-Methylnaphthalene	U		0.070	0.20	µg/L	1	2/2/2011 18:51
4,6-Dinitro-2-methylphenol	U		0.080	0.20	µg/L	1	2/2/2011 18:51
4-Nitrophenol	U		0.070	1.0	µg/L	1	2/2/2011 18:51
Acenaphthene	U		0.090	0.20	µg/L	1	2/2/2011 18:51
Acenaphthylene	U		0.070	0.20	µg/L	1	2/2/2011 18:51
Anthracene	U		0.070	0.20	µg/L	1	2/2/2011 18:51
Benz(a)anthracene	U		0.070	0.20	µg/L	1	2/2/2011 18:51
Benzo(a)pyrene	U		0.080	0.20	µg/L	1	2/2/2011 18:51
Bis(2-chloroethoxy)methane	U		0.090	0.20	µg/L	1	2/2/2011 18:51
Bis(2-ethylhexyl)phthalate	1.0		0.20	0.20	µg/L	1	2/2/2011 18:51
Chrysene	U		0.070	0.20	µg/L	1	2/2/2011 18:51
Di-n-butyl phthalate	U		0.070	0.20	µg/L	1	2/2/2011 18:51
Dibenzofuran	U		0.080	0.20	µg/L	1	2/2/2011 18:51
Fluoranthene	U		0.070	0.20	µg/L	1	2/2/2011 18:51
Fluorene	U		0.070	0.20	µg/L	1	2/2/2011 18:51
N-Nitrosodiphenylamine	U		0.090	0.20	µg/L	1	2/2/2011 18:51
Naphthalene	0.19	J	0.10	0.20	µg/L	1	2/2/2011 18:51
Nitrobenzene	U		0.090	0.20	µg/L	1	2/2/2011 18:51
Pentachlorophenol	U		0.080	0.20	µg/L	1	2/2/2011 18:51
Phenanthrene	U		0.070	0.20	µg/L	1	2/2/2011 18:51
Phenol	U		0.070	0.20	µg/L	1	2/2/2011 18:51
Pyrene	U		0.070	0.20	µg/L	1	2/2/2011 18:51
Surr: 2,4,6-Tribromophenol	61.4			34-129	%REC	1	2/2/2011 18:51
Surr: 2-Fluorobiphenyl	47.1			40-125	%REC	1	2/2/2011 18:51
Surr: 2-Fluorophenol	41.4			20-120	%REC	1	2/2/2011 18:51
Surr: 4-Terphenyl-d14	72.4			40-135	%REC	1	2/2/2011 18:51
Surr: Nitrobenzene-d5	47.9			41-120	%REC	1	2/2/2011 18:51
Surr: Phenol-d6	40.4			20-120	%REC	1	2/2/2011 18:51
TCL VOLATILES		Method: SW8260		Analyst: PC			
1,2-Dichloroethane	U		0.50	5.0	µg/L	1	1/28/2011 21:44
Benzene	1.3	J	0.50	5.0	µg/L	1	1/28/2011 21:44
Chlorobenzene	U		0.50	5.0	µg/L	1	1/28/2011 21:44
Dichloromethane	U		0.50	10	µg/L	1	1/28/2011 21:44

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 11-Feb-11

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW-Site Wide Monitoring
Sample ID: WG-1620-MW65D-20110126
Collection Date: 1/26/2011 05:45 PM

Work Order: 1101770
Lab ID: 1101770-08
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
Ethylbenzene	U		0.50	5.0	µg/L	1	1/28/2011 21:44
Toluene	U		0.50	5.0	µg/L	1	1/28/2011 21:44
Xylenes, Total	U		1.0	15	µg/L	1	1/28/2011 21:44
Surr: 1,2-Dichloroethane-d4	93.2			70-125	%REC	1	1/28/2011 21:44
Surr: 4-Bromofluorobenzene	91.6			72-125	%REC	1	1/28/2011 21:44
Surr: Dibromofluoromethane	101			71-125	%REC	1	1/28/2011 21:44
Surr: Toluene-d8	98.9			75-125	%REC	1	1/28/2011 21:44

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 11-Feb-11

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW-Site Wide Monitoring
Sample ID: WG-1620-MW67B-20110127
Collection Date: 1/27/2011 08:00 AM

Work Order: 1101770
Lab ID: 1101770-09
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270		Prep: SW3510 / 1/30/11		Analyst: LG
1,2-Diphenylhydrazine	U		0.10	0.20	µg/L	1	1/31/2011 12:07
2,4-Dimethylphenol	U		0.080	0.20	µg/L	1	1/31/2011 12:07
2,4-Dinitrotoluene	U		0.090	0.20	µg/L	1	1/31/2011 12:07
2,6-Dinitrotoluene	U		0.070	0.20	µg/L	1	1/31/2011 12:07
2-Chloronaphthalene	U		0.10	0.20	µg/L	1	1/31/2011 12:07
2-Methylnaphthalene	U		0.070	0.20	µg/L	1	1/31/2011 12:07
4,6-Dinitro-2-methylphenol	U		0.080	0.20	µg/L	1	1/31/2011 12:07
4-Nitrophenol	U		0.070	1.0	µg/L	1	1/31/2011 12:07
Acenaphthene	U		0.090	0.20	µg/L	1	1/31/2011 12:07
Acenaphthylene	U		0.070	0.20	µg/L	1	1/31/2011 12:07
Anthracene	U		0.070	0.20	µg/L	1	1/31/2011 12:07
Benz(a)anthracene	U		0.070	0.20	µg/L	1	1/31/2011 12:07
Benzo(a)pyrene	U		0.080	0.20	µg/L	1	1/31/2011 12:07
Bis(2-chloroethoxy)methane	U		0.090	0.20	µg/L	1	1/31/2011 12:07
Bis(2-ethylhexyl)phthalate	2.2		0.20	0.20	µg/L	1	1/31/2011 12:07
Chrysene	U		0.070	0.20	µg/L	1	1/31/2011 12:07
Di-n-butyl phthalate	0.083	J	0.070	0.20	µg/L	1	1/31/2011 12:07
Dibenzofuran	U		0.080	0.20	µg/L	1	1/31/2011 12:07
Fluoranthene	U		0.070	0.20	µg/L	1	1/31/2011 12:07
Fluorene	U		0.070	0.20	µg/L	1	1/31/2011 12:07
N-Nitrosodiphenylamine	U		0.090	0.20	µg/L	1	1/31/2011 12:07
Naphthalene	0.62		0.10	0.20	µg/L	1	1/31/2011 12:07
Nitrobenzene	U		0.090	0.20	µg/L	1	1/31/2011 12:07
Pentachlorophenol	U		0.080	0.20	µg/L	1	1/31/2011 12:07
Phenanthrene	U		0.070	0.20	µg/L	1	1/31/2011 12:07
Phenol	U		0.070	0.20	µg/L	1	1/31/2011 12:07
Pyrene	U		0.070	0.20	µg/L	1	1/31/2011 12:07
Surr: 2,4,6-Tribromophenol	67.1			34-129	%REC	1	1/31/2011 12:07
Surr: 2-Fluorobiphenyl	44.5			40-125	%REC	1	1/31/2011 12:07
Surr: 2-Fluorophenol	44.0			20-120	%REC	1	1/31/2011 12:07
Surr: 4-Terphenyl-d14	71.3			40-135	%REC	1	1/31/2011 12:07
Surr: Nitrobenzene-d5	45.5			41-120	%REC	1	1/31/2011 12:07
Surr: Phenol-d6	47.4			20-120	%REC	1	1/31/2011 12:07

TCL VOLATILES			Method: SW8260		Analyst: HLBW		
1,2-Dichloroethane	U		0.50	5.0	µg/L	1	1/31/2011 19:20
Benzene	U		0.50	5.0	µg/L	1	1/31/2011 19:20
Chlorobenzene	U		0.50	5.0	µg/L	1	1/31/2011 19:20
Dichloromethane	U		0.50	10	µg/L	1	1/31/2011 19:20

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 11-Feb-11

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW-Site Wide Monitoring
Sample ID: WG-1620-MW67B-20110127
Collection Date: 1/27/2011 08:00 AM

Work Order: 1101770
Lab ID: 1101770-09
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
Ethylbenzene	U		0.50	5.0	µg/L	1	1/31/2011 19:20
Toluene	U		0.50	5.0	µg/L	1	1/31/2011 19:20
Xylenes, Total	U		1.0	15	µg/L	1	1/31/2011 19:20
Surr: 1,2-Dichloroethane-d4	92.5			70-125	%REC	1	1/31/2011 19:20
Surr: 4-Bromofluorobenzene	97.8			72-125	%REC	1	1/31/2011 19:20
Surr: Dibromofluoromethane	99.1			71-125	%REC	1	1/31/2011 19:20
Surr: Toluene-d8	99.4			75-125	%REC	1	1/31/2011 19:20

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 11-Feb-11

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW-Site Wide Monitoring
Sample ID: WG-1620-MW35A 20110127
Collection Date: 1/27/2011 09:00 AM

Work Order: 1101770
Lab ID: 1101770-10
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270		Prep: SW3510 / 1/30/11		Analyst: LG
1,2-Diphenylhydrazine	U		0.10	0.20	µg/L	1	1/31/2011 20:14
2,4-Dimethylphenol	U		0.080	0.20	µg/L	1	1/31/2011 20:14
2,4-Dinitrotoluene	U		0.090	0.20	µg/L	1	1/31/2011 20:14
2,6-Dinitrotoluene	U		0.070	0.20	µg/L	1	1/31/2011 20:14
2-Chloronaphthalene	U		0.10	0.20	µg/L	1	1/31/2011 20:14
2-Methylnaphthalene	U		0.070	0.20	µg/L	1	1/31/2011 20:14
4,6-Dinitro-2-methylphenol	U		0.080	0.20	µg/L	1	1/31/2011 20:14
4-Nitrophenol	U		0.070	1.0	µg/L	1	1/31/2011 20:14
Acenaphthene	0.69		0.090	0.20	µg/L	1	1/31/2011 20:14
Acenaphthylene	U		0.070	0.20	µg/L	1	1/31/2011 20:14
Anthracene	U		0.070	0.20	µg/L	1	1/31/2011 20:14
Benz(a)anthracene	U		0.070	0.20	µg/L	1	1/31/2011 20:14
Benzo(a)pyrene	U		0.080	0.20	µg/L	1	1/31/2011 20:14
Bis(2-chloroethoxy)methane	U		0.090	0.20	µg/L	1	1/31/2011 20:14
Bis(2-ethylhexyl)phthalate	0.40		0.20	0.20	µg/L	1	1/31/2011 20:14
Chrysene	U		0.070	0.20	µg/L	1	1/31/2011 20:14
Di-n-butyl phthalate	U		0.070	0.20	µg/L	1	1/31/2011 20:14
Dibenzofuran	0.11	J	0.080	0.20	µg/L	1	1/31/2011 20:14
Fluoranthene	0.21		0.070	0.20	µg/L	1	1/31/2011 20:14
Fluorene	0.095	J	0.070	0.20	µg/L	1	1/31/2011 20:14
N-Nitrosodiphenylamine	U		0.090	0.20	µg/L	1	1/31/2011 20:14
Naphthalene	0.28		0.10	0.20	µg/L	1	1/31/2011 20:14
Nitrobenzene	U		0.090	0.20	µg/L	1	1/31/2011 20:14
Pentachlorophenol	U		0.080	0.20	µg/L	1	1/31/2011 20:14
Phenanthrene	U		0.070	0.20	µg/L	1	1/31/2011 20:14
Phenol	U		0.070	0.20	µg/L	1	1/31/2011 20:14
Pyrene	U		0.070	0.20	µg/L	1	1/31/2011 20:14
Surr: 2,4,6-Tribromophenol	101			34-129	%REC	1	1/31/2011 20:14
Surr: 2-Fluorobiphenyl	45.6			40-125	%REC	1	1/31/2011 20:14
Surr: 2-Fluorophenol	32.6			20-120	%REC	1	1/31/2011 20:14
Surr: 4-Terphenyl-d14	71.7			40-135	%REC	1	1/31/2011 20:14
Surr: Nitrobenzene-d5	45.5			41-120	%REC	1	1/31/2011 20:14
Surr: Phenol-d6	22.3			20-120	%REC	1	1/31/2011 20:14
TCL VOLATILES			Method: SW8260				Analyst: PC
1,2-Dichloroethane	U		0.50	5.0	µg/L	1	1/28/2011 22:09
Benzene	U		0.50	5.0	µg/L	1	1/28/2011 22:09
Chlorobenzene	U		0.50	5.0	µg/L	1	1/28/2011 22:09
Dichloromethane	U		0.50	10	µg/L	1	1/28/2011 22:09

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 11-Feb-11

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW-Site Wide Monitoring
Sample ID: WG-1620-MW35A 20110127
Collection Date: 1/27/2011 09:00 AM

Work Order: 1101770
Lab ID: 1101770-10
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
Ethylbenzene	U		0.50	5.0	µg/L	1	1/28/2011 22:09
Toluene	U		0.50	5.0	µg/L	1	1/28/2011 22:09
Xylenes, Total	U		1.0	15	µg/L	1	1/28/2011 22:09
Surr: 1,2-Dichloroethane-d4	93.0			70-125	%REC	1	1/28/2011 22:09
Surr: 4-Bromofluorobenzene	94.6			72-125	%REC	1	1/28/2011 22:09
Surr: Dibromofluoromethane	93.8			71-125	%REC	1	1/28/2011 22:09
Surr: Toluene-d8	94.7			75-125	%REC	1	1/28/2011 22:09

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 11-Feb-11

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW-Site Wide Monitoring
Sample ID: WG-1620-MW35B-20110127
Collection Date: 1/27/2011 09:50 AM

Work Order: 1101770
Lab ID: 1101770-11
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270		Prep: SW3510 / 1/30/11		Analyst: LG
1,2-Diphenylhydrazine		U	0.10	0.20	µg/L	1	1/31/2011 20:34
2,4-Dimethylphenol		U	0.080	0.20	µg/L	1	1/31/2011 20:34
2,4-Dinitrotoluene		U	0.090	0.20	µg/L	1	1/31/2011 20:34
2,6-Dinitrotoluene		U	0.070	0.20	µg/L	1	1/31/2011 20:34
2-Chloronaphthalene		U	0.10	0.20	µg/L	1	1/31/2011 20:34
2-Methylnaphthalene	410		7.0	20	µg/L	100	2/9/2011 16:39
4,6-Dinitro-2-methylphenol		U	0.080	0.20	µg/L	1	1/31/2011 20:34
4-Nitrophenol		U	0.070	1.0	µg/L	1	1/31/2011 20:34
Acenaphthene	190		9.0	20	µg/L	100	2/9/2011 16:39
Acenaphthylene	1.2		0.070	0.20	µg/L	1	1/31/2011 20:34
Anthracene	14		0.70	2.0	µg/L	10	2/2/2011 19:33
Benz(a)anthracene	0.31		0.070	0.20	µg/L	1	1/31/2011 20:34
Benzo(a)pyrene	0.14	J	0.080	0.20	µg/L	1	1/31/2011 20:34
Bis(2-chloroethoxy)methane		U	0.090	0.20	µg/L	1	1/31/2011 20:34
Bis(2-ethylhexyl)phthalate	0.41		0.20	0.20	µg/L	1	1/31/2011 20:34
Chrysene	0.37		0.070	0.20	µg/L	1	1/31/2011 20:34
Di-n-butyl phthalate		U	0.070	0.20	µg/L	1	1/31/2011 20:34
Dibenzofuran	200		8.0	20	µg/L	100	2/9/2011 16:39
Fluoranthene	6.5		0.070	0.20	µg/L	1	1/31/2011 20:34
Fluorene	90		7.0	20	µg/L	100	2/9/2011 16:39
N-Nitrosodiphenylamine		U	0.090	0.20	µg/L	1	1/31/2011 20:34
Naphthalene	4,800		50	100	µg/L	500	2/9/2011 17:18
Nitrobenzene		U	0.090	0.20	µg/L	1	1/31/2011 20:34
Pentachlorophenol		U	0.080	0.20	µg/L	1	1/31/2011 20:34
Phenanthrene	78		0.70	2.0	µg/L	10	2/2/2011 19:33
Phenol		U	0.070	0.20	µg/L	1	1/31/2011 20:34
Pyrene	3.2		0.070	0.20	µg/L	1	1/31/2011 20:34
Surr: 2,4,6-Tribromophenol	84.9			34-129	%REC	1	1/31/2011 20:34
Surr: 2,4,6-Tribromophenol	81.9			34-129	%REC	10	2/2/2011 19:33
Surr: 2,4,6-Tribromophenol	0	S		34-129	%REC	100	2/9/2011 16:39
Surr: 2,4,6-Tribromophenol	0	S		34-129	%REC	500	2/9/2011 17:18
Surr: 2-Fluorobiphenyl	54.4			40-125	%REC	1	1/31/2011 20:34
Surr: 2-Fluorobiphenyl	67.6			40-125	%REC	10	2/2/2011 19:33
Surr: 2-Fluorobiphenyl	0	S		40-125	%REC	100	2/9/2011 16:39
Surr: 2-Fluorobiphenyl	0	S		40-125	%REC	500	2/9/2011 17:18
Surr: 2-Fluorophenol	80.8			20-120	%REC	1	1/31/2011 20:34
Surr: 2-Fluorophenol	99.2			20-120	%REC	10	2/2/2011 19:33
Surr: 2-Fluorophenol	103	J		20-120	%REC	100	2/9/2011 16:39

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 11-Feb-11

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW-Site Wide Monitoring
Sample ID: WG-1620-MW35B-20110127
Collection Date: 1/27/2011 09:50 AM

Work Order: 1101770
Lab ID: 1101770-11
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
Surr: 2-Fluorophenol	0	S		20-120	%REC	500	2/9/2011 17:18
Surr: 4-Terphenyl-d14	68.7			40-135	%REC	1	1/31/2011 20:34
Surr: 4-Terphenyl-d14	96.0			40-135	%REC	10	2/2/2011 19:33
Surr: 4-Terphenyl-d14	0	S		40-135	%REC	100	2/9/2011 16:39
Surr: 4-Terphenyl-d14	0	S		40-135	%REC	500	2/9/2011 17:18
Surr: Nitrobenzene-d5	45.1			41-120	%REC	1	1/31/2011 20:34
Surr: Nitrobenzene-d5	47.2			41-120	%REC	10	2/2/2011 19:33
Surr: Nitrobenzene-d5	0	S		41-120	%REC	100	2/9/2011 16:39
Surr: Nitrobenzene-d5	0	S		41-120	%REC	500	2/9/2011 17:18
Surr: Phenol-d6	59.9			20-120	%REC	1	1/31/2011 20:34
Surr: Phenol-d6	64.7			20-120	%REC	10	2/2/2011 19:33
Surr: Phenol-d6	0	S		20-120	%REC	100	2/9/2011 16:39
Surr: Phenol-d6	0	S		20-120	%REC	500	2/9/2011 17:18

TCL VOLATILES	Method: SW8260					Analyst: PC	
1,2-Dichloroethane	U		0.50	5.0	µg/L	1	1/28/2011 23:00
Benzene	64		0.50	5.0	µg/L	1	1/28/2011 23:00
Chlorobenzene	U		0.50	5.0	µg/L	1	1/28/2011 23:00
Dichloromethane	U		0.50	10	µg/L	1	1/28/2011 23:00
Ethylbenzene	220		2.5	25	µg/L	5	1/31/2011 18:04
Toluene	4.5	J	0.50	5.0	µg/L	1	1/28/2011 23:00
Xylenes, Total	160		1.0	15	µg/L	1	1/28/2011 23:00
Surr: 1,2-Dichloroethane-d4	96.0			70-125	%REC	1	1/28/2011 23:00
Surr: 1,2-Dichloroethane-d4	96.7			70-125	%REC	5	1/31/2011 18:04
Surr: 4-Bromofluorobenzene	105			72-125	%REC	1	1/28/2011 23:00
Surr: 4-Bromofluorobenzene	95.0			72-125	%REC	5	1/31/2011 18:04
Surr: Dibromofluoromethane	97.7			71-125	%REC	1	1/28/2011 23:00
Surr: Dibromofluoromethane	102			71-125	%REC	5	1/31/2011 18:04
Surr: Toluene-d8	97.1			75-125	%REC	1	1/28/2011 23:00
Surr: Toluene-d8	92.9			75-125	%REC	5	1/31/2011 18:04

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 11-Feb-11

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW-Site Wide Monitoring
Sample ID: WG-1620-MW27C-20110127
Collection Date: 1/27/2011 11:05 AM

Work Order: 1101770
Lab ID: 1101770-12
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270		Prep: SW3510 / 1/30/11		Analyst: LG
1,2-Diphenylhydrazine		U	0.10	0.20	µg/L	1	2/2/2011 05:17
2,4-Dimethylphenol		U	0.080	0.20	µg/L	1	2/2/2011 05:17
2,4-Dinitrotoluene		U	0.090	0.20	µg/L	1	2/2/2011 05:17
2,6-Dinitrotoluene		U	0.070	0.20	µg/L	1	2/2/2011 05:17
2-Chloronaphthalene		U	0.10	0.20	µg/L	1	2/2/2011 05:17
2-Methylnaphthalene		U	0.070	0.20	µg/L	1	2/2/2011 05:17
4,6-Dinitro-2-methylphenol		U	0.080	0.20	µg/L	1	2/2/2011 05:17
4-Nitrophenol		U	0.070	1.0	µg/L	1	2/2/2011 05:17
Acenaphthene	0.19	J	0.090	0.20	µg/L	1	2/2/2011 05:17
Acenaphthylene		U	0.070	0.20	µg/L	1	2/2/2011 05:17
Anthracene		U	0.070	0.20	µg/L	1	2/2/2011 05:17
Benz(a)anthracene		U	0.070	0.20	µg/L	1	2/2/2011 05:17
Benzo(a)pyrene		U	0.080	0.20	µg/L	1	2/2/2011 05:17
Bis(2-chloroethoxy)methane		U	0.090	0.20	µg/L	1	2/2/2011 05:17
Bis(2-ethylhexyl)phthalate	0.47		0.20	0.20	µg/L	1	2/2/2011 05:17
Chrysene		U	0.070	0.20	µg/L	1	2/2/2011 05:17
Di-n-butyl phthalate		U	0.070	0.20	µg/L	1	2/2/2011 05:17
Dibenzofuran		U	0.080	0.20	µg/L	1	2/2/2011 05:17
Fluoranthene		U	0.070	0.20	µg/L	1	2/2/2011 05:17
Fluorene		U	0.070	0.20	µg/L	1	2/2/2011 05:17
N-Nitrosodiphenylamine		U	0.090	0.20	µg/L	1	2/2/2011 05:17
Naphthalene	0.15	J	0.10	0.20	µg/L	1	2/2/2011 05:17
Nitrobenzene		U	0.090	0.20	µg/L	1	2/2/2011 05:17
Pentachlorophenol		U	0.080	0.20	µg/L	1	2/2/2011 05:17
Phenanthrene		U	0.070	0.20	µg/L	1	2/2/2011 05:17
Phenol		U	0.070	0.20	µg/L	1	2/2/2011 05:17
Pyrene		U	0.070	0.20	µg/L	1	2/2/2011 05:17
Surr: 2,4,6-Tribromophenol	85.6			34-129	%REC	1	2/2/2011 05:17
Surr: 2-Fluorobiphenyl	57.7			40-125	%REC	1	2/2/2011 05:17
Surr: 2-Fluorophenol	57.8			20-120	%REC	1	2/2/2011 05:17
Surr: 4-Terphenyl-d14	69.1			40-135	%REC	1	2/2/2011 05:17
Surr: Nitrobenzene-d5	59.7			41-120	%REC	1	2/2/2011 05:17
Surr: Phenol-d6	58.5			20-120	%REC	1	2/2/2011 05:17
TCL VOLATILES			Method: SW8260				Analyst: PC
1,2-Dichloroethane		U	0.50	5.0	µg/L	1	1/28/2011 22:35
Benzene		U	0.50	5.0	µg/L	1	1/28/2011 22:35
Chlorobenzene		U	0.50	5.0	µg/L	1	1/28/2011 22:35
Dichloromethane		U	0.50	10	µg/L	1	1/28/2011 22:35

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 11-Feb-11

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW-Site Wide Monitoring
Sample ID: WG-1620-MW27C-20110127
Collection Date: 1/27/2011 11:05 AM

Work Order: 1101770
Lab ID: 1101770-12
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
Ethylbenzene	U		0.50	5.0	µg/L	1	1/28/2011 22:35
Toluene	U		0.50	5.0	µg/L	1	1/28/2011 22:35
Xylenes, Total	U		1.0	15	µg/L	1	1/28/2011 22:35
Surr: 1,2-Dichloroethane-d4	97.2			70-125	%REC	1	1/28/2011 22:35
Surr: 4-Bromofluorobenzene	94.4			72-125	%REC	1	1/28/2011 22:35
Surr: Dibromofluoromethane	103			71-125	%REC	1	1/28/2011 22:35
Surr: Toluene-d8	93.7			75-125	%REC	1	1/28/2011 22:35

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 11-Feb-11

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW-Site Wide Monitoring
Sample ID: WG-1620-MW64A-20110127
Collection Date: 1/27/2011 12:20 PM

Work Order: 1101770
Lab ID: 1101770-13
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES		Method: SW8270		Prep: SW3510 / 1/30/11		Analyst: LG	
1,2-Diphenylhydrazine	U		0.10	0.20	µg/L	1	2/2/2011 05:37
2,4-Dimethylphenol	U		0.080	0.20	µg/L	1	2/2/2011 05:37
2,4-Dinitrotoluene	U		0.090	0.20	µg/L	1	2/2/2011 05:37
2,6-Dinitrotoluene	U		0.070	0.20	µg/L	1	2/2/2011 05:37
2-Chloronaphthalene	U		0.10	0.20	µg/L	1	2/2/2011 05:37
2-Methylnaphthalene	U		0.070	0.20	µg/L	1	2/2/2011 05:37
4,6-Dinitro-2-methylphenol	U		0.080	0.20	µg/L	1	2/2/2011 05:37
4-Nitrophenol	U		0.070	1.0	µg/L	1	2/2/2011 05:37
Acenaphthene	U		0.090	0.20	µg/L	1	2/2/2011 05:37
Acenaphthylene	U		0.070	0.20	µg/L	1	2/2/2011 05:37
Anthracene	U		0.070	0.20	µg/L	1	2/2/2011 05:37
Benz(a)anthracene	U		0.070	0.20	µg/L	1	2/2/2011 05:37
Benzo(a)pyrene	U		0.080	0.20	µg/L	1	2/2/2011 05:37
Bis(2-chloroethoxy)methane	U		0.090	0.20	µg/L	1	2/2/2011 05:37
Bis(2-ethylhexyl)phthalate	0.49		0.20	0.20	µg/L	1	2/2/2011 05:37
Chrysene	U		0.070	0.20	µg/L	1	2/2/2011 05:37
Di-n-butyl phthalate	U		0.070	0.20	µg/L	1	2/2/2011 05:37
Dibenzofuran	U		0.080	0.20	µg/L	1	2/2/2011 05:37
Fluoranthene	U		0.070	0.20	µg/L	1	2/2/2011 05:37
Fluorene	U		0.070	0.20	µg/L	1	2/2/2011 05:37
N-Nitrosodiphenylamine	U		0.090	0.20	µg/L	1	2/2/2011 05:37
Naphthalene	U		0.10	0.20	µg/L	1	2/2/2011 05:37
Nitrobenzene	U		0.090	0.20	µg/L	1	2/2/2011 05:37
Pentachlorophenol	U		0.080	0.20	µg/L	1	2/2/2011 05:37
Phenanthrene	U		0.070	0.20	µg/L	1	2/2/2011 05:37
Phenol	U		0.070	0.20	µg/L	1	2/2/2011 05:37
Pyrene	U		0.070	0.20	µg/L	1	2/2/2011 05:37
Surr: 2,4,6-Tribromophenol	74.9			34-129	%REC	1	2/2/2011 05:37
Surr: 2-Fluorobiphenyl	43.8			40-125	%REC	1	2/2/2011 05:37
Surr: 2-Fluorophenol	45.8			20-120	%REC	1	2/2/2011 05:37
Surr: 4-Terphenyl-d14	69.2			40-135	%REC	1	2/2/2011 05:37
Surr: Nitrobenzene-d5	46.3			41-120	%REC	1	2/2/2011 05:37
Surr: Phenol-d6	41.5			20-120	%REC	1	2/2/2011 05:37
TCL VOLATILES		Method: SW8260		Analyst: HLBW			
1,2-Dichloroethane	U		0.50	5.0	µg/L	1	1/31/2011 19:45
Benzene	U		0.50	5.0	µg/L	1	1/31/2011 19:45
Chlorobenzene	U		0.50	5.0	µg/L	1	1/31/2011 19:45
Dichloromethane	U		0.50	10	µg/L	1	1/31/2011 19:45

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 11-Feb-11

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW-Site Wide Monitoring
Sample ID: WG-1620-MW64A-20110127
Collection Date: 1/27/2011 12:20 PM

Work Order: 1101770
Lab ID: 1101770-13
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
Ethylbenzene	U		0.50	5.0	µg/L	1	1/31/2011 19:45
Toluene	U		0.50	5.0	µg/L	1	1/31/2011 19:45
Xylenes, Total	U		1.0	15	µg/L	1	1/31/2011 19:45
Surr: 1,2-Dichloroethane-d4	96.1			70-125	%REC	1	1/31/2011 19:45
Surr: 4-Bromofluorobenzene	96.6			72-125	%REC	1	1/31/2011 19:45
Surr: Dibromofluoromethane	103			71-125	%REC	1	1/31/2011 19:45
Surr: Toluene-d8	97.9			75-125	%REC	1	1/31/2011 19:45

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 11-Feb-11

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW-Site Wide Monitoring
Sample ID: WG-1620-MW63B-20110127
Collection Date: 1/27/2011 01:20 PM

Work Order: 1101770
Lab ID: 1101770-14
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270		Prep: SW3510 / 1/30/11		Analyst: LG
1,2-Diphenylhydrazine		U	0.10	0.20	µg/L	1	2/2/2011 21:57
2,4-Dimethylphenol		U	0.080	0.20	µg/L	1	2/2/2011 21:57
2,4-Dinitrotoluene		U	0.090	0.20	µg/L	1	2/2/2011 21:57
2,6-Dinitrotoluene		U	0.070	0.20	µg/L	1	2/2/2011 21:57
2-Chloronaphthalene		U	0.10	0.20	µg/L	1	2/2/2011 21:57
2-Methylnaphthalene	25		0.70	2.0	µg/L	10	2/2/2011 08:11
4,6-Dinitro-2-methylphenol		U	0.080	0.20	µg/L	1	2/2/2011 21:57
4-Nitrophenol		U	0.070	1.0	µg/L	1	2/2/2011 21:57
Acenaphthene	17		0.90	2.0	µg/L	10	2/2/2011 08:11
Acenaphthylene		U	0.070	0.20	µg/L	1	2/2/2011 21:57
Anthracene	1.1		0.070	0.20	µg/L	1	2/2/2011 21:57
Benz(a)anthracene	0.87		0.070	0.20	µg/L	1	2/2/2011 21:57
Benzo(a)pyrene	0.27		0.080	0.20	µg/L	1	2/2/2011 21:57
Bis(2-chloroethoxy)methane		U	0.090	0.20	µg/L	1	2/2/2011 21:57
Bis(2-ethylhexyl)phthalate	0.60		0.20	0.20	µg/L	1	2/2/2011 21:57
Chrysene	0.79		0.070	0.20	µg/L	1	2/2/2011 21:57
Di-n-butyl phthalate		U	0.070	0.20	µg/L	1	2/2/2011 21:57
Dibenzofuran	13		0.80	2.0	µg/L	10	2/2/2011 08:11
Fluoranthene	4.2		0.070	0.20	µg/L	1	2/2/2011 21:57
Fluorene	5.4		0.070	0.20	µg/L	1	2/2/2011 21:57
N-Nitrosodiphenylamine		U	0.090	0.20	µg/L	1	2/2/2011 21:57
Naphthalene	760		25	50	µg/L	250	2/9/2011 16:20
Nitrobenzene		U	0.090	0.20	µg/L	1	2/2/2011 21:57
Pentachlorophenol		U	0.080	0.20	µg/L	1	2/2/2011 21:57
Phenanthrene	4.4		0.070	0.20	µg/L	1	2/2/2011 21:57
Phenol		U	0.070	0.20	µg/L	1	2/2/2011 21:57
Pyrene	2.9		0.070	0.20	µg/L	1	2/2/2011 21:57
Surr: 2,4,6-Tribromophenol	105			34-129	%REC	10	2/2/2011 08:11
Surr: 2,4,6-Tribromophenol	79.9			34-129	%REC	1	2/2/2011 21:57
Surr: 2,4,6-Tribromophenol	0	S		34-129	%REC	250	2/9/2011 16:20
Surr: 2-Fluorobiphenyl	49.2			40-125	%REC	10	2/2/2011 08:11
Surr: 2-Fluorobiphenyl	43.6			40-125	%REC	1	2/2/2011 21:57
Surr: 2-Fluorobiphenyl	0	S		40-125	%REC	250	2/9/2011 16:20
Surr: 2-Fluorophenol	59.5			20-120	%REC	10	2/2/2011 08:11
Surr: 2-Fluorophenol	52.9			20-120	%REC	1	2/2/2011 21:57
Surr: 2-Fluorophenol	0	S		20-120	%REC	250	2/9/2011 16:20
Surr: 4-Terphenyl-d14	80.3			40-135	%REC	10	2/2/2011 08:11
Surr: 4-Terphenyl-d14	71.5			40-135	%REC	1	2/2/2011 21:57

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 11-Feb-11

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW-Site Wide Monitoring
Sample ID: WG-1620-MW63B-20110127
Collection Date: 1/27/2011 01:20 PM

Work Order: 1101770
Lab ID: 1101770-14
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	MQL	Units	Dilution Factor	Date Analyzed
Surr: 4-Terphenyl-d14	0	S		40-135	%REC	250	2/9/2011 16:20
Surr: Nitrobenzene-d5	54.9			41-120	%REC	10	2/2/2011 08:11
Surr: Nitrobenzene-d5	34.1	S		41-120	%REC	1	2/2/2011 21:57
Surr: Nitrobenzene-d5	0	S		41-120	%REC	250	2/9/2011 16:20
Surr: Phenol-d6	55.3			20-120	%REC	10	2/2/2011 08:11
Surr: Phenol-d6	44.7			20-120	%REC	1	2/2/2011 21:57
Surr: Phenol-d6	0	S		20-120	%REC	250	2/9/2011 16:20
TCL VOLATILES			Method: SW8260			Analyst: HLBW	
1,2-Dichloroethane	U		0.50	5.0	µg/L	1	1/31/2011 20:10
Benzene	19		0.50	5.0	µg/L	1	1/31/2011 20:10
Chlorobenzene	U		0.50	5.0	µg/L	1	1/31/2011 20:10
Dichloromethane	U		0.50	10	µg/L	1	1/31/2011 20:10
Ethylbenzene	71		0.50	5.0	µg/L	1	1/31/2011 20:10
Toluene	1.8	J	0.50	5.0	µg/L	1	1/31/2011 20:10
Xylenes, Total	16		1.0	15	µg/L	1	1/31/2011 20:10
Surr: 1,2-Dichloroethane-d4	94.6			70-125	%REC	1	1/31/2011 20:10
Surr: 4-Bromofluorobenzene	99.7			72-125	%REC	1	1/31/2011 20:10
Surr: Dibromofluoromethane	101			71-125	%REC	1	1/31/2011 20:10
Surr: Toluene-d8	98.8			75-125	%REC	1	1/31/2011 20:10

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 11-Feb-11

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW-Site Wide Monitoring
Sample ID: WG-1620-MW62B-20110127
Collection Date: 1/27/2011 02:50 PM

Work Order: 1101770
Lab ID: 1101770-15
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	ML	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES		Method: SW8270		Prep: SW3510 / 1/30/11		Analyst: LG	
1,2-Diphenylhydrazine	U		0.10	0.20	µg/L	1	2/2/2011 06:15
2,4-Dimethylphenol	U		0.080	0.20	µg/L	1	2/2/2011 06:15
2,4-Dinitrotoluene	U		0.090	0.20	µg/L	1	2/2/2011 06:15
2,6-Dinitrotoluene	U		0.070	0.20	µg/L	1	2/2/2011 06:15
2-Chloronaphthalene	U		0.10	0.20	µg/L	1	2/2/2011 06:15
2-Methylnaphthalene	U		0.070	0.20	µg/L	1	2/2/2011 06:15
4,6-Dinitro-2-methylphenol	U		0.080	0.20	µg/L	1	2/2/2011 06:15
4-Nitrophenol	U		0.070	1.0	µg/L	1	2/2/2011 06:15
Acenaphthene	U		0.090	0.20	µg/L	1	2/2/2011 06:15
Acenaphthylene	U		0.070	0.20	µg/L	1	2/2/2011 06:15
Anthracene	U		0.070	0.20	µg/L	1	2/2/2011 06:15
Benz(a)anthracene	U		0.070	0.20	µg/L	1	2/2/2011 06:15
Benzo(a)pyrene	U		0.080	0.20	µg/L	1	2/2/2011 06:15
Bis(2-chloroethoxy)methane	U		0.090	0.20	µg/L	1	2/2/2011 06:15
Bis(2-ethylhexyl)phthalate	0.22		0.20	0.20	µg/L	1	2/2/2011 06:15
Chrysene	U		0.070	0.20	µg/L	1	2/2/2011 06:15
Di-n-butyl phthalate	U		0.070	0.20	µg/L	1	2/2/2011 06:15
Dibenzofuran	U		0.080	0.20	µg/L	1	2/2/2011 06:15
Fluoranthene	0.14	J	0.070	0.20	µg/L	1	2/2/2011 06:15
Fluorene	U		0.070	0.20	µg/L	1	2/2/2011 06:15
N-Nitrosodiphenylamine	U		0.090	0.20	µg/L	1	2/2/2011 06:15
Naphthalene	U		0.10	0.20	µg/L	1	2/2/2011 06:15
Nitrobenzene	U		0.090	0.20	µg/L	1	2/2/2011 06:15
Pentachlorophenol	U		0.080	0.20	µg/L	1	2/2/2011 06:15
Phenanthrene	U		0.070	0.20	µg/L	1	2/2/2011 06:15
Phenol	U		0.070	0.20	µg/L	1	2/2/2011 06:15
Pyrene	0.077	J	0.070	0.20	µg/L	1	2/2/2011 06:15
Surr: 2,4,6-Tribromophenol	61.7			34-129	%REC	1	2/2/2011 06:15
Surr: 2-Fluorobiphenyl	42.2			40-125	%REC	1	2/2/2011 06:15
Surr: 2-Fluorophenol	45.1			20-120	%REC	1	2/2/2011 06:15
Surr: 4-Terphenyl-d14	67.2			40-135	%REC	1	2/2/2011 06:15
Surr: Nitrobenzene-d5	48.8			41-120	%REC	1	2/2/2011 06:15
Surr: Phenol-d6	46.6			20-120	%REC	1	2/2/2011 06:15
TCL VOLATILES		Method: SW8260		Analyst: HLBW			
1,2-Dichloroethane	U		0.50	5.0	µg/L	1	1/31/2011 20:35
Benzene	U		0.50	5.0	µg/L	1	1/31/2011 20:35
Chlorobenzene	U		0.50	5.0	µg/L	1	1/31/2011 20:35
Dichloromethane	U		0.50	10	µg/L	1	1/31/2011 20:35

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 11-Feb-11

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW-Site Wide Monitoring
Sample ID: WG-1620-MW62B-20110127
Collection Date: 1/27/2011 02:50 PM

Work Order: 1101770
Lab ID: 1101770-15
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
Ethylbenzene	U		0.50	5.0	µg/L	1	1/31/2011 20:35
Toluene	U		0.50	5.0	µg/L	1	1/31/2011 20:35
Xylenes, Total	U		1.0	15	µg/L	1	1/31/2011 20:35
Surr: 1,2-Dichloroethane-d4	97.1			70-125	%REC	1	1/31/2011 20:35
Surr: 4-Bromofluorobenzene	97.8			72-125	%REC	1	1/31/2011 20:35
Surr: Dibromofluoromethane	102			71-125	%REC	1	1/31/2011 20:35
Surr: Toluene-d8	95.1			75-125	%REC	1	1/31/2011 20:35

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 11-Feb-11

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW-Site Wide Monitoring
Sample ID: WG-1620-MW61A-20110127
Collection Date: 1/27/2011 04:15 PM

Work Order: 1101770
Lab ID: 1101770-16
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES		Method: SW8270			Prep: SW3510 / 1/30/11		Analyst: LG
1,2-Diphenylhydrazine	U		0.10	0.20	µg/L	1	2/2/2011 19:12
2,4-Dimethylphenol	U		0.080	0.20	µg/L	1	2/2/2011 19:12
2,4-Dinitrotoluene	U		0.090	0.20	µg/L	1	2/2/2011 19:12
2,6-Dinitrotoluene	U		0.070	0.20	µg/L	1	2/2/2011 19:12
2-Chloronaphthalene	U		0.10	0.20	µg/L	1	2/2/2011 19:12
2-Methylnaphthalene	U		0.070	0.20	µg/L	1	2/2/2011 19:12
4,6-Dinitro-2-methylphenol	U		0.080	0.20	µg/L	1	2/2/2011 19:12
4-Nitrophenol	U		0.070	1.0	µg/L	1	2/2/2011 19:12
Acenaphthene	U		0.090	0.20	µg/L	1	2/2/2011 19:12
Acenaphthylene	U		0.070	0.20	µg/L	1	2/2/2011 19:12
Anthracene	U		0.070	0.20	µg/L	1	2/2/2011 19:12
Benz(a)anthracene	U		0.070	0.20	µg/L	1	2/2/2011 19:12
Benzo(a)pyrene	U		0.080	0.20	µg/L	1	2/2/2011 19:12
Bis(2-chloroethoxy)methane	U		0.090	0.20	µg/L	1	2/2/2011 19:12
Bis(2-ethylhexyl)phthalate	U		0.20	0.20	µg/L	1	2/2/2011 19:12
Chrysene	U		0.070	0.20	µg/L	1	2/2/2011 19:12
Di-n-butyl phthalate	U		0.070	0.20	µg/L	1	2/2/2011 19:12
Dibenzofuran	U		0.080	0.20	µg/L	1	2/2/2011 19:12
Fluoranthene	U		0.070	0.20	µg/L	1	2/2/2011 19:12
Fluorene	U		0.070	0.20	µg/L	1	2/2/2011 19:12
N-Nitrosodiphenylamine	U		0.090	0.20	µg/L	1	2/2/2011 19:12
Naphthalene	U		0.10	0.20	µg/L	1	2/2/2011 19:12
Nitrobenzene	U		0.090	0.20	µg/L	1	2/2/2011 19:12
Pentachlorophenol	U		0.080	0.20	µg/L	1	2/2/2011 19:12
Phenanthrene	U		0.070	0.20	µg/L	1	2/2/2011 19:12
Phenol	U		0.070	0.20	µg/L	1	2/2/2011 19:12
Pyrene	U		0.070	0.20	µg/L	1	2/2/2011 19:12
Surr: 2,4,6-Tribromophenol	65.1			34-129	%REC	1	2/2/2011 19:12
Surr: 2-Fluorobiphenyl	56.0			40-125	%REC	1	2/2/2011 19:12
Surr: 2-Fluorophenol	48.3			20-120	%REC	1	2/2/2011 19:12
Surr: 4-Terphenyl-d14	69.9			40-135	%REC	1	2/2/2011 19:12
Surr: Nitrobenzene-d5	54.5			41-120	%REC	1	2/2/2011 19:12
Surr: Phenol-d6	51.0			20-120	%REC	1	2/2/2011 19:12
TCL VOLATILES		Method: SW8260			Analyst: HLBW		
1,2-Dichloroethane	U		0.50	5.0	µg/L	1	1/31/2011 21:01
Benzene	U		0.50	5.0	µg/L	1	1/31/2011 21:01
Chlorobenzene	U		0.50	5.0	µg/L	1	1/31/2011 21:01
Dichloromethane	U		0.50	10	µg/L	1	1/31/2011 21:01

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 11-Feb-11

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW-Site Wide Monitoring
Sample ID: WG-1620-MW61A-20110127
Collection Date: 1/27/2011 04:15 PM

Work Order: 1101770
Lab ID: 1101770-16
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
Ethylbenzene	U		0.50	5.0	µg/L	1	1/31/2011 21:01
Toluene	U		0.50	5.0	µg/L	1	1/31/2011 21:01
Xylenes, Total	U		1.0	15	µg/L	1	1/31/2011 21:01
Surr: 1,2-Dichloroethane-d4	91.9			70-125	%REC	1	1/31/2011 21:01
Surr: 4-Bromofluorobenzene	89.8			72-125	%REC	1	1/31/2011 21:01
Surr: Dibromofluoromethane	97.5			71-125	%REC	1	1/31/2011 21:01
Surr: Toluene-d8	89.7			75-125	%REC	1	1/31/2011 21:01

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 11-Feb-11

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW-Site Wide Monitoring
Sample ID: WG-1620-MW50A-20110127
Collection Date: 1/27/2011 05:30 PM

Work Order: 1101770
Lab ID: 1101770-17
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270		Prep: SW3510 / 1/30/11		Analyst: LG
1,2-Diphenylhydrazine		U	0.10	0.20	µg/L	1	1/31/2011 13:05
2,4-Dimethylphenol		U	0.080	0.20	µg/L	1	1/31/2011 13:05
2,4-Dinitrotoluene		U	0.090	0.20	µg/L	1	1/31/2011 13:05
2,6-Dinitrotoluene		U	0.070	0.20	µg/L	1	1/31/2011 13:05
2-Chloronaphthalene		U	0.10	0.20	µg/L	1	1/31/2011 13:05
2-Methylnaphthalene	0.19	J	0.070	0.20	µg/L	1	1/31/2011 13:05
4,6-Dinitro-2-methylphenol		U	0.080	0.20	µg/L	1	1/31/2011 13:05
4-Nitrophenol		U	0.070	1.0	µg/L	1	1/31/2011 13:05
Acenaphthene		U	0.090	0.20	µg/L	1	1/31/2011 13:05
Acenaphthylene		U	0.070	0.20	µg/L	1	1/31/2011 13:05
Anthracene		U	0.070	0.20	µg/L	1	1/31/2011 13:05
Benz(a)anthracene		U	0.070	0.20	µg/L	1	1/31/2011 13:05
Benzo(a)pyrene		U	0.080	0.20	µg/L	1	1/31/2011 13:05
Bis(2-chloroethoxy)methane		U	0.090	0.20	µg/L	1	1/31/2011 13:05
Bis(2-ethylhexyl)phthalate	0.29		0.20	0.20	µg/L	1	1/31/2011 13:05
Chrysene		U	0.070	0.20	µg/L	1	1/31/2011 13:05
Di-n-butyl phthalate		U	0.070	0.20	µg/L	1	1/31/2011 13:05
Dibenzofuran	0.11	J	0.080	0.20	µg/L	1	1/31/2011 13:05
Fluoranthene		U	0.070	0.20	µg/L	1	1/31/2011 13:05
Fluorene		U	0.070	0.20	µg/L	1	1/31/2011 13:05
N-Nitrosodiphenylamine		U	0.090	0.20	µg/L	1	1/31/2011 13:05
Naphthalene	2.6		0.10	0.20	µg/L	1	1/31/2011 13:05
Nitrobenzene		U	0.090	0.20	µg/L	1	1/31/2011 13:05
Pentachlorophenol		U	0.080	0.20	µg/L	1	1/31/2011 13:05
Phenanthrene		U	0.070	0.20	µg/L	1	1/31/2011 13:05
Phenol		U	0.070	0.20	µg/L	1	1/31/2011 13:05
Pyrene		U	0.070	0.20	µg/L	1	1/31/2011 13:05
Surr: 2,4,6-Tribromophenol	88.2			34-129	%REC	1	1/31/2011 13:05
Surr: 2-Fluorobiphenyl	54.9			40-125	%REC	1	1/31/2011 13:05
Surr: 2-Fluorophenol	50.7			20-120	%REC	1	1/31/2011 13:05
Surr: 4-Terphenyl-d14	70.0			40-135	%REC	1	1/31/2011 13:05
Surr: Nitrobenzene-d5	60.6			41-120	%REC	1	1/31/2011 13:05
Surr: Phenol-d6	37.9			20-120	%REC	1	1/31/2011 13:05
TCL VOLATILES			Method: SW8260				Analyst: PC
1,2-Dichloroethane		U	0.50	5.0	µg/L	1	1/28/2011 15:50
Benzene		U	0.50	5.0	µg/L	1	1/28/2011 15:50
Chlorobenzene		U	0.50	5.0	µg/L	1	1/28/2011 15:50
Dichloromethane		U	0.50	10	µg/L	1	1/28/2011 15:50

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 11-Feb-11

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW-Site Wide Monitoring
Sample ID: WG-1620-MW50A-20110127
Collection Date: 1/27/2011 05:30 PM

Work Order: 1101770
Lab ID: 1101770-17
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
Ethylbenzene	U		0.50	5.0	µg/L	1	1/28/2011 15:50
Toluene	U		0.50	5.0	µg/L	1	1/28/2011 15:50
Xylenes, Total	U		1.0	15	µg/L	1	1/28/2011 15:50
Surr: 1,2-Dichloroethane-d4	98.2			70-125	%REC	1	1/28/2011 15:50
Surr: 4-Bromofluorobenzene	96.7			72-125	%REC	1	1/28/2011 15:50
Surr: Dibromofluoromethane	102			71-125	%REC	1	1/28/2011 15:50
Surr: Toluene-d8	97.8			75-125	%REC	1	1/28/2011 15:50

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 11-Feb-11

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW-Site Wide Monitoring
Sample ID: WG-1620-FB03-20110127
Collection Date: 1/27/2011 06:00 PM

Work Order: 1101770
Lab ID: 1101770-18
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES		Method: SW8270		Prep: SW3510 / 1/30/11		Analyst: LG	
1,2-Diphenylhydrazine	U		0.10	0.20	µg/L	1	2/2/2011 06:54
2,4-Dimethylphenol	U		0.080	0.20	µg/L	1	2/2/2011 06:54
2,4-Dinitrotoluene	U		0.090	0.20	µg/L	1	2/2/2011 06:54
2,6-Dinitrotoluene	U		0.070	0.20	µg/L	1	2/2/2011 06:54
2-Chloronaphthalene	U		0.10	0.20	µg/L	1	2/2/2011 06:54
2-Methylnaphthalene	U		0.070	0.20	µg/L	1	2/2/2011 06:54
4,6-Dinitro-2-methylphenol	U		0.080	0.20	µg/L	1	2/2/2011 06:54
4-Nitrophenol	U		0.070	1.0	µg/L	1	2/2/2011 06:54
Acenaphthene	U		0.090	0.20	µg/L	1	2/2/2011 06:54
Acenaphthylene	U		0.070	0.20	µg/L	1	2/2/2011 06:54
Anthracene	U		0.070	0.20	µg/L	1	2/2/2011 06:54
Benz(a)anthracene	U		0.070	0.20	µg/L	1	2/2/2011 06:54
Benzo(a)pyrene	U		0.080	0.20	µg/L	1	2/2/2011 06:54
Bis(2-chloroethoxy)methane	U		0.090	0.20	µg/L	1	2/2/2011 06:54
Bis(2-ethylhexyl)phthalate	U		0.20	0.20	µg/L	1	2/2/2011 06:54
Chrysene	U		0.070	0.20	µg/L	1	2/2/2011 06:54
Di-n-butyl phthalate	U		0.070	0.20	µg/L	1	2/2/2011 06:54
Dibenzofuran	U		0.080	0.20	µg/L	1	2/2/2011 06:54
Fluoranthene	U		0.070	0.20	µg/L	1	2/2/2011 06:54
Fluorene	U		0.070	0.20	µg/L	1	2/2/2011 06:54
N-Nitrosodiphenylamine	U		0.090	0.20	µg/L	1	2/2/2011 06:54
Naphthalene	U		0.10	0.20	µg/L	1	2/2/2011 06:54
Nitrobenzene	U		0.090	0.20	µg/L	1	2/2/2011 06:54
Pentachlorophenol	U		0.080	0.20	µg/L	1	2/2/2011 06:54
Phenanthrene	U		0.070	0.20	µg/L	1	2/2/2011 06:54
Phenol	U		0.070	0.20	µg/L	1	2/2/2011 06:54
Pyrene	U		0.070	0.20	µg/L	1	2/2/2011 06:54
Surr: 2,4,6-Tribromophenol	41.6			34-129	%REC	1	2/2/2011 06:54
Surr: 2-Fluorobiphenyl	44.1			40-125	%REC	1	2/2/2011 06:54
Surr: 2-Fluorophenol	38.1			20-120	%REC	1	2/2/2011 06:54
Surr: 4-Terphenyl-d14	68.6			40-135	%REC	1	2/2/2011 06:54
Surr: Nitrobenzene-d5	43.2			41-120	%REC	1	2/2/2011 06:54
Surr: Phenol-d6	39.5			20-120	%REC	1	2/2/2011 06:54
TCL VOLATILES		Method: SW8260		Analyst: HLBW			
1,2-Dichloroethane	U		0.50	5.0	µg/L	1	1/31/2011 18:54
Benzene	U		0.50	5.0	µg/L	1	1/31/2011 18:54
Chlorobenzene	U		0.50	5.0	µg/L	1	1/31/2011 18:54
Dichloromethane	U		0.50	10	µg/L	1	1/31/2011 18:54

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 11-Feb-11

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW-Site Wide Monitoring
Sample ID: WG-1620-FB03-20110127
Collection Date: 1/27/2011 06:00 PM

Work Order: 1101770
Lab ID: 1101770-18
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	ML	Units	Dilution Factor	Date Analyzed
Ethylbenzene	U		0.50	5.0	µg/L	1	1/31/2011 18:54
Toluene	U		0.50	5.0	µg/L	1	1/31/2011 18:54
Xylenes, Total	U		1.0	15	µg/L	1	1/31/2011 18:54
Surr: 1,2-Dichloroethane-d4	93.3			70-125	%REC	1	1/31/2011 18:54
Surr: 4-Bromofluorobenzene	96.5			72-125	%REC	1	1/31/2011 18:54
Surr: Dibromofluoromethane	98.8			71-125	%REC	1	1/31/2011 18:54
Surr: Toluene-d8	96.8			75-125	%REC	1	1/31/2011 18:54

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 11-Feb-11

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW-Site Wide Monitoring
Sample ID: WG-1620-TB04-20110127
Collection Date: 1/27/2011

Work Order: 1101770
Lab ID: 1101770-19
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
TCL VOLATILES			Method: SW8260			Analyst: HLBW	
1,2-Dichloroethane	U		0.50	5.0	µg/L	1	1/31/2011 18:29
Benzene	U		0.50	5.0	µg/L	1	1/31/2011 18:29
Chlorobenzene	U		0.50	5.0	µg/L	1	1/31/2011 18:29
Dichloromethane	U		0.50	10	µg/L	1	1/31/2011 18:29
Ethylbenzene	U		0.50	5.0	µg/L	1	1/31/2011 18:29
Toluene	U		0.50	5.0	µg/L	1	1/31/2011 18:29
Xylenes, Total	U		1.0	15	µg/L	1	1/31/2011 18:29
Surr: 1,2-Dichloroethane-d4	88.7			70-125	%REC	1	1/31/2011 18:29
Surr: 4-Bromofluorobenzene	96.7			72-125	%REC	1	1/31/2011 18:29
Surr: Dibromofluoromethane	98.8			71-125	%REC	1	1/31/2011 18:29
Surr: Toluene-d8	90.0			75-125	%REC	1	1/31/2011 18:29

Note: See Qualifiers Page for a list of qualifiers and their explanation.

WorkOrder: 1101770
 InstrumentID: SV-2
 Test Code: 8270_LOW_W
 Test Number: SW8270
 Test Name: Low-Level Semivolatiles

**METHOD DETECTION /
 REPORTING LIMITS**

Matrix: Aqueous Units: µg/L

Type	Analyte	CAS	DCS	MDL	Unadjusted MQL
A	1,2-Diphenylhydrazine	122-66-7	0.096	0.10	0.20
A	2,4-Dimethylphenol	105-67-9	0.039	0.080	0.20
A	2,4-Dinitrotoluene	121-14-2	0.059	0.090	0.20
A	2,6-Dinitrotoluene	606-20-2	0.070	0.070	0.20
A	2-Chloronaphthalene	91-58-7	0.13	0.10	0.20
A	2-Methylnaphthalene	91-57-6	0.088	0.070	0.20
A	4,6-Dinitro-2-methylphenol	534-52-1	0.25	0.080	0.20
A	4-Nitrophenol	100-02-7	0.22	0.070	1.0
A	Acenaphthene	83-32-9	0.095	0.090	0.20
A	Acenaphthylene	208-96-8	0.084	0.070	0.20
A	Anthracene	120-12-7	0.083	0.070	0.20
A	Benz(a)anthracene	56-55-3	0.091	0.070	0.20
A	Benzo(a)pyrene	50-32-8	0.059	0.080	0.20
A	Bis(2-chloroethoxy)methane	111-91-1	0.12	0.090	0.20
A	Bis(2-ethylhexyl)phthalate	117-81-7	0.075	0.20	0.20
A	Chrysene	218-01-9	0.099	0.070	0.20
A	Di-n-butyl phthalate	84-74-2	0.073	0.070	0.20
A	Dibenzofuran	132-64-9	0.090	0.080	0.20
A	Fluoranthene	206-44-0	0.078	0.070	0.20
A	Fluorene	86-73-7	0.085	0.070	0.20
A	N-Nitrosodiphenylamine	86-30-6	0.085	0.090	0.20
A	Naphthalene	91-20-3	0.14	0.10	0.20
A	Nitrobenzene	98-95-3	0.11	0.090	0.20
A	Pentachlorophenol	87-86-5	0.24	0.080	0.20
A	Phenanthrene	85-01-8	0.088	0.070	0.20
A	Phenol	108-95-2	0.16	0.070	0.20
A	Pyrene	129-00-0	0.084	0.070	0.20
S	Surr: 2,4,6-Tribromophenol	118-79-6	0	0	0.20
S	Surr: 2-Fluorobiphenyl	321-60-8	0	0	0.20
S	Surr: 2-Fluorophenol	367-12-4	0	0	0.20
S	Surr: 4-Terphenyl-d14	1718-51-0	0	0	0.20
S	Surr: Nitrobenzene-d5	4165-60-0	0	0	0.20
S	Surr: Phenol-d6	13127-88-3	0	0	0.20

WorkOrder: 1101770
InstrumentID: SV-6
Test Code: 8270_LOW_W
Test Number: SW8270
Test Name: Low-Level Semivolatiles

**METHOD DETECTION /
REPORTING LIMITS**

Matrix: Aqueous **Units:** µg/L

Type	Analyte	CAS	DCS	MDL	Unadjusted MQL
A	1,2-Diphenylhydrazine	122-66-7	0.088	0.10	0.20
A	2,4-Dimethylphenol	105-67-9	0.058	0.080	0.20
A	2,4-Dinitrotoluene	121-14-2	0.064	0.090	0.20
A	2,6-Dinitrotoluene	606-20-2	0.075	0.070	0.20
A	2-Chloronaphthalene	91-58-7	0.11	0.10	0.20
A	2-Methylnaphthalene	91-57-6	0.086	0.070	0.20
A	4,6-Dinitro-2-methylphenol	534-52-1	0.031	0.080	0.20
A	4-Nitrophenol	100-02-7	0.071	0.070	1.0
A	Acenaphthene	83-32-9	0.086	0.090	0.20
A	Acenaphthylene	208-96-8	0.093	0.070	0.20
A	Anthracene	120-12-7	0.093	0.070	0.20
A	Benz(a)anthracene	56-55-3	0.095	0.070	0.20
A	Benzo(a)pyrene	50-32-8	0.081	0.080	0.20
A	Bis(2-chloroethoxy)methane	111-91-1	0.078	0.090	0.20
A	Bis(2-ethylhexyl)phthalate	117-81-7	0.11	0.20	0.20
A	Chrysene	218-01-9	0.11	0.070	0.20
A	Di-n-butyl phthalate	84-74-2	0.092	0.070	0.20
A	Dibenzofuran	132-64-9	0.093	0.080	0.20
A	Fluoranthene	206-44-0	0.099	0.070	0.20
A	Fluorene	86-73-7	0.096	0.070	0.20
A	N-Nitrosodiphenylamine	86-30-6	0.086	0.090	0.20
A	Naphthalene	91-20-3	0.086	0.10	0.20
A	Nitrobenzene	98-95-3	0.11	0.090	0.20
A	Pentachlorophenol	87-86-5	0.022	0.080	0.20
A	Phenanthrene	85-01-8	0.095	0.070	0.20
A	Phenol	108-95-2	0.084	0.070	0.20
A	Pyrene	129-00-0	0.088	0.070	0.20
S	Surr: 2,4,6-Tribromophenol	118-79-6	0	0	0.20
S	Surr: 2-Fluorobiphenyl	321-60-8	0	0	0.20
S	Surr: 2-Fluorophenol	367-12-4	0	0	0.20
S	Surr: 4-Terphenyl-d14	1718-51-0	0	0	0.20
S	Surr: Nitrobenzene-d5	4165-60-0	0	0	0.20
S	Surr: Phenol-d6	13127-88-3	0	0	0.20

WorkOrder: 1101770
InstrumentID: VOA1
Test Code: 8260_TCL_W
Test Number: SW8260
Test Name: TCL Volatiles

**METHOD DETECTION /
 REPORTING LIMITS**

Matrix: Aqueous **Units:** µg/L

Type	Analyte	CAS	DCS	MDL	Unadjusted MQL
A	1,2-Dichloroethane	107-06-2	1.0	0.50	5.0
A	Benzene	71-43-2	1.2	0.50	5.0
A	Chlorobenzene	108-90-7	1.0	0.50	5.0
A	Dichloromethane	75-09-2	1.2	0.50	10
A	Ethylbenzene	100-41-4	0.96	0.50	5.0
A	Toluene	108-88-3	1.1	0.50	5.0
M	Xylenes, Total	1330-20-7	3.2	1.0	15
S	Surr: 1,2-Dichloroethane-d4	17060-07-0	0	0	5.0
S	Surr: 4-Bromofluorobenzene	460-00-4	0	0	5.0
S	Surr: Dibromofluoromethane	1868-53-7	0	0	5.0
S	Surr: Toluene-d8	2037-26-5	0	0	5.0

ALS Environmental

Date: 11-Feb-11

Client: Pastor, Behling & Wheeler, LLC
Work Order: 1101770
Project: HWPW-Site Wide Monitoring

QC BATCH REPORT

Batch ID: **49687** Instrument ID **SV-6** Method: **SW8270**

MBLK	Sample ID: SBLKW3-110130-49687			Units: µg/L	Analysis Date: 1/31/2011 11:28 AM					
Client ID:	Run ID: SV-6_110131A			SeqNo: 2265926	Prep Date: 1/30/2011	DF: 1				
Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Diphenylhydrazine	U	0.20								
2,4-Dimethylphenol	U	0.20								
2,4-Dinitrotoluene	U	0.20								
2,6-Dinitrotoluene	U	0.20								
2-Chloronaphthalene	U	0.20								
2-Methylnaphthalene	U	0.20								
4,6-Dinitro-2-methylphenol	U	0.20								
4-Nitrophenol	U	1.0								
Acenaphthene	U	0.20								
Acenaphthylene	U	0.20								
Anthracene	U	0.20								
Benz(a)anthracene	U	0.20								
Benzo(a)pyrene	U	0.20								
Bis(2-chloroethoxy)methane	U	0.20								
Bis(2-ethylhexyl)phthalate	U	0.20								
Chrysene	U	0.20								
Di-n-butyl phthalate	U	0.20								
Dibenzofuran	U	0.20								
Fluoranthene	U	0.20								
Fluorene	U	0.20								
N-Nitrosodiphenylamine	U	0.20								
Naphthalene	U	0.20								
Nitrobenzene	U	0.20								
Pentachlorophenol	U	0.20								
Phenanthrene	U	0.20								
Phenol	U	0.20								
Pyrene	U	0.20								
<i>Surr: 2,4,6-Tribromophenol</i>	3.689	0.20	5	0	73.8	34-129		0		
<i>Surr: 2-Fluorobiphenyl</i>	3.926	0.20	5	0	78.5	40-125		0		
<i>Surr: 2-Fluorophenol</i>	4.147	0.20	5	0	82.9	20-120		0		
<i>Surr: 4-Terphenyl-d14</i>	4.035	0.20	5	0	80.7	40-135		0		
<i>Surr: Nitrobenzene-d5</i>	3.132	0.20	5	0	62.6	41-120		0		
<i>Surr: Phenol-d6</i>	3.951	0.20	5	0	79	20-120		0		

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Pastor, Behling & Wheeler, LLC
 Work Order: 1101770
 Project: HWPW-Site Wide Monitoring

QC BATCH REPORT

Batch ID: 49687 Instrument ID SV-6 Method: SW8270

LCS		Sample ID: SLCSW3-110130-49687			Units: µg/L		Analysis Date: 1/31/2011 11:48 AM			
Client ID:		Run ID: SV-6_110131A			SeqNo: 2265927		Prep Date: 1/30/2011		DF: 1	
Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Diphenylhydrazine	3.559	0.20	5	0	71.2	39-127	0			
2,4-Dimethylphenol	2.987	0.20	5	0	59.7	35-120	0			
2,4-Dinitrotoluene	4.711	0.20	5	0	94.2	50-122	0			
2,6-Dinitrotoluene	4.369	0.20	5	0	87.4	50-120	0			
2-Chloronaphthalene	4.312	0.20	5	0	86.2	50-120	0			
2-Methylnaphthalene	3.884	0.20	5	0	77.7	50-120	0			
4,6-Dinitro-2-methylphenol	4.086	0.20	5	0	81.7	25-121	0			
4-Nitrophenol	4.255	1.0	5	0	85.1	30-130	0			
Acenaphthene	3.716	0.20	5	0	74.3	45-120	0			
Acenaphthylene	3.927	0.20	5	0	78.5	47-120	0			
Anthracene	4.078	0.20	5	0	81.6	45-120	0			
Benz(a)anthracene	4.433	0.20	5	0	88.7	40-120	0			
Benzo(a)pyrene	4.382	0.20	5	0	87.6	45-120	0			
Bis(2-chloroethoxy)methane	3.814	0.20	5	0	76.3	45-120	0			
Bis(2-ethylhexyl)phthalate	4.546	0.20	5	0	90.9	40-139	0			
Chrysene	4.202	0.20	5	0	84	43-120	0			
Di-n-butyl phthalate	4.325	0.20	5	0	86.5	45-123	0			
Dibenzofuran	4.014	0.20	5	0	80.3	50-120	0			
Fluoranthene	4.241	0.20	5	0	84.8	45-125	0			
Fluorene	4.087	0.20	5	0	81.7	49-120	0			
N-Nitrosodiphenylamine	3.95	0.20	5	0	79	40-125	0			
Naphthalene	3.858	0.20	5	0	77.2	45-120	0			
Nitrobenzene	3.851	0.20	5	0	77	44-120	0			
Pentachlorophenol	1.881	0.20	5	0	37.6	19-121	0			
Phenanthrene	3.986	0.20	5	0	79.7	45-121	0			
Phenol	3.572	0.20	5	0	71.4	20-124	0			
Pyrene	4.066	0.20	5	0	81.3	40-130	0			
Surr: 2,4,6-Tribromophenol	4.9	0.20	5	0	98	34-129	0			
Surr: 2-Fluorobiphenyl	3.8	0.20	5	0	76	40-125	0			
Surr: 2-Fluorophenol	3.762	0.20	5	0	75.2	20-120	0			
Surr: 4-Terphenyl-d14	4.015	0.20	5	0	80.3	40-135	0			
Surr: Nitrobenzene-d5	3.853	0.20	5	0	77.1	41-120	0			
Surr: Phenol-d6	3.75	0.20	5	0	75	20-120	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Pastor, Behling & Wheeler, LLC
 Work Order: 1101770
 Project: HWPW-Site Wide Monitoring

QC BATCH REPORT

Batch ID: 49687 Instrument ID SV-6 Method: SW8270

MS		Sample ID: 1101770-09BMS			Units: µg/L			Analysis Date: 1/31/2011 12:27 PM		
Client ID: WG-1620-MW67B-20110127		Run ID: SV-6_110131A			SeqNo: 2265929			Prep Date: 1/30/2011		DF: 1
Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Diphenylhydrazine	2.318	0.20	5	0	46.4	39-127	0			
2,4-Dimethylphenol	2.521	0.20	5	0	50.4	35-120	0			
2,4-Dinitrotoluene	3.23	0.20	5	0	64.6	50-122	0			
2,6-Dinitrotoluene	2.927	0.20	5	0	58.5	50-120	0			
2-Chloronaphthalene	2.755	0.20	5	0	55.1	50-120	0			
2-Methylnaphthalene	2.17	0.20	5	0	43.4	50-120	0			S
4,6-Dinitro-2-methylphenol	3.586	0.20	5	0	71.7	25-121	0			
4-Nitrophenol	4.216	1.0	5	0	84.3	30-130	0			
Acenaphthene	2.25	0.20	5	0	45	45-120	0			S
Acenaphthylene	2.331	0.20	5	0	46.6	47-120	0			S
Anthracene	2.968	0.20	5	0	59.4	45-120	0			
Benz(a)anthracene	3.668	0.20	5	0	73.4	40-120	0			
Benzo(a)pyrene	3.507	0.20	5	0	70.1	45-120	0			
Bis(2-chloroethoxy)methane	2.103	0.20	5	0	42.1	45-120	0			S
Bis(2-ethylhexyl)phthalate	4.685	0.20	5	2.203	49.7	40-139	0			
Chrysene	3.51	0.20	5	0	70.2	43-120	0			
Di-n-butyl phthalate	3.566	0.20	5	0.08253	69.7	45-123	0			
Dibenzofuran	2.428	0.20	5	0	48.6	50-120	0			S
Fluoranthene	3.466	0.20	5	0	69.3	45-125	0			
Fluorene	2.564	0.20	5	0	51.3	49-120	0			
N-Nitrosodiphenylamine	2.76	0.20	5	0	55.2	40-125	0			
Naphthalene	2.672	0.20	5	0.6181	41.1	45-120	0			S
Nitrobenzene	2.04	0.20	5	0	40.8	44-120	0			S
Pentachlorophenol	3.914	0.20	5	0	78.3	19-121	0			
Phenanthrene	2.943	0.20	5	0	58.9	45-121	0			
Phenol	2.312	0.20	5	0	46.2	20-124	0			
Pyrene	3.305	0.20	5	0	66.1	40-130	0			
Surr: 2,4,6-Tribromophenol	3.821	0.20	5	0	76.4	34-129	0			
Surr: 2-Fluorobiphenyl	2.184	0.20	5	0	43.7	40-125	0			
Surr: 2-Fluorophenol	2.284	0.20	5	0	45.7	20-120	0			
Surr: 4-Terphenyl-d14	3.316	0.20	5	0	66.3	40-135	0			
Surr: Nitrobenzene-d5	2.058	0.20	5	0	41.2	41-120	0			
Surr: Phenol-d6	2.328	0.20	5	0	46.6	20-120	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Pastor, Behling & Wheeler, LLC
 Work Order: 1101770
 Project: HWPW-Site Wide Monitoring

QC BATCH REPORT

Batch ID: 49687 Instrument ID SV-6 Method: SW8270

MS		Sample ID: 1101770-17BMS			Units: µg/L			Analysis Date: 1/31/2011 01:25 PM		
Client ID: WG-1620-MW50A-20110127		Run ID: SV-6_110131A			SeqNo: 2265932			Prep Date: 1/30/2011		DF: 1
Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Diphenylhydrazine	2.991	0.20	5	0	59.8	39-127	0			
2,4-Dimethylphenol	2.373	0.20	5	0	47.5	35-120	0			
2,4-Dinitrotoluene	3.673	0.20	5	0	73.5	50-122	0			
2,6-Dinitrotoluene	3.275	0.20	5	0	65.5	50-120	0			
2-Chloronaphthalene	3.351	0.20	5	0	67	50-120	0			
2-Methylnaphthalene	2.993	0.20	5	0.1925	56	50-120	0			
4,6-Dinitro-2-methylphenol	3.788	0.20	5	0	75.8	25-121	0			
4-Nitrophenol	2.959	1.0	5	0	59.2	30-130	0			
Acenaphthene	3.353	0.20	5	0	67.1	45-120	0			
Acenaphthylene	3.104	0.20	5	0	62.1	47-120	0			
Anthracene	4.067	0.20	5	0	81.3	45-120	0			
Benz(a)anthracene	3.765	0.20	5	0	75.3	40-120	0			
Benzo(a)pyrene	3.822	0.20	5	0	76.4	45-120	0			
Bis(2-chloroethoxy)methane	2.664	0.20	5	0	53.3	45-120	0			
Bis(2-ethylhexyl)phthalate	4.459	0.20	5	0.2924	83.3	40-139	0			
Chrysene	3.925	0.20	5	0	78.5	43-120	0			
Di-n-butyl phthalate	4.014	0.20	5	0	80.3	45-123	0			
Dibenzofuran	3.069	0.20	5	0.108	59.2	50-120	0			
Fluoranthene	3.996	0.20	5	0	79.9	45-125	0			
Fluorene	3.273	0.20	5	0	65.5	49-120	0			
N-Nitrosodiphenylamine	3.467	0.20	5	0	69.3	40-125	0			
Naphthalene	2.833	0.20	5	2.568	5.3	45-120	0			S
Nitrobenzene	3.088	0.20	5	0	61.8	44-120	0			
Pentachlorophenol	4.364	0.20	5	0	87.3	19-121	0			
Phenanthrene	3.396	0.20	5	0.0655	66.6	45-121	0			
Phenol	2.181	0.20	5	0	43.6	20-124	0			
Pyrene	3.589	0.20	5	0	71.8	40-130	0			
Surr: 2,4,6-Tribromophenol	4.242	0.20	5	0	84.8	34-129	0			
Surr: 2-Fluorobiphenyl	2.67	0.20	5	0	53.4	40-125	0			
Surr: 2-Fluorophenol	2.699	0.20	5	0	54	20-120	0			
Surr: 4-Terphenyl-d14	3.638	0.20	5	0	72.8	40-135	0			
Surr: Nitrobenzene-d5	3.145	0.20	5	0	62.9	41-120	0			
Surr: Phenol-d6	2.241	0.20	5	0	44.8	20-120	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Pastor, Behling & Wheeler, LLC
 Work Order: 1101770
 Project: HWPW-Site Wide Monitoring

QC BATCH REPORT

Batch ID: 49687 Instrument ID SV-6 Method: SW8270

MSD		Sample ID: 1101770-09BMSD			Units: µg/L			Analysis Date: 1/31/2011 12:46 PM		
Client ID: WG-1620-MW67B-20110127		Run ID: SV-6_110131A			SeqNo: 2265930		Prep Date: 1/30/2011		DF: 1	
Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Diphenylhydrazine	2.449	0.20	5	0	49	39-127	2.318	5.48	20	
2,4-Dimethylphenol	2.466	0.20	5	0	49.3	35-120	2.521	2.19	20	
2,4-Dinitrotoluene	3.482	0.20	5	0	69.6	50-122	3.23	7.5	20	
2,6-Dinitrotoluene	2.875	0.20	5	0	57.5	50-120	2.927	1.76	20	
2-Chloronaphthalene	2.947	0.20	5	0	58.9	50-120	2.755	6.73	20	
2-Methylnaphthalene	2.468	0.20	5	0	49.4	50-120	2.17	12.9	20	S
4,6-Dinitro-2-methylphenol	4.232	0.20	5	0	84.6	25-121	3.586	16.5	20	
4-Nitrophenol	4.678	1.0	5	0	93.6	30-130	4.216	10.4	20	
Acenaphthene	2.298	0.20	5	0	46	45-120	2.25	2.14	20	
Acenaphthylene	2.288	0.20	5	0	45.8	47-120	2.331	1.87	20	S
Anthracene	3.235	0.20	5	0	64.7	45-120	2.968	8.63	20	
Benz(a)anthracene	4.117	0.20	5	0	82.3	40-120	3.668	11.6	20	
Benzo(a)pyrene	4.038	0.20	5	0	80.8	45-120	3.507	14.1	20	
Bis(2-chloroethoxy)methane	2.24	0.20	5	0	44.8	45-120	2.103	6.31	20	S
Bis(2-ethylhexyl)phthalate	6.095	0.20	5	2.203	77.8	40-139	4.685	26.2	20	R
Chrysene	3.945	0.20	5	0	78.9	43-120	3.51	11.7	20	
Di-n-butyl phthalate	4.106	0.20	5	0.08253	80.5	45-123	3.566	14.1	20	
Dibenzofuran	2.414	0.20	5	0	48.3	50-120	2.428	0.564	20	S
Fluoranthene	4.21	0.20	5	0	84.2	45-125	3.466	19.4	20	
Fluorene	2.565	0.20	5	0	51.3	49-120	2.564	0.0136	20	
N-Nitrosodiphenylamine	3.037	0.20	5	0	60.7	40-125	2.76	9.56	20	
Naphthalene	2.985	0.20	5	0.6181	47.3	45-120	2.672	11.1	20	
Nitrobenzene	2.512	0.20	5	0	50.2	44-120	2.04	20.7	20	R
Pentachlorophenol	4.45	0.20	5	0	89	19-121	3.914	12.8	20	
Phenanthrene	3.224	0.20	5	0	64.5	45-121	2.943	9.09	20	
Phenol	2.407	0.20	5	0	48.1	20-124	2.312	4.03	20	
Pyrene	3.593	0.20	5	0	71.9	40-130	3.305	8.37	20	
Surr: 2,4,6-Tribromophenol	4.101	0.20	5	0	82	34-129	3.821	7.09	0	
Surr: 2-Fluorobiphenyl	2.273	0.20	5	0	45.5	40-125	2.184	3.99	0	
Surr: 2-Fluorophenol	2.436	0.20	5	0	48.7	20-120	2.284	6.46	0	
Surr: 4-Terphenyl-d14	3.529	0.20	5	0	70.6	40-135	3.316	6.23	0	
Surr: Nitrobenzene-d5	2.467	0.20	5	0	49.3	41-120	2.058	18.1	0	
Surr: Phenol-d6	2.424	0.20	5	0	48.5	20-120	2.328	4.05	0	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Pastor, Behling & Wheeler, LLC
 Work Order: 1101770
 Project: HWPW-Site Wide Monitoring

QC BATCH REPORT

Batch ID: 49687 Instrument ID SV-6 Method: SW8270

MSD	Sample ID: 1101770-17BMSD	Units: µg/L					Analysis Date: 1/31/2011 01:44 PM				
Client ID: WG-1620-MW50A-20110127	Run ID: SV-6_110131A	SeqNo: 2265933			Prep Date: 1/30/2011		DF: 1				
Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
1,2-Diphenylhydrazine	2.923	0.20	5	0	58.5	39-127	2.991	2.28	20		
2,4-Dimethylphenol	2.335	0.20	5	0	46.7	35-120	2.373	1.59	20		
2,4-Dinitrotoluene	3.595	0.20	5	0	71.9	50-122	3.673	2.13	20		
2,6-Dinitrotoluene	3.292	0.20	5	0	65.8	50-120	3.275	0.502	20		
2-Chloronaphthalene	2.936	0.20	5	0	58.7	50-120	3.351	13.2	20		
2-Methylnaphthalene	2.773	0.20	5	0.1925	51.6	50-120	2.993	7.64	20		
4,6-Dinitro-2-methylphenol	3.489	0.20	5	0	69.8	25-121	3.788	8.22	20		
4-Nitrophenol	2.879	1.0	5	0	57.6	30-130	2.959	2.75	20		
Acenaphthene	3.257	0.20	5	0	65.1	45-120	3.353	2.92	20		
Acenaphthylene	3.094	0.20	5	0	61.9	47-120	3.104	0.308	20		
Anthracene	3.713	0.20	5	0	74.3	45-120	4.067	9.12	20		
Benz(a)anthracene	3.354	0.20	5	0	67.1	40-120	3.765	11.5	20		
Benzo(a)pyrene	3.379	0.20	5	0	67.6	45-120	3.822	12.3	20		
Bis(2-chloroethoxy)methane	2.43	0.20	5	0	48.6	45-120	2.664	9.21	20		
Bis(2-ethylhexyl)phthalate	3.884	0.20	5	0.2924	71.8	40-139	4.459	13.8	20		
Chrysene	3.492	0.20	5	0	69.8	43-120	3.925	11.7	20		
Di-n-butyl phthalate	3.714	0.20	5	0	74.3	45-123	4.014	7.76	20		
Dibenzofuran	2.973	0.20	5	0.108	57.3	50-120	3.069	3.18	20		
Fluoranthene	3.661	0.20	5	0	73.2	45-125	3.996	8.74	20		
Fluorene	3.298	0.20	5	0	66	49-120	3.273	0.758	20		
N-Nitrosodiphenylamine	3.154	0.20	5	0	63.1	40-125	3.467	9.47	20		
Naphthalene	2.607	0.20	5	2.568	0.787	45-120	2.833	8.3	20	S	
Nitrobenzene	2.678	0.20	5	0	53.6	44-120	3.088	14.2	20		
Pentachlorophenol	3.923	0.20	5	0	78.5	19-121	4.364	10.6	20		
Phenanthrene	3.164	0.20	5	0.0655	62	45-121	3.396	7.08	20		
Phenol	1.879	0.20	5	0	37.6	20-124	2.181	14.9	20		
Pyrene	3.039	0.20	5	0	60.8	40-130	3.589	16.6	20		
Surr: 2,4,6-Tribromophenol	3.991	0.20	5	0	79.8	34-129	4.242	6.1	0		
Surr: 2-Fluorobiphenyl	2.475	0.20	5	0	49.5	40-125	2.67	7.57	0		
Surr: 2-Fluorophenol	2.187	0.20	5	0	43.7	20-120	2.699	21	0		
Surr: 4-Terphenyl-d14	2.763	0.20	5	0	55.3	40-135	3.638	27.3	0		
Surr: Nitrobenzene-d5	2.541	0.20	5	0	50.8	41-120	3.145	21.3	0		
Surr: Phenol-d6	1.764	0.20	5	0	35.3	20-120	2.241	23.9	0		

The following samples were analyzed in this batch:

1101770-01B	1101770-02B	1101770-03B
1101770-04B	1101770-05B	1101770-06B
1101770-07B	1101770-08B	1101770-09B
1101770-10B	1101770-11B	1101770-12B
1101770-13B	1101770-14B	1101770-15B
1101770-16B	1101770-17B	1101770-18B

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Pastor, Behling & Wheeler, LLC
Work Order: 1101770
Project: HWPW-Site Wide Monitoring

QC BATCH REPORT

Batch ID: **R104632** Instrument ID **VOA1** Method: **SW8260**

MBLK Sample ID: **VBLKW-012811-R104632** Units: **µg/L** Analysis Date: **1/28/2011 01:44 PM**

Client ID: Run ID: **VOA1_110128B** SeqNo: **2264569** Prep Date: DF: **1**

Analyte	Result	MLQ	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Dichloroethane	U	5.0								
Benzene	U	5.0								
Chlorobenzene	U	5.0								
Dichloromethane	U	10								
Ethylbenzene	U	5.0								
Toluene	U	5.0								
Xylenes, Total	U	15								
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>49.57</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>99.1</i>	<i>70-125</i>	<i>0</i>			
<i>Surr: 4-Bromofluorobenzene</i>	<i>49.49</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>99</i>	<i>72-125</i>	<i>0</i>			
<i>Surr: Dibromofluoromethane</i>	<i>51.36</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>103</i>	<i>71-125</i>	<i>0</i>			
<i>Surr: Toluene-d8</i>	<i>49.1</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>98.2</i>	<i>75-125</i>	<i>0</i>			

LCS Sample ID: **VLCSW-110128-R104632** Units: **µg/L** Analysis Date: **1/28/2011 12:53 PM**

Client ID: Run ID: **VOA1_110128B** SeqNo: **2264568** Prep Date: DF: **1**

Analyte	Result	MLQ	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Dichloroethane	48.13	5.0	50	0	96.3	78-120	0			
Benzene	49.65	5.0	50	0	99.3	73-121	0			
Chlorobenzene	45.49	5.0	50	0	91	80-120	0			
Dichloromethane	46.1	10	50	0	92.2	65-133	0			
Ethylbenzene	46.66	5.0	50	0	93.3	80-120	0			
Toluene	46.26	5.0	50	0	92.5	80-120	0			
Xylenes, Total	140.3	15	150	0	93.6	80-120	0			
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>45.74</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>91.5</i>	<i>70-125</i>	<i>0</i>			
<i>Surr: 4-Bromofluorobenzene</i>	<i>50.4</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>101</i>	<i>72-125</i>	<i>0</i>			
<i>Surr: Dibromofluoromethane</i>	<i>48.06</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>96.1</i>	<i>71-125</i>	<i>0</i>			
<i>Surr: Toluene-d8</i>	<i>47.98</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>96</i>	<i>75-125</i>	<i>0</i>			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Pastor, Behling & Wheeler, LLC
 Work Order: 1101770
 Project: HWPW-Site Wide Monitoring

QC BATCH REPORT

Batch ID: **R104632** Instrument ID **VOA1** Method: **SW8260**

MS		Sample ID: 1101770-17AMS			Units: µg/L		Analysis Date: 1/28/2011 04:15 PM			
Client ID: WG-1620-MW50A-20110127		Run ID: VOA1_110128B			SeqNo: 2264571		Prep Date:		DF: 1	
Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Dichloroethane	47.51	5.0	50	0	95	78-120	0			
Benzene	42.01	5.0	50	0	84	73-121	0			
Chlorobenzene	44.55	5.0	50	0	89.1	80-120	0			
Dichloromethane	48.62	10	50	0	97.2	65-133	0			
Ethylbenzene	41.93	5.0	50	0	83.9	80-120	0			
Toluene	42.48	5.0	50	0	85	80-120	0			
Xylenes, Total	123.7	15	150	0	82.5	80-120	0			
Surr: 1,2-Dichloroethane-d4	48.25	5.0	50	0	96.5	70-125	0			
Surr: 4-Bromofluorobenzene	51.23	5.0	50	0	102	72-125	0			
Surr: Dibromofluoromethane	52.58	5.0	50	0	105	71-125	0			
Surr: Toluene-d8	46.33	5.0	50	0	92.7	75-125	0			

MSD		Sample ID: 1101770-17AMSD			Units: µg/L		Analysis Date: 1/28/2011 04:41 PM			
Client ID: WG-1620-MW50A-20110127		Run ID: VOA1_110128B			SeqNo: 2264572		Prep Date:		DF: 1	
Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Dichloroethane	52.03	5.0	50	0	104	78-120	47.51	9.07	20	
Benzene	49.41	5.0	50	0	98.8	73-121	42.01	16.2	20	
Chlorobenzene	48	5.0	50	0	96	80-120	44.55	7.46	20	
Dichloromethane	48.16	10	50	0	96.3	65-133	48.62	0.957	20	
Ethylbenzene	46.31	5.0	50	0	92.6	80-120	41.93	9.92	20	
Toluene	43.34	5.0	50	0	86.7	80-120	42.48	2	20	
Xylenes, Total	135.9	15	150	0	90.6	80-120	123.7	9.35	20	
Surr: 1,2-Dichloroethane-d4	47.49	5.0	50	0	95	70-125	48.25	1.57	20	
Surr: 4-Bromofluorobenzene	50.39	5.0	50	0	101	72-125	51.23	1.67	20	
Surr: Dibromofluoromethane	48.21	5.0	50	0	96.4	71-125	52.58	8.67	20	
Surr: Toluene-d8	46.94	5.0	50	0	93.9	75-125	46.33	1.32	20	

The following samples were analyzed in this batch:

1101770-01A	1101770-02A	1101770-03A
1101770-04A	1101770-05A	1101770-07A
1101770-08A	1101770-10A	1101770-11A
1101770-12A	1101770-17A	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Pastor, Behling & Wheeler, LLC

Work Order: 1101770

Project: HWPW-Site Wide Monitoring

QC BATCH REPORT

Batch ID: R104651

Instrument ID VOA1

Method: SW8260

MBLK Sample ID: **VBLKW-013111-R104651** Units: **µg/L** Analysis Date: **1/31/2011 02:34 PM**

Client ID: Run ID: **VOA1_110131A** SeqNo: **2265230** Prep Date: DF: **1**

Analyte	Result	MLQ	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Dichloroethane	U	5.0								
Benzene	U	5.0								
Chlorobenzene	U	5.0								
Dichloromethane	U	10								
Ethylbenzene	U	5.0								
Toluene	U	5.0								
Xylenes, Total	U	15								
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>43.48</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>87</i>	<i>70-125</i>	<i>0</i>			
<i>Surr: 4-Bromofluorobenzene</i>	<i>51.88</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>104</i>	<i>72-125</i>	<i>0</i>			
<i>Surr: Dibromofluoromethane</i>	<i>46.57</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>93.1</i>	<i>71-125</i>	<i>0</i>			
<i>Surr: Toluene-d8</i>	<i>50.31</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>101</i>	<i>75-125</i>	<i>0</i>			

LCS Sample ID: **VLCSW-013111-R104651** Units: **µg/L** Analysis Date: **1/31/2011 02:05 PM**

Client ID: Run ID: **VOA1_110131A** SeqNo: **2265229** Prep Date: DF: **1**

Analyte	Result	MLQ	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Dichloroethane	47.25	5.0	50	0	94.5	78-120	0			
Benzene	48.33	5.0	50	0	96.7	73-121	0			
Chlorobenzene	40.99	5.0	50	0	82	80-120	0			
Dichloromethane	48.77	10	50	0	97.5	65-133	0			
Ethylbenzene	41.54	5.0	50	0	83.1	80-120	0			
Toluene	43.25	5.0	50	0	86.5	80-120	0			
Xylenes, Total	128.3	15	150	0	85.5	80-120	0			
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>44.29</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>88.6</i>	<i>70-125</i>	<i>0</i>			
<i>Surr: 4-Bromofluorobenzene</i>	<i>51.57</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>103</i>	<i>72-125</i>	<i>0</i>			
<i>Surr: Dibromofluoromethane</i>	<i>49.28</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>98.6</i>	<i>71-125</i>	<i>0</i>			
<i>Surr: Toluene-d8</i>	<i>45.86</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>91.7</i>	<i>75-125</i>	<i>0</i>			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Pastor, Behling & Wheeler, LLC
 Work Order: 1101770
 Project: HWPW-Site Wide Monitoring

QC BATCH REPORT

Batch ID: **R104651** Instrument ID **VOA1** Method: **SW8260**

MS		Sample ID: 1101770-09ZMS			Units: µg/L		Analysis Date: 1/31/2011 04:47 PM			
Client ID: WG-1620-MW67B-20110127		Run ID: VOA1_110131A			SeqNo: 2265235		Prep Date:		DF: 1	
Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Dichloroethane	49.34	5.0	50	0	98.7	78-120	0			
Benzene	52.15	5.0	50	0	104	73-121	0			
Chlorobenzene	48.31	5.0	50	0	96.6	80-120	0			
Dichloromethane	50.28	10	50	0	101	65-133	0			
Ethylbenzene	52.24	5.0	50	0	104	80-120	0			
Toluene	46.62	5.0	50	0	93.2	80-120	0			
Xylenes, Total	149.1	15	150	0	99.4	80-120	0			
Surr: 1,2-Dichloroethane-d4	44.4	5.0	50	0	88.8	70-125	0			
Surr: 4-Bromofluorobenzene	52.66	5.0	50	0	105	72-125	0			
Surr: Dibromofluoromethane	49.34	5.0	50	0	98.7	71-125	0			
Surr: Toluene-d8	47.97	5.0	50	0	95.9	75-125	0			

MSD		Sample ID: 1101770-09ZMSD			Units: µg/L		Analysis Date: 1/31/2011 05:13 PM			
Client ID: WG-1620-MW67B-20110127		Run ID: VOA1_110131A			SeqNo: 2265236		Prep Date:		DF: 1	
Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Dichloroethane	49.7	5.0	50	0	99.4	78-120	49.34	0.724	20	
Benzene	54.16	5.0	50	0	108	73-121	52.15	3.78	20	
Chlorobenzene	49.03	5.0	50	0	98.1	80-120	48.31	1.48	20	
Dichloromethane	51.76	10	50	0	104	65-133	50.28	2.9	20	
Ethylbenzene	51.5	5.0	50	0	103	80-120	52.24	1.43	20	
Toluene	48.98	5.0	50	0	98	80-120	46.62	4.93	20	
Xylenes, Total	143.6	15	150	0	95.7	80-120	149.1	3.74	20	
Surr: 1,2-Dichloroethane-d4	45.42	5.0	50	0	90.8	70-125	44.4	2.28	20	
Surr: 4-Bromofluorobenzene	52	5.0	50	0	104	72-125	52.66	1.27	20	
Surr: Dibromofluoromethane	48.24	5.0	50	0	96.5	71-125	49.34	2.25	20	
Surr: Toluene-d8	46.65	5.0	50	0	93.3	75-125	47.97	2.79	20	

The following samples were analyzed in this batch:

1101770-06A	1101770-09A	1101770-11A
1101770-13A	1101770-14A	1101770-15A
1101770-16A	1101770-18A	1101770-19A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

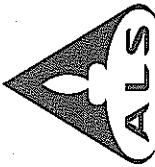
Client: Pastor, Behling & Wheeler, LLC
Project: HWPW-Site Wide Monitoring
WorkOrder: 1101770

**QUALIFIERS,
ACRONYMS, UNITS**

<u>Qualifier</u>	<u>Description</u>
*	Value exceeds Regulatory Limit
a	Not accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
J	Analyte detected below quantitation limit
M	Manually integrated, see raw data for justification
n	Not offered for accreditation
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL

<u>Acronym</u>	<u>Description</u>
DCS	Detectability Check Study
DUP	Method Duplicate
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
MBLK	Method Blank
MDL	Method Detection Limit
MQL	Method Quantitation Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PDS	Post Digestion Spike
PQL	Practical Quantitation Limit
SD	Serial Dilution
SDL	Sample Detection Limit
TRRP	Texas Risk Reduction Program

<u>Units Reported</u>	<u>Description</u>
µg/L	Micrograms per Liter



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Chain of Custody Form

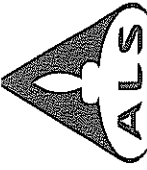
Page **3** of **3**

ALS Laboratory Group
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Customer Information				Project Information				ALS Work Order #: 1101710 Parameter/Method Request for Analysis											
Purchase Order	Project Name	Project Number	Project Manager	Project Name	Project Number	Project Manager	Parameter/Method Request for Analysis	A	B	C	D	E	F	G	H	I	J	Hold	
1620	HW/PW-Site Wide Monitoring	1620	ALS Project Manager:	HW/PW-Site Wide Monitoring	1620	ALS Project Manager:	VOC (8260) Select												
Company Name	Bill To Company	Invoice Attn	Address	City/State/Zip	Phone	Fax	e-Mail Address												
Pastor, Belling & Wheeler, LLC	Union Pacific Railroad		1400 Douglas Street	Omaha, NE 681790750	(512) 671-3434	(512) 671-3446													
Send Report To	Eric Matzner																		
2201 Double Creek Drive																			
Suite 4004																			
Round Rock, TX 78664																			
(512) 671-3434																			
(512) 671-3446																			
No.	Sample Description	Date	Time	Matrix	Pres. #	Bottles	A	B	C	D	E	F	G	H	I	J	Hold		
1	WG-1620-MV50A-MSP-20110127	1-27-11	1730	GW	5	5	X	X											
2	WG-1620-FB03-20110127	1-27-11	1800	GW	5	5	X	X											
3	WG-1620-TB04-20110127	1-27-11		GW	2	2	X												
4																			
5																			
6																			
7																			
8																			
9																			
10																			
Sampler(s) Please Print & Sign		Shipment Method		Required Turnaround Time: (Check Box)		Results Due Date:													
JOHN BEAVERTON		HAND DELIVERED		STANDARD 5 WK DAYS		24 HOURS													
Relinquished by: <i>John Beaver</i>		Received by: <i>John Beaver</i>		Time: 07:50		Notes: 10 Day TAT.													
Relinquished by: <i>John Beaver</i>		Received by: <i>John Beaver</i>		Time: 07:50		Cooler Temp. <input type="checkbox"/> Level II Std CC <input checked="" type="checkbox"/> TRRP CheckList													
Logged by: <i>John Beaver</i>		Checked by: <i>John Beaver</i>		Time: 07:50		<input type="checkbox"/> Level III Std CC/RAW Data <input type="checkbox"/> TRRP Level IV													
Preservative Key: 1-HCl; 2-HNO ₃ ; 3-H ₂ SO ₄ ; 4-NaOH; 5-Na ₂ S ₂ O ₃ ; 6-NaHSO ₄ ; 7-Other; 8-4°C; 9-5035						<input type="checkbox"/> Level IV SW/45°C/LP <input type="checkbox"/> Other / EDD													

Note: 1. Any changes must be made in writing once samples and COC Form have been submitted to ALS Laboratory Group.
 2. Unless otherwise agreed in a formal contract, services provided by ALS Laboratory Group are expressly limited to the terms and conditions stated on the reverse.
 3. The Chain of Custody is a legal document. All information must be completed accurately.

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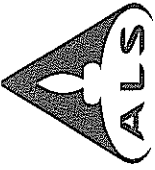
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Chain of Custody Form
 Page 1 of 3

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Customer Information				Project Information				ALS Work Order #: 10170											
Project Information				ALS Project Manager:				Parameter/Method Request for Analysis											
Project Name				HW/PW-Site Wide Monitoring				VOC (8260) Select											
Project Number				1620				LOW SVOC (8270) Select											
Bill To Company				Union Pacific Railroad															
Invoice Attn				1400 Douglas Street															
Address				Step 0750															
City/State/Zip				Omaha, NE 681790750															
Phone				(512) 671-3434															
Fax				(512) 671-3446															
e-Mail Address																			
No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold		
1	WG-1620-MW53C-20110126	1-26-11	0945	GW		5	X	X											
2	WG-1620-MW36D-20110126	1-26-11	1105	GW		5	X	X											
3	WG-1620-MW54C-20110126	1-26-11	1205	GW		5	X	X											
4	WG-1620-MW25A-20110126	1-26-11	1430	GW		5	X	X											
5	WG-1620-FD03-20110126	1-26-11	1430	GW		5	X	X											
6	WG-1620-MW25C-20110126	1-26-11	1540	GW		5	X	X											
7	WG-1620-MW44A-20110126	1-26-11	1640	GW		5	X	X											
8	WG-1620-MW65D-20110126	1-26-11	1745	GW		5	X	X											
9	WG-1620-MW67B-20110127	1-27-11	0800	GW		5	X	X											
10	WG-1620-MW67B-MS-20110127	1-27-11	0800	GW		5	X	X											

Sampler(s) Please Print & Sign: **JOHN BEAUPON**
 Relinquished by: **John Beupon** Date: 1-23-11
 Relinquished by: **John Beupon** Date: 1-23-11
 Logged by Laboratory: **John Beupon** Date: 1-23-11
 Relinquished by: **John Beupon** Date: 1-23-11
 Received by: **John Beupon** Date: 1-23-11
 Checked by (Laboratory): **John Beupon** Date: 1-23-11
 Required Turnaround Time: (Check Box) 5WK Days 10WK Days 15WK Days
 Shipment Method: **HAND DELIVERED**
 Results Due Date: **10 Day TAT**
 QC Package: (Check One Box Below) Level II Std QC TRIP Checklist Level III Std QC/Raw Data TRIP Level IV Level IV SW/346/CLP Other / EDD
 Cooler ID: **9-5035** Cooler Temp: **8-4°C**
 Preservative Key: 1-HCl 2-HNO₃ 3-H₂SO₄ 4-NaOH 5-Na₂S₂O₃ 6-NAHSO₃ 7-Other 8-4°C 9-5035
 Note: 1. Any changes must be made in writing once samples and COC Form have been submitted to ALS Laboratory Group.
 2. Unless otherwise agreed in a formal contract, services provided by ALS Laboratory Group are expressly limited to the terms and conditions stated on the reverse.
 3. The Chain of Custody is a legal document. All information must be completed accurately.
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Chain of Custody Form

Page 2 of 3

ALS Laboratory Group
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 Fax: +1 616 399 6185

Customer Information				Project Information													
Purchase Order	Project Name	Project Number	Project Manager	A	B	C	D	E	F	G	H	I	J	Hold			
Work Order	Invoice Attn	Address	City/State/Zip	Parameter/Method Request for Analysis													
Company Name	Bill To Company	Address	City/State/Zip	VOC (8260) Select													
Send Report To	Eric Matzner	Address	City/State/Zip	LOW SVOC (8270) Select													
Address	2201 Double Creek Drive	Address	City/State/Zip														
City/State/Zip	Round Rock, TX 78664	Address	City/State/Zip														
Phone	(512) 671-3434	Phone	City/State/Zip														
Fax	(512) 671-3446	Fax	City/State/Zip														
e-Mail Address		e-Mail Address	City/State/Zip														
No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	WG-1620-MW67B-MSD-20110127	1-27-11	0800	GW		5	X	X									
2	WG-1620-MW35A-20110127	1-27-11	0900	GW		5	X	X									
3	WG-1620-MW35B-20110127	1-27-11	0950	GW		5	X	X									
4	WG-1620-MW27C-20110127	1-27-11	1105	GW		5	X	X									
5	WG-1620-MW64A-20110127	1-27-11	1220	GW		5	X	X									
6	WG-1620-MW63B-20110127	1-27-11	1320	GW		5	X	X									
7	WG-1620-MW62B-20110127	1-27-11	1450	GW		5	X	X									
8	WG-1620-MW61A-20110127	1-27-11	1615	GW		5	X	X									
9	WG-1620-MW50A-20110127	1-27-11	1730	GW		5	X	X									
10	WG-1620-MW50A-MS-20110127	1-27-11	1730	GW		5	X	X									

Sampler(s) Please Print & Sign
 Relinquished by: John Grayson Date: 1-28-11 Time: 07:50
 Relinquisher: John Grayson
 Received by: [Signature] Date: 1-28-11 Time: 07:50
 Checked by (Laboratory): [Signature]
 Shipment Method: HAND DELIVERED
 Required Turnaround Time: (Check Box) 1-2 WK Days 3-4 WK Days 5-6 WK Days Other _____
 Notes: 10 Day TAT.
 QC Package: (Check One Box Below) Level II Std OC TRRP Check/USI
 Level III Std OC/RAW Data TRRP Level IV
 Level IV SW/345/C-LP Other / EDD
 Preservative Key: 1-HCl 2-HNO₃ 3-H₂SO₄ 4-NaOH 5-Na₂S₂O₃ 6-NaHSO₄ 7-Other 8-4°C 9-5035
 Note: 1. Any changes must be made in writing once samples and COC Form have been submitted to ALS Laboratory Group.
 2. Unless otherwise agreed in a formal contract, services provided by ALS Laboratory Group are expressly limited to the terms and conditions stated on the reverse.
 3. The Chain of Custody is a legal document. All information must be completed accurately.

Sample Receipt Checklist

Client Name: **PBW**

Date/Time Received: **28-Jan-11 07:50**

Work Order: **1101770**

Received by: **RNG**

Checklist completed by David H ightower 28-Jan-11
eSignature Date

Reviewed by: R. K evin Given 29-Jan-11
eSignature Date

Matrices: **water**

Carrier name: **Client**

- Shipping container/cooler in good condition? Yes No Not Present
- Custody seals intact on shipping container/cooler? Yes No Not Present
- Custody seals intact on sample bottles? Yes No Not Present
- Chain of custody present? Yes No
- Chain of custody signed when relinquished and received? Yes No
- Chain of custody agrees with sample labels? Yes No
- Samples in proper container/bottle? Yes No
- Sample containers intact? Yes No
- Sufficient sample volume for indicated test? Yes No
- All samples received within holding time? Yes No
- Container/Temp Blank temperature in compliance? Yes No
- Temperature(s)/Thermometer(s):
- Cooler(s)/Kit(s):
- Water - VOA vials have zero headspace? Yes No No VOA vials submitted
- Water - pH acceptable upon receipt? Yes No N/A
- pH adjusted? Yes No N/A
- pH adjusted by:

Login Notes: 1 ea. Vial broken 8A. Sufficient sample remaining to perform analysis.

Client Contacted: Date Contacted: Person Contacted:

Contacted By: Regarding:

Comments:

CorrectiveAction:



**CONESTOGA-ROVERS
& ASSOCIATES**

E-Mail Date: August 29, 2011
E-Mail To: Eric Matzner/ Pastor, Behling & Wheeler, LLC
c.c.: Angela Bown
E-Mail and Hard Copy if Requested

**DATA USABILITY SUMMARY
UNION PACIFIC RAILROAD (UPRR)
HOUSTON WOOD PRESERVING WORKS
SEMI-ANNUAL GROUNDWATER MONITORING
HOUSTON, TEXAS
JULY 2011**

PREPARED BY:
CONESTOGA-ROVERS & ASSOCIATES
9033 Meridian Way
West Chester, Ohio 45069
Telephone: 513-942-4750 Fax: 513-942-8585
Contact: Angela Bown *AB*
Date: August 29, 2011
www.CRAworld.com

Data Usability Summary

Reviewer:	Angela Bown – Conestoga-Rovers & Associates, Inc.
Contract Laboratory:	ALS Laboratory Group – Houston, Texas
Project/Area of Interest:	UPRR Houston Wood Preserving Works – Houston, Texas
Description of Data Packages Reviewed:	Groundwater sample results in data packages: 1107486, 1107622, 1107677, 1107721, 1107899, and 1107935
Sample Collection Date(s):	July 13-28, 2011
Intended Use of Data:	To monitor the COCs in groundwater at the site and to evaluate whether migration of Chemicals of Concern (COC) could result in risk to human or ecological health.

1.0 Scope of Data Usability Summary

Data were reviewed and validated in accordance with Title 30 of the Texas Administrative Code Section 350.54 (30 TAC 350.54) as described in *Review and Reporting of COC Concentration Data*, (RG-366/TRRP-13) and the results of the review/validation are discussed in this Data Usability Summary (DUS). The review included examination of the reported data, the laboratory review checklist (LRC), and field/laboratory quality assurance/quality control (QA/QC) samples collected at the Site. Tables summarizing data qualifications discussed in this DUS can be found in Appendix A.

A sampling and analysis summary is presented in Table 1. This summary includes a cross-reference of field sample identification numbers and location codes. Each sample was assigned a unique field identification number.

Ninety two (92) groundwater samples including quality control samples were analyzed for the parameters outlined in Table 2. The validated sample results are presented in Table 3.

2.0 Laboratory Qualifications

Analytical services were provided by ALS Laboratory Group (ALS) located in Houston, Texas. The laboratory's quality assurance program is consistent with the quality standards outlined in the National Environmental Laboratory Accreditation Program (NELAP). The laboratory was accredited under Texas Certification Number T104704231-11-4 at the time the analyses were performed.

3.0 Project Objectives

3.1 Levels of Required Performance (LORP)

Prior to sampling, the LORP for each COC was established for the investigation. Standard available analytical methods were selected and minimal detection limits that are at or below the

Texas Risk Reduction Tier 1 Residential Protective Concentration Levels (PCLs), ^{GW} GW _{ING} for groundwater were sought.

3.2 Sampling/ Analytical QA/QC Objectives

Pastor, Behling & Wheeler, LLC designed the QA/QC program to identify contamination resulting from sample collection, sample transport and the analytical process.

- The trip blank is a zero headspace sample container filled by the laboratory with analyte-free water. Trip blanks were submitted and analyzed with the samples requiring volatile organic analyses. The trip blank samples were kept in the same environment in which the other field samples were collected.
- Field and equipment blanks are sample containers filled in the field with analyte-free water, which has been used to rinse sampling equipment to check effectiveness of the decontamination procedures.
- Method blanks of a similar matrix to that of the associated samples are prepared by the laboratory and analyzed to determine if laboratory contaminants are affecting the analytical results. Method blanks are prepared and analyzed with each batch.

Similarly, the QA/QC program was designed to evaluate the quality of the resulting data with respect to bias and precision. First, a laboratory control sample (LCS) or laboratory control sample duplicate (LCSD) was prepared and analyzed with each batch. The recovery ranges established by the laboratory are adopted as the acceptance criteria for the project. Second, a matrix spike/matrix spike duplicate (MS/MSD) was prepared and analyzed with each batch. The recovery ranges and RPDs established by the laboratory are adopted as the acceptance criteria for the project. Third, field duplicates were collected and submitted for analysis. The RPD acceptance criterion for the water field duplicates is 30 percent. This RPD criterion is only used when sample concentrations are above the estimated regions of detection.

4.0 Data Review/Validation Results

4.1 Analytical Results

Analytes with concentrations above the Sample Detection Limits (SDLs) but below the Method Quantitation Limits (MQL) have been qualified as estimated on the analytical tables per the TRRP-13 document.

4.2 LORP

All SDLs and unadjusted MQLs met the LORP for this investigation.

All Detectability Check Standard (DCS) results supported the laboratory Method Detection Limits (MDL) with the exception of pentachlorophenol on instrument SV-6.

4.3 Preservation and Holding Times

Samples were properly preserved in the field and cooled to 4°C ($\pm 2^\circ\text{C}$). Samples were shipped with chains of custody, and the paperwork was filled out properly. All samples were shipped on ice. All samples were prepared and analyzed within the applicable holding times.

4.4 Sample Containers

Sample containers were certified pre-cleaned glass provided by the laboratory. These containers meet or exceed analyte specifications established in the USEPA *Specifications and Guidance for Contaminant-free Sample Containers*.

4.5 Calibrations

According to the LRCs, instrument tuning and initial calibration and continuing calibration data met the criteria for the selected methods.

4.6 Blanks

Method Blanks: As these were not discrete samples handled in the field, the method blanks are not listed on the sample identification cross-reference list found in Table 1. Results are reported in the data packages on a laboratory batch basis. All of the laboratory blank results were reported as ND (not detected).

Trip Blanks: The trip blanks, which were discrete samples handled in the field, are listed on the sample identification cross-reference table found in the laboratory data packages. Results are reported in the data package with the other project sample results. All of the trip blank results were reported as ND (not detected).

Field Blanks and Equipment Blanks: The field and equipment blanks, which were discrete samples handled in the field, are listed on the sample identification cross-reference table found in the laboratory data packages. Results are reported in the data package with the other project sample results. Sample results with analyte concentrations similar to those found in the blanks were qualified as non-detect (see Table 4).

4.7 Internal Standard and Surrogate Recoveries

Recoveries of internal standards and surrogates are addressed in the LRCs of the laboratory data packages. All surrogate recoveries were within the acceptance limits.

All internal standard areas and retention limits were acceptable per the LRCs with the exception of sample WG-1620-MW65D-20110727. Internal Standard recoveries were below the control limits for phenanthrene-d10, chrysene-d12 and perylene-d12. MS/MSD analyses confirm matrix interference.

4.8 Laboratory Control Samples (LCS)/ Laboratory Control Sample Duplicates (LCSD)

LCS or LCS/LCSD data for all COCs were reported for each batch. LCS spike recoveries and RPDs for all COCs were within the project objectives with the exception of the sample results presented with qualifiers in Table 5.

4.9 Matrix Spikes

Matrix spike/matrix spike duplicates were prepared and analyzed with most batches for all requested parameters. The results are reported in the data package on a laboratory batch basis. For some SVOC and VOC batches, insufficient sample was available for MS/MSD analyses. In these cases, analyses of LCS/LCSD were used to determine batch precision and accuracy for VOCs and SVOCs.

All recoveries and RPD met criteria with the exception of the sample results presented with qualifiers in Table 6.

The laboratory also performed MS/MSD on unrelated samples from other projects. The data for these unrelated samples cannot be used to assess accuracy and precision for the associated project samples.

4.10 Field Duplicate

Field duplicate samples were collected and analyzed for the target analytes as outlined in Table 1.

All relative percent differences (RPDs) were < 30% for sample results greater than 5 times the MQL indicating acceptable precision above the estimated regions of detection with the exception of the sample results presented with qualifiers in Table 7.

4.11 Field Procedures

Pastor, Behling & Wheeler, LLC collected groundwater samples in accordance with their Standard Operating Procedures (SOP) for sample collection.

4.12 Summary

The analytical data in this report are usable to assess the impact of COCs in groundwater at the site with the qualification noted herein.

APPENDIX A

TABLES

TABLE 1

SAMPLE AND ANALYSIS SUMMARY
SEMI-ANNUAL SITE-WIDE GROUNDWATER MONITORING
UNION PACIFIC RAILROAD (UPRR)
HOUSTON WOOD PRESERVING WORKS
HOUSTON, TEXAS
JULY 2011

<i>Sample I.D.</i>	<i>Collection Date (mm/dd/yy)</i>	<i>Collection Time (hr:min)</i>	<i>Analysis/Parameters</i>		<i>Comment</i>
			<i>Select SVOCs</i>	<i>VOCs</i>	
WG-1620-MW15A-20110713	07/13/11	2:00:00 PM	X	X	
WG-1620-MW15C-20110713	07/13/11	2:45:00 PM	X	X	
WG-1620-MW17C-20110713	07/13/11	3:45:00 PM	X	X	
WG-1620-MW-17-20110713	07/13/11	4:45:00 PM	X	X	
WG-1620-MW18A-20110713	07/13/11	6:00:00 PM	X	X	
WG-1620-MW18C-20110713	07/13/11	6:45:00 PM	X	X	
WG-1620-FB01-20110713	07/13/11	7:15:00 PM	X	X	Field Blank
WG-1620-TW56A-20110714	07/14/11	7:45:00 AM	X	X	
WG-1620-MW20A-20110714	07/14/11	8:45:00 AM	X	X	
WG-1620-MW16-20110714	07/14/11	9:35:00 AM	X	X	
WG-1620-MW55A-20110714	07/14/11	10:30:00 AM	X	X	
WG-1620-MW19C-20110714	07/14/11	11:20:00 AM	X	X	
WG-1620-MW52A-20110714	07/14/11	12:30:00 PM	X	X	
WG-1620-MW31A-20110714	07/14/11	1:40:00 PM	X	X	
WG-1620-MW30A-20110714	07/14/11	2:45:00 PM	X	X	
WG-1620-MW40B-20110714	07/14/11	4:00:00 PM	X	X	
WG-1620-MW42B-02110714	07/14/11	5:30:00 PM	X	X	
WG-1620-FB02-20110714	07/14/11	6:00:00 PM	X	X	Field Blank
WG-1620-TB01-20110714	07/14/11	-	X	X	Trip Blank
WG-1620-MW36B-20110719	07/19/11	8:30:00 AM	X	X	
WG-1620-MW36A-20110719	07/19/11	9:20:00 AM	X	X	
WG-1620-MW28A-20110719	07/19/11	10:15:00 AM	X	X	
WG-1620-MW28C-20110719	07/19/11	11:30:00 AM	X	X	MS/MSD
WG-1620-MW63B-20110719	07/19/11	12:30:00 PM	X	X	
WG-1620-DUP3-20110719	07/19/11	12:30:00 PM	X	X	WG-1620-MW63B-20110719

TABLE 1
SAMPLE AND ANALYSIS SUMMARY
SEMI-ANNUAL SITE-WIDE GROUNDWATER MONITORING
UNION PACIFIC RAILROAD (UPRR)
HOUSTON WOOD PRESERVING WORKS
HOUSTON, TEXAS
JULY 2011

<i>Sample I.D.</i>	<i>Collection Date (mm/dd/yy)</i>	<i>Collection Time (hr:min)</i>	<i>Analysis/Parameters</i>		<i>Comment</i>
			<i>Select SVOCs</i>	<i>VOCs</i>	
WG-1620-MW33A-20110719	07/19/11	1:40:00 PM	X	X	
WG-1620-DUP4-20110719	07/19/11	1:40:00 PM	X	X	WG-1620-MW33A-20110719
WG-1620-MW33B-20110719	07/19/11	2:30:00 PM	X	X	
WG-1620-MW26A-20110719	07/19/11	3:30:00 PM	X	X	
WG-1620-MW32A-20110719	07/19/11	4:30:00 PM	X	X	
WG-1620-MW38A-20110719	07/19/11	5:40:00 PM	X	X	
WG-1620-FB04-20110719	07/19/11	6:00:00 PM	X	X	Field Blank
WG-1620-MW38B-20110718	07/18/11	11:20:00 AM	X	X	
WG-1620-MW48C-20110718	07/18/11	1:40:00 PM	X	X	
WG-1620-MW60A-20110718	07/18/11	2:45:00 PM	X	X	
WG-1620-MW59A-20110718	07/18/11	3:40:00 PM	X	X	
WG-1620-MW59B-20110718	07/18/11	4:30:00 PM	X	X	
WG-1620-FB03-20110718	07/18/11	5:00:00 PM	X	X	Field Blank
WG-1620-TB-20110719	07/19/11	-		X	Trip Blank
WG-1620MW53C-20110720	07/20/11	8:20:00 AM	X	X	
WG-1620MW54C-20110720	07/20/11	9:20:00 AM	X	X	
WG-1620MW25A-20110720	07/20/11	10:15:00 AM	X	X	
WG-1620MW25C-20110720	07/20/11	11:05:00 AM	X	X	
WG-1620MW44C-20110720	07/20/11	12:05:00 PM	X	X	
WG-1620MW44A-20110720	07/20/11	1:30:00 PM	X	X	
WG-1620MW67B-2011720	07/20/11	2:40:00 PM	X	X	MS/MSD
WG-1620MW27C-20110720	07/20/11	3:45:00 PM	X	X	
WG-1620MW35A-20110720	07/20/11	4:55:00 PM	X	X	
WG-1620MW35B-20110720	07/20/11	5:45:00 PM	X	X	
WG-1620FB05-20110720	07/20/11	6:00:00 PM	X	X	Field Blank

TABLE 1
SAMPLE AND ANALYSIS SUMMARY
SEMI-ANNUAL SITE-WIDE GROUNDWATER MONITORING
UNION PACIFIC RAILROAD (UPRR)
HOUSTON WOOD PRESERVING WORKS
HOUSTON, TEXAS
JULY 2011

<i>Sample I.D.</i>	<i>Collection Date (mm/dd/yy)</i>	<i>Collection Time (hr:min)</i>	<i>Analysis/Parameters</i>		<i>Comment</i>
			<i>Select SVOCs</i>	<i>VOCs</i>	
WG-1620MW22A-20110721	07/21/11	8:30:00 AM	X	X	
WG-1620MW22B-20110721	07/21/11	9:30:00 AM	X	X	
WG-1620MW24AR-20110721	07/21/11	10:25:00 AM	X	X	
WG-1620MW24B-20110721	07/21/11	11:20:00 AM	X	X	
WG-1620TB-20110721	07/21/11	-		X	Trip Blank
WG-1620-MW24C-20110721	07/21/11	1:45:00 PM	X	X	
WG-1620-MW68C-20110721	07/21/11	1:00:00 PM	X	X	
WG-1620-MW69A-20110721	07/21/11	2:45:00 PM	X	X	
WG-1620-MW61A-20110721	07/21/11	4:00:00 PM	X	X	MS/MSD
WG-1620-MW47C-20110721	07/21/11	5:00:00 PM	X	X	
WG-1620-FB06-20110721	07/21/11	5:15:00 PM	X	X	Field Blank
WG-1620-MW49A-20110722	07/22/11	7:20:00 AM	X	X	
WG-1620-MW49B-20110722	07/22/11	8:15:00 AM	X	X	
WG-1620-MW57A-20110722	07/22/11	9:25:00 AM	X	X	
WG-1620-MW23C-20110722	07/22/11	10:40:00 AM	X	X	
WG-1620-FB07-20110722	07/22/11	11:00:00 AM	X	X	Field Blank
WG-1620-TB-20110722	07/22/11	-		X	Trip Blank
WG-1620-MW14-20110726	07/26/11	2:15:00 PM	X	X	
WG-1620-DUP5-20110726	07/26/11	2:15:00 PM	X	X	WG-1620-MW14-20110726
WG-1620-MW13-2011726	07/26/11	3:30:00 PM	X	X	MS/MSD
WG-1620-MW39B-2011726	07/26/11	4:20:00 PM	X	X	
WG-1620-MW12C-20110726	07/26/11	5:10:00 PM	X	X	
WG-1620-MW12A-20110726	07/26/11	6:00:00 PM	X	X	
WG-1620-TW41B-20110727	07/27/11	7:10:00 AM	X	X	
WG-1620-MW62B-20110727	07/27/11	7:55:00 AM	X	X	

TABLE 1

SAMPLE AND ANALYSIS SUMMARY
SEMI-ANNUAL SITE-WIDE GROUNDWATER MONITORING
UNION PACIFIC RAILROAD (UPRR)
HOUSTON WOOD PRESERVING WORKS
HOUSTON, TEXAS
JULY 2011

<i>Sample I.D.</i>	<i>Collection Date (mm/dd/yy)</i>	<i>Collection Time (hr:min)</i>	<i>Analysis/Parameters</i>		<i>Comment</i>
			<i>Select SVOCs</i>	<i>VOCs</i>	
WG-1620-P11-20110727	07/27/11	8:50:00 AM	X	X	
WG-1620-MW05-20110727	07/27/11	9:45:00 AM	X	X	
WG-1620-MW64A-20110727	07/27/11	10:40:00 AM	X	X	
WG-1620-MW21C-20110727	07/27/11	11:40:00 AM	X	X	
WG-1620-DUP6-20110727	07/27/11	11:40:00 AM	X	X	WG-1620-MW21C-20110727
WG-1620-MW58A-20110727	07/27/11	12:40:00 PM	X	X	
WG-1620-MW09-20110727	07/27/11	1:40:00 PM	X	X	
WG-1620-TB-20110727	07/27/11	-		X	Trip Blank
WG-1620-MW36D-20110727	07/27/11	2:40:00 PM	X	X	
WG-1620-MW65D-20110727	07/27/11	3:40:00 PM	X	X	MS/MSD
WG-1620-MW59D-20110727	07/27/11	4:40:00 PM	X	X	
WG-1620-DUP7-20110727	07/27/11	4:40:00 PM	X	X	WG-1620-MW59D-20110727
WG-1620-MW66D-20110727	07/27/11	5:45:00 PM	X	X	
WG-1620-MW51A-20110728	07/28/11	7:40:00 AM	X	X	
WG-1620-MW50A-20110728	07/28/11	8:45:00 AM	X	X	
WG-1620-FB08-20110728	07/28/11	9:15:00 AM	X	X	Field Blank
WG-1620-TB-20110728	07/28/11	-		X	Trip Blank

Notes:

MS Matrix Spike.
MSD Matrix Spike Duplicate.
SVOCs Semi-Volatile Organic Compounds.
VOCs Volatile Organic Compounds.

TABLE 2

**SUMMARY OF ANALYTICAL METHODOLOGIES
SEMI-ANNUAL SITE-WIDE GROUNDWATER MONITORING
UNION PACIFIC RAILROAD (UPRR)
HOUSTON WOOD PRESERVING WORKS
HOUSTON, TEXAS
JULY 2011**

<i>Parameter</i>	<i>Method</i>
Select SVOCs	SW-846 8270 ¹
VOCs	SW-846 8260 ¹

Notes:

- ¹ "Test Methods for Solid Waste/Physical Chemical Methods," SW-846, 3rd Edition, September 1986 (with all subsequent revisions).
- SVOCs Semi-Volatile Organic Compounds.
- VOCs Volatile Organic Compounds.

TABLE 3
ANALYTICAL RESULTS SUMMARY
SEMI-ANNUAL SITE-WIDE GROUNDWATER MONITORING
UNION PACIFIC RAILROAD (UPRR)
HOUSTON WOOD PRESERVING WORKS
HOUSTON, TEXAS
JULY 2011

Parameters	Units	Sample Location:	MW-05	MW-09	MW-12A	MW-12C	MW-13
		Sample ID:	WG-1620-MW05-20110727	WG-1620-MW09-20110727	WG-1620-MW12A-20110726	WG-1620-MW12C-20110726	WG-1620-MW13-2011726
		Sample Date:	7/27/2011	7/27/2011	7/26/2011	7/26/2011	7/26/2011
Volatile Organic Compounds							
1,2-Dichloroethane	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Benzene	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Chlorobenzene	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Ethylbenzene	mg/L	<0.0011	<0.0011	0.0015 J	<0.0011	<0.0011	<0.0011
Methylene chloride	mg/L	<0.0013	<0.0013	<0.0013	<0.0013	<0.0013	<0.0013
Toluene	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Vinyl chloride	mg/L	-	-	-	-	-	-
Xylenes (total)	mg/L	<0.0031	<0.0031	<0.0031	<0.0031	<0.0031	<0.0031
Semi-volatile Organic Compounds							
1,2-Diphenylhydrazine	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
2,4-Dimethylphenol	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
2,4-Dinitrotoluene	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
2,6-Dinitrotoluene	mg/L	<0.000060	<0.000060	<0.000060	<0.000060	<0.000060	<0.000060
2-Chloronaphthalene	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
2-Methylnaphthalene	mg/L	<0.000050	<0.000050	0.014	0.000099 J	0.00026	0.00026
4,6-Dinitro-2-methylphenol	mg/L	<0.000080	<0.000080	<0.000080	<0.000080	<0.000080	<0.000080
4-Nitrophenol	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Acenaphthene	mg/L	0.0053	<0.000050	0.038	<0.000050	0.00033	0.00033
Acenaphthylene	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Anthracene	mg/L	<0.000050	0.00036	0.0017	<0.000050	0.00037	0.00037
Benzo(a)anthracene	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Benzo(a)pyrene	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
bis(2-Chloroethoxy)methane	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
bis(2-Ethylhexyl)phthalate (DEHP)	mg/L	0.00047	0.00018 J	0.00017 J	0.00040	0.00027	0.00027
Chrysene	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Dibenzofuran	mg/L	0.0022	<0.000050	0.025	<0.000050	0.00034	0.00034
Di-n-butylphthalate (DBP)	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Fluoranthene	mg/L	0.00011 J	<0.000050	0.0017	<0.000050	0.00067 J	0.00067 J
Fluorene	mg/L	0.0012	<0.000050	0.025	0.000071 J	0.00035	0.00035
Naphthalene	mg/L	<0.000050	<0.000050	0.050	<0.000048	0.00087	0.00087
Nitrobenzene	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050

TABLE 3
ANALYTICAL RESULTS SUMMARY
SEMI-ANNUAL SITE-WIDE GROUNDWATER MONITORING
UNION PACIFIC RAILROAD (UPRR)
HOUSTON WOOD PRESERVING WORKS
HOUSTON, TEXAS
JULY 2011

	<i>Sample Location:</i>	<i>MW-05</i>	<i>MW-09</i>	<i>MW-12A</i>	<i>MW-12C</i>	<i>MW-13</i>
	<i>Sample ID:</i>	WG-1620-MW05-20110727	WG-1620-MW09-20110727	WG-1620-MW12A-20110726	WG-1620-MW12C-20110726	WG-1620-MW13-20110726
	<i>Sample Date:</i>	7/27/2011	7/27/2011	7/26/2011	7/26/2011	7/26/2011
<i>Parameters</i>	<i>Units</i>					
<i>Semi-volatile Organic Compounds (Cont'd.)</i>						
N-Nitrosodiphenylamine	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Pentachlorophenol	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Phenanthrene	mg/L	0.00013 J	<0.000050	0.015	<0.000050	0.00029
Phenol	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Pyrene	mg/L	0.00014 J	<0.000050	0.00068	<0.000050	0.00011 J

TABLE 3
ANALYTICAL RESULTS SUMMARY
SEMI-ANNUAL SITE-WIDE GROUNDWATER MONITORING
UNION PACIFIC RAILROAD (UPRR)
HOUSTON WOOD PRESERVING WORKS
HOUSTON, TEXAS
JULY 2011

Parameters	Units	Sample Location:	MW-14	MW-14	MW-15A	MW-15C	MW-16
		Sample ID:	WG-1620-MW14-20110726	WG-1620-DUP5-20110726	WG-1620-MW15A-20110713	WG-1620-MW15C-20110713	WG-1620-MW16-20110714
		Sample Date:	7/26/2011	7/26/2011	7/13/2011	7/13/2011	7/14/2011
				Duplicate			
Volatile Organic Compounds							
1,2-Dichloroethane	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.010
Benzene	mg/L	<0.0010	<0.0010	0.0016 J	<0.0010	<0.0010	0.068
Chlorobenzene	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.010
Ethylbenzene	mg/L	<0.0011	<0.0011	0.0019 J	<0.0011	<0.0011	0.038 J
Methylene chloride	mg/L	<0.0013	<0.0013	<0.0013	<0.0013	<0.0013	<0.013
Toluene	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.010
Vinyl chloride	mg/L	-	-	-	-	-	-
Xylenes (total)	mg/L	<0.0031	<0.0031	0.0038 J	<0.0031	<0.0031	<0.031
Semi-volatile Organic Compounds							
1,2-Diphenylhydrazine	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
2,4-Dimethylphenol	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	0.012
2,4-Dinitrotoluene	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
2,6-Dinitrotoluene	mg/L	<0.000060	<0.000060	<0.000060	<0.000060	<0.000060	<0.000060
2-Chloronaphthalene	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
2-Methylnaphthalene	mg/L	0.00034	0.00031	0.14	<0.000050	<0.000050	0.082
4,6-Dinitro-2-methylphenol	mg/L	<0.000080	<0.000080	<0.000080	<0.000080	<0.000080	<0.000080
4-Nitrophenol	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Acenaphthene	mg/L	0.00032	0.00028	0.20	0.016	0.016	0.23
Acenaphthylene	mg/L	<0.000050	<0.000050	0.00097	0.0012	0.0012	0.0032
Anthracene	mg/L	<0.000050	0.000087 J	0.0053	<0.000050	<0.000050	0.017
Benzo(a)anthracene	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	0.00022
Benzo(a)pyrene	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
bis(2-Chloroethoxy)methane	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
bis(2-Ethylhexyl)phthalate (DEHP)	mg/L	0.00047	0.00065	<0.00012 U	<0.00057 U	<0.00057 U	<0.00025 U
Chrysene	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	0.00019 J
Dibenzofuran	mg/L	0.00031	0.00027	0.078	0.0046	0.0046	0.13
Di-n-butylphthalate (DBP)	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	0.000099 J
Fluoranthene	mg/L	<0.000050	<0.000050	0.0021	0.00031	0.00031	0.0060
Fluorene	mg/L	<0.000050	0.000065 J	0.092	0.00074	0.00074	0.14
Naphthalene	mg/L	0.0014	0.0012	0.087	<0.00046 U	<0.00046 U	1.8
Nitrobenzene	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050

TABLE 3
ANALYTICAL RESULTS SUMMARY
SEMI-ANNUAL SITE-WIDE GROUNDWATER MONITORING
UNION PACIFIC RAILROAD (UPRR)
HOUSTON WOOD PRESERVING WORKS
HOUSTON, TEXAS
JULY 2011

<i>Parameters</i>	<i>Units</i>	<i>Sample Location:</i>	<i>MW-14</i>	<i>MW-14</i>	<i>MW-15A</i>	<i>MW-15C</i>	<i>MW-16</i>
		<i>Sample ID:</i>	<i>WG-1620-MW14-20110726</i>	<i>WG-1620-DUP5-20110726</i>	<i>WG-1620-MW15A-20110713</i>	<i>WG-1620-MW15C-20110713</i>	<i>WG-1620-MW16-20110714</i>
		<i>Sample Date:</i>	<i>7/26/2011</i>	<i>7/26/2011</i>	<i>7/13/2011</i>	<i>7/13/2011</i>	<i>7/14/2011</i>
				<i>Duplicate</i>			
<i>Semi-volatile Organic Compounds (Cont'd.)</i>							
N-Nitrosodiphenylamine	mg/L	<0.000050	<0.000050		0.00055	<0.000050	<0.000050
Pentachlorophenol	mg/L	<0.000050	<0.000050		<0.000050	<0.000050	0.000061 J
Phenanthrene	mg/L	0.00033	0.00032		0.036	0.00019 J	0.058
Phenol	mg/L	<0.000050	<0.000050		<0.000050	<0.000050	0.000067 J
Pyrene	mg/L	<0.000050	<0.000050		0.00089	0.00018 J	0.0050

TABLE 3
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SEMI-ANNUAL SITE-WIDE GROUNDWATER MONITORING
UNION PACIFIC RAILROAD (UPRR)
HOUSTON WOOD PRESERVING WORKS
HOUSTON, TEXAS
JULY 2011

	<i>Sample Location:</i>	<i>MW-17</i>	<i>MW-17C</i>	<i>MW-18A</i>	<i>MW-18C</i>	<i>MW-19C</i>
	<i>Sample ID:</i>	WG-1620-MW-17-20110713	WG-1620-MW17C-20110713	WG-1620-MW18A-20110713	WG-1620-MW18C-20110713	WG-1620-MW19C-20110714
	<i>Sample Date:</i>	7/13/2011	7/13/2011	7/13/2011	7/13/2011	7/14/2011
<i>Parameters</i>	<i>Units</i>					
<i>Volatile Organic Compounds</i>						
1,2-Dichloroethane	mg/L	<0.0010	<0.0010	<0.0050	<0.010	<0.0010
Benzene	mg/L	0.45	0.010	0.59	1.2	<0.0010
Chlorobenzene	mg/L	<0.0010	<0.0010	<0.0050	<0.010	<0.0010
Ethylbenzene	mg/L	0.21	0.021	0.39	0.16	<0.0011
Methylene chloride	mg/L	<0.0013	<0.0013	<0.0065	<0.013	<0.0013
Toluene	mg/L	0.85	0.0046 J	0.23	0.80	<0.0010
Vinyl chloride	mg/L	-	-	0.028	<0.010	<0.0010
Xylenes (total)	mg/L	0.54	0.029	0.73	0.90	<0.0031
<i>Semi-volatile Organic Compounds</i>						
1,2-Diphenylhydrazine	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
2,4-Dimethylphenol	mg/L	2.7	1.5	11	0.0031	<0.000050
2,4-Dinitrotoluene	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
2,6-Dinitrotoluene	mg/L	<0.000060	<0.000060	<0.000060	<0.000060	<0.000060
2-Chloronaphthalene	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
2-Methylnaphthalene	mg/L	0.75	0.0073	0.70	0.34	0.0012
4,6-Dinitro-2-methylphenol	mg/L	<0.000080	<0.000080	<0.000080	<0.000080	<0.000080
4-Nitrophenol	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Acenaphthene	mg/L	0.22	0.021	0.36	0.12	0.00067
Acenaphthylene	mg/L	0.0069	0.00028	0.015	0.0023	<0.000050
Anthracene	mg/L	0.014	0.0016	0.013	0.013	0.00015 J
Benzo(a)anthracene	mg/L	0.00047	0.00017 J	<0.000050	<0.000050	<0.000050
Benzo(a)pyrene	mg/L	0.00027	<0.000050	<0.000050	0.00015 J	<0.000050
bis(2-Chloroethoxy)methane	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
bis(2-Ethylhexyl)phthalate (DEHP)	mg/L	<0.00044 U	<0.012 U	<0.00010	<0.00010	<0.00039 U
Chrysene	mg/L	0.00047	<0.000050	<0.000050	<0.000050	<0.000050
Dibenzofuran	mg/L	0.19	0.021	0.23	0.11	<0.00060 U
Di-n-butylphthalate (DBP)	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Fluoranthene	mg/L	0.0039	0.0018	0.0018	0.0042	0.0016
Fluorene	mg/L	0.12	0.0090	0.18	0.052	<0.00066 U
Naphthalene	mg/L	19	0.37	7.3	12	0.014
Nitrobenzene	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050

TABLE 3
ANALYTICAL RESULTS SUMMARY
SEMI-ANNUAL SITE-WIDE GROUNDWATER MONITORING
UNION PACIFIC RAILROAD (UPRR)
HOUSTON WOOD PRESERVING WORKS
HOUSTON, TEXAS
JULY 2011

	<i>Sample Location:</i>	<i>MW-17</i>	<i>MW-17C</i>	<i>MW-18A</i>	<i>MW-18C</i>	<i>MW-19C</i>
	<i>Sample ID:</i>	WG-1620-MW-17-20110713	WG-1620-MW17C-20110713	WG-1620-MW18A-20110713	WG-1620-MW18C-20110713	WG-1620-MW19C-20110714
	<i>Sample Date:</i>	7/13/2011	7/13/2011	7/13/2011	7/13/2011	7/14/2011
<i>Parameters</i>	<i>Units</i>					
<i>Semi-volatile Organic Compounds (Cont'd.)</i>						
N-Nitrosodiphenylamine	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Pentachlorophenol	mg/L	<0.000050	<0.000050	<0.000050	0.076 J	0.00028 J
Phenanthrene	mg/L	0.078	0.014	0.098	0.052	<0.00053 U
Phenol	mg/L	3.1	0.025	0.061	0.048	<0.000050
Pyrene	mg/L	0.0019	0.00098	0.0011	0.0017	0.0014

TABLE 3
ANALYTICAL RESULTS SUMMARY
SEMI-ANNUAL SITE-WIDE GROUNDWATER MONITORING
UNION PACIFIC RAILROAD (UPRR)
HOUSTON WOOD PRESERVING WORKS
HOUSTON, TEXAS
JULY 2011

Parameters	Units	Sample Location:	MW-20A	MW-21C	MW-21C	MW-22A	MW-22B
		Sample ID:	WG-1620-MW20A-20110714	WG-1620-MW21C-20110727	WG-1620-DUP6-20110727	WG-1620MW22A-20110721	WG-1620MW22B-20110721
		Sample Date:	7/14/2011	7/27/2011	7/27/2011 <i>Duplicate</i>	7/21/2011	7/21/2011
Volatile Organic Compounds							
1,2-Dichloroethane	mg/L	<0.0050	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Benzene	mg/L	0.098	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Chlorobenzene	mg/L	<0.0050	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Ethylbenzene	mg/L	0.077	<0.0011	<0.0011	<0.0011	<0.0011	<0.0011
Methylene chloride	mg/L	<0.0065	<0.0013	<0.0013	<0.0013	<0.0013	<0.0013
Toluene	mg/L	<0.0050	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Vinyl chloride	mg/L	-	-	-	-	-	-
Xylenes (total)	mg/L	0.057 J	<0.0031	<0.0031	<0.0031	<0.0031	<0.0031
Semi-volatile Organic Compounds							
1,2-Diphenylhydrazine	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
2,4-Dimethylphenol	mg/L	0.30	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
2,4-Dinitrotoluene	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
2,6-Dinitrotoluene	mg/L	<0.000060	<0.000060	<0.000060	<0.000060	<0.000060	<0.000060
2-Chloronaphthalene	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
2-Methylnaphthalene	mg/L	0.42	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
4,6-Dinitro-2-methylphenol	mg/L	<0.000080	<0.000080	<0.000080	<0.000080	<0.000080	<0.000080
4-Nitrophenol	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Acenaphthene	mg/L	0.20	<0.000050	<0.000050	<0.000050	<0.000050	0.0030
Acenaphthylene	mg/L	0.0017	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Anthracene	mg/L	0.0058	<0.000050	<0.000050	<0.000050	<0.000050	0.00011 J
Benzo(a)anthracene	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Benzo(a)pyrene	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
bis(2-Chloroethoxy)methane	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
bis(2-Ethylhexyl)phthalate (DEHP)	mg/L	<0.00033 U	0.00062 J	0.00036 J	0.0015	0.00041	0.00041
Chrysene	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Dibenzofuran	mg/L	0.14	<0.000050	<0.000050	<0.000050	<0.000050	0.00068
Di-n-butylphthalate (DBP)	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Fluoranthene	mg/L	0.00070	<0.000050	<0.000050	<0.000050	<0.000050	0.00019 J
Fluorene	mg/L	0.11	<0.000050	<0.000050	<0.000050	<0.000050	0.00049
Naphthalene	mg/L	7.7	<0.000050	<0.000050	<0.00010 J	<0.000050	<0.000050
Nitrobenzene	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050

TABLE 3
ANALYTICAL RESULTS SUMMARY
SEMI-ANNUAL SITE-WIDE GROUNDWATER MONITORING
UNION PACIFIC RAILROAD (UPRR)
HOUSTON WOOD PRESERVING WORKS
HOUSTON, TEXAS
JULY 2011

<i>Parameters</i>	<i>Units</i>	<i>Sample Location:</i>	<i>MW-20A</i>	<i>MW-21C</i>	<i>MW-21C</i>	<i>MW-22A</i>	<i>MW-22B</i>
		<i>Sample ID:</i>	<i>WG-1620-MW20A-20110714</i>	<i>WG-1620-MW21C-20110727</i>	<i>WG-1620-DUP6-20110727</i>	<i>WG-1620MW22A-20110721</i>	<i>WG-1620MW22B-20110721</i>
		<i>Sample Date:</i>	<i>7/14/2011</i>	<i>7/27/2011</i>	<i>7/27/2011</i>	<i>7/21/2011</i>	<i>7/21/2011</i>
					<i>Duplicate</i>		
<i>Semi-volatile Organic Compounds (Cont'd.)</i>							
N-Nitrosodiphenylamine	mg/L		<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Pentachlorophenol	mg/L		<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Phenanthrene	mg/L		0.039	<0.000050	<0.000050	<0.000050	<0.000050
Phenol	mg/L		<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Pyrene	mg/L		0.00040	<0.000050	<0.000050	<0.000050	0.00012 J

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SEMI-ANNUAL SITE-WIDE GROUNDWATER MONITORING
UNION PACIFIC RAILROAD (UPRR)
HOUSTON WOOD PRESERVING WORKS
HOUSTON, TEXAS
JULY 2011

	<i>Sample Location:</i>	<i>MW-23C</i>	<i>MW-24AR</i>	<i>MW-24B</i>	<i>MW-24C</i>	<i>MW-25A</i>
	<i>Sample ID:</i>	WG-1620-MW23C-20110722	WG-1620MW24AR-20110721	WG-1620MW24B-20110721	WG-1620-MW24C-20110721	WG-1620MW25A-20110720
	<i>Sample Date:</i>	7/22/2011	7/21/2011	7/21/2011	7/21/2011	7/20/2011
<i>Parameters</i>	<i>Units</i>					
<i>Volatile Organic Compounds</i>						
1,2-Dichloroethane	mg/L	<0.010	<0.0010	<0.0010	<0.0010	<0.0010
Benzene	mg/L	<0.010	<0.0010	<0.0010	<0.0010	<0.0010
Chlorobenzene	mg/L	<0.010	<0.0010	<0.0010	<0.0010	<0.0010
Ethylbenzene	mg/L	0.10	<0.0011	<0.0011	<0.0011	<0.0011
Methylene chloride	mg/L	<0.013	<0.0013	<0.0013	<0.0013	<0.0013
Toluene	mg/L	<0.010	<0.0010	<0.0010	<0.0010	<0.0010
Vinyl chloride	mg/L	<0.010	-	-	-	<0.0010
Xylenes (total)	mg/L	0.048 J	<0.0031	<0.0031	<0.0031	<0.0031
<i>Semi-volatile Organic Compounds</i>						
1,2-Diphenylhydrazine	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
2,4-Dimethylphenol	mg/L	0.0035	<0.000050	<0.000050	<0.000050	<0.000050
2,4-Dinitrotoluene	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
2,6-Dinitrotoluene	mg/L	<0.000060	<0.000060	<0.000060	<0.000060	<0.000060
2-Chloronaphthalene	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
2-Methylnaphthalene	mg/L	1.3	<0.000050	<0.000050	<0.000050	<0.000050
4,6-Dinitro-2-methylphenol	mg/L	<0.000080	<0.000080	<0.000080	<0.000080	<0.000080
4-Nitrophenol	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Acenaphthene	mg/L	2.0	<0.000050	<0.000050	<0.000050	0.0042
Acenaphthylene	mg/L	0.015	<0.000050	<0.000050	<0.000050	0.000053 J
Anthracene	mg/L	1.7	<0.000050	<0.000050	<0.000050	<0.000050
Benzo(a)anthracene	mg/L	0.15	<0.000050	<0.000050	<0.000050	<0.000050
Benzo(a)pyrene	mg/L	0.044	<0.000050	<0.000050	<0.000050	<0.000050
bis(2-Chloroethoxy)methane	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
bis(2-Ethylhexyl)phthalate (DEHP)	mg/L	0.0019	0.00089	0.00014 J	0.00013 J	<0.00023 U
Chrysene	mg/L	0.21	<0.000050	<0.000050	<0.000050	<0.000050
Dibenzofuran	mg/L	2.7	<0.000050	<0.000050	<0.000050	0.0013
Di-n-butylphthalate (DBP)	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Fluoranthene	mg/L	1.8	<0.000050	<0.000050	<0.000050	0.00014 J
Fuorene	mg/L	2.0	<0.000050	<0.000050	<0.000050	0.00016 J
Naphthalene	mg/L	7.5	<0.000050	<0.000050	0.00020	<0.000050
Nitrobenzene	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050

TABLE 3

ANALYTICAL RESULTS SUMMARY
SEMI-ANNUAL SITE-WIDE GROUNDWATER MONITORING
UNION PACIFIC RAILROAD (UPRR)
HOUSTON WOOD PRESERVING WORKS
HOUSTON, TEXAS
JULY 2011

	<i>Sample Location:</i>	<i>MW-23C</i>	<i>MW-24AR</i>	<i>MW-24B</i>	<i>MW-24C</i>	<i>MW-25A</i>
	<i>Sample ID:</i>	WG-1620-MW23C-20110722	WG-1620MW24AR-20110721	WG-1620MW24B-20110721	WG-1620-MW24C-20110721	WG-1620MW25A-20110720
	<i>Sample Date:</i>	7/22/2011	7/21/2011	7/21/2011	7/21/2011	7/20/2011
<i>Parameters</i>	<i>Units</i>					
<i>Semi-volatile Organic Compounds (Cont'd.)</i>						
N-Nitrosodiphenylamine	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Pentachlorophenol	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Phenanthrene	mg/L	3.8	<0.000050	<0.000050	<0.000050	<0.000050
Phenol	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Pyrene	mg/L	1.1	<0.000050	<0.000050	<0.000050	0.00090

TABLE 3
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UNION PACIFIC RAILROAD (UPRR)
HOUSTON WOOD PRESERVING WORKS
HOUSTON, TEXAS
JULY 2011

<i>Sample Location:</i>	MW-25C	MW-26A	MW-27C	MW-28A	MW-28C
<i>Sample ID:</i>	WG-1620MW25C-20110720	WG-1620-MW26A-20110719	WG-1620MW27C-20110720	WG-1620-MW28A-20110719	WG-1620-MW28C-20110719
<i>Sample Date:</i>	7/20/2011	7/19/2011	7/20/2011	7/19/2011	7/19/2011
<i>Parameters</i>	<i>Units</i>				
<i>Volatile Organic Compounds</i>					
1,2-Dichloroethane	mg/L	<0.0050	<0.001	<0.0010	<0.001
Benzene	mg/L	0.076	0.031	<0.0010	<0.001
Chlorobenzene	mg/L	<0.0050	<0.001	<0.0010	<0.001
Ethylbenzene	mg/L	0.37	<0.0011	<0.0011	<0.0011
Methylene chloride	mg/L	<0.0065	<0.0013	<0.0013	<0.0013
Toluene	mg/L	0.40	<0.001	<0.0010	<0.001
Vinyl chloride	mg/L	<0.0050	-	-	-
Xylenes (total)	mg/L	1.0	0.0045 J	<0.0031	<0.0031
<i>Semi-volatile Organic Compounds</i>					
1,2-Diphenylhydrazine	mg/L	<0.000050	<0.00005	<0.000050	<0.00005
2,4-Dimethylphenol	mg/L	0.0051	<0.00005	<0.000050	<0.00005
2,4-Dinitrotoluene	mg/L	<0.000050	<0.00005	<0.000050	<0.00005
2,6-Dinitrotoluene	mg/L	<0.000060	<0.00006	<0.000060	<0.00006
2-Chloronaphthalene	mg/L	<0.000050	<0.00005	<0.000050	<0.00005 UJL
2-Methylnaphthalene	mg/L	1.3	0.00039	<0.000050	<0.00005 UJL
4,6-Dinitro-2-methylphenol	mg/L	<0.000080	<0.00008	<0.000080	<0.00008
4-Nitrophenol	mg/L	<0.000050	<0.00005	<0.000050	<0.00005
Acenaphthene	mg/L	0.28	0.12	0.00011 J	<0.00005
Acenaphthylene	mg/L	0.0029	0.00047	<0.000050	<0.00005 UJL
Anthracene	mg/L	0.031	0.0026	<0.000050	<0.00005
Benzo(a)anthracene	mg/L	0.0014	<0.00005	<0.000050	<0.00005
Benzo(a)pyrene	mg/L	0.00043	<0.00005	<0.000050	<0.00005
bis(2-Chloroethoxy)methane	mg/L	<0.000050	<0.00005	<0.000050	<0.00005 UJL
bis(2-Ethylhexyl)phthalate (DEHP)	mg/L	<0.0020 U	<0.00031 U	<0.00095 U	<0.00053 U
Chrysene	mg/L	0.0012	<0.00005	<0.000050	<0.00005
Dibenzofuran	mg/L	0.29	0.021	<0.000050	<0.00005
Di-n-butylphthalate (DBP)	mg/L	<0.000050	<0.00005	<0.000050	<0.00005
Fluoranthene	mg/L	0.020	0.0048	0.00011 J	<0.00005
Fluorene	mg/L	0.14	0.0057	<0.000050	<0.00005
Naphthalene	mg/L	19	0.0019	<0.000050	<0.00005 UJL
Nitrobenzene	mg/L	<0.000050	<0.00005	<0.000050	<0.00005 UJL

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UNION PACIFIC RAILROAD (UPRR)
HOUSTON WOOD PRESERVING WORKS
HOUSTON, TEXAS
JULY 2011

	<i>Sample Location:</i>	<i>MW-25C</i>	<i>MW-26A</i>	<i>MW-27C</i>	<i>MW-28A</i>	<i>MW-28C</i>
	<i>Sample ID:</i>	WG-1620MW25C-20110720	WG-1620-MW26A-20110719	WG-1620MW27C-20110720	WG-1620-MW28A-20110719	WG-1620-MW28C-20110719
	<i>Sample Date:</i>	7/20/2011	7/19/2011	7/20/2011	7/19/2011	7/19/2011
<i>Parameters</i>	<i>Units</i>					
<i>Semi-volatile Organic Compounds (Cont'd.)</i>						
N-Nitrosodiphenylamine	mg/L	<0.000050	0.00023	<0.000050	<0.00005	<0.00005
Pentachlorophenol	mg/L	<0.000050	<0.00005	<0.000050	<0.00005	<0.00005
Phenanthrene	mg/L	0.18	0.00029	<0.000050	<0.00005	<0.00005
Phenol	mg/L	0.026	<0.00005	<0.000050	<0.00005	0.00054
Pyrene	mg/L	0.0092	0.0031	0.000064 J	<0.00005	<0.00005

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SEMI-ANNUAL SITE-WIDE GROUNDWATER MONITORING
UNION PACIFIC RAILROAD (UPRR)
HOUSTON WOOD PRESERVING WORKS
HOUSTON, TEXAS
JULY 2011

<i>Parameters</i>	<i>Units</i>	<i>Sample Location:</i> <i>Sample ID:</i> MW-30A <i>Sample Date:</i> WG-1620-MW30A-20110714 7/14/2011	<i>Sample Location:</i> <i>Sample ID:</i> MW-31A <i>Sample Date:</i> WG-1620-MW31A-20110714 7/14/2011	<i>Sample Location:</i> <i>Sample ID:</i> MW-32A <i>Sample Date:</i> WG-1620-MW32A-20110719 7/19/2011	<i>Sample Location:</i> <i>Sample ID:</i> MW-33A <i>Sample Date:</i> WG-1620-MW33A-20110719 7/19/2011	<i>Sample Location:</i> <i>Sample ID:</i> MW-33A <i>Sample Date:</i> WG-1620-DUP4-20110719 7/19/2011 <i>Duplicate</i>
<i>Volatile Organic Compounds</i>						
1,2-Dichloroethane	mg/L	<0.010	<0.010	0.03	<0.001	<0.001
Benzene	mg/L	0.14	0.14	1.4	0.009	0.0091
Chlorobenzene	mg/L	<0.010	<0.010	<0.005	<0.001	<0.001
Ethylbenzene	mg/L	0.12	0.19	0.31	0.0033 J	0.003 J
Methylene chloride	mg/L	<0.013	<0.013	<0.0065	<0.0013	<0.0013
Toluene	mg/L	0.51	0.37	1.2	<0.001	<0.001
Vinyl chloride	mg/L	-	-	-	-	-
Xylenes (total)	mg/L	0.32	0.63	0.87	<0.0031	<0.0031
<i>Semi-volatile Organic Compounds</i>						
1,2-Diphenylhydrazine	mg/L	<0.000050	<0.000050	<0.0005	<0.00005	<0.00005
2,4-Dimethylphenol	mg/L	2.9	5.3	31	0.0034	0.0046
2,4-Dinitrotoluene	mg/L	<0.000050	<0.000050	<0.0005	<0.00005	<0.00005
2,6-Dinitrotoluene	mg/L	<0.000060	<0.000060	<0.0006	<0.00006	<0.00006
2-Chloronaphthalene	mg/L	<0.000050	<0.000050	<0.0005	<0.00005	<0.00005
2-Methylnaphthalene	mg/L	0.85	1.0	0.95	0.022 J	0.031 J
4,6-Dinitro-2-methylphenol	mg/L	<0.000080	<0.000080	<0.0008	<0.00008	<0.00008
4-Nitrophenol	mg/L	<0.000050	<0.000050	<0.0005	<0.00005	<0.00005
Acenaphthene	mg/L	0.31	0.37	0.25	0.037	0.042
Acenaphthylene	mg/L	0.0075	0.0076	0.005	0.00018 J	0.00021
Anthracene	mg/L	0.018	0.032	0.09	0.0013	0.0016
Benzo(a)anthracene	mg/L	<0.000050	0.0038	0.038	0.00019 J	0.00018 J
Benzo(a)pyrene	mg/L	<0.000050	0.00089	0.019	<0.00005	<0.00005
bis(2-Chloroethoxy)methane	mg/L	<0.000050	<0.000050	<0.0005	<0.00005	<0.00005
bis(2-Ethylhexyl)phthalate (DEHP)	mg/L	<0.00010	<0.00010	<0.0013 U	<0.00056 U	<0.00068 U
Chrysene	mg/L	<0.000050	0.0031	0.033	0.0001 J	<0.00005 UJ
Dibenzofuran	mg/L	0.25	0.33	0.27	0.0088 J	0.014 J
Di-n-butylphthalate (DBP)	mg/L	<0.000050	<0.000050	<0.0005	<0.00005	<0.00005
Fluoranthene	mg/L	0.0041	0.031	0.11	0.0021	0.0023
Fluorene	mg/L	0.18	0.24	0.18	0.0088 J	0.012 J
Naphthalene	mg/L	15	21	21	0.31 J	0.44 J
Nitrobenzene	mg/L	<0.000050	<0.000050	<0.0005	<0.00005	<0.00005

TABLE 3
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UNION PACIFIC RAILROAD (UPRR)
HOUSTON WOOD PRESERVING WORKS
HOUSTON, TEXAS
JULY 2011

	<i>Sample Location:</i>	MW-30A	MW-31A	MW-32A	MW-33A	MW-33A
	<i>Sample ID:</i>	WG-1620-MW30A-20110714	WG-1620-MW31A-20110714	WG-1620-MW32A-20110719	WG-1620-MW33A-20110719	WG-1620-DUP4-20110719
	<i>Sample Date:</i>	7/14/2011	7/14/2011	7/19/2011	7/19/2011	7/19/2011
<i>Parameters</i>	<i>Units</i>					<i>Duplicate</i>
<i>Semi-volatile Organic Compounds (Cont'd.)</i>						
N-Nitrosodiphenylamine	mg/L	<0.000050	<0.000050	<0.0005	<0.00005	<0.00005
Pentachlorophenol	mg/L	0.00033 J	0.076 J	<0.0005	<0.00005	<0.00005
Phenanthrene	mg/L	0.12	0.24	0.35	0.0046 J	0.0068 J
Phenol	mg/L	0.14	0.60	21	<0.00005 UJ	0.00091 J
Pyrene	mg/L	0.0022	0.018	0.072	0.0025	0.0026

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UNION PACIFIC RAILROAD (UPRR)
HOUSTON WOOD PRESERVING WORKS
HOUSTON, TEXAS
JULY 2011

	<i>Sample Location:</i>	MW-33B	MW-35A	MW-35B	MW-36A	MW-36B
	<i>Sample ID:</i>	WG-1620-MW33B-20110719	WG-1620MW35A-20110720	WG-1620MW35B-20110720	WG-1620-MW36A-20110719	WG-1620-MW36B-20110719
	<i>Sample Date:</i>	7/19/2011	7/20/2011	7/20/2011	7/19/2011	7/19/2011
<i>Parameters</i>	<i>Units</i>					
<i>Volatile Organic Compounds</i>						
1,2-Dichloroethane	mg/L	<0.01	<0.0010	<0.0050	<0.001	<0.001
Benzene	mg/L	1.6	<0.0010	0.056	<0.001	0.0014 J
Chlorobenzene	mg/L	<0.01	<0.0010	<0.0050	<0.001	<0.001
Ethylbenzene	mg/L	0.4	<0.0011	0.17	<0.0011	<0.0011
Methylene chloride	mg/L	<0.013	<0.0013	<0.0065	<0.0013	<0.0013
Toluene	mg/L	<0.01	<0.0010	<0.0050	<0.001	<0.001
Vinyl chloride	mg/L	<0.01	-	-	<0.001	<0.001
Xylenes (total)	mg/L	1.2	<0.0031	0.12	<0.0031	<0.0031
<i>Semi-volatile Organic Compounds</i>						
1,2-Diphenylhydrazine	mg/L	<0.00005	<0.000050	<0.000050	<0.00005	<0.00005
2,4-Dimethylphenol	mg/L	0.0034	<0.000050	<0.000050	<0.00005	<0.00005
2,4-Dinitrotoluene	mg/L	<0.00005	<0.000050	<0.000050	<0.00005	<0.00005
2,6-Dinitrotoluene	mg/L	<0.00006	<0.000060	<0.000060	<0.00006	<0.00006
2-Chloronaphthalene	mg/L	<0.00005	<0.000050	<0.000050	<0.00005	<0.00005
2-Methylnaphthalene	mg/L	1.6	<0.000050	0.48	<0.00005	<0.00005
4,6-Dinitro-2-methylphenol	mg/L	<0.00008	<0.000080	<0.000080	<0.00008	<0.00008
4-Nitrophenol	mg/L	<0.00005	<0.000050	<0.000050	<0.00005	<0.00005
Acenaphthene	mg/L	0.41	0.00091	0.20	<0.00005	0.00014 J
Acenaphthylene	mg/L	0.0033	<0.000050	0.00097	<0.00005	<0.00005
Anthracene	mg/L	0.16	<0.000050	0.016	<0.00005	<0.00005
Benzo(a)anthracene	mg/L	0.032	<0.000050	0.00021	<0.00005	<0.00005
Benzo(a)pyrene	mg/L	0.0077	<0.000050	0.000069 J	<0.00005	<0.00005
bis(2-Chloroethoxy)methane	mg/L	<0.00005	<0.000050	<0.000050	<0.00005	<0.00005
bis(2-Ethylhexyl)phthalate (DEHP)	mg/L	<0.00046 U	<0.00099 U	<0.00056 U	<0.0004 U	<0.00068 U
Chrysene	mg/L	0.026	<0.000050	0.00025	<0.00005	<0.00005
Dibenzofuran	mg/L	0.53	0.00013 J	0.21	<0.00005	<0.00005
Di-n-butylphthalate (DBP)	mg/L	<0.00005	<0.000050	<0.000050	<0.00005	<0.00005
Fluoranthene	mg/L	0.28	0.00053	0.0056	<0.00005	<0.00005
Fluorene	mg/L	0.31	0.00012 J	0.097	<0.00005	<0.00005
Naphthalene	mg/L	13	<0.000050	12	<0.00005	<0.00005
Nitrobenzene	mg/L	<0.00005	<0.000050	<0.000050	<0.00005	<0.00005

TABLE 3
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UNION PACIFIC RAILROAD (UPRR)
HOUSTON WOOD PRESERVING WORKS
HOUSTON, TEXAS
JULY 2011

	<i>Sample Location:</i>	<i>MW-33B</i>	<i>MW-35A</i>	<i>MW-35B</i>	<i>MW-36A</i>	<i>MW-36B</i>
	<i>Sample ID:</i>	WG-1620-MW33B-20110719	WG-1620MW35A-20110720	WG-1620MW35B-20110720	WG-1620-MW36A-20110719	WG-1620-MW36B-20110719
	<i>Sample Date:</i>	7/19/2011	7/20/2011	7/20/2011	7/19/2011	7/19/2011
<i>Parameters</i>	<i>Units</i>					
<i>Semi-volatile Organic Compounds (Cont'd.)</i>						
N-Nitrosodiphenylamine	mg/L	<0.00005	<0.000050	<0.000050	<0.00005	<0.00005
Pentachlorophenol	mg/L	<0.00005	<0.000050	<0.000050	<0.00005	<0.00005
Phenanthrene	mg/L	0.79	<0.000050	0.12	<0.00005	<0.00005
Phenol	mg/L	0.001	<0.000050	<0.000050	<0.00005	<0.00005
Pyrene	mg/L	0.17	0.00029	0.0027	<0.00005	<0.00005

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UNION PACIFIC RAILROAD (UPRR)
HOUSTON WOOD PRESERVING WORKS
HOUSTON, TEXAS
JULY 2011

	<i>Sample Location:</i>	<i>MW-36D</i>	<i>MW-38A</i>	<i>MW-38B</i>	<i>MW-39B</i>	<i>MW-40B</i>
	<i>Sample ID:</i>	WG-1620-MW36D-20110727	WG-1620-MW38A-20110719	WG-1620-MW38B-20110718	WG-1620-MW39B-20110726	WG-1620-MW40B-20110714
	<i>Sample Date:</i>	7/27/2011	7/19/2011	7/18/2011	7/26/2011	7/14/2011
<i>Parameters</i>	<i>Units</i>					
<i>Volatile Organic Compounds</i>						
1,2-Dichloroethane	mg/L	<0.0010	<0.001	<0.001	<0.0010	<0.010
Benzene	mg/L	<0.0010	<0.001	<0.001	<0.0010	0.016 J
Chlorobenzene	mg/L	<0.0010	<0.001	<0.001	<0.0010	<0.010
Ethylbenzene	mg/L	<0.0011	<0.0011	<0.0011	<0.0011	0.081
Methylene chloride	mg/L	<0.0013	<0.0013	<0.0013	<0.0013	<0.013
Toluene	mg/L	<0.0010	<0.001	<0.001	<0.0010	0.019 J
Vinyl chloride	mg/L	-	-	-	-	-
Xylenes (total)	mg/L	<0.0031	<0.0031	<0.0031	<0.0031	0.12 J
<i>Semi-volatile Organic Compounds</i>						
1,2-Diphenylhydrazine	mg/L	<0.000050	<0.00005	<0.00005	<0.000050	<0.000050
2,4-Dimethylphenol	mg/L	<0.000050	<0.00005	<0.00005	<0.000050	0.0034
2,4-Dinitrotoluene	mg/L	<0.000050	<0.00005	<0.00005	<0.000050	<0.000050
2,6-Dinitrotoluene	mg/L	<0.000060	<0.00006	<0.00006	<0.000060	<0.000060
2-Chloronaphthalene	mg/L	<0.000050	<0.00005	<0.00005	<0.000050	<0.000050
2-Methylnaphthalene	mg/L	<0.000050	<0.00005	<0.00005	<0.000050	0.24
4,6-Dinitro-2-methylphenol	mg/L	<0.000080	<0.00008	<0.00008	<0.000080	<0.000080
4-Nitrophenol	mg/L	<0.000050	<0.00005	<0.00005	<0.000050	<0.000050
Acenaphthene	mg/L	<0.000050	0.00043	<0.00005	0.00028	0.17
Acenaphthylene	mg/L	<0.000050	<0.00005	<0.00005	0.000053 J	0.0019
Anthracene	mg/L	<0.000050	0.0001 J	0.00013 J	0.00040	0.0097
Benzo(a)anthracene	mg/L	<0.000050	0.00025	<0.00005	<0.000050	<0.000050
Benzo(a)pyrene	mg/L	<0.000050	0.00052	<0.00005	<0.000050	<0.000050
bis(2-Chloroethoxy)methane	mg/L	<0.000050	<0.00005	<0.00005	<0.000050	<0.000050
bis(2-Ethylhexyl)phthalate (DEHP)	mg/L	0.0012	<0.00094 U	<0.001 U	0.00092	<0.00053 U
Chrysene	mg/L	<0.000050	<0.00022	<0.00005	<0.000050	<0.000050
Dibenzofuran	mg/L	<0.000050	<0.00005	<0.00005	<0.000050	0.13
Di-n-butylphthalate (DBP)	mg/L	0.00032	0.00017 J	<0.00005	<0.000050	<0.000050
Fluoranthene	mg/L	0.000068 J	0.00014 J	<0.00005	0.000079 J	0.0049
Fluorene	mg/L	<0.000050	<0.00005	<0.00005	0.00011 J	0.13
Naphthalene	mg/L	0.000061 J	<0.00026 U	<0.00005	<0.000050	4.0
Nitrobenzene	mg/L	<0.000050	<0.00005	<0.00005	<0.000050	<0.000050

TABLE 3

ANALYTICAL RESULTS SUMMARY
SEMI-ANNUAL SITE-WIDE GROUNDWATER MONITORING
UNION PACIFIC RAILROAD (UPRR)
HOUSTON WOOD PRESERVING WORKS
HOUSTON, TEXAS
JULY 2011

	<i>Sample Location:</i>	<i>MW-36D</i>	<i>MW-38A</i>	<i>MW-38B</i>	<i>MW-39B</i>	<i>MW-40B</i>
	<i>Sample ID:</i>	WG-1620-MW36D-20110727	WG-1620-MW38A-20110719	WG-1620-MW38B-20110718	WG-1620-MW39B-2011726	WG-1620-MW40B-20110714
	<i>Sample Date:</i>	7/27/2011	7/19/2011	7/18/2011	7/26/2011	7/14/2011
<i>Parameters</i>	<i>Units</i>					
<i>Semi-volatile Organic Compounds (Cont'd.)</i>						
N-Nitrosodiphenylamine	mg/L	<0.000050	<0.00005	<0.00005	0.000054 J	<0.000050
Pentachlorophenol	mg/L	<0.000050	0.000067 J	<0.00005	<0.000050	<0.000050
Phenanthrene	mg/L	0.000072 J	<0.00005	<0.00005	<0.000050	0.11
Phenol	mg/L	0.000056 J	<0.00005	<0.00005	<0.000050	<0.000050
Pyrene	mg/L	0.000053 J	0.00018 J	<0.00005	0.00017 J	0.0021

TABLE 3
ANALYTICAL RESULTS SUMMARY
SEMI-ANNUAL SITE-WIDE GROUNDWATER MONITORING
UNION PACIFIC RAILROAD (UPRR)
HOUSTON WOOD PRESERVING WORKS
HOUSTON, TEXAS
JULY 2011

	<i>Sample Location:</i>	<i>MW-42B</i>	<i>MW-44A</i>	<i>MW-44C</i>	<i>MW-47C</i>	<i>MW-48C</i>
	<i>Sample ID:</i>	WG-1620-MW42B-02110714	WG-1620MW44A-20110720	WG-1620MW44C-20110720	WG-1620-MW47C-20110721	WG-1620-MW48C-20110718
	<i>Sample Date:</i>	7/14/2011	7/20/2011	7/20/2011	7/21/2011	7/18/2011
<i>Parameters</i>	<i>Units</i>					
<i>Volatile Organic Compounds</i>						
1,2-Dichloroethane	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.001
Benzene	mg/L	<0.0010	0.0020 J	<0.0010	<0.0010	<0.001
Chlorobenzene	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.001
Ethylbenzene	mg/L	<0.0011	<0.0011	<0.0011	<0.0011	<0.0011
Methylene chloride	mg/L	<0.0013	<0.0013	<0.0013	<0.0013	<0.0013
Toluene	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.001
Vinyl chloride	mg/L	-	<0.0010	-	-	-
Xylenes (total)	mg/L	<0.0031	<0.0031	<0.0031	<0.0031	<0.0031
<i>Semi-volatile Organic Compounds</i>						
1,2-Diphenylhydrazine	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	<0.00005
2,4-Dimethylphenol	mg/L	0.00013 J	<0.000050	<0.000050	<0.000050	<0.00005
2,4-Dinitrotoluene	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	<0.00005
2,6-Dinitrotoluene	mg/L	<0.000060	<0.000060	<0.000060	<0.000060	<0.00006
2-Chloronaphthalene	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	<0.00005
2-Methylnaphthalene	mg/L	<0.000050	0.0023	<0.000050	<0.000050	<0.00005
4,6-Dinitro-2-methylphenol	mg/L	<0.000080	<0.000080	<0.000080	<0.000080	<0.00008
4-Nitrophenol	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	<0.00005
Acenaphthene	mg/L	<0.00024 U	0.23	0.00012 J	<0.000050	<0.00005
Acenaphthylene	mg/L	<0.000050	0.0013	0.000097 J	<0.000050	<0.00005
Anthracene	mg/L	0.00036	0.0058	0.00014 J	<0.000050	<0.00005
Benzo(a)anthracene	mg/L	<0.000050	<0.000050	0.00017 J	<0.000050	<0.00005
Benzo(a)pyrene	mg/L	<0.000050	<0.000050	0.00022	<0.000050	<0.00005
bis(2-Chloroethoxy)methane	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	<0.00005
bis(2-Ethylhexyl)phthalate (DEHP)	mg/L	<0.00080 U	<0.00075 U	<0.00087 U	0.00010 J	<0.00043 U
Chrysene	mg/L	<0.000050	<0.000050	<0.00032	<0.000050	<0.00005
Dibenzofuran	mg/L	<0.00014 U	0.0014	<0.000050	<0.000050	<0.00005
Di-n-butylphthalate (DBP)	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	<0.00005
Fluoranthene	mg/L	0.00024	0.0095	0.00016 J	<0.000050	<0.00013 U
Fluorene	mg/L	<0.00026 U	0.094	<0.000050	<0.000050	<0.00005
Naphthalene	mg/L	<0.00048 U	0.042	<0.00016 U	<0.000050	<0.00005
Nitrobenzene	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	<0.00005

TABLE 3

ANALYTICAL RESULTS SUMMARY
SEMI-ANNUAL SITE-WIDE GROUNDWATER MONITORING
UNION PACIFIC RAILROAD (UPRR)
HOUSTON WOOD PRESERVING WORKS
HOUSTON, TEXAS
JULY 2011

	<i>Sample Location:</i>	<i>MW-42B</i>	<i>MW-44A</i>	<i>MW-44C</i>	<i>MW-47C</i>	<i>MW-48C</i>
	<i>Sample ID:</i>	WG-1620-MW42B-02110714	WG-1620MW44A-20110720	WG-1620MW44C-20110720	WG-1620-MW47C-20110721	WG-1620-MW48C-20110718
	<i>Sample Date:</i>	7/14/2011	7/20/2011	7/20/2011	7/21/2011	7/18/2011
<i>Parameters</i>	<i>Units</i>					
<i>Semi-volatile Organic Compounds (Cont'd.)</i>						
N-Nitrosodiphenylamine	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	<0.00005
Pentachlorophenol	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	<0.00005
Phenanthrene	mg/L	<0.00016 U	0.0047	0.000081 J	<0.000050	<0.00005
Phenol	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	<0.00005
Pyrene	mg/L	0.00014 J	0.0046	0.00013 J	<0.000050	<0.0001 U

TABLE 3
ANALYTICAL RESULTS SUMMARY
SEMI-ANNUAL SITE-WIDE GROUNDWATER MONITORING
UNION PACIFIC RAILROAD (UPRR)
HOUSTON WOOD PRESERVING WORKS
HOUSTON, TEXAS
JULY 2011

Parameters	Units	Sample Location:	MW-49A	MW-49B	MW-50A	MW-51A	MW-52A
		Sample ID:	WG-1620-MW49A-20110722	WG-1620-MW49B-20110722	WG-1620-MW50A-20110728	WG-1620-MW51A-20110728	WG-1620-MW52A-20110714
		Sample Date:	7/22/2011	7/22/2011	7/28/2011	7/28/2011	7/14/2011
Volatile Organic Compounds							
1,2-Dichloroethane	mg/L	<0.010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Benzene	mg/L	0.20	0.056	<0.0010	<0.0010	<0.0010	0.0025 J
Chlorobenzene	mg/L	<0.010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Ethylbenzene	mg/L	0.094	0.0091	<0.0011	<0.0011	<0.0011	0.011
Methylene chloride	mg/L	<0.013	<0.0013	<0.0013	<0.0013	<0.0013	<0.0013
Toluene	mg/L	0.11	0.038	<0.0010	<0.0010	<0.0010	0.0089
Vinyl chloride	mg/L	<0.010	<0.0010	-	-	-	<0.0010
Xylenes (total)	mg/L	0.20	0.020	<0.0031	<0.0031	<0.0031	0.025
Semi-volatile Organic Compounds							
1,2-Diphenylhydrazine	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
2,4-Dimethylphenol	mg/L	3.0	0.59	<0.000050	<0.000050	<0.000050	0.0045
2,4-Dinitrotoluene	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
2,6-Dinitrotoluene	mg/L	<0.000060	<0.000060	<0.000060	<0.000060	<0.000060	<0.000060
2-Chloronaphthalene	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
2-Methylnaphthalene	mg/L	0.27	0.0029	<0.000050	<0.000050	<0.000050	0.33
4,6-Dinitro-2-methylphenol	mg/L	<0.000080	<0.000080	<0.000080	<0.000080	<0.000080	<0.000080
4-Nitrophenol	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Acenaphthene	mg/L	0.13	0.0051	<0.000050	<0.000050	<0.000050	0.26
Acenaphthylene	mg/L	0.0029	0.00019 J	<0.000050	<0.000050	<0.000050	0.0040
Anthracene	mg/L	0.011	0.00093	<0.000050	<0.000050	<0.000050	0.041
Benzo(a)anthracene	mg/L	<0.000050	0.00018 J	<0.000050	<0.000050	<0.000050	0.00063
Benzo(a)pyrene	mg/L	<0.000050	0.000057 J	<0.000050	<0.000050	<0.000050	0.00017 J
bis(2-Chloroethoxy)methane	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
bis(2-Ethylhexyl)phthalate (DEHP)	mg/L	<0.000010	<0.00024 U	<0.00077 U	<0.0018 U	<0.00042 U	<0.00042 U
Chrysene	mg/L	<0.000050	0.00016 J	<0.000050	<0.000050	<0.000050	0.00060
Dibenzofuran	mg/L	0.090	0.0018	<0.000050	<0.000050	<0.000050	0.20
Di-n-butylphthalate (DBP)	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Fluoranthene	mg/L	0.0033	0.0011	<0.000050	<0.000050	<0.000050	0.024
Fluorene	mg/L	0.092	0.0014	<0.000050	<0.000050	<0.000050	0.18
Naphthalene	mg/L	7.4	0.13	<0.000050	<0.000050	<0.000050	1.9
Nitrobenzene	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050

TABLE 3
ANALYTICAL RESULTS SUMMARY
SEMI-ANNUAL SITE-WIDE GROUNDWATER MONITORING
UNION PACIFIC RAILROAD (UPRR)
HOUSTON WOOD PRESERVING WORKS
HOUSTON, TEXAS
JULY 2011

	<i>Sample Location:</i>	<i>MW-49A</i>	<i>MW-49B</i>	<i>MW-50A</i>	<i>MW-51A</i>	<i>MW-52A</i>
	<i>Sample ID:</i>	<i>WG-1620-MW49A-20110722</i>	<i>WG-1620-MW49B-20110722</i>	<i>WG-1620-MW50A-20110728</i>	<i>WG-1620-MW51A-20110728</i>	<i>WG-1620-MW52A-20110714</i>
	<i>Sample Date:</i>	<i>7/22/2011</i>	<i>7/22/2011</i>	<i>7/28/2011</i>	<i>7/28/2011</i>	<i>7/14/2011</i>
<i>Parameters</i>	<i>Units</i>					
<i>Semi-volatile Organic Compounds (Cont'd.)</i>						
N-Nitrosodiphenylamine	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Pentachlorophenol	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Phenanthrene	mg/L	0.070	0.0025	<0.000050	<0.000050	0.22
Phenol	mg/L	0.0095	0.00021	<0.000050	<0.000050	0.000066 J
Pyrene	mg/L	0.0016	0.00066	<0.000050	<0.000050	0.011

TABLE 3
ANALYTICAL RESULTS SUMMARY
SEMI-ANNUAL SITE-WIDE GROUNDWATER MONITORING
UNION PACIFIC RAILROAD (UPRR)
HOUSTON WOOD PRESERVING WORKS
HOUSTON, TEXAS
JULY 2011

<i>Sample Location:</i>	MW-53C	MW-54C	MW-55A	MW-57A	MW-58A	
<i>Sample ID:</i>	WG-1620MW53C-20110720	WG-1620MW54C-20110720	WG-1620-MW55A-20110714	WG-1620-MW57A-20110722	WG-1620-MW58A-20110727	
<i>Sample Date:</i>	7/20/2011	7/20/2011	7/14/2011	7/22/2011	7/27/2011	
<i>Parameters</i>	<i>Units</i>					
<i>Volatile Organic Compounds</i>						
1,2-Dichloroethane	mg/L	<0.0010	<0.0010	<0.0050	<0.010	<0.0050
Benzene	mg/L	<0.0010	<0.0010	0.070	0.084	<0.0050
Chlorobenzene	mg/L	<0.0010	<0.0010	<0.0050	<0.010	<0.0050
Ethylbenzene	mg/L	<0.0011	0.0018 J	0.17	0.13	<0.0055
Methylene chloride	mg/L	<0.0013	<0.0013	<0.0065	<0.013	<0.0065
Toluene	mg/L	<0.0010	<0.0010	0.24	0.055	<0.0050
Vinyl chloride	mg/L	-	-	-	<0.010	<0.0050
Xylenes (total)	mg/L	<0.0031	<0.0031	0.42	0.19	<0.016
<i>Semi-volatile Organic Compounds</i>						
1,2-Diphenylhydrazine	mg/L	<0.000050	<0.000050	<0.000050	<0.00050	<0.000050
2,4-Dimethylphenol	mg/L	<0.000050	<0.000050	0.48	1.0	<0.000050
2,4-Dinitrotoluene	mg/L	<0.000050	<0.000050	<0.000050	<0.00050	<0.000050
2,6-Dinitrotoluene	mg/L	<0.000060	<0.000060	<0.000060	<0.00060	<0.000060
2-Chloronaphthalene	mg/L	<0.000050	<0.000050	<0.000050	<0.00050	<0.000050
2-Methylnaphthalene	mg/L	<0.000050	0.022	0.33	13	<0.000050
4,6-Dinitro-2-methylphenol	mg/L	<0.000080	<0.000080	<0.000080	<0.00080	<0.000080
4-Nitrophenol	mg/L	<0.000050	<0.000050	<0.000050	<0.00050	<0.000050
Acenaphthene	mg/L	0.00032	0.039	0.16	8.6	<0.000050
Acenaphthylene	mg/L	<0.000050	0.00045	0.030	0.091	<0.000050
Anthracene	mg/L	<0.000050	0.0029	0.016	8.4	0.00039
Benzo(a)anthracene	mg/L	<0.000050	<0.000050	0.0014	0.45	<0.000050
Benzo(a)pyrene	mg/L	<0.000050	<0.000050	0.00062	0.16	<0.000050
bis(2-Chloroethoxy)methane	mg/L	<0.000050	<0.000050	<0.000050	<0.00050	<0.000050
bis(2-Ethylhexyl)phthalate (DEHP)	mg/L	<0.00014 U	<0.00015 U	<0.00010	<0.0010	0.00071
Chrysene	mg/L	<0.000050	<0.000050	0.0014	0.53	<0.000050
Dibenzofuran	mg/L	<0.000050	0.046	0.12	8.6	0.0017
Di-n-butylphthalate (DBP)	mg/L	<0.000050	<0.000050	<0.000050	<0.00050	<0.000050
Fluoranthene	mg/L	<0.000050	0.0034	0.0090	6.0	0.0010
Fluorene	mg/L	<0.000050	0.022	0.080	7.9	<0.000050
Naphthalene	mg/L	<0.000050	0.47	8.6	71	<0.000050
Nitrobenzene	mg/L	<0.000050	<0.000050	<0.000050	<0.00050	<0.000050

TABLE 3

ANALYTICAL RESULTS SUMMARY
SEMI-ANNUAL SITE-WIDE GROUNDWATER MONITORING
UNION PACIFIC RAILROAD (UPRR)
HOUSTON WOOD PRESERVING WORKS
HOUSTON, TEXAS
JULY 2011

	<i>Sample Location:</i>	<i>MW-53C</i>	<i>MW-54C</i>	<i>MW-55A</i>	<i>MW-57A</i>	<i>MW-58A</i>
	<i>Sample ID:</i>	WG-1620MW53C-20110720	WG-1620MW54C-20110720	WG-1620-MW55A-20110714	WG-1620-MW57A-20110722	WG-1620-MW58A-20110727
	<i>Sample Date:</i>	7/20/2011	7/20/2011	7/14/2011	7/22/2011	7/27/2011
<i>Parameters</i>	<i>Units</i>					
<i>Semi-volatile Organic Compounds (Cont'd.)</i>						
N-Nitrosodiphenylamine	mg/L	<0.000050	<0.000050	<0.000050	<0.00050	<0.000050
Pentachlorophenol	mg/L	<0.000050	<0.000050	<0.000050	<0.00050	<0.000050
Phenanthrene	mg/L	<0.000050	0.040	0.083	13	<0.000050
Phenol	mg/L	<0.000050	<0.000050	0.0038	<0.00050	0.000077 J
Pyrene	mg/L	<0.000050	0.0017	0.0061	3.3	0.00073

TABLE 3
ANALYTICAL RESULTS SUMMARY
SEMI-ANNUAL SITE-WIDE GROUNDWATER MONITORING
UNION PACIFIC RAILROAD (UPRR)
HOUSTON WOOD PRESERVING WORKS
HOUSTON, TEXAS
JULY 2011

<i>Parameters</i>	<i>Units</i>	<i>Sample Location:</i>	<i>MW-59A</i>	<i>MW-59B</i>	<i>MW-59D</i>	<i>MW-59D</i>	<i>MW-60A</i>
		<i>Sample ID:</i>	<i>WG-1620-MW59A-20110718</i>	<i>WG-1620-MW59B-20110718</i>	<i>WG-1620-MW59D-20110727</i>	<i>WG-1620-DUP7-20110727</i>	<i>WG-1620-MW60A-20110718</i>
		<i>Sample Date:</i>	<i>7/18/2011</i>	<i>7/18/2011</i>	<i>7/27/2011</i>	<i>7/27/2011</i>	<i>7/18/2011</i>
						<i>Duplicate</i>	
<i>Volatile Organic Compounds</i>							
1,2-Dichloroethane	mg/L	<0.001	<0.001	<0.0010	<0.0010	<0.0010	<0.001
Benzene	mg/L	<0.001	<0.001	<0.0010	<0.0010	<0.0010	<0.001
Chlorobenzene	mg/L	<0.001	<0.001	<0.0010	<0.0010	<0.0010	<0.001
Ethylbenzene	mg/L	<0.0011	<0.0011	<0.0011	<0.0011	<0.0011	<0.0011
Methylene chloride	mg/L	<0.0013	<0.0013	<0.0013	<0.0013	<0.0013	<0.0013
Toluene	mg/L	<0.001	<0.001	<0.0010	<0.0010	<0.0010	<0.001
Vinyl chloride	mg/L	<0.001	<0.001	-	-	-	<0.001
Xylenes (total)	mg/L	<0.0031	<0.0031	<0.0031	<0.0031	<0.0031	<0.0031
<i>Semi-volatile Organic Compounds</i>							
1,2-Diphenylhydrazine	mg/L	<0.00005	<0.00005	<0.000050	<0.000050	<0.000050	<0.00005
2,4-Dimethylphenol	mg/L	0.000066 J	<0.00005	<0.000050	<0.000050	<0.000050	<0.00005
2,4-Dinitrotoluene	mg/L	<0.00005	<0.00005	<0.000050	<0.000050	<0.000050	<0.00005
2,6-Dinitrotoluene	mg/L	<0.00006	<0.00006	<0.000060	<0.000060	<0.000060	<0.00006
2-Chloronaphthalene	mg/L	<0.00005	<0.00005	<0.000050	<0.000050	<0.000050	<0.00005
2-Methylnaphthalene	mg/L	<0.00005	<0.00005	<0.000050	<0.000050	<0.000050	<0.00005
4,6-Dinitro-2-methylphenol	mg/L	<0.00008	<0.00008	<0.000080	<0.000080	<0.000080	<0.00008
4-Nitrophenol	mg/L	<0.00005	<0.00005	<0.000050	<0.000050	<0.000050	<0.00005
Acenaphthene	mg/L	<0.00005	<0.00005	<0.000050	<0.000050	<0.000050	<0.00005
Acenaphthylene	mg/L	<0.00005	<0.00005	<0.000050	<0.000050	<0.000050	<0.00005
Anthracene	mg/L	<0.00005	<0.00005	<0.000050	<0.000050	<0.000050	<0.00005
Benzo(a)anthracene	mg/L	<0.00005	<0.00005	<0.000050	<0.000050	<0.000050	<0.00005
Benzo(a)pyrene	mg/L	<0.00005	<0.00005	<0.000050	<0.000050	<0.000050	<0.00005
bis(2-Chloroethoxy)methane	mg/L	<0.00005	<0.00005	<0.000050	<0.000050	<0.000050	<0.00005
bis(2-Ethylhexyl)phthalate (DEHP)	mg/L	<0.00054 U	<0.00031 U	0.0011	0.0018	<0.00017 U	<0.00017 U
Chrysene	mg/L	<0.00005	<0.00005	<0.000050	<0.000050	<0.000050	<0.00005
Dibenzofuran	mg/L	<0.00005	<0.00005	<0.000050	<0.000050	<0.000050	<0.00005
Di-n-butylphthalate (DBP)	mg/L	<0.00005	<0.00005	<0.000050	<0.000050	<0.000050	<0.00005
Fluoranthene	mg/L	<0.00012 U	<0.00005	<0.000050	<0.000050	<0.000050	<0.00005
Fluorene	mg/L	<0.00005	<0.00005	<0.000050	<0.000050	<0.000050	<0.00005
Naphthalene	mg/L	<0.00005	<0.00005	<0.000050	<0.000050	<0.000050	<0.00005
Nitrobenzene	mg/L	<0.00005	<0.00005	<0.000050	<0.000050	<0.000050	<0.00005

TABLE 3
ANALYTICAL RESULTS SUMMARY
SEMI-ANNUAL SITE-WIDE GROUNDWATER MONITORING
UNION PACIFIC RAILROAD (UPRR)
HOUSTON WOOD PRESERVING WORKS
HOUSTON, TEXAS
JULY 2011

	<i>Sample Location:</i>	<i>MW-59A</i>	<i>MW-59B</i>	<i>MW-59D</i>	<i>MW-59D</i>	<i>MW-60A</i>
	<i>Sample ID:</i>	WG-1620-MW59A-20110718	WG-1620-MW59B-20110718	WG-1620-MW59D-20110727	WG-1620-DUP7-20110727	WG-1620-MW60A-20110718
	<i>Sample Date:</i>	7/18/2011	7/18/2011	7/27/2011	7/27/2011	7/18/2011
					<i>Duplicate</i>	
<i>Parameters</i>	<i>Units</i>					
<i>Semi-volatile Organic Compounds (Cont'd.)</i>						
N-Nitrosodiphenylamine	mg/L	<0.00005	<0.00005	<0.000050	<0.000050	<0.00005
Pentachlorophenol	mg/L	<0.00005	<0.00005	<0.000050	<0.000050	<0.00005
Phenanthrene	mg/L	<0.00018 U	<0.00005	<0.000050	<0.000050	<0.00005
Phenol	mg/L	<0.00005	<0.00005	<0.000050	<0.000050	<0.00005
Pyrene	mg/L	<0.00005	<0.00005	<0.000050	<0.000050	<0.00005

TABLE 3
ANALYTICAL RESULTS SUMMARY
SEMI-ANNUAL SITE-WIDE GROUNDWATER MONITORING
UNION PACIFIC RAILROAD (UPRR)
HOUSTON WOOD PRESERVING WORKS
HOUSTON, TEXAS
JULY 2011

Parameters	Units	Sample Location:	MW-61A	MW-62B	MW-63B	MW-63B	MW-64A
		Sample ID:	WG-1620-MW61A-20110721	WG-1620-MW62B-20110727	WG-1620-MW63B-20110719	WG-1620-DUP3-20110719	WG-1620-MW64A-20110727
		Sample Date:	7/21/2011	7/27/2011	7/19/2011	7/19/2011	7/27/2011
						Duplicate	
Volatile Organic Compounds							
1,2-Dichloroethane	mg/L	<0.0010	<0.0010	<0.001	<0.001	<0.0010	<0.0010
Benzene	mg/L	<0.0010	0.0043 J	0.019	0.024	<0.0010	<0.0010
Chlorobenzene	mg/L	<0.0010	<0.0010	<0.001	<0.001	<0.0010	<0.0010
Ethylbenzene	mg/L	<0.0011	0.041	0.04	0.045	<0.0011	<0.0011
Methylene chloride	mg/L	<0.0013	<0.0013	<0.0013	<0.0013	<0.0013	<0.0013
Toluene	mg/L	<0.0010	0.0095	0.0017 J	0.0019 J	<0.0010	<0.0010
Vinyl chloride	mg/L	<0.0010	-	-	-	-	-
Xylenes (total)	mg/L	<0.0031	0.025	0.013 J	0.014 J	<0.0031	<0.0031
Semi-volatile Organic Compounds							
1,2-Diphenylhydrazine	mg/L	<0.000050	<0.000050	<0.00005	<0.00005	<0.000050	<0.000050
2,4-Dimethylphenol	mg/L	<0.000050	<0.000050	0.000056 J	<0.00005	<0.000050	<0.000050
2,4-Dinitrotoluene	mg/L	<0.000050	<0.000050	<0.00005	<0.00005	<0.000050	<0.000050
2,6-Dinitrotoluene	mg/L	<0.000060	<0.000060	<0.00006	<0.00006	<0.000060	<0.000060
2-Chloronaphthalene	mg/L	<0.000050	<0.000050	<0.00005	<0.00005	<0.000050	<0.000050
2-Methylnaphthalene	mg/L	<0.000050	<0.000050	0.014	0.013	<0.000050	<0.000050
4,6-Dinitro-2-methylphenol	mg/L	<0.000080	<0.000080	<0.00008	<0.00008	<0.000080	<0.000080
4-Nitrophenol	mg/L	<0.000050	<0.000050	<0.00005	<0.00005	<0.000050	<0.000050
Acenaphthene	mg/L	<0.000050	0.21	0.0053	0.0066	<0.000050	<0.000050
Acenaphthylene	mg/L	<0.000050	0.0026	0.000066 J	0.00011 J	<0.000050	<0.000050
Anthracene	mg/L	<0.000050	0.013	0.00011 J	0.0002 J	0.00036	0.00036
Benzo(a)anthracene	mg/L	<0.000050	<0.000050	<0.00005	<0.00005	<0.000050	<0.000050
Benzo(a)pyrene	mg/L	<0.000050	<0.000050	<0.00005	<0.00005	<0.000050	<0.000050
bis(2-Chloroethoxy)methane	mg/L	<0.000050	<0.000050	<0.00005	<0.00005	<0.000050	<0.000050
bis(2-Ethylhexyl)phthalate (DEHP)	mg/L	0.00023	0.00042	<0.00051 U	<0.00029 U	0.00076	0.00076
Chrysene	mg/L	<0.000050	<0.000050	<0.00005	<0.00005	<0.000050	<0.000050
Dibenzofuran	mg/L	<0.000050	0.15	0.0041	0.0049	0.0013	0.0013
Di-n-butylphthalate (DBP)	mg/L	<0.000050	<0.000050	<0.00005	<0.00005	0.000079 J	0.000079 J
Fluoranthene	mg/L	<0.000050	0.0079	<0.00005	<0.00005	0.00057	0.00057
Fluorene	mg/L	<0.000050	0.058	0.0019	0.0024	<0.000050	<0.000050
Naphthalene	mg/L	<0.000050	0.035	0.36 J	0.49 J	<0.000050	<0.000050
Nitrobenzene	mg/L	<0.000050	<0.000050	<0.00005	<0.00005	<0.000050	<0.000050

TABLE 3
ANALYTICAL RESULTS SUMMARY
SEMI-ANNUAL SITE-WIDE GROUNDWATER MONITORING
UNION PACIFIC RAILROAD (UPRR)
HOUSTON WOOD PRESERVING WORKS
HOUSTON, TEXAS
JULY 2011

<i>Parameters</i>	<i>Units</i>	<i>Sample Location:</i>	<i>MW-61A</i>	<i>MW-62B</i>	<i>MW-63B</i>	<i>MW-63B</i>	<i>MW-64A</i>
		<i>Sample ID:</i>	<i>WG-1620-MW61A-20110721</i>	<i>WG-1620-MW62B-20110727</i>	<i>WG-1620-MW63B-20110719</i>	<i>WG-1620-DUP3-20110719</i>	<i>WG-1620-MW64A-20110727</i>
		<i>Sample Date:</i>	<i>7/21/2011</i>	<i>7/27/2011</i>	<i>7/19/2011</i>	<i>7/19/2011</i>	<i>7/27/2011</i>
						<i>Duplicate</i>	
<i>Semi-volatile Organic Compounds (Cont'd.)</i>							
N-Nitrosodiphenylamine	mg/L		<0.000050	<0.000050	<0.00005	<0.00005	<0.000050
Pentachlorophenol	mg/L		<0.000050	<0.000050	<0.00005	<0.00005	<0.000050
Phenanthrene	mg/L		<0.000050	0.035	0.00075	0.00098	<0.000050
Phenol	mg/L		<0.000050	<0.000050	<0.00005	<0.00005	0.000077 J
Pyrene	mg/L		<0.000050	0.0033	<0.00005	<0.00005	0.00042

TABLE 3
ANALYTICAL RESULTS SUMMARY
SEMI-ANNUAL SITE-WIDE GROUNDWATER MONITORING
UNION PACIFIC RAILROAD (UPRR)
HOUSTON WOOD PRESERVING WORKS
HOUSTON, TEXAS
JULY 2011

	<i>Sample Location:</i>	<i>MW-65D</i>	<i>MW-66D</i>	<i>MW-67B</i>	<i>MW-68C</i>	<i>MW-69A</i>
	<i>Sample ID:</i>	WG-1620-MW65D-20110727	WG-1620-MW66D-20110727	WG-1620MW67B-2011720	WG-1620-MW68C-20110721	WG-1620-MW69A-20110721
	<i>Sample Date:</i>	7/27/2011	7/27/2011	7/20/2011	7/21/2011	7/21/2011
<i>Parameters</i>	<i>Units</i>					
<i>Volatile Organic Compounds</i>						
1,2-Dichloroethane	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Benzene	mg/L	<0.0010	<0.0010	<0.0010	0.0032 J	<0.0010
Chlorobenzene	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Ethylbenzene	mg/L	<0.0011	<0.0011	<0.0011	<0.0011	<0.0011
Methylene chloride	mg/L	<0.0013	<0.0013	<0.0013	<0.0013	<0.0013
Toluene	mg/L	<0.0010	<0.0010	<0.0010	0.0011 J	<0.0010
Vinyl chloride	mg/L	-	-	-	-	<0.0010
Xylenes (total)	mg/L	<0.0031	<0.0031	<0.0031	<0.0031	<0.0031
<i>Semi-volatile Organic Compounds</i>						
1,2-Diphenylhydrazine	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
2,4-Dimethylphenol	mg/L	<0.000050	<0.000050	<0.000050	0.00031	<0.000050
2,4-Dinitrotoluene	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
2,6-Dinitrotoluene	mg/L	<0.000060	<0.000060	<0.000060	<0.000060	<0.000060
2-Chloronaphthalene	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
2-Methylnaphthalene	mg/L	<0.000050	<0.000050	<0.000050	0.00024	<0.000050
4,6-Dinitro-2-methylphenol	mg/L	<0.000080	<0.000080	<0.000080	<0.000080	<0.000080
4-Nitrophenol	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Acenaphthene	mg/L	<0.000050	<0.000050	<0.000050	0.00013 J	<0.000050
Acenaphthylene	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Anthracene	mg/L	<0.000050	0.00022	<0.000050	<0.000050	<0.000050
Benzo(a)anthracene	mg/L	<0.000050	0.00011 J	<0.000050	<0.000050	<0.000050
Benzo(a)pyrene	mg/L	<0.000050	0.00016 J	<0.000050	<0.000050	<0.000050
bis(2-Chloroethoxy)methane	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
bis(2-Ethylhexyl)phthalate (DEHP)	mg/L	0.0010	0.0019	<0.00094 U	0.0010	0.00086
Chrysene	mg/L	<0.000050	0.00046	<0.000050	<0.000050	<0.000050
Dibenzofuran	mg/L	<0.000050	<0.000050	<0.000050	0.00020 J	<0.000050
Di-n-butylphthalate (DBP)	mg/L	<0.000050	0.000056 J	<0.000050	<0.000050	0.000069 J
Fluoranthene	mg/L	<0.000050	0.00035	<0.000050	<0.000050	0.000059 J
Fluorene	mg/L	<0.000050	<0.000050	<0.000050	0.00010 J	<0.000050
Naphthalene	mg/L	<0.000050	<0.000050	<0.000050	0.0027	<0.000050
Nitrobenzene	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050

TABLE 3
ANALYTICAL RESULTS SUMMARY
SEMI-ANNUAL SITE-WIDE GROUNDWATER MONITORING
UNION PACIFIC RAILROAD (UPRR)
HOUSTON WOOD PRESERVING WORKS
HOUSTON, TEXAS
JULY 2011

	<i>Sample Location:</i>	<i>MW-65D</i>	<i>MW-66D</i>	<i>MW-67B</i>	<i>MW-68C</i>	<i>MW-69A</i>
	<i>Sample ID:</i>	WG-1620-MW65D-20110727	WG-1620-MW66D-20110727	WG-1620MW67B-2011720	WG-1620-MW68C-20110721	WG-1620-MW69A-20110721
	<i>Sample Date:</i>	7/27/2011	7/27/2011	7/20/2011	7/21/2011	7/21/2011
<i>Parameters</i>	<i>Units</i>					
<i>Semi-volatile Organic Compounds (Cont'd.)</i>						
N-Nitrosodiphenylamine	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Pentachlorophenol	mg/L	<0.000050	0.000084 J	<0.000050	<0.000050	<0.000050
Phenanthrene	mg/L	0.000065 J	0.00011 J	<0.000050	0.00016 J	<0.000050
Phenol	mg/L	0.000051 J	<0.000050	<0.000050	0.0049	<0.000050
Pyrene	mg/L	<0.000050	0.00036	<0.000050	<0.000050	<0.000050

TABLE 3
ANALYTICAL RESULTS SUMMARY
SEMI-ANNUAL SITE-WIDE GROUNDWATER MONITORING
UNION PACIFIC RAILROAD (UPRR)
HOUSTON WOOD PRESERVING WORKS
HOUSTON, TEXAS
JULY 2011

<i>Parameters</i>	<i>Units</i>	<i>Sample Location:</i>	<i>P-11</i>	<i>TW-41B</i>	<i>TW-56A</i>
		<i>Sample ID:</i>	WG-1620-P11-20110727	WG-1620-TW41B-20110727	WG-1620-TW56A-20110714
		<i>Sample Date:</i>	7/27/2011	7/27/2011	7/14/2011
<i>Volatile Organic Compounds</i>					
1,2-Dichloroethane	mg/L	<0.0010	<0.0010	<0.0050	
Benzene	mg/L	<0.0010	<0.0010	0.27	
Chlorobenzene	mg/L	<0.0010	<0.0010	<0.0050	
Ethylbenzene	mg/L	<0.0011	0.0075	0.16	
Methylene chloride	mg/L	<0.0013	<0.0013	<0.0065	
Toluene	mg/L	<0.0010	0.0033 J	0.14	
Vinyl chloride	mg/L	-	-	0.0069 J	
Xylenes (total)	mg/L	<0.0031	0.0052 J	0.61	
<i>Semi-volatile Organic Compounds</i>					
1,2-Diphenylhydrazine	mg/L	<0.000050	<0.000050	<0.000050	
2,4-Dimethylphenol	mg/L	<0.000050	<0.000050	6.8	
2,4-Dinitrotoluene	mg/L	<0.000050	<0.000050	<0.000050	
2,6-Dinitrotoluene	mg/L	<0.000060	<0.000060	<0.000060	
2-Chloronaphthalene	mg/L	<0.000050	<0.000050	<0.000050	
2-Methylnaphthalene	mg/L	<0.000050	0.015	0.16	
4,6-Dinitro-2-methylphenol	mg/L	<0.000080	<0.000080	<0.000080	
4-Nitrophenol	mg/L	<0.000050	<0.000050	<0.000050	
Acenaphthene	mg/L	0.00075	0.041	0.18	
Acenaphthylene	mg/L	<0.000050	0.00053	0.0040	
Anthracene	mg/L	0.00012 J	0.0022	0.021	
Benzo(a)anthracene	mg/L	<0.000050	<0.000050	0.0014	
Benzo(a)pyrene	mg/L	<0.000050	<0.000050	0.00047	
bis(2-Chloroethoxy)methane	mg/L	<0.000050	<0.000050	<0.000050	
bis(2-Ethylhexyl)phthalate (DEHP)	mg/L	0.00018 J	0.00022	<0.0018 U	
Chrysene	mg/L	<0.000050	<0.000050	0.0014	
Dibenzofuran	mg/L	0.00013 J	0.029	0.090	
Di-n-butylphthalate (DBP)	mg/L	<0.000050	<0.000050	<0.000050	
Fluoranthene	mg/L	0.000081 J	0.0022	0.021	
Fluorene	mg/L	0.000082 J	0.028	0.090	
Naphthalene	mg/L	0.00013 J	0.049	2.3	
Nitrobenzene	mg/L	<0.000050	<0.000050	<0.000050	

TABLE 3

ANALYTICAL RESULTS SUMMARY
SEMI-ANNUAL SITE-WIDE GROUNDWATER MONITORING
UNION PACIFIC RAILROAD (UPRR)
HOUSTON WOOD PRESERVING WORKS
HOUSTON, TEXAS
JULY 2011

<i>Parameters</i>	<i>Units</i>	<i>Sample Location:</i>	<i>TW-41B</i>	<i>TW-56A</i>
		<i>P-11</i>		
		<i>Sample ID:</i>	<i>WG-1620-TW41B-20110727</i>	<i>WG-1620-TW56A-20110714</i>
		<i>Sample Date:</i>	<i>7/27/2011</i>	<i>7/14/2011</i>
<i>Semi-volatile Organic Compounds (Cont'd.)</i>				
N-Nitrosodiphenylamine	mg/L	<0.000050	<0.000050	<0.000050
Pentachlorophenol	mg/L	<0.000050	<0.000050	0.00076 J
Phenanthrene	mg/L	0.000086 J	0.019	0.17
Phenol	mg/L	<0.000050	<0.000050	<0.000050
Pyrene	mg/L	<0.000050	0.00095	0.012

Notes:

- Not analyzed.

J - Estimated.

JL - Estimated value, low bias.

U - Not detected.

UJL - The analyte was not detected above the sample quantitation limit. The reported quantitation limit is an estimated quantity and may be biased low.

TABLE 4

**QUALIFIED SAMPLE RESULTS DUE TO ANALYTE CONCENTRATIONS IN THE RINSE BLANKS
SEMI-ANNUAL SITE-WIDE GROUNDWATER MONITORING
UNION PACIFIC RAILROAD (UPRR)
HOUSTON WOOD PRESERVING WORKS
HOUSTON, TEXAS
JULY 2011**

<i>Parameter</i>	<i>Rinse Blank Date</i>	<i>Analyte</i>	<i>Blank Result</i>	<i>Sample ID</i>	<i>Qualified Sample Result</i>	<i>Units</i>
SVOCs	07/13/11	bis(2-Ethylhexyl)phthalate (DEHP)	0.0016	WG-1620-MW15A-20110713	0.00012 U	mg/L
				WG-1620-MW15C-20110713	0.00057 U	mg/L
				WG-1620-MW-17-20110713	0.00044 U	mg/L
				WG-1620-MW17C-20110713	0.012 U	mg/L
SVOCs	07/13/11	Naphthalene	0.00079	WG-1620-MW15C-20110713	0.00046 U	mg/L
SVOCs	07/14/11	Acenaphthene	0.00011	WG-1620-MW42B-02110714	0.00024 U	mg/L
SVOCs	07/14/11	bis(2-Ethylhexyl)phthalate (DEHP)	0.00061	WG-1620-MW16-20110714	0.00025 U	mg/L
				WG-1620-MW19C-20110714	0.00039 U	mg/L
				WG-1620-MW20A-20110714	0.00033 U	mg/L
				WG-1620-MW40B-20110714	0.00053 U	mg/L
				WG-1620-MW42B-02110714	0.00080 U	mg/L
				WG-1620-MW52A-20110714	0.00042 U	mg/L
				WG-1620-TW56A-20110714	0.0018 U	mg/L
SVOCs	07/14/11	Dibenzofuran	0.00014	WG-1620-MW19C-20110714	0.00060 U	mg/L
				WG-1620-MW42B-02110714	0.00014 U	mg/L
SVOCs	07/14/11	Fluorene	0.00016	WG-1620-MW19C-20110714	0.00066 U	mg/L
				WG-1620-MW42B-02110714	0.00026 U	mg/L
SVOCs	07/14/11	Naphthalene	0.00095	WG-1620-MW42B-02110714	0.00048 U	mg/L
SVOCs	07/14/11	Phenanthrene	0.00012	WG-1620-MW19C-20110714	0.00053 U	mg/L
				WG-1620-MW42B-02110714	0.00016 U	mg/L

TABLE 4

**QUALIFIED SAMPLE RESULTS DUE TO ANALYTE CONCENTRATIONS IN THE RINSE BLANKS
SEMI-ANNUAL SITE-WIDE GROUNDWATER MONITORING
UNION PACIFIC RAILROAD (UPRR)
HOUSTON WOOD PRESERVING WORKS
HOUSTON, TEXAS
JULY 2011**

<i>Parameter</i>	<i>Rinse Blank Date</i>	<i>Analyte</i>	<i>Blank Result</i>	<i>Sample ID</i>	<i>Qualified Sample Result</i>	<i>Units</i>
SVOCs	07/18/11	bis(2-Ethylhexyl)phthalate (DEHP)	0.00045	WG-1620-MW38B-20110718	0.001 U	mg/L
				WG-1620-MW48C-20110718	0.00043 U	mg/L
				WG-1620-MW59A-20110718	0.00054 U	mg/L
				WG-1620-MW59B-20110718	0.00031 U	mg/L
				WG-1620-MW60A-20110718	0.00017 U	mg/L
SVOCs	07/18/11	Fluoranthene	0.00035	WG-1620-MW48C-20110718	0.00013 U	mg/L
				WG-1620-MW59A-20110718	0.00012 U	mg/L
SVOCs	07/18/11	Phenanthrene	0.00061	WG-1620-MW59A-20110718	0.00018 U	mg/L
SVOCs	07/18/11	Pyrene	0.00024	WG-1620-MW48C-20110718	0.0001 U	mg/L
SVOCs	07/19/11	bis(2-Ethylhexyl)phthalate (DEHP)	0.00083	WG-1620-DUP3-20110719	0.00029 U	mg/L
				WG-1620-DUP4-20110719	0.00068 U	mg/L
				WG-1620-MW26A-20110719	0.00031 U	mg/L
				WG-1620-MW28A-20110719	0.00032 U	mg/L
				WG-1620-MW28C-20110719	0.00053 U	mg/L
				WG-1620-MW32A-20110719	0.0013 U	mg/L
				WG-1620-MW33A-20110719	0.00056 U	mg/L
				WG-1620-MW33B-20110719	0.00046 U	mg/L
				WG-1620-MW36A-20110719	0.0004 U	mg/L
				WG-1620-MW36B-20110719	0.00068 U	mg/L
				WG-1620-MW38A-20110719	0.00094 U	mg/L
WG-1620-MW63B-20110719	0.00051 U	mg/L				
SVOCs	07/19/11	Naphthalene	0.00037	WG-1620-MW28C-20110719	0.000091 U	mg/L
				WG-1620-MW38A-20110719	0.00026 U	mg/L

TABLE 4

**QUALIFIED SAMPLE RESULTS DUE TO ANALYTE CONCENTRATIONS IN THE RINSE BLANKS
SEMI-ANNUAL SITE-WIDE GROUNDWATER MONITORING
UNION PACIFIC RAILROAD (UPRR)
HOUSTON WOOD PRESERVING WORKS
HOUSTON, TEXAS
JULY 2011**

<i>Parameter</i>	<i>Rinse Blank Date</i>	<i>Analyte</i>	<i>Blank Result</i>	<i>Sample ID</i>	<i>Qualified Sample Result</i>	<i>Units</i>
SVOCs	07/20/11	bis(2-Ethylhexyl)phthalate (DEHP)	0.00069	WG-1620MW25A-20110720	0.00023 U	mg/L
				WG-1620MW25C-20110720	0.0020 U	mg/L
				WG-1620MW27C-20110720	0.00095 U	mg/L
				WG-1620MW35A-20110720	0.00099 U	mg/L
				WG-1620MW35B-20110720	0.00056 U	mg/L
				WG-1620MW44A-20110720	0.00075 U	mg/L
				WG-1620MW44C-20110720	0.00087 U	mg/L
				WG-1620MW53C-20110720	0.00014 U	mg/L
				WG-1620MW54C-20110720	0.00015 U	mg/L
				WG-1620MW67B-2011720	0.00094 U	mg/L
SVOCs	07/20/11	Naphthalene	0.00021	WG-1620MW44C-20110720	0.00016 U	mg/L
SVOCs	07/22/11	bis(2-Ethylhexyl)phthalate (DEHP)	0.00013	WG-1620-MW49B-20110722	0.00024 U	mg/L
SVOCs	07/28/11	bis(2-Ethylhexyl)phthalate (DEHP)	0.0016	WG-1620-MW50A-20110728	0.00077 U	mg/L
				WG-1620-MW51A-20110728	0.0018 U	mg/L

Notes:

SVOCs Semi-Volatile Organic Compounds.

U Not Detected.

TABLE 5

QUALIFIED SAMPLE RESULTS DUE TO OUTLYING LABORATORY CONTROL SAMPLE/LABORATORY CONTROL SAMPLE DUPLICATE RESULTS
SEMI-ANNUAL SITE-WIDE GROUNDWATER MONITORING
UNION PACIFIC RAILROAD (UPRR)
HOUSTON WOOD PRESERVING WORKS
HOUSTON, TEXAS
JULY 2011

<i>Parameter</i>	<i>Compound</i>	<i>LCS Date</i>	<i>Associated Sample ID</i>	<i>LCS %Rec</i>	<i>LCSD %Rec</i>	<i>RPD (percent)</i>	<i>Control Limits</i>		<i>Qualified Sample Results</i>	<i>Units</i>
							<i>%Rec</i>	<i>%RPD</i>		
SVOCs	Pentachlorophenol	07/18/11	WG-1620-MW16-20110714	41.6	62.7	40.5	19-121	0-20	0.000061 J	mg/L
			WG-1620-MW18C-20110713						0.076 J	mg/L
			WG-1620-MW19C-20110714						0.00028 J	mg/L
			WG-1620-MW30A-20110714						0.00033 J	mg/L
			WG-1620-MW31A-20110714						0.076 J	mg/L
			WG-1620-TW56A-20110714						0.00076 J	mg/L

Notes:

- J Estimated.
- LCS Laboratory Control Sample.
- LCSD Laboratory Control Sample Duplicate.
- RPD Relative Percent Difference.
- SVOCs Semi-Volatile Organic Compounds.

TABLE 6

**QUALIFIED SAMPLE RESULTS DUE TO OUTLYING MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERIES
SEMI-ANNUAL SITE-WIDE GROUNDWATER MONITORING
UNION PACIFIC RAILROAD (UPRR)
HOUSTON WOOD PRESERVING WORKS
HOUSTON, TEXAS
JULY 2011**

<i>Parameter</i>	<i>Associated Sample ID</i>	<i>Analyte</i>	<i>MS Recovery (percent)</i>	<i>MSD Recovery (percent)</i>	<i>RPD</i>	<i>Control Limits</i>		<i>Qualified Sample Result</i>	<i>Units</i>
						<i>Recovery (percent)</i>	<i>RPD (percent)</i>		
SVOCs	WG-1620-MW28C-20110719	2-Chloronaphthalene	46.2	44.7	3.2	50-120	0-20	0.00005 UJL	mg/L
		2-Methylnaphthalene	45.7	48.6	6.1	50-120	0-20	0.00005 UJL	mg/L
		Acenaphthene	40.1	42.2	5	45-120	0-20	0.00005 UJL	mg/L
		Acenaphthylene	41.6	43	3.4	47-120	0-20	0.00005 UJL	mg/L
		bis(2-Chloroethoxy)methane	39.4	41.5	5.2	45-120	0-20	0.00005 UJL	mg/L
		Dibenzofuran	42.3	43.7	3	50-120	0-20	0.00019 JL	mg/L
		Naphthalene	43.9	44.3	1	45-120	0-20	0.000091 UJL	mg/L
		Nitrobenzene	40.5	43.5	7.2	44-120	0-20	0.00005 UJL	mg/L

Notes:

JL Estimated. Low Bias.

MS Matrix Spike.

MSD Matrix Spike Duplicate.

RPD Relative Percent Difference.

SVOC: Semi-Volatile Organic Compounds.

UJL The analyte was not detected above the sample quantitation limit. The reported quantitation limit is an estimated quantity and may be biased low.

TABLE 7

**QUALIFIED SAMPLE RESULTS DUE TO VARIABILITY IN FIELD DUPLICATE RESULTS
SEMI-ANNUAL SITE-WIDE GROUNDWATER MONITORING
UNION PACIFIC RAILROAD (UPRR)
HOUSTON WOOD PRESERVING WORKS
HOUSTON, TEXAS
JULY 2011**

<i>Parameter</i>	<i>Analyte</i>	<i>Original Sample ID</i>	<i>Qualified Sample Result</i>	<i>Duplicate Sample ID</i>	<i>Qualified Sample Result</i>	<i>RPD</i>	<i>Units</i>
SVOC	Acenaphthylene	WG-1620-MW63B-20110719	0.000066 J	WG-1620-DUP3-20110719	0.00011 J	50	mg/L
	Anthracene		0.00011 J		0.0002 J	58	mg/L
	Naphthalene		0.36 J		0.49 J	31	mg/L
SVOC	2-Methylnaphthalene	WG-1620-MW33A-20110719	0.022 J	WG-1620-DUP4-20110719	0.031 J	34	mg/L
	Chrysene		0.0001 J		0.00005 UJ	67	mg/L
	Dibenzofuran		0.0088 J		0.014 J	46	mg/L
	Fluorene		0.0088 J		0.012 J	31	mg/L
	Naphthalene		0.31 J		0.44 J	35	mg/L
	Phenanthrene		0.0046 J		0.0068 J	39	mg/L
	Phenol	0.00005 UJ	0.00091 J	179	mg/L		
SVOC	bis(2-Ethylhexyl)phthalate (DEHP)	WG-1620-MW21C-20110727	0.00062 J	WG-1620-DUP6-20110727	0.00036 J	53	mg/L

Notes:

J Estimated.

RPD Relative Percent Difference.

SVOCs Semi-Volatile Organic Compounds.

UJ The analyte was not detected above the sample quantitation limit. The reported quantitation limit is an estimated quantity.



22-Jul-2011

Eric Matzner
Pastor, Behling & Wheeler, LLC
2201 Double Creek Drive
Suite 4004
Round Rock, TX 78664

Tel: (512) 671-3434
Fax: (512) 671-3446

Re: UPRR Houston Wood GW

Work Order: **1107486**

Dear Eric,

ALS Environmental received 19 samples on 15-Jul-2011 07:34 AM for the analyses presented in the following report.

The analytical data provided relates directly to the samples received by ALS Environmental and for only the analyses requested. Results are expressed as "as received" unless otherwise noted.

QC sample results for this data met EPA or laboratory specifications except as noted in the Case Narrative or as noted with qualifiers in the QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained by ALS Environmental. Samples will be disposed in 30 days unless storage arrangements are made.

The total number of pages in this report is 64.

If you have any questions regarding this report, please feel free to call me.

Sincerely,

A handwritten signature in cursive script that reads "Patricia L. Lynch".

Electronically approved by: Makenzie L. Henderson

Patricia L. Lynch
Project Manager



Certificate No: T104704231-09A-TX

ADDRESS 10450 Stancliff Rd, Suite 210 Houston, Texas 77099-4338 | PHONE (281) 530-5656 | FAX (281) 530-5887

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Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Work Order: 1107486

**TRRP Laboratory Data
Package Cover Page**

This data package consists of all or some of the following as applicable:

This signature page, the laboratory review checklist, and the following reportable data:

- R1 Field chain-of-custody documentation;
- R2 Sample identification cross-reference;
- R3 Test reports (analytical data sheets) for each environmental sample that includes:
 - a) Items consistent with NELAC Chapter 5,
 - b) dilution factors,
 - c) preparation methods,
 - d) cleanup methods, and
 - e) if required for the project, tentatively identified compounds (TICs).
- R4 Surrogate recovery data including:
 - a) Calculated recovery (%R), and
 - b) The laboratory's surrogate QC limits.
- R5 Test reports/summary forms for blank samples;
- R6 Test reports/summary forms for laboratory control samples (LCSs) including:
 - a) LCS spiking amounts,
 - b) Calculated %R for each analyte, and
 - c) The laboratory's LCS QC limits.
- R7 Test reports for project matrix spike/matrix spike duplicates (MS/MSDs) including:
 - a) Samples associated with the MS/MSD clearly identified,
 - b) MS/MSD spiking amounts,
 - c) Concentration of each MS/MSD analyte measured in the parent and spiked samples,
 - d) Calculated %Rs and relative percent differences (RPDs), and
 - e) The laboratory's MS/MSD QC limits.
- R8 Laboratory analytical duplicate (if applicable) recovery and precision:
 - a) the amount of analyte measured in the duplicate,
 - b) the calculated RPD, and
 - c) the laboratory's QC limits for analytical duplicates.
- R9 List of method quantitation limits (MQLs) and detectability check sample results for each analyte for each method and matrix.
- R10 Other problems or anomalies.
The Exception Report for each "No" or "Not Reviewed (NR)" item in Laboratory Review Checklist and for each analyte, matrix, and method for which the laboratory does not hold NELAC accreditation under the Texas Laboratory Accreditation Program.

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Work Order: 1107486

**TRRP Laboratory Data
Package Cover Page**

Release Statement: I am responsible for the release of this laboratory data package. This laboratory is NELAC accredited under the Texas Laboratory Accreditation Program for all the methods, analytes and matrices reported in this data package except as noted in the Exception Reports. The data have been reviewed and are technically compliant with the requirements of the methods used, except where noted by the laboratory in the attached exception reports. By my signature below, I affirm to the best of my knowledge, all problems/anomalies, observed by the laboratory have been identified by the laboratory in the Laboratory Review Checklist, and no information affecting the quality of the data has been knowingly withheld.

Check, if applicable: [NA] This laboratory meets an exception under 30 TAC §25.6 and was last inspected by TCEQ or _____ on (enter date of last inspection). Any findings affecting the data in this laboratory data package are noted in the Exception Reports herein. The official signing the cover page of the report in which these data are used is responsible for releasing this data package and is by signature affirming the above release statement is true.

Patricia L. Lynch

Patricia L. Lynch
Project Manager

Laboratory Review Checklist: Reportable Data

Laboratory Name: ALS Laboratory Group		LRC Date: 08/03/2011					
Project Name: UPRR Houston Wood GW		Laboratory Job Number: 1107486					
Reviewer Name: Patricia L. Lynch		Prep Batch Number(s): 53985, R113290, R113296, R113336, R113367, R113431					
# ¹	A ²	Description	Yes	No	NA ³	NR ⁴	ER# ⁵
R1	OI	Chain-of-custody (C-O-C)					
		Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?	X				
		Were all departures from standard conditions described in an exception report?	X				
R2	OI	Sample and quality control (QC) identification					
		Are all field sample ID numbers cross-referenced to the laboratory ID numbers?	X				
		Are all laboratory ID numbers cross-referenced to the corresponding QC data?	X				
R3	OI	Test reports					
		Were all samples prepared and analyzed within holding times?	X				
		Other than those results < MQL, were all other raw values bracketed by calibration standards?	X				
		Were calculations checked by a peer or supervisor?	X				
		Were all analyte identifications checked by a peer or supervisor?	X				
		Were sample detection limits reported for all analytes not detected?	X				
		Were all results for soil and sediment samples reported on a dry weight basis?			X		
		Were % moisture (or solids) reported for all soil and sediment samples?			X		
		Were bulk soils/solids samples for volatile analysis extracted with methanol per SW-846 Method 5035?			X		
		If required for the project, TICs reported?			X		
R4	O	Surrogate recovery data					
		Were surrogates added prior to extraction?	X				
		Were surrogate percent recoveries in all samples within the laboratory QC limits?		X			1
R5	OI	Test reports/summary forms for blank samples					
		Were appropriate type(s) of blanks analyzed?	X				
		Were blanks analyzed at the appropriate frequency?	X				
		Were method blanks taken through the entire analytical process, including preparation and, if applicable, cleanup procedures?	X				
		Were blank concentrations < MQL?	X				
R6	OI	Laboratory control samples (LCS):					
		Were all COCs included in the LCS?	X				
		Was each LCS taken through the entire analytical procedure, including prep and cleanup steps?	X				
		Were LCSs analyzed at the required frequency?	X				
		Were LCS (and LCSD, if applicable) %Rs within the laboratory QC limits?	X				
		Does the detectability data document the laboratory's capability to detect the COCs at the MDL used to calculate the SDLs?	X				
		Was the LCSD RPD within QC limits?		X			2
R7	OI	Matrix spike (MS) and matrix spike duplicate (MSD) data					
		Were the project/method specified analytes included in the MS and MSD?	X				
		Were MS/MSD analyzed at the appropriate frequency?	X				
		Were MS (and MSD, if applicable) %Rs within the laboratory QC limits?		X			3
		Were MS/MSD RPDs within laboratory QC limits?	X				
R8	OI	Analytical duplicate data					
		Were appropriate analytical duplicates analyzed for each matrix?			X		
		Were analytical duplicates analyzed at the appropriate frequency?			X		
		Were RPDs or relative standard deviations within the laboratory QC limits?			X		
R9	OI	Method quantitation limits (MQLs):					
		Are the MQLs for each method analyte included in the laboratory data package?	X				
		Do the MQLs correspond to the concentration of the lowest non-zero calibration standard?	X				
		Are unadjusted MQLs and DCSs included in the laboratory data package?	X				
R10	OI	Other problems/anomalies					
		Are all known problems/anomalies/special conditions noted in this LRC and ER?	X				
		Were all necessary corrective actions performed for the reported data?	X				
		Was applicable and available technology used to lower the SDL and minimize the matrix interference affects on the sample results?	X				
		Is the laboratory NELAC-accredited under the Texas Laboratory Program for the analytes, matrices and methods associated with this laboratory data package?	X				

Laboratory Review Checklist: Reportable Data

Laboratory Name: ALS Laboratory Group		LRC Date: 08/3/2011					
Project Name: UPRR Houston Wood GW		Laboratory Job Number: 1107486					
Reviewer Name: Patricia L. Lynch		Prep Batch Number(s): 53985, R113290, R113296, R113336, R113367, R113431					
# ¹	A ²	Description	Yes	No	NA ³	NR ⁴	ER# ⁵
S1	OI	Initial calibration (ICAL)					
		Were response factors and/or relative response factors for each analyte within QC limits?	X				
		Were percent RSDs or correlation coefficient criteria met?	X				
		Was the number of standards recommended in the method used for all analytes?	X				
		Were all points generated between the lowest and highest standard used to calculate the curve?	X				
		Are ICAL data available for all instruments used?	X				
		Has the initial calibration curve been verified using an appropriate second source standard?	X				
S2	OI	Initial and continuing calibration verification (ICCV and CCV) and continuing calibration blank (CCB)					
		Was the CCV analyzed at the method-required frequency?	X				
		Were percent differences for each analyte within the method-required QC limits?	X				
		Was the ICAL curve verified for each analyte?	X				
		Was the absolute value of the analyte concentration in the inorganic CCB < MDL?			X		
S3	O	Mass spectral tuning:					
		Was the appropriate compound for the method used for tuning?	X				
		Were ion abundance data within the method-required QC limits?	X				
S4	O	Internal standards (IS):					
		Were IS area counts and retention times within the method-required QC limits?	X				
S5	OI	Raw data (NELAC section 1 appendix A glossary, and section 5.12 or ISO/IEC 17025 section					
		Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?	X				
		Were data associated with manual integrations flagged on the raw data?	X				
S6	O	Dual column confirmation					
		Did dual column confirmation results meet the method-required QC?			X		
S7	O	Tentatively identified compounds (TICs):					
		If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?			X		
S8	I	Interference Check Sample (ICS) results:					
		Were percent recoveries within method QC limits?			X		
S9	I	Serial dilutions, post digestion spikes, and method of standard additions					
		Were percent differences, recoveries, and the linearity within the QC limits specified in the method?			X		
S10	OI	Method detection limit (MDL) studies					
		Was a MDL study performed for each reported analyte?	X				
		Is the MDL either adjusted or supported by the analysis of DCSSs?	X				
S11	OI	Proficiency test reports:					
		Was the laboratory's performance acceptable on the applicable proficiency tests or evaluation studies?	X				
S12	OI	Standards documentation					
		Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?	X				
S13	OI	Compound/analyte identification procedures					
		Are the procedures for compound/analyte identification documented?	X				
S14	OI	Demonstration of analyst competency (DOC)					
		Was DOC conducted consistent with NELAC Chapter 5C or ISO/IEC 4?	X				
		Is documentation of the analyst's competency up-to-date and on file?	X				
S15	OI	Verification/validation documentation for methods (NELAC Chap 5 or ISO/IEC 17025 Section 5)					
		Are all the methods used to generate the data documented, verified, and validated, where applicable?	X				
S16	OI	Laboratory standard operating procedures (SOPs):					
		Are laboratory SOPs current and on file for each method performed?	X				

Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.

O = Organic Analyses; I = Inorganic Analyses (and general chemistry, when applicable);

NA = Not Applicable;

NR = Not Reviewed;

R# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

Laboratory Review Checklist: Reportable Data

Laboratory Name: ALS Laboratory Group		LRC Date: 08/3/2011
Project Name: UPRR Houston Wood GW		Laboratory Job Number: 1107486
Reviewer Name: Patricia L. Lynch		Prep Batch Number(s): 53985, R113290, R113296, R113336, R113367, R113431
ER# ⁵	Description	
1	Most samples for Semivolatile Organics were analyzed at multiple dilutions. Surrogate recoveries were diluted out in the higher dilutions, but were in control in the original runs.	
2	Batch 53985, Semivolatile Organics : LCS/LCSD RPDs were above the control limits for 2-Chloronaphthalene and Pentachlorophenol. The individual recoveries were in control.	
3	Batch R113296, Volatile Organics, Sample 1107523-01 : MS/MSD is for an unrelated sample.	
Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period. O = Organic Analyses; I = Inorganic Analyses (and general chemistry, when applicable); NA = Not Applicable; NR = Not Reviewed; R# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).		

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Work Order: 1107486

Work Order Sample Summary

<u>Lab Samp ID</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Tag Number</u>	<u>Collection Date</u>	<u>Date Received</u>	<u>Hold</u>
1107486-01	WG-1620-MW15A-20110713	Water		7/13/2011 14:00	7/15/2011 07:34	<input type="checkbox"/>
1107486-02	WG-1620-MW15C-20110713	Water		7/13/2011 14:45	7/15/2011 07:34	<input type="checkbox"/>
1107486-03	WG-1620-MW17C-20110713	Water		7/13/2011 15:45	7/15/2011 07:34	<input type="checkbox"/>
1107486-04	WG-1620-MW-17-20110713	Water		7/13/2011 16:45	7/15/2011 07:34	<input type="checkbox"/>
1107486-05	WG-1620-MW18A-20110713	Water		7/13/2011 18:00	7/15/2011 07:34	<input type="checkbox"/>
1107486-06	WG-1620-MW18C-20110713	Water		7/13/2011 18:45	7/15/2011 07:34	<input type="checkbox"/>
1107486-07	WG-1620-FB01-20110713	Water		7/13/2011 19:15	7/15/2011 07:34	<input type="checkbox"/>
1107486-08	WG-1620-TW56A-20110714	Water		7/14/2011 07:45	7/15/2011 07:34	<input type="checkbox"/>
1107486-09	WG-1620-MW20A-20110714	Water		7/14/2011 08:45	7/15/2011 07:34	<input type="checkbox"/>
1107486-10	WG-1620-MW16-20110714	Water		7/14/2011 09:35	7/15/2011 07:34	<input type="checkbox"/>
1107486-11	WG-1620-MW55A-20110714	Water		7/14/2011 10:30	7/15/2011 07:34	<input type="checkbox"/>
1107486-12	WG-1620-MW19C-20110714	Water		7/14/2011 11:20	7/15/2011 07:34	<input type="checkbox"/>
1107486-13	WG-1620-MW52A-20110714	Water		7/14/2011 12:30	7/15/2011 07:34	<input type="checkbox"/>
1107486-14	WG-1620-MW31A-20110714	Water		7/14/2011 13:40	7/15/2011 07:34	<input type="checkbox"/>
1107486-15	WG-1620-MW30A-20110714	Water		7/14/2011 14:45	7/15/2011 07:34	<input type="checkbox"/>
1107486-16	WG-1620-MW40B-20110714	Water		7/14/2011 16:00	7/15/2011 07:34	<input type="checkbox"/>
1107486-17	WG-1620-MW42B-02110714	Water		7/14/2011 17:30	7/15/2011 07:34	<input type="checkbox"/>
1107486-18	WG-1620-FB02-20110714	Water		7/14/2011 18:00	7/15/2011 07:34	<input type="checkbox"/>
1107486-19	WG-1620-TB01-20110714	Water		7/14/2011	7/15/2011 07:34	<input type="checkbox"/>

ALS Environmental

Date: 05-Aug-11

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Sample ID: WG-1620-MW15A-20110713
Collection Date: 7/13/2011 02:00 PM

Work Order: 1107486
Lab ID: 1107486-01
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270		Prep: SW3510 / 7/16/11		Analyst: LG
1,2-Diphenylhydrazine		U	0.000050	0.00020	mg/L	1	7/18/2011 21:53
2,4-Dimethylphenol		U	0.000050	0.00020	mg/L	1	7/18/2011 21:53
2,4-Dinitrotoluene		U	0.000050	0.00020	mg/L	1	7/18/2011 21:53
2,6-Dinitrotoluene		U	0.000060	0.00020	mg/L	1	7/18/2011 21:53
2-Chloronaphthalene		U	0.000050	0.00020	mg/L	1	7/18/2011 21:53
2-Methylnaphthalene	0.14		0.0025	0.010	mg/L	50	7/19/2011 21:21
4,6-Dinitro-2-methylphenol		U	0.000080	0.00020	mg/L	1	7/18/2011 21:53
4-Nitrophenol		U	0.000050	0.0010	mg/L	1	7/18/2011 21:53
Acenaphthene	0.20		0.0025	0.010	mg/L	50	7/19/2011 21:21
Acenaphthylene	0.00097		0.000050	0.00020	mg/L	1	7/18/2011 21:53
Anthracene	0.0053		0.000050	0.00020	mg/L	1	7/18/2011 21:53
Benz(a)anthracene		U	0.000050	0.00020	mg/L	1	7/18/2011 21:53
Benzo(a)pyrene		U	0.000050	0.00020	mg/L	1	7/18/2011 21:53
Bis(2-chloroethoxy)methane		U	0.000050	0.00020	mg/L	1	7/18/2011 21:53
Bis(2-ethylhexyl)phthalate	0.00012	J	0.00010	0.00020	mg/L	1	7/18/2011 21:53
Chrysene		U	0.000050	0.00020	mg/L	1	7/18/2011 21:53
Dibenzofuran	0.078		0.00050	0.0020	mg/L	10	7/19/2011 08:12
Di-n-butyl phthalate		U	0.000050	0.00020	mg/L	1	7/18/2011 21:53
Fluoranthene	0.0021		0.000050	0.00020	mg/L	1	7/18/2011 21:53
Fluorene	0.092		0.00050	0.0020	mg/L	10	7/19/2011 08:12
Naphthalene	0.087		0.00050	0.0020	mg/L	10	7/19/2011 08:12
Nitrobenzene		U	0.000050	0.00020	mg/L	1	7/18/2011 21:53
N-Nitrosodiphenylamine	0.00055		0.000050	0.00020	mg/L	1	7/18/2011 21:53
Pentachlorophenol		U	0.000050	0.00020	mg/L	1	7/18/2011 21:53
Phenanthrene	0.036		0.00050	0.0020	mg/L	10	7/19/2011 08:12
Phenol		U	0.000050	0.00020	mg/L	1	7/18/2011 21:53
Pyrene	0.00089		0.000050	0.00020	mg/L	1	7/18/2011 21:53
Surr: 2,4,6-Tribromophenol	69.9			34-129	%REC	1	7/18/2011 21:53
Surr: 2,4,6-Tribromophenol	89.1			34-129	%REC	10	7/19/2011 08:12
Surr: 2,4,6-Tribromophenol	93.0	J		34-129	%REC	50	7/19/2011 21:21
Surr: 2-Fluorobiphenyl	59.6			40-125	%REC	1	7/18/2011 21:53
Surr: 2-Fluorobiphenyl	76.1			40-125	%REC	10	7/19/2011 08:12
Surr: 2-Fluorobiphenyl	73.4	J		40-125	%REC	50	7/19/2011 21:21
Surr: 2-Fluorophenol	51.1			20-120	%REC	1	7/18/2011 21:53
Surr: 2-Fluorophenol	67.2			20-120	%REC	10	7/19/2011 08:12
Surr: 2-Fluorophenol	54.3	J		20-120	%REC	50	7/19/2011 21:21
Surr: 4-Terphenyl-d14	65.8			40-135	%REC	1	7/18/2011 21:53
Surr: 4-Terphenyl-d14	75.7			40-135	%REC	10	7/19/2011 08:12

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 05-Aug-11

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Sample ID: WG-1620-MW15A-20110713
Collection Date: 7/13/2011 02:00 PM

Work Order: 1107486
Lab ID: 1107486-01
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
Surr: 4-Terphenyl-d14	84.3	J		40-135	%REC	50	7/19/2011 21:21
Surr: Nitrobenzene-d5	56.7			41-120	%REC	1	7/18/2011 21:53
Surr: Nitrobenzene-d5	69.4			41-120	%REC	10	7/19/2011 08:12
Surr: Nitrobenzene-d5	71.6	J		41-120	%REC	50	7/19/2011 21:21
Surr: Phenol-d6	58.3			20-120	%REC	1	7/18/2011 21:53
Surr: Phenol-d6	66.0			20-120	%REC	10	7/19/2011 08:12
Surr: Phenol-d6	57.6	J		20-120	%REC	50	7/19/2011 21:21

VOLATILES		Method: SW8260				Analyst: PC	
1,2-Dichloroethane	U		0.0010	0.0050	mg/L	1	7/20/2011 04:54
Benzene	0.0016	J	0.0010	0.0050	mg/L	1	7/20/2011 04:54
Chlorobenzene	U		0.0010	0.0050	mg/L	1	7/20/2011 04:54
Ethylbenzene	0.0019	J	0.0011	0.0050	mg/L	1	7/20/2011 04:54
Methylene chloride	U		0.0013	0.010	mg/L	1	7/20/2011 04:54
Toluene	U		0.0010	0.0050	mg/L	1	7/20/2011 04:54
Xylenes, Total	0.0038	J	0.0031	0.015	mg/L	1	7/20/2011 04:54
Surr: 1,2-Dichloroethane-d4	93.9			70-125	%REC	1	7/20/2011 04:54
Surr: 4-Bromofluorobenzene	99.5			72-125	%REC	1	7/20/2011 04:54
Surr: Dibromofluoromethane	96.2			71-125	%REC	1	7/20/2011 04:54
Surr: Toluene-d8	99.8			75-125	%REC	1	7/20/2011 04:54

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 05-Aug-11

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Sample ID: WG-1620-MW15C-20110713
Collection Date: 7/13/2011 02:45 PM

Work Order: 1107486
Lab ID: 1107486-02
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270	Prep: SW3510 / 7/16/11	Analyst: LG		
1,2-Diphenylhydrazine		U	0.000050	0.00020	mg/L	1	7/18/2011 22:12
2,4-Dimethylphenol		U	0.000050	0.00020	mg/L	1	7/18/2011 22:12
2,4-Dinitrotoluene		U	0.000050	0.00020	mg/L	1	7/18/2011 22:12
2,6-Dinitrotoluene		U	0.000060	0.00020	mg/L	1	7/18/2011 22:12
2-Chloronaphthalene		U	0.000050	0.00020	mg/L	1	7/18/2011 22:12
2-Methylnaphthalene		U	0.000050	0.00020	mg/L	1	7/18/2011 22:12
4,6-Dinitro-2-methylphenol		U	0.000080	0.00020	mg/L	1	7/18/2011 22:12
4-Nitrophenol		U	0.000050	0.0010	mg/L	1	7/18/2011 22:12
Acenaphthene	0.016		0.00025	0.0010	mg/L	5	7/19/2011 08:32
Acenaphthylene	0.0012		0.000050	0.00020	mg/L	1	7/18/2011 22:12
Anthracene		U	0.000050	0.00020	mg/L	1	7/18/2011 22:12
Benz(a)anthracene		U	0.000050	0.00020	mg/L	1	7/18/2011 22:12
Benzo(a)pyrene		U	0.000050	0.00020	mg/L	1	7/18/2011 22:12
Bis(2-chloroethoxy)methane		U	0.000050	0.00020	mg/L	1	7/18/2011 22:12
Bis(2-ethylhexyl)phthalate	0.00057		0.00010	0.00020	mg/L	1	7/18/2011 22:12
Chrysene		U	0.000050	0.00020	mg/L	1	7/18/2011 22:12
Dibenzofuran	0.0046		0.000050	0.00020	mg/L	1	7/18/2011 22:12
Di-n-butyl phthalate		U	0.000050	0.00020	mg/L	1	7/18/2011 22:12
Fluoranthene	0.00031		0.000050	0.00020	mg/L	1	7/18/2011 22:12
Fluorene	0.00074		0.000050	0.00020	mg/L	1	7/18/2011 22:12
Naphthalene	0.00046		0.000050	0.00020	mg/L	1	7/18/2011 22:12
Nitrobenzene		U	0.000050	0.00020	mg/L	1	7/18/2011 22:12
N-Nitrosodiphenylamine		U	0.000050	0.00020	mg/L	1	7/18/2011 22:12
Pentachlorophenol		U	0.000050	0.00020	mg/L	1	7/18/2011 22:12
Phenanthrene	0.00019	J	0.000050	0.00020	mg/L	1	7/18/2011 22:12
Phenol		U	0.000050	0.00020	mg/L	1	7/18/2011 22:12
Pyrene	0.00018	J	0.000050	0.00020	mg/L	1	7/18/2011 22:12
Surr: 2,4,6-Tribromophenol	65.2			34-129	%REC	1	7/18/2011 22:12
Surr: 2,4,6-Tribromophenol	63.1			34-129	%REC	5	7/19/2011 08:32
Surr: 2-Fluorobiphenyl	42.5			40-125	%REC	1	7/18/2011 22:12
Surr: 2-Fluorobiphenyl	40.5			40-125	%REC	5	7/19/2011 08:32
Surr: 2-Fluorophenol	41.0			20-120	%REC	1	7/18/2011 22:12
Surr: 2-Fluorophenol	42.3			20-120	%REC	5	7/19/2011 08:32
Surr: 4-Terphenyl-d14	65.6			40-135	%REC	1	7/18/2011 22:12
Surr: 4-Terphenyl-d14	73.2			40-135	%REC	5	7/19/2011 08:32
Surr: Nitrobenzene-d5	43.0			41-120	%REC	1	7/18/2011 22:12
Surr: Nitrobenzene-d5	45.5			41-120	%REC	5	7/19/2011 08:32
Surr: Phenol-d6	38.0			20-120	%REC	1	7/18/2011 22:12

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 05-Aug-11

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Sample ID: WG-1620-MW15C-20110713
Collection Date: 7/13/2011 02:45 PM

Work Order: 1107486
Lab ID: 1107486-02
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed	
Surr: Phenol-d6	45.6			20-120	%REC	5	7/19/2011 08:32	
VOLATILES		Method: SW8260					Analyst: PC	
1,2-Dichloroethane	U		0.0010	0.0050	mg/L	1	7/20/2011 05:20	
Benzene	U		0.0010	0.0050	mg/L	1	7/20/2011 05:20	
Chlorobenzene	U		0.0010	0.0050	mg/L	1	7/20/2011 05:20	
Ethylbenzene	U		0.0011	0.0050	mg/L	1	7/20/2011 05:20	
Methylene chloride	U		0.0013	0.010	mg/L	1	7/20/2011 05:20	
Toluene	U		0.0010	0.0050	mg/L	1	7/20/2011 05:20	
Xylenes, Total	U		0.0031	0.015	mg/L	1	7/20/2011 05:20	
Surr: 1,2-Dichloroethane-d4	92.6			70-125	%REC	1	7/20/2011 05:20	
Surr: 4-Bromofluorobenzene	98.3			72-125	%REC	1	7/20/2011 05:20	
Surr: Dibromofluoromethane	95.7			71-125	%REC	1	7/20/2011 05:20	
Surr: Toluene-d8	98.0			75-125	%REC	1	7/20/2011 05:20	

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 05-Aug-11

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Sample ID: WG-1620-MW17C-20110713
Collection Date: 7/13/2011 03:45 PM

Work Order: 1107486
Lab ID: 1107486-03
Matrix: WATER

Analyses	Result	Qual	SDL	ML	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270	Prep: SW3510 / 7/16/11		Analyst: LG	
1,2-Diphenylhydrazine	U		0.000050	0.00020	mg/L	1	7/19/2011 07:14
2,4-Dimethylphenol	1.5		0.020	0.080	mg/L	400	7/20/2011 19:24
2,4-Dinitrotoluene	U		0.000050	0.00020	mg/L	1	7/19/2011 07:14
2,6-Dinitrotoluene	U		0.000060	0.00020	mg/L	1	7/19/2011 07:14
2-Chloronaphthalene	U		0.000050	0.00020	mg/L	1	7/19/2011 07:14
2-Methylnaphthalene	0.0073		0.000050	0.00020	mg/L	1	7/19/2011 07:14
4,6-Dinitro-2-methylphenol	U		0.000080	0.00020	mg/L	1	7/19/2011 07:14
4-Nitrophenol	U		0.000050	0.0010	mg/L	1	7/19/2011 07:14
Acenaphthene	0.021		0.00050	0.0020	mg/L	10	7/19/2011 12:26
Acenaphthylene	0.00028		0.000050	0.00020	mg/L	1	7/19/2011 07:14
Anthracene	0.0016		0.000050	0.00020	mg/L	1	7/19/2011 07:14
Benz(a)anthracene	0.00017	J	0.000050	0.00020	mg/L	1	7/19/2011 07:14
Benzo(a)pyrene	U		0.000050	0.00020	mg/L	1	7/19/2011 07:14
Bis(2-chloroethoxy)methane	U		0.000050	0.00020	mg/L	1	7/19/2011 07:14
Bis(2-ethylhexyl)phthalate	0.012		0.0010	0.0020	mg/L	10	7/19/2011 12:26
Chrysene	U		0.000050	0.00020	mg/L	1	7/19/2011 07:14
Dibenzofuran	0.021		0.00050	0.0020	mg/L	10	7/19/2011 12:26
Di-n-butyl phthalate	U		0.000050	0.00020	mg/L	1	7/19/2011 07:14
Fluoranthene	0.0018		0.000050	0.00020	mg/L	1	7/19/2011 07:14
Fluorene	0.0090		0.000050	0.00020	mg/L	1	7/19/2011 07:14
Naphthalene	0.37		0.0050	0.020	mg/L	100	7/19/2011 22:00
Nitrobenzene	U		0.000050	0.00020	mg/L	1	7/19/2011 07:14
N-Nitrosodiphenylamine	U		0.000050	0.00020	mg/L	1	7/19/2011 07:14
Pentachlorophenol	U		0.000050	0.00020	mg/L	1	7/19/2011 07:14
Phenanthrene	0.014		0.00050	0.0020	mg/L	10	7/19/2011 12:26
Phenol	0.025		0.00050	0.0020	mg/L	10	7/19/2011 12:26
Pyrene	0.00098		0.000050	0.00020	mg/L	1	7/19/2011 07:14
Surr: 2,4,6-Tribromophenol	73.0			34-129	%REC	1	7/19/2011 07:14
Surr: 2,4,6-Tribromophenol	69.8			34-129	%REC	10	7/19/2011 12:26
Surr: 2,4,6-Tribromophenol	76.3	J		34-129	%REC	100	7/19/2011 22:00
Surr: 2,4,6-Tribromophenol	0	S		34-129	%REC	400	7/20/2011 19:24
Surr: 2-Fluorobiphenyl	50.8			40-125	%REC	1	7/19/2011 07:14
Surr: 2-Fluorobiphenyl	63.7			40-125	%REC	10	7/19/2011 12:26
Surr: 2-Fluorobiphenyl	69.0	J		40-125	%REC	100	7/19/2011 22:00
Surr: 2-Fluorobiphenyl	0	S		40-125	%REC	400	7/20/2011 19:24
Surr: 2-Fluorophenol	42.8			20-120	%REC	1	7/19/2011 07:14
Surr: 2-Fluorophenol	42.3			20-120	%REC	10	7/19/2011 12:26
Surr: 2-Fluorophenol	40.1	J		20-120	%REC	100	7/19/2011 22:00

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 05-Aug-11

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Sample ID: WG-1620-MW17C-20110713
Collection Date: 7/13/2011 03:45 PM

Work Order: 1107486
Lab ID: 1107486-03
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
Surr: 2-Fluorophenol	0	S		20-120	%REC	400	7/20/2011 19:24
Surr: 4-Terphenyl-d14	61.2			40-135	%REC	1	7/19/2011 07:14
Surr: 4-Terphenyl-d14	63.2			40-135	%REC	10	7/19/2011 12:26
Surr: 4-Terphenyl-d14	85.3	J		40-135	%REC	100	7/19/2011 22:00
Surr: 4-Terphenyl-d14	0	S		40-135	%REC	400	7/20/2011 19:24
Surr: Nitrobenzene-d5	43.2			41-120	%REC	1	7/19/2011 07:14
Surr: Nitrobenzene-d5	58.5			41-120	%REC	10	7/19/2011 12:26
Surr: Nitrobenzene-d5	55.5	J		41-120	%REC	100	7/19/2011 22:00
Surr: Nitrobenzene-d5	0	S		41-120	%REC	400	7/20/2011 19:24
Surr: Phenol-d6	50.6			20-120	%REC	1	7/19/2011 07:14
Surr: Phenol-d6	57.5			20-120	%REC	10	7/19/2011 12:26
Surr: Phenol-d6	55.5	J		20-120	%REC	100	7/19/2011 22:00
Surr: Phenol-d6	0	S		20-120	%REC	400	7/20/2011 19:24

VOLATILES		Method: SW8260				Analyst: PC	
1,2-Dichloroethane	U	0.0010	0.0050	mg/L	1	7/20/2011 06:11	
Benzene	0.010	0.0010	0.0050	mg/L	1	7/20/2011 06:11	
Chlorobenzene	U	0.0010	0.0050	mg/L	1	7/20/2011 06:11	
Ethylbenzene	0.021	0.0011	0.0050	mg/L	1	7/20/2011 06:11	
Methylene chloride	U	0.0013	0.010	mg/L	1	7/20/2011 06:11	
Toluene	0.0046	J	0.0010	0.0050	mg/L	1	7/20/2011 06:11
Xylenes, Total	0.029		0.0031	0.015	mg/L	1	7/20/2011 06:11
Surr: 1,2-Dichloroethane-d4	92.7			70-125	%REC	1	7/20/2011 06:11
Surr: 4-Bromofluorobenzene	99.1			72-125	%REC	1	7/20/2011 06:11
Surr: Dibromofluoromethane	96.1			71-125	%REC	1	7/20/2011 06:11
Surr: Toluene-d8	97.6			75-125	%REC	1	7/20/2011 06:11

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 05-Aug-11

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Sample ID: WG-1620-MW-17-20110713
Collection Date: 7/13/2011 04:45 PM

Work Order: 1107486
Lab ID: 1107486-04
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270		Prep: SW3510 / 7/16/11		Analyst: LG
1,2-Diphenylhydrazine		U	0.000050	0.00020	mg/L	1	7/19/2011 09:11
2,4-Dimethylphenol	2.7		0.050	0.20	mg/L	1000	7/20/2011 20:03
2,4-Dinitrotoluene		U	0.000050	0.00020	mg/L	1	7/19/2011 09:11
2,6-Dinitrotoluene		U	0.000060	0.00020	mg/L	1	7/19/2011 09:11
2-Chloronaphthalene		U	0.000050	0.00020	mg/L	1	7/19/2011 09:11
2-Methylnaphthalene	0.75		0.0050	0.020	mg/L	100	7/19/2011 22:39
4,6-Dinitro-2-methylphenol		U	0.000080	0.00020	mg/L	1	7/19/2011 09:11
4-Nitrophenol		U	0.000050	0.0010	mg/L	1	7/19/2011 09:11
Acenaphthene	0.22		0.0050	0.020	mg/L	100	7/19/2011 22:39
Acenaphthylene	0.0069		0.000050	0.00020	mg/L	1	7/19/2011 09:11
Anthracene	0.014		0.00050	0.0020	mg/L	10	7/19/2011 13:05
Benz(a)anthracene	0.00047		0.000050	0.00020	mg/L	1	7/19/2011 09:11
Benzo(a)pyrene	0.00027		0.000050	0.00020	mg/L	1	7/19/2011 09:11
Bis(2-chloroethoxy)methane		U	0.000050	0.00020	mg/L	1	7/19/2011 09:11
Bis(2-ethylhexyl)phthalate	0.00044		0.00010	0.00020	mg/L	1	7/19/2011 09:11
Chrysene	0.00047		0.000050	0.00020	mg/L	1	7/19/2011 09:11
Dibenzofuran	0.19		0.0050	0.020	mg/L	100	7/19/2011 22:39
Di-n-butyl phthalate		U	0.000050	0.00020	mg/L	1	7/19/2011 09:11
Fluoranthene	0.0039		0.000050	0.00020	mg/L	1	7/19/2011 09:11
Fluorene	0.12		0.0050	0.020	mg/L	100	7/19/2011 22:39
Naphthalene	19		0.20	0.80	mg/L	4000	7/20/2011 22:58
Nitrobenzene		U	0.000050	0.00020	mg/L	1	7/19/2011 09:11
N-Nitrosodiphenylamine		U	0.000050	0.00020	mg/L	1	7/19/2011 09:11
Pentachlorophenol		U	0.000050	0.00020	mg/L	1	7/19/2011 09:11
Phenanthrene	0.078		0.00050	0.0020	mg/L	10	7/19/2011 13:05
Phenol	3.1		0.050	0.20	mg/L	1000	7/20/2011 20:03
Pyrene	0.0019		0.000050	0.00020	mg/L	1	7/19/2011 09:11
Surr: 2,4,6-Tribromophenol	66.3			34-129	%REC	1	7/19/2011 09:11
Surr: 2,4,6-Tribromophenol	86.8			34-129	%REC	10	7/19/2011 13:05
Surr: 2,4,6-Tribromophenol	115	J		34-129	%REC	100	7/19/2011 22:39
Surr: 2,4,6-Tribromophenol	0	S		34-129	%REC	1000	7/20/2011 20:03
Surr: 2,4,6-Tribromophenol	0	S		34-129	%REC	4000	7/20/2011 22:58
Surr: 2-Fluorobiphenyl	47.9			40-125	%REC	1	7/19/2011 09:11
Surr: 2-Fluorobiphenyl	65.2			40-125	%REC	10	7/19/2011 13:05
Surr: 2-Fluorobiphenyl	75.0	J		40-125	%REC	100	7/19/2011 22:39
Surr: 2-Fluorobiphenyl	0	S		40-125	%REC	1000	7/20/2011 20:03
Surr: 2-Fluorobiphenyl	0	S		40-125	%REC	4000	7/20/2011 22:58
Surr: 2-Fluorophenol	109			20-120	%REC	1	7/19/2011 09:11

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 05-Aug-11

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Sample ID: WG-1620-MW-17-20110713
Collection Date: 7/13/2011 04:45 PM

Work Order: 1107486
Lab ID: 1107486-04
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
Surr: 2-Fluorophenol	75.3			20-120	%REC	10	7/19/2011 13:05
Surr: 2-Fluorophenol	116	J		20-120	%REC	100	7/19/2011 22:39
Surr: 2-Fluorophenol	0	S		20-120	%REC	1000	7/20/2011 20:03
Surr: 2-Fluorophenol	0	S		20-120	%REC	4000	7/20/2011 22:58
Surr: 4-Terphenyl-d14	59.9			40-135	%REC	1	7/19/2011 09:11
Surr: 4-Terphenyl-d14	73.1			40-135	%REC	10	7/19/2011 13:05
Surr: 4-Terphenyl-d14	80.5	J		40-135	%REC	100	7/19/2011 22:39
Surr: 4-Terphenyl-d14	0	S		40-135	%REC	1000	7/20/2011 20:03
Surr: 4-Terphenyl-d14	0	S		40-135	%REC	4000	7/20/2011 22:58
Surr: Nitrobenzene-d5	71.2			41-120	%REC	1	7/19/2011 09:11
Surr: Nitrobenzene-d5	95.8			41-120	%REC	10	7/19/2011 13:05
Surr: Nitrobenzene-d5	77.9	J		41-120	%REC	100	7/19/2011 22:39
Surr: Nitrobenzene-d5	0	S		41-120	%REC	1000	7/20/2011 20:03
Surr: Nitrobenzene-d5	0	S		41-120	%REC	4000	7/20/2011 22:58
Surr: Phenol-d6	66.3			20-120	%REC	1	7/19/2011 09:11
Surr: Phenol-d6	65.9			20-120	%REC	10	7/19/2011 13:05
Surr: Phenol-d6	66.2	J		20-120	%REC	100	7/19/2011 22:39
Surr: Phenol-d6	0	S		20-120	%REC	1000	7/20/2011 20:03
Surr: Phenol-d6	0	S		20-120	%REC	4000	7/20/2011 22:58

VOLATILES		Method: SW8260				Analyst: PC	
1,2-Dichloroethane	U	0.0010	0.0050	mg/L	1	7/20/2011 15:43	
Benzene	0.45	0.010	0.050	mg/L	10	7/20/2011 22:46	
Chlorobenzene	U	0.0010	0.0050	mg/L	1	7/20/2011 15:43	
Ethylbenzene	0.21	0.011	0.050	mg/L	10	7/20/2011 22:46	
Methylene chloride	U	0.0013	0.010	mg/L	1	7/20/2011 15:43	
Toluene	0.85	0.010	0.050	mg/L	10	7/20/2011 22:46	
Xylenes, Total	0.54	0.031	0.15	mg/L	10	7/20/2011 22:46	
Surr: 1,2-Dichloroethane-d4	101		70-125	%REC	1	7/20/2011 15:43	
Surr: 1,2-Dichloroethane-d4	85.8		70-125	%REC	10	7/20/2011 22:46	
Surr: 4-Bromofluorobenzene	93.1		72-125	%REC	1	7/20/2011 15:43	
Surr: 4-Bromofluorobenzene	106		72-125	%REC	10	7/20/2011 22:46	
Surr: Dibromofluoromethane	98.1		71-125	%REC	1	7/20/2011 15:43	
Surr: Dibromofluoromethane	93.2		71-125	%REC	10	7/20/2011 22:46	
Surr: Toluene-d8	98.3		75-125	%REC	1	7/20/2011 15:43	
Surr: Toluene-d8	84.6		75-125	%REC	10	7/20/2011 22:46	

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 05-Aug-11

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Sample ID: WG-1620-MW18A-20110713
Collection Date: 7/13/2011 06:00 PM

Work Order: 1107486
Lab ID: 1107486-05
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270	Prep: SW3510 / 7/16/11	Analyst: LG		
1,2-Diphenylhydrazine	U		0.000050	0.00020	mg/L	1	7/19/2011 09:30
2,4-Dimethylphenol	11		0.20	0.80	mg/L	4000	7/20/2011 23:17
2,4-Dinitrotoluene	U		0.000050	0.00020	mg/L	1	7/19/2011 09:30
2,6-Dinitrotoluene	U		0.000060	0.00020	mg/L	1	7/19/2011 09:30
2-Chloronaphthalene	U		0.000050	0.00020	mg/L	1	7/19/2011 09:30
2-Methylnaphthalene	0.70		0.0050	0.020	mg/L	100	7/19/2011 22:58
4,6-Dinitro-2-methylphenol	U		0.000080	0.00020	mg/L	1	7/19/2011 09:30
4-Nitrophenol	U		0.000050	0.0010	mg/L	1	7/19/2011 09:30
Acenaphthene	0.36		0.0050	0.020	mg/L	100	7/19/2011 22:58
Acenaphthylene	0.015		0.00050	0.0020	mg/L	10	7/19/2011 13:24
Anthracene	0.013		0.00050	0.0020	mg/L	10	7/19/2011 13:24
Benz(a)anthracene	U		0.000050	0.00020	mg/L	1	7/19/2011 09:30
Benzo(a)pyrene	U		0.000050	0.00020	mg/L	1	7/19/2011 09:30
Bis(2-chloroethoxy)methane	U		0.000050	0.00020	mg/L	1	7/19/2011 09:30
Bis(2-ethylhexyl)phthalate	U		0.00010	0.00020	mg/L	1	7/19/2011 09:30
Chrysene	U		0.000050	0.00020	mg/L	1	7/19/2011 09:30
Dibenzofuran	0.23		0.0050	0.020	mg/L	100	7/19/2011 22:58
Di-n-butyl phthalate	U		0.000050	0.00020	mg/L	1	7/19/2011 09:30
Fluoranthene	0.0018		0.000050	0.00020	mg/L	1	7/19/2011 09:30
Fluorene	0.18		0.0050	0.020	mg/L	100	7/19/2011 22:58
Naphthalene	7.3		0.050	0.20	mg/L	1000	7/20/2011 20:22
Nitrobenzene	U		0.000050	0.00020	mg/L	1	7/19/2011 09:30
N-Nitrosodiphenylamine	U		0.000050	0.00020	mg/L	1	7/19/2011 09:30
Pentachlorophenol	U		0.000050	0.00020	mg/L	1	7/19/2011 09:30
Phenanthrene	0.098		0.00050	0.0020	mg/L	10	7/19/2011 13:24
Phenol	0.061		0.00050	0.0020	mg/L	10	7/19/2011 13:24
Pyrene	0.0011		0.000050	0.00020	mg/L	1	7/19/2011 09:30
Surr: 2,4,6-Tribromophenol	71.5			34-129	%REC	1	7/19/2011 09:30
Surr: 2,4,6-Tribromophenol	91.5			34-129	%REC	10	7/19/2011 13:24
Surr: 2,4,6-Tribromophenol	114	J		34-129	%REC	100	7/19/2011 22:58
Surr: 2,4,6-Tribromophenol	0	S		34-129	%REC	1000	7/20/2011 20:22
Surr: 2,4,6-Tribromophenol	0	S		34-129	%REC	4000	7/20/2011 23:17
Surr: 2-Fluorobiphenyl	53.9			40-125	%REC	1	7/19/2011 09:30
Surr: 2-Fluorobiphenyl	72.9			40-125	%REC	10	7/19/2011 13:24
Surr: 2-Fluorobiphenyl	94.8	J		40-125	%REC	100	7/19/2011 22:58
Surr: 2-Fluorobiphenyl	0	S		40-125	%REC	1000	7/20/2011 20:22
Surr: 2-Fluorobiphenyl	0	S		40-125	%REC	4000	7/20/2011 23:17
Surr: 2-Fluorophenol	61.2			20-120	%REC	1	7/19/2011 09:30

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 05-Aug-11

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Sample ID: WG-1620-MW18A-20110713
Collection Date: 7/13/2011 06:00 PM

Work Order: 1107486
Lab ID: 1107486-05
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
Surr: 2-Fluorophenol	67.2			20-120	%REC	10	7/19/2011 13:24
Surr: 2-Fluorophenol	90.2	J		20-120	%REC	100	7/19/2011 22:58
Surr: 2-Fluorophenol	0	S		20-120	%REC	1000	7/20/2011 20:22
Surr: 2-Fluorophenol	0	S		20-120	%REC	4000	7/20/2011 23:17
Surr: 4-Terphenyl-d14	62.0			40-135	%REC	1	7/19/2011 09:30
Surr: 4-Terphenyl-d14	70.2			40-135	%REC	10	7/19/2011 13:24
Surr: 4-Terphenyl-d14	75.8	J		40-135	%REC	100	7/19/2011 22:58
Surr: 4-Terphenyl-d14	0	S		40-135	%REC	1000	7/20/2011 20:22
Surr: 4-Terphenyl-d14	0	S		40-135	%REC	4000	7/20/2011 23:17
Surr: Nitrobenzene-d5	42.3			41-120	%REC	1	7/19/2011 09:30
Surr: Nitrobenzene-d5	51.6			41-120	%REC	10	7/19/2011 13:24
Surr: Nitrobenzene-d5	108	J		41-120	%REC	100	7/19/2011 22:58
Surr: Nitrobenzene-d5	0	S		41-120	%REC	1000	7/20/2011 20:22
Surr: Nitrobenzene-d5	0	S		41-120	%REC	4000	7/20/2011 23:17
Surr: Phenol-d6	66.1			20-120	%REC	1	7/19/2011 09:30
Surr: Phenol-d6	69.4			20-120	%REC	10	7/19/2011 13:24
Surr: Phenol-d6	68.6	J		20-120	%REC	100	7/19/2011 22:58
Surr: Phenol-d6	0	S		20-120	%REC	1000	7/20/2011 20:22
Surr: Phenol-d6	0	S		20-120	%REC	4000	7/20/2011 23:17

VOLATILES	Method: SW8260				Analyst: PC		
1,2-Dichloroethane	U		0.0050	0.025	mg/L	5	7/21/2011 22:44
Benzene	0.59		0.0050	0.025	mg/L	5	7/21/2011 22:44
Chlorobenzene	U		0.0050	0.025	mg/L	5	7/21/2011 22:44
Ethylbenzene	0.39		0.0055	0.025	mg/L	5	7/21/2011 22:44
Methylene chloride	U		0.0065	0.050	mg/L	5	7/21/2011 22:44
Toluene	0.23		0.0050	0.025	mg/L	5	7/21/2011 22:44
Vinyl chloride	0.028		0.0050	0.010	mg/L	5	7/21/2011 22:44
Xylenes, Total	0.73		0.016	0.075	mg/L	5	7/21/2011 22:44
Surr: 1,2-Dichloroethane-d4	89.8			70-125	%REC	5	7/21/2011 22:44
Surr: 4-Bromofluorobenzene	100			72-125	%REC	5	7/21/2011 22:44
Surr: Dibromofluoromethane	94.6			71-125	%REC	5	7/21/2011 22:44
Surr: Toluene-d8	98.2			75-125	%REC	5	7/21/2011 22:44

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 05-Aug-11

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Sample ID: WG-1620-MW18C-20110713
Collection Date: 7/13/2011 06:45 PM

Work Order: 1107486
Lab ID: 1107486-06
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270	Prep: SW3510 / 7/16/11		Analyst: LG	
1,2-Diphenylhydrazine		U	0.000050	0.00020	mg/L	1	7/19/2011 09:50
2,4-Dimethylphenol	0.0031		0.000050	0.00020	mg/L	1	7/19/2011 09:50
2,4-Dinitrotoluene		U	0.000050	0.00020	mg/L	1	7/19/2011 09:50
2,6-Dinitrotoluene		U	0.000060	0.00020	mg/L	1	7/19/2011 09:50
2-Chloronaphthalene		U	0.000050	0.00020	mg/L	1	7/19/2011 09:50
2-Methylnaphthalene	0.34		0.0025	0.010	mg/L	50	7/19/2011 23:18
4,6-Dinitro-2-methylphenol		U	0.000080	0.00020	mg/L	1	7/19/2011 09:50
4-Nitrophenol		U	0.000050	0.0010	mg/L	1	7/19/2011 09:50
Acenaphthene	0.12		0.0025	0.010	mg/L	50	7/19/2011 23:18
Acenaphthylene	0.0023		0.000050	0.00020	mg/L	1	7/19/2011 09:50
Anthracene	0.013		0.00050	0.0020	mg/L	10	7/19/2011 13:44
Benz(a)anthracene		U	0.000050	0.00020	mg/L	1	7/19/2011 09:50
Benzo(a)pyrene	0.00015	J	0.000050	0.00020	mg/L	1	7/19/2011 09:50
Bis(2-chloroethoxy)methane		U	0.000050	0.00020	mg/L	1	7/19/2011 09:50
Bis(2-ethylhexyl)phthalate		U	0.00010	0.00020	mg/L	1	7/19/2011 09:50
Chrysene		U	0.000050	0.00020	mg/L	1	7/19/2011 09:50
Dibenzofuran	0.11		0.0025	0.010	mg/L	50	7/19/2011 23:18
Di-n-butyl phthalate		U	0.000050	0.00020	mg/L	1	7/19/2011 09:50
Fluoranthene	0.0042		0.000050	0.00020	mg/L	1	7/19/2011 09:50
Fluorene	0.052		0.00050	0.0020	mg/L	10	7/19/2011 13:44
Naphthalene	12		0.20	0.80	mg/L	4000	7/20/2011 23:37
Nitrobenzene		U	0.000050	0.00020	mg/L	1	7/19/2011 09:50
N-Nitrosodiphenylamine		U	0.000050	0.00020	mg/L	1	7/19/2011 09:50
Pentachlorophenol	0.076		0.00050	0.0020	mg/L	10	7/19/2011 13:44
Phenanthrene	0.052		0.00050	0.0020	mg/L	10	7/19/2011 13:44
Phenol	0.048		0.00050	0.0020	mg/L	10	7/19/2011 13:44
Pyrene	0.0017		0.000050	0.00020	mg/L	1	7/19/2011 09:50
Surr: 2,4,6-Tribromophenol	81.5			34-129	%REC	1	7/19/2011 09:50
Surr: 2,4,6-Tribromophenol	98.3			34-129	%REC	10	7/19/2011 13:44
Surr: 2,4,6-Tribromophenol	84.4	J		34-129	%REC	50	7/19/2011 23:18
Surr: 2,4,6-Tribromophenol	0	S		34-129	%REC	4000	7/20/2011 23:37
Surr: 2-Fluorobiphenyl	56.2			40-125	%REC	1	7/19/2011 09:50
Surr: 2-Fluorobiphenyl	71.0			40-125	%REC	10	7/19/2011 13:44
Surr: 2-Fluorobiphenyl	77.8	J		40-125	%REC	50	7/19/2011 23:18
Surr: 2-Fluorobiphenyl	0	S		40-125	%REC	4000	7/20/2011 23:37
Surr: 2-Fluorophenol	93.6			20-120	%REC	1	7/19/2011 09:50
Surr: 2-Fluorophenol	98.2			20-120	%REC	10	7/19/2011 13:44
Surr: 2-Fluorophenol	107	J		20-120	%REC	50	7/19/2011 23:18

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 05-Aug-11

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Sample ID: WG-1620-MW18C-20110713
Collection Date: 7/13/2011 06:45 PM

Work Order: 1107486
Lab ID: 1107486-06
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
Surr: 2-Fluorophenol	0	S		20-120	%REC	4000	7/20/2011 23:37
Surr: 4-Terphenyl-d14	52.2			40-135	%REC	1	7/19/2011 09:50
Surr: 4-Terphenyl-d14	77.2			40-135	%REC	10	7/19/2011 13:44
Surr: 4-Terphenyl-d14	95.4	J		40-135	%REC	50	7/19/2011 23:18
Surr: 4-Terphenyl-d14	0	S		40-135	%REC	4000	7/20/2011 23:37
Surr: Nitrobenzene-d5	80.9			41-120	%REC	1	7/19/2011 09:50
Surr: Nitrobenzene-d5	64.1			41-120	%REC	10	7/19/2011 13:44
Surr: Nitrobenzene-d5	65.0	J		41-120	%REC	50	7/19/2011 23:18
Surr: Nitrobenzene-d5	0	S		41-120	%REC	4000	7/20/2011 23:37
Surr: Phenol-d6	54.8			20-120	%REC	1	7/19/2011 09:50
Surr: Phenol-d6	58.4			20-120	%REC	10	7/19/2011 13:44
Surr: Phenol-d6	59.8	J		20-120	%REC	50	7/19/2011 23:18
Surr: Phenol-d6	0	S		20-120	%REC	4000	7/20/2011 23:37

VOLATILES		Method: SW8260				Analyst: PC	
1,2-Dichloroethane	U	0.010	0.050	mg/L	10	7/21/2011 23:10	
Benzene	1.2	0.010	0.050	mg/L	10	7/21/2011 23:10	
Chlorobenzene	U	0.010	0.050	mg/L	10	7/21/2011 23:10	
Ethylbenzene	0.16	0.011	0.050	mg/L	10	7/21/2011 23:10	
Methylene chloride	U	0.013	0.10	mg/L	10	7/21/2011 23:10	
Toluene	0.80	0.010	0.050	mg/L	10	7/21/2011 23:10	
Vinyl chloride	U	0.010	0.020	mg/L	10	7/21/2011 23:10	
Xylenes, Total	0.90	0.031	0.15	mg/L	10	7/21/2011 23:10	
Surr: 1,2-Dichloroethane-d4	91.2		70-125	%REC	10	7/21/2011 23:10	
Surr: 4-Bromofluorobenzene	97.6		72-125	%REC	10	7/21/2011 23:10	
Surr: Dibromofluoromethane	96.7		71-125	%REC	10	7/21/2011 23:10	
Surr: Toluene-d8	97.8		75-125	%REC	10	7/21/2011 23:10	

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 05-Aug-11

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Sample ID: WG-1620-FB01-20110713
Collection Date: 7/13/2011 07:15 PM

Work Order: 1107486
Lab ID: 1107486-07
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES		Method: SW8270		Prep: SW3510 / 7/16/11		Analyst: LG	
1,2-Diphenylhydrazine	U		0.000050	0.00020	mg/L	1	7/18/2011 20:53
2,4-Dimethylphenol	U		0.000050	0.00020	mg/L	1	7/18/2011 20:53
2,4-Dinitrotoluene	U		0.000050	0.00020	mg/L	1	7/18/2011 20:53
2,6-Dinitrotoluene	U		0.000060	0.00020	mg/L	1	7/18/2011 20:53
2-Chloronaphthalene	U		0.000050	0.00020	mg/L	1	7/18/2011 20:53
2-Methylnaphthalene	U		0.000050	0.00020	mg/L	1	7/18/2011 20:53
4,6-Dinitro-2-methylphenol	U		0.000080	0.00020	mg/L	1	7/18/2011 20:53
4-Nitrophenol	U		0.000050	0.0010	mg/L	1	7/18/2011 20:53
Acenaphthene	U		0.000050	0.00020	mg/L	1	7/18/2011 20:53
Acenaphthylene	U		0.000050	0.00020	mg/L	1	7/18/2011 20:53
Anthracene	U		0.000050	0.00020	mg/L	1	7/18/2011 20:53
Benz(a)anthracene	U		0.000050	0.00020	mg/L	1	7/18/2011 20:53
Benzo(a)pyrene	U		0.000050	0.00020	mg/L	1	7/18/2011 20:53
Bis(2-chloroethoxy)methane	U		0.000050	0.00020	mg/L	1	7/18/2011 20:53
Bis(2-ethylhexyl)phthalate	0.0016		0.00010	0.00020	mg/L	1	7/18/2011 20:53
Chrysene	U		0.000050	0.00020	mg/L	1	7/18/2011 20:53
Dibenzofuran	U		0.000050	0.00020	mg/L	1	7/18/2011 20:53
Di-n-butyl phthalate	U		0.000050	0.00020	mg/L	1	7/18/2011 20:53
Fluoranthene	U		0.000050	0.00020	mg/L	1	7/18/2011 20:53
Fluorene	U		0.000050	0.00020	mg/L	1	7/18/2011 20:53
Naphthalene	0.00079		0.000050	0.00020	mg/L	1	7/18/2011 20:53
Nitrobenzene	U		0.000050	0.00020	mg/L	1	7/18/2011 20:53
N-Nitrosodiphenylamine	U		0.000050	0.00020	mg/L	1	7/18/2011 20:53
Pentachlorophenol	U		0.000050	0.00020	mg/L	1	7/18/2011 20:53
Phenanthrene	U		0.000050	0.00020	mg/L	1	7/18/2011 20:53
Phenol	U		0.000050	0.00020	mg/L	1	7/18/2011 20:53
Pyrene	U		0.000050	0.00020	mg/L	1	7/18/2011 20:53
Surr: 2,4,6-Tribromophenol	48.7			34-129	%REC	1	7/18/2011 20:53
Surr: 2-Fluorobiphenyl	50.7			40-125	%REC	1	7/18/2011 20:53
Surr: 2-Fluorophenol	42.6			20-120	%REC	1	7/18/2011 20:53
Surr: 4-Terphenyl-d14	62.7			40-135	%REC	1	7/18/2011 20:53
Surr: Nitrobenzene-d5	42.7			41-120	%REC	1	7/18/2011 20:53
Surr: Phenol-d6	43.4			20-120	%REC	1	7/18/2011 20:53

VOLATILES		Method: SW8260		Analyst: PC			
1,2-Dichloroethane	U		0.0010	0.0050	mg/L	1	7/20/2011 04:28
Benzene	U		0.0010	0.0050	mg/L	1	7/20/2011 04:28
Chlorobenzene	U		0.0010	0.0050	mg/L	1	7/20/2011 04:28
Ethylbenzene	U		0.0011	0.0050	mg/L	1	7/20/2011 04:28

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 05-Aug-11

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Sample ID: WG-1620-FB01-20110713
Collection Date: 7/13/2011 07:15 PM

Work Order: 1107486
Lab ID: 1107486-07
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
Methylene chloride	U		0.0013	0.010	mg/L	1	7/20/2011 04:28
Toluene	U		0.0010	0.0050	mg/L	1	7/20/2011 04:28
Vinyl chloride	U		0.0010	0.0020	mg/L	1	7/20/2011 04:28
Xylenes, Total	U		0.0031	0.015	mg/L	1	7/20/2011 04:28
Surr: 1,2-Dichloroethane-d4	93.4			70-125	%REC	1	7/20/2011 04:28
Surr: 4-Bromofluorobenzene	99.9			72-125	%REC	1	7/20/2011 04:28
Surr: Dibromofluoromethane	96.9			71-125	%REC	1	7/20/2011 04:28
Surr: Toluene-d8	100			75-125	%REC	1	7/20/2011 04:28

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 05-Aug-11

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Sample ID: WG-1620-TW56A-20110714
Collection Date: 7/14/2011 07:45 AM

Work Order: 1107486
Lab ID: 1107486-08
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270	Prep: SW3510 / 7/16/11		Analyst: LG	
1,2-Diphenylhydrazine	U		0.000050	0.00020	mg/L	1	7/19/2011 10:09
2,4-Dimethylphenol	6.8		0.10	0.40	mg/L	2000	7/20/2011 23:56
2,4-Dinitrotoluene	U		0.000050	0.00020	mg/L	1	7/19/2011 10:09
2,6-Dinitrotoluene	U		0.000060	0.00020	mg/L	1	7/19/2011 10:09
2-Chloronaphthalene	U		0.000050	0.00020	mg/L	1	7/19/2011 10:09
2-Methylnaphthalene	0.16		0.0025	0.010	mg/L	50	7/19/2011 23:37
4,6-Dinitro-2-methylphenol	U		0.000080	0.00020	mg/L	1	7/19/2011 10:09
4-Nitrophenol	U		0.000050	0.0010	mg/L	1	7/19/2011 10:09
Acenaphthene	0.18		0.0025	0.010	mg/L	50	7/19/2011 23:37
Acenaphthylene	0.0040		0.000050	0.00020	mg/L	1	7/19/2011 10:09
Anthracene	0.021		0.00050	0.0020	mg/L	10	7/19/2011 14:03
Benz(a)anthracene	0.0014		0.000050	0.00020	mg/L	1	7/19/2011 10:09
Benzo(a)pyrene	0.00047		0.000050	0.00020	mg/L	1	7/19/2011 10:09
Bis(2-chloroethoxy)methane	U		0.000050	0.00020	mg/L	1	7/19/2011 10:09
Bis(2-ethylhexyl)phthalate	0.0018		0.00010	0.00020	mg/L	1	7/19/2011 10:09
Chrysene	0.0014		0.000050	0.00020	mg/L	1	7/19/2011 10:09
Dibenzofuran	0.090		0.00050	0.0020	mg/L	10	7/19/2011 14:03
Di-n-butyl phthalate	U		0.000050	0.00020	mg/L	1	7/19/2011 10:09
Fluoranthene	0.021		0.00050	0.0020	mg/L	10	7/19/2011 14:03
Fluorene	0.090		0.00050	0.0020	mg/L	10	7/19/2011 14:03
Naphthalene	2.3		0.025	0.10	mg/L	500	7/20/2011 21:01
Nitrobenzene	U		0.000050	0.00020	mg/L	1	7/19/2011 10:09
N-Nitrosodiphenylamine	U		0.000050	0.00020	mg/L	1	7/19/2011 10:09
Pentachlorophenol	0.00076		0.000050	0.00020	mg/L	1	7/19/2011 10:09
Phenanthrene	0.17		0.0025	0.010	mg/L	50	7/19/2011 23:37
Phenol	U		0.000050	0.00020	mg/L	1	7/19/2011 10:09
Pyrene	0.012		0.00050	0.0020	mg/L	10	7/19/2011 14:03
Surr: 2,4,6-Tribromophenol	60.2			34-129	%REC	1	7/19/2011 10:09
Surr: 2,4,6-Tribromophenol	70.9			34-129	%REC	10	7/19/2011 14:03
Surr: 2,4,6-Tribromophenol	73.7	J		34-129	%REC	50	7/19/2011 23:37
Surr: 2,4,6-Tribromophenol	0	S		34-129	%REC	500	7/20/2011 21:01
Surr: 2,4,6-Tribromophenol	0	S		34-129	%REC	2000	7/20/2011 23:56
Surr: 2-Fluorobiphenyl	43.1			40-125	%REC	1	7/19/2011 10:09
Surr: 2-Fluorobiphenyl	57.2			40-125	%REC	10	7/19/2011 14:03
Surr: 2-Fluorobiphenyl	65.8	J		40-125	%REC	50	7/19/2011 23:37
Surr: 2-Fluorobiphenyl	0	S		40-125	%REC	500	7/20/2011 21:01
Surr: 2-Fluorobiphenyl	0	S		40-125	%REC	2000	7/20/2011 23:56
Surr: 2-Fluorophenol	46.4			20-120	%REC	1	7/19/2011 10:09

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 05-Aug-11

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Sample ID: WG-1620-TW56A-20110714
Collection Date: 7/14/2011 07:45 AM

Work Order: 1107486
Lab ID: 1107486-08
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
Surr: 2-Fluorophenol	62.7			20-120	%REC	10	7/19/2011 14:03
Surr: 2-Fluorophenol	69.4	J		20-120	%REC	50	7/19/2011 23:37
Surr: 2-Fluorophenol	0	S		20-120	%REC	500	7/20/2011 21:01
Surr: 2-Fluorophenol	0	S		20-120	%REC	2000	7/20/2011 23:56
Surr: 4-Terphenyl-d14	66.2			40-135	%REC	1	7/19/2011 10:09
Surr: 4-Terphenyl-d14	72.1			40-135	%REC	10	7/19/2011 14:03
Surr: 4-Terphenyl-d14	75.6	J		40-135	%REC	50	7/19/2011 23:37
Surr: 4-Terphenyl-d14	0	S		40-135	%REC	500	7/20/2011 21:01
Surr: 4-Terphenyl-d14	0	S		40-135	%REC	2000	7/20/2011 23:56
Surr: Nitrobenzene-d5	49.9			41-120	%REC	1	7/19/2011 10:09
Surr: Nitrobenzene-d5	91.7			41-120	%REC	10	7/19/2011 14:03
Surr: Nitrobenzene-d5	77.3	J		41-120	%REC	50	7/19/2011 23:37
Surr: Nitrobenzene-d5	0	S		41-120	%REC	500	7/20/2011 21:01
Surr: Nitrobenzene-d5	0	S		41-120	%REC	2000	7/20/2011 23:56
Surr: Phenol-d6	53.8			20-120	%REC	1	7/19/2011 10:09
Surr: Phenol-d6	57.9			20-120	%REC	10	7/19/2011 14:03
Surr: Phenol-d6	59.9	J		20-120	%REC	50	7/19/2011 23:37
Surr: Phenol-d6	0	S		20-120	%REC	500	7/20/2011 21:01
Surr: Phenol-d6	0	S		20-120	%REC	2000	7/20/2011 23:56

VOLATILES		Method: SW8260				Analyst: PC	
1,2-Dichloroethane	U	0.0050	0.025	mg/L	5	7/21/2011 23:35	
Benzene	0.27	0.0050	0.025	mg/L	5	7/21/2011 23:35	
Chlorobenzene	U	0.0050	0.025	mg/L	5	7/21/2011 23:35	
Ethylbenzene	0.16	0.0055	0.025	mg/L	5	7/21/2011 23:35	
Methylene chloride	U	0.0065	0.050	mg/L	5	7/21/2011 23:35	
Toluene	0.14	0.0050	0.025	mg/L	5	7/21/2011 23:35	
Vinyl chloride	0.0069	J	0.0050	0.010	mg/L	5	7/21/2011 23:35
Xylenes, Total	0.61		0.016	0.075	mg/L	5	7/21/2011 23:35
Surr: 1,2-Dichloroethane-d4	92.2			70-125	%REC	5	7/21/2011 23:35
Surr: 4-Bromofluorobenzene	98.4			72-125	%REC	5	7/21/2011 23:35
Surr: Dibromofluoromethane	94.9			71-125	%REC	5	7/21/2011 23:35
Surr: Toluene-d8	98.8			75-125	%REC	5	7/21/2011 23:35

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 05-Aug-11

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Sample ID: WG-1620-MW20A-20110714
Collection Date: 7/14/2011 08:45 AM

Work Order: 1107486
Lab ID: 1107486-09
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270	Prep: SW3510 / 7/16/11		Analyst: LG	
1,2-Diphenylhydrazine	U		0.000050	0.00020	mg/L	1	7/19/2011 06:55
2,4-Dimethylphenol	0.30		0.0025	0.010	mg/L	50	7/19/2011 21:41
2,4-Dinitrotoluene	U		0.000050	0.00020	mg/L	1	7/19/2011 06:55
2,6-Dinitrotoluene	U		0.000060	0.00020	mg/L	1	7/19/2011 06:55
2-Chloronaphthalene	U		0.000050	0.00020	mg/L	1	7/19/2011 06:55
2-Methylnaphthalene	0.42		0.0025	0.010	mg/L	50	7/19/2011 21:41
4,6-Dinitro-2-methylphenol	U		0.000080	0.00020	mg/L	1	7/19/2011 06:55
4-Nitrophenol	U		0.000050	0.0010	mg/L	1	7/19/2011 06:55
Acenaphthene	0.20		0.0025	0.010	mg/L	50	7/19/2011 21:41
Acenaphthylene	0.0017		0.000050	0.00020	mg/L	1	7/19/2011 06:55
Anthracene	0.0058		0.000050	0.00020	mg/L	1	7/19/2011 06:55
Benz(a)anthracene	U		0.000050	0.00020	mg/L	1	7/19/2011 06:55
Benzo(a)pyrene	U		0.000050	0.00020	mg/L	1	7/19/2011 06:55
Bis(2-chloroethoxy)methane	U		0.000050	0.00020	mg/L	1	7/19/2011 06:55
Bis(2-ethylhexyl)phthalate	0.00033		0.00010	0.00020	mg/L	1	7/19/2011 06:55
Chrysene	U		0.000050	0.00020	mg/L	1	7/19/2011 06:55
Dibenzofuran	0.14		0.0025	0.010	mg/L	50	7/19/2011 21:41
Di-n-butyl phthalate	U		0.000050	0.00020	mg/L	1	7/19/2011 06:55
Fluoranthene	0.00070		0.000050	0.00020	mg/L	1	7/19/2011 06:55
Fluorene	0.11		0.0025	0.010	mg/L	50	7/19/2011 21:41
Naphthalene	7.7		0.050	0.20	mg/L	1000	7/20/2011 19:04
Nitrobenzene	U		0.000050	0.00020	mg/L	1	7/19/2011 06:55
N-Nitrosodiphenylamine	U		0.000050	0.00020	mg/L	1	7/19/2011 06:55
Pentachlorophenol	U		0.000050	0.00020	mg/L	1	7/19/2011 06:55
Phenanthrene	0.039		0.00050	0.0020	mg/L	10	7/19/2011 12:07
Phenol	U		0.000050	0.00020	mg/L	1	7/19/2011 06:55
Pyrene	0.00040		0.000050	0.00020	mg/L	1	7/19/2011 06:55
Surr: 2,4,6-Tribromophenol	71.3			34-129	%REC	1	7/19/2011 06:55
Surr: 2,4,6-Tribromophenol	91.5			34-129	%REC	10	7/19/2011 12:07
Surr: 2,4,6-Tribromophenol	83.0	J		34-129	%REC	50	7/19/2011 21:41
Surr: 2,4,6-Tribromophenol	0	S		34-129	%REC	1000	7/20/2011 19:04
Surr: 2-Fluorobiphenyl	52.3			40-125	%REC	1	7/19/2011 06:55
Surr: 2-Fluorobiphenyl	69.3			40-125	%REC	10	7/19/2011 12:07
Surr: 2-Fluorobiphenyl	72.4	J		40-125	%REC	50	7/19/2011 21:41
Surr: 2-Fluorobiphenyl	0	S		40-125	%REC	1000	7/20/2011 19:04
Surr: 2-Fluorophenol	55.1			20-120	%REC	1	7/19/2011 06:55
Surr: 2-Fluorophenol	64.7			20-120	%REC	10	7/19/2011 12:07
Surr: 2-Fluorophenol	68.5	J		20-120	%REC	50	7/19/2011 21:41

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 05-Aug-11

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Sample ID: WG-1620-MW20A-20110714
Collection Date: 7/14/2011 08:45 AM

Work Order: 1107486
Lab ID: 1107486-09
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
Surr: 2-Fluorophenol	0	S		20-120	%REC	1000	7/20/2011 19:04
Surr: 4-Terphenyl-d14	64.6			40-135	%REC	1	7/19/2011 06:55
Surr: 4-Terphenyl-d14	61.3			40-135	%REC	10	7/19/2011 12:07
Surr: 4-Terphenyl-d14	77.4	J		40-135	%REC	50	7/19/2011 21:41
Surr: 4-Terphenyl-d14	0	S		40-135	%REC	1000	7/20/2011 19:04
Surr: Nitrobenzene-d5	56.6			41-120	%REC	1	7/19/2011 06:55
Surr: Nitrobenzene-d5	66.4			41-120	%REC	10	7/19/2011 12:07
Surr: Nitrobenzene-d5	63.8	J		41-120	%REC	50	7/19/2011 21:41
Surr: Nitrobenzene-d5	0	S		41-120	%REC	1000	7/20/2011 19:04
Surr: Phenol-d6	53.9			20-120	%REC	1	7/19/2011 06:55
Surr: Phenol-d6	58.2			20-120	%REC	10	7/19/2011 12:07
Surr: Phenol-d6	53.1	J		20-120	%REC	50	7/19/2011 21:41
Surr: Phenol-d6	0	S		20-120	%REC	1000	7/20/2011 19:04

VOLATILES		Method: SW8260				Analyst: PC	
1,2-Dichloroethane	U		0.0050	0.025	mg/L	5	7/21/2011 08:57
Benzene	0.098		0.0050	0.025	mg/L	5	7/21/2011 08:57
Chlorobenzene	U		0.0050	0.025	mg/L	5	7/21/2011 08:57
Ethylbenzene	0.077		0.0055	0.025	mg/L	5	7/21/2011 08:57
Methylene chloride	U		0.0065	0.050	mg/L	5	7/21/2011 08:57
Toluene	U		0.0050	0.025	mg/L	5	7/21/2011 08:57
Xylenes, Total	0.057	J	0.016	0.075	mg/L	5	7/21/2011 08:57
Surr: 1,2-Dichloroethane-d4	88.7			70-125	%REC	5	7/21/2011 08:57
Surr: 4-Bromofluorobenzene	99.1			72-125	%REC	5	7/21/2011 08:57
Surr: Dibromofluoromethane	93.4			71-125	%REC	5	7/21/2011 08:57
Surr: Toluene-d8	97.7			75-125	%REC	5	7/21/2011 08:57

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 05-Aug-11

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Sample ID: WG-1620-MW16-20110714
Collection Date: 7/14/2011 09:35 AM

Work Order: 1107486
Lab ID: 1107486-10
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270	Prep: SW3510 / 7/16/11		Analyst: LG	
1,2-Diphenylhydrazine	U		0.000050	0.00020	mg/L	1	7/18/2011 21:33
2,4-Dimethylphenol	0.012		0.00050	0.0020	mg/L	10	7/19/2011 07:53
2,4-Dinitrotoluene	U		0.000050	0.00020	mg/L	1	7/18/2011 21:33
2,6-Dinitrotoluene	U		0.000060	0.00020	mg/L	1	7/18/2011 21:33
2-Chloronaphthalene	U		0.000050	0.00020	mg/L	1	7/18/2011 21:33
2-Methylnaphthalene	0.082		0.00050	0.0020	mg/L	10	7/19/2011 07:53
4,6-Dinitro-2-methylphenol	U		0.000080	0.00020	mg/L	1	7/18/2011 21:33
4-Nitrophenol	U		0.000050	0.0010	mg/L	1	7/18/2011 21:33
Acenaphthene	0.23		0.0025	0.010	mg/L	50	7/19/2011 21:02
Acenaphthylene	0.0032		0.000050	0.00020	mg/L	1	7/18/2011 21:33
Anthracene	0.017		0.00050	0.0020	mg/L	10	7/19/2011 07:53
Benz(a)anthracene	0.00022		0.000050	0.00020	mg/L	1	7/18/2011 21:33
Benzo(a)pyrene	U		0.000050	0.00020	mg/L	1	7/18/2011 21:33
Bis(2-chloroethoxy)methane	U		0.000050	0.00020	mg/L	1	7/18/2011 21:33
Bis(2-ethylhexyl)phthalate	0.00025		0.00010	0.00020	mg/L	1	7/18/2011 21:33
Chrysene	0.00019	J	0.000050	0.00020	mg/L	1	7/18/2011 21:33
Dibenzofuran	0.13		0.0025	0.010	mg/L	50	7/19/2011 21:02
Di-n-butyl phthalate	0.000099	J	0.000050	0.00020	mg/L	1	7/18/2011 21:33
Fluoranthene	0.0060		0.000050	0.00020	mg/L	1	7/18/2011 21:33
Fluorene	0.14		0.0025	0.010	mg/L	50	7/19/2011 21:02
Naphthalene	1.8		0.025	0.10	mg/L	500	7/20/2011 18:45
Nitrobenzene	U		0.000050	0.00020	mg/L	1	7/18/2011 21:33
N-Nitrosodiphenylamine	U		0.000050	0.00020	mg/L	1	7/18/2011 21:33
Pentachlorophenol	0.000061	J	0.000050	0.00020	mg/L	1	7/18/2011 21:33
Phenanthrene	0.058		0.00050	0.0020	mg/L	10	7/19/2011 07:53
Phenol	0.000067	J	0.000050	0.00020	mg/L	1	7/18/2011 21:33
Pyrene	0.0050		0.000050	0.00020	mg/L	1	7/18/2011 21:33
Surr: 2,4,6-Tribromophenol	56.4			34-129	%REC	1	7/18/2011 21:33
Surr: 2,4,6-Tribromophenol	81.4			34-129	%REC	10	7/19/2011 07:53
Surr: 2,4,6-Tribromophenol	71.9	J		34-129	%REC	50	7/19/2011 21:02
Surr: 2,4,6-Tribromophenol	0	S		34-129	%REC	500	7/20/2011 18:45
Surr: 2-Fluorobiphenyl	45.8			40-125	%REC	1	7/18/2011 21:33
Surr: 2-Fluorobiphenyl	62.1			40-125	%REC	10	7/19/2011 07:53
Surr: 2-Fluorobiphenyl	62.4	J		40-125	%REC	50	7/19/2011 21:02
Surr: 2-Fluorobiphenyl	0	S		40-125	%REC	500	7/20/2011 18:45
Surr: 2-Fluorophenol	54.1			20-120	%REC	1	7/18/2011 21:33
Surr: 2-Fluorophenol	54.0			20-120	%REC	10	7/19/2011 07:53
Surr: 2-Fluorophenol	41.2	J		20-120	%REC	50	7/19/2011 21:02

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 05-Aug-11

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Sample ID: WG-1620-MW16-20110714
Collection Date: 7/14/2011 09:35 AM

Work Order: 1107486
Lab ID: 1107486-10
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
Surr: 2-Fluorophenol	0	S		20-120	%REC	500	7/20/2011 18:45
Surr: 4-Terphenyl-d14	63.0			40-135	%REC	1	7/18/2011 21:33
Surr: 4-Terphenyl-d14	70.2			40-135	%REC	10	7/19/2011 07:53
Surr: 4-Terphenyl-d14	73.2	J		40-135	%REC	50	7/19/2011 21:02
Surr: 4-Terphenyl-d14	0	S		40-135	%REC	500	7/20/2011 18:45
Surr: Nitrobenzene-d5	63.4			41-120	%REC	1	7/18/2011 21:33
Surr: Nitrobenzene-d5	55.1			41-120	%REC	10	7/19/2011 07:53
Surr: Nitrobenzene-d5	51.5	J		41-120	%REC	50	7/19/2011 21:02
Surr: Nitrobenzene-d5	0	S		41-120	%REC	500	7/20/2011 18:45
Surr: Phenol-d6	47.6			20-120	%REC	1	7/18/2011 21:33
Surr: Phenol-d6	52.3			20-120	%REC	10	7/19/2011 07:53
Surr: Phenol-d6	40.8	J		20-120	%REC	50	7/19/2011 21:02
Surr: Phenol-d6	0	S		20-120	%REC	500	7/20/2011 18:45

VOLATILES		Method: SW8260				Analyst: PC	
1,2-Dichloroethane	U		0.010	0.050	mg/L	10	7/21/2011 09:23
Benzene	0.068		0.010	0.050	mg/L	10	7/21/2011 09:23
Chlorobenzene	U		0.010	0.050	mg/L	10	7/21/2011 09:23
Ethylbenzene	0.038	J	0.011	0.050	mg/L	10	7/21/2011 09:23
Methylene chloride	U		0.013	0.10	mg/L	10	7/21/2011 09:23
Toluene	U		0.010	0.050	mg/L	10	7/21/2011 09:23
Xylenes, Total	U		0.031	0.15	mg/L	10	7/21/2011 09:23
Surr: 1,2-Dichloroethane-d4	90.3			70-125	%REC	10	7/21/2011 09:23
Surr: 4-Bromofluorobenzene	99.3			72-125	%REC	10	7/21/2011 09:23
Surr: Dibromofluoromethane	98.1			71-125	%REC	10	7/21/2011 09:23
Surr: Toluene-d8	97.9			75-125	%REC	10	7/21/2011 09:23

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 05-Aug-11

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Sample ID: WG-1620-MW55A-20110714
Collection Date: 7/14/2011 10:30 AM

Work Order: 1107486
Lab ID: 1107486-11
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270	Prep: SW3510 / 7/16/11		Analyst: LG	
1,2-Diphenylhydrazine	U		0.000050	0.00020	mg/L	1	7/19/2011 10:28
2,4-Dimethylphenol	0.48		0.0025	0.010	mg/L	50	7/19/2011 23:57
2,4-Dinitrotoluene	U		0.000050	0.00020	mg/L	1	7/19/2011 10:28
2,6-Dinitrotoluene	U		0.000060	0.00020	mg/L	1	7/19/2011 10:28
2-Chloronaphthalene	U		0.000050	0.00020	mg/L	1	7/19/2011 10:28
2-Methylnaphthalene	0.33		0.0025	0.010	mg/L	50	7/19/2011 23:57
4,6-Dinitro-2-methylphenol	U		0.000080	0.00020	mg/L	1	7/19/2011 10:28
4-Nitrophenol	U		0.000050	0.0010	mg/L	1	7/19/2011 10:28
Acenaphthene	0.16		0.0025	0.010	mg/L	50	7/19/2011 23:57
Acenaphthylene	0.0030		0.000050	0.00020	mg/L	1	7/19/2011 10:28
Anthracene	0.016		0.00050	0.0020	mg/L	10	7/19/2011 14:23
Benz(a)anthracene	0.0014		0.000050	0.00020	mg/L	1	7/19/2011 10:28
Benzo(a)pyrene	0.00062		0.000050	0.00020	mg/L	1	7/19/2011 10:28
Bis(2-chloroethoxy)methane	U		0.000050	0.00020	mg/L	1	7/19/2011 10:28
Bis(2-ethylhexyl)phthalate	U		0.00010	0.00020	mg/L	1	7/19/2011 10:28
Chrysene	0.0014		0.000050	0.00020	mg/L	1	7/19/2011 10:28
Dibenzofuran	0.12		0.0025	0.010	mg/L	50	7/19/2011 23:57
Di-n-butyl phthalate	U		0.000050	0.00020	mg/L	1	7/19/2011 10:28
Fluoranthene	0.0090		0.000050	0.00020	mg/L	1	7/19/2011 10:28
Fluorene	0.080		0.00050	0.0020	mg/L	10	7/19/2011 14:23
Naphthalene	8.6		0.050	0.20	mg/L	1000	7/20/2011 21:40
Nitrobenzene	U		0.000050	0.00020	mg/L	1	7/19/2011 10:28
N-Nitrosodiphenylamine	U		0.000050	0.00020	mg/L	1	7/19/2011 10:28
Pentachlorophenol	U		0.000050	0.00020	mg/L	1	7/19/2011 10:28
Phenanthrene	0.083		0.00050	0.0020	mg/L	10	7/19/2011 14:23
Phenol	0.0038		0.000050	0.00020	mg/L	1	7/19/2011 10:28
Pyrene	0.0061		0.000050	0.00020	mg/L	1	7/19/2011 10:28
Surr: 2,4,6-Tribromophenol	70.7			34-129	%REC	1	7/19/2011 10:28
Surr: 2,4,6-Tribromophenol	93.0			34-129	%REC	10	7/19/2011 14:23
Surr: 2,4,6-Tribromophenol	110	J		34-129	%REC	50	7/19/2011 23:57
Surr: 2,4,6-Tribromophenol	0	S		34-129	%REC	1000	7/20/2011 21:40
Surr: 2-Fluorobiphenyl	46.3			40-125	%REC	1	7/19/2011 10:28
Surr: 2-Fluorobiphenyl	58.5			40-125	%REC	10	7/19/2011 14:23
Surr: 2-Fluorobiphenyl	67.4	J		40-125	%REC	50	7/19/2011 23:57
Surr: 2-Fluorobiphenyl	0	S		40-125	%REC	1000	7/20/2011 21:40
Surr: 2-Fluorophenol	72.2			20-120	%REC	1	7/19/2011 10:28
Surr: 2-Fluorophenol	74.5			20-120	%REC	10	7/19/2011 14:23
Surr: 2-Fluorophenol	95.6	J		20-120	%REC	50	7/19/2011 23:57

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 05-Aug-11

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Sample ID: WG-1620-MW55A-20110714
Collection Date: 7/14/2011 10:30 AM

Work Order: 1107486
Lab ID: 1107486-11
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
Surr: 2-Fluorophenol	0	S		20-120	%REC	1000	7/20/2011 21:40
Surr: 4-Terphenyl-d14	64.3			40-135	%REC	1	7/19/2011 10:28
Surr: 4-Terphenyl-d14	71.1			40-135	%REC	10	7/19/2011 14:23
Surr: 4-Terphenyl-d14	81.6	J		40-135	%REC	50	7/19/2011 23:57
Surr: 4-Terphenyl-d14	0	S		40-135	%REC	1000	7/20/2011 21:40
Surr: Nitrobenzene-d5	42.5			41-120	%REC	1	7/19/2011 10:28
Surr: Nitrobenzene-d5	52.4			41-120	%REC	10	7/19/2011 14:23
Surr: Nitrobenzene-d5	67.8	J		41-120	%REC	50	7/19/2011 23:57
Surr: Nitrobenzene-d5	0	S		41-120	%REC	1000	7/20/2011 21:40
Surr: Phenol-d6	50.9			20-120	%REC	1	7/19/2011 10:28
Surr: Phenol-d6	49.3			20-120	%REC	10	7/19/2011 14:23
Surr: Phenol-d6	52.0	J		20-120	%REC	50	7/19/2011 23:57
Surr: Phenol-d6	0	S		20-120	%REC	1000	7/20/2011 21:40

VOLATILES		Method: SW8260			Analyst: PC		
1,2-Dichloroethane	U	0.0050	0.025	mg/L	5	7/21/2011 09:49	
Benzene	0.070	0.0050	0.025	mg/L	5	7/21/2011 09:49	
Chlorobenzene	U	0.0050	0.025	mg/L	5	7/21/2011 09:49	
Ethylbenzene	0.17	0.0055	0.025	mg/L	5	7/21/2011 09:49	
Methylene chloride	U	0.0065	0.050	mg/L	5	7/21/2011 09:49	
Toluene	0.24	0.0050	0.025	mg/L	5	7/21/2011 09:49	
Xylenes, Total	0.42	0.016	0.075	mg/L	5	7/21/2011 09:49	
Surr: 1,2-Dichloroethane-d4	90.6		70-125	%REC	5	7/21/2011 09:49	
Surr: 4-Bromofluorobenzene	98.3		72-125	%REC	5	7/21/2011 09:49	
Surr: Dibromofluoromethane	95.9		71-125	%REC	5	7/21/2011 09:49	
Surr: Toluene-d8	97.1		75-125	%REC	5	7/21/2011 09:49	

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 05-Aug-11

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Sample ID: WG-1620-MW19C-20110714
Collection Date: 7/14/2011 11:20 AM

Work Order: 1107486
Lab ID: 1107486-12
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270	Prep: SW3510 / 7/16/11	Analyst: LG		
1,2-Diphenylhydrazine	U		0.000050	0.00020	mg/L	1	7/18/2011 22:52
2,4-Dimethylphenol	U		0.000050	0.00020	mg/L	1	7/18/2011 22:52
2,4-Dinitrotoluene	U		0.000050	0.00020	mg/L	1	7/18/2011 22:52
2,6-Dinitrotoluene	U		0.000060	0.00020	mg/L	1	7/18/2011 22:52
2-Chloronaphthalene	U		0.000050	0.00020	mg/L	1	7/18/2011 22:52
2-Methylnaphthalene	0.0012		0.000050	0.00020	mg/L	1	7/18/2011 22:52
4,6-Dinitro-2-methylphenol	U		0.000080	0.00020	mg/L	1	7/18/2011 22:52
4-Nitrophenol	U		0.000050	0.0010	mg/L	1	7/18/2011 22:52
Acenaphthene	0.00067		0.000050	0.00020	mg/L	1	7/18/2011 22:52
Acenaphthylene	U		0.000050	0.00020	mg/L	1	7/18/2011 22:52
Anthracene	0.00015	J	0.000050	0.00020	mg/L	1	7/18/2011 22:52
Benz(a)anthracene	U		0.000050	0.00020	mg/L	1	7/18/2011 22:52
Benzo(a)pyrene	U		0.000050	0.00020	mg/L	1	7/18/2011 22:52
Bis(2-chloroethoxy)methane	U		0.000050	0.00020	mg/L	1	7/18/2011 22:52
Bis(2-ethylhexyl)phthalate	0.00039		0.00010	0.00020	mg/L	1	7/18/2011 22:52
Chrysene	U		0.000050	0.00020	mg/L	1	7/18/2011 22:52
Dibenzofuran	0.00060		0.000050	0.00020	mg/L	1	7/18/2011 22:52
Di-n-butyl phthalate	U		0.000050	0.00020	mg/L	1	7/18/2011 22:52
Fluoranthene	0.0016		0.000050	0.00020	mg/L	1	7/18/2011 22:52
Fluorene	0.00066		0.000050	0.00020	mg/L	1	7/18/2011 22:52
Naphthalene	0.014		0.00020	0.00080	mg/L	4	7/19/2011 08:51
Nitrobenzene	U		0.000050	0.00020	mg/L	1	7/18/2011 22:52
N-Nitrosodiphenylamine	U		0.000050	0.00020	mg/L	1	7/18/2011 22:52
Pentachlorophenol	0.00028		0.000050	0.00020	mg/L	1	7/18/2011 22:52
Phenanthrene	0.00053		0.000050	0.00020	mg/L	1	7/18/2011 22:52
Phenol	U		0.000050	0.00020	mg/L	1	7/18/2011 22:52
Pyrene	0.0014		0.000050	0.00020	mg/L	1	7/18/2011 22:52
Surr: 2,4,6-Tribromophenol	53.7			34-129	%REC	1	7/18/2011 22:52
Surr: 2,4,6-Tribromophenol	75.2			34-129	%REC	4	7/19/2011 08:51
Surr: 2-Fluorobiphenyl	50.0			40-125	%REC	1	7/18/2011 22:52
Surr: 2-Fluorobiphenyl	52.5			40-125	%REC	4	7/19/2011 08:51
Surr: 2-Fluorophenol	41.4			20-120	%REC	1	7/18/2011 22:52
Surr: 2-Fluorophenol	46.1			20-120	%REC	4	7/19/2011 08:51
Surr: 4-Terphenyl-d14	69.8			40-135	%REC	1	7/18/2011 22:52
Surr: 4-Terphenyl-d14	73.4			40-135	%REC	4	7/19/2011 08:51
Surr: Nitrobenzene-d5	48.7			41-120	%REC	1	7/18/2011 22:52
Surr: Nitrobenzene-d5	52.3			41-120	%REC	4	7/19/2011 08:51
Surr: Phenol-d6	41.4			20-120	%REC	1	7/18/2011 22:52

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 05-Aug-11

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Sample ID: WG-1620-MW19C-20110714
Collection Date: 7/14/2011 11:20 AM

Work Order: 1107486
Lab ID: 1107486-12
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
<i>Surr: Phenol-d6</i>	45.0			20-120	%REC	4	7/19/2011 08:51
VOLATILES	Method: SW8260						Analyst: PC
1,2-Dichloroethane	U		0.0010	0.0050	mg/L	1	7/20/2011 05:45
Benzene	U		0.0010	0.0050	mg/L	1	7/20/2011 05:45
Chlorobenzene	U		0.0010	0.0050	mg/L	1	7/20/2011 05:45
Ethylbenzene	U		0.0011	0.0050	mg/L	1	7/20/2011 05:45
Methylene chloride	U		0.0013	0.010	mg/L	1	7/20/2011 05:45
Toluene	U		0.0010	0.0050	mg/L	1	7/20/2011 05:45
Vinyl chloride	U		0.0010	0.0020	mg/L	1	7/20/2011 05:45
Xylenes, Total	U		0.0031	0.015	mg/L	1	7/20/2011 05:45
<i>Surr: 1,2-Dichloroethane-d4</i>	94.1			70-125	%REC	1	7/20/2011 05:45
<i>Surr: 4-Bromofluorobenzene</i>	99.7			72-125	%REC	1	7/20/2011 05:45
<i>Surr: Dibromofluoromethane</i>	97.5			71-125	%REC	1	7/20/2011 05:45
<i>Surr: Toluene-d8</i>	98.1			75-125	%REC	1	7/20/2011 05:45

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 05-Aug-11

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Sample ID: WG-1620-MW52A-20110714
Collection Date: 7/14/2011 12:30 PM

Work Order: 1107486
Lab ID: 1107486-13
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270	Prep: SW3510 / 7/16/11		Analyst: LG	
1,2-Diphenylhydrazine	U		0.000050	0.00020	mg/L	1	7/19/2011 10:48
2,4-Dimethylphenol	0.0045		0.000050	0.00020	mg/L	1	7/19/2011 10:48
2,4-Dinitrotoluene	U		0.000050	0.00020	mg/L	1	7/19/2011 10:48
2,6-Dinitrotoluene	U		0.000060	0.00020	mg/L	1	7/19/2011 10:48
2-Chloronaphthalene	U		0.000050	0.00020	mg/L	1	7/19/2011 10:48
2-Methylnaphthalene	0.33		0.0025	0.010	mg/L	50	7/20/2011 00:16
4,6-Dinitro-2-methylphenol	U		0.000080	0.00020	mg/L	1	7/19/2011 10:48
4-Nitrophenol	U		0.000050	0.0010	mg/L	1	7/19/2011 10:48
Acenaphthene	0.26		0.0025	0.010	mg/L	50	7/20/2011 00:16
Acenaphthylene	0.0040		0.000050	0.00020	mg/L	1	7/19/2011 10:48
Anthracene	0.041		0.0025	0.010	mg/L	50	7/20/2011 00:16
Benz(a)anthracene	0.00063		0.000050	0.00020	mg/L	1	7/19/2011 10:48
Benzo(a)pyrene	0.00017	J	0.000050	0.00020	mg/L	1	7/19/2011 10:48
Bis(2-chloroethoxy)methane	U		0.000050	0.00020	mg/L	1	7/19/2011 10:48
Bis(2-ethylhexyl)phthalate	0.00042		0.00010	0.00020	mg/L	1	7/19/2011 10:48
Chrysene	0.00060		0.000050	0.00020	mg/L	1	7/19/2011 10:48
Dibenzofuran	0.20		0.0025	0.010	mg/L	50	7/20/2011 00:16
Di-n-butyl phthalate	U		0.000050	0.00020	mg/L	1	7/19/2011 10:48
Fluoranthene	0.024		0.0025	0.010	mg/L	50	7/20/2011 00:16
Fluorene	0.18		0.0025	0.010	mg/L	50	7/20/2011 00:16
Naphthalene	1.9		0.025	0.10	mg/L	500	7/20/2011 21:21
Nitrobenzene	U		0.000050	0.00020	mg/L	1	7/19/2011 10:48
N-Nitrosodiphenylamine	U		0.000050	0.00020	mg/L	1	7/19/2011 10:48
Pentachlorophenol	U		0.000050	0.00020	mg/L	1	7/19/2011 10:48
Phenanthrene	0.22		0.0025	0.010	mg/L	50	7/20/2011 00:16
Phenol	0.000066	J	0.000050	0.00020	mg/L	1	7/19/2011 10:48
Pyrene	0.011		0.0025	0.010	mg/L	50	7/20/2011 00:16
Surr: 2,4,6-Tribromophenol	75.7			34-129	%REC	1	7/19/2011 10:48
Surr: 2,4,6-Tribromophenol	68.3	J		34-129	%REC	50	7/20/2011 00:16
Surr: 2,4,6-Tribromophenol	0	S		34-129	%REC	500	7/20/2011 21:21
Surr: 2-Fluorobiphenyl	55.7			40-125	%REC	1	7/19/2011 10:48
Surr: 2-Fluorobiphenyl	67.1	J		40-125	%REC	50	7/20/2011 00:16
Surr: 2-Fluorobiphenyl	0	S		40-125	%REC	500	7/20/2011 21:21
Surr: 2-Fluorophenol	44.2			20-120	%REC	1	7/19/2011 10:48
Surr: 2-Fluorophenol	43.1	J		20-120	%REC	50	7/20/2011 00:16
Surr: 2-Fluorophenol	0	S		20-120	%REC	500	7/20/2011 21:21
Surr: 4-Terphenyl-d14	79.2			40-135	%REC	1	7/19/2011 10:48
Surr: 4-Terphenyl-d14	73.0	J		40-135	%REC	50	7/20/2011 00:16

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 05-Aug-11

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Sample ID: WG-1620-MW52A-20110714
Collection Date: 7/14/2011 12:30 PM

Work Order: 1107486
Lab ID: 1107486-13
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
Surr: 4-Terphenyl-d14	0	S		40-135	%REC	500	7/20/2011 21:21
Surr: Nitrobenzene-d5	55.1			41-120	%REC	1	7/19/2011 10:48
Surr: Nitrobenzene-d5	53.2	J		41-120	%REC	50	7/20/2011 00:16
Surr: Nitrobenzene-d5	0	S		41-120	%REC	500	7/20/2011 21:21
Surr: Phenol-d6	51.7			20-120	%REC	1	7/19/2011 10:48
Surr: Phenol-d6	34.6	J		20-120	%REC	50	7/20/2011 00:16
Surr: Phenol-d6	0	S		20-120	%REC	500	7/20/2011 21:21

VOLATILES		Method: SW8260				Analyst: PC	
1,2-Dichloroethane	U	0.0010	0.0050	mg/L	1	7/20/2011 18:05	
Benzene	0.0025	J	0.0010	0.0050	mg/L	1	7/20/2011 18:05
Chlorobenzene	U	0.0010	0.0050	mg/L	1	7/20/2011 18:05	
Ethylbenzene	0.011		0.0011	0.0050	mg/L	1	7/20/2011 18:05
Methylene chloride	U	0.0013	0.010	mg/L	1	7/20/2011 18:05	
Toluene	0.0089		0.0010	0.0050	mg/L	1	7/20/2011 18:05
Vinyl chloride	U	0.0010	0.0020	mg/L	1	7/20/2011 18:05	
Xylenes, Total	0.025		0.0031	0.015	mg/L	1	7/20/2011 18:05
Surr: 1,2-Dichloroethane-d4	91.2			70-125	%REC	1	7/20/2011 18:05
Surr: 4-Bromofluorobenzene	99.0			72-125	%REC	1	7/20/2011 18:05
Surr: Dibromofluoromethane	94.0			71-125	%REC	1	7/20/2011 18:05
Surr: Toluene-d8	96.7			75-125	%REC	1	7/20/2011 18:05

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 05-Aug-11

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Sample ID: WG-1620-MW31A-20110714
Collection Date: 7/14/2011 01:40 PM

Work Order: 1107486
Lab ID: 1107486-14
Matrix: WATER

Analyses	Result	Qual	SDL	ML	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270	Prep: SW3510 / 7/16/11		Analyst: LG	
1,2-Diphenylhydrazine	U		0.000050	0.00020	mg/L	1	7/19/2011 11:07
2,4-Dimethylphenol	5.3		0.050	0.20	mg/L	1000	7/20/2011 00:55
2,4-Dinitrotoluene	U		0.000050	0.00020	mg/L	1	7/19/2011 11:07
2,6-Dinitrotoluene	U		0.000060	0.00020	mg/L	1	7/19/2011 11:07
2-Chloronaphthalene	U		0.000050	0.00020	mg/L	1	7/19/2011 11:07
2-Methylnaphthalene	1.0		0.0050	0.020	mg/L	100	7/20/2011 00:36
4,6-Dinitro-2-methylphenol	U		0.000080	0.00020	mg/L	1	7/19/2011 11:07
4-Nitrophenol	U		0.000050	0.0010	mg/L	1	7/19/2011 11:07
Acenaphthene	0.37		0.0050	0.020	mg/L	100	7/20/2011 00:36
Acenaphthylene	0.0076		0.000050	0.00020	mg/L	1	7/19/2011 11:07
Anthracene	0.032		0.00050	0.0020	mg/L	10	7/19/2011 20:23
Benz(a)anthracene	0.0038		0.000050	0.00020	mg/L	1	7/19/2011 11:07
Benzo(a)pyrene	0.00089		0.000050	0.00020	mg/L	1	7/19/2011 11:07
Bis(2-chloroethoxy)methane	U		0.000050	0.00020	mg/L	1	7/19/2011 11:07
Bis(2-ethylhexyl)phthalate	U		0.00010	0.00020	mg/L	1	7/19/2011 11:07
Chrysene	0.0031		0.000050	0.00020	mg/L	1	7/19/2011 11:07
Dibenzofuran	0.33		0.0050	0.020	mg/L	100	7/20/2011 00:36
Di-n-butyl phthalate	U		0.000050	0.00020	mg/L	1	7/19/2011 11:07
Fluoranthene	0.031		0.00050	0.0020	mg/L	10	7/19/2011 20:23
Fluorene	0.24		0.0050	0.020	mg/L	100	7/20/2011 00:36
Naphthalene	21		0.20	0.80	mg/L	4000	7/20/2011 22:38
Nitrobenzene	U		0.000050	0.00020	mg/L	1	7/19/2011 11:07
N-Nitrosodiphenylamine	U		0.000050	0.00020	mg/L	1	7/19/2011 11:07
Pentachlorophenol	0.076		0.00050	0.0020	mg/L	10	7/19/2011 20:23
Phenanthrene	0.24		0.0050	0.020	mg/L	100	7/20/2011 00:36
Phenol	0.60		0.0050	0.020	mg/L	100	7/20/2011 00:36
Pyrene	0.018		0.00050	0.0020	mg/L	10	7/19/2011 20:23
Surr: 2,4,6-Tribromophenol	88.7			34-129	%REC	1	7/19/2011 11:07
Surr: 2,4,6-Tribromophenol	87.6			34-129	%REC	10	7/19/2011 20:23
Surr: 2,4,6-Tribromophenol	128	J		34-129	%REC	100	7/20/2011 00:36
Surr: 2,4,6-Tribromophenol	0	S		34-129	%REC	1000	7/20/2011 00:55
Surr: 2,4,6-Tribromophenol	0	S		34-129	%REC	4000	7/20/2011 22:38
Surr: 2-Fluorobiphenyl	62.3			40-125	%REC	1	7/19/2011 11:07
Surr: 2-Fluorobiphenyl	74.1			40-125	%REC	10	7/19/2011 20:23
Surr: 2-Fluorobiphenyl	80.1	J		40-125	%REC	100	7/20/2011 00:36
Surr: 2-Fluorobiphenyl	0	S		40-125	%REC	1000	7/20/2011 00:55
Surr: 2-Fluorobiphenyl	0	S		40-125	%REC	4000	7/20/2011 22:38
Surr: 2-Fluorophenol	47.2			20-120	%REC	1	7/19/2011 11:07

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 05-Aug-11

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Sample ID: WG-1620-MW31A-20110714
Collection Date: 7/14/2011 01:40 PM

Work Order: 1107486
Lab ID: 1107486-14
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
Surr: 2-Fluorophenol	92.6			20-120	%REC	10	7/19/2011 20:23
Surr: 2-Fluorophenol	91.3	J		20-120	%REC	100	7/20/2011 00:36
Surr: 2-Fluorophenol	0	S		20-120	%REC	1000	7/20/2011 00:55
Surr: 2-Fluorophenol	0	S		20-120	%REC	4000	7/20/2011 22:38
Surr: 4-Terphenyl-d14	72.5			40-135	%REC	1	7/19/2011 11:07
Surr: 4-Terphenyl-d14	73.8			40-135	%REC	10	7/19/2011 20:23
Surr: 4-Terphenyl-d14	72.7	J		40-135	%REC	100	7/20/2011 00:36
Surr: 4-Terphenyl-d14	0	S		40-135	%REC	1000	7/20/2011 00:55
Surr: 4-Terphenyl-d14	0	S		40-135	%REC	4000	7/20/2011 22:38
Surr: Nitrobenzene-d5	92.0			41-120	%REC	1	7/19/2011 11:07
Surr: Nitrobenzene-d5	42.1			41-120	%REC	10	7/19/2011 20:23
Surr: Nitrobenzene-d5	69.3	J		41-120	%REC	100	7/20/2011 00:36
Surr: Nitrobenzene-d5	0	S		41-120	%REC	1000	7/20/2011 00:55
Surr: Nitrobenzene-d5	0	S		41-120	%REC	4000	7/20/2011 22:38
Surr: Phenol-d6	49.4			20-120	%REC	1	7/19/2011 11:07
Surr: Phenol-d6	101			20-120	%REC	10	7/19/2011 20:23
Surr: Phenol-d6	73.4	J		20-120	%REC	100	7/20/2011 00:36
Surr: Phenol-d6	0	S		20-120	%REC	1000	7/20/2011 00:55
Surr: Phenol-d6	0	S		20-120	%REC	4000	7/20/2011 22:38

VOLATILES	Method: SW8260				Analyst: PC		
1,2-Dichloroethane	U		0.010	0.050	mg/L	10	7/21/2011 10:14
Benzene	0.14		0.010	0.050	mg/L	10	7/21/2011 10:14
Chlorobenzene	U		0.010	0.050	mg/L	10	7/21/2011 10:14
Ethylbenzene	0.19		0.011	0.050	mg/L	10	7/21/2011 10:14
Methylene chloride	U		0.013	0.10	mg/L	10	7/21/2011 10:14
Toluene	0.37		0.010	0.050	mg/L	10	7/21/2011 10:14
Xylenes, Total	0.63		0.031	0.15	mg/L	10	7/21/2011 10:14
Surr: 1,2-Dichloroethane-d4	90.7			70-125	%REC	10	7/21/2011 10:14
Surr: 4-Bromofluorobenzene	98.7			72-125	%REC	10	7/21/2011 10:14
Surr: Dibromofluoromethane	96.3			71-125	%REC	10	7/21/2011 10:14
Surr: Toluene-d8	97.2			75-125	%REC	10	7/21/2011 10:14

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 05-Aug-11

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Sample ID: WG-1620-MW30A-20110714
Collection Date: 7/14/2011 02:45 PM

Work Order: 1107486
Lab ID: 1107486-15
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270	Prep: SW3510 / 7/16/11		Analyst: LG	
1,2-Diphenylhydrazine	U		0.000050	0.00020	mg/L	1	7/19/2011 11:27
2,4-Dimethylphenol	2.9		0.050	0.20	mg/L	1000	7/20/2011 22:00
2,4-Dinitrotoluene	U		0.000050	0.00020	mg/L	1	7/19/2011 11:27
2,6-Dinitrotoluene	U		0.000060	0.00020	mg/L	1	7/19/2011 11:27
2-Chloronaphthalene	U		0.000050	0.00020	mg/L	1	7/19/2011 11:27
2-Methylnaphthalene	0.85		0.010	0.040	mg/L	200	7/20/2011 01:14
4,6-Dinitro-2-methylphenol	U		0.000080	0.00020	mg/L	1	7/19/2011 11:27
4-Nitrophenol	U		0.000050	0.0010	mg/L	1	7/19/2011 11:27
Acenaphthene	0.31		0.010	0.040	mg/L	200	7/20/2011 01:14
Acenaphthylene	0.0075		0.000050	0.00020	mg/L	1	7/19/2011 11:27
Anthracene	0.018		0.0010	0.0040	mg/L	20	7/19/2011 20:42
Benz(a)anthracene	U		0.000050	0.00020	mg/L	1	7/19/2011 11:27
Benzo(a)pyrene	U		0.000050	0.00020	mg/L	1	7/19/2011 11:27
Bis(2-chloroethoxy)methane	U		0.000050	0.00020	mg/L	1	7/19/2011 11:27
Bis(2-ethylhexyl)phthalate	U		0.00010	0.00020	mg/L	1	7/19/2011 11:27
Chrysene	U		0.000050	0.00020	mg/L	1	7/19/2011 11:27
Dibenzofuran	0.25		0.010	0.040	mg/L	200	7/20/2011 01:14
Di-n-butyl phthalate	U		0.000050	0.00020	mg/L	1	7/19/2011 11:27
Fluoranthene	0.0041		0.000050	0.00020	mg/L	1	7/19/2011 11:27
Fluorene	0.18		0.0010	0.0040	mg/L	20	7/19/2011 20:42
Naphthalene	15		0.25	1.0	mg/L	5000	7/21/2011 00:16
Nitrobenzene	U		0.000050	0.00020	mg/L	1	7/19/2011 11:27
N-Nitrosodiphenylamine	U		0.000050	0.00020	mg/L	1	7/19/2011 11:27
Pentachlorophenol	0.00033		0.000050	0.00020	mg/L	1	7/19/2011 11:27
Phenanthrene	0.12		0.0010	0.0040	mg/L	20	7/19/2011 20:42
Phenol	0.14		0.0010	0.0040	mg/L	20	7/19/2011 20:42
Pyrene	0.0022		0.000050	0.00020	mg/L	1	7/19/2011 11:27
Surr: 2,4,6-Tribromophenol	57.1			34-129	%REC	1	7/19/2011 11:27
Surr: 2,4,6-Tribromophenol	106			34-129	%REC	20	7/19/2011 20:42
Surr: 2,4,6-Tribromophenol	0	S		34-129	%REC	200	7/20/2011 01:14
Surr: 2,4,6-Tribromophenol	0	S		34-129	%REC	1000	7/20/2011 22:00
Surr: 2,4,6-Tribromophenol	0	S		34-129	%REC	5000	7/21/2011 00:16
Surr: 2-Fluorobiphenyl	42.3			40-125	%REC	1	7/19/2011 11:27
Surr: 2-Fluorobiphenyl	83.5			40-125	%REC	20	7/19/2011 20:42
Surr: 2-Fluorobiphenyl	0	S		40-125	%REC	200	7/20/2011 01:14
Surr: 2-Fluorobiphenyl	0	S		40-125	%REC	1000	7/20/2011 22:00
Surr: 2-Fluorobiphenyl	0	S		40-125	%REC	5000	7/21/2011 00:16
Surr: 2-Fluorophenol	74.1			20-120	%REC	1	7/19/2011 11:27

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 05-Aug-11

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Sample ID: WG-1620-MW30A-20110714
Collection Date: 7/14/2011 02:45 PM

Work Order: 1107486
Lab ID: 1107486-15
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
Surr: 2-Fluorophenol	102			20-120	%REC	20	7/19/2011 20:42
Surr: 2-Fluorophenol	0	S		20-120	%REC	200	7/20/2011 01:14
Surr: 2-Fluorophenol	0	S		20-120	%REC	1000	7/20/2011 22:00
Surr: 2-Fluorophenol	0	S		20-120	%REC	5000	7/21/2011 00:16
Surr: 4-Terphenyl-d14	72.7			40-135	%REC	1	7/19/2011 11:27
Surr: 4-Terphenyl-d14	78.8	J		40-135	%REC	20	7/19/2011 20:42
Surr: 4-Terphenyl-d14	0	S		40-135	%REC	200	7/20/2011 01:14
Surr: 4-Terphenyl-d14	0	S		40-135	%REC	1000	7/20/2011 22:00
Surr: 4-Terphenyl-d14	0	S		40-135	%REC	5000	7/21/2011 00:16
Surr: Nitrobenzene-d5	71.3			41-120	%REC	1	7/19/2011 11:27
Surr: Nitrobenzene-d5	71.7	J		41-120	%REC	20	7/19/2011 20:42
Surr: Nitrobenzene-d5	0	S		41-120	%REC	200	7/20/2011 01:14
Surr: Nitrobenzene-d5	0	S		41-120	%REC	1000	7/20/2011 22:00
Surr: Nitrobenzene-d5	0	S		41-120	%REC	5000	7/21/2011 00:16
Surr: Phenol-d6	68.6			20-120	%REC	1	7/19/2011 11:27
Surr: Phenol-d6	62.6	J		20-120	%REC	20	7/19/2011 20:42
Surr: Phenol-d6	0	S		20-120	%REC	200	7/20/2011 01:14
Surr: Phenol-d6	0	S		20-120	%REC	1000	7/20/2011 22:00
Surr: Phenol-d6	0	S		20-120	%REC	5000	7/21/2011 00:16

VOLATILES		Method: SW8260				Analyst: PC	
1,2-Dichloroethane	U	0.010	0.050	mg/L	10	7/21/2011 10:40	
Benzene	0.14	0.010	0.050	mg/L	10	7/21/2011 10:40	
Chlorobenzene	U	0.010	0.050	mg/L	10	7/21/2011 10:40	
Ethylbenzene	0.12	0.011	0.050	mg/L	10	7/21/2011 10:40	
Methylene chloride	U	0.013	0.10	mg/L	10	7/21/2011 10:40	
Toluene	0.51	0.010	0.050	mg/L	10	7/21/2011 10:40	
Xylenes, Total	0.32	0.031	0.15	mg/L	10	7/21/2011 10:40	
Surr: 1,2-Dichloroethane-d4	90.1		70-125	%REC	10	7/21/2011 10:40	
Surr: 4-Bromofluorobenzene	99.6		72-125	%REC	10	7/21/2011 10:40	
Surr: Dibromofluoromethane	95.6		71-125	%REC	10	7/21/2011 10:40	
Surr: Toluene-d8	97.6		75-125	%REC	10	7/21/2011 10:40	

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 05-Aug-11

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Sample ID: WG-1620-MW40B-20110714
Collection Date: 7/14/2011 04:00 PM

Work Order: 1107486
Lab ID: 1107486-16
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270	Prep: SW3510 / 7/16/11		Analyst: LG	
1,2-Diphenylhydrazine	U		0.000050	0.00020	mg/L	1	7/19/2011 07:34
2,4-Dimethylphenol	0.0034		0.000050	0.00020	mg/L	1	7/19/2011 07:34
2,4-Dinitrotoluene	U		0.000050	0.00020	mg/L	1	7/19/2011 07:34
2,6-Dinitrotoluene	U		0.000060	0.00020	mg/L	1	7/19/2011 07:34
2-Chloronaphthalene	U		0.000050	0.00020	mg/L	1	7/19/2011 07:34
2-Methylnaphthalene	0.24		0.0025	0.010	mg/L	50	7/19/2011 22:20
4,6-Dinitro-2-methylphenol	U		0.000080	0.00020	mg/L	1	7/19/2011 07:34
4-Nitrophenol	U		0.000050	0.0010	mg/L	1	7/19/2011 07:34
Acenaphthene	0.17		0.0025	0.010	mg/L	50	7/19/2011 22:20
Acenaphthylene	0.0019		0.000050	0.00020	mg/L	1	7/19/2011 07:34
Anthracene	0.0097		0.000050	0.00020	mg/L	1	7/19/2011 07:34
Benz(a)anthracene	U		0.000050	0.00020	mg/L	1	7/19/2011 07:34
Benzo(a)pyrene	U		0.000050	0.00020	mg/L	1	7/19/2011 07:34
Bis(2-chloroethoxy)methane	U		0.000050	0.00020	mg/L	1	7/19/2011 07:34
Bis(2-ethylhexyl)phthalate	0.00053		0.00010	0.00020	mg/L	1	7/19/2011 07:34
Chrysene	U		0.000050	0.00020	mg/L	1	7/19/2011 07:34
Dibenzofuran	0.13		0.0025	0.010	mg/L	50	7/19/2011 22:20
Di-n-butyl phthalate	U		0.000050	0.00020	mg/L	1	7/19/2011 07:34
Fluoranthene	0.0049		0.000050	0.00020	mg/L	1	7/19/2011 07:34
Fluorene	0.13		0.0025	0.010	mg/L	50	7/19/2011 22:20
Naphthalene	4.0		0.025	0.10	mg/L	500	7/20/2011 19:43
Nitrobenzene	U		0.000050	0.00020	mg/L	1	7/19/2011 07:34
N-Nitrosodiphenylamine	U		0.000050	0.00020	mg/L	1	7/19/2011 07:34
Pentachlorophenol	U		0.000050	0.00020	mg/L	1	7/19/2011 07:34
Phenanthrene	0.11		0.0025	0.010	mg/L	50	7/19/2011 22:20
Phenol	U		0.000050	0.00020	mg/L	1	7/19/2011 07:34
Pyrene	0.0021		0.000050	0.00020	mg/L	1	7/19/2011 07:34
Surr: 2,4,6-Tribromophenol	50.3			34-129	%REC	1	7/19/2011 07:34
Surr: 2,4,6-Tribromophenol	75.3	J		34-129	%REC	50	7/19/2011 22:20
Surr: 2,4,6-Tribromophenol	0	S		34-129	%REC	500	7/20/2011 19:43
Surr: 2-Fluorobiphenyl	41.4			40-125	%REC	1	7/19/2011 07:34
Surr: 2-Fluorobiphenyl	53.5	J		40-125	%REC	50	7/19/2011 22:20
Surr: 2-Fluorobiphenyl	0	S		40-125	%REC	500	7/20/2011 19:43
Surr: 2-Fluorophenol	70.8			20-120	%REC	1	7/19/2011 07:34
Surr: 2-Fluorophenol	68.8	J		20-120	%REC	50	7/19/2011 22:20
Surr: 2-Fluorophenol	0	S		20-120	%REC	500	7/20/2011 19:43
Surr: 4-Terphenyl-d14	62.7			40-135	%REC	1	7/19/2011 07:34
Surr: 4-Terphenyl-d14	77.8	J		40-135	%REC	50	7/19/2011 22:20

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 05-Aug-11

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Sample ID: WG-1620-MW40B-20110714
Collection Date: 7/14/2011 04:00 PM

Work Order: 1107486
Lab ID: 1107486-16
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
Surr: 4-Terphenyl-d14	0	S		40-135	%REC	500	7/20/2011 19:43
Surr: Nitrobenzene-d5	43.1			41-120	%REC	1	7/19/2011 07:34
Surr: Nitrobenzene-d5	43.2	J		41-120	%REC	50	7/19/2011 22:20
Surr: Nitrobenzene-d5	0	S		41-120	%REC	500	7/20/2011 19:43
Surr: Phenol-d6	39.7			20-120	%REC	1	7/19/2011 07:34
Surr: Phenol-d6	39.1	J		20-120	%REC	50	7/19/2011 22:20
Surr: Phenol-d6	0	S		20-120	%REC	500	7/20/2011 19:43

VOLATILES		Method: SW8260				Analyst: PC	
1,2-Dichloroethane	U		0.010	0.050	mg/L	10	7/21/2011 11:05
Benzene	0.016	J	0.010	0.050	mg/L	10	7/21/2011 11:05
Chlorobenzene	U		0.010	0.050	mg/L	10	7/21/2011 11:05
Ethylbenzene	0.081		0.011	0.050	mg/L	10	7/21/2011 11:05
Methylene chloride	U		0.013	0.10	mg/L	10	7/21/2011 11:05
Toluene	0.019	J	0.010	0.050	mg/L	10	7/21/2011 11:05
Xylenes, Total	0.12	J	0.031	0.15	mg/L	10	7/21/2011 11:05
Surr: 1,2-Dichloroethane-d4	89.5			70-125	%REC	10	7/21/2011 11:05
Surr: 4-Bromofluorobenzene	98.3			72-125	%REC	10	7/21/2011 11:05
Surr: Dibromofluoromethane	93.7			71-125	%REC	10	7/21/2011 11:05
Surr: Toluene-d8	99.5			75-125	%REC	10	7/21/2011 11:05

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 05-Aug-11

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Sample ID: WG-1620-MW42B-02110714
Collection Date: 7/14/2011 05:30 PM

Work Order: 1107486
Lab ID: 1107486-17
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270	Prep: SW3510 / 7/16/11		Analyst: LG	
1,2-Diphenylhydrazine	U		0.000050	0.00020	mg/L	1	7/18/2011 23:31
2,4-Dimethylphenol	0.00013	J	0.000050	0.00020	mg/L	1	7/18/2011 23:31
2,4-Dinitrotoluene	U		0.000050	0.00020	mg/L	1	7/18/2011 23:31
2,6-Dinitrotoluene	U		0.000060	0.00020	mg/L	1	7/18/2011 23:31
2-Chloronaphthalene	U		0.000050	0.00020	mg/L	1	7/18/2011 23:31
2-Methylnaphthalene	U		0.000050	0.00020	mg/L	1	7/18/2011 23:31
4,6-Dinitro-2-methylphenol	U		0.000080	0.00020	mg/L	1	7/18/2011 23:31
4-Nitrophenol	U		0.000050	0.0010	mg/L	1	7/18/2011 23:31
Acenaphthene	0.00024		0.000050	0.00020	mg/L	1	7/18/2011 23:31
Acenaphthylene	U		0.000050	0.00020	mg/L	1	7/18/2011 23:31
Anthracene	0.00036		0.000050	0.00020	mg/L	1	7/18/2011 23:31
Benz(a)anthracene	U		0.000050	0.00020	mg/L	1	7/18/2011 23:31
Benzo(a)pyrene	U		0.000050	0.00020	mg/L	1	7/18/2011 23:31
Bis(2-chloroethoxy)methane	U		0.000050	0.00020	mg/L	1	7/18/2011 23:31
Bis(2-ethylhexyl)phthalate	0.00080		0.00010	0.00020	mg/L	1	7/18/2011 23:31
Chrysene	U		0.000050	0.00020	mg/L	1	7/18/2011 23:31
Dibenzofuran	0.00014	J	0.000050	0.00020	mg/L	1	7/18/2011 23:31
Di-n-butyl phthalate	U		0.000050	0.00020	mg/L	1	7/18/2011 23:31
Fluoranthene	0.00024		0.000050	0.00020	mg/L	1	7/18/2011 23:31
Fluorene	0.00026		0.000050	0.00020	mg/L	1	7/18/2011 23:31
Naphthalene	0.00048		0.000050	0.00020	mg/L	1	7/18/2011 23:31
Nitrobenzene	U		0.000050	0.00020	mg/L	1	7/18/2011 23:31
N-Nitrosodiphenylamine	U		0.000050	0.00020	mg/L	1	7/18/2011 23:31
Pentachlorophenol	U		0.000050	0.00020	mg/L	1	7/18/2011 23:31
Phenanthrene	0.00016	J	0.000050	0.00020	mg/L	1	7/18/2011 23:31
Phenol	U		0.000050	0.00020	mg/L	1	7/18/2011 23:31
Pyrene	0.00014	J	0.000050	0.00020	mg/L	1	7/18/2011 23:31
Surr: 2,4,6-Tribromophenol	53.0			34-129	%REC	1	7/18/2011 23:31
Surr: 2-Fluorobiphenyl	50.2			40-125	%REC	1	7/18/2011 23:31
Surr: 2-Fluorophenol	38.9			20-120	%REC	1	7/18/2011 23:31
Surr: 4-Terphenyl-d14	63.2			40-135	%REC	1	7/18/2011 23:31
Surr: Nitrobenzene-d5	44.9			41-120	%REC	1	7/18/2011 23:31
Surr: Phenol-d6	35.3			20-120	%REC	1	7/18/2011 23:31

VOLATILES			Method: SW8260			Analyst: PC	
1,2-Dichloroethane	U		0.0010	0.0050	mg/L	1	7/21/2011 07:16
Benzene	U		0.0010	0.0050	mg/L	1	7/21/2011 07:16
Chlorobenzene	U		0.0010	0.0050	mg/L	1	7/21/2011 07:16
Ethylbenzene	U		0.0011	0.0050	mg/L	1	7/21/2011 07:16

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 05-Aug-11

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Sample ID: WG-1620-MW42B-02110714
Collection Date: 7/14/2011 05:30 PM

Work Order: 1107486
Lab ID: 1107486-17
Matrix: WATER

Analyses	Result	Qual	SDL	ML	Units	Dilution Factor	Date Analyzed
Methylene chloride	U		0.0013	0.010	mg/L	1	7/21/2011 07:16
Toluene	U		0.0010	0.0050	mg/L	1	7/21/2011 07:16
Xylenes, Total	U		0.0031	0.015	mg/L	1	7/21/2011 07:16
Surr: 1,2-Dichloroethane-d4	87.5			70-125	%REC	1	7/21/2011 07:16
Surr: 4-Bromofluorobenzene	99.5			72-125	%REC	1	7/21/2011 07:16
Surr: Dibromofluoromethane	93.7			71-125	%REC	1	7/21/2011 07:16
Surr: Toluene-d8	97.4			75-125	%REC	1	7/21/2011 07:16

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 05-Aug-11

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Sample ID: WG-1620-FB02-20110714
Collection Date: 7/14/2011 06:00 PM

Work Order: 1107486
Lab ID: 1107486-18
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270	Prep: SW3510 / 7/16/11	Analyst: LG		
1,2-Diphenylhydrazine	U		0.000050	0.00020	mg/L	1	7/18/2011 23:51
2,4-Dimethylphenol	U		0.000050	0.00020	mg/L	1	7/18/2011 23:51
2,4-Dinitrotoluene	U		0.000050	0.00020	mg/L	1	7/18/2011 23:51
2,6-Dinitrotoluene	U		0.000060	0.00020	mg/L	1	7/18/2011 23:51
2-Chloronaphthalene	U		0.000050	0.00020	mg/L	1	7/18/2011 23:51
2-Methylnaphthalene	0.00016	J	0.000050	0.00020	mg/L	1	7/18/2011 23:51
4,6-Dinitro-2-methylphenol	U		0.000080	0.00020	mg/L	1	7/18/2011 23:51
4-Nitrophenol	U		0.000050	0.0010	mg/L	1	7/18/2011 23:51
Acenaphthene	0.00011	J	0.000050	0.00020	mg/L	1	7/18/2011 23:51
Acenaphthylene	U		0.000050	0.00020	mg/L	1	7/18/2011 23:51
Anthracene	U		0.000050	0.00020	mg/L	1	7/18/2011 23:51
Benz(a)anthracene	U		0.000050	0.00020	mg/L	1	7/18/2011 23:51
Benzo(a)pyrene	U		0.000050	0.00020	mg/L	1	7/18/2011 23:51
Bis(2-chloroethoxy)methane	U		0.000050	0.00020	mg/L	1	7/18/2011 23:51
Bis(2-ethylhexyl)phthalate	0.00061		0.00010	0.00020	mg/L	1	7/18/2011 23:51
Chrysene	U		0.000050	0.00020	mg/L	1	7/18/2011 23:51
Dibenzofuran	0.00014	J	0.000050	0.00020	mg/L	1	7/18/2011 23:51
Di-n-butyl phthalate	U		0.000050	0.00020	mg/L	1	7/18/2011 23:51
Fluoranthene	U		0.000050	0.00020	mg/L	1	7/18/2011 23:51
Fluorene	0.00016	J	0.000050	0.00020	mg/L	1	7/18/2011 23:51
Naphthalene	0.00095		0.000050	0.00020	mg/L	1	7/18/2011 23:51
Nitrobenzene	U		0.000050	0.00020	mg/L	1	7/18/2011 23:51
N-Nitrosodiphenylamine	U		0.000050	0.00020	mg/L	1	7/18/2011 23:51
Pentachlorophenol	U		0.000050	0.00020	mg/L	1	7/18/2011 23:51
Phenanthrene	0.00012	J	0.000050	0.00020	mg/L	1	7/18/2011 23:51
Phenol	U		0.000050	0.00020	mg/L	1	7/18/2011 23:51
Pyrene	U		0.000050	0.00020	mg/L	1	7/18/2011 23:51
Surr: 2,4,6-Tribromophenol	44.8			34-129	%REC	1	7/18/2011 23:51
Surr: 2-Fluorobiphenyl	50.1			40-125	%REC	1	7/18/2011 23:51
Surr: 2-Fluorophenol	40.1			20-120	%REC	1	7/18/2011 23:51
Surr: 4-Terphenyl-d14	62.1			40-135	%REC	1	7/18/2011 23:51
Surr: Nitrobenzene-d5	47.9			41-120	%REC	1	7/18/2011 23:51
Surr: Phenol-d6	35.9			20-120	%REC	1	7/18/2011 23:51

VOLATILES			Method: SW8260	Analyst: PC			
1,2-Dichloroethane	U		0.0010	0.0050	mg/L	1	7/20/2011 04:03
Benzene	U		0.0010	0.0050	mg/L	1	7/20/2011 04:03
Chlorobenzene	U		0.0010	0.0050	mg/L	1	7/20/2011 04:03
Ethylbenzene	U		0.0011	0.0050	mg/L	1	7/20/2011 04:03

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 05-Aug-11

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Sample ID: WG-1620-FB02-20110714
Collection Date: 7/14/2011 06:00 PM

Work Order: 1107486
Lab ID: 1107486-18
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
Methylene chloride	U		0.0013	0.010	mg/L	1	7/20/2011 04:03
Toluene	U		0.0010	0.0050	mg/L	1	7/20/2011 04:03
Vinyl chloride	U		0.0010	0.0020	mg/L	1	7/20/2011 04:03
Xylenes, Total	U		0.0031	0.015	mg/L	1	7/20/2011 04:03
Surr: 1,2-Dichloroethane-d4	93.8			70-125	%REC	1	7/20/2011 04:03
Surr: 4-Bromofluorobenzene	98.7			72-125	%REC	1	7/20/2011 04:03
Surr: Dibromofluoromethane	98.2			71-125	%REC	1	7/20/2011 04:03
Surr: Toluene-d8	99.5			75-125	%REC	1	7/20/2011 04:03

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 05-Aug-11

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Sample ID: WG-1620-TB01-20110714
Collection Date: 7/14/2011

Work Order: 1107486
Lab ID: 1107486-19
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
VOLATILES			Method: SW8260			Analyst: PC	
1,2-Dichloroethane	U		0.0010	0.0050	mg/L	1	7/20/2011 03:37
Benzene	U		0.0010	0.0050	mg/L	1	7/20/2011 03:37
Chlorobenzene	U		0.0010	0.0050	mg/L	1	7/20/2011 03:37
Ethylbenzene	U		0.0011	0.0050	mg/L	1	7/20/2011 03:37
Methylene chloride	U		0.0013	0.010	mg/L	1	7/20/2011 03:37
Toluene	U		0.0010	0.0050	mg/L	1	7/20/2011 03:37
Vinyl chloride	U		0.0010	0.0020	mg/L	1	7/20/2011 03:37
Xylenes, Total	U		0.0031	0.015	mg/L	1	7/20/2011 03:37
Surr: 1,2-Dichloroethane-d4	96.0			70-125	%REC	1	7/20/2011 03:37
Surr: 4-Bromofluorobenzene	97.9			72-125	%REC	1	7/20/2011 03:37
Surr: Dibromofluoromethane	98.5			71-125	%REC	1	7/20/2011 03:37
Surr: Toluene-d8	99.8			75-125	%REC	1	7/20/2011 03:37

Note: See Qualifiers Page for a list of qualifiers and their explanation.

WorkOrder: 1107486
 InstrumentID: SV-4
 Test Code: 8270_LOW_W
 Test Number: SW8270
 Test Name: Low-Level Semivolatiles

**METHOD DETECTION /
 REPORTING LIMITS**

Matrix: Aqueous Units: mg/L

Type	Analyte	CAS	DCS	MDL	Unadjusted MQL
A	1,2-Diphenylhydrazine	122-66-7	0.000057	0.000050	0.00020
A	2,4-Dimethylphenol	105-67-9	0.000015	0.000050	0.00020
A	2,4-Dinitrotoluene	121-14-2	0.000080	0.000050	0.00020
A	2,6-Dinitrotoluene	606-20-2	0.000073	0.000060	0.00020
A	2-Chloronaphthalene	91-58-7	0.000074	0.000050	0.00020
A	2-Methylnaphthalene	91-57-6	0.000088	0.000050	0.00020
A	4,6-Dinitro-2-methylphenol	534-52-1	0.00014	0.000080	0.00020
A	4-Nitrophenol	100-02-7	0.000011	0.000050	0.0010
A	Acenaphthene	83-32-9	0.000076	0.000050	0.00020
A	Acenaphthylene	208-96-8	0.000083	0.000050	0.00020
A	Anthracene	120-12-7	0.000068	0.000050	0.00020
A	Benz(a)anthracene	56-55-3	0.000075	0.000050	0.00020
A	Benzo(a)pyrene	50-32-8	0.000072	0.000050	0.00020
A	Bis(2-chloroethoxy)methane	111-91-1	0.000087	0.000050	0.00020
A	Bis(2-ethylhexyl)phthalate	117-81-7	0.000072	0.00010	0.00020
A	Chrysene	218-01-9	0.000078	0.000050	0.00020
A	Dibenzofuran	132-64-9	0.000082	0.000050	0.00020
A	Di-n-butyl phthalate	84-74-2	0.000094	0.000050	0.00020
A	Fluoranthene	206-44-0	0.000074	0.000050	0.00020
A	Fluorene	86-73-7	0.000091	0.000050	0.00020
A	Naphthalene	91-20-3	0.000082	0.000050	0.00020
A	Nitrobenzene	98-95-3	0.00011	0.000050	0.00020
A	N-Nitrosodiphenylamine	86-30-6	0.000067	0.000050	0.00020
A	Pentachlorophenol	87-86-5	0.000044	0.000050	0.00020
A	Phenanthrene	85-01-8	0.000098	0.000050	0.00020
A	Phenol	108-95-2	0.00010	0.000050	0.00020
A	Pyrene	129-00-0	0.000073	0.000050	0.00020
S	Surr: 2,4,6-Tribromophenol	118-79-6	0	0	0.00020
S	Surr: 2-Fluorobiphenyl	321-60-8	0	0	0.00020
S	Surr: 2-Fluorophenol	367-12-4	0	0	0.00020
S	Surr: 4-Terphenyl-d14	1718-51-0	0	0	0.00020
S	Surr: Nitrobenzene-d5	4165-60-0	0	0	0.00020
S	Surr: Phenol-d6	13127-88-3	0	0	0.00020

WorkOrder: 1107486
 InstrumentID: SV-6
 Test Code: 8270_LOW_W
 Test Number: SW8270
 Test Name: Low-Level Semivolatiles

**METHOD DETECTION /
 REPORTING LIMITS**

Matrix: Aqueous Units: mg/L

Type	Analyte	CAS	DCS	MDL	Unadjusted MQL
A	1,2-Diphenylhydrazine	122-66-7	0.000072	0.000050	0.00020
A	2,4-Dimethylphenol	105-67-9	0.000014	0.000050	0.00020
A	2,4-Dinitrotoluene	121-14-2	0.000060	0.000050	0.00020
A	2,6-Dinitrotoluene	606-20-2	0.000064	0.000060	0.00020
A	2-Chloronaphthalene	91-58-7	0.000070	0.000050	0.00020
A	2-Methylnaphthalene	91-57-6	0.000081	0.000050	0.00020
A	4,6-Dinitro-2-methylphenol	534-52-1	0.000046	0.000080	0.00020
A	4-Nitrophenol	100-02-7	0.000045	0.000050	0.0010
A	Acenaphthene	83-32-9	0.000077	0.000050	0.00020
A	Acenaphthylene	208-96-8	0.000075	0.000050	0.00020
A	Anthracene	120-12-7	0.000071	0.000050	0.00020
A	Benz(a)anthracene	56-55-3	0.000086	0.000050	0.00020
A	Benzo(a)pyrene	50-32-8	0.000073	0.000050	0.00020
A	Bis(2-chloroethoxy)methane	111-91-1	0.000076	0.000050	0.00020
A	Bis(2-ethylhexyl)phthalate	117-81-7	0.000093	0.00010	0.00020
A	Chrysene	218-01-9	0.000084	0.000050	0.00020
A	Dibenzofuran	132-64-9	0.000077	0.000050	0.00020
A	Di-n-butyl phthalate	84-74-2	0.000078	0.000050	0.00020
A	Fluoranthene	206-44-0	0.000076	0.000050	0.00020
A	Fluorene	86-73-7	0.000075	0.000050	0.00020
A	Naphthalene	91-20-3	0.000083	0.000050	0.00020
A	Nitrobenzene	98-95-3	0.000098	0.000050	0.00020
A	N-Nitrosodiphenylamine	86-30-6	0.000075	0.000050	0.00020
A	Pentachlorophenol	87-86-5	0.00018	0.000050	0.00020
A	Phenanthrene	85-01-8	0.000079	0.000050	0.00020
A	Phenol	108-95-2	0.000078	0.000050	0.00020
A	Pyrene	129-00-0	0.000077	0.000050	0.00020
S	Surr: 2,4,6-Tribromophenol	118-79-6	0	0	0.00020
S	Surr: 2-Fluorobiphenyl	321-60-8	0	0	0.00020
S	Surr: 2-Fluorophenol	367-12-4	0	0	0.00020
S	Surr: 4-Terphenyl-d14	1718-51-0	0	0	0.00020
S	Surr: Nitrobenzene-d5	4165-60-0	0	0	0.00020
S	Surr: Phenol-d6	13127-88-3	0	0	0.00020

WorkOrder: 1107486
InstrumentID: VOA1
Test Code: 8260_W
Test Number: SW8260
Test Name: Volatiles

**METHOD DETECTION /
REPORTING LIMITS**

Matrix: Aqueous Units: mg/L

Type	Analyte	CAS	DCS	MDL	Unadjusted MQL
A	1,2-Dichloroethane	107-06-2	0.0020	0.0010	0.0050
A	Chlorobenzene	108-90-7	0.0020	0.0010	0.0050
A	Methylene chloride	75-09-2	0.0026	0.0013	0.010
S	Surr: 1,2-Dichloroethane-d4	17060-07-0	0	0	0.0050
S	Surr: 4-Bromofluorobenzene	460-00-4	0	0	0.0050
S	Surr: Dibromofluoromethane	1868-53-7	0	0	0.0050
S	Surr: Toluene-d8	2037-26-5	0	0	0.0050

WorkOrder: 1107486
InstrumentID: VOA7
Test Code: 8260_W
Test Number: SW8260
Test Name: Volatiles

**METHOD DETECTION /
REPORTING LIMITS**

Matrix: Aqueous Units: mg/L

Type	Analyte	CAS	DCS	MDL	Unadjusted MQL
A	1,2-Dichloroethane	107-06-2	0.0014	0.0010	0.0050
A	Benzene	71-43-2	0.0015	0.0010	0.0050
A	Chlorobenzene	108-90-7	0.0014	0.0010	0.0050
A	Ethylbenzene	100-41-4	0.0014	0.0011	0.0050
A	Methylene chloride	75-09-2	0.0017	0.0013	0.010
A	Toluene	108-88-3	0.0015	0.0010	0.0050
A	Vinyl chloride	75-01-4	0.0014	0.0010	0.0020
M	Xylenes, Total	1330-20-7	0.0043	0.0031	0.015
S	Surr: 1,2-Dichloroethane-d4	17060-07-0	0	0	0.0050
S	Surr: 4-Bromofluorobenzene	460-00-4	0	0	0.0050
S	Surr: Dibromofluoromethane	1868-53-7	0	0	0.0050
S	Surr: Toluene-d8	2037-26-5	0	0	0.0050

ALS Environmental

Date: 22-Jul-11

Client: Pastor, Behling & Wheeler, LLC
Work Order: 1107486
Project: UPRR Houston Wood GW

QC BATCH REPORT

Batch ID: **53985** Instrument ID **SV-4** Method: **SW8270**

MBLK	Sample ID: SBLKW1-110716-53985	Units: µg/L					Analysis Date: 7/18/2011 01:05 AM			
Client ID:	Run ID: SV-4_110717C	SeqNo: 2465982			Prep Date: 7/16/2011		DF: 1			
Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Diphenylhydrazine	U	0.20								
2,4-Dimethylphenol	U	0.20								
2,4-Dinitrotoluene	U	0.20								
2,6-Dinitrotoluene	U	0.20								
2-Chloronaphthalene	U	0.20								
2-Methylnaphthalene	U	0.20								
4,6-Dinitro-2-methylphenol	U	0.20								
4-Nitrophenol	U	1.0								
Acenaphthene	U	0.20								
Acenaphthylene	U	0.20								
Anthracene	U	0.20								
Benz(a)anthracene	U	0.20								
Benzo(a)pyrene	U	0.20								
Bis(2-chloroethoxy)methane	U	0.20								
Bis(2-ethylhexyl)phthalate	U	0.20								
Chrysene	U	0.20								
Dibenzofuran	U	0.20								
Di-n-butyl phthalate	U	0.20								
Fluoranthene	U	0.20								
Fluorene	U	0.20								
Naphthalene	U	0.20								
Nitrobenzene	U	0.20								
N-Nitrosodiphenylamine	U	0.20								
Pentachlorophenol	U	0.20								
Phenanthrene	U	0.20								
Phenol	U	0.20								
Pyrene	U	0.20								
<i>Surr: 2,4,6-Tribromophenol</i>	<i>2.98</i>	<i>0.20</i>	<i>5</i>	<i>0</i>	<i>59.6</i>	<i>34-129</i>	<i>0</i>			
<i>Surr: 2-Fluorobiphenyl</i>	<i>3.372</i>	<i>0.20</i>	<i>5</i>	<i>0</i>	<i>67.4</i>	<i>40-125</i>	<i>0</i>			
<i>Surr: 2-Fluorophenol</i>	<i>3.079</i>	<i>0.20</i>	<i>5</i>	<i>0</i>	<i>61.6</i>	<i>20-120</i>	<i>0</i>			
<i>Surr: 4-Terphenyl-d14</i>	<i>3.573</i>	<i>0.20</i>	<i>5</i>	<i>0</i>	<i>71.5</i>	<i>40-135</i>	<i>0</i>			
<i>Surr: Nitrobenzene-d5</i>	<i>3.434</i>	<i>0.20</i>	<i>5</i>	<i>0</i>	<i>68.7</i>	<i>41-120</i>	<i>0</i>			
<i>Surr: Phenol-d6</i>	<i>3.052</i>	<i>0.20</i>	<i>5</i>	<i>0</i>	<i>61</i>	<i>20-120</i>	<i>0</i>			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Pastor, Behling & Wheeler, LLC
Work Order: 1107486
Project: UPRR Houston Wood GW

QC BATCH REPORT

Batch ID: **53985** Instrument ID **SV-4** Method: **SW8270**

LCS		Sample ID: SLCSW1-110716-53985			Units: µg/L		Analysis Date: 7/18/2011 01:25 AM			
Client ID:		Run ID: SV-4_110717C			SeqNo: 2465983		Prep Date: 7/16/2011		DF: 1	
Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Diphenylhydrazine	3.389	0.20	5	0	67.8	39-127	0			
2,4-Dimethylphenol	3.343	0.20	5	0	66.9	35-120	0			
2,4-Dinitrotoluene	3.846	0.20	5	0	76.9	50-122	0			
2,6-Dinitrotoluene	3.435	0.20	5	0	68.7	50-120	0			
2-Chloronaphthalene	4.299	0.20	5	0	86	50-120	0			
2-Methylnaphthalene	4.033	0.20	5	0	80.7	50-120	0			
4,6-Dinitro-2-methylphenol	2.72	0.20	5	0	54.4	25-121	0			
4-Nitrophenol	4.167	1.0	5	0	83.3	30-130	0			
Acenaphthene	3.508	0.20	5	0	70.2	45-120	0			
Acenaphthylene	3.651	0.20	5	0	73	47-120	0			
Anthracene	3.825	0.20	5	0	76.5	45-120	0			
Benz(a)anthracene	4.063	0.20	5	0	81.3	40-120	0			
Benzo(a)pyrene	3.871	0.20	5	0	77.4	45-120	0			
Bis(2-chloroethoxy)methane	3.54	0.20	5	0	70.8	45-120	0			
Bis(2-ethylhexyl)phthalate	4.685	0.20	5	0	93.7	40-139	0			
Chrysene	3.978	0.20	5	0	79.6	43-120	0			
Dibenzofuran	3.762	0.20	5	0	75.2	50-120	0			
Di-n-butyl phthalate	3.926	0.20	5	0	78.5	45-123	0			
Fluoranthene	3.82	0.20	5	0	76.4	45-125	0			
Fluorene	3.979	0.20	5	0	79.6	49-120	0			
Naphthalene	3.825	0.20	5	0	76.5	45-120	0			
Nitrobenzene	3.771	0.20	5	0	75.4	44-120	0			
N-Nitrosodiphenylamine	3.369	0.20	5	0	67.4	40-125	0			
Pentachlorophenol	2.078	0.20	5	0	41.6	19-121	0			
Phenanthrene	3.928	0.20	5	0	78.6	45-121	0			
Phenol	2.778	0.20	5	0	55.6	20-124	0			
Pyrene	4.414	0.20	5	0	88.3	40-130	0			
<i>Surr: 2,4,6-Tribromophenol</i>	<i>3.418</i>	<i>0.20</i>	<i>5</i>	<i>0</i>	<i>68.4</i>	<i>34-129</i>	<i>0</i>			
<i>Surr: 2-Fluorobiphenyl</i>	<i>3.67</i>	<i>0.20</i>	<i>5</i>	<i>0</i>	<i>73.4</i>	<i>40-125</i>	<i>0</i>			
<i>Surr: 2-Fluorophenol</i>	<i>2.542</i>	<i>0.20</i>	<i>5</i>	<i>0</i>	<i>50.8</i>	<i>20-120</i>	<i>0</i>			
<i>Surr: 4-Terphenyl-d14</i>	<i>3.877</i>	<i>0.20</i>	<i>5</i>	<i>0</i>	<i>77.5</i>	<i>40-135</i>	<i>0</i>			
<i>Surr: Nitrobenzene-d5</i>	<i>3.669</i>	<i>0.20</i>	<i>5</i>	<i>0</i>	<i>73.4</i>	<i>41-120</i>	<i>0</i>			
<i>Surr: Phenol-d6</i>	<i>3.24</i>	<i>0.20</i>	<i>5</i>	<i>0</i>	<i>64.8</i>	<i>20-120</i>	<i>0</i>			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Pastor, Behling & Wheeler, LLC
 Work Order: 1107486
 Project: UPRR Houston Wood GW

QC BATCH REPORT

Batch ID: 53985 Instrument ID SV-4 Method: SW8270

LCSD	Sample ID: SLCSDW1-110716-53985	Units: µg/L					Analysis Date: 7/18/2011 04:16 PM				
Client ID:	Run ID: SV-4_110717C	SeqNo: 2465984			Prep Date: 7/16/2011		DF: 1				
Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
1,2-Diphenylhydrazine	3.385	0.20	5	0	67.7	39-127	3.389	0.107	20		
2,4-Dimethylphenol	3.197	0.20	5	0	63.9	35-120	3.343	4.48	20		
2,4-Dinitrotoluene	4.131	0.20	5	0	82.6	50-122	3.846	7.15	20		
2,6-Dinitrotoluene	3.718	0.20	5	0	74.4	50-120	3.435	7.89	20		
2-Chloronaphthalene	3.398	0.20	5	0	68	50-120	4.299	23.4	20	R	
2-Methylnaphthalene	3.983	0.20	5	0	79.7	50-120	4.033	1.25	20		
4,6-Dinitro-2-methylphenol	3.317	0.20	5	0	66.3	25-121	2.72	19.8	20		
4-Nitrophenol	4.455	1.0	5	0	89.1	30-130	4.167	6.68	20		
Acenaphthene	3.507	0.20	5	0	70.1	45-120	3.508	0.0153	20		
Acenaphthylene	3.702	0.20	5	0	74	47-120	3.651	1.38	20		
Anthracene	3.755	0.20	5	0	75.1	45-120	3.825	1.85	20		
Benz(a)anthracene	3.935	0.20	5	0	78.7	40-120	4.063	3.2	20		
Benzo(a)pyrene	3.869	0.20	5	0	77.4	45-120	3.871	0.0748	20		
Bis(2-chloroethoxy)methane	3.683	0.20	5	0	73.7	45-120	3.54	3.95	20		
Bis(2-ethylhexyl)phthalate	4.252	0.20	5	0	85	40-139	4.685	9.71	20		
Chrysene	3.786	0.20	5	0	75.7	43-120	3.978	4.97	20		
Dibenzofuran	3.903	0.20	5	0	78.1	50-120	3.762	3.67	20		
Di-n-butyl phthalate	3.78	0.20	5	0	75.6	45-123	3.926	3.79	20		
Fluoranthene	3.757	0.20	5	0	75.1	45-125	3.82	1.67	20		
Fluorene	3.948	0.20	5	0	79	49-120	3.979	0.77	20		
Naphthalene	3.645	0.20	5	0	72.9	45-120	3.825	4.83	20		
Nitrobenzene	3.559	0.20	5	0	71.2	44-120	3.771	5.78	20		
N-Nitrosodiphenylamine	3.373	0.20	5	0	67.5	40-125	3.369	0.121	20		
Pentachlorophenol	3.134	0.20	5	0	62.7	19-121	2.078	40.5	20	R	
Phenanthrene	3.781	0.20	5	0	75.6	45-121	3.928	3.82	20		
Phenol	3.071	0.20	5	0	61.4	20-124	2.778	10	20		
Pyrene	3.94	0.20	5	0	78.8	40-130	4.414	11.4	20		
Surr: 2,4,6-Tribromophenol	3.85	0.20	5	0	77	34-129	3.418	11.9	0		
Surr: 2-Fluorobiphenyl	3.661	0.20	5	0	73.2	40-125	3.67	0.243	0		
Surr: 2-Fluorophenol	2.788	0.20	5	0	55.8	20-120	2.542	9.23	0		
Surr: 4-Terphenyl-d14	3.594	0.20	5	0	71.9	40-135	3.877	7.57	0		
Surr: Nitrobenzene-d5	3.466	0.20	5	0	69.3	41-120	3.669	5.7	0		
Surr: Phenol-d6	3.404	0.20	5	0	68.1	20-120	3.24	4.93	0		

The following samples were analyzed in this batch:

1107486-01B	1107486-02B	1107486-03B
1107486-04B	1107486-05B	1107486-06B
1107486-07B	1107486-08B	1107486-09B
1107486-10B	1107486-11B	1107486-12B
1107486-13B	1107486-14B	1107486-15B
1107486-16B	1107486-17B	1107486-18B

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Pastor, Behling & Wheeler, LLC
 Work Order: 1107486
 Project: UPRR Houston Wood GW

QC BATCH REPORT

Batch ID: R113290 Instrument ID VOA7 Method: SW8260

MBLK		Sample ID: VBLKW-072011-R113290			Units: µg/L			Analysis Date: 7/20/2011 12:31 PM		
Client ID:		Run ID: VOA7_110720A			SeqNo: 2465406		Prep Date:		DF: 1	
Analyte	Result	MLQ	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Dichloroethane	U	5.0								
Benzene	U	5.0								
Chlorobenzene	U	5.0								
Ethylbenzene	U	5.0								
Methylene chloride	U	10								
Toluene	U	5.0								
Vinyl chloride	U	2.0								
Xylenes, Total	U	15								
<i>Surr: 1,2-Dichloroethane-d4</i>	46.96	5.0	50	0	93.9	70-125	0			
<i>Surr: 4-Bromofluorobenzene</i>	49.4	5.0	50	0	98.8	72-125	0			
<i>Surr: Dibromofluoromethane</i>	48.28	5.0	50	0	96.6	71-125	0			
<i>Surr: Toluene-d8</i>	48.72	5.0	50	0	97.4	75-125	0			

LCS		Sample ID: VLCSW-072011-R113290			Units: µg/L			Analysis Date: 7/20/2011 11:40 AM		
Client ID:		Run ID: VOA7_110720A			SeqNo: 2465404		Prep Date:		DF: 1	
Analyte	Result	MLQ	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Dichloroethane	50.44	5.0	50	0	101	78-120	0			
Benzene	48.46	5.0	50	0	96.9	73-121	0			
Chlorobenzene	48.35	5.0	50	0	96.7	80-120	0			
Ethylbenzene	48.18	5.0	50	0	96.4	80-120	0			
Methylene chloride	50.82	10	50	0	102	65-133	0			
Toluene	48.11	5.0	50	0	96.2	80-120	0			
Vinyl chloride	49.22	2.0	50	0	98.4	70-127	0			
Xylenes, Total	143.5	15	150	0	95.6	80-120	0			
<i>Surr: 1,2-Dichloroethane-d4</i>	47.02	5.0	50	0	94	70-125	0			
<i>Surr: 4-Bromofluorobenzene</i>	48.92	5.0	50	0	97.8	72-125	0			
<i>Surr: Dibromofluoromethane</i>	48.15	5.0	50	0	96.3	71-125	0			
<i>Surr: Toluene-d8</i>	49.39	5.0	50	0	98.8	75-125	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Pastor, Behling & Wheeler, LLC
 Work Order: 1107486
 Project: UPRR Houston Wood GW

QC BATCH REPORT

Batch ID: R113290 Instrument ID VOA7 Method: SW8260

MS		Sample ID: 1107584-01AMS			Units: µg/L			Analysis Date: 7/20/2011 02:39 PM		
Client ID:		Run ID: VOA7_110720A			SeqNo: 2465410			Prep Date:		DF: 1
Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Dichloroethane	59.06	5.0	50	0	118	78-120	0			
Benzene	55.83	5.0	50	0	112	73-121	0			
Chlorobenzene	54.22	5.0	50	0	108	80-120	0			
Ethylbenzene	51.36	5.0	50	0	103	80-120	0			
Methylene chloride	59.05	10	50	0	118	65-133	0			
Toluene	53.45	5.0	50	0	107	80-120	0			
Vinyl chloride	50.17	2.0	50	0	100	70-127	0			
Xylenes, Total	154.8	15	150	0	103	80-120	0			
<i>Surr: 1,2-Dichloroethane-d4</i>	47.29	5.0	50	0	94.6	70-125	0			
<i>Surr: 4-Bromofluorobenzene</i>	49.36	5.0	50	0	98.7	72-125	0			
<i>Surr: Dibromofluoromethane</i>	49.12	5.0	50	0	98.2	71-125	0			
<i>Surr: Toluene-d8</i>	49.09	5.0	50	0	98.2	75-125	0			

MSD		Sample ID: 1107584-01AMSD			Units: µg/L			Analysis Date: 7/20/2011 03:05 PM		
Client ID:		Run ID: VOA7_110720A			SeqNo: 2465412			Prep Date:		DF: 1
Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Dichloroethane	58.88	5.0	50	0	118	78-120	59.06	0.306	20	
Benzene	54.49	5.0	50	0	109	73-121	55.83	2.44	20	
Chlorobenzene	54.69	5.0	50	0	109	80-120	54.22	0.868	20	
Ethylbenzene	52.24	5.0	50	0	104	80-120	51.36	1.69	20	
Methylene chloride	58.87	10	50	0	118	65-133	59.05	0.305	20	
Toluene	53.5	5.0	50	0	107	80-120	53.45	0.0831	20	
Vinyl chloride	47.92	2.0	50	0	95.8	70-127	50.17	4.58	20	
Xylenes, Total	159.7	15	150	0	106	80-120	154.8	3.12	20	
<i>Surr: 1,2-Dichloroethane-d4</i>	47.76	5.0	50	0	95.5	70-125	47.29	0.974	20	
<i>Surr: 4-Bromofluorobenzene</i>	49.4	5.0	50	0	98.8	72-125	49.36	0.0781	20	
<i>Surr: Dibromofluoromethane</i>	49.54	5.0	50	0	99.1	71-125	49.12	0.855	20	
<i>Surr: Toluene-d8</i>	49.7	5.0	50	0	99.4	75-125	49.09	1.24	20	

The following samples were analyzed in this batch:

1107486-04A	1107486-13A
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Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Pastor, Behling & Wheeler, LLC

Work Order: 1107486

Project: UPRR Houston Wood GW

QC BATCH REPORT

Batch ID: R113296

Instrument ID VOA7

Method: SW8260

MBLK Sample ID: **VBLKW-071911-R113296** Units: **µg/L** Analysis Date: **7/20/2011 01:04 AM**

Client ID: Run ID: **VOA7_110719C** SeqNo: **2465536** Prep Date: DF: **1**

Analyte	Result	ML	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Dichloroethane	U	5.0								
Benzene	U	5.0								
Chlorobenzene	U	5.0								
Ethylbenzene	U	5.0								
Methylene chloride	U	10								
Toluene	U	5.0								
Xylenes, Total	U	15								
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>47.35</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>94.7</i>	<i>70-125</i>	<i>0</i>			
<i>Surr: 4-Bromofluorobenzene</i>	<i>48.96</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>97.9</i>	<i>72-125</i>	<i>0</i>			
<i>Surr: Dibromofluoromethane</i>	<i>48.58</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>97.2</i>	<i>71-125</i>	<i>0</i>			
<i>Surr: Toluene-d8</i>	<i>48.49</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>97</i>	<i>75-125</i>	<i>0</i>			

LCS Sample ID: **VLCSW-071911-R113296** Units: **µg/L** Analysis Date: **7/20/2011 12:14 AM**

Client ID: Run ID: **VOA7_110719C** SeqNo: **2465534** Prep Date: DF: **1**

Analyte	Result	ML	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Dichloroethane	48.78	5.0	50	0	97.6	78-120	0			
Benzene	45.79	5.0	50	0	91.6	73-121	0			
Chlorobenzene	45.63	5.0	50	0	91.3	80-120	0			
Ethylbenzene	45.05	5.0	50	0	90.1	80-120	0			
Methylene chloride	48.91	10	50	0	97.8	65-133	0			
Toluene	45.12	5.0	50	0	90.2	80-120	0			
Xylenes, Total	133.7	15	150	0	89.1	80-120	0			
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>48.03</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>96.1</i>	<i>70-125</i>	<i>0</i>			
<i>Surr: 4-Bromofluorobenzene</i>	<i>49.63</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>99.3</i>	<i>72-125</i>	<i>0</i>			
<i>Surr: Dibromofluoromethane</i>	<i>49.76</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>99.5</i>	<i>71-125</i>	<i>0</i>			
<i>Surr: Toluene-d8</i>	<i>49.47</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>98.9</i>	<i>75-125</i>	<i>0</i>			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Pastor, Behling & Wheeler, LLC
Work Order: 1107486
Project: UPRR Houston Wood GW

QC BATCH REPORT

Batch ID: **R113296** Instrument ID **VOA7** Method: **SW8260**

MS Sample ID: **1107523-01AMS** Units: **µg/L** Analysis Date: **7/20/2011 01:55 AM**

Client ID: Run ID: **VOA7_110719C** SeqNo: **2465539** Prep Date: DF: **25**

Analyte	Result	ML	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Dichloroethane	1574	120	1250	0	126	78-120	0			S
Benzene	1422	120	1250	0	114	73-121	0			
Chlorobenzene	1439	120	1250	0	115	80-120	0			
Ethylbenzene	1343	120	1250	0	107	80-120	0			
Methylene chloride	1516	250	1250	0	121	65-133	0			
Toluene	1386	120	1250	0	111	80-120	0			
Xylenes, Total	4108	380	3750	0	110	80-120	0			
<i>Surr: 1,2-Dichloroethane-d4</i>	1183	120	1250	0	94.6	70-125	0			
<i>Surr: 4-Bromofluorobenzene</i>	1245	120	1250	0	99.6	72-125	0			
<i>Surr: Dibromofluoromethane</i>	1218	120	1250	0	97.5	71-125	0			
<i>Surr: Toluene-d8</i>	1248	120	1250	0	99.8	75-125	0			

MSD Sample ID: **1107523-01AMSD** Units: **µg/L** Analysis Date: **7/20/2011 02:21 AM**

Client ID: Run ID: **VOA7_110719C** SeqNo: **2465541** Prep Date: DF: **25**

Analyte	Result	ML	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Dichloroethane	1506	120	1250	0	121	78-120	1574	4.38	20	S
Benzene	1349	120	1250	0	108	73-121	1422	5.22	20	
Chlorobenzene	1370	120	1250	0	110	80-120	1439	4.85	20	
Ethylbenzene	1272	120	1250	0	102	80-120	1343	5.43	20	
Methylene chloride	1469	250	1250	0	117	65-133	1516	3.17	20	
Toluene	1310	120	1250	0	105	80-120	1386	5.63	20	
Xylenes, Total	3827	380	3750	0	102	80-120	4108	7.08	20	
<i>Surr: 1,2-Dichloroethane-d4</i>	1193	120	1250	0	95.4	70-125	1183	0.824	20	
<i>Surr: 4-Bromofluorobenzene</i>	1233	120	1250	0	98.6	72-125	1245	0.982	20	
<i>Surr: Dibromofluoromethane</i>	1242	120	1250	0	99.4	71-125	1218	1.9	20	
<i>Surr: Toluene-d8</i>	1247	120	1250	0	99.8	75-125	1248	0.0681	20	

The following samples were analyzed in this batch:

1107486-01A	1107486-02A	1107486-03A
1107486-07A	1107486-12A	1107486-18A
1107486-19A		

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Pastor, Behling & Wheeler, LLC
Work Order: 1107486
Project: UPRR Houston Wood GW

QC BATCH REPORT

Batch ID: **R113336** Instrument ID **VOA1** Method: **SW8260**

MBLK		Sample ID: VBLKW-072011-R113336			Units: µg/L			Analysis Date: 7/20/2011 11:35 AM		
Client ID:		Run ID: VOA1_110720B			SeqNo: 2466498			Prep Date:		DF: 1
Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Dichloroethane	U	5.0								
Chlorobenzene	U	5.0								
Methylene chloride	U	10								
<i>Surr: 1,2-Dichloroethane-d4</i>	49.97	5.0	50	0	99.9	70-125	0			
<i>Surr: 4-Bromofluorobenzene</i>	50.62	5.0	50	0	101	72-125	0			
<i>Surr: Dibromofluoromethane</i>	49.46	5.0	50	0	98.9	71-125	0			
<i>Surr: Toluene-d8</i>	46.82	5.0	50	0	93.6	75-125	0			

LCS		Sample ID: VLCSW-072011-R113336			Units: µg/L			Analysis Date: 7/20/2011 10:41 AM		
Client ID:		Run ID: VOA1_110720B			SeqNo: 2466497			Prep Date:		DF: 1
Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Dichloroethane	52.32	5.0	50	0	105	78-120	0			
Chlorobenzene	51.81	5.0	50	0	104	80-120	0			
Methylene chloride	49.64	10	50	0	99.3	65-133	0			
<i>Surr: 1,2-Dichloroethane-d4</i>	48.12	5.0	50	0	96.2	70-125	0			
<i>Surr: 4-Bromofluorobenzene</i>	50.51	5.0	50	0	101	72-125	0			
<i>Surr: Dibromofluoromethane</i>	49.13	5.0	50	0	98.3	71-125	0			
<i>Surr: Toluene-d8</i>	48.73	5.0	50	0	97.5	75-125	0			

MS		Sample ID: 1107516-07AMS			Units: µg/L			Analysis Date: 7/20/2011 01:24 PM		
Client ID:		Run ID: VOA1_110720B			SeqNo: 2466502			Prep Date:		DF: 1
Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Dichloroethane	48.75	5.0	50	0	97.5	78-120	0			
Chlorobenzene	47.63	5.0	50	0	95.3	80-120	0			
Methylene chloride	48.91	10	50	0	97.8	65-133	0			
<i>Surr: 1,2-Dichloroethane-d4</i>	49.49	5.0	50	0	99	70-125	0			
<i>Surr: 4-Bromofluorobenzene</i>	45.28	5.0	50	0	90.6	72-125	0			
<i>Surr: Dibromofluoromethane</i>	49.36	5.0	50	0	98.7	71-125	0			
<i>Surr: Toluene-d8</i>	47.11	5.0	50	0	94.2	75-125	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Pastor, Behling & Wheeler, LLC
Work Order: 1107486
Project: UPRR Houston Wood GW

QC BATCH REPORT

Batch ID: **R113336** Instrument ID **VOA1** Method: **SW8260**

MSD	Sample ID: 1107516-07AMSD				Units: µg/L			Analysis Date: 7/20/2011 01:52 PM		
Client ID:	Run ID: VOA1_110720B				SeqNo: 2466503		Prep Date:		DF: 1	
Analyte	Result	ML	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Dichloroethane	51.05	5.0	50	0	102	78-120	48.75	4.61	20	
Chlorobenzene	45.54	5.0	50	0	91.1	80-120	47.63	4.49	20	
Methylene chloride	49.51	10	50	0	99	65-133	48.91	1.22	20	
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>49.49</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>99</i>	<i>70-125</i>	<i>49.49</i>	<i>0.00497</i>	<i>20</i>	
<i>Surr: 4-Bromofluorobenzene</i>	<i>51.35</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>103</i>	<i>72-125</i>	<i>45.28</i>	<i>12.6</i>	<i>20</i>	
<i>Surr: Dibromofluoromethane</i>	<i>51.67</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>103</i>	<i>71-125</i>	<i>49.36</i>	<i>4.59</i>	<i>20</i>	
<i>Surr: Toluene-d8</i>	<i>50.35</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>101</i>	<i>75-125</i>	<i>47.11</i>	<i>6.67</i>	<i>20</i>	

The following samples were analyzed in this batch:

1107486-04A

Client: Pastor, Behling & Wheeler, LLC
Work Order: 1107486
Project: UPRR Houston Wood GW

QC BATCH REPORT

Batch ID: **R113367** Instrument ID **VOA7** Method: **SW8260**

MBLK Sample ID: **VBLKW-072011-R113367** Units: **µg/L** Analysis Date: **7/21/2011 01:19 AM**

Client ID: Run ID: **VOA7_110720C** SeqNo: **2466951** Prep Date: DF: **1**

Analyte	Result	ML	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Dichloroethane	U	5.0								
Benzene	U	5.0								
Chlorobenzene	U	5.0								
Ethylbenzene	U	5.0								
Methylene chloride	U	10								
Toluene	U	5.0								
Xylenes, Total	U	15								
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>42.98</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>86</i>	<i>70-125</i>	<i>0</i>			
<i>Surr: 4-Bromofluorobenzene</i>	<i>47.88</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>95.8</i>	<i>72-125</i>	<i>0</i>			
<i>Surr: Dibromofluoromethane</i>	<i>46.7</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>93.4</i>	<i>71-125</i>	<i>0</i>			
<i>Surr: Toluene-d8</i>	<i>48.45</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>96.9</i>	<i>75-125</i>	<i>0</i>			

LCS Sample ID: **VLCSW-072011-R113367** Units: **µg/L** Analysis Date: **7/21/2011 12:28 AM**

Client ID: Run ID: **VOA7_110720C** SeqNo: **2466949** Prep Date: DF: **1**

Analyte	Result	ML	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Dichloroethane	51.03	5.0	50	0	102	78-120	0			
Benzene	44.83	5.0	50	0	89.7	73-121	0			
Chlorobenzene	46.02	5.0	50	0	92	80-120	0			
Ethylbenzene	44.35	5.0	50	0	88.7	80-120	0			
Methylene chloride	37.93	10	50	0	75.9	65-133	0			
Toluene	43.81	5.0	50	0	87.6	80-120	0			
Xylenes, Total	133.9	15	150	0	89.3	80-120	0			
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>43.94</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>87.9</i>	<i>70-125</i>	<i>0</i>			
<i>Surr: 4-Bromofluorobenzene</i>	<i>47.76</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>95.5</i>	<i>72-125</i>	<i>0</i>			
<i>Surr: Dibromofluoromethane</i>	<i>47.44</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>94.9</i>	<i>71-125</i>	<i>0</i>			
<i>Surr: Toluene-d8</i>	<i>49.09</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>98.2</i>	<i>75-125</i>	<i>0</i>			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Pastor, Behling & Wheeler, LLC
 Work Order: 1107486
 Project: UPRR Houston Wood GW

QC BATCH REPORT

Batch ID: R113367 Instrument ID VOA7 Method: SW8260

MS		Sample ID: 1107575-01ZMS			Units: µg/L			Analysis Date: 7/21/2011 02:35 AM		
Client ID:		Run ID: VOA7_110720C			SeqNo: 2466953		Prep Date:		DF: 20	
Analyte	Result	ML	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Dichloroethane	1078	100	1000	0	108	78-120	0			
Benzene	1045	100	1000	0	104	73-121	0			
Chlorobenzene	1058	100	1000	0	106	80-120	0			
Ethylbenzene	1022	100	1000	0	102	80-120	0			
Methylene chloride	1030	200	1000	0	103	65-133	0			
Toluene	1052	100	1000	0	105	80-120	0			
Xylenes, Total	3077	300	3000	0	103	80-120	0			
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>879.4</i>	<i>100</i>	<i>1000</i>	<i>0</i>	<i>87.9</i>	<i>70-125</i>	<i>0</i>			
<i>Surr: 4-Bromofluorobenzene</i>	<i>1007</i>	<i>100</i>	<i>1000</i>	<i>0</i>	<i>101</i>	<i>72-125</i>	<i>0</i>			
<i>Surr: Dibromofluoromethane</i>	<i>939</i>	<i>100</i>	<i>1000</i>	<i>0</i>	<i>93.9</i>	<i>71-125</i>	<i>0</i>			
<i>Surr: Toluene-d8</i>	<i>995.3</i>	<i>100</i>	<i>1000</i>	<i>0</i>	<i>99.5</i>	<i>75-125</i>	<i>0</i>			

MSD		Sample ID: 1107575-01ZMSD			Units: µg/L			Analysis Date: 7/21/2011 03:01 AM		
Client ID:		Run ID: VOA7_110720C			SeqNo: 2466955		Prep Date:		DF: 20	
Analyte	Result	ML	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Dichloroethane	1104	100	1000	0	110	78-120	1078	2.4	20	
Benzene	1017	100	1000	0	102	73-121	1045	2.69	20	
Chlorobenzene	1033	100	1000	0	103	80-120	1058	2.38	20	
Ethylbenzene	959.7	100	1000	0	96	80-120	1022	6.28	20	
Methylene chloride	1107	200	1000	0	111	65-133	1030	7.17	20	
Toluene	1017	100	1000	0	102	80-120	1052	3.43	20	
Xylenes, Total	2933	300	3000	0	97.8	80-120	3077	4.8	20	
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>872.6</i>	<i>100</i>	<i>1000</i>	<i>0</i>	<i>87.3</i>	<i>70-125</i>	<i>879.4</i>	<i>0.784</i>	<i>20</i>	
<i>Surr: 4-Bromofluorobenzene</i>	<i>983.8</i>	<i>100</i>	<i>1000</i>	<i>0</i>	<i>98.4</i>	<i>72-125</i>	<i>1007</i>	<i>2.3</i>	<i>20</i>	
<i>Surr: Dibromofluoromethane</i>	<i>930.9</i>	<i>100</i>	<i>1000</i>	<i>0</i>	<i>93.1</i>	<i>71-125</i>	<i>939</i>	<i>0.868</i>	<i>20</i>	
<i>Surr: Toluene-d8</i>	<i>979.9</i>	<i>100</i>	<i>1000</i>	<i>0</i>	<i>98</i>	<i>75-125</i>	<i>995.3</i>	<i>1.56</i>	<i>20</i>	

The following samples were analyzed in this batch:

1107486-09A	1107486-10A	1107486-11A
1107486-14A	1107486-15A	1107486-16A
1107486-17A		

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Pastor, Behling & Wheeler, LLC
Work Order: 1107486
Project: UPRR Houston Wood GW

QC BATCH REPORT

Batch ID: **R113431** Instrument ID **VOA7** Method: **SW8260**

MBLK		Sample ID: VBLKW-072111-R113431			Units: µg/L			Analysis Date: 7/21/2011 01:47 PM		
Client ID:		Run ID: VOA7_110721B			SeqNo: 2468486		Prep Date:		DF: 1	
Analyte	Result	ML	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Dichloroethane	U	5.0								
Benzene	U	5.0								
Chlorobenzene	U	5.0								
Ethylbenzene	U	5.0								
Methylene chloride	U	10								
Toluene	U	5.0								
Vinyl chloride	U	2.0								
Xylenes, Total	U	15								
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>45.15</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>90.3</i>	<i>70-125</i>	<i>0</i>			
<i>Surr: 4-Bromofluorobenzene</i>	<i>49.13</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>98.3</i>	<i>72-125</i>	<i>0</i>			
<i>Surr: Dibromofluoromethane</i>	<i>47.29</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>94.6</i>	<i>71-125</i>	<i>0</i>			
<i>Surr: Toluene-d8</i>	<i>48.52</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>97</i>	<i>75-125</i>	<i>0</i>			

LCS		Sample ID: VLCSW-072111-R113431			Units: µg/L			Analysis Date: 7/21/2011 12:56 PM		
Client ID:		Run ID: VOA7_110721B			SeqNo: 2468485		Prep Date:		DF: 1	
Analyte	Result	ML	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Dichloroethane	48.4	5.0	50	0	96.8	78-120	0			
Benzene	47.79	5.0	50	0	95.6	73-121	0			
Chlorobenzene	47.64	5.0	50	0	95.3	80-120	0			
Ethylbenzene	47.55	5.0	50	0	95.1	80-120	0			
Methylene chloride	50.85	10	50	0	102	65-133	0			
Toluene	47.09	5.0	50	0	94.2	80-120	0			
Vinyl chloride	48.06	2.0	50	0	96.1	70-127	0			
Xylenes, Total	141.6	15	150	0	94.4	80-120	0			
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>45.26</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>90.5</i>	<i>70-125</i>	<i>0</i>			
<i>Surr: 4-Bromofluorobenzene</i>	<i>49.34</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>98.7</i>	<i>72-125</i>	<i>0</i>			
<i>Surr: Dibromofluoromethane</i>	<i>48.17</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>96.3</i>	<i>71-125</i>	<i>0</i>			
<i>Surr: Toluene-d8</i>	<i>49.19</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>98.4</i>	<i>75-125</i>	<i>0</i>			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Pastor, Behling & Wheeler, LLC
 Work Order: 1107486
 Project: UPRR Houston Wood GW

QC BATCH REPORT

Batch ID: R113431 Instrument ID VOA7 Method: SW8260

MS		Sample ID: 1107582-01ZMS			Units: µg/L			Analysis Date: 7/21/2011 03:29 PM		
Client ID:		Run ID: VOA7_110721B			SeqNo: 2468488		Prep Date:		DF: 20	
Analyte	Result	ML	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Dichloroethane	1086	100	1000	0	109	78-120	0			
Benzene	1050	100	1000	0	105	73-121	0			
Chlorobenzene	1035	100	1000	0	103	80-120	0			
Ethylbenzene	1012	100	1000	0	101	80-120	0			
Methylene chloride	1084	200	1000	0	108	65-133	0			
Toluene	1049	100	1000	0	105	80-120	0			
Vinyl chloride	916.5	40	1000	0	91.6	70-127	0			
Xylenes, Total	3040	300	3000	0	101	80-120	0			
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>898.8</i>	<i>100</i>	<i>1000</i>	<i>0</i>	<i>89.9</i>	<i>70-125</i>	<i>0</i>			
<i>Surr: 4-Bromofluorobenzene</i>	<i>994.9</i>	<i>100</i>	<i>1000</i>	<i>0</i>	<i>99.5</i>	<i>72-125</i>	<i>0</i>			
<i>Surr: Dibromofluoromethane</i>	<i>943.8</i>	<i>100</i>	<i>1000</i>	<i>0</i>	<i>94.4</i>	<i>71-125</i>	<i>0</i>			
<i>Surr: Toluene-d8</i>	<i>985.9</i>	<i>100</i>	<i>1000</i>	<i>0</i>	<i>98.6</i>	<i>75-125</i>	<i>0</i>			

MSD		Sample ID: 1107582-01ZMSD			Units: µg/L			Analysis Date: 7/21/2011 03:54 PM		
Client ID:		Run ID: VOA7_110721B			SeqNo: 2468489		Prep Date:		DF: 20	
Analyte	Result	ML	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Dichloroethane	1109	100	1000	0	111	78-120	1086	2.06	20	
Benzene	1058	100	1000	0	106	73-121	1050	0.758	20	
Chlorobenzene	1028	100	1000	0	103	80-120	1035	0.678	20	
Ethylbenzene	956.7	100	1000	0	95.7	80-120	1012	5.57	20	
Methylene chloride	1031	200	1000	0	103	65-133	1084	5.02	20	
Toluene	1008	100	1000	0	101	80-120	1049	3.91	20	
Vinyl chloride	876.8	40	1000	0	87.7	70-127	916.5	4.43	20	
Xylenes, Total	2962	300	3000	0	98.7	80-120	3040	2.6	20	
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>900.8</i>	<i>100</i>	<i>1000</i>	<i>0</i>	<i>90.1</i>	<i>70-125</i>	<i>898.8</i>	<i>0.215</i>	<i>20</i>	
<i>Surr: 4-Bromofluorobenzene</i>	<i>977.7</i>	<i>100</i>	<i>1000</i>	<i>0</i>	<i>97.8</i>	<i>72-125</i>	<i>994.9</i>	<i>1.75</i>	<i>20</i>	
<i>Surr: Dibromofluoromethane</i>	<i>933.8</i>	<i>100</i>	<i>1000</i>	<i>0</i>	<i>93.4</i>	<i>71-125</i>	<i>943.8</i>	<i>1.07</i>	<i>20</i>	
<i>Surr: Toluene-d8</i>	<i>974.9</i>	<i>100</i>	<i>1000</i>	<i>0</i>	<i>97.5</i>	<i>75-125</i>	<i>985.9</i>	<i>1.12</i>	<i>20</i>	

The following samples were analyzed in this batch: 1107486-05A 1107486-06A 1107486-08A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
WorkOrder: 1107486

**QUALIFIERS,
ACRONYMS, UNITS**

<u>Qualifier</u>	<u>Description</u>
*	Value exceeds Regulatory Limit
a	Not accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
J	Analyte detected below quantitation limit
M	Manually integrated, see raw data for justification
n	Not offered for accreditation
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL

<u>Acronym</u>	<u>Description</u>
DCS	Detectability Check Study
DUP	Method Duplicate
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
MBLK	Method Blank
MDL	Method Detection Limit
MQL	Method Quantitation Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PDS	Post Digestion Spike
PQL	Practical Quantitation Limit
SD	Serial Dilution
SDL	Sample Detection Limit
TRRP	Texas Risk Reduction Program

<u>Units Reported</u>	<u>Description</u>
mg/L	Milligrams per Liter



ALS Environmental
 10450 Stancliff Rd., Suite 210
 Houston, Texas 77099
 Tel. +1 281 530 5656
 Fax. +1 281 530 5887

Chain of Custody Form

Page 1 of 2

COC ID: 26873

1107486

PBW: Pastor, Behling & Wheeler, LLC

Project: HWPW Site-Wide GW



ALS Project Manager:

Customer Information		Project Information		
Purchase Order		Project Name	DTRE Houston Wood GW	A VOC (0260) Select
Work Order		Project Number	119-03	B LL SWOC (3270) Select (ATZ & BTZ)
Company Name	Pastor, Behling & Wheeler, LLC	Bill To Company	Union Pacific Railroad	C VINYL CHLORIDE
Send Report To	Eric Stanger	Invoice Attn		D
Address	3201 Double Creek Drive	Address	1490 Douglas Street	E
	Suite 1004		Stop 0750	F
City/State/Zip	Round Rock, TX 78664	City/State/Zip	Omaha, NE 681790750	G
Phone	(512) 671-2414	Phone		H
Fax	(512) 671-3416	Fax		I
e-Mail Address		e-Mail Address		J

No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	WG-1620-MWISA-20110713	7-13-11	1400	W		5	X	X									
2	WG-1620-MW15C-20110713		1445	W		5	X	X									
3	WG-1620-MW17C-20110713		1545	W		5	X	X									
4	WG-1620-MW17-20110713		1645	W		5	X	X									
5	WG-1620-MW18A-20110713		1800	W		5	X	X	X								
6	WG-1620-MW18C-20110713		1845	W		5	X	X	X								
7	WG-1620-FB01-20110713		1915	W		5	X	X									
8	WG-1620-TWS6A-20110714	7-14-11	0745	W		5	X	X	X								
9	WG-1620-MW20A-20110714		0845	W		5	X	X									
10	WG-1620-MW16-20110714		0935	W		5	X	X									

Sampler(s) Please Print & Sign <i>John Brayton</i>		Shipment Method AAR & DELIVERED		Required Turnaround Time: (Check Box) <input checked="" type="checkbox"/> 1 Std. 48 HR Days <input type="checkbox"/> 1 WK Days <input type="checkbox"/> Other _____				Results Due Date:			
Relinquished by: <i>John Bray</i>	Date: 7-15-11	Time: 0934	Received by: <i>[Signature]</i>	Notes: 10 Day TAT							
Relinquished by:	Date:	Time:	Received by (Laboratory):	Cooler ID	Cooler Temp.	QC Package: (Check One Box Below)					
Logged by (Laboratory):	Date:	Time:	Checked by (Laboratory):			<input type="checkbox"/> Level 1 S & QC	<input type="checkbox"/> TRRP Check-out				
Preservative Key: 1-HCl 2-HNO ₃ 3-H ₂ SO ₄ 4-NaOH 5-Na ₂ S ₂ O ₃ 6-NaHSO ₄ 7-Other 8-4°C 9-5035				<input type="checkbox"/> Level 2 S & QC/RAW USE	<input type="checkbox"/> TRRP Level 1						
				<input type="checkbox"/> Level 3 S & QC/CLP	<input type="checkbox"/> TRRP Level 2						
				<input type="checkbox"/> Other: EDC							

Note: 1. Any changes must be made in writing once samples and COC Form have been submitted to ALS Environmental.
 2. Unless otherwise agreed in a formal contract, services provided by ALS Environmental are expressly limited to the terms and conditions stated on the reverse.
 3. The Chain of Custody is a legal document. All information must be completed accurately.

Sample Receipt Checklist

Client Name: **PBW**

Date/Time Received: **15-Jul-11 07:34**

Work Order: **1107486**

Received by: **LOT**

Checklist completed by Rishel D. Naran 15-Jul-11
eSignature Date

Reviewed by: Hector Coronado 19-Jul-11
eSignature Date

Matrices: water
Carrier name: Client

- Shipping container/cooler in good condition? Yes No Not Present
- Custody seals intact on shipping container/cooler? Yes No Not Present
- Custody seals intact on sample bottles? Yes No Not Present
- Chain of custody present? Yes No
- Chain of custody signed when relinquished and received? Yes No
- Chain of custody agrees with sample labels? Yes No
- Samples in proper container/bottle? Yes No
- Sample containers intact? Yes No
- Sufficient sample volume for indicated test? Yes No
- All samples received within holding time? Yes No
- Container/Temp Blank temperature in compliance? Yes No

Temperature(s)/Thermometer(s): 2.7,1.9,2.2,1.4 002

Cooler(s)/Kit(s): 3960,3466,3575,3498

Water - VOA vials have zero headspace? Yes No No VOA vials submitted

Water - pH acceptable upon receipt? Yes No N/A

pH adjusted? Yes No N/A

pH adjusted by: _____

Login Notes:

Client Contacted: Date Contacted: Person Contacted:

Contacted By: Regarding:

Comments: _____

CorrectiveAction: _____



27-Jul-2011

Eric Matzner
Pastor, Behling & Wheeler, LLC
2201 Double Creek Drive
Suite 4004
Round Rock, TX 78664

Tel: (512) 671-3434
Fax: (512) 671-3446

Re: HWPW Site-Wide GW

Work Order: **1107622**

Dear Eric,

ALS Environmental received 20 samples on 20-Jul-2011 07:30 AM for the analyses presented in the following report.

The analytical data provided relates directly to the samples received by ALS Environmental and for only the analyses requested. Results are expressed as "as received" unless otherwise noted.

QC sample results for this data met EPA or laboratory specifications except as noted in the Case Narrative or as noted with qualifiers in the QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained by ALS Environmental. Samples will be disposed in 30 days unless storage arrangements are made.

The total number of pages in this report is 70.

If you have any questions regarding this report, please feel free to call me.

Sincerely,

A handwritten signature in black ink that reads "Patricia L. Lynch".

Electronically approved by: Makenzie L. Henderson

Patricia L. Lynch
Project Manager



Certificate No: T104704231-09A-TX

ADDRESS 10450 Stancliff Rd, Suite 210 Houston, Texas 77099-4338 | PHONE (281) 530-5656 | FAX (281) 530-5887

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Environmental ALS Environmental logo icon consisting of a stylized green and blue shape.

www.alsglobal.com

RIGHT SOLUTIONS RIGHT PARTNER

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Work Order: 1107622

**TRRP Laboratory Data
Package Cover Page**

This data package consists of all or some of the following as applicable:

This signature page, the laboratory review checklist, and the following reportable data:

- R1 Field chain-of-custody documentation;
- R2 Sample identification cross-reference;
- R3 Test reports (analytical data sheets) for each environmental sample that includes:
 - a) Items consistent with NELAC Chapter 5,
 - b) dilution factors,
 - c) preparation methods,
 - d) cleanup methods, and
 - e) if required for the project, tentatively identified compounds (TICs).
- R4 Surrogate recovery data including:
 - a) Calculated recovery (%R), and
 - b) The laboratory's surrogate QC limits.
- R5 Test reports/summary forms for blank samples;
- R6 Test reports/summary forms for laboratory control samples (LCSs) including:
 - a) LCS spiking amounts,
 - b) Calculated %R for each analyte, and
 - c) The laboratory's LCS QC limits.
- R7 Test reports for project matrix spike/matrix spike duplicates (MS/MSDs) including:
 - a) Samples associated with the MS/MSD clearly identified,
 - b) MS/MSD spiking amounts,
 - c) Concentration of each MS/MSD analyte measured in the parent and spiked samples,
 - d) Calculated %Rs and relative percent differences (RPDs), and
 - e) The laboratory's MS/MSD QC limits.
- R8 Laboratory analytical duplicate (if applicable) recovery and precision:
 - a) the amount of analyte measured in the duplicate,
 - b) the calculated RPD, and
 - c) the laboratory's QC limits for analytical duplicates.
- R9 List of method quantitation limits (MQLs) and detectability check sample results for each analyte for each method and matrix.
- R10 Other problems or anomalies.
The Exception Report for each "No" or "Not Reviewed (NR)" item in Laboratory Review Checklist and for each analyte, matrix, and method for which the laboratory does not hold NELAC accreditation under the Texas Laboratory Accreditation Program.

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Work Order: 1107622

**TRRP Laboratory Data
Package Cover Page**

Release Statement: I am responsible for the release of this laboratory data package. This laboratory is NELAC accredited under the Texas Laboratory Accreditation Program for all the methods, analytes and matrices reported in this data package except as noted in the Exception Reports. The data have been reviewed and are technically compliant with the requirements of the methods used, except where noted by the laboratory in the attached exception reports. By my signature below, I affirm to the best of my knowledge, all problems/anomalies, observed by the laboratory have been identified by the laboratory in the Laboratory Review Checklist, and no information affecting the quality of the data has been knowingly withheld.

Check, if applicable: [NA] This laboratory meets an exception under 30 TAC §25.6 and was last inspected by TCEQ or _____ on (enter date of last inspection). Any findings affecting the data in this laboratory data package are noted in the Exception Reports herein. The official signing the cover page of the report in which these data are used is responsible for releasing this data package and is by signature affirming the above release statement is true.

Patricia L. Lynch

Patricia L. Lynch
Project Manager

Laboratory Review Checklist: Reportable Data

Laboratory Name: ALS Laboratory Group		LRC Date: 08/03/2011					
Project Name: HWPW Site-Wide GW		Laboratory Job Number: 1107622					
Reviewer Name: Patricia L. Lynch		Prep Batch Number(s): 54132, R113367, R113467, R113490, R113613, R113626, R113636					
# ¹	A ²	Description	Yes	No	NA ³	NR ⁴	ER# ⁵
R1	OI	Chain-of-custody (C-O-C)					
		Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?	X				
		Were all departures from standard conditions described in an exception report?	X				
R2	OI	Sample and quality control (QC) identification					
		Are all field sample ID numbers cross-referenced to the laboratory ID numbers?	X				
		Are all laboratory ID numbers cross-referenced to the corresponding QC data?	X				
R3	OI	Test reports					
		Were all samples prepared and analyzed within holding times?	X				
		Other than those results < MQL, were all other raw values bracketed by calibration standards?	X				
		Were calculations checked by a peer or supervisor?	X				
		Were all analyte identifications checked by a peer or supervisor?	X				
		Were sample detection limits reported for all analytes not detected?	X				
		Were all results for soil and sediment samples reported on a dry weight basis?			X		
		Were % moisture (or solids) reported for all soil and sediment samples?			X		
		Were bulk soils/solids samples for volatile analysis extracted with methanol per SW-846 Method 5035?			X		
		If required for the project, TICs reported?			X		
R4	O	Surrogate recovery data					
		Were surrogates added prior to extraction?	X				
		Were surrogate percent recoveries in all samples within the laboratory QC limits?		X			1
R5	OI	Test reports/summary forms for blank samples					
		Were appropriate type(s) of blanks analyzed?	X				
		Were blanks analyzed at the appropriate frequency?	X				
		Were method blanks taken through the entire analytical process, including preparation and, if applicable, cleanup procedures?	X				
		Were blank concentrations < MQL?	X				
R6	OI	Laboratory control samples (LCS):					
		Were all COCs included in the LCS?	X				
		Was each LCS taken through the entire analytical procedure, including prep and cleanup steps?	X				
		Were LCSs analyzed at the required frequency?	X				
		Were LCS (and LCSD, if applicable) %Rs within the laboratory QC limits?	X				
		Does the detectability data document the laboratory's capability to detect the COCs at the MDL used to calculate the SDLs?	X				
		Was the LCSD RPD within QC limits?			X		
R7	OI	Matrix spike (MS) and matrix spike duplicate (MSD) data					
		Were the project/method specified analytes included in the MS and MSD?	X				
		Were MS/MSD analyzed at the appropriate frequency?	X				
		Were MS (and MSD, if applicable) %Rs within the laboratory QC limits?		X			2
		Were MS/MSD RPDs within laboratory QC limits?	X				
R8	OI	Analytical duplicate data					
		Were appropriate analytical duplicates analyzed for each matrix?			X		
		Were analytical duplicates analyzed at the appropriate frequency?			X		
		Were RPDs or relative standard deviations within the laboratory QC limits?			X		
R9	OI	Method quantitation limits (MQLs):					
		Are the MQLs for each method analyte included in the laboratory data package?	X				
		Do the MQLs correspond to the concentration of the lowest non-zero calibration standard?	X				
		Are unadjusted MQLs and DCSs included in the laboratory data package?	X				
R10	OI	Other problems/anomalies					
		Are all known problems/anomalies/special conditions noted in this LRC and ER?	X				
		Were all necessary corrective actions performed for the reported data?	X				
		Was applicable and available technology used to lower the SDL and minimize the matrix interference affects on the sample results?	X				
		Is the laboratory NELAC-accredited under the Texas Laboratory Program for the analytes, matrices and methods associated with this laboratory data package?	X				

Laboratory Review Checklist: Reportable Data

Laboratory Name: ALS Laboratory Group		LRC Date: 08/03/2011					
Project Name: HWPW Site-Wide GW		Laboratory Job Number: 1107622					
Reviewer Name: Patricia L. Lynch		Prep Batch Number(s): 54132, R113367, R113467, R113490, R113613, R113626, R113636					
# ¹	A ²	Description	Yes	No	NA ³	NR ⁴	ER# ⁵
S1	OI	Initial calibration (ICAL)					
		Were response factors and/or relative response factors for each analyte within QC limits?	X				
		Were percent RSDs or correlation coefficient criteria met?	X				
		Was the number of standards recommended in the method used for all analytes?	X				
		Were all points generated between the lowest and highest standard used to calculate the curve?	X				
		Are ICAL data available for all instruments used?	X				
		Has the initial calibration curve been verified using an appropriate second source standard?	X				
S2	OI	Initial and continuing calibration verification (ICCV and CCV) and continuing calibration blank (CCB)					
		Was the CCV analyzed at the method-required frequency?	X				
		Were percent differences for each analyte within the method-required QC limits?	X				
		Was the ICAL curve verified for each analyte?	X				
		Was the absolute value of the analyte concentration in the inorganic CCB < MDL?			X		
S3	O	Mass spectral tuning:					
		Was the appropriate compound for the method used for tuning?	X				
		Were ion abundance data within the method-required QC limits?	X				
S4	O	Internal standards (IS):					
		Were IS area counts and retention times within the method-required QC limits?	X				
S5	OI	Raw data (NELAC section 1 appendix A glossary, and section 5.12 or ISO/IEC 17025 section					
		Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?	X				
		Were data associated with manual integrations flagged on the raw data?	X				
S6	O	Dual column confirmation					
		Did dual column confirmation results meet the method-required QC?			X		
S7	O	Tentatively identified compounds (TICs):					
		If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?			X		
S8	I	Interference Check Sample (ICS) results:					
		Were percent recoveries within method QC limits?			X		
S9	I	Serial dilutions, post digestion spikes, and method of standard additions					
		Were percent differences, recoveries, and the linearity within the QC limits specified in the method?			X		
S10	OI	Method detection limit (MDL) studies					
		Was a MDL study performed for each reported analyte?	X				
		Is the MDL either adjusted or supported by the analysis of DCSs?	X				
S11	OI	Proficiency test reports:					
		Was the laboratory's performance acceptable on the applicable proficiency tests or evaluation studies?	X				
S12	OI	Standards documentation					
		Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?	X				
S13	OI	Compound/analyte identification procedures					
		Are the procedures for compound/analyte identification documented?	X				
S14	OI	Demonstration of analyst competency (DOC)					
		Was DOC conducted consistent with NELAC Chapter 5C or ISO/IEC 4?	X				
		Is documentation of the analyst's competency up-to-date and on file?	X				
S15	OI	Verification/validation documentation for methods (NELAC Chap 5 or ISO/IEC 17025 Section 5)					
		Are all the methods used to generate the data documented, verified, and validated, where applicable?	X				
S16	OI	Laboratory standard operating procedures (SOPs):					
		Are laboratory SOPs current and on file for each method performed?	X				

Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.

O = Organic Analyses; I = Inorganic Analyses (and general chemistry, when applicable);

NA = Not Applicable;

NR = Not Reviewed;

R# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

Laboratory Review Checklist: Reportable Data

Laboratory Name: ALS Laboratory Group	LRC Date: 08/03/2011
Project Name: HWPW Site-Wide GW	Laboratory Job Number: 1107622
Reviewer Name: Patricia L. Lynch	Prep Batch Number(s): 54132, R113367, R113467, R113490, R113613, R113626, R113636

ER#⁵	Description
1	Samples WG-1620-MW33B-20110719 and WG-1620-MW32A-20110719 were analyzed at multiple dilutions, and surrogate recoveries were diluted out in the higher dilutions. Surrogate recoveries were in control in the lower dilutions.
2	Batch 54132, Low-Level Semivolatile Organics, Sample WG-1620-MW28C-20110719 : MS/MSD recoveries were below the control limits for multiple analytes. The associated LCS recoveries and MS/MSD RPD's were within the control limits. Batch R113490, Volatile Organics, Sample 1107608-03 : MS/MSD is for an unrelated sample.

Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.
 O = Organic Analyses; I = Inorganic Analyses (and general chemistry, when applicable);
 NA = Not Applicable;
 NR = Not Reviewed;
 R# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

Client: Pastor, Behling & Wheeler, LLC
 Project: HWPW Site-Wide GW
 Work Order: 1107622

Work Order Sample Summary

<u>Lab Samp ID</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Tag Number</u>	<u>Collection Date</u>	<u>Date Received</u>	<u>Hold</u>
1107622-01	WG-1620-MW36B-20110719	Water		7/19/2011 08:30	7/20/2011 07:30	<input type="checkbox"/>
1107622-02	WG-1620-MW36A-20110719	Water		7/19/2011 09:20	7/20/2011 07:30	<input type="checkbox"/>
1107622-03	WG-1620-MW28A-20110719	Water		7/19/2011 10:15	7/20/2011 07:30	<input type="checkbox"/>
1107622-04	WG-1620-MW28C-20110719	Water		7/19/2011 11:30	7/20/2011 07:30	<input type="checkbox"/>
1107622-05	WG-1620-MW63B-20110719	Water		7/19/2011 12:30	7/20/2011 07:30	<input type="checkbox"/>
1107622-06	WG-1620-DUP3-20110719	Water		7/19/2011 12:30	7/20/2011 07:30	<input type="checkbox"/>
1107622-07	WG-1620-MW33A-20110719	Water		7/19/2011 13:40	7/20/2011 07:30	<input type="checkbox"/>
1107622-08	WG-1620-DUP4-20110719	Water		7/19/2011 13:40	7/20/2011 07:30	<input type="checkbox"/>
1107622-09	WG-1620-MW33B-20110719	Water		7/19/2011 14:30	7/20/2011 07:30	<input type="checkbox"/>
1107622-10	WG-1620-MW26A-20110719	Water		7/19/2011 15:30	7/20/2011 07:30	<input type="checkbox"/>
1107622-11	WG-1620-MW32A-20110719	Water		7/19/2011 16:30	7/20/2011 07:30	<input type="checkbox"/>
1107622-12	WG-1620-MW38A-20110719	Water		7/19/2011 17:40	7/20/2011 07:30	<input type="checkbox"/>
1107622-13	WG-1620-FB04-20110719	Water		7/19/2011 18:00	7/20/2011 07:30	<input type="checkbox"/>
1107622-14	WG-1620-MW38B-20110718	Water		7/18/2011 11:20	7/20/2011 07:30	<input type="checkbox"/>
1107622-15	WG-1620-MW48C-20110718	Water		7/18/2011 13:40	7/20/2011 07:30	<input type="checkbox"/>
1107622-16	WG-1620-MW60A-20110718	Water		7/18/2011 14:45	7/20/2011 07:30	<input type="checkbox"/>
1107622-17	WG-1620-MW59A-20110718	Water		7/18/2011 15:40	7/20/2011 07:30	<input type="checkbox"/>
1107622-18	WG-1620-MW59B-20110718	Water		7/18/2011 16:30	7/20/2011 07:30	<input type="checkbox"/>
1107622-19	WG-1620-FB03-20110718	Water		7/18/2011 17:00	7/20/2011 07:30	<input type="checkbox"/>
1107622-20	WG-1620-TB-20110719	Water		7/19/2011	7/20/2011 07:30	<input type="checkbox"/>

ALS Environmental

Date: 05-Aug-11

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-MW36B-20110719
Collection Date: 7/19/2011 08:30 AM

Work Order: 1107622
Lab ID: 1107622-01
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270		Prep: SW3510 / 7/21/11		Analyst: LG
1,2-Diphenylhydrazine	U		0.000050	0.00020	mg/L	1	7/21/2011 23:51
2,4-Dimethylphenol	U		0.000050	0.00020	mg/L	1	7/21/2011 23:51
2,4-Dinitrotoluene	U		0.000050	0.00020	mg/L	1	7/21/2011 23:51
2,6-Dinitrotoluene	U		0.000060	0.00020	mg/L	1	7/21/2011 23:51
2-Chloronaphthalene	U		0.000050	0.00020	mg/L	1	7/21/2011 23:51
2-Methylnaphthalene	U		0.000050	0.00020	mg/L	1	7/21/2011 23:51
4,6-Dinitro-2-methylphenol	U		0.000080	0.00020	mg/L	1	7/21/2011 23:51
4-Nitrophenol	U		0.000050	0.0010	mg/L	1	7/21/2011 23:51
Acenaphthene	0.00014	J	0.000050	0.00020	mg/L	1	7/21/2011 23:51
Acenaphthylene	U		0.000050	0.00020	mg/L	1	7/21/2011 23:51
Anthracene	U		0.000050	0.00020	mg/L	1	7/21/2011 23:51
Benz(a)anthracene	U		0.000050	0.00020	mg/L	1	7/21/2011 23:51
Benzo(a)pyrene	U		0.000050	0.00020	mg/L	1	7/21/2011 23:51
Bis(2-chloroethoxy)methane	U		0.000050	0.00020	mg/L	1	7/21/2011 23:51
Bis(2-ethylhexyl)phthalate	0.00068		0.00010	0.00020	mg/L	1	7/21/2011 23:51
Chrysene	U		0.000050	0.00020	mg/L	1	7/21/2011 23:51
Dibenzofuran	U		0.000050	0.00020	mg/L	1	7/21/2011 23:51
Di-n-butyl phthalate	U		0.000050	0.00020	mg/L	1	7/21/2011 23:51
Fluoranthene	U		0.000050	0.00020	mg/L	1	7/21/2011 23:51
Fluorene	U		0.000050	0.00020	mg/L	1	7/21/2011 23:51
Naphthalene	U		0.000050	0.00020	mg/L	1	7/21/2011 23:51
Nitrobenzene	U		0.000050	0.00020	mg/L	1	7/21/2011 23:51
N-Nitrosodiphenylamine	U		0.000050	0.00020	mg/L	1	7/21/2011 23:51
Pentachlorophenol	U		0.000050	0.00020	mg/L	1	7/21/2011 23:51
Phenanthrene	U		0.000050	0.00020	mg/L	1	7/21/2011 23:51
Phenol	U		0.000050	0.00020	mg/L	1	7/21/2011 23:51
Pyrene	U		0.000050	0.00020	mg/L	1	7/21/2011 23:51
Surr: 2,4,6-Tribromophenol	75.3			34-129	%REC	1	7/21/2011 23:51
Surr: 2-Fluorobiphenyl	42.3			40-125	%REC	1	7/21/2011 23:51
Surr: 2-Fluorophenol	28.8			20-120	%REC	1	7/21/2011 23:51
Surr: 4-Terphenyl-d14	77.0			40-135	%REC	1	7/21/2011 23:51
Surr: Nitrobenzene-d5	43.0			41-120	%REC	1	7/21/2011 23:51
Surr: Phenol-d6	34.9			20-120	%REC	1	7/21/2011 23:51

VOLATILES			Method: SW8260				Analyst: PC
1,2-Dichloroethane	U		0.0010	0.0050	mg/L	1	7/23/2011 23:44
Benzene	0.0014	J	0.0010	0.0050	mg/L	1	7/23/2011 23:44
Chlorobenzene	U		0.0010	0.0050	mg/L	1	7/23/2011 23:44
Ethylbenzene	U		0.0011	0.0050	mg/L	1	7/23/2011 23:44

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 05-Aug-11

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-MW36B-20110719
Collection Date: 7/19/2011 08:30 AM

Work Order: 1107622
Lab ID: 1107622-01
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
Methylene chloride	U		0.0013	0.010	mg/L	1	7/23/2011 23:44
Toluene	U		0.0010	0.0050	mg/L	1	7/23/2011 23:44
Vinyl chloride	U		0.0010	0.0020	mg/L	1	7/23/2011 23:44
Xylenes, Total	U		0.0031	0.015	mg/L	1	7/23/2011 23:44
Surr: 1,2-Dichloroethane-d4	90.6			70-125	%REC	1	7/23/2011 23:44
Surr: 4-Bromofluorobenzene	102			72-125	%REC	1	7/23/2011 23:44
Surr: Dibromofluoromethane	99.4			71-125	%REC	1	7/23/2011 23:44
Surr: Toluene-d8	96.2			75-125	%REC	1	7/23/2011 23:44

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 05-Aug-11

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-MW36A-20110719
Collection Date: 7/19/2011 09:20 AM

Work Order: 1107622
Lab ID: 1107622-02
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270	Prep: SW3510 / 7/21/11		Analyst: LG	
1,2-Diphenylhydrazine	U		0.000050	0.00020	mg/L	1	7/22/2011 00:11
2,4-Dimethylphenol	U		0.000050	0.00020	mg/L	1	7/22/2011 00:11
2,4-Dinitrotoluene	U		0.000050	0.00020	mg/L	1	7/22/2011 00:11
2,6-Dinitrotoluene	U		0.000060	0.00020	mg/L	1	7/22/2011 00:11
2-Chloronaphthalene	U		0.000050	0.00020	mg/L	1	7/22/2011 00:11
2-Methylnaphthalene	U		0.000050	0.00020	mg/L	1	7/22/2011 00:11
4,6-Dinitro-2-methylphenol	U		0.000080	0.00020	mg/L	1	7/22/2011 00:11
4-Nitrophenol	U		0.000050	0.0010	mg/L	1	7/22/2011 00:11
Acenaphthene	U		0.000050	0.00020	mg/L	1	7/22/2011 00:11
Acenaphthylene	U		0.000050	0.00020	mg/L	1	7/22/2011 00:11
Anthracene	U		0.000050	0.00020	mg/L	1	7/22/2011 00:11
Benz(a)anthracene	U		0.000050	0.00020	mg/L	1	7/22/2011 00:11
Benzo(a)pyrene	U		0.000050	0.00020	mg/L	1	7/22/2011 00:11
Bis(2-chloroethoxy)methane	U		0.000050	0.00020	mg/L	1	7/22/2011 00:11
Bis(2-ethylhexyl)phthalate	0.00040		0.00010	0.00020	mg/L	1	7/22/2011 00:11
Chrysene	U		0.000050	0.00020	mg/L	1	7/22/2011 00:11
Dibenzofuran	U		0.000050	0.00020	mg/L	1	7/22/2011 00:11
Di-n-butyl phthalate	U		0.000050	0.00020	mg/L	1	7/22/2011 00:11
Fluoranthene	U		0.000050	0.00020	mg/L	1	7/22/2011 00:11
Fluorene	U		0.000050	0.00020	mg/L	1	7/22/2011 00:11
Naphthalene	U		0.000050	0.00020	mg/L	1	7/22/2011 00:11
Nitrobenzene	U		0.000050	0.00020	mg/L	1	7/22/2011 00:11
N-Nitrosodiphenylamine	U		0.000050	0.00020	mg/L	1	7/22/2011 00:11
Pentachlorophenol	U		0.000050	0.00020	mg/L	1	7/22/2011 00:11
Phenanthrene	U		0.000050	0.00020	mg/L	1	7/22/2011 00:11
Phenol	U		0.000050	0.00020	mg/L	1	7/22/2011 00:11
Pyrene	U		0.000050	0.00020	mg/L	1	7/22/2011 00:11
Surr: 2,4,6-Tribromophenol	66.6			34-129	%REC	1	7/22/2011 00:11
Surr: 2-Fluorobiphenyl	47.8			40-125	%REC	1	7/22/2011 00:11
Surr: 2-Fluorophenol	29.9			20-120	%REC	1	7/22/2011 00:11
Surr: 4-Terphenyl-d14	75.1			40-135	%REC	1	7/22/2011 00:11
Surr: Nitrobenzene-d5	47.7			41-120	%REC	1	7/22/2011 00:11
Surr: Phenol-d6	36.6			20-120	%REC	1	7/22/2011 00:11
VOLATILES			Method: SW8260			Analyst: PC	
1,2-Dichloroethane	U		0.0010	0.0050	mg/L	1	7/24/2011 20:50
Benzene	U		0.0010	0.0050	mg/L	1	7/24/2011 20:50
Chlorobenzene	U		0.0010	0.0050	mg/L	1	7/24/2011 20:50
Ethylbenzene	U		0.0011	0.0050	mg/L	1	7/24/2011 20:50

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 05-Aug-11

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-MW36A-20110719
Collection Date: 7/19/2011 09:20 AM

Work Order: 1107622
Lab ID: 1107622-02
Matrix: WATER

Analyses	Result	Qual	SDL	ML	Units	Dilution Factor	Date Analyzed
Methylene chloride	U		0.0013	0.010	mg/L	1	7/24/2011 20:50
Toluene	U		0.0010	0.0050	mg/L	1	7/24/2011 20:50
Vinyl chloride	U		0.0010	0.0020	mg/L	1	7/24/2011 20:50
Xylenes, Total	U		0.0031	0.015	mg/L	1	7/24/2011 20:50
Surr: 1,2-Dichloroethane-d4	86.0			70-125	%REC	1	7/24/2011 20:50
Surr: 4-Bromofluorobenzene	101			72-125	%REC	1	7/24/2011 20:50
Surr: Dibromofluoromethane	92.3			71-125	%REC	1	7/24/2011 20:50
Surr: Toluene-d8	97.9			75-125	%REC	1	7/24/2011 20:50

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 05-Aug-11

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-MW28A-20110719
Collection Date: 7/19/2011 10:15 AM

Work Order: 1107622
Lab ID: 1107622-03
Matrix: WATER

Analyses	Result	Qual	SDL	ML	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270	Prep: SW3510 / 7/21/11	Analyst: LG		
1,2-Diphenylhydrazine	U		0.000050	0.00020	mg/L	1	7/22/2011 00:31
2,4-Dimethylphenol	U		0.000050	0.00020	mg/L	1	7/22/2011 00:31
2,4-Dinitrotoluene	U		0.000050	0.00020	mg/L	1	7/22/2011 00:31
2,6-Dinitrotoluene	U		0.000060	0.00020	mg/L	1	7/22/2011 00:31
2-Chloronaphthalene	U		0.000050	0.00020	mg/L	1	7/22/2011 00:31
2-Methylnaphthalene	U		0.000050	0.00020	mg/L	1	7/22/2011 00:31
4,6-Dinitro-2-methylphenol	U		0.000080	0.00020	mg/L	1	7/22/2011 00:31
4-Nitrophenol	U		0.000050	0.0010	mg/L	1	7/22/2011 00:31
Acenaphthene	U		0.000050	0.00020	mg/L	1	7/22/2011 00:31
Acenaphthylene	U		0.000050	0.00020	mg/L	1	7/22/2011 00:31
Anthracene	U		0.000050	0.00020	mg/L	1	7/22/2011 00:31
Benz(a)anthracene	U		0.000050	0.00020	mg/L	1	7/22/2011 00:31
Benzo(a)pyrene	U		0.000050	0.00020	mg/L	1	7/22/2011 00:31
Bis(2-chloroethoxy)methane	U		0.000050	0.00020	mg/L	1	7/22/2011 00:31
Bis(2-ethylhexyl)phthalate	0.00032		0.00010	0.00020	mg/L	1	7/22/2011 00:31
Chrysene	U		0.000050	0.00020	mg/L	1	7/22/2011 00:31
Dibenzofuran	U		0.000050	0.00020	mg/L	1	7/22/2011 00:31
Di-n-butyl phthalate	U		0.000050	0.00020	mg/L	1	7/22/2011 00:31
Fluoranthene	U		0.000050	0.00020	mg/L	1	7/22/2011 00:31
Fluorene	U		0.000050	0.00020	mg/L	1	7/22/2011 00:31
Naphthalene	U		0.000050	0.00020	mg/L	1	7/22/2011 00:31
Nitrobenzene	U		0.000050	0.00020	mg/L	1	7/22/2011 00:31
N-Nitrosodiphenylamine	U		0.000050	0.00020	mg/L	1	7/22/2011 00:31
Pentachlorophenol	U		0.000050	0.00020	mg/L	1	7/22/2011 00:31
Phenanthrene	U		0.000050	0.00020	mg/L	1	7/22/2011 00:31
Phenol	U		0.000050	0.00020	mg/L	1	7/22/2011 00:31
Pyrene	U		0.000050	0.00020	mg/L	1	7/22/2011 00:31
Surr: 2,4,6-Tribromophenol	66.1			34-129	%REC	1	7/22/2011 00:31
Surr: 2-Fluorobiphenyl	53.0			40-125	%REC	1	7/22/2011 00:31
Surr: 2-Fluorophenol	28.2			20-120	%REC	1	7/22/2011 00:31
Surr: 4-Terphenyl-d14	65.2			40-135	%REC	1	7/22/2011 00:31
Surr: Nitrobenzene-d5	51.6			41-120	%REC	1	7/22/2011 00:31
Surr: Phenol-d6	41.1			20-120	%REC	1	7/22/2011 00:31
VOLATILES			Method: SW8260	Analyst: PC			
1,2-Dichloroethane	U		0.0010	0.0050	mg/L	1	7/24/2011 21:16
Benzene	U		0.0010	0.0050	mg/L	1	7/24/2011 21:16
Chlorobenzene	U		0.0010	0.0050	mg/L	1	7/24/2011 21:16
Ethylbenzene	U		0.0011	0.0050	mg/L	1	7/24/2011 21:16

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 05-Aug-11

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-MW28A-20110719
Collection Date: 7/19/2011 10:15 AM

Work Order: 1107622
Lab ID: 1107622-03
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
Methylene chloride	U		0.0013	0.010	mg/L	1	7/24/2011 21:16
Toluene	U		0.0010	0.0050	mg/L	1	7/24/2011 21:16
Xylenes, Total	U		0.0031	0.015	mg/L	1	7/24/2011 21:16
Surr: 1,2-Dichloroethane-d4	88.2			70-125	%REC	1	7/24/2011 21:16
Surr: 4-Bromofluorobenzene	99.9			72-125	%REC	1	7/24/2011 21:16
Surr: Dibromofluoromethane	94.6			71-125	%REC	1	7/24/2011 21:16
Surr: Toluene-d8	96.3			75-125	%REC	1	7/24/2011 21:16

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 05-Aug-11

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-MW28C-20110719
Collection Date: 7/19/2011 11:30 AM

Work Order: 1107622
Lab ID: 1107622-04
Matrix: WATER

Analyses	Result	Qual	SDL	ML	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270	Prep: SW3510 / 7/21/11	Analyst: LG		
1,2-Diphenylhydrazine	U		0.000050	0.00020	mg/L	1	7/21/2011 23:34
2,4-Dimethylphenol	U		0.000050	0.00020	mg/L	1	7/21/2011 23:34
2,4-Dinitrotoluene	U		0.000050	0.00020	mg/L	1	7/21/2011 23:34
2,6-Dinitrotoluene	U		0.000060	0.00020	mg/L	1	7/21/2011 23:34
2-Chloronaphthalene	U		0.000050	0.00020	mg/L	1	7/21/2011 23:34
2-Methylnaphthalene	U		0.000050	0.00020	mg/L	1	7/21/2011 23:34
4,6-Dinitro-2-methylphenol	U		0.000080	0.00020	mg/L	1	7/21/2011 23:34
4-Nitrophenol	U		0.000050	0.0010	mg/L	1	7/21/2011 23:34
Acenaphthene	U		0.000050	0.00020	mg/L	1	7/21/2011 23:34
Acenaphthylene	U		0.000050	0.00020	mg/L	1	7/21/2011 23:34
Anthracene	U		0.000050	0.00020	mg/L	1	7/21/2011 23:34
Benz(a)anthracene	U		0.000050	0.00020	mg/L	1	7/21/2011 23:34
Benzo(a)pyrene	U		0.000050	0.00020	mg/L	1	7/21/2011 23:34
Bis(2-chloroethoxy)methane	U		0.000050	0.00020	mg/L	1	7/21/2011 23:34
Bis(2-ethylhexyl)phthalate	0.00053		0.00010	0.00020	mg/L	1	7/21/2011 23:34
Chrysene	U		0.000050	0.00020	mg/L	1	7/21/2011 23:34
Dibenzofuran	0.00019	J	0.000050	0.00020	mg/L	1	7/21/2011 23:34
Di-n-butyl phthalate	U		0.000050	0.00020	mg/L	1	7/21/2011 23:34
Fluoranthene	U		0.000050	0.00020	mg/L	1	7/21/2011 23:34
Fluorene	U		0.000050	0.00020	mg/L	1	7/21/2011 23:34
Naphthalene	0.000091	J	0.000050	0.00020	mg/L	1	7/21/2011 23:34
Nitrobenzene	U		0.000050	0.00020	mg/L	1	7/21/2011 23:34
N-Nitrosodiphenylamine	U		0.000050	0.00020	mg/L	1	7/21/2011 23:34
Pentachlorophenol	U		0.000050	0.00020	mg/L	1	7/21/2011 23:34
Phenanthrene	U		0.000050	0.00020	mg/L	1	7/21/2011 23:34
Phenol	0.00054		0.000050	0.00020	mg/L	1	7/21/2011 23:34
Pyrene	U		0.000050	0.00020	mg/L	1	7/21/2011 23:34
Surr: 2,4,6-Tribromophenol	80.6			34-129	%REC	1	7/21/2011 23:34
Surr: 2-Fluorobiphenyl	40.2			40-125	%REC	1	7/21/2011 23:34
Surr: 2-Fluorophenol	31.2			20-120	%REC	1	7/21/2011 23:34
Surr: 4-Terphenyl-d14	70.1			40-135	%REC	1	7/21/2011 23:34
Surr: Nitrobenzene-d5	41.9			41-120	%REC	1	7/21/2011 23:34
Surr: Phenol-d6	37.1			20-120	%REC	1	7/21/2011 23:34
VOLATILES			Method: SW8260	Analyst: PC			
1,2-Dichloroethane	U		0.0010	0.0050	mg/L	1	7/26/2011 14:17
Benzene	U		0.0010	0.0050	mg/L	1	7/26/2011 14:17
Chlorobenzene	U		0.0010	0.0050	mg/L	1	7/26/2011 14:17
Ethylbenzene	U		0.0011	0.0050	mg/L	1	7/26/2011 14:17

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 05-Aug-11

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-MW28C-20110719
Collection Date: 7/19/2011 11:30 AM

Work Order: 1107622
Lab ID: 1107622-04
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
Methylene chloride	U		0.0013	0.010	mg/L	1	7/26/2011 14:17
Toluene	U		0.0010	0.0050	mg/L	1	7/26/2011 14:17
Xylenes, Total	U		0.0031	0.015	mg/L	1	7/26/2011 14:17
Surr: 1,2-Dichloroethane-d4	105			70-125	%REC	1	7/26/2011 14:17
Surr: 4-Bromofluorobenzene	103			72-125	%REC	1	7/26/2011 14:17
Surr: Dibromofluoromethane	105			71-125	%REC	1	7/26/2011 14:17
Surr: Toluene-d8	97.7			75-125	%REC	1	7/26/2011 14:17

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 05-Aug-11

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-MW63B-20110719
Collection Date: 7/19/2011 12:30 PM

Work Order: 1107622
Lab ID: 1107622-05
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270	Prep: SW3510 / 7/21/11	Analyst: LG		
1,2-Diphenylhydrazine		U	0.000050	0.00020	mg/L	1	7/26/2011 04:36
2,4-Dimethylphenol	0.000056	J	0.000050	0.00020	mg/L	1	7/26/2011 04:36
2,4-Dinitrotoluene		U	0.000050	0.00020	mg/L	1	7/26/2011 04:36
2,6-Dinitrotoluene		U	0.000060	0.00020	mg/L	1	7/26/2011 04:36
2-Chloronaphthalene		U	0.000050	0.00020	mg/L	1	7/26/2011 04:36
2-Methylnaphthalene	0.014		0.0012	0.0050	mg/L	25	7/24/2011 01:58
4,6-Dinitro-2-methylphenol		U	0.000080	0.00020	mg/L	1	7/26/2011 04:36
4-Nitrophenol		U	0.000050	0.0010	mg/L	1	7/26/2011 04:36
Acenaphthene	0.0053		0.000050	0.00020	mg/L	1	7/26/2011 04:36
Acenaphthylene	0.000066	J	0.000050	0.00020	mg/L	1	7/26/2011 04:36
Anthracene	0.00011	J	0.000050	0.00020	mg/L	1	7/26/2011 04:36
Benz(a)anthracene		U	0.000050	0.00020	mg/L	1	7/26/2011 04:36
Benzo(a)pyrene		U	0.000050	0.00020	mg/L	1	7/26/2011 04:36
Bis(2-chloroethoxy)methane		U	0.000050	0.00020	mg/L	1	7/26/2011 04:36
Bis(2-ethylhexyl)phthalate	0.00051		0.00010	0.00020	mg/L	1	7/26/2011 04:36
Chrysene		U	0.000050	0.00020	mg/L	1	7/26/2011 04:36
Dibenzofuran	0.0041		0.000050	0.00020	mg/L	1	7/26/2011 04:36
Di-n-butyl phthalate		U	0.000050	0.00020	mg/L	1	7/26/2011 04:36
Fluoranthene		U	0.000050	0.00020	mg/L	1	7/26/2011 04:36
Fluorene	0.0019		0.000050	0.00020	mg/L	1	7/26/2011 04:36
Naphthalene	0.36		0.0050	0.020	mg/L	100	7/26/2011 02:04
Nitrobenzene		U	0.000050	0.00020	mg/L	1	7/26/2011 04:36
N-Nitrosodiphenylamine		U	0.000050	0.00020	mg/L	1	7/26/2011 04:36
Pentachlorophenol		U	0.000050	0.00020	mg/L	1	7/26/2011 04:36
Phenanthrene	0.00075		0.000050	0.00020	mg/L	1	7/26/2011 04:36
Phenol		U	0.000050	0.00020	mg/L	1	7/26/2011 04:36
Pyrene		U	0.000050	0.00020	mg/L	1	7/26/2011 04:36
Surr: 2,4,6-Tribromophenol	91.5	J		34-129	%REC	25	7/24/2011 01:58
Surr: 2,4,6-Tribromophenol	78.8	J		34-129	%REC	100	7/26/2011 02:04
Surr: 2,4,6-Tribromophenol	82.1			34-129	%REC	1	7/26/2011 04:36
Surr: 2-Fluorobiphenyl	74.0	J		40-125	%REC	25	7/24/2011 01:58
Surr: 2-Fluorobiphenyl	72.8	J		40-125	%REC	100	7/26/2011 02:04
Surr: 2-Fluorobiphenyl	55.5			40-125	%REC	1	7/26/2011 04:36
Surr: 2-Fluorophenol	51.2	J		20-120	%REC	25	7/24/2011 01:58
Surr: 2-Fluorophenol	63.8	J		20-120	%REC	100	7/26/2011 02:04
Surr: 2-Fluorophenol	38.8			20-120	%REC	1	7/26/2011 04:36
Surr: 4-Terphenyl-d14	86.3	J		40-135	%REC	25	7/24/2011 01:58
Surr: 4-Terphenyl-d14	85.2	J		40-135	%REC	100	7/26/2011 02:04

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 05-Aug-11

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-MW63B-20110719
Collection Date: 7/19/2011 12:30 PM

Work Order: 1107622
Lab ID: 1107622-05
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
Surr: 4-Terphenyl-d14	77.5			40-135	%REC	1	7/26/2011 04:36
Surr: Nitrobenzene-d5	69.1	J		41-120	%REC	25	7/24/2011 01:58
Surr: Nitrobenzene-d5	61.8	J		41-120	%REC	100	7/26/2011 02:04
Surr: Nitrobenzene-d5	56.9			41-120	%REC	1	7/26/2011 04:36
Surr: Phenol-d6	66.9	J		20-120	%REC	25	7/24/2011 01:58
Surr: Phenol-d6	61.3	J		20-120	%REC	100	7/26/2011 02:04
Surr: Phenol-d6	51.2			20-120	%REC	1	7/26/2011 04:36

VOLATILES		Method: SW8260				Analyst: PC	
1,2-Dichloroethane	U	0.0010	0.0050	mg/L	1	7/24/2011 21:41	
Benzene	0.019	0.0010	0.0050	mg/L	1	7/24/2011 21:41	
Chlorobenzene	U	0.0010	0.0050	mg/L	1	7/24/2011 21:41	
Ethylbenzene	0.040	0.0011	0.0050	mg/L	1	7/24/2011 21:41	
Methylene chloride	U	0.0013	0.010	mg/L	1	7/24/2011 21:41	
Toluene	0.0017	J	0.0010	0.0050	mg/L	1	7/24/2011 21:41
Xylenes, Total	0.013	J	0.0031	0.015	mg/L	1	7/24/2011 21:41
Surr: 1,2-Dichloroethane-d4	85.3			70-125	%REC	1	7/24/2011 21:41
Surr: 4-Bromofluorobenzene	101			72-125	%REC	1	7/24/2011 21:41
Surr: Dibromofluoromethane	92.2			71-125	%REC	1	7/24/2011 21:41
Surr: Toluene-d8	95.9			75-125	%REC	1	7/24/2011 21:41

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 05-Aug-11

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-DUP3-20110719
Collection Date: 7/19/2011 12:30 PM

Work Order: 1107622
Lab ID: 1107622-06
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270		Prep: SW3510 / 7/21/11		Analyst: LG
1,2-Diphenylhydrazine		U	0.000050	0.00020	mg/L	1	7/24/2011 02:16
2,4-Dimethylphenol		U	0.000050	0.00020	mg/L	1	7/24/2011 02:16
2,4-Dinitrotoluene		U	0.000050	0.00020	mg/L	1	7/24/2011 02:16
2,6-Dinitrotoluene		U	0.000060	0.00020	mg/L	1	7/24/2011 02:16
2-Chloronaphthalene		U	0.000050	0.00020	mg/L	1	7/24/2011 02:16
2-Methylnaphthalene	0.013		0.0025	0.010	mg/L	50	7/24/2011 02:35
4,6-Dinitro-2-methylphenol		U	0.000080	0.00020	mg/L	1	7/24/2011 02:16
4-Nitrophenol		U	0.000050	0.0010	mg/L	1	7/24/2011 02:16
Acenaphthene	0.0066		0.000050	0.00020	mg/L	1	7/24/2011 02:16
Acenaphthylene	0.00011	J	0.000050	0.00020	mg/L	1	7/24/2011 02:16
Anthracene	0.00020		0.000050	0.00020	mg/L	1	7/24/2011 02:16
Benz(a)anthracene		U	0.000050	0.00020	mg/L	1	7/24/2011 02:16
Benzo(a)pyrene		U	0.000050	0.00020	mg/L	1	7/24/2011 02:16
Bis(2-chloroethoxy)methane		U	0.000050	0.00020	mg/L	1	7/24/2011 02:16
Bis(2-ethylhexyl)phthalate	0.00029		0.00010	0.00020	mg/L	1	7/24/2011 02:16
Chrysene		U	0.000050	0.00020	mg/L	1	7/24/2011 02:16
Dibenzofuran	0.0049		0.000050	0.00020	mg/L	1	7/24/2011 02:16
Di-n-butyl phthalate		U	0.000050	0.00020	mg/L	1	7/24/2011 02:16
Fluoranthene		U	0.000050	0.00020	mg/L	1	7/24/2011 02:16
Fluorene	0.0024		0.000050	0.00020	mg/L	1	7/24/2011 02:16
Naphthalene	0.49		0.0025	0.010	mg/L	50	7/24/2011 02:35
Nitrobenzene		U	0.000050	0.00020	mg/L	1	7/24/2011 02:16
N-Nitrosodiphenylamine		U	0.000050	0.00020	mg/L	1	7/24/2011 02:16
Pentachlorophenol		U	0.000050	0.00020	mg/L	1	7/24/2011 02:16
Phenanthrene	0.00098		0.000050	0.00020	mg/L	1	7/24/2011 02:16
Phenol		U	0.000050	0.00020	mg/L	1	7/24/2011 02:16
Pyrene		U	0.000050	0.00020	mg/L	1	7/24/2011 02:16
Surr: 2,4,6-Tribromophenol	62.4			34-129	%REC	1	7/24/2011 02:16
Surr: 2,4,6-Tribromophenol	67.3	J		34-129	%REC	50	7/24/2011 02:35
Surr: 2-Fluorobiphenyl	40.5			40-125	%REC	1	7/24/2011 02:16
Surr: 2-Fluorobiphenyl	48.9	J		40-125	%REC	50	7/24/2011 02:35
Surr: 2-Fluorophenol	34.5			20-120	%REC	1	7/24/2011 02:16
Surr: 2-Fluorophenol	46.0	J		20-120	%REC	50	7/24/2011 02:35
Surr: 4-Terphenyl-d14	61.0			40-135	%REC	1	7/24/2011 02:16
Surr: 4-Terphenyl-d14	84.1	J		40-135	%REC	50	7/24/2011 02:35
Surr: Nitrobenzene-d5	42.4			41-120	%REC	1	7/24/2011 02:16
Surr: Nitrobenzene-d5	54.1	J		41-120	%REC	50	7/24/2011 02:35
Surr: Phenol-d6	38.4			20-120	%REC	1	7/24/2011 02:16

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 05-Aug-11

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-DUP3-20110719
Collection Date: 7/19/2011 12:30 PM

Work Order: 1107622
Lab ID: 1107622-06
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
Surr: Phenol-d6	55.5	J		20-120	%REC	50	7/24/2011 02:35
VOLATILES		Method: SW8260				Analyst: PC	
1,2-Dichloroethane	U		0.0010	0.0050	mg/L	1	7/26/2011 15:12
Benzene	0.024		0.0010	0.0050	mg/L	1	7/26/2011 15:12
Chlorobenzene	U		0.0010	0.0050	mg/L	1	7/26/2011 15:12
Ethylbenzene	0.045		0.0011	0.0050	mg/L	1	7/26/2011 15:12
Methylene chloride	U		0.0013	0.010	mg/L	1	7/26/2011 15:12
Toluene	0.0019	J	0.0010	0.0050	mg/L	1	7/26/2011 15:12
Xylenes, Total	0.014	J	0.0031	0.015	mg/L	1	7/26/2011 15:12
Surr: 1,2-Dichloroethane-d4	97.7			70-125	%REC	1	7/26/2011 15:12
Surr: 4-Bromofluorobenzene	111			72-125	%REC	1	7/26/2011 15:12
Surr: Dibromofluoromethane	102			71-125	%REC	1	7/26/2011 15:12
Surr: Toluene-d8	101			75-125	%REC	1	7/26/2011 15:12

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 05-Aug-11

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-MW33A-20110719
Collection Date: 7/19/2011 01:40 PM

Work Order: 1107622
Lab ID: 1107622-07
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270	Prep: SW3510 / 7/21/11	Analyst: LG		
1,2-Diphenylhydrazine	U		0.000050	0.00020	mg/L	1	7/22/2011 00:51
2,4-Dimethylphenol	0.0034		0.000050	0.00020	mg/L	1	7/22/2011 00:51
2,4-Dinitrotoluene	U		0.000050	0.00020	mg/L	1	7/22/2011 00:51
2,6-Dinitrotoluene	U		0.000060	0.00020	mg/L	1	7/22/2011 00:51
2-Chloronaphthalene	U		0.000050	0.00020	mg/L	1	7/22/2011 00:51
2-Methylnaphthalene	0.022		0.00025	0.0010	mg/L	5	7/26/2011 00:49
4,6-Dinitro-2-methylphenol	U		0.000080	0.00020	mg/L	1	7/22/2011 00:51
4-Nitrophenol	U		0.000050	0.0010	mg/L	1	7/22/2011 00:51
Acenaphthene	0.037		0.00025	0.0010	mg/L	5	7/26/2011 00:49
Acenaphthylene	0.00018	J	0.000050	0.00020	mg/L	1	7/22/2011 00:51
Anthracene	0.0013		0.000050	0.00020	mg/L	1	7/22/2011 00:51
Benz(a)anthracene	0.00019	J	0.000050	0.00020	mg/L	1	7/22/2011 00:51
Benzo(a)pyrene	U		0.000050	0.00020	mg/L	1	7/22/2011 00:51
Bis(2-chloroethoxy)methane	U		0.000050	0.00020	mg/L	1	7/22/2011 00:51
Bis(2-ethylhexyl)phthalate	0.00056		0.00010	0.00020	mg/L	1	7/22/2011 00:51
Chrysene	0.00010	J	0.000050	0.00020	mg/L	1	7/22/2011 00:51
Dibenzofuran	0.0088		0.000050	0.00020	mg/L	1	7/22/2011 00:51
Di-n-butyl phthalate	U		0.000050	0.00020	mg/L	1	7/22/2011 00:51
Fluoranthene	0.0021		0.000050	0.00020	mg/L	1	7/22/2011 00:51
Fluorene	0.0088		0.000050	0.00020	mg/L	1	7/22/2011 00:51
Naphthalene	0.31		0.0025	0.010	mg/L	50	7/26/2011 01:08
Nitrobenzene	U		0.000050	0.00020	mg/L	1	7/22/2011 00:51
N-Nitrosodiphenylamine	U		0.000050	0.00020	mg/L	1	7/22/2011 00:51
Pentachlorophenol	U		0.000050	0.00020	mg/L	1	7/22/2011 00:51
Phenanthrene	0.0046		0.000050	0.00020	mg/L	1	7/22/2011 00:51
Phenol	U		0.000050	0.00020	mg/L	1	7/22/2011 00:51
Pyrene	0.0025		0.000050	0.00020	mg/L	1	7/22/2011 00:51
Surr: 2,4,6-Tribromophenol	77.6			34-129	%REC	1	7/22/2011 00:51
Surr: 2,4,6-Tribromophenol	76.7			34-129	%REC	5	7/26/2011 00:49
Surr: 2,4,6-Tribromophenol	67.2	J		34-129	%REC	50	7/26/2011 01:08
Surr: 2-Fluorobiphenyl	55.8			40-125	%REC	1	7/22/2011 00:51
Surr: 2-Fluorobiphenyl	66.9			40-125	%REC	5	7/26/2011 00:49
Surr: 2-Fluorobiphenyl	63.8	J		40-125	%REC	50	7/26/2011 01:08
Surr: 2-Fluorophenol	42.6			20-120	%REC	1	7/22/2011 00:51
Surr: 2-Fluorophenol	60.4			20-120	%REC	5	7/26/2011 00:49
Surr: 2-Fluorophenol	52.3	J		20-120	%REC	50	7/26/2011 01:08
Surr: 4-Terphenyl-d14	67.8			40-135	%REC	1	7/22/2011 00:51
Surr: 4-Terphenyl-d14	75.6			40-135	%REC	5	7/26/2011 00:49

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 05-Aug-11

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-MW33A-20110719
Collection Date: 7/19/2011 01:40 PM

Work Order: 1107622
Lab ID: 1107622-07
Matrix: WATER

Analyses	Result	Qual	SDL	MQL	Units	Dilution Factor	Date Analyzed
Surr: 4-Terphenyl-d14	77.7	J		40-135	%REC	50	7/26/2011 01:08
Surr: Nitrobenzene-d5	48.0			41-120	%REC	1	7/22/2011 00:51
Surr: Nitrobenzene-d5	64.6			41-120	%REC	5	7/26/2011 00:49
Surr: Nitrobenzene-d5	66.6	J		41-120	%REC	50	7/26/2011 01:08
Surr: Phenol-d6	45.8			20-120	%REC	1	7/22/2011 00:51
Surr: Phenol-d6	68.3			20-120	%REC	5	7/26/2011 00:49
Surr: Phenol-d6	60.1	J		20-120	%REC	50	7/26/2011 01:08

VOLATILES		Method: SW8260				Analyst: PC	
1,2-Dichloroethane	U		0.0010	0.0050	mg/L	1	7/26/2011 16:35
Benzene	0.0090		0.0010	0.0050	mg/L	1	7/26/2011 16:35
Chlorobenzene	U		0.0010	0.0050	mg/L	1	7/26/2011 16:35
Ethylbenzene	0.0033	J	0.0011	0.0050	mg/L	1	7/26/2011 16:35
Methylene chloride	U		0.0013	0.010	mg/L	1	7/26/2011 16:35
Toluene	U		0.0010	0.0050	mg/L	1	7/26/2011 16:35
Xylenes, Total	U		0.0031	0.015	mg/L	1	7/26/2011 16:35
Surr: 1,2-Dichloroethane-d4	92.6			70-125	%REC	1	7/26/2011 16:35
Surr: 4-Bromofluorobenzene	98.3			72-125	%REC	1	7/26/2011 16:35
Surr: Dibromofluoromethane	100			71-125	%REC	1	7/26/2011 16:35
Surr: Toluene-d8	97.8			75-125	%REC	1	7/26/2011 16:35

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 05-Aug-11

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-DUP4-20110719
Collection Date: 7/19/2011 01:40 PM

Work Order: 1107622
Lab ID: 1107622-08
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270	Prep: SW3510 / 7/21/11		Analyst: LG	
1,2-Diphenylhydrazine	U		0.000050	0.00020	mg/L	1	7/22/2011 01:11
2,4-Dimethylphenol	0.0046		0.000050	0.00020	mg/L	1	7/22/2011 01:11
2,4-Dinitrotoluene	U		0.000050	0.00020	mg/L	1	7/22/2011 01:11
2,6-Dinitrotoluene	U		0.000060	0.00020	mg/L	1	7/22/2011 01:11
2-Chloronaphthalene	U		0.000050	0.00020	mg/L	1	7/22/2011 01:11
2-Methylnaphthalene	0.031		0.00025	0.0010	mg/L	5	7/24/2011 00:42
4,6-Dinitro-2-methylphenol	U		0.000080	0.00020	mg/L	1	7/22/2011 01:11
4-Nitrophenol	U		0.000050	0.0010	mg/L	1	7/22/2011 01:11
Acenaphthene	0.042		0.00025	0.0010	mg/L	5	7/24/2011 00:42
Acenaphthylene	0.00021		0.000050	0.00020	mg/L	1	7/22/2011 01:11
Anthracene	0.0016		0.000050	0.00020	mg/L	1	7/22/2011 01:11
Benz(a)anthracene	0.00018	J	0.000050	0.00020	mg/L	1	7/22/2011 01:11
Benzo(a)pyrene	U		0.000050	0.00020	mg/L	1	7/22/2011 01:11
Bis(2-chloroethoxy)methane	U		0.000050	0.00020	mg/L	1	7/22/2011 01:11
Bis(2-ethylhexyl)phthalate	0.00068		0.00010	0.00020	mg/L	1	7/22/2011 01:11
Chrysene	U		0.000050	0.00020	mg/L	1	7/22/2011 01:11
Dibenzofuran	0.014		0.00025	0.0010	mg/L	5	7/24/2011 00:42
Di-n-butyl phthalate	U		0.000050	0.00020	mg/L	1	7/22/2011 01:11
Fluoranthene	0.0023		0.000050	0.00020	mg/L	1	7/22/2011 01:11
Fluorene	0.012		0.00025	0.0010	mg/L	5	7/24/2011 00:42
Naphthalene	0.44		0.0050	0.020	mg/L	100	7/26/2011 01:27
Nitrobenzene	U		0.000050	0.00020	mg/L	1	7/22/2011 01:11
N-Nitrosodiphenylamine	U		0.000050	0.00020	mg/L	1	7/22/2011 01:11
Pentachlorophenol	U		0.000050	0.00020	mg/L	1	7/22/2011 01:11
Phenanthrene	0.0068		0.000050	0.00020	mg/L	1	7/22/2011 01:11
Phenol	0.00091		0.000050	0.00020	mg/L	1	7/22/2011 01:11
Pyrene	0.0026		0.000050	0.00020	mg/L	1	7/22/2011 01:11
Surr: 2,4,6-Tribromophenol	74.2			34-129	%REC	1	7/22/2011 01:11
Surr: 2,4,6-Tribromophenol	65.7			34-129	%REC	5	7/24/2011 00:42
Surr: 2,4,6-Tribromophenol	71.1	J		34-129	%REC	100	7/26/2011 01:27
Surr: 2-Fluorobiphenyl	60.3			40-125	%REC	1	7/22/2011 01:11
Surr: 2-Fluorobiphenyl	65.2			40-125	%REC	5	7/24/2011 00:42
Surr: 2-Fluorobiphenyl	78.1	J		40-125	%REC	100	7/26/2011 01:27
Surr: 2-Fluorophenol	43.1			20-120	%REC	1	7/22/2011 01:11
Surr: 2-Fluorophenol	51.9			20-120	%REC	5	7/24/2011 00:42
Surr: 2-Fluorophenol	67.1	J		20-120	%REC	100	7/26/2011 01:27
Surr: 4-Terphenyl-d14	68.0			40-135	%REC	1	7/22/2011 01:11
Surr: 4-Terphenyl-d14	67.0			40-135	%REC	5	7/24/2011 00:42

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 05-Aug-11

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-DUP4-20110719
Collection Date: 7/19/2011 01:40 PM

Work Order: 1107622
Lab ID: 1107622-08
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
Surr: 4-Terphenyl-d14	78.8	J		40-135	%REC	100	7/26/2011 01:27
Surr: Nitrobenzene-d5	42.1			41-120	%REC	1	7/22/2011 01:11
Surr: Nitrobenzene-d5	61.4			41-120	%REC	5	7/24/2011 00:42
Surr: Nitrobenzene-d5	74.9	J		41-120	%REC	100	7/26/2011 01:27
Surr: Phenol-d6	48.2			20-120	%REC	1	7/22/2011 01:11
Surr: Phenol-d6	58.0			20-120	%REC	5	7/24/2011 00:42
Surr: Phenol-d6	69.0	J		20-120	%REC	100	7/26/2011 01:27

VOLATILES		Method: SW8260				Analyst: PC	
1,2-Dichloroethane	U		0.0010	0.0050	mg/L	1	7/26/2011 17:31
Benzene	0.0091		0.0010	0.0050	mg/L	1	7/26/2011 17:31
Chlorobenzene	U		0.0010	0.0050	mg/L	1	7/26/2011 17:31
Ethylbenzene	0.0030	J	0.0011	0.0050	mg/L	1	7/26/2011 17:31
Methylene chloride	U		0.0013	0.010	mg/L	1	7/26/2011 17:31
Toluene	U		0.0010	0.0050	mg/L	1	7/26/2011 17:31
Xylenes, Total	U		0.0031	0.015	mg/L	1	7/26/2011 17:31
Surr: 1,2-Dichloroethane-d4	98.5			70-125	%REC	1	7/26/2011 17:31
Surr: 4-Bromofluorobenzene	102			72-125	%REC	1	7/26/2011 17:31
Surr: Dibromofluoromethane	97.4			71-125	%REC	1	7/26/2011 17:31
Surr: Toluene-d8	98.8			75-125	%REC	1	7/26/2011 17:31

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 05-Aug-11

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-MW33B-20110719
Collection Date: 7/19/2011 02:30 PM

Work Order: 1107622
Lab ID: 1107622-09
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270	Prep: SW3510 / 7/21/11	Analyst: LG		
1,2-Diphenylhydrazine	U		0.000050	0.00020	mg/L	1	7/24/2011 02:54
2,4-Dimethylphenol	0.0034		0.00050	0.0020	mg/L	10	7/26/2011 04:17
2,4-Dinitrotoluene	U		0.000050	0.00020	mg/L	1	7/24/2011 02:54
2,6-Dinitrotoluene	U		0.000060	0.00020	mg/L	1	7/24/2011 02:54
2-Chloronaphthalene	U		0.000050	0.00020	mg/L	1	7/24/2011 02:54
2-Methylnaphthalene	1.6		0.025	0.10	mg/L	500	7/26/2011 02:42
4,6-Dinitro-2-methylphenol	U		0.000080	0.00020	mg/L	1	7/24/2011 02:54
4-Nitrophenol	U		0.000050	0.0010	mg/L	1	7/24/2011 02:54
Acenaphthene	0.41		0.0050	0.020	mg/L	100	7/26/2011 02:23
Acenaphthylene	0.0033		0.000050	0.00020	mg/L	1	7/24/2011 02:54
Anthracene	0.16		0.0050	0.020	mg/L	100	7/26/2011 02:23
Benz(a)anthracene	0.032		0.00050	0.0020	mg/L	10	7/26/2011 04:17
Benzo(a)pyrene	0.0077		0.000050	0.00020	mg/L	1	7/24/2011 02:54
Bis(2-chloroethoxy)methane	U		0.000050	0.00020	mg/L	1	7/24/2011 02:54
Bis(2-ethylhexyl)phthalate	0.00046		0.00010	0.00020	mg/L	1	7/24/2011 02:54
Chrysene	0.026		0.00050	0.0020	mg/L	10	7/26/2011 04:17
Dibenzofuran	0.53		0.0050	0.020	mg/L	100	7/26/2011 02:23
Di-n-butyl phthalate	U		0.000050	0.00020	mg/L	1	7/24/2011 02:54
Fluoranthene	0.28		0.0050	0.020	mg/L	100	7/26/2011 02:23
Fluorene	0.31		0.0050	0.020	mg/L	100	7/26/2011 02:23
Naphthalene	13		0.12	0.50	mg/L	2500	7/26/2011 03:01
Nitrobenzene	U		0.000050	0.00020	mg/L	1	7/24/2011 02:54
N-Nitrosodiphenylamine	U		0.000050	0.00020	mg/L	1	7/24/2011 02:54
Pentachlorophenol	U		0.000050	0.00020	mg/L	1	7/24/2011 02:54
Phenanthrene	0.79		0.0050	0.020	mg/L	100	7/26/2011 02:23
Phenol	0.0010		0.000050	0.00020	mg/L	1	7/24/2011 02:54
Pyrene	0.17		0.0050	0.020	mg/L	100	7/26/2011 02:23
Surr: 2,4,6-Tribromophenol	56.2			34-129	%REC	1	7/24/2011 02:54
Surr: 2,4,6-Tribromophenol	78.3	J		34-129	%REC	100	7/26/2011 02:23
Surr: 2,4,6-Tribromophenol	0	S		34-129	%REC	500	7/26/2011 02:42
Surr: 2,4,6-Tribromophenol	0	S		34-129	%REC	2500	7/26/2011 03:01
Surr: 2,4,6-Tribromophenol	74.9			34-129	%REC	10	7/26/2011 04:17
Surr: 2-Fluorobiphenyl	40.0			40-125	%REC	1	7/24/2011 02:54
Surr: 2-Fluorobiphenyl	69.3	J		40-125	%REC	100	7/26/2011 02:23
Surr: 2-Fluorobiphenyl	0	S		40-125	%REC	500	7/26/2011 02:42
Surr: 2-Fluorobiphenyl	0	S		40-125	%REC	2500	7/26/2011 03:01
Surr: 2-Fluorobiphenyl	56.0			40-125	%REC	10	7/26/2011 04:17
Surr: 2-Fluorophenol	55.5			20-120	%REC	1	7/24/2011 02:54

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 05-Aug-11

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-MW33B-20110719
Collection Date: 7/19/2011 02:30 PM

Work Order: 1107622
Lab ID: 1107622-09
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
Surr: 2-Fluorophenol	80.1	J		20-120	%REC	100	7/26/2011 02:23
Surr: 2-Fluorophenol	0	S		20-120	%REC	500	7/26/2011 02:42
Surr: 2-Fluorophenol	0	S		20-120	%REC	2500	7/26/2011 03:01
Surr: 2-Fluorophenol	95.7			20-120	%REC	10	7/26/2011 04:17
Surr: 4-Terphenyl-d14	64.2			40-135	%REC	1	7/24/2011 02:54
Surr: 4-Terphenyl-d14	75.4	J		40-135	%REC	100	7/26/2011 02:23
Surr: 4-Terphenyl-d14	0	S		40-135	%REC	500	7/26/2011 02:42
Surr: 4-Terphenyl-d14	0	S		40-135	%REC	2500	7/26/2011 03:01
Surr: 4-Terphenyl-d14	73.5			40-135	%REC	10	7/26/2011 04:17
Surr: Nitrobenzene-d5	53.1			41-120	%REC	1	7/24/2011 02:54
Surr: Nitrobenzene-d5	64.8	J		41-120	%REC	100	7/26/2011 02:23
Surr: Nitrobenzene-d5	0	S		41-120	%REC	500	7/26/2011 02:42
Surr: Nitrobenzene-d5	0	S		41-120	%REC	2500	7/26/2011 03:01
Surr: Nitrobenzene-d5	45.2			41-120	%REC	10	7/26/2011 04:17
Surr: Phenol-d6	57.6			20-120	%REC	1	7/24/2011 02:54
Surr: Phenol-d6	65.7	J		20-120	%REC	100	7/26/2011 02:23
Surr: Phenol-d6	0	S		20-120	%REC	500	7/26/2011 02:42
Surr: Phenol-d6	0	S		20-120	%REC	2500	7/26/2011 03:01
Surr: Phenol-d6	52.0			20-120	%REC	10	7/26/2011 04:17

VOLATILES	Method: SW8260					Analyst: PC	
1,2-Dichloroethane	U		0.010	0.050	mg/L	10	7/26/2011 21:52
Benzene	1.6		0.010	0.050	mg/L	10	7/26/2011 21:52
Chlorobenzene	U		0.010	0.050	mg/L	10	7/26/2011 21:52
Ethylbenzene	0.40		0.011	0.050	mg/L	10	7/26/2011 21:52
Methylene chloride	U		0.013	0.10	mg/L	10	7/26/2011 21:52
Toluene	U		0.010	0.050	mg/L	10	7/26/2011 21:52
Vinyl chloride	U		0.010	0.020	mg/L	10	7/26/2011 21:52
Xylenes, Total	1.2		0.031	0.15	mg/L	10	7/26/2011 21:52
Surr: 1,2-Dichloroethane-d4	99.7			70-125	%REC	10	7/26/2011 21:52
Surr: 4-Bromofluorobenzene	102			72-125	%REC	10	7/26/2011 21:52
Surr: Dibromofluoromethane	101			71-125	%REC	10	7/26/2011 21:52
Surr: Toluene-d8	99.4			75-125	%REC	10	7/26/2011 21:52

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 05-Aug-11

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-MW26A-20110719
Collection Date: 7/19/2011 03:30 PM

Work Order: 1107622
Lab ID: 1107622-10
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270		Prep: SW3510 / 7/21/11		Analyst: LG
1,2-Diphenylhydrazine	U		0.000050	0.00020	mg/L	1	7/22/2011 02:11
2,4-Dimethylphenol	U		0.000050	0.00020	mg/L	1	7/22/2011 02:11
2,4-Dinitrotoluene	U		0.000050	0.00020	mg/L	1	7/22/2011 02:11
2,6-Dinitrotoluene	U		0.000060	0.00020	mg/L	1	7/22/2011 02:11
2-Chloronaphthalene	U		0.000050	0.00020	mg/L	1	7/22/2011 02:11
2-Methylnaphthalene	0.00039		0.000050	0.00020	mg/L	1	7/22/2011 02:11
4,6-Dinitro-2-methylphenol	U		0.000080	0.00020	mg/L	1	7/22/2011 02:11
4-Nitrophenol	U		0.000050	0.0010	mg/L	1	7/22/2011 02:11
Acenaphthene	0.12		0.0020	0.0080	mg/L	40	7/26/2011 01:46
Acenaphthylene	0.00047		0.000050	0.00020	mg/L	1	7/22/2011 02:11
Anthracene	0.0026		0.000050	0.00020	mg/L	1	7/22/2011 02:11
Benz(a)anthracene	U		0.000050	0.00020	mg/L	1	7/22/2011 02:11
Benzo(a)pyrene	U		0.000050	0.00020	mg/L	1	7/22/2011 02:11
Bis(2-chloroethoxy)methane	U		0.000050	0.00020	mg/L	1	7/22/2011 02:11
Bis(2-ethylhexyl)phthalate	0.00031		0.00010	0.00020	mg/L	1	7/22/2011 02:11
Chrysene	U		0.000050	0.00020	mg/L	1	7/22/2011 02:11
Dibenzofuran	0.021		0.00050	0.0020	mg/L	10	7/24/2011 01:01
Di-n-butyl phthalate	U		0.000050	0.00020	mg/L	1	7/22/2011 02:11
Fluoranthene	0.0048		0.000050	0.00020	mg/L	1	7/22/2011 02:11
Fluorene	0.0057		0.000050	0.00020	mg/L	1	7/22/2011 02:11
Naphthalene	0.0019		0.000050	0.00020	mg/L	1	7/22/2011 02:11
Nitrobenzene	U		0.000050	0.00020	mg/L	1	7/22/2011 02:11
N-Nitrosodiphenylamine	0.00023		0.000050	0.00020	mg/L	1	7/22/2011 02:11
Pentachlorophenol	U		0.000050	0.00020	mg/L	1	7/22/2011 02:11
Phenanthrene	0.00029		0.000050	0.00020	mg/L	1	7/22/2011 02:11
Phenol	U		0.000050	0.00020	mg/L	1	7/22/2011 02:11
Pyrene	0.0031		0.000050	0.00020	mg/L	1	7/22/2011 02:11
Surr: 2,4,6-Tribromophenol	75.3			34-129	%REC	1	7/22/2011 02:11
Surr: 2,4,6-Tribromophenol	70.1			34-129	%REC	10	7/24/2011 01:01
Surr: 2,4,6-Tribromophenol	62.2	J		34-129	%REC	40	7/26/2011 01:46
Surr: 2-Fluorobiphenyl	51.3			40-125	%REC	1	7/22/2011 02:11
Surr: 2-Fluorobiphenyl	74.0			40-125	%REC	10	7/24/2011 01:01
Surr: 2-Fluorobiphenyl	63.4	J		40-125	%REC	40	7/26/2011 01:46
Surr: 2-Fluorophenol	45.0			20-120	%REC	1	7/22/2011 02:11
Surr: 2-Fluorophenol	54.4			20-120	%REC	10	7/24/2011 01:01
Surr: 2-Fluorophenol	58.7	J		20-120	%REC	40	7/26/2011 01:46
Surr: 4-Terphenyl-d14	61.9			40-135	%REC	1	7/22/2011 02:11
Surr: 4-Terphenyl-d14	73.3			40-135	%REC	10	7/24/2011 01:01

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 05-Aug-11

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-MW26A-20110719
Collection Date: 7/19/2011 03:30 PM

Work Order: 1107622
Lab ID: 1107622-10
Matrix: WATER

Analyses	Result	Qual	SDL	MQL	Units	Dilution Factor	Date Analyzed
Surr: 4-Terphenyl-d14	65.7	J		40-135	%REC	40	7/26/2011 01:46
Surr: Nitrobenzene-d5	55.1			41-120	%REC	1	7/22/2011 02:11
Surr: Nitrobenzene-d5	65.2			41-120	%REC	10	7/24/2011 01:01
Surr: Nitrobenzene-d5	69.8	J		41-120	%REC	40	7/26/2011 01:46
Surr: Phenol-d6	39.3			20-120	%REC	1	7/22/2011 02:11
Surr: Phenol-d6	60.3			20-120	%REC	10	7/24/2011 01:01
Surr: Phenol-d6	56.1	J		20-120	%REC	40	7/26/2011 01:46

VOLATILES		Method: SW8260				Analyst: PC	
1,2-Dichloroethane	U	0.0010	0.0050	mg/L	1	7/26/2011 18:26	
Benzene	0.031	0.0010	0.0050	mg/L	1	7/26/2011 18:26	
Chlorobenzene	U	0.0010	0.0050	mg/L	1	7/26/2011 18:26	
Ethylbenzene	U	0.0011	0.0050	mg/L	1	7/26/2011 18:26	
Methylene chloride	U	0.0013	0.010	mg/L	1	7/26/2011 18:26	
Toluene	U	0.0010	0.0050	mg/L	1	7/26/2011 18:26	
Xylenes, Total	0.0045	J	0.0031	0.015 mg/L	1	7/26/2011 18:26	
Surr: 1,2-Dichloroethane-d4	100		70-125	%REC	1	7/26/2011 18:26	
Surr: 4-Bromofluorobenzene	103		72-125	%REC	1	7/26/2011 18:26	
Surr: Dibromofluoromethane	96.4		71-125	%REC	1	7/26/2011 18:26	
Surr: Toluene-d8	103		75-125	%REC	1	7/26/2011 18:26	

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 05-Aug-11

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-MW32A-20110719
Collection Date: 7/19/2011 04:30 PM

Work Order: 1107622
Lab ID: 1107622-11
Matrix: WATER

Analyses	Result	Qual	SDL	ML	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270		Prep: SW3510 / 7/21/11		Analyst: LG
1,2-Diphenylhydrazine		U	0.00050	0.0020	mg/L	10	7/26/2011 04:55
2,4-Dimethylphenol	31		0.25	1.0	mg/L	5000	7/26/2011 03:20
2,4-Dinitrotoluene		U	0.00050	0.0020	mg/L	10	7/26/2011 04:55
2,6-Dinitrotoluene		U	0.00060	0.0020	mg/L	10	7/26/2011 04:55
2-Chloronaphthalene		U	0.00050	0.0020	mg/L	10	7/26/2011 04:55
2-Methylnaphthalene	0.95		0.025	0.10	mg/L	500	7/26/2011 03:58
4,6-Dinitro-2-methylphenol		U	0.00080	0.0020	mg/L	10	7/26/2011 04:55
4-Nitrophenol		U	0.00050	0.010	mg/L	10	7/26/2011 04:55
Acenaphthene	0.25		0.0050	0.020	mg/L	100	7/26/2011 03:39
Acenaphthylene	0.0050		0.00050	0.0020	mg/L	10	7/26/2011 04:55
Anthracene	0.090		0.00050	0.0020	mg/L	10	7/26/2011 04:55
Benz(a)anthracene	0.038		0.00050	0.0020	mg/L	10	7/26/2011 04:55
Benzo(a)pyrene	0.019		0.00050	0.0020	mg/L	10	7/26/2011 04:55
Bis(2-chloroethoxy)methane		U	0.00050	0.0020	mg/L	10	7/26/2011 04:55
Bis(2-ethylhexyl)phthalate	0.0013	J	0.0010	0.0020	mg/L	10	7/26/2011 04:55
Chrysene	0.033		0.00050	0.0020	mg/L	10	7/26/2011 04:55
Dibenzofuran	0.27		0.0050	0.020	mg/L	100	7/26/2011 03:39
Di-n-butyl phthalate		U	0.00050	0.0020	mg/L	10	7/26/2011 04:55
Fluoranthene	0.11		0.0050	0.020	mg/L	100	7/26/2011 03:39
Fluorene	0.18		0.0050	0.020	mg/L	100	7/26/2011 03:39
Naphthalene	21		0.25	1.0	mg/L	5000	7/26/2011 03:20
Nitrobenzene		U	0.00050	0.0020	mg/L	10	7/26/2011 04:55
N-Nitrosodiphenylamine		U	0.00050	0.0020	mg/L	10	7/26/2011 04:55
Pentachlorophenol		U	0.00050	0.0020	mg/L	10	7/26/2011 04:55
Phenanthrene	0.35		0.0050	0.020	mg/L	100	7/26/2011 03:39
Phenol	21		0.25	1.0	mg/L	5000	7/26/2011 03:20
Pyrene	0.072		0.00050	0.0020	mg/L	10	7/26/2011 04:55
Surr: 2,4,6-Tribromophenol	0	S		34-129	%REC	5000	7/26/2011 03:20
Surr: 2,4,6-Tribromophenol	91.0	J		34-129	%REC	100	7/26/2011 03:39
Surr: 2,4,6-Tribromophenol	0	S		34-129	%REC	500	7/26/2011 03:58
Surr: 2,4,6-Tribromophenol	83.8			34-129	%REC	10	7/26/2011 04:55
Surr: 2-Fluorobiphenyl	0	S		40-125	%REC	5000	7/26/2011 03:20
Surr: 2-Fluorobiphenyl	79.6	J		40-125	%REC	100	7/26/2011 03:39
Surr: 2-Fluorobiphenyl	0	S		40-125	%REC	500	7/26/2011 03:58
Surr: 2-Fluorobiphenyl	70.8			40-125	%REC	10	7/26/2011 04:55
Surr: 2-Fluorophenol	0	S		20-120	%REC	5000	7/26/2011 03:20
Surr: 2-Fluorophenol	86.5	J		20-120	%REC	100	7/26/2011 03:39
Surr: 2-Fluorophenol	0	S		20-120	%REC	500	7/26/2011 03:58

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 05-Aug-11

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-MW32A-20110719
Collection Date: 7/19/2011 04:30 PM

Work Order: 1107622
Lab ID: 1107622-11
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
Surr: 2-Fluorophenol	46.0			20-120	%REC	10	7/26/2011 04:55
Surr: 4-Terphenyl-d14	0	S		40-135	%REC	5000	7/26/2011 03:20
Surr: 4-Terphenyl-d14	77.7	J		40-135	%REC	100	7/26/2011 03:39
Surr: 4-Terphenyl-d14	0	S		40-135	%REC	500	7/26/2011 03:58
Surr: 4-Terphenyl-d14	79.1			40-135	%REC	10	7/26/2011 04:55
Surr: Nitrobenzene-d5	0	S		41-120	%REC	5000	7/26/2011 03:20
Surr: Nitrobenzene-d5	92.1	J		41-120	%REC	100	7/26/2011 03:39
Surr: Nitrobenzene-d5	0	S		41-120	%REC	500	7/26/2011 03:58
Surr: Nitrobenzene-d5	69.4			41-120	%REC	10	7/26/2011 04:55
Surr: Phenol-d6	0	S		20-120	%REC	5000	7/26/2011 03:20
Surr: Phenol-d6	68.4	J		20-120	%REC	100	7/26/2011 03:39
Surr: Phenol-d6	0	S		20-120	%REC	500	7/26/2011 03:58
Surr: Phenol-d6	35.1	J		20-120	%REC	10	7/26/2011 04:55

VOLATILES		Method: SW8260				Analyst: PC	
1,2-Dichloroethane	0.030		0.0050	0.025	mg/L	5	7/26/2011 23:47
Benzene	1.4		0.025	0.12	mg/L	25	7/27/2011 13:54
Chlorobenzene	U		0.0050	0.025	mg/L	5	7/26/2011 23:47
Ethylbenzene	0.31		0.0055	0.025	mg/L	5	7/26/2011 23:47
Methylene chloride	U		0.0065	0.050	mg/L	5	7/26/2011 23:47
Toluene	1.2		0.025	0.12	mg/L	25	7/27/2011 13:54
Xylenes, Total	0.87		0.016	0.075	mg/L	5	7/26/2011 23:47
Surr: 1,2-Dichloroethane-d4	103			70-125	%REC	5	7/26/2011 23:47
Surr: 1,2-Dichloroethane-d4	96.8			70-125	%REC	25	7/27/2011 13:54
Surr: 4-Bromofluorobenzene	111			72-125	%REC	5	7/26/2011 23:47
Surr: 4-Bromofluorobenzene	100			72-125	%REC	25	7/27/2011 13:54
Surr: Dibromofluoromethane	103			71-125	%REC	5	7/26/2011 23:47
Surr: Dibromofluoromethane	97.6			71-125	%REC	25	7/27/2011 13:54
Surr: Toluene-d8	100			75-125	%REC	5	7/26/2011 23:47
Surr: Toluene-d8	97.4			75-125	%REC	25	7/27/2011 13:54

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 05-Aug-11

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-MW38A-20110719
Collection Date: 7/19/2011 05:40 PM

Work Order: 1107622
Lab ID: 1107622-12
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270	Prep: SW3510 / 7/21/11	Analyst: LG		
1,2-Diphenylhydrazine	U		0.000050	0.00020	mg/L	1	7/22/2011 01:31
2,4-Dimethylphenol	U		0.000050	0.00020	mg/L	1	7/22/2011 01:31
2,4-Dinitrotoluene	U		0.000050	0.00020	mg/L	1	7/22/2011 01:31
2,6-Dinitrotoluene	U		0.000060	0.00020	mg/L	1	7/22/2011 01:31
2-Chloronaphthalene	U		0.000050	0.00020	mg/L	1	7/22/2011 01:31
2-Methylnaphthalene	U		0.000050	0.00020	mg/L	1	7/22/2011 01:31
4,6-Dinitro-2-methylphenol	U		0.000080	0.00020	mg/L	1	7/22/2011 01:31
4-Nitrophenol	U		0.000050	0.0010	mg/L	1	7/22/2011 01:31
Acenaphthene	0.00043		0.000050	0.00020	mg/L	1	7/22/2011 01:31
Acenaphthylene	U		0.000050	0.00020	mg/L	1	7/22/2011 01:31
Anthracene	0.00010	J	0.000050	0.00020	mg/L	1	7/22/2011 01:31
Benz(a)anthracene	0.00025		0.000050	0.00020	mg/L	1	7/22/2011 01:31
Benzo(a)pyrene	0.00052		0.000050	0.00020	mg/L	1	7/22/2011 01:31
Bis(2-chloroethoxy)methane	U		0.000050	0.00020	mg/L	1	7/22/2011 01:31
Bis(2-ethylhexyl)phthalate	0.00094		0.00010	0.00020	mg/L	1	7/22/2011 01:31
Chrysene	0.00022		0.000050	0.00020	mg/L	1	7/22/2011 01:31
Dibenzofuran	U		0.000050	0.00020	mg/L	1	7/22/2011 01:31
Di-n-butyl phthalate	0.00017	J	0.000050	0.00020	mg/L	1	7/22/2011 01:31
Fluoranthene	0.00014	J	0.000050	0.00020	mg/L	1	7/22/2011 01:31
Fluorene	U		0.000050	0.00020	mg/L	1	7/22/2011 01:31
Naphthalene	0.00026		0.000050	0.00020	mg/L	1	7/22/2011 01:31
Nitrobenzene	U		0.000050	0.00020	mg/L	1	7/22/2011 01:31
N-Nitrosodiphenylamine	U		0.000050	0.00020	mg/L	1	7/22/2011 01:31
Pentachlorophenol	0.000067	J	0.000050	0.00020	mg/L	1	7/22/2011 01:31
Phenanthrene	U		0.000050	0.00020	mg/L	1	7/22/2011 01:31
Phenol	U		0.000050	0.00020	mg/L	1	7/22/2011 01:31
Pyrene	0.00018	J	0.000050	0.00020	mg/L	1	7/22/2011 01:31
Surr: 2,4,6-Tribromophenol	63.8			34-129	%REC	1	7/22/2011 01:31
Surr: 2-Fluorobiphenyl	43.3			40-125	%REC	1	7/22/2011 01:31
Surr: 2-Fluorophenol	24.7			20-120	%REC	1	7/22/2011 01:31
Surr: 4-Terphenyl-d14	65.4			40-135	%REC	1	7/22/2011 01:31
Surr: Nitrobenzene-d5	41.1			41-120	%REC	1	7/22/2011 01:31
Surr: Phenol-d6	32.6			20-120	%REC	1	7/22/2011 01:31
VOLATILES			Method: SW8260	Analyst: PC			
1,2-Dichloroethane	U		0.0010	0.0050	mg/L	1	7/24/2011 14:27
Benzene	U		0.0010	0.0050	mg/L	1	7/24/2011 14:27
Chlorobenzene	U		0.0010	0.0050	mg/L	1	7/24/2011 14:27
Ethylbenzene	U		0.0011	0.0050	mg/L	1	7/24/2011 14:27

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 05-Aug-11

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-MW38A-20110719
Collection Date: 7/19/2011 05:40 PM

Work Order: 1107622
Lab ID: 1107622-12
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
Methylene chloride	U		0.0013	0.010	mg/L	1	7/24/2011 14:27
Toluene	U		0.0010	0.0050	mg/L	1	7/24/2011 14:27
Xylenes, Total	U		0.0031	0.015	mg/L	1	7/24/2011 14:27
Surr: 1,2-Dichloroethane-d4	88.0			70-125	%REC	1	7/24/2011 14:27
Surr: 4-Bromofluorobenzene	101			72-125	%REC	1	7/24/2011 14:27
Surr: Dibromofluoromethane	93.4			71-125	%REC	1	7/24/2011 14:27
Surr: Toluene-d8	95.9			75-125	%REC	1	7/24/2011 14:27

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 05-Aug-11

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-FB04-20110719
Collection Date: 7/19/2011 06:00 PM

Work Order: 1107622
Lab ID: 1107622-13
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270	Prep: SW3510 / 7/21/11		Analyst: LG	
1,2-Diphenylhydrazine	U		0.000050	0.00020	mg/L	1	7/22/2011 01:51
2,4-Dimethylphenol	U		0.000050	0.00020	mg/L	1	7/22/2011 01:51
2,4-Dinitrotoluene	U		0.000050	0.00020	mg/L	1	7/22/2011 01:51
2,6-Dinitrotoluene	U		0.000060	0.00020	mg/L	1	7/22/2011 01:51
2-Chloronaphthalene	U		0.000050	0.00020	mg/L	1	7/22/2011 01:51
2-Methylnaphthalene	U		0.000050	0.00020	mg/L	1	7/22/2011 01:51
4,6-Dinitro-2-methylphenol	U		0.000080	0.00020	mg/L	1	7/22/2011 01:51
4-Nitrophenol	U		0.000050	0.0010	mg/L	1	7/22/2011 01:51
Acenaphthene	U		0.000050	0.00020	mg/L	1	7/22/2011 01:51
Acenaphthylene	U		0.000050	0.00020	mg/L	1	7/22/2011 01:51
Anthracene	U		0.000050	0.00020	mg/L	1	7/22/2011 01:51
Benz(a)anthracene	U		0.000050	0.00020	mg/L	1	7/22/2011 01:51
Benzo(a)pyrene	U		0.000050	0.00020	mg/L	1	7/22/2011 01:51
Bis(2-chloroethoxy)methane	U		0.000050	0.00020	mg/L	1	7/22/2011 01:51
Bis(2-ethylhexyl)phthalate	0.00083		0.00010	0.00020	mg/L	1	7/22/2011 01:51
Chrysene	U		0.000050	0.00020	mg/L	1	7/22/2011 01:51
Dibenzofuran	U		0.000050	0.00020	mg/L	1	7/22/2011 01:51
Di-n-butyl phthalate	U		0.000050	0.00020	mg/L	1	7/22/2011 01:51
Fluoranthene	U		0.000050	0.00020	mg/L	1	7/22/2011 01:51
Fluorene	U		0.000050	0.00020	mg/L	1	7/22/2011 01:51
Naphthalene	0.00037		0.000050	0.00020	mg/L	1	7/22/2011 01:51
Nitrobenzene	U		0.000050	0.00020	mg/L	1	7/22/2011 01:51
N-Nitrosodiphenylamine	U		0.000050	0.00020	mg/L	1	7/22/2011 01:51
Pentachlorophenol	U		0.000050	0.00020	mg/L	1	7/22/2011 01:51
Phenanthrene	U		0.000050	0.00020	mg/L	1	7/22/2011 01:51
Phenol	U		0.000050	0.00020	mg/L	1	7/22/2011 01:51
Pyrene	U		0.000050	0.00020	mg/L	1	7/22/2011 01:51
Surr: 2,4,6-Tribromophenol	70.0			34-129	%REC	1	7/22/2011 01:51
Surr: 2-Fluorobiphenyl	56.4			40-125	%REC	1	7/22/2011 01:51
Surr: 2-Fluorophenol	36.4			20-120	%REC	1	7/22/2011 01:51
Surr: 4-Terphenyl-d14	66.9			40-135	%REC	1	7/22/2011 01:51
Surr: Nitrobenzene-d5	57.7			41-120	%REC	1	7/22/2011 01:51
Surr: Phenol-d6	43.8			20-120	%REC	1	7/22/2011 01:51

VOLATILES			Method: SW8260			Analyst: PC	
1,2-Dichloroethane	U		0.0010	0.0050	mg/L	1	8/2/2011 19:34
Benzene	U		0.0010	0.0050	mg/L	1	8/2/2011 19:34
Chlorobenzene	U		0.0010	0.0050	mg/L	1	8/2/2011 19:34
Ethylbenzene	U		0.0011	0.0050	mg/L	1	8/2/2011 19:34

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 05-Aug-11

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-FB04-20110719
Collection Date: 7/19/2011 06:00 PM

Work Order: 1107622
Lab ID: 1107622-13
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
Methylene chloride	U		0.0013	0.010	mg/L	1	8/2/2011 19:34
Toluene	U		0.0010	0.0050	mg/L	1	8/2/2011 19:34
Vinyl chloride	U		0.0010	0.0020	mg/L	1	8/2/2011 19:34
Xylenes, Total	U		0.0031	0.015	mg/L	1	8/2/2011 19:34
Surr: 1,2-Dichloroethane-d4	101			70-125	%REC	1	8/2/2011 19:34
Surr: 4-Bromofluorobenzene	99.0			72-125	%REC	1	8/2/2011 19:34
Surr: Dibromofluoromethane	100			71-125	%REC	1	8/2/2011 19:34
Surr: Toluene-d8	100			75-125	%REC	1	8/2/2011 19:34

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 05-Aug-11

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-MW38B-20110718
Collection Date: 7/18/2011 11:20 AM

Work Order: 1107622
Lab ID: 1107622-14
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270		Prep: SW3510 / 7/21/11		Analyst: LG
1,2-Diphenylhydrazine	U		0.000050	0.00020	mg/L	1	7/22/2011 02:31
2,4-Dimethylphenol	U		0.000050	0.00020	mg/L	1	7/22/2011 02:31
2,4-Dinitrotoluene	U		0.000050	0.00020	mg/L	1	7/22/2011 02:31
2,6-Dinitrotoluene	U		0.000060	0.00020	mg/L	1	7/22/2011 02:31
2-Chloronaphthalene	U		0.000050	0.00020	mg/L	1	7/22/2011 02:31
2-Methylnaphthalene	U		0.000050	0.00020	mg/L	1	7/22/2011 02:31
4,6-Dinitro-2-methylphenol	U		0.000080	0.00020	mg/L	1	7/22/2011 02:31
4-Nitrophenol	U		0.000050	0.0010	mg/L	1	7/22/2011 02:31
Acenaphthene	U		0.000050	0.00020	mg/L	1	7/22/2011 02:31
Acenaphthylene	U		0.000050	0.00020	mg/L	1	7/22/2011 02:31
Anthracene	0.00013	J	0.000050	0.00020	mg/L	1	7/22/2011 02:31
Benz(a)anthracene	U		0.000050	0.00020	mg/L	1	7/22/2011 02:31
Benzo(a)pyrene	U		0.000050	0.00020	mg/L	1	7/22/2011 02:31
Bis(2-chloroethoxy)methane	U		0.000050	0.00020	mg/L	1	7/22/2011 02:31
Bis(2-ethylhexyl)phthalate	0.0010		0.00010	0.00020	mg/L	1	7/22/2011 02:31
Chrysene	U		0.000050	0.00020	mg/L	1	7/22/2011 02:31
Dibenzofuran	U		0.000050	0.00020	mg/L	1	7/22/2011 02:31
Di-n-butyl phthalate	U		0.000050	0.00020	mg/L	1	7/22/2011 02:31
Fluoranthene	U		0.000050	0.00020	mg/L	1	7/22/2011 02:31
Fluorene	U		0.000050	0.00020	mg/L	1	7/22/2011 02:31
Naphthalene	U		0.000050	0.00020	mg/L	1	7/22/2011 02:31
Nitrobenzene	U		0.000050	0.00020	mg/L	1	7/22/2011 02:31
N-Nitrosodiphenylamine	U		0.000050	0.00020	mg/L	1	7/22/2011 02:31
Pentachlorophenol	U		0.000050	0.00020	mg/L	1	7/22/2011 02:31
Phenanthrene	U		0.000050	0.00020	mg/L	1	7/22/2011 02:31
Phenol	U		0.000050	0.00020	mg/L	1	7/22/2011 02:31
Pyrene	U		0.000050	0.00020	mg/L	1	7/22/2011 02:31
Surr: 2,4,6-Tribromophenol	71.3			34-129	%REC	1	7/22/2011 02:31
Surr: 2-Fluorobiphenyl	52.3			40-125	%REC	1	7/22/2011 02:31
Surr: 2-Fluorophenol	31.8			20-120	%REC	1	7/22/2011 02:31
Surr: 4-Terphenyl-d14	62.6			40-135	%REC	1	7/22/2011 02:31
Surr: Nitrobenzene-d5	46.3			41-120	%REC	1	7/22/2011 02:31
Surr: Phenol-d6	37.9			20-120	%REC	1	7/22/2011 02:31

VOLATILES			Method: SW8260				Analyst: PC
1,2-Dichloroethane	U		0.0010	0.0050	mg/L	1	7/26/2011 19:20
Benzene	U		0.0010	0.0050	mg/L	1	7/26/2011 19:20
Chlorobenzene	U		0.0010	0.0050	mg/L	1	7/26/2011 19:20
Ethylbenzene	U		0.0011	0.0050	mg/L	1	7/26/2011 19:20

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 05-Aug-11

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-MW38B-20110718
Collection Date: 7/18/2011 11:20 AM

Work Order: 1107622
Lab ID: 1107622-14
Matrix: WATER

Analyses	Result	Qual	SDL	ML	Units	Dilution Factor	Date Analyzed
Methylene chloride	U		0.0013	0.010	mg/L	1	7/26/2011 19:20
Toluene	U		0.0010	0.0050	mg/L	1	7/26/2011 19:20
Xylenes, Total	U		0.0031	0.015	mg/L	1	7/26/2011 19:20
Surr: 1,2-Dichloroethane-d4	97.6			70-125	%REC	1	7/26/2011 19:20
Surr: 4-Bromofluorobenzene	96.3			72-125	%REC	1	7/26/2011 19:20
Surr: Dibromofluoromethane	99.9			71-125	%REC	1	7/26/2011 19:20
Surr: Toluene-d8	99.5			75-125	%REC	1	7/26/2011 19:20

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 05-Aug-11

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-MW48C-20110718
Collection Date: 7/18/2011 01:40 PM

Work Order: 1107622
Lab ID: 1107622-15
Matrix: WATER

Analyses	Result	Qual	SDL	ML	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES		Method: SW8270		Prep: SW3510 / 7/21/11		Analyst: LG	
1,2-Diphenylhydrazine	U		0.000050	0.00020	mg/L	1	7/22/2011 02:51
2,4-Dimethylphenol	U		0.000050	0.00020	mg/L	1	7/22/2011 02:51
2,4-Dinitrotoluene	U		0.000050	0.00020	mg/L	1	7/22/2011 02:51
2,6-Dinitrotoluene	U		0.000060	0.00020	mg/L	1	7/22/2011 02:51
2-Chloronaphthalene	U		0.000050	0.00020	mg/L	1	7/22/2011 02:51
2-Methylnaphthalene	U		0.000050	0.00020	mg/L	1	7/22/2011 02:51
4,6-Dinitro-2-methylphenol	U		0.000080	0.00020	mg/L	1	7/22/2011 02:51
4-Nitrophenol	U		0.000050	0.0010	mg/L	1	7/22/2011 02:51
Acenaphthene	U		0.000050	0.00020	mg/L	1	7/22/2011 02:51
Acenaphthylene	U		0.000050	0.00020	mg/L	1	7/22/2011 02:51
Anthracene	U		0.000050	0.00020	mg/L	1	7/22/2011 02:51
Benz(a)anthracene	U		0.000050	0.00020	mg/L	1	7/22/2011 02:51
Benzo(a)pyrene	U		0.000050	0.00020	mg/L	1	7/22/2011 02:51
Bis(2-chloroethoxy)methane	U		0.000050	0.00020	mg/L	1	7/22/2011 02:51
Bis(2-ethylhexyl)phthalate	0.00043		0.00010	0.00020	mg/L	1	7/22/2011 02:51
Chrysene	U		0.000050	0.00020	mg/L	1	7/22/2011 02:51
Dibenzofuran	U		0.000050	0.00020	mg/L	1	7/22/2011 02:51
Di-n-butyl phthalate	U		0.000050	0.00020	mg/L	1	7/22/2011 02:51
Fluoranthene	0.00013	J	0.000050	0.00020	mg/L	1	7/22/2011 02:51
Fluorene	U		0.000050	0.00020	mg/L	1	7/22/2011 02:51
Naphthalene	U		0.000050	0.00020	mg/L	1	7/22/2011 02:51
Nitrobenzene	U		0.000050	0.00020	mg/L	1	7/22/2011 02:51
N-Nitrosodiphenylamine	U		0.000050	0.00020	mg/L	1	7/22/2011 02:51
Pentachlorophenol	U		0.000050	0.00020	mg/L	1	7/22/2011 02:51
Phenanthrene	U		0.000050	0.00020	mg/L	1	7/22/2011 02:51
Phenol	U		0.000050	0.00020	mg/L	1	7/22/2011 02:51
Pyrene	0.00010	J	0.000050	0.00020	mg/L	1	7/22/2011 02:51
Surr: 2,4,6-Tribromophenol	44.6			34-129	%REC	1	7/22/2011 02:51
Surr: 2-Fluorobiphenyl	43.0			40-125	%REC	1	7/22/2011 02:51
Surr: 2-Fluorophenol	30.8			20-120	%REC	1	7/22/2011 02:51
Surr: 4-Terphenyl-d14	60.8			40-135	%REC	1	7/22/2011 02:51
Surr: Nitrobenzene-d5	46.1			41-120	%REC	1	7/22/2011 02:51
Surr: Phenol-d6	34.3			20-120	%REC	1	7/22/2011 02:51
VOLATILES		Method: SW8260				Analyst: PC	
1,2-Dichloroethane	U		0.0010	0.0050	mg/L	1	7/26/2011 20:15
Benzene	U		0.0010	0.0050	mg/L	1	7/26/2011 20:15
Chlorobenzene	U		0.0010	0.0050	mg/L	1	7/26/2011 20:15
Ethylbenzene	U		0.0011	0.0050	mg/L	1	7/26/2011 20:15

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 05-Aug-11

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-MW48C-20110718
Collection Date: 7/18/2011 01:40 PM

Work Order: 1107622
Lab ID: 1107622-15
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
Methylene chloride	U		0.0013	0.010	mg/L	1	7/26/2011 20:15
Toluene	U		0.0010	0.0050	mg/L	1	7/26/2011 20:15
Xylenes, Total	U		0.0031	0.015	mg/L	1	7/26/2011 20:15
Surr: 1,2-Dichloroethane-d4	95.6			70-125	%REC	1	7/26/2011 20:15
Surr: 4-Bromofluorobenzene	102			72-125	%REC	1	7/26/2011 20:15
Surr: Dibromofluoromethane	100			71-125	%REC	1	7/26/2011 20:15
Surr: Toluene-d8	96.4			75-125	%REC	1	7/26/2011 20:15

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 05-Aug-11

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-MW60A-20110718
Collection Date: 7/18/2011 02:45 PM

Work Order: 1107622
Lab ID: 1107622-16
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270	Prep: SW3510 / 7/21/11		Analyst: LG	
1,2-Diphenylhydrazine	U		0.000050	0.00020	mg/L	1	7/24/2011 01:20
2,4-Dimethylphenol	U		0.000050	0.00020	mg/L	1	7/24/2011 01:20
2,4-Dinitrotoluene	U		0.000050	0.00020	mg/L	1	7/24/2011 01:20
2,6-Dinitrotoluene	U		0.000060	0.00020	mg/L	1	7/24/2011 01:20
2-Chloronaphthalene	U		0.000050	0.00020	mg/L	1	7/24/2011 01:20
2-Methylnaphthalene	U		0.000050	0.00020	mg/L	1	7/24/2011 01:20
4,6-Dinitro-2-methylphenol	U		0.000080	0.00020	mg/L	1	7/24/2011 01:20
4-Nitrophenol	U		0.000050	0.0010	mg/L	1	7/24/2011 01:20
Acenaphthene	U		0.000050	0.00020	mg/L	1	7/24/2011 01:20
Acenaphthylene	U		0.000050	0.00020	mg/L	1	7/24/2011 01:20
Anthracene	U		0.000050	0.00020	mg/L	1	7/24/2011 01:20
Benz(a)anthracene	U		0.000050	0.00020	mg/L	1	7/24/2011 01:20
Benzo(a)pyrene	U		0.000050	0.00020	mg/L	1	7/24/2011 01:20
Bis(2-chloroethoxy)methane	U		0.000050	0.00020	mg/L	1	7/24/2011 01:20
Bis(2-ethylhexyl)phthalate	0.00017	J	0.00010	0.00020	mg/L	1	7/24/2011 01:20
Chrysene	U		0.000050	0.00020	mg/L	1	7/24/2011 01:20
Dibenzofuran	U		0.000050	0.00020	mg/L	1	7/24/2011 01:20
Di-n-butyl phthalate	U		0.000050	0.00020	mg/L	1	7/24/2011 01:20
Fluoranthene	U		0.000050	0.00020	mg/L	1	7/24/2011 01:20
Fluorene	U		0.000050	0.00020	mg/L	1	7/24/2011 01:20
Naphthalene	U		0.000050	0.00020	mg/L	1	7/24/2011 01:20
Nitrobenzene	U		0.000050	0.00020	mg/L	1	7/24/2011 01:20
N-Nitrosodiphenylamine	U		0.000050	0.00020	mg/L	1	7/24/2011 01:20
Pentachlorophenol	U		0.000050	0.00020	mg/L	1	7/24/2011 01:20
Phenanthrene	U		0.000050	0.00020	mg/L	1	7/24/2011 01:20
Phenol	U		0.000050	0.00020	mg/L	1	7/24/2011 01:20
Pyrene	U		0.000050	0.00020	mg/L	1	7/24/2011 01:20
Surr: 2,4,6-Tribromophenol	61.2			34-129	%REC	1	7/24/2011 01:20
Surr: 2-Fluorobiphenyl	47.3			40-125	%REC	1	7/24/2011 01:20
Surr: 2-Fluorophenol	39.4			20-120	%REC	1	7/24/2011 01:20
Surr: 4-Terphenyl-d14	60.7			40-135	%REC	1	7/24/2011 01:20
Surr: Nitrobenzene-d5	47.1			41-120	%REC	1	7/24/2011 01:20
Surr: Phenol-d6	46.1			20-120	%REC	1	7/24/2011 01:20
VOLATILES			Method: SW8260			Analyst: PC	
1,2-Dichloroethane	U		0.0010	0.0050	mg/L	1	7/26/2011 21:08
Benzene	U		0.0010	0.0050	mg/L	1	7/26/2011 21:08
Chlorobenzene	U		0.0010	0.0050	mg/L	1	7/26/2011 21:08
Ethylbenzene	U		0.0011	0.0050	mg/L	1	7/26/2011 21:08

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 05-Aug-11

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-MW60A-20110718
Collection Date: 7/18/2011 02:45 PM

Work Order: 1107622
Lab ID: 1107622-16
Matrix: WATER

Analyses	Result	Qual	SDL	ML	Units	Dilution Factor	Date Analyzed
Methylene chloride	U		0.0013	0.010	mg/L	1	7/26/2011 21:08
Toluene	U		0.0010	0.0050	mg/L	1	7/26/2011 21:08
Vinyl chloride	U		0.0010	0.0020	mg/L	1	7/26/2011 21:08
Xylenes, Total	U		0.0031	0.015	mg/L	1	7/26/2011 21:08
Surr: 1,2-Dichloroethane-d4	93.1			70-125	%REC	1	7/26/2011 21:08
Surr: 4-Bromofluorobenzene	96.5			72-125	%REC	1	7/26/2011 21:08
Surr: Dibromofluoromethane	95.6			71-125	%REC	1	7/26/2011 21:08
Surr: Toluene-d8	99.0			75-125	%REC	1	7/26/2011 21:08

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 05-Aug-11

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-MW59A-20110718
Collection Date: 7/18/2011 03:40 PM

Work Order: 1107622
Lab ID: 1107622-17
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270	Prep: SW3510 / 7/21/11	Analyst: LG		
1,2-Diphenylhydrazine	U		0.000050	0.00020	mg/L	1	7/22/2011 03:11
2,4-Dimethylphenol	0.000066	J	0.000050	0.00020	mg/L	1	7/22/2011 03:11
2,4-Dinitrotoluene	U		0.000050	0.00020	mg/L	1	7/22/2011 03:11
2,6-Dinitrotoluene	U		0.000060	0.00020	mg/L	1	7/22/2011 03:11
2-Chloronaphthalene	U		0.000050	0.00020	mg/L	1	7/22/2011 03:11
2-Methylnaphthalene	U		0.000050	0.00020	mg/L	1	7/22/2011 03:11
4,6-Dinitro-2-methylphenol	U		0.000080	0.00020	mg/L	1	7/22/2011 03:11
4-Nitrophenol	U		0.000050	0.0010	mg/L	1	7/22/2011 03:11
Acenaphthene	U		0.000050	0.00020	mg/L	1	7/22/2011 03:11
Acenaphthylene	U		0.000050	0.00020	mg/L	1	7/22/2011 03:11
Anthracene	U		0.000050	0.00020	mg/L	1	7/22/2011 03:11
Benz(a)anthracene	U		0.000050	0.00020	mg/L	1	7/22/2011 03:11
Benzo(a)pyrene	U		0.000050	0.00020	mg/L	1	7/22/2011 03:11
Bis(2-chloroethoxy)methane	U		0.000050	0.00020	mg/L	1	7/22/2011 03:11
Bis(2-ethylhexyl)phthalate	0.00054		0.00010	0.00020	mg/L	1	7/22/2011 03:11
Chrysene	U		0.000050	0.00020	mg/L	1	7/22/2011 03:11
Dibenzofuran	U		0.000050	0.00020	mg/L	1	7/22/2011 03:11
Di-n-butyl phthalate	U		0.000050	0.00020	mg/L	1	7/22/2011 03:11
Fluoranthene	0.00012	J	0.000050	0.00020	mg/L	1	7/22/2011 03:11
Fluorene	U		0.000050	0.00020	mg/L	1	7/22/2011 03:11
Naphthalene	U		0.000050	0.00020	mg/L	1	7/22/2011 03:11
Nitrobenzene	U		0.000050	0.00020	mg/L	1	7/22/2011 03:11
N-Nitrosodiphenylamine	U		0.000050	0.00020	mg/L	1	7/22/2011 03:11
Pentachlorophenol	U		0.000050	0.00020	mg/L	1	7/22/2011 03:11
Phenanthrene	0.00018	J	0.000050	0.00020	mg/L	1	7/22/2011 03:11
Phenol	U		0.000050	0.00020	mg/L	1	7/22/2011 03:11
Pyrene	U		0.000050	0.00020	mg/L	1	7/22/2011 03:11
Surr: 2,4,6-Tribromophenol	66.3			34-129	%REC	1	7/22/2011 03:11
Surr: 2-Fluorobiphenyl	49.7			40-125	%REC	1	7/22/2011 03:11
Surr: 2-Fluorophenol	31.4			20-120	%REC	1	7/22/2011 03:11
Surr: 4-Terphenyl-d14	66.7			40-135	%REC	1	7/22/2011 03:11
Surr: Nitrobenzene-d5	45.6			41-120	%REC	1	7/22/2011 03:11
Surr: Phenol-d6	34.8			20-120	%REC	1	7/22/2011 03:11
VOLATILES			Method: SW8260	Analyst: PC			
1,2-Dichloroethane	U		0.0010	0.0050	mg/L	1	7/26/2011 22:01
Benzene	U		0.0010	0.0050	mg/L	1	7/26/2011 22:01
Chlorobenzene	U		0.0010	0.0050	mg/L	1	7/26/2011 22:01
Ethylbenzene	U		0.0011	0.0050	mg/L	1	7/26/2011 22:01

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 05-Aug-11

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-MW59A-20110718
Collection Date: 7/18/2011 03:40 PM

Work Order: 1107622
Lab ID: 1107622-17
Matrix: WATER

Analyses	Result	Qual	SDL	ML	Units	Dilution Factor	Date Analyzed
Methylene chloride	U		0.0013	0.010	mg/L	1	7/26/2011 22:01
Toluene	U		0.0010	0.0050	mg/L	1	7/26/2011 22:01
Vinyl chloride	U		0.0010	0.0020	mg/L	1	7/26/2011 22:01
Xylenes, Total	U		0.0031	0.015	mg/L	1	7/26/2011 22:01
Surr: 1,2-Dichloroethane-d4	95.2			70-125	%REC	1	7/26/2011 22:01
Surr: 4-Bromofluorobenzene	99.5			72-125	%REC	1	7/26/2011 22:01
Surr: Dibromofluoromethane	102			71-125	%REC	1	7/26/2011 22:01
Surr: Toluene-d8	101			75-125	%REC	1	7/26/2011 22:01

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 05-Aug-11

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-MW59B-20110718
Collection Date: 7/18/2011 04:30 PM

Work Order: 1107622
Lab ID: 1107622-18
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES		Method: SW8270		Prep: SW3510 / 7/21/11		Analyst: LG	
1,2-Diphenylhydrazine	U		0.000050	0.00020	mg/L	1	7/22/2011 03:31
2,4-Dimethylphenol	U		0.000050	0.00020	mg/L	1	7/22/2011 03:31
2,4-Dinitrotoluene	U		0.000050	0.00020	mg/L	1	7/22/2011 03:31
2,6-Dinitrotoluene	U		0.000060	0.00020	mg/L	1	7/22/2011 03:31
2-Chloronaphthalene	U		0.000050	0.00020	mg/L	1	7/22/2011 03:31
2-Methylnaphthalene	U		0.000050	0.00020	mg/L	1	7/22/2011 03:31
4,6-Dinitro-2-methylphenol	U		0.000080	0.00020	mg/L	1	7/22/2011 03:31
4-Nitrophenol	U		0.000050	0.0010	mg/L	1	7/22/2011 03:31
Acenaphthene	U		0.000050	0.00020	mg/L	1	7/22/2011 03:31
Acenaphthylene	U		0.000050	0.00020	mg/L	1	7/22/2011 03:31
Anthracene	U		0.000050	0.00020	mg/L	1	7/22/2011 03:31
Benz(a)anthracene	U		0.000050	0.00020	mg/L	1	7/22/2011 03:31
Benzo(a)pyrene	U		0.000050	0.00020	mg/L	1	7/22/2011 03:31
Bis(2-chloroethoxy)methane	U		0.000050	0.00020	mg/L	1	7/22/2011 03:31
Bis(2-ethylhexyl)phthalate	0.00031		0.00010	0.00020	mg/L	1	7/22/2011 03:31
Chrysene	U		0.000050	0.00020	mg/L	1	7/22/2011 03:31
Dibenzofuran	U		0.000050	0.00020	mg/L	1	7/22/2011 03:31
Di-n-butyl phthalate	U		0.000050	0.00020	mg/L	1	7/22/2011 03:31
Fluoranthene	U		0.000050	0.00020	mg/L	1	7/22/2011 03:31
Fluorene	U		0.000050	0.00020	mg/L	1	7/22/2011 03:31
Naphthalene	U		0.000050	0.00020	mg/L	1	7/22/2011 03:31
Nitrobenzene	U		0.000050	0.00020	mg/L	1	7/22/2011 03:31
N-Nitrosodiphenylamine	U		0.000050	0.00020	mg/L	1	7/22/2011 03:31
Pentachlorophenol	U		0.000050	0.00020	mg/L	1	7/22/2011 03:31
Phenanthrene	U		0.000050	0.00020	mg/L	1	7/22/2011 03:31
Phenol	U		0.000050	0.00020	mg/L	1	7/22/2011 03:31
Pyrene	U		0.000050	0.00020	mg/L	1	7/22/2011 03:31
Surr: 2,4,6-Tribromophenol	59.8			34-129	%REC	1	7/22/2011 03:31
Surr: 2-Fluorobiphenyl	43.9			40-125	%REC	1	7/22/2011 03:31
Surr: 2-Fluorophenol	30.6			20-120	%REC	1	7/22/2011 03:31
Surr: 4-Terphenyl-d14	57.8			40-135	%REC	1	7/22/2011 03:31
Surr: Nitrobenzene-d5	45.5			41-120	%REC	1	7/22/2011 03:31
Surr: Phenol-d6	32.7			20-120	%REC	1	7/22/2011 03:31
VOLATILES		Method: SW8260				Analyst: PC	
1,2-Dichloroethane	U		0.0010	0.0050	mg/L	1	7/26/2011 22:54
Benzene	U		0.0010	0.0050	mg/L	1	7/26/2011 22:54
Chlorobenzene	U		0.0010	0.0050	mg/L	1	7/26/2011 22:54
Ethylbenzene	U		0.0011	0.0050	mg/L	1	7/26/2011 22:54

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 05-Aug-11

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-MW59B-20110718
Collection Date: 7/18/2011 04:30 PM

Work Order: 1107622
Lab ID: 1107622-18
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
Methylene chloride	U		0.0013	0.010	mg/L	1	7/26/2011 22:54
Toluene	U		0.0010	0.0050	mg/L	1	7/26/2011 22:54
Vinyl chloride	U		0.0010	0.0020	mg/L	1	7/26/2011 22:54
Xylenes, Total	U		0.0031	0.015	mg/L	1	7/26/2011 22:54
Surr: 1,2-Dichloroethane-d4	100			70-125	%REC	1	7/26/2011 22:54
Surr: 4-Bromofluorobenzene	105			72-125	%REC	1	7/26/2011 22:54
Surr: Dibromofluoromethane	99.0			71-125	%REC	1	7/26/2011 22:54
Surr: Toluene-d8	99.8			75-125	%REC	1	7/26/2011 22:54

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 05-Aug-11

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-FB03-20110718
Collection Date: 7/18/2011 05:00 PM

Work Order: 1107622
Lab ID: 1107622-19
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270	Prep: SW3510 / 7/21/11		Analyst: LG	
1,2-Diphenylhydrazine	U		0.000050	0.00020	mg/L	1	7/26/2011 00:30
2,4-Dimethylphenol	U		0.000050	0.00020	mg/L	1	7/26/2011 00:30
2,4-Dinitrotoluene	U		0.000050	0.00020	mg/L	1	7/26/2011 00:30
2,6-Dinitrotoluene	U		0.000060	0.00020	mg/L	1	7/26/2011 00:30
2-Chloronaphthalene	U		0.000050	0.00020	mg/L	1	7/26/2011 00:30
2-Methylnaphthalene	0.00012	J	0.000050	0.00020	mg/L	1	7/26/2011 00:30
4,6-Dinitro-2-methylphenol	U		0.000080	0.00020	mg/L	1	7/26/2011 00:30
4-Nitrophenol	U		0.000050	0.0010	mg/L	1	7/26/2011 00:30
Acenaphthene	U		0.000050	0.00020	mg/L	1	7/26/2011 00:30
Acenaphthylene	U		0.000050	0.00020	mg/L	1	7/26/2011 00:30
Anthracene	U		0.000050	0.00020	mg/L	1	7/26/2011 00:30
Benz(a)anthracene	U		0.000050	0.00020	mg/L	1	7/26/2011 00:30
Benzo(a)pyrene	U		0.000050	0.00020	mg/L	1	7/26/2011 00:30
Bis(2-chloroethoxy)methane	U		0.000050	0.00020	mg/L	1	7/26/2011 00:30
Bis(2-ethylhexyl)phthalate	0.00045		0.00010	0.00020	mg/L	1	7/26/2011 00:30
Chrysene	U		0.000050	0.00020	mg/L	1	7/26/2011 00:30
Dibenzofuran	0.000096	J	0.000050	0.00020	mg/L	1	7/26/2011 00:30
Di-n-butyl phthalate	U		0.000050	0.00020	mg/L	1	7/26/2011 00:30
Fluoranthene	0.00035		0.000050	0.00020	mg/L	1	7/26/2011 00:30
Fluorene	U		0.000050	0.00020	mg/L	1	7/26/2011 00:30
Naphthalene	0.00034		0.000050	0.00020	mg/L	1	7/26/2011 00:30
Nitrobenzene	U		0.000050	0.00020	mg/L	1	7/26/2011 00:30
N-Nitrosodiphenylamine	U		0.000050	0.00020	mg/L	1	7/26/2011 00:30
Pentachlorophenol	U		0.000050	0.00020	mg/L	1	7/26/2011 00:30
Phenanthrene	0.00061		0.000050	0.00020	mg/L	1	7/26/2011 00:30
Phenol	U		0.000050	0.00020	mg/L	1	7/26/2011 00:30
Pyrene	0.00024		0.000050	0.00020	mg/L	1	7/26/2011 00:30
Surr: 2,4,6-Tribromophenol	47.2			34-129	%REC	1	7/26/2011 00:30
Surr: 2-Fluorobiphenyl	40.1			40-125	%REC	1	7/26/2011 00:30
Surr: 2-Fluorophenol	34.0			20-120	%REC	1	7/26/2011 00:30
Surr: 4-Terphenyl-d14	54.8			40-135	%REC	1	7/26/2011 00:30
Surr: Nitrobenzene-d5	41.4			41-120	%REC	1	7/26/2011 00:30
Surr: Phenol-d6	35.9			20-120	%REC	1	7/26/2011 00:30

VOLATILES			Method: SW8260			Analyst: PC	
1,2-Dichloroethane	U		0.0010	0.0050	mg/L	1	7/21/2011 06:25
Benzene	U		0.0010	0.0050	mg/L	1	7/21/2011 06:25
Chlorobenzene	U		0.0010	0.0050	mg/L	1	7/21/2011 06:25
Ethylbenzene	U		0.0011	0.0050	mg/L	1	7/21/2011 06:25

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 05-Aug-11

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-FB03-20110718
Collection Date: 7/18/2011 05:00 PM

Work Order: 1107622
Lab ID: 1107622-19
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
Methylene chloride	U		0.0013	0.010	mg/L	1	7/21/2011 06:25
Toluene	U		0.0010	0.0050	mg/L	1	7/21/2011 06:25
Vinyl chloride	U	H	0.0010	0.0020	mg/L	1	8/2/2011 20:01
Xylenes, Total	U		0.0031	0.015	mg/L	1	7/21/2011 06:25
Surr: 1,2-Dichloroethane-d4	86.4			70-125	%REC	1	7/21/2011 06:25
Surr: 1,2-Dichloroethane-d4	98.9			70-125	%REC	1	8/2/2011 20:01
Surr: 4-Bromofluorobenzene	98.4			72-125	%REC	1	7/21/2011 06:25
Surr: 4-Bromofluorobenzene	99.5			72-125	%REC	1	8/2/2011 20:01
Surr: Dibromofluoromethane	92.2			71-125	%REC	1	7/21/2011 06:25
Surr: Dibromofluoromethane	98.6			71-125	%REC	1	8/2/2011 20:01
Surr: Toluene-d8	97.2			75-125	%REC	1	7/21/2011 06:25
Surr: Toluene-d8	99.1			75-125	%REC	1	8/2/2011 20:01

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 05-Aug-11

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-TB-20110719
Collection Date: 7/19/2011

Work Order: 1107622
Lab ID: 1107622-20
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
VOLATILES			Method: SW8260			Analyst: PC	
1,2-Dichloroethane	U		0.0010	0.0050	mg/L	1	8/2/2011 20:27
Benzene	U		0.0010	0.0050	mg/L	1	8/2/2011 20:27
Chlorobenzene	U		0.0010	0.0050	mg/L	1	8/2/2011 20:27
Ethylbenzene	U		0.0011	0.0050	mg/L	1	8/2/2011 20:27
Methylene chloride	U		0.0013	0.010	mg/L	1	8/2/2011 20:27
Toluene	U		0.0010	0.0050	mg/L	1	8/2/2011 20:27
Vinyl chloride	U		0.0010	0.0020	mg/L	1	8/2/2011 20:27
Xylenes, Total	U		0.0031	0.015	mg/L	1	8/2/2011 20:27
Surr: 1,2-Dichloroethane-d4		102		70-125	%REC	1	8/2/2011 20:27
Surr: 4-Bromofluorobenzene		98.3		72-125	%REC	1	8/2/2011 20:27
Surr: Dibromofluoromethane		101		71-125	%REC	1	8/2/2011 20:27
Surr: Toluene-d8		100		75-125	%REC	1	8/2/2011 20:27

Note: See Qualifiers Page for a list of qualifiers and their explanation.

WorkOrder: 1107622
 InstrumentID: SV-2
 Test Code: 8270_LOW_W
 Test Number: SW8270
 Test Name: Low-Level Semivolatiles

**METHOD DETECTION /
 REPORTING LIMITS**

Matrix: Aqueous Units: mg/L

Type	Analyte	CAS	DCS	MDL	Unadjusted MQL
A	1,2-Diphenylhydrazine	122-66-7	0.000074	0.000050	0.00020
A	2,4-Dimethylphenol	105-67-9	0.000046	0.000050	0.00020
A	2,4-Dinitrotoluene	121-14-2	0.000058	0.000050	0.00020
A	2,6-Dinitrotoluene	606-20-2	0.000066	0.000060	0.00020
A	2-Chloronaphthalene	91-58-7	0.000062	0.000050	0.00020
A	2-Methylnaphthalene	91-57-6	0.000073	0.000050	0.00020
A	4,6-Dinitro-2-methylphenol	534-52-1	0.000089	0.000080	0.00020
A	4-Nitrophenol	100-02-7	0.000046	0.000050	0.0010
A	Acenaphthene	83-32-9	0.000088	0.000050	0.00020
A	Acenaphthylene	208-96-8	0.000076	0.000050	0.00020
A	Anthracene	120-12-7	0.000079	0.000050	0.00020
A	Benz(a)anthracene	56-55-3	0.000071	0.000050	0.00020
A	Benzo(a)pyrene	50-32-8	0.000058	0.000050	0.00020
A	Bis(2-chloroethoxy)methane	111-91-1	0.000082	0.000050	0.00020
A	Bis(2-ethylhexyl)phthalate	117-81-7	0.000081	0.00010	0.00020
A	Chrysene	218-01-9	0.000095	0.000050	0.00020
A	Di-n-butyl phthalate	84-74-2	0.000080	0.000050	0.00020
A	Dibenzofuran	132-64-9	0.000083	0.000050	0.00020
A	Fluoranthene	206-44-0	0.000076	0.000050	0.00020
A	Fluorene	86-73-7	0.000078	0.000050	0.00020
A	N-Nitrosodiphenylamine	86-30-6	0.000073	0.000050	0.00020
A	Naphthalene	91-20-3	0.000082	0.000050	0.00020
A	Nitrobenzene	98-95-3	0.00010	0.000050	0.00020
A	Pentachlorophenol	87-86-5	0.000047	0.000050	0.00020
A	Phenanthrene	85-01-8	0.000096	0.000050	0.00020
A	Phenol	108-95-2	0.000093	0.000050	0.00020
A	Pyrene	129-00-0	0.00010	0.000050	0.00020
S	Surr: 2,4,6-Tribromophenol	118-79-6	0	0	0.00020
S	Surr: 2-Fluorobiphenyl	321-60-8	0	0	0.00020
S	Surr: 2-Fluorophenol	367-12-4	0	0	0.00020
S	Surr: 4-Terphenyl-d14	1718-51-0	0	0	0.00020
S	Surr: Nitrobenzene-d5	4165-60-0	0	0	0.00020
S	Surr: Phenol-d6	13127-88-3	0	0	0.00020

WorkOrder: 1107622
 InstrumentID: SV-6
 Test Code: 8270_LOW_W
 Test Number: SW8270
 Test Name: Low-Level Semivolatiles

**METHOD DETECTION /
 REPORTING LIMITS**

Matrix: Aqueous Units: mg/L

Type	Analyte	CAS	DCS	MDL	Unadjusted MQL
A	1,2-Diphenylhydrazine	122-66-7	0.000072	0.000050	0.00020
A	2,4-Dimethylphenol	105-67-9	0.000014	0.000050	0.00020
A	2,4-Dinitrotoluene	121-14-2	0.000060	0.000050	0.00020
A	2,6-Dinitrotoluene	606-20-2	0.000064	0.000060	0.00020
A	2-Chloronaphthalene	91-58-7	0.000070	0.000050	0.00020
A	2-Methylnaphthalene	91-57-6	0.000081	0.000050	0.00020
A	4,6-Dinitro-2-methylphenol	534-52-1	0.000046	0.000080	0.00020
A	4-Nitrophenol	100-02-7	0.000045	0.000050	0.0010
A	Acenaphthene	83-32-9	0.000077	0.000050	0.00020
A	Acenaphthylene	208-96-8	0.000075	0.000050	0.00020
A	Anthracene	120-12-7	0.000071	0.000050	0.00020
A	Benz(a)anthracene	56-55-3	0.000086	0.000050	0.00020
A	Benzo(a)pyrene	50-32-8	0.000073	0.000050	0.00020
A	Bis(2-chloroethoxy)methane	111-91-1	0.000076	0.000050	0.00020
A	Bis(2-ethylhexyl)phthalate	117-81-7	0.000093	0.00010	0.00020
A	Chrysene	218-01-9	0.000084	0.000050	0.00020
A	Di-n-butyl phthalate	84-74-2	0.000078	0.000050	0.00020
A	Dibenzofuran	132-64-9	0.000077	0.000050	0.00020
A	Fluoranthene	206-44-0	0.000076	0.000050	0.00020
A	Fluorene	86-73-7	0.000075	0.000050	0.00020
A	N-Nitrosodiphenylamine	86-30-6	0.000075	0.000050	0.00020
A	Naphthalene	91-20-3	0.000083	0.000050	0.00020
A	Nitrobenzene	98-95-3	0.000098	0.000050	0.00020
A	Pentachlorophenol	87-86-5	0.00018	0.000050	0.00020
A	Phenanthrene	85-01-8	0.000079	0.000050	0.00020
A	Phenol	108-95-2	0.000078	0.000050	0.00020
A	Pyrene	129-00-0	0.000077	0.000050	0.00020
S	Surr: 2,4,6-Tribromophenol	118-79-6	0	0	0.00020
S	Surr: 2-Fluorobiphenyl	321-60-8	0	0	0.00020
S	Surr: 2-Fluorophenol	367-12-4	0	0	0.00020
S	Surr: 4-Terphenyl-d14	1718-51-0	0	0	0.00020
S	Surr: Nitrobenzene-d5	4165-60-0	0	0	0.00020
S	Surr: Phenol-d6	13127-88-3	0	0	0.00020

WorkOrder: 1107622
InstrumentID: VOA1
Test Code: 8260_W
Test Number: SW8260
Test Name: Volatiles

**METHOD DETECTION /
 REPORTING LIMITS**

Matrix: Aqueous **Units:** mg/L

Type	Analyte	CAS	DCS	MDL	Unadjusted MQL
A	1,2-Dichloroethane	107-06-2	0.0020	0.0010	0.0050
A	Benzene	71-43-2	0.0021	0.0010	0.0050
A	Chlorobenzene	108-90-7	0.0020	0.0010	0.0050
A	Ethylbenzene	100-41-4	0.0020	0.0011	0.0050
A	Methylene chloride	75-09-2	0.0026	0.0013	0.010
A	Toluene	108-88-3	0.0020	0.0010	0.0050
A	Vinyl chloride	75-01-4	0.0016	0.0010	0.0020
M	Xylenes, Total	1330-20-7	0.0058	0.0031	0.015
S	Surr: 1,2-Dichloroethane-d4	17060-07-0	0	0	0.0050
S	Surr: 4-Bromofluorobenzene	460-00-4	0	0	0.0050
S	Surr: Dibromofluoromethane	1868-53-7	0	0	0.0050
S	Surr: Toluene-d8	2037-26-5	0	0	0.0050

WorkOrder: 1107622
InstrumentID: VOA7
Test Code: 8260_W
Test Number: SW8260
Test Name: Volatiles

**METHOD DETECTION /
REPORTING LIMITS**

Matrix: Aqueous Units: mg/L

Type	Analyte	CAS	DCS	MDL	Unadjusted MQL
A	1,2-Dichloroethane	107-06-2	0.0014	0.0010	0.0050
A	Benzene	71-43-2	0.0015	0.0010	0.0050
A	Chlorobenzene	108-90-7	0.0014	0.0010	0.0050
A	Ethylbenzene	100-41-4	0.0014	0.0011	0.0050
A	Methylene chloride	75-09-2	0.0017	0.0013	0.010
A	Toluene	108-88-3	0.0015	0.0010	0.0050
A	Vinyl chloride	75-01-4	0.0014	0.0010	0.0020
M	Xylenes, Total	1330-20-7	0.0043	0.0031	0.015
S	Surr: 1,2-Dichloroethane-d4	17060-07-0	0	0	0.0050
S	Surr: 4-Bromofluorobenzene	460-00-4	0	0	0.0050
S	Surr: Dibromofluoromethane	1868-53-7	0	0	0.0050
S	Surr: Toluene-d8	2037-26-5	0	0	0.0050

ALS Environmental

Date: 27-Jul-11

Client: Pastor, Behling & Wheeler, LLC
Work Order: 1107622
Project: HWPW Site-Wide GW

QC BATCH REPORT

Batch ID: **54132** Instrument ID **SV-6** Method: **SW8270**

MBLK	Sample ID: SBLKW5-110721-54132	Units: µg/L					Analysis Date: 7/23/2011 07:02 PM			
Client ID:	Run ID: SV-6_110721B	SeqNo: 2472572			Prep Date: 7/21/2011		DF: 1			
Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Diphenylhydrazine	U	0.20								
2,4-Dimethylphenol	U	0.20								
2,4-Dinitrotoluene	U	0.20								
2,6-Dinitrotoluene	U	0.20								
2-Chloronaphthalene	U	0.20								
2-Methylnaphthalene	U	0.20								
4,6-Dinitro-2-methylphenol	U	0.20								
4-Nitrophenol	U	1.0								
Acenaphthene	U	0.20								
Acenaphthylene	U	0.20								
Anthracene	U	0.20								
Benz(a)anthracene	U	0.20								
Benzo(a)pyrene	U	0.20								
Bis(2-chloroethoxy)methane	U	0.20								
Bis(2-ethylhexyl)phthalate	U	0.20								
Chrysene	U	0.20								
Di-n-butyl phthalate	U	0.20								
Dibenzofuran	U	0.20								
Fluoranthene	U	0.20								
Fluorene	U	0.20								
N-Nitrosodiphenylamine	U	0.20								
Naphthalene	U	0.20								
Nitrobenzene	U	0.20								
Pentachlorophenol	U	0.20								
Phenanthrene	U	0.20								
Phenol	U	0.20								
Pyrene	U	0.20								
<i>Surr: 2,4,6-Tribromophenol</i>	<i>4.274</i>	<i>0.20</i>	<i>5</i>	<i>0</i>	<i>85.5</i>	<i>34-129</i>	<i>0</i>			
<i>Surr: 2-Fluorobiphenyl</i>	<i>3.873</i>	<i>0.20</i>	<i>5</i>	<i>0</i>	<i>77.5</i>	<i>40-125</i>	<i>0</i>			
<i>Surr: 2-Fluorophenol</i>	<i>3.13</i>	<i>0.20</i>	<i>5</i>	<i>0</i>	<i>62.6</i>	<i>20-120</i>	<i>0</i>			
<i>Surr: 4-Terphenyl-d14</i>	<i>3.989</i>	<i>0.20</i>	<i>5</i>	<i>0</i>	<i>79.8</i>	<i>40-135</i>	<i>0</i>			
<i>Surr: Nitrobenzene-d5</i>	<i>3.575</i>	<i>0.20</i>	<i>5</i>	<i>0</i>	<i>71.5</i>	<i>41-120</i>	<i>0</i>			
<i>Surr: Phenol-d6</i>	<i>3.436</i>	<i>0.20</i>	<i>5</i>	<i>0</i>	<i>68.7</i>	<i>20-120</i>	<i>0</i>			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Pastor, Behling & Wheeler, LLC
 Work Order: 1107622
 Project: HWPW Site-Wide GW

QC BATCH REPORT

Batch ID: **54132** Instrument ID **SV-6** Method: **SW8270**

LCS		Sample ID: SLCSW5-110721-54132			Units: µg/L			Analysis Date: 7/23/2011 07:21 PM		
Client ID:		Run ID: SV-6_110721B			SeqNo: 2472573		Prep Date: 7/21/2011		DF: 1	
Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Diphenylhydrazine	3.603	0.20	5	0	72.1	39-127	0			
2,4-Dimethylphenol	3.33	0.20	5	0	66.6	35-120	0			
2,4-Dinitrotoluene	4.146	0.20	5	0	82.9	50-122	0			
2,6-Dinitrotoluene	4.352	0.20	5	0	87	50-120	0			
2-Chloronaphthalene	4.089	0.20	5	0	81.8	50-120	0			
2-Methylnaphthalene	4.126	0.20	5	0	82.5	50-120	0			
4,6-Dinitro-2-methylphenol	3.733	0.20	5	0	74.7	25-121	0			
4-Nitrophenol	4.219	1.0	5	0	84.4	30-130	0			
Acenaphthene	3.622	0.20	5	0	72.4	45-120	0			
Acenaphthylene	3.844	0.20	5	0	76.9	47-120	0			
Anthracene	3.995	0.20	5	0	79.9	45-120	0			
Benz(a)anthracene	4.136	0.20	5	0	82.7	40-120	0			
Benzo(a)pyrene	4.11	0.20	5	0	82.2	45-120	0			
Bis(2-chloroethoxy)methane	3.608	0.20	5	0	72.2	45-120	0			
Bis(2-ethylhexyl)phthalate	3.982	0.20	5	0	79.6	40-139	0			
Chrysene	4.179	0.20	5	0	83.6	43-120	0			
Di-n-butyl phthalate	4.165	0.20	5	0	83.3	45-123	0			
Dibenzofuran	3.997	0.20	5	0	79.9	50-120	0			
Fluoranthene	4.32	0.20	5	0	86.4	45-125	0			
Fluorene	4.211	0.20	5	0	84.2	49-120	0			
N-Nitrosodiphenylamine	4.082	0.20	5	0	81.6	40-125	0			
Naphthalene	3.74	0.20	5	0	74.8	45-120	0			
Nitrobenzene	3.599	0.20	5	0	72	44-120	0			
Pentachlorophenol	2.935	0.20	5	0	58.7	19-121	0			
Phenanthrene	4.048	0.20	5	0	81	45-121	0			
Phenol	3.093	0.20	5	0	61.9	20-124	0			
Pyrene	4.104	0.20	5	0	82.1	40-130	0			
<i>Surr: 2,4,6-Tribromophenol</i>	<i>4.372</i>	<i>0.20</i>	<i>5</i>	<i>0</i>	<i>87.4</i>	<i>34-129</i>	<i>0</i>			
<i>Surr: 2-Fluorobiphenyl</i>	<i>3.852</i>	<i>0.20</i>	<i>5</i>	<i>0</i>	<i>77</i>	<i>40-125</i>	<i>0</i>			
<i>Surr: 2-Fluorophenol</i>	<i>2.9</i>	<i>0.20</i>	<i>5</i>	<i>0</i>	<i>58</i>	<i>20-120</i>	<i>0</i>			
<i>Surr: 4-Terphenyl-d14</i>	<i>3.843</i>	<i>0.20</i>	<i>5</i>	<i>0</i>	<i>76.9</i>	<i>40-135</i>	<i>0</i>			
<i>Surr: Nitrobenzene-d5</i>	<i>3.393</i>	<i>0.20</i>	<i>5</i>	<i>0</i>	<i>67.9</i>	<i>41-120</i>	<i>0</i>			
<i>Surr: Phenol-d6</i>	<i>3.347</i>	<i>0.20</i>	<i>5</i>	<i>0</i>	<i>66.9</i>	<i>20-120</i>	<i>0</i>			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Pastor, Behling & Wheeler, LLC
 Work Order: 1107622
 Project: HWPW Site-Wide GW

QC BATCH REPORT

Batch ID: 54132 Instrument ID SV-6 Method: SW8270

MS		Sample ID: 1107622-04BMS			Units: µg/L			Analysis Date: 7/21/2011 11:53 PM		
Client ID: WG-1620-MW28C-20110719		Run ID: SV-6_110721B			SeqNo: 2472558			Prep Date: 7/21/2011		DF: 1
Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Diphenylhydrazine	2.257	0.20	5	0	45.1	39-127	0			
2,4-Dimethylphenol	2.123	0.20	5	0	42.5	35-120	0			
2,4-Dinitrotoluene	2.849	0.20	5	0	57	50-122	0			
2,6-Dinitrotoluene	2.854	0.20	5	0	57.1	50-120	0			
2-Chloronaphthalene	2.309	0.20	5	0	46.2	50-120	0			S
2-Methylnaphthalene	2.286	0.20	5	0	45.7	50-120	0			S
4,6-Dinitro-2-methylphenol	3.254	0.20	5	0	65.1	25-121	0			
4-Nitrophenol	4.231	1.0	5	0	84.6	30-130	0			
Acenaphthene	2.007	0.20	5	0	40.1	45-120	0			S
Acenaphthylene	2.078	0.20	5	0	41.6	47-120	0			S
Anthracene	3.059	0.20	5	0	61.2	45-120	0			
Benz(a)anthracene	3.249	0.20	5	0	65	40-120	0			
Benzo(a)pyrene	3.241	0.20	5	0	64.8	45-120	0			
Bis(2-chloroethoxy)methane	1.972	0.20	5	0	39.4	45-120	0			S
Bis(2-ethylhexyl)phthalate	3.689	0.20	5	0.526	63.3	40-139	0			
Chrysene	3.17	0.20	5	0	63.4	43-120	0			
Di-n-butyl phthalate	3.33	0.20	5	0	66.6	45-123	0			
Dibenzofuran	2.309	0.20	5	0.1942	42.3	50-120	0			S
Fluoranthene	3.391	0.20	5	0	67.8	45-125	0			
Fluorene	2.507	0.20	5	0	50.1	49-120	0			
N-Nitrosodiphenylamine	2.949	0.20	5	0	59	40-125	0			
Naphthalene	2.288	0.20	5	0.09094	43.9	45-120	0			S
Nitrobenzene	2.025	0.20	5	0	40.5	44-120	0			S
Pentachlorophenol	3.669	0.20	5	0	73.4	19-121	0			
Phenanthrene	3.007	0.20	5	0	60.1	45-121	0			
Phenol	2.559	0.20	5	0.543	40.3	20-124	0			
Pyrene	3.122	0.20	5	0	62.4	40-130	0			
Surr: 2,4,6-Tribromophenol	3.594	0.20	5	0	71.9	34-129	0			
Surr: 2-Fluorobiphenyl	2.057	0.20	5	0	41.1	40-125	0			
Surr: 2-Fluorophenol	1.606	0.20	5	0	32.1	20-120	0			
Surr: 4-Terphenyl-d14	3.164	0.20	5	0	63.3	40-135	0			
Surr: Nitrobenzene-d5	2.173	0.20	5	0	43.5	41-120	0			
Surr: Phenol-d6	2.007	0.20	5	0	40.1	20-120	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Pastor, Behling & Wheeler, LLC
 Work Order: 1107622
 Project: HWPW Site-Wide GW

QC BATCH REPORT

Batch ID: 54132 Instrument ID SV-6 Method: SW8270

MSD	Sample ID: 1107622-04BMSD	Units: µg/L					Analysis Date: 7/22/2011 12:12 AM				
Client ID: WG-1620-MW28C-20110719	Run ID: SV-6_110721B	SeqNo: 2472559			Prep Date: 7/21/2011		DF: 1				
Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
1,2-Diphenylhydrazine	2.315	0.20	5	0	46.3	39-127	2.257	2.52	20		
2,4-Dimethylphenol	2.244	0.20	5	0	44.9	35-120	2.123	5.54	20		
2,4-Dinitrotoluene	3.154	0.20	5	0	63.1	50-122	2.849	10.2	20		
2,6-Dinitrotoluene	3.04	0.20	5	0	60.8	50-120	2.854	6.32	20		
2-Chloronaphthalene	2.236	0.20	5	0	44.7	50-120	2.309	3.18	20	S	
2-Methylnaphthalene	2.429	0.20	5	0	48.6	50-120	2.286	6.05	20	S	
4,6-Dinitro-2-methylphenol	3.703	0.20	5	0	74.1	25-121	3.254	12.9	20		
4-Nitrophenol	4.392	1.0	5	0	87.8	30-130	4.231	3.74	20		
Acenaphthene	2.11	0.20	5	0	42.2	45-120	2.007	5.01	20	S	
Acenaphthylene	2.15	0.20	5	0	43	47-120	2.078	3.4	20	S	
Anthracene	3.084	0.20	5	0	61.7	45-120	3.059	0.818	20		
Benz(a)anthracene	3.433	0.20	5	0	68.7	40-120	3.249	5.49	20		
Benzo(a)pyrene	3.516	0.20	5	0	70.3	45-120	3.241	8.13	20		
Bis(2-chloroethoxy)methane	2.077	0.20	5	0	41.5	45-120	1.972	5.19	20	S	
Bis(2-ethylhexyl)phthalate	3.956	0.20	5	0.526	68.6	40-139	3.689	6.97	20		
Chrysene	3.452	0.20	5	0	69	43-120	3.17	8.5	20		
Di-n-butyl phthalate	3.456	0.20	5	0	69.1	45-123	3.33	3.73	20		
Dibenzofuran	2.378	0.20	5	0.1942	43.7	50-120	2.309	2.94	20	S	
Fluoranthene	3.498	0.20	5	0	70	45-125	3.391	3.1	20		
Fluorene	2.645	0.20	5	0	52.9	49-120	2.507	5.35	20		
N-Nitrosodiphenylamine	2.988	0.20	5	0	59.8	40-125	2.949	1.31	20		
Naphthalene	2.308	0.20	5	0.09094	44.3	45-120	2.288	0.889	20	S	
Nitrobenzene	2.176	0.20	5	0	43.5	44-120	2.025	7.2	20	S	
Pentachlorophenol	3.779	0.20	5	0	75.6	19-121	3.669	2.95	20		
Phenanthrene	3.098	0.20	5	0	62	45-121	3.007	2.97	20		
Phenol	2.455	0.20	5	0.543	38.2	20-124	2.559	4.15	20		
Pyrene	3.205	0.20	5	0	64.1	40-130	3.122	2.64	20		
Surr: 2,4,6-Tribromophenol	3.717	0.20	5	0	74.3	34-129	3.594	3.36	0		
Surr: 2-Fluorobiphenyl	2.114	0.20	5	0	42.3	40-125	2.057	2.75	0		
Surr: 2-Fluorophenol	1.854	0.20	5	0	37.1	20-120	1.606	14.4	0		
Surr: 4-Terphenyl-d14	3.116	0.20	5	0	62.3	40-135	3.164	1.54	0		
Surr: Nitrobenzene-d5	2.066	0.20	5	0	41.3	41-120	2.173	5.06	0		
Surr: Phenol-d6	1.993	0.20	5	0	39.9	20-120	2.007	0.724	0		

The following samples were analyzed in this batch:

1107622-01B	1107622-02B	1107622-03B
1107622-04B	1107622-05B	1107622-06B
1107622-07B	1107622-08B	1107622-09B
1107622-10B	1107622-11B	1107622-12B
1107622-13B	1107622-14B	1107622-15B
1107622-16B	1107622-17B	1107622-18B
1107622-19B		

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Pastor, Behling & Wheeler, LLC
Work Order: 1107622
Project: HWPW Site-Wide GW

QC BATCH REPORT

Batch ID: **R113367** Instrument ID **VOA7** Method: **SW8260**

MBLK Sample ID: **VBLKW-072011-R113367** Units: **µg/L** Analysis Date: **7/21/2011 01:19 AM**

Client ID: Run ID: **VOA7_110720C** SeqNo: **2466951** Prep Date: DF: **1**

Analyte	Result	ML	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Dichloroethane	U	5.0								
Benzene	U	5.0								
Chlorobenzene	U	5.0								
Ethylbenzene	U	5.0								
Methylene chloride	U	10								
Toluene	U	5.0								
Xylenes, Total	U	15								
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>42.98</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>86</i>	<i>70-125</i>	<i>0</i>			
<i>Surr: 4-Bromofluorobenzene</i>	<i>47.88</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>95.8</i>	<i>72-125</i>	<i>0</i>			
<i>Surr: Dibromofluoromethane</i>	<i>46.7</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>93.4</i>	<i>71-125</i>	<i>0</i>			
<i>Surr: Toluene-d8</i>	<i>48.45</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>96.9</i>	<i>75-125</i>	<i>0</i>			

LCS Sample ID: **VLCSW-072011-R113367** Units: **µg/L** Analysis Date: **7/21/2011 12:28 AM**

Client ID: Run ID: **VOA7_110720C** SeqNo: **2466949** Prep Date: DF: **1**

Analyte	Result	ML	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Dichloroethane	51.03	5.0	50	0	102	78-120	0			
Benzene	44.83	5.0	50	0	89.7	73-121	0			
Chlorobenzene	46.02	5.0	50	0	92	80-120	0			
Ethylbenzene	44.35	5.0	50	0	88.7	80-120	0			
Methylene chloride	37.93	10	50	0	75.9	65-133	0			
Toluene	43.81	5.0	50	0	87.6	80-120	0			
Xylenes, Total	133.9	15	150	0	89.3	80-120	0			
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>43.94</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>87.9</i>	<i>70-125</i>	<i>0</i>			
<i>Surr: 4-Bromofluorobenzene</i>	<i>47.76</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>95.5</i>	<i>72-125</i>	<i>0</i>			
<i>Surr: Dibromofluoromethane</i>	<i>47.44</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>94.9</i>	<i>71-125</i>	<i>0</i>			
<i>Surr: Toluene-d8</i>	<i>49.09</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>98.2</i>	<i>75-125</i>	<i>0</i>			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Pastor, Behling & Wheeler, LLC
 Work Order: 1107622
 Project: HWPW Site-Wide GW

QC BATCH REPORT

Batch ID: R113367 Instrument ID VOA7 Method: SW8260

MS		Sample ID: 1107575-01ZMS			Units: µg/L			Analysis Date: 7/21/2011 02:35 AM		
Client ID:		Run ID: VOA7_110720C			SeqNo: 2466953		Prep Date:		DF: 20	
Analyte	Result	ML	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Dichloroethane	1078	100	1000	0	108	78-120	0			
Benzene	1045	100	1000	0	104	73-121	0			
Chlorobenzene	1058	100	1000	0	106	80-120	0			
Ethylbenzene	1022	100	1000	0	102	80-120	0			
Methylene chloride	1030	200	1000	0	103	65-133	0			
Toluene	1052	100	1000	0	105	80-120	0			
Xylenes, Total	3077	300	3000	0	103	80-120	0			
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>879.4</i>	<i>100</i>	<i>1000</i>	<i>0</i>	<i>87.9</i>	<i>70-125</i>	<i>0</i>			
<i>Surr: 4-Bromofluorobenzene</i>	<i>1007</i>	<i>100</i>	<i>1000</i>	<i>0</i>	<i>101</i>	<i>72-125</i>	<i>0</i>			
<i>Surr: Dibromofluoromethane</i>	<i>939</i>	<i>100</i>	<i>1000</i>	<i>0</i>	<i>93.9</i>	<i>71-125</i>	<i>0</i>			
<i>Surr: Toluene-d8</i>	<i>995.3</i>	<i>100</i>	<i>1000</i>	<i>0</i>	<i>99.5</i>	<i>75-125</i>	<i>0</i>			

MSD		Sample ID: 1107575-01ZMSD			Units: µg/L			Analysis Date: 7/21/2011 03:01 AM		
Client ID:		Run ID: VOA7_110720C			SeqNo: 2466955		Prep Date:		DF: 20	
Analyte	Result	ML	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Dichloroethane	1104	100	1000	0	110	78-120	1078	2.4	20	
Benzene	1017	100	1000	0	102	73-121	1045	2.69	20	
Chlorobenzene	1033	100	1000	0	103	80-120	1058	2.38	20	
Ethylbenzene	959.7	100	1000	0	96	80-120	1022	6.28	20	
Methylene chloride	1107	200	1000	0	111	65-133	1030	7.17	20	
Toluene	1017	100	1000	0	102	80-120	1052	3.43	20	
Xylenes, Total	2933	300	3000	0	97.8	80-120	3077	4.8	20	
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>872.6</i>	<i>100</i>	<i>1000</i>	<i>0</i>	<i>87.3</i>	<i>70-125</i>	<i>879.4</i>	<i>0.784</i>	<i>20</i>	
<i>Surr: 4-Bromofluorobenzene</i>	<i>983.8</i>	<i>100</i>	<i>1000</i>	<i>0</i>	<i>98.4</i>	<i>72-125</i>	<i>1007</i>	<i>2.3</i>	<i>20</i>	
<i>Surr: Dibromofluoromethane</i>	<i>930.9</i>	<i>100</i>	<i>1000</i>	<i>0</i>	<i>93.1</i>	<i>71-125</i>	<i>939</i>	<i>0.868</i>	<i>20</i>	
<i>Surr: Toluene-d8</i>	<i>979.9</i>	<i>100</i>	<i>1000</i>	<i>0</i>	<i>98</i>	<i>75-125</i>	<i>995.3</i>	<i>1.56</i>	<i>20</i>	

The following samples were analyzed in this batch: 1107622-13A 1107622-19A 1107622-20A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Pastor, Behling & Wheeler, LLC
Work Order: 1107622
Project: HWPW Site-Wide GW

QC BATCH REPORT

Batch ID: **R113467** Instrument ID **VOA1** Method: **SW8260**

MBLK		Sample ID: VBLKW-072311-R113467			Units: µg/L		Analysis Date: 7/23/2011 01:22 PM			
Client ID:		Run ID: VOA1_110723A			SeqNo: 2469232		Prep Date:		DF: 1	
Analyte	Result	ML	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Dichloroethane	U	5.0								
Benzene	U	5.0								
Chlorobenzene	U	5.0								
Ethylbenzene	U	5.0								
Methylene chloride	U	10								
Toluene	U	5.0								
Vinyl chloride	U	2.0								
Xylenes, Total	U	15								
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>46.29</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>92.6</i>	<i>70-125</i>	<i>0</i>			
<i>Surr: 4-Bromofluorobenzene</i>	<i>49.13</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>98.3</i>	<i>72-125</i>	<i>0</i>			
<i>Surr: Dibromofluoromethane</i>	<i>48.31</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>96.6</i>	<i>71-125</i>	<i>0</i>			
<i>Surr: Toluene-d8</i>	<i>48.29</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>96.6</i>	<i>75-125</i>	<i>0</i>			

LCS		Sample ID: VLCSW-072311-R113467			Units: µg/L		Analysis Date: 7/23/2011 12:28 PM			
Client ID:		Run ID: VOA1_110723A			SeqNo: 2469231		Prep Date:		DF: 1	
Analyte	Result	ML	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Dichloroethane	49.48	5.0	50	0	99	78-120	0			
Benzene	50.27	5.0	50	0	101	73-121	0			
Chlorobenzene	49.25	5.0	50	0	98.5	80-120	0			
Ethylbenzene	49.7	5.0	50	0	99.4	80-120	0			
Methylene chloride	53.25	10	50	0	107	65-133	0			
Toluene	48.92	5.0	50	0	97.8	80-120	0			
Vinyl chloride	49.91	2.0	50	0	99.8	70-127	0			
Xylenes, Total	147.2	15	150	0	98.1	80-120	0			
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>49.13</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>98.3</i>	<i>70-125</i>	<i>0</i>			
<i>Surr: 4-Bromofluorobenzene</i>	<i>46.59</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>93.2</i>	<i>72-125</i>	<i>0</i>			
<i>Surr: Dibromofluoromethane</i>	<i>51.25</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>103</i>	<i>71-125</i>	<i>0</i>			
<i>Surr: Toluene-d8</i>	<i>46.77</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>93.5</i>	<i>75-125</i>	<i>0</i>			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Pastor, Behling & Wheeler, LLC
 Work Order: 1107622
 Project: HWPW Site-Wide GW

QC BATCH REPORT

Batch ID: R113467 Instrument ID VOA1 Method: SW8260

MS		Sample ID: 1107599-02AMS			Units: µg/L			Analysis Date: 7/23/2011 03:11 PM		
Client ID:		Run ID: VOA1_110723A			SeqNo: 2469235		Prep Date:		DF: 25	
Analyte	Result	ML	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Dichloroethane	1291	120	1250	0	103	78-120	0			
Benzene	1165	120	1250	0	93.2	73-121	0			
Chlorobenzene	1098	120	1250	0	87.9	80-120	0			
Ethylbenzene	1108	120	1250	0	88.6	80-120	0			
Methylene chloride	1287	250	1250	0	103	65-133	0			
Toluene	1108	120	1250	0	88.7	80-120	0			
Vinyl chloride	994.2	50	1250	0	79.5	70-127	0			
Xylenes, Total	3260	380	3750	0	86.9	80-120	0			
<i>Surr: 1,2-Dichloroethane-d4</i>	1171	120	1250	0	93.7	70-125	0			
<i>Surr: 4-Bromofluorobenzene</i>	1214	120	1250	0	97.1	72-125	0			
<i>Surr: Dibromofluoromethane</i>	1270	120	1250	0	102	71-125	0			
<i>Surr: Toluene-d8</i>	1191	120	1250	0	95.3	75-125	0			

MSD		Sample ID: 1107599-02AMSD			Units: µg/L			Analysis Date: 7/23/2011 03:38 PM		
Client ID:		Run ID: VOA1_110723A			SeqNo: 2469236		Prep Date:		DF: 25	
Analyte	Result	ML	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Dichloroethane	1145	120	1250	0	91.6	78-120	1291	12	20	
Benzene	1053	120	1250	0	84.2	73-121	1165	10.1	20	
Chlorobenzene	1165	120	1250	0	93.2	80-120	1098	5.92	20	
Ethylbenzene	1120	120	1250	0	89.6	80-120	1108	1.12	20	
Methylene chloride	1325	250	1250	0	106	65-133	1287	2.91	20	
Toluene	1092	120	1250	0	87.4	80-120	1108	1.5	20	
Vinyl chloride	1047	50	1250	0	83.8	70-127	994.2	5.18	20	
Xylenes, Total	3339	380	3750	0	89	80-120	3260	2.39	20	
<i>Surr: 1,2-Dichloroethane-d4</i>	1263	120	1250	0	101	70-125	1171	7.55	20	
<i>Surr: 4-Bromofluorobenzene</i>	1238	120	1250	0	99	72-125	1214	1.96	20	
<i>Surr: Dibromofluoromethane</i>	1314	120	1250	0	105	71-125	1270	3.41	20	
<i>Surr: Toluene-d8</i>	1164	120	1250	0	93.1	75-125	1191	2.32	20	

The following samples were analyzed in this batch:

1107622-01A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Pastor, Behling & Wheeler, LLC
Work Order: 1107622
Project: HWPW Site-Wide GW

QC BATCH REPORT

Batch ID: **R113490** Instrument ID **VOA7** Method: **SW8260**

MBLK		Sample ID: VBLKW-072411-R113490			Units: µg/L			Analysis Date: 7/24/2011 12:19 PM		
Client ID:		Run ID: VOA7_110724A			SeqNo: 2470031		Prep Date:		DF: 1	
Analyte	Result	ML	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Dichloroethane	U	5.0								
Benzene	U	5.0								
Chlorobenzene	U	5.0								
Ethylbenzene	U	5.0								
Methylene chloride	U	10								
Toluene	U	5.0								
Vinyl chloride	U	2.0								
Xylenes, Total	U	15								
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>43.66</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>87.3</i>	<i>70-125</i>	<i>0</i>			
<i>Surr: 4-Bromofluorobenzene</i>	<i>50.84</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>102</i>	<i>72-125</i>	<i>0</i>			
<i>Surr: Dibromofluoromethane</i>	<i>46.36</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>92.7</i>	<i>71-125</i>	<i>0</i>			
<i>Surr: Toluene-d8</i>	<i>47.96</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>95.9</i>	<i>75-125</i>	<i>0</i>			

LCS		Sample ID: VLCSW-072411-R113490			Units: µg/L			Analysis Date: 7/24/2011 10:52 AM		
Client ID:		Run ID: VOA7_110724A			SeqNo: 2470030		Prep Date:		DF: 1	
Analyte	Result	ML	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Dichloroethane	48.92	5.0	50	0	97.8	78-120	0			
Benzene	46.91	5.0	50	0	93.8	73-121	0			
Chlorobenzene	49.39	5.0	50	0	98.8	80-120	0			
Ethylbenzene	49.18	5.0	50	0	98.4	80-120	0			
Methylene chloride	50.48	10	50	0	101	65-133	0			
Toluene	48.46	5.0	50	0	96.9	80-120	0			
Vinyl chloride	50.01	2.0	50	0	100	70-127	0			
Xylenes, Total	147.5	15	150	0	98.3	80-120	0			
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>45.29</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>90.6</i>	<i>70-125</i>	<i>0</i>			
<i>Surr: 4-Bromofluorobenzene</i>	<i>49.69</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>99.4</i>	<i>72-125</i>	<i>0</i>			
<i>Surr: Dibromofluoromethane</i>	<i>47.95</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>95.9</i>	<i>71-125</i>	<i>0</i>			
<i>Surr: Toluene-d8</i>	<i>49.15</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>98.3</i>	<i>75-125</i>	<i>0</i>			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Pastor, Behling & Wheeler, LLC
 Work Order: 1107622
 Project: HWPW Site-Wide GW

QC BATCH REPORT

Batch ID: R113490 Instrument ID VOA7 Method: SW8260

MS		Sample ID: 1107608-03AMS			Units: µg/L			Analysis Date: 7/24/2011 01:36 PM		
Client ID:		Run ID: VOA7_110724A			SeqNo: 2470302		Prep Date:		DF: 1	
Analyte	Result	MLQ	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Dichloroethane	58.09	5.0	50	0	116	78-120	0			
Benzene	48.42	5.0	50	0	96.8	73-121	0			
Chlorobenzene	54.03	5.0	50	0	108	80-120	0			
Ethylbenzene	52.47	5.0	50	0	105	80-120	0			
Methylene chloride	50.42	10	50	0	101	65-133	0			
Toluene	51.97	5.0	50	0	104	80-120	0			
Vinyl chloride	34.58	2.0	50	0	69.2	70-127	0			S
Xylenes, Total	157.8	15	150	0	105	80-120	0			
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>44.7</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>89.4</i>	<i>70-125</i>	<i>0</i>			
<i>Surr: 4-Bromofluorobenzene</i>	<i>50.44</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>101</i>	<i>72-125</i>	<i>0</i>			
<i>Surr: Dibromofluoromethane</i>	<i>47.32</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>94.6</i>	<i>71-125</i>	<i>0</i>			
<i>Surr: Toluene-d8</i>	<i>48.97</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>97.9</i>	<i>75-125</i>	<i>0</i>			

MSD		Sample ID: 1107608-03AMSD			Units: µg/L			Analysis Date: 7/24/2011 02:01 PM		
Client ID:		Run ID: VOA7_110724A			SeqNo: 2470303		Prep Date:		DF: 1	
Analyte	Result	MLQ	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Dichloroethane	59.56	5.0	50	0	119	78-120	58.09	2.5	20	
Benzene	47.52	5.0	50	0	95	73-121	48.42	1.88	20	
Chlorobenzene	52.96	5.0	50	0	106	80-120	54.03	2	20	
Ethylbenzene	50.38	5.0	50	0	101	80-120	52.47	4.05	20	
Methylene chloride	41.82	10	50	0	83.6	65-133	50.42	18.7	20	
Toluene	51.53	5.0	50	0	103	80-120	51.97	0.857	20	
Vinyl chloride	32.68	2.0	50	0	65.4	70-127	34.58	5.64	20	S
Xylenes, Total	150.3	15	150	0	100	80-120	157.8	4.87	20	
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>43.44</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>86.9</i>	<i>70-125</i>	<i>44.7</i>	<i>2.87</i>	<i>20</i>	
<i>Surr: 4-Bromofluorobenzene</i>	<i>50.32</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>101</i>	<i>72-125</i>	<i>50.44</i>	<i>0.231</i>	<i>20</i>	
<i>Surr: Dibromofluoromethane</i>	<i>46.86</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>93.7</i>	<i>71-125</i>	<i>47.32</i>	<i>0.965</i>	<i>20</i>	
<i>Surr: Toluene-d8</i>	<i>48.24</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>96.5</i>	<i>75-125</i>	<i>48.97</i>	<i>1.5</i>	<i>20</i>	

The following samples were analyzed in this batch:

1107622-02A	1107622-03A	1107622-05A
1107622-12A		

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Pastor, Behling & Wheeler, LLC
Work Order: 1107622
Project: HWPW Site-Wide GW

QC BATCH REPORT

Batch ID: **R113613** Instrument ID **VOA1** Method: **SW8260**

MBLK		Sample ID: VBLKW-072611-R113613			Units: µg/L			Analysis Date: 7/26/2011 01:49 PM		
Client ID:		Run ID: VOA1_110726A			SeqNo: 2473142		Prep Date:		DF: 1	
Analyte	Result	ML	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Dichloroethane	U	5.0								
Benzene	U	5.0								
Chlorobenzene	U	5.0								
Ethylbenzene	U	5.0								
Methylene chloride	U	10								
Toluene	U	5.0								
Vinyl chloride	U	2.0								
Xylenes, Total	U	15								
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>50.03</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>100</i>	<i>70-125</i>	<i>0</i>			
<i>Surr: 4-Bromofluorobenzene</i>	<i>49.77</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>99.5</i>	<i>72-125</i>	<i>0</i>			
<i>Surr: Dibromofluoromethane</i>	<i>51.27</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>103</i>	<i>71-125</i>	<i>0</i>			
<i>Surr: Toluene-d8</i>	<i>48.62</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>97.2</i>	<i>75-125</i>	<i>0</i>			

LCS		Sample ID: VLCSW-072611-R113613			Units: µg/L			Analysis Date: 7/26/2011 12:54 PM		
Client ID:		Run ID: VOA1_110726A			SeqNo: 2473141		Prep Date:		DF: 1	
Analyte	Result	ML	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Dichloroethane	51.72	5.0	50	0	103	78-120	0			
Benzene	50.31	5.0	50	0	101	73-121	0			
Chlorobenzene	48.06	5.0	50	0	96.1	80-120	0			
Ethylbenzene	47.04	5.0	50	0	94.1	80-120	0			
Methylene chloride	55.7	10	50	0	111	65-133	0			
Toluene	49.35	5.0	50	0	98.7	80-120	0			
Vinyl chloride	50.13	2.0	50	0	100	70-127	0			
Xylenes, Total	151.6	15	150	0	101	80-120	0			
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>49.99</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>100</i>	<i>70-125</i>	<i>0</i>			
<i>Surr: 4-Bromofluorobenzene</i>	<i>51.89</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>104</i>	<i>72-125</i>	<i>0</i>			
<i>Surr: Dibromofluoromethane</i>	<i>52.65</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>105</i>	<i>71-125</i>	<i>0</i>			
<i>Surr: Toluene-d8</i>	<i>49.91</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>99.8</i>	<i>75-125</i>	<i>0</i>			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Pastor, Behling & Wheeler, LLC

QC BATCH REPORT

Work Order: 1107622

Project: HWPW Site-Wide GW

Batch ID: R113613

Instrument ID VOA1

Method: SW8260

MS		Sample ID: 1107622-04AMS			Units: µg/L			Analysis Date: 7/26/2011 03:39 PM		
Client ID: WG-1620-MW28C-20110719		Run ID: VOA1_110726A			SeqNo: 2473146			Prep Date:		DF: 1
Analyte	Result	MLQ	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Dichloroethane	53.75	5.0	50	0	107	78-120	0			
Benzene	53.99	5.0	50	0	108	73-121	0			
Chlorobenzene	45.74	5.0	50	0	91.5	80-120	0			
Ethylbenzene	45.28	5.0	50	0	90.6	80-120	0			
Methylene chloride	55.1	10	50	0	110	65-133	0			
Toluene	45.18	5.0	50	0	90.4	80-120	0			
Vinyl chloride	45.12	2.0	50	0	90.2	70-127	0			
Xylenes, Total	136.6	15	150	0	91.1	80-120	0			
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>50.17</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>100</i>	<i>70-125</i>	<i>0</i>			
<i>Surr: 4-Bromofluorobenzene</i>	<i>52.85</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>106</i>	<i>72-125</i>	<i>0</i>			
<i>Surr: Dibromofluoromethane</i>	<i>51.89</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>104</i>	<i>71-125</i>	<i>0</i>			
<i>Surr: Toluene-d8</i>	<i>49.68</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>99.4</i>	<i>75-125</i>	<i>0</i>			

MSD		Sample ID: 1107622-04AMSD			Units: µg/L			Analysis Date: 7/26/2011 04:07 PM		
Client ID: WG-1620-MW28C-20110719		Run ID: VOA1_110726A			SeqNo: 2473147			Prep Date:		DF: 1
Analyte	Result	MLQ	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Dichloroethane	51.7	5.0	50	0	103	78-120	53.75	3.88	20	
Benzene	53.64	5.0	50	0	107	73-121	53.99	0.636	20	
Chlorobenzene	49.89	5.0	50	0	99.8	80-120	45.74	8.68	20	
Ethylbenzene	49.47	5.0	50	0	98.9	80-120	45.28	8.85	20	
Methylene chloride	55.34	10	50	0	111	65-133	55.1	0.445	20	
Toluene	49.48	5.0	50	0	99	80-120	45.18	9.09	20	
Vinyl chloride	48.64	2.0	50	0	97.3	70-127	45.12	7.51	20	
Xylenes, Total	145	15	150	0	96.7	80-120	136.6	5.96	20	
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>51.94</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>104</i>	<i>70-125</i>	<i>50.17</i>	<i>3.48</i>	<i>20</i>	
<i>Surr: 4-Bromofluorobenzene</i>	<i>52.24</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>104</i>	<i>72-125</i>	<i>52.85</i>	<i>1.16</i>	<i>20</i>	
<i>Surr: Dibromofluoromethane</i>	<i>52.36</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>105</i>	<i>71-125</i>	<i>51.89</i>	<i>0.899</i>	<i>20</i>	
<i>Surr: Toluene-d8</i>	<i>50.41</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>101</i>	<i>75-125</i>	<i>49.68</i>	<i>1.46</i>	<i>20</i>	

The following samples were analyzed in this batch:

1107622-04A	1107622-06A	1107622-07A
1107622-08A	1107622-10A	1107622-11A
1107622-14A	1107622-15A	1107622-16A
1107622-17A	1107622-18A	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Pastor, Behling & Wheeler, LLC
Work Order: 1107622
Project: HWPW Site-Wide GW

QC BATCH REPORT

Batch ID: **R113626** Instrument ID **VOA7** Method: **SW8260**

MBLK Sample ID: **VBLKW-072511-R113626** Units: **µg/L** Analysis Date: **7/26/2011 05:11 PM**

Client ID: Run ID: **VOA7_110726B** SeqNo: **2473417** Prep Date: DF: **1**

Analyte	Result	MLQ	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Dichloroethane	U	5.0								
Benzene	U	5.0								
Chlorobenzene	U	5.0								
Ethylbenzene	U	5.0								
Methylene chloride	U	10								
Toluene	U	5.0								
Vinyl chloride	U	2.0								
Xylenes, Total	U	15								
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>50.34</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>101</i>	<i>70-125</i>	<i>0</i>			
<i>Surr: 4-Bromofluorobenzene</i>	<i>49.46</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>98.9</i>	<i>72-125</i>	<i>0</i>			
<i>Surr: Dibromofluoromethane</i>	<i>51.27</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>103</i>	<i>71-125</i>	<i>0</i>			
<i>Surr: Toluene-d8</i>	<i>49.97</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>99.9</i>	<i>75-125</i>	<i>0</i>			

LCS Sample ID: **VLCSW-072611-R113626** Units: **µg/L** Analysis Date: **7/26/2011 03:54 PM**

Client ID: Run ID: **VOA7_110726B** SeqNo: **2473414** Prep Date: DF: **1**

Analyte	Result	MLQ	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Dichloroethane	46.79	5.0	50	0	93.6	78-120	0			
Benzene	46.22	5.0	50	0	92.4	73-121	0			
Chlorobenzene	45.84	5.0	50	0	91.7	80-120	0			
Ethylbenzene	47.7	5.0	50	0	95.4	80-120	0			
Methylene chloride	45.05	10	50	0	90.1	65-133	0			
Toluene	47.01	5.0	50	0	94	80-120	0			
Vinyl chloride	49.11	2.0	50	0	98.2	70-127	0			
Xylenes, Total	140.4	15	150	0	93.6	80-120	0			
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>48.69</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>97.4</i>	<i>70-125</i>	<i>0</i>			
<i>Surr: 4-Bromofluorobenzene</i>	<i>50.49</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>101</i>	<i>72-125</i>	<i>0</i>			
<i>Surr: Dibromofluoromethane</i>	<i>50</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>100</i>	<i>71-125</i>	<i>0</i>			
<i>Surr: Toluene-d8</i>	<i>50.14</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>100</i>	<i>75-125</i>	<i>0</i>			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Pastor, Behling & Wheeler, LLC
 Work Order: 1107622
 Project: HWPW Site-Wide GW

QC BATCH REPORT

Batch ID: R113626 Instrument ID VOA7 Method: SW8260

MS		Sample ID: 1107522-06ZMS			Units: µg/L			Analysis Date: 7/26/2011 06:53 PM		
Client ID:		Run ID: VOA7_110726B			SeqNo: 2473421		Prep Date:		DF: 1	
Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Dichloroethane	56.65	5.0	50	0	113	78-120	0			
Benzene	54.79	5.0	50	0	110	73-121	0			
Chlorobenzene	55.14	5.0	50	0	110	80-120	0			
Ethylbenzene	53.13	5.0	50	0	106	80-120	0			
Methylene chloride	55.54	10	50	0	111	65-133	0			
Toluene	55.03	5.0	50	0	110	80-120	0			
Vinyl chloride	57.67	2.0	50	0	115	70-127	0			
Xylenes, Total	160.4	15	150	0	107	80-120	0			
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>49.84</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>99.7</i>	<i>70-125</i>	<i>0</i>			
<i>Surr: 4-Bromofluorobenzene</i>	<i>51.38</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>103</i>	<i>72-125</i>	<i>0</i>			
<i>Surr: Dibromofluoromethane</i>	<i>49.78</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>99.6</i>	<i>71-125</i>	<i>0</i>			
<i>Surr: Toluene-d8</i>	<i>50.52</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>101</i>	<i>75-125</i>	<i>0</i>			

MSD		Sample ID: 1107522-06ZMSD			Units: µg/L			Analysis Date: 7/26/2011 07:19 PM		
Client ID:		Run ID: VOA7_110726B			SeqNo: 2473423		Prep Date:		DF: 1	
Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Dichloroethane	54.09	5.0	50	0	108	78-120	56.65	4.62	20	
Benzene	52.78	5.0	50	0	106	73-121	54.79	3.74	20	
Chlorobenzene	52.64	5.0	50	0	105	80-120	55.14	4.64	20	
Ethylbenzene	52.46	5.0	50	0	105	80-120	53.13	1.26	20	
Methylene chloride	53.44	10	50	0	107	65-133	55.54	3.86	20	
Toluene	52.32	5.0	50	0	105	80-120	55.03	5.04	20	
Vinyl chloride	57.67	2.0	50	0	115	70-127	57.67	0.0038	20	
Xylenes, Total	152.8	15	150	0	102	80-120	160.4	4.82	20	
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>49.77</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>99.5</i>	<i>70-125</i>	<i>49.84</i>	<i>0.128</i>	<i>20</i>	
<i>Surr: 4-Bromofluorobenzene</i>	<i>49.75</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>99.5</i>	<i>72-125</i>	<i>51.38</i>	<i>3.23</i>	<i>20</i>	
<i>Surr: Dibromofluoromethane</i>	<i>49.53</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>99.1</i>	<i>71-125</i>	<i>49.78</i>	<i>0.508</i>	<i>20</i>	
<i>Surr: Toluene-d8</i>	<i>50.37</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>101</i>	<i>75-125</i>	<i>50.52</i>	<i>0.299</i>	<i>20</i>	

The following samples were analyzed in this batch:

1107622-09A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Pastor, Behling & Wheeler, LLC
 Work Order: 1107622
 Project: HWPW Site-Wide GW

QC BATCH REPORT

Batch ID: R113636 Instrument ID VOA1 Method: SW8260

MBLK		Sample ID: VBLKW-072711-R113636				Units: µg/L		Analysis Date: 7/27/2011 11:07 AM		
Client ID:		Run ID: VOA1_110727A				SeqNo: 2473560		Prep Date:		DF: 1
Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	U	5.0								
Toluene	U	5.0								
Surr: 1,2-Dichloroethane-d4	47.19	5.0	50	0	94.4	70-125	0			
Surr: 4-Bromofluorobenzene	48.53	5.0	50	0	97.1	72-125	0			
Surr: Dibromofluoromethane	49.13	5.0	50	0	98.3	71-125	0			
Surr: Toluene-d8	46.84	5.0	50	0	93.7	75-125	0			

LCS		Sample ID: VLCSW-072711-R113636				Units: µg/L		Analysis Date: 7/27/2011 10:12 AM		
Client ID:		Run ID: VOA1_110727A				SeqNo: 2473559		Prep Date:		DF: 1
Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	52.39	5.0	50	0	105	73-121	0			
Toluene	47.6	5.0	50	0	95.2	80-120	0			
Surr: 1,2-Dichloroethane-d4	44.98	5.0	50	0	90	70-125	0			
Surr: 4-Bromofluorobenzene	52.72	5.0	50	0	105	72-125	0			
Surr: Dibromofluoromethane	49.53	5.0	50	0	99.1	71-125	0			
Surr: Toluene-d8	50.11	5.0	50	0	100	75-125	0			

MS		Sample ID: 1107677-07AMS				Units: µg/L		Analysis Date: 7/27/2011 12:30 PM		
Client ID:		Run ID: VOA1_110727A				SeqNo: 2473562		Prep Date:		DF: 1
Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	51.66	5.0	50	0	103	73-121	0			
Toluene	47.19	5.0	50	0	94.4	80-120	0			
Surr: 1,2-Dichloroethane-d4	47.39	5.0	50	0	94.8	70-125	0			
Surr: 4-Bromofluorobenzene	48.23	5.0	50	0	96.5	72-125	0			
Surr: Dibromofluoromethane	51.67	5.0	50	0	103	71-125	0			
Surr: Toluene-d8	42.85	5.0	50	0	85.7	75-125	0			

MSD		Sample ID: 1107677-07AMSD				Units: µg/L		Analysis Date: 7/27/2011 12:58 PM		
Client ID:		Run ID: VOA1_110727A				SeqNo: 2473563		Prep Date:		DF: 1
Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	50.04	5.0	50	0	100	73-121	51.66	3.18	20	
Toluene	46.19	5.0	50	0	92.4	80-120	47.19	2.14	20	
Surr: 1,2-Dichloroethane-d4	49.36	5.0	50	0	98.7	70-125	47.39	4.07	20	
Surr: 4-Bromofluorobenzene	47.92	5.0	50	0	95.8	72-125	48.23	0.652	20	
Surr: Dibromofluoromethane	52.01	5.0	50	0	104	71-125	51.67	0.65	20	
Surr: Toluene-d8	46	5.0	50	0	92	75-125	42.85	7.09	20	

The following samples were analyzed in this batch: 1107622-11A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
WorkOrder: 1107622

**QUALIFIERS,
ACRONYMS, UNITS**

<u>Qualifier</u>	<u>Description</u>
*	Value exceeds Regulatory Limit
a	Not accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
J	Analyte detected below quantitation limit
M	Manually integrated, see raw data for justification
n	Not offered for accreditation
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL

<u>Acronym</u>	<u>Description</u>
DCS	Detectability Check Study
DUP	Method Duplicate
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
MBLK	Method Blank
MDL	Method Detection Limit
MQL	Method Quantitation Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PDS	Post Digestion Spike
PQL	Practical Quantitation Limit
SD	Serial Dilution
SDL	Sample Detection Limit
TRRP	Texas Risk Reduction Program

<u>Units Reported</u>	<u>Description</u>
mg/L	Milligrams per Liter



ALS Environmental
 10450 Stancliff Rd., Suite 210
 Houston, Texas 77099
 Tel. +1 281 530 5656
 Fax. +1 281 530 5887

Chain of Custody Form

Page 1 of 3

COC ID: **26883**

1107622

PBW: Pastor, Behling & Wheeler, LLC

Project: UPRR Houston Wood GW

ALS Project Manager:



Customer Information		Project Information		
Purchase Order		Project Name	UPRR Houston Wood GW	A VOC (8230) Select
Work Order		Project Number	15903	B U SVOC (8170) Select
Company Name	Pastor, Behling & Wheeler, LLC	Bill To Company	Union Pacific Railroad	C VINYL CHLORIDE
Send Report To	Eric Matzner	Invoice Attn		D
Address	2201 Double Creek Drive	Address	1700 Douglas Street	E
	Suite 1004		Stop 9750	F
City/State/Zip	Round Rock, TX 78664	City/State/Zip	Omaha, NE 681790750	G
Phone	(512) 671-3414	Phone		H
Fax	(512) 671-3446	Fax		I
e-Mail Address		e-Mail Address		J

No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	WG-1620-MW36B-20110719	7-19-11	0830	W		5	X	X	X								
2	WG-1620-MW36A-20110719		0920	W		5	X	X	X								
3	WG-1620-MW28A-20110719		1015	W		5	X	X									
4	WG-1620-MW28C-20110719		1130	W		5	X	X									
5	WG-1620-MW28Cms-20110719		1130	W		5	X	X									
6	WG-1620-MW28CmsD-20110719		1130	W		5	X	X									
7	WG-1620-MW63B-20110719		1230	W		5	X	X									
8	WG-1620-DUP3-20110719		1230	W		5	X	X									
9	WG-1620-MW33A-20110719		1340	W		5	X	X									
10	WG-1620-DUP4-20110719		1340	W		5	X	X									

Sampler(s) Please Print & Sign JOHN BRAXTON		Shipment Method HAND DELIVERED		Required Turnaround Time: (Check Box) <input type="checkbox"/> 2-3 Business Days <input type="checkbox"/> 5 Business Days <input type="checkbox"/> Other _____ <input type="checkbox"/> 24 Hour				Results Due Date:							
Relinquished by: <i>[Signature]</i>	Date: 7-20-11	Time: 0930	Received by: <i>[Signature]</i>	Notes: 10 Day TAT				Cooler ID							
Relinquished by:	Date:	Time:	Received by (Laboratory):	Cooler Temp.				QC Package: (Check One Box Below)							
Logged by (Laboratory):	Date:	Time:	Checked by (Laboratory):	<input type="checkbox"/> Level II Std QC <input type="checkbox"/> TRMP Checklist <input type="checkbox"/> Level III Std QC Raw Data <input type="checkbox"/> TRMP Checklist <input type="checkbox"/> Level IV Std QC Raw Data <input type="checkbox"/> Level V Std QC Raw Data											
Preservative Key: 1-HCl 2-HNO ₃ 3-H ₂ SO ₄ 4-NaOH 5-Na ₂ S ₂ O ₃ 6-NaHSO ₄ 7-Other 8-4°C 9-5035															

- Note: 1. Any changes must be made in writing once samples and COC Form have been submitted to ALS Environmental.
 2. Unless otherwise agreed in a formal contract, services provided by ALS Environmental are expressly limited to the terms and conditions stated on the reverse.
 3. The Chain of Custody is a legal document. All information must be completed accurately.



ALS Environmental

10450 Stancliff Rd., Suite 210
Houston, Texas 77099
Tel. +1 281 530 5656
Fax. +1 281 530 5887

Chain of Custody Form

Page 2 of 3

COC ID: 26867

ALS Environmental

3352 128th Ave.
Holland, MI 49424-9263
Tel: +1 616 399 6070
Fax: +1 616 399 6185

ALS Work Order #: 1107622

Customer Information		Project Information		Parameter/Method Request for Analysis												
Purchase Order		Project Name	JRRP Houston Wood G/W	A	VOC (0210) Solid											
Work Order		Project Number	112903	B	LL SVOC (0370) Solid											
Company Name	Pastor, Pohlig & Wheeler, LLC	Bill To Company	Union Pacific Railroad	C	VINYL CHLORIDE											
Send Report To	Eric Matzner	Invoice Attn		D												
Address	2201 Double Creek Drive Suite 4504	Address	1400 Douglas Street Stop 0730	E												
				F												
City/State/Zip	Round Rock, TX 78664	City/State/Zip	Omaha, NE 681790750	G												
Phone	(512) 671-2410	Phone		H												
Fax	(512) 671-2410	Fax		I												
e-Mail Address		e-Mail Address		J												

No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	WG-1620-MW33B-20110719	7-19-11	1430	W		5	X	X	X								
2	WG-1620-MW26A-20110719	↓	1530	W		5	X	X									
3	WG-1620-MW32A-20110719		1630	W		5	X	X									
4	WG-1620-MW38A-20110719		1740	W		5	X	X									
5	WG-1620-FB04-20110719		1800	W		5	X	X									
6	WG-1620-MW38B-20110718		7-18-11	1120	W		5	X	X								
7	WG-1620-MW48C-20110718	↓	1340	W		5	X	X									
8	WG-1620-MW60A-20110718		1445	W		5	X	X	X								
9	WG-1620-MW59A-20110718		1540	W		5	X	X	X								
10	WG-1620-MW59B-20110718		1630	W		5	X	X	X								

Sampler(s) Please Print & Sign <i>John Drayton</i>		Shipment Method HAND DELIVERED		Required Turnaround Time: (Check Box) <input checked="" type="checkbox"/> 1-3 WK Days <input type="checkbox"/> 4-5 WK Days <input type="checkbox"/> Other _____				Results Due Date:			
Relinquished by: <i>John Drayton</i>		Date: 7-20-11	Time: 0730	Received by: <i>[Signature]</i>		Notes: 10 Day TAT					
Relinquished by:		Date:	Time:	Received by (Laboratory):		Cooler ID	Cooler Temp.	QC Package: (Check One Box Below)			
Logged by (Laboratory):		Date:	Time:	Checked by (Laboratory):				<input type="checkbox"/> EPA Method 8150	<input checked="" type="checkbox"/> TFRP Check Jet		
								<input type="checkbox"/> EPA Method 8160	<input type="checkbox"/> TFRP Level 1/2		
								<input type="checkbox"/> EPA Method 8210	<input type="checkbox"/> TFRP Level 3/4		
								<input type="checkbox"/> EPA Method 8240	<input type="checkbox"/> TFRP Level 5/6		

Preservative Key: 1-HCl 2-HNO₃ 3-H₂SO₄ 4-NaOH 5-Na₂S₂O₃ 6-NaHSO₄ 7-Other 8-4°C 9-5035

Note: 1. Any changes must be made in writing once samples and COC Form have been submitted to ALS Environmental.
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Chain of Custody Form

Page 3 of 3

COC ID: 26881

ALS Environmental

3352 128th Ave.
Holland, MI 49424-9263
Tel: +1 616 399 6070
Fax: +1 616 399 6185

1107622

Customer Information		Project Information		Parameter/Method Request for Analysis												
Purchase Order		Project Name	IPET, Houston Wood CV	A	VOC (6240) Serial											
Work Order		Project Number	1120-03	B	LI. SVOC (6270) Serial											
Company Name	Parter, Bohling & Wheeler, LLC	Bill To Company	Union Pacific Railroad	C												
Send Report To	Eric Mazner	Invoice Attn		D												
Address	2201 Double Creek Drive	Address	1400 English Street	E												
	Suite 1004		Ste 3750	F												
City/State/Zip	Round Rock, TX 78664	City/State/Zip	Omaha, NE 68179	G												
Phone	(512) 871-3434	Phone		H												
Fax	(512) 871-3434	Fax		I												
e-Mail Address		e-Mail Address		J												

No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	WG-1620-FB03-20110718	7-18-11	1700	W		5	X	X									
2	WG-1620-TB-20110719			W		2	X										
3																	
4																	
5																	
6																	
7																	
8																	
9																	
10																	

Sampler(s) Please Print & Sign JOHN BEATON <i>John Beaton</i>		Shipment Method HAND DELIVERED		Required Turnaround Time: (Check Box) <input type="checkbox"/> 1-2 WK Days <input type="checkbox"/> 3-4 WK Days <input type="checkbox"/> Other _____				Results Due Date:									
Relinquished by: <i>John Beaton</i>		Date: 7-20-11 Time: 0730		Received by: <i>[Signature]</i>				Notes: 10 Day TAT									
Relinquished by:		Date: Time:		Received by (Laboratory):				Cooler ID Cooler Temp.		QC Package: (Check One Box Below) <input type="checkbox"/> Level 1 S&C <input type="checkbox"/> Level 1 S&C (Flow 2) <input type="checkbox"/> TRPP (Lead set) <input type="checkbox"/> Level IV FWD/CLP <input type="checkbox"/> Trip Level 1 <input type="checkbox"/> Other / ELD							
Logged by (Laboratory):		Date: Time:		Checked by (Laboratory):													
Preservative Key: 1-HCl 2-HNO ₃ 3-H ₂ SO ₄ 4-NaOH 5-Na ₂ S ₂ O ₃ 6-NaHSO ₄ 7-Other 8-4°C 9-5035																	

Note: 1. Any changes must be made in writing once samples and COC Form have been submitted to ALS Environmental.
 2. Unless otherwise agreed in a formal contract, services provided by ALS Environmental are expressly limited to the terms and conditions stated on the reverse.
 3. The Chain of Custody is a legal document. All information must be completed accurately.

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ALS Environmental

Sample Receipt Checklist

Client Name: **PBW**

Date/Time Received: **20-Jul-11 07:30**

Work Order: **1107622**

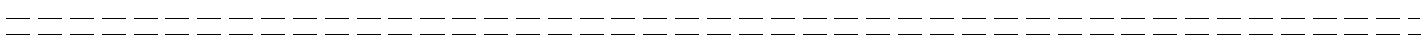
Received by: **LOT**

Checklist completed by Robert D. Harris | 20-Jul-11
eSignature Date

Reviewed by: Nicole A. Brown | 21-Jul-11
eSignature Date

Matrices: waters
 Carrier name: Client

Shipping container/cooler in good condition?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on shipping container/cooler?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Present <input checked="" type="checkbox"/>
Custody seals intact on sample bottles?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Present <input checked="" type="checkbox"/>
Chain of custody present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody signed when relinquished and received?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody agrees with sample labels?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Samples in proper container/bottle?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample containers intact?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sufficient sample volume for indicated test?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
All samples received within holding time?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Container/Temp Blank temperature in compliance?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Temperature(s)/Thermometer(s):	<input type="text" value="2.3c,1.2c,0.8c,1.7c"/>		<input type="text" value="002"/>
Cooler(s)/Kit(s):	<input type="text" value="3953,3325,4145"/>		
Water - VOA vials have zero headspace?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	No VOA vials submitted <input type="checkbox"/>
Water - pH acceptable upon receipt?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	N/A <input type="checkbox"/>
pH adjusted?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>
pH adjusted by:	<input type="text" value="-"/>		
Login Notes:			



Client Contacted: _____ Date Contacted: _____ Person Contacted: _____
 Contacted By: _____ Regarding: _____

Comments:

CorrectiveAction:



28-Jul-2011

Eric Matzner
Pastor, Behling & Wheeler, LLC
2201 Double Creek Drive
Suite 4004
Round Rock, TX 78664

Tel: (512) 671-3434
Fax: (512) 671-3446

Re: UPRR Houston Wood GW

Work Order: **1107677**

Dear Eric,

ALS Environmental received 16 samples on 21-Jul-2011 11:45 AM for the analyses presented in the following report.

The analytical data provided relates directly to the samples received by ALS Environmental and for only the analyses requested. Results are expressed as "as received" unless otherwise noted.

QC sample results for this data met EPA or laboratory specifications except as noted in the Case Narrative or as noted with qualifiers in the QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained by ALS Environmental. Samples will be disposed in 30 days unless storage arrangements are made.

The total number of pages in this report is 59.

If you have any questions regarding this report, please feel free to call me.

Sincerely,

A handwritten signature in cursive script that reads "Patricia L. Lynch".

Electronically approved by: Makenzie L. Henderson

Patricia L. Lynch
Project Manager



Certificate No: T104704231-09A-TX

ADDRESS 10450 Stancliff Rd, Suite 210 Houston, Texas 77099-4338 | PHONE (281) 530-5656 | FAX (281) 530-5887

DOV#T UR XS#K VD /#R US##Sdu#r i#khd#OV#Oderudaru|#T urxs##D #F dp seha#Eurkhu#Op l#hg#F rp sdg |

Environmental ALS

www.alsglobal.com

RIGHT SOLUTIONS RIGHT PARTNER

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Work Order: 1107677

**TRRP Laboratory Data
Package Cover Page**

This data package consists of all or some of the following as applicable:

This signature page, the laboratory review checklist, and the following reportable data:

- R1 Field chain-of-custody documentation;
- R2 Sample identification cross-reference;
- R3 Test reports (analytical data sheets) for each environmental sample that includes:
 - a) Items consistent with NELAC Chapter 5,
 - b) dilution factors,
 - c) preparation methods,
 - d) cleanup methods, and
 - e) if required for the project, tentatively identified compounds (TICs).
- R4 Surrogate recovery data including:
 - a) Calculated recovery (%R), and
 - b) The laboratory's surrogate QC limits.
- R5 Test reports/summary forms for blank samples;
- R6 Test reports/summary forms for laboratory control samples (LCSs) including:
 - a) LCS spiking amounts,
 - b) Calculated %R for each analyte, and
 - c) The laboratory's LCS QC limits.
- R7 Test reports for project matrix spike/matrix spike duplicates (MS/MSDs) including:
 - a) Samples associated with the MS/MSD clearly identified,
 - b) MS/MSD spiking amounts,
 - c) Concentration of each MS/MSD analyte measured in the parent and spiked samples,
 - d) Calculated %Rs and relative percent differences (RPDs), and
 - e) The laboratory's MS/MSD QC limits.
- R8 Laboratory analytical duplicate (if applicable) recovery and precision:
 - a) the amount of analyte measured in the duplicate,
 - b) the calculated RPD, and
 - c) the laboratory's QC limits for analytical duplicates.
- R9 List of method quantitation limits (MQLs) and detectability check sample results for each analyte for each method and matrix.
- R10 Other problems or anomalies.
The Exception Report for each "No" or "Not Reviewed (NR)" item in Laboratory Review Checklist and for each analyte, matrix, and method for which the laboratory does not hold NELAC accreditation under the Texas Laboratory Accreditation Program.

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Work Order: 1107677

**TRRP Laboratory Data
Package Cover Page**

Release Statement: I am responsible for the release of this laboratory data package. This laboratory is NELAC accredited under the Texas Laboratory Accreditation Program for all the methods, analytes and matrices reported in this data package except as noted in the Exception Reports. The data have been reviewed and are technically compliant with the requirements of the methods used, except where noted by the laboratory in the attached exception reports. By my signature below, I affirm to the best of my knowledge, all problems/anomalies, observed by the laboratory have been identified by the laboratory in the Laboratory Review Checklist, and no information affecting the quality of the data has been knowingly withheld.

Check, if applicable: [NA] This laboratory meets an exception under 30 TAC §25.6 and was last inspected by TCEQ or _____ on (enter date of last inspection). Any findings affecting the data in this laboratory data package are noted in the Exception Reports herein. The official signing the cover page of the report in which these data are used is responsible for releasing this data package and is by signature affirming the above release statement is true.

Patricia L. Lynch

Patricia L. Lynch
Project Manager

Laboratory Review Checklist: Reportable Data

Laboratory Name: ALS Laboratory Group		LRC Date: 8/08/2011					
Project Name: UPRR Houston Wood GW		Laboratory Job Number: 1107677					
Reviewer Name: Pat Lynch		Prep Batch Number(s): 54165, R1113426, R113463, R113626, R113636, R113694					
# ¹	A ²	Description	Yes	No	NA ³	NR ⁴	ER# ⁵
R1	OI	Chain-of-custody (C-O-C)					
		Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?	X				
		Were all departures from standard conditions described in an exception report?	X				
R2	OI	Sample and quality control (QC) identification					
		Are all field sample ID numbers cross-referenced to the laboratory ID numbers?	X				
		Are all laboratory ID numbers cross-referenced to the corresponding QC data?	X				
R3	OI	Test reports					
		Were all samples prepared and analyzed within holding times?	X				
		Other than those results < MQL, were all other raw values bracketed by calibration standards?	X				
		Were calculations checked by a peer or supervisor?	X				
		Were all analyte identifications checked by a peer or supervisor?	X				
		Were sample detection limits reported for all analytes not detected?	X				
		Were all results for soil and sediment samples reported on a dry weight basis?			X		
		Were % moisture (or solids) reported for all soil and sediment samples?			X		
		Were bulk soils/solids samples for volatile analysis extracted with methanol per SW-846 Method 5035?			X		
		If required for the project, TICs reported?			X		
R4	O	Surrogate recovery data					
		Were surrogates added prior to extraction?	X				
		Were surrogate percent recoveries in all samples within the laboratory QC limits?		X			1
R5	OI	Test reports/summary forms for blank samples					
		Were appropriate type(s) of blanks analyzed?	X				
		Were blanks analyzed at the appropriate frequency?	X				
		Were method blanks taken through the entire analytical process, including preparation and, if applicable, cleanup procedures?	X				
		Were blank concentrations < MQL?	X				
R6	OI	Laboratory control samples (LCS):					
		Were all COCs included in the LCS?	X				
		Was each LCS taken through the entire analytical procedure, including prep and cleanup steps?	X				
		Were LCSs analyzed at the required frequency?	X				
		Were LCS (and LCSD, if applicable) %Rs within the laboratory QC limits?	X				
		Does the detectability data document the laboratory's capability to detect the COCs at the MDL used to calculate the SDLs?	X				
		Was the LCSD RPD within QC limits?	X				
R7	OI	Matrix spike (MS) and matrix spike duplicate (MSD) data					
		Were the project/method specified analytes included in the MS and MSD?	X				
		Were MS/MSD analyzed at the appropriate frequency?	X				
		Were MS (and MSD, if applicable) %Rs within the laboratory QC limits?		X			2
		Were MS/MSD RPDs within laboratory QC limits?		X			3
R8	OI	Analytical duplicate data					
		Were appropriate analytical duplicates analyzed for each matrix?			X		
		Were analytical duplicates analyzed at the appropriate frequency?			X		
		Were RPDs or relative standard deviations within the laboratory QC limits?			X		
R9	OI	Method quantitation limits (MQLs):					
		Are the MQLs for each method analyte included in the laboratory data package?	X				
		Do the MQLs correspond to the concentration of the lowest non-zero calibration standard?	X				
		Are unadjusted MQLs and DCSs included in the laboratory data package?	X				
R10	OI	Other problems/anomalies					
		Are all known problems/anomalies/special conditions noted in this LRC and ER?	X				4
		Were all necessary corrective actions performed for the reported data?	X				
		Was applicable and available technology used to lower the SDL and minimize the matrix interference affects on the sample results?	X				
		Is the laboratory NELAC-accredited under the Texas Laboratory Program for the analytes, matrices and methods associated with this laboratory data package?	X				

Laboratory Review Checklist: Reportable Data

Laboratory Name: ALS Laboratory Group		LRC Date: 8/08/2011					
Project Name: UPRR Houston Wood GW		Laboratory Job Number: 1107677					
Reviewer Name: Pat Lynch		Prep Batch Number(s): 54165, R1113426, R113463, R113626, R113636, R113694					
# ¹	A ²	Description	Yes	No	NA ³	NR ⁴	ER# ⁵
S1	OI	Initial calibration (ICAL)					
		Were response factors and/or relative response factors for each analyte within QC limits?	X				
		Were percent RSDs or correlation coefficient criteria met?	X				
		Was the number of standards recommended in the method used for all analytes?	X				
		Were all points generated between the lowest and highest standard used to calculate the curve?	X				
		Are ICAL data available for all instruments used?	X				
		Has the initial calibration curve been verified using an appropriate second source standard?	X				
S2	OI	Initial and continuing calibration verification (ICCV and CCV) and continuing calibration blank (CCB)					
		Was the CCV analyzed at the method-required frequency?	X				
		Were percent differences for each analyte within the method-required QC limits?	X				
		Was the ICAL curve verified for each analyte?	X				
		Was the absolute value of the analyte concentration in the inorganic CCB < MDL?			X		
S3	O	Mass spectral tuning:					
		Was the appropriate compound for the method used for tuning?	X				
		Were ion abundance data within the method-required QC limits?	X				
S4	O	Internal standards (IS):					
		Were IS area counts and retention times within the method-required QC limits?	X				
S5	OI	Raw data (NELAC section 1 appendix A glossary, and section 5.12 or ISO/IEC 17025 section)					
		Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?	X				
		Were data associated with manual integrations flagged on the raw data?	X				
S6	O	Dual column confirmation					
		Did dual column confirmation results meet the method-required QC?			X		
S7	O	Tentatively identified compounds (TICs):					
		If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?			X		
S8	I	Interference Check Sample (ICS) results:					
		Were percent recoveries within method QC limits?			X		
S9	I	Serial dilutions, post digestion spikes, and method of standard additions					
		Were percent differences, recoveries, and the linearity within the QC limits specified in the method?			X		
S10	OI	Method detection limit (MDL) studies					
		Was a MDL study performed for each reported analyte?	X				
		Is the MDL either adjusted or supported by the analysis of DCSs?	X				
S11	OI	Proficiency test reports:					
		Was the laboratory's performance acceptable on the applicable proficiency tests or evaluation studies?	X				
S12	OI	Standards documentation					
		Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?	X				
S13	OI	Compound/analyte identification procedures					
		Are the procedures for compound/analyte identification documented?	X				
S14	OI	Demonstration of analyst competency (DOC)					
		Was DOC conducted consistent with NELAC Chapter 5C or ISO/IEC 4?	X				
		Is documentation of the analyst's competency up-to-date and on file?	X				
S15	OI	Verification/validation documentation for methods (NELAC Chap 5 or ISO/IEC 17025 Section 5)					
		Are all the methods used to generate the data documented, verified, and validated, where applicable?	X				
S16	OI	Laboratory standard operating procedures (SOPs):					
		Are laboratory SOPs current and on file for each method performed?	X				

Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.

O = Organic Analyses; I = Inorganic Analyses (and general chemistry, when applicable);

NA = Not Applicable;

NR = Not Reviewed;

R# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

Laboratory Review Checklist: Reportable Data

Laboratory Name: ALS Laboratory Group		LRC Date: 8/08/2011
Project Name: UPRR Houston Wood GW		Laboratory Job Number: 1107677
Reviewer Name: Pat Lynch		Prep Batch Number(s): 54165, R1113426, R113463, R113626, R113636, R113694
ER# ⁵	Description	
1	Samples WG-1620MW25C-20110720 and -1620MW35B-20110720 for semivolatile organics were analyzed at multiple dilutions. Surrogate recoveries were diluted out in the higher dilutions, but were in control in the analyses performed at lesser dilutions.	
2	Batch 54165, Low-Level Semivolatile Organics, Sample WG-1620MW67B-2011720: MS/MSD recoveries were above the control limits for 2,6-Dinitrotoluene. The associated LCS and MS/MSD RPD were within the control limits. This compound was non-detect in the background sample.	
3	Batch 54165, Low-Level Semivolatile Organics, Sample WG-1620MW67B-2011720: MS/MSD RPD was above the control limits for multiple analytes.	
4	The semivolatile target compounds bis(2-ethylhexyl)phthalate and naphthalene were detected in the field blank, but no target compounds were detected in the method blank.	
<p>Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.</p> <p>O = Organic Analyses; I = Inorganic Analyses (and general chemistry, when applicable); NA = Not Applicable; NR = Not Reviewed; R# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).</p>		

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Work Order: 1107677

Work Order Sample Summary

<u>Lab Samp ID</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Tag Number</u>	<u>Collection Date</u>	<u>Date Received</u>	<u>Hold</u>
1107677-01	WG-1620MW53C-20110720	Water		7/20/2011 08:20	7/21/2011 11:45	<input type="checkbox"/>
1107677-02	WG-1620MW54C-20110720	Water		7/20/2011 09:20	7/21/2011 11:45	<input type="checkbox"/>
1107677-03	WG-1620MW25A-20110720	Water		7/20/2011 10:15	7/21/2011 11:45	<input type="checkbox"/>
1107677-04	WG-1620MW25C-20110720	Water		7/20/2011 11:05	7/21/2011 11:45	<input type="checkbox"/>
1107677-05	WG-1620MW44C-20110720	Water		7/20/2011 12:05	7/21/2011 11:45	<input type="checkbox"/>
1107677-06	WG-1620MW44A-20110720	Water		7/20/2011 13:30	7/21/2011 11:45	<input type="checkbox"/>
1107677-07	WG-1620MW67B-2011720	Water		7/20/2011 14:40	7/21/2011 11:45	<input type="checkbox"/>
1107677-08	WG-1620MW27C-20110720	Water		7/20/2011 15:45	7/21/2011 11:45	<input type="checkbox"/>
1107677-09	WG-1620MW35A-20110720	Water		7/20/2011 16:55	7/21/2011 11:45	<input type="checkbox"/>
1107677-10	WG-1620MW35B-20110720	Water		7/20/2011 17:45	7/21/2011 11:45	<input type="checkbox"/>
1107677-11	WG-1620FB05-20110720	Water		7/20/2011 18:00	7/21/2011 11:45	<input type="checkbox"/>
1107677-12	WG-1620MW22A-20110721	Water		7/21/2011 08:30	7/21/2011 11:45	<input type="checkbox"/>
1107677-13	WG-1620MW22B-20110721	Water		7/21/2011 09:30	7/21/2011 11:45	<input type="checkbox"/>
1107677-14	WG-1620MW24AR-20110721	Water		7/21/2011 10:25	7/21/2011 11:45	<input type="checkbox"/>
1107677-15	WG-1620MW24B-20110721	Water		7/21/2011 11:20	7/21/2011 11:45	<input type="checkbox"/>
1107677-16	WG-1620TB-20110721	Water		7/21/2011	7/21/2011 11:45	<input type="checkbox"/>

ALS Environmental

Date: 09-Aug-11

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Sample ID: WG-1620MW53C-20110720
Collection Date: 7/20/2011 08:20 AM

Work Order: 1107677
Lab ID: 1107677-01
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270	Prep: SW3510 / 7/23/11		Analyst: LG	
1,2-Diphenylhydrazine	U		0.000050	0.00020	mg/L	1	7/23/2011 20:55
2,4-Dimethylphenol	U		0.000050	0.00020	mg/L	1	7/23/2011 20:55
2,4-Dinitrotoluene	U		0.000050	0.00020	mg/L	1	7/23/2011 20:55
2,6-Dinitrotoluene	U		0.000060	0.00020	mg/L	1	7/23/2011 20:55
2-Chloronaphthalene	U		0.000050	0.00020	mg/L	1	7/23/2011 20:55
2-Methylnaphthalene	U		0.000050	0.00020	mg/L	1	7/23/2011 20:55
4,6-Dinitro-2-methylphenol	U		0.000080	0.00020	mg/L	1	7/23/2011 20:55
4-Nitrophenol	U		0.000050	0.0010	mg/L	1	7/23/2011 20:55
Acenaphthene	0.00032		0.000050	0.00020	mg/L	1	7/23/2011 20:55
Acenaphthylene	U		0.000050	0.00020	mg/L	1	7/23/2011 20:55
Anthracene	U		0.000050	0.00020	mg/L	1	7/23/2011 20:55
Benz(a)anthracene	U		0.000050	0.00020	mg/L	1	7/23/2011 20:55
Benzo(a)pyrene	U		0.000050	0.00020	mg/L	1	7/23/2011 20:55
Bis(2-chloroethoxy)methane	U		0.000050	0.00020	mg/L	1	7/23/2011 20:55
Bis(2-ethylhexyl)phthalate	0.00014	J	0.00010	0.00020	mg/L	1	7/23/2011 20:55
Chrysene	U		0.000050	0.00020	mg/L	1	7/23/2011 20:55
Dibenzofuran	U		0.000050	0.00020	mg/L	1	7/23/2011 20:55
Di-n-butyl phthalate	U		0.000050	0.00020	mg/L	1	7/23/2011 20:55
Fluoranthene	U		0.000050	0.00020	mg/L	1	7/23/2011 20:55
Fluorene	U		0.000050	0.00020	mg/L	1	7/23/2011 20:55
Naphthalene	U		0.000050	0.00020	mg/L	1	7/23/2011 20:55
Nitrobenzene	U		0.000050	0.00020	mg/L	1	7/23/2011 20:55
N-Nitrosodiphenylamine	U		0.000050	0.00020	mg/L	1	7/23/2011 20:55
Pentachlorophenol	U		0.000050	0.00020	mg/L	1	7/23/2011 20:55
Phenanthrene	U		0.000050	0.00020	mg/L	1	7/23/2011 20:55
Phenol	U		0.000050	0.00020	mg/L	1	7/23/2011 20:55
Pyrene	U		0.000050	0.00020	mg/L	1	7/23/2011 20:55
Surr: 2,4,6-Tribromophenol	54.7			34-129	%REC	1	7/23/2011 20:55
Surr: 2-Fluorobiphenyl	45.4			40-125	%REC	1	7/23/2011 20:55
Surr: 2-Fluorophenol	37.5			20-120	%REC	1	7/23/2011 20:55
Surr: 4-Terphenyl-d14	52.0			40-135	%REC	1	7/23/2011 20:55
Surr: Nitrobenzene-d5	43.5			41-120	%REC	1	7/23/2011 20:55
Surr: Phenol-d6	42.2			20-120	%REC	1	7/23/2011 20:55
VOLATILES			Method: SW8260			Analyst: PC	
1,2-Dichloroethane	U		0.0010	0.0050	mg/L	1	7/26/2011 23:59
Benzene	U		0.0010	0.0050	mg/L	1	7/26/2011 23:59
Chlorobenzene	U		0.0010	0.0050	mg/L	1	7/26/2011 23:59
Ethylbenzene	U		0.0011	0.0050	mg/L	1	7/26/2011 23:59

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 09-Aug-11

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Sample ID: WG-1620MW53C-20110720
Collection Date: 7/20/2011 08:20 AM

Work Order: 1107677
Lab ID: 1107677-01
Matrix: WATER

Analyses	Result	Qual	SDL	ML	Units	Dilution Factor	Date Analyzed
Methylene chloride	U		0.0013	0.010	mg/L	1	7/26/2011 23:59
Toluene	U		0.0010	0.0050	mg/L	1	7/26/2011 23:59
Xylenes, Total	U		0.0031	0.015	mg/L	1	7/26/2011 23:59
Surr: 1,2-Dichloroethane-d4	96.7			70-125	%REC	1	7/26/2011 23:59
Surr: 4-Bromofluorobenzene	100			72-125	%REC	1	7/26/2011 23:59
Surr: Dibromofluoromethane	98.2			71-125	%REC	1	7/26/2011 23:59
Surr: Toluene-d8	98.6			75-125	%REC	1	7/26/2011 23:59

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 09-Aug-11

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Sample ID: WG-1620MW54C-20110720
Collection Date: 7/20/2011 09:20 AM

Work Order: 1107677
Lab ID: 1107677-02
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270	Prep: SW3510 / 7/23/11		Analyst: LG	
1,2-Diphenylhydrazine	U		0.000050	0.00020	mg/L	1	7/23/2011 21:14
2,4-Dimethylphenol	U		0.000050	0.00020	mg/L	1	7/23/2011 21:14
2,4-Dinitrotoluene	U		0.000050	0.00020	mg/L	1	7/23/2011 21:14
2,6-Dinitrotoluene	U		0.000060	0.00020	mg/L	1	7/23/2011 21:14
2-Chloronaphthalene	U		0.000050	0.00020	mg/L	1	7/23/2011 21:14
2-Methylnaphthalene	0.022		0.000050	0.00020	mg/L	10	7/26/2011 05:14
4,6-Dinitro-2-methylphenol	U		0.000080	0.00020	mg/L	1	7/23/2011 21:14
4-Nitrophenol	U		0.000050	0.0010	mg/L	1	7/23/2011 21:14
Acenaphthene	0.039		0.000050	0.00020	mg/L	10	7/26/2011 05:14
Acenaphthylene	0.00045		0.000050	0.00020	mg/L	1	7/23/2011 21:14
Anthracene	0.0029		0.000050	0.00020	mg/L	1	7/23/2011 21:14
Benz(a)anthracene	U		0.000050	0.00020	mg/L	1	7/23/2011 21:14
Benzo(a)pyrene	U		0.000050	0.00020	mg/L	1	7/23/2011 21:14
Bis(2-chloroethoxy)methane	U		0.000050	0.00020	mg/L	1	7/23/2011 21:14
Bis(2-ethylhexyl)phthalate	0.00015	J	0.00010	0.00020	mg/L	1	7/23/2011 21:14
Chrysene	U		0.000050	0.00020	mg/L	1	7/23/2011 21:14
Dibenzofuran	0.046		0.000050	0.00020	mg/L	10	7/26/2011 05:14
Di-n-butyl phthalate	U		0.000050	0.00020	mg/L	1	7/23/2011 21:14
Fluoranthene	0.0034		0.000050	0.00020	mg/L	1	7/23/2011 21:14
Fluorene	0.022		0.000050	0.00020	mg/L	10	7/26/2011 05:14
Naphthalene	0.47		0.00050	0.020	mg/L	100	7/26/2011 20:55
Nitrobenzene	U		0.000050	0.00020	mg/L	1	7/23/2011 21:14
N-Nitrosodiphenylamine	U		0.000050	0.00020	mg/L	1	7/23/2011 21:14
Pentachlorophenol	U		0.000050	0.00020	mg/L	1	7/23/2011 21:14
Phenanthrene	0.040		0.000050	0.00020	mg/L	10	7/26/2011 05:14
Phenol	U		0.000050	0.00020	mg/L	1	7/23/2011 21:14
Pyrene	0.0017		0.000050	0.00020	mg/L	1	7/23/2011 21:14
Surr: 2,4,6-Tribromophenol	48.3			34-129	%REC	1	7/23/2011 21:14
Surr: 2,4,6-Tribromophenol	51.9			34-129	%REC	10	7/26/2011 05:14
Surr: 2,4,6-Tribromophenol	49.7	J		34-129	%REC	100	7/26/2011 20:55
Surr: 2-Fluorobiphenyl	41.0			40-125	%REC	1	7/23/2011 21:14
Surr: 2-Fluorobiphenyl	44.3			40-125	%REC	10	7/26/2011 05:14
Surr: 2-Fluorobiphenyl	45.4	J		40-125	%REC	100	7/26/2011 20:55
Surr: 2-Fluorophenol	34.7			20-120	%REC	1	7/23/2011 21:14
Surr: 2-Fluorophenol	38.0	J		20-120	%REC	10	7/26/2011 05:14
Surr: 2-Fluorophenol	38.3	J		20-120	%REC	100	7/26/2011 20:55
Surr: 4-Terphenyl-d14	52.3			40-135	%REC	1	7/23/2011 21:14
Surr: 4-Terphenyl-d14	58.0			40-135	%REC	10	7/26/2011 05:14

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 09-Aug-11

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Sample ID: WG-1620MW54C-20110720
Collection Date: 7/20/2011 09:20 AM

Work Order: 1107677
Lab ID: 1107677-02
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
Surr: 4-Terphenyl-d14	64.0	J		40-135	%REC	100	7/26/2011 20:55
Surr: Nitrobenzene-d5	41.5			41-120	%REC	1	7/23/2011 21:14
Surr: Nitrobenzene-d5	44.3			41-120	%REC	10	7/26/2011 05:14
Surr: Nitrobenzene-d5	48.6	J		41-120	%REC	100	7/26/2011 20:55
Surr: Phenol-d6	40.3			20-120	%REC	1	7/23/2011 21:14
Surr: Phenol-d6	37.0	J		20-120	%REC	10	7/26/2011 05:14
Surr: Phenol-d6	32.0	J		20-120	%REC	100	7/26/2011 20:55

VOLATILES		Method: SW8260				Analyst: PC	
1,2-Dichloroethane	U		0.0010	0.0050	mg/L	1	7/27/2011 00:25
Benzene	U		0.0010	0.0050	mg/L	1	7/27/2011 00:25
Chlorobenzene	U		0.0010	0.0050	mg/L	1	7/27/2011 00:25
Ethylbenzene	0.0018	J	0.0011	0.0050	mg/L	1	7/27/2011 00:25
Methylene chloride	U		0.0013	0.010	mg/L	1	7/27/2011 00:25
Toluene	U		0.0010	0.0050	mg/L	1	7/27/2011 00:25
Xylenes, Total	U		0.0031	0.015	mg/L	1	7/27/2011 00:25
Surr: 1,2-Dichloroethane-d4	97.0			70-125	%REC	1	7/27/2011 00:25
Surr: 4-Bromofluorobenzene	102			72-125	%REC	1	7/27/2011 00:25
Surr: Dibromofluoromethane	98.9			71-125	%REC	1	7/27/2011 00:25
Surr: Toluene-d8	102			75-125	%REC	1	7/27/2011 00:25

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 09-Aug-11

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Sample ID: WG-1620MW25A-20110720
Collection Date: 7/20/2011 10:15 AM

Work Order: 1107677
Lab ID: 1107677-03
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270	Prep: SW3510 / 7/23/11	Analyst: LG		
1,2-Diphenylhydrazine	U		0.000050	0.00020	mg/L	1	7/23/2011 21:33
2,4-Dimethylphenol	U		0.000050	0.00020	mg/L	1	7/23/2011 21:33
2,4-Dinitrotoluene	U		0.000050	0.00020	mg/L	1	7/23/2011 21:33
2,6-Dinitrotoluene	U		0.000060	0.00020	mg/L	1	7/23/2011 21:33
2-Chloronaphthalene	U		0.000050	0.00020	mg/L	1	7/23/2011 21:33
2-Methylnaphthalene	U		0.000050	0.00020	mg/L	1	7/23/2011 21:33
4,6-Dinitro-2-methylphenol	U		0.000080	0.00020	mg/L	1	7/23/2011 21:33
4-Nitrophenol	U		0.000050	0.0010	mg/L	1	7/23/2011 21:33
Acenaphthene	0.0042		0.000050	0.00020	mg/L	1	7/23/2011 21:33
Acenaphthylene	0.000053	J	0.000050	0.00020	mg/L	1	7/23/2011 21:33
Anthracene	U		0.000050	0.00020	mg/L	1	7/23/2011 21:33
Benz(a)anthracene	U		0.000050	0.00020	mg/L	1	7/23/2011 21:33
Benzo(a)pyrene	U		0.000050	0.00020	mg/L	1	7/23/2011 21:33
Bis(2-chloroethoxy)methane	U		0.000050	0.00020	mg/L	1	7/23/2011 21:33
Bis(2-ethylhexyl)phthalate	0.00023		0.00010	0.00020	mg/L	1	7/23/2011 21:33
Chrysene	U		0.000050	0.00020	mg/L	1	7/23/2011 21:33
Dibenzofuran	0.0013		0.000050	0.00020	mg/L	1	7/23/2011 21:33
Di-n-butyl phthalate	U		0.000050	0.00020	mg/L	1	7/23/2011 21:33
Fluoranthene	0.00014	J	0.000050	0.00020	mg/L	1	7/23/2011 21:33
Fluorene	0.00016	J	0.000050	0.00020	mg/L	1	7/23/2011 21:33
Naphthalene	U		0.000050	0.00020	mg/L	1	7/23/2011 21:33
Nitrobenzene	U		0.000050	0.00020	mg/L	1	7/23/2011 21:33
N-Nitrosodiphenylamine	U		0.000050	0.00020	mg/L	1	7/23/2011 21:33
Pentachlorophenol	U		0.000050	0.00020	mg/L	1	7/23/2011 21:33
Phenanthrene	U		0.000050	0.00020	mg/L	1	7/23/2011 21:33
Phenol	U		0.000050	0.00020	mg/L	1	7/23/2011 21:33
Pyrene	0.00090		0.000050	0.00020	mg/L	1	7/23/2011 21:33
Surr: 2,4,6-Tribromophenol	72.7			34-129	%REC	1	7/23/2011 21:33
Surr: 2-Fluorobiphenyl	60.0			40-125	%REC	1	7/23/2011 21:33
Surr: 2-Fluorophenol	45.7			20-120	%REC	1	7/23/2011 21:33
Surr: 4-Terphenyl-d14	67.6			40-135	%REC	1	7/23/2011 21:33
Surr: Nitrobenzene-d5	56.0			41-120	%REC	1	7/23/2011 21:33
Surr: Phenol-d6	52.2			20-120	%REC	1	7/23/2011 21:33
VOLATILES			Method: SW8260	Analyst: PC			
1,2-Dichloroethane	U		0.0010	0.0050	mg/L	1	7/27/2011 00:50
Benzene	U		0.0010	0.0050	mg/L	1	7/27/2011 00:50
Chlorobenzene	U		0.0010	0.0050	mg/L	1	7/27/2011 00:50
Ethylbenzene	U		0.0011	0.0050	mg/L	1	7/27/2011 00:50

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 09-Aug-11

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Sample ID: WG-1620MW25A-20110720
Collection Date: 7/20/2011 10:15 AM

Work Order: 1107677
Lab ID: 1107677-03
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
Methylene chloride	U		0.0013	0.010	mg/L	1	7/27/2011 00:50
Toluene	U		0.0010	0.0050	mg/L	1	7/27/2011 00:50
Vinyl chloride	U		0.0010	0.0020	mg/L	1	7/27/2011 00:50
Xylenes, Total	U		0.0031	0.015	mg/L	1	7/27/2011 00:50
Surr: 1,2-Dichloroethane-d4	96.1			70-125	%REC	1	7/27/2011 00:50
Surr: 4-Bromofluorobenzene	101			72-125	%REC	1	7/27/2011 00:50
Surr: Dibromofluoromethane	99.8			71-125	%REC	1	7/27/2011 00:50
Surr: Toluene-d8	100			75-125	%REC	1	7/27/2011 00:50

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 09-Aug-11

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Sample ID: WG-1620MW25C-20110720
Collection Date: 7/20/2011 11:05 AM

Work Order: 1107677
Lab ID: 1107677-04
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270	Prep: SW3510 / 7/23/11		Analyst: LG	
1,2-Diphenylhydrazine	U		0.000050	0.00020	mg/L	1	7/24/2011 04:29
2,4-Dimethylphenol	0.0051		0.000050	0.00020	mg/L	1	7/24/2011 04:29
2,4-Dinitrotoluene	U		0.000050	0.00020	mg/L	1	7/24/2011 04:29
2,6-Dinitrotoluene	U		0.000060	0.00020	mg/L	1	7/24/2011 04:29
2-Chloronaphthalene	U		0.000050	0.00020	mg/L	1	7/24/2011 04:29
2-Methylnaphthalene	1.3		0.025	0.10	mg/L	500	7/26/2011 22:31
4,6-Dinitro-2-methylphenol	U		0.000080	0.00020	mg/L	1	7/24/2011 04:29
4-Nitrophenol	U		0.000050	0.0010	mg/L	1	7/24/2011 04:29
Acenaphthene	0.28		0.0025	0.010	mg/L	50	7/26/2011 22:12
Acenaphthylene	0.0029		0.000050	0.00020	mg/L	1	7/24/2011 04:29
Anthracene	0.031		0.00050	0.0020	mg/L	10	7/26/2011 06:10
Benz(a)anthracene	0.0014		0.000050	0.00020	mg/L	1	7/24/2011 04:29
Benzo(a)pyrene	0.00043		0.000050	0.00020	mg/L	1	7/24/2011 04:29
Bis(2-chloroethoxy)methane	U		0.000050	0.00020	mg/L	1	7/24/2011 04:29
Bis(2-ethylhexyl)phthalate	0.0020		0.00010	0.00020	mg/L	1	7/24/2011 04:29
Chrysene	0.0012		0.000050	0.00020	mg/L	1	7/24/2011 04:29
Dibenzofuran	0.29		0.0025	0.010	mg/L	50	7/26/2011 22:12
Di-n-butyl phthalate	U		0.000050	0.00020	mg/L	1	7/24/2011 04:29
Fluoranthene	0.020		0.00050	0.0020	mg/L	10	7/26/2011 06:10
Fluorene	0.14		0.0025	0.010	mg/L	50	7/26/2011 22:12
Naphthalene	19		0.25	1.0	mg/L	5000	7/26/2011 23:56
Nitrobenzene	U		0.000050	0.00020	mg/L	1	7/24/2011 04:29
N-Nitrosodiphenylamine	U		0.000050	0.00020	mg/L	1	7/24/2011 04:29
Pentachlorophenol	U		0.000050	0.00020	mg/L	1	7/24/2011 04:29
Phenanthrene	0.18		0.0025	0.010	mg/L	50	7/26/2011 22:12
Phenol	0.026		0.00050	0.0020	mg/L	10	7/26/2011 06:10
Pyrene	0.0092		0.000050	0.00020	mg/L	1	7/24/2011 04:29
Surr: 2,4,6-Tribromophenol	68.2			34-129	%REC	1	7/24/2011 04:29
Surr: 2,4,6-Tribromophenol	100			34-129	%REC	10	7/26/2011 06:10
Surr: 2,4,6-Tribromophenol	101	J		34-129	%REC	50	7/26/2011 22:12
Surr: 2,4,6-Tribromophenol	0	S		34-129	%REC	500	7/26/2011 22:31
Surr: 2,4,6-Tribromophenol	0	S		34-129	%REC	5000	7/26/2011 23:56
Surr: 2-Fluorobiphenyl	48.6			40-125	%REC	1	7/24/2011 04:29
Surr: 2-Fluorobiphenyl	73.8			40-125	%REC	10	7/26/2011 06:10
Surr: 2-Fluorobiphenyl	81.6	J		40-125	%REC	50	7/26/2011 22:12
Surr: 2-Fluorobiphenyl	0	S		40-125	%REC	500	7/26/2011 22:31
Surr: 2-Fluorobiphenyl	0	S		40-125	%REC	5000	7/26/2011 23:56
Surr: 2-Fluorophenol	117			20-120	%REC	1	7/24/2011 04:29

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 09-Aug-11

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Sample ID: WG-1620MW25C-20110720
Collection Date: 7/20/2011 11:05 AM

Work Order: 1107677
Lab ID: 1107677-04
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
Surr: 2-Fluorophenol	157	S		20-120	%REC	10	7/26/2011 06:10
Surr: 2-Fluorophenol	99.7	J		20-120	%REC	50	7/26/2011 22:12
Surr: 2-Fluorophenol	0	S		20-120	%REC	500	7/26/2011 22:31
Surr: 2-Fluorophenol	0	S		20-120	%REC	5000	7/26/2011 23:56
Surr: 4-Terphenyl-d14	66.2			40-135	%REC	1	7/24/2011 04:29
Surr: 4-Terphenyl-d14	87.9			40-135	%REC	10	7/26/2011 06:10
Surr: 4-Terphenyl-d14	89.3	J		40-135	%REC	50	7/26/2011 22:12
Surr: 4-Terphenyl-d14	0	S		40-135	%REC	500	7/26/2011 22:31
Surr: 4-Terphenyl-d14	0	S		40-135	%REC	5000	7/26/2011 23:56
Surr: Nitrobenzene-d5	57.1			41-120	%REC	1	7/24/2011 04:29
Surr: Nitrobenzene-d5	58.2			41-120	%REC	10	7/26/2011 06:10
Surr: Nitrobenzene-d5	76.1	J		41-120	%REC	50	7/26/2011 22:12
Surr: Nitrobenzene-d5	0	S		41-120	%REC	500	7/26/2011 22:31
Surr: Nitrobenzene-d5	0	S		41-120	%REC	5000	7/26/2011 23:56
Surr: Phenol-d6	56.4			20-120	%REC	1	7/24/2011 04:29
Surr: Phenol-d6	67.7			20-120	%REC	10	7/26/2011 06:10
Surr: Phenol-d6	82.1	J		20-120	%REC	50	7/26/2011 22:12
Surr: Phenol-d6	0	S		20-120	%REC	500	7/26/2011 22:31
Surr: Phenol-d6	0	S		20-120	%REC	5000	7/26/2011 23:56

VOLATILES	Method: SW8260				Analyst: PC		
1,2-Dichloroethane	U		0.0050	0.025	mg/L	5	7/27/2011 15:03
Benzene	0.076		0.0050	0.025	mg/L	5	7/27/2011 15:03
Chlorobenzene	U		0.0050	0.025	mg/L	5	7/27/2011 15:03
Ethylbenzene	0.37		0.0055	0.025	mg/L	5	7/27/2011 15:03
Methylene chloride	U		0.0065	0.050	mg/L	5	7/27/2011 15:03
Toluene	0.40		0.0050	0.025	mg/L	5	7/27/2011 15:03
Vinyl chloride	U		0.0050	0.010	mg/L	5	7/27/2011 15:03
Xylenes, Total	1.0		0.016	0.075	mg/L	5	7/27/2011 15:03
Surr: 1,2-Dichloroethane-d4	96.0			70-125	%REC	5	7/27/2011 15:03
Surr: 4-Bromofluorobenzene	97.9			72-125	%REC	5	7/27/2011 15:03
Surr: Dibromofluoromethane	95.5			71-125	%REC	5	7/27/2011 15:03
Surr: Toluene-d8	99.7			75-125	%REC	5	7/27/2011 15:03

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 09-Aug-11

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Sample ID: WG-1620MW44C-20110720
Collection Date: 7/20/2011 12:05 PM

Work Order: 1107677
Lab ID: 1107677-05
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270	Prep: SW3510 / 7/23/11		Analyst: LG	
1,2-Diphenylhydrazine	U		0.000050	0.00020	mg/L	1	7/24/2011 03:51
2,4-Dimethylphenol	U		0.000050	0.00020	mg/L	1	7/24/2011 03:51
2,4-Dinitrotoluene	U		0.000050	0.00020	mg/L	1	7/24/2011 03:51
2,6-Dinitrotoluene	U		0.000060	0.00020	mg/L	1	7/24/2011 03:51
2-Chloronaphthalene	U		0.000050	0.00020	mg/L	1	7/24/2011 03:51
2-Methylnaphthalene	U		0.000050	0.00020	mg/L	1	7/24/2011 03:51
4,6-Dinitro-2-methylphenol	U		0.000080	0.00020	mg/L	1	7/24/2011 03:51
4-Nitrophenol	U		0.000050	0.0010	mg/L	1	7/24/2011 03:51
Acenaphthene	0.00012	J	0.000050	0.00020	mg/L	1	7/24/2011 03:51
Acenaphthylene	0.000097	J	0.000050	0.00020	mg/L	1	7/24/2011 03:51
Anthracene	0.00014	J	0.000050	0.00020	mg/L	1	7/24/2011 03:51
Benz(a)anthracene	0.00017	J	0.000050	0.00020	mg/L	1	7/24/2011 03:51
Benzo(a)pyrene	0.00022		0.000050	0.00020	mg/L	1	7/24/2011 03:51
Bis(2-chloroethoxy)methane	U		0.000050	0.00020	mg/L	1	7/24/2011 03:51
Bis(2-ethylhexyl)phthalate	0.00087		0.00010	0.00020	mg/L	1	7/24/2011 03:51
Chrysene	0.00032		0.000050	0.00020	mg/L	1	7/24/2011 03:51
Dibenzofuran	U		0.000050	0.00020	mg/L	1	7/24/2011 03:51
Di-n-butyl phthalate	U		0.000050	0.00020	mg/L	1	7/24/2011 03:51
Fluoranthene	0.00016	J	0.000050	0.00020	mg/L	1	7/24/2011 03:51
Fluorene	U		0.000050	0.00020	mg/L	1	7/24/2011 03:51
Naphthalene	0.00016	J	0.000050	0.00020	mg/L	1	7/24/2011 03:51
Nitrobenzene	U		0.000050	0.00020	mg/L	1	7/24/2011 03:51
N-Nitrosodiphenylamine	U		0.000050	0.00020	mg/L	1	7/24/2011 03:51
Pentachlorophenol	U		0.000050	0.00020	mg/L	1	7/24/2011 03:51
Phenanthrene	0.000081	J	0.000050	0.00020	mg/L	1	7/24/2011 03:51
Phenol	U		0.000050	0.00020	mg/L	1	7/24/2011 03:51
Pyrene	0.00013	J	0.000050	0.00020	mg/L	1	7/24/2011 03:51
Surr: 2,4,6-Tribromophenol	61.2			34-129	%REC	1	7/24/2011 03:51
Surr: 2-Fluorobiphenyl	49.2			40-125	%REC	1	7/24/2011 03:51
Surr: 2-Fluorophenol	32.5			20-120	%REC	1	7/24/2011 03:51
Surr: 4-Terphenyl-d14	62.1			40-135	%REC	1	7/24/2011 03:51
Surr: Nitrobenzene-d5	47.0			41-120	%REC	1	7/24/2011 03:51
Surr: Phenol-d6	37.6			20-120	%REC	1	7/24/2011 03:51

VOLATILES			Method: SW8260			Analyst: PC	
1,2-Dichloroethane	U		0.0010	0.0050	mg/L	1	7/27/2011 18:53
Benzene	U		0.0010	0.0050	mg/L	1	7/27/2011 18:53
Chlorobenzene	U		0.0010	0.0050	mg/L	1	7/27/2011 18:53
Ethylbenzene	U		0.0011	0.0050	mg/L	1	7/27/2011 18:53

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 09-Aug-11

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Sample ID: WG-1620MW44C-20110720
Collection Date: 7/20/2011 12:05 PM

Work Order: 1107677
Lab ID: 1107677-05
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
Methylene chloride	U		0.0013	0.010	mg/L	1	7/27/2011 18:53
Toluene	U		0.0010	0.0050	mg/L	1	7/27/2011 18:53
Xylenes, Total	U		0.0031	0.015	mg/L	1	7/27/2011 18:53
Surr: 1,2-Dichloroethane-d4	98.4			70-125	%REC	1	7/27/2011 18:53
Surr: 4-Bromofluorobenzene	99.7			72-125	%REC	1	7/27/2011 18:53
Surr: Dibromofluoromethane	99.6			71-125	%REC	1	7/27/2011 18:53
Surr: Toluene-d8	99.5			75-125	%REC	1	7/27/2011 18:53

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 09-Aug-11

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Sample ID: WG-1620MW44A-20110720
Collection Date: 7/20/2011 01:30 PM

Work Order: 1107677
Lab ID: 1107677-06
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270	Prep: SW3510 / 7/23/11		Analyst: LG	
1,2-Diphenylhydrazine	U		0.000050	0.00020	mg/L	1	7/23/2011 21:52
2,4-Dimethylphenol	U		0.000050	0.00020	mg/L	1	7/23/2011 21:52
2,4-Dinitrotoluene	U		0.000050	0.00020	mg/L	1	7/23/2011 21:52
2,6-Dinitrotoluene	U		0.000060	0.00020	mg/L	1	7/23/2011 21:52
2-Chloronaphthalene	U		0.000050	0.00020	mg/L	1	7/23/2011 21:52
2-Methylnaphthalene	0.0023		0.000050	0.00020	mg/L	1	7/23/2011 21:52
4,6-Dinitro-2-methylphenol	U		0.000080	0.00020	mg/L	1	7/23/2011 21:52
4-Nitrophenol	U		0.000050	0.0010	mg/L	1	7/23/2011 21:52
Acenaphthene	0.23		0.0025	0.010	mg/L	50	7/26/2011 21:14
Acenaphthylene	0.0013		0.000050	0.00020	mg/L	1	7/23/2011 21:52
Anthracene	0.0058		0.000050	0.00020	mg/L	1	7/23/2011 21:52
Benz(a)anthracene	U		0.000050	0.00020	mg/L	1	7/23/2011 21:52
Benzo(a)pyrene	U		0.000050	0.00020	mg/L	1	7/23/2011 21:52
Bis(2-chloroethoxy)methane	U		0.000050	0.00020	mg/L	1	7/23/2011 21:52
Bis(2-ethylhexyl)phthalate	0.00075		0.00010	0.00020	mg/L	1	7/23/2011 21:52
Chrysene	U		0.000050	0.00020	mg/L	1	7/23/2011 21:52
Dibenzofuran	0.0014		0.000050	0.00020	mg/L	1	7/23/2011 21:52
Di-n-butyl phthalate	U		0.000050	0.00020	mg/L	1	7/23/2011 21:52
Fluoranthene	0.0095		0.000050	0.00020	mg/L	1	7/23/2011 21:52
Fluorene	0.094		0.00050	0.0020	mg/L	10	7/26/2011 05:33
Naphthalene	0.042		0.00050	0.0020	mg/L	10	7/26/2011 05:33
Nitrobenzene	U		0.000050	0.00020	mg/L	1	7/23/2011 21:52
N-Nitrosodiphenylamine	U		0.000050	0.00020	mg/L	1	7/23/2011 21:52
Pentachlorophenol	U		0.000050	0.00020	mg/L	1	7/23/2011 21:52
Phenanthrene	0.0047		0.000050	0.00020	mg/L	1	7/23/2011 21:52
Phenol	U		0.000050	0.00020	mg/L	1	7/23/2011 21:52
Pyrene	0.0046		0.000050	0.00020	mg/L	1	7/23/2011 21:52
Surr: 2,4,6-Tribromophenol	80.6			34-129	%REC	1	7/23/2011 21:52
Surr: 2,4,6-Tribromophenol	85.6			34-129	%REC	10	7/26/2011 05:33
Surr: 2,4,6-Tribromophenol	74.6	J		34-129	%REC	50	7/26/2011 21:14
Surr: 2-Fluorobiphenyl	61.6			40-125	%REC	1	7/23/2011 21:52
Surr: 2-Fluorobiphenyl	69.6			40-125	%REC	10	7/26/2011 05:33
Surr: 2-Fluorobiphenyl	81.4	J		40-125	%REC	50	7/26/2011 21:14
Surr: 2-Fluorophenol	47.5			20-120	%REC	1	7/23/2011 21:52
Surr: 2-Fluorophenol	60.4			20-120	%REC	10	7/26/2011 05:33
Surr: 2-Fluorophenol	66.5	J		20-120	%REC	50	7/26/2011 21:14
Surr: 4-Terphenyl-d14	67.7			40-135	%REC	1	7/23/2011 21:52
Surr: 4-Terphenyl-d14	80.8			40-135	%REC	10	7/26/2011 05:33

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 09-Aug-11

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Sample ID: WG-1620MW44A-20110720
Collection Date: 7/20/2011 01:30 PM

Work Order: 1107677
Lab ID: 1107677-06
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
Surr: 4-Terphenyl-d14	87.5	J		40-135	%REC	50	7/26/2011 21:14
Surr: Nitrobenzene-d5	62.8			41-120	%REC	1	7/23/2011 21:52
Surr: Nitrobenzene-d5	66.2			41-120	%REC	10	7/26/2011 05:33
Surr: Nitrobenzene-d5	76.1	J		41-120	%REC	50	7/26/2011 21:14
Surr: Phenol-d6	57.0			20-120	%REC	1	7/23/2011 21:52
Surr: Phenol-d6	53.2			20-120	%REC	10	7/26/2011 05:33
Surr: Phenol-d6	57.7	J		20-120	%REC	50	7/26/2011 21:14

VOLATILES		Method: SW8260				Analyst: PC	
1,2-Dichloroethane	U		0.0010	0.0050	mg/L	1	7/27/2011 01:16
Benzene	0.0020	J	0.0010	0.0050	mg/L	1	7/27/2011 01:16
Chlorobenzene	U		0.0010	0.0050	mg/L	1	7/27/2011 01:16
Ethylbenzene	U		0.0011	0.0050	mg/L	1	7/27/2011 01:16
Methylene chloride	U		0.0013	0.010	mg/L	1	7/27/2011 01:16
Toluene	U		0.0010	0.0050	mg/L	1	7/27/2011 01:16
Vinyl chloride	U		0.0010	0.0020	mg/L	1	7/27/2011 01:16
Xylenes, Total	U		0.0031	0.015	mg/L	1	7/27/2011 01:16
Surr: 1,2-Dichloroethane-d4	99.1			70-125	%REC	1	7/27/2011 01:16
Surr: 4-Bromofluorobenzene	98.3			72-125	%REC	1	7/27/2011 01:16
Surr: Dibromofluoromethane	98.2			71-125	%REC	1	7/27/2011 01:16
Surr: Toluene-d8	98.4			75-125	%REC	1	7/27/2011 01:16

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 09-Aug-11

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Sample ID: WG-1620MW67B-2011720
Collection Date: 7/20/2011 02:40 PM

Work Order: 1107677
Lab ID: 1107677-07
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES		Method: SW8270		Prep: SW3510 / 7/23/11		Analyst: LG	
1,2-Diphenylhydrazine	U		0.000050	0.00020	mg/L	1	7/23/2011 19:40
2,4-Dimethylphenol	U		0.000050	0.00020	mg/L	1	7/23/2011 19:40
2,4-Dinitrotoluene	U		0.000050	0.00020	mg/L	1	7/23/2011 19:40
2,6-Dinitrotoluene	U		0.000060	0.00020	mg/L	1	7/23/2011 19:40
2-Chloronaphthalene	U		0.000050	0.00020	mg/L	1	7/23/2011 19:40
2-Methylnaphthalene	U		0.000050	0.00020	mg/L	1	7/23/2011 19:40
4,6-Dinitro-2-methylphenol	U		0.000080	0.00020	mg/L	1	7/23/2011 19:40
4-Nitrophenol	U		0.000050	0.0010	mg/L	1	7/23/2011 19:40
Acenaphthene	U		0.000050	0.00020	mg/L	1	7/23/2011 19:40
Acenaphthylene	U		0.000050	0.00020	mg/L	1	7/23/2011 19:40
Anthracene	U		0.000050	0.00020	mg/L	1	7/23/2011 19:40
Benz(a)anthracene	U		0.000050	0.00020	mg/L	1	7/23/2011 19:40
Benzo(a)pyrene	U		0.000050	0.00020	mg/L	1	7/23/2011 19:40
Bis(2-chloroethoxy)methane	U		0.000050	0.00020	mg/L	1	7/23/2011 19:40
Bis(2-ethylhexyl)phthalate	0.00094		0.00010	0.00020	mg/L	1	7/23/2011 19:40
Chrysene	U		0.000050	0.00020	mg/L	1	7/23/2011 19:40
Dibenzofuran	U		0.000050	0.00020	mg/L	1	7/23/2011 19:40
Di-n-butyl phthalate	U		0.000050	0.00020	mg/L	1	7/23/2011 19:40
Fluoranthene	U		0.000050	0.00020	mg/L	1	7/23/2011 19:40
Fluorene	U		0.000050	0.00020	mg/L	1	7/23/2011 19:40
Naphthalene	U		0.000050	0.00020	mg/L	1	7/23/2011 19:40
Nitrobenzene	U		0.000050	0.00020	mg/L	1	7/23/2011 19:40
N-Nitrosodiphenylamine	U		0.000050	0.00020	mg/L	1	7/23/2011 19:40
Pentachlorophenol	U		0.000050	0.00020	mg/L	1	7/23/2011 19:40
Phenanthrene	U		0.000050	0.00020	mg/L	1	7/23/2011 19:40
Phenol	U		0.000050	0.00020	mg/L	1	7/23/2011 19:40
Pyrene	U		0.000050	0.00020	mg/L	1	7/23/2011 19:40
Surr: 2,4,6-Tribromophenol	68.3			34-129	%REC	1	7/23/2011 19:40
Surr: 2-Fluorobiphenyl	43.3			40-125	%REC	1	7/23/2011 19:40
Surr: 2-Fluorophenol	37.8			20-120	%REC	1	7/23/2011 19:40
Surr: 4-Terphenyl-d14	60.8			40-135	%REC	1	7/23/2011 19:40
Surr: Nitrobenzene-d5	42.3			41-120	%REC	1	7/23/2011 19:40
Surr: Phenol-d6	40.8			20-120	%REC	1	7/23/2011 19:40

VOLATILES		Method: SW8260		Analyst: PC			
1,2-Dichloroethane	U		0.0010	0.0050	mg/L	1	7/27/2011 12:03
Benzene	U		0.0010	0.0050	mg/L	1	7/27/2011 12:03
Chlorobenzene	U		0.0010	0.0050	mg/L	1	7/27/2011 12:03
Ethylbenzene	U		0.0011	0.0050	mg/L	1	7/27/2011 12:03

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 09-Aug-11

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Sample ID: WG-1620MW67B-2011720
Collection Date: 7/20/2011 02:40 PM

Work Order: 1107677
Lab ID: 1107677-07
Matrix: WATER

Analyses	Result	Qual	SDL	ML	Units	Dilution Factor	Date Analyzed
Methylene chloride	U		0.0013	0.010	mg/L	1	7/27/2011 12:03
Toluene	U		0.0010	0.0050	mg/L	1	7/27/2011 12:03
Xylenes, Total	U		0.0031	0.015	mg/L	1	7/27/2011 12:03
Surr: 1,2-Dichloroethane-d4	97.3			70-125	%REC	1	7/27/2011 12:03
Surr: 4-Bromofluorobenzene	99.7			72-125	%REC	1	7/27/2011 12:03
Surr: Dibromofluoromethane	97.5			71-125	%REC	1	7/27/2011 12:03
Surr: Toluene-d8	95.2			75-125	%REC	1	7/27/2011 12:03

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 09-Aug-11

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Sample ID: WG-1620MW27C-20110720
Collection Date: 7/20/2011 03:45 PM

Work Order: 1107677
Lab ID: 1107677-08
Matrix: WATER

Analyses	Result	Qual	SDL	ML	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270	Prep: SW3510 / 7/23/11	Analyst: LG		
1,2-Diphenylhydrazine	U		0.000050	0.00020	mg/L	1	7/24/2011 04:10
2,4-Dimethylphenol	U		0.000050	0.00020	mg/L	1	7/24/2011 04:10
2,4-Dinitrotoluene	U		0.000050	0.00020	mg/L	1	7/24/2011 04:10
2,6-Dinitrotoluene	U		0.000060	0.00020	mg/L	1	7/24/2011 04:10
2-Chloronaphthalene	U		0.000050	0.00020	mg/L	1	7/24/2011 04:10
2-Methylnaphthalene	U		0.000050	0.00020	mg/L	1	7/24/2011 04:10
4,6-Dinitro-2-methylphenol	U		0.000080	0.00020	mg/L	1	7/24/2011 04:10
4-Nitrophenol	U		0.000050	0.0010	mg/L	1	7/24/2011 04:10
Acenaphthene	0.00011	J	0.000050	0.00020	mg/L	1	7/24/2011 04:10
Acenaphthylene	U		0.000050	0.00020	mg/L	1	7/24/2011 04:10
Anthracene	U		0.000050	0.00020	mg/L	1	7/24/2011 04:10
Benz(a)anthracene	U		0.000050	0.00020	mg/L	1	7/24/2011 04:10
Benzo(a)pyrene	U		0.000050	0.00020	mg/L	1	7/24/2011 04:10
Bis(2-chloroethoxy)methane	U		0.000050	0.00020	mg/L	1	7/24/2011 04:10
Bis(2-ethylhexyl)phthalate	0.00095		0.00010	0.00020	mg/L	1	7/24/2011 04:10
Chrysene	U		0.000050	0.00020	mg/L	1	7/24/2011 04:10
Dibenzofuran	U		0.000050	0.00020	mg/L	1	7/24/2011 04:10
Di-n-butyl phthalate	U		0.000050	0.00020	mg/L	1	7/24/2011 04:10
Fluoranthene	0.00011	J	0.000050	0.00020	mg/L	1	7/24/2011 04:10
Fluorene	U		0.000050	0.00020	mg/L	1	7/24/2011 04:10
Naphthalene	U		0.000050	0.00020	mg/L	1	7/24/2011 04:10
Nitrobenzene	U		0.000050	0.00020	mg/L	1	7/24/2011 04:10
N-Nitrosodiphenylamine	U		0.000050	0.00020	mg/L	1	7/24/2011 04:10
Pentachlorophenol	U		0.000050	0.00020	mg/L	1	7/24/2011 04:10
Phenanthrene	U		0.000050	0.00020	mg/L	1	7/24/2011 04:10
Phenol	U		0.000050	0.00020	mg/L	1	7/24/2011 04:10
Pyrene	0.000064	J	0.000050	0.00020	mg/L	1	7/24/2011 04:10
Surr: 2,4,6-Tribromophenol	47.3			34-129	%REC	1	7/24/2011 04:10
Surr: 2-Fluorobiphenyl	45.2			40-125	%REC	1	7/24/2011 04:10
Surr: 2-Fluorophenol	32.9			20-120	%REC	1	7/24/2011 04:10
Surr: 4-Terphenyl-d14	61.0			40-135	%REC	1	7/24/2011 04:10
Surr: Nitrobenzene-d5	42.9			41-120	%REC	1	7/24/2011 04:10
Surr: Phenol-d6	41.2			20-120	%REC	1	7/24/2011 04:10
VOLATILES			Method: SW8260	Analyst: PC			
1,2-Dichloroethane	U		0.0010	0.0050	mg/L	1	7/27/2011 01:41
Benzene	U		0.0010	0.0050	mg/L	1	7/27/2011 01:41
Chlorobenzene	U		0.0010	0.0050	mg/L	1	7/27/2011 01:41
Ethylbenzene	U		0.0011	0.0050	mg/L	1	7/27/2011 01:41

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 09-Aug-11

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Sample ID: WG-1620MW27C-20110720
Collection Date: 7/20/2011 03:45 PM

Work Order: 1107677
Lab ID: 1107677-08
Matrix: WATER

Analyses	Result	Qual	SDL	ML	Units	Dilution Factor	Date Analyzed
Methylene chloride	U		0.0013	0.010	mg/L	1	7/27/2011 01:41
Toluene	U		0.0010	0.0050	mg/L	1	7/27/2011 01:41
Xylenes, Total	U		0.0031	0.015	mg/L	1	7/27/2011 01:41
Surr: 1,2-Dichloroethane-d4	96.6			70-125	%REC	1	7/27/2011 01:41
Surr: 4-Bromofluorobenzene	101			72-125	%REC	1	7/27/2011 01:41
Surr: Dibromofluoromethane	96.3			71-125	%REC	1	7/27/2011 01:41
Surr: Toluene-d8	99.5			75-125	%REC	1	7/27/2011 01:41

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 09-Aug-11

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Sample ID: WG-1620MW35A-20110720
Collection Date: 7/20/2011 04:55 PM

Work Order: 1107677
Lab ID: 1107677-09
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270	Prep: SW3510 / 7/23/11		Analyst: LG	
1,2-Diphenylhydrazine	U		0.000050	0.00020	mg/L	1	7/23/2011 22:11
2,4-Dimethylphenol	U		0.000050	0.00020	mg/L	1	7/23/2011 22:11
2,4-Dinitrotoluene	U		0.000050	0.00020	mg/L	1	7/23/2011 22:11
2,6-Dinitrotoluene	U		0.000060	0.00020	mg/L	1	7/23/2011 22:11
2-Chloronaphthalene	U		0.000050	0.00020	mg/L	1	7/23/2011 22:11
2-Methylnaphthalene	U		0.000050	0.00020	mg/L	1	7/23/2011 22:11
4,6-Dinitro-2-methylphenol	U		0.000080	0.00020	mg/L	1	7/23/2011 22:11
4-Nitrophenol	U		0.000050	0.0010	mg/L	1	7/23/2011 22:11
Acenaphthene	0.00091		0.000050	0.00020	mg/L	1	7/23/2011 22:11
Acenaphthylene	U		0.000050	0.00020	mg/L	1	7/23/2011 22:11
Anthracene	U		0.000050	0.00020	mg/L	1	7/23/2011 22:11
Benz(a)anthracene	U		0.000050	0.00020	mg/L	1	7/23/2011 22:11
Benzo(a)pyrene	U		0.000050	0.00020	mg/L	1	7/23/2011 22:11
Bis(2-chloroethoxy)methane	U		0.000050	0.00020	mg/L	1	7/23/2011 22:11
Bis(2-ethylhexyl)phthalate	0.00099		0.00010	0.00020	mg/L	1	7/23/2011 22:11
Chrysene	U		0.000050	0.00020	mg/L	1	7/23/2011 22:11
Dibenzofuran	0.00013	J	0.000050	0.00020	mg/L	1	7/23/2011 22:11
Di-n-butyl phthalate	U		0.000050	0.00020	mg/L	1	7/23/2011 22:11
Fluoranthene	0.00053		0.000050	0.00020	mg/L	1	7/23/2011 22:11
Fluorene	0.00012	J	0.000050	0.00020	mg/L	1	7/23/2011 22:11
Naphthalene	U		0.000050	0.00020	mg/L	1	7/23/2011 22:11
Nitrobenzene	U		0.000050	0.00020	mg/L	1	7/23/2011 22:11
N-Nitrosodiphenylamine	U		0.000050	0.00020	mg/L	1	7/23/2011 22:11
Pentachlorophenol	U		0.000050	0.00020	mg/L	1	7/23/2011 22:11
Phenanthrene	U		0.000050	0.00020	mg/L	1	7/23/2011 22:11
Phenol	U		0.000050	0.00020	mg/L	1	7/23/2011 22:11
Pyrene	0.00029		0.000050	0.00020	mg/L	1	7/23/2011 22:11
Surr: 2,4,6-Tribromophenol	65.1			34-129	%REC	1	7/23/2011 22:11
Surr: 2-Fluorobiphenyl	50.1			40-125	%REC	1	7/23/2011 22:11
Surr: 2-Fluorophenol	37.6			20-120	%REC	1	7/23/2011 22:11
Surr: 4-Terphenyl-d14	64.6			40-135	%REC	1	7/23/2011 22:11
Surr: Nitrobenzene-d5	44.8			41-120	%REC	1	7/23/2011 22:11
Surr: Phenol-d6	43.2			20-120	%REC	1	7/23/2011 22:11

VOLATILES			Method: SW8260			Analyst: PC	
1,2-Dichloroethane	U		0.0010	0.0050	mg/L	1	7/27/2011 02:58
Benzene	U		0.0010	0.0050	mg/L	1	7/27/2011 02:58
Chlorobenzene	U		0.0010	0.0050	mg/L	1	7/27/2011 02:58
Ethylbenzene	U		0.0011	0.0050	mg/L	1	7/27/2011 02:58

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 09-Aug-11

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Sample ID: WG-1620MW35A-20110720
Collection Date: 7/20/2011 04:55 PM

Work Order: 1107677
Lab ID: 1107677-09
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
Methylene chloride	U		0.0013	0.010	mg/L	1	7/27/2011 02:58
Toluene	U		0.0010	0.0050	mg/L	1	7/27/2011 02:58
Xylenes, Total	U		0.0031	0.015	mg/L	1	7/27/2011 02:58
Surr: 1,2-Dichloroethane-d4	96.9			70-125	%REC	1	7/27/2011 02:58
Surr: 4-Bromofluorobenzene	101			72-125	%REC	1	7/27/2011 02:58
Surr: Dibromofluoromethane	97.5			71-125	%REC	1	7/27/2011 02:58
Surr: Toluene-d8	99.2			75-125	%REC	1	7/27/2011 02:58

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 09-Aug-11

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Sample ID: WG-1620MW35B-20110720
Collection Date: 7/20/2011 05:45 PM

Work Order: 1107677
Lab ID: 1107677-10
Matrix: WATER

Analyses	Result	Qual	SDL	ML	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270	Prep: SW3510 / 7/23/11	Analyst: LG		
1,2-Diphenylhydrazine	U		0.000050	0.00020	mg/L	1	7/27/2011 15:28
2,4-Dimethylphenol	U		0.000050	0.00020	mg/L	1	7/27/2011 15:28
2,4-Dinitrotoluene	U		0.000050	0.00020	mg/L	1	7/27/2011 15:28
2,6-Dinitrotoluene	U		0.000060	0.00020	mg/L	1	7/27/2011 15:28
2-Chloronaphthalene	U		0.000050	0.00020	mg/L	1	7/27/2011 15:28
2-Methylnaphthalene	0.48		0.0025	0.010	mg/L	50	7/26/2011 21:33
4,6-Dinitro-2-methylphenol	U		0.000080	0.00020	mg/L	1	7/27/2011 15:28
4-Nitrophenol	U		0.000050	0.0010	mg/L	1	7/27/2011 15:28
Acenaphthene	0.20		0.0025	0.010	mg/L	50	7/26/2011 21:33
Acenaphthylene	0.00097		0.000050	0.00020	mg/L	1	7/27/2011 15:28
Anthracene	0.016		0.00050	0.0020	mg/L	10	7/26/2011 05:51
Benz(a)anthracene	0.00021		0.000050	0.00020	mg/L	1	7/27/2011 15:28
Benzo(a)pyrene	0.000069	J	0.000050	0.00020	mg/L	1	7/27/2011 15:28
Bis(2-chloroethoxy)methane	U		0.000050	0.00020	mg/L	1	7/27/2011 15:28
Bis(2-ethylhexyl)phthalate	0.00056		0.00010	0.00020	mg/L	1	7/27/2011 15:28
Chrysene	0.00025		0.000050	0.00020	mg/L	1	7/27/2011 15:28
Dibenzofuran	0.21		0.0025	0.010	mg/L	50	7/26/2011 21:33
Di-n-butyl phthalate	U		0.000050	0.00020	mg/L	1	7/27/2011 15:28
Fluoranthene	0.0056		0.000050	0.00020	mg/L	1	7/27/2011 15:28
Fluorene	0.097		0.00050	0.0020	mg/L	10	7/26/2011 05:51
Naphthalene	12		0.10	0.40	mg/L	2000	7/26/2011 23:33
Nitrobenzene	U		0.000050	0.00020	mg/L	1	7/27/2011 15:28
N-Nitrosodiphenylamine	U		0.000050	0.00020	mg/L	1	7/27/2011 15:28
Pentachlorophenol	U		0.000050	0.00020	mg/L	1	7/27/2011 15:28
Phenanthrene	0.12		0.0025	0.010	mg/L	50	7/26/2011 21:33
Phenol	U		0.000050	0.00020	mg/L	1	7/27/2011 15:28
Pyrene	0.0027		0.000050	0.00020	mg/L	1	7/27/2011 15:28
Surr: 2,4,6-Tribromophenol	76.1			34-129	%REC	10	7/26/2011 05:51
Surr: 2,4,6-Tribromophenol	78.1	J		34-129	%REC	50	7/26/2011 21:33
Surr: 2,4,6-Tribromophenol	0	S		34-129	%REC	2000	7/26/2011 23:33
Surr: 2,4,6-Tribromophenol	61.0			34-129	%REC	1	7/27/2011 15:28
Surr: 2-Fluorobiphenyl	67.5			40-125	%REC	10	7/26/2011 05:51
Surr: 2-Fluorobiphenyl	77.8	J		40-125	%REC	50	7/26/2011 21:33
Surr: 2-Fluorobiphenyl	0	S		40-125	%REC	2000	7/26/2011 23:33
Surr: 2-Fluorobiphenyl	41.6			40-125	%REC	1	7/27/2011 15:28
Surr: 2-Fluorophenol	90.0			20-120	%REC	10	7/26/2011 05:51
Surr: 2-Fluorophenol	106	J		20-120	%REC	50	7/26/2011 21:33
Surr: 2-Fluorophenol	0	S		20-120	%REC	2000	7/26/2011 23:33

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 09-Aug-11

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Sample ID: WG-1620MW35B-20110720
Collection Date: 7/20/2011 05:45 PM

Work Order: 1107677
Lab ID: 1107677-10
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
Surr: 2-Fluorophenol	69.6			20-120	%REC	1	7/27/2011 15:28
Surr: 4-Terphenyl-d14	69.4			40-135	%REC	10	7/26/2011 05:51
Surr: 4-Terphenyl-d14	79.4	J		40-135	%REC	50	7/26/2011 21:33
Surr: 4-Terphenyl-d14	0	S		40-135	%REC	2000	7/26/2011 23:33
Surr: 4-Terphenyl-d14	57.5			40-135	%REC	1	7/27/2011 15:28
Surr: Nitrobenzene-d5	75.9			41-120	%REC	10	7/26/2011 05:51
Surr: Nitrobenzene-d5	70.8	J		41-120	%REC	50	7/26/2011 21:33
Surr: Nitrobenzene-d5	0	S		41-120	%REC	2000	7/26/2011 23:33
Surr: Nitrobenzene-d5	74.5			41-120	%REC	1	7/27/2011 15:28
Surr: Phenol-d6	61.3			20-120	%REC	10	7/26/2011 05:51
Surr: Phenol-d6	61.4	J		20-120	%REC	50	7/26/2011 21:33
Surr: Phenol-d6	0	S		20-120	%REC	2000	7/26/2011 23:33
Surr: Phenol-d6	51.0			20-120	%REC	1	7/27/2011 15:28

VOLATILES		Method: SW8260				Analyst: PC	
1,2-Dichloroethane	U	0.0050	0.025	mg/L	5	7/27/2011 19:19	
Benzene	0.056	0.0050	0.025	mg/L	5	7/27/2011 19:19	
Chlorobenzene	U	0.0050	0.025	mg/L	5	7/27/2011 19:19	
Ethylbenzene	0.17	0.0055	0.025	mg/L	5	7/27/2011 19:19	
Methylene chloride	U	0.0065	0.050	mg/L	5	7/27/2011 19:19	
Toluene	U	0.0050	0.025	mg/L	5	7/27/2011 19:19	
Xylenes, Total	0.12	0.016	0.075	mg/L	5	7/27/2011 19:19	
Surr: 1,2-Dichloroethane-d4	96.3			70-125	%REC	5	7/27/2011 19:19
Surr: 4-Bromofluorobenzene	98.4			72-125	%REC	5	7/27/2011 19:19
Surr: Dibromofluoromethane	97.9			71-125	%REC	5	7/27/2011 19:19
Surr: Toluene-d8	100			75-125	%REC	5	7/27/2011 19:19

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 09-Aug-11

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Sample ID: WG-1620FB05-20110720
Collection Date: 7/20/2011 06:00 PM

Work Order: 1107677
Lab ID: 1107677-11
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES		Method: SW8270		Prep: SW3510 / 7/23/11		Analyst: LG	
1,2-Diphenylhydrazine	U		0.000050	0.00020	mg/L	1	7/23/2011 22:49
2,4-Dimethylphenol	U		0.000050	0.00020	mg/L	1	7/23/2011 22:49
2,4-Dinitrotoluene	U		0.000050	0.00020	mg/L	1	7/23/2011 22:49
2,6-Dinitrotoluene	U		0.000060	0.00020	mg/L	1	7/23/2011 22:49
2-Chloronaphthalene	U		0.000050	0.00020	mg/L	1	7/23/2011 22:49
2-Methylnaphthalene	U		0.000050	0.00020	mg/L	1	7/23/2011 22:49
4,6-Dinitro-2-methylphenol	U		0.000080	0.00020	mg/L	1	7/23/2011 22:49
4-Nitrophenol	U		0.000050	0.0010	mg/L	1	7/23/2011 22:49
Acenaphthene	U		0.000050	0.00020	mg/L	1	7/23/2011 22:49
Acenaphthylene	U		0.000050	0.00020	mg/L	1	7/23/2011 22:49
Anthracene	U		0.000050	0.00020	mg/L	1	7/23/2011 22:49
Benz(a)anthracene	U		0.000050	0.00020	mg/L	1	7/23/2011 22:49
Benzo(a)pyrene	U		0.000050	0.00020	mg/L	1	7/23/2011 22:49
Bis(2-chloroethoxy)methane	U		0.000050	0.00020	mg/L	1	7/23/2011 22:49
Bis(2-ethylhexyl)phthalate	0.00069		0.00010	0.00020	mg/L	1	7/23/2011 22:49
Chrysene	U		0.000050	0.00020	mg/L	1	7/23/2011 22:49
Dibenzofuran	U		0.000050	0.00020	mg/L	1	7/23/2011 22:49
Di-n-butyl phthalate	U		0.000050	0.00020	mg/L	1	7/23/2011 22:49
Fluoranthene	U		0.000050	0.00020	mg/L	1	7/23/2011 22:49
Fluorene	U		0.000050	0.00020	mg/L	1	7/23/2011 22:49
Naphthalene	0.00021		0.000050	0.00020	mg/L	1	7/23/2011 22:49
Nitrobenzene	U		0.000050	0.00020	mg/L	1	7/23/2011 22:49
N-Nitrosodiphenylamine	U		0.000050	0.00020	mg/L	1	7/23/2011 22:49
Pentachlorophenol	U		0.000050	0.00020	mg/L	1	7/23/2011 22:49
Phenanthrene	U		0.000050	0.00020	mg/L	1	7/23/2011 22:49
Phenol	U		0.000050	0.00020	mg/L	1	7/23/2011 22:49
Pyrene	U		0.000050	0.00020	mg/L	1	7/23/2011 22:49
Surr: 2,4,6-Tribromophenol	50.6			34-129	%REC	1	7/23/2011 22:49
Surr: 2-Fluorobiphenyl	47.3			40-125	%REC	1	7/23/2011 22:49
Surr: 2-Fluorophenol	38.1			20-120	%REC	1	7/23/2011 22:49
Surr: 4-Terphenyl-d14	63.1			40-135	%REC	1	7/23/2011 22:49
Surr: Nitrobenzene-d5	45.3			41-120	%REC	1	7/23/2011 22:49
Surr: Phenol-d6	42.6			20-120	%REC	1	7/23/2011 22:49

VOLATILES		Method: SW8260		Analyst: PC			
1,2-Dichloroethane	U		0.0010	0.0050	mg/L	1	7/22/2011 16:41
Benzene	U		0.0010	0.0050	mg/L	1	7/22/2011 16:41
Chlorobenzene	U		0.0010	0.0050	mg/L	1	7/22/2011 16:41
Ethylbenzene	U		0.0011	0.0050	mg/L	1	7/22/2011 16:41

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 09-Aug-11

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Sample ID: WG-1620FB05-20110720
Collection Date: 7/20/2011 06:00 PM

Work Order: 1107677
Lab ID: 1107677-11
Matrix: WATER

Analyses	Result	Qual	SDL	ML	Units	Dilution Factor	Date Analyzed
Methylene chloride	U		0.0013	0.010	mg/L	1	7/22/2011 16:41
Toluene	U		0.0010	0.0050	mg/L	1	7/22/2011 16:41
Vinyl chloride	U		0.0010	0.0020	mg/L	1	7/22/2011 16:41
Xylenes, Total	U		0.0031	0.015	mg/L	1	7/22/2011 16:41
Surr: 1,2-Dichloroethane-d4	92.0			70-125	%REC	1	7/22/2011 16:41
Surr: 4-Bromofluorobenzene	100			72-125	%REC	1	7/22/2011 16:41
Surr: Dibromofluoromethane	102			71-125	%REC	1	7/22/2011 16:41
Surr: Toluene-d8	98.0			75-125	%REC	1	7/22/2011 16:41

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 09-Aug-11

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Sample ID: WG-1620MW22A-20110721
Collection Date: 7/21/2011 08:30 AM

Work Order: 1107677
Lab ID: 1107677-12
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270	Prep: SW3510 / 7/23/11		Analyst: LG	
1,2-Diphenylhydrazine	U		0.000050	0.00020	mg/L	1	7/23/2011 23:08
2,4-Dimethylphenol	U		0.000050	0.00020	mg/L	1	7/23/2011 23:08
2,4-Dinitrotoluene	U		0.000050	0.00020	mg/L	1	7/23/2011 23:08
2,6-Dinitrotoluene	U		0.000060	0.00020	mg/L	1	7/23/2011 23:08
2-Chloronaphthalene	U		0.000050	0.00020	mg/L	1	7/23/2011 23:08
2-Methylnaphthalene	U		0.000050	0.00020	mg/L	1	7/23/2011 23:08
4,6-Dinitro-2-methylphenol	U		0.000080	0.00020	mg/L	1	7/23/2011 23:08
4-Nitrophenol	U		0.000050	0.0010	mg/L	1	7/23/2011 23:08
Acenaphthene	U		0.000050	0.00020	mg/L	1	7/23/2011 23:08
Acenaphthylene	U		0.000050	0.00020	mg/L	1	7/23/2011 23:08
Anthracene	U		0.000050	0.00020	mg/L	1	7/23/2011 23:08
Benz(a)anthracene	U		0.000050	0.00020	mg/L	1	7/23/2011 23:08
Benzo(a)pyrene	U		0.000050	0.00020	mg/L	1	7/23/2011 23:08
Bis(2-chloroethoxy)methane	U		0.000050	0.00020	mg/L	1	7/23/2011 23:08
Bis(2-ethylhexyl)phthalate	0.0015		0.00010	0.00020	mg/L	1	7/23/2011 23:08
Chrysene	U		0.000050	0.00020	mg/L	1	7/23/2011 23:08
Dibenzofuran	U		0.000050	0.00020	mg/L	1	7/23/2011 23:08
Di-n-butyl phthalate	U		0.000050	0.00020	mg/L	1	7/23/2011 23:08
Fluoranthene	U		0.000050	0.00020	mg/L	1	7/23/2011 23:08
Fluorene	U		0.000050	0.00020	mg/L	1	7/23/2011 23:08
Naphthalene	0.00010	J	0.000050	0.00020	mg/L	1	7/23/2011 23:08
Nitrobenzene	U		0.000050	0.00020	mg/L	1	7/23/2011 23:08
N-Nitrosodiphenylamine	U		0.000050	0.00020	mg/L	1	7/23/2011 23:08
Pentachlorophenol	U		0.000050	0.00020	mg/L	1	7/23/2011 23:08
Phenanthrene	U		0.000050	0.00020	mg/L	1	7/23/2011 23:08
Phenol	U		0.000050	0.00020	mg/L	1	7/23/2011 23:08
Pyrene	U		0.000050	0.00020	mg/L	1	7/23/2011 23:08
Surr: 2,4,6-Tribromophenol	63.0			34-129	%REC	1	7/23/2011 23:08
Surr: 2-Fluorobiphenyl	40.9			40-125	%REC	1	7/23/2011 23:08
Surr: 2-Fluorophenol	32.5			20-120	%REC	1	7/23/2011 23:08
Surr: 4-Terphenyl-d14	65.0			40-135	%REC	1	7/23/2011 23:08
Surr: Nitrobenzene-d5	41.2			41-120	%REC	1	7/23/2011 23:08
Surr: Phenol-d6	37.9			20-120	%REC	1	7/23/2011 23:08

VOLATILES			Method: SW8260			Analyst: PC	
1,2-Dichloroethane	U		0.0010	0.0050	mg/L	1	7/27/2011 17:37
Benzene	U		0.0010	0.0050	mg/L	1	7/27/2011 17:37
Chlorobenzene	U		0.0010	0.0050	mg/L	1	7/27/2011 17:37
Ethylbenzene	U		0.0011	0.0050	mg/L	1	7/27/2011 17:37

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 09-Aug-11

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Sample ID: WG-1620MW22A-20110721
Collection Date: 7/21/2011 08:30 AM

Work Order: 1107677
Lab ID: 1107677-12
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
Methylene chloride	U		0.0013	0.010	mg/L	1	7/27/2011 17:37
Toluene	U		0.0010	0.0050	mg/L	1	7/27/2011 17:37
Xylenes, Total	U		0.0031	0.015	mg/L	1	7/27/2011 17:37
Surr: 1,2-Dichloroethane-d4	96.2			70-125	%REC	1	7/27/2011 17:37
Surr: 4-Bromofluorobenzene	99.2			72-125	%REC	1	7/27/2011 17:37
Surr: Dibromofluoromethane	98.0			71-125	%REC	1	7/27/2011 17:37
Surr: Toluene-d8	98.6			75-125	%REC	1	7/27/2011 17:37

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 09-Aug-11

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Sample ID: WG-1620MW22B-20110721
Collection Date: 7/21/2011 09:30 AM

Work Order: 1107677
Lab ID: 1107677-13
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270	Prep: SW3510 / 7/23/11		Analyst: LG	
1,2-Diphenylhydrazine	U		0.000050	0.00020	mg/L	1	7/23/2011 23:26
2,4-Dimethylphenol	U		0.000050	0.00020	mg/L	1	7/23/2011 23:26
2,4-Dinitrotoluene	U		0.000050	0.00020	mg/L	1	7/23/2011 23:26
2,6-Dinitrotoluene	U		0.000060	0.00020	mg/L	1	7/23/2011 23:26
2-Chloronaphthalene	U		0.000050	0.00020	mg/L	1	7/23/2011 23:26
2-Methylnaphthalene	U		0.000050	0.00020	mg/L	1	7/23/2011 23:26
4,6-Dinitro-2-methylphenol	U		0.000080	0.00020	mg/L	1	7/23/2011 23:26
4-Nitrophenol	U		0.000050	0.0010	mg/L	1	7/23/2011 23:26
Acenaphthene	0.0030		0.000050	0.00020	mg/L	1	7/23/2011 23:26
Acenaphthylene	U		0.000050	0.00020	mg/L	1	7/23/2011 23:26
Anthracene	0.00011	J	0.000050	0.00020	mg/L	1	7/23/2011 23:26
Benz(a)anthracene	U		0.000050	0.00020	mg/L	1	7/23/2011 23:26
Benzo(a)pyrene	U		0.000050	0.00020	mg/L	1	7/23/2011 23:26
Bis(2-chloroethoxy)methane	U		0.000050	0.00020	mg/L	1	7/23/2011 23:26
Bis(2-ethylhexyl)phthalate	0.00041		0.00010	0.00020	mg/L	1	7/23/2011 23:26
Chrysene	U		0.000050	0.00020	mg/L	1	7/23/2011 23:26
Dibenzofuran	0.00068		0.000050	0.00020	mg/L	1	7/23/2011 23:26
Di-n-butyl phthalate	U		0.000050	0.00020	mg/L	1	7/23/2011 23:26
Fluoranthene	0.00019	J	0.000050	0.00020	mg/L	1	7/23/2011 23:26
Fluorene	0.00049		0.000050	0.00020	mg/L	1	7/23/2011 23:26
Naphthalene	U		0.000050	0.00020	mg/L	1	7/23/2011 23:26
Nitrobenzene	U		0.000050	0.00020	mg/L	1	7/23/2011 23:26
N-Nitrosodiphenylamine	U		0.000050	0.00020	mg/L	1	7/23/2011 23:26
Pentachlorophenol	U		0.000050	0.00020	mg/L	1	7/23/2011 23:26
Phenanthrene	U		0.000050	0.00020	mg/L	1	7/23/2011 23:26
Phenol	U		0.000050	0.00020	mg/L	1	7/23/2011 23:26
Pyrene	0.00012	J	0.000050	0.00020	mg/L	1	7/23/2011 23:26
Surr: 2,4,6-Tribromophenol	67.1			34-129	%REC	1	7/23/2011 23:26
Surr: 2-Fluorobiphenyl	51.2			40-125	%REC	1	7/23/2011 23:26
Surr: 2-Fluorophenol	38.2			20-120	%REC	1	7/23/2011 23:26
Surr: 4-Terphenyl-d14	59.1			40-135	%REC	1	7/23/2011 23:26
Surr: Nitrobenzene-d5	46.0			41-120	%REC	1	7/23/2011 23:26
Surr: Phenol-d6	44.7			20-120	%REC	1	7/23/2011 23:26

VOLATILES			Method: SW8260			Analyst: PC	
1,2-Dichloroethane	U		0.0010	0.0050	mg/L	1	7/27/2011 03:23
Benzene	U		0.0010	0.0050	mg/L	1	7/27/2011 03:23
Chlorobenzene	U		0.0010	0.0050	mg/L	1	7/27/2011 03:23
Ethylbenzene	U		0.0011	0.0050	mg/L	1	7/27/2011 03:23

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 09-Aug-11

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Sample ID: WG-1620MW22B-20110721
Collection Date: 7/21/2011 09:30 AM

Work Order: 1107677
Lab ID: 1107677-13
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
Methylene chloride	U		0.0013	0.010	mg/L	1	7/27/2011 03:23
Toluene	U		0.0010	0.0050	mg/L	1	7/27/2011 03:23
Xylenes, Total	U		0.0031	0.015	mg/L	1	7/27/2011 03:23
Surr: 1,2-Dichloroethane-d4	96.9			70-125	%REC	1	7/27/2011 03:23
Surr: 4-Bromofluorobenzene	101			72-125	%REC	1	7/27/2011 03:23
Surr: Dibromofluoromethane	97.2			71-125	%REC	1	7/27/2011 03:23
Surr: Toluene-d8	98.6			75-125	%REC	1	7/27/2011 03:23

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 09-Aug-11

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Sample ID: WG-1620MW24AR-20110721
Collection Date: 7/21/2011 10:25 AM

Work Order: 1107677
Lab ID: 1107677-14
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES		Method: SW8270		Prep: SW3510 / 7/23/11		Analyst: LG	
1,2-Diphenylhydrazine	U		0.000050	0.00020	mg/L	1	7/23/2011 23:45
2,4-Dimethylphenol	U		0.000050	0.00020	mg/L	1	7/23/2011 23:45
2,4-Dinitrotoluene	U		0.000050	0.00020	mg/L	1	7/23/2011 23:45
2,6-Dinitrotoluene	U		0.000060	0.00020	mg/L	1	7/23/2011 23:45
2-Chloronaphthalene	U		0.000050	0.00020	mg/L	1	7/23/2011 23:45
2-Methylnaphthalene	U		0.000050	0.00020	mg/L	1	7/23/2011 23:45
4,6-Dinitro-2-methylphenol	U		0.000080	0.00020	mg/L	1	7/23/2011 23:45
4-Nitrophenol	U		0.000050	0.0010	mg/L	1	7/23/2011 23:45
Acenaphthene	U		0.000050	0.00020	mg/L	1	7/23/2011 23:45
Acenaphthylene	U		0.000050	0.00020	mg/L	1	7/23/2011 23:45
Anthracene	U		0.000050	0.00020	mg/L	1	7/23/2011 23:45
Benz(a)anthracene	U		0.000050	0.00020	mg/L	1	7/23/2011 23:45
Benzo(a)pyrene	U		0.000050	0.00020	mg/L	1	7/23/2011 23:45
Bis(2-chloroethoxy)methane	U		0.000050	0.00020	mg/L	1	7/23/2011 23:45
Bis(2-ethylhexyl)phthalate	0.00089		0.00010	0.00020	mg/L	1	7/23/2011 23:45
Chrysene	U		0.000050	0.00020	mg/L	1	7/23/2011 23:45
Dibenzofuran	U		0.000050	0.00020	mg/L	1	7/23/2011 23:45
Di-n-butyl phthalate	U		0.000050	0.00020	mg/L	1	7/23/2011 23:45
Fluoranthene	U		0.000050	0.00020	mg/L	1	7/23/2011 23:45
Fluorene	U		0.000050	0.00020	mg/L	1	7/23/2011 23:45
Naphthalene	U		0.000050	0.00020	mg/L	1	7/23/2011 23:45
Nitrobenzene	U		0.000050	0.00020	mg/L	1	7/23/2011 23:45
N-Nitrosodiphenylamine	U		0.000050	0.00020	mg/L	1	7/23/2011 23:45
Pentachlorophenol	U		0.000050	0.00020	mg/L	1	7/23/2011 23:45
Phenanthrene	U		0.000050	0.00020	mg/L	1	7/23/2011 23:45
Phenol	U		0.000050	0.00020	mg/L	1	7/23/2011 23:45
Pyrene	U		0.000050	0.00020	mg/L	1	7/23/2011 23:45
Surr: 2,4,6-Tribromophenol	65.5			34-129	%REC	1	7/23/2011 23:45
Surr: 2-Fluorobiphenyl	52.8			40-125	%REC	1	7/23/2011 23:45
Surr: 2-Fluorophenol	40.3			20-120	%REC	1	7/23/2011 23:45
Surr: 4-Terphenyl-d14	59.9			40-135	%REC	1	7/23/2011 23:45
Surr: Nitrobenzene-d5	48.9			41-120	%REC	1	7/23/2011 23:45
Surr: Phenol-d6	46.2			20-120	%REC	1	7/23/2011 23:45
VOLATILES		Method: SW8260				Analyst: PC	
1,2-Dichloroethane	U		0.0010	0.0050	mg/L	1	7/27/2011 18:02
Benzene	U		0.0010	0.0050	mg/L	1	7/27/2011 18:02
Chlorobenzene	U		0.0010	0.0050	mg/L	1	7/27/2011 18:02
Ethylbenzene	U		0.0011	0.0050	mg/L	1	7/27/2011 18:02

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 09-Aug-11

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Sample ID: WG-1620MW24AR-20110721
Collection Date: 7/21/2011 10:25 AM

Work Order: 1107677
Lab ID: 1107677-14
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
Methylene chloride	U		0.0013	0.010	mg/L	1	7/27/2011 18:02
Toluene	U		0.0010	0.0050	mg/L	1	7/27/2011 18:02
Xylenes, Total	U		0.0031	0.015	mg/L	1	7/27/2011 18:02
Surr: 1,2-Dichloroethane-d4	97.2			70-125	%REC	1	7/27/2011 18:02
Surr: 4-Bromofluorobenzene	101			72-125	%REC	1	7/27/2011 18:02
Surr: Dibromofluoromethane	96.4			71-125	%REC	1	7/27/2011 18:02
Surr: Toluene-d8	100			75-125	%REC	1	7/27/2011 18:02

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 09-Aug-11

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Sample ID: WG-1620MW24B-20110721
Collection Date: 7/21/2011 11:20 AM

Work Order: 1107677
Lab ID: 1107677-15
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270	Prep: SW3510 / 7/23/11		Analyst: LG	
1,2-Diphenylhydrazine	U		0.000050	0.00020	mg/L	1	7/24/2011 00:04
2,4-Dimethylphenol	U		0.000050	0.00020	mg/L	1	7/24/2011 00:04
2,4-Dinitrotoluene	U		0.000050	0.00020	mg/L	1	7/24/2011 00:04
2,6-Dinitrotoluene	U		0.000060	0.00020	mg/L	1	7/24/2011 00:04
2-Chloronaphthalene	U		0.000050	0.00020	mg/L	1	7/24/2011 00:04
2-Methylnaphthalene	U		0.000050	0.00020	mg/L	1	7/24/2011 00:04
4,6-Dinitro-2-methylphenol	U		0.000080	0.00020	mg/L	1	7/24/2011 00:04
4-Nitrophenol	U		0.000050	0.0010	mg/L	1	7/24/2011 00:04
Acenaphthene	U		0.000050	0.00020	mg/L	1	7/24/2011 00:04
Acenaphthylene	U		0.000050	0.00020	mg/L	1	7/24/2011 00:04
Anthracene	U		0.000050	0.00020	mg/L	1	7/24/2011 00:04
Benz(a)anthracene	U		0.000050	0.00020	mg/L	1	7/24/2011 00:04
Benzo(a)pyrene	U		0.000050	0.00020	mg/L	1	7/24/2011 00:04
Bis(2-chloroethoxy)methane	U		0.000050	0.00020	mg/L	1	7/24/2011 00:04
Bis(2-ethylhexyl)phthalate	0.00014	J	0.00010	0.00020	mg/L	1	7/24/2011 00:04
Chrysene	U		0.000050	0.00020	mg/L	1	7/24/2011 00:04
Dibenzofuran	U		0.000050	0.00020	mg/L	1	7/24/2011 00:04
Di-n-butyl phthalate	U		0.000050	0.00020	mg/L	1	7/24/2011 00:04
Fluoranthene	U		0.000050	0.00020	mg/L	1	7/24/2011 00:04
Fluorene	U		0.000050	0.00020	mg/L	1	7/24/2011 00:04
Naphthalene	U		0.000050	0.00020	mg/L	1	7/24/2011 00:04
Nitrobenzene	U		0.000050	0.00020	mg/L	1	7/24/2011 00:04
N-Nitrosodiphenylamine	U		0.000050	0.00020	mg/L	1	7/24/2011 00:04
Pentachlorophenol	U		0.000050	0.00020	mg/L	1	7/24/2011 00:04
Phenanthrene	U		0.000050	0.00020	mg/L	1	7/24/2011 00:04
Phenol	U		0.000050	0.00020	mg/L	1	7/24/2011 00:04
Pyrene	U		0.000050	0.00020	mg/L	1	7/24/2011 00:04
Surr: 2,4,6-Tribromophenol	48.0			34-129	%REC	1	7/24/2011 00:04
Surr: 2-Fluorobiphenyl	44.5			40-125	%REC	1	7/24/2011 00:04
Surr: 2-Fluorophenol	37.6			20-120	%REC	1	7/24/2011 00:04
Surr: 4-Terphenyl-d14	59.3			40-135	%REC	1	7/24/2011 00:04
Surr: Nitrobenzene-d5	45.6			41-120	%REC	1	7/24/2011 00:04
Surr: Phenol-d6	42.4			20-120	%REC	1	7/24/2011 00:04

VOLATILES			Method: SW8260			Analyst: PC	
1,2-Dichloroethane	U		0.0010	0.0050	mg/L	1	7/27/2011 18:28
Benzene	U		0.0010	0.0050	mg/L	1	7/27/2011 18:28
Chlorobenzene	U		0.0010	0.0050	mg/L	1	7/27/2011 18:28
Ethylbenzene	U		0.0011	0.0050	mg/L	1	7/27/2011 18:28

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 09-Aug-11

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Sample ID: WG-1620MW24B-20110721
Collection Date: 7/21/2011 11:20 AM

Work Order: 1107677
Lab ID: 1107677-15
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
Methylene chloride	U		0.0013	0.010	mg/L	1	7/27/2011 18:28
Toluene	U		0.0010	0.0050	mg/L	1	7/27/2011 18:28
Xylenes, Total	U		0.0031	0.015	mg/L	1	7/27/2011 18:28
Surr: 1,2-Dichloroethane-d4	98.4			70-125	%REC	1	7/27/2011 18:28
Surr: 4-Bromofluorobenzene	101			72-125	%REC	1	7/27/2011 18:28
Surr: Dibromofluoromethane	99.2			71-125	%REC	1	7/27/2011 18:28
Surr: Toluene-d8	99.5			75-125	%REC	1	7/27/2011 18:28

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 09-Aug-11

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Sample ID: WG-1620TB-20110721
Collection Date: 7/21/2011

Work Order: 1107677
Lab ID: 1107677-16
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
VOLATILES			Method: SW8260			Analyst: PC	
1,2-Dichloroethane	U		0.0010	0.0050	mg/L	1	7/22/2011 15:21
Benzene	U		0.0010	0.0050	mg/L	1	7/22/2011 15:21
Chlorobenzene	U		0.0010	0.0050	mg/L	1	7/22/2011 15:21
Ethylbenzene	U		0.0011	0.0050	mg/L	1	7/22/2011 15:21
Methylene chloride	U		0.0013	0.010	mg/L	1	7/22/2011 15:21
Toluene	U		0.0010	0.0050	mg/L	1	7/22/2011 15:21
Vinyl chloride	U		0.0010	0.0020	mg/L	1	7/22/2011 15:21
Xylenes, Total	U		0.0031	0.015	mg/L	1	7/22/2011 15:21
Surr: 1,2-Dichloroethane-d4	91.5			70-125	%REC	1	7/22/2011 15:21
Surr: 4-Bromofluorobenzene	99.2			72-125	%REC	1	7/22/2011 15:21
Surr: Dibromofluoromethane	97.5			71-125	%REC	1	7/22/2011 15:21
Surr: Toluene-d8	97.3			75-125	%REC	1	7/22/2011 15:21

Note: See Qualifiers Page for a list of qualifiers and their explanation.

WorkOrder: 1107677
Test Code: 8260_W
Test Number: SW8260
Test Name: Volatiles

**METHOD DETECTION /
REPORTING LIMITS**

Matrix: Aqueous Units: mg/L

Type	Analyte	CAS	MDL	Unadjusted MQL
A	1,2-Dichloroethane	107-06-2	0.001	0.005
A	Benzene	71-43-2	0.001	0.005
A	Chlorobenzene	108-90-7	0.001	0.005
A	Ethylbenzene	100-41-4	0.0011	0.005
A	Methylene chloride	75-09-2	0.0013	0.01
A	Toluene	108-88-3	0.001	0.005
A	Vinyl chloride	75-01-4	0.001	0.002
M	Xylenes, Total	1330-20-7	0.0031	0.015
S	Surr: 1,2-Dichloroethane-d4	17060-07-0	0	0.005
S	Surr: 4-Bromofluorobenzene	460-00-4	0	0.005
S	Surr: Dibromofluoromethane	1868-53-7	0	0.005
S	Surr: Toluene-d8	2037-26-5	0	0.005

WorkOrder: 1107677
 Test Code: 8270_LOW_W
 Test Number: SW8270
 Test Name: Low-Level Semivolatiles

**METHOD DETECTION /
 REPORTING LIMITS**

Matrix: Aqueous Units: mg/L

Type	Analyte	CAS	MDL	Unadjusted MQL
A	1,2-Diphenylhydrazine	122-66-7	0.00005	0.0002
A	2,4-Dimethylphenol	105-67-9	0.00005	0.0002
A	2,4-Dinitrotoluene	121-14-2	0.00005	0.0002
A	2,6-Dinitrotoluene	606-20-2	0.00006	0.0002
A	2-Chloronaphthalene	91-58-7	0.00005	0.0002
A	2-Methylnaphthalene	91-57-6	0.00005	0.0002
A	4,6-Dinitro-2-methylphenol	534-52-1	0.00008	0.0002
A	4-Nitrophenol	100-02-7	0.00005	0.001
A	Acenaphthene	83-32-9	0.00005	0.0002
A	Acenaphthylene	208-96-8	0.00005	0.0002
A	Anthracene	120-12-7	0.00005	0.0002
A	Benz(a)anthracene	56-55-3	0.00005	0.0002
A	Benzo(a)pyrene	50-32-8	0.00005	0.0002
A	Bis(2-chloroethoxy)methane	111-91-1	0.00005	0.0002
A	Bis(2-ethylhexyl)phthalate	117-81-7	0.0001	0.0002
A	Chrysene	218-01-9	0.00005	0.0002
A	Dibenzofuran	132-64-9	0.00005	0.0002
A	Di-n-butyl phthalate	84-74-2	0.00005	0.0002
A	Fluoranthene	206-44-0	0.00005	0.0002
A	Fluorene	86-73-7	0.00005	0.0002
A	Naphthalene	91-20-3	0.00005	0.0002
A	Nitrobenzene	98-95-3	0.00005	0.0002
A	N-Nitrosodiphenylamine	86-30-6	0.00005	0.0002
A	Pentachlorophenol	87-86-5	0.00005	0.0002
A	Phenanthrene	85-01-8	0.00005	0.0002
A	Phenol	108-95-2	0.00005	0.0002
A	Pyrene	129-00-0	0.00005	0.0002
S	Surr: 2,4,6-Tribromophenol	118-79-6	0	0.0002
S	Surr: 2-Fluorobiphenyl	321-60-8	0	0.0002
S	Surr: 2-Fluorophenol	367-12-4	0	0.0002
S	Surr: 4-Terphenyl-d14	1718-51-0	0	0.0002
S	Surr: Nitrobenzene-d5	4165-60-0	0	0.0002
S	Surr: Phenol-d6	13127-88-3	0	0.0002

ALS Environmental

Date: 09-Aug-11

Client: Pastor, Behling & Wheeler, LLC
Work Order: 1107677
Project: UPRR Houston Wood GW

QC BATCH REPORT

Batch ID: **54165** Instrument ID **SV-6** Method: **SW8270**

MBLK	Sample ID: SBLKW1-110723-54165					Units: µg/L	Analysis Date: 7/23/2011 06:05 PM			
Client ID:	Run ID: SV-6_110723A					SeqNo: 2474004	Prep Date: 7/23/2011	DF: 1		
Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Diphenylhydrazine	U	0.20								
2,4-Dimethylphenol	U	0.20								
2,4-Dinitrotoluene	U	0.20								
2,6-Dinitrotoluene	U	0.20								
2-Chloronaphthalene	U	0.20								
2-Methylnaphthalene	U	0.20								
4,6-Dinitro-2-methylphenol	U	0.20								
4-Nitrophenol	U	1.0								
Acenaphthene	U	0.20								
Acenaphthylene	U	0.20								
Anthracene	U	0.20								
Benz(a)anthracene	U	0.20								
Benzo(a)pyrene	U	0.20								
Bis(2-chloroethoxy)methane	U	0.20								
Bis(2-ethylhexyl)phthalate	U	0.20								
Chrysene	U	0.20								
Dibenzofuran	U	0.20								
Di-n-butyl phthalate	U	0.20								
Fluoranthene	U	0.20								
Fluorene	U	0.20								
Naphthalene	U	0.20								
Nitrobenzene	U	0.20								
N-Nitrosodiphenylamine	U	0.20								
Pentachlorophenol	U	0.20								
Phenanthrene	U	0.20								
Phenol	U	0.20								
Pyrene	U	0.20								
<i>Surr: 2,4,6-Tribromophenol</i>	<i>4.065</i>	<i>0.20</i>	<i>5</i>	<i>0</i>	<i>81.3</i>	<i>34-129</i>	<i>0</i>			
<i>Surr: 2-Fluorobiphenyl</i>	<i>3.862</i>	<i>0.20</i>	<i>5</i>	<i>0</i>	<i>77.2</i>	<i>40-125</i>	<i>0</i>			
<i>Surr: 2-Fluorophenol</i>	<i>3.055</i>	<i>0.20</i>	<i>5</i>	<i>0</i>	<i>61.1</i>	<i>20-120</i>	<i>0</i>			
<i>Surr: 4-Terphenyl-d14</i>	<i>3.83</i>	<i>0.20</i>	<i>5</i>	<i>0</i>	<i>76.6</i>	<i>40-135</i>	<i>0</i>			
<i>Surr: Nitrobenzene-d5</i>	<i>3.628</i>	<i>0.20</i>	<i>5</i>	<i>0</i>	<i>72.6</i>	<i>41-120</i>	<i>0</i>			
<i>Surr: Phenol-d6</i>	<i>3.543</i>	<i>0.20</i>	<i>5</i>	<i>0</i>	<i>70.9</i>	<i>20-120</i>	<i>0</i>			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Pastor, Behling & Wheeler, LLC
Work Order: 1107677
Project: UPRR Houston Wood GW

QC BATCH REPORT

Batch ID: **54165** Instrument ID **SV-6** Method: **SW8270**

LCS Sample ID: **SLCSW1-110723-54165** Units: **µg/L** Analysis Date: **7/23/2011 06:24 PM**

Client ID: Run ID: **SV-6_110723A** SeqNo: **2474005** Prep Date: **7/23/2011** DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Diphenylhydrazine	3.681	0.20	5	0	73.6	39-127	0			
2,4-Dimethylphenol	3.567	0.20	5	0	71.3	35-120	0			
2,4-Dinitrotoluene	4.15	0.20	5	0	83	50-122	0			
2,6-Dinitrotoluene	4.315	0.20	5	0	86.3	50-120	0			
2-Chloronaphthalene	3.779	0.20	5	0	75.6	50-120	0			
2-Methylnaphthalene	4.153	0.20	5	0	83.1	50-120	0			
4,6-Dinitro-2-methylphenol	3.722	0.20	5	0	74.4	25-121	0			
4-Nitrophenol	4.454	1.0	5	0	89.1	30-130	0			
Acenaphthene	3.569	0.20	5	0	71.4	45-120	0			
Acenaphthylene	3.8	0.20	5	0	76	47-120	0			
Anthracene	4.044	0.20	5	0	80.9	45-120	0			
Benz(a)anthracene	4.011	0.20	5	0	80.2	40-120	0			
Benzo(a)pyrene	3.932	0.20	5	0	78.6	45-120	0			
Bis(2-chloroethoxy)methane	3.613	0.20	5	0	72.3	45-120	0			
Bis(2-ethylhexyl)phthalate	3.789	0.20	5	0	75.8	40-139	0			
Chrysene	4.012	0.20	5	0	80.2	43-120	0			
Dibenzofuran	3.979	0.20	5	0	79.6	50-120	0			
Di-n-butyl phthalate	4.021	0.20	5	0	80.4	45-123	0			
Fluoranthene	4.234	0.20	5	0	84.7	45-125	0			
Fluorene	4.102	0.20	5	0	82	49-120	0			
Naphthalene	3.809	0.20	5	0	76.2	45-120	0			
Nitrobenzene	3.569	0.20	5	0	71.4	44-120	0			
N-Nitrosodiphenylamine	4.056	0.20	5	0	81.1	40-125	0			
Pentachlorophenol	2.8	0.20	5	0	56	19-121	0			
Phenanthrene	4.119	0.20	5	0	82.4	45-121	0			
Phenol	3.158	0.20	5	0	63.2	20-124	0			
Pyrene	3.924	0.20	5	0	78.5	40-130	0			
<i>Surr: 2,4,6-Tribromophenol</i>	<i>4.4</i>	<i>0.20</i>	<i>5</i>	<i>0</i>	<i>88</i>	<i>34-129</i>	<i>0</i>			
<i>Surr: 2-Fluorobiphenyl</i>	<i>3.805</i>	<i>0.20</i>	<i>5</i>	<i>0</i>	<i>76.1</i>	<i>40-125</i>	<i>0</i>			
<i>Surr: 2-Fluorophenol</i>	<i>2.917</i>	<i>0.20</i>	<i>5</i>	<i>0</i>	<i>58.3</i>	<i>20-120</i>	<i>0</i>			
<i>Surr: 4-Terphenyl-d14</i>	<i>3.664</i>	<i>0.20</i>	<i>5</i>	<i>0</i>	<i>73.3</i>	<i>40-135</i>	<i>0</i>			
<i>Surr: Nitrobenzene-d5</i>	<i>3.362</i>	<i>0.20</i>	<i>5</i>	<i>0</i>	<i>67.2</i>	<i>41-120</i>	<i>0</i>			
<i>Surr: Phenol-d6</i>	<i>3.421</i>	<i>0.20</i>	<i>5</i>	<i>0</i>	<i>68.4</i>	<i>20-120</i>	<i>0</i>			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Pastor, Behling & Wheeler, LLC
 Work Order: 1107677
 Project: UPRR Houston Wood GW

QC BATCH REPORT

Batch ID: 54165 Instrument ID SV-6 Method: SW8270

LCSD Sample ID: SLCSDW1-110723-54165 Units: µg/L Analysis Date: 7/23/2011 06:43 PM

Client ID: Run ID: SV-6_110723A SeqNo: 2474006 Prep Date: 7/23/2011 DF: 1

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Diphenylhydrazine	3.358	0.20	5	0	67.2	39-127	3.681	9.2	20	
2,4-Dimethylphenol	3.472	0.20	5	0	69.4	35-120	3.567	2.69	20	
2,4-Dinitrotoluene	3.963	0.20	5	0	79.3	50-122	4.15	4.62	20	
2,6-Dinitrotoluene	4.006	0.20	5	0	80.1	50-120	4.315	7.42	20	
2-Chloronaphthalene	3.913	0.20	5	0	78.3	50-120	3.779	3.49	20	
2-Methylnaphthalene	4.095	0.20	5	0	81.9	50-120	4.153	1.4	20	
4,6-Dinitro-2-methylphenol	3.638	0.20	5	0	72.8	25-121	3.722	2.27	20	
4-Nitrophenol	4.146	1.0	5	0	82.9	30-130	4.454	7.18	20	
Acenaphthene	3.478	0.20	5	0	69.6	45-120	3.569	2.56	20	
Acenaphthylene	3.627	0.20	5	0	72.5	47-120	3.8	4.64	20	
Anthracene	3.966	0.20	5	0	79.3	45-120	4.044	1.93	20	
Benz(a)anthracene	4.015	0.20	5	0	80.3	40-120	4.011	0.0959	20	
Benzo(a)pyrene	3.9	0.20	5	0	78	45-120	3.932	0.829	20	
Bis(2-chloroethoxy)methane	3.498	0.20	5	0	70	45-120	3.613	3.23	20	
Bis(2-ethylhexyl)phthalate	3.781	0.20	5	0	75.6	40-139	3.789	0.202	20	
Chrysene	4.069	0.20	5	0	81.4	43-120	4.012	1.4	20	
Dibenzofuran	3.772	0.20	5	0	75.4	50-120	3.979	5.35	20	
Di-n-butyl phthalate	3.902	0.20	5	0	78	45-123	4.021	3.01	20	
Fluoranthene	4.066	0.20	5	0	81.3	45-125	4.234	4.05	20	
Fluorene	3.922	0.20	5	0	78.4	49-120	4.102	4.49	20	
Naphthalene	3.754	0.20	5	0	75.1	45-120	3.809	1.46	20	
Nitrobenzene	3.498	0.20	5	0	70	44-120	3.569	2.01	20	
N-Nitrosodiphenylamine	3.958	0.20	5	0	79.2	40-125	4.056	2.43	20	
Pentachlorophenol	2.865	0.20	5	0	57.3	19-121	2.8	2.3	20	
Phenanthrene	3.997	0.20	5	0	79.9	45-121	4.119	3	20	
Phenol	3.129	0.20	5	0	62.6	20-124	3.158	0.897	20	
Pyrene	3.935	0.20	5	0	78.7	40-130	3.924	0.281	20	
Surr: 2,4,6-Tribromophenol	4.115	0.20	5	0	82.3	34-129	4.4	6.68	0	
Surr: 2-Fluorobiphenyl	3.639	0.20	5	0	72.8	40-125	3.805	4.47	0	
Surr: 2-Fluorophenol	2.834	0.20	5	0	56.7	20-120	2.917	2.9	0	
Surr: 4-Terphenyl-d14	3.668	0.20	5	0	73.4	40-135	3.664	0.101	0	
Surr: Nitrobenzene-d5	3.296	0.20	5	0	65.9	41-120	3.362	1.97	0	
Surr: Phenol-d6	3.252	0.20	5	0	65	20-120	3.421	5.06	0	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Pastor, Behling & Wheeler, LLC
Work Order: 1107677
Project: UPRR Houston Wood GW

QC BATCH REPORT

Batch ID: **54165** Instrument ID **SV-6** Method: **SW8270**

MS		Sample ID: 1107677-07BMS			Units: µg/L		Analysis Date: 7/23/2011 07:59 PM			
Client ID: WG-1620MW67B-2011720		Run ID: SV-6_110723A			SeqNo: 2473985		Prep Date: 7/23/2011		DF: 1	
Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Diphenylhydrazine	2.62	0.20	5	0	52.4	39-127	0			
2,4-Dimethylphenol	2.53	0.20	5	0	50.6	35-120	0			
2,4-Dinitrotoluene	3.127	0.20	5	0	62.5	50-122	0			
2,6-Dinitrotoluene	6.746	0.20	5	0	135	50-120	0			S
2-Chloronaphthalene	2.784	0.20	5	0	55.7	50-120	0			
2-Methylnaphthalene	2.971	0.20	5	0	59.4	50-120	0			
4,6-Dinitro-2-methylphenol	3.367	0.20	5	0	67.3	25-121	0			
4-Nitrophenol	3.832	1.0	5	0	76.6	30-130	0			
Acenaphthene	2.54	0.20	5	0	50.8	45-120	0			
Acenaphthylene	2.637	0.20	5	0	52.7	47-120	0			
Anthracene	3.115	0.20	5	0	62.3	45-120	0			
Benz(a)anthracene	3.643	0.20	5	0	72.9	40-120	0			
Benzo(a)pyrene	3.585	0.20	5	0	71.7	45-120	0			
Bis(2-chloroethoxy)methane	2.568	0.20	5	0	51.4	45-120	0			
Bis(2-ethylhexyl)phthalate	3.632	0.20	5	0.9355	53.9	40-139	0			
Chrysene	3.584	0.20	5	0	71.7	43-120	0			
Dibenzofuran	2.769	0.20	5	0	55.4	50-120	0			
Di-n-butyl phthalate	3.482	0.20	5	0	69.6	45-123	0			
Fluoranthene	3.624	0.20	5	0	72.5	45-125	0			
Fluorene	2.918	0.20	5	0	58.4	49-120	0			
Naphthalene	2.78	0.20	5	0	55.6	45-120	0			
Nitrobenzene	2.676	0.20	5	0	53.5	44-120	0			
N-Nitrosodiphenylamine	3.094	0.20	5	0	61.9	40-125	0			
Pentachlorophenol	2.919	0.20	5	0	58.4	19-121	0			
Phenanthrene	3.138	0.20	5	0	62.8	45-121	0			
Phenol	2.61	0.20	5	0	52.2	20-124	0			
Pyrene	3.502	0.20	5	0	70	40-130	0			
<i>Surr: 2,4,6-Tribromophenol</i>	3.384	0.20	5	0	67.7	34-129	0			
<i>Surr: 2-Fluorobiphenyl</i>	2.604	0.20	5	0	52.1	40-125	0			
<i>Surr: 2-Fluorophenol</i>	2.051	0.20	5	0	41	20-120	0			
<i>Surr: 4-Terphenyl-d14</i>	3.282	0.20	5	0	65.6	40-135	0			
<i>Surr: Nitrobenzene-d5</i>	2.544	0.20	5	0	50.9	41-120	0			
<i>Surr: Phenol-d6</i>	2.407	0.20	5	0	48.1	20-120	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Pastor, Behling & Wheeler, LLC
 Work Order: 1107677
 Project: UPRR Houston Wood GW

QC BATCH REPORT

Batch ID: 54165 Instrument ID SV-6 Method: SW8270

MSD	Sample ID: 1107677-07BMSD	Units: µg/L				Analysis Date: 7/23/2011 08:17 PM				
Client ID: WG-1620MW67B-2011720	Run ID: SV-6_110723A	SeqNo: 2473986	Prep Date: 7/23/2011	DF: 1						
Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Diphenylhydrazine	2.099	0.20	5	0	42	39-127	2.62	22.1	20	R
2,4-Dimethylphenol	2.07	0.20	5	0	41.4	35-120	2.53	20	20	R
2,4-Dinitrotoluene	2.762	0.20	5	0	55.2	50-122	3.127	12.4	20	
2,6-Dinitrotoluene	6.344	0.20	5	0	127	50-120	6.746	6.15	20	S
2-Chloronaphthalene	2.727	0.20	5	0	54.5	50-120	2.784	2.08	20	
2-Methylnaphthalene	2.638	0.20	5	0	52.8	50-120	2.971	11.9	20	
4,6-Dinitro-2-methylphenol	2.985	0.20	5	0	59.7	25-121	3.367	12	20	
4-Nitrophenol	3.446	1.0	5	0	68.9	30-130	3.832	10.6	20	
Acenaphthene	2.291	0.20	5	0	45.8	45-120	2.54	10.3	20	
Acenaphthylene	2.357	0.20	5	0	47.1	47-120	2.637	11.2	20	
Anthracene	2.917	0.20	5	0	58.3	45-120	3.115	6.59	20	
Benz(a)anthracene	3.474	0.20	5	0	69.5	40-120	3.643	4.74	20	
Benzo(a)pyrene	3.59	0.20	5	0	71.8	45-120	3.585	0.132	20	
Bis(2-chloroethoxy)methane	2.257	0.20	5	0	45.1	45-120	2.568	12.9	20	
Bis(2-ethylhexyl)phthalate	3.907	0.20	5	0.9355	59.4	40-139	3.632	7.32	20	
Chrysene	3.46	0.20	5	0	69.2	43-120	3.584	3.52	20	
Dibenzofuran	2.519	0.20	5	0	50.4	50-120	2.769	9.45	20	
Di-n-butyl phthalate	3.448	0.20	5	0	69	45-123	3.482	0.98	20	
Fluoranthene	3.604	0.20	5	0	72.1	45-125	3.624	0.552	20	
Fluorene	2.536	0.20	5	0	50.7	49-120	2.918	14	20	
Naphthalene	2.483	0.20	5	0	49.7	45-120	2.78	11.3	20	
Nitrobenzene	2.374	0.20	5	0	47.5	44-120	2.676	12	20	
N-Nitrosodiphenylamine	2.857	0.20	5	0	57.1	40-125	3.094	7.97	20	
Pentachlorophenol	2.253	0.20	5	0	45.1	19-121	2.919	25.8	20	R
Phenanthrene	2.905	0.20	5	0	58.1	45-121	3.138	7.71	20	
Phenol	2.109	0.20	5	0	42.2	20-124	2.61	21.2	20	R
Pyrene	3.346	0.20	5	0	66.9	40-130	3.502	4.58	20	
Surr: 2,4,6-Tribromophenol	3.156	0.20	5	0	63.1	34-129	3.384	6.95	0	
Surr: 2-Fluorobiphenyl	2.36	0.20	5	0	47.2	40-125	2.604	9.84	0	
Surr: 2-Fluorophenol	1.686	0.20	5	0	33.7	20-120	2.051	19.5	0	
Surr: 4-Terphenyl-d14	3.142	0.20	5	0	62.8	40-135	3.282	4.35	0	
Surr: Nitrobenzene-d5	2.098	0.20	5	0	42	41-120	2.544	19.2	0	
Surr: Phenol-d6	2.104	0.20	5	0	42.1	20-120	2.407	13.4	0	

The following samples were analyzed in this batch:

1107677-01B	1107677-02B	1107677-03B
1107677-04B	1107677-05B	1107677-06B
1107677-07B	1107677-08B	1107677-09B
1107677-10B	1107677-11B	1107677-12B
1107677-13B	1107677-14B	1107677-15B

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Pastor, Behling & Wheeler, LLC
Work Order: 1107677
Project: UPRR Houston Wood GW

QC BATCH REPORT

Batch ID: **R113426** Instrument ID **VOA1** Method: **SW8260**

MBLK		Sample ID: VBLKW-072211-R113426			Units: µg/L			Analysis Date: 7/22/2011 11:13 AM		
Client ID:		Run ID: VOA1_110722A			SeqNo: 2468391		Prep Date:		DF: 1	
Analyte	Result	ML	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Dichloroethane	U	5.0								
Benzene	U	5.0								
Chlorobenzene	U	5.0								
Ethylbenzene	U	5.0								
Methylene chloride	U	10								
Toluene	U	5.0								
Vinyl chloride	U	2.0								
Xylenes, Total	U	15								
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>50.04</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>100</i>	<i>70-125</i>	<i>0</i>			
<i>Surr: 4-Bromofluorobenzene</i>	<i>47.98</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>96</i>	<i>72-125</i>	<i>0</i>			
<i>Surr: Dibromofluoromethane</i>	<i>50.83</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>102</i>	<i>71-125</i>	<i>0</i>			
<i>Surr: Toluene-d8</i>	<i>45.91</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>91.8</i>	<i>75-125</i>	<i>0</i>			

LCS		Sample ID: VLCSW-072211-R113426			Units: µg/L			Analysis Date: 7/22/2011 10:18 AM		
Client ID:		Run ID: VOA1_110722A			SeqNo: 2468390		Prep Date:		DF: 1	
Analyte	Result	ML	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Dichloroethane	51.28	5.0	50	0	103	78-120	0			
Benzene	50.46	5.0	50	0	101	73-121	0			
Chlorobenzene	48.78	5.0	50	0	97.6	80-120	0			
Ethylbenzene	48.04	5.0	50	0	96.1	80-120	0			
Methylene chloride	51.5	10	50	0	103	65-133	0			
Toluene	47.53	5.0	50	0	95.1	80-120	0			
Vinyl chloride	46.6	2.0	50	0	93.2	70-127	0			
Xylenes, Total	148	15	150	0	98.7	80-120	0			
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>47.17</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>94.3</i>	<i>70-125</i>	<i>0</i>			
<i>Surr: 4-Bromofluorobenzene</i>	<i>49.32</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>98.6</i>	<i>72-125</i>	<i>0</i>			
<i>Surr: Dibromofluoromethane</i>	<i>49.07</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>98.1</i>	<i>71-125</i>	<i>0</i>			
<i>Surr: Toluene-d8</i>	<i>46.35</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>92.7</i>	<i>75-125</i>	<i>0</i>			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Pastor, Behling & Wheeler, LLC
 Work Order: 1107677
 Project: UPRR Houston Wood GW

QC BATCH REPORT

Batch ID: R113426 Instrument ID VOA1 Method: SW8260

MS		Sample ID: 1107617-01AMS			Units: µg/L			Analysis Date: 7/22/2011 01:55 PM		
Client ID:		Run ID: VOA1_110722A			SeqNo: 2468433		Prep Date:		DF: 1	
Analyte	Result	ML	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Dichloroethane	50.08	5.0	50	0	100	78-120	0			
Benzene	43.34	5.0	50	0	86.7	73-121	0			
Chlorobenzene	48.85	5.0	50	0	97.7	80-120	0			
Ethylbenzene	47.76	5.0	50	0	95.5	80-120	0			
Methylene chloride	50.8	10	50	0	102	65-133	0			
Toluene	44.25	5.0	50	0	88.5	80-120	0			
Vinyl chloride	39.38	2.0	50	0	78.8	70-127	0			
Xylenes, Total	138.1	15	150	0	92.1	80-120	0			
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>45.72</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>91.4</i>	<i>70-125</i>	<i>0</i>			
<i>Surr: 4-Bromofluorobenzene</i>	<i>49.63</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>99.3</i>	<i>72-125</i>	<i>0</i>			
<i>Surr: Dibromofluoromethane</i>	<i>50.27</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>101</i>	<i>71-125</i>	<i>0</i>			
<i>Surr: Toluene-d8</i>	<i>47.6</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>95.2</i>	<i>75-125</i>	<i>0</i>			

MSD		Sample ID: 1107617-01AMSD			Units: µg/L			Analysis Date: 7/22/2011 02:23 PM		
Client ID:		Run ID: VOA1_110722A			SeqNo: 2468435		Prep Date:		DF: 1	
Analyte	Result	ML	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Dichloroethane	50.65	5.0	50	0	101	78-120	50.08	1.13	20	
Benzene	50.35	5.0	50	0	101	73-121	43.34	15	20	
Chlorobenzene	50.29	5.0	50	0	101	80-120	48.85	2.91	20	
Ethylbenzene	47.6	5.0	50	0	95.2	80-120	47.76	0.351	20	
Methylene chloride	55.52	10	50	0	111	65-133	50.8	8.87	20	
Toluene	47.85	5.0	50	0	95.7	80-120	44.25	7.82	20	
Vinyl chloride	42.7	2.0	50	0	85.4	70-127	39.38	8.09	20	
Xylenes, Total	140.2	15	150	0	93.5	80-120	138.1	1.49	20	
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>52.05</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>104</i>	<i>70-125</i>	<i>45.72</i>	<i>12.9</i>	<i>20</i>	
<i>Surr: 4-Bromofluorobenzene</i>	<i>49.76</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>99.5</i>	<i>72-125</i>	<i>49.63</i>	<i>0.26</i>	<i>20</i>	
<i>Surr: Dibromofluoromethane</i>	<i>56.11</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>112</i>	<i>71-125</i>	<i>50.27</i>	<i>11</i>	<i>20</i>	
<i>Surr: Toluene-d8</i>	<i>48.83</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>97.7</i>	<i>75-125</i>	<i>47.6</i>	<i>2.57</i>	<i>20</i>	

The following samples were analyzed in this batch: 1107677-11A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Pastor, Behling & Wheeler, LLC
Work Order: 1107677
Project: UPRR Houston Wood GW

QC BATCH REPORT

Batch ID: **R113463** Instrument ID **VOA7** Method: **SW8260**

MBLK Sample ID: **VBLKW-072211-R113463** Units: **µg/L** Analysis Date: **7/22/2011 11:56 AM**

Client ID: Run ID: **VOA7_110722A** SeqNo: **2469163** Prep Date: DF: **1**

Analyte	Result	MLQ	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Dichloroethane	U	5.0								
Benzene	U	5.0								
Chlorobenzene	U	5.0								
Ethylbenzene	U	5.0								
Methylene chloride	U	10								
Toluene	U	5.0								
Vinyl chloride	U	2.0								
Xylenes, Total	U	15								
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>45.76</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>91.5</i>	<i>70-125</i>	<i>0</i>			
<i>Surr: 4-Bromofluorobenzene</i>	<i>48.93</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>97.9</i>	<i>72-125</i>	<i>0</i>			
<i>Surr: Dibromofluoromethane</i>	<i>47.04</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>94.1</i>	<i>71-125</i>	<i>0</i>			
<i>Surr: Toluene-d8</i>	<i>49.26</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>98.5</i>	<i>75-125</i>	<i>0</i>			

LCS Sample ID: **VLCSW-072211-R113463** Units: **µg/L** Analysis Date: **7/22/2011 10:40 AM**

Client ID: Run ID: **VOA7_110722A** SeqNo: **2469162** Prep Date: DF: **1**

Analyte	Result	MLQ	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Dichloroethane	48.59	5.0	50	0	97.2	78-120	0			
Benzene	47.33	5.0	50	0	94.7	73-121	0			
Chlorobenzene	47.49	5.0	50	0	95	80-120	0			
Ethylbenzene	46.86	5.0	50	0	93.7	80-120	0			
Methylene chloride	48.85	10	50	0	97.7	65-133	0			
Toluene	47.42	5.0	50	0	94.8	80-120	0			
Vinyl chloride	47.96	2.0	50	0	95.9	70-127	0			
Xylenes, Total	142.5	15	150	0	95	80-120	0			
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>46.27</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>92.5</i>	<i>70-125</i>	<i>0</i>			
<i>Surr: 4-Bromofluorobenzene</i>	<i>48.69</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>97.4</i>	<i>72-125</i>	<i>0</i>			
<i>Surr: Dibromofluoromethane</i>	<i>48.37</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>96.7</i>	<i>71-125</i>	<i>0</i>			
<i>Surr: Toluene-d8</i>	<i>49.44</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>98.9</i>	<i>75-125</i>	<i>0</i>			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Pastor, Behling & Wheeler, LLC

Work Order: 1107677

Project: UPRR Houston Wood GW

QC BATCH REPORT

Batch ID: R113463

Instrument ID VOA7

Method: SW8260

MS		Sample ID: 1107599-03AMS			Units: µg/L			Analysis Date: 7/22/2011 02:30 PM		
Client ID:		Run ID: VOA7_110722A			SeqNo: 2469168		Prep Date:		DF: 1	
Analyte	Result	ML	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Dichloroethane	54.67	5.0	50	0	109	78-120	0			
Benzene	53.23	5.0	50	0	106	73-121	0			
Chlorobenzene	52.59	5.0	50	0	105	80-120	0			
Ethylbenzene	50.62	5.0	50	0	101	80-120	0			
Methylene chloride	57.5	10	50	0	115	65-133	0			
Toluene	51.62	5.0	50	0	103	80-120	0			
Vinyl chloride	46.19	2.0	50	0	92.4	70-127	0			
Xylenes, Total	153.2	15	150	0	102	80-120	0			
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>44.82</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>89.6</i>	<i>70-125</i>	<i>0</i>			
<i>Surr: 4-Bromofluorobenzene</i>	<i>48.7</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>97.4</i>	<i>72-125</i>	<i>0</i>			
<i>Surr: Dibromofluoromethane</i>	<i>47.85</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>95.7</i>	<i>71-125</i>	<i>0</i>			
<i>Surr: Toluene-d8</i>	<i>48.85</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>97.7</i>	<i>75-125</i>	<i>0</i>			

MSD		Sample ID: 1107599-03AMSD			Units: µg/L			Analysis Date: 7/22/2011 02:55 PM		
Client ID:		Run ID: VOA7_110722A			SeqNo: 2469169		Prep Date:		DF: 1	
Analyte	Result	ML	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Dichloroethane	57.96	5.0	50	0	116	78-120	54.67	5.84	20	
Benzene	55.91	5.0	50	0	112	73-121	53.23	4.91	20	
Chlorobenzene	55.3	5.0	50	0	111	80-120	52.59	5.03	20	
Ethylbenzene	53.19	5.0	50	0	106	80-120	50.62	4.96	20	
Methylene chloride	60.58	10	50	0	121	65-133	57.5	5.23	20	
Toluene	54.64	5.0	50	0	109	80-120	51.62	5.69	20	
Vinyl chloride	47.19	2.0	50	0	94.4	70-127	46.19	2.13	20	
Xylenes, Total	161.8	15	150	0	108	80-120	153.2	5.46	20	
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>43.98</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>88</i>	<i>70-125</i>	<i>44.82</i>	<i>1.9</i>	<i>20</i>	
<i>Surr: 4-Bromofluorobenzene</i>	<i>49.34</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>98.7</i>	<i>72-125</i>	<i>48.7</i>	<i>1.32</i>	<i>20</i>	
<i>Surr: Dibromofluoromethane</i>	<i>46.96</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>93.9</i>	<i>71-125</i>	<i>47.85</i>	<i>1.86</i>	<i>20</i>	
<i>Surr: Toluene-d8</i>	<i>49.53</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>99.1</i>	<i>75-125</i>	<i>48.85</i>	<i>1.39</i>	<i>20</i>	

The following samples were analyzed in this batch: 1107677-16A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Pastor, Behling & Wheeler, LLC

Work Order: 1107677

Project: UPRR Houston Wood GW

QC BATCH REPORT

Batch ID: R113626

Instrument ID VOA7

Method: SW8260

MBLK		Sample ID: VBLKW-072511-R113626			Units: µg/L			Analysis Date: 7/26/2011 05:11 PM		
Client ID:		Run ID: VOA7_110726B			SeqNo: 2473417		Prep Date:		DF: 1	
Analyte	Result	ML	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Dichloroethane	U	5.0								
Benzene	U	5.0								
Chlorobenzene	U	5.0								
Ethylbenzene	U	5.0								
Methylene chloride	U	10								
Toluene	U	5.0								
Vinyl chloride	U	2.0								
Xylenes, Total	U	15								
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>50.34</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>101</i>	<i>70-125</i>	<i>0</i>			
<i>Surr: 4-Bromofluorobenzene</i>	<i>49.46</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>98.9</i>	<i>72-125</i>	<i>0</i>			
<i>Surr: Dibromofluoromethane</i>	<i>51.27</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>103</i>	<i>71-125</i>	<i>0</i>			
<i>Surr: Toluene-d8</i>	<i>49.97</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>99.9</i>	<i>75-125</i>	<i>0</i>			

LCS		Sample ID: VLCSW-072611-R113626			Units: µg/L			Analysis Date: 7/26/2011 03:54 PM		
Client ID:		Run ID: VOA7_110726B			SeqNo: 2473414		Prep Date:		DF: 1	
Analyte	Result	ML	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Dichloroethane	46.79	5.0	50	0	93.6	78-120	0			
Benzene	46.22	5.0	50	0	92.4	73-121	0			
Chlorobenzene	45.84	5.0	50	0	91.7	80-120	0			
Ethylbenzene	47.7	5.0	50	0	95.4	80-120	0			
Methylene chloride	45.05	10	50	0	90.1	65-133	0			
Toluene	47.01	5.0	50	0	94	80-120	0			
Vinyl chloride	49.11	2.0	50	0	98.2	70-127	0			
Xylenes, Total	140.4	15	150	0	93.6	80-120	0			
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>48.69</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>97.4</i>	<i>70-125</i>	<i>0</i>			
<i>Surr: 4-Bromofluorobenzene</i>	<i>50.49</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>101</i>	<i>72-125</i>	<i>0</i>			
<i>Surr: Dibromofluoromethane</i>	<i>50</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>100</i>	<i>71-125</i>	<i>0</i>			
<i>Surr: Toluene-d8</i>	<i>50.14</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>100</i>	<i>75-125</i>	<i>0</i>			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Pastor, Behling & Wheeler, LLC
 Work Order: 1107677
 Project: UPRR Houston Wood GW

QC BATCH REPORT

Batch ID: R113626 Instrument ID VOA7 Method: SW8260

MS		Sample ID: 1107522-06ZMS			Units: µg/L			Analysis Date: 7/26/2011 06:53 PM		
Client ID:		Run ID: VOA7_110726B			SeqNo: 2473421		Prep Date:		DF: 1	
Analyte	Result	ML	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Dichloroethane	56.65	5.0	50	0	113	78-120	0			
Benzene	54.79	5.0	50	0	110	73-121	0			
Chlorobenzene	55.14	5.0	50	0	110	80-120	0			
Ethylbenzene	53.13	5.0	50	0	106	80-120	0			
Methylene chloride	55.54	10	50	0	111	65-133	0			
Toluene	55.03	5.0	50	0	110	80-120	0			
Vinyl chloride	57.67	2.0	50	0	115	70-127	0			
Xylenes, Total	160.4	15	150	0	107	80-120	0			
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>49.84</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>99.7</i>	<i>70-125</i>	<i>0</i>			
<i>Surr: 4-Bromofluorobenzene</i>	<i>51.38</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>103</i>	<i>72-125</i>	<i>0</i>			
<i>Surr: Dibromofluoromethane</i>	<i>49.78</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>99.6</i>	<i>71-125</i>	<i>0</i>			
<i>Surr: Toluene-d8</i>	<i>50.52</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>101</i>	<i>75-125</i>	<i>0</i>			

MSD		Sample ID: 1107522-06ZMSD			Units: µg/L			Analysis Date: 7/26/2011 07:19 PM		
Client ID:		Run ID: VOA7_110726B			SeqNo: 2473423		Prep Date:		DF: 1	
Analyte	Result	ML	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Dichloroethane	54.09	5.0	50	0	108	78-120	56.65	4.62	20	
Benzene	52.78	5.0	50	0	106	73-121	54.79	3.74	20	
Chlorobenzene	52.64	5.0	50	0	105	80-120	55.14	4.64	20	
Ethylbenzene	52.46	5.0	50	0	105	80-120	53.13	1.26	20	
Methylene chloride	53.44	10	50	0	107	65-133	55.54	3.86	20	
Toluene	52.32	5.0	50	0	105	80-120	55.03	5.04	20	
Vinyl chloride	57.67	2.0	50	0	115	70-127	57.67	0.0038	20	
Xylenes, Total	152.8	15	150	0	102	80-120	160.4	4.82	20	
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>49.77</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>99.5</i>	<i>70-125</i>	<i>49.84</i>	<i>0.128</i>	<i>20</i>	
<i>Surr: 4-Bromofluorobenzene</i>	<i>49.75</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>99.5</i>	<i>72-125</i>	<i>51.38</i>	<i>3.23</i>	<i>20</i>	
<i>Surr: Dibromofluoromethane</i>	<i>49.53</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>99.1</i>	<i>71-125</i>	<i>49.78</i>	<i>0.508</i>	<i>20</i>	
<i>Surr: Toluene-d8</i>	<i>50.37</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>101</i>	<i>75-125</i>	<i>50.52</i>	<i>0.299</i>	<i>20</i>	

The following samples were analyzed in this batch:

1107677-01A	1107677-02A	1107677-03A
1107677-06A	1107677-08A	1107677-09A
1107677-13A		

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Pastor, Behling & Wheeler, LLC
Work Order: 1107677
Project: UPRR Houston Wood GW

QC BATCH REPORT

Batch ID: **R113636** Instrument ID **VOA1** Method: **SW8260**

MBLK Sample ID: **VBLKW-072711-R113636** Units: **µg/L** Analysis Date: **7/27/2011 11:07 AM**

Client ID: Run ID: **VOA1_110727A** SeqNo: **2473560** Prep Date: DF: **1**

Analyte	Result	ML	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Dichloroethane	U	5.0								
Benzene	U	5.0								
Chlorobenzene	U	5.0								
Ethylbenzene	U	5.0								
Methylene chloride	U	10								
Toluene	U	5.0								
Xylenes, Total	U	15								
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>47.19</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>94.4</i>	<i>70-125</i>	<i>0</i>			
<i>Surr: 4-Bromofluorobenzene</i>	<i>48.53</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>97.1</i>	<i>72-125</i>	<i>0</i>			
<i>Surr: Dibromofluoromethane</i>	<i>49.13</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>98.3</i>	<i>71-125</i>	<i>0</i>			
<i>Surr: Toluene-d8</i>	<i>46.84</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>93.7</i>	<i>75-125</i>	<i>0</i>			

LCS Sample ID: **VLCSW-072711-R113636** Units: **µg/L** Analysis Date: **7/27/2011 10:12 AM**

Client ID: Run ID: **VOA1_110727A** SeqNo: **2473559** Prep Date: DF: **1**

Analyte	Result	ML	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Dichloroethane	52.34	5.0	50	0	105	78-120	0			
Benzene	52.39	5.0	50	0	105	73-121	0			
Chlorobenzene	50.61	5.0	50	0	101	80-120	0			
Ethylbenzene	53.95	5.0	50	0	108	80-120	0			
Methylene chloride	54.82	10	50	0	110	65-133	0			
Toluene	47.6	5.0	50	0	95.2	80-120	0			
Xylenes, Total	157.1	15	150	0	105	80-120	0			
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>44.98</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>90</i>	<i>70-125</i>	<i>0</i>			
<i>Surr: 4-Bromofluorobenzene</i>	<i>52.72</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>105</i>	<i>72-125</i>	<i>0</i>			
<i>Surr: Dibromofluoromethane</i>	<i>49.53</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>99.1</i>	<i>71-125</i>	<i>0</i>			
<i>Surr: Toluene-d8</i>	<i>50.11</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>100</i>	<i>75-125</i>	<i>0</i>			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Pastor, Behling & Wheeler, LLC
 Work Order: 1107677
 Project: UPRR Houston Wood GW

QC BATCH REPORT

Batch ID: R113636 Instrument ID VOA1 Method: SW8260

MS		Sample ID: 1107677-07AMS			Units: µg/L			Analysis Date: 7/27/2011 12:30 PM		
Client ID: WG-1620MW67B-2011720		Run ID: VOA1_110727A			SeqNo: 2473562			Prep Date:		DF: 1
Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Dichloroethane	51.78	5.0	50	0	104	78-120	0			
Benzene	51.66	5.0	50	0	103	73-121	0			
Chlorobenzene	47.93	5.0	50	0	95.9	80-120	0			
Ethylbenzene	46.39	5.0	50	0	92.8	80-120	0			
Methylene chloride	57.55	10	50	0	115	65-133	0			
Toluene	47.19	5.0	50	0	94.4	80-120	0			
Xylenes, Total	134.6	15	150	0	89.7	80-120	0			
Surr: 1,2-Dichloroethane-d4	47.39	5.0	50	0	94.8	70-125	0			
Surr: 4-Bromofluorobenzene	48.23	5.0	50	0	96.5	72-125	0			
Surr: Dibromofluoromethane	51.67	5.0	50	0	103	71-125	0			
Surr: Toluene-d8	42.85	5.0	50	0	85.7	75-125	0			

MSD		Sample ID: 1107677-07AMSD			Units: µg/L			Analysis Date: 7/27/2011 12:58 PM		
Client ID: WG-1620MW67B-2011720		Run ID: VOA1_110727A			SeqNo: 2473563			Prep Date:		DF: 1
Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Dichloroethane	52.82	5.0	50	0	106	78-120	51.78	1.98	20	
Benzene	50.04	5.0	50	0	100	73-121	51.66	3.18	20	
Chlorobenzene	44.87	5.0	50	0	89.7	80-120	47.93	6.6	20	
Ethylbenzene	42.6	5.0	50	0	85.2	80-120	46.39	8.51	20	
Methylene chloride	58.63	10	50	0	117	65-133	57.55	1.86	20	
Toluene	46.19	5.0	50	0	92.4	80-120	47.19	2.14	20	
Xylenes, Total	131.2	15	150	0	87.4	80-120	134.6	2.57	20	
Surr: 1,2-Dichloroethane-d4	49.36	5.0	50	0	98.7	70-125	47.39	4.07	20	
Surr: 4-Bromofluorobenzene	47.92	5.0	50	0	95.8	72-125	48.23	0.652	20	
Surr: Dibromofluoromethane	52.01	5.0	50	0	104	71-125	51.67	0.65	20	
Surr: Toluene-d8	46	5.0	50	0	92	75-125	42.85	7.09	20	

The following samples were analyzed in this batch:

1107677-07A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Pastor, Behling & Wheeler, LLC
Work Order: 1107677
Project: UPRR Houston Wood GW

QC BATCH REPORT

Batch ID: **R113694** Instrument ID **VOA7** Method: **SW8260**

MBLK Sample ID: **VBLKW-072711-R113694** Units: **µg/L** Analysis Date: **7/27/2011 10:48 AM**

Client ID: Run ID: **VOA7_110727A** SeqNo: **2475167** Prep Date: DF: **1**

Analyte	Result	ML	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Dichloroethane	U	5.0								
Benzene	U	5.0								
Chlorobenzene	U	5.0								
Ethylbenzene	U	5.0								
Methylene chloride	U	10								
Toluene	U	5.0								
Vinyl chloride	U	2.0								
Xylenes, Total	U	15								
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>49.8</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>99.6</i>	<i>70-125</i>	<i>0</i>			
<i>Surr: 4-Bromofluorobenzene</i>	<i>51</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>102</i>	<i>72-125</i>	<i>0</i>			
<i>Surr: Dibromofluoromethane</i>	<i>49.45</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>98.9</i>	<i>71-125</i>	<i>0</i>			
<i>Surr: Toluene-d8</i>	<i>50.24</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>100</i>	<i>75-125</i>	<i>0</i>			

LCS Sample ID: **VLCSW-072711-R113694** Units: **µg/L** Analysis Date: **7/27/2011 09:57 AM**

Client ID: Run ID: **VOA7_110727A** SeqNo: **2475166** Prep Date: DF: **1**

Analyte	Result	ML	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Dichloroethane	45.23	5.0	50	0	90.5	78-120	0			
Benzene	44.37	5.0	50	0	88.7	73-121	0			
Chlorobenzene	44.26	5.0	50	0	88.5	80-120	0			
Ethylbenzene	45.76	5.0	50	0	91.5	80-120	0			
Methylene chloride	42.02	10	50	0	84	65-133	0			
Toluene	45.33	5.0	50	0	90.7	80-120	0			
Vinyl chloride	50.78	2.0	50	0	102	70-127	0			
Xylenes, Total	135.5	15	150	0	90.3	80-120	0			
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>48.94</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>97.9</i>	<i>70-125</i>	<i>0</i>			
<i>Surr: 4-Bromofluorobenzene</i>	<i>51.14</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>102</i>	<i>72-125</i>	<i>0</i>			
<i>Surr: Dibromofluoromethane</i>	<i>48.98</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>98</i>	<i>71-125</i>	<i>0</i>			
<i>Surr: Toluene-d8</i>	<i>49.89</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>99.8</i>	<i>75-125</i>	<i>0</i>			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Pastor, Behling & Wheeler, LLC

Work Order: 1107677

Project: UPRR Houston Wood GW

QC BATCH REPORT

Batch ID: R113694

Instrument ID VOA7

Method: SW8260

MS		Sample ID: 1107721-04AMS			Units: µg/L			Analysis Date: 7/27/2011 02:12 PM		
Client ID:		Run ID: VOA7_110727A			SeqNo: 2475175		Prep Date:		DF: 1	
Analyte	Result	ML	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Dichloroethane	49.75	5.0	50	0	99.5	78-120	0			
Benzene	47.64	5.0	50	0	95.3	73-121	0			
Chlorobenzene	48.73	5.0	50	0	97.5	80-120	0			
Ethylbenzene	49.5	5.0	50	0	99	80-120	0			
Methylene chloride	44.68	10	50	0	89.4	65-133	0			
Toluene	48.74	5.0	50	0	97.5	80-120	0			
Vinyl chloride	55.93	2.0	50	0	112	70-127	0			
Xylenes, Total	145.1	15	150	0	96.7	80-120	0			
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>47.94</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>95.9</i>	<i>70-125</i>	<i>0</i>			
<i>Surr: 4-Bromofluorobenzene</i>	<i>51.12</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>102</i>	<i>72-125</i>	<i>0</i>			
<i>Surr: Dibromofluoromethane</i>	<i>47.87</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>95.7</i>	<i>71-125</i>	<i>0</i>			
<i>Surr: Toluene-d8</i>	<i>50.37</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>101</i>	<i>75-125</i>	<i>0</i>			

MSD		Sample ID: 1107721-04AMSD			Units: µg/L			Analysis Date: 7/27/2011 02:38 PM		
Client ID:		Run ID: VOA7_110727A			SeqNo: 2475176		Prep Date:		DF: 1	
Analyte	Result	ML	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Dichloroethane	56.9	5.0	50	0	114	78-120	49.75	13.4	20	
Benzene	54.75	5.0	50	0	110	73-121	47.64	13.9	20	
Chlorobenzene	54.2	5.0	50	0	108	80-120	48.73	10.6	20	
Ethylbenzene	53.39	5.0	50	0	107	80-120	49.5	7.56	20	
Methylene chloride	52.7	10	50	0	105	65-133	44.68	16.5	20	
Toluene	54.27	5.0	50	0	109	80-120	48.74	10.7	20	
Vinyl chloride	57.95	2.0	50	0	116	70-127	55.93	3.55	20	
Xylenes, Total	157.4	15	150	0	105	80-120	145.1	8.15	20	
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>49.41</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>98.8</i>	<i>70-125</i>	<i>47.94</i>	<i>3.02</i>	<i>20</i>	
<i>Surr: 4-Bromofluorobenzene</i>	<i>49.52</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>99</i>	<i>72-125</i>	<i>51.12</i>	<i>3.19</i>	<i>20</i>	
<i>Surr: Dibromofluoromethane</i>	<i>49.1</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>98.2</i>	<i>71-125</i>	<i>47.87</i>	<i>2.53</i>	<i>20</i>	
<i>Surr: Toluene-d8</i>	<i>50.26</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>101</i>	<i>75-125</i>	<i>50.37</i>	<i>0.231</i>	<i>20</i>	

The following samples were analyzed in this batch:

1107677-04A	1107677-05A	1107677-10A
1107677-12A	1107677-14A	1107677-15A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
WorkOrder: 1107677

**QUALIFIERS,
ACRONYMS, UNITS**

<u>Qualifier</u>	<u>Description</u>
*	Value exceeds Regulatory Limit
a	Not accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
J	Analyte detected below quantitation limit
M	Manually integrated, see raw data for justification
n	Not offered for accreditation
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL

<u>Acronym</u>	<u>Description</u>
DCS	Detectability Check Study
DUP	Method Duplicate
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
MBLK	Method Blank
MDL	Method Detection Limit
MQL	Method Quantitation Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PDS	Post Digestion Spike
PQL	Practical Quantitation Limit
SD	Serial Dilution
SDL	Sample Detection Limit
TRRP	Texas Risk Reduction Program

<u>Units Reported</u>	<u>Description</u>
mg/L	Milligrams per Liter



ALS Environmental
 10450 Stancliff Rd., Suite 210
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Chain of Custody Form

Page 1 of 2

COC ID: **26872**

1107677

PBW: Pastor, Behling & Wheeler, LLC

Project: HWPW Site-Wide GW



ALS Project Manager:

Customer Information		Project Information			
Purchase Order		Project Name	UPRR - Omaha Wood GW	A	VOC (230) Select
Work Order		Project Number	11205	B	LL SVOC (3270) Select
Company Name	Pastor, Behling & Wheeler, LLC	Bill To Company	Union Pacific Railroad	C	VINYL CHLORIDE
Send Report To	Spec Manager	Invoice Attn		D	
Address	2201 Double Creek Drive P.O. Box 1004	Address	1500 Douglas Street Omaha, NE 68102	E	
				F	
City/State/Zip	Grand Forks, ND 58004	City/State/Zip	Omaha, NE 68102	G	
Phone	(512) 571-3454	Phone		H	
Fax	(512) 571-3456	Fax		I	
e-Mail Address		e-Mail Address		J	

No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	WG-1620-MW53C-20110720	7-20-11	0820	W		5	X	X									
2	WG-1620-MW54C-20110720		0920	W		5	X	X									
3	WG-1620-MW25A-20110720		1015	W		5	X	X	X								
4	WG-1620-MW25C-20110720		1105	W		5	X	X	X								
5	WG-1620-MW44C-20110720		1205	W		5	X	X									
6	WG-1620-MW44A-20110720		1330	W		5	X	X	X								
7	WG-1620-MW67B-20110720		1440	W		5	X	X									
8	WG-1620-MW67BMS-20110720		1440	W		5	X	X									
9	WG-1620-MW67BMSD-20110720		1440	W		5	X	X									
10	WG-1620-MW27C-20110720		1545	W		5	X	X									

Sampler(s) Please Print & Sign JOHN BRAYTON <i>John Brayton</i>		Shipment Method HAND DELIVERED		Required Turnaround Time: (Check Box) <input type="checkbox"/> 1-2 Days <input type="checkbox"/> 3-5 Days <input type="checkbox"/> 7-10 Days <input type="checkbox"/> Other				Results Due Date:							
Relinquished by: <i>John Brayton</i>		Date: 7-21-11	Time: 1145	Received by:		Notes: 10 Day TAT		Cooler ID				Cooler Temp.			
Relinquished by:		Date:	Time:	Received by (Laboratory): <i>OK 7-21-11</i>		Checked by (Laboratory):		QC Package: (Check One Box Below)				<input type="checkbox"/> Level 1/5000 <input type="checkbox"/> Level 1/50000 <input type="checkbox"/> Level 1/500000 <input type="checkbox"/> Other: 500			
Logged by (Laboratory):		Date:	Time:	Checked by (Laboratory):											
Preservative Key: 1-HCl 2-HNO ₃ 3-H ₂ SO ₄ 4-NaOH 5-Na ₂ S ₂ O ₃ 6-NaHSO ₄ 7-Other 8-4°C 9-5035															

Note: 1. Any changes must be made in writing once samples and COC Form have been submitted to ALS Environmental.
 2. Unless otherwise agreed in a formal contract, services provided by ALS Environmental are expressly limited to the terms and conditions stated on the reverse.
 3. The Chain of Custody is a legal document. All information must be accurate.



ALS Environmental

10450 Stancliff Rd., Suite 210
Houston, Texas 77099
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Chain of Custody Form

Page 2 of 2

COC ID: 26384

ALS Environmental

3352 128th Ave.
Holland, MI 49424-9263
Tel: +1 616 399 6070
Fax: +1 616 399 6185

ALS Project Manager:

ALS Work Order #: 1107677

Customer Information		Project Information		Parameter/Method Request for Analysis			
Purchase Order		Project Name	UPRR Houston West GW	A	VOC (274)	Selected	
Work Order		Project Number	1120-03	B	LE-VOC (274)	Selected	
Company Name	Parker, Gehring & Wheeler, LLC	Bill To Company	Union Pacific Railroad	C	VINYL CHLORIDE		
Send Report To	Ene M... ..	Invoice Attn		D			
Address	2201 Collins Creek Drive Suite 4004	Address	1400 Douglas Street Stop 0750	E			
				F			
City/State/Zip	Round Rock, TX 78664	City/State/Zip	Omaha, NE 681790730	G			
Phone	(512) 371-4444	Phone		H			
Fax	(512) 371-4446	Fax		I			
e-Mail Address		e-Mail Address		J			

No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	WG-1620-MW35A-20110720	7-20-11	1655	W		5	X	X									
2	WG-1620-MW35B-20110720	↓	1745	W		5	X	X									
3	WG-1620-FB05-20110720	↓	1800	W		5	X	X									
4	WG-1620-MW22A-20110721	7-21-11	0830	W		5	X	X									
5	WG-1620-MW22B-20110721	↓	0930	W		5	X	X									
6	WG-1620-MW24AR-20110721	↓	1025	W		5	X	X									
7	WG-1620-MW24B-20110721	↓	1120	W		5	X	X									
8	WG-1620-TB-20110721	↓		W		2	X										
9																	
10																	

Sampler(s) Please Print & Sign <i>John Grayson</i>		Shipment Method HAND DELIVERED		Required Turnaround Time: (Check Box) <input type="checkbox"/> 1-2 Wk Days <input type="checkbox"/> 3-5 Wk Days <input type="checkbox"/> 6-8 Wk Days <input type="checkbox"/> 9-12 Wk Days				Results Due Date:			
Relinquished by: <i>John Grayson</i>	Date: 7-21-11	Time: 1145	Received by: <i>[Signature]</i>	Notes: 10 Day TAT							
Relinquished by: <i>[Signature]</i>	Date:	Time:	Received by (Laboratory): 7-21-11 1145	Cooler ID	Cooler Temp.	QC Package: (Check One Box Below)					
Logged by (Laboratory):	Date:	Time:	Checked by (Laboratory):			<input type="checkbox"/> Level III Std QC	<input checked="" type="checkbox"/> TAPP Check/Std	<input type="checkbox"/> Level III Std QC/Raw Data	<input type="checkbox"/> TRAP Level 1/2	<input type="checkbox"/> Level IV SW-1/6/2 LP	<input type="checkbox"/> Other: EDE
Preservative Key: 1-HCl 2-HNO ₃ 3-H ₂ SO ₄ 4-NaOH 5-Na ₂ S ₂ O ₃ 6-NaHSO ₄ 7-Other 8-4°C 9-5035											

note: 1. Any changes must be made in writing once samples and COC Form have been submitted to ALS Environmental.
2. Unless otherwise agreed in a formal contract, services provided by ALS Environmental are expressly limited to the terms and conditions stated on the reverse.
3. The Chain of Custody is a legal document. All information must be completed accurately.

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Sample Receipt Checklist

Client Name: **PBW**

Date/Time Received: **21-Jul-11 11:45**

Work Order: **1107677**

Received by: **PMG**

Checklist completed by Rishel D. Naran 21-Jul-11
eSignature Date

Reviewed by: Nicole A. Brown 22-Jul-11
eSignature Date

Matrices: water
Carrier name: Client

- Shipping container/cooler in good condition? Yes No Not Present
- Custody seals intact on shipping container/cooler? Yes No Not Present
- Custody seals intact on sample bottles? Yes No Not Present
- Chain of custody present? Yes No
- Chain of custody signed when relinquished and received? Yes No
- Chain of custody agrees with sample labels? Yes No
- Samples in proper container/bottle? Yes No
- Sample containers intact? Yes No
- Sufficient sample volume for indicated test? Yes No
- All samples received within holding time? Yes No
- Container/Temp Blank temperature in compliance? Yes No

Temperature(s)/Thermometer(s): 0.9.1.1.0.8.1.0 002

Cooler(s)/Kit(s): 7046.3725.4128.4021

Water - VOA vials have zero headspace? Yes No No VOA vials submitted

Water - pH acceptable upon receipt? Yes No N/A

pH adjusted? Yes No N/A

pH adjusted by: _____

Login Notes:

Client Contacted: Date Contacted: Person Contacted:

Contacted By: Regarding:

Comments: _____

CorrectiveAction: _____



29-Jul-2011

Eric Matzner
Pastor, Behling & Wheeler, LLC
2201 Double Creek Drive
Suite 4004
Round Rock, TX 78664

Tel: (512) 671-3434
Fax: (512) 671-3446

Re: HWPW Site-Wide GW

Work Order: **1107721**

Dear Eric,

ALS Environmental received 12 samples on 22-Jul-2011 11:40 AM for the analyses presented in the following report.

The analytical data provided relates directly to the samples received by ALS Environmental and for only the analyses requested. Results are expressed as "as received" unless otherwise noted.

QC sample results for this data met EPA or laboratory specifications except as noted in the Case Narrative or as noted with qualifiers in the QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained by ALS Environmental. Samples will be disposed in 30 days unless storage arrangements are made.

The total number of pages in this report is 49.

If you have any questions regarding this report, please feel free to call me.

Sincerely,

A handwritten signature in cursive script that reads "Patricia L. Lynch".

Electronically approved by: Makenzie L. Henderson

Patricia L. Lynch
Project Manager



Certificate No: T104704231-09A-TX

ADDRESS 10450 Stancliff Rd, Suite 210 Houston, Texas 77099-4338 | PHONE (281) 530-5656 | FAX (281) 530-5887

DOV#T UR XS#K VD /#R US##Sdu#r i#khd#OV#Oderudaru|#T urxs##D #F dp seha#Eurkhu#Op l#hg#F rp sdq |

Environmental ALS

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RIGHT SOLUTIONS RIGHT PARTNER

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Work Order: 1107721

**TRRP Laboratory Data
Package Cover Page**

This data package consists of all or some of the following as applicable:

This signature page, the laboratory review checklist, and the following reportable data:

- R1 Field chain-of-custody documentation;
- R2 Sample identification cross-reference;
- R3 Test reports (analytical data sheets) for each environmental sample that includes:
 - a) Items consistent with NELAC Chapter 5,
 - b) dilution factors,
 - c) preparation methods,
 - d) cleanup methods, and
 - e) if required for the project, tentatively identified compounds (TICs).
- R4 Surrogate recovery data including:
 - a) Calculated recovery (%R), and
 - b) The laboratory's surrogate QC limits.
- R5 Test reports/summary forms for blank samples;
- R6 Test reports/summary forms for laboratory control samples (LCSs) including:
 - a) LCS spiking amounts,
 - b) Calculated %R for each analyte, and
 - c) The laboratory's LCS QC limits.
- R7 Test reports for project matrix spike/matrix spike duplicates (MS/MSDs) including:
 - a) Samples associated with the MS/MSD clearly identified,
 - b) MS/MSD spiking amounts,
 - c) Concentration of each MS/MSD analyte measured in the parent and spiked samples,
 - d) Calculated %Rs and relative percent differences (RPDs), and
 - e) The laboratory's MS/MSD QC limits.
- R8 Laboratory analytical duplicate (if applicable) recovery and precision:
 - a) the amount of analyte measured in the duplicate,
 - b) the calculated RPD, and
 - c) the laboratory's QC limits for analytical duplicates.
- R9 List of method quantitation limits (MQLs) and detectability check sample results for each analyte for each method and matrix.
- R10 Other problems or anomalies.
The Exception Report for each "No" or "Not Reviewed (NR)" item in Laboratory Review Checklist and for each analyte, matrix, and method for which the laboratory does not hold NELAC accreditation under the Texas Laboratory Accreditation Program.

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Work Order: 1107721

**TRRP Laboratory Data
Package Cover Page**

Release Statement: I am responsible for the release of this laboratory data package. This laboratory is NELAC accredited under the Texas Laboratory Accreditation Program for all the methods, analytes and matrices reported in this data package except as noted in the Exception Reports. The data have been reviewed and are technically compliant with the requirements of the methods used, except where noted by the laboratory in the attached exception reports. By my signature below, I affirm to the best of my knowledge, all problems/anomalies, observed by the laboratory have been identified by the laboratory in the Laboratory Review Checklist, and no information affecting the quality of the data has been knowingly withheld.

Check, if applicable: [NA] This laboratory meets an exception under 30 TAC §25.6 and was last inspected by TCEQ or _____ on (enter date of last inspection). Any findings affecting the data in this laboratory data package are noted in the Exception Reports herein. The official signing the cover page of the report in which these data are used is responsible for releasing this data package and is by signature affirming the above release statement is true.

Patricia L. Lynch

Patricia L. Lynch
Project Manager

Laboratory Review Checklist: Reportable Data

Laboratory Name: ALS Laboratory Group		LRC Date: 8/08/2011					
Project Name: HWPW Site-Wide GW		Laboratory Job Number: 1107721					
Reviewer Name: Pat Lynch		Prep Batch Number(s): 54173, R113636, R113694, R113771					
# ¹	A ²	Description	Yes	No	NA ³	NR ⁴	ER# ⁵
R1	OI	Chain-of-custody (C-O-C)					
		Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?	X				
		Were all departures from standard conditions described in an exception report?	X				
R2	OI	Sample and quality control (QC) identification					
		Are all field sample ID numbers cross-referenced to the laboratory ID numbers?	X				
		Are all laboratory ID numbers cross-referenced to the corresponding QC data?	X				
R3	OI	Test reports					
		Were all samples prepared and analyzed within holding times?	X				
		Other than those results < MQL, were all other raw values bracketed by calibration standards?	X				
		Were calculations checked by a peer or supervisor?	X				
		Were all analyte identifications checked by a peer or supervisor?	X				
		Were sample detection limits reported for all analytes not detected?	X				
		Were all results for soil and sediment samples reported on a dry weight basis?			X		
		Were % moisture (or solids) reported for all soil and sediment samples?			X		
		Were bulk soils/solids samples for volatile analysis extracted with methanol per SW-846 Method 5035?			X		
		If required for the project, TICs reported?			X		
R4	O	Surrogate recovery data					
		Were surrogates added prior to extraction?	X				
		Were surrogate percent recoveries in all samples within the laboratory QC limits?		X			1
R5	OI	Test reports/summary forms for blank samples					
		Were appropriate type(s) of blanks analyzed?	X				
		Were blanks analyzed at the appropriate frequency?	X				
		Were method blanks taken through the entire analytical process, including preparation and, if applicable, cleanup procedures?	X				
		Were blank concentrations < MQL?	X				
R6	OI	Laboratory control samples (LCS):					
		Were all COCs included in the LCS?	X				
		Was each LCS taken through the entire analytical procedure, including prep and cleanup steps?	X				
		Were LCSs analyzed at the required frequency?	X				
		Were LCS (and LCSD, if applicable) %Rs within the laboratory QC limits?	X				
		Does the detectability data document the laboratory's capability to detect the COCs at the MDL used to calculate the SDLs?	X				
		Was the LCSD RPD within QC limits?	X				
R7	OI	Matrix spike (MS) and matrix spike duplicate (MSD) data					
		Were the project/method specified analytes included in the MS and MSD?	X				
		Were MS/MSD analyzed at the appropriate frequency?	X				
		Were MS (and MSD, if applicable) %Rs within the laboratory QC limits?	X				
		Were MS/MSD RPDs within laboratory QC limits?	X				
R8	OI	Analytical duplicate data					
		Were appropriate analytical duplicates analyzed for each matrix?			X		
		Were analytical duplicates analyzed at the appropriate frequency?			X		
		Were RPDs or relative standard deviations within the laboratory QC limits?			X		
R9	OI	Method quantitation limits (MQLs):					
		Are the MQLs for each method analyte included in the laboratory data package?	X				
		Do the MQLs correspond to the concentration of the lowest non-zero calibration standard?	X				
		Are unadjusted MQLs and DCSs included in the laboratory data package?	X				
R10	OI	Other problems/anomalies					
		Are all known problems/anomalies/special conditions noted in this LRC and ER?	X				
		Were all necessary corrective actions performed for the reported data?	X				
		Was applicable and available technology used to lower the SDL and minimize the matrix interference affects on the sample results?	X				
		Is the laboratory NELAC-accredited under the Texas Laboratory Program for the analytes, matrices and methods associated with this laboratory data package?	X				

Laboratory Review Checklist: Reportable Data							
Laboratory Name: ALS Laboratory Group				LRC Date: 8/08/2011			
Project Name: HWPW Site-Wide GW				Laboratory Job Number: 1107721			
Reviewer Name: Pat Lynch				Prep Batch Number(s): 54173, R113636, R113694, R113771			
# ¹	A ²	Description	Yes	No	NA ³	NR ⁴	ER# ⁵
S1	OI	Initial calibration (ICAL)					
		Were response factors and/or relative response factors for each analyte within QC limits?	X				
		Were percent RSDs or correlation coefficient criteria met?	X				
		Was the number of standards recommended in the method used for all analytes?	X				
		Were all points generated between the lowest and highest standard used to calculate the curve?	X				
		Are ICAL data available for all instruments used?	X				
		Has the initial calibration curve been verified using an appropriate second source standard?	X				
S2	OI	Initial and continuing calibration verification (ICCV and CCV) and continuing calibration blank (CCB)					
		Was the CCV analyzed at the method-required frequency?	X				
		Were percent differences for each analyte within the method-required QC limits?	X				
		Was the ICAL curve verified for each analyte?	X				
		Was the absolute value of the analyte concentration in the inorganic CCB < MDL?			X		
S3	O	Mass spectral tuning:					
		Was the appropriate compound for the method used for tuning?	X				
		Were ion abundance data within the method-required QC limits?	X				
S4	O	Internal standards (IS):					
		Were IS area counts and retention times within the method-required QC limits?	X				
S5	OI	Raw data (NELAC section 1 appendix A glossary, and section 5.12 or ISO/IEC 17025 section					
		Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?	X				
		Were data associated with manual integrations flagged on the raw data?	X				
S6	O	Dual column confirmation					
		Did dual column confirmation results meet the method-required QC?			X		
S7	O	Tentatively identified compounds (TICs):					
		If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?			X		
S8	I	Interference Check Sample (ICS) results:					
		Were percent recoveries within method QC limits?			X		
S9	I	Serial dilutions, post digestion spikes, and method of standard additions					
		Were percent differences, recoveries, and the linearity within the QC limits specified in the method?			X		
S10	OI	Method detection limit (MDL) studies					
		Was a MDL study performed for each reported analyte?	X				
		Is the MDL either adjusted or supported by the analysis of DCSs?	X				
S11	OI	Proficiency test reports:					
		Was the laboratory's performance acceptable on the applicable proficiency tests or evaluation studies?	X				
S12	OI	Standards documentation					
		Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?	X				
S13	OI	Compound/analyte identification procedures					
		Are the procedures for compound/analyte identification documented?	X				
S14	OI	Demonstration of analyst competency (DOC)					
		Was DOC conducted consistent with NELAC Chapter 5C or ISO/IEC 4?	X				
		Is documentation of the analyst's competency up-to-date and on file?	X				
S15	OI	Verification/validation documentation for methods (NELAC Chap 5 or ISO/IEC 17025 Section 5)					
		Are all the methods used to generate the data documented, verified, and validated, where applicable?	X				
S16	OI	Laboratory standard operating procedures (SOPs):					
		Are laboratory SOPs current and on file for each method performed?	X				

Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.

O = Organic Analyses; I = Inorganic Analyses (and general chemistry, when applicable);

NA = Not Applicable;

NR = Not Reviewed;

R# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

Laboratory Review Checklist: Reportable Data

Laboratory Name: ALS Laboratory Group	LRC Date: 8/08/2011
Project Name: HWPW Site-Wide GW	Laboratory Job Number: 1107721
Reviewer Name: Pat Lynch	Prep Batch Number(s): 54173, R113636, R113694, R113771

ER#⁵	Description
1	Many samples for Semivolatile Organics were analyzed at multiple dilutions. Surrogate recoveries were diluted out in the higher dilutions, but were in control in the lower dilutions.

Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.
O = Organic Analyses; I = Inorganic Analyses (and general chemistry, when applicable);
NA = Not Applicable;
NR = Not Reviewed;
R# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Work Order: 1107721

Work Order Sample Summary

<u>Lab Samp ID</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Tag Number</u>	<u>Collection Date</u>	<u>Date Received</u>	<u>Hold</u>
1107721-01	WG-1620-MW24C-20110721	Water		7/21/2011 13:45	7/22/2011 11:40	<input type="checkbox"/>
1107721-02	WG-1620-MW68C-20110721	Water		7/21/2011 13:00	7/22/2011 11:40	<input type="checkbox"/>
1107721-03	WG-1620-MW69A-20110721	Water		7/21/2011 14:45	7/22/2011 11:40	<input type="checkbox"/>
1107721-04	WG-1620-MW61A-20110721	Water		7/21/2011 16:00	7/22/2011 11:40	<input type="checkbox"/>
1107721-05	WG-1620-MW47C-20110721	Water		7/21/2011 17:00	7/22/2011 11:40	<input type="checkbox"/>
1107721-06	WG-1620-FB06-20110721	Water		7/21/2011 17:15	7/22/2011 11:40	<input type="checkbox"/>
1107721-07	WG-1620-MW49A-20110722	Water		7/22/2011 07:20	7/22/2011 11:40	<input type="checkbox"/>
1107721-08	WG-1620-MW49B-20110722	Water		7/22/2011 08:15	7/22/2011 11:40	<input type="checkbox"/>
1107721-09	WG-1620-MW57A-20110722	Water		7/22/2011 09:25	7/22/2011 11:40	<input type="checkbox"/>
1107721-10	WG-1620-MW23C-20110722	Water		7/22/2011 10:40	7/22/2011 11:40	<input type="checkbox"/>
1107721-11	WG-1620-FB07-20110722	Water		7/22/2011 11:00	7/22/2011 11:40	<input type="checkbox"/>
1107721-12	WG-1620-TB-20110722	Water		7/22/2011	7/22/2011 11:40	<input type="checkbox"/>

ALS Environmental

Date: 29-Jul-11

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-MW24C-20110721
Collection Date: 7/21/2011 01:45 PM

Work Order: 1107721
Lab ID: 1107721-01
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270	Prep: SW3510 / 7/24/11	Analyst: LG		
1,2-Diphenylhydrazine	U		0.000050	0.00020	mg/L	1	7/26/2011 01:58
2,4-Dimethylphenol	U		0.000050	0.00020	mg/L	1	7/26/2011 01:58
2,4-Dinitrotoluene	U		0.000050	0.00020	mg/L	1	7/26/2011 01:58
2,6-Dinitrotoluene	U		0.000060	0.00020	mg/L	1	7/26/2011 01:58
2-Chloronaphthalene	U		0.000050	0.00020	mg/L	1	7/26/2011 01:58
2-Methylnaphthalene	U		0.000050	0.00020	mg/L	1	7/26/2011 01:58
4,6-Dinitro-2-methylphenol	U		0.000080	0.00020	mg/L	1	7/26/2011 01:58
4-Nitrophenol	U		0.000050	0.0010	mg/L	1	7/26/2011 01:58
Acenaphthene	U		0.000050	0.00020	mg/L	1	7/26/2011 01:58
Acenaphthylene	U		0.000050	0.00020	mg/L	1	7/26/2011 01:58
Anthracene	U		0.000050	0.00020	mg/L	1	7/26/2011 01:58
Benz(a)anthracene	U		0.000050	0.00020	mg/L	1	7/26/2011 01:58
Benzo(a)pyrene	U		0.000050	0.00020	mg/L	1	7/26/2011 01:58
Bis(2-chloroethoxy)methane	U		0.000050	0.00020	mg/L	1	7/26/2011 01:58
Bis(2-ethylhexyl)phthalate	0.00013	J	0.00010	0.00020	mg/L	1	7/26/2011 01:58
Chrysene	U		0.000050	0.00020	mg/L	1	7/26/2011 01:58
Dibenzofuran	U		0.000050	0.00020	mg/L	1	7/26/2011 01:58
Di-n-butyl phthalate	U		0.000050	0.00020	mg/L	1	7/26/2011 01:58
Fluoranthene	U		0.000050	0.00020	mg/L	1	7/26/2011 01:58
Fluorene	U		0.000050	0.00020	mg/L	1	7/26/2011 01:58
Naphthalene	0.00020		0.000050	0.00020	mg/L	1	7/26/2011 01:58
Nitrobenzene	U		0.000050	0.00020	mg/L	1	7/26/2011 01:58
N-Nitrosodiphenylamine	U		0.000050	0.00020	mg/L	1	7/26/2011 01:58
Pentachlorophenol	U		0.000050	0.00020	mg/L	1	7/26/2011 01:58
Phenanthrene	U		0.000050	0.00020	mg/L	1	7/26/2011 01:58
Phenol	U		0.000050	0.00020	mg/L	1	7/26/2011 01:58
Pyrene	U		0.000050	0.00020	mg/L	1	7/26/2011 01:58
Surr: 2,4,6-Tribromophenol	47.9			34-129	%REC	1	7/26/2011 01:58
Surr: 2-Fluorobiphenyl	41.5			40-125	%REC	1	7/26/2011 01:58
Surr: 2-Fluorophenol	41.9			20-120	%REC	1	7/26/2011 01:58
Surr: 4-Terphenyl-d14	58.9			40-135	%REC	1	7/26/2011 01:58
Surr: Nitrobenzene-d5	46.3			41-120	%REC	1	7/26/2011 01:58
Surr: Phenol-d6	46.7			20-120	%REC	1	7/26/2011 01:58
VOLATILES			Method: SW8260	Analyst: PC			
1,2-Dichloroethane	U		0.0010	0.0050	mg/L	1	7/27/2011 19:59
Benzene	U		0.0010	0.0050	mg/L	1	7/27/2011 19:59
Chlorobenzene	U		0.0010	0.0050	mg/L	1	7/27/2011 19:59
Ethylbenzene	U		0.0011	0.0050	mg/L	1	7/27/2011 19:59

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 29-Jul-11

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-MW24C-20110721
Collection Date: 7/21/2011 01:45 PM

Work Order: 1107721
Lab ID: 1107721-01
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
Methylene chloride	U		0.0013	0.010	mg/L	1	7/27/2011 19:59
Toluene	U		0.0010	0.0050	mg/L	1	7/27/2011 19:59
Xylenes, Total	U		0.0031	0.015	mg/L	1	7/27/2011 19:59
Surr: 1,2-Dichloroethane-d4	99.0			70-125	%REC	1	7/27/2011 19:59
Surr: 4-Bromofluorobenzene	105			72-125	%REC	1	7/27/2011 19:59
Surr: Dibromofluoromethane	99.1			71-125	%REC	1	7/27/2011 19:59
Surr: Toluene-d8	95.8			75-125	%REC	1	7/27/2011 19:59

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 29-Jul-11

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-MW68C-20110721
Collection Date: 7/21/2011 01:00 PM

Work Order: 1107721
Lab ID: 1107721-02
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270	Prep: SW3510 / 7/24/11	Analyst: LG		
1,2-Diphenylhydrazine	U		0.000050	0.00020	mg/L	1	7/27/2011 19:20
2,4-Dimethylphenol	0.00031		0.000050	0.00020	mg/L	1	7/27/2011 19:20
2,4-Dinitrotoluene	U		0.000050	0.00020	mg/L	1	7/27/2011 19:20
2,6-Dinitrotoluene	U		0.000060	0.00020	mg/L	1	7/27/2011 19:20
2-Chloronaphthalene	U		0.000050	0.00020	mg/L	1	7/27/2011 19:20
2-Methylnaphthalene	0.00024		0.000050	0.00020	mg/L	1	7/27/2011 19:20
4,6-Dinitro-2-methylphenol	U		0.000080	0.00020	mg/L	1	7/27/2011 19:20
4-Nitrophenol	U		0.000050	0.0010	mg/L	1	7/27/2011 19:20
Acenaphthene	0.00013	J	0.000050	0.00020	mg/L	1	7/27/2011 19:20
Acenaphthylene	U		0.000050	0.00020	mg/L	1	7/27/2011 19:20
Anthracene	U		0.000050	0.00020	mg/L	1	7/27/2011 19:20
Benz(a)anthracene	U		0.000050	0.00020	mg/L	1	7/27/2011 19:20
Benzo(a)pyrene	U		0.000050	0.00020	mg/L	1	7/27/2011 19:20
Bis(2-chloroethoxy)methane	U		0.000050	0.00020	mg/L	1	7/27/2011 19:20
Bis(2-ethylhexyl)phthalate	0.0010		0.00010	0.00020	mg/L	1	7/27/2011 19:20
Chrysene	U		0.000050	0.00020	mg/L	1	7/27/2011 19:20
Dibenzofuran	0.00020	J	0.000050	0.00020	mg/L	1	7/27/2011 19:20
Di-n-butyl phthalate	U		0.000050	0.00020	mg/L	1	7/27/2011 19:20
Fluoranthene	U		0.000050	0.00020	mg/L	1	7/27/2011 19:20
Fluorene	0.00010	J	0.000050	0.00020	mg/L	1	7/27/2011 19:20
Naphthalene	0.0027		0.000050	0.00020	mg/L	1	7/27/2011 19:20
Nitrobenzene	U		0.000050	0.00020	mg/L	1	7/27/2011 19:20
N-Nitrosodiphenylamine	U		0.000050	0.00020	mg/L	1	7/27/2011 19:20
Pentachlorophenol	U		0.000050	0.00020	mg/L	1	7/27/2011 19:20
Phenanthrene	0.00016	J	0.000050	0.00020	mg/L	1	7/27/2011 19:20
Phenol	0.0049		0.000050	0.00020	mg/L	1	7/27/2011 19:20
Pyrene	U		0.000050	0.00020	mg/L	1	7/27/2011 19:20
Surr: 2,4,6-Tribromophenol	59.4			34-129	%REC	1	7/27/2011 19:20
Surr: 2-Fluorobiphenyl	45.7			40-125	%REC	1	7/27/2011 19:20
Surr: 2-Fluorophenol	48.0			20-120	%REC	1	7/27/2011 19:20
Surr: 4-Terphenyl-d14	60.7			40-135	%REC	1	7/27/2011 19:20
Surr: Nitrobenzene-d5	47.5			41-120	%REC	1	7/27/2011 19:20
Surr: Phenol-d6	46.1			20-120	%REC	1	7/27/2011 19:20

VOLATILES			Method: SW8260	Analyst: PC			
1,2-Dichloroethane	U		0.0010	0.0050	mg/L	1	7/27/2011 20:27
Benzene	0.0032	J	0.0010	0.0050	mg/L	1	7/27/2011 20:27
Chlorobenzene	U		0.0010	0.0050	mg/L	1	7/27/2011 20:27
Ethylbenzene	U		0.0011	0.0050	mg/L	1	7/27/2011 20:27

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 29-Jul-11

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-MW68C-20110721
Collection Date: 7/21/2011 01:00 PM

Work Order: 1107721
Lab ID: 1107721-02
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
Methylene chloride	U		0.0013	0.010	mg/L	1	7/27/2011 20:27
Toluene	0.0011	J	0.0010	0.0050	mg/L	1	7/27/2011 20:27
Xylenes, Total	U		0.0031	0.015	mg/L	1	7/27/2011 20:27
Surr: 1,2-Dichloroethane-d4	94.6			70-125	%REC	1	7/27/2011 20:27
Surr: 4-Bromofluorobenzene	112			72-125	%REC	1	7/27/2011 20:27
Surr: Dibromofluoromethane	102			71-125	%REC	1	7/27/2011 20:27
Surr: Toluene-d8	104			75-125	%REC	1	7/27/2011 20:27

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 29-Jul-11

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-MW69A-20110721
Collection Date: 7/21/2011 02:45 PM

Work Order: 1107721
Lab ID: 1107721-03
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270	Prep: SW3510 / 7/24/11	Analyst: LG		
1,2-Diphenylhydrazine	U		0.000050	0.00020	mg/L	1	7/27/2011 01:19
2,4-Dimethylphenol	U		0.000050	0.00020	mg/L	1	7/27/2011 01:19
2,4-Dinitrotoluene	U		0.000050	0.00020	mg/L	1	7/27/2011 01:19
2,6-Dinitrotoluene	U		0.000060	0.00020	mg/L	1	7/27/2011 01:19
2-Chloronaphthalene	U		0.000050	0.00020	mg/L	1	7/27/2011 01:19
2-Methylnaphthalene	U		0.000050	0.00020	mg/L	1	7/27/2011 01:19
4,6-Dinitro-2-methylphenol	U		0.000080	0.00020	mg/L	1	7/27/2011 01:19
4-Nitrophenol	U		0.000050	0.0010	mg/L	1	7/27/2011 01:19
Acenaphthene	U		0.000050	0.00020	mg/L	1	7/27/2011 01:19
Acenaphthylene	U		0.000050	0.00020	mg/L	1	7/27/2011 01:19
Anthracene	U		0.000050	0.00020	mg/L	1	7/27/2011 01:19
Benz(a)anthracene	U		0.000050	0.00020	mg/L	1	7/27/2011 01:19
Benzo(a)pyrene	U		0.000050	0.00020	mg/L	1	7/27/2011 01:19
Bis(2-chloroethoxy)methane	U		0.000050	0.00020	mg/L	1	7/27/2011 01:19
Bis(2-ethylhexyl)phthalate	0.000086		0.00010	0.00020	mg/L	1	7/27/2011 01:19
Chrysene	U		0.000050	0.00020	mg/L	1	7/27/2011 01:19
Dibenzofuran	U		0.000050	0.00020	mg/L	1	7/27/2011 01:19
Di-n-butyl phthalate	0.000069	J	0.000050	0.00020	mg/L	1	7/27/2011 01:19
Fluoranthene	0.000059	J	0.000050	0.00020	mg/L	1	7/27/2011 01:19
Fluorene	U		0.000050	0.00020	mg/L	1	7/27/2011 01:19
Naphthalene	U		0.000050	0.00020	mg/L	1	7/27/2011 01:19
Nitrobenzene	U		0.000050	0.00020	mg/L	1	7/27/2011 01:19
N-Nitrosodiphenylamine	U		0.000050	0.00020	mg/L	1	7/27/2011 01:19
Pentachlorophenol	U		0.000050	0.00020	mg/L	1	7/27/2011 01:19
Phenanthrene	U		0.000050	0.00020	mg/L	1	7/27/2011 01:19
Phenol	U		0.000050	0.00020	mg/L	1	7/27/2011 01:19
Pyrene	U		0.000050	0.00020	mg/L	1	7/27/2011 01:19
Surr: 2,4,6-Tribromophenol	78.0			34-129	%REC	1	7/27/2011 01:19
Surr: 2-Fluorobiphenyl	48.0			40-125	%REC	1	7/27/2011 01:19
Surr: 2-Fluorophenol	38.1			20-120	%REC	1	7/27/2011 01:19
Surr: 4-Terphenyl-d14	67.6			40-135	%REC	1	7/27/2011 01:19
Surr: Nitrobenzene-d5	44.3			41-120	%REC	1	7/27/2011 01:19
Surr: Phenol-d6	32.7			20-120	%REC	1	7/27/2011 01:19
VOLATILES			Method: SW8260	Analyst: PC			
1,2-Dichloroethane	U		0.0010	0.0050	mg/L	1	7/27/2011 20:55
Benzene	U		0.0010	0.0050	mg/L	1	7/27/2011 20:55
Chlorobenzene	U		0.0010	0.0050	mg/L	1	7/27/2011 20:55
Ethylbenzene	U		0.0011	0.0050	mg/L	1	7/27/2011 20:55

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 29-Jul-11

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-MW69A-20110721
Collection Date: 7/21/2011 02:45 PM

Work Order: 1107721
Lab ID: 1107721-03
Matrix: WATER

Analyses	Result	Qual	SDL	ML	Units	Dilution Factor	Date Analyzed
Methylene chloride	U		0.0013	0.010	mg/L	1	7/27/2011 20:55
Toluene	U		0.0010	0.0050	mg/L	1	7/27/2011 20:55
Vinyl chloride	U		0.0010	0.0020	mg/L	1	7/27/2011 20:55
Xylenes, Total	U		0.0031	0.015	mg/L	1	7/27/2011 20:55
Surr: 1,2-Dichloroethane-d4	93.1			70-125	%REC	1	7/27/2011 20:55
Surr: 4-Bromofluorobenzene	106			72-125	%REC	1	7/27/2011 20:55
Surr: Dibromofluoromethane	95.6			71-125	%REC	1	7/27/2011 20:55
Surr: Toluene-d8	94.1			75-125	%REC	1	7/27/2011 20:55

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 29-Jul-11

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-MW61A-20110721
Collection Date: 7/21/2011 04:00 PM

Work Order: 1107721
Lab ID: 1107721-04
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270	Prep: SW3510 / 7/24/11	Analyst: LG		
1,2-Diphenylhydrazine	U		0.000050	0.00020	mg/L	1	7/25/2011 18:35
2,4-Dimethylphenol	U		0.000050	0.00020	mg/L	1	7/25/2011 18:35
2,4-Dinitrotoluene	U		0.000050	0.00020	mg/L	1	7/25/2011 18:35
2,6-Dinitrotoluene	U		0.000060	0.00020	mg/L	1	7/25/2011 18:35
2-Chloronaphthalene	U		0.000050	0.00020	mg/L	1	7/25/2011 18:35
2-Methylnaphthalene	U		0.000050	0.00020	mg/L	1	7/25/2011 18:35
4,6-Dinitro-2-methylphenol	U		0.000080	0.00020	mg/L	1	7/25/2011 18:35
4-Nitrophenol	U		0.000050	0.0010	mg/L	1	7/25/2011 18:35
Acenaphthene	U		0.000050	0.00020	mg/L	1	7/25/2011 18:35
Acenaphthylene	U		0.000050	0.00020	mg/L	1	7/25/2011 18:35
Anthracene	U		0.000050	0.00020	mg/L	1	7/25/2011 18:35
Benz(a)anthracene	U		0.000050	0.00020	mg/L	1	7/25/2011 18:35
Benzo(a)pyrene	U		0.000050	0.00020	mg/L	1	7/25/2011 18:35
Bis(2-chloroethoxy)methane	U		0.000050	0.00020	mg/L	1	7/25/2011 18:35
Bis(2-ethylhexyl)phthalate	0.00023		0.00010	0.00020	mg/L	1	7/25/2011 18:35
Chrysene	U		0.000050	0.00020	mg/L	1	7/25/2011 18:35
Dibenzofuran	U		0.000050	0.00020	mg/L	1	7/25/2011 18:35
Di-n-butyl phthalate	U		0.000050	0.00020	mg/L	1	7/25/2011 18:35
Fluoranthene	U		0.000050	0.00020	mg/L	1	7/25/2011 18:35
Fluorene	U		0.000050	0.00020	mg/L	1	7/25/2011 18:35
Naphthalene	U		0.000050	0.00020	mg/L	1	7/25/2011 18:35
Nitrobenzene	U		0.000050	0.00020	mg/L	1	7/25/2011 18:35
N-Nitrosodiphenylamine	U		0.000050	0.00020	mg/L	1	7/25/2011 18:35
Pentachlorophenol	U		0.000050	0.00020	mg/L	1	7/25/2011 18:35
Phenanthrene	U		0.000050	0.00020	mg/L	1	7/25/2011 18:35
Phenol	U		0.000050	0.00020	mg/L	1	7/25/2011 18:35
Pyrene	U		0.000050	0.00020	mg/L	1	7/25/2011 18:35
Surr: 2,4,6-Tribromophenol	57.4			34-129	%REC	1	7/25/2011 18:35
Surr: 2-Fluorobiphenyl	61.4			40-125	%REC	1	7/25/2011 18:35
Surr: 2-Fluorophenol	41.0			20-120	%REC	1	7/25/2011 18:35
Surr: 4-Terphenyl-d14	46.4			40-135	%REC	1	7/25/2011 18:35
Surr: Nitrobenzene-d5	47.1			41-120	%REC	1	7/25/2011 18:35
Surr: Phenol-d6	47.6			20-120	%REC	1	7/25/2011 18:35
VOLATILES			Method: SW8260	Analyst: PC			
1,2-Dichloroethane	U		0.0010	0.0050	mg/L	1	7/27/2011 12:56
Benzene	U		0.0010	0.0050	mg/L	1	7/27/2011 12:56
Chlorobenzene	U		0.0010	0.0050	mg/L	1	7/27/2011 12:56
Ethylbenzene	U		0.0011	0.0050	mg/L	1	7/27/2011 12:56

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 29-Jul-11

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-MW61A-20110721
Collection Date: 7/21/2011 04:00 PM

Work Order: 1107721
Lab ID: 1107721-04
Matrix: WATER

Analyses	Result	Qual	SDL	ML	Units	Dilution Factor	Date Analyzed
Methylene chloride	U		0.0013	0.010	mg/L	1	7/27/2011 12:56
Toluene	U		0.0010	0.0050	mg/L	1	7/27/2011 12:56
Vinyl chloride	U		0.0010	0.0020	mg/L	1	7/27/2011 12:56
Xylenes, Total	U		0.0031	0.015	mg/L	1	7/27/2011 12:56
Surr: 1,2-Dichloroethane-d4	96.1			70-125	%REC	1	7/27/2011 12:56
Surr: 4-Bromofluorobenzene	101			72-125	%REC	1	7/27/2011 12:56
Surr: Dibromofluoromethane	98.1			71-125	%REC	1	7/27/2011 12:56
Surr: Toluene-d8	99.9			75-125	%REC	1	7/27/2011 12:56

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 29-Jul-11

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-MW47C-20110721
Collection Date: 7/21/2011 05:00 PM

Work Order: 1107721
Lab ID: 1107721-05
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270	Prep: SW3510 / 7/24/11	Analyst: LG		
1,2-Diphenylhydrazine	U		0.000050	0.00020	mg/L	1	7/27/2011 18:39
2,4-Dimethylphenol	U		0.000050	0.00020	mg/L	1	7/27/2011 18:39
2,4-Dinitrotoluene	U		0.000050	0.00020	mg/L	1	7/27/2011 18:39
2,6-Dinitrotoluene	U		0.000060	0.00020	mg/L	1	7/27/2011 18:39
2-Chloronaphthalene	U		0.000050	0.00020	mg/L	1	7/27/2011 18:39
2-Methylnaphthalene	U		0.000050	0.00020	mg/L	1	7/27/2011 18:39
4,6-Dinitro-2-methylphenol	U		0.000080	0.00020	mg/L	1	7/27/2011 18:39
4-Nitrophenol	U		0.000050	0.0010	mg/L	1	7/27/2011 18:39
Acenaphthene	U		0.000050	0.00020	mg/L	1	7/27/2011 18:39
Acenaphthylene	U		0.000050	0.00020	mg/L	1	7/27/2011 18:39
Anthracene	U		0.000050	0.00020	mg/L	1	7/27/2011 18:39
Benz(a)anthracene	U		0.000050	0.00020	mg/L	1	7/27/2011 18:39
Benzo(a)pyrene	U		0.000050	0.00020	mg/L	1	7/27/2011 18:39
Bis(2-chloroethoxy)methane	U		0.000050	0.00020	mg/L	1	7/27/2011 18:39
Bis(2-ethylhexyl)phthalate	0.00010	J	0.00010	0.00020	mg/L	1	7/27/2011 18:39
Chrysene	U		0.000050	0.00020	mg/L	1	7/27/2011 18:39
Dibenzofuran	U		0.000050	0.00020	mg/L	1	7/27/2011 18:39
Di-n-butyl phthalate	U		0.000050	0.00020	mg/L	1	7/27/2011 18:39
Fluoranthene	U		0.000050	0.00020	mg/L	1	7/27/2011 18:39
Fluorene	U		0.000050	0.00020	mg/L	1	7/27/2011 18:39
Naphthalene	U		0.000050	0.00020	mg/L	1	7/27/2011 18:39
Nitrobenzene	U		0.000050	0.00020	mg/L	1	7/27/2011 18:39
N-Nitrosodiphenylamine	U		0.000050	0.00020	mg/L	1	7/27/2011 18:39
Pentachlorophenol	U		0.000050	0.00020	mg/L	1	7/27/2011 18:39
Phenanthrene	U		0.000050	0.00020	mg/L	1	7/27/2011 18:39
Phenol	U		0.000050	0.00020	mg/L	1	7/27/2011 18:39
Pyrene	U		0.000050	0.00020	mg/L	1	7/27/2011 18:39
Surr: 2,4,6-Tribromophenol	44.9			34-129	%REC	1	7/27/2011 18:39
Surr: 2-Fluorobiphenyl	40.0			40-125	%REC	1	7/27/2011 18:39
Surr: 2-Fluorophenol	36.7			20-120	%REC	1	7/27/2011 18:39
Surr: 4-Terphenyl-d14	60.5			40-135	%REC	1	7/27/2011 18:39
Surr: Nitrobenzene-d5	41.5			41-120	%REC	1	7/27/2011 18:39
Surr: Phenol-d6	38.7			20-120	%REC	1	7/27/2011 18:39

VOLATILES			Method: SW8260	Analyst: PC			
1,2-Dichloroethane	U		0.0010	0.0050	mg/L	1	7/27/2011 21:22
Benzene	U		0.0010	0.0050	mg/L	1	7/27/2011 21:22
Chlorobenzene	U		0.0010	0.0050	mg/L	1	7/27/2011 21:22
Ethylbenzene	U		0.0011	0.0050	mg/L	1	7/27/2011 21:22

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 29-Jul-11

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-MW47C-20110721
Collection Date: 7/21/2011 05:00 PM

Work Order: 1107721
Lab ID: 1107721-05
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
Methylene chloride	U		0.0013	0.010	mg/L	1	7/27/2011 21:22
Toluene	U		0.0010	0.0050	mg/L	1	7/27/2011 21:22
Xylenes, Total	U		0.0031	0.015	mg/L	1	7/27/2011 21:22
Surr: 1,2-Dichloroethane-d4	98.6			70-125	%REC	1	7/27/2011 21:22
Surr: 4-Bromofluorobenzene	99.6			72-125	%REC	1	7/27/2011 21:22
Surr: Dibromofluoromethane	103			71-125	%REC	1	7/27/2011 21:22
Surr: Toluene-d8	99.2			75-125	%REC	1	7/27/2011 21:22

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 29-Jul-11

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-FB06-20110721
Collection Date: 7/21/2011 05:15 PM

Work Order: 1107721
Lab ID: 1107721-06
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270	Prep: SW3510 / 7/24/11	Analyst: LG		
1,2-Diphenylhydrazine	U		0.000050	0.00020	mg/L	1	7/27/2011 19:00
2,4-Dimethylphenol	U		0.000050	0.00020	mg/L	1	7/27/2011 19:00
2,4-Dinitrotoluene	U		0.000050	0.00020	mg/L	1	7/27/2011 19:00
2,6-Dinitrotoluene	U		0.000060	0.00020	mg/L	1	7/27/2011 19:00
2-Chloronaphthalene	U		0.000050	0.00020	mg/L	1	7/27/2011 19:00
2-Methylnaphthalene	U		0.000050	0.00020	mg/L	1	7/27/2011 19:00
4,6-Dinitro-2-methylphenol	U		0.000080	0.00020	mg/L	1	7/27/2011 19:00
4-Nitrophenol	U		0.000050	0.0010	mg/L	1	7/27/2011 19:00
Acenaphthene	U		0.000050	0.00020	mg/L	1	7/27/2011 19:00
Acenaphthylene	U		0.000050	0.00020	mg/L	1	7/27/2011 19:00
Anthracene	U		0.000050	0.00020	mg/L	1	7/27/2011 19:00
Benz(a)anthracene	U		0.000050	0.00020	mg/L	1	7/27/2011 19:00
Benzo(a)pyrene	U		0.000050	0.00020	mg/L	1	7/27/2011 19:00
Bis(2-chloroethoxy)methane	U		0.000050	0.00020	mg/L	1	7/27/2011 19:00
Bis(2-ethylhexyl)phthalate	U		0.00010	0.00020	mg/L	1	7/27/2011 19:00
Chrysene	U		0.000050	0.00020	mg/L	1	7/27/2011 19:00
Dibenzofuran	U		0.000050	0.00020	mg/L	1	7/27/2011 19:00
Di-n-butyl phthalate	U		0.000050	0.00020	mg/L	1	7/27/2011 19:00
Fluoranthene	U		0.000050	0.00020	mg/L	1	7/27/2011 19:00
Fluorene	U		0.000050	0.00020	mg/L	1	7/27/2011 19:00
Naphthalene	U		0.000050	0.00020	mg/L	1	7/27/2011 19:00
Nitrobenzene	U		0.000050	0.00020	mg/L	1	7/27/2011 19:00
N-Nitrosodiphenylamine	U		0.000050	0.00020	mg/L	1	7/27/2011 19:00
Pentachlorophenol	U		0.000050	0.00020	mg/L	1	7/27/2011 19:00
Phenanthrene	U		0.000050	0.00020	mg/L	1	7/27/2011 19:00
Phenol	U		0.000050	0.00020	mg/L	1	7/27/2011 19:00
Pyrene	U		0.000050	0.00020	mg/L	1	7/27/2011 19:00
Surr: 2,4,6-Tribromophenol	35.9			34-129	%REC	1	7/27/2011 19:00
Surr: 2-Fluorobiphenyl	40.5			40-125	%REC	1	7/27/2011 19:00
Surr: 2-Fluorophenol	39.6			20-120	%REC	1	7/27/2011 19:00
Surr: 4-Terphenyl-d14	56.1			40-135	%REC	1	7/27/2011 19:00
Surr: Nitrobenzene-d5	42.1			41-120	%REC	1	7/27/2011 19:00
Surr: Phenol-d6	39.9			20-120	%REC	1	7/27/2011 19:00
VOLATILES			Method: SW8260	Analyst: PC			
1,2-Dichloroethane	U		0.0010	0.0050	mg/L	1	7/27/2011 16:14
Benzene	U		0.0010	0.0050	mg/L	1	7/27/2011 16:14
Chlorobenzene	U		0.0010	0.0050	mg/L	1	7/27/2011 16:14
Ethylbenzene	U		0.0011	0.0050	mg/L	1	7/27/2011 16:14

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 29-Jul-11

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-FB06-20110721
Collection Date: 7/21/2011 05:15 PM

Work Order: 1107721
Lab ID: 1107721-06
Matrix: WATER

Analyses	Result	Qual	SDL	ML	Units	Dilution Factor	Date Analyzed
Methylene chloride	U		0.0013	0.010	mg/L	1	7/27/2011 16:14
Toluene	U		0.0010	0.0050	mg/L	1	7/27/2011 16:14
Vinyl chloride	U		0.0010	0.0020	mg/L	1	7/27/2011 16:14
Xylenes, Total	U		0.0031	0.015	mg/L	1	7/27/2011 16:14
Surr: 1,2-Dichloroethane-d4	100			70-125	%REC	1	7/27/2011 16:14
Surr: 4-Bromofluorobenzene	99.6			72-125	%REC	1	7/27/2011 16:14
Surr: Dibromofluoromethane	101			71-125	%REC	1	7/27/2011 16:14
Surr: Toluene-d8	95.6			75-125	%REC	1	7/27/2011 16:14

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 29-Jul-11

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-MW49A-20110722
Collection Date: 7/22/2011 07:20 AM

Work Order: 1107721
Lab ID: 1107721-07
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270	Prep: SW3510 / 7/24/11	Analyst: LG		
1,2-Diphenylhydrazine	U		0.000050	0.00020	mg/L	1	7/27/2011 01:38
2,4-Dimethylphenol	3.0		0.050	0.20	mg/L	1000	7/27/2011 20:20
2,4-Dinitrotoluene	U		0.000050	0.00020	mg/L	1	7/27/2011 01:38
2,6-Dinitrotoluene	U		0.000060	0.00020	mg/L	1	7/27/2011 01:38
2-Chloronaphthalene	U		0.000050	0.00020	mg/L	1	7/27/2011 01:38
2-Methylnaphthalene	0.27		0.0050	0.020	mg/L	100	7/27/2011 19:22
4,6-Dinitro-2-methylphenol	U		0.000080	0.00020	mg/L	1	7/27/2011 01:38
4-Nitrophenol	U		0.000050	0.0010	mg/L	1	7/27/2011 01:38
Acenaphthene	0.13		0.0050	0.020	mg/L	100	7/27/2011 19:22
Acenaphthylene	0.0029		0.000050	0.00020	mg/L	1	7/27/2011 01:38
Anthracene	0.011		0.00050	0.0020	mg/L	10	7/27/2011 01:57
Benz(a)anthracene	U		0.000050	0.00020	mg/L	1	7/27/2011 01:38
Benzo(a)pyrene	U		0.000050	0.00020	mg/L	1	7/27/2011 01:38
Bis(2-chloroethoxy)methane	U		0.000050	0.00020	mg/L	1	7/27/2011 01:38
Bis(2-ethylhexyl)phthalate	U		0.00010	0.00020	mg/L	1	7/27/2011 01:38
Chrysene	U		0.000050	0.00020	mg/L	1	7/27/2011 01:38
Dibenzofuran	0.090		0.00050	0.0020	mg/L	10	7/27/2011 01:57
Di-n-butyl phthalate	U		0.000050	0.00020	mg/L	1	7/27/2011 01:38
Fluoranthene	0.0033		0.000050	0.00020	mg/L	1	7/27/2011 01:38
Fluorene	0.092		0.00050	0.0020	mg/L	10	7/27/2011 01:57
Naphthalene	7.4		0.050	0.20	mg/L	1000	7/27/2011 20:20
Nitrobenzene	U		0.000050	0.00020	mg/L	1	7/27/2011 01:38
N-Nitrosodiphenylamine	U		0.000050	0.00020	mg/L	1	7/27/2011 01:38
Pentachlorophenol	U		0.000050	0.00020	mg/L	1	7/27/2011 01:38
Phenanthrene	0.070		0.00050	0.0020	mg/L	10	7/27/2011 01:57
Phenol	0.0095		0.00050	0.0020	mg/L	10	7/27/2011 01:57
Pyrene	0.0016		0.000050	0.00020	mg/L	1	7/27/2011 01:38
Surr: 2,4,6-Tribromophenol	63.4			34-129	%REC	1	7/27/2011 01:38
Surr: 2,4,6-Tribromophenol	79.7			34-129	%REC	10	7/27/2011 01:57
Surr: 2,4,6-Tribromophenol	0	S		34-129	%REC	100	7/27/2011 19:22
Surr: 2,4,6-Tribromophenol	0	S		34-129	%REC	1000	7/27/2011 20:20
Surr: 2-Fluorobiphenyl	40.5			40-125	%REC	1	7/27/2011 01:38
Surr: 2-Fluorobiphenyl	55.0			40-125	%REC	10	7/27/2011 01:57
Surr: 2-Fluorobiphenyl	0	S		40-125	%REC	100	7/27/2011 19:22
Surr: 2-Fluorobiphenyl	0	S		40-125	%REC	1000	7/27/2011 20:20
Surr: 2-Fluorophenol	57.9			20-120	%REC	1	7/27/2011 01:38
Surr: 2-Fluorophenol	60.9			20-120	%REC	10	7/27/2011 01:57
Surr: 2-Fluorophenol	0	S		20-120	%REC	100	7/27/2011 19:22

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 29-Jul-11

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-MW49A-20110722
Collection Date: 7/22/2011 07:20 AM

Work Order: 1107721
Lab ID: 1107721-07
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
Surr: 2-Fluorophenol	0	S		20-120	%REC	1000	7/27/2011 20:20
Surr: 4-Terphenyl-d14	57.4			40-135	%REC	1	7/27/2011 01:38
Surr: 4-Terphenyl-d14	66.8			40-135	%REC	10	7/27/2011 01:57
Surr: 4-Terphenyl-d14	0	S		40-135	%REC	100	7/27/2011 19:22
Surr: 4-Terphenyl-d14	0	S		40-135	%REC	1000	7/27/2011 20:20
Surr: Nitrobenzene-d5	46.5			41-120	%REC	1	7/27/2011 01:38
Surr: Nitrobenzene-d5	66.8			41-120	%REC	10	7/27/2011 01:57
Surr: Nitrobenzene-d5	0	S		41-120	%REC	100	7/27/2011 19:22
Surr: Nitrobenzene-d5	0	S		41-120	%REC	1000	7/27/2011 20:20
Surr: Phenol-d6	55.8			20-120	%REC	1	7/27/2011 01:38
Surr: Phenol-d6	47.8			20-120	%REC	10	7/27/2011 01:57
Surr: Phenol-d6	0	S		20-120	%REC	100	7/27/2011 19:22
Surr: Phenol-d6	0	S		20-120	%REC	1000	7/27/2011 20:20

VOLATILES		Method: SW8260				Analyst: PC	
1,2-Dichloroethane	U	0.010	0.050	mg/L	10	7/28/2011 18:27	
Benzene	0.20	0.010	0.050	mg/L	10	7/28/2011 18:27	
Chlorobenzene	U	0.010	0.050	mg/L	10	7/28/2011 18:27	
Ethylbenzene	0.094	0.011	0.050	mg/L	10	7/28/2011 18:27	
Methylene chloride	U	0.013	0.10	mg/L	10	7/28/2011 18:27	
Toluene	0.11	0.010	0.050	mg/L	10	7/28/2011 18:27	
Vinyl chloride	U	0.010	0.020	mg/L	10	7/28/2011 18:27	
Xylenes, Total	0.20	0.031	0.15	mg/L	10	7/28/2011 18:27	
Surr: 1,2-Dichloroethane-d4	97.1		70-125	%REC	10	7/28/2011 18:27	
Surr: 4-Bromofluorobenzene	102		72-125	%REC	10	7/28/2011 18:27	
Surr: Dibromofluoromethane	98.8		71-125	%REC	10	7/28/2011 18:27	
Surr: Toluene-d8	99.6		75-125	%REC	10	7/28/2011 18:27	

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 29-Jul-11

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-MW49B-20110722
Collection Date: 7/22/2011 08:15 AM

Work Order: 1107721
Lab ID: 1107721-08
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270	Prep: SW3510 / 7/24/11		Analyst: LG	
1,2-Diphenylhydrazine	U		0.000050	0.00020	mg/L	1	7/27/2011 02:17
2,4-Dimethylphenol	0.59		0.0050	0.020	mg/L	100	7/27/2011 21:57
2,4-Dinitrotoluene	U		0.000050	0.00020	mg/L	1	7/27/2011 02:17
2,6-Dinitrotoluene	U		0.000060	0.00020	mg/L	1	7/27/2011 02:17
2-Chloronaphthalene	U		0.000050	0.00020	mg/L	1	7/27/2011 02:17
2-Methylnaphthalene	0.0029		0.000050	0.00020	mg/L	1	7/27/2011 02:17
4,6-Dinitro-2-methylphenol	U		0.000080	0.00020	mg/L	1	7/27/2011 02:17
4-Nitrophenol	U		0.000050	0.0010	mg/L	1	7/27/2011 02:17
Acenaphthene	0.0051		0.000050	0.00020	mg/L	1	7/27/2011 02:17
Acenaphthylene	0.00019	J	0.000050	0.00020	mg/L	1	7/27/2011 02:17
Anthracene	0.00093		0.000050	0.00020	mg/L	1	7/27/2011 02:17
Benz(a)anthracene	0.00018	J	0.000050	0.00020	mg/L	1	7/27/2011 02:17
Benzo(a)pyrene	0.000057	J	0.000050	0.00020	mg/L	1	7/27/2011 02:17
Bis(2-chloroethoxy)methane	U		0.000050	0.00020	mg/L	1	7/27/2011 02:17
Bis(2-ethylhexyl)phthalate	0.00024		0.00010	0.00020	mg/L	1	7/27/2011 02:17
Chrysene	0.00016	J	0.000050	0.00020	mg/L	1	7/27/2011 02:17
Dibenzofuran	0.0018		0.000050	0.00020	mg/L	1	7/27/2011 02:17
Di-n-butyl phthalate	U		0.000050	0.00020	mg/L	1	7/27/2011 02:17
Fluoranthene	0.0011		0.000050	0.00020	mg/L	1	7/27/2011 02:17
Fluorene	0.0014		0.000050	0.00020	mg/L	1	7/27/2011 02:17
Naphthalene	0.13		0.0050	0.020	mg/L	100	7/27/2011 21:57
Nitrobenzene	U		0.000050	0.00020	mg/L	1	7/27/2011 02:17
N-Nitrosodiphenylamine	U		0.000050	0.00020	mg/L	1	7/27/2011 02:17
Pentachlorophenol	U		0.000050	0.00020	mg/L	1	7/27/2011 02:17
Phenanthrene	0.0025		0.000050	0.00020	mg/L	1	7/27/2011 02:17
Phenol	0.00021		0.000050	0.00020	mg/L	1	7/27/2011 02:17
Pyrene	0.00066		0.000050	0.00020	mg/L	1	7/27/2011 02:17
Surr: 2,4,6-Tribromophenol	81.5			34-129	%REC	1	7/27/2011 02:17
Surr: 2,4,6-Tribromophenol	0	S		34-129	%REC	100	7/27/2011 21:57
Surr: 2-Fluorobiphenyl	48.1			40-125	%REC	1	7/27/2011 02:17
Surr: 2-Fluorobiphenyl	0	S		40-125	%REC	100	7/27/2011 21:57
Surr: 2-Fluorophenol	43.8			20-120	%REC	1	7/27/2011 02:17
Surr: 2-Fluorophenol	0	S		20-120	%REC	100	7/27/2011 21:57
Surr: 4-Terphenyl-d14	68.1			40-135	%REC	1	7/27/2011 02:17
Surr: 4-Terphenyl-d14	0	S		40-135	%REC	100	7/27/2011 21:57
Surr: Nitrobenzene-d5	49.3			41-120	%REC	1	7/27/2011 02:17
Surr: Nitrobenzene-d5	0	S		41-120	%REC	100	7/27/2011 21:57
Surr: Phenol-d6	46.8			20-120	%REC	1	7/27/2011 02:17

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 29-Jul-11

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-MW49B-20110722
Collection Date: 7/22/2011 08:15 AM

Work Order: 1107721
Lab ID: 1107721-08
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
Surr: Phenol-d6	0	S		20-120	%REC	100	7/27/2011 21:57
VOLATILES			Method: SW8260			Analyst: PC	
1,2-Dichloroethane	U		0.0010	0.0050	mg/L	1	7/28/2011 17:10
Benzene	0.056		0.0010	0.0050	mg/L	1	7/28/2011 17:10
Chlorobenzene	U		0.0010	0.0050	mg/L	1	7/28/2011 17:10
Ethylbenzene	0.0091		0.0011	0.0050	mg/L	1	7/28/2011 17:10
Methylene chloride	U		0.0013	0.010	mg/L	1	7/28/2011 17:10
Toluene	0.038		0.0010	0.0050	mg/L	1	7/28/2011 17:10
Vinyl chloride	U		0.0010	0.0020	mg/L	1	7/28/2011 17:10
Xylenes, Total	0.020		0.0031	0.015	mg/L	1	7/28/2011 17:10
Surr: 1,2-Dichloroethane-d4	98.9			70-125	%REC	1	7/28/2011 17:10
Surr: 4-Bromofluorobenzene	103			72-125	%REC	1	7/28/2011 17:10
Surr: Dibromofluoromethane	99.6			71-125	%REC	1	7/28/2011 17:10
Surr: Toluene-d8	100			75-125	%REC	1	7/28/2011 17:10

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 29-Jul-11

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-MW57A-20110722
Collection Date: 7/22/2011 09:25 AM

Work Order: 1107721
Lab ID: 1107721-09
Matrix: WATER

Analyses	Result	Qual	SDL	ML	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270		Prep: SW3510 / 7/24/11		Analyst: LG
1,2-Diphenylhydrazine		U	0.00050	0.0020	mg/L	10	7/27/2011 03:15
2,4-Dimethylphenol	1.0		0.012	0.050	mg/L	250	7/27/2011 20:39
2,4-Dinitrotoluene		U	0.00050	0.0020	mg/L	10	7/27/2011 03:15
2,6-Dinitrotoluene		U	0.00060	0.0020	mg/L	10	7/27/2011 03:15
2-Chloronaphthalene		U	0.00050	0.0020	mg/L	10	7/27/2011 03:15
2-Methylnaphthalene	13		0.50	2.0	mg/L	10000	7/27/2011 22:36
4,6-Dinitro-2-methylphenol		U	0.00080	0.0020	mg/L	10	7/27/2011 03:15
4-Nitrophenol		U	0.00050	0.010	mg/L	10	7/27/2011 03:15
Acenaphthene	8.6		0.50	2.0	mg/L	10000	7/27/2011 22:36
Acenaphthylene	0.091		0.0025	0.010	mg/L	50	7/27/2011 19:41
Anthracene	8.4		0.50	2.0	mg/L	10000	7/27/2011 22:36
Benz(a)anthracene	0.45		0.012	0.050	mg/L	250	7/27/2011 20:39
Benzo(a)pyrene	0.16		0.0025	0.010	mg/L	50	7/27/2011 19:41
Bis(2-chloroethoxy)methane		U	0.00050	0.0020	mg/L	10	7/27/2011 03:15
Bis(2-ethylhexyl)phthalate		U	0.0010	0.0020	mg/L	10	7/27/2011 03:15
Chrysene	0.53		0.012	0.050	mg/L	250	7/27/2011 20:39
Dibenzofuran	8.6		0.50	2.0	mg/L	10000	7/27/2011 22:36
Di-n-butyl phthalate		U	0.00050	0.0020	mg/L	10	7/27/2011 03:15
Fluoranthene	6.0		0.50	2.0	mg/L	10000	7/27/2011 22:36
Fluorene	7.9		0.50	2.0	mg/L	10000	7/27/2011 22:36
Naphthalene	71		0.50	2.0	mg/L	10000	7/27/2011 22:36
Nitrobenzene		U	0.00050	0.0020	mg/L	10	7/27/2011 03:15
N-Nitrosodiphenylamine		U	0.00050	0.0020	mg/L	10	7/27/2011 03:15
Pentachlorophenol		U	0.00050	0.0020	mg/L	10	7/27/2011 03:15
Phenanthrene	13		0.50	2.0	mg/L	10000	7/27/2011 22:36
Phenol		U	0.00050	0.0020	mg/L	10	7/27/2011 03:15
Pyrene	3.3		0.50	2.0	mg/L	10000	7/27/2011 22:36
Surr: 2,4,6-Tribromophenol	96.0			34-129	%REC	10	7/27/2011 03:15
Surr: 2,4,6-Tribromophenol	81.3	J		34-129	%REC	50	7/27/2011 19:41
Surr: 2,4,6-Tribromophenol	0	S		34-129	%REC	250	7/27/2011 20:39
Surr: 2,4,6-Tribromophenol	0	S		34-129	%REC	10000	7/27/2011 22:36
Surr: 2-Fluorobiphenyl	111			40-125	%REC	10	7/27/2011 03:15
Surr: 2-Fluorobiphenyl	58.1	J		40-125	%REC	50	7/27/2011 19:41
Surr: 2-Fluorobiphenyl	0	S		40-125	%REC	250	7/27/2011 20:39
Surr: 2-Fluorobiphenyl	0	S		40-125	%REC	10000	7/27/2011 22:36
Surr: 2-Fluorophenol	67.6			20-120	%REC	10	7/27/2011 03:15
Surr: 2-Fluorophenol	109	J		20-120	%REC	50	7/27/2011 19:41
Surr: 2-Fluorophenol	0	S		20-120	%REC	250	7/27/2011 20:39

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 29-Jul-11

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-MW57A-20110722
Collection Date: 7/22/2011 09:25 AM

Work Order: 1107721
Lab ID: 1107721-09
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
Surr: 2-Fluorophenol	0	S		20-120	%REC	10000	7/27/2011 22:36
Surr: 4-Terphenyl-d14	114			40-135	%REC	10	7/27/2011 03:15
Surr: 4-Terphenyl-d14	178	JS		40-135	%REC	50	7/27/2011 19:41
Surr: 4-Terphenyl-d14	0	S		40-135	%REC	250	7/27/2011 20:39
Surr: 4-Terphenyl-d14	0	S		40-135	%REC	10000	7/27/2011 22:36
Surr: Nitrobenzene-d5	111			41-120	%REC	10	7/27/2011 03:15
Surr: Nitrobenzene-d5	82.1	J		41-120	%REC	50	7/27/2011 19:41
Surr: Nitrobenzene-d5	0	S		41-120	%REC	250	7/27/2011 20:39
Surr: Nitrobenzene-d5	0	S		41-120	%REC	10000	7/27/2011 22:36
Surr: Phenol-d6	61.0			20-120	%REC	10	7/27/2011 03:15
Surr: Phenol-d6	72.4	J		20-120	%REC	50	7/27/2011 19:41
Surr: Phenol-d6	0	S		20-120	%REC	250	7/27/2011 20:39
Surr: Phenol-d6	0	S		20-120	%REC	10000	7/27/2011 22:36

VOLATILES		Method: SW8260				Analyst: PC	
1,2-Dichloroethane	U	0.010	0.050	mg/L	10	7/28/2011 19:44	
Benzene	0.084	0.010	0.050	mg/L	10	7/28/2011 19:44	
Chlorobenzene	U	0.010	0.050	mg/L	10	7/28/2011 19:44	
Ethylbenzene	0.13	0.011	0.050	mg/L	10	7/28/2011 19:44	
Methylene chloride	U	0.013	0.10	mg/L	10	7/28/2011 19:44	
Toluene	0.055	0.010	0.050	mg/L	10	7/28/2011 19:44	
Vinyl chloride	U	0.010	0.020	mg/L	10	7/28/2011 19:44	
Xylenes, Total	0.19	0.031	0.15	mg/L	10	7/28/2011 19:44	
Surr: 1,2-Dichloroethane-d4	98.1		70-125	%REC	10	7/28/2011 19:44	
Surr: 4-Bromofluorobenzene	102		72-125	%REC	10	7/28/2011 19:44	
Surr: Dibromofluoromethane	98.1		71-125	%REC	10	7/28/2011 19:44	
Surr: Toluene-d8	100		75-125	%REC	10	7/28/2011 19:44	

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 29-Jul-11

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-MW23C-20110722
Collection Date: 7/22/2011 10:40 AM

Work Order: 1107721
Lab ID: 1107721-10
Matrix: WATER

Analyses	Result	Qual	SDL	ML	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270	Prep: SW3510 / 7/24/11	Analyst: LG		
1,2-Diphenylhydrazine	U		0.000050	0.00020	mg/L	1	7/27/2011 03:34
2,4-Dimethylphenol	0.0035		0.000050	0.00020	mg/L	1	7/27/2011 03:34
2,4-Dinitrotoluene	U		0.000050	0.00020	mg/L	1	7/27/2011 03:34
2,6-Dinitrotoluene	U		0.000060	0.00020	mg/L	1	7/27/2011 03:34
2-Chloronaphthalene	U		0.000050	0.00020	mg/L	1	7/27/2011 03:34
2-Methylnaphthalene	1.3		0.050	0.20	mg/L	1000	7/27/2011 20:59
4,6-Dinitro-2-methylphenol	U		0.000080	0.00020	mg/L	1	7/27/2011 03:34
4-Nitrophenol	U		0.000050	0.0010	mg/L	1	7/27/2011 03:34
Acenaphthene	2.0		0.050	0.20	mg/L	1000	7/27/2011 20:59
Acenaphthylene	0.015		0.000050	0.00020	mg/L	10	7/27/2011 03:54
Anthracene	1.7		0.050	0.20	mg/L	1000	7/27/2011 20:59
Benz(a)anthracene	0.15		0.00050	0.020	mg/L	100	7/27/2011 20:01
Benzo(a)pyrene	0.044		0.000050	0.00020	mg/L	10	7/27/2011 03:54
Bis(2-chloroethoxy)methane	U		0.000050	0.00020	mg/L	1	7/27/2011 03:34
Bis(2-ethylhexyl)phthalate	0.0019		0.00010	0.00020	mg/L	1	7/27/2011 03:34
Chrysene	0.21		0.00050	0.020	mg/L	100	7/27/2011 20:01
Dibenzofuran	2.7		0.050	0.20	mg/L	1000	7/27/2011 20:59
Di-n-butyl phthalate	U		0.000050	0.00020	mg/L	1	7/27/2011 03:34
Fluoranthene	1.8		0.050	0.20	mg/L	1000	7/27/2011 20:59
Fluorene	2.0		0.050	0.20	mg/L	1000	7/27/2011 20:59
Naphthalene	7.5		0.050	0.20	mg/L	1000	7/27/2011 20:59
Nitrobenzene	U		0.000050	0.00020	mg/L	1	7/27/2011 03:34
N-Nitrosodiphenylamine	U		0.000050	0.00020	mg/L	1	7/27/2011 03:34
Pentachlorophenol	U		0.000050	0.00020	mg/L	1	7/27/2011 03:34
Phenanthrene	3.8		0.050	0.20	mg/L	1000	7/27/2011 20:59
Phenol	U		0.000050	0.00020	mg/L	1	7/27/2011 03:34
Pyrene	1.1		0.050	0.20	mg/L	1000	7/27/2011 20:59
Surr: 2,4,6-Tribromophenol	56.6			34-129	%REC	1	7/27/2011 03:34
Surr: 2,4,6-Tribromophenol	61.9			34-129	%REC	10	7/27/2011 03:54
Surr: 2,4,6-Tribromophenol	0	S		34-129	%REC	100	7/27/2011 20:01
Surr: 2,4,6-Tribromophenol	0	S		34-129	%REC	1000	7/27/2011 20:59
Surr: 2-Fluorobiphenyl	45.7			40-125	%REC	1	7/27/2011 03:34
Surr: 2-Fluorobiphenyl	45.5			40-125	%REC	10	7/27/2011 03:54
Surr: 2-Fluorobiphenyl	0	S		40-125	%REC	100	7/27/2011 20:01
Surr: 2-Fluorobiphenyl	0	S		40-125	%REC	1000	7/27/2011 20:59
Surr: 2-Fluorophenol	47.2			20-120	%REC	1	7/27/2011 03:34
Surr: 2-Fluorophenol	46.1			20-120	%REC	10	7/27/2011 03:54
Surr: 2-Fluorophenol	0	S		20-120	%REC	100	7/27/2011 20:01

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 29-Jul-11

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-MW23C-20110722
Collection Date: 7/22/2011 10:40 AM

Work Order: 1107721
Lab ID: 1107721-10
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
Surr: 2-Fluorophenol	0	S		20-120	%REC	1000	7/27/2011 20:59
Surr: 4-Terphenyl-d14	65.8			40-135	%REC	1	7/27/2011 03:34
Surr: 4-Terphenyl-d14	94.4			40-135	%REC	10	7/27/2011 03:54
Surr: 4-Terphenyl-d14	0	S		40-135	%REC	100	7/27/2011 20:01
Surr: 4-Terphenyl-d14	0	S		40-135	%REC	1000	7/27/2011 20:59
Surr: Nitrobenzene-d5	56.9			41-120	%REC	1	7/27/2011 03:34
Surr: Nitrobenzene-d5	51.1			41-120	%REC	10	7/27/2011 03:54
Surr: Nitrobenzene-d5	0	S		41-120	%REC	100	7/27/2011 20:01
Surr: Nitrobenzene-d5	0	S		41-120	%REC	1000	7/27/2011 20:59
Surr: Phenol-d6	39.7			20-120	%REC	1	7/27/2011 03:34
Surr: Phenol-d6	43.8			20-120	%REC	10	7/27/2011 03:54
Surr: Phenol-d6	0	S		20-120	%REC	100	7/27/2011 20:01
Surr: Phenol-d6	0	S		20-120	%REC	1000	7/27/2011 20:59

VOLATILES		Method: SW8260				Analyst: PC	
1,2-Dichloroethane	U		0.010	0.050	mg/L	10	7/28/2011 21:00
Benzene	U		0.010	0.050	mg/L	10	7/28/2011 21:00
Chlorobenzene	U		0.010	0.050	mg/L	10	7/28/2011 21:00
Ethylbenzene	0.10		0.011	0.050	mg/L	10	7/28/2011 21:00
Methylene chloride	U		0.013	0.10	mg/L	10	7/28/2011 21:00
Toluene	U		0.010	0.050	mg/L	10	7/28/2011 21:00
Vinyl chloride	U		0.010	0.020	mg/L	10	7/28/2011 21:00
Xylenes, Total	0.048	J	0.031	0.15	mg/L	10	7/28/2011 21:00
Surr: 1,2-Dichloroethane-d4	95.5			70-125	%REC	10	7/28/2011 21:00
Surr: 4-Bromofluorobenzene	102			72-125	%REC	10	7/28/2011 21:00
Surr: Dibromofluoromethane	96.8			71-125	%REC	10	7/28/2011 21:00
Surr: Toluene-d8	101			75-125	%REC	10	7/28/2011 21:00

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 29-Jul-11

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-FB07-20110722
Collection Date: 7/22/2011 11:00 AM

Work Order: 1107721
Lab ID: 1107721-11
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270	Prep: SW3510 / 7/24/11	Analyst: LG		
1,2-Diphenylhydrazine	U		0.000050	0.00020	mg/L	1	7/26/2011 02:59
2,4-Dimethylphenol	U		0.000050	0.00020	mg/L	1	7/26/2011 02:59
2,4-Dinitrotoluene	U		0.000050	0.00020	mg/L	1	7/26/2011 02:59
2,6-Dinitrotoluene	U		0.000060	0.00020	mg/L	1	7/26/2011 02:59
2-Chloronaphthalene	U		0.000050	0.00020	mg/L	1	7/26/2011 02:59
2-Methylnaphthalene	U		0.000050	0.00020	mg/L	1	7/26/2011 02:59
4,6-Dinitro-2-methylphenol	U		0.000080	0.00020	mg/L	1	7/26/2011 02:59
4-Nitrophenol	U		0.000050	0.0010	mg/L	1	7/26/2011 02:59
Acenaphthene	U		0.000050	0.00020	mg/L	1	7/26/2011 02:59
Acenaphthylene	U		0.000050	0.00020	mg/L	1	7/26/2011 02:59
Anthracene	U		0.000050	0.00020	mg/L	1	7/26/2011 02:59
Benz(a)anthracene	U		0.000050	0.00020	mg/L	1	7/26/2011 02:59
Benzo(a)pyrene	U		0.000050	0.00020	mg/L	1	7/26/2011 02:59
Bis(2-chloroethoxy)methane	U		0.000050	0.00020	mg/L	1	7/26/2011 02:59
Bis(2-ethylhexyl)phthalate	0.00013	J	0.00010	0.00020	mg/L	1	7/26/2011 02:59
Chrysene	U		0.000050	0.00020	mg/L	1	7/26/2011 02:59
Dibenzofuran	U		0.000050	0.00020	mg/L	1	7/26/2011 02:59
Di-n-butyl phthalate	U		0.000050	0.00020	mg/L	1	7/26/2011 02:59
Fluoranthene	U		0.000050	0.00020	mg/L	1	7/26/2011 02:59
Fluorene	U		0.000050	0.00020	mg/L	1	7/26/2011 02:59
Naphthalene	0.00025		0.000050	0.00020	mg/L	1	7/26/2011 02:59
Nitrobenzene	U		0.000050	0.00020	mg/L	1	7/26/2011 02:59
N-Nitrosodiphenylamine	U		0.000050	0.00020	mg/L	1	7/26/2011 02:59
Pentachlorophenol	U		0.000050	0.00020	mg/L	1	7/26/2011 02:59
Phenanthrene	U		0.000050	0.00020	mg/L	1	7/26/2011 02:59
Phenol	U		0.000050	0.00020	mg/L	1	7/26/2011 02:59
Pyrene	U		0.000050	0.00020	mg/L	1	7/26/2011 02:59
Surr: 2,4,6-Tribromophenol	39.5			34-129	%REC	1	7/26/2011 02:59
Surr: 2-Fluorobiphenyl	42.9			40-125	%REC	1	7/26/2011 02:59
Surr: 2-Fluorophenol	37.1			20-120	%REC	1	7/26/2011 02:59
Surr: 4-Terphenyl-d14	58.3			40-135	%REC	1	7/26/2011 02:59
Surr: Nitrobenzene-d5	43.7			41-120	%REC	1	7/26/2011 02:59
Surr: Phenol-d6	40.5			20-120	%REC	1	7/26/2011 02:59

VOLATILES			Method: SW8260	Analyst: PC			
1,2-Dichloroethane	U		0.0010	0.0050	mg/L	1	7/27/2011 15:18
Benzene	U		0.0010	0.0050	mg/L	1	7/27/2011 15:18
Chlorobenzene	U		0.0010	0.0050	mg/L	1	7/27/2011 15:18
Ethylbenzene	U		0.0011	0.0050	mg/L	1	7/27/2011 15:18

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 29-Jul-11

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-FB07-20110722
Collection Date: 7/22/2011 11:00 AM

Work Order: 1107721
Lab ID: 1107721-11
Matrix: WATER

Analyses	Result	Qual	SDL	ML	Units	Dilution Factor	Date Analyzed
Methylene chloride	U		0.0013	0.010	mg/L	1	7/27/2011 15:18
Toluene	U		0.0010	0.0050	mg/L	1	7/27/2011 15:18
Vinyl chloride	U		0.0010	0.0020	mg/L	1	7/27/2011 15:18
Xylenes, Total	U		0.0031	0.015	mg/L	1	7/27/2011 15:18
Surr: 1,2-Dichloroethane-d4	97.7			70-125	%REC	1	7/27/2011 15:18
Surr: 4-Bromofluorobenzene	96.4			72-125	%REC	1	7/27/2011 15:18
Surr: Dibromofluoromethane	97.8			71-125	%REC	1	7/27/2011 15:18
Surr: Toluene-d8	91.6			75-125	%REC	1	7/27/2011 15:18

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 29-Jul-11

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-TB-20110722
Collection Date: 7/22/2011

Work Order: 1107721
Lab ID: 1107721-12
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
VOLATILES			Method: SW8260			Analyst: PC	
1,2-Dichloroethane	U		0.0010	0.0050	mg/L	1	7/27/2011 15:46
Benzene	U		0.0010	0.0050	mg/L	1	7/27/2011 15:46
Chlorobenzene	U		0.0010	0.0050	mg/L	1	7/27/2011 15:46
Ethylbenzene	U		0.0011	0.0050	mg/L	1	7/27/2011 15:46
Methylene chloride	U		0.0013	0.010	mg/L	1	7/27/2011 15:46
Toluene	U		0.0010	0.0050	mg/L	1	7/27/2011 15:46
Vinyl chloride	U		0.0010	0.0020	mg/L	1	7/27/2011 15:46
Xylenes, Total	U		0.0031	0.015	mg/L	1	7/27/2011 15:46
Surr: 1,2-Dichloroethane-d4	95.9			70-125	%REC	1	7/27/2011 15:46
Surr: 4-Bromofluorobenzene	108			72-125	%REC	1	7/27/2011 15:46
Surr: Dibromofluoromethane	103			71-125	%REC	1	7/27/2011 15:46
Surr: Toluene-d8	101			75-125	%REC	1	7/27/2011 15:46

Note: See Qualifiers Page for a list of qualifiers and their explanation.

WorkOrder: 1107721
 InstrumentID: SV-4
 Test Code: 8270_LOW_W
 Test Number: SW8270
 Test Name: Low-Level Semivolatiles

**METHOD DETECTION /
 REPORTING LIMITS**

Matrix: Aqueous Units: mg/L

Type	Analyte	CAS	DCS	MDL	Unadjusted MQL
A	1,2-Diphenylhydrazine	122-66-7	0.000057	0.000050	0.00020
A	2,4-Dimethylphenol	105-67-9	0.000015	0.000050	0.00020
A	2,4-Dinitrotoluene	121-14-2	0.000080	0.000050	0.00020
A	2,6-Dinitrotoluene	606-20-2	0.000073	0.000060	0.00020
A	2-Chloronaphthalene	91-58-7	0.000074	0.000050	0.00020
A	2-Methylnaphthalene	91-57-6	0.000088	0.000050	0.00020
A	4,6-Dinitro-2-methylphenol	534-52-1	0.00014	0.000080	0.00020
A	4-Nitrophenol	100-02-7	0.000011	0.000050	0.0010
A	Acenaphthene	83-32-9	0.000076	0.000050	0.00020
A	Acenaphthylene	208-96-8	0.000083	0.000050	0.00020
A	Anthracene	120-12-7	0.000068	0.000050	0.00020
A	Benz(a)anthracene	56-55-3	0.000075	0.000050	0.00020
A	Benzo(a)pyrene	50-32-8	0.000072	0.000050	0.00020
A	Bis(2-chloroethoxy)methane	111-91-1	0.000087	0.000050	0.00020
A	Bis(2-ethylhexyl)phthalate	117-81-7	0.000072	0.00010	0.00020
A	Chrysene	218-01-9	0.000078	0.000050	0.00020
A	Dibenzofuran	132-64-9	0.000082	0.000050	0.00020
A	Di-n-butyl phthalate	84-74-2	0.000094	0.000050	0.00020
A	Fluoranthene	206-44-0	0.000074	0.000050	0.00020
A	Fluorene	86-73-7	0.000091	0.000050	0.00020
A	Naphthalene	91-20-3	0.000082	0.000050	0.00020
A	Nitrobenzene	98-95-3	0.00011	0.000050	0.00020
A	N-Nitrosodiphenylamine	86-30-6	0.000067	0.000050	0.00020
A	Pentachlorophenol	87-86-5	0.000044	0.000050	0.00020
A	Phenanthrene	85-01-8	0.000098	0.000050	0.00020
A	Phenol	108-95-2	0.00010	0.000050	0.00020
A	Pyrene	129-00-0	0.000073	0.000050	0.00020
S	Surr: 2,4,6-Tribromophenol	118-79-6	0	0	0.00020
S	Surr: 2-Fluorobiphenyl	321-60-8	0	0	0.00020
S	Surr: 2-Fluorophenol	367-12-4	0	0	0.00020
S	Surr: 4-Terphenyl-d14	1718-51-0	0	0	0.00020
S	Surr: Nitrobenzene-d5	4165-60-0	0	0	0.00020
S	Surr: Phenol-d6	13127-88-3	0	0	0.00020

WorkOrder: 1107721
 InstrumentID: SV-6
 Test Code: 8270_LOW_W
 Test Number: SW8270
 Test Name: Low-Level Semivolatiles

**METHOD DETECTION /
 REPORTING LIMITS**

Matrix: Aqueous Units: mg/L

Type	Analyte	CAS	DCS	MDL	Unadjusted MQL
A	1,2-Diphenylhydrazine	122-66-7	0.000072	0.000050	0.00020
A	2,4-Dimethylphenol	105-67-9	0.000014	0.000050	0.00020
A	2,4-Dinitrotoluene	121-14-2	0.000060	0.000050	0.00020
A	2,6-Dinitrotoluene	606-20-2	0.000064	0.000060	0.00020
A	2-Chloronaphthalene	91-58-7	0.000070	0.000050	0.00020
A	2-Methylnaphthalene	91-57-6	0.000081	0.000050	0.00020
A	4,6-Dinitro-2-methylphenol	534-52-1	0.000046	0.000080	0.00020
A	4-Nitrophenol	100-02-7	0.000045	0.000050	0.0010
A	Acenaphthene	83-32-9	0.000077	0.000050	0.00020
A	Acenaphthylene	208-96-8	0.000075	0.000050	0.00020
A	Anthracene	120-12-7	0.000071	0.000050	0.00020
A	Benz(a)anthracene	56-55-3	0.000086	0.000050	0.00020
A	Benzo(a)pyrene	50-32-8	0.000073	0.000050	0.00020
A	Bis(2-chloroethoxy)methane	111-91-1	0.000076	0.000050	0.00020
A	Bis(2-ethylhexyl)phthalate	117-81-7	0.000093	0.00010	0.00020
A	Chrysene	218-01-9	0.000084	0.000050	0.00020
A	Dibenzofuran	132-64-9	0.000077	0.000050	0.00020
A	Di-n-butyl phthalate	84-74-2	0.000078	0.000050	0.00020
A	Fluoranthene	206-44-0	0.000076	0.000050	0.00020
A	Fluorene	86-73-7	0.000075	0.000050	0.00020
A	Naphthalene	91-20-3	0.000083	0.000050	0.00020
A	Nitrobenzene	98-95-3	0.000098	0.000050	0.00020
A	N-Nitrosodiphenylamine	86-30-6	0.000075	0.000050	0.00020
A	Pentachlorophenol	87-86-5	0.00018	0.000050	0.00020
A	Phenanthrene	85-01-8	0.000079	0.000050	0.00020
A	Phenol	108-95-2	0.000078	0.000050	0.00020
A	Pyrene	129-00-0	0.000077	0.000050	0.00020
S	Surr: 2,4,6-Tribromophenol	118-79-6	0	0	0.00020
S	Surr: 2-Fluorobiphenyl	321-60-8	0	0	0.00020
S	Surr: 2-Fluorophenol	367-12-4	0	0	0.00020
S	Surr: 4-Terphenyl-d14	1718-51-0	0	0	0.00020
S	Surr: Nitrobenzene-d5	4165-60-0	0	0	0.00020
S	Surr: Phenol-d6	13127-88-3	0	0	0.00020

WorkOrder: 1107721
InstrumentID: VOA1
Test Code: 8260_W
Test Number: SW8260
Test Name: Volatiles

**METHOD DETECTION /
 REPORTING LIMITS**

Matrix: Aqueous **Units:** mg/L

Type	Analyte	CAS	DCS	MDL	Unadjusted MQL
A	1,2-Dichloroethane	107-06-2	0.0020	0.0010	0.0050
A	Benzene	71-43-2	0.0021	0.0010	0.0050
A	Chlorobenzene	108-90-7	0.0020	0.0010	0.0050
A	Ethylbenzene	100-41-4	0.0020	0.0011	0.0050
A	Methylene chloride	75-09-2	0.0026	0.0013	0.010
A	Toluene	108-88-3	0.0020	0.0010	0.0050
A	Vinyl chloride	75-01-4	0.0016	0.0010	0.0020
M	Xylenes, Total	1330-20-7	0.0058	0.0031	0.015
S	Surr: 1,2-Dichloroethane-d4	17060-07-0	0	0	0.0050
S	Surr: 4-Bromofluorobenzene	460-00-4	0	0	0.0050
S	Surr: Dibromofluoromethane	1868-53-7	0	0	0.0050
S	Surr: Toluene-d8	2037-26-5	0	0	0.0050

WorkOrder: 1107721
InstrumentID: VOA7
Test Code: 8260_W
Test Number: SW8260
Test Name: Volatiles

**METHOD DETECTION /
 REPORTING LIMITS**

Matrix: Aqueous **Units:** mg/L

Type	Analyte	CAS	DCS	MDL	Unadjusted MQL
A	1,2-Dichloroethane	107-06-2	0.0014	0.0010	0.0050
A	Benzene	71-43-2	0.0015	0.0010	0.0050
A	Chlorobenzene	108-90-7	0.0014	0.0010	0.0050
A	Ethylbenzene	100-41-4	0.0014	0.0011	0.0050
A	Methylene chloride	75-09-2	0.0017	0.0013	0.010
A	Toluene	108-88-3	0.0015	0.0010	0.0050
A	Vinyl chloride	75-01-4	0.0014	0.0010	0.0020
M	Xylenes, Total	1330-20-7	0.0043	0.0031	0.015
S	Surr: 1,2-Dichloroethane-d4	17060-07-0	0	0	0.0050
S	Surr: 4-Bromofluorobenzene	460-00-4	0	0	0.0050
S	Surr: Dibromofluoromethane	1868-53-7	0	0	0.0050
S	Surr: Toluene-d8	2037-26-5	0	0	0.0050

ALS Environmental

Date: 29-Jul-11

Client: Pastor, Behling & Wheeler, LLC
Work Order: 1107721
Project: HWPW Site-Wide GW

QC BATCH REPORT

Batch ID: **54173** Instrument ID **SV-4** Method: **SW8270**

MBLK	Sample ID: SBLKW1-110724-54173					Units: µg/L	Analysis Date: 7/25/2011 04:09 PM			
Client ID:	Run ID: SV-4_110725A					SeqNo: 2474364	Prep Date: 7/24/2011	DF: 1		
Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Diphenylhydrazine	U	0.20								
2,4-Dimethylphenol	U	0.20								
2,4-Dinitrotoluene	U	0.20								
2,6-Dinitrotoluene	U	0.20								
2-Chloronaphthalene	U	0.20								
2-Methylnaphthalene	U	0.20								
4,6-Dinitro-2-methylphenol	U	0.20								
4-Nitrophenol	U	1.0								
Acenaphthene	U	0.20								
Acenaphthylene	U	0.20								
Anthracene	U	0.20								
Benz(a)anthracene	U	0.20								
Benzo(a)pyrene	U	0.20								
Bis(2-chloroethoxy)methane	U	0.20								
Bis(2-ethylhexyl)phthalate	U	0.20								
Chrysene	U	0.20								
Dibenzofuran	U	0.20								
Di-n-butyl phthalate	U	0.20								
Fluoranthene	U	0.20								
Fluorene	U	0.20								
Naphthalene	U	0.20								
Nitrobenzene	U	0.20								
N-Nitrosodiphenylamine	U	0.20								
Pentachlorophenol	U	0.20								
Phenanthrene	U	0.20								
Phenol	U	0.20								
Pyrene	U	0.20								
<i>Surr: 2,4,6-Tribromophenol</i>	3.239	0.20	5	0	64.8	34-129	0			
<i>Surr: 2-Fluorobiphenyl</i>	3.472	0.20	5	0	69.4	40-125	0			
<i>Surr: 2-Fluorophenol</i>	3.105	0.20	5	0	62.1	20-120	0			
<i>Surr: 4-Terphenyl-d14</i>	3.421	0.20	5	0	68.4	40-135	0			
<i>Surr: Nitrobenzene-d5</i>	3.452	0.20	5	0	69	41-120	0			
<i>Surr: Phenol-d6</i>	3.246	0.20	5	0	64.9	20-120	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Pastor, Behling & Wheeler, LLC
 Work Order: 1107721
 Project: HWPW Site-Wide GW

QC BATCH REPORT

Batch ID: 54173 Instrument ID SV-4 Method: SW8270

LCS		Sample ID: SLCSW1-110724-54173			Units: µg/L			Analysis Date: 7/25/2011 05:14 PM		
Client ID:		Run ID: SV-4_110725A			SeqNo: 2474366		Prep Date: 7/24/2011		DF: 1	
Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Diphenylhydrazine	3.206	0.20	5	0	64.1	39-127	0			
2,4-Dimethylphenol	2.821	0.20	5	0	56.4	35-120	0			
2,4-Dinitrotoluene	3.653	0.20	5	0	73.1	50-122	0			
2,6-Dinitrotoluene	3.365	0.20	5	0	67.3	50-120	0			
2-Chloronaphthalene	3.238	0.20	5	0	64.8	50-120	0			
2-Methylnaphthalene	4.011	0.20	5	0	80.2	50-120	0			
4,6-Dinitro-2-methylphenol	3.527	0.20	5	0	70.5	25-121	0			
4-Nitrophenol	3.729	1.0	5	0	74.6	30-130	0			
Acenaphthene	3.418	0.20	5	0	68.4	45-120	0			
Acenaphthylene	3.206	0.20	5	0	64.1	47-120	0			
Anthracene	3.304	0.20	5	0	66.1	45-120	0			
Benz(a)anthracene	3.633	0.20	5	0	72.7	40-120	0			
Benzo(a)pyrene	3.431	0.20	5	0	68.6	45-120	0			
Bis(2-chloroethoxy)methane	3.47	0.20	5	0	69.4	45-120	0			
Bis(2-ethylhexyl)phthalate	4.275	0.20	5	0	85.5	40-139	0			
Chrysene	3.371	0.20	5	0	67.4	43-120	0			
Dibenzofuran	3.373	0.20	5	0	67.5	50-120	0			
Di-n-butyl phthalate	3.324	0.20	5	0	66.5	45-123	0			
Fluoranthene	3.296	0.20	5	0	65.9	45-125	0			
Fluorene	3.354	0.20	5	0	67.1	49-120	0			
Naphthalene	3.401	0.20	5	0	68	45-120	0			
Nitrobenzene	3.329	0.20	5	0	66.6	44-120	0			
N-Nitrosodiphenylamine	3.356	0.20	5	0	67.1	40-125	0			
Pentachlorophenol	3.673	0.20	5	0	73.5	19-121	0			
Phenanthrene	3.378	0.20	5	0	67.6	45-121	0			
Phenol	3.731	0.20	5	0	74.6	20-124	0			
Pyrene	4.076	0.20	5	0	81.5	40-130	0			
Surr: 2,4,6-Tribromophenol	3.421	0.20	5	0	68.4	34-129	0			
Surr: 2-Fluorobiphenyl	3.363	0.20	5	0	67.3	40-125	0			
Surr: 2-Fluorophenol	3.308	0.20	5	0	66.2	20-120	0			
Surr: 4-Terphenyl-d14	3.857	0.20	5	0	77.1	40-135	0			
Surr: Nitrobenzene-d5	3.199	0.20	5	0	64	41-120	0			
Surr: Phenol-d6	3.612	0.20	5	0	72.2	20-120	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Pastor, Behling & Wheeler, LLC
 Work Order: 1107721
 Project: HWPW Site-Wide GW

QC BATCH REPORT

Batch ID: 54173 Instrument ID SV-4 Method: SW8270

LCSD	Sample ID: SLCS DW1-110724-54173	Units: µg/L					Analysis Date: 7/25/2011 04:54 PM				
Client ID:	Run ID: SV-4_110725A	SeqNo: 2474365			Prep Date: 7/24/2011		DF: 1				
Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
1,2-Diphenylhydrazine	3.516	0.20	5	0	70.3	39-127	3.206	9.23	20		
2,4-Dimethylphenol	2.929	0.20	5	0	58.6	35-120	2.821	3.73	20		
2,4-Dinitrotoluene	3.716	0.20	5	0	74.3	50-122	3.653	1.72	20		
2,6-Dinitrotoluene	3.38	0.20	5	0	67.6	50-120	3.365	0.445	20		
2-Chloronaphthalene	3.909	0.20	5	0	78.2	50-120	3.238	18.8	20		
2-Methylnaphthalene	3.682	0.20	5	0	73.6	50-120	4.011	8.57	20		
4,6-Dinitro-2-methylphenol	3.745	0.20	5	0	74.9	25-121	3.527	6	20		
4-Nitrophenol	3.678	1.0	5	0	73.6	30-130	3.729	1.38	20		
Acenaphthene	3.268	0.20	5	0	65.4	45-120	3.418	4.48	20		
Acenaphthylene	3.342	0.20	5	0	66.8	47-120	3.206	4.15	20		
Anthracene	3.571	0.20	5	0	71.4	45-120	3.304	7.77	20		
Benz(a)anthracene	3.474	0.20	5	0	69.5	40-120	3.633	4.47	20		
Benzo(a)pyrene	3.551	0.20	5	0	71	45-120	3.431	3.42	20		
Bis(2-chloroethoxy)methane	3.629	0.20	5	0	72.6	45-120	3.47	4.49	20		
Bis(2-ethylhexyl)phthalate	3.65	0.20	5	0	73	40-139	4.275	15.8	20		
Chrysene	3.569	0.20	5	0	71.4	43-120	3.371	5.69	20		
Dibenzofuran	3.43	0.20	5	0	68.6	50-120	3.373	1.67	20		
Di-n-butyl phthalate	3.543	0.20	5	0	70.9	45-123	3.324	6.39	20		
Fluoranthene	3.528	0.20	5	0	70.6	45-125	3.296	6.79	20		
Fluorene	3.486	0.20	5	0	69.7	49-120	3.354	3.87	20		
Naphthalene	3.448	0.20	5	0	69	45-120	3.401	1.36	20		
Nitrobenzene	3.566	0.20	5	0	71.3	44-120	3.329	6.86	20		
N-Nitrosodiphenylamine	3.45	0.20	5	0	69	40-125	3.356	2.75	20		
Pentachlorophenol	3.783	0.20	5	0	75.7	19-121	3.673	2.94	20		
Phenanthrene	3.644	0.20	5	0	72.9	45-121	3.378	7.58	20		
Phenol	3.46	0.20	5	0	69.2	20-124	3.731	7.56	20		
Pyrene	3.964	0.20	5	0	79.3	40-130	4.076	2.79	20		
Surr: 2,4,6-Tribromophenol	3.429	0.20	5	0	68.6	34-129	3.421	0.25	0		
Surr: 2-Fluorobiphenyl	3.388	0.20	5	0	67.8	40-125	3.363	0.74	0		
Surr: 2-Fluorophenol	3.153	0.20	5	0	63.1	20-120	3.308	4.78	0		
Surr: 4-Terphenyl-d14	3.761	0.20	5	0	75.2	40-135	3.857	2.53	0		
Surr: Nitrobenzene-d5	3.474	0.20	5	0	69.5	41-120	3.199	8.25	0		
Surr: Phenol-d6	3.372	0.20	5	0	67.4	20-120	3.612	6.85	0		

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Pastor, Behling & Wheeler, LLC
Work Order: 1107721
Project: HWPW Site-Wide GW

QC BATCH REPORT

Batch ID: **54173** Instrument ID **SV-4** Method: **SW8270**

MS		Sample ID: 1107721-04BMS			Units: µg/L			Analysis Date: 7/25/2011 06:55 PM		
Client ID: WG-1620-MW61A-20110721		Run ID: SV-4_110725A			SeqNo: 2474370		Prep Date: 7/24/2011		DF: 1	
Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Diphenylhydrazine	2.668	0.20	5	0	53.4	39-127	0			
2,4-Dimethylphenol	2.66	0.20	5	0	53.2	35-120	0			
2,4-Dinitrotoluene	3.151	0.20	5	0	63	50-122	0			
2,6-Dinitrotoluene	2.629	0.20	5	0	52.6	50-120	0			
2-Chloronaphthalene	2.533	0.20	5	0	50.7	50-120	0			
2-Methylnaphthalene	2.945	0.20	5	0	58.9	50-120	0			
4,6-Dinitro-2-methylphenol	3.035	0.20	5	0	60.7	25-121	0			
4-Nitrophenol	2.622	1.0	5	0	52.4	30-130	0			
Acenaphthene	2.494	0.20	5	0	49.9	45-120	0			
Acenaphthylene	2.591	0.20	5	0	51.8	47-120	0			
Anthracene	3.041	0.20	5	0	60.8	45-120	0			
Benz(a)anthracene	3.387	0.20	5	0	67.7	40-120	0			
Benzo(a)pyrene	3.309	0.20	5	0	66.2	45-120	0			
Bis(2-chloroethoxy)methane	2.861	0.20	5	0	57.2	45-120	0			
Bis(2-ethylhexyl)phthalate	5.186	0.20	5	0.226	99.2	40-139	0			
Chrysene	3.466	0.20	5	0	69.3	43-120	0			
Dibenzofuran	2.744	0.20	5	0	54.9	50-120	0			
Di-n-butyl phthalate	3.365	0.20	5	0	67.3	45-123	0			
Fluoranthene	3.032	0.20	5	0	60.6	45-125	0			
Fluorene	2.903	0.20	5	0	58.1	49-120	0			
Naphthalene	2.909	0.20	5	0	58.2	45-120	0			
Nitrobenzene	2.951	0.20	5	0	59	44-120	0			
N-Nitrosodiphenylamine	2.943	0.20	5	0	58.9	40-125	0			
Pentachlorophenol	3.34	0.20	5	0	66.8	19-121	0			
Phenanthrene	3.264	0.20	5	0	65.3	45-121	0			
Phenol	2.731	0.20	5	0	54.6	20-124	0			
Pyrene	3.89	0.20	5	0	77.8	40-130	0			
<i>Surr: 2,4,6-Tribromophenol</i>	2.907	0.20	5	0	58.1	34-129	0			
<i>Surr: 2-Fluorobiphenyl</i>	2.33	0.20	5	0	46.6	40-125	0			
<i>Surr: 2-Fluorophenol</i>	2.083	0.20	5	0	41.7	20-120	0			
<i>Surr: 4-Terphenyl-d14</i>	3.96	0.20	5	0	79.2	40-135	0			
<i>Surr: Nitrobenzene-d5</i>	2.757	0.20	5	0	55.1	41-120	0			
<i>Surr: Phenol-d6</i>	2.459	0.20	5	0	49.2	20-120	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Pastor, Behling & Wheeler, LLC
 Work Order: 1107721
 Project: HWPW Site-Wide GW

QC BATCH REPORT

Batch ID: 54173 Instrument ID SV-4 Method: SW8270

MSD	Sample ID: 1107721-04BMSD	Units: µg/L					Analysis Date: 7/25/2011 07:16 PM				
Client ID: WG-1620-MW61A-20110721	Run ID: SV-4_110725A	SeqNo: 2474371	Prep Date: 7/24/2011	DF: 1							
Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
1,2-Diphenylhydrazine	2.935	0.20	5	0	58.7	39-127	2.668	9.55	20		
2,4-Dimethylphenol	2.39	0.20	5	0	47.8	35-120	2.66	10.7	20		
2,4-Dinitrotoluene	3.014	0.20	5	0	60.3	50-122	3.151	4.44	20		
2,6-Dinitrotoluene	2.598	0.20	5	0	52	50-120	2.629	1.19	20		
2-Chloronaphthalene	2.818	0.20	5	0	56.4	50-120	2.533	10.6	20		
2-Methylnaphthalene	2.564	0.20	5	0	51.3	50-120	2.945	13.9	20		
4,6-Dinitro-2-methylphenol	3.281	0.20	5	0	65.6	25-121	3.035	7.78	20		
4-Nitrophenol	2.5	1.0	5	0	50	30-130	2.622	4.77	20		
Acenaphthene	2.519	0.20	5	0	50.4	45-120	2.494	0.963	20		
Acenaphthylene	2.518	0.20	5	0	50.4	47-120	2.591	2.87	20		
Anthracene	3.235	0.20	5	0	64.7	45-120	3.041	6.17	20		
Benz(a)anthracene	3.417	0.20	5	0	68.3	40-120	3.387	0.89	20		
Benzo(a)pyrene	3.117	0.20	5	0	62.3	45-120	3.309	5.98	20		
Bis(2-chloroethoxy)methane	2.666	0.20	5	0	53.3	45-120	2.861	7.05	20		
Bis(2-ethylhexyl)phthalate	4.315	0.20	5	0.226	81.8	40-139	5.186	18.3	20		
Chrysene	3.354	0.20	5	0	67.1	43-120	3.466	3.27	20		
Dibenzofuran	2.675	0.20	5	0	53.5	50-120	2.744	2.55	20		
Di-n-butyl phthalate	3.169	0.20	5	0	63.4	45-123	3.365	5.98	20		
Fluoranthene	3.422	0.20	5	0	68.4	45-125	3.032	12.1	20		
Fluorene	2.692	0.20	5	0	53.8	49-120	2.903	7.54	20		
Naphthalene	2.626	0.20	5	0	52.5	45-120	2.909	10.2	20		
Nitrobenzene	2.674	0.20	5	0	53.5	44-120	2.951	9.86	20		
N-Nitrosodiphenylamine	3.21	0.20	5	0	64.2	40-125	2.943	8.67	20		
Pentachlorophenol	3.455	0.20	5	0	69.1	19-121	3.34	3.4	20		
Phenanthrene	3.2	0.20	5	0	64	45-121	3.264	1.98	20		
Phenol	2.658	0.20	5	0	53.2	20-124	2.731	2.71	20		
Pyrene	3.366	0.20	5	0	67.3	40-130	3.89	14.4	20		
Surr: 2,4,6-Tribromophenol	2.787	0.20	5	0	55.7	34-129	2.907	4.23	0		
Surr: 2-Fluorobiphenyl	2.561	0.20	5	0	51.2	40-125	2.33	9.41	0		
Surr: 2-Fluorophenol	2.08	0.20	5	0	41.6	20-120	2.083	0.123	0		
Surr: 4-Terphenyl-d14	2.616	0.20	5	0	52.3	40-135	3.96	40.9	0		
Surr: Nitrobenzene-d5	2.56	0.20	5	0	51.2	41-120	2.757	7.42	0		
Surr: Phenol-d6	2.365	0.20	5	0	47.3	20-120	2.459	3.9	0		

The following samples were analyzed in this batch:

1107721-01B	1107721-02B	1107721-03B
1107721-04B	1107721-05B	1107721-06B
1107721-07B	1107721-08B	1107721-09B
1107721-10B	1107721-11B	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Pastor, Behling & Wheeler, LLC
 Work Order: 1107721
 Project: HWPW Site-Wide GW

QC BATCH REPORT

Batch ID: R113636 Instrument ID VOA1 Method: SW8260

MBLK Sample ID: VBLKW-072711-R113636 Units: µg/L Analysis Date: 7/27/2011 11:07 AM

Client ID: Run ID: VOA1_110727A SeqNo: 2473560 Prep Date: DF: 1

Analyte	Result	MLQ	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Dichloroethane	U	5.0								
Benzene	U	5.0								
Chlorobenzene	U	5.0								
Ethylbenzene	U	5.0								
Methylene chloride	U	10								
Toluene	U	5.0								
Vinyl chloride	U	2.0								
Xylenes, Total	U	15								
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>47.19</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>94.4</i>	<i>70-125</i>	<i>0</i>			
<i>Surr: 4-Bromofluorobenzene</i>	<i>48.53</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>97.1</i>	<i>72-125</i>	<i>0</i>			
<i>Surr: Dibromofluoromethane</i>	<i>49.13</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>98.3</i>	<i>71-125</i>	<i>0</i>			
<i>Surr: Toluene-d8</i>	<i>46.84</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>93.7</i>	<i>75-125</i>	<i>0</i>			

LCS Sample ID: VLCSW-072711-R113636 Units: µg/L Analysis Date: 7/27/2011 10:12 AM

Client ID: Run ID: VOA1_110727A SeqNo: 2473559 Prep Date: DF: 1

Analyte	Result	MLQ	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Dichloroethane	52.34	5.0	50	0	105	78-120	0			
Benzene	52.39	5.0	50	0	105	73-121	0			
Chlorobenzene	50.61	5.0	50	0	101	80-120	0			
Ethylbenzene	53.95	5.0	50	0	108	80-120	0			
Methylene chloride	54.82	10	50	0	110	65-133	0			
Toluene	47.6	5.0	50	0	95.2	80-120	0			
Vinyl chloride	49.21	2.0	50	0	98.4	70-127	0			
Xylenes, Total	157.1	15	150	0	105	80-120	0			
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>44.98</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>90</i>	<i>70-125</i>	<i>0</i>			
<i>Surr: 4-Bromofluorobenzene</i>	<i>52.72</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>105</i>	<i>72-125</i>	<i>0</i>			
<i>Surr: Dibromofluoromethane</i>	<i>49.53</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>99.1</i>	<i>71-125</i>	<i>0</i>			
<i>Surr: Toluene-d8</i>	<i>50.11</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>100</i>	<i>75-125</i>	<i>0</i>			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Pastor, Behling & Wheeler, LLC
 Work Order: 1107721
 Project: HWPW Site-Wide GW

QC BATCH REPORT

Batch ID: R113636 Instrument ID VOA1 Method: SW8260

MS		Sample ID: 1107677-07AMS			Units: µg/L			Analysis Date: 7/27/2011 12:30 PM		
Client ID:		Run ID: VOA1_110727A			SeqNo: 2473562		Prep Date:		DF: 1	
Analyte	Result	ML	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Dichloroethane	51.78	5.0	50	0	104	78-120	0			
Benzene	51.66	5.0	50	0	103	73-121	0			
Chlorobenzene	47.93	5.0	50	0	95.9	80-120	0			
Ethylbenzene	46.39	5.0	50	0	92.8	80-120	0			
Methylene chloride	57.55	10	50	0	115	65-133	0			
Toluene	47.19	5.0	50	0	94.4	80-120	0			
Vinyl chloride	43.97	2.0	50	0	87.9	70-127	0			
Xylenes, Total	134.6	15	150	0	89.7	80-120	0			
<i>Surr: 1,2-Dichloroethane-d4</i>	47.39	5.0	50	0	94.8	70-125	0			
<i>Surr: 4-Bromofluorobenzene</i>	48.23	5.0	50	0	96.5	72-125	0			
<i>Surr: Dibromofluoromethane</i>	51.67	5.0	50	0	103	71-125	0			
<i>Surr: Toluene-d8</i>	42.85	5.0	50	0	85.7	75-125	0			

MSD		Sample ID: 1107677-07AMSD			Units: µg/L			Analysis Date: 7/27/2011 12:58 PM		
Client ID:		Run ID: VOA1_110727A			SeqNo: 2473563		Prep Date:		DF: 1	
Analyte	Result	ML	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Dichloroethane	52.82	5.0	50	0	106	78-120	51.78	1.98	20	
Benzene	50.04	5.0	50	0	100	73-121	51.66	3.18	20	
Chlorobenzene	44.87	5.0	50	0	89.7	80-120	47.93	6.6	20	
Ethylbenzene	42.6	5.0	50	0	85.2	80-120	46.39	8.51	20	
Methylene chloride	58.63	10	50	0	117	65-133	57.55	1.86	20	
Toluene	46.19	5.0	50	0	92.4	80-120	47.19	2.14	20	
Vinyl chloride	45.18	2.0	50	0	90.4	70-127	43.97	2.7	20	
Xylenes, Total	131.2	15	150	0	87.4	80-120	134.6	2.57	20	
<i>Surr: 1,2-Dichloroethane-d4</i>	49.36	5.0	50	0	98.7	70-125	47.39	4.07	20	
<i>Surr: 4-Bromofluorobenzene</i>	47.92	5.0	50	0	95.8	72-125	48.23	0.652	20	
<i>Surr: Dibromofluoromethane</i>	52.01	5.0	50	0	104	71-125	51.67	0.65	20	
<i>Surr: Toluene-d8</i>	46	5.0	50	0	92	75-125	42.85	7.09	20	

The following samples were analyzed in this batch:

1107721-01A	1107721-02A	1107721-03A
1107721-05A	1107721-06A	1107721-11A
1107721-12A		

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Pastor, Behling & Wheeler, LLC
Work Order: 1107721
Project: HWPW Site-Wide GW

QC BATCH REPORT

Batch ID: **R113694** Instrument ID **VOA7** Method: **SW8260**

MBLK		Sample ID: VBLKW-072711-R113694			Units: µg/L			Analysis Date: 7/27/2011 10:48 AM		
Client ID:		Run ID: VOA7_110727A			SeqNo: 2475167		Prep Date:		DF: 1	
Analyte	Result	ML	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Dichloroethane	U	5.0								
Benzene	U	5.0								
Chlorobenzene	U	5.0								
Ethylbenzene	U	5.0								
Methylene chloride	U	10								
Toluene	U	5.0								
Vinyl chloride	U	2.0								
Xylenes, Total	U	15								
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>49.8</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>99.6</i>	<i>70-125</i>	<i>0</i>			
<i>Surr: 4-Bromofluorobenzene</i>	<i>51</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>102</i>	<i>72-125</i>	<i>0</i>			
<i>Surr: Dibromofluoromethane</i>	<i>49.45</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>98.9</i>	<i>71-125</i>	<i>0</i>			
<i>Surr: Toluene-d8</i>	<i>50.24</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>100</i>	<i>75-125</i>	<i>0</i>			

LCS		Sample ID: VLCSW-072711-R113694			Units: µg/L			Analysis Date: 7/27/2011 09:57 AM		
Client ID:		Run ID: VOA7_110727A			SeqNo: 2475166		Prep Date:		DF: 1	
Analyte	Result	ML	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Dichloroethane	45.23	5.0	50	0	90.5	78-120	0			
Benzene	44.37	5.0	50	0	88.7	73-121	0			
Chlorobenzene	44.26	5.0	50	0	88.5	80-120	0			
Ethylbenzene	45.76	5.0	50	0	91.5	80-120	0			
Methylene chloride	42.02	10	50	0	84	65-133	0			
Toluene	45.33	5.0	50	0	90.7	80-120	0			
Vinyl chloride	50.78	2.0	50	0	102	70-127	0			
Xylenes, Total	135.5	15	150	0	90.3	80-120	0			
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>48.94</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>97.9</i>	<i>70-125</i>	<i>0</i>			
<i>Surr: 4-Bromofluorobenzene</i>	<i>51.14</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>102</i>	<i>72-125</i>	<i>0</i>			
<i>Surr: Dibromofluoromethane</i>	<i>48.98</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>98</i>	<i>71-125</i>	<i>0</i>			
<i>Surr: Toluene-d8</i>	<i>49.89</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>99.8</i>	<i>75-125</i>	<i>0</i>			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Pastor, Behling & Wheeler, LLC
 Work Order: 1107721
 Project: HWPW Site-Wide GW

QC BATCH REPORT

Batch ID: R113694 Instrument ID VOA7 Method: SW8260

MS		Sample ID: 1107721-04AMS			Units: µg/L			Analysis Date: 7/27/2011 02:12 PM		
Client ID: WG-1620-MW61A-20110721		Run ID: VOA7_110727A			SeqNo: 2475175		Prep Date:		DF: 1	
Analyte	Result	ML	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Dichloroethane	49.75	5.0	50	0	99.5	78-120	0			
Benzene	47.64	5.0	50	0	95.3	73-121	0			
Chlorobenzene	48.73	5.0	50	0	97.5	80-120	0			
Ethylbenzene	49.5	5.0	50	0	99	80-120	0			
Methylene chloride	44.68	10	50	0	89.4	65-133	0			
Toluene	48.74	5.0	50	0	97.5	80-120	0			
Vinyl chloride	55.93	2.0	50	0	112	70-127	0			
Xylenes, Total	145.1	15	150	0	96.7	80-120	0			
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>47.94</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>95.9</i>	<i>70-125</i>	<i>0</i>			
<i>Surr: 4-Bromofluorobenzene</i>	<i>51.12</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>102</i>	<i>72-125</i>	<i>0</i>			
<i>Surr: Dibromofluoromethane</i>	<i>47.87</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>95.7</i>	<i>71-125</i>	<i>0</i>			
<i>Surr: Toluene-d8</i>	<i>50.37</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>101</i>	<i>75-125</i>	<i>0</i>			

MSD		Sample ID: 1107721-04AMSD			Units: µg/L			Analysis Date: 7/27/2011 02:38 PM		
Client ID: WG-1620-MW61A-20110721		Run ID: VOA7_110727A			SeqNo: 2475176		Prep Date:		DF: 1	
Analyte	Result	ML	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Dichloroethane	56.9	5.0	50	0	114	78-120	49.75	13.4	20	
Benzene	54.75	5.0	50	0	110	73-121	47.64	13.9	20	
Chlorobenzene	54.2	5.0	50	0	108	80-120	48.73	10.6	20	
Ethylbenzene	53.39	5.0	50	0	107	80-120	49.5	7.56	20	
Methylene chloride	52.7	10	50	0	105	65-133	44.68	16.5	20	
Toluene	54.27	5.0	50	0	109	80-120	48.74	10.7	20	
Vinyl chloride	57.95	2.0	50	0	116	70-127	55.93	3.55	20	
Xylenes, Total	157.4	15	150	0	105	80-120	145.1	8.15	20	
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>49.41</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>98.8</i>	<i>70-125</i>	<i>47.94</i>	<i>3.02</i>	<i>20</i>	
<i>Surr: 4-Bromofluorobenzene</i>	<i>49.52</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>99</i>	<i>72-125</i>	<i>51.12</i>	<i>3.19</i>	<i>20</i>	
<i>Surr: Dibromofluoromethane</i>	<i>49.1</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>98.2</i>	<i>71-125</i>	<i>47.87</i>	<i>2.53</i>	<i>20</i>	
<i>Surr: Toluene-d8</i>	<i>50.26</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>101</i>	<i>75-125</i>	<i>50.37</i>	<i>0.231</i>	<i>20</i>	

The following samples were analyzed in this batch:

1107721-04A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Pastor, Behling & Wheeler, LLC

Work Order: 1107721

Project: HWPW Site-Wide GW

QC BATCH REPORT

Batch ID: R113771

Instrument ID VOA7

Method: SW8260

MBLK		Sample ID: VBLKW-072811-R113771			Units: µg/L			Analysis Date: 7/28/2011 12:04 PM		
Client ID:		Run ID: VOA7_110728C			SeqNo: 2476941		Prep Date:		DF: 1	
Analyte	Result	ML	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Dichloroethane	U	5.0								
Benzene	U	5.0								
Chlorobenzene	U	5.0								
Ethylbenzene	U	5.0								
Methylene chloride	U	10								
Toluene	U	5.0								
Vinyl chloride	U	2.0								
Xylenes, Total	U	15								
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>48.28</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>96.6</i>	<i>70-125</i>	<i>0</i>			
<i>Surr: 4-Bromofluorobenzene</i>	<i>51.22</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>102</i>	<i>72-125</i>	<i>0</i>			
<i>Surr: Dibromofluoromethane</i>	<i>47.56</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>95.1</i>	<i>71-125</i>	<i>0</i>			
<i>Surr: Toluene-d8</i>	<i>49.72</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>99.4</i>	<i>75-125</i>	<i>0</i>			

LCS		Sample ID: VLCSW-072811-R113771			Units: µg/L			Analysis Date: 7/28/2011 11:13 AM		
Client ID:		Run ID: VOA7_110728C			SeqNo: 2476940		Prep Date:		DF: 1	
Analyte	Result	ML	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Dichloroethane	46.5	5.0	50	0	93	78-120	0			
Benzene	44.42	5.0	50	0	88.8	73-121	0			
Chlorobenzene	46.03	5.0	50	0	92.1	80-120	0			
Ethylbenzene	46.1	5.0	50	0	92.2	80-120	0			
Methylene chloride	44.25	10	50	0	88.5	65-133	0			
Toluene	45.63	5.0	50	0	91.3	80-120	0			
Vinyl chloride	49.75	2.0	50	0	99.5	70-127	0			
Xylenes, Total	134.5	15	150	0	89.6	80-120	0			
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>48.16</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>96.3</i>	<i>70-125</i>	<i>0</i>			
<i>Surr: 4-Bromofluorobenzene</i>	<i>51.7</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>103</i>	<i>72-125</i>	<i>0</i>			
<i>Surr: Dibromofluoromethane</i>	<i>47.9</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>95.8</i>	<i>71-125</i>	<i>0</i>			
<i>Surr: Toluene-d8</i>	<i>50.67</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>101</i>	<i>75-125</i>	<i>0</i>			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Pastor, Behling & Wheeler, LLC
 Work Order: 1107721
 Project: HWPW Site-Wide GW

QC BATCH REPORT

Batch ID: R113771 Instrument ID VOA7 Method: SW8260

MS				Sample ID: 1107769-01ZMS		Units: µg/L		Analysis Date: 7/28/2011 01:20 PM		
Client ID:				Run ID: VOA7_110728C		SeqNo: 2476943		Prep Date:		DF: 20
Analyte	Result	ML	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Dichloroethane	1092	100	1000	0	109	78-120	0			
Benzene	1041	100	1000	47.38	99.3	73-121	0			
Chlorobenzene	1031	100	1000	0	103	80-120	0			
Ethylbenzene	980.3	100	1000	15.37	96.5	80-120	0			
Methylene chloride	933.7	200	1000	26.64	90.7	65-133	0			
Toluene	1037	100	1000	54.72	98.3	80-120	0			
Vinyl chloride	1041	40	1000	0	104	70-127	0			
Xylenes, Total	2975	300	3000	27.25	98.2	80-120	0			
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>990.3</i>	<i>100</i>	<i>1000</i>	<i>0</i>	<i>99</i>	<i>70-125</i>	<i>0</i>			
<i>Surr: 4-Bromofluorobenzene</i>	<i>1022</i>	<i>100</i>	<i>1000</i>	<i>0</i>	<i>102</i>	<i>72-125</i>	<i>0</i>			
<i>Surr: Dibromofluoromethane</i>	<i>990.6</i>	<i>100</i>	<i>1000</i>	<i>0</i>	<i>99.1</i>	<i>71-125</i>	<i>0</i>			
<i>Surr: Toluene-d8</i>	<i>1010</i>	<i>100</i>	<i>1000</i>	<i>0</i>	<i>101</i>	<i>75-125</i>	<i>0</i>			

MSD				Sample ID: 1107769-01ZMSD		Units: µg/L		Analysis Date: 7/28/2011 01:46 PM		
Client ID:				Run ID: VOA7_110728C		SeqNo: 2476944		Prep Date:		DF: 20
Analyte	Result	ML	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Dichloroethane	1147	100	1000	0	115	78-120	1092	4.88	20	
Benzene	1092	100	1000	47.38	104	73-121	1041	4.78	20	
Chlorobenzene	1076	100	1000	0	108	80-120	1031	4.31	20	
Ethylbenzene	1036	100	1000	15.37	102	80-120	980.3	5.49	20	
Methylene chloride	1046	200	1000	26.64	102	65-133	933.7	11.3	20	
Toluene	1094	100	1000	54.72	104	80-120	1037	5.29	20	
Vinyl chloride	1025	40	1000	0	103	70-127	1041	1.47	20	
Xylenes, Total	3120	300	3000	27.25	103	80-120	2975	4.78	20	
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>969.1</i>	<i>100</i>	<i>1000</i>	<i>0</i>	<i>96.9</i>	<i>70-125</i>	<i>990.3</i>	<i>2.16</i>	<i>20</i>	
<i>Surr: 4-Bromofluorobenzene</i>	<i>1020</i>	<i>100</i>	<i>1000</i>	<i>0</i>	<i>102</i>	<i>72-125</i>	<i>1022</i>	<i>0.133</i>	<i>20</i>	
<i>Surr: Dibromofluoromethane</i>	<i>970.2</i>	<i>100</i>	<i>1000</i>	<i>0</i>	<i>97</i>	<i>71-125</i>	<i>990.6</i>	<i>2.08</i>	<i>20</i>	
<i>Surr: Toluene-d8</i>	<i>1013</i>	<i>100</i>	<i>1000</i>	<i>0</i>	<i>101</i>	<i>75-125</i>	<i>1010</i>	<i>0.275</i>	<i>20</i>	

The following samples were analyzed in this batch:

1107721-07A	1107721-08A	1107721-09A
1107721-10A		

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

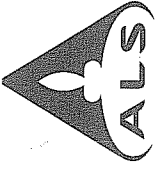
Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
WorkOrder: 1107721

**QUALIFIERS,
ACRONYMS, UNITS**

<u>Qualifier</u>	<u>Description</u>
*	Value exceeds Regulatory Limit
a	Not accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
J	Analyte detected below quantitation limit
M	Manually integrated, see raw data for justification
n	Not offered for accreditation
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL

<u>Acronym</u>	<u>Description</u>
DCS	Detectability Check Study
DUP	Method Duplicate
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
MBLK	Method Blank
MDL	Method Detection Limit
MQL	Method Quantitation Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PDS	Post Digestion Spike
PQL	Practical Quantitation Limit
SD	Serial Dilution
SDL	Sample Detection Limit
TRRP	Texas Risk Reduction Program

<u>Units Reported</u>	<u>Description</u>
mg/L	Milligrams per Liter



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 Houston, Texas 77099
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Chain of Custody Form

Page 1 of 2

COC ID: **26879**

ALS Environmental
 3352 128th Ave.
 Holland, MI 49424-9263
 Tel: +1 616 399 6070
 Fax: +1 616 399 6185

Customer Information				Project Information				ALS Project Manager:				ALS Work Order #:					
Purchase Order	Project Name	UPRR Houston Wood GW	Parameter/Method Request for Analysis	A	VOC (8260) Select												
Work Order	Project Number	1129-03		B	LL SVOC (8270) Select												
Company Name	Bill To Company	Union Pacific Railroad		C	VINYL CHLORIDE												
Send Report To	Invoice Attn			D													
Address	Address	1400 Douglas Street Stop 0750		E													
City/State/Zip	City/State/Zip	Omaha, NE 681790750		F													
Phone	Phone			G													
Fax	Fax			H													
e-Mail Address	e-Mail Address			I													
				J													
No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	WG-1620-MW24C-20110721	7-21-11	1345	W		5	X	X									
2	WG-1620-MW68C-20110721		1300	W		5	X	X									
3	WG-1620-MW69A-20110721		1445	W		5	X	X	X								
4	WG-1620-MW61A-20110721		1600	W		5	X	X	X								
5	WG-1620-MW61AMS-20110721		1600	W		5	X	X	X								
6	WG-1620-MW47C-20110721		1600	W		5	X	X	X								
7	WG-1620-FBOL-20110721		1700	W		5	X	X									
8	WG-1620-MW49A-20110722		1715	W		5	X	X									
9	WG-1620-MW49B-20110722		0720	W		5	X	X									
10	WG-1620-MW49B-20110722		0815	W		5	X	X									

Sampler(s) Please Print & Sign: JOHN BRAYTON John Brayton
 Relinquished by: John Brayton Date: 7-22-11
 Relinquished by: John Brayton Date: 7-22-11
 Logged by (Laboratory): _____ Date: _____
 Preservative Key: 1-HCl 2-HNO₃ 3-H₂SO₄ 4-NaOH 5-Na₂S₂O₃ 6-NaHSO₄ 7-Other 8-4°C 9-5035

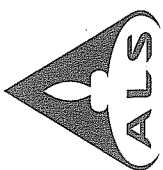
Required Turnaround Time: (Check Box)
 Std 10 WK Days 5 WK Days 2 WK Days 24 Hour
 Other

Notes: 10 Day TAT

QC Package: (Check One Box Below)
 Level II Std QC TRRP Checklist
 Level III Std QC/Raw Data TRRP Level IV
 Level IV SW846/CLP Other / EDD

Note: 1. Any changes must be made in writing once samples and COC Form have been submitted to ALS Environmental.
 2. Unless otherwise agreed in a formal contract, services provided by ALS Environmental are expressly limited to the terms and conditions stated on the reverse.
 3. The Chain of Custody is a legal document. All information must be completed accurately.

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ALS Environmental
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 Houston, Texas 77099
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Chain of Custody Form
 Page 2 of 2
 COC ID: 26877

ALS Environmental
 3352 128th Ave.
 Holland, MI 49424-9263
 Tel: +1 616 399 6070
 Fax: +1 616 399 6185

Customer Information				Project Information				ALS Work Order #:											
Project Information				Parameter/Method Request for Analysis															
Purchase Order	Project Name	JPRR Houston Wood GW	A	VOC (8260) Select															
Work Order	Project Number	1129-03	B	LL SVOC (8270) Select															
Company Name	Bill To Company	Union Pacific Railroad	C	VINYL CHLORIDE															
Send Report To	Invoice Attn		D																
Address	Address	1400 Douglas Street Stop 0750	E																
City/State/Zip	City/State/Zip	Omaha, NE 681790750	G																
Phone	Phone	(512) 671-3434	H																
Fax	Fax	(512) 671-3446	I																
e-Mail Address	e-Mail Address		J																
No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold		
1	WG-1620 - MW57A-20110722	7-22-11	0925	W		5	X	X	X										
2	WG-1620 - MW23C-20110722	7-22-11	1040	W		5	X	X	X										
3	WG-1620 - FB07-20110722	7-22-11	1100	W		5	X	X	X										
4	WG-1620 - TB-20110722			W		2	X												
5																			
6																			
7																			
8																			
9																			
10																			
Sampler(s) Please Print & Sign		Shipment Method		Required Turnaround Time: (Check Box)		Results Due Date:													
DHW BRAYDEN		Hand DELIVERED		<input checked="" type="checkbox"/> Std. 10 WK. Days <input type="checkbox"/> 5 WK. Days <input type="checkbox"/> 2 WK. Days <input type="checkbox"/> 24 Hour <input type="checkbox"/> Other															
Relinquished by:	Date:	Time:	Received by (Laboratory):		Required Turnaround Time:		Notes:												
Relinquished by:	Date:	Time:	Received by (Laboratory):		Required Turnaround Time:		10 Day TAT												
Relinquished by:	Date:	Time:	Checked by (Laboratory):		Required Turnaround Time:		Cooler ID												
Relinquished by:	Date:	Time:	Checked by (Laboratory):		Required Turnaround Time:		Cooler Temp.												
Relinquished by:	Date:	Time:	Checked by (Laboratory):		Required Turnaround Time:		QC Package: (Check One Box Below)												
Relinquished by:	Date:	Time:	Checked by (Laboratory):		Required Turnaround Time:		<input type="checkbox"/> Level II Std. QC <input type="checkbox"/> Level III Std. QC/Raw Data <input type="checkbox"/> Level IV SW846/CLP <input type="checkbox"/> Other / EDD												
Relinquished by:	Date:	Time:	Checked by (Laboratory):		Required Turnaround Time:		<input type="checkbox"/> TRRP Checklist <input type="checkbox"/> TRRP Level IV												
Relinquished by:	Date:	Time:	Checked by (Laboratory):		Required Turnaround Time:		Preservative Key: 1-HCl 2-HNO ₃ 3-H ₂ SO ₄ 4-NaOH 5-Na ₂ S ₂ O ₃ 6-NaHSO ₄ 7-Other 8-4°C 9-5035												

Note: 1. Any changes must be made in writing once samples and COC Form have been submitted to ALS Environmental.
 2. Unless otherwise agreed in a formal contract, services provided by ALS Environmental are expressly limited to the terms and conditions stated on the reverse.
 3. The Chain of Custody is a legal document. All information must be completed accurately.

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Sample Receipt Checklist

Client Name: **PBW**

Date/Time Received: **22-Jul-11 11:40**

Work Order: **1107721**

Received by: **RNG**

Checklist completed by *Eugene V. Smalls Jr*

22-Jul-11

Reviewed by:

eSignature

Date

eSignature

Date

Matrices: water

Carrier name: ALS.HS

Shipping container/cooler in good condition? Yes No Not Present

Custody seals intact on shipping container/cooler? Yes No Not Present

Custody seals intact on sample bottles? Yes No Not Present

Chain of custody present? Yes No

Chain of custody signed when relinquished and received? Yes No

Chain of custody agrees with sample labels? Yes No

Samples in proper container/bottle? Yes No

Sample containers intact? Yes No

Sufficient sample volume for indicated test? Yes No

All samples received within holding time? Yes No

Container/Temp Blank temperature in compliance? Yes No

Temperature(s)/Thermometer(s):

Cooler(s)/Kit(s):

Water - VOA vials have zero headspace? Yes No No VOA vials submitted

Water - pH acceptable upon receipt? Yes No N/A

pH adjusted? Yes No N/A

pH adjusted by:

Login Notes:

Client Contacted:

Date Contacted:

Person Contacted:

Contacted By:

Regarding:

Comments:

CorrectiveAction:



04-Aug-2011

Eric Matzner
Pastor, Behling & Wheeler, LLC
2201 Double Creek Drive
Suite 4004
Round Rock, TX 78664

Tel: (512) 671-3434
Fax: (512) 671-3446

Re: HWPW Site-Wide GW

Work Order: **1107899**

Dear Eric,

ALS Environmental received 16 samples on 27-Jul-2011 06:05 PM for the analyses presented in the following report.

The analytical data provided relates directly to the samples received by ALS Environmental and for only the analyses requested. Results are expressed as "as received" unless otherwise noted.

QC sample results for this data met EPA or laboratory specifications except as noted in the Case Narrative or as noted with qualifiers in the QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained by ALS Environmental. Samples will be disposed in 30 days unless storage arrangements are made.

The total number of pages in this report is 58.

If you have any questions regarding this report, please feel free to call me.

Sincerely,

A handwritten signature in black ink that reads "Patricia L. Lynch".

Electronically approved by: Makenzie L. Henderson

Patricia L. Lynch
Project Manager



Certificate No: T104704231-09A-TX

ADDRESS 10450 Stancliff Rd, Suite 210 Houston, Texas 77099-4338 | PHONE (281) 530-5656 | FAX (281) 530-5887

DOV#T UR X S#K VD /#P R US##Sdu#r i#khd#OV#Ode r#d#r#u|#T urxs##D #P dp seha#Eur#khu#Op l#hg#P rp sdq |

Environmental

www.alsglobal.com

RIGHT SOLUTIONS RIGHT PARTNER

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Work Order: 1107899

**TRRP Laboratory Data
Package Cover Page**

This data package consists of all or some of the following as applicable:

This signature page, the laboratory review checklist, and the following reportable data:

- R1 Field chain-of-custody documentation;
- R2 Sample identification cross-reference;
- R3 Test reports (analytical data sheets) for each environmental sample that includes:
 - a) Items consistent with NELAC Chapter 5,
 - b) dilution factors,
 - c) preparation methods,
 - d) cleanup methods, and
 - e) if required for the project, tentatively identified compounds (TICs).
- R4 Surrogate recovery data including:
 - a) Calculated recovery (%R), and
 - b) The laboratory's surrogate QC limits.
- R5 Test reports/summary forms for blank samples;
- R6 Test reports/summary forms for laboratory control samples (LCSs) including:
 - a) LCS spiking amounts,
 - b) Calculated %R for each analyte, and
 - c) The laboratory's LCS QC limits.
- R7 Test reports for project matrix spike/matrix spike duplicates (MS/MSDs) including:
 - a) Samples associated with the MS/MSD clearly identified,
 - b) MS/MSD spiking amounts,
 - c) Concentration of each MS/MSD analyte measured in the parent and spiked samples,
 - d) Calculated %Rs and relative percent differences (RPDs), and
 - e) The laboratory's MS/MSD QC limits.
- R8 Laboratory analytical duplicate (if applicable) recovery and precision:
 - a) the amount of analyte measured in the duplicate,
 - b) the calculated RPD, and
 - c) the laboratory's QC limits for analytical duplicates.
- R9 List of method quantitation limits (MQLs) and detectability check sample results for each analyte for each method and matrix.
- R10 Other problems or anomalies.
The Exception Report for each "No" or "Not Reviewed (NR)" item in Laboratory Review Checklist and for each analyte, matrix, and method for which the laboratory does not hold NELAC accreditation under the Texas Laboratory Accreditation Program.

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Work Order: 1107899

**TRRP Laboratory Data
Package Cover Page**

Release Statement: I am responsible for the release of this laboratory data package. This laboratory is NELAC accredited under the Texas Laboratory Accreditation Program for all the methods, analytes and matrices reported in this data package except as noted in the Exception Reports. The data have been reviewed and are technically compliant with the requirements of the methods used, except where noted by the laboratory in the attached exception reports. By my signature below, I affirm to the best of my knowledge, all problems/anomalies, observed by the laboratory have been identified by the laboratory in the Laboratory Review Checklist, and no information affecting the quality of the data has been knowingly withheld.

Check, if applicable: [NA] This laboratory meets an exception under 30 TAC §25.6 and was last inspected by TCEQ or _____ on (enter date of last inspection). Any findings affecting the data in this laboratory data package are noted in the Exception Reports herein. The official signing the cover page of the report in which these data are used is responsible for releasing this data package and is by signature affirming the above release statement is true.

Patricia L. Lynch

Patricia L. Lynch
Project Manager

Laboratory Review Checklist: Reportable Data

Laboratory Name: ALS Laboratory Group		LRC Date: 8/3/2011					
Project Name: HWPW Site-Wide GW		Laboratory Job Number: 1107899					
Reviewer Name: Pat Lynch		Prep Batch Number(s): 54305, R113766, R113771, R113780					
# ¹	A ²	Description	Yes	No	NA ³	NR ⁴	ER# ⁵
R1	OI	Chain-of-custody (C-O-C)					
		Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?	X				
		Were all departures from standard conditions described in an exception report?	X				
R2	OI	Sample and quality control (QC) identification					
		Are all field sample ID numbers cross-referenced to the laboratory ID numbers?	X				
		Are all laboratory ID numbers cross-referenced to the corresponding QC data?	X				
R3	OI	Test reports					
		Were all samples prepared and analyzed within holding times?	X				
		Other than those results < MQL, were all other raw values bracketed by calibration standards?	X				
		Were calculations checked by a peer or supervisor?	X				
		Were all analyte identifications checked by a peer or supervisor?	X				
		Were sample detection limits reported for all analytes not detected?	X				
		Were all results for soil and sediment samples reported on a dry weight basis?			X		
		Were % moisture (or solids) reported for all soil and sediment samples?			X		
		Were bulk soils/solids samples for volatile analysis extracted with methanol per SW-846 Method 5035?			X		
		If required for the project, TICs reported?			X		
R4	O	Surrogate recovery data					
		Were surrogates added prior to extraction?	X				
		Were surrogate percent recoveries in all samples within the laboratory QC limits?	X				
R5	OI	Test reports/summary forms for blank samples					
		Were appropriate type(s) of blanks analyzed?	X				
		Were blanks analyzed at the appropriate frequency?	X				
		Were method blanks taken through the entire analytical process, including preparation and, if applicable, cleanup procedures?	X				
		Were blank concentrations < MQL?	X				
R6	OI	Laboratory control samples (LCS):					
		Were all COCs included in the LCS?	X				
		Was each LCS taken through the entire analytical procedure, including prep and cleanup steps?	X				
		Were LCSs analyzed at the required frequency?	X				
		Were LCS (and LCSD, if applicable) %Rs within the laboratory QC limits?	X				
		Does the detectability data document the laboratory's capability to detect the COCs at the MDL used to calculate the SDLs?	X				
		Was the LCSD RPD within QC limits?	X				
R7	OI	Matrix spike (MS) and matrix spike duplicate (MSD) data					
		Were the project/method specified analytes included in the MS and MSD?	X				
		Were MS/MSD analyzed at the appropriate frequency?	X				
		Were MS (and MSD, if applicable) %Rs within the laboratory QC limits?	X				
		Were MS/MSD RPDs within laboratory QC limits?		X			1
R8	OI	Analytical duplicate data					
		Were appropriate analytical duplicates analyzed for each matrix?			X		
		Were analytical duplicates analyzed at the appropriate frequency?			X		
		Were RPDs or relative standard deviations within the laboratory QC limits?			X		
R9	OI	Method quantitation limits (MQLs):					
		Are the MQLs for each method analyte included in the laboratory data package?	X				
		Do the MQLs correspond to the concentration of the lowest non-zero calibration standard?	X				
		Are unadjusted MQLs and DCSs included in the laboratory data package?	X				
R10	OI	Other problems/anomalies					
		Are all known problems/anomalies/special conditions noted in this LRC and ER?	X				
		Were all necessary corrective actions performed for the reported data?	X				
		Was applicable and available technology used to lower the SDL and minimize the matrix interference affects on the sample results?	X				
		Is the laboratory NELAC-accredited under the Texas Laboratory Program for the analytes, matrices and methods associated with this laboratory data package?	X				

Laboratory Review Checklist: Reportable Data							
Laboratory Name: ALS Laboratory Group				LRC Date: 8/3/2011			
Project Name: HWPW Site-Wide GW				Laboratory Job Number: 1107899			
Reviewer Name: Pat Lynch				Prep Batch Number(s): 54305, R113766, R113771, R113780			
# ¹	A ²	Description	Yes	No	NA ³	NR ⁴	ER# ⁵
S1	OI	Initial calibration (ICAL)					
		Were response factors and/or relative response factors for each analyte within QC limits?	X				
		Were percent RSDs or correlation coefficient criteria met?	X				
		Was the number of standards recommended in the method used for all analytes?	X				
		Were all points generated between the lowest and highest standard used to calculate the curve?	X				
		Are ICAL data available for all instruments used?	X				
		Has the initial calibration curve been verified using an appropriate second source standard?	X				
S2	OI	Initial and continuing calibration verification (ICCV and CCV) and continuing calibration blank (CCB)					
		Was the CCV analyzed at the method-required frequency?	X				
		Were percent differences for each analyte within the method-required QC limits?	X				
		Was the ICAL curve verified for each analyte?	X				
		Was the absolute value of the analyte concentration in the inorganic CCB < MDL?			X		
S3	O	Mass spectral tuning:					
		Was the appropriate compound for the method used for tuning?	X				
		Were ion abundance data within the method-required QC limits?	X				
S4	O	Internal standards (IS):					
		Were IS area counts and retention times within the method-required QC limits?	X				
S5	OI	Raw data (NELAC section 1 appendix A glossary, and section 5.12 or ISO/IEC 17025 section					
		Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?	X				
		Were data associated with manual integrations flagged on the raw data?	X				
S6	O	Dual column confirmation					
		Did dual column confirmation results meet the method-required QC?			X		
S7	O	Tentatively identified compounds (TICs):					
		If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?			X		
S8	I	Interference Check Sample (ICS) results:					
		Were percent recoveries within method QC limits?			X		
S9	I	Serial dilutions, post digestion spikes, and method of standard additions					
		Were percent differences, recoveries, and the linearity within the QC limits specified in the method?			X		
S10	OI	Method detection limit (MDL) studies					
		Was a MDL study performed for each reported analyte?	X				
		Is the MDL either adjusted or supported by the analysis of DCSs?	X				
S11	OI	Proficiency test reports:					
		Was the laboratory's performance acceptable on the applicable proficiency tests or evaluation studies?	X				
S12	OI	Standards documentation					
		Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?	X				
S13	OI	Compound/analyte identification procedures					
		Are the procedures for compound/analyte identification documented?	X				
S14	OI	Demonstration of analyst competency (DOC)					
		Was DOC conducted consistent with NELAC Chapter 5C or ISO/IEC 4?	X				
		Is documentation of the analyst's competency up-to-date and on file?	X				
S15	OI	Verification/validation documentation for methods (NELAC Chap 5 or ISO/IEC 17025 Section 5)					
		Are all the methods used to generate the data documented, verified, and validated, where applicable?	X				
S16	OI	Laboratory standard operating procedures (SOPs):					
		Are laboratory SOPs current and on file for each method performed?	X				

Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.

O = Organic Analyses; I = Inorganic Analyses (and general chemistry, when applicable);

NA = Not Applicable;

NR = Not Reviewed;

R# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

Laboratory Review Checklist: Reportable Data

Laboratory Name: ALS Laboratory Group	LRC Date: 8/3/2011
Project Name: HWPW Site-Wide GW	Laboratory Job Number: 1107899
Reviewer Name: Pat Lynch	Prep Batch Number(s): 54305, R113766, R113771, R113780

ER#⁵	Description
1	Batch 54305, Volatile Organics, Sample WG-1620-MW13-2011726 : MS/MSD RPD was above the control limits for 2,4-dimethylphenol. All recoveries were in control.

Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.
O = Organic Analyses; I = Inorganic Analyses (and general chemistry, when applicable);
NA = Not Applicable;
NR = Not Reviewed;
R# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Work Order: 1107899

Work Order Sample Summary

<u>Lab Samp ID</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Tag Number</u>	<u>Collection Date</u>	<u>Date Received</u>	<u>Hold</u>
1107899-01	WG-1620-MW14-20110726	Water		7/26/2011 14:15	7/27/2011 18:05	<input type="checkbox"/>
1107899-02	WG-1620-DUP5-20110726	Water		7/26/2011 14:15	7/27/2011 18:05	<input type="checkbox"/>
1107899-03	WG-1620-MW13-2011726	Water		7/26/2011 15:30	7/27/2011 18:05	<input type="checkbox"/>
1107899-04	WG-1620-MW39B-2011726	Water		7/26/2011 16:20	7/27/2011 18:05	<input type="checkbox"/>
1107899-05	WG-1620-MW12C-20110726	Water		7/26/2011 17:10	7/27/2011 18:05	<input type="checkbox"/>
1107899-06	WG-1620-MW12A-20110726	Water		7/26/2011 18:00	7/27/2011 18:05	<input type="checkbox"/>
1107899-07	WG-1620-TW41B-20110727	Water		7/27/2011 07:10	7/27/2011 18:05	<input type="checkbox"/>
1107899-08	WG-1620-MW62B-20110727	Water		7/27/2011 07:55	7/27/2011 18:05	<input type="checkbox"/>
1107899-09	WG-1620-P11-20110727	Water		7/27/2011 08:50	7/27/2011 18:05	<input type="checkbox"/>
1107899-10	WG-1620-MW05-20110727	Water		7/27/2011 09:45	7/27/2011 18:05	<input type="checkbox"/>
1107899-11	WG-1620-MW64A-20110727	Water		7/27/2011 10:40	7/27/2011 18:05	<input type="checkbox"/>
1107899-12	WG-1620-MW21C-20110727	Water		7/27/2011 11:40	7/27/2011 18:05	<input type="checkbox"/>
1107899-13	WG-1620-DUP6-20110727	Water		7/27/2011 11:40	7/27/2011 18:05	<input type="checkbox"/>
1107899-14	WG-1620-MW58A-20110727	Water		7/27/2011 12:40	7/27/2011 18:05	<input type="checkbox"/>
1107899-15	WG-1620-MW09-20110727	Water		7/27/2011 13:40	7/27/2011 18:05	<input type="checkbox"/>
1107899-16	WG-1620-TB-20110727	Water		7/27/2011	7/27/2011 18:05	<input type="checkbox"/>

ALS Environmental

Date: 04-Aug-11

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-MW14-20110726
Collection Date: 7/26/2011 02:15 PM

Work Order: 1107899
Lab ID: 1107899-01
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270	Prep: SW3510 / 7/28/11	Analyst: ACN		
1,2-Diphenylhydrazine	U		0.000050	0.00020	mg/L	1	7/29/2011 18:55
2,4-Dimethylphenol	U		0.000050	0.00020	mg/L	1	7/29/2011 18:55
2,4-Dinitrotoluene	U		0.000050	0.00020	mg/L	1	7/29/2011 18:55
2,6-Dinitrotoluene	U		0.000060	0.00020	mg/L	1	7/29/2011 18:55
2-Chloronaphthalene	U		0.000050	0.00020	mg/L	1	7/29/2011 18:55
2-Methylnaphthalene	0.00034		0.000050	0.00020	mg/L	1	7/29/2011 18:55
4,6-Dinitro-2-methylphenol	U		0.000080	0.00020	mg/L	1	7/29/2011 18:55
4-Nitrophenol	U		0.000050	0.0010	mg/L	1	7/29/2011 18:55
Acenaphthene	0.00032		0.000050	0.00020	mg/L	1	7/29/2011 18:55
Acenaphthylene	U		0.000050	0.00020	mg/L	1	7/29/2011 18:55
Anthracene	U		0.000050	0.00020	mg/L	1	7/29/2011 18:55
Benz(a)anthracene	U		0.000050	0.00020	mg/L	1	7/29/2011 18:55
Benzo(a)pyrene	U		0.000050	0.00020	mg/L	1	7/29/2011 18:55
Bis(2-chloroethoxy)methane	U		0.000050	0.00020	mg/L	1	7/29/2011 18:55
Bis(2-ethylhexyl)phthalate	0.00047		0.00010	0.00020	mg/L	1	7/29/2011 18:55
Chrysene	U		0.000050	0.00020	mg/L	1	7/29/2011 18:55
Dibenzofuran	0.00031		0.000050	0.00020	mg/L	1	7/29/2011 18:55
Di-n-butyl phthalate	U		0.000050	0.00020	mg/L	1	7/29/2011 18:55
Fluoranthene	U		0.000050	0.00020	mg/L	1	7/29/2011 18:55
Fluorene	U		0.000050	0.00020	mg/L	1	7/29/2011 18:55
Naphthalene	0.0014		0.000050	0.00020	mg/L	1	7/29/2011 18:55
Nitrobenzene	U		0.000050	0.00020	mg/L	1	7/29/2011 18:55
N-Nitrosodiphenylamine	U		0.000050	0.00020	mg/L	1	7/29/2011 18:55
Pentachlorophenol	U		0.000050	0.00020	mg/L	1	7/29/2011 18:55
Phenanthrene	0.00033		0.000050	0.00020	mg/L	1	7/29/2011 18:55
Phenol	U		0.000050	0.00020	mg/L	1	7/29/2011 18:55
Pyrene	U		0.000050	0.00020	mg/L	1	7/29/2011 18:55
Surr: 2,4,6-Tribromophenol	67.3			34-129	%REC	1	7/29/2011 18:55
Surr: 2-Fluorobiphenyl	43.1			40-125	%REC	1	7/29/2011 18:55
Surr: 2-Fluorophenol	31.6			20-120	%REC	1	7/29/2011 18:55
Surr: 4-Terphenyl-d14	54.6			40-135	%REC	1	7/29/2011 18:55
Surr: Nitrobenzene-d5	41.7			41-120	%REC	1	7/29/2011 18:55
Surr: Phenol-d6	31.1			20-120	%REC	1	7/29/2011 18:55
VOLATILES			Method: SW8260	Analyst: PC			
1,2-Dichloroethane	U		0.0010	0.0050	mg/L	1	7/28/2011 20:16
Benzene	U		0.0010	0.0050	mg/L	1	7/28/2011 20:16
Chlorobenzene	U		0.0010	0.0050	mg/L	1	7/28/2011 20:16
Ethylbenzene	U		0.0011	0.0050	mg/L	1	7/28/2011 20:16

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 04-Aug-11

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-MW14-20110726
Collection Date: 7/26/2011 02:15 PM

Work Order: 1107899
Lab ID: 1107899-01
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
Methylene chloride	U		0.0013	0.010	mg/L	1	7/28/2011 20:16
Toluene	U		0.0010	0.0050	mg/L	1	7/28/2011 20:16
Xylenes, Total	U		0.0031	0.015	mg/L	1	7/28/2011 20:16
Surr: 1,2-Dichloroethane-d4	94.8			70-125	%REC	1	7/28/2011 20:16
Surr: 4-Bromofluorobenzene	101			72-125	%REC	1	7/28/2011 20:16
Surr: Dibromofluoromethane	98.6			71-125	%REC	1	7/28/2011 20:16
Surr: Toluene-d8	98.6			75-125	%REC	1	7/28/2011 20:16

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 04-Aug-11

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-DUP5-20110726
Collection Date: 7/26/2011 02:15 PM

Work Order: 1107899
Lab ID: 1107899-02
Matrix: WATER

Analyses	Result	Qual	SDL	ML	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270	Prep: SW3510 / 7/28/11	Analyst: ACN		
1,2-Diphenylhydrazine	U		0.000050	0.00020	mg/L	1	7/29/2011 19:14
2,4-Dimethylphenol	U		0.000050	0.00020	mg/L	1	7/29/2011 19:14
2,4-Dinitrotoluene	U		0.000050	0.00020	mg/L	1	7/29/2011 19:14
2,6-Dinitrotoluene	U		0.000060	0.00020	mg/L	1	7/29/2011 19:14
2-Chloronaphthalene	U		0.000050	0.00020	mg/L	1	7/29/2011 19:14
2-Methylnaphthalene	0.00031		0.000050	0.00020	mg/L	1	7/29/2011 19:14
4,6-Dinitro-2-methylphenol	U		0.000080	0.00020	mg/L	1	7/29/2011 19:14
4-Nitrophenol	U		0.000050	0.0010	mg/L	1	7/29/2011 19:14
Acenaphthene	0.00028		0.000050	0.00020	mg/L	1	7/29/2011 19:14
Acenaphthylene	U		0.000050	0.00020	mg/L	1	7/29/2011 19:14
Anthracene	0.000087	J	0.000050	0.00020	mg/L	1	7/29/2011 19:14
Benz(a)anthracene	U		0.000050	0.00020	mg/L	1	7/29/2011 19:14
Benzo(a)pyrene	U		0.000050	0.00020	mg/L	1	7/29/2011 19:14
Bis(2-chloroethoxy)methane	U		0.000050	0.00020	mg/L	1	7/29/2011 19:14
Bis(2-ethylhexyl)phthalate	0.00065		0.00010	0.00020	mg/L	1	7/29/2011 19:14
Chrysene	U		0.000050	0.00020	mg/L	1	7/29/2011 19:14
Dibenzofuran	0.00027		0.000050	0.00020	mg/L	1	7/29/2011 19:14
Di-n-butyl phthalate	U		0.000050	0.00020	mg/L	1	7/29/2011 19:14
Fluoranthene	U		0.000050	0.00020	mg/L	1	7/29/2011 19:14
Fluorene	0.000065	J	0.000050	0.00020	mg/L	1	7/29/2011 19:14
Naphthalene	0.0012		0.000050	0.00020	mg/L	1	7/29/2011 19:14
Nitrobenzene	U		0.000050	0.00020	mg/L	1	7/29/2011 19:14
N-Nitrosodiphenylamine	U		0.000050	0.00020	mg/L	1	7/29/2011 19:14
Pentachlorophenol	U		0.000050	0.00020	mg/L	1	7/29/2011 19:14
Phenanthrene	0.00032		0.000050	0.00020	mg/L	1	7/29/2011 19:14
Phenol	U		0.000050	0.00020	mg/L	1	7/29/2011 19:14
Pyrene	U		0.000050	0.00020	mg/L	1	7/29/2011 19:14
Surr: 2,4,6-Tribromophenol	70.2			34-129	%REC	1	7/29/2011 19:14
Surr: 2-Fluorobiphenyl	40.0			40-125	%REC	1	7/29/2011 19:14
Surr: 2-Fluorophenol	30.9			20-120	%REC	1	7/29/2011 19:14
Surr: 4-Terphenyl-d14	62.1			40-135	%REC	1	7/29/2011 19:14
Surr: Nitrobenzene-d5	41.4			41-120	%REC	1	7/29/2011 19:14
Surr: Phenol-d6	35.8			20-120	%REC	1	7/29/2011 19:14

VOLATILES			Method: SW8260	Analyst: PC			
1,2-Dichloroethane	U		0.0010	0.0050	mg/L	1	7/28/2011 20:44
Benzene	U		0.0010	0.0050	mg/L	1	7/28/2011 20:44
Chlorobenzene	U		0.0010	0.0050	mg/L	1	7/28/2011 20:44
Ethylbenzene	U		0.0011	0.0050	mg/L	1	7/28/2011 20:44

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 04-Aug-11

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-DUP5-20110726
Collection Date: 7/26/2011 02:15 PM

Work Order: 1107899
Lab ID: 1107899-02
Matrix: WATER

Analyses	Result	Qual	SDL	ML	Units	Dilution Factor	Date Analyzed
Methylene chloride	U		0.0013	0.010	mg/L	1	7/28/2011 20:44
Toluene	U		0.0010	0.0050	mg/L	1	7/28/2011 20:44
Xylenes, Total	U		0.0031	0.015	mg/L	1	7/28/2011 20:44
Surr: 1,2-Dichloroethane-d4	98.2			70-125	%REC	1	7/28/2011 20:44
Surr: 4-Bromofluorobenzene	105			72-125	%REC	1	7/28/2011 20:44
Surr: Dibromofluoromethane	102			71-125	%REC	1	7/28/2011 20:44
Surr: Toluene-d8	92.3			75-125	%REC	1	7/28/2011 20:44

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 04-Aug-11

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-MW13-2011726
Collection Date: 7/26/2011 03:30 PM

Work Order: 1107899
Lab ID: 1107899-03
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270	Prep: SW3510 / 7/28/11	Analyst: ACN		
1,2-Diphenylhydrazine	U		0.000050	0.00020	mg/L	1	7/29/2011 17:57
2,4-Dimethylphenol	U		0.000050	0.00020	mg/L	1	7/29/2011 17:57
2,4-Dinitrotoluene	U		0.000050	0.00020	mg/L	1	7/29/2011 17:57
2,6-Dinitrotoluene	U		0.000060	0.00020	mg/L	1	7/29/2011 17:57
2-Chloronaphthalene	U		0.000050	0.00020	mg/L	1	7/29/2011 17:57
2-Methylnaphthalene	0.00026		0.000050	0.00020	mg/L	1	7/29/2011 17:57
4,6-Dinitro-2-methylphenol	U		0.000080	0.00020	mg/L	1	7/29/2011 17:57
4-Nitrophenol	U		0.000050	0.0010	mg/L	1	7/29/2011 17:57
Acenaphthene	0.00033		0.000050	0.00020	mg/L	1	7/29/2011 17:57
Acenaphthylene	U		0.000050	0.00020	mg/L	1	7/29/2011 17:57
Anthracene	0.00037		0.000050	0.00020	mg/L	1	7/29/2011 17:57
Benz(a)anthracene	U		0.000050	0.00020	mg/L	1	7/29/2011 17:57
Benzo(a)pyrene	U		0.000050	0.00020	mg/L	1	7/29/2011 17:57
Bis(2-chloroethoxy)methane	U		0.000050	0.00020	mg/L	1	7/29/2011 17:57
Bis(2-ethylhexyl)phthalate	0.00027		0.00010	0.00020	mg/L	1	7/29/2011 17:57
Chrysene	U		0.000050	0.00020	mg/L	1	7/29/2011 17:57
Dibenzofuran	0.00034		0.000050	0.00020	mg/L	1	7/29/2011 17:57
Di-n-butyl phthalate	U		0.000050	0.00020	mg/L	1	7/29/2011 17:57
Fluoranthene	0.000067	J	0.000050	0.00020	mg/L	1	7/29/2011 17:57
Fluorene	0.00035		0.000050	0.00020	mg/L	1	7/29/2011 17:57
Naphthalene	0.00087		0.000050	0.00020	mg/L	1	7/29/2011 17:57
Nitrobenzene	U		0.000050	0.00020	mg/L	1	7/29/2011 17:57
N-Nitrosodiphenylamine	U		0.000050	0.00020	mg/L	1	7/29/2011 17:57
Pentachlorophenol	U		0.000050	0.00020	mg/L	1	7/29/2011 17:57
Phenanthrene	0.00029		0.000050	0.00020	mg/L	1	7/29/2011 17:57
Phenol	U		0.000050	0.00020	mg/L	1	7/29/2011 17:57
Pyrene	0.00011	J	0.000050	0.00020	mg/L	1	7/29/2011 17:57
Surr: 2,4,6-Tribromophenol	77.0			34-129	%REC	1	7/29/2011 17:57
Surr: 2-Fluorobiphenyl	52.6			40-125	%REC	1	7/29/2011 17:57
Surr: 2-Fluorophenol	40.3			20-120	%REC	1	7/29/2011 17:57
Surr: 4-Terphenyl-d14	66.2			40-135	%REC	1	7/29/2011 17:57
Surr: Nitrobenzene-d5	48.1			41-120	%REC	1	7/29/2011 17:57
Surr: Phenol-d6	34.7			20-120	%REC	1	7/29/2011 17:57

VOLATILES			Method: SW8260	Analyst: PC			
1,2-Dichloroethane	U		0.0010	0.0050	mg/L	1	7/29/2011 01:41
Benzene	U		0.0010	0.0050	mg/L	1	7/29/2011 01:41
Chlorobenzene	U		0.0010	0.0050	mg/L	1	7/29/2011 01:41
Ethylbenzene	U		0.0011	0.0050	mg/L	1	7/29/2011 01:41

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 04-Aug-11

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-MW13-2011726
Collection Date: 7/26/2011 03:30 PM

Work Order: 1107899
Lab ID: 1107899-03
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
Methylene chloride	U		0.0013	0.010	mg/L	1	7/29/2011 01:41
Toluene	U		0.0010	0.0050	mg/L	1	7/29/2011 01:41
Xylenes, Total	U		0.0031	0.015	mg/L	1	7/29/2011 01:41
Surr: 1,2-Dichloroethane-d4	97.3			70-125	%REC	1	7/29/2011 01:41
Surr: 4-Bromofluorobenzene	99.9			72-125	%REC	1	7/29/2011 01:41
Surr: Dibromofluoromethane	97.3			71-125	%REC	1	7/29/2011 01:41
Surr: Toluene-d8	98.0			75-125	%REC	1	7/29/2011 01:41

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 04-Aug-11

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-MW39B-2011726
Collection Date: 7/26/2011 04:20 PM

Work Order: 1107899
Lab ID: 1107899-04
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270	Prep: SW3510 / 7/28/11	Analyst: ACN		
1,2-Diphenylhydrazine	U		0.000050	0.00020	mg/L	1	7/29/2011 19:33
2,4-Dimethylphenol	U		0.000050	0.00020	mg/L	1	7/29/2011 19:33
2,4-Dinitrotoluene	U		0.000050	0.00020	mg/L	1	7/29/2011 19:33
2,6-Dinitrotoluene	U		0.000060	0.00020	mg/L	1	7/29/2011 19:33
2-Chloronaphthalene	U		0.000050	0.00020	mg/L	1	7/29/2011 19:33
2-Methylnaphthalene	U		0.000050	0.00020	mg/L	1	7/29/2011 19:33
4,6-Dinitro-2-methylphenol	U		0.000080	0.00020	mg/L	1	7/29/2011 19:33
4-Nitrophenol	U		0.000050	0.0010	mg/L	1	7/29/2011 19:33
Acenaphthene	0.00028		0.000050	0.00020	mg/L	1	7/29/2011 19:33
Acenaphthylene	0.000053	J	0.000050	0.00020	mg/L	1	7/29/2011 19:33
Anthracene	0.00040		0.000050	0.00020	mg/L	1	7/29/2011 19:33
Benz(a)anthracene	U		0.000050	0.00020	mg/L	1	7/29/2011 19:33
Benzo(a)pyrene	U		0.000050	0.00020	mg/L	1	7/29/2011 19:33
Bis(2-chloroethoxy)methane	U		0.000050	0.00020	mg/L	1	7/29/2011 19:33
Bis(2-ethylhexyl)phthalate	0.00092		0.00010	0.00020	mg/L	1	7/29/2011 19:33
Chrysene	U		0.000050	0.00020	mg/L	1	7/29/2011 19:33
Dibenzofuran	U		0.000050	0.00020	mg/L	1	7/29/2011 19:33
Di-n-butyl phthalate	U		0.000050	0.00020	mg/L	1	7/29/2011 19:33
Fluoranthene	0.000079	J	0.000050	0.00020	mg/L	1	7/29/2011 19:33
Fluorene	0.00011	J	0.000050	0.00020	mg/L	1	7/29/2011 19:33
Naphthalene	U		0.000050	0.00020	mg/L	1	7/29/2011 19:33
Nitrobenzene	U		0.000050	0.00020	mg/L	1	7/29/2011 19:33
N-Nitrosodiphenylamine	0.000054	J	0.000050	0.00020	mg/L	1	7/29/2011 19:33
Pentachlorophenol	U		0.000050	0.00020	mg/L	1	7/29/2011 19:33
Phenanthrene	U		0.000050	0.00020	mg/L	1	7/29/2011 19:33
Phenol	U		0.000050	0.00020	mg/L	1	7/29/2011 19:33
Pyrene	0.00017	J	0.000050	0.00020	mg/L	1	7/29/2011 19:33
Surr: 2,4,6-Tribromophenol	78.2			34-129	%REC	1	7/29/2011 19:33
Surr: 2-Fluorobiphenyl	52.5			40-125	%REC	1	7/29/2011 19:33
Surr: 2-Fluorophenol	46.7			20-120	%REC	1	7/29/2011 19:33
Surr: 4-Terphenyl-d14	59.3			40-135	%REC	1	7/29/2011 19:33
Surr: Nitrobenzene-d5	50.7			41-120	%REC	1	7/29/2011 19:33
Surr: Phenol-d6	50.4			20-120	%REC	1	7/29/2011 19:33

VOLATILES			Method: SW8260	Analyst: PC			
1,2-Dichloroethane	U		0.0010	0.0050	mg/L	1	7/29/2011 03:23
Benzene	U		0.0010	0.0050	mg/L	1	7/29/2011 03:23
Chlorobenzene	U		0.0010	0.0050	mg/L	1	7/29/2011 03:23
Ethylbenzene	U		0.0011	0.0050	mg/L	1	7/29/2011 03:23

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 04-Aug-11

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-MW39B-2011726
Collection Date: 7/26/2011 04:20 PM

Work Order: 1107899
Lab ID: 1107899-04
Matrix: WATER

Analyses	Result	Qual	SDL	ML	Units	Dilution Factor	Date Analyzed
Methylene chloride	U		0.0013	0.010	mg/L	1	7/29/2011 03:23
Toluene	U		0.0010	0.0050	mg/L	1	7/29/2011 03:23
Xylenes, Total	U		0.0031	0.015	mg/L	1	7/29/2011 03:23
Surr: 1,2-Dichloroethane-d4	97.6			70-125	%REC	1	7/29/2011 03:23
Surr: 4-Bromofluorobenzene	99.9			72-125	%REC	1	7/29/2011 03:23
Surr: Dibromofluoromethane	95.4			71-125	%REC	1	7/29/2011 03:23
Surr: Toluene-d8	99.6			75-125	%REC	1	7/29/2011 03:23

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 04-Aug-11

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-MW12C-20110726
Collection Date: 7/26/2011 05:10 PM

Work Order: 1107899
Lab ID: 1107899-05
Matrix: WATER

Analyses	Result	Qual	SDL	ML	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270	Prep: SW3510 / 7/28/11	Analyst: ACN		
1,2-Diphenylhydrazine	U		0.000050	0.00020	mg/L	1	7/29/2011 19:53
2,4-Dimethylphenol	U		0.000050	0.00020	mg/L	1	7/29/2011 19:53
2,4-Dinitrotoluene	U		0.000050	0.00020	mg/L	1	7/29/2011 19:53
2,6-Dinitrotoluene	U		0.000060	0.00020	mg/L	1	7/29/2011 19:53
2-Chloronaphthalene	U		0.000050	0.00020	mg/L	1	7/29/2011 19:53
2-Methylnaphthalene	0.000099	J	0.000050	0.00020	mg/L	1	7/29/2011 19:53
4,6-Dinitro-2-methylphenol	U		0.000080	0.00020	mg/L	1	7/29/2011 19:53
4-Nitrophenol	U		0.000050	0.0010	mg/L	1	7/29/2011 19:53
Acenaphthene	U		0.000050	0.00020	mg/L	1	7/29/2011 19:53
Acenaphthylene	U		0.000050	0.00020	mg/L	1	7/29/2011 19:53
Anthracene	U		0.000050	0.00020	mg/L	1	7/29/2011 19:53
Benz(a)anthracene	U		0.000050	0.00020	mg/L	1	7/29/2011 19:53
Benzo(a)pyrene	U		0.000050	0.00020	mg/L	1	7/29/2011 19:53
Bis(2-chloroethoxy)methane	U		0.000050	0.00020	mg/L	1	7/29/2011 19:53
Bis(2-ethylhexyl)phthalate	0.00040		0.00010	0.00020	mg/L	1	7/29/2011 19:53
Chrysene	U		0.000050	0.00020	mg/L	1	7/29/2011 19:53
Dibenzofuran	U		0.000050	0.00020	mg/L	1	7/29/2011 19:53
Di-n-butyl phthalate	U		0.000050	0.00020	mg/L	1	7/29/2011 19:53
Fluoranthene	U		0.000050	0.00020	mg/L	1	7/29/2011 19:53
Fluorene	0.000071	J	0.000050	0.00020	mg/L	1	7/29/2011 19:53
Naphthalene	0.00048		0.000050	0.00020	mg/L	1	7/29/2011 19:53
Nitrobenzene	U		0.000050	0.00020	mg/L	1	7/29/2011 19:53
N-Nitrosodiphenylamine	U		0.000050	0.00020	mg/L	1	7/29/2011 19:53
Pentachlorophenol	U		0.000050	0.00020	mg/L	1	7/29/2011 19:53
Phenanthrene	U		0.000050	0.00020	mg/L	1	7/29/2011 19:53
Phenol	U		0.000050	0.00020	mg/L	1	7/29/2011 19:53
Pyrene	U		0.000050	0.00020	mg/L	1	7/29/2011 19:53
Surr: 2,4,6-Tribromophenol	57.5			34-129	%REC	1	7/29/2011 19:53
Surr: 2-Fluorobiphenyl	40.3			40-125	%REC	1	7/29/2011 19:53
Surr: 2-Fluorophenol	37.1			20-120	%REC	1	7/29/2011 19:53
Surr: 4-Terphenyl-d14	59.8			40-135	%REC	1	7/29/2011 19:53
Surr: Nitrobenzene-d5	41.5			41-120	%REC	1	7/29/2011 19:53
Surr: Phenol-d6	36.9			20-120	%REC	1	7/29/2011 19:53

VOLATILES			Method: SW8260	Analyst: PC			
1,2-Dichloroethane	U		0.0010	0.0050	mg/L	1	7/29/2011 03:49
Benzene	U		0.0010	0.0050	mg/L	1	7/29/2011 03:49
Chlorobenzene	U		0.0010	0.0050	mg/L	1	7/29/2011 03:49
Ethylbenzene	U		0.0011	0.0050	mg/L	1	7/29/2011 03:49

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 04-Aug-11

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-MW12C-20110726
Collection Date: 7/26/2011 05:10 PM

Work Order: 1107899
Lab ID: 1107899-05
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
Methylene chloride	U		0.0013	0.010	mg/L	1	7/29/2011 03:49
Toluene	U		0.0010	0.0050	mg/L	1	7/29/2011 03:49
Xylenes, Total	U		0.0031	0.015	mg/L	1	7/29/2011 03:49
Surr: 1,2-Dichloroethane-d4	96.6			70-125	%REC	1	7/29/2011 03:49
Surr: 4-Bromofluorobenzene	100			72-125	%REC	1	7/29/2011 03:49
Surr: Dibromofluoromethane	98.5			71-125	%REC	1	7/29/2011 03:49
Surr: Toluene-d8	98.7			75-125	%REC	1	7/29/2011 03:49

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 04-Aug-11

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-MW12A-20110726
Collection Date: 7/26/2011 06:00 PM

Work Order: 1107899
Lab ID: 1107899-06
Matrix: WATER

Analyses	Result	Qual	SDL	ML	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270	Prep: SW3510 / 7/28/11	Analyst: ACN		
1,2-Diphenylhydrazine	U		0.000050	0.00020	mg/L	1	7/29/2011 20:12
2,4-Dimethylphenol	U		0.000050	0.00020	mg/L	1	7/29/2011 20:12
2,4-Dinitrotoluene	U		0.000050	0.00020	mg/L	1	7/29/2011 20:12
2,6-Dinitrotoluene	U		0.000060	0.00020	mg/L	1	7/29/2011 20:12
2-Chloronaphthalene	U		0.000050	0.00020	mg/L	1	7/29/2011 20:12
2-Methylnaphthalene	0.014		0.00050	0.0020	mg/L	10	7/30/2011 17:04
4,6-Dinitro-2-methylphenol	U		0.000080	0.00020	mg/L	1	7/29/2011 20:12
4-Nitrophenol	U		0.000050	0.0010	mg/L	1	7/29/2011 20:12
Acenaphthene	0.038		0.00050	0.0020	mg/L	10	7/30/2011 17:04
Acenaphthylene	U		0.000050	0.00020	mg/L	1	7/29/2011 20:12
Anthracene	0.0017		0.000050	0.00020	mg/L	1	7/29/2011 20:12
Benz(a)anthracene	U		0.000050	0.00020	mg/L	1	7/29/2011 20:12
Benzo(a)pyrene	U		0.000050	0.00020	mg/L	1	7/29/2011 20:12
Bis(2-chloroethoxy)methane	U		0.000050	0.00020	mg/L	1	7/29/2011 20:12
Bis(2-ethylhexyl)phthalate	0.00017	J	0.00010	0.00020	mg/L	1	7/29/2011 20:12
Chrysene	U		0.000050	0.00020	mg/L	1	7/29/2011 20:12
Dibenzofuran	0.025		0.00050	0.0020	mg/L	10	7/30/2011 17:04
Di-n-butyl phthalate	U		0.000050	0.00020	mg/L	1	7/29/2011 20:12
Fluoranthene	0.0017		0.000050	0.00020	mg/L	1	7/29/2011 20:12
Fluorene	0.025		0.00050	0.0020	mg/L	10	7/30/2011 17:04
Naphthalene	0.050		0.00050	0.0020	mg/L	10	7/30/2011 17:04
Nitrobenzene	U		0.000050	0.00020	mg/L	1	7/29/2011 20:12
N-Nitrosodiphenylamine	U		0.000050	0.00020	mg/L	1	7/29/2011 20:12
Pentachlorophenol	U		0.000050	0.00020	mg/L	1	7/29/2011 20:12
Phenanthrene	0.015		0.00050	0.0020	mg/L	10	7/30/2011 17:04
Phenol	U		0.000050	0.00020	mg/L	1	7/29/2011 20:12
Pyrene	0.00068		0.000050	0.00020	mg/L	1	7/29/2011 20:12
Surr: 2,4,6-Tribromophenol	65.5			34-129	%REC	1	7/29/2011 20:12
Surr: 2,4,6-Tribromophenol	52.5			34-129	%REC	10	7/30/2011 17:04
Surr: 2-Fluorobiphenyl	47.3			40-125	%REC	1	7/29/2011 20:12
Surr: 2-Fluorobiphenyl	50.6			40-125	%REC	10	7/30/2011 17:04
Surr: 2-Fluorophenol	46.0			20-120	%REC	1	7/29/2011 20:12
Surr: 2-Fluorophenol	46.0			20-120	%REC	10	7/30/2011 17:04
Surr: 4-Terphenyl-d14	54.0			40-135	%REC	1	7/29/2011 20:12
Surr: 4-Terphenyl-d14	63.1			40-135	%REC	10	7/30/2011 17:04
Surr: Nitrobenzene-d5	48.0			41-120	%REC	1	7/29/2011 20:12
Surr: Nitrobenzene-d5	62.9			41-120	%REC	10	7/30/2011 17:04
Surr: Phenol-d6	48.4			20-120	%REC	1	7/29/2011 20:12

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 04-Aug-11

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-MW12A-20110726
Collection Date: 7/26/2011 06:00 PM

Work Order: 1107899
Lab ID: 1107899-06
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
<i>Surr: Phenol-d6</i>	60.0			20-120	%REC	10	7/30/2011 17:04
VOLATILES	Method: SW8260						Analyst: PC
1,2-Dichloroethane	U		0.0010	0.0050	mg/L	1	7/29/2011 04:14
Benzene	U		0.0010	0.0050	mg/L	1	7/29/2011 04:14
Chlorobenzene	U		0.0010	0.0050	mg/L	1	7/29/2011 04:14
Ethylbenzene	0.0015	J	0.0011	0.0050	mg/L	1	7/29/2011 04:14
Methylene chloride	U		0.0013	0.010	mg/L	1	7/29/2011 04:14
Toluene	U		0.0010	0.0050	mg/L	1	7/29/2011 04:14
Xylenes, Total	U		0.0031	0.015	mg/L	1	7/29/2011 04:14
<i>Surr: 1,2-Dichloroethane-d4</i>	99.0			70-125	%REC	1	7/29/2011 04:14
<i>Surr: 4-Bromofluorobenzene</i>	102			72-125	%REC	1	7/29/2011 04:14
<i>Surr: Dibromofluoromethane</i>	99.3			71-125	%REC	1	7/29/2011 04:14
<i>Surr: Toluene-d8</i>	100			75-125	%REC	1	7/29/2011 04:14

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 04-Aug-11

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-TW41B-20110727
Collection Date: 7/27/2011 07:10 AM

Work Order: 1107899
Lab ID: 1107899-07
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270	Prep: SW3510 / 7/28/11	Analyst: ACN		
1,2-Diphenylhydrazine	U		0.000050	0.00020	mg/L	1	7/29/2011 20:31
2,4-Dimethylphenol	U		0.000050	0.00020	mg/L	1	7/29/2011 20:31
2,4-Dinitrotoluene	U		0.000050	0.00020	mg/L	1	7/29/2011 20:31
2,6-Dinitrotoluene	U		0.000060	0.00020	mg/L	1	7/29/2011 20:31
2-Chloronaphthalene	U		0.000050	0.00020	mg/L	1	7/29/2011 20:31
2-Methylnaphthalene	0.015		0.00050	0.0020	mg/L	10	7/30/2011 17:24
4,6-Dinitro-2-methylphenol	U		0.000080	0.00020	mg/L	1	7/29/2011 20:31
4-Nitrophenol	U		0.000050	0.0010	mg/L	1	7/29/2011 20:31
Acenaphthene	0.041		0.00050	0.0020	mg/L	10	7/30/2011 17:24
Acenaphthylene	0.00053		0.000050	0.00020	mg/L	1	7/29/2011 20:31
Anthracene	0.0022		0.000050	0.00020	mg/L	1	7/29/2011 20:31
Benz(a)anthracene	U		0.000050	0.00020	mg/L	1	7/29/2011 20:31
Benzo(a)pyrene	U		0.000050	0.00020	mg/L	1	7/29/2011 20:31
Bis(2-chloroethoxy)methane	U		0.000050	0.00020	mg/L	1	7/29/2011 20:31
Bis(2-ethylhexyl)phthalate	0.00022		0.00010	0.00020	mg/L	1	7/29/2011 20:31
Chrysene	U		0.000050	0.00020	mg/L	1	7/29/2011 20:31
Dibenzofuran	0.029		0.00050	0.0020	mg/L	10	7/30/2011 17:24
Di-n-butyl phthalate	U		0.000050	0.00020	mg/L	1	7/29/2011 20:31
Fluoranthene	0.0022		0.000050	0.00020	mg/L	1	7/29/2011 20:31
Fluorene	0.028		0.00050	0.0020	mg/L	10	7/30/2011 17:24
Naphthalene	0.049		0.00050	0.0020	mg/L	10	7/30/2011 17:24
Nitrobenzene	U		0.000050	0.00020	mg/L	1	7/29/2011 20:31
N-Nitrosodiphenylamine	U		0.000050	0.00020	mg/L	1	7/29/2011 20:31
Pentachlorophenol	U		0.000050	0.00020	mg/L	1	7/29/2011 20:31
Phenanthrene	0.019		0.00050	0.0020	mg/L	10	7/30/2011 17:24
Phenol	U		0.000050	0.00020	mg/L	1	7/29/2011 20:31
Pyrene	0.00095		0.000050	0.00020	mg/L	1	7/29/2011 20:31
Surr: 2,4,6-Tribromophenol	68.5			34-129	%REC	1	7/29/2011 20:31
Surr: 2,4,6-Tribromophenol	57.4			34-129	%REC	10	7/30/2011 17:24
Surr: 2-Fluorobiphenyl	42.5			40-125	%REC	1	7/29/2011 20:31
Surr: 2-Fluorobiphenyl	47.4			40-125	%REC	10	7/30/2011 17:24
Surr: 2-Fluorophenol	40.0			20-120	%REC	1	7/29/2011 20:31
Surr: 2-Fluorophenol	44.5			20-120	%REC	10	7/30/2011 17:24
Surr: 4-Terphenyl-d14	58.3			40-135	%REC	1	7/29/2011 20:31
Surr: 4-Terphenyl-d14	63.0			40-135	%REC	10	7/30/2011 17:24
Surr: Nitrobenzene-d5	42.6			41-120	%REC	1	7/29/2011 20:31
Surr: Nitrobenzene-d5	49.9			41-120	%REC	10	7/30/2011 17:24
Surr: Phenol-d6	41.4			20-120	%REC	1	7/29/2011 20:31

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 04-Aug-11

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-TW41B-20110727
Collection Date: 7/27/2011 07:10 AM

Work Order: 1107899
Lab ID: 1107899-07
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
Surr: Phenol-d6	49.4			20-120	%REC	10	7/30/2011 17:24
VOLATILES			Method: SW8260			Analyst: PC	
1,2-Dichloroethane	U		0.0010	0.0050	mg/L	1	7/29/2011 04:40
Benzene	U		0.0010	0.0050	mg/L	1	7/29/2011 04:40
Chlorobenzene	U		0.0010	0.0050	mg/L	1	7/29/2011 04:40
Ethylbenzene	0.0075		0.0011	0.0050	mg/L	1	7/29/2011 04:40
Methylene chloride	U		0.0013	0.010	mg/L	1	7/29/2011 04:40
Toluene	0.0033	J	0.0010	0.0050	mg/L	1	7/29/2011 04:40
Xylenes, Total	0.0052	J	0.0031	0.015	mg/L	1	7/29/2011 04:40
Surr: 1,2-Dichloroethane-d4	96.8			70-125	%REC	1	7/29/2011 04:40
Surr: 4-Bromofluorobenzene	101			72-125	%REC	1	7/29/2011 04:40
Surr: Dibromofluoromethane	96.7			71-125	%REC	1	7/29/2011 04:40
Surr: Toluene-d8	99.2			75-125	%REC	1	7/29/2011 04:40

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 04-Aug-11

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-MW62B-20110727
Collection Date: 7/27/2011 07:55 AM

Work Order: 1107899
Lab ID: 1107899-08
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270	Prep: SW3510 / 7/28/11	Analyst: ACN		
1,2-Diphenylhydrazine	U		0.000050	0.00020	mg/L	1	7/29/2011 20:51
2,4-Dimethylphenol	U		0.000050	0.00020	mg/L	1	7/29/2011 20:51
2,4-Dinitrotoluene	U		0.000050	0.00020	mg/L	1	7/29/2011 20:51
2,6-Dinitrotoluene	U		0.000060	0.00020	mg/L	1	7/29/2011 20:51
2-Chloronaphthalene	U		0.000050	0.00020	mg/L	1	7/29/2011 20:51
2-Methylnaphthalene	U		0.000050	0.00020	mg/L	1	7/29/2011 20:51
4,6-Dinitro-2-methylphenol	U		0.000080	0.00020	mg/L	1	7/29/2011 20:51
4-Nitrophenol	U		0.000050	0.0010	mg/L	1	7/29/2011 20:51
Acenaphthene	0.21		0.0025	0.010	mg/L	50	7/30/2011 17:45
Acenaphthylene	0.0026		0.000050	0.00020	mg/L	1	7/29/2011 20:51
Anthracene	0.013		0.00050	0.0020	mg/L	10	7/29/2011 23:25
Benz(a)anthracene	U		0.000050	0.00020	mg/L	1	7/29/2011 20:51
Benzo(a)pyrene	U		0.000050	0.00020	mg/L	1	7/29/2011 20:51
Bis(2-chloroethoxy)methane	U		0.000050	0.00020	mg/L	1	7/29/2011 20:51
Bis(2-ethylhexyl)phthalate	0.00042		0.00010	0.00020	mg/L	1	7/29/2011 20:51
Chrysene	U		0.000050	0.00020	mg/L	1	7/29/2011 20:51
Dibenzofuran	0.15		0.0025	0.010	mg/L	50	7/30/2011 17:45
Di-n-butyl phthalate	U		0.000050	0.00020	mg/L	1	7/29/2011 20:51
Fluoranthene	0.0079		0.000050	0.00020	mg/L	1	7/29/2011 20:51
Fluorene	0.058		0.00050	0.0020	mg/L	10	7/29/2011 23:25
Naphthalene	0.035		0.00050	0.0020	mg/L	10	7/29/2011 23:25
Nitrobenzene	U		0.000050	0.00020	mg/L	1	7/29/2011 20:51
N-Nitrosodiphenylamine	U		0.000050	0.00020	mg/L	1	7/29/2011 20:51
Pentachlorophenol	U		0.000050	0.00020	mg/L	1	7/29/2011 20:51
Phenanthrene	0.035		0.00050	0.0020	mg/L	10	7/29/2011 23:25
Phenol	U		0.000050	0.00020	mg/L	1	7/29/2011 20:51
Pyrene	0.0033		0.000050	0.00020	mg/L	1	7/29/2011 20:51
Surr: 2,4,6-Tribromophenol	63.8			34-129	%REC	1	7/29/2011 20:51
Surr: 2,4,6-Tribromophenol	71.7			34-129	%REC	10	7/29/2011 23:25
Surr: 2,4,6-Tribromophenol	60.0	J		34-129	%REC	50	7/30/2011 17:45
Surr: 2-Fluorobiphenyl	43.3			40-125	%REC	1	7/29/2011 20:51
Surr: 2-Fluorobiphenyl	45.9			40-125	%REC	10	7/29/2011 23:25
Surr: 2-Fluorobiphenyl	52.4	J		40-125	%REC	50	7/30/2011 17:45
Surr: 2-Fluorophenol	43.9			20-120	%REC	1	7/29/2011 20:51
Surr: 2-Fluorophenol	67.6			20-120	%REC	10	7/29/2011 23:25
Surr: 2-Fluorophenol	56.4	J		20-120	%REC	50	7/30/2011 17:45
Surr: 4-Terphenyl-d14	59.5			40-135	%REC	1	7/29/2011 20:51
Surr: 4-Terphenyl-d14	62.0			40-135	%REC	10	7/29/2011 23:25

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 04-Aug-11

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-MW62B-20110727
Collection Date: 7/27/2011 07:55 AM

Work Order: 1107899
Lab ID: 1107899-08
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
Surr: 4-Terphenyl-d14	64.1	J		40-135	%REC	50	7/30/2011 17:45
Surr: Nitrobenzene-d5	46.6			41-120	%REC	1	7/29/2011 20:51
Surr: Nitrobenzene-d5	45.2			41-120	%REC	10	7/29/2011 23:25
Surr: Nitrobenzene-d5	53.8	J		41-120	%REC	50	7/30/2011 17:45
Surr: Phenol-d6	43.1			20-120	%REC	1	7/29/2011 20:51
Surr: Phenol-d6	40.9			20-120	%REC	10	7/29/2011 23:25
Surr: Phenol-d6	62.2	J		20-120	%REC	50	7/30/2011 17:45

VOLATILES		Method: SW8260				Analyst: PC	
1,2-Dichloroethane	U		0.0010	0.0050	mg/L	1	7/29/2011 05:05
Benzene	0.0043	J	0.0010	0.0050	mg/L	1	7/29/2011 05:05
Chlorobenzene	U		0.0010	0.0050	mg/L	1	7/29/2011 05:05
Ethylbenzene	0.041		0.0011	0.0050	mg/L	1	7/29/2011 05:05
Methylene chloride	U		0.0013	0.010	mg/L	1	7/29/2011 05:05
Toluene	0.0095		0.0010	0.0050	mg/L	1	7/29/2011 05:05
Xylenes, Total	0.025		0.0031	0.015	mg/L	1	7/29/2011 05:05
Surr: 1,2-Dichloroethane-d4	94.0			70-125	%REC	1	7/29/2011 05:05
Surr: 4-Bromofluorobenzene	105			72-125	%REC	1	7/29/2011 05:05
Surr: Dibromofluoromethane	94.4			71-125	%REC	1	7/29/2011 05:05
Surr: Toluene-d8	101			75-125	%REC	1	7/29/2011 05:05

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 04-Aug-11

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-P11-20110727
Collection Date: 7/27/2011 08:50 AM

Work Order: 1107899
Lab ID: 1107899-09
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270	Prep: SW3510 / 7/28/11	Analyst: ACN		
1,2-Diphenylhydrazine	U		0.000050	0.00020	mg/L	1	7/29/2011 21:10
2,4-Dimethylphenol	U		0.000050	0.00020	mg/L	1	7/29/2011 21:10
2,4-Dinitrotoluene	U		0.000050	0.00020	mg/L	1	7/29/2011 21:10
2,6-Dinitrotoluene	U		0.000060	0.00020	mg/L	1	7/29/2011 21:10
2-Chloronaphthalene	U		0.000050	0.00020	mg/L	1	7/29/2011 21:10
2-Methylnaphthalene	U		0.000050	0.00020	mg/L	1	7/29/2011 21:10
4,6-Dinitro-2-methylphenol	U		0.000080	0.00020	mg/L	1	7/29/2011 21:10
4-Nitrophenol	U		0.000050	0.0010	mg/L	1	7/29/2011 21:10
Acenaphthene	0.00075		0.000050	0.00020	mg/L	1	7/29/2011 21:10
Acenaphthylene	U		0.000050	0.00020	mg/L	1	7/29/2011 21:10
Anthracene	0.00012	J	0.000050	0.00020	mg/L	1	7/29/2011 21:10
Benz(a)anthracene	U		0.000050	0.00020	mg/L	1	7/29/2011 21:10
Benzo(a)pyrene	U		0.000050	0.00020	mg/L	1	7/29/2011 21:10
Bis(2-chloroethoxy)methane	U		0.000050	0.00020	mg/L	1	7/29/2011 21:10
Bis(2-ethylhexyl)phthalate	0.00018	J	0.00010	0.00020	mg/L	1	7/29/2011 21:10
Chrysene	U		0.000050	0.00020	mg/L	1	7/29/2011 21:10
Dibenzofuran	0.00013	J	0.000050	0.00020	mg/L	1	7/29/2011 21:10
Di-n-butyl phthalate	U		0.000050	0.00020	mg/L	1	7/29/2011 21:10
Fluoranthene	0.000081	J	0.000050	0.00020	mg/L	1	7/29/2011 21:10
Fluorene	0.000082	J	0.000050	0.00020	mg/L	1	7/29/2011 21:10
Naphthalene	0.00013	J	0.000050	0.00020	mg/L	1	7/29/2011 21:10
Nitrobenzene	U		0.000050	0.00020	mg/L	1	7/29/2011 21:10
N-Nitrosodiphenylamine	U		0.000050	0.00020	mg/L	1	7/29/2011 21:10
Pentachlorophenol	U		0.000050	0.00020	mg/L	1	7/29/2011 21:10
Phenanthrene	0.000086	J	0.000050	0.00020	mg/L	1	7/29/2011 21:10
Phenol	U		0.000050	0.00020	mg/L	1	7/29/2011 21:10
Pyrene	U		0.000050	0.00020	mg/L	1	7/29/2011 21:10
Surr: 2,4,6-Tribromophenol	70.2			34-129	%REC	1	7/29/2011 21:10
Surr: 2-Fluorobiphenyl	42.5			40-125	%REC	1	7/29/2011 21:10
Surr: 2-Fluorophenol	35.1			20-120	%REC	1	7/29/2011 21:10
Surr: 4-Terphenyl-d14	59.1			40-135	%REC	1	7/29/2011 21:10
Surr: Nitrobenzene-d5	41.6			41-120	%REC	1	7/29/2011 21:10
Surr: Phenol-d6	39.5			20-120	%REC	1	7/29/2011 21:10

VOLATILES			Method: SW8260	Analyst: PC			
1,2-Dichloroethane	U		0.0010	0.0050	mg/L	1	7/29/2011 05:31
Benzene	U		0.0010	0.0050	mg/L	1	7/29/2011 05:31
Chlorobenzene	U		0.0010	0.0050	mg/L	1	7/29/2011 05:31
Ethylbenzene	U		0.0011	0.0050	mg/L	1	7/29/2011 05:31

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 04-Aug-11

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-P11-20110727
Collection Date: 7/27/2011 08:50 AM

Work Order: 1107899
Lab ID: 1107899-09
Matrix: WATER

Analyses	Result	Qual	SDL	ML	Units	Dilution Factor	Date Analyzed
Methylene chloride	U		0.0013	0.010	mg/L	1	7/29/2011 05:31
Toluene	U		0.0010	0.0050	mg/L	1	7/29/2011 05:31
Xylenes, Total	U		0.0031	0.015	mg/L	1	7/29/2011 05:31
Surr: 1,2-Dichloroethane-d4	95.8			70-125	%REC	1	7/29/2011 05:31
Surr: 4-Bromofluorobenzene	103			72-125	%REC	1	7/29/2011 05:31
Surr: Dibromofluoromethane	97.4			71-125	%REC	1	7/29/2011 05:31
Surr: Toluene-d8	101			75-125	%REC	1	7/29/2011 05:31

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 04-Aug-11

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-MW05-20110727
Collection Date: 7/27/2011 09:45 AM

Work Order: 1107899
Lab ID: 1107899-10
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270	Prep: SW3510 / 7/28/11	Analyst: ACN		
1,2-Diphenylhydrazine	U		0.000050	0.00020	mg/L	1	7/30/2011 18:05
2,4-Dimethylphenol	U		0.000050	0.00020	mg/L	1	7/30/2011 18:05
2,4-Dinitrotoluene	U		0.000050	0.00020	mg/L	1	7/30/2011 18:05
2,6-Dinitrotoluene	U		0.000060	0.00020	mg/L	1	7/30/2011 18:05
2-Chloronaphthalene	U		0.000050	0.00020	mg/L	1	7/30/2011 18:05
2-Methylnaphthalene	U		0.000050	0.00020	mg/L	1	7/30/2011 18:05
4,6-Dinitro-2-methylphenol	U		0.000080	0.00020	mg/L	1	7/30/2011 18:05
4-Nitrophenol	U		0.000050	0.0010	mg/L	1	7/30/2011 18:05
Acenaphthene	0.0053		0.000050	0.00020	mg/L	1	7/30/2011 18:05
Acenaphthylene	U		0.000050	0.00020	mg/L	1	7/30/2011 18:05
Anthracene	U		0.000050	0.00020	mg/L	1	7/30/2011 18:05
Benz(a)anthracene	U		0.000050	0.00020	mg/L	1	7/30/2011 18:05
Benzo(a)pyrene	U		0.000050	0.00020	mg/L	1	7/30/2011 18:05
Bis(2-chloroethoxy)methane	U		0.000050	0.00020	mg/L	1	7/30/2011 18:05
Bis(2-ethylhexyl)phthalate	0.00047		0.00010	0.00020	mg/L	1	7/30/2011 18:05
Chrysene	U		0.000050	0.00020	mg/L	1	7/30/2011 18:05
Dibenzofuran	0.0022		0.000050	0.00020	mg/L	1	7/30/2011 18:05
Di-n-butyl phthalate	U		0.000050	0.00020	mg/L	1	7/30/2011 18:05
Fluoranthene	0.00011	J	0.000050	0.00020	mg/L	1	7/30/2011 18:05
Fluorene	0.0012		0.000050	0.00020	mg/L	1	7/30/2011 18:05
Naphthalene	U		0.000050	0.00020	mg/L	1	7/30/2011 18:05
Nitrobenzene	U		0.000050	0.00020	mg/L	1	7/30/2011 18:05
N-Nitrosodiphenylamine	U		0.000050	0.00020	mg/L	1	7/30/2011 18:05
Pentachlorophenol	U		0.000050	0.00020	mg/L	1	7/30/2011 18:05
Phenanthrene	0.00013	J	0.000050	0.00020	mg/L	1	7/30/2011 18:05
Phenol	U		0.000050	0.00020	mg/L	1	7/30/2011 18:05
Pyrene	0.00014	J	0.000050	0.00020	mg/L	1	7/30/2011 18:05
Surr: 2,4,6-Tribromophenol	58.1			34-129	%REC	1	7/30/2011 18:05
Surr: 2-Fluorobiphenyl	55.0			40-125	%REC	1	7/30/2011 18:05
Surr: 2-Fluorophenol	43.3			20-120	%REC	1	7/30/2011 18:05
Surr: 4-Terphenyl-d14	60.2			40-135	%REC	1	7/30/2011 18:05
Surr: Nitrobenzene-d5	52.7			41-120	%REC	1	7/30/2011 18:05
Surr: Phenol-d6	42.8			20-120	%REC	1	7/30/2011 18:05

VOLATILES			Method: SW8260	Analyst: PC			
1,2-Dichloroethane	U		0.0010	0.0050	mg/L	1	7/29/2011 05:56
Benzene	U		0.0010	0.0050	mg/L	1	7/29/2011 05:56
Chlorobenzene	U		0.0010	0.0050	mg/L	1	7/29/2011 05:56
Ethylbenzene	U		0.0011	0.0050	mg/L	1	7/29/2011 05:56

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 04-Aug-11

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-MW05-20110727
Collection Date: 7/27/2011 09:45 AM

Work Order: 1107899
Lab ID: 1107899-10
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
Methylene chloride	U		0.0013	0.010	mg/L	1	7/29/2011 05:56
Toluene	U		0.0010	0.0050	mg/L	1	7/29/2011 05:56
Xylenes, Total	U		0.0031	0.015	mg/L	1	7/29/2011 05:56
Surr: 1,2-Dichloroethane-d4	96.3			70-125	%REC	1	7/29/2011 05:56
Surr: 4-Bromofluorobenzene	102			72-125	%REC	1	7/29/2011 05:56
Surr: Dibromofluoromethane	97.3			71-125	%REC	1	7/29/2011 05:56
Surr: Toluene-d8	100			75-125	%REC	1	7/29/2011 05:56

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 04-Aug-11

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-MW64A-20110727
Collection Date: 7/27/2011 10:40 AM

Work Order: 1107899
Lab ID: 1107899-11
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270	Prep: SW3510 / 7/28/11	Analyst: ACN		
1,2-Diphenylhydrazine	U		0.000050	0.00020	mg/L	1	7/29/2011 21:49
2,4-Dimethylphenol	U		0.000050	0.00020	mg/L	1	7/29/2011 21:49
2,4-Dinitrotoluene	U		0.000050	0.00020	mg/L	1	7/29/2011 21:49
2,6-Dinitrotoluene	U		0.000060	0.00020	mg/L	1	7/29/2011 21:49
2-Chloronaphthalene	U		0.000050	0.00020	mg/L	1	7/29/2011 21:49
2-Methylnaphthalene	U		0.000050	0.00020	mg/L	1	7/29/2011 21:49
4,6-Dinitro-2-methylphenol	U		0.000080	0.00020	mg/L	1	7/29/2011 21:49
4-Nitrophenol	U		0.000050	0.0010	mg/L	1	7/29/2011 21:49
Acenaphthene	U		0.000050	0.00020	mg/L	1	7/29/2011 21:49
Acenaphthylene	U		0.000050	0.00020	mg/L	1	7/29/2011 21:49
Anthracene	0.00036		0.000050	0.00020	mg/L	1	7/29/2011 21:49
Benz(a)anthracene	U		0.000050	0.00020	mg/L	1	7/29/2011 21:49
Benzo(a)pyrene	U		0.000050	0.00020	mg/L	1	7/29/2011 21:49
Bis(2-chloroethoxy)methane	U		0.000050	0.00020	mg/L	1	7/29/2011 21:49
Bis(2-ethylhexyl)phthalate	0.00076		0.00010	0.00020	mg/L	1	7/29/2011 21:49
Chrysene	U		0.000050	0.00020	mg/L	1	7/29/2011 21:49
Dibenzofuran	0.0013		0.000050	0.00020	mg/L	1	7/29/2011 21:49
Di-n-butyl phthalate	0.000079	J	0.000050	0.00020	mg/L	1	7/29/2011 21:49
Fluoranthene	0.00057		0.000050	0.00020	mg/L	1	7/29/2011 21:49
Fluorene	U		0.000050	0.00020	mg/L	1	7/29/2011 21:49
Naphthalene	U		0.000050	0.00020	mg/L	1	7/29/2011 21:49
Nitrobenzene	U		0.000050	0.00020	mg/L	1	7/29/2011 21:49
N-Nitrosodiphenylamine	U		0.000050	0.00020	mg/L	1	7/29/2011 21:49
Pentachlorophenol	U		0.000050	0.00020	mg/L	1	7/29/2011 21:49
Phenanthrene	U		0.000050	0.00020	mg/L	1	7/29/2011 21:49
Phenol	0.000077	J	0.000050	0.00020	mg/L	1	7/29/2011 21:49
Pyrene	0.00042		0.000050	0.00020	mg/L	1	7/29/2011 21:49
Surr: 2,4,6-Tribromophenol	70.2			34-129	%REC	1	7/29/2011 21:49
Surr: 2-Fluorobiphenyl	50.3			40-125	%REC	1	7/29/2011 21:49
Surr: 2-Fluorophenol	46.6			20-120	%REC	1	7/29/2011 21:49
Surr: 4-Terphenyl-d14	60.6			40-135	%REC	1	7/29/2011 21:49
Surr: Nitrobenzene-d5	54.8			41-120	%REC	1	7/29/2011 21:49
Surr: Phenol-d6	55.6			20-120	%REC	1	7/29/2011 21:49
VOLATILES			Method: SW8260	Analyst: PC			
1,2-Dichloroethane	U		0.0010	0.0050	mg/L	1	7/29/2011 06:22
Benzene	U		0.0010	0.0050	mg/L	1	7/29/2011 06:22
Chlorobenzene	U		0.0010	0.0050	mg/L	1	7/29/2011 06:22
Ethylbenzene	U		0.0011	0.0050	mg/L	1	7/29/2011 06:22

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 04-Aug-11

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-MW64A-20110727
Collection Date: 7/27/2011 10:40 AM

Work Order: 1107899
Lab ID: 1107899-11
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
Methylene chloride	U		0.0013	0.010	mg/L	1	7/29/2011 06:22
Toluene	U		0.0010	0.0050	mg/L	1	7/29/2011 06:22
Xylenes, Total	U		0.0031	0.015	mg/L	1	7/29/2011 06:22
Surr: 1,2-Dichloroethane-d4	97.9			70-125	%REC	1	7/29/2011 06:22
Surr: 4-Bromofluorobenzene	101			72-125	%REC	1	7/29/2011 06:22
Surr: Dibromofluoromethane	95.5			71-125	%REC	1	7/29/2011 06:22
Surr: Toluene-d8	99.2			75-125	%REC	1	7/29/2011 06:22

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 04-Aug-11

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-MW21C-20110727
Collection Date: 7/27/2011 11:40 AM

Work Order: 1107899
Lab ID: 1107899-12
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270	Prep: SW3510 / 7/28/11		Analyst: ACN	
1,2-Diphenylhydrazine	U		0.000050	0.00020	mg/L	1	7/29/2011 22:08
2,4-Dimethylphenol	U		0.000050	0.00020	mg/L	1	7/29/2011 22:08
2,4-Dinitrotoluene	U		0.000050	0.00020	mg/L	1	7/29/2011 22:08
2,6-Dinitrotoluene	U		0.000060	0.00020	mg/L	1	7/29/2011 22:08
2-Chloronaphthalene	U		0.000050	0.00020	mg/L	1	7/29/2011 22:08
2-Methylnaphthalene	U		0.000050	0.00020	mg/L	1	7/29/2011 22:08
4,6-Dinitro-2-methylphenol	U		0.000080	0.00020	mg/L	1	7/29/2011 22:08
4-Nitrophenol	U		0.000050	0.0010	mg/L	1	7/29/2011 22:08
Acenaphthene	U		0.000050	0.00020	mg/L	1	7/29/2011 22:08
Acenaphthylene	U		0.000050	0.00020	mg/L	1	7/29/2011 22:08
Anthracene	U		0.000050	0.00020	mg/L	1	7/29/2011 22:08
Benz(a)anthracene	U		0.000050	0.00020	mg/L	1	7/29/2011 22:08
Benzo(a)pyrene	U		0.000050	0.00020	mg/L	1	7/29/2011 22:08
Bis(2-chloroethoxy)methane	U		0.000050	0.00020	mg/L	1	7/29/2011 22:08
Bis(2-ethylhexyl)phthalate	0.00062		0.00010	0.00020	mg/L	1	7/29/2011 22:08
Chrysene	U		0.000050	0.00020	mg/L	1	7/29/2011 22:08
Dibenzofuran	U		0.000050	0.00020	mg/L	1	7/29/2011 22:08
Di-n-butyl phthalate	U		0.000050	0.00020	mg/L	1	7/29/2011 22:08
Fluoranthene	U		0.000050	0.00020	mg/L	1	7/29/2011 22:08
Fluorene	U		0.000050	0.00020	mg/L	1	7/29/2011 22:08
Naphthalene	U		0.000050	0.00020	mg/L	1	7/29/2011 22:08
Nitrobenzene	U		0.000050	0.00020	mg/L	1	7/29/2011 22:08
N-Nitrosodiphenylamine	U		0.000050	0.00020	mg/L	1	7/29/2011 22:08
Pentachlorophenol	U		0.000050	0.00020	mg/L	1	7/29/2011 22:08
Phenanthrene	U		0.000050	0.00020	mg/L	1	7/29/2011 22:08
Phenol	U		0.000050	0.00020	mg/L	1	7/29/2011 22:08
Pyrene	U		0.000050	0.00020	mg/L	1	7/29/2011 22:08
Surr: 2,4,6-Tribromophenol	55.8			34-129	%REC	1	7/29/2011 22:08
Surr: 2-Fluorobiphenyl	45.8			40-125	%REC	1	7/29/2011 22:08
Surr: 2-Fluorophenol	40.3			20-120	%REC	1	7/29/2011 22:08
Surr: 4-Terphenyl-d14	59.9			40-135	%REC	1	7/29/2011 22:08
Surr: Nitrobenzene-d5	45.6			41-120	%REC	1	7/29/2011 22:08
Surr: Phenol-d6	39.4			20-120	%REC	1	7/29/2011 22:08

VOLATILES			Method: SW8260			Analyst: PC	
1,2-Dichloroethane	U		0.0010	0.0050	mg/L	1	7/29/2011 06:47
Benzene	U		0.0010	0.0050	mg/L	1	7/29/2011 06:47
Chlorobenzene	U		0.0010	0.0050	mg/L	1	7/29/2011 06:47
Ethylbenzene	U		0.0011	0.0050	mg/L	1	7/29/2011 06:47

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 04-Aug-11

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-MW21C-20110727
Collection Date: 7/27/2011 11:40 AM

Work Order: 1107899
Lab ID: 1107899-12
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
Methylene chloride	U		0.0013	0.010	mg/L	1	7/29/2011 06:47
Toluene	U		0.0010	0.0050	mg/L	1	7/29/2011 06:47
Xylenes, Total	U		0.0031	0.015	mg/L	1	7/29/2011 06:47
Surr: 1,2-Dichloroethane-d4	100			70-125	%REC	1	7/29/2011 06:47
Surr: 4-Bromofluorobenzene	102			72-125	%REC	1	7/29/2011 06:47
Surr: Dibromofluoromethane	97.3			71-125	%REC	1	7/29/2011 06:47
Surr: Toluene-d8	98.5			75-125	%REC	1	7/29/2011 06:47

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 04-Aug-11

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-DUP6-20110727
Collection Date: 7/27/2011 11:40 AM

Work Order: 1107899
Lab ID: 1107899-13
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270		Prep: SW3510 / 7/28/11		Analyst: ACN
1,2-Diphenylhydrazine	U		0.000050	0.00020	mg/L	1	7/29/2011 22:27
2,4-Dimethylphenol	U		0.000050	0.00020	mg/L	1	7/29/2011 22:27
2,4-Dinitrotoluene	U		0.000050	0.00020	mg/L	1	7/29/2011 22:27
2,6-Dinitrotoluene	U		0.000060	0.00020	mg/L	1	7/29/2011 22:27
2-Chloronaphthalene	U		0.000050	0.00020	mg/L	1	7/29/2011 22:27
2-Methylnaphthalene	U		0.000050	0.00020	mg/L	1	7/29/2011 22:27
4,6-Dinitro-2-methylphenol	U		0.000080	0.00020	mg/L	1	7/29/2011 22:27
4-Nitrophenol	U		0.000050	0.0010	mg/L	1	7/29/2011 22:27
Acenaphthene	U		0.000050	0.00020	mg/L	1	7/29/2011 22:27
Acenaphthylene	U		0.000050	0.00020	mg/L	1	7/29/2011 22:27
Anthracene	U		0.000050	0.00020	mg/L	1	7/29/2011 22:27
Benz(a)anthracene	U		0.000050	0.00020	mg/L	1	7/29/2011 22:27
Benzo(a)pyrene	U		0.000050	0.00020	mg/L	1	7/29/2011 22:27
Bis(2-chloroethoxy)methane	U		0.000050	0.00020	mg/L	1	7/29/2011 22:27
Bis(2-ethylhexyl)phthalate	0.00036		0.00010	0.00020	mg/L	1	7/29/2011 22:27
Chrysene	U		0.000050	0.00020	mg/L	1	7/29/2011 22:27
Dibenzofuran	U		0.000050	0.00020	mg/L	1	7/29/2011 22:27
Di-n-butyl phthalate	U		0.000050	0.00020	mg/L	1	7/29/2011 22:27
Fluoranthene	U		0.000050	0.00020	mg/L	1	7/29/2011 22:27
Fluorene	U		0.000050	0.00020	mg/L	1	7/29/2011 22:27
Naphthalene	U		0.000050	0.00020	mg/L	1	7/29/2011 22:27
Nitrobenzene	U		0.000050	0.00020	mg/L	1	7/29/2011 22:27
N-Nitrosodiphenylamine	U		0.000050	0.00020	mg/L	1	7/29/2011 22:27
Pentachlorophenol	U		0.000050	0.00020	mg/L	1	7/29/2011 22:27
Phenanthrene	U		0.000050	0.00020	mg/L	1	7/29/2011 22:27
Phenol	U		0.000050	0.00020	mg/L	1	7/29/2011 22:27
Pyrene	U		0.000050	0.00020	mg/L	1	7/29/2011 22:27
Surr: 2,4,6-Tribromophenol	59.7			34-129	%REC	1	7/29/2011 22:27
Surr: 2-Fluorobiphenyl	41.4			40-125	%REC	1	7/29/2011 22:27
Surr: 2-Fluorophenol	37.2			20-120	%REC	1	7/29/2011 22:27
Surr: 4-Terphenyl-d14	58.7			40-135	%REC	1	7/29/2011 22:27
Surr: Nitrobenzene-d5	44.0			41-120	%REC	1	7/29/2011 22:27
Surr: Phenol-d6	37.9			20-120	%REC	1	7/29/2011 22:27
VOLATILES			Method: SW8260				Analyst: PC
1,2-Dichloroethane	U		0.0010	0.0050	mg/L	1	7/29/2011 07:12
Benzene	U		0.0010	0.0050	mg/L	1	7/29/2011 07:12
Chlorobenzene	U		0.0010	0.0050	mg/L	1	7/29/2011 07:12
Ethylbenzene	U		0.0011	0.0050	mg/L	1	7/29/2011 07:12

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 04-Aug-11

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-DUP6-20110727
Collection Date: 7/27/2011 11:40 AM

Work Order: 1107899
Lab ID: 1107899-13
Matrix: WATER

Analyses	Result	Qual	SDL	ML	Units	Dilution Factor	Date Analyzed
Methylene chloride	U		0.0013	0.010	mg/L	1	7/29/2011 07:12
Toluene	U		0.0010	0.0050	mg/L	1	7/29/2011 07:12
Xylenes, Total	U		0.0031	0.015	mg/L	1	7/29/2011 07:12
Surr: 1,2-Dichloroethane-d4	96.3			70-125	%REC	1	7/29/2011 07:12
Surr: 4-Bromofluorobenzene	101			72-125	%REC	1	7/29/2011 07:12
Surr: Dibromofluoromethane	96.6			71-125	%REC	1	7/29/2011 07:12
Surr: Toluene-d8	100			75-125	%REC	1	7/29/2011 07:12

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 04-Aug-11

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-MW58A-20110727
Collection Date: 7/27/2011 12:40 PM

Work Order: 1107899
Lab ID: 1107899-14
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270	Prep: SW3510 / 7/28/11	Analyst: ACN		
1,2-Diphenylhydrazine	U		0.000050	0.00020	mg/L	1	7/29/2011 22:47
2,4-Dimethylphenol	U		0.000050	0.00020	mg/L	1	7/29/2011 22:47
2,4-Dinitrotoluene	U		0.000050	0.00020	mg/L	1	7/29/2011 22:47
2,6-Dinitrotoluene	U		0.000060	0.00020	mg/L	1	7/29/2011 22:47
2-Chloronaphthalene	U		0.000050	0.00020	mg/L	1	7/29/2011 22:47
2-Methylnaphthalene	U		0.000050	0.00020	mg/L	1	7/29/2011 22:47
4,6-Dinitro-2-methylphenol	U		0.000080	0.00020	mg/L	1	7/29/2011 22:47
4-Nitrophenol	U		0.000050	0.0010	mg/L	1	7/29/2011 22:47
Acenaphthene	U		0.000050	0.00020	mg/L	1	7/29/2011 22:47
Acenaphthylene	U		0.000050	0.00020	mg/L	1	7/29/2011 22:47
Anthracene	0.00039		0.000050	0.00020	mg/L	1	7/29/2011 22:47
Benz(a)anthracene	U		0.000050	0.00020	mg/L	1	7/29/2011 22:47
Benzo(a)pyrene	U		0.000050	0.00020	mg/L	1	7/29/2011 22:47
Bis(2-chloroethoxy)methane	U		0.000050	0.00020	mg/L	1	7/29/2011 22:47
Bis(2-ethylhexyl)phthalate	0.00071		0.00010	0.00020	mg/L	1	7/29/2011 22:47
Chrysene	U		0.000050	0.00020	mg/L	1	7/29/2011 22:47
Dibenzofuran	0.0017		0.000050	0.00020	mg/L	1	7/29/2011 22:47
Di-n-butyl phthalate	U		0.000050	0.00020	mg/L	1	7/29/2011 22:47
Fluoranthene	0.0010		0.000050	0.00020	mg/L	1	7/29/2011 22:47
Fluorene	U		0.000050	0.00020	mg/L	1	7/29/2011 22:47
Naphthalene	U		0.000050	0.00020	mg/L	1	7/29/2011 22:47
Nitrobenzene	U		0.000050	0.00020	mg/L	1	7/29/2011 22:47
N-Nitrosodiphenylamine	U		0.000050	0.00020	mg/L	1	7/29/2011 22:47
Pentachlorophenol	U		0.000050	0.00020	mg/L	1	7/29/2011 22:47
Phenanthrene	U		0.000050	0.00020	mg/L	1	7/29/2011 22:47
Phenol	0.000077	J	0.000050	0.00020	mg/L	1	7/29/2011 22:47
Pyrene	0.00073		0.000050	0.00020	mg/L	1	7/29/2011 22:47
Surr: 2,4,6-Tribromophenol	67.4			34-129	%REC	1	7/29/2011 22:47
Surr: 2-Fluorobiphenyl	49.3			40-125	%REC	1	7/29/2011 22:47
Surr: 2-Fluorophenol	38.1			20-120	%REC	1	7/29/2011 22:47
Surr: 4-Terphenyl-d14	59.2			40-135	%REC	1	7/29/2011 22:47
Surr: Nitrobenzene-d5	48.9			41-120	%REC	1	7/29/2011 22:47
Surr: Phenol-d6	44.4			20-120	%REC	1	7/29/2011 22:47

VOLATILES			Method: SW8260	Analyst: PC			
1,2-Dichloroethane	U		0.0050	0.025	mg/L	5	7/29/2011 09:20
Benzene	U		0.0050	0.025	mg/L	5	7/29/2011 09:20
Chlorobenzene	U		0.0050	0.025	mg/L	5	7/29/2011 09:20
Ethylbenzene	U		0.0055	0.025	mg/L	5	7/29/2011 09:20

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 04-Aug-11

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-MW58A-20110727
Collection Date: 7/27/2011 12:40 PM

Work Order: 1107899
Lab ID: 1107899-14
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
Methylene chloride	U		0.0065	0.050	mg/L	5	7/29/2011 09:20
Toluene	U		0.0050	0.025	mg/L	5	7/29/2011 09:20
Vinyl chloride	U		0.0050	0.010	mg/L	5	7/29/2011 09:20
Xylenes, Total	U		0.016	0.075	mg/L	5	7/29/2011 09:20
Surr: 1,2-Dichloroethane-d4	97.6			70-125	%REC	5	7/29/2011 09:20
Surr: 4-Bromofluorobenzene	102			72-125	%REC	5	7/29/2011 09:20
Surr: Dibromofluoromethane	96.3			71-125	%REC	5	7/29/2011 09:20
Surr: Toluene-d8	101			75-125	%REC	5	7/29/2011 09:20

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 04-Aug-11

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-MW09-20110727
Collection Date: 7/27/2011 01:40 PM

Work Order: 1107899
Lab ID: 1107899-15
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270	Prep: SW3510 / 7/28/11	Analyst: ACN		
1,2-Diphenylhydrazine	U		0.000050	0.00020	mg/L	1	7/29/2011 23:06
2,4-Dimethylphenol	U		0.000050	0.00020	mg/L	1	7/29/2011 23:06
2,4-Dinitrotoluene	U		0.000050	0.00020	mg/L	1	7/29/2011 23:06
2,6-Dinitrotoluene	U		0.000060	0.00020	mg/L	1	7/29/2011 23:06
2-Chloronaphthalene	U		0.000050	0.00020	mg/L	1	7/29/2011 23:06
2-Methylnaphthalene	U		0.000050	0.00020	mg/L	1	7/29/2011 23:06
4,6-Dinitro-2-methylphenol	U		0.000080	0.00020	mg/L	1	7/29/2011 23:06
4-Nitrophenol	U		0.000050	0.0010	mg/L	1	7/29/2011 23:06
Acenaphthene	U		0.000050	0.00020	mg/L	1	7/29/2011 23:06
Acenaphthylene	U		0.000050	0.00020	mg/L	1	7/29/2011 23:06
Anthracene	0.00036		0.000050	0.00020	mg/L	1	7/29/2011 23:06
Benz(a)anthracene	U		0.000050	0.00020	mg/L	1	7/29/2011 23:06
Benzo(a)pyrene	U		0.000050	0.00020	mg/L	1	7/29/2011 23:06
Bis(2-chloroethoxy)methane	U		0.000050	0.00020	mg/L	1	7/29/2011 23:06
Bis(2-ethylhexyl)phthalate	0.00018	J	0.00010	0.00020	mg/L	1	7/29/2011 23:06
Chrysene	U		0.000050	0.00020	mg/L	1	7/29/2011 23:06
Dibenzofuran	U		0.000050	0.00020	mg/L	1	7/29/2011 23:06
Di-n-butyl phthalate	U		0.000050	0.00020	mg/L	1	7/29/2011 23:06
Fluoranthene	U		0.000050	0.00020	mg/L	1	7/29/2011 23:06
Fluorene	U		0.000050	0.00020	mg/L	1	7/29/2011 23:06
Naphthalene	U		0.000050	0.00020	mg/L	1	7/29/2011 23:06
Nitrobenzene	U		0.000050	0.00020	mg/L	1	7/29/2011 23:06
N-Nitrosodiphenylamine	U		0.000050	0.00020	mg/L	1	7/29/2011 23:06
Pentachlorophenol	U		0.000050	0.00020	mg/L	1	7/29/2011 23:06
Phenanthrene	U		0.000050	0.00020	mg/L	1	7/29/2011 23:06
Phenol	U		0.000050	0.00020	mg/L	1	7/29/2011 23:06
Pyrene	U		0.000050	0.00020	mg/L	1	7/29/2011 23:06
Surr: 2,4,6-Tribromophenol	66.4			34-129	%REC	1	7/29/2011 23:06
Surr: 2-Fluorobiphenyl	44.7			40-125	%REC	1	7/29/2011 23:06
Surr: 2-Fluorophenol	32.4			20-120	%REC	1	7/29/2011 23:06
Surr: 4-Terphenyl-d14	59.1			40-135	%REC	1	7/29/2011 23:06
Surr: Nitrobenzene-d5	41.1			41-120	%REC	1	7/29/2011 23:06
Surr: Phenol-d6	35.8			20-120	%REC	1	7/29/2011 23:06

VOLATILES			Method: SW8260	Analyst: PC			
1,2-Dichloroethane	U		0.0010	0.0050	mg/L	1	7/29/2011 07:38
Benzene	U		0.0010	0.0050	mg/L	1	7/29/2011 07:38
Chlorobenzene	U		0.0010	0.0050	mg/L	1	7/29/2011 07:38
Ethylbenzene	U		0.0011	0.0050	mg/L	1	7/29/2011 07:38

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 04-Aug-11

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-MW09-20110727
Collection Date: 7/27/2011 01:40 PM

Work Order: 1107899
Lab ID: 1107899-15
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
Methylene chloride	U		0.0013	0.010	mg/L	1	7/29/2011 07:38
Toluene	U		0.0010	0.0050	mg/L	1	7/29/2011 07:38
Xylenes, Total	U		0.0031	0.015	mg/L	1	7/29/2011 07:38
Surr: 1,2-Dichloroethane-d4	96.1			70-125	%REC	1	7/29/2011 07:38
Surr: 4-Bromofluorobenzene	99.9			72-125	%REC	1	7/29/2011 07:38
Surr: Dibromofluoromethane	96.5			71-125	%REC	1	7/29/2011 07:38
Surr: Toluene-d8	98.7			75-125	%REC	1	7/29/2011 07:38

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 04-Aug-11

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-TB-20110727
Collection Date: 7/27/2011

Work Order: 1107899
Lab ID: 1107899-16
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
VOLATILES			Method: SW8260			Analyst: PC	
1,2-Dichloroethane	U		0.0010	0.0050	mg/L	1	7/28/2011 22:17
Benzene	U		0.0010	0.0050	mg/L	1	7/28/2011 22:17
Chlorobenzene	U		0.0010	0.0050	mg/L	1	7/28/2011 22:17
Ethylbenzene	U		0.0011	0.0050	mg/L	1	7/28/2011 22:17
Methylene chloride	U		0.0013	0.010	mg/L	1	7/28/2011 22:17
Toluene	U		0.0010	0.0050	mg/L	1	7/28/2011 22:17
Vinyl chloride	U		0.0010	0.0020	mg/L	1	7/28/2011 22:17
Xylenes, Total	U		0.0031	0.015	mg/L	1	7/28/2011 22:17
Surr: 1,2-Dichloroethane-d4	97.4			70-125	%REC	1	7/28/2011 22:17
Surr: 4-Bromofluorobenzene	101			72-125	%REC	1	7/28/2011 22:17
Surr: Dibromofluoromethane	99.7			71-125	%REC	1	7/28/2011 22:17
Surr: Toluene-d8	101			75-125	%REC	1	7/28/2011 22:17

Note: See Qualifiers Page for a list of qualifiers and their explanation.

WorkOrder: 1107899
 InstrumentID: SV-4
 Test Code: 8270_LOW_W
 Test Number: SW8270
 Test Name: Low-Level Semivolatiles

**METHOD DETECTION /
 REPORTING LIMITS**

Matrix: Aqueous Units: mg/L

Type	Analyte	CAS	DCS	MDL	Unadjusted MQL
A	1,2-Diphenylhydrazine	122-66-7	0.000057	0.000050	0.00020
A	2,4-Dimethylphenol	105-67-9	0.000015	0.000050	0.00020
A	2,4-Dinitrotoluene	121-14-2	0.000080	0.000050	0.00020
A	2,6-Dinitrotoluene	606-20-2	0.000073	0.000060	0.00020
A	2-Chloronaphthalene	91-58-7	0.000074	0.000050	0.00020
A	2-Methylnaphthalene	91-57-6	0.000088	0.000050	0.00020
A	4,6-Dinitro-2-methylphenol	534-52-1	0.00014	0.000080	0.00020
A	4-Nitrophenol	100-02-7	0.000011	0.000050	0.0010
A	Acenaphthene	83-32-9	0.000076	0.000050	0.00020
A	Acenaphthylene	208-96-8	0.000083	0.000050	0.00020
A	Anthracene	120-12-7	0.000068	0.000050	0.00020
A	Benz(a)anthracene	56-55-3	0.000075	0.000050	0.00020
A	Benzo(a)pyrene	50-32-8	0.000072	0.000050	0.00020
A	Bis(2-chloroethoxy)methane	111-91-1	0.000087	0.000050	0.00020
A	Bis(2-ethylhexyl)phthalate	117-81-7	0.000072	0.00010	0.00020
A	Chrysene	218-01-9	0.000078	0.000050	0.00020
A	Dibenzofuran	132-64-9	0.000082	0.000050	0.00020
A	Di-n-butyl phthalate	84-74-2	0.000094	0.000050	0.00020
A	Fluoranthene	206-44-0	0.000074	0.000050	0.00020
A	Fluorene	86-73-7	0.000091	0.000050	0.00020
A	Naphthalene	91-20-3	0.000082	0.000050	0.00020
A	Nitrobenzene	98-95-3	0.00011	0.000050	0.00020
A	N-Nitrosodiphenylamine	86-30-6	0.000067	0.000050	0.00020
A	Pentachlorophenol	87-86-5	0.000044	0.000050	0.00020
A	Phenanthrene	85-01-8	0.000098	0.000050	0.00020
A	Phenol	108-95-2	0.00010	0.000050	0.00020
A	Pyrene	129-00-0	0.000073	0.000050	0.00020
S	Surr: 2,4,6-Tribromophenol	118-79-6	0	0	0.00020
S	Surr: 2-Fluorobiphenyl	321-60-8	0	0	0.00020
S	Surr: 2-Fluorophenol	367-12-4	0	0	0.00020
S	Surr: 4-Terphenyl-d14	1718-51-0	0	0	0.00020
S	Surr: Nitrobenzene-d5	4165-60-0	0	0	0.00020
S	Surr: Phenol-d6	13127-88-3	0	0	0.00020

WorkOrder: 1107899
 InstrumentID: SV-6
 Test Code: 8270_LOW_W
 Test Number: SW8270
 Test Name: Low-Level Semivolatiles

**METHOD DETECTION /
 REPORTING LIMITS**

Matrix: Aqueous Units: mg/L

Type	Analyte	CAS	DCS	MDL	Unadjusted MQL
A	1,2-Diphenylhydrazine	122-66-7	0.000072	0.000050	0.00020
A	2,4-Dimethylphenol	105-67-9	0.000014	0.000050	0.00020
A	2,4-Dinitrotoluene	121-14-2	0.000060	0.000050	0.00020
A	2,6-Dinitrotoluene	606-20-2	0.000064	0.000060	0.00020
A	2-Chloronaphthalene	91-58-7	0.000070	0.000050	0.00020
A	2-Methylnaphthalene	91-57-6	0.000081	0.000050	0.00020
A	4,6-Dinitro-2-methylphenol	534-52-1	0.000046	0.000080	0.00020
A	4-Nitrophenol	100-02-7	0.000045	0.000050	0.0010
A	Acenaphthene	83-32-9	0.000077	0.000050	0.00020
A	Acenaphthylene	208-96-8	0.000075	0.000050	0.00020
A	Anthracene	120-12-7	0.000071	0.000050	0.00020
A	Benz(a)anthracene	56-55-3	0.000086	0.000050	0.00020
A	Benzo(a)pyrene	50-32-8	0.000073	0.000050	0.00020
A	Bis(2-chloroethoxy)methane	111-91-1	0.000076	0.000050	0.00020
A	Bis(2-ethylhexyl)phthalate	117-81-7	0.000093	0.00010	0.00020
A	Chrysene	218-01-9	0.000084	0.000050	0.00020
A	Dibenzofuran	132-64-9	0.000077	0.000050	0.00020
A	Di-n-butyl phthalate	84-74-2	0.000078	0.000050	0.00020
A	Fluoranthene	206-44-0	0.000076	0.000050	0.00020
A	Fluorene	86-73-7	0.000075	0.000050	0.00020
A	Naphthalene	91-20-3	0.000083	0.000050	0.00020
A	Nitrobenzene	98-95-3	0.000098	0.000050	0.00020
A	N-Nitrosodiphenylamine	86-30-6	0.000075	0.000050	0.00020
A	Pentachlorophenol	87-86-5	0.00018	0.000050	0.00020
A	Phenanthrene	85-01-8	0.000079	0.000050	0.00020
A	Phenol	108-95-2	0.000078	0.000050	0.00020
A	Pyrene	129-00-0	0.000077	0.000050	0.00020
S	Surr: 2,4,6-Tribromophenol	118-79-6	0	0	0.00020
S	Surr: 2-Fluorobiphenyl	321-60-8	0	0	0.00020
S	Surr: 2-Fluorophenol	367-12-4	0	0	0.00020
S	Surr: 4-Terphenyl-d14	1718-51-0	0	0	0.00020
S	Surr: Nitrobenzene-d5	4165-60-0	0	0	0.00020
S	Surr: Phenol-d6	13127-88-3	0	0	0.00020

WorkOrder: 1107899
InstrumentID: VOA1
Test Code: 8260_W
Test Number: SW8260
Test Name: Volatiles

**METHOD DETECTION /
 REPORTING LIMITS**

Matrix: Aqueous **Units:** mg/L

Type	Analyte	CAS	DCS	MDL	Unadjusted MQL
A	1,2-Dichloroethane	107-06-2	0.0020	0.0010	0.0050
A	Benzene	71-43-2	0.0021	0.0010	0.0050
A	Chlorobenzene	108-90-7	0.0020	0.0010	0.0050
A	Ethylbenzene	100-41-4	0.0020	0.0011	0.0050
A	Methylene chloride	75-09-2	0.0026	0.0013	0.010
A	Toluene	108-88-3	0.0020	0.0010	0.0050
M	Xylenes, Total	1330-20-7	0.0058	0.0031	0.015
S	Surr: 1,2-Dichloroethane-d4	17060-07-0	0	0	0.0050
S	Surr: 4-Bromofluorobenzene	460-00-4	0	0	0.0050
S	Surr: Dibromofluoromethane	1868-53-7	0	0	0.0050
S	Surr: Toluene-d8	2037-26-5	0	0	0.0050

WorkOrder: 1107899
InstrumentID: VOA7
Test Code: 8260_W
Test Number: SW8260
Test Name: Volatiles

**METHOD DETECTION /
 REPORTING LIMITS**

Matrix: Aqueous **Units:** mg/L

Type	Analyte	CAS	DCS	MDL	Unadjusted MQL
A	1,2-Dichloroethane	107-06-2	0.0014	0.0010	0.0050
A	Benzene	71-43-2	0.0015	0.0010	0.0050
A	Chlorobenzene	108-90-7	0.0014	0.0010	0.0050
A	Ethylbenzene	100-41-4	0.0014	0.0011	0.0050
A	Methylene chloride	75-09-2	0.0017	0.0013	0.010
A	Toluene	108-88-3	0.0015	0.0010	0.0050
A	Vinyl chloride	75-01-4	0.0014	0.0010	0.0020
M	Xylenes, Total	1330-20-7	0.0043	0.0031	0.015
S	Surr: 1,2-Dichloroethane-d4	17060-07-0	0	0	0.0050
S	Surr: 4-Bromofluorobenzene	460-00-4	0	0	0.0050
S	Surr: Dibromofluoromethane	1868-53-7	0	0	0.0050
S	Surr: Toluene-d8	2037-26-5	0	0	0.0050

ALS Environmental

Date: 04-Aug-11

Client: Pastor, Behling & Wheeler, LLC
Work Order: 1107899
Project: HWPW Site-Wide GW

QC BATCH REPORT

Batch ID: **54305** Instrument ID **SV-6** Method: **SW8270**

MBLK	Sample ID: SBLKW1-110728-54305	Units: µg/L					Analysis Date: 7/29/2011 04:39 PM			
Client ID:	Run ID: SV-6_110729A	SeqNo: 2478507			Prep Date: 7/28/2011		DF: 1			
Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Diphenylhydrazine	U	0.20								
2,4-Dimethylphenol	U	0.20								
2,4-Dinitrotoluene	U	0.20								
2,6-Dinitrotoluene	U	0.20								
2-Chloronaphthalene	U	0.20								
2-Methylnaphthalene	U	0.20								
4,6-Dinitro-2-methylphenol	U	0.20								
4-Nitrophenol	U	1.0								
Acenaphthene	U	0.20								
Acenaphthylene	U	0.20								
Anthracene	U	0.20								
Benz(a)anthracene	U	0.20								
Benzo(a)pyrene	U	0.20								
Bis(2-chloroethoxy)methane	U	0.20								
Bis(2-ethylhexyl)phthalate	U	0.20								
Chrysene	U	0.20								
Dibenzofuran	U	0.20								
Di-n-butyl phthalate	U	0.20								
Fluoranthene	U	0.20								
Fluorene	U	0.20								
Naphthalene	U	0.20								
Nitrobenzene	U	0.20								
N-Nitrosodiphenylamine	U	0.20								
Pentachlorophenol	U	0.20								
Phenanthrene	U	0.20								
Phenol	U	0.20								
Pyrene	U	0.20								
<i>Surr: 2,4,6-Tribromophenol</i>	3.911	0.20	5	0	78.2	34-129	0			
<i>Surr: 2-Fluorobiphenyl</i>	3.523	0.20	5	0	70.5	40-125	0			
<i>Surr: 2-Fluorophenol</i>	3.195	0.20	5	0	63.9	20-120	0			
<i>Surr: 4-Terphenyl-d14</i>	3.441	0.20	5	0	68.8	40-135	0			
<i>Surr: Nitrobenzene-d5</i>	3.406	0.20	5	0	68.1	41-120	0			
<i>Surr: Phenol-d6</i>	3.348	0.20	5	0	67	20-120	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Pastor, Behling & Wheeler, LLC
Work Order: 1107899
Project: HWPW Site-Wide GW

QC BATCH REPORT

Batch ID: **54305** Instrument ID **SV-6** Method: **SW8270**

LCS		Sample ID: SLCSW1-110728-54305			Units: µg/L		Analysis Date: 7/29/2011 05:18 PM			
Client ID:		Run ID: SV-6_110729A			SeqNo: 2478508		Prep Date: 7/28/2011		DF: 1	
Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Diphenylhydrazine	3.404	0.20	5	0	68.1	39-127	0			
2,4-Dimethylphenol	2.909	0.20	5	0	58.2	35-120	0			
2,4-Dinitrotoluene	3.969	0.20	5	0	79.4	50-122	0			
2,6-Dinitrotoluene	3.93	0.20	5	0	78.6	50-120	0			
2-Chloronaphthalene	3.536	0.20	5	0	70.7	50-120	0			
2-Methylnaphthalene	3.671	0.20	5	0	73.4	50-120	0			
4,6-Dinitro-2-methylphenol	3.913	0.20	5	0	78.3	25-121	0			
4-Nitrophenol	4.106	1.0	5	0	82.1	30-130	0			
Acenaphthene	3.283	0.20	5	0	65.7	45-120	0			
Acenaphthylene	3.424	0.20	5	0	68.5	47-120	0			
Anthracene	3.763	0.20	5	0	75.3	45-120	0			
Benz(a)anthracene	3.923	0.20	5	0	78.5	40-120	0			
Benzo(a)pyrene	3.812	0.20	5	0	76.2	45-120	0			
Bis(2-chloroethoxy)methane	3.354	0.20	5	0	67.1	45-120	0			
Bis(2-ethylhexyl)phthalate	3.781	0.20	5	0	75.6	40-139	0			
Chrysene	3.914	0.20	5	0	78.3	43-120	0			
Dibenzofuran	3.641	0.20	5	0	72.8	50-120	0			
Di-n-butyl phthalate	3.856	0.20	5	0	77.1	45-123	0			
Fluoranthene	3.997	0.20	5	0	79.9	45-125	0			
Fluorene	3.861	0.20	5	0	77.2	49-120	0			
Naphthalene	3.409	0.20	5	0	68.2	45-120	0			
Nitrobenzene	3.271	0.20	5	0	65.4	44-120	0			
N-Nitrosodiphenylamine	3.821	0.20	5	0	76.4	40-125	0			
Pentachlorophenol	3.577	0.20	5	0	71.5	19-121	0			
Phenanthrene	3.778	0.20	5	0	75.6	45-121	0			
Phenol	3.201	0.20	5	0	64	20-124	0			
Pyrene	3.787	0.20	5	0	75.7	40-130	0			
<i>Surr: 2,4,6-Tribromophenol</i>	<i>4.079</i>	<i>0.20</i>	<i>5</i>	<i>0</i>	<i>81.6</i>	<i>34-129</i>	<i>0</i>			
<i>Surr: 2-Fluorobiphenyl</i>	<i>3.397</i>	<i>0.20</i>	<i>5</i>	<i>0</i>	<i>67.9</i>	<i>40-125</i>	<i>0</i>			
<i>Surr: 2-Fluorophenol</i>	<i>3.03</i>	<i>0.20</i>	<i>5</i>	<i>0</i>	<i>60.6</i>	<i>20-120</i>	<i>0</i>			
<i>Surr: 4-Terphenyl-d14</i>	<i>3.592</i>	<i>0.20</i>	<i>5</i>	<i>0</i>	<i>71.8</i>	<i>40-135</i>	<i>0</i>			
<i>Surr: Nitrobenzene-d5</i>	<i>3.192</i>	<i>0.20</i>	<i>5</i>	<i>0</i>	<i>63.8</i>	<i>41-120</i>	<i>0</i>			
<i>Surr: Phenol-d6</i>	<i>3.239</i>	<i>0.20</i>	<i>5</i>	<i>0</i>	<i>64.8</i>	<i>20-120</i>	<i>0</i>			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Pastor, Behling & Wheeler, LLC
Work Order: 1107899
Project: HWPW Site-Wide GW

QC BATCH REPORT

Batch ID: **54305** Instrument ID **SV-6** Method: **SW8270**

LCSD	Sample ID: SLCSDW1-110728-54305	Units: µg/L					Analysis Date: 7/29/2011 05:37 PM				
Client ID:	Run ID: SV-6_110729A	SeqNo: 2478509			Prep Date: 7/28/2011		DF: 1				
Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
1,2-Diphenylhydrazine	3.265	0.20	5	0	65.3	39-127	3.404	4.15	20		
2,4-Dimethylphenol	2.938	0.20	5	0	58.8	35-120	2.909	0.98	20		
2,4-Dinitrotoluene	3.878	0.20	5	0	77.6	50-122	3.969	2.33	20		
2,6-Dinitrotoluene	3.836	0.20	5	0	76.7	50-120	3.93	2.43	20		
2-Chloronaphthalene	3.947	0.20	5	0	78.9	50-120	3.536	11	20		
2-Methylnaphthalene	3.632	0.20	5	0	72.6	50-120	3.671	1.07	20		
4,6-Dinitro-2-methylphenol	3.755	0.20	5	0	75.1	25-121	3.913	4.12	20		
4-Nitrophenol	4.139	1.0	5	0	82.8	30-130	4.106	0.806	20		
Acenaphthene	3.231	0.20	5	0	64.6	45-120	3.283	1.6	20		
Acenaphthylene	3.431	0.20	5	0	68.6	47-120	3.424	0.223	20		
Anthracene	3.677	0.20	5	0	73.5	45-120	3.763	2.33	20		
Benz(a)anthracene	3.768	0.20	5	0	75.4	40-120	3.923	4.03	20		
Benzo(a)pyrene	3.754	0.20	5	0	75.1	45-120	3.812	1.54	20		
Bis(2-chloroethoxy)methane	3.376	0.20	5	0	67.5	45-120	3.354	0.668	20		
Bis(2-ethylhexyl)phthalate	3.623	0.20	5	0	72.5	40-139	3.781	4.29	20		
Chrysene	3.747	0.20	5	0	74.9	43-120	3.914	4.34	20		
Dibenzofuran	3.571	0.20	5	0	71.4	50-120	3.641	1.94	20		
Di-n-butyl phthalate	3.74	0.20	5	0	74.8	45-123	3.856	3.05	20		
Fluoranthene	3.845	0.20	5	0	76.9	45-125	3.997	3.87	20		
Fluorene	3.733	0.20	5	0	74.7	49-120	3.861	3.39	20		
Naphthalene	3.346	0.20	5	0	66.9	45-120	3.409	1.85	20		
Nitrobenzene	3.394	0.20	5	0	67.9	44-120	3.271	3.67	20		
N-Nitrosodiphenylamine	3.655	0.20	5	0	73.1	40-125	3.821	4.45	20		
Pentachlorophenol	3.328	0.20	5	0	66.6	19-121	3.577	7.21	20		
Phenanthrene	3.659	0.20	5	0	73.2	45-121	3.778	3.19	20		
Phenol	3.156	0.20	5	0	63.1	20-124	3.201	1.42	20		
Pyrene	3.674	0.20	5	0	73.5	40-130	3.787	3.03	20		
<i>Surr: 2,4,6-Tribromophenol</i>	<i>3.965</i>	<i>0.20</i>	<i>5</i>	<i>0</i>	<i>79.3</i>	<i>34-129</i>	<i>4.079</i>	<i>2.84</i>	<i>0</i>		
<i>Surr: 2-Fluorobiphenyl</i>	<i>3.403</i>	<i>0.20</i>	<i>5</i>	<i>0</i>	<i>68.1</i>	<i>40-125</i>	<i>3.397</i>	<i>0.167</i>	<i>0</i>		
<i>Surr: 2-Fluorophenol</i>	<i>3.019</i>	<i>0.20</i>	<i>5</i>	<i>0</i>	<i>60.4</i>	<i>20-120</i>	<i>3.03</i>	<i>0.366</i>	<i>0</i>		
<i>Surr: 4-Terphenyl-d14</i>	<i>3.471</i>	<i>0.20</i>	<i>5</i>	<i>0</i>	<i>69.4</i>	<i>40-135</i>	<i>3.592</i>	<i>3.42</i>	<i>0</i>		
<i>Surr: Nitrobenzene-d5</i>	<i>3.309</i>	<i>0.20</i>	<i>5</i>	<i>0</i>	<i>66.2</i>	<i>41-120</i>	<i>3.192</i>	<i>3.58</i>	<i>0</i>		
<i>Surr: Phenol-d6</i>	<i>3.232</i>	<i>0.20</i>	<i>5</i>	<i>0</i>	<i>64.6</i>	<i>20-120</i>	<i>3.239</i>	<i>0.193</i>	<i>0</i>		

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Pastor, Behling & Wheeler, LLC
Work Order: 1107899
Project: HWPW Site-Wide GW

QC BATCH REPORT

Batch ID: **54305** Instrument ID **SV-6** Method: **SW8270**

MS		Sample ID: 1107899-03BMS			Units: µg/L			Analysis Date: 7/29/2011 06:16 PM		
Client ID: WG-1620-MW13-2011726		Run ID: SV-6_110729A			SeqNo: 2478511		Prep Date: 7/28/2011		DF: 1	
Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Diphenylhydrazine	2.951	0.20	5	0	59	39-127	0			
2,4-Dimethylphenol	2.136	0.20	5	0	42.7	35-120	0			
2,4-Dinitrotoluene	3.272	0.20	5	0	65.4	50-122	0			
2,6-Dinitrotoluene	3.27	0.20	5	0	65.4	50-120	0			
2-Chloronaphthalene	2.844	0.20	5	0	56.9	50-120	0			
2-Methylnaphthalene	3.199	0.20	5	0.2606	58.8	50-120	0			
4,6-Dinitro-2-methylphenol	3.354	0.20	5	0	67.1	25-121	0			
4-Nitrophenol	3.214	1.0	5	0	64.3	30-130	0			
Acenaphthene	2.701	0.20	5	0.327	47.5	45-120	0			
Acenaphthylene	2.797	0.20	5	0	55.9	47-120	0			
Anthracene	3.693	0.20	5	0.3695	66.5	45-120	0			
Benz(a)anthracene	3.093	0.20	5	0	61.9	40-120	0			
Benzo(a)pyrene	3.176	0.20	5	0	63.5	45-120	0			
Bis(2-chloroethoxy)methane	2.608	0.20	5	0	52.2	45-120	0			
Bis(2-ethylhexyl)phthalate	3.258	0.20	5	0.2749	59.7	40-139	0			
Chrysene	3.225	0.20	5	0	64.5	43-120	0			
Dibenzofuran	3.152	0.20	5	0.3364	56.3	50-120	0			
Di-n-butyl phthalate	3.071	0.20	5	0	61.4	45-123	0			
Fluoranthene	3.386	0.20	5	0.06731	66.4	45-125	0			
Fluorene	3.314	0.20	5	0.3517	59.2	49-120	0			
Naphthalene	3.637	0.20	5	0.874	55.3	45-120	0			
Nitrobenzene	2.766	0.20	5	0	55.3	44-120	0			
N-Nitrosodiphenylamine	3.246	0.20	5	0	64.9	40-125	0			
Pentachlorophenol	3.103	0.20	5	0	62.1	19-121	0			
Phenanthrene	3.5	0.20	5	0.2875	64.3	45-121	0			
Phenol	2.13	0.20	5	0	42.6	20-124	0			
Pyrene	3.165	0.20	5	0.1078	61.1	40-130	0			
<i>Surr: 2,4,6-Tribromophenol</i>	3.291	0.20	5	0	65.8	34-129	0			
<i>Surr: 2-Fluorobiphenyl</i>	2.673	0.20	5	0	53.5	40-125	0			
<i>Surr: 2-Fluorophenol</i>	2.205	0.20	5	0	44.1	20-120	0			
<i>Surr: 4-Terphenyl-d14</i>	2.784	0.20	5	0	55.7	40-135	0			
<i>Surr: Nitrobenzene-d5</i>	2.639	0.20	5	0	52.8	41-120	0			
<i>Surr: Phenol-d6</i>	2.026	0.20	5	0	40.5	20-120	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Pastor, Behling & Wheeler, LLC
 Work Order: 1107899
 Project: HWPW Site-Wide GW

QC BATCH REPORT

Batch ID: 54305 Instrument ID SV-6 Method: SW8270

MSD	Sample ID: 1107899-03BMSD	Units: µg/L					Analysis Date: 7/29/2011 06:35 PM				
Client ID: WG-1620-MW13-2011726	Run ID: SV-6_110729A	SeqNo: 2478512			Prep Date: 7/28/2011		DF: 1				
Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
1,2-Diphenylhydrazine	3.023	0.20	5	0	60.5	39-127	2.951	2.43	20		
2,4-Dimethylphenol	2.682	0.20	5	0	53.6	35-120	2.136	22.6	20	R	
2,4-Dinitrotoluene	3.403	0.20	5	0	68.1	50-122	3.272	3.91	20		
2,6-Dinitrotoluene	3.563	0.20	5	0	71.3	50-120	3.27	8.58	20		
2-Chloronaphthalene	2.807	0.20	5	0	56.1	50-120	2.844	1.31	20		
2-Methylnaphthalene	3.343	0.20	5	0.2606	61.6	50-120	3.199	4.41	20		
4,6-Dinitro-2-methylphenol	3.318	0.20	5	0	66.4	25-121	3.354	1.06	20		
4-Nitrophenol	3.442	1.0	5	0	68.8	30-130	3.214	6.87	20		
Acenaphthene	3.101	0.20	5	0.327	55.5	45-120	2.701	13.8	20		
Acenaphthylene	2.965	0.20	5	0	59.3	47-120	2.797	5.83	20		
Anthracene	3.765	0.20	5	0.3695	67.9	45-120	3.693	1.92	20		
Benz(a)anthracene	3.51	0.20	5	0	70.2	40-120	3.093	12.6	20		
Benzo(a)pyrene	3.218	0.20	5	0	64.4	45-120	3.176	1.33	20		
Bis(2-chloroethoxy)methane	2.77	0.20	5	0	55.4	45-120	2.608	6.04	20		
Bis(2-ethylhexyl)phthalate	3.768	0.20	5	0.2749	69.9	40-139	3.258	14.5	20		
Chrysene	3.453	0.20	5	0	69.1	43-120	3.225	6.84	20		
Dibenzofuran	3.312	0.20	5	0.3364	59.5	50-120	3.152	4.94	20		
Di-n-butyl phthalate	3.357	0.20	5	0	67.1	45-123	3.071	8.89	20		
Fluoranthene	3.495	0.20	5	0.06731	68.5	45-125	3.386	3.18	20		
Fluorene	3.553	0.20	5	0.3517	64	49-120	3.314	6.95	20		
Naphthalene	3.727	0.20	5	0.874	57.1	45-120	3.637	2.44	20		
Nitrobenzene	2.864	0.20	5	0	57.3	44-120	2.766	3.46	20		
N-Nitrosodiphenylamine	3.3	0.20	5	0	66	40-125	3.246	1.64	20		
Pentachlorophenol	3.19	0.20	5	0	63.8	19-121	3.103	2.76	20		
Phenanthrene	3.471	0.20	5	0.2875	63.7	45-121	3.5	0.844	20		
Phenol	2.542	0.20	5	0	50.8	20-124	2.13	17.7	20		
Pyrene	3.44	0.20	5	0.1078	66.6	40-130	3.165	8.33	20		
Surr: 2,4,6-Tribromophenol	3.826	0.20	5	0	76.5	34-129	3.291	15	0		
Surr: 2-Fluorobiphenyl	2.719	0.20	5	0	54.4	40-125	2.673	1.68	0		
Surr: 2-Fluorophenol	2.321	0.20	5	0	46.4	20-120	2.205	5.15	0		
Surr: 4-Terphenyl-d14	3.166	0.20	5	0	63.3	40-135	2.784	12.8	0		
Surr: Nitrobenzene-d5	2.671	0.20	5	0	53.4	41-120	2.639	1.22	0		
Surr: Phenol-d6	2.53	0.20	5	0	50.6	20-120	2.026	22.1	0		

The following samples were analyzed in this batch:

1107899-01B	1107899-02B	1107899-03B
1107899-04B	1107899-05B	1107899-06B
1107899-07B	1107899-08B	1107899-09B
1107899-10B	1107899-11B	1107899-12B
1107899-13B	1107899-14B	1107899-15B

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Pastor, Behling & Wheeler, LLC
Work Order: 1107899
Project: HWPW Site-Wide GW

QC BATCH REPORT

Batch ID: **R113766** Instrument ID **VOA1** Method: **SW8260**

MBLK Sample ID: **VBLKW-072811-R113766** Units: **µg/L** Analysis Date: **7/28/2011 11:30 AM**

Client ID: Run ID: **VOA1_110728A** SeqNo: **2476828** Prep Date: DF: **1**

Analyte	Result	MLQ	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Dichloroethane	U	5.0								
Benzene	U	5.0								
Chlorobenzene	U	5.0								
Ethylbenzene	U	5.0								
Methylene chloride	U	10								
Toluene	U	5.0								
Xylenes, Total	U	15								
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>46.94</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>93.9</i>	<i>70-125</i>	<i>0</i>			
<i>Surr: 4-Bromofluorobenzene</i>	<i>53.81</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>108</i>	<i>72-125</i>	<i>0</i>			
<i>Surr: Dibromofluoromethane</i>	<i>49.82</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>99.6</i>	<i>71-125</i>	<i>0</i>			
<i>Surr: Toluene-d8</i>	<i>53.18</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>106</i>	<i>75-125</i>	<i>0</i>			

LCS Sample ID: **VLCSW-072811-R113766** Units: **µg/L** Analysis Date: **7/28/2011 10:36 AM**

Client ID: Run ID: **VOA1_110728A** SeqNo: **2476827** Prep Date: DF: **1**

Analyte	Result	MLQ	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Dichloroethane	51.9	5.0	50	0	104	78-120	0			
Benzene	53.79	5.0	50	0	108	73-121	0			
Chlorobenzene	47.76	5.0	50	0	95.5	80-120	0			
Ethylbenzene	48.14	5.0	50	0	96.3	80-120	0			
Methylene chloride	54.39	10	50	0	109	65-133	0			
Toluene	49.85	5.0	50	0	99.7	80-120	0			
Xylenes, Total	144.6	15	150	0	96.4	80-120	0			
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>48.87</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>97.7</i>	<i>70-125</i>	<i>0</i>			
<i>Surr: 4-Bromofluorobenzene</i>	<i>48.49</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>97</i>	<i>72-125</i>	<i>0</i>			
<i>Surr: Dibromofluoromethane</i>	<i>50.08</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>100</i>	<i>71-125</i>	<i>0</i>			
<i>Surr: Toluene-d8</i>	<i>48.05</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>96.1</i>	<i>75-125</i>	<i>0</i>			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Pastor, Behling & Wheeler, LLC
 Work Order: 1107899
 Project: HWPW Site-Wide GW

QC BATCH REPORT

Batch ID: R113766 Instrument ID VOA1 Method: SW8260

MS		Sample ID: 1107911-01AMS			Units: µg/L			Analysis Date: 7/28/2011 04:36 PM		
Client ID:		Run ID: VOA1_110728A			SeqNo: 2476838		Prep Date:		DF: 100	
Analyte	Result	ML	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Dichloroethane	5159	500	5000	0	103	78-120	0			
Benzene	5067	500	5000	0	101	73-121	0			
Chlorobenzene	4828	500	5000	0	96.6	80-120	0			
Ethylbenzene	4419	500	5000	0	88.4	80-120	0			
Methylene chloride	5892	1,000	5000	0	118	65-133	0			
Toluene	4671	500	5000	0	93.4	80-120	0			
Xylenes, Total	13540	1,500	15000	0	90.3	80-120	0			
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>5040</i>	<i>500</i>	<i>5000</i>	<i>0</i>	<i>101</i>	<i>70-125</i>	<i>0</i>			
<i>Surr: 4-Bromofluorobenzene</i>	<i>5148</i>	<i>500</i>	<i>5000</i>	<i>0</i>	<i>103</i>	<i>72-125</i>	<i>0</i>			
<i>Surr: Dibromofluoromethane</i>	<i>5162</i>	<i>500</i>	<i>5000</i>	<i>0</i>	<i>103</i>	<i>71-125</i>	<i>0</i>			
<i>Surr: Toluene-d8</i>	<i>4843</i>	<i>500</i>	<i>5000</i>	<i>0</i>	<i>96.9</i>	<i>75-125</i>	<i>0</i>			

MSD		Sample ID: 1107911-01AMSD			Units: µg/L			Analysis Date: 7/28/2011 05:04 PM		
Client ID:		Run ID: VOA1_110728A			SeqNo: 2476839		Prep Date:		DF: 100	
Analyte	Result	ML	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Dichloroethane	5377	500	5000	0	108	78-120	5159	4.15	20	
Benzene	5284	500	5000	0	106	73-121	5067	4.18	20	
Chlorobenzene	4764	500	5000	0	95.3	80-120	4828	1.32	20	
Ethylbenzene	4658	500	5000	0	93.2	80-120	4419	5.27	20	
Methylene chloride	5594	1,000	5000	0	112	65-133	5892	5.18	20	
Toluene	4265	500	5000	0	85.3	80-120	4671	9.09	20	
Xylenes, Total	13400	1,500	15000	0	89.3	80-120	13540	1.02	20	
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>4859</i>	<i>500</i>	<i>5000</i>	<i>0</i>	<i>97.2</i>	<i>70-125</i>	<i>5040</i>	<i>3.65</i>	<i>20</i>	
<i>Surr: 4-Bromofluorobenzene</i>	<i>5188</i>	<i>500</i>	<i>5000</i>	<i>0</i>	<i>104</i>	<i>72-125</i>	<i>5148</i>	<i>0.772</i>	<i>20</i>	
<i>Surr: Dibromofluoromethane</i>	<i>5158</i>	<i>500</i>	<i>5000</i>	<i>0</i>	<i>103</i>	<i>71-125</i>	<i>5162</i>	<i>0.0657</i>	<i>20</i>	
<i>Surr: Toluene-d8</i>	<i>4544</i>	<i>500</i>	<i>5000</i>	<i>0</i>	<i>90.9</i>	<i>75-125</i>	<i>4843</i>	<i>6.36</i>	<i>20</i>	

The following samples were analyzed in this batch: 1107899-01A 1107899-02A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Pastor, Behling & Wheeler, LLC
Work Order: 1107899
Project: HWPW Site-Wide GW

QC BATCH REPORT

Batch ID: **R113771** Instrument ID **VOA7** Method: **SW8260**

MBLK Sample ID: **VBLKW-072811-R113771** Units: **µg/L** Analysis Date: **7/28/2011 12:04 PM**

Client ID: Run ID: **VOA7_110728C** SeqNo: **2476941** Prep Date: DF: **1**

Analyte	Result	MLQ	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Dichloroethane	U	5.0								
Benzene	U	5.0								
Chlorobenzene	U	5.0								
Ethylbenzene	U	5.0								
Methylene chloride	U	10								
Toluene	U	5.0								
Vinyl chloride	U	2.0								
Xylenes, Total	U	15								
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>48.28</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>96.6</i>	<i>70-125</i>	<i>0</i>			
<i>Surr: 4-Bromofluorobenzene</i>	<i>51.22</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>102</i>	<i>72-125</i>	<i>0</i>			
<i>Surr: Dibromofluoromethane</i>	<i>47.56</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>95.1</i>	<i>71-125</i>	<i>0</i>			
<i>Surr: Toluene-d8</i>	<i>49.72</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>99.4</i>	<i>75-125</i>	<i>0</i>			

LCS Sample ID: **VLCSW-072811-R113771** Units: **µg/L** Analysis Date: **7/28/2011 11:13 AM**

Client ID: Run ID: **VOA7_110728C** SeqNo: **2476940** Prep Date: DF: **1**

Analyte	Result	MLQ	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Dichloroethane	46.5	5.0	50	0	93	78-120	0			
Benzene	44.42	5.0	50	0	88.8	73-121	0			
Chlorobenzene	46.03	5.0	50	0	92.1	80-120	0			
Ethylbenzene	46.1	5.0	50	0	92.2	80-120	0			
Methylene chloride	44.25	10	50	0	88.5	65-133	0			
Toluene	45.63	5.0	50	0	91.3	80-120	0			
Vinyl chloride	49.75	2.0	50	0	99.5	70-127	0			
Xylenes, Total	134.5	15	150	0	89.6	80-120	0			
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>48.16</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>96.3</i>	<i>70-125</i>	<i>0</i>			
<i>Surr: 4-Bromofluorobenzene</i>	<i>51.7</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>103</i>	<i>72-125</i>	<i>0</i>			
<i>Surr: Dibromofluoromethane</i>	<i>47.9</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>95.8</i>	<i>71-125</i>	<i>0</i>			
<i>Surr: Toluene-d8</i>	<i>50.67</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>101</i>	<i>75-125</i>	<i>0</i>			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Pastor, Behling & Wheeler, LLC
 Work Order: 1107899
 Project: HWPW Site-Wide GW

QC BATCH REPORT

Batch ID: R113771 Instrument ID VOA7 Method: SW8260

MS		Sample ID: 1107769-01ZMS			Units: µg/L			Analysis Date: 7/28/2011 01:20 PM		
Client ID:		Run ID: VOA7_110728C			SeqNo: 2476943		Prep Date:		DF: 20	
Analyte	Result	ML	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Dichloroethane	1092	100	1000	0	109	78-120	0			
Benzene	1041	100	1000	47.38	99.3	73-121	0			
Chlorobenzene	1031	100	1000	0	103	80-120	0			
Ethylbenzene	980.3	100	1000	15.37	96.5	80-120	0			
Methylene chloride	933.7	200	1000	26.64	90.7	65-133	0			
Toluene	1037	100	1000	54.72	98.3	80-120	0			
Vinyl chloride	1041	40	1000	0	104	70-127	0			
Xylenes, Total	2975	300	3000	27.25	98.2	80-120	0			
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>990.3</i>	<i>100</i>	<i>1000</i>	<i>0</i>	<i>99</i>	<i>70-125</i>	<i>0</i>			
<i>Surr: 4-Bromofluorobenzene</i>	<i>1022</i>	<i>100</i>	<i>1000</i>	<i>0</i>	<i>102</i>	<i>72-125</i>	<i>0</i>			
<i>Surr: Dibromofluoromethane</i>	<i>990.6</i>	<i>100</i>	<i>1000</i>	<i>0</i>	<i>99.1</i>	<i>71-125</i>	<i>0</i>			
<i>Surr: Toluene-d8</i>	<i>1010</i>	<i>100</i>	<i>1000</i>	<i>0</i>	<i>101</i>	<i>75-125</i>	<i>0</i>			

MSD		Sample ID: 1107769-01ZMSD			Units: µg/L			Analysis Date: 7/28/2011 01:46 PM		
Client ID:		Run ID: VOA7_110728C			SeqNo: 2476944		Prep Date:		DF: 20	
Analyte	Result	ML	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Dichloroethane	1147	100	1000	0	115	78-120	1092	4.88	20	
Benzene	1092	100	1000	47.38	104	73-121	1041	4.78	20	
Chlorobenzene	1076	100	1000	0	108	80-120	1031	4.31	20	
Ethylbenzene	1036	100	1000	15.37	102	80-120	980.3	5.49	20	
Methylene chloride	1046	200	1000	26.64	102	65-133	933.7	11.3	20	
Toluene	1094	100	1000	54.72	104	80-120	1037	5.29	20	
Vinyl chloride	1025	40	1000	0	103	70-127	1041	1.47	20	
Xylenes, Total	3120	300	3000	27.25	103	80-120	2975	4.78	20	
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>969.1</i>	<i>100</i>	<i>1000</i>	<i>0</i>	<i>96.9</i>	<i>70-125</i>	<i>990.3</i>	<i>2.16</i>	<i>20</i>	
<i>Surr: 4-Bromofluorobenzene</i>	<i>1020</i>	<i>100</i>	<i>1000</i>	<i>0</i>	<i>102</i>	<i>72-125</i>	<i>1022</i>	<i>0.133</i>	<i>20</i>	
<i>Surr: Dibromofluoromethane</i>	<i>970.2</i>	<i>100</i>	<i>1000</i>	<i>0</i>	<i>97</i>	<i>71-125</i>	<i>990.6</i>	<i>2.08</i>	<i>20</i>	
<i>Surr: Toluene-d8</i>	<i>1013</i>	<i>100</i>	<i>1000</i>	<i>0</i>	<i>101</i>	<i>75-125</i>	<i>1010</i>	<i>0.275</i>	<i>20</i>	

The following samples were analyzed in this batch: 1107899-16A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Pastor, Behling & Wheeler, LLC
Work Order: 1107899
Project: HWPW Site-Wide GW

QC BATCH REPORT

Batch ID: **R113780** Instrument ID **VOA7** Method: **SW8260**

MBLK		Sample ID: VBLKW-072811-R113780			Units: µg/L			Analysis Date: 7/29/2011 01:16 AM		
Client ID:		Run ID: VOA7_110728D			SeqNo: 2477038		Prep Date:		DF: 1	
Analyte	Result	ML	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Dichloroethane	U	5.0								
Benzene	U	5.0								
Chlorobenzene	U	5.0								
Ethylbenzene	U	5.0								
Methylene chloride	U	10								
Toluene	U	5.0								
Vinyl chloride	U	2.0								
Xylenes, Total	U	15								
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>48.44</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>96.9</i>	<i>70-125</i>	<i>0</i>			
<i>Surr: 4-Bromofluorobenzene</i>	<i>50.81</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>102</i>	<i>72-125</i>	<i>0</i>			
<i>Surr: Dibromofluoromethane</i>	<i>49.52</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>99</i>	<i>71-125</i>	<i>0</i>			
<i>Surr: Toluene-d8</i>	<i>50.28</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>101</i>	<i>75-125</i>	<i>0</i>			

LCS		Sample ID: VLCSW-072811-R113780			Units: µg/L			Analysis Date: 7/29/2011 10:11 AM		
Client ID:		Run ID: VOA7_110728D			SeqNo: 2477037		Prep Date:		DF: 1	
Analyte	Result	ML	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Dichloroethane	47.24	5.0	50	0	94.5	78-120	0			
Benzene	45.76	5.0	50	0	91.5	73-121	0			
Chlorobenzene	46.81	5.0	50	0	93.6	80-120	0			
Ethylbenzene	47.38	5.0	50	0	94.8	80-120	0			
Methylene chloride	42.24	10	50	0	84.5	65-133	0			
Toluene	47.19	5.0	50	0	94.4	80-120	0			
Vinyl chloride	55.7	2.0	50	0	111	70-127	0			
Xylenes, Total	139.1	15	150	0	92.7	80-120	0			
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>48.19</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>96.4</i>	<i>70-125</i>	<i>0</i>			
<i>Surr: 4-Bromofluorobenzene</i>	<i>50.72</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>101</i>	<i>72-125</i>	<i>0</i>			
<i>Surr: Dibromofluoromethane</i>	<i>48.66</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>97.3</i>	<i>71-125</i>	<i>0</i>			
<i>Surr: Toluene-d8</i>	<i>50.79</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>102</i>	<i>75-125</i>	<i>0</i>			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Pastor, Behling & Wheeler, LLC

Work Order: 1107899

Project: HWPW Site-Wide GW

QC BATCH REPORT

Batch ID: R113780

Instrument ID VOA7

Method: SW8260

MS		Sample ID: 1107899-03AMS			Units: µg/L			Analysis Date: 7/29/2011 02:07 AM		
Client ID: WG-1620-MW13-2011726		Run ID: VOA7_110728D			SeqNo: 2477040			Prep Date:		DF: 1
Analyte	Result	ML	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Dichloroethane	53.21	5.0	50	0	106	78-120	0			
Benzene	49.62	5.0	50	0	99.2	73-121	0			
Chlorobenzene	50.47	5.0	50	0	101	80-120	0			
Ethylbenzene	48.84	5.0	50	0	97.7	80-120	0			
Methylene chloride	41.76	10	50	0	83.5	65-133	0			
Toluene	49.94	5.0	50	0	99.9	80-120	0			
Vinyl chloride	57.63	2.0	50	0	115	70-127	0			
Xylenes, Total	147.1	15	150	0	98.1	80-120	0			
<i>Surr: 1,2-Dichloroethane-d4</i>	48.73	5.0	50	0	97.5	70-125	0			
<i>Surr: 4-Bromofluorobenzene</i>	51.47	5.0	50	0	103	72-125	0			
<i>Surr: Dibromofluoromethane</i>	49.07	5.0	50	0	98.1	71-125	0			
<i>Surr: Toluene-d8</i>	49.62	5.0	50	0	99.2	75-125	0			

MSD		Sample ID: 1107899-03AMSD			Units: µg/L			Analysis Date: 7/29/2011 02:32 AM		
Client ID: WG-1620-MW13-2011726		Run ID: VOA7_110728D			SeqNo: 2477041			Prep Date:		DF: 1
Analyte	Result	ML	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Dichloroethane	54.12	5.0	50	0	108	78-120	53.21	1.69	20	
Benzene	50.6	5.0	50	0	101	73-121	49.62	1.96	20	
Chlorobenzene	51.42	5.0	50	0	103	80-120	50.47	1.86	20	
Ethylbenzene	49.23	5.0	50	0	98.5	80-120	48.84	0.787	20	
Methylene chloride	47.18	10	50	0	94.4	65-133	41.76	12.2	20	
Toluene	50.89	5.0	50	0	102	80-120	49.94	1.87	20	
Vinyl chloride	54.97	2.0	50	0	110	70-127	57.63	4.71	20	
Xylenes, Total	150	15	150	0	100	80-120	147.1	1.9	20	
<i>Surr: 1,2-Dichloroethane-d4</i>	48.98	5.0	50	0	98	70-125	48.73	0.5	20	
<i>Surr: 4-Bromofluorobenzene</i>	51.33	5.0	50	0	103	72-125	51.47	0.268	20	
<i>Surr: Dibromofluoromethane</i>	47.63	5.0	50	0	95.3	71-125	49.07	2.97	20	
<i>Surr: Toluene-d8</i>	49.98	5.0	50	0	100	75-125	49.62	0.718	20	

The following samples were analyzed in this batch:

1107899-03A	1107899-04A	1107899-05A
1107899-06A	1107899-07A	1107899-08A
1107899-09A	1107899-10A	1107899-11A
1107899-12A	1107899-13A	1107899-14A
1107899-15A		

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
WorkOrder: 1107899

**QUALIFIERS,
ACRONYMS, UNITS**

<u>Qualifier</u>	<u>Description</u>
*	Value exceeds Regulatory Limit
a	Not accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
J	Analyte detected below quantitation limit
M	Manually integrated, see raw data for justification
n	Not offered for accreditation
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL

<u>Acronym</u>	<u>Description</u>
DCS	Detectability Check Study
DUP	Method Duplicate
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
MBLK	Method Blank
MDL	Method Detection Limit
MQL	Method Quantitation Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PDS	Post Digestion Spike
PQL	Practical Quantitation Limit
SD	Serial Dilution
SDL	Sample Detection Limit
TRRP	Texas Risk Reduction Program

<u>Units Reported</u>	<u>Description</u>
mg/L	Milligrams per Liter



ALS Environmental
 10450 Standliff Rd., Suite 210
 Houston, Texas 77099
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Chain of Custody Form

Page 1 of 2

COC ID: **26875**

1107899

PBW: Pastor, Behling & Wheeler, LLC

Project: HWPW Site-Wide GW



ALS Project Manager:

Customer Information		Project Information		
Purchase Order		Project Name	IFRR Houston Wood GW	A
Work Order		Project Number	1120-03	B
Company Name	Pastor, Behling & Wheeler, LLC	Bill To Company	Union Pacific Railroad	C
Send Report To	Eric Lewand	Invoice Attn		D
Address	2201 Double Creek Drive Suite 400s	Address	1100 Douglas Street Step 3750	E
				F
City/State/Zip	Round Rock, TX 78784	City/State/Zip	Omaha, NE 681794750	G
Phone	(512) 371-3424	Phone		H
Fax	(512) 671-1110	Fax		I
e-Mail Address		e-Mail Address		J

No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	WG-1620-MW14-20110726	7-26-11	1415	W		5	X	X									
2	WG-1620-DVP5-20110726	7-26-11	1415	W		5	X	X									
3	WG-1620-MW13-20110726	7-26-11	1530	W		5	X	X									
4	WG-1620-MW13MS-20110726	7-26-11	1530	W		5	X	X									
5	WG-1620-MW13MSD-20110726	7-26-11	1530	W		5	X	X									
6	WG-1620-MW39B-20110726	7-26-11	1620	W		5	X	X									
7	WG-1620-MW12C-20110726	7-26-11	1710	W		5	X	X									
8	WG-1620-MW12A-20110726	7-26-11	1800	W		5	X	X									
9	WG-1620-TW41B-20110727	7-27-11	0710	W		5	X	X									
10	WG-1620-MW62B-20110727	7-27-11	0755	W		5	X	X									

Sampler(s) Please Print & Sign JOHN BEAVER		Shipment Method HAND DELIVERED		Required Turnaround Time: (Check Box) <input type="checkbox"/> Other _____ <input type="checkbox"/> 1-2 WK Days <input type="checkbox"/> 3-5 WK Days <input type="checkbox"/> 7-14 Day			Results Due Date:	
Relinquished by: John Beaver	Date: 7-27-11	Time: 1805	Received by:	Notes: 15 Day FAT				
Relinquished by:	Date:	Time:	Received by (Laboratory): [Signature]	Cooler ID:	Cooler Temp.:	QC Package: (Check One Box Below)		
Logged by (Laboratory):	Date:	Time:	Checked by (Laboratory):			<input type="checkbox"/> Level 1 S/COC	<input type="checkbox"/> Trip Check in	
Preservative Key: 1-HCl 2-HNO ₃ 3-H ₂ SO ₄ 4-NaOH 5-Na ₂ S ₂ O ₈ 6-NaHSO ₄ 7-Other 8-4°C 9-5035						<input type="checkbox"/> Level 2 S/COC w/ Data	<input type="checkbox"/> Temp. only	
						<input type="checkbox"/> Level 3 S/COC w/ P	<input type="checkbox"/> Other _____	

Note: 1. Any changes must be made in writing once samples and COC Form have been submitted to ALS Environmental.
 2. Unless otherwise agreed in a formal contract, services provided by ALS Environmental are expressly limited to the terms and conditions stated on the reverse.
 3. The Chain of Custody is a legal document. All information must be completed accurately.



ALS Environmental
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Chain of Custody Form

Page 2 of 2

COC ID: 26870

ALS Environmental
 3352 128th Ave.
 Holland, MI 49424-9263
 Tel: +1 616 399 6070
 Fax: +1 616 399 6185

ALS Project Manager:		ALS Work Order #:	
Customer Information		Project Information	
Purchase Order		Project Name	IPRR Houston Wood GW
Work Order		Project Number	1129-03
Company Name	Peter, Gehrig & Mikolaj, LLC	Bill To Company	Union Pacific Railroad
Send Report To	Eric Matzner	Invoice Attn	
Address	2201 Double Creek Blvd Suite 400	Address	1400 Douglas Street Step 0750
City/State/Zip	Round Rock, TX 78664	City/State/Zip	Omaha, NE 681790750
Phone	(512) 871-3454	Phone	
Fax	(512) 871-3456	Fax	
e-Mail Address		e-Mail Address	

Parameter/Method Request for Analysis																
A	VOC (8260) Select															
B	LL SVOC (8270) Select															
C	VINYL CHLORIDE															
D																
E																
F																
G																
H																
I																
J																

No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	WG-1620-P11-20110727	7-27-11	0850	W		5	X	X									
2	WG-1620-MW05-20110727	7-27-11	0945	W		5	X	X									
3	WG-1620-MW64A-20110727	7-27-11	1040	W		5	X	X									
4	WG-1620-MW21C-20110727	7-27-11	1140	W		5	X	X									
5	WG-1620-DVP6-20110727	7-27-11	1140	W		5	X	X									
6	WG-1620-MW58A-20110727	7-27-11	1240	W		5	X	X	X								
7	WG-1620-MW09-20110727	7-27-11	1340	W		5	X	X									
8	WG-1620-TB-20110727	7-27-11	-	W		2	X										
9																	
10																	

Sampler(s) Please Print & Sign JOHN BRAYTON <i>John Bral</i>		Shipment Method HAND DELIVER		Required Turnaround Time: (Check Box) <input type="checkbox"/> 1 Day <input type="checkbox"/> 2 Wk Days <input type="checkbox"/> 5 Wk Days <input type="checkbox"/> Other _____ <input type="checkbox"/> 2 Wk Days <input type="checkbox"/> 2 Mo				Results Due Date:					
Relinquished by: <i>John Bral</i>		Date: 7-27-11	Time: 1805	Received by:		Notes: 10 Day TAT							
Relinquished by:		Date:	Time:	Received by (Laboratory):		Cooler ID	Cooler Temp.	QC Package: (Check One Box Below)					
Logged by (Laboratory):		Date:	Time:	Checked by (Laboratory):				<input type="checkbox"/> Level II SVOC <input type="checkbox"/> Level III SVOC <input type="checkbox"/> Level IV SVOC <input type="checkbox"/> Other / TBD					
Preservative Key: 1-HCl 2-HNO ₃ 3-H ₂ SO ₄ 4-NaOH 5-Na ₂ S ₂ O ₃ 6-NaHSO ₄ 7-Other 8-4°C 9-5035													

Sample Receipt Checklist

Client Name: **PBW**

Date/Time Received: **27-Jul-11 18:05**

Work Order: **1107899**

Received by: **PMG**

Checklist completed by Rishel D. Naran | 27-Jul-11
eSignature | Date

Reviewed by: Patricia L. Lynch | 29-Jul-11
eSignature | Date

Matrices: water

Carrier name: Client

- Shipping container/cooler in good condition? Yes No Not Present
- Custody seals intact on shipping container/cooler? Yes No Not Present
- Custody seals intact on sample bottles? Yes No Not Present
- Chain of custody present? Yes No
- Chain of custody signed when relinquished and received? Yes No
- Chain of custody agrees with sample labels? Yes No
- Samples in proper container/bottle? Yes No
- Sample containers intact? Yes No
- Sufficient sample volume for indicated test? Yes No
- All samples received within holding time? Yes No
- Container/Temp Blank temperature in compliance? Yes No

Temperature(s)/Thermometer(s): 2.6.3.1,2.3.2.7 002

Cooler(s)/Kit(s): 4084,7131,3998,4024

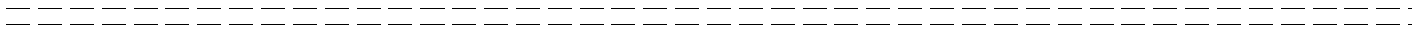
Water - VOA vials have zero headspace? Yes No No VOA vials submitted

Water - pH acceptable upon receipt? Yes No N/A

pH adjusted? Yes No N/A

pH adjusted by: _____

Login Notes:



Client Contacted: _____ Date Contacted: _____ Person Contacted: _____

Contacted By: _____ Regarding: _____

Comments: _____

CorrectiveAction: _____

W/O.# 1107889



ALS Environmental

10450 Stancliff Rd., Suite 210
Houston, Texas 77099
Tel. +1 281 530 5656
Fax. +1 281 530 5887

CUST.

Date: 7-27-11
Name: [Signature]
Company: [Signature]

ODY SEAL

Time: 1145
[Signature] CPM

Seal Broken By:

[Signature]
Date: 7/27/11



03-Aug-2011

Eric Matzner
Pastor, Behling & Wheeler, LLC
2201 Double Creek Drive
Suite 4004
Round Rock, TX 78664

Tel: (512) 671-3434
Fax: (512) 671-3446

Re: HWPW Site-Wide GW

Work Order: **1107935**

Dear Eric,

ALS Environmental received 9 samples on 28-Jul-2011 03:00 PM for the analyses presented in the following report.

The analytical data provided relates directly to the samples received by ALS Environmental and for only the analyses requested. Results are expressed as "as received" unless otherwise noted.

QC sample results for this data met EPA or laboratory specifications except as noted in the Case Narrative or as noted with qualifiers in the QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained by ALS Environmental. Samples will be disposed in 30 days unless storage arrangements are made.

The total number of pages in this report is 40.

If you have any questions regarding this report, please feel free to call me.

Sincerely,

A handwritten signature in cursive script that reads "Patricia L. Lynch".

Electronically approved by: Makenzie L. Henderson

Patricia L. Lynch
Project Manager



Certificate No: T104704231-09A-TX

ADDRESS 10450 Stancliff Rd, Suite 210 Houston, Texas 77099-4338 | PHONE (281) 530-5656 | FAX (281) 530-5887

DOV#T UR XS#K VD /#R US##Sdu#r i#khd#OV#Dderudaru|#T urxs##D #F dp seha#Eurkhu#Op l#hg#F rp sdq |

Environmental

www.alsglobal.com

RIGHT SOLUTIONS RIGHT PARTNER

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Work Order: 1107935

**TRRP Laboratory Data
Package Cover Page**

This data package consists of all or some of the following as applicable:

This signature page, the laboratory review checklist, and the following reportable data:

- R1 Field chain-of-custody documentation;
- R2 Sample identification cross-reference;
- R3 Test reports (analytical data sheets) for each environmental sample that includes:
 - a) Items consistent with NELAC Chapter 5,
 - b) dilution factors,
 - c) preparation methods,
 - d) cleanup methods, and
 - e) if required for the project, tentatively identified compounds (TICs).
- R4 Surrogate recovery data including:
 - a) Calculated recovery (%R), and
 - b) The laboratory's surrogate QC limits.
- R5 Test reports/summary forms for blank samples;
- R6 Test reports/summary forms for laboratory control samples (LCSs) including:
 - a) LCS spiking amounts,
 - b) Calculated %R for each analyte, and
 - c) The laboratory's LCS QC limits.
- R7 Test reports for project matrix spike/matrix spike duplicates (MS/MSDs) including:
 - a) Samples associated with the MS/MSD clearly identified,
 - b) MS/MSD spiking amounts,
 - c) Concentration of each MS/MSD analyte measured in the parent and spiked samples,
 - d) Calculated %Rs and relative percent differences (RPDs), and
 - e) The laboratory's MS/MSD QC limits.
- R8 Laboratory analytical duplicate (if applicable) recovery and precision:
 - a) the amount of analyte measured in the duplicate,
 - b) the calculated RPD, and
 - c) the laboratory's QC limits for analytical duplicates.
- R9 List of method quantitation limits (MQLs) and detectability check sample results for each analyte for each method and matrix.
- R10 Other problems or anomalies.
The Exception Report for each "No" or "Not Reviewed (NR)" item in Laboratory Review Checklist and for each analyte, matrix, and method for which the laboratory does not hold NELAC accreditation under the Texas Laboratory Accreditation Program.

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Work Order: 1107935

**TRRP Laboratory Data
Package Cover Page**

Release Statement: I am responsible for the release of this laboratory data package. This laboratory is NELAC accredited under the Texas Laboratory Accreditation Program for all the methods, analytes and matrices reported in this data package except as noted in the Exception Reports. The data have been reviewed and are technically compliant with the requirements of the methods used, except where noted by the laboratory in the attached exception reports. By my signature below, I affirm to the best of my knowledge, all problems/anomalies, observed by the laboratory have been identified by the laboratory in the Laboratory Review Checklist, and no information affecting the quality of the data has been knowingly withheld.

Check, if applicable: [NA] This laboratory meets an exception under 30 TAC §25.6 and was last inspected by TCEQ or _____ on (enter date of last inspection). Any findings affecting the data in this laboratory data package are noted in the Exception Reports herein. The official signing the cover page of the report in which these data are used is responsible for releasing this data package and is by signature affirming the above release statement is true.

Patricia L. Lynch

Patricia L. Lynch
Project Manager

Laboratory Review Checklist: Reportable Data

Laboratory Name: ALS Laboratory Group		LRC Date: 8/3/2011					
Project Name: HWPW Site-Wide GW		Laboratory Job Number: 1107935					
Reviewer Name: Pat Lynch		Prep Batch Number(s): 54321, R113940, R114007					
# ¹	A ²	Description	Yes	No	NA ³	NR ⁴	ER# ⁵
R1	OI	Chain-of-custody (C-O-C)					
		Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?	X				
		Were all departures from standard conditions described in an exception report?	X				1
R2	OI	Sample and quality control (QC) identification					
		Are all field sample ID numbers cross-referenced to the laboratory ID numbers?	X				
		Are all laboratory ID numbers cross-referenced to the corresponding QC data?	X				
R3	OI	Test reports					
		Were all samples prepared and analyzed within holding times?	X				
		Other than those results < MQL, were all other raw values bracketed by calibration standards?	X				
		Were calculations checked by a peer or supervisor?	X				
		Were all analyte identifications checked by a peer or supervisor?	X				
		Were sample detection limits reported for all analytes not detected?	X				
		Were all results for soil and sediment samples reported on a dry weight basis?			X		
		Were % moisture (or solids) reported for all soil and sediment samples?			X		
		Were bulk soils/solids samples for volatile analysis extracted with methanol per SW-846 Method 5035?			X		
		If required for the project, TICs reported?			X		
R4	O	Surrogate recovery data					
		Were surrogates added prior to extraction?	X				
		Were surrogate percent recoveries in all samples within the laboratory QC limits?	X				
R5	OI	Test reports/summary forms for blank samples					
		Were appropriate type(s) of blanks analyzed?	X				
		Were blanks analyzed at the appropriate frequency?	X				
		Were method blanks taken through the entire analytical process, including preparation and, if applicable, cleanup procedures?	X				
		Were blank concentrations < MQL?	X				
R6	OI	Laboratory control samples (LCS):					
		Were all COCs included in the LCS?	X				
		Was each LCS taken through the entire analytical procedure, including prep and cleanup steps?	X				
		Were LCSs analyzed at the required frequency?	X				
		Were LCS (and LCSD, if applicable) %Rs within the laboratory QC limits?		X			2
		Does the detectability data document the laboratory's capability to detect the COCs at the MDL used to calculate the SDLs?	X				
		Was the LCSD RPD within QC limits?		X			3
R7	OI	Matrix spike (MS) and matrix spike duplicate (MSD) data					
		Were the project/method specified analytes included in the MS and MSD?	X				
		Were MS/MSD analyzed at the appropriate frequency?	X				
		Were MS (and MSD, if applicable) %Rs within the laboratory QC limits?	X				
		Were MS/MSD RPDs within laboratory QC limits?		X			4
R8	OI	Analytical duplicate data					
		Were appropriate analytical duplicates analyzed for each matrix?			X		
		Were analytical duplicates analyzed at the appropriate frequency?			X		
		Were RPDs or relative standard deviations within the laboratory QC limits?			X		
R9	OI	Method quantitation limits (MQLs):					
		Are the MQLs for each method analyte included in the laboratory data package?	X				
		Do the MQLs correspond to the concentration of the lowest non-zero calibration standard?	X				
		Are unadjusted MQLs and DCSs included in the laboratory data package?	X				
R10	OI	Other problems/anomalies					
		Are all known problems/anomalies/special conditions noted in this LRC and ER?	X				5
		Were all necessary corrective actions performed for the reported data?	X				
		Was applicable and available technology used to lower the SDL and minimize the matrix interference affects on the sample results?	X				
		Is the laboratory NELAC-accredited under the Texas Laboratory Program for the analytes, matrices and methods associated with this laboratory data package?	X				

Laboratory Review Checklist: Reportable Data

Laboratory Name: ALS Laboratory Group		LRC Date: 8/3/2011					
Project Name: HWPW Site-Wide GW		Laboratory Job Number: 1107935					
Reviewer Name: Pat Lynch		Prep Batch Number(s): 54321, R113940, R114007					
# ¹	A ²	Description	Yes	No	NA ³	NR ⁴	ER# ⁵
S1	OI	Initial calibration (ICAL)					
		Were response factors and/or relative response factors for each analyte within QC limits?	X				
		Were percent RSDs or correlation coefficient criteria met?	X				
		Was the number of standards recommended in the method used for all analytes?	X				
		Were all points generated between the lowest and highest standard used to calculate the curve?	X				
		Are ICAL data available for all instruments used?	X				
		Has the initial calibration curve been verified using an appropriate second source standard?	X				
S2	OI	Initial and continuing calibration verification (ICCV and CCV) and continuing calibration blank (CCB)					
		Was the CCV analyzed at the method-required frequency?	X				
		Were percent differences for each analyte within the method-required QC limits?	X				
		Was the ICAL curve verified for each analyte?	X				
		Was the absolute value of the analyte concentration in the inorganic CCB < MDL?	X				
S3	O	Mass spectral tuning:					
		Was the appropriate compound for the method used for tuning?	X				
		Were ion abundance data within the method-required QC limits?	X				
S4	O	Internal standards (IS):					
		Were IS area counts and retention times within the method-required QC limits?		X			6
S5	OI	Raw data (NELAC section 1 appendix A glossary, and section 5.12 or ISO/IEC 17025 section)					
		Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?	X				
		Were data associated with manual integrations flagged on the raw data?	X				
S6	O	Dual column confirmation					
		Did dual column confirmation results meet the method-required QC?			X		
S7	O	Tentatively identified compounds (TICs):					
		If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?			X		
S8	I	Interference Check Sample (ICS) results:					
		Were percent recoveries within method QC limits?			X		
S9	I	Serial dilutions, post digestion spikes, and method of standard additions					
		Were percent differences, recoveries, and the linearity within the QC limits specified in the method?			X		
S10	OI	Method detection limit (MDL) studies					
		Was a MDL study performed for each reported analyte?	X				
		Is the MDL either adjusted or supported by the analysis of DCSs?	X				
S11	OI	Proficiency test reports:					
		Was the laboratory's performance acceptable on the applicable proficiency tests or evaluation studies?	X				
S12	OI	Standards documentation					
		Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?	X				
S13	OI	Compound/analyte identification procedures					
		Are the procedures for compound/analyte identification documented?	X				
S14	OI	Demonstration of analyst competency (DOC)					
		Was DOC conducted consistent with NELAC Chapter 5C or ISO/IEC 4?	X				
		Is documentation of the analyst's competency up-to-date and on file?	X				
S15	OI	Verification/validation documentation for methods (NELAC Chap 5 or ISO/IEC 17025 Section 5)					
		Are all the methods used to generate the data documented, verified, and validated, where applicable?	X				
S16	OI	Laboratory standard operating procedures (SOPs):					
		Are laboratory SOPs current and on file for each method performed?	X				
<p>Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.</p> <p>O = Organic Analyses; I = Inorganic Analyses (and general chemistry, when applicable); NA = Not Applicable; NR = Not Reviewed; R# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).</p>							

Laboratory Review Checklist: Reportable Data

Laboratory Name: ALS Laboratory Group		LRC Date: 8/3/2011
Project Name: HWPW Site-Wide GW		Laboratory Job Number: 1107935
Reviewer Name: Pat Lynch		Prep Batch Number(s): 54321, R113940, R114007
ER# ⁵	Description	
1	Samples WG-1620-MW58A-2011727 and WG-1620-MW09-20110727 were listed on the chain-of-custody, but were not included in this batch of samples. These samples were included in ALS work order 1107899.	
2	Batch 54321, Low-Level Semivolatile Organics : LCSD recovery was above the control limits for 4,6-dinitro-2-methylphenol. The results for this compound in the associated samples are non- detect.	
3	Batch 54321, Low-Level Semivolatile Organics : LCS/LCSD RPDs were above the control limits for multiple analytes. The individual recoveries were in control.	
4	Batch 54321, Low-Level Semivolatile Organics, Sample WG-1620-MW65D-20110727 : MS/MSD RPD was above the control limits for 4-nitrophenol.	
5	The target compound bis (2-ethylhexyl) phthalate was reported in the field blank at a concentration that is similar to that reported in the associated samples. This compound was non-detect in the method blank.	
6	Semivolatile Organics: Internal Standard recoveries for sample WG-65D-20110727 were below the control limits for phenanthrene-d10, chrysene-d12 and perylene-d12 9see attached internal standard summary report. MS/MSD analyses confirm matrix interference.	
<p>Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.</p> <p>O = Organic Analyses; I = Inorganic Analyses (and general chemistry, when applicable); NA = Not Applicable; NR = Not Reviewed; R# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).</p>		

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Work Order: 1107935

Work Order Sample Summary

<u>Lab Samp ID</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Tag Number</u>	<u>Collection Date</u>	<u>Date Received</u>	<u>Hold</u>
1107935-01	WG-1620-MW36D-20110727	Water		7/27/2011 14:40	7/28/2011 15:00	<input type="checkbox"/>
1107935-02	WG-1620-MW65D-20110727	Water		7/27/2011 15:40	7/28/2011 15:00	<input type="checkbox"/>
1107935-03	WG-1620-MW59D-20110727	Water		7/27/2011 16:40	7/28/2011 15:00	<input type="checkbox"/>
1107935-04	WG-1620-DUP7-20110727	Water		7/27/2011 16:40	7/28/2011 15:00	<input type="checkbox"/>
1107935-05	WG-1620-MW66D-20110727	Water		7/27/2011 17:45	7/28/2011 15:00	<input type="checkbox"/>
1107935-06	WG-1620-MW51A-20110728	Water		7/28/2011 07:40	7/28/2011 15:00	<input type="checkbox"/>
1107935-07	WG-1620-MW50A-20110728	Water		7/28/2011 08:45	7/28/2011 15:00	<input type="checkbox"/>
1107935-08	WG-1620-FB08-20110728	Water		7/28/2011 09:15	7/28/2011 15:00	<input type="checkbox"/>
1107935-09	WG-1620-TB-20110728	Water		7/28/2011	7/28/2011 15:00	<input type="checkbox"/>

ALS Environmental

Date: 03-Aug-11

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-MW36D-20110727
Collection Date: 7/27/2011 02:40 PM

Work Order: 1107935
Lab ID: 1107935-01
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270	Prep: SW3510 / 7/28/11	Analyst: LG		
1,2-Diphenylhydrazine	U		0.000050	0.00020	mg/L	1	7/30/2011 23:39
2,4-Dimethylphenol	U		0.000050	0.00020	mg/L	1	7/30/2011 23:39
2,4-Dinitrotoluene	U		0.000050	0.00020	mg/L	1	7/30/2011 23:39
2,6-Dinitrotoluene	U		0.000060	0.00020	mg/L	1	7/30/2011 23:39
2-Chloronaphthalene	U		0.000050	0.00020	mg/L	1	7/30/2011 23:39
2-Methylnaphthalene	U		0.000050	0.00020	mg/L	1	7/30/2011 23:39
4,6-Dinitro-2-methylphenol	U		0.000080	0.00020	mg/L	1	7/30/2011 23:39
4-Nitrophenol	U		0.000050	0.0010	mg/L	1	7/30/2011 23:39
Acenaphthene	U		0.000050	0.00020	mg/L	1	7/30/2011 23:39
Acenaphthylene	U		0.000050	0.00020	mg/L	1	7/30/2011 23:39
Anthracene	U		0.000050	0.00020	mg/L	1	7/30/2011 23:39
Benz(a)anthracene	U		0.000050	0.00020	mg/L	1	7/30/2011 23:39
Benzo(a)pyrene	U		0.000050	0.00020	mg/L	1	7/30/2011 23:39
Bis(2-chloroethoxy)methane	U		0.000050	0.00020	mg/L	1	7/30/2011 23:39
Bis(2-ethylhexyl)phthalate	0.0012		0.00010	0.00020	mg/L	1	7/30/2011 23:39
Chrysene	U		0.000050	0.00020	mg/L	1	7/30/2011 23:39
Dibenzofuran	U		0.000050	0.00020	mg/L	1	7/30/2011 23:39
Di-n-butyl phthalate	0.00032		0.000050	0.00020	mg/L	1	7/30/2011 23:39
Fluoranthene	0.000068	J	0.000050	0.00020	mg/L	1	7/30/2011 23:39
Fluorene	U		0.000050	0.00020	mg/L	1	7/30/2011 23:39
Naphthalene	0.000061	J	0.000050	0.00020	mg/L	1	7/30/2011 23:39
Nitrobenzene	U		0.000050	0.00020	mg/L	1	7/30/2011 23:39
N-Nitrosodiphenylamine	U		0.000050	0.00020	mg/L	1	7/30/2011 23:39
Pentachlorophenol	U		0.000050	0.00020	mg/L	1	7/30/2011 23:39
Phenanthrene	0.000072	J	0.000050	0.00020	mg/L	1	7/30/2011 23:39
Phenol	0.000056	J	0.000050	0.00020	mg/L	1	7/30/2011 23:39
Pyrene	0.000053	J	0.000050	0.00020	mg/L	1	7/30/2011 23:39
Surr: 2,4,6-Tribromophenol	52.9			34-129	%REC	1	7/30/2011 23:39
Surr: 2-Fluorobiphenyl	40.1			40-125	%REC	1	7/30/2011 23:39
Surr: 2-Fluorophenol	46.4			20-120	%REC	1	7/30/2011 23:39
Surr: 4-Terphenyl-d14	53.1			40-135	%REC	1	7/30/2011 23:39
Surr: Nitrobenzene-d5	41.7			41-120	%REC	1	7/30/2011 23:39
Surr: Phenol-d6	47.3			20-120	%REC	1	7/30/2011 23:39

VOLATILES			Method: SW8260	Analyst: PC			
1,2-Dichloroethane	U		0.0010	0.0050	mg/L	1	8/2/2011 21:49
Benzene	U		0.0010	0.0050	mg/L	1	8/2/2011 21:49
Chlorobenzene	U		0.0010	0.0050	mg/L	1	8/2/2011 21:49
Ethylbenzene	U		0.0011	0.0050	mg/L	1	8/2/2011 21:49

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 03-Aug-11

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-MW36D-20110727
Collection Date: 7/27/2011 02:40 PM

Work Order: 1107935
Lab ID: 1107935-01
Matrix: WATER

Analyses	Result	Qual	SDL	ML	Units	Dilution Factor	Date Analyzed
Methylene chloride	U		0.0013	0.010	mg/L	1	8/2/2011 21:49
Toluene	U		0.0010	0.0050	mg/L	1	8/2/2011 21:49
Xylenes, Total	U		0.0031	0.015	mg/L	1	8/2/2011 21:49
Surr: 1,2-Dichloroethane-d4	91.2			70-125	%REC	1	8/2/2011 21:49
Surr: 4-Bromofluorobenzene	97.2			72-125	%REC	1	8/2/2011 21:49
Surr: Dibromofluoromethane	101			71-125	%REC	1	8/2/2011 21:49
Surr: Toluene-d8	99.0			75-125	%REC	1	8/2/2011 21:49

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 03-Aug-11

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-MW65D-20110727
Collection Date: 7/27/2011 03:40 PM

Work Order: 1107935
Lab ID: 1107935-02
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270	Prep: SW3510 / 7/28/11	Analyst: LG		
1,2-Diphenylhydrazine	U		0.000050	0.00020	mg/L	1	7/30/2011 20:31
2,4-Dimethylphenol	U		0.000050	0.00020	mg/L	1	7/30/2011 20:31
2,4-Dinitrotoluene	U		0.000050	0.00020	mg/L	1	7/30/2011 20:31
2,6-Dinitrotoluene	U		0.000060	0.00020	mg/L	1	7/30/2011 20:31
2-Chloronaphthalene	U		0.000050	0.00020	mg/L	1	7/30/2011 20:31
2-Methylnaphthalene	U		0.000050	0.00020	mg/L	1	7/30/2011 20:31
4,6-Dinitro-2-methylphenol	U		0.000080	0.00020	mg/L	1	7/30/2011 20:31
4-Nitrophenol	U		0.000050	0.0010	mg/L	1	7/30/2011 20:31
Acenaphthene	U		0.000050	0.00020	mg/L	1	7/30/2011 20:31
Acenaphthylene	U		0.000050	0.00020	mg/L	1	7/30/2011 20:31
Anthracene	U		0.000050	0.00020	mg/L	1	7/30/2011 20:31
Benz(a)anthracene	U		0.000050	0.00020	mg/L	1	7/30/2011 20:31
Benzo(a)pyrene	U		0.000050	0.00020	mg/L	1	7/30/2011 20:31
Bis(2-chloroethoxy)methane	U		0.000050	0.00020	mg/L	1	7/30/2011 20:31
Bis(2-ethylhexyl)phthalate	0.0010		0.00010	0.00020	mg/L	1	7/30/2011 20:31
Chrysene	U		0.000050	0.00020	mg/L	1	7/30/2011 20:31
Dibenzofuran	U		0.000050	0.00020	mg/L	1	7/30/2011 20:31
Di-n-butyl phthalate	U		0.000050	0.00020	mg/L	1	7/30/2011 20:31
Fluoranthene	U		0.000050	0.00020	mg/L	1	7/30/2011 20:31
Fluorene	U		0.000050	0.00020	mg/L	1	7/30/2011 20:31
Naphthalene	U		0.000050	0.00020	mg/L	1	7/30/2011 20:31
Nitrobenzene	U		0.000050	0.00020	mg/L	1	7/30/2011 20:31
N-Nitrosodiphenylamine	U		0.000050	0.00020	mg/L	1	7/30/2011 20:31
Pentachlorophenol	U		0.000050	0.00020	mg/L	1	7/30/2011 20:31
Phenanthrene	0.000065	J	0.000050	0.00020	mg/L	1	7/30/2011 20:31
Phenol	0.000051	J	0.000050	0.00020	mg/L	1	7/30/2011 20:31
Pyrene	U		0.000050	0.00020	mg/L	1	7/30/2011 20:31
Surr: 2,4,6-Tribromophenol	55.1			34-129	%REC	1	7/30/2011 20:31
Surr: 2-Fluorobiphenyl	55.2			40-125	%REC	1	7/30/2011 20:31
Surr: 2-Fluorophenol	60.3			20-120	%REC	1	7/30/2011 20:31
Surr: 4-Terphenyl-d14	63.2			40-135	%REC	1	7/30/2011 20:31
Surr: Nitrobenzene-d5	52.1			41-120	%REC	1	7/30/2011 20:31
Surr: Phenol-d6	55.3			20-120	%REC	1	7/30/2011 20:31
VOLATILES			Method: SW8260	Analyst: PC			
1,2-Dichloroethane	U		0.0010	0.0050	mg/L	1	7/31/2011 13:13
Benzene	U		0.0010	0.0050	mg/L	1	7/31/2011 13:13
Chlorobenzene	U		0.0010	0.0050	mg/L	1	7/31/2011 13:13
Ethylbenzene	U		0.0011	0.0050	mg/L	1	7/31/2011 13:13

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 03-Aug-11

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-MW65D-20110727
Collection Date: 7/27/2011 03:40 PM

Work Order: 1107935
Lab ID: 1107935-02
Matrix: WATER

Analyses	Result	Qual	SDL	ML	Units	Dilution Factor	Date Analyzed
Methylene chloride	U		0.0013	0.010	mg/L	1	7/31/2011 13:13
Toluene	U		0.0010	0.0050	mg/L	1	7/31/2011 13:13
Xylenes, Total	U		0.0031	0.015	mg/L	1	7/31/2011 13:13
Surr: 1,2-Dichloroethane-d4	101			70-125	%REC	1	7/31/2011 13:13
Surr: 4-Bromofluorobenzene	99.7			72-125	%REC	1	7/31/2011 13:13
Surr: Dibromofluoromethane	102			71-125	%REC	1	7/31/2011 13:13
Surr: Toluene-d8	98.3			75-125	%REC	1	7/31/2011 13:13

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 03-Aug-11

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-MW59D-20110727
Collection Date: 7/27/2011 04:40 PM

Work Order: 1107935
Lab ID: 1107935-03
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270	Prep: SW3510 / 7/28/11	Analyst: LG		
1,2-Diphenylhydrazine	U		0.000050	0.00020	mg/L	1	7/31/2011
2,4-Dimethylphenol	U		0.000050	0.00020	mg/L	1	7/31/2011
2,4-Dinitrotoluene	U		0.000050	0.00020	mg/L	1	7/31/2011
2,6-Dinitrotoluene	U		0.000060	0.00020	mg/L	1	7/31/2011
2-Chloronaphthalene	U		0.000050	0.00020	mg/L	1	7/31/2011
2-Methylnaphthalene	U		0.000050	0.00020	mg/L	1	7/31/2011
4,6-Dinitro-2-methylphenol	U		0.000080	0.00020	mg/L	1	7/31/2011
4-Nitrophenol	U		0.000050	0.0010	mg/L	1	7/31/2011
Acenaphthene	U		0.000050	0.00020	mg/L	1	7/31/2011
Acenaphthylene	U		0.000050	0.00020	mg/L	1	7/31/2011
Anthracene	U		0.000050	0.00020	mg/L	1	7/31/2011
Benz(a)anthracene	U		0.000050	0.00020	mg/L	1	7/31/2011
Benzo(a)pyrene	U		0.000050	0.00020	mg/L	1	7/31/2011
Bis(2-chloroethoxy)methane	U		0.000050	0.00020	mg/L	1	7/31/2011
Bis(2-ethylhexyl)phthalate	0.0011		0.00010	0.00020	mg/L	1	7/31/2011
Chrysene	U		0.000050	0.00020	mg/L	1	7/31/2011
Dibenzofuran	U		0.000050	0.00020	mg/L	1	7/31/2011
Di-n-butyl phthalate	U		0.000050	0.00020	mg/L	1	7/31/2011
Fluoranthene	U		0.000050	0.00020	mg/L	1	7/31/2011
Fluorene	U		0.000050	0.00020	mg/L	1	7/31/2011
Naphthalene	U		0.000050	0.00020	mg/L	1	7/31/2011
Nitrobenzene	U		0.000050	0.00020	mg/L	1	7/31/2011
N-Nitrosodiphenylamine	U		0.000050	0.00020	mg/L	1	7/31/2011
Pentachlorophenol	U		0.000050	0.00020	mg/L	1	7/31/2011
Phenanthrene	U		0.000050	0.00020	mg/L	1	7/31/2011
Phenol	U		0.000050	0.00020	mg/L	1	7/31/2011
Pyrene	U		0.000050	0.00020	mg/L	1	7/31/2011
Surr: 2,4,6-Tribromophenol	46.1			34-129	%REC	1	7/31/2011
Surr: 2-Fluorobiphenyl	41.9			40-125	%REC	1	7/31/2011
Surr: 2-Fluorophenol	47.4			20-120	%REC	1	7/31/2011
Surr: 4-Terphenyl-d14	47.2			40-135	%REC	1	7/31/2011
Surr: Nitrobenzene-d5	45.3			41-120	%REC	1	7/31/2011
Surr: Phenol-d6	46.6			20-120	%REC	1	7/31/2011
VOLATILES			Method: SW8260	Analyst: PC			
1,2-Dichloroethane	U		0.0010	0.0050	mg/L	1	7/31/2011 16:38
Benzene	U		0.0010	0.0050	mg/L	1	7/31/2011 16:38
Chlorobenzene	U		0.0010	0.0050	mg/L	1	7/31/2011 16:38
Ethylbenzene	U		0.0011	0.0050	mg/L	1	7/31/2011 16:38

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 03-Aug-11

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-MW59D-20110727
Collection Date: 7/27/2011 04:40 PM

Work Order: 1107935
Lab ID: 1107935-03
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
Methylene chloride	U		0.0013	0.010	mg/L	1	7/31/2011 16:38
Toluene	U		0.0010	0.0050	mg/L	1	7/31/2011 16:38
Xylenes, Total	U		0.0031	0.015	mg/L	1	7/31/2011 16:38
Surr: 1,2-Dichloroethane-d4	104			70-125	%REC	1	7/31/2011 16:38
Surr: 4-Bromofluorobenzene	101			72-125	%REC	1	7/31/2011 16:38
Surr: Dibromofluoromethane	103			71-125	%REC	1	7/31/2011 16:38
Surr: Toluene-d8	101			75-125	%REC	1	7/31/2011 16:38

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 03-Aug-11

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-DUP7-20110727
Collection Date: 7/27/2011 04:40 PM

Work Order: 1107935
Lab ID: 1107935-04
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270	Prep: SW3510 / 7/28/11	Analyst: LG		
1,2-Diphenylhydrazine	U		0.000050	0.00020	mg/L	1	7/31/2011 00:21
2,4-Dimethylphenol	U		0.000050	0.00020	mg/L	1	7/31/2011 00:21
2,4-Dinitrotoluene	U		0.000050	0.00020	mg/L	1	7/31/2011 00:21
2,6-Dinitrotoluene	U		0.000060	0.00020	mg/L	1	7/31/2011 00:21
2-Chloronaphthalene	U		0.000050	0.00020	mg/L	1	7/31/2011 00:21
2-Methylnaphthalene	U		0.000050	0.00020	mg/L	1	7/31/2011 00:21
4,6-Dinitro-2-methylphenol	U		0.000080	0.00020	mg/L	1	7/31/2011 00:21
4-Nitrophenol	U		0.000050	0.0010	mg/L	1	7/31/2011 00:21
Acenaphthene	U		0.000050	0.00020	mg/L	1	7/31/2011 00:21
Acenaphthylene	U		0.000050	0.00020	mg/L	1	7/31/2011 00:21
Anthracene	U		0.000050	0.00020	mg/L	1	7/31/2011 00:21
Benz(a)anthracene	U		0.000050	0.00020	mg/L	1	7/31/2011 00:21
Benzo(a)pyrene	U		0.000050	0.00020	mg/L	1	7/31/2011 00:21
Bis(2-chloroethoxy)methane	U		0.000050	0.00020	mg/L	1	7/31/2011 00:21
Bis(2-ethylhexyl)phthalate	0.0018		0.00010	0.00020	mg/L	1	7/31/2011 00:21
Chrysene	U		0.000050	0.00020	mg/L	1	7/31/2011 00:21
Dibenzofuran	U		0.000050	0.00020	mg/L	1	7/31/2011 00:21
Di-n-butyl phthalate	U		0.000050	0.00020	mg/L	1	7/31/2011 00:21
Fluoranthene	U		0.000050	0.00020	mg/L	1	7/31/2011 00:21
Fluorene	U		0.000050	0.00020	mg/L	1	7/31/2011 00:21
Naphthalene	U		0.000050	0.00020	mg/L	1	7/31/2011 00:21
Nitrobenzene	U		0.000050	0.00020	mg/L	1	7/31/2011 00:21
N-Nitrosodiphenylamine	U		0.000050	0.00020	mg/L	1	7/31/2011 00:21
Pentachlorophenol	U		0.000050	0.00020	mg/L	1	7/31/2011 00:21
Phenanthrene	U		0.000050	0.00020	mg/L	1	7/31/2011 00:21
Phenol	U		0.000050	0.00020	mg/L	1	7/31/2011 00:21
Pyrene	U		0.000050	0.00020	mg/L	1	7/31/2011 00:21
Surr: 2,4,6-Tribromophenol	90.3			34-129	%REC	1	7/31/2011 00:21
Surr: 2-Fluorobiphenyl	67.1			40-125	%REC	1	7/31/2011 00:21
Surr: 2-Fluorophenol	79.4			20-120	%REC	1	7/31/2011 00:21
Surr: 4-Terphenyl-d14	108			40-135	%REC	1	7/31/2011 00:21
Surr: Nitrobenzene-d5	74.3			41-120	%REC	1	7/31/2011 00:21
Surr: Phenol-d6	82.1			20-120	%REC	1	7/31/2011 00:21
VOLATILES			Method: SW8260	Analyst: PC			
1,2-Dichloroethane	U		0.0010	0.0050	mg/L	1	7/31/2011 17:34
Benzene	U		0.0010	0.0050	mg/L	1	7/31/2011 17:34
Chlorobenzene	U		0.0010	0.0050	mg/L	1	7/31/2011 17:34
Ethylbenzene	U		0.0011	0.0050	mg/L	1	7/31/2011 17:34

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 03-Aug-11

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-DUP7-20110727
Collection Date: 7/27/2011 04:40 PM

Work Order: 1107935
Lab ID: 1107935-04
Matrix: WATER

Analyses	Result	Qual	SDL	ML	Units	Dilution Factor	Date Analyzed
Methylene chloride	U		0.0013	0.010	mg/L	1	7/31/2011 17:34
Toluene	U		0.0010	0.0050	mg/L	1	7/31/2011 17:34
Xylenes, Total	U		0.0031	0.015	mg/L	1	7/31/2011 17:34
Surr: 1,2-Dichloroethane-d4	103			70-125	%REC	1	7/31/2011 17:34
Surr: 4-Bromofluorobenzene	99.8			72-125	%REC	1	7/31/2011 17:34
Surr: Dibromofluoromethane	103			71-125	%REC	1	7/31/2011 17:34
Surr: Toluene-d8	101			75-125	%REC	1	7/31/2011 17:34

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 03-Aug-11

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-MW66D-20110727
Collection Date: 7/27/2011 05:45 PM

Work Order: 1107935
Lab ID: 1107935-05
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270	Prep: SW3510 / 7/28/11	Analyst: LG		
1,2-Diphenylhydrazine	U		0.000050	0.00020	mg/L	1	7/31/2011 00:42
2,4-Dimethylphenol	U		0.000050	0.00020	mg/L	1	7/31/2011 00:42
2,4-Dinitrotoluene	U		0.000050	0.00020	mg/L	1	7/31/2011 00:42
2,6-Dinitrotoluene	U		0.000060	0.00020	mg/L	1	7/31/2011 00:42
2-Chloronaphthalene	U		0.000050	0.00020	mg/L	1	7/31/2011 00:42
2-Methylnaphthalene	U		0.000050	0.00020	mg/L	1	7/31/2011 00:42
4,6-Dinitro-2-methylphenol	U		0.000080	0.00020	mg/L	1	7/31/2011 00:42
4-Nitrophenol	U		0.000050	0.0010	mg/L	1	7/31/2011 00:42
Acenaphthene	U		0.000050	0.00020	mg/L	1	7/31/2011 00:42
Acenaphthylene	U		0.000050	0.00020	mg/L	1	7/31/2011 00:42
Anthracene	0.00022		0.000050	0.00020	mg/L	1	7/31/2011 00:42
Benz(a)anthracene	0.00011	J	0.000050	0.00020	mg/L	1	7/31/2011 00:42
Benzo(a)pyrene	0.00016	J	0.000050	0.00020	mg/L	1	7/31/2011 00:42
Bis(2-chloroethoxy)methane	U		0.000050	0.00020	mg/L	1	7/31/2011 00:42
Bis(2-ethylhexyl)phthalate	0.0019		0.00010	0.00020	mg/L	1	7/31/2011 00:42
Chrysene	0.00046		0.000050	0.00020	mg/L	1	7/31/2011 00:42
Dibenzofuran	U		0.000050	0.00020	mg/L	1	7/31/2011 00:42
Di-n-butyl phthalate	0.000056	J	0.000050	0.00020	mg/L	1	7/31/2011 00:42
Fluoranthene	0.00035		0.000050	0.00020	mg/L	1	7/31/2011 00:42
Fluorene	U		0.000050	0.00020	mg/L	1	7/31/2011 00:42
Naphthalene	U		0.000050	0.00020	mg/L	1	7/31/2011 00:42
Nitrobenzene	U		0.000050	0.00020	mg/L	1	7/31/2011 00:42
N-Nitrosodiphenylamine	U		0.000050	0.00020	mg/L	1	7/31/2011 00:42
Pentachlorophenol	0.000084	J	0.000050	0.00020	mg/L	1	7/31/2011 00:42
Phenanthrene	0.00011	J	0.000050	0.00020	mg/L	1	7/31/2011 00:42
Phenol	U		0.000050	0.00020	mg/L	1	7/31/2011 00:42
Pyrene	0.00036		0.000050	0.00020	mg/L	1	7/31/2011 00:42
Surr: 2,4,6-Tribromophenol	58.1			34-129	%REC	1	7/31/2011 00:42
Surr: 2-Fluorobiphenyl	57.2			40-125	%REC	1	7/31/2011 00:42
Surr: 2-Fluorophenol	54.0			20-120	%REC	1	7/31/2011 00:42
Surr: 4-Terphenyl-d14	56.8			40-135	%REC	1	7/31/2011 00:42
Surr: Nitrobenzene-d5	57.0			41-120	%REC	1	7/31/2011 00:42
Surr: Phenol-d6	54.4			20-120	%REC	1	7/31/2011 00:42

VOLATILES			Method: SW8260	Analyst: PC			
1,2-Dichloroethane	U		0.0010	0.0050	mg/L	1	7/31/2011 18:30
Benzene	U		0.0010	0.0050	mg/L	1	7/31/2011 18:30
Chlorobenzene	U		0.0010	0.0050	mg/L	1	7/31/2011 18:30
Ethylbenzene	U		0.0011	0.0050	mg/L	1	7/31/2011 18:30

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 03-Aug-11

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-MW66D-20110727
Collection Date: 7/27/2011 05:45 PM

Work Order: 1107935
Lab ID: 1107935-05
Matrix: WATER

Analyses	Result	Qual	SDL	ML	Units	Dilution Factor	Date Analyzed
Methylene chloride	U		0.0013	0.010	mg/L	1	7/31/2011 18:30
Toluene	U		0.0010	0.0050	mg/L	1	7/31/2011 18:30
Xylenes, Total	U		0.0031	0.015	mg/L	1	7/31/2011 18:30
Surr: 1,2-Dichloroethane-d4	103			70-125	%REC	1	7/31/2011 18:30
Surr: 4-Bromofluorobenzene	99.3			72-125	%REC	1	7/31/2011 18:30
Surr: Dibromofluoromethane	101			71-125	%REC	1	7/31/2011 18:30
Surr: Toluene-d8	101			75-125	%REC	1	7/31/2011 18:30

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 03-Aug-11

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-MW51A-20110728
Collection Date: 7/28/2011 07:40 AM

Work Order: 1107935
Lab ID: 1107935-06
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270	Prep: SW3510 / 7/28/11	Analyst: LG		
1,2-Diphenylhydrazine	U		0.000050	0.00020	mg/L	1	7/31/2011 01:03
2,4-Dimethylphenol	U		0.000050	0.00020	mg/L	1	7/31/2011 01:03
2,4-Dinitrotoluene	U		0.000050	0.00020	mg/L	1	7/31/2011 01:03
2,6-Dinitrotoluene	U		0.000060	0.00020	mg/L	1	7/31/2011 01:03
2-Chloronaphthalene	U		0.000050	0.00020	mg/L	1	7/31/2011 01:03
2-Methylnaphthalene	U		0.000050	0.00020	mg/L	1	7/31/2011 01:03
4,6-Dinitro-2-methylphenol	U		0.000080	0.00020	mg/L	1	7/31/2011 01:03
4-Nitrophenol	U		0.000050	0.0010	mg/L	1	7/31/2011 01:03
Acenaphthene	U		0.000050	0.00020	mg/L	1	7/31/2011 01:03
Acenaphthylene	U		0.000050	0.00020	mg/L	1	7/31/2011 01:03
Anthracene	U		0.000050	0.00020	mg/L	1	7/31/2011 01:03
Benz(a)anthracene	U		0.000050	0.00020	mg/L	1	7/31/2011 01:03
Benzo(a)pyrene	U		0.000050	0.00020	mg/L	1	7/31/2011 01:03
Bis(2-chloroethoxy)methane	U		0.000050	0.00020	mg/L	1	7/31/2011 01:03
Bis(2-ethylhexyl)phthalate	0.0018		0.00010	0.00020	mg/L	1	7/31/2011 01:03
Chrysene	U		0.000050	0.00020	mg/L	1	7/31/2011 01:03
Dibenzofuran	U		0.000050	0.00020	mg/L	1	7/31/2011 01:03
Di-n-butyl phthalate	U		0.000050	0.00020	mg/L	1	7/31/2011 01:03
Fluoranthene	U		0.000050	0.00020	mg/L	1	7/31/2011 01:03
Fluorene	U		0.000050	0.00020	mg/L	1	7/31/2011 01:03
Naphthalene	U		0.000050	0.00020	mg/L	1	7/31/2011 01:03
Nitrobenzene	U		0.000050	0.00020	mg/L	1	7/31/2011 01:03
N-Nitrosodiphenylamine	U		0.000050	0.00020	mg/L	1	7/31/2011 01:03
Pentachlorophenol	U		0.000050	0.00020	mg/L	1	7/31/2011 01:03
Phenanthrene	U		0.000050	0.00020	mg/L	1	7/31/2011 01:03
Phenol	U		0.000050	0.00020	mg/L	1	7/31/2011 01:03
Pyrene	U		0.000050	0.00020	mg/L	1	7/31/2011 01:03
Surr: 2,4,6-Tribromophenol	58.5			34-129	%REC	1	7/31/2011 01:03
Surr: 2-Fluorobiphenyl	54.1			40-125	%REC	1	7/31/2011 01:03
Surr: 2-Fluorophenol	46.5			20-120	%REC	1	7/31/2011 01:03
Surr: 4-Terphenyl-d14	56.4			40-135	%REC	1	7/31/2011 01:03
Surr: Nitrobenzene-d5	50.3			41-120	%REC	1	7/31/2011 01:03
Surr: Phenol-d6	51.9			20-120	%REC	1	7/31/2011 01:03
VOLATILES			Method: SW8260	Analyst: PC			
1,2-Dichloroethane	U		0.0010	0.0050	mg/L	1	7/31/2011 18:58
Benzene	U		0.0010	0.0050	mg/L	1	7/31/2011 18:58
Chlorobenzene	U		0.0010	0.0050	mg/L	1	7/31/2011 18:58
Ethylbenzene	U		0.0011	0.0050	mg/L	1	7/31/2011 18:58

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 03-Aug-11

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-MW51A-20110728
Collection Date: 7/28/2011 07:40 AM

Work Order: 1107935
Lab ID: 1107935-06
Matrix: WATER

Analyses	Result	Qual	SDL	ML	Units	Dilution Factor	Date Analyzed
Methylene chloride	U		0.0013	0.010	mg/L	1	7/31/2011 18:58
Toluene	U		0.0010	0.0050	mg/L	1	7/31/2011 18:58
Xylenes, Total	U		0.0031	0.015	mg/L	1	7/31/2011 18:58
Surr: 1,2-Dichloroethane-d4	103			70-125	%REC	1	7/31/2011 18:58
Surr: 4-Bromofluorobenzene	98.9			72-125	%REC	1	7/31/2011 18:58
Surr: Dibromofluoromethane	103			71-125	%REC	1	7/31/2011 18:58
Surr: Toluene-d8	101			75-125	%REC	1	7/31/2011 18:58

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 03-Aug-11

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-MW50A-20110728
Collection Date: 7/28/2011 08:45 AM

Work Order: 1107935
Lab ID: 1107935-07
Matrix: WATER

Analyses	Result	Qual	SDL	ML	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270	Prep: SW3510 / 7/28/11	Analyst: LG		
1,2-Diphenylhydrazine	U		0.000050	0.00020	mg/L	1	7/31/2011 01:24
2,4-Dimethylphenol	U		0.000050	0.00020	mg/L	1	7/31/2011 01:24
2,4-Dinitrotoluene	U		0.000050	0.00020	mg/L	1	7/31/2011 01:24
2,6-Dinitrotoluene	U		0.000060	0.00020	mg/L	1	7/31/2011 01:24
2-Chloronaphthalene	U		0.000050	0.00020	mg/L	1	7/31/2011 01:24
2-Methylnaphthalene	U		0.000050	0.00020	mg/L	1	7/31/2011 01:24
4,6-Dinitro-2-methylphenol	U		0.000080	0.00020	mg/L	1	7/31/2011 01:24
4-Nitrophenol	U		0.000050	0.0010	mg/L	1	7/31/2011 01:24
Acenaphthene	U		0.000050	0.00020	mg/L	1	7/31/2011 01:24
Acenaphthylene	U		0.000050	0.00020	mg/L	1	7/31/2011 01:24
Anthracene	U		0.000050	0.00020	mg/L	1	7/31/2011 01:24
Benz(a)anthracene	U		0.000050	0.00020	mg/L	1	7/31/2011 01:24
Benzo(a)pyrene	U		0.000050	0.00020	mg/L	1	7/31/2011 01:24
Bis(2-chloroethoxy)methane	U		0.000050	0.00020	mg/L	1	7/31/2011 01:24
Bis(2-ethylhexyl)phthalate	0.00077		0.00010	0.00020	mg/L	1	7/31/2011 01:24
Chrysene	U		0.000050	0.00020	mg/L	1	7/31/2011 01:24
Dibenzofuran	U		0.000050	0.00020	mg/L	1	7/31/2011 01:24
Di-n-butyl phthalate	U		0.000050	0.00020	mg/L	1	7/31/2011 01:24
Fluoranthene	U		0.000050	0.00020	mg/L	1	7/31/2011 01:24
Fluorene	U		0.000050	0.00020	mg/L	1	7/31/2011 01:24
Naphthalene	U		0.000050	0.00020	mg/L	1	7/31/2011 01:24
Nitrobenzene	U		0.000050	0.00020	mg/L	1	7/31/2011 01:24
N-Nitrosodiphenylamine	U		0.000050	0.00020	mg/L	1	7/31/2011 01:24
Pentachlorophenol	U		0.000050	0.00020	mg/L	1	7/31/2011 01:24
Phenanthrene	U		0.000050	0.00020	mg/L	1	7/31/2011 01:24
Phenol	U		0.000050	0.00020	mg/L	1	7/31/2011 01:24
Pyrene	U		0.000050	0.00020	mg/L	1	7/31/2011 01:24
Surr: 2,4,6-Tribromophenol	44.2			34-129	%REC	1	7/31/2011 01:24
Surr: 2-Fluorobiphenyl	45.2			40-125	%REC	1	7/31/2011 01:24
Surr: 2-Fluorophenol	54.9			20-120	%REC	1	7/31/2011 01:24
Surr: 4-Terphenyl-d14	56.3			40-135	%REC	1	7/31/2011 01:24
Surr: Nitrobenzene-d5	56.7			41-120	%REC	1	7/31/2011 01:24
Surr: Phenol-d6	54.6			20-120	%REC	1	7/31/2011 01:24

VOLATILES			Method: SW8260	Analyst: PC			
1,2-Dichloroethane	U		0.0010	0.0050	mg/L	1	7/31/2011 19:27
Benzene	U		0.0010	0.0050	mg/L	1	7/31/2011 19:27
Chlorobenzene	U		0.0010	0.0050	mg/L	1	7/31/2011 19:27
Ethylbenzene	U		0.0011	0.0050	mg/L	1	7/31/2011 19:27

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 03-Aug-11

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-MW50A-20110728
Collection Date: 7/28/2011 08:45 AM

Work Order: 1107935
Lab ID: 1107935-07
Matrix: WATER

Analyses	Result	Qual	SDL	ML	Units	Dilution Factor	Date Analyzed
Methylene chloride	U		0.0013	0.010	mg/L	1	7/31/2011 19:27
Toluene	U		0.0010	0.0050	mg/L	1	7/31/2011 19:27
Xylenes, Total	U		0.0031	0.015	mg/L	1	7/31/2011 19:27
Surr: 1,2-Dichloroethane-d4	102			70-125	%REC	1	7/31/2011 19:27
Surr: 4-Bromofluorobenzene	99.9			72-125	%REC	1	7/31/2011 19:27
Surr: Dibromofluoromethane	101			71-125	%REC	1	7/31/2011 19:27
Surr: Toluene-d8	102			75-125	%REC	1	7/31/2011 19:27

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 03-Aug-11

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-FB08-20110728
Collection Date: 7/28/2011 09:15 AM

Work Order: 1107935
Lab ID: 1107935-08
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270		Prep: SW3510 / 7/28/11		Analyst: LG
1,2-Diphenylhydrazine	U		0.000050	0.00020	mg/L	1	7/31/2011 01:45
2,4-Dimethylphenol	U		0.000050	0.00020	mg/L	1	7/31/2011 01:45
2,4-Dinitrotoluene	U		0.000050	0.00020	mg/L	1	7/31/2011 01:45
2,6-Dinitrotoluene	U		0.000060	0.00020	mg/L	1	7/31/2011 01:45
2-Chloronaphthalene	U		0.000050	0.00020	mg/L	1	7/31/2011 01:45
2-Methylnaphthalene	U		0.000050	0.00020	mg/L	1	7/31/2011 01:45
4,6-Dinitro-2-methylphenol	U		0.000080	0.00020	mg/L	1	7/31/2011 01:45
4-Nitrophenol	U		0.000050	0.0010	mg/L	1	7/31/2011 01:45
Acenaphthene	U		0.000050	0.00020	mg/L	1	7/31/2011 01:45
Acenaphthylene	U		0.000050	0.00020	mg/L	1	7/31/2011 01:45
Anthracene	U		0.000050	0.00020	mg/L	1	7/31/2011 01:45
Benz(a)anthracene	U		0.000050	0.00020	mg/L	1	7/31/2011 01:45
Benzo(a)pyrene	U		0.000050	0.00020	mg/L	1	7/31/2011 01:45
Bis(2-chloroethoxy)methane	U		0.000050	0.00020	mg/L	1	7/31/2011 01:45
Bis(2-ethylhexyl)phthalate	0.0016		0.00010	0.00020	mg/L	1	7/31/2011 01:45
Chrysene	U		0.000050	0.00020	mg/L	1	7/31/2011 01:45
Dibenzofuran	U		0.000050	0.00020	mg/L	1	7/31/2011 01:45
Di-n-butyl phthalate	U		0.000050	0.00020	mg/L	1	7/31/2011 01:45
Fluoranthene	U		0.000050	0.00020	mg/L	1	7/31/2011 01:45
Fluorene	U		0.000050	0.00020	mg/L	1	7/31/2011 01:45
Naphthalene	U		0.000050	0.00020	mg/L	1	7/31/2011 01:45
Nitrobenzene	U		0.000050	0.00020	mg/L	1	7/31/2011 01:45
N-Nitrosodiphenylamine	U		0.000050	0.00020	mg/L	1	7/31/2011 01:45
Pentachlorophenol	U		0.000050	0.00020	mg/L	1	7/31/2011 01:45
Phenanthrene	U		0.000050	0.00020	mg/L	1	7/31/2011 01:45
Phenol	U		0.000050	0.00020	mg/L	1	7/31/2011 01:45
Pyrene	U		0.000050	0.00020	mg/L	1	7/31/2011 01:45
Surr: 2,4,6-Tribromophenol	49.9			34-129	%REC	1	7/31/2011 01:45
Surr: 2-Fluorobiphenyl	47.1			40-125	%REC	1	7/31/2011 01:45
Surr: 2-Fluorophenol	48.6			20-120	%REC	1	7/31/2011 01:45
Surr: 4-Terphenyl-d14	51.6			40-135	%REC	1	7/31/2011 01:45
Surr: Nitrobenzene-d5	48.5			41-120	%REC	1	7/31/2011 01:45
Surr: Phenol-d6	47.2			20-120	%REC	1	7/31/2011 01:45

VOLATILES			Method: SW8260		Analyst: PC		
1,2-Dichloroethane	U		0.0010	0.0050	mg/L	1	7/31/2011 19:55
Benzene	U		0.0010	0.0050	mg/L	1	7/31/2011 19:55
Chlorobenzene	U		0.0010	0.0050	mg/L	1	7/31/2011 19:55
Ethylbenzene	U		0.0011	0.0050	mg/L	1	7/31/2011 19:55

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 03-Aug-11

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-FB08-20110728
Collection Date: 7/28/2011 09:15 AM

Work Order: 1107935
Lab ID: 1107935-08
Matrix: WATER

Analyses	Result	Qual	SDL	ML	Units	Dilution Factor	Date Analyzed
Methylene chloride	U		0.0013	0.010	mg/L	1	7/31/2011 19:55
Toluene	U		0.0010	0.0050	mg/L	1	7/31/2011 19:55
Xylenes, Total	U		0.0031	0.015	mg/L	1	7/31/2011 19:55
Surr: 1,2-Dichloroethane-d4	104			70-125	%REC	1	7/31/2011 19:55
Surr: 4-Bromofluorobenzene	99.1			72-125	%REC	1	7/31/2011 19:55
Surr: Dibromofluoromethane	102			71-125	%REC	1	7/31/2011 19:55
Surr: Toluene-d8	102			75-125	%REC	1	7/31/2011 19:55

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 03-Aug-11

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-TB-20110728
Collection Date: 7/28/2011

Work Order: 1107935
Lab ID: 1107935-09
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
VOLATILES			Method: SW8260			Analyst: PC	
1,2-Dichloroethane	U		0.0010	0.0050	mg/L	1	8/2/2011 22:15
Benzene	U		0.0010	0.0050	mg/L	1	8/2/2011 22:15
Chlorobenzene	U		0.0010	0.0050	mg/L	1	8/2/2011 22:15
Ethylbenzene	U		0.0011	0.0050	mg/L	1	8/2/2011 22:15
Methylene chloride	U		0.0013	0.010	mg/L	1	8/2/2011 22:15
Toluene	U		0.0010	0.0050	mg/L	1	8/2/2011 22:15
Xylenes, Total	U		0.0031	0.015	mg/L	1	8/2/2011 22:15
Surr: 1,2-Dichloroethane-d4	101			70-125	%REC	1	8/2/2011 22:15
Surr: 4-Bromofluorobenzene	101			72-125	%REC	1	8/2/2011 22:15
Surr: Dibromofluoromethane	99.7			71-125	%REC	1	8/2/2011 22:15
Surr: Toluene-d8	100			75-125	%REC	1	8/2/2011 22:15

Note: See Qualifiers Page for a list of qualifiers and their explanation.

WorkOrder: 1107935
 InstrumentID: SV-2
 Test Code: 8270_LOW_W
 Test Number: SW8270
 Test Name: Low-Level Semivolatiles

**METHOD DETECTION /
 REPORTING LIMITS**

Matrix: Aqueous Units: mg/L

Type	Analyte	CAS	DCS	MDL	Unadjusted MQL
A	1,2-Diphenylhydrazine	122-66-7	0.000074	0.000050	0.00020
A	2,4-Dimethylphenol	105-67-9	0.0000046	0.000050	0.00020
A	2,4-Dinitrotoluene	121-14-2	0.000058	0.000050	0.00020
A	2,6-Dinitrotoluene	606-20-2	0.000066	0.000060	0.00020
A	2-Chloronaphthalene	91-58-7	0.000062	0.000050	0.00020
A	2-Methylnaphthalene	91-57-6	0.000073	0.000050	0.00020
A	4,6-Dinitro-2-methylphenol	534-52-1	0.000089	0.000080	0.00020
A	4-Nitrophenol	100-02-7	0.0000046	0.000050	0.0010
A	Acenaphthene	83-32-9	0.000088	0.000050	0.00020
A	Acenaphthylene	208-96-8	0.000076	0.000050	0.00020
A	Anthracene	120-12-7	0.000079	0.000050	0.00020
A	Benz(a)anthracene	56-55-3	0.000071	0.000050	0.00020
A	Benzo(a)pyrene	50-32-8	0.000058	0.000050	0.00020
A	Bis(2-chloroethoxy)methane	111-91-1	0.000082	0.000050	0.00020
A	Bis(2-ethylhexyl)phthalate	117-81-7	0.000081	0.00010	0.00020
A	Chrysene	218-01-9	0.000095	0.000050	0.00020
A	Di-n-butyl phthalate	84-74-2	0.000080	0.000050	0.00020
A	Dibenzofuran	132-64-9	0.000083	0.000050	0.00020
A	Fluoranthene	206-44-0	0.000076	0.000050	0.00020
A	Fluorene	86-73-7	0.000078	0.000050	0.00020
A	N-Nitrosodiphenylamine	86-30-6	0.000073	0.000050	0.00020
A	Naphthalene	91-20-3	0.000082	0.000050	0.00020
A	Nitrobenzene	98-95-3	0.00010	0.000050	0.00020
A	Pentachlorophenol	87-86-5	0.000047	0.000050	0.00020
A	Phenanthrene	85-01-8	0.000096	0.000050	0.00020
A	Phenol	108-95-2	0.000093	0.000050	0.00020
A	Pyrene	129-00-0	0.00010	0.000050	0.00020
S	Surr: 2,4,6-Tribromophenol	118-79-6	0	0	0.00020
S	Surr: 2-Fluorobiphenyl	321-60-8	0	0	0.00020
S	Surr: 2-Fluorophenol	367-12-4	0	0	0.00020
S	Surr: 4-Terphenyl-d14	1718-51-0	0	0	0.00020
S	Surr: Nitrobenzene-d5	4165-60-0	0	0	0.00020
S	Surr: Phenol-d6	13127-88-3	0	0	0.00020

WorkOrder: 1107935
InstrumentID: VOA1
Test Code: 8260_W
Test Number: SW8260
Test Name: Volatiles

**METHOD DETECTION /
 REPORTING LIMITS**

Matrix: Aqueous **Units:** mg/L

Type	Analyte	CAS	DCS	MDL	Unadjusted MQL
A	1,2-Dichloroethane	107-06-2	0.0020	0.0010	0.0050
A	Benzene	71-43-2	0.0021	0.0010	0.0050
A	Chlorobenzene	108-90-7	0.0020	0.0010	0.0050
A	Ethylbenzene	100-41-4	0.0020	0.0011	0.0050
A	Methylene chloride	75-09-2	0.0026	0.0013	0.010
A	Toluene	108-88-3	0.0020	0.0010	0.0050
M	Xylenes, Total	1330-20-7	0.0058	0.0031	0.015
S	Surr: 1,2-Dichloroethane-d4	17060-07-0	0	0	0.0050
S	Surr: 4-Bromofluorobenzene	460-00-4	0	0	0.0050
S	Surr: Dibromofluoromethane	1868-53-7	0	0	0.0050
S	Surr: Toluene-d8	2037-26-5	0	0	0.0050

WorkOrder: 1107935
InstrumentID: VOA6
Test Code: 8260_W
Test Number: SW8260
Test Name: Volatiles

**METHOD DETECTION /
 REPORTING LIMITS**

Matrix: Aqueous **Units:** mg/L

Type	Analyte	CAS	DCS	MDL	Unadjusted MQL
A	1,2-Dichloroethane	107-06-2	0.0010	0.0010	0.0050
A	Benzene	71-43-2	0.0011	0.0010	0.0050
A	Chlorobenzene	108-90-7	0.0011	0.0010	0.0050
A	Ethylbenzene	100-41-4	0.0011	0.0011	0.0050
A	Methylene chloride	75-09-2	0.00099	0.0013	0.010
A	Toluene	108-88-3	0.0011	0.0010	0.0050
M	Xylenes, Total	1330-20-7	0.0033	0.0031	0.015
S	Surr: 1,2-Dichloroethane-d4	17060-07-0	0	0	0.0050
S	Surr: 4-Bromofluorobenzene	460-00-4	0	0	0.0050
S	Surr: Dibromofluoromethane	1868-53-7	0	0	0.0050
S	Surr: Toluene-d8	2037-26-5	0	0	0.0050

ALS Environmental

Date: 03-Aug-11

Client: Pastor, Behling & Wheeler, LLC
Work Order: 1107935
Project: HWPW Site-Wide GW

QC BATCH REPORT

Batch ID: **54321** Instrument ID **SV-2** Method: **SW8270**

MBLK Sample ID: **SBLKW2-110728-54321** Units: **µg/L** Analysis Date: **7/30/2011 07:06 PM**

Client ID: Run ID: **SV-2_110730A** SeqNo: **2482106** Prep Date: **7/28/2011** DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Diphenylhydrazine	U	0.20								
2,4-Dimethylphenol	U	0.20								
2,4-Dinitrotoluene	U	0.20								
2,6-Dinitrotoluene	U	0.20								
2-Chloronaphthalene	U	0.20								
2-Methylnaphthalene	U	0.20								
4,6-Dinitro-2-methylphenol	U	0.20								
4-Nitrophenol	U	1.0								
Acenaphthene	U	0.20								
Acenaphthylene	U	0.20								
Anthracene	U	0.20								
Benz(a)anthracene	U	0.20								
Benzo(a)pyrene	U	0.20								
Bis(2-chloroethoxy)methane	U	0.20								
Bis(2-ethylhexyl)phthalate	U	0.20								
Chrysene	U	0.20								
Dibenzofuran	U	0.20								
Di-n-butyl phthalate	U	0.20								
Fluoranthene	U	0.20								
Fluorene	U	0.20								
Naphthalene	U	0.20								
Nitrobenzene	U	0.20								
N-Nitrosodiphenylamine	U	0.20								
Pentachlorophenol	U	0.20								
Phenanthrene	U	0.20								
Phenol	U	0.20								
Pyrene	U	0.20								
<i>Surr: 2,4,6-Tribromophenol</i>	<i>3.652</i>	<i>0.20</i>	<i>5</i>	<i>0</i>	<i>73</i>	<i>34-129</i>	<i>0</i>			
<i>Surr: 2-Fluorobiphenyl</i>	<i>3.884</i>	<i>0.20</i>	<i>5</i>	<i>0</i>	<i>77.7</i>	<i>40-125</i>	<i>0</i>			
<i>Surr: 2-Fluorophenol</i>	<i>3.848</i>	<i>0.20</i>	<i>5</i>	<i>0</i>	<i>77</i>	<i>20-120</i>	<i>0</i>			
<i>Surr: 4-Terphenyl-d14</i>	<i>3.909</i>	<i>0.20</i>	<i>5</i>	<i>0</i>	<i>78.2</i>	<i>40-135</i>	<i>0</i>			
<i>Surr: Nitrobenzene-d5</i>	<i>3.862</i>	<i>0.20</i>	<i>5</i>	<i>0</i>	<i>77.2</i>	<i>41-120</i>	<i>0</i>			
<i>Surr: Phenol-d6</i>	<i>3.897</i>	<i>0.20</i>	<i>5</i>	<i>0</i>	<i>77.9</i>	<i>20-120</i>	<i>0</i>			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Pastor, Behling & Wheeler, LLC
Work Order: 1107935
Project: HWPW Site-Wide GW

QC BATCH REPORT

Batch ID: **54321** Instrument ID **SV-2** Method: **SW8270**

LCS		Sample ID: SLCSW2-110728-54321			Units: µg/L			Analysis Date: 7/30/2011 07:27 PM		
Client ID:		Run ID: SV-2_110730A			SeqNo: 2482107			Prep Date: 7/28/2011		DF: 1
Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Diphenylhydrazine	3.805	0.20	5	0	76.1	39-127	0			
2,4-Dimethylphenol	3.292	0.20	5	0	65.8	35-120	0			
2,4-Dinitrotoluene	4.122	0.20	5	0	82.4	50-122	0			
2,6-Dinitrotoluene	4.048	0.20	5	0	81	50-120	0			
2-Chloronaphthalene	3.741	0.20	5	0	74.8	50-120	0			
2-Methylnaphthalene	3.944	0.20	5	0	78.9	50-120	0			
4,6-Dinitro-2-methylphenol	3.925	0.20	5	0	78.5	25-121	0			
4-Nitrophenol	4.831	1.0	5	0	96.6	30-130	0			
Acenaphthene	3.591	0.20	5	0	71.8	45-120	0			
Acenaphthylene	3.6	0.20	5	0	72	47-120	0			
Anthracene	3.763	0.20	5	0	75.3	45-120	0			
Benz(a)anthracene	3.914	0.20	5	0	78.3	40-120	0			
Benzo(a)pyrene	4.005	0.20	5	0	80.1	45-120	0			
Bis(2-chloroethoxy)methane	3.807	0.20	5	0	76.1	45-120	0			
Bis(2-ethylhexyl)phthalate	4.408	0.20	5	0	88.2	40-139	0			
Chrysene	3.475	0.20	5	0	69.5	43-120	0			
Dibenzofuran	3.571	0.20	5	0	71.4	50-120	0			
Di-n-butyl phthalate	4.033	0.20	5	0	80.7	45-123	0			
Fluoranthene	3.866	0.20	5	0	77.3	45-125	0			
Fluorene	3.854	0.20	5	0	77.1	49-120	0			
Naphthalene	3.847	0.20	5	0	76.9	45-120	0			
Nitrobenzene	3.816	0.20	5	0	76.3	44-120	0			
N-Nitrosodiphenylamine	3.59	0.20	5	0	71.8	40-125	0			
Pentachlorophenol	4.314	0.20	5	0	86.3	19-121	0			
Phenanthrene	3.793	0.20	5	0	75.9	45-121	0			
Phenol	3.756	0.20	5	0	75.1	20-124	0			
Pyrene	3.74	0.20	5	0	74.8	40-130	0			
<i>Surr: 2,4,6-Tribromophenol</i>	<i>3.582</i>	<i>0.20</i>	<i>5</i>	<i>0</i>	<i>71.6</i>	<i>34-129</i>	<i>0</i>			
<i>Surr: 2-Fluorobiphenyl</i>	<i>3.578</i>	<i>0.20</i>	<i>5</i>	<i>0</i>	<i>71.6</i>	<i>40-125</i>	<i>0</i>			
<i>Surr: 2-Fluorophenol</i>	<i>3.894</i>	<i>0.20</i>	<i>5</i>	<i>0</i>	<i>77.9</i>	<i>20-120</i>	<i>0</i>			
<i>Surr: 4-Terphenyl-d14</i>	<i>3.362</i>	<i>0.20</i>	<i>5</i>	<i>0</i>	<i>67.2</i>	<i>40-135</i>	<i>0</i>			
<i>Surr: Nitrobenzene-d5</i>	<i>3.913</i>	<i>0.20</i>	<i>5</i>	<i>0</i>	<i>78.3</i>	<i>41-120</i>	<i>0</i>			
<i>Surr: Phenol-d6</i>	<i>3.646</i>	<i>0.20</i>	<i>5</i>	<i>0</i>	<i>72.9</i>	<i>20-120</i>	<i>0</i>			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Pastor, Behling & Wheeler, LLC
 Work Order: 1107935
 Project: HWPW Site-Wide GW

QC BATCH REPORT

Batch ID: 54321 Instrument ID SV-2 Method: SW8270

LCSD	Sample ID: SLCS DW2-110728-54321	Units: µg/L					Analysis Date: 7/30/2011 08:10 PM				
Client ID:	Run ID: SV-2_110730A	SeqNo: 2482121			Prep Date: 7/28/2011		DF: 1				
Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
1,2-Diphenylhydrazine	4.895	0.20	5	0	97.9	39-127	3.805	25.1	20	R	
2,4-Dimethylphenol	3.918	0.20	5	0	78.4	35-120	3.292	17.4	20		
2,4-Dinitrotoluene	3.902	0.20	5	0	78	50-122	4.122	5.49	20		
2,6-Dinitrotoluene	4.199	0.20	5	0	84	50-120	4.048	3.64	20		
2-Chloronaphthalene	4.014	0.20	5	0	80.3	50-120	3.741	7.03	20		
2-Methylnaphthalene	3.922	0.20	5	0	78.4	50-120	3.944	0.548	20		
4,6-Dinitro-2-methylphenol	7.108	0.20	5	0	142	25-121	3.925	57.7	20	SR	
4-Nitrophenol	2.159	1.0	5	0	43.2	30-130	4.831	76.5	20	R	
Acenaphthene	3.546	0.20	5	0	70.9	45-120	3.591	1.28	20		
Acenaphthylene	3.46	0.20	5	0	69.2	47-120	3.6	3.98	20		
Anthracene	3.668	0.20	5	0	73.4	45-120	3.763	2.56	20		
Benz(a)anthracene	3.854	0.20	5	0	77.1	40-120	3.914	1.55	20		
Benzo(a)pyrene	4	0.20	5	0	80	45-120	4.005	0.114	20		
Bis(2-chloroethoxy)methane	4.452	0.20	5	0	89	45-120	3.807	15.6	20		
Bis(2-ethylhexyl)phthalate	4.398	0.20	5	0	88	40-139	4.408	0.214	20		
Chrysene	3.915	0.20	5	0	78.3	43-120	3.475	11.9	20		
Dibenzofuran	3.333	0.20	5	0	66.7	50-120	3.571	6.9	20		
Di-n-butyl phthalate	3.721	0.20	5	0	74.4	45-123	4.033	8.07	20		
Fluoranthene	3.789	0.20	5	0	75.8	45-125	3.866	1.99	20		
Fluorene	3.264	0.20	5	0	65.3	49-120	3.854	16.6	20		
Naphthalene	3.7	0.20	5	0	74	45-120	3.847	3.89	20		
Nitrobenzene	3.421	0.20	5	0	68.4	44-120	3.816	10.9	20		
N-Nitrosodiphenylamine	5.936	0.20	5	0	119	40-125	3.59	49.3	20	R	
Pentachlorophenol	4.586	0.20	5	0	91.7	19-121	4.314	6.12	20		
Phenanthrene	3.682	0.20	5	0	73.6	45-121	3.793	2.98	20		
Phenol	4.445	0.20	5	0	88.9	20-124	3.756	16.8	20		
Pyrene	3.771	0.20	5	0	75.4	40-130	3.74	0.829	20		
Surr: 2,4,6-Tribromophenol	3.538	0.20	5	0	70.8	34-129	3.582	1.24	0		
Surr: 2-Fluorobiphenyl	3.585	0.20	5	0	71.7	40-125	3.578	0.194	0		
Surr: 2-Fluorophenol	4.528	0.20	5	0	90.6	20-120	3.894	15.1	0		
Surr: 4-Terphenyl-d14	3.38	0.20	5	0	67.6	40-135	3.362	0.528	0		
Surr: Nitrobenzene-d5	3.413	0.20	5	0	68.3	41-120	3.913	13.7	0		
Surr: Phenol-d6	4.22	0.20	5	0	84.4	20-120	3.646	14.6	0		

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Pastor, Behling & Wheeler, LLC
Work Order: 1107935
Project: HWPW Site-Wide GW

QC BATCH REPORT

Batch ID: **54321** Instrument ID **SV-2** Method: **SW8270**

MS		Sample ID: 1107935-02BMS			Units: µg/L		Analysis Date: 7/30/2011 08:52 PM			
Client ID: WG-1620-MW65D-20110727		Run ID: SV-2_110730A			SeqNo: 2482110		Prep Date: 7/28/2011		DF: 1	
Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Diphenylhydrazine	7.455	0.20	10	0	74.5	39-127	0			
2,4-Dimethylphenol	5.375	0.20	10	0	53.7	35-120	0			
2,4-Dinitrotoluene	6.091	0.20	10	0	60.9	50-122	0			
2,6-Dinitrotoluene	6.517	0.20	10	0	65.2	50-120	0			
2-Chloronaphthalene	5.721	0.20	10	0	57.2	50-120	0			
2-Methylnaphthalene	5.653	0.20	10	0	56.5	50-120	0			
4,6-Dinitro-2-methylphenol	8.135	0.20	10	0	81.3	25-121	0			
4-Nitrophenol	6.092	1.0	10	0	60.9	30-130	0			
Acenaphthene	5.247	0.20	10	0	52.5	45-120	0			
Acenaphthylene	5.378	0.20	10	0	53.8	47-120	0			
Anthracene	6.738	0.20	10	0	67.4	45-120	0			
Benz(a)anthracene	6.598	0.20	10	0	66	40-120	0			
Benzo(a)pyrene	6.216	0.20	10	0	62.2	45-120	0			
Bis(2-chloroethoxy)methane	6.006	0.20	10	0	60.1	45-120	0			
Bis(2-ethylhexyl)phthalate	8.853	0.20	10	1.026	78.3	40-139	0			
Chrysene	6.527	0.20	10	0	65.3	43-120	0			
Dibenzofuran	5.32	0.20	10	0	53.2	50-120	0			
Di-n-butyl phthalate	6.843	0.20	10	0	68.4	45-123	0			
Fluoranthene	6.127	0.20	10	0	61.3	45-125	0			
Fluorene	5.528	0.20	10	0	55.3	49-120	0			
Naphthalene	5.73	0.20	10	0	57.3	45-120	0			
Nitrobenzene	5.448	0.20	10	0	54.5	44-120	0			
N-Nitrosodiphenylamine	8.172	0.20	10	0	81.7	40-125	0			
Pentachlorophenol	7.839	0.20	10	0	78.4	19-121	0			
Phenanthrene	6.691	0.20	10	0.06544	66.3	45-121	0			
Phenol	6.181	0.20	10	0.05122	61.3	20-124	0			
Pyrene	6.843	0.20	10	0	68.4	40-130	0			
<i>Surr: 2,4,6-Tribromophenol</i>	6.213	0.20	10	0	62.1	34-129	0			
<i>Surr: 2-Fluorobiphenyl</i>	5.558	0.20	10	0	55.6	40-125	0			
<i>Surr: 2-Fluorophenol</i>	5.772	0.20	10	0	57.7	20-120	0			
<i>Surr: 4-Terphenyl-d14</i>	6.21	0.20	10	0	62.1	40-135	0			
<i>Surr: Nitrobenzene-d5</i>	5.253	0.20	10	0	52.5	41-120	0			
<i>Surr: Phenol-d6</i>	5.668	0.20	10	0	56.7	20-120	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Pastor, Behling & Wheeler, LLC
 Work Order: 1107935
 Project: HWPW Site-Wide GW

QC BATCH REPORT

Batch ID: 54321 Instrument ID SV-2 Method: SW8270

MSD		Sample ID: 1107935-02BMSD			Units: µg/L			Analysis Date: 7/30/2011 09:13 PM		
Client ID: WG-1620-MW65D-20110727		Run ID: SV-2_110730A			SeqNo: 2482111		Prep Date: 7/28/2011		DF: 1	
Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Diphenylhydrazine	7.477	0.20	10	0	74.8	39-127	7.455	0.301	20	
2,4-Dimethylphenol	5.248	0.20	10	0	52.5	35-120	5.375	2.39	20	
2,4-Dinitrotoluene	6.382	0.20	10	0	63.8	50-122	6.091	4.66	20	
2,6-Dinitrotoluene	7.126	0.20	10	0	71.3	50-120	6.517	8.94	20	
2-Chloronaphthalene	6.506	0.20	10	0	65.1	50-120	5.721	12.8	20	
2-Methylnaphthalene	5.744	0.20	10	0	57.4	50-120	5.653	1.6	20	
4,6-Dinitro-2-methylphenol	8.301	0.20	10	0	83	25-121	8.135	2.01	20	
4-Nitrophenol	8.395	1.0	10	0	83.9	30-130	6.092	31.8	20	R
Acenaphthene	5.933	0.20	10	0	59.3	45-120	5.247	12.3	20	
Acenaphthylene	6	0.20	10	0	60	47-120	5.378	10.9	20	
Anthracene	6.876	0.20	10	0	68.8	45-120	6.738	2.02	20	
Benz(a)anthracene	6.455	0.20	10	0	64.5	40-120	6.598	2.19	20	
Benzo(a)pyrene	6.927	0.20	10	0	69.3	45-120	6.216	10.8	20	
Bis(2-chloroethoxy)methane	5.923	0.20	10	0	59.2	45-120	6.006	1.39	20	
Bis(2-ethylhexyl)phthalate	8.426	0.20	10	1.026	74	40-139	8.853	4.94	20	
Chrysene	6.422	0.20	10	0	64.2	43-120	6.527	1.61	20	
Dibenzofuran	6.064	0.20	10	0	60.6	50-120	5.32	13.1	20	
Di-n-butyl phthalate	7.156	0.20	10	0	71.6	45-123	6.843	4.47	20	
Fluoranthene	6.411	0.20	10	0	64.1	45-125	6.127	4.54	20	
Fluorene	6.242	0.20	10	0	62.4	49-120	5.528	12.1	20	
Naphthalene	5.907	0.20	10	0	59.1	45-120	5.73	3.05	20	
Nitrobenzene	5.583	0.20	10	0	55.8	44-120	5.448	2.44	20	
N-Nitrosodiphenylamine	7.828	0.20	10	0	78.3	40-125	8.172	4.3	20	
Pentachlorophenol	7.725	0.20	10	0	77.3	19-121	7.839	1.46	20	
Phenanthrene	6.732	0.20	10	0.06544	66.7	45-121	6.691	0.625	20	
Phenol	6.231	0.20	10	0.05122	61.8	20-124	6.181	0.813	20	
Pyrene	6.557	0.20	10	0	65.6	40-130	6.843	4.27	20	
Surr: 2,4,6-Tribromophenol	6.641	0.20	10	0	66.4	34-129	6.213	6.65	0	
Surr: 2-Fluorobiphenyl	6.095	0.20	10	0	61	40-125	5.558	9.23	0	
Surr: 2-Fluorophenol	5.876	0.20	10	0	58.8	20-120	5.772	1.79	0	
Surr: 4-Terphenyl-d14	6.138	0.20	10	0	61.4	40-135	6.21	1.18	0	
Surr: Nitrobenzene-d5	5.528	0.20	10	0	55.3	41-120	5.253	5.11	0	
Surr: Phenol-d6	5.821	0.20	10	0	58.2	20-120	5.668	2.67	0	

The following samples were analyzed in this batch:

1107935-01B	1107935-02B	1107935-03B
1107935-04B	1107935-05B	1107935-06B
1107935-07B	1107935-08B	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Pastor, Behling & Wheeler, LLC
Work Order: 1107935
Project: HWPW Site-Wide GW

QC BATCH REPORT

Batch ID: **R113940** Instrument ID **VOA6** Method: **SW8260**

MBLK Sample ID: **VBLKW-110729-R113940** Units: **µg/L** Analysis Date: **7/31/2011 12:10 PM**

Client ID: Run ID: **VOA6_110731A** SeqNo: **2480924** Prep Date: DF: **1**

Analyte	Result	ML	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Dichloroethane	U	5.0								
Benzene	U	5.0								
Chlorobenzene	U	5.0								
Ethylbenzene	U	5.0								
Methylene chloride	U	10								
Toluene	U	5.0								
Xylenes, Total	U	15								
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>51.53</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>103</i>	<i>70-125</i>	<i>0</i>			
<i>Surr: 4-Bromofluorobenzene</i>	<i>50.03</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>100</i>	<i>72-125</i>	<i>0</i>			
<i>Surr: Dibromofluoromethane</i>	<i>51.99</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>104</i>	<i>71-125</i>	<i>0</i>			
<i>Surr: Toluene-d8</i>	<i>49.28</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>98.6</i>	<i>75-125</i>	<i>0</i>			

LCS Sample ID: **VLCSW-073111-R113940** Units: **µg/L** Analysis Date: **7/31/2011 11:08 AM**

Client ID: Run ID: **VOA6_110731A** SeqNo: **2480923** Prep Date: DF: **1**

Analyte	Result	ML	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Dichloroethane	53.88	5.0	50	0	108	78-120	0			
Benzene	53.13	5.0	50	0	106	73-121	0			
Chlorobenzene	50.02	5.0	50	0	100	80-120	0			
Ethylbenzene	49.12	5.0	50	0	98.2	80-120	0			
Methylene chloride	59.08	10	50	0	118	65-133	0			
Toluene	49.72	5.0	50	0	99.4	80-120	0			
Xylenes, Total	144.5	15	150	0	96.4	80-120	0			
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>50.7</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>101</i>	<i>70-125</i>	<i>0</i>			
<i>Surr: 4-Bromofluorobenzene</i>	<i>50.37</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>101</i>	<i>72-125</i>	<i>0</i>			
<i>Surr: Dibromofluoromethane</i>	<i>51.91</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>104</i>	<i>71-125</i>	<i>0</i>			
<i>Surr: Toluene-d8</i>	<i>49.05</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>98.1</i>	<i>75-125</i>	<i>0</i>			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Pastor, Behling & Wheeler, LLC
 Work Order: 1107935
 Project: HWPW Site-Wide GW

QC BATCH REPORT

Batch ID: R113940 Instrument ID VOA6 Method: SW8260

MS Sample ID: 1107935-02AMS Units: µg/L Analysis Date: 7/31/2011 02:15 PM

Client ID: WG-1620-MW65D-20110727 Run ID: VOA6_110731A SeqNo: 2480926 Prep Date: DF: 1

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Dichloroethane	53.01	5.0	50	0	106	78-120	0			
Benzene	54.32	5.0	50	0	109	73-121	0			
Chlorobenzene	53.06	5.0	50	0	106	80-120	0			
Ethylbenzene	55.59	5.0	50	0	111	80-120	0			
Methylene chloride	57.79	10	50	0	116	65-133	0			
Toluene	52.42	5.0	50	0	105	80-120	0			
Xylenes, Total	164	15	150	0	109	80-120	0			
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>50.06</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>100</i>	<i>70-125</i>	<i>0</i>			
<i>Surr: 4-Bromofluorobenzene</i>	<i>50.29</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>101</i>	<i>72-125</i>	<i>0</i>			
<i>Surr: Dibromofluoromethane</i>	<i>51.22</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>102</i>	<i>71-125</i>	<i>0</i>			
<i>Surr: Toluene-d8</i>	<i>49.23</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>98.5</i>	<i>75-125</i>	<i>0</i>			

MSD Sample ID: 1107935-02AMSD Units: µg/L Analysis Date: 7/31/2011 02:45 PM

Client ID: WG-1620-MW65D-20110727 Run ID: VOA6_110731A SeqNo: 2480927 Prep Date: DF: 1

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Dichloroethane	50.63	5.0	50	0	101	78-120	53.01	4.59	20	
Benzene	53	5.0	50	0	106	73-121	54.32	2.46	20	
Chlorobenzene	51.76	5.0	50	0	104	80-120	53.06	2.49	20	
Ethylbenzene	55.45	5.0	50	0	111	80-120	55.59	0.252	20	
Methylene chloride	54.42	10	50	0	109	65-133	57.79	6	20	
Toluene	52.64	5.0	50	0	105	80-120	52.42	0.426	20	
Xylenes, Total	162.2	15	150	0	108	80-120	164	1.11	20	
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>50.6</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>101</i>	<i>70-125</i>	<i>50.06</i>	<i>1.06</i>	<i>20</i>	
<i>Surr: 4-Bromofluorobenzene</i>	<i>50.06</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>100</i>	<i>72-125</i>	<i>50.29</i>	<i>0.446</i>	<i>20</i>	
<i>Surr: Dibromofluoromethane</i>	<i>51.42</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>103</i>	<i>71-125</i>	<i>51.22</i>	<i>0.395</i>	<i>20</i>	
<i>Surr: Toluene-d8</i>	<i>50.29</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>101</i>	<i>75-125</i>	<i>49.23</i>	<i>2.13</i>	<i>20</i>	

The following samples were analyzed in this batch:

1107935-02A	1107935-03A	1107935-04A
1107935-05A	1107935-06A	1107935-07A
1107935-08A		

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Pastor, Behling & Wheeler, LLC

Work Order: 1107935

Project: HWPW Site-Wide GW

QC BATCH REPORT

Batch ID: R114007

Instrument ID VOA1

Method: SW8260

MBLK		Sample ID: VBLKW-080211-R114007			Units: µg/L			Analysis Date: 8/2/2011 06:40 PM		
Client ID:		Run ID: VOA1_110802A			SeqNo: 2482696		Prep Date:		DF: 1	
Analyte	Result	ML	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Dichloroethane	U	5.0								
Benzene	U	5.0								
Chlorobenzene	U	5.0								
Ethylbenzene	U	5.0								
Methylene chloride	U	10								
Toluene	U	5.0								
Xylenes, Total	U	15								
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>50.44</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>101</i>	<i>70-125</i>	<i>0</i>			
<i>Surr: 4-Bromofluorobenzene</i>	<i>48.41</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>96.8</i>	<i>72-125</i>	<i>0</i>			
<i>Surr: Dibromofluoromethane</i>	<i>51.13</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>102</i>	<i>71-125</i>	<i>0</i>			
<i>Surr: Toluene-d8</i>	<i>50.44</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>101</i>	<i>75-125</i>	<i>0</i>			

LCS		Sample ID: VLCSW-080211-R114007			Units: µg/L			Analysis Date: 8/2/2011 05:44 PM		
Client ID:		Run ID: VOA1_110802A			SeqNo: 2482695		Prep Date:		DF: 1	
Analyte	Result	ML	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Dichloroethane	51	5.0	50	0	102	78-120	0			
Benzene	50.21	5.0	50	0	100	73-121	0			
Chlorobenzene	51.76	5.0	50	0	104	80-120	0			
Ethylbenzene	49.62	5.0	50	0	99.2	80-120	0			
Methylene chloride	49.21	10	50	0	98.4	65-133	0			
Toluene	53.21	5.0	50	0	106	80-120	0			
Xylenes, Total	153.2	15	150	0	102	80-120	0			
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>49.51</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>99</i>	<i>70-125</i>	<i>0</i>			
<i>Surr: 4-Bromofluorobenzene</i>	<i>51.24</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>102</i>	<i>72-125</i>	<i>0</i>			
<i>Surr: Dibromofluoromethane</i>	<i>49.95</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>99.9</i>	<i>71-125</i>	<i>0</i>			
<i>Surr: Toluene-d8</i>	<i>53.19</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>106</i>	<i>75-125</i>	<i>0</i>			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Pastor, Behling & Wheeler, LLC
 Work Order: 1107935
 Project: HWPW Site-Wide GW

QC BATCH REPORT

Batch ID: R114007 Instrument ID VOA1 Method: SW8260

MS		Sample ID: 1107828-01ZMS			Units: µg/L			Analysis Date: 8/2/2011 08:02 PM		
Client ID:		Run ID: VOA1_110802A			SeqNo: 2482698		Prep Date:		DF: 20	
Analyte	Result	ML	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Dichloroethane	1014	100	1000	0	101	78-120	0			
Benzene	950.3	100	1000	0	95	73-121	0			
Chlorobenzene	924.9	100	1000	0	92.5	80-120	0			
Ethylbenzene	946	100	1000	0	94.6	80-120	0			
Methylene chloride	953.7	200	1000	30.56	92.3	65-133	0			
Toluene	924.9	100	1000	0	92.5	80-120	0			
Xylenes, Total	2742	300	3000	0	91.4	80-120	0			
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>1009</i>	<i>100</i>	<i>1000</i>	<i>0</i>	<i>101</i>	<i>70-125</i>	<i>0</i>			
<i>Surr: 4-Bromofluorobenzene</i>	<i>923.4</i>	<i>100</i>	<i>1000</i>	<i>0</i>	<i>92.3</i>	<i>72-125</i>	<i>0</i>			
<i>Surr: Dibromofluoromethane</i>	<i>971.8</i>	<i>100</i>	<i>1000</i>	<i>0</i>	<i>97.2</i>	<i>71-125</i>	<i>0</i>			
<i>Surr: Toluene-d8</i>	<i>950.1</i>	<i>100</i>	<i>1000</i>	<i>0</i>	<i>95</i>	<i>75-125</i>	<i>0</i>			

MSD		Sample ID: 1107828-01ZMSD			Units: µg/L			Analysis Date: 8/2/2011 08:29 PM		
Client ID:		Run ID: VOA1_110802A			SeqNo: 2482699		Prep Date:		DF: 20	
Analyte	Result	ML	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Dichloroethane	1026	100	1000	0	103	78-120	1014	1.11	20	
Benzene	983	100	1000	0	98.3	73-121	950.3	3.38	20	
Chlorobenzene	981	100	1000	0	98.1	80-120	924.9	5.88	20	
Ethylbenzene	957.1	100	1000	0	95.7	80-120	946	1.16	20	
Methylene chloride	1014	200	1000	30.56	98.4	65-133	953.7	6.14	20	
Toluene	1001	100	1000	0	100	80-120	924.9	7.87	20	
Xylenes, Total	2860	300	3000	0	95.3	80-120	2742	4.23	20	
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>1013</i>	<i>100</i>	<i>1000</i>	<i>0</i>	<i>101</i>	<i>70-125</i>	<i>1009</i>	<i>0.358</i>	<i>20</i>	
<i>Surr: 4-Bromofluorobenzene</i>	<i>1006</i>	<i>100</i>	<i>1000</i>	<i>0</i>	<i>101</i>	<i>72-125</i>	<i>923.4</i>	<i>8.52</i>	<i>20</i>	
<i>Surr: Dibromofluoromethane</i>	<i>994.4</i>	<i>100</i>	<i>1000</i>	<i>0</i>	<i>99.4</i>	<i>71-125</i>	<i>971.8</i>	<i>2.3</i>	<i>20</i>	
<i>Surr: Toluene-d8</i>	<i>1023</i>	<i>100</i>	<i>1000</i>	<i>0</i>	<i>102</i>	<i>75-125</i>	<i>950.1</i>	<i>7.35</i>	<i>20</i>	

The following samples were analyzed in this batch: 1107935-01A 1107935-09A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
WorkOrder: 1107935

**QUALIFIERS,
ACRONYMS, UNITS**

<u>Qualifier</u>	<u>Description</u>
*	Value exceeds Regulatory Limit
a	Not accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
J	Analyte detected below quantitation limit
M	Manually integrated, see raw data for justification
n	Not offered for accreditation
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL

<u>Acronym</u>	<u>Description</u>
DCS	Detectability Check Study
DUP	Method Duplicate
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
MBLK	Method Blank
MDL	Method Detection Limit
MQL	Method Quantitation Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PDS	Post Digestion Spike
PQL	Practical Quantitation Limit
SD	Serial Dilution
SDL	Sample Detection Limit
TRRP	Texas Risk Reduction Program

<u>Units Reported</u>	<u>Description</u>
mg/L	Milligrams per Liter



ALS Environmental
 10450 Standliff Rd., Suite 210
 Houston, Texas 77099
 Tel. +1 281 530 5656
 Fax. +1 281 530 5887

Chain of Custody Form

Page 1 of 2

COC ID: **26868**

1107935

PBW: Pastor, Behling & Wheeler, LLC

Project: HWPW Site-Wide GW

ALS Project Manager:



Customer Information		Project Information		
Purchase Order		Project Name	JPRR Houston Wood GW	A VOC (8260) Select
Work Order		Project Number	1129-03	B LL SVOC (8270) Select
Company Name	Pastor, Behling & Wheeler, LLC	Bill To Company	Union Pacific Railroad	C VINYL CHLORIDE
Send Report To	Mr. Matzav	Invoice Attn		D
Address	1201 Double Creek Drive Suite 4001	Address	1400 Douglas Street Stop 0750	E
				F
City/State/Zip	Round Rock, TX 73064	City/State/Zip	Concha, NE 681790730	G
Phone	(512) 671-4001	Phone		H
Fax	(512) 671-3446	Fax		I
e-Mail Address		e-Mail Address		J

No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	WG-1620-MW58A-20110727	7-27-11	1240	W		5	X	X	X								
2	WG-1620-MW09-20110727	7-27-11	1340	W		5	X	X									
3	WG-1620-MW36D-20110727		1440	W		5	X	X									
4	WG-1620-MW65D-20110727		1540	W		5	X	X									
5	WG-1620-MW65DMS-20110727		1540	W		5	X	X									
6	WG-1620-MW65DMSD-20110727		1540	W		5	X	X									
7	WG-1620-MW59D-20110727		1640	W		5	X	X									
8	WG-1620-DUP?-20110727		1640	W		5	X	X									
9	WG-1620-MW66D-20110727		1745	W		5	X	X									
10	WG-1620-MW51A-20110728	7-28-11	0740	W		5	X	X									

Sampler(s) Please Print & Sign John Brayton		Shipment Method HAND DELIVERED		Required Turnaround Time: (Check Box) <input type="checkbox"/> 24 Hour <input type="checkbox"/> 48 Hour <input type="checkbox"/> 72 Hour <input type="checkbox"/> 96 Hour				Results Due Date:			
Relinquished by: John Brayton		Date: 7-28-11	Time: 15:00	Received by: [Signature]		Notes: 10 Day TAT					
Relinquished for:		Date:	Time:	Received by (Laboratory): [Signature]		Cooler ID:	Cooler Temp.:	QC Package: (Check One Box Below)			
Logged by (Laboratory):		Date:	Time:	Checked by (Laboratory):		<input type="checkbox"/> Level III SVOC <input type="checkbox"/> TRAP (In-Field) <input type="checkbox"/> Level III SVOC w/Date <input type="checkbox"/> TRAP Level IV <input type="checkbox"/> Level IV SVOC/OC LP <input type="checkbox"/> Other:					
Preservative Key: 1-HCl 2-HNO ₃ 3-H ₂ SO ₄ 4-NaOH 5-Na ₂ S ₂ O ₃ 6-NaHSO ₄ 7-Other 8-4°C 9-5035											

Note: 1. Any changes must be made in writing once samples and COC Form have been submitted to ALS Environmental.
 2. Unless otherwise agreed in a formal contract, services provided by ALS Environmental are expressly limited to the terms and conditions stated on the reverse.
 3. The Chain of Custody is a legal document. All information must be completed accurately.



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 Houston, Texas 77099
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Chain of Custody Form

Page 2 of 2

COC ID: 26880

ALS Environmental
 3352 128th Ave.
 Holland, MI 49424-9263
 Tel: +1 616 399 6070
 Fax: +1 616 399 6185

ALS Project Manager:

ALS Work Order #: 1107935

Customer Information		Project Information		Parameter/Method Request for Analysis												
Purchase Order		Project Name	UPRR Houston Wood GW	A	VOC (12) P.S. test											
Work Order		Project Number	1129 03	B	LL (MOC (827)) Se. test											
Company Name	Passer, Anthony & Associates, LLP	Bill To Company	Union Pacific Railroad	C												
Send Report To	Erin Blanche	Invoice Attn		D												
Address	2201 Double Creek Drive	Address	1400 Douglas Street	E												
	Suite 1004		Suite 3750	F												
City/State/Zip	Round Rock, TX 78681	City/State/Zip	Omaha, NE 681790750	G												
Phone	(512) 671-3404	Phone		H												
Fax	(512) 671-3406	Fax		I												
e-Mail Address		e-Mail Address		J												

No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	WG-1620-MWSOA-20110728	7-28-11	0845	W		5	X	X									
2	WG-1620-FR08-20110728	7-28-11	0915	W		5	X	X									
3	WG-1620-TB-20110728					2	X										
4																	
5																	
6																	
7																	
8																	
9																	
10																	

Sampler(s) Please Print & Sign <i>John Brack</i> JOHN BRAYTON		Shipment Method HAND DELIVERED		Required Turnaround Time: (Check Box) <input type="checkbox"/> 24 Hours <input type="checkbox"/> 48 Hours <input checked="" type="checkbox"/> 72 Hours <input type="checkbox"/> Other _____				Results Due Date:			
Relinquished by: <i>John Brack</i>	Date: 7-28-11	Time: 15:00	Received by: <i>[Signature]</i>	Notes: 10 Day TAT							
Relinquished by:	Date:	Time:	Received by (Laboratory): <i>[Signature]</i>	Cooler ID	Cooler Temp.	QC Package: (Check One Box Below)					
Logged by (Laboratory):	Date:	Time:	Checked by (Laboratory):			<input type="checkbox"/> Lead/As/Co	<input type="checkbox"/> Lead/As/Co/Pb	<input type="checkbox"/> Lead/As/Co/Cr	<input type="checkbox"/> Lead/As/Co/Cr/Pb	<input type="checkbox"/> Lead/As/Co/Cr/Pb/Cu	<input type="checkbox"/> Lead/As/Co/Cr/Pb/Cu/Zn
Preservative Key: 1-HCl 2-HNO ₃ 3-H ₂ SO ₄ 4-NaOH 5-Na ₂ S ₂ O ₃ 6-NaHSO ₄ 7-Other 8-4°C 9-5035											

Note: 1. Any changes must be made in writing once samples and COC Form have been submitted to ALS Environmental.
 2. Unless otherwise agreed in a formal contract, services provided by ALS Environmental are expressly limited to the terms and conditions stated on the reverse.
 3. The Chain of Custody is a legal document. All information must be completed accurately.

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Sample Receipt Checklist

Client Name: **PBW**

Date/Time Received: **28-Jul-11 15:00**

Work Order: **1107935**

Received by: **RNG**

Checklist completed by Rishel D. Naran 28-Jul-11
eSignature Date

Reviewed by: Patricia L. Lynch 29-Jul-11
eSignature Date

Matrices: water

Carrier name: Client

- Shipping container/cooler in good condition? Yes No Not Present
- Custody seals intact on shipping container/cooler? Yes No Not Present
- Custody seals intact on sample bottles? Yes No Not Present
- Chain of custody present? Yes No
- Chain of custody signed when relinquished and received? Yes No
- Chain of custody agrees with sample labels? Yes No
- Samples in proper container/bottle? Yes No
- Sample containers intact? Yes No
- Sufficient sample volume for indicated test? Yes No
- All samples received within holding time? Yes No
- Container/Temp Blank temperature in compliance? Yes No

Temperature(s)/Thermometer(s): 2.1,1.7 002

Cooler(s)/Kit(s): 4018,3401,7028

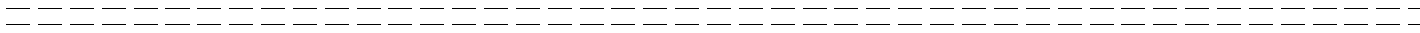
Water - VOA vials have zero headspace? Yes No No VOA vials submitted

Water - pH acceptable upon receipt? Yes No N/A

pH adjusted? Yes No N/A

pH adjusted by: _____

Login Notes: First two samples on the COC is missing! These samples (MW-58A & MW-09) were included in work order 1107899.



Client Contacted: _____ Date Contacted: _____ Person Contacted: _____

Contacted By: _____ Regarding: _____

Comments: _____

CorrectiveAction: _____



**CONESTOGA-ROVERS
& ASSOCIATES**

E-Mail Date: September 20, 2011
E-Mail To: Eric Matzner/ Pastor, Behling & Wheeler, LLC
c.c.: Angela Bown
E-Mail and Hard Copy if Requested

**DATA USABILITY SUMMARY
UNION PACIFIC RAILROAD (UPRR)
HOUSTON WOOD PRESERVING WORKS
SEMI-ANNUAL GROUNDWATER MONITORING-RESAMPLING
HOUSTON, TEXAS
AUGUST 2011**

PREPARED BY:
CONESTOGA-ROVERS & ASSOCIATES
9033 Meridian Way
West Chester, Ohio 45069
Telephone: 513-942-4750 Fax: 513-942-8585
Contact: Angela Bown *AB*
Date: September 20, 2011
www.CRAworld.com

Data Usability Summary

Reviewer:	Angela Bown – Conestoga-Rovers & Associates, Inc.
Contract Laboratory:	ALS Laboratory Group – Houston, Texas
Project/Area of Interest:	UPRR Houston Wood Preserving Works – Houston, Texas
Description of Data Packages Reviewed:	Groundwater sample results in data package: 1108961
Sample Collection Date(s):	August 25, 2011
Intended Use of Data:	To monitor the COCs in groundwater at the site and to evaluate whether migration of Chemicals of Concern (COC) could result in risk to human or ecological health.

1.0 Scope of Data Usability Summary

Data were reviewed and validated in accordance with Title 30 of the Texas Administrative Code Section 350.54 (30 TAC 350.54) as described in *Review and Reporting of COC Concentration Data*, (RG-366/TRRP-13) and the results of the review/validation are discussed in this Data Usability Summary (DUS). The review included examination of the reported data, the laboratory review checklist (LRC), and field/laboratory quality assurance/quality control (QA/QC) samples collected at the Site. Tables summarizing data qualifications discussed in this DUS can be found in Appendix A.

A sampling and analysis summary is presented in Table 1. This summary includes a cross-reference of field sample identification numbers and location codes. Each sample was assigned a unique field identification number.

Three groundwater samples including quality control samples were analyzed for the parameters outlined in Table 2. The validated sample results are presented in Table 3.

2.0 Laboratory Qualifications

Analytical services were provided by ALS Laboratory Group (ALS) located in Houston, Texas. The laboratory's quality assurance program is consistent with the quality standards outlined in the National Environmental Laboratory Accreditation Program (NELAP). The laboratory was accredited under Texas Certification Number T104704231-11-4 at the time the analyses were performed.

3.0 Project Objectives

3.1 Levels of Required Performance (LORP)

Prior to sampling, the LORP for each COC was established for the investigation. Standard available analytical methods were selected and minimal detection limits that are at or below the Texas Risk Reduction Tier 1 Residential Protective Concentration Levels (PCLs), ^{GW}GW_{ING} for groundwater were sought.

3.2 Sampling/ Analytical QA/QC Objectives

Pastor, Behling & Wheeler, LLC designed the QA/QC program to identify contamination resulting from sample collection, sample transport and the analytical process.

- Method blanks of a similar matrix to that of the associated samples are prepared by the laboratory and analyzed to determine if laboratory contaminants are affecting the analytical results. Method blanks are prepared and analyzed with each batch.

Similarly, the QA/QC program was designed to evaluate the quality of the resulting data with respect to bias and precision. First, a laboratory control sample (LCS) or laboratory control sample duplicate (LCSD) was prepared and analyzed with each batch. The recovery ranges established by the laboratory are adopted as the acceptance criteria for the project. Second, if applicable, a matrix spike/matrix spike duplicate (MS/MSD) was prepared and analyzed with each batch. The recovery ranges and RPDs established by the laboratory are adopted as the acceptance criteria for the project. Third, if applicable, field duplicates were collected and submitted for analysis. The RPD acceptance criterion for the water field duplicates is 30 percent. This RPD criterion is only used when sample concentrations are above the estimated regions of detection.

4.0 Data Review/Validation Results

4.1 Analytical Results

Analytes with concentrations above the Sample Detection Limits (SDLs) but below the Method Quantitation Limits (MQL) have been qualified as estimated on the analytical tables per the TRRP-13 document.

4.2 LORP

All SDLs and unadjusted MQLs met the LORP for this investigation.

All Detectability Check Standard (DCS) results supported the laboratory Method Detection Limits (MDL).

4.3 Preservation and Holding Times

Samples were properly preserved in the field and cooled to 4°C ($\pm 2^\circ\text{C}$). Samples were shipped with chains of custody, and the paperwork was filled out properly. All samples were shipped on ice. All samples were prepared and analyzed within the applicable holding times.

4.4 Sample Containers

Sample containers were certified pre-cleaned glass provided by the laboratory. These containers meet or exceed analyte specifications established in the USEPA *Specifications and Guidance for Contaminant-free Sample Containers*.

4.5 Calibrations

According to the LRCs, instrument tuning and initial calibration and continuing calibration data met the criteria for the selected methods.

4.6 Blanks

Method Blanks: As these were not discrete samples handled in the field, the method blanks are not listed on the sample identification cross-reference list found in Table 1. Results are reported in the data packages on a laboratory batch basis. All of the laboratory blank results were reported as ND (not detected).

4.7 Internal Standard and Surrogate Recoveries

Recoveries of internal standards and surrogates are addressed in the LRCs of the laboratory data packages. All surrogate recoveries were within the acceptance limits.

All internal standard areas and retention limits were acceptable per the LRCs.

4.8 Laboratory Control Samples (LCS)/ Laboratory Control Sample Duplicates (LCSD)

LCS or LCS/LCSD data for all COCs were reported for each batch. LCS spike recoveries and RPDs for all COCs were within the project objectives.

4.9 Matrix Spikes

Matrix spike/matrix spike duplicates were prepared and analyzed with the batches for all requested parameters. The results are reported in the data package on a laboratory batch basis. No site-specific samples were selected for MS/MSD analyses. In these cases, analyses of LCS/LCSD were used to determine batch precision and accuracy for VOCs and SVOCs.

4.10 Field Duplicate

No field duplicate samples were collected for this event.

4.11 Field Procedures

Pastor, Behling & Wheeler, LLC collected groundwater samples in accordance with their Standard Operating Procedures (SOP) for sample collection.

4.12 Summary

The analytical data in this report are usable to assess the impact of COCs in groundwater at the site.

APPENDIX A

TABLES

TABLE 1

SAMPLE AND ANALYSIS SUMMARY
SEMI-ANNUAL SITE-WIDE GROUNDWATER MONITORING-RESAMPLING
UNION PACIFIC RAILROAD (UPRR)
HOUSTON WOOD PRESERVING WORKS
HOUSTON, TEXAS
AUGUST 2011

<i>Sample I.D.</i>	<i>Location I.D.</i>	<i>Matrix</i>	<i>Collection Date (mm/dd/yy)</i>	<i>Collection Time (hr:min)</i>	<u><i>Analysis/Parameters</i></u>	
					<i>Select SVOCs</i>	<i>Benzene</i>
WG-1620-MW26A-20110825	MW-26A	WG	08/25/11	1:15:00 PM		X
WG-1620-MW62B-20110825	MW-62B	WG	08/25/11	2:15:00 PM	X	
WG-1620-MW38A-20110825	MW-38A	WG	08/25/11	3:30:00 PM	X	

Notes:

SVOCs Semi-Volatile Organic Compounds.

TABLE 2

**SUMMARY OF ANALYTICAL METHODOLOGIES
SEMI-ANNUAL SITE-WIDE GROUNDWATER MONITORING-RESAMPLING
UNION PACIFIC RAILROAD (UPRR)
HOUSTON WOOD PRESERVING WORKS
HOUSTON, TEXAS
AUGUST 2011**

<i>Parameter</i>	<i>Method</i>
Select SVOCs	SW-846 8270 ¹
Benzene	SW-846 8260 ¹

Notes:

¹ "Test Methods for Solid Waste/Physical Chemical Methods," SW-846, 3rd Edition, September 1986 (with all subsequent revisions).

SVOCs Semi-Volatile Organic Compounds.

TABLE 3

ANALYTICAL RESULTS SUMMARY
SEMI-ANNUAL SITE-WIDE GROUNDWATER MONITORING-RESAMPLING
UNION PACIFIC RAILROAD (UPRR)
HOUSTON WOOD PRESERVING WORKS
HOUSTON, TEXAS
AUGUST 2011

	<i>Sample Location:</i>	<i>MW-26A</i>	<i>MW-38A</i>	<i>MW-62B</i>
	<i>Sample ID:</i>	<i>WG-1620-MW26A-20110825</i>	<i>WG-1620-MW38A-20110825</i>	<i>WG-1620-MW62B-20110825</i>
	<i>Sample Date:</i>	<i>8/25/2011</i>	<i>8/25/2011</i>	<i>8/25/2011</i>
<i>Parameters</i>	<i>Units</i>			
<i>Volatile Organic Compounds</i>				
Benzene	mg/L	0.042	-	-
<i>Semi-volatile Organic Compounds</i>				
Benzo(a)pyrene	mg/L	-	<0.000050	<0.000050
Dibenzofuran	mg/L	-	0.000055 J	0.23

Notes:

- Not analyzed.

J - Estimated.



0J-Sep-2011

Eric Matzner
Pastor, Behling & Wheeler, LLC
2201 Double Creek Drive
Suite 4004
Round Rock, TX 78664

Tel: (512) 671-3434
Fax: (512) 671-3446

Re: UPRR Houston Wood Resampling

Work Order: **1108961**

Dear Eric,

ALS Environmental received 4 samples on 26-Aug-2011 09:25 AM for the analyses presented in the following report.

The analytical data provided relates directly to the samples received by ALS Environmental and for only the analyses requested. Results are expressed as "as received" unless otherwise noted.

QC sample results for this data met EPA or laboratory specifications except as noted in the Case Narrative or as noted with qualifiers in the QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained by ALS Environmental. Samples will be disposed in 30 days unless storage arrangements are made.

The total number of pages in this report is 11.

If you have any questions regarding this report, please feel free to call me.

Sincerely,

A handwritten signature in black ink that reads "Patricia L. Lynch".

Electronically approved by: Makenzie L. Henderson

Patricia L. Lynch
Project Manager



Certificate No: T104704231-09A-TX

ADDRESS 10450 Stancliff Rd, Suite 210 Houston, Texas 77099-4338 | PHONE (281) 530-5656 | FAX (281) 530-5887

DOV#T UR XS#K VD /#R US##Sdu#r i#khd#OV#Dderudaru|#T urxs##D #F dp seha#Eurkhu#Op l#hg#F rp sdq |

Environmental ALS

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RIGHT SOLUTIONS RIGHT PARTNER

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood Resampling
Work Order: 1108961

**TRRP Laboratory Data
Package Cover Page**

This data package consists of all or some of the following as applicable:

This signature page, the laboratory review checklist, and the following reportable data:

- R1 Field chain-of-custody documentation;
- R2 Sample identification cross-reference;
- R3 Test reports (analytical data sheets) for each environmental sample that includes:
 - a) Items consistent with NELAC Chapter 5,
 - b) dilution factors,
 - c) preparation methods,
 - d) cleanup methods, and
 - e) if required for the project, tentatively identified compounds (TICs).
- R4 Surrogate recovery data including:
 - a) Calculated recovery (%R), and
 - b) The laboratory's surrogate QC limits.
- R5 Test reports/summary forms for blank samples;
- R6 Test reports/summary forms for laboratory control samples (LCSs) including:
 - a) LCS spiking amounts,
 - b) Calculated %R for each analyte, and
 - c) The laboratory's LCS QC limits.
- R7 Test reports for project matrix spike/matrix spike duplicates (MS/MSDs) including:
 - a) Samples associated with the MS/MSD clearly identified,
 - b) MS/MSD spiking amounts,
 - c) Concentration of each MS/MSD analyte measured in the parent and spiked samples,
 - d) Calculated %Rs and relative percent differences (RPDs), and
 - e) The laboratory's MS/MSD QC limits.
- R8 Laboratory analytical duplicate (if applicable) recovery and precision:
 - a) the amount of analyte measured in the duplicate,
 - b) the calculated RPD, and
 - c) the laboratory's QC limits for analytical duplicates.
- R9 List of method quantitation limits (MQLs) and detectability check sample results for each analyte for each method and matrix.
- R10 Other problems or anomalies.
The Exception Report for each "No" or "Not Reviewed (NR)" item in Laboratory Review Checklist and for each analyte, matrix, and method for which the laboratory does not hold NELAC accreditation under the Texas Laboratory Accreditation Program.

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood Resampling
Work Order: 1108961

**TRRP Laboratory Data
Package Cover Page**

Release Statement: I am responsible for the release of this laboratory data package. This laboratory is NELAC accredited under the Texas Laboratory Accreditation Program for all the methods, analytes and matrices reported in this data package except as noted in the Exception Reports. The data have been reviewed and are technically compliant with the requirements of the methods used, except where noted by the laboratory in the attached exception reports. By my signature below, I affirm to the best of my knowledge, all problems/anomalies, observed by the laboratory have been identified by the laboratory in the Laboratory Review Checklist, and no information affecting the quality of the data has been knowingly withheld.

Check, if applicable: [NA] This laboratory meets an exception under 30 TAC §25.6 and was last inspected by TCEQ or _____ on (enter date of last inspection). Any findings affecting the data in this laboratory data package are noted in the Exception Reports herein. The official signing the cover page of the report in which these data are used is responsible for releasing this data package and is by signature affirming the above release statement is true.

Patricia L. Lynch

Patricia L. Lynch
Project Manager

Laboratory Review Checklist: Reportable Data

Laboratory Name: ALS Laboratory Group		LRC Date: 9/8/2011					
Project Name: UPRR Houston Wood Resampling		Laboratory Job Number: 1108961					
Reviewer Name: Pat Lynch		Prep Batch Number(s): 55063, R115554					
# ¹	A ²	Description	Yes	No	NA ³	NR ⁴	ER# ⁵
R1	OI	Chain-of-custody (C-O-C)					
		Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?	X				
		Were all departures from standard conditions described in an exception report?	X				
R2	OI	Sample and quality control (QC) identification					
		Are all field sample ID numbers cross-referenced to the laboratory ID numbers?	X				
		Are all laboratory ID numbers cross-referenced to the corresponding QC data?	X				
R3	OI	Test reports					
		Were all samples prepared and analyzed within holding times?	X				
		Other than those results < MQL, were all other raw values bracketed by calibration standards?	X				
		Were calculations checked by a peer or supervisor?	X				
		Were all analyte identifications checked by a peer or supervisor?	X				
		Were sample detection limits reported for all analytes not detected?	X				
		Were all results for soil and sediment samples reported on a dry weight basis?			X		
		Were % moisture (or solids) reported for all soil and sediment samples?			X		
		Were bulk soils/solids samples for volatile analysis extracted with methanol per SW-846 Method 5035?			X		
		If required for the project, TICs reported?			X		
R4	O	Surrogate recovery data					
		Were surrogates added prior to extraction?	X				
		Were surrogate percent recoveries in all samples within the laboratory QC limits?	X				
R5	OI	Test reports/summary forms for blank samples					
		Were appropriate type(s) of blanks analyzed?	X				
		Were blanks analyzed at the appropriate frequency?	X				
		Were method blanks taken through the entire analytical process, including preparation and, if applicable, cleanup procedures?	X				
		Were blank concentrations < MQL?	X				
R6	OI	Laboratory control samples (LCS):					
		Were all COCs included in the LCS?	X				
		Was each LCS taken through the entire analytical procedure, including prep and cleanup steps?	X				
		Were LCSs analyzed at the required frequency?	X				
		Were LCS (and LCSD, if applicable) %Rs within the laboratory QC limits?	X				
		Does the detectability data document the laboratory's capability to detect the COCs at the MDL used to calculate the SDLs?	X				
		Was the LCSD RPD within QC limits?	X				
R7	OI	Matrix spike (MS) and matrix spike duplicate (MSD) data					
		Were the project/method specified analytes included in the MS and MSD?	X				
		Were MS/MSD analyzed at the appropriate frequency?	X				
		Were MS (and MSD, if applicable) %Rs within the laboratory QC limits?	X				
		Were MS/MSD RPDs within laboratory QC limits?	X				
R8	OI	Analytical duplicate data					
		Were appropriate analytical duplicates analyzed for each matrix?			X		
		Were analytical duplicates analyzed at the appropriate frequency?			X		
		Were RPDs or relative standard deviations within the laboratory QC limits?			X		
R9	OI	Method quantitation limits (MQLs):					
		Are the MQLs for each method analyte included in the laboratory data package?	X				
		Do the MQLs correspond to the concentration of the lowest non-zero calibration standard?	X				
		Are unadjusted MQLs and DCSs included in the laboratory data package?	X				
R10	OI	Other problems/anomalies					
		Are all known problems/anomalies/special conditions noted in this LRC and ER?	X				
		Were all necessary corrective actions performed for the reported data?	X				
		Was applicable and available technology used to lower the SDL and minimize the matrix interference affects on the sample results?	X				
		Is the laboratory NELAC-accredited under the Texas Laboratory Program for the analytes, matrices and methods associated with this laboratory data package?	X				

Laboratory Review Checklist: Reportable Data

Laboratory Name: ALS Laboratory Group		LRC Date: 9/8/2011					
Project Name: UPRR Houston Wood Resampling		Laboratory Job Number: 1108961					
Reviewer Name: Pat Lynch		Prep Batch Number(s): 55063, R115554					
# ¹	A ²	Description	Yes	No	NA ³	NR ⁴	ER# ⁵
S1	OI	Initial calibration (ICAL)					
		Were response factors and/or relative response factors for each analyte within QC limits?	X				
		Were percent RSDs or correlation coefficient criteria met?	X				
		Was the number of standards recommended in the method used for all analytes?	X				
		Were all points generated between the lowest and highest standard used to calculate the curve?	X				
		Are ICAL data available for all instruments used?	X				
		Has the initial calibration curve been verified using an appropriate second source standard?	X				
S2	OI	Initial and continuing calibration verification (ICCV and CCV) and continuing calibration blank (CCB)					
		Was the CCV analyzed at the method-required frequency?	X				
		Were percent differences for each analyte within the method-required QC limits?	X				
		Was the ICAL curve verified for each analyte?	X				
		Was the absolute value of the analyte concentration in the inorganic CCB < MDL?			X		
S3	O	Mass spectral tuning:					
		Was the appropriate compound for the method used for tuning?	X				
		Were ion abundance data within the method-required QC limits?	X				
S4	O	Internal standards (IS):					
		Were IS area counts and retention times within the method-required QC limits?	X				
S5	OI	Raw data (NELAC section 1 appendix A glossary, and section 5.12 or ISO/IEC 17025 section					
		Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?	X				
		Were data associated with manual integrations flagged on the raw data?	X				
S6	O	Dual column confirmation					
		Did dual column confirmation results meet the method-required QC?			X		
S7	O	Tentatively identified compounds (TICs):					
		If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?			X		
S8	I	Interference Check Sample (ICS) results:					
		Were percent recoveries within method QC limits?			X		
S9	I	Serial dilutions, post digestion spikes, and method of standard additions					
		Were percent differences, recoveries, and the linearity within the QC limits specified in the method?			X		
S10	OI	Method detection limit (MDL) studies					
		Was a MDL study performed for each reported analyte?	X				
		Is the MDL either adjusted or supported by the analysis of DCSs?	X				
S11	OI	Proficiency test reports:					
		Was the laboratory's performance acceptable on the applicable proficiency tests or evaluation studies?	X				
S12	OI	Standards documentation					
		Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?	X				
S13	OI	Compound/analyte identification procedures					
		Are the procedures for compound/analyte identification documented?	X				
S14	OI	Demonstration of analyst competency (DOC)					
		Was DOC conducted consistent with NELAC Chapter 5C or ISO/IEC 4?	X				
		Is documentation of the analyst's competency up-to-date and on file?	X				
S15	OI	Verification/validation documentation for methods (NELAC Chap 5 or ISO/IEC 17025 Section 5)					
		Are all the methods used to generate the data documented, verified, and validated, where applicable?	X				
S16	OI	Laboratory standard operating procedures (SOPs):					
		Are laboratory SOPs current and on file for each method performed?	X				
<p>Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.</p> <p>O = Organic Analyses; I = Inorganic Analyses (and general chemistry, when applicable); NA = Not Applicable; NR = Not Reviewed; R# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).</p>							

Laboratory Review Checklist: Reportable Data

Laboratory Name: ALS Laboratory Group	LRC Date: 9/8/2011
Project Name: UPRR Houston Wood Resampling	Laboratory Job Number: 1108961
Reviewer Name: Pat Lynch	Prep Batch Number(s): 55063, R115554

ER#⁵	Description
	No exceptions.

Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.
O = Organic Analyses; I = Inorganic Analyses (and general chemistry, when applicable);
NA = Not Applicable;
NR = Not Reviewed;
R# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood Resampling
Work Order: 1108961

Work Order Sample Summary

<u>Lab Samp ID</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Tag Number</u>	<u>Collection Date</u>	<u>Date Received</u>	<u>Hold</u>
1108961-01	WG-1620-MW26A-20110825	Water		8/25/2011 13:15	8/26/2011 09:25	<input type="checkbox"/>
1108961-02	WG-1620-MW62B-20110825	Water		8/25/2011 14:15	8/26/2011 09:25	<input type="checkbox"/>
1108961-03	WG-1620-MW38A-20110825	Water		8/25/2011 15:30	8/26/2011 09:25	<input type="checkbox"/>
1108961-04	Trip Blank	Water		8/25/2011	8/26/2011 09:25	<input type="checkbox"/>

ALS Environmental

Date: 09-Sep-11

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood Resampling
Sample ID: WG-1620-MW26A-20110825
Collection Date: 8/25/2011 01:15 PM

Work Order: 1108961
Lab ID: 1108961-01
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
VOLATILES			Method: SW8260			Analyst: PC	
Benzene	0.042		0.0010	0.0050	mg/L	1	9/1/2011 21:11
Surr: 1,2-Dichloroethane-d4	97.0			70-125	%REC	1	9/1/2011 21:11
Surr: 4-Bromofluorobenzene	96.5			72-125	%REC	1	9/1/2011 21:11
Surr: Dibromofluoromethane	93.1			71-125	%REC	1	9/1/2011 21:11
Surr: Toluene-d8	98.1			75-125	%REC	1	9/1/2011 21:11

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 09-Sep-11

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood Resampling
Sample ID: WG-1620-MW62B-20110825
Collection Date: 8/25/2011 02:15 PM

Work Order: 1108961
Lab ID: 1108961-02
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270		Prep: SW3510 / 8/30/11		Analyst: LG
Benzo(a)pyrene	U		0.000050	0.00020	mg/L	1	8/31/2011 21:01
Dibenzofuran	0.23		0.0025	0.010	mg/L	50	8/31/2011 22:01
Surr: 2-Fluorobiphenyl	50.7			40-125	%REC	1	8/31/2011 21:01
Surr: 2-Fluorobiphenyl	112	J		40-125	%REC	50	8/31/2011 22:01
Surr: 4-Terphenyl-d14	57.3			40-135	%REC	1	8/31/2011 21:01
Surr: 4-Terphenyl-d14	109	J		40-135	%REC	50	8/31/2011 22:01
Surr: Nitrobenzene-d5	55.3			41-120	%REC	1	8/31/2011 21:01
Surr: Nitrobenzene-d5	106	J		41-120	%REC	50	8/31/2011 22:01

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 09-Sep-11

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood Resampling
Sample ID: WG-1620-MW38A-20110825
Collection Date: 8/25/2011 03:30 PM

Work Order: 1108961
Lab ID: 1108961-03
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270		Prep: SW3510 / 8/30/11		Analyst: LG
Benzo(a)pyrene		U	0.000050	0.00020	mg/L	1	8/31/2011 21:21
Dibenzofuran	0.000055	J	0.000050	0.00020	mg/L	1	8/31/2011 21:21
Surr: 2-Fluorobiphenyl	51.9			40-125	%REC	1	8/31/2011 21:21
Surr: 4-Terphenyl-d14	62.7			40-135	%REC	1	8/31/2011 21:21
Surr: Nitrobenzene-d5	48.4			41-120	%REC	1	8/31/2011 21:21

Note: See Qualifiers Page for a list of qualifiers and their explanation.

WorkOrder: 1108961
InstrumentID: SV-4
Test Code: 8270_LOW_W
Test Number: SW8270
Test Name: Low-Level Semivolatiles

**METHOD DETECTION /
REPORTING LIMITS**

Matrix: Aqueous Units: mg/L

Type	Analyte	CAS	DCS	MDL	Unadjusted MQL
A	Benzo(a)pyrene	50-32-8	0.000072	0.000050	0.00020
A	Dibenzofuran	132-64-9	0.000082	0.000050	0.00020
S	Surr: 2-Fluorobiphenyl	321-60-8	0	0	0.00020
S	Surr: 4-Terphenyl-d14	1718-51-0	0	0	0.00020
S	Surr: Nitrobenzene-d5	4165-60-0	0	0	0.00020

WorkOrder: 1108961
InstrumentID: VOA1
Test Code: 8260_W
Test Number: SW8260
Test Name: Volatiles

**METHOD DETECTION /
REPORTING LIMITS**

Matrix: Aqueous Units: mg/L

Type	Analyte	CAS	DCS	MDL	Unadjusted MQL
A	Benzene	71-43-2	0.0021	0.0010	0.0050
S	Surr: 1,2-Dichloroethane-d4	17060-07-0	0	0	0.0050
S	Surr: 4-Bromofluorobenzene	460-00-4	0	0	0.0050
S	Surr: Dibromofluoromethane	1868-53-7	0	0	0.0050
S	Surr: Toluene-d8	2037-26-5	0	0	0.0050

ALS Environmental

Date: 09-Sep-11

Client: Pastor, Behling & Wheeler, LLC
Work Order: 1108961
Project: UPRR Houston Wood Resampling

QC BATCH REPORT

Batch ID: **55063** Instrument ID **SV-4** Method: **SW8270**

MBLK		Sample ID: SBLKW1-110830-55063				Units: µg/L		Analysis Date: 8/31/2011 04:09 AM			
Client ID:		Run ID: SV-4_110830B				SeqNo: 2511891		Prep Date: 8/30/2011		DF: 1	
Analyte	Result	MLQ	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Benzo(a)pyrene	U	0.20									
Dibenzofuran	U	0.20									
<i>Surr: 2-Fluorobiphenyl</i>	3.669	0.20	5	0	73.4	40-125	0				
<i>Surr: 4-Terphenyl-d14</i>	3.673	0.20	5	0	73.5	40-135	0				
<i>Surr: Nitrobenzene-d5</i>	3.9	0.20	5	0	78	41-120	0				

LCS		Sample ID: SLCSW1-110830-55063				Units: µg/L		Analysis Date: 8/31/2011 05:55 PM			
Client ID:		Run ID: SV-4_110830B				SeqNo: 2511899		Prep Date: 8/30/2011		DF: 1	
Analyte	Result	MLQ	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Benzo(a)pyrene	4.186	0.20	5	0	83.7	45-120	0				
Dibenzofuran	3.811	0.20	5	0	76.2	50-120	0				
<i>Surr: 2-Fluorobiphenyl</i>	3.697	0.20	5	0	73.9	40-125	0				
<i>Surr: 4-Terphenyl-d14</i>	3.484	0.20	5	0	69.7	40-135	0				
<i>Surr: Nitrobenzene-d5</i>	3.782	0.20	5	0	75.6	41-120	0				

LCSD		Sample ID: SLCSDW1-110830-55063				Units: µg/L		Analysis Date: 8/31/2011 04:50 AM			
Client ID:		Run ID: SV-4_110830B				SeqNo: 2511892		Prep Date: 8/30/2011		DF: 1	
Analyte	Result	MLQ	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Benzo(a)pyrene	4.235	0.20	5	0	84.7	45-120	4.186	1.16	20		
Dibenzofuran	3.874	0.20	5	0	77.5	50-120	3.811	1.65	20		
<i>Surr: 2-Fluorobiphenyl</i>	3.62	0.20	5	0	72.4	40-125	3.697	2.11	0		
<i>Surr: 4-Terphenyl-d14</i>	3.496	0.20	5	0	69.9	40-135	3.484	0.338	0		
<i>Surr: Nitrobenzene-d5</i>	3.591	0.20	5	0	71.8	41-120	3.782	5.19	0		

MS		Sample ID: 1108900-01CMS				Units: µg/L		Analysis Date: 8/31/2011 05:30 AM			
Client ID:		Run ID: SV-4_110830B				SeqNo: 2511894		Prep Date: 8/30/2011		DF: 1	
Analyte	Result	MLQ	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Benzo(a)pyrene	3.877	0.20	5	0	77.5	45-120	0				
Dibenzofuran	3.32	0.20	5	0	66.4	50-120	0				
<i>Surr: 2-Fluorobiphenyl</i>	3.091	0.20	5	0	61.8	40-125	0				
<i>Surr: 4-Terphenyl-d14</i>	3.211	0.20	5	0	64.2	40-135	0				
<i>Surr: Nitrobenzene-d5</i>	3.34	0.20	5	0	66.8	41-120	0				

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Pastor, Behling & Wheeler, LLC
 Work Order: 1108961
 Project: UPRR Houston Wood Resampling

QC BATCH REPORT

Batch ID: 55063 Instrument ID SV-4 Method: SW8270

MS		Sample ID: 1108897-03CMS			Units: µg/L			Analysis Date: 8/31/2011 06:42 PM		
Client ID:		Run ID: SV-4_110830B			SeqNo: 2518228		Prep Date: 8/30/2011		DF: 1	
Analyte	Result	ML	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzo(a)pyrene	2.97	0.20	5	0	59.4	45-120	0			
Dibenzofuran	2.873	0.20	5	0	57.5	50-120	0			
Surr: 2-Fluorobiphenyl	2.693	0.20	5	0	53.9	40-125	0			
Surr: 4-Terphenyl-d14	2.742	0.20	5	0	54.8	40-135	0			
Surr: Nitrobenzene-d5	2.435	0.20	5	0	48.7	41-120	0			

MSD		Sample ID: 1108900-01CMSD			Units: µg/L			Analysis Date: 8/31/2011 05:50 AM		
Client ID:		Run ID: SV-4_110830B			SeqNo: 2511895		Prep Date: 8/30/2011		DF: 1	
Analyte	Result	ML	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzo(a)pyrene	4.091	0.20	5	0	81.8	45-120	3.877	5.37	20	
Dibenzofuran	3.448	0.20	5	0	69	50-120	3.32	3.77	20	
Surr: 2-Fluorobiphenyl	3.174	0.20	5	0	63.5	40-125	3.091	2.66	0	
Surr: 4-Terphenyl-d14	3.371	0.20	5	0	67.4	40-135	3.211	4.87	0	
Surr: Nitrobenzene-d5	3.566	0.20	5	0	71.3	41-120	3.34	6.57	0	

MSD		Sample ID: 1108897-03CMSD			Units: µg/L			Analysis Date: 8/31/2011 07:01 PM		
Client ID:		Run ID: SV-4_110830B			SeqNo: 2518229		Prep Date: 8/30/2011		DF: 1	
Analyte	Result	ML	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzo(a)pyrene	3.271	0.20	5	0	65.4	45-120	2.97	9.62	20	
Dibenzofuran	2.733	0.20	5	0	54.7	50-120	2.873	4.99	20	
Surr: 2-Fluorobiphenyl	2.51	0.20	5	0	50.2	40-125	2.693	7.04	0	
Surr: 4-Terphenyl-d14	2.917	0.20	5	0	58.3	40-135	2.742	6.18	0	
Surr: Nitrobenzene-d5	2.354	0.20	5	0	47.1	41-120	2.435	3.37	0	

The following samples were analyzed in this batch: 1108961-02A 1108961-03A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Pastor, Behling & Wheeler, LLC
 Work Order: 1108961
 Project: UPRR Houston Wood Resampling

QC BATCH REPORT

Batch ID: R115554 Instrument ID VOA1 Method: SW8260

MBLK		Sample ID: VBLKW-090111-R115554			Units: µg/L		Analysis Date: 9/1/2011 11:46 AM			
Client ID:		Run ID: VOA1_110901A			SeqNo: 2513913		Prep Date:		DF: 1	
Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	U	5.0								
Surr: 1,2-Dichloroethane-d4	49.37	5.0	50	0	98.7	70-125	0			
Surr: 4-Bromofluorobenzene	48.81	5.0	50	0	97.6	72-125	0			
Surr: Dibromofluoromethane	48.71	5.0	50	0	97.4	71-125	0			
Surr: Toluene-d8	46.54	5.0	50	0	93.1	75-125	0			

LCS		Sample ID: VLCSW-090111-R115554			Units: µg/L		Analysis Date: 9/1/2011 10:53 AM			
Client ID:		Run ID: VOA1_110901A			SeqNo: 2513912		Prep Date:		DF: 1	
Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	51.47	5.0	50	0	103	73-121	0			
Surr: 1,2-Dichloroethane-d4	50.93	5.0	50	0	102	70-125	0			
Surr: 4-Bromofluorobenzene	49.36	5.0	50	0	98.7	72-125	0			
Surr: Dibromofluoromethane	51.56	5.0	50	0	103	71-125	0			
Surr: Toluene-d8	45.29	5.0	50	0	90.6	75-125	0			

MS		Sample ID: 1108864-01AMS			Units: µg/L		Analysis Date: 9/1/2011 03:22 PM			
Client ID:		Run ID: VOA1_110901A			SeqNo: 2513918		Prep Date:		DF: 5	
Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	229.3	25	250	0	91.7	73-121	0			
Surr: 1,2-Dichloroethane-d4	249.4	25	250	0	99.8	70-125	0			
Surr: 4-Bromofluorobenzene	247.6	25	250	0	99.1	72-125	0			
Surr: Dibromofluoromethane	243.8	25	250	0	97.5	71-125	0			
Surr: Toluene-d8	232.1	25	250	0	92.8	75-125	0			

MSD		Sample ID: 1108864-01AMSD			Units: µg/L		Analysis Date: 9/1/2011 03:49 PM			
Client ID:		Run ID: VOA1_110901A			SeqNo: 2513919		Prep Date:		DF: 5	
Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	243.9	25	250	0	97.6	73-121	229.3	6.16	20	
Surr: 1,2-Dichloroethane-d4	255.7	25	250	0	102	70-125	249.4	2.49	20	
Surr: 4-Bromofluorobenzene	251	25	250	0	100	72-125	247.6	1.35	20	
Surr: Dibromofluoromethane	250.2	25	250	0	100	71-125	243.8	2.59	20	
Surr: Toluene-d8	232.4	25	250	0	93	75-125	232.1	0.141	20	

The following samples were analyzed in this batch: 1108961-01A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

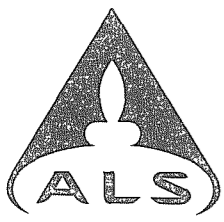
Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood Resampling
WorkOrder: 1108961

**QUALIFIERS,
ACRONYMS, UNITS**

<u>Qualifier</u>	<u>Description</u>
*	Value exceeds Regulatory Limit
a	Not accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
J	Analyte detected below quantitation limit
M	Manually integrated, see raw data for justification
n	Not offered for accreditation
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL

<u>Acronym</u>	<u>Description</u>
DCS	Detectability Check Study
DUP	Method Duplicate
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
MBLK	Method Blank
MDL	Method Detection Limit
MQL	Method Quantitation Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PDS	Post Digestion Spike
PQL	Practical Quantitation Limit
SD	Serial Dilution
SDL	Sample Detection Limit
TRRP	Texas Risk Reduction Program

<u>Units Reported</u>	<u>Description</u>
mg/L	Milligrams per Liter



ALS Environmental
 10450 Stancliff Rd., Suite 210
 Houston, Texas 77099
 Tel. +1 281 530 5656
 Fax. +1 281 530 5887

Chain of Custody Form

Page 1 of 1

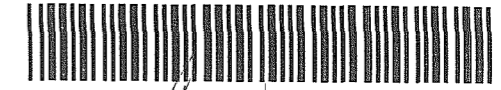
COC ID: **35059**

1108961

PBW: Pastor, Behling & Wheeler, LLC

Project: UPRR Houston Wood Resampling

ALS Project Manager:



Customer Information		Project Information		
Purchase Order		Project Name		A
Work Order		Project Number		B
Company Name		Bill To Company		C
Send Report To		Invoice Attn		D
Address		Address		E
				F
City/State/Zip		City/State/Zip		G
Phone		Phone		H
Fax		Fax		I
e-Mail Address		e-Mail Address		J

No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	WG-1620-MW26A-20110825	8-25-11	1315				X										
2	WG-1620-MW62B-20110825		1415					X									
3	WG-1620-MW38A-20110825	↓	1530					X									
4																	
5																	
6																	
7																	
8																	
9																	
10																	

Sampler(s) Please Print & Sign <i>John Brannon</i>		Shipment Method <i>HAND DELIVERED</i>		Required Turnaround Time: (Check Box)				Results Due Date:			
Relinquished by: <i>John Brannon</i>	Date: <i>8-26-11</i>	Time:	Received by:	Notes:							
Relinquished by:	Date: <i>8/26/11</i>	Time: <i>0925</i>	Received by (Laboratory): <i>RA ALS</i>	Cooler ID	Cooler Temp.	QC Package: (Check One Box Below)					
Logged by (Laboratory):	Date:	Time:	Checked by (Laboratory):								
Preservative Key: 1-HCl 2-HNO ₃ 3-H ₂ SO ₄ 4-NaOH 5-Na ₂ S ₂ O ₃ 6-NaHSO ₄ 7-Other 8-4°C 9-5035											

Note: 1. Any changes must be made in writing once samples and COC Form have been submitted to ALS Environmental.
 2. Unless otherwise agreed in a formal contract, services provided by ALS Environmental are expressly limited to the terms and conditions stated on the reverse.
 3. The Chain of Custody is a legal document. All information must be completed accurately.

Sample Receipt Checklist

Client Name: **PBW**

Date/Time Received: **26-Aug-11 09:25**

Work Order: **1108961**

Received by: **RDN**

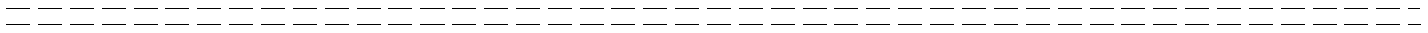
Checklist completed by Robert D. Harris 30-Aug-11
eSignature Date

Reviewed by: Patricia L. Lynch 01-Sep-11
eSignature Date

Matrices: waters
 Carrier name: Client

Shipping container/cooler in good condition?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on shipping container/cooler?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Present <input checked="" type="checkbox"/>
Custody seals intact on sample bottles?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Present <input checked="" type="checkbox"/>
Chain of custody present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody signed when relinquished and received?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody agrees with sample labels?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Samples in proper container/bottle?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample containers intact?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sufficient sample volume for indicated test?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
All samples received within holding time?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Container/Temp Blank temperature in compliance?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Temperature(s)/Thermometer(s):	<input type="text" value="2.1c"/> <input type="text" value="002"/>		
Cooler(s)/Kit(s):	<input type="text" value="3470"/>		
Water - VOA vials have zero headspace?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	No VOA vials submitted <input type="checkbox"/>
Water - pH acceptable upon receipt?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	N/A <input type="checkbox"/>
pH adjusted?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>
pH adjusted by:	<input type="text"/>		

Login Notes: Trip blank not on COC; logged in without analysis.



Client Contacted: Date Contacted: Person Contacted:

Contacted By: Regarding:

Comments:

CorrectiveAction:



0J-Sep-2011

Eric Matzner
Pastor, Behling & Wheeler, LLC
2201 Double Creek Drive
Suite 4004
Round Rock, TX 78664

Tel: (512) 671-3434
Fax: (512) 671-3446

Re: UPRR Houston Wood Resampling

Work Order: **1108961**

Dear Eric,

ALS Environmental received 4 samples on 26-Aug-2011 09:25 AM for the analyses presented in the following report.

The analytical data provided relates directly to the samples received by ALS Environmental and for only the analyses requested. Results are expressed as "as received" unless otherwise noted.

QC sample results for this data met EPA or laboratory specifications except as noted in the Case Narrative or as noted with qualifiers in the QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained by ALS Environmental. Samples will be disposed in 30 days unless storage arrangements are made.

The total number of pages in this report is 11.

If you have any questions regarding this report, please feel free to call me.

Sincerely,

A handwritten signature in cursive script that reads "Patricia L. Lynch".

Electronically approved by: Makenzie L. Henderson

Patricia L. Lynch
Project Manager



Certificate No: T104704231-09A-TX

ADDRESS 10450 Stancliff Rd, Suite 210 Houston, Texas 77099-4338 | PHONE (281) 530-5656 | FAX (281) 530-5887

DOV#T UR XS#K VD /#R US##Sdu#r i#k#h#D OV#Dde r#u#r#u|#T urxs##D #F dp seha#Eur#k#u#r#Op l#hg#F rp sdq |

Environmental

www.alsglobal.com

RIGHT SOLUTIONS RIGHT PARTNER

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood Resampling
Work Order: 1108961

**TRRP Laboratory Data
Package Cover Page**

This data package consists of all or some of the following as applicable:

This signature page, the laboratory review checklist, and the following reportable data:

- R1 Field chain-of-custody documentation;
- R2 Sample identification cross-reference;
- R3 Test reports (analytical data sheets) for each environmental sample that includes:
 - a) Items consistent with NELAC Chapter 5,
 - b) dilution factors,
 - c) preparation methods,
 - d) cleanup methods, and
 - e) if required for the project, tentatively identified compounds (TICs).
- R4 Surrogate recovery data including:
 - a) Calculated recovery (%R), and
 - b) The laboratory's surrogate QC limits.
- R5 Test reports/summary forms for blank samples;
- R6 Test reports/summary forms for laboratory control samples (LCSs) including:
 - a) LCS spiking amounts,
 - b) Calculated %R for each analyte, and
 - c) The laboratory's LCS QC limits.
- R7 Test reports for project matrix spike/matrix spike duplicates (MS/MSDs) including:
 - a) Samples associated with the MS/MSD clearly identified,
 - b) MS/MSD spiking amounts,
 - c) Concentration of each MS/MSD analyte measured in the parent and spiked samples,
 - d) Calculated %Rs and relative percent differences (RPDs), and
 - e) The laboratory's MS/MSD QC limits.
- R8 Laboratory analytical duplicate (if applicable) recovery and precision:
 - a) the amount of analyte measured in the duplicate,
 - b) the calculated RPD, and
 - c) the laboratory's QC limits for analytical duplicates.
- R9 List of method quantitation limits (MQLs) and detectability check sample results for each analyte for each method and matrix.
- R10 Other problems or anomalies.
The Exception Report for each "No" or "Not Reviewed (NR)" item in Laboratory Review Checklist and for each analyte, matrix, and method for which the laboratory does not hold NELAC accreditation under the Texas Laboratory Accreditation Program.

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood Resampling
Work Order: 1108961

**TRRP Laboratory Data
Package Cover Page**

Release Statement: I am responsible for the release of this laboratory data package. This laboratory is NELAC accredited under the Texas Laboratory Accreditation Program for all the methods, analytes and matrices reported in this data package except as noted in the Exception Reports. The data have been reviewed and are technically compliant with the requirements of the methods used, except where noted by the laboratory in the attached exception reports. By my signature below, I affirm to the best of my knowledge, all problems/anomalies, observed by the laboratory have been identified by the laboratory in the Laboratory Review Checklist, and no information affecting the quality of the data has been knowingly withheld.

Check, if applicable: [NA] This laboratory meets an exception under 30 TAC §25.6 and was last inspected by TCEQ or _____ on (enter date of last inspection). Any findings affecting the data in this laboratory data package are noted in the Exception Reports herein. The official signing the cover page of the report in which these data are used is responsible for releasing this data package and is by signature affirming the above release statement is true.

Patricia L. Lynch

Patricia L. Lynch
Project Manager

Laboratory Review Checklist: Reportable Data

Laboratory Name: ALS Laboratory Group		LRC Date: 9/8/2011					
Project Name: UPRR Houston Wood Resampling		Laboratory Job Number: 1108961					
Reviewer Name: Pat Lynch		Prep Batch Number(s): 55063, R115554					
# ¹	A ²	Description	Yes	No	NA ³	NR ⁴	ER# ⁵
R1	OI	Chain-of-custody (C-O-C)					
		Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?	X				
		Were all departures from standard conditions described in an exception report?	X				
R2	OI	Sample and quality control (QC) identification					
		Are all field sample ID numbers cross-referenced to the laboratory ID numbers?	X				
		Are all laboratory ID numbers cross-referenced to the corresponding QC data?	X				
R3	OI	Test reports					
		Were all samples prepared and analyzed within holding times?	X				
		Other than those results < MQL, were all other raw values bracketed by calibration standards?	X				
		Were calculations checked by a peer or supervisor?	X				
		Were all analyte identifications checked by a peer or supervisor?	X				
		Were sample detection limits reported for all analytes not detected?	X				
		Were all results for soil and sediment samples reported on a dry weight basis?			X		
		Were % moisture (or solids) reported for all soil and sediment samples?			X		
		Were bulk soils/solids samples for volatile analysis extracted with methanol per SW-846 Method 5035?			X		
		If required for the project, TICs reported?			X		
R4	O	Surrogate recovery data					
		Were surrogates added prior to extraction?	X				
		Were surrogate percent recoveries in all samples within the laboratory QC limits?	X				
R5	OI	Test reports/summary forms for blank samples					
		Were appropriate type(s) of blanks analyzed?	X				
		Were blanks analyzed at the appropriate frequency?	X				
		Were method blanks taken through the entire analytical process, including preparation and, if applicable, cleanup procedures?	X				
		Were blank concentrations < MQL?	X				
R6	OI	Laboratory control samples (LCS):					
		Were all COCs included in the LCS?	X				
		Was each LCS taken through the entire analytical procedure, including prep and cleanup steps?	X				
		Were LCSs analyzed at the required frequency?	X				
		Were LCS (and LCSD, if applicable) %Rs within the laboratory QC limits?	X				
		Does the detectability data document the laboratory's capability to detect the COCs at the MDL used to calculate the SDLs?	X				
		Was the LCSD RPD within QC limits?	X				
R7	OI	Matrix spike (MS) and matrix spike duplicate (MSD) data					
		Were the project/method specified analytes included in the MS and MSD?	X				
		Were MS/MSD analyzed at the appropriate frequency?	X				
		Were MS (and MSD, if applicable) %Rs within the laboratory QC limits?	X				
		Were MS/MSD RPDs within laboratory QC limits?	X				
R8	OI	Analytical duplicate data					
		Were appropriate analytical duplicates analyzed for each matrix?			X		
		Were analytical duplicates analyzed at the appropriate frequency?			X		
		Were RPDs or relative standard deviations within the laboratory QC limits?			X		
R9	OI	Method quantitation limits (MQLs):					
		Are the MQLs for each method analyte included in the laboratory data package?	X				
		Do the MQLs correspond to the concentration of the lowest non-zero calibration standard?	X				
		Are unadjusted MQLs and DCSs included in the laboratory data package?	X				
R10	OI	Other problems/anomalies					
		Are all known problems/anomalies/special conditions noted in this LRC and ER?	X				
		Were all necessary corrective actions performed for the reported data?	X				
		Was applicable and available technology used to lower the SDL and minimize the matrix interference affects on the sample results?	X				
		Is the laboratory NELAC-accredited under the Texas Laboratory Program for the analytes, matrices and methods associated with this laboratory data package?	X				

Laboratory Review Checklist: Reportable Data

Laboratory Name: ALS Laboratory Group			LRC Date: 9/8/2011				
Project Name: UPRR Houston Wood Resampling			Laboratory Job Number: 1108961				
Reviewer Name: Pat Lynch			Prep Batch Number(s): 55063, R115554				
# ¹	A ²	Description	Yes	No	NA ³	NR ⁴	ER# ⁵
S1	OI	Initial calibration (ICAL)					
		Were response factors and/or relative response factors for each analyte within QC limits?	X				
		Were percent RSDs or correlation coefficient criteria met?	X				
		Was the number of standards recommended in the method used for all analytes?	X				
		Were all points generated between the lowest and highest standard used to calculate the curve?	X				
		Are ICAL data available for all instruments used?	X				
		Has the initial calibration curve been verified using an appropriate second source standard?	X				
S2	OI	Initial and continuing calibration verification (ICCV and CCV) and continuing calibration blank (CCB)					
		Was the CCV analyzed at the method-required frequency?	X				
		Were percent differences for each analyte within the method-required QC limits?	X				
		Was the ICAL curve verified for each analyte?	X				
		Was the absolute value of the analyte concentration in the inorganic CCB < MDL?			X		
S3	O	Mass spectral tuning:					
		Was the appropriate compound for the method used for tuning?	X				
		Were ion abundance data within the method-required QC limits?	X				
S4	O	Internal standards (IS):					
		Were IS area counts and retention times within the method-required QC limits?	X				
S5	OI	Raw data (NELAC section 1 appendix A glossary, and section 5.12 or ISO/IEC 17025 section					
		Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?	X				
		Were data associated with manual integrations flagged on the raw data?	X				
S6	O	Dual column confirmation					
		Did dual column confirmation results meet the method-required QC?			X		
S7	O	Tentatively identified compounds (TICs):					
		If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?			X		
S8	I	Interference Check Sample (ICS) results:					
		Were percent recoveries within method QC limits?			X		
S9	I	Serial dilutions, post digestion spikes, and method of standard additions					
		Were percent differences, recoveries, and the linearity within the QC limits specified in the method?			X		
S10	OI	Method detection limit (MDL) studies					
		Was a MDL study performed for each reported analyte?	X				
		Is the MDL either adjusted or supported by the analysis of DCSs?	X				
S11	OI	Proficiency test reports:					
		Was the laboratory's performance acceptable on the applicable proficiency tests or evaluation studies?	X				
S12	OI	Standards documentation					
		Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?	X				
S13	OI	Compound/analyte identification procedures					
		Are the procedures for compound/analyte identification documented?	X				
S14	OI	Demonstration of analyst competency (DOC)					
		Was DOC conducted consistent with NELAC Chapter 5C or ISO/IEC 4?	X				
		Is documentation of the analyst's competency up-to-date and on file?	X				
S15	OI	Verification/validation documentation for methods (NELAC Chap 5 or ISO/IEC 17025 Section 5)					
		Are all the methods used to generate the data documented, verified, and validated, where applicable?	X				
S16	OI	Laboratory standard operating procedures (SOPs):					
		Are laboratory SOPs current and on file for each method performed?	X				

Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.

O = Organic Analyses; I = Inorganic Analyses (and general chemistry, when applicable);

NA = Not Applicable;

NR = Not Reviewed;

R# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

Laboratory Review Checklist: Reportable Data

Laboratory Name: ALS Laboratory Group	LRC Date: 9/8/2011
Project Name: UPRR Houston Wood Resampling	Laboratory Job Number: 1108961
Reviewer Name: Pat Lynch	Prep Batch Number(s): 55063, R115554

ER#⁵	Description
	No exceptions.

Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.
O = Organic Analyses; I = Inorganic Analyses (and general chemistry, when applicable);
NA = Not Applicable;
NR = Not Reviewed;
R# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood Resampling
Work Order: 1108961

Work Order Sample Summary

<u>Lab Samp ID</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Tag Number</u>	<u>Collection Date</u>	<u>Date Received</u>	<u>Hold</u>
1108961-01	WG-1620-MW26A-20110825	Water		8/25/2011 13:15	8/26/2011 09:25	<input type="checkbox"/>
1108961-02	WG-1620-MW62B-20110825	Water		8/25/2011 14:15	8/26/2011 09:25	<input type="checkbox"/>
1108961-03	WG-1620-MW38A-20110825	Water		8/25/2011 15:30	8/26/2011 09:25	<input type="checkbox"/>
1108961-04	Trip Blank	Water		8/25/2011	8/26/2011 09:25	<input type="checkbox"/>

ALS Environmental

Date: 09-Sep-11

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood Resampling
Sample ID: WG-1620-MW26A-20110825
Collection Date: 8/25/2011 01:15 PM

Work Order: 1108961
Lab ID: 1108961-01
Matrix: WATER

Analyses	Result	Qual	SDL	ML	Units	Dilution Factor	Date Analyzed
VOLATILES			Method: SW8260			Analyst: PC	
Benzene	0.042		0.0010	0.0050	mg/L	1	9/1/2011 21:11
Surr: 1,2-Dichloroethane-d4	97.0			70-125	%REC	1	9/1/2011 21:11
Surr: 4-Bromofluorobenzene	96.5			72-125	%REC	1	9/1/2011 21:11
Surr: Dibromofluoromethane	93.1			71-125	%REC	1	9/1/2011 21:11
Surr: Toluene-d8	98.1			75-125	%REC	1	9/1/2011 21:11

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 09-Sep-11

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood Resampling
Sample ID: WG-1620-MW62B-20110825
Collection Date: 8/25/2011 02:15 PM

Work Order: 1108961
Lab ID: 1108961-02
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270		Prep: SW3510 / 8/30/11		Analyst: LG
Benzo(a)pyrene	U		0.000050	0.00020	mg/L	1	8/31/2011 21:01
Dibenzofuran	0.23		0.0025	0.010	mg/L	50	8/31/2011 22:01
Surr: 2-Fluorobiphenyl	50.7			40-125	%REC	1	8/31/2011 21:01
Surr: 2-Fluorobiphenyl	112	J		40-125	%REC	50	8/31/2011 22:01
Surr: 4-Terphenyl-d14	57.3			40-135	%REC	1	8/31/2011 21:01
Surr: 4-Terphenyl-d14	109	J		40-135	%REC	50	8/31/2011 22:01
Surr: Nitrobenzene-d5	55.3			41-120	%REC	1	8/31/2011 21:01
Surr: Nitrobenzene-d5	106	J		41-120	%REC	50	8/31/2011 22:01

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 09-Sep-11

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood Resampling
Sample ID: WG-1620-MW38A-20110825
Collection Date: 8/25/2011 03:30 PM

Work Order: 1108961
Lab ID: 1108961-03
Matrix: WATER

Analyses	Result	Qual	SDL	ML	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270		Prep: SW3510 / 8/30/11		Analyst: LG
Benzo(a)pyrene		U	0.000050	0.00020	mg/L	1	8/31/2011 21:21
Dibenzofuran	0.000055	J	0.000050	0.00020	mg/L	1	8/31/2011 21:21
Surr: 2-Fluorobiphenyl	51.9			40-125	%REC	1	8/31/2011 21:21
Surr: 4-Terphenyl-d14	62.7			40-135	%REC	1	8/31/2011 21:21
Surr: Nitrobenzene-d5	48.4			41-120	%REC	1	8/31/2011 21:21

Note: See Qualifiers Page for a list of qualifiers and their explanation.

WorkOrder: 1108961
InstrumentID: SV-4
Test Code: 8270_LOW_W
Test Number: SW8270
Test Name: Low-Level Semivolatiles

**METHOD DETECTION /
REPORTING LIMITS**

Matrix: Aqueous Units: mg/L

Type	Analyte	CAS	DCS	MDL	Unadjusted MQL
A	Benzo(a)pyrene	50-32-8	0.000072	0.000050	0.00020
A	Dibenzofuran	132-64-9	0.000082	0.000050	0.00020
S	Surr: 2-Fluorobiphenyl	321-60-8	0	0	0.00020
S	Surr: 4-Terphenyl-d14	1718-51-0	0	0	0.00020
S	Surr: Nitrobenzene-d5	4165-60-0	0	0	0.00020

WorkOrder: 1108961
InstrumentID: VOA1
Test Code: 8260_W
Test Number: SW8260
Test Name: Volatiles

**METHOD DETECTION /
REPORTING LIMITS**

Matrix: Aqueous Units: mg/L

Type	Analyte	CAS	DCS	MDL	Unadjusted MQL
A	Benzene	71-43-2	0.0021	0.0010	0.0050
S	Surr: 1,2-Dichloroethane-d4	17060-07-0	0	0	0.0050
S	Surr: 4-Bromofluorobenzene	460-00-4	0	0	0.0050
S	Surr: Dibromofluoromethane	1868-53-7	0	0	0.0050
S	Surr: Toluene-d8	2037-26-5	0	0	0.0050

ALS Environmental

Date: 09-Sep-11

Client: Pastor, Behling & Wheeler, LLC
Work Order: 1108961
Project: UPRR Houston Wood Resampling

QC BATCH REPORT

Batch ID: **55063** Instrument ID **SV-4** Method: **SW8270**

MBLK		Sample ID: SBLKW1-110830-55063				Units: µg/L		Analysis Date: 8/31/2011 04:09 AM			
Client ID:		Run ID: SV-4_110830B				SeqNo: 2511891		Prep Date: 8/30/2011		DF: 1	
Analyte	Result	MLQ	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Benzo(a)pyrene	U	0.20									
Dibenzofuran	U	0.20									
<i>Surr: 2-Fluorobiphenyl</i>	3.669	0.20	5	0	73.4	40-125	0				
<i>Surr: 4-Terphenyl-d14</i>	3.673	0.20	5	0	73.5	40-135	0				
<i>Surr: Nitrobenzene-d5</i>	3.9	0.20	5	0	78	41-120	0				

LCS		Sample ID: SLCSW1-110830-55063				Units: µg/L		Analysis Date: 8/31/2011 05:55 PM			
Client ID:		Run ID: SV-4_110830B				SeqNo: 2511899		Prep Date: 8/30/2011		DF: 1	
Analyte	Result	MLQ	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Benzo(a)pyrene	4.186	0.20	5	0	83.7	45-120	0				
Dibenzofuran	3.811	0.20	5	0	76.2	50-120	0				
<i>Surr: 2-Fluorobiphenyl</i>	3.697	0.20	5	0	73.9	40-125	0				
<i>Surr: 4-Terphenyl-d14</i>	3.484	0.20	5	0	69.7	40-135	0				
<i>Surr: Nitrobenzene-d5</i>	3.782	0.20	5	0	75.6	41-120	0				

LCSD		Sample ID: SLCSDW1-110830-55063				Units: µg/L		Analysis Date: 8/31/2011 04:50 AM			
Client ID:		Run ID: SV-4_110830B				SeqNo: 2511892		Prep Date: 8/30/2011		DF: 1	
Analyte	Result	MLQ	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Benzo(a)pyrene	4.235	0.20	5	0	84.7	45-120	4.186	1.16	20		
Dibenzofuran	3.874	0.20	5	0	77.5	50-120	3.811	1.65	20		
<i>Surr: 2-Fluorobiphenyl</i>	3.62	0.20	5	0	72.4	40-125	3.697	2.11	0		
<i>Surr: 4-Terphenyl-d14</i>	3.496	0.20	5	0	69.9	40-135	3.484	0.338	0		
<i>Surr: Nitrobenzene-d5</i>	3.591	0.20	5	0	71.8	41-120	3.782	5.19	0		

MS		Sample ID: 1108900-01CMS				Units: µg/L		Analysis Date: 8/31/2011 05:30 AM			
Client ID:		Run ID: SV-4_110830B				SeqNo: 2511894		Prep Date: 8/30/2011		DF: 1	
Analyte	Result	MLQ	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Benzo(a)pyrene	3.877	0.20	5	0	77.5	45-120	0				
Dibenzofuran	3.32	0.20	5	0	66.4	50-120	0				
<i>Surr: 2-Fluorobiphenyl</i>	3.091	0.20	5	0	61.8	40-125	0				
<i>Surr: 4-Terphenyl-d14</i>	3.211	0.20	5	0	64.2	40-135	0				
<i>Surr: Nitrobenzene-d5</i>	3.34	0.20	5	0	66.8	41-120	0				

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Pastor, Behling & Wheeler, LLC
 Work Order: 1108961
 Project: UPRR Houston Wood Resampling

QC BATCH REPORT

Batch ID: 55063 Instrument ID SV-4 Method: SW8270

MS		Sample ID: 1108897-03CMS			Units: µg/L			Analysis Date: 8/31/2011 06:42 PM		
Client ID:		Run ID: SV-4_110830B			SeqNo: 2518228		Prep Date: 8/30/2011		DF: 1	
Analyte	Result	ML	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzo(a)pyrene	2.97	0.20	5	0	59.4	45-120	0			
Dibenzofuran	2.873	0.20	5	0	57.5	50-120	0			
Surr: 2-Fluorobiphenyl	2.693	0.20	5	0	53.9	40-125	0			
Surr: 4-Terphenyl-d14	2.742	0.20	5	0	54.8	40-135	0			
Surr: Nitrobenzene-d5	2.435	0.20	5	0	48.7	41-120	0			

MSD		Sample ID: 1108900-01CMSD			Units: µg/L			Analysis Date: 8/31/2011 05:50 AM		
Client ID:		Run ID: SV-4_110830B			SeqNo: 2511895		Prep Date: 8/30/2011		DF: 1	
Analyte	Result	ML	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzo(a)pyrene	4.091	0.20	5	0	81.8	45-120	3.877	5.37	20	
Dibenzofuran	3.448	0.20	5	0	69	50-120	3.32	3.77	20	
Surr: 2-Fluorobiphenyl	3.174	0.20	5	0	63.5	40-125	3.091	2.66	0	
Surr: 4-Terphenyl-d14	3.371	0.20	5	0	67.4	40-135	3.211	4.87	0	
Surr: Nitrobenzene-d5	3.566	0.20	5	0	71.3	41-120	3.34	6.57	0	

MSD		Sample ID: 1108897-03CMSD			Units: µg/L			Analysis Date: 8/31/2011 07:01 PM		
Client ID:		Run ID: SV-4_110830B			SeqNo: 2518229		Prep Date: 8/30/2011		DF: 1	
Analyte	Result	ML	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzo(a)pyrene	3.271	0.20	5	0	65.4	45-120	2.97	9.62	20	
Dibenzofuran	2.733	0.20	5	0	54.7	50-120	2.873	4.99	20	
Surr: 2-Fluorobiphenyl	2.51	0.20	5	0	50.2	40-125	2.693	7.04	0	
Surr: 4-Terphenyl-d14	2.917	0.20	5	0	58.3	40-135	2.742	6.18	0	
Surr: Nitrobenzene-d5	2.354	0.20	5	0	47.1	41-120	2.435	3.37	0	

The following samples were analyzed in this batch: 1108961-02A 1108961-03A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Pastor, Behling & Wheeler, LLC
 Work Order: 1108961
 Project: UPRR Houston Wood Resampling

QC BATCH REPORT

Batch ID: R115554 Instrument ID VOA1 Method: SW8260

MBLK		Sample ID: VBLKW-090111-R115554			Units: µg/L		Analysis Date: 9/1/2011 11:46 AM			
Client ID:		Run ID: VOA1_110901A			SeqNo: 2513913		Prep Date:		DF: 1	
Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	U	5.0								
Surr: 1,2-Dichloroethane-d4	49.37	5.0	50	0	98.7	70-125	0			
Surr: 4-Bromofluorobenzene	48.81	5.0	50	0	97.6	72-125	0			
Surr: Dibromofluoromethane	48.71	5.0	50	0	97.4	71-125	0			
Surr: Toluene-d8	46.54	5.0	50	0	93.1	75-125	0			

LCS		Sample ID: VLCSW-090111-R115554			Units: µg/L		Analysis Date: 9/1/2011 10:53 AM			
Client ID:		Run ID: VOA1_110901A			SeqNo: 2513912		Prep Date:		DF: 1	
Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	51.47	5.0	50	0	103	73-121	0			
Surr: 1,2-Dichloroethane-d4	50.93	5.0	50	0	102	70-125	0			
Surr: 4-Bromofluorobenzene	49.36	5.0	50	0	98.7	72-125	0			
Surr: Dibromofluoromethane	51.56	5.0	50	0	103	71-125	0			
Surr: Toluene-d8	45.29	5.0	50	0	90.6	75-125	0			

MS		Sample ID: 1108864-01AMS			Units: µg/L		Analysis Date: 9/1/2011 03:22 PM			
Client ID:		Run ID: VOA1_110901A			SeqNo: 2513918		Prep Date:		DF: 5	
Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	229.3	25	250	0	91.7	73-121	0			
Surr: 1,2-Dichloroethane-d4	249.4	25	250	0	99.8	70-125	0			
Surr: 4-Bromofluorobenzene	247.6	25	250	0	99.1	72-125	0			
Surr: Dibromofluoromethane	243.8	25	250	0	97.5	71-125	0			
Surr: Toluene-d8	232.1	25	250	0	92.8	75-125	0			

MSD		Sample ID: 1108864-01AMSD			Units: µg/L		Analysis Date: 9/1/2011 03:49 PM			
Client ID:		Run ID: VOA1_110901A			SeqNo: 2513919		Prep Date:		DF: 5	
Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	243.9	25	250	0	97.6	73-121	229.3	6.16	20	
Surr: 1,2-Dichloroethane-d4	255.7	25	250	0	102	70-125	249.4	2.49	20	
Surr: 4-Bromofluorobenzene	251	25	250	0	100	72-125	247.6	1.35	20	
Surr: Dibromofluoromethane	250.2	25	250	0	100	71-125	243.8	2.59	20	
Surr: Toluene-d8	232.4	25	250	0	93	75-125	232.1	0.141	20	

The following samples were analyzed in this batch: 1108961-01A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood Resampling
WorkOrder: 1108961

**QUALIFIERS,
ACRONYMS, UNITS**

<u>Qualifier</u>	<u>Description</u>
*	Value exceeds Regulatory Limit
a	Not accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
J	Analyte detected below quantitation limit
M	Manually integrated, see raw data for justification
n	Not offered for accreditation
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL

<u>Acronym</u>	<u>Description</u>
DCS	Detectability Check Study
DUP	Method Duplicate
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
MBLK	Method Blank
MDL	Method Detection Limit
MQL	Method Quantitation Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PDS	Post Digestion Spike
PQL	Practical Quantitation Limit
SD	Serial Dilution
SDL	Sample Detection Limit
TRRP	Texas Risk Reduction Program

<u>Units Reported</u>	<u>Description</u>
mg/L	Milligrams per Liter



ALS Environmental
 10450 Stancliff Rd., Suite 210
 Houston, Texas 77099
 Tel. +1 281 530 5656
 Fax. +1 281 530 5887

Chain of Custody Form

Page 1 of 1

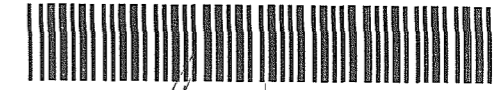
COC ID: **35059**

1108961

PBW: Pastor, Behling & Wheeler, LLC

Project: UPRR Houston Wood Resampling

ALS Project Manager:



Customer Information		Project Information		
Purchase Order		Project Name		A
Work Order		Project Number		B
Company Name		Bill To Company		C
Send Report To		Invoice Attn		D
Address		Address		E
				F
City/State/Zip		City/State/Zip		G
Phone		Phone		H
Fax		Fax		I
e-Mail Address		e-Mail Address		J

No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	WG-1620-MW26A-20110825	8-25-11	1315				X										
2	WG-1620-MW62B-20110825		1415					X									
3	WG-1620-MW38A-20110825	↓	1530					X									
4																	
5																	
6																	
7																	
8																	
9																	
10																	

Sampler(s) Please Print & Sign <i>John Brannon</i>		Shipment Method <i>HAND DELIVERED</i>		Required Turnaround Time: (Check Box)				Results Due Date:			
Relinquished by: <i>John Brannon</i>	Date: <i>8-26-11</i>	Time:	Received by:	Notes:							
Relinquished by: <i>John Brannon</i>	Date: <i>8/26/11</i>	Time: <i>0925</i>	Received by (Laboratory): <i>RA ALS</i>	Cooler ID	Cooler Temp.	QC Package: (Check One Box Below)					
Logged by (Laboratory):	Date:	Time:	Checked by (Laboratory):								
Preservative Key: 1-HCl 2-HNO ₃ 3-H ₂ SO ₄ 4-NaOH 5-Na ₂ S ₂ O ₃ 6-NaHSO ₄ 7-Other 8-4°C 9-5035											

Note: 1. Any changes must be made in writing once samples and COC Form have been submitted to ALS Environmental.
 2. Unless otherwise agreed in a formal contract, services provided by ALS Environmental are expressly limited to the terms and conditions stated on the reverse.
 3. The Chain of Custody is a legal document. All information must be completed accurately.

Sample Receipt Checklist

Client Name: **PBW**

Date/Time Received: **26-Aug-11 09:25**

Work Order: **1108961**

Received by: **RDN**

Checklist completed by Robert D. Harris 30-Aug-11
eSignature Date

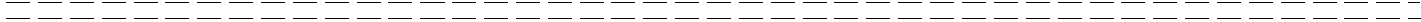
Reviewed by: Patricia L. Lynch 01-Sep-11
eSignature Date

Matrices: waters

Carrier name: Client

Shipping container/cooler in good condition?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on shipping container/cooler?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Present <input checked="" type="checkbox"/>
Custody seals intact on sample bottles?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Present <input checked="" type="checkbox"/>
Chain of custody present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody signed when relinquished and received?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody agrees with sample labels?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Samples in proper container/bottle?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample containers intact?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sufficient sample volume for indicated test?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
All samples received within holding time?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Container/Temp Blank temperature in compliance?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Temperature(s)/Thermometer(s):	<input type="text" value="2.1c"/> <input type="text" value="002"/>		
Cooler(s)/Kit(s):	<input type="text" value="3470"/>		
Water - VOA vials have zero headspace?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	No VOA vials submitted <input type="checkbox"/>
Water - pH acceptable upon receipt?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	N/A <input type="checkbox"/>
pH adjusted?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>
pH adjusted by:	<input type="text"/>		

Login Notes: Trip blank not on COC; logged in without analysis.



Client Contacted: Date Contacted: Person Contacted:

Contacted By: Regarding:

Comments:

CorrectiveAction:



**CONESTOGA-ROVERS
& ASSOCIATES**

E-Mail Date: March 12, 2012
E-Mail To: Eric Matzner/ Pastor, Behling & Wheeler,
LLC
c.c.: Angela Bown
E-Mail and Hard Copy if Requested

**DATA USABILITY SUMMARY
UNION PACIFIC RAILROAD (UPRR)
HOUSTON WOOD PRESERVING WORKS
SEMI-ANNUAL GROUNDWATER MONITORING
HOUSTON, TEXAS
FEBRUARY 2012**

PREPARED BY:
CONESTOGA-ROVERS & ASSOCIATES
9033 Meridian Way
West Chester, Ohio 45069
Telephone: 513-942-4750 Fax: 513-942-8585
Contact: Angela Bown [amm]
Date: March 12, 2012
www.CRAworld.com

AB/amm

Data Usability Summary

Reviewer:	Angela Bown – Conestoga-Rovers & Associates, Inc.
Contract Laboratory:	ALS Laboratory Group – Houston, Texas
Project/Area of Interest:	UPRR Houston Wood Preserving Works – Houston, Texas
Description of Data Packages Reviewed:	Groundwater sample results in data packages: 1202096, 1202263, and 1202555
Sample Collection Date(s):	February 1-3, 6-9, 14-16, 2012
Intended Use of Data:	To monitor the COCs in groundwater at the site and to evaluate whether migration of Chemicals of Concern (COC) could result in risk to human or ecological health.

1.0 SCOPE OF DATA USABILITY SUMMARY

Data were reviewed and validated in accordance with Title 30 of the Texas Administrative Code Section 350.54 (30 TAC 350.54) as described in *Review and Reporting of COC Concentration Data*, (RG-366/TRRP-13) and the results of the review/validation are discussed in this Data Usability Summary (DUS). The review included examination of the reported data, the laboratory review checklist (LRC), and field/laboratory quality assurance/quality control (QA/QC) samples collected at the Site. Tables summarizing data qualifications discussed in this DUS can be found in Appendix A.

A sampling and analysis summary is presented in Table 1. This summary includes a cross-reference of field sample identification numbers and location codes. Each sample was assigned a unique field identification number.

101 groundwater samples including quality control samples were analyzed for the parameters outlined in Table 2. The validated sample results are presented in Table 3.

2.0 LABORATORY QUALIFICATIONS

Analytical services were provided by ALS Laboratory Group (ALS) located in Houston, Texas. The laboratory's quality assurance program is consistent with the quality standards outlined in the National Environmental Laboratory Accreditation Program (NELAP). The laboratory was accredited under Texas Certification Number T104704231-11-5 at the time the analyses were performed.

3.0 PROJECT OBJECTIVES

3.1 LEVELS OF REQUIRED PERFORMANCE (LORP)

Prior to sampling, the LORP for each COC was established for the investigation. Standard available analytical methods were selected and minimal detection limits that are at or below the Texas Risk Reduction Tier 1 Residential Protective Concentration Levels (PCLs), ^{GW} GW _{ING} for groundwater were sought.

3.2 SAMPLING/ANALYTICAL QA/QC OBJECTIVES

Pastor, Behling & Wheeler, LLC designed the QA/QC program to identify contamination resulting from sample collection, sample transport and the analytical process.

- The trip blank is a zero headspace sample container filled by the laboratory with analyte-free water. Trip blanks were submitted and analyzed with the samples requiring volatile organic analyses. The trip blank samples were kept in the same environment in which the other field samples were collected.
- Field and equipment blanks are sample containers filled in the field with analyte-free water, which has been used to rinse sampling equipment to check effectiveness of the decontamination procedures.
- Method blanks of a similar matrix to that of the associated samples are prepared by the laboratory and analyzed to determine if laboratory contaminants are affecting the analytical results. Method blanks are prepared and analyzed with each batch.

Similarly, the QA/QC program was designed to evaluate the quality of the resulting data with respect to bias and precision. First, a laboratory control sample (LCS) or laboratory control sample duplicate (LCSD) was prepared and analyzed with each batch. The recovery ranges established by the laboratory are adopted as the acceptance criteria for the project. Second, a matrix spike/matrix spike duplicate (MS/MSD) was prepared and analyzed with each batch. The recovery ranges and RPDs established by the laboratory are adopted as the acceptance criteria for the project. Third, field duplicates were collected and submitted for analysis. The RPD acceptance criterion for the water field duplicates is 30 percent. This RPD criterion is only used when sample concentrations are above the estimated regions of detection.

4.0 DATA REVIEW/VALIDATION RESULTS

4.1 ANALYTICAL RESULTS

Analytes with concentrations above the Sample Detection Limits (SDLs) but below the Method Quantitation Limits (MQL) have been qualified as estimated on the analytical tables per the TRRP-13 document.

4.2 LORP

All SDLs and unadjusted MQLs met the LORP for this investigation.

All Detectability Check Standard (DCS) results supported the laboratory Method Detection Limits (MDL).

4.3 PRESERVATION AND HOLDING TIMES

Samples were properly preserved in the field and cooled to 4°C ($\pm 2^\circ\text{C}$). Samples were shipped with chains of custody, and the paperwork was filled out properly. All samples were shipped on ice. All samples were prepared and analyzed within the applicable holding times.

4.4 SAMPLE CONTAINERS

Sample containers were certified pre-cleaned glass provided by the laboratory. These containers meet or exceed analyte specifications established in the USEPA *Specifications and Guidance for Contaminant-free Sample Containers*.

4.5 CALIBRATIONS

According to the LRCs, instrument tuning and initial calibration and continuing calibration data met the criteria for the selected methods.

4.6 BLANKS

Method Blanks: As these were not discrete samples handled in the field, the method blanks are not listed on the sample identification cross-reference list found in Table 1. Results are reported in the data packages on a laboratory batch basis. All of the laboratory blank results were reported as ND (not detected).

Trip Blanks: The trip blanks, which were discrete samples handled in the field, are listed on the sample identification cross-reference table found in the laboratory data packages. Results are reported in the data package with the other project sample results. All of the trip blank results were reported as ND (not detected).

Field Blanks and Equipment Blanks: The field and equipment blanks, which were discrete samples handled in the field, are listed on the sample identification cross-reference table found in the laboratory data packages. Results are reported in the data package with the other project sample results. Sample results with analyte concentrations similar to those found in the blanks were qualified as non-detect (see Table 4).

4.7 INTERNAL STANDARD AND SURROGATE RECOVERIES

Recoveries of internal standards and surrogates are addressed in the LRCs of the laboratory data packages. All surrogate recoveries were within the acceptance limits with the exception of the sample results presented with qualifiers in Table 5.

All internal standard areas and retention limits were acceptable per the LRCs with the exception of samples WG-1620-MW39B-20120202, WG-1620-TW41B-20120201, G-1620-MW32B-20120209, and WG-1620-MW34C-20120208. Re-analysis of the samples confirmed matrix interference. Table 6 presents the sample results that were qualified due to outlying internal standard recoveries.

4.8 LABORATORY CONTROL SAMPLES (LCS)/ LABORATORY CONTROL SAMPLE DUPLICATES (LCSD)

LCS or LCS/LCSD data for all COCs were reported for each batch. LCS spike recoveries and RPDs for all COCs were within the project objectives indication acceptable overall laboratory performance.

4.9 MATRIX SPIKES

Matrix spike/matrix spike duplicates (MS/MSDs) were prepared and analyzed with most batches for all requested parameters. The results are reported in the data package on a laboratory batch basis. For some semi-volatile organic compound (SVOC) and volatile organic compound (VOC) batches, insufficient sample was available for MS/MSD analyses. In these cases, analyses of LCS/LCSD were used to determine batch precision and accuracy for VOCs and SVOCs.

All recoveries and RPD met criteria with the exception of the sample results presented with qualifiers in Table 7.

The laboratory also performed MS/MSD on unrelated samples from other projects. The data for these unrelated samples cannot be used to assess accuracy and precision for the associated project samples.

4.10 FIELD DUPLICATE

Field duplicate samples were collected and analyzed for the target analytes as outlined in Table 1.

All relative percent differences (RPDs) were < 30% for sample results greater than 5 times the MQL indicating acceptable precision above the estimated regions of detection with the exception of the sample results presented with qualifiers in Table 8.

4.11 FIELD PROCEDURES

Pastor, Behling & Wheeler, LLC collected groundwater samples in accordance with their Standard Operating Procedures (SOP) for sample collection.

4.12 SUMMARY

The analytical data in this report are usable to assess the impact of COCs in groundwater at the Site with the qualification noted herein.

APPENDIX A

TABLES

TABLE 1

**SAMPLE AND ANALYSIS SUMMARY
SEMI-ANNUAL SITE-WIDE GROUNDWATER MONITORING
UNION PACIFIC RAILROAD (UPRR)
HOUSTON WOOD PRESERVING WORKS
HOUSTON, TEXAS
FEBRUARY 2012**

Sample I.D.	Location I.D.	Matrix	Collection Date (mm/dd/yy)	Collection Time (hr:min)	<u>Analysis/Parameters</u>		Comment
					Select VOCs	Select SVOCs	
WG-1620-MW18A-20120201	MW-18A	WG	02/01/12	10:40:00 AM	X	X	
WG-1620-MW18C-20120201	MW-18C	WG	02/01/12	1:10:00 PM	X	X	MS/MSD
WG-1620-MW17-20120201	MW-17	WG	02/01/12	2:10:00 PM	X	X	
WG-1620-MW17C-20120201	MW-17C	WG	02/01/12	2:50:00 PM	X	X	
WG-1620-MW20A-20120201	MW-20A	WG	02/01/12	3:50:00 PM	X	X	
WG-1620-MW16-20120201	MW-16	WG	02/01/12	4:40:00 PM	X	X	
WG-1620-TB01-20120201	Trip Blank	WG	02/01/12	4:20:00 PM	X		Trip Blank
WG-1620-MW39B-20120201	MW-39B	WG	02/01/12	1:15:00 PM	X	X	
WG-1620-MW12C-20120201	MW-12C	WG	02/01/12	2:15:00 PM	X	X	
WG-1620-MW12A-20120201	MW-12A	WG	02/01/12	3:20:00 PM	X	X	
WG-1620-TW41B-20120201	TW-41B	WG	02/01/12	4:30:00 PM	X	X	
WG-1620-FB01-20120201	Field Blank	WG	02/01/12	4:45:00 PM	X	X	Field Blank
WG-1620-MW15A-20120202	MW-15A	WG	02/02/12	7:30:00 AM	X	X	
WG-1620-MW15C-20120202	MW-15C	WG	02/02/12	8:20:00 AM	X	X	
WG-1620-MW15B-20120202	MW-15B	WG	02/02/12	9:15:00 AM	X	X	
WG-1620-MW14-20120202	MW-14	WG	02/02/12	10:05:00 AM	X	X	WG-1620-MW14-20120202
WG-1620-DUP3-20120202	MW-14	WG	02/02/12	10:05:00 AM	X	X	
WG-1620-MW13-20120202	MW-13	WG	02/02/12	11:25:00 AM	X	X	MS/MSD
WG-1620-TB02-20120202	Trip Blank	WG	02/02/12	12:05:00 PM	X		Trip Blank
WG-1620-MW05-20120202	MW-05	WG	02/02/12	1:15:00 PM	X	X	
WG-1620-MW55B-20120202	MW-55B	WG	02/02/12	9:10:00 AM	X	X	
WG-1620-MW73B-02120202	MW-73B	WG	02/02/12	10:05:00 AM	X	X	
WG-1620-MW57A-20120202	MW-57A	WG	02/02/12	11:00:00 AM	X	X	
WG-1620-MW23C-20120202	MW-23C	WG	02/02/12	11:50:00 AM	X	X	
WG-1620-TW56A-20120202	TW-56A	WG	02/02/12	1:05:00 PM	X	X	
WG-1620-FB02-20120202	Field Blank	WG	02/02/12	1:30:00 PM	X	X	Field Blank
WG-1620-MW21C-20120202	MW-21C	WG	02/02/12	2:15:00 PM	X	X	
WG-1620-DUP4-20120202	MW-21C	WG	02/02/12	2:15:00 PM	X	X	WG-1620-MW21C-20120202

TABLE 1
SAMPLE AND ANALYSIS SUMMARY
SEMI-ANNUAL SITE-WIDE GROUNDWATER MONITORING
UNION PACIFIC RAILROAD (UPRR)
HOUSTON WOOD PRESERVING WORKS
HOUSTON, TEXAS
FEBRUARY 2012

Sample I.D.	Location I.D.	Matrix	Collection Date (mm/dd/yy)	Collection Time (hr:min)	<u>Analysis/Parameters</u>		Comment
					Select VOCs	Select SVOCs	
WG-1620-MW09-20120202	MW-09	WG	02/02/12	3:40:00 PM	X	X	
WG-1620-P11-20120202	P-11	WG	02/02/12	4:30:00 PM	X	X	
WG-1620-TB3-20120203	Trip Blank	WG	02/03/12	7:10:00 AM	X		Trip Blank
WG-1620-MW40B-20120203	MW-40B	WG	02/03/12	7:30:00 AM	X	X	
WG-1620-MW42B-20120203	MW-42B	WG	02/03/12	8:25:00 AM	X	X	
WG-1620-MW55A-20120203	MW-55A	WG	02/03/12	9:20:00 AM	X	X	
WG-1620-MW31A-20120203	MW-31A	WG	02/03/12	10:10:00 AM	X	X	
WG-1620-MW30A-20120203	MW-30A	WG	02/03/12	11:00:00 AM	X	X	
WG-1620-MW52A-20120203	MW-52A	WG	02/03/12	12:20:00 PM	X	X	
WG-1620-MW58A-20120203	MW-58A	WG	02/03/12	1:30:00 PM	X	X	
WG-1620-FB03-20120203	Field Blank	WG	02/03/12	1:45:00 PM	X	X	Field Blank
WG-1620-MW48C-20120206	MW-48C	WG	02/06/12	2:00:00 PM	X	X	
WG-1620-MW59A-20120206	MW-59A	WG	02/06/12	3:00:00 PM	X	X	
WG-1620-MW59B-20120206	MW-59B	WG	02/06/12	3:55:00 PM	X	X	
WG-1620-MW49B-20120207	MW-49B	WG	02/07/12	8:30:00 AM	X	X	
WG-1620-MW49A-20120207	MW-49A	WG	02/07/12	9:45:00 AM	X	X	
WG-1620-TB04-20120207	Trip Blank	WG	02/07/12	10:00:00 AM	X		Trip Blank
WG-1620-FB04-20120207	Field Blank	WG	02/07/12	10:10:00 AM	X	X	Field Blank
WG-1620-MW47C-20120207	MW-47C	WG	02/07/12	11:15:00 AM	X	X	
WG-1620-MW60A-20120207	MW-60A	WG	02/07/12	12:20:00 PM	X	X	
WG-1620-MW61A-20120207	MW-61A	WG	02/07/12	1:30:00 PM	X	X	MS/MSD
WG-1620-MW36A-20120207	MW-36A	WG	02/07/12	3:00:00 PM	X	X	
WG-1620-MW64A-20120208	MW-64A	WG	02/08/12	11:35:00 AM	X	X	
WG-1620-MW62B-20120208	MW-62B	WG	02/08/12	12:40:00 PM	X	X	
WG-1620-MW19C-20120208	MW-19C	WG	02/08/12	1:30:00 PM	X	X	
WG-1620-MW69A-20120208	MW-69A	WG	02/08/12	2:20:00 PM	X	X	
WG-1620-MW75B-20120208	MW-75B	WG	02/08/12	3:50:00 PM	X	X	
WG-1620-MW74B-20120209	MW-74B	WG	02/09/12	7:00:00 AM	X	X	

TABLE 1
SAMPLE AND ANALYSIS SUMMARY
SEMI-ANNUAL SITE-WIDE GROUNDWATER MONITORING
UNION PACIFIC RAILROAD (UPRR)
HOUSTON WOOD PRESERVING WORKS
HOUSTON, TEXAS
FEBRUARY 2012

Sample I.D.	Location I.D.	Matrix	Collection Date (mm/dd/yy)	Collection Time (hr:min)	<u>Analysis/Parameters</u>		Comment
					Select VOCs	Select SVOCs	
WG-1620-MW50A-20120209	MW-50A	WG	02/09/12	7:45:00 AM	X	X	
WG-1620-MW24AR-20120209	MW-24AR	WG	02/09/12	8:45:00 AM	X	X	
WG-1620-MW24B-20120209	MW-24B	WG	02/09/12	9:35:00 AM	X	X	
WG-1620-MW24C-20120209	MW-24C	WG	02/09/12	10:20:00 AM	X	X	
WG-1620-FB05-20120208	Field Blank	WG	02/08/12	4:10:00 PM	X	X	Field Blank
WG-1620-MW67B-20120209	MW-67B	WG	02/09/12	11:40:00 AM	X	X	MS/MSD
WG-1620-MW63B-20120209	MW-63B	WG	02/09/12	12:30:00 PM	X	X	
WG-1620-FD05-20120209	MW-63B	WG	02/09/12	12:30:00 PM	X	X	WG-1620-MW63B-20120209
WG-1620-MW27C-20120209	MW-27C	WG	02/09/12	1:50:00 PM	X	X	
WG-1620-MW32AR-20120209	MW-32AR	WG	02/09/12	3:05:00 PM	X	X	
WG-1620-MW32B-20120209	MW-32B	WG	02/09/12	4:10:00 PM	X	X	
WG-1620-MW53C-20120209	MW-53C	WG	02/09/12	5:15:00 PM	X	X	
WG-1620-MW36B-20120208	MW-36B	WG	02/08/12	8:50:00 AM	X	X	
WG-1620-TB05-20120208	Trip Blank	WG	02/08/12	9:00:00 AM	X		Trip Blank
WG-1620-MW71B-20120208	MW-71B	WG	02/08/12	9:45:00 AM	X	X	
WG-1620-MW34C-20120208	MW-34C	WG	02/08/12	11:10:00 AM	X	X	
WG-1620-MW54C-20120208	MW-54C	WG	02/08/12	12:15:00 PM	X	X	
WG-1620-MW25A-20120208	MW-25A	WG	02/08/12	1:10:00 PM	X	X	
WG-1620-MW25C-20120208	MW-25C	WG	02/08/12	1:55:00 PM	X	X	
WG-1620-MW66D-20120214	MW-66D	WG	02/14/12	1:45:00 PM	X	X	
WG-1620-MW59D-20120214	MW-59D	WG	02/14/12	3:00:00 PM	X	X	
WG-1620-MW65D-20120214	MW-65D	WG	02/14/12	4:30:00 PM	X	X	MS/MSD
WG-1620-MW36D-20120214	MW-36D	WG	02/14/12	5:30:00 PM	X	X	
WG-1620-MW51A-20120215	MW-51A	WG	02/15/12	9:40:00 AM	X	X	
WG-1620-MW44A-20120215	MW-44A	WG	02/15/12	10:40:00 AM	X	X	
WG-1620-MW33BR-20120215	MW-33B	WG	02/15/12	11:45:00 AM	X	X	
WG-1620-MW26A-20120215	MW-26A	WG	02/15/12	1:35:00 PM	X	X	
WG-1620-MW57B-20120215	MW-57B	WG	02/15/12	2:40:00 PM	X	X	

TABLE 1

**SAMPLE AND ANALYSIS SUMMARY
SEMI-ANNUAL SITE-WIDE GROUNDWATER MONITORING
UNION PACIFIC RAILROAD (UPRR)
HOUSTON WOOD PRESERVING WORKS
HOUSTON, TEXAS
FEBRUARY 2012**

Sample I.D.	Location I.D.	Matrix	Collection Date (mm/dd/yy)	Collection Time (hr:min)	<u>Analysis/Parameters</u>		Comment
					Select VOCs	Select SVOCs	
WG-1620-FB06-20120214	Field Blank	WG	02/14/12	5:45:00 PM	X	X	Field Blank
WG-1620-FB07-20120215	Field Blank	WG	02/15/12	3:00:00 PM	X	X	Field Blank
WG-1620-MW38A-20120215	MW-38A	WG	02/15/12	9:10:00 AM	X	X	MS/MSD
WG-1620-MW38B-20120215	MW-38B	WG	02/15/12	10:05:00 AM	X	X	
WG-1620-MW22A-20120215	MW-22A	WG	02/15/12	11:15:00 AM	X	X	
WG-1620-MW22B-20120215	MW-22B	WG	02/15/12	12:00:00 PM	X	X	
WG-1620-MW35A-20120215	MW-35A	WG	02/15/12	1:00:00 PM	X	X	
WG-1620-MW35B-20120215	MW-35B	WG	02/15/12	1:45:00 PM	X	X	
WG-1620-MW33A-20120215	MW-33A	WG	02/15/12	2:50:00 PM	X	X	
WG-1620-DUP07-20120215	MW-33A	WG	02/15/12	2:50:00 PM	X	X	WG-1620-MW33A-20120215
WG-1620-TB06-20120215	Trip Blank	WG	02/15/12	3:00:00 PM	X		Trip Blank
WG-1620-MW68C-20120216	MW-68C	WG	02/16/12	8:40:00 AM	X	X	
WG-1620-MW68B-20120216	MW-68B	WG	02/16/12	9:25:00 AM	X	X	
WG-1620-MW28C-20120216	MW-28C	WG	02/16/12	10:25:00 AM	X	X	MS/MSD
WG-1620-MW28A-20120216	MW-28A	WG	02/16/12	12:00:00 PM	X	X	
WG-1620-FB08-20120216	Field Blank	WG	02/16/12	12:15:00 PM	X	X	Field Blank
WG-1620-FD06-20120214	MW-59D	WG	02/14/12	3:00:00 PM	X	X	WG-1620-MW59D-20120214

Notes:

MS Matrix Spike.
MSD Matrix Spike Duplicate.
SVOCs Semi-Volatile Organic Compounds.
VOCs Volatile Organic Compounds.

TABLE 2

SUMMARY OF ANALYTICAL METHODOLOGIES
SEMI-ANNUAL SITE-WIDE GROUNDWATER MONITORING
UNION PACIFIC RAILROAD (UPRR)
HOUSTON WOOD PRESERVING WORKS
HOUSTON, TEXAS
FEBRUARY 2012

<i>Parameter</i>	<i>Method</i>
Select VOCs	SW-846 8260 ¹
Select SVOCs	SW-846 8270 ¹

Notes:

¹ "Test Methods for Solid Waste/Physical Chemical Methods," SW-846, 3rd Edition, September 1986 (with all subsequent revisions).

SVOCs Semi-Volatile Organic Compounds.

VOCs Volatile Organic Compounds.

TABLE 3
ANALYTICAL RESULTS SUMMARY
SEMI-ANNUAL SITE-WIDE GROUNDWATER MONITORING
UNION PACIFIC RAILROAD (UPRR)
HOUSTON WOOD PRESERVING WORKS
HOUSTON, TEXAS
FEBRUARY 2012

<i>Parameters</i>	<i>Units</i>	<i>Sample Location:</i> <i>Sample ID:</i> <i>Sample Date:</i>	<i>MW-05</i> WG-1620-MW05-20120202 2/2/2012	<i>MW-09</i> WG-1620-MW09-20120202 2/2/2012	<i>MW-12A</i> WG-1620-MW12A-20120201 2/1/2012	<i>MW-12C</i> WG-1620-MW12C-20120201 2/1/2012	<i>MW-13</i> WG-1620-MW13-20120202 2/2/2012	<i>MW-14</i> WG-1620-MW14-20120202 2/2/2012
<i>Volatile Organic Compounds</i>								
1,2-Dichloroethane	mg/L		<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Benzene	mg/L		<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Chlorobenzene	mg/L		<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Ethylbenzene	mg/L		<0.0011	<0.0011	0.0042 J	<0.0011	<0.0011	<0.0011
Methylene chloride	mg/L		<0.0013	<0.0013	<0.0013	<0.0013	<0.0013	<0.0013
Toluene	mg/L		<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Vinyl chloride	mg/L		-	-	-	-	-	-
Xylenes (total)	mg/L		<0.0031	<0.0031	0.0048 J	<0.0031	<0.0031	<0.0031
<i>Semi-volatile Organic Compounds</i>								
1,2-Diphenylhydrazine	mg/L		<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
2,4-Dimethylphenol	mg/L		<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050 UJ
2,4-Dinitrotoluene	mg/L		<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
2,6-Dinitrotoluene	mg/L		<0.000060	<0.000060	<0.000060	<0.000060	<0.000060	<0.000060
2-Chloronaphthalene	mg/L		<0.000050	<0.000050	<0.000050	<0.000050	<0.000050 UJL	<0.000050
2-Methylnaphthalene	mg/L		0.000085 J	<0.000050	0.061	<0.000050	<0.000050 UJL	0.000064 J
4,6-Dinitro-2-methylphenol	mg/L		<0.000080	<0.000080	<0.000080	<0.000080	<0.000080	<0.000080
4-Nitrophenol	mg/L		<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Acenaphthene	mg/L		0.00034	<0.000050	0.13	<0.000050	<0.000050	<0.000050 UJ
Acenaphthylene	mg/L		<0.000050	<0.000050	0.0015	<0.000050	<0.000050	<0.000050
Anthracene	mg/L		<0.000050	<0.000050	0.028	<0.000050	0.000068 J	<0.000050
Benzo(a)anthracene	mg/L		<0.000050	<0.000050	<0.000050	<0.000050	0.00014 J	<0.000050
Benzo(a)pyrene	mg/L		<0.000050	<0.000050	<0.000050	<0.000050	0.000073 J	<0.000050
bis(2-Chloroethoxy)methane	mg/L		<0.000050	<0.000050	<0.000050	<0.000050	<0.000050 UJL	<0.000050
bis(2-Ethylhexyl)phthalate (DEHP)	mg/L		<0.00010	<0.00032 U	<0.00027 U	<0.00010	<0.00043 UJ	<0.00010
Chrysene	mg/L		<0.000050	<0.000050	<0.000050	<0.000050	0.00017 J	<0.000050
Dibenzofuran	mg/L		0.00011 J	<0.000050	0.13	<0.000050	0.000063 JL	0.00012 J
Di-n-butylphthalate (DBP)	mg/L		<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Fluoranthene	mg/L		<0.000050	<0.000050	0.0031	<0.000050	0.00015 J	0.00024
Fluorene	mg/L		0.00012 J	<0.000050	0.067	0.00010 J	<0.000050	<0.000050
Naphthalene	mg/L		0.00087	<0.000050	1.5	<0.00054 U	<0.00022 UJL	<0.00034 UJ

TABLE 3

**ANALYTICAL RESULTS SUMMARY
SEMI-ANNUAL SITE-WIDE GROUNDWATER MONITORING
UNION PACIFIC RAILROAD (UPRR)
HOUSTON WOOD PRESERVING WORKS
HOUSTON, TEXAS
FEBRUARY 2012**

	<i>Sample Location:</i>	<i>MW-05</i>	<i>MW-09</i>	<i>MW-12A</i>	<i>MW-12C</i>	<i>MW-13</i>	<i>MW-14</i>
	<i>Sample ID:</i>	WG-1620-MW05-20120202	WG-1620-MW09-20120202	WG-1620-MW12A-20120201	WG-1620-MW12C-20120201	WG-1620-MW13-20120202	WG-1620-MW14-20120202
	<i>Sample Date:</i>	2/2/2012	2/2/2012	2/1/2012	2/1/2012	2/2/2012	2/2/2012
<i>Parameters</i>	<i>Units</i>						
<i>Semi-volatile Organic Compounds (Cont'd)</i>							
Nitrobenzene	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050 UJL	<0.000050
N-Nitrosodiphenylamine	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Pentachlorophenol	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Phenanthrene	mg/L	<0.000050	<0.000050	0.078	<0.000050	0.00015 J	0.00011 J
Phenol	mg/L	<0.000050	<0.000098 U	<0.000050	<0.000050	<0.000050	<0.000050 UJ
Pyrene	mg/L	<0.000050	<0.000050	0.0026	<0.000050	0.00020 J	0.00029

Notes:

- J Estimated.
- JH Estimated. High Bias.
- JL Estimated. Low Bias.
- U Not Detected.
- UJ Not Detected, estimated reporting limit.
- UJL The analyte was not detected above the sample quantitation limit. The reported limit is an estimate quantity and may be biased low.

TABLE 3

**ANALYTICAL RESULTS SUMMARY
SEMI-ANNUAL SITE-WIDE GROUNDWATER MONITORING
UNION PACIFIC RAILROAD (UPRR)
HOUSTON WOOD PRESERVING WORKS
HOUSTON, TEXAS
FEBRUARY 2012**

	<i>Sample Location:</i>	<i>MW-14</i>	<i>MW-15A</i>	<i>MW-15B</i>	<i>MW-15C</i>	<i>MW-16</i>	<i>MW-17</i>
	<i>Sample ID:</i>	WG-1620-DUP3-20120202	WG-1620-MW15A-20120202	WG-1620-MW15B-20120202	WG-1620-MW15C-20120202	WG-1620-MW16-20120201	WG-1620-MW17-20120201
	<i>Sample Date:</i>	2/2/2012	2/2/2012	2/2/2012	2/2/2012	2/1/2012	2/1/2012
		<i>Duplicate</i>					
<i>Parameters</i>	<i>Units</i>						
<i>Volatile Organic Compounds</i>							
1,2-Dichloroethane	mg/L	<0.0010	<0.0010	<0.0050	<0.0010	<0.010	<0.0050
Benzene	mg/L	<0.0010	0.0012 J	<0.0050	<0.0010	0.025 J	0.24
Chlorobenzene	mg/L	<0.0010	<0.0010	<0.0050	<0.0010	<0.010	<0.0050
Ethylbenzene	mg/L	<0.0011	0.0024 J	0.020 J	0.0017 J	0.021 J	0.23
Methylene chloride	mg/L	<0.0013	<0.0013	<0.0065	<0.0013	<0.013	<0.0065
Toluene	mg/L	<0.0010	<0.0010	<0.0050	<0.0010	<0.010	0.74
Vinyl chloride	mg/L	-	-	-	-	-	-
Xylenes (total)	mg/L	<0.0031	0.0073 J	<0.016	<0.0031	<0.031	0.63
<i>Semi-volatile Organic Compounds</i>							
1,2-Diphenylhydrazine	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.00050
2,4-Dimethylphenol	mg/L	0.0013 J	0.00059	<0.00043 U	<0.000050	0.00077	3.0
2,4-Dinitrotoluene	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.00050
2,6-Dinitrotoluene	mg/L	<0.000060	<0.000060	<0.000060	<0.000060	<0.000060	<0.00060
2-Chloronaphthalene	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.00050
2-Methylnaphthalene	mg/L	0.00017 J	0.0010	0.29	0.000099 J	0.034	0.29
4,6-Dinitro-2-methylphenol	mg/L	<0.000080	<0.000080	<0.000080	<0.000080	<0.000080	<0.00080
4-Nitrophenol	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.00050
Acenaphthene	mg/L	0.00015 J	0.13	0.17	0.041	0.21	0.13
Acenaphthylene	mg/L	<0.000050	0.00071	0.0011	0.0013	0.0021	0.0056
Anthracene	mg/L	<0.000050	0.0028	0.039	0.00021	0.0034	0.0096
Benzo(a)anthracene	mg/L	<0.000050	<0.000050	0.00016 J	<0.000050	0.000059 J	<0.00050
Benzo(a)pyrene	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.00050
bis(2-Chloroethoxy)methane	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.00050
bis(2-Ethylhexyl)phthalate (DEHP)	mg/L	<0.00013 U	<0.00010	<0.00010	<0.00010	<0.00020 U	<0.0010
Chrysene	mg/L	<0.000050	<0.000050	0.00019 J	<0.000050	0.000053 J	<0.00050
Dibenzofuran	mg/L	0.00015 J	0.028	0.15	0.027	0.098	0.093
Di-n-butylphthalate (DBP)	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.00050
Fluoranthene	mg/L	0.00031	0.00094	0.012	0.0016	0.0021	0.0026
Fluorene	mg/L	<0.000050	0.043	0.084	0.0025	0.085	0.059
Naphthalene	mg/L	0.0014 J	0.0080	2.5	0.0011	1.8	10

TABLE 3

ANALYTICAL RESULTS SUMMARY
SEMI-ANNUAL SITE-WIDE GROUNDWATER MONITORING
UNION PACIFIC RAILROAD (UPRR)
HOUSTON WOOD PRESERVING WORKS
HOUSTON, TEXAS
FEBRUARY 2012

	<i>Sample Location:</i>	<i>MW-14</i>	<i>MW-15A</i>	<i>MW-15B</i>	<i>MW-15C</i>	<i>MW-16</i>	<i>MW-17</i>
	<i>Sample ID:</i>	WG-1620-DUP3-20120202	WG-1620-MW15A-20120202	WG-1620-MW15B-20120202	WG-1620-MW15C-20120202	WG-1620-MW16-20120201	WG-1620-MW17-20120201
	<i>Sample Date:</i>	2/2/2012	2/2/2012	2/2/2012	2/2/2012	2/1/2012	2/1/2012
		<i>Duplicate</i>					
<i>Parameters</i>	<i>Units</i>						
<i>Semi-volatile Organic Compounds (Cont'd)</i>							
Nitrobenzene	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
N-Nitrosodiphenylamine	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Pentachlorophenol	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Phenanthrene	mg/L	0.00014 J	0.0056	0.080	0.0015	0.042	0.042
Phenol	mg/L	0.00075 J	<0.000050	<0.00012 U	<0.000050	0.00015 J	3.7
Pyrene	mg/L	0.00029	0.00053	0.0050	0.00093	0.0017	0.0018 J

Notes:

- J Estimated.
- JH Estimated. High Bias.
- JL Estimated. Low Bias.
- U Not Detected.
- UJ Not Detected, estimated reporting limit.
- UJL The analyte was not detected above the sample quantitation limit. The reported limit is an estimate quantity and may be biased low.

TABLE 3
ANALYTICAL RESULTS SUMMARY
SEMI-ANNUAL SITE-WIDE GROUNDWATER MONITORING
UNION PACIFIC RAILROAD (UPRR)
HOUSTON WOOD PRESERVING WORKS
HOUSTON, TEXAS
FEBRUARY 2012

<i>Sample Location:</i>	MW-17C	MW-18A	MW-18C	MW-19C	MW-20A	MW-21C	
<i>Sample ID:</i>	WG-1620-MW17C-20120201	WG-1620-MW18A-20120201	WG-1620-MW18C-20120201	WG-1620-MW19C-20120208	WG-1620-MW20A-20120201	WG-1620-MW21C-20120202	
<i>Sample Date:</i>	2/1/2012	2/1/2012	2/1/2012	2/8/2012	2/1/2012	2/2/2012	
<i>Parameters</i>	<i>Units</i>						
<i>Volatile Organic Compounds</i>							
1,2-Dichloroethane	mg/L	<0.0050	<0.0050	<0.0050	<0.0010	<0.0050	<0.0010
Benzene	mg/L	0.016 J	0.28	1.3	0.0050	0.057	<0.0010
Chlorobenzene	mg/L	<0.0050	<0.0050	<0.0050	<0.0010	<0.0050	<0.0010
Ethylbenzene	mg/L	0.19	0.55	0.19	0.0031 J	0.046	<0.0011
Methylene chloride	mg/L	<0.0065	<0.0065	<0.0065	<0.0013	<0.0065	<0.0013
Toluene	mg/L	0.0067 J	0.21	0.83	0.0085	<0.0050	<0.0010
Vinyl chloride	mg/L	-	0.047	<0.0050	<0.0010	-	-
Xylenes (total)	mg/L	0.22	1.1	0.82	0.0063 J	0.028 J	<0.0031
<i>Semi-volatile Organic Compounds</i>							
1,2-Diphenylhydrazine	mg/L	<0.000050	<0.00050	<0.00050	<0.000050	<0.00050	<0.000050
2,4-Dimethylphenol	mg/L	<0.000050	5.8	0.010	<0.000050	0.076	<0.000050
2,4-Dinitrotoluene	mg/L	<0.000050	<0.00050	<0.00050	<0.000050	<0.00050	<0.000050
2,6-Dinitrotoluene	mg/L	<0.000060	<0.00060	<0.00060	<0.000060	<0.00060	<0.000060
2-Chloronaphthalene	mg/L	<0.000050	<0.00050	<0.00050	<0.000050	<0.00050	<0.000050
2-Methylnaphthalene	mg/L	0.062	0.23	0.16	<0.000050	0.064	0.000067 J
4,6-Dinitro-2-methylphenol	mg/L	<0.000080	<0.00080	<0.00080	<0.000080	<0.00080	<0.000080
4-Nitrophenol	mg/L	<0.000050	<0.00050	<0.00050	<0.000050	<0.00050	<0.000050
Acenaphthene	mg/L	0.097	0.15	0.062	0.0012	0.15	<0.000050
Acenaphthylene	mg/L	0.0011	0.0070	0.0018 J	<0.000050	0.0015 J	<0.000050
Anthracene	mg/L	0.0048	0.0046	0.012	<0.000050	0.0044	<0.000050
Benzo(a)anthracene	mg/L	0.000091 J	<0.00050	<0.00050	<0.000050	<0.00050	<0.000050
Benzo(a)pyrene	mg/L	<0.000050	<0.00050	<0.00050	<0.000050	<0.00050	<0.000050
bis(2-Chloroethoxy)methane	mg/L	<0.000050	<0.00050	<0.00050	<0.000050	<0.00050	<0.000050
bis(2-Ethylhexyl)phthalate (DEHP)	mg/L	<0.0010 U	<0.0011 U	<0.0010	<0.00022 U	<0.0010	<0.0010 U
Chrysene	mg/L	0.00013 J	<0.00050	<0.00050	<0.000050	<0.00050	<0.000050
Dibenzofuran	mg/L	0.096	0.075	0.060	0.00014 J	0.073	<0.000050
Di-n-butylphthalate (DBP)	mg/L	<0.000050	<0.00050	<0.00050	<0.000050	<0.00050	<0.000050
Fluoranthene	mg/L	0.0020	0.0013 J	0.0018 J	<0.000050	0.00082 J	<0.000050
Fluorene	mg/L	0.054	0.057	0.028	<0.000050	0.060	<0.000050
Naphthalene	mg/L	3.3	3.6	9.7	0.00077	0.96	0.00093 J

TABLE 3

ANALYTICAL RESULTS SUMMARY
SEMI-ANNUAL SITE-WIDE GROUNDWATER MONITORING
UNION PACIFIC RAILROAD (UPRR)
HOUSTON WOOD PRESERVING WORKS
HOUSTON, TEXAS
FEBRUARY 2012

	<i>Sample Location:</i>	<i>MW-17C</i>	<i>MW-18A</i>	<i>MW-18C</i>	<i>MW-19C</i>	<i>MW-20A</i>	<i>MW-21C</i>
	<i>Sample ID:</i>	WG-1620-MW17C-20120201	WG-1620-MW18A-20120201	WG-1620-MW18C-20120201	WG-1620-MW19C-20120208	WG-1620-MW20A-20120201	WG-1620-MW21C-20120202
	<i>Sample Date:</i>	2/1/2012	2/1/2012	2/1/2012	2/8/2012	2/1/2012	2/2/2012
<i>Parameters</i>	<i>Units</i>						
<i>Semi-volatile Organic Compounds (Cont'd)</i>							
Nitrobenzene	mg/L	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
N-Nitrosodiphenylamine	mg/L	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Pentachlorophenol	mg/L	<0.00050	<0.00050	0.085	<0.00050	<0.00050	<0.00050
Phenanthrene	mg/L	0.0081	0.042	0.027	<0.00050	0.030	<0.00050
Phenol	mg/L	0.00014 J	0.011	0.027	<0.00050	<0.00050	<0.00050
Pyrene	mg/L	0.0025	0.00077 J	0.0010 J	<0.00050	0.00056 J	<0.00050

Notes:

- J Estimated.
- JH Estimated. High Bias.
- JL Estimated. Low Bias.
- U Not Detected.
- UJ Not Detected, estimated reporting limit.
- UJL The analyte was not detected above the sample quantitation limit. The reported limit is an estimate quantity and may be biased low.

TABLE 3

ANALYTICAL RESULTS SUMMARY
SEMI-ANNUAL SITE-WIDE GROUNDWATER MONITORING
UNION PACIFIC RAILROAD (UPRR)
HOUSTON WOOD PRESERVING WORKS
HOUSTON, TEXAS
FEBRUARY 2012

<i>Sample Location:</i>		MW-21C	MW-22A	MW-22B	MW-23C	MW-24AR	MW-24B
<i>Sample ID:</i>		WG-1620-DUP4-20120202	WG-1620-MW22A-20120215	WG-1620-MW22B-20120215	WG-1620-MW23C-20120202	WG-1620-MW24AR-20120209	WG-1620-MW24B-20120209
<i>Sample Date:</i>		2/2/2012	2/15/2012	2/15/2012	2/2/2012	2/9/2012	2/9/2012
		<i>Duplicate</i>					
<i>Parameters</i>	<i>Units</i>						
<i>Volatile Organic Compounds</i>							
1,2-Dichloroethane	mg/L	<0.0010	<0.0010	<0.0010	<0.010	<0.0010	<0.0010
Benzene	mg/L	<0.0010	<0.0010	<0.0010	<0.010	<0.0010	<0.0010
Chlorobenzene	mg/L	<0.0010	<0.0010	<0.0010	<0.010	<0.0010	<0.0010
Ethylbenzene	mg/L	<0.0011	<0.0011	<0.0011	0.10	<0.0011	<0.0011
Methylene chloride	mg/L	<0.0013	<0.0013	<0.0013	<0.013	<0.0013	<0.0013
Toluene	mg/L	<0.0010	<0.0010	<0.0010	<0.010	<0.0010	<0.0010
Vinyl chloride	mg/L	-	-	-	<0.010	-	-
Xylenes (total)	mg/L	<0.0031	<0.0031	<0.0031	0.039 J	<0.0031	<0.0031
<i>Semi-volatile Organic Compounds</i>							
1,2-Diphenylhydrazine	mg/L	<0.000050	<0.000050	<0.000050	<0.00050	<0.000050	<0.000050
2,4-Dimethylphenol	mg/L	<0.000050	<0.000050	0.00014 J	0.0014 J	0.00013 J	<0.000050
2,4-Dinitrotoluene	mg/L	<0.000050	<0.000050	<0.000050	<0.00050	<0.000050	<0.000050
2,6-Dinitrotoluene	mg/L	<0.000060	<0.000060	<0.000060	<0.00060	<0.000060	<0.000060
2-Chloronaphthalene	mg/L	<0.000050	<0.000050	<0.000050	<0.00050	<0.000050	<0.000050
2-Methylnaphthalene	mg/L	<0.000050	<0.000050	0.00044	0.65	<0.000050	<0.000050
4,6-Dinitro-2-methylphenol	mg/L	<0.000080	<0.000080	<0.000080	<0.00080	<0.000080	<0.000080
4-Nitrophenol	mg/L	<0.000050	<0.000050	<0.000050	<0.00050	<0.000050	<0.000050
Acenaphthene	mg/L	<0.000050	0.000090 J	0.068	0.89	<0.000050	<0.000050
Acenaphthylene	mg/L	<0.000050	<0.000050	0.00046	0.0068	<0.000050	<0.000050
Anthracene	mg/L	<0.000050	0.000058 J	0.0017	0.25	<0.000050	<0.000050
Benzo(a)anthracene	mg/L	<0.000050	<0.000050	<0.000050	0.046	<0.000050	<0.000050
Benzo(a)pyrene	mg/L	<0.000050	<0.000050	<0.000050	0.016	<0.000050	<0.000050
bis(2-Chloroethoxy)methane	mg/L	<0.000050	<0.000050	<0.000050	<0.00050	<0.000050	<0.000050
bis(2-Ethylhexyl)phthalate (DEHP)	mg/L	<0.00022 U	<0.0011 U	<0.00051 U	<0.0010	0.00048	0.00011 J
Chrysene	mg/L	<0.000050	<0.000050	<0.000050	0.044	<0.000050	<0.000050
Dibenzofuran	mg/L	<0.000050	0.000074 J	0.0079	0.85	<0.000050	<0.000050
Di-n-butylphthalate (DBP)	mg/L	<0.000050	<0.000050	<0.000050	<0.00050	0.00017 J	<0.000050
Fluoranthene	mg/L	<0.000050	0.000086 J	0.0022	0.48	0.000069 J	<0.000050
Fluorene	mg/L	<0.000050	0.000080 J	0.0035	0.57	<0.000050	<0.000050
Naphthalene	mg/L	<0.00015 UJ	0.00024	0.0032	7.8	<0.000050	<0.000050

TABLE 3

ANALYTICAL RESULTS SUMMARY
SEMI-ANNUAL SITE-WIDE GROUNDWATER MONITORING
UNION PACIFIC RAILROAD (UPRR)
HOUSTON WOOD PRESERVING WORKS
HOUSTON, TEXAS
FEBRUARY 2012

	<i>Sample Location:</i>	<i>MW-21C</i>	<i>MW-22A</i>	<i>MW-22B</i>	<i>MW-23C</i>	<i>MW-24AR</i>	<i>MW-24B</i>
	<i>Sample ID:</i>	WG-1620-DUP4-20120202	WG-1620-MW22A-20120215	WG-1620-MW22B-20120215	WG-1620-MW23C-20120202	WG-1620-MW24AR-20120209	WG-1620-MW24B-20120209
	<i>Sample Date:</i>	2/2/2012	2/15/2012	2/15/2012	2/2/2012	2/9/2012	2/9/2012
		<i>Duplicate</i>					
<i>Parameters</i>	<i>Units</i>						
<i>Semi-volatile Organic Compounds (Cont'd)</i>							
Nitrobenzene	mg/L	<0.000050	<0.000050	<0.000050	<0.00050	<0.000050	<0.000050
N-Nitrosodiphenylamine	mg/L	<0.000050	<0.000050	0.00029	<0.00050	<0.000050	<0.000050
Pentachlorophenol	mg/L	<0.000050	<0.000050	<0.000050	<0.00050	<0.000050	<0.000050
Phenanthrene	mg/L	<0.000050	0.00020 J	0.00026	1.9	<0.000050	<0.000050
Phenol	mg/L	<0.000050	<0.000050	<0.000050	0.0011 J	0.000050 J	<0.000050
Pyrene	mg/L	<0.000050	0.000055 J	0.0010	0.35	0.000067 J	<0.000050

Notes:

- J Estimated.
- JH Estimated. High Bias.
- JL Estimated. Low Bias.
- U Not Detected.
- UJ Not Detected, estimated reporting limit.
- UJL The analyte was not detected above the sample quantitation limit. The reported limit is an estimate quantity and may be biased low.

TABLE 3
ANALYTICAL RESULTS SUMMARY
SEMI-ANNUAL SITE-WIDE GROUNDWATER MONITORING
UNION PACIFIC RAILROAD (UPRR)
HOUSTON WOOD PRESERVING WORKS
HOUSTON, TEXAS
FEBRUARY 2012

<i>Sample Location:</i>	MW-24C	MW-25A	MW-25C	MW-26A	MW-27C	MW-28A
<i>Sample ID:</i>	WG-1620-MW24C-20120209	WG-1620-MW25A-20120208	WG-1620-MW25C-20120208	WG-1620-MW26A-20120215	WG-1620-MW27C-20120209	WG-1620-MW28A-20120216
<i>Sample Date:</i>	2/9/2012	2/8/2012	2/8/2012	2/15/2012	2/9/2012	2/16/2012
<i>Parameters</i>	<i>Units</i>					
<i>Volatile Organic Compounds</i>						
1,2-Dichloroethane	mg/L	<0.0010	<0.0010	<0.010	<0.0010	<0.0010
Benzene	mg/L	<0.0010	<0.0010	0.039 J	<0.0010	<0.0010
Chlorobenzene	mg/L	<0.0010	<0.0010	<0.010	<0.0010	<0.0010
Ethylbenzene	mg/L	<0.0011	<0.0011	0.34	<0.0011	<0.0011
Methylene chloride	mg/L	<0.0013	<0.0013	<0.013	<0.0013	<0.0013
Toluene	mg/L	<0.0010	<0.0010	0.31	<0.0010	<0.0010
Vinyl chloride	mg/L	-	<0.0010	<0.010	-	-
Xylenes (total)	mg/L	<0.0031	<0.0031	0.98	<0.0031	<0.0031
<i>Semi-volatile Organic Compounds</i>						
1,2-Diphenylhydrazine	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
2,4-Dimethylphenol	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
2,4-Dinitrotoluene	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
2,6-Dinitrotoluene	mg/L	<0.000060	<0.000060	<0.000060	<0.000060	<0.000060
2-Chloronaphthalene	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
2-Methylnaphthalene	mg/L	<0.000050	<0.000050	0.92	<0.000050	<0.000066 U
4,6-Dinitro-2-methylphenol	mg/L	<0.000080	<0.000080	<0.000080	<0.000080	<0.000080
4-Nitrophenol	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Acenaphthene	mg/L	<0.000050	0.00053	0.26	0.0095	0.00098
Acenaphthylene	mg/L	<0.000050	<0.000050	0.0021	0.00013 J	<0.000050
Anthracene	mg/L	<0.000050	<0.000050	0.021	0.00025	<0.000050
Benzo(a)anthracene	mg/L	<0.000050	<0.000050	0.00054	<0.000050	<0.000050
Benzo(a)pyrene	mg/L	<0.000050	<0.000050	0.00017 J	<0.000050	<0.000050
bis(2-Chloroethoxy)methane	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
bis(2-Ethylhexyl)phthalate (DEHP)	mg/L	0.0013	<0.00010	<0.00010	<0.00010 J	<0.00010
Chrysene	mg/L	<0.000050	<0.000050	0.00062	<0.000050	<0.000050
Dibenzofuran	mg/L	<0.000050	0.00050	0.26	0.0014	<0.000050
Di-n-butylphthalate (DBP)	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	<0.000051 U
Fluoranthene	mg/L	<0.000050	<0.000050	0.011	0.00049	<0.000050
Fluorene	mg/L	<0.000050	0.00011 J	0.13	0.00060	<0.000050
Naphthalene	mg/L	<0.000050	0.00017 J	15	0.00010 J	<0.000093 U

TABLE 3

ANALYTICAL RESULTS SUMMARY
SEMI-ANNUAL SITE-WIDE GROUNDWATER MONITORING
UNION PACIFIC RAILROAD (UPRR)
HOUSTON WOOD PRESERVING WORKS
HOUSTON, TEXAS
FEBRUARY 2012

<i>Sample Location:</i>	MW-24C	MW-25A	MW-25C	MW-26A	MW-27C	MW-28A
<i>Sample ID:</i>	WG-1620-MW24C-20120209	WG-1620-MW25A-20120208	WG-1620-MW25C-20120208	WG-1620-MW26A-20120215	WG-1620-MW27C-20120209	WG-1620-MW28A-20120216
<i>Sample Date:</i>	2/9/2012	2/8/2012	2/8/2012	2/15/2012	2/9/2012	2/16/2012

<i>Parameters</i>	<i>Units</i>						
<i>Semi-volatile Organic Compounds (Cont'd)</i>							
Nitrobenzene	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
N-Nitrosodiphenylamine	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Pentachlorophenol	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Phenanthrene	mg/L	<0.000050	<0.000050	0.14	<0.000050	<0.000050	<0.000050
Phenol	mg/L	<0.000050	0.000050 J	0.0030	<0.000050	<0.000050	<0.000050
Pyrene	mg/L	<0.000050	<0.000050	0.0047	0.00024	<0.000050	0.00011 J

Notes:

- J Estimated.
- JH Estimated. High Bias.
- JL Estimated. Low Bias.
- U Not Detected.
- UJ Not Detected, estimated reporting limit.
- UJL The analyte was not detected above the sample quantitation limit. The reported limit is an estimate quantity and may be biased low.

TABLE 3
ANALYTICAL RESULTS SUMMARY
SEMI-ANNUAL SITE-WIDE GROUNDWATER MONITORING
UNION PACIFIC RAILROAD (UPRR)
HOUSTON WOOD PRESERVING WORKS
HOUSTON, TEXAS
FEBRUARY 2012

<i>Sample Location:</i>	MW-28C	MW-30A	MW-31A	MW-32AR	MW-32B	MW-33A	
<i>Sample ID:</i>	WG-1620-MW28C-20120216	WG-1620-MW30A-20120203	WG-1620-MW31A-20120203	WG-1620-MW32AR-20120209	WG-1620-MW32B-20120209	WG-1620-MW33A-20120215	
<i>Sample Date:</i>	2/16/2012	2/3/2012	2/3/2012	2/9/2012	2/9/2012	2/15/2012	
<i>Parameters</i>	<i>Units</i>						
<i>Volatile Organic Compounds</i>							
1,2-Dichloroethane	mg/L	<0.0010	<0.010	<0.025	<0.0010	<0.025 UJ	<0.0010
Benzene	mg/L	<0.0010	0.13	0.14	<0.0010	2.6 JH	0.054
Chlorobenzene	mg/L	<0.0010	<0.010	<0.025	<0.0010	<0.025 UJ	<0.0010
Ethylbenzene	mg/L	<0.0011	0.11	0.17	<0.0011	0.53 JH	0.075
Methylene chloride	mg/L	<0.0013	<0.013	<0.032	<0.0013	<0.032 UJ	<0.0013
Toluene	mg/L	<0.0010	0.49	0.36	<0.0010	2.2 JH	0.019
Vinyl chloride	mg/L	-	-	-	-	-	-
Xylenes (total)	mg/L	<0.0031	0.32	0.71	<0.0031	1.5 JH	0.11
<i>Semi-volatile Organic Compounds</i>							
1,2-Diphenylhydrazine	mg/L	<0.000050	<0.00050	<0.00050	<0.000050	<0.00050 UJ	<0.000050
2,4-Dimethylphenol	mg/L	<0.000050	3.0	5.1	0.0012	46	0.029 J
2,4-Dinitrotoluene	mg/L	<0.000050	<0.00050	<0.00050	<0.000050	<0.00050 UJ	<0.000050
2,6-Dinitrotoluene	mg/L	<0.000060	<0.00060	<0.00060	<0.000060	<0.00060 UJ	<0.000060
2-Chloronaphthalene	mg/L	<0.000050	<0.00050	<0.00050	<0.000050	<0.00050 UJ	<0.000050
2-Methylnaphthalene	mg/L	<0.000050	0.42	0.65	0.00088 J	0.53	0.030
4,6-Dinitro-2-methylphenol	mg/L	<0.000080	<0.00080	<0.00080	<0.000080	<0.00080 UJ	<0.000080
4-Nitrophenol	mg/L	<0.000050	<0.00050	<0.00050	<0.000050	<0.00050 UJ	<0.000050
Acenaphthene	mg/L	<0.000050	0.23	0.30	0.0046	0.28 JH	0.048
Acenaphthylene	mg/L	<0.000050	0.0064	0.0044	0.00032	0.0059 JH	0.00030
Anthracene	mg/L	<0.000050	0.013	0.026	0.00041	0.059 JH	0.00082
Benzo(a)anthracene	mg/L	<0.000050	<0.00050	<0.00050	0.00012 J	0.0033 JH	0.00010 J
Benzo(a)pyrene	mg/L	<0.000050	<0.00050	<0.00050	<0.000050	<0.00050 UJ	<0.000050
bis(2-Chloroethoxy)methane	mg/L	<0.000050	<0.00050	<0.00050	<0.000050	<0.00050 UJ	<0.000050
bis(2-Ethylhexyl)phthalate (DEHP)	mg/L	<0.00013 U	<0.0010	<0.0010	0.00054	<0.0010 UJ	0.0013 J
Chrysene	mg/L	<0.000050	<0.00050	<0.00050	0.000093 J	0.0042 JH	0.000061 J
Dibenzofuran	mg/L	<0.000050	0.21	0.26	0.00096	0.28 JH	0.019 J
Di-n-butylphthalate (DBP)	mg/L	<0.000050	<0.00050	<0.00050	<0.000050	<0.00050 UJ	<0.000050
Fluoranthene	mg/L	<0.000050	0.0031	0.0029	0.0020	0.030 JH	0.0012
Fluorene	mg/L	<0.000050	0.13	0.17	0.0017	0.15 JH	0.015
Naphthalene	mg/L	<0.00031 U	7.8	18	0.00044	26	0.96 J

TABLE 3

**ANALYTICAL RESULTS SUMMARY
SEMI-ANNUAL SITE-WIDE GROUNDWATER MONITORING
UNION PACIFIC RAILROAD (UPRR)
HOUSTON WOOD PRESERVING WORKS
HOUSTON, TEXAS
FEBRUARY 2012**

<i>Sample Location:</i>	MW-28C	MW-30A	MW-31A	MW-32AR	MW-32B	MW-33A
<i>Sample ID:</i>	WG-1620-MW28C-20120216	WG-1620-MW30A-20120203	WG-1620-MW31A-20120203	WG-1620-MW32AR-20120209	WG-1620-MW32B-20120209	WG-1620-MW33A-20120215
<i>Sample Date:</i>	2/16/2012	2/3/2012	2/3/2012	2/9/2012	2/9/2012	2/15/2012

<i>Parameters</i>	<i>Units</i>						
<i>Semi-volatile Organic Compounds (Cont'd)</i>							
Nitrobenzene	mg/L	<0.00050	<0.00050	<0.00050	<0.000050	<0.00050	<0.000050
N-Nitrosodiphenylamine	mg/L	<0.00050	<0.00050	<0.00050	<0.000050	<0.00050 UJ	<0.000050
Pentachlorophenol	mg/L	<0.00050	<0.00050	0.11	<0.000050	<0.00050 UJ	<0.000050
Phenanthrene	mg/L	<0.000050	0.064	0.14	0.00033	0.25 JH	0.0038
Phenol	mg/L	<0.000050	0.015	0.76	0.00012 J	38 JH	<0.000050
Pyrene	mg/L	<0.000050	0.0021	0.0025	0.0041	0.020 JH	0.0021

Notes:

- J Estimated.
- JH Estimated. High Bias.
- JL Estimated. Low Bias.
- U Not Detected.
- UJ Not Detected, estimated reporting limit.
- UJL The analyte was not detected above the sample quantitation limit. The reported limit is an estimate quantity and may be biased low.

TABLE 3
ANALYTICAL RESULTS SUMMARY
SEMI-ANNUAL SITE-WIDE GROUNDWATER MONITORING
UNION PACIFIC RAILROAD (UPRR)
HOUSTON WOOD PRESERVING WORKS
HOUSTON, TEXAS
FEBRUARY 2012

<i>Sample Location:</i>	MW-33A	MW-33B	MW-34C	MW-35A	MW-35B	MW-36A
<i>Sample ID:</i>	WG-1620-DUP07-20120215	WG-1620-MW33BR-20120215	WG-1620-MW34C-20120208	WG-1620-MW35A-20120215	WG-1620-MW35B-20120215	WG-1620-MW36A-20120207
<i>Sample Date:</i>	2/15/2012	2/15/2012	2/8/2012	2/15/2012	2/15/2012	2/7/2012
<i>Parameters</i>	<i>Units</i>					
<i>Volatile Organic Compounds</i>						
1,2-Dichloroethane	mg/L	<0.0050	<0.0050	<0.0010 UJ	<0.0010	<0.0010
Benzene	mg/L	0.051	2.0	0.0014 JH	<0.0010	0.077
Chlorobenzene	mg/L	<0.0050	<0.0050	<0.0010 UJ	<0.0010	<0.0010
Ethylbenzene	mg/L	0.061	0.46	0.0039 JH	<0.0011	0.19
Methylene chloride	mg/L	<0.0065	<0.0065	<0.0013 UJ	<0.0013	<0.0013
Toluene	mg/L	0.018 J	0.12	0.0041 JH	<0.0010	0.0042 J
Vinyl chloride	mg/L	-	<0.0050	-	-	<0.0010
Xylenes (total)	mg/L	0.092	0.82	0.0077 JH	<0.0031	0.13
<i>Semi-volatile Organic Compounds</i>						
1,2-Diphenylhydrazine	mg/L	<0.000050	<0.000050	<0.000050 UJ	<0.000050	<0.000050 UJL
2,4-Dimethylphenol	mg/L	0.019 J	<0.000050	0.00022 JH	<0.000050	<0.000050
2,4-Dinitrotoluene	mg/L	<0.000050	<0.000050	<0.000050 UJ	<0.000050	<0.000050 UJL
2,6-Dinitrotoluene	mg/L	<0.000060	<0.000060	<0.000060 UJ	<0.000060	<0.000060 UJL
2-Chloronaphthalene	mg/L	<0.000050	<0.000050	<0.000050 UJ	<0.000050	<0.000050 UJL
2-Methylnaphthalene	mg/L	0.024	0.81	0.00011 JH	<0.000050	0.18
4,6-Dinitro-2-methylphenol	mg/L	<0.000080	<0.000080	<0.000080 UJ	<0.000080	<0.000080
4-Nitrophenol	mg/L	<0.000050	<0.000050	<0.000050 UJ	<0.000050	<0.000050
Acenaphthene	mg/L	0.064	0.23	<0.000050 UJ	0.00041	0.080
Acenaphthylene	mg/L	0.00040	<0.000050	<0.000050 UJ	<0.000050	0.00063 JL
Anthracene	mg/L	0.00078	0.054	<0.000050 UJ	<0.000050	0.0048 JL
Benzo(a)anthracene	mg/L	0.00011 J	0.000074 J	<0.000050 UJ	<0.000050	0.00011 JL
Benzo(a)pyrene	mg/L	<0.000050	<0.000050	<0.000050 UJ	<0.000050	<0.000050 UJL
bis(2-Chloroethoxy)methane	mg/L	<0.000050	<0.000050	<0.000050 UJ	<0.000050	<0.000050 UJL
bis(2-Ethylhexyl)phthalate (DEHP)	mg/L	<0.00084 UJ	<0.00018 U	<0.00053 UJ	<0.00013 U	<0.00088 UJL
Chrysene	mg/L	<0.000050	0.000073 J	<0.000050 UJ	<0.000050	0.00010 JL
Dibenzofuran	mg/L	0.026 J	0.38	0.000071 JH	0.000080 J	0.097
Di-n-butylphthalate (DBP)	mg/L	<0.000050	<0.000050	<0.000050 UJ	<0.000050	<0.000050 UJL
Fluoranthene	mg/L	0.0011	0.0049	0.00017 JH	0.000070 J	0.0026 JL
Fluorene	mg/L	0.019	0.12	0.00011 JH	<0.000050	0.048
Naphthalene	mg/L	1.6 J	21	<0.00043 UJ	0.00027	7.4

TABLE 3

ANALYTICAL RESULTS SUMMARY
SEMI-ANNUAL SITE-WIDE GROUNDWATER MONITORING
UNION PACIFIC RAILROAD (UPRR)
HOUSTON WOOD PRESERVING WORKS
HOUSTON, TEXAS
FEBRUARY 2012

	<i>Sample Location:</i>	<i>MW-33A</i>	<i>MW-33B</i>	<i>MW-34C</i>	<i>MW-35A</i>	<i>MW-35B</i>	<i>MW-36A</i>
	<i>Sample ID:</i>	WG-1620-DUP07-20120215	WG-1620-MW33BR-20120215	WG-1620-MW34C-20120208	WG-1620-MW35A-20120215	WG-1620-MW35B-20120215	WG-1620-MW36A-20120207
	<i>Sample Date:</i>	2/15/2012	2/15/2012	2/8/2012	2/15/2012	2/15/2012	2/7/2012
		<i>Duplicate</i>					
<i>Parameters</i>	<i>Units</i>						
<i>Semi-volatile Organic Compounds (Cont'd)</i>							
Nitrobenzene	mg/L	<0.000050	<0.000050	<0.000050 UJ	<0.000050	<0.000050 UJL	<0.000050
N-Nitrosodiphenylamine	mg/L	<0.000050	0.00081	<0.000050 UJ	<0.000050	<0.000050 UJL	<0.000050
Pentachlorophenol	mg/L	<0.000050	<0.000050	<0.000050 UJ	<0.000050	<0.000050	<0.000050
Phenanthrene	mg/L	0.0032	0.17	0.0010 JH	<0.000050	0.052	<0.000050
Phenol	mg/L	<0.000050	0.0043	0.000072 JH	<0.000050	<0.000050	<0.000050
Pyrene	mg/L	0.0022	0.0025	0.00021 JH	<0.000050	0.0016 JL	<0.000050

Notes:

- J Estimated.
- JH Estimated. High Bias.
- JL Estimated. Low Bias.
- U Not Detected.
- UJ Not Detected, estimated reporting limit.
- UJL The analyte was not detected above the sample quantitation limit. The reported limit is an estimate quantity and may be biased low.

TABLE 3
ANALYTICAL RESULTS SUMMARY
SEMI-ANNUAL SITE-WIDE GROUNDWATER MONITORING
UNION PACIFIC RAILROAD (UPRR)
HOUSTON WOOD PRESERVING WORKS
HOUSTON, TEXAS
FEBRUARY 2012

		<i>Sample Location:</i>	<i>MW-36B</i>	<i>MW-36D</i>	<i>MW-38A</i>	<i>MW-38B</i>	<i>MW-39B</i>	<i>MW-40B</i>
		<i>Sample ID:</i>	<i>WG-1620-MW36B-20120208</i>	<i>WG-1620-MW36D-20120214</i>	<i>WG-1620-MW38A-20120215</i>	<i>WG-1620-MW38B-20120215</i>	<i>WG-1620-MW39B-20120201</i>	<i>WG-1620-MW40B-20120203</i>
		<i>Sample Date:</i>	<i>2/8/2012</i>	<i>2/14/2012</i>	<i>2/15/2012</i>	<i>2/15/2012</i>	<i>2/1/2012</i>	<i>2/3/2012</i>
<i>Parameters</i>	<i>Units</i>							
<i>Volatile Organic Compounds</i>								
1,2-Dichloroethane	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.010
Benzene	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.013 J
Chlorobenzene	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.010
Ethylbenzene	mg/L	<0.0011	<0.0011	<0.0011	<0.0011	<0.0011	<0.0011	0.080
Methylene chloride	mg/L	<0.0013	<0.0013	<0.0013	<0.0013	<0.0013	<0.0013	<0.013
Toluene	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.028 J
Vinyl chloride	mg/L	-	-	-	-	-	-	-
Xylenes (total)	mg/L	<0.0031	<0.0031	<0.0031	<0.0031	<0.0031	<0.0031	0.13 J
<i>Semi-volatile Organic Compounds</i>								
1,2-Diphenylhydrazine	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
2,4-Dimethylphenol	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050 UJ	0.0040
2,4-Dinitrotoluene	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050 UJ	<0.000050
2,6-Dinitrotoluene	mg/L	<0.000060	<0.000060	<0.000060	<0.000060	<0.000060	<0.000060 UJ	<0.000060
2-Chloronaphthalene	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050 UJ	<0.000050
2-Methylnaphthalene	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050 UJ	0.20
4,6-Dinitro-2-methylphenol	mg/L	<0.000080	<0.000080	<0.000080	<0.000080	<0.000080	<0.000080	<0.000080
4-Nitrophenol	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050 UJ	<0.000050
Acenaphthene	mg/L	0.00023	<0.000050	<0.000050	<0.000050	0.00010 J	0.0011 JH	0.20
Acenaphthylene	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050 UJ	0.0022
Anthracene	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	0.00021	<0.000050	0.019
Benzo(a)anthracene	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	0.000050 J	0.000095 J
Benzo(a)pyrene	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
bis(2-Chloroethoxy)methane	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050 UJ	<0.000050
bis(2-Ethylhexyl)phthalate (DEHP)	mg/L	<0.00033 U	<0.0012 U	0.0016	<0.0010	<0.0010	<0.0015 U	0.00033
Chrysene	mg/L	<0.000050	0.000078 J	<0.000050	<0.000050	<0.000050	<0.000050	0.00011 J
Dibenzofuran	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	0.00040 JH	0.15
Di-n-butylphthalate (DBP)	mg/L	<0.000050	0.000052 J	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Fluoranthene	mg/L	<0.000050	0.00013 J	<0.000050	<0.000050	<0.000050	0.0011	0.0042
Fluorene	mg/L	0.00011 J	<0.000050	<0.000050	<0.000050	<0.000050	0.00032 JH	0.13
Naphthalene	mg/L	<0.00024 U	<0.000072 U	<0.000050	<0.000050	0.00037	<0.00034 UJ	4.2

TABLE 3

ANALYTICAL RESULTS SUMMARY
SEMI-ANNUAL SITE-WIDE GROUNDWATER MONITORING
UNION PACIFIC RAILROAD (UPRR)
HOUSTON WOOD PRESERVING WORKS
HOUSTON, TEXAS
FEBRUARY 2012

<i>Sample Location:</i>	<i>MW-36B</i>	<i>MW-36D</i>	<i>MW-38A</i>	<i>MW-38B</i>	<i>MW-39B</i>	<i>MW-40B</i>
<i>Sample ID:</i>	WG-1620-MW36B-20120208	WG-1620-MW36D-20120214	WG-1620-MW38A-20120215	WG-1620-MW38B-20120215	WG-1620-MW39B-20120201	WG-1620-MW40B-20120203
<i>Sample Date:</i>	2/8/2012	2/14/2012	2/15/2012	2/15/2012	2/1/2012	2/3/2012

<i>Parameters</i>	<i>Units</i>						
<i>Semi-volatile Organic Compounds (Cont'd)</i>							
Nitrobenzene	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050 UJ	<0.000050
N-Nitrosodiphenylamine	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Pentachlorophenol	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050 UJ	<0.000050
Phenanthrene	mg/L	<0.000050	0.000069 J	0.00011 J	<0.000050	<0.000050	0.080
Phenol	mg/L	0.00026	0.00023	<0.000050	<0.000050	<0.000050	<0.000050
Pyrene	mg/L	<0.000050	0.000087 J	<0.000050	<0.000050	0.0013	0.0033

Notes:

- J Estimated.
- JH Estimated. High Bias.
- JL Estimated. Low Bias.
- U Not Detected.
- UJ Not Detected, estimated reporting limit.
- UJL The analyte was not detected above the sample quantitation limit. The reported limit is an estimate quantity and may be biased low.

TABLE 3
ANALYTICAL RESULTS SUMMARY
SEMI-ANNUAL SITE-WIDE GROUNDWATER MONITORING
UNION PACIFIC RAILROAD (UPRR)
HOUSTON WOOD PRESERVING WORKS
HOUSTON, TEXAS
FEBRUARY 2012

		<i>Sample Location:</i>	<i>MW-42B</i>	<i>MW-44A</i>	<i>MW-47C</i>	<i>MW-48C</i>	<i>MW-49A</i>	<i>MW-49B</i>
		<i>Sample ID:</i>	WG-1620-MW42B-20120203	WG-1620-MW44A-20120215	WG-1620-MW47C-20120207	WG-1620-MW48C-20120206	WG-1620-MW49A-20120207	WG-1620-MW49B-20120207
		<i>Sample Date:</i>	2/3/2012	2/15/2012	2/7/2012	2/6/2012	2/7/2012	2/7/2012
<i>Parameters</i>	<i>Units</i>							
<i>Volatile Organic Compounds</i>								
1,2-Dichloroethane	mg/L		<0.0010	<0.0010	<0.0010	<0.0010	<0.050	<0.0010
Benzene	mg/L		<0.0010	0.0042 J	<0.0010	<0.0010	<0.050	0.0056
Chlorobenzene	mg/L		<0.0010	<0.0010	<0.0010	<0.0010	<0.050	<0.0010
Ethylbenzene	mg/L		<0.0011	<0.0011	<0.0011	<0.0011	<0.055	0.0042 J
Methylene chloride	mg/L		<0.0013	<0.0013	<0.0013	<0.0013	<0.065	<0.0013
Toluene	mg/L		<0.0010	<0.0010	<0.0010	<0.0010	<0.050	0.0057
Vinyl chloride	mg/L		-	<0.0010	-	-	<0.050	<0.0010
Xylenes (total)	mg/L		<0.0031	0.0052 J	<0.0031	<0.0031	<0.16	0.0080 J
<i>Semi-volatile Organic Compounds</i>								
1,2-Diphenylhydrazine	mg/L		<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
2,4-Dimethylphenol	mg/L		<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	0.19
2,4-Dinitrotoluene	mg/L		<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
2,6-Dinitrotoluene	mg/L		<0.000060	<0.000060	<0.000060	<0.000060	<0.000060	<0.000060
2-Chloronaphthalene	mg/L		<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
2-Methylnaphthalene	mg/L		0.000089 J	0.0048	0.0044	<0.000050	<0.000050	0.0095
4,6-Dinitro-2-methylphenol	mg/L		<0.000080	<0.000080	<0.000080	<0.000080	<0.000080	<0.000080
4-Nitrophenol	mg/L		<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Acenaphthene	mg/L		0.0017	0.21	0.00017 J	<0.000050	<0.000050	0.034
Acenaphthylene	mg/L		<0.000050	0.0010	<0.000050	<0.000050	<0.000050	0.00070
Anthracene	mg/L		<0.000050	0.0068	0.000074 J	<0.000050	<0.000050	0.0029
Benzo(a)anthracene	mg/L		<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Benzo(a)pyrene	mg/L		<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
bis(2-Chloroethoxy)methane	mg/L		<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
bis(2-Ethylhexyl)phthalate (DEHP)	mg/L		<0.00010	<0.00011 U	0.011	<0.00010	<0.00010	0.0069
Chrysene	mg/L		<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Dibenzofuran	mg/L		0.00016 J	0.0010	<0.000050	<0.000050	<0.000050	0.019
Di-n-butylphthalate (DBP)	mg/L		<0.000050	<0.000050	0.00015 J	<0.000050	<0.000050	<0.000050
Fluoranthene	mg/L		0.00085	0.0094	<0.000050	<0.000050	<0.000050	0.0015
Fluorene	mg/L		0.00050	0.11	0.00025	<0.000050	<0.000050	0.019
Naphthalene	mg/L		<0.00063 U	0.32	0.0041	<0.000050	<0.000050	0.047

TABLE 3

ANALYTICAL RESULTS SUMMARY
SEMI-ANNUAL SITE-WIDE GROUNDWATER MONITORING
UNION PACIFIC RAILROAD (UPRR)
HOUSTON WOOD PRESERVING WORKS
HOUSTON, TEXAS
FEBRUARY 2012

<i>Sample Location:</i>	<i>MW-42B</i>	<i>MW-44A</i>	<i>MW-47C</i>	<i>MW-48C</i>	<i>MW-49A</i>	<i>MW-49B</i>
<i>Sample ID:</i>	WG-1620-MW42B-20120203	WG-1620-MW44A-20120215	WG-1620-MW47C-20120207	WG-1620-MW48C-20120206	WG-1620-MW49A-20120207	WG-1620-MW49B-20120207
<i>Sample Date:</i>	2/3/2012	2/15/2012	2/7/2012	2/6/2012	2/7/2012	2/7/2012

<i>Parameters</i>	<i>Units</i>						
<i>Semi-volatile Organic Compounds (Cont'd)</i>							
Nitrobenzene	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
N-Nitrosodiphenylamine	mg/L	<0.000050	0.00065	<0.000050	<0.000050	<0.000050	<0.000050
Pentachlorophenol	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Phenanthrene	mg/L	0.00012 J	0.0073	0.00030	<0.000050	<0.000050	0.0098
Phenol	mg/L	<0.000050	<0.000050	0.00044	<0.000050	<0.000050	<0.000050
Pyrene	mg/L	0.00044	0.0054	0.00015 J	<0.000050	<0.000050	0.00083

Notes:

- J Estimated.
- JH Estimated. High Bias.
- JL Estimated. Low Bias.
- U Not Detected.
- UJ Not Detected, estimated reporting limit.
- UJL The analyte was not detected above the sample quantitation limit. The reported limit is an estimate quantity and may be biased low.

TABLE 3
ANALYTICAL RESULTS SUMMARY
SEMI-ANNUAL SITE-WIDE GROUNDWATER MONITORING
UNION PACIFIC RAILROAD (UPRR)
HOUSTON WOOD PRESERVING WORKS
HOUSTON, TEXAS
FEBRUARY 2012

	<i>Sample Location:</i>	MW-50A	MW-51A	MW-52A	MW-53C	MW-54C	MW-55A
	<i>Sample ID:</i>	WG-1620-MW50A-20120209	WG-1620-MW51A-20120215	WG-1620-MW52A-20120203	WG-1620-MW53C-20120209	WG-1620-MW54C-20120208	WG-1620-MW55A-20120203
	<i>Sample Date:</i>	2/9/2012	2/15/2012	2/3/2012	2/9/2012	2/8/2012	2/3/2012
<i>Parameters</i>	<i>Units</i>						
<i>Volatile Organic Compounds</i>							
1,2-Dichloroethane	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.010
Benzene	mg/L	<0.0010	<0.0010	0.0017 J	<0.0010	<0.0010	0.15
Chlorobenzene	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.010
Ethylbenzene	mg/L	<0.0011	<0.0011	0.0053	<0.0011	0.0011 J	0.20
Methylene chloride	mg/L	<0.0013	<0.0013	<0.0013	<0.0013	<0.0013	<0.013
Toluene	mg/L	<0.0010	<0.0010	0.0034 J	<0.0010	<0.0010	0.41
Vinyl chloride	mg/L	-	-	-	-	-	-
Xylenes (total)	mg/L	<0.0031	<0.0031	0.011 J	<0.0031	<0.0031	0.48
<i>Semi-volatile Organic Compounds</i>							
1,2-Diphenylhydrazine	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.00050
2,4-Dimethylphenol	mg/L	<0.000050	<0.000050	0.0034	<0.000050	0.000098 J	1.8
2,4-Dinitrotoluene	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.00050
2,6-Dinitrotoluene	mg/L	<0.000060	<0.000060	<0.000060	<0.000060	<0.000060	<0.00060
2-Chloronaphthalene	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.00050
2-Methylnaphthalene	mg/L	<0.000050	<0.000050	0.096	0.000080 J	0.0065	0.25
4,6-Dinitro-2-methylphenol	mg/L	<0.000080	<0.000080	<0.000080	<0.000080	<0.000080	<0.00080
4-Nitrophenol	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.00050
Acenaphthene	mg/L	<0.000050	<0.000050	0.19	0.00020 J	0.035	0.14
Acenaphthylene	mg/L	<0.000050	<0.000050	0.0024	<0.000050	0.00051	0.0019 J
Anthracene	mg/L	<0.000050	<0.000050	0.036	<0.000050	0.0024	0.016
Benzo(a)anthracene	mg/L	<0.000050	<0.000050	0.00031	<0.000050	<0.000050	<0.00050
Benzo(a)pyrene	mg/L	<0.000050	<0.000050	0.000066 J	<0.000050	<0.000050	<0.00050
bis(2-Chloroethoxy)methane	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.00050
bis(2-Ethylhexyl)phthalate (DEHP)	mg/L	0.00032	<0.00010	0.00043	<0.00010	<0.00010	<0.0010
Chrysene	mg/L	<0.000050	<0.000050	0.00033	<0.000050	<0.000050	<0.00050
Dibenzofuran	mg/L	<0.000050	<0.000050	0.14	<0.000050	0.047	0.084
Di-n-butylphthalate (DBP)	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.00050
Fluoranthene	mg/L	<0.000050	<0.000050	0.013	<0.000050	0.0026	0.0044
Fluorene	mg/L	<0.000050	<0.000050	0.12	<0.000050	0.021	0.057
Naphthalene	mg/L	<0.000050	<0.000050	0.77	0.00066	0.35	9.9

TABLE 3

ANALYTICAL RESULTS SUMMARY
SEMI-ANNUAL SITE-WIDE GROUNDWATER MONITORING
UNION PACIFIC RAILROAD (UPRR)
HOUSTON WOOD PRESERVING WORKS
HOUSTON, TEXAS
FEBRUARY 2012

	<i>Sample Location:</i>	<i>MW-50A</i>	<i>MW-51A</i>	<i>MW-52A</i>	<i>MW-53C</i>	<i>MW-54C</i>	<i>MW-55A</i>
	<i>Sample ID:</i>	WG-1620-MW50A-20120209	WG-1620-MW51A-20120215	WG-1620-MW52A-20120203	WG-1620-MW53C-20120209	WG-1620-MW54C-20120208	WG-1620-MW55A-20120203
	<i>Sample Date:</i>	2/9/2012	2/15/2012	2/3/2012	2/9/2012	2/8/2012	2/3/2012
<i>Parameters</i>	<i>Units</i>						
<i>Semi-volatile Organic Compounds (Cont'd)</i>							
Nitrobenzene	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
N-Nitrosodiphenylamine	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Pentachlorophenol	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Phenanthrene	mg/L	<0.000050	<0.000050	0.081	<0.000050	0.034	0.047
Phenol	mg/L	0.00038	<0.000050	0.000052 J	<0.000050	0.00011 J	0.079
Pyrene	mg/L	<0.000050	<0.000050	0.0054	<0.000050	0.0015	0.0041

Notes:

- J Estimated.
- JH Estimated. High Bias.
- JL Estimated. Low Bias.
- U Not Detected.
- UJ Not Detected, estimated reporting limit.
- UJL The analyte was not detected above the sample quantitation limit. The reported limit is an estimate quantity and may be biased low.

TABLE 3

ANALYTICAL RESULTS SUMMARY
SEMI-ANNUAL SITE-WIDE GROUNDWATER MONITORING
UNION PACIFIC RAILROAD (UPRR)
HOUSTON WOOD PRESERVING WORKS
HOUSTON, TEXAS
FEBRUARY 2012

		<i>Sample Location:</i>	<i>MW-55B</i>	<i>MW-57A</i>	<i>MW-57B</i>	<i>MW-58A</i>	<i>MW-59A</i>	<i>MW-59B</i>
	<i>Sample ID:</i>	WG-1620-MW55B-20120202	WG-1620-MW57A-20120202	WG-1620-MW57B-20120215	WG-1620-MW58A-20120203	WG-1620-MW59A-20120206	WG-1620-MW59B-20120206	
	<i>Sample Date:</i>	2/2/2012	2/2/2012	2/15/2012	2/3/2012	2/6/2012	2/6/2012	
<i>Parameters</i>	<i>Units</i>							
<i>Volatile Organic Compounds</i>								
1,2-Dichloroethane	mg/L	<0.010	<0.010	<0.010	<0.010	<0.0010	<0.0010	<0.0010
Benzene	mg/L	0.78	0.14	1.4	0.12	<0.0010	<0.0010	<0.0010
Chlorobenzene	mg/L	<0.010	<0.010	<0.010	<0.010	<0.0010	<0.0010	<0.0010
Ethylbenzene	mg/L	0.13	0.22	0.39	0.085	<0.0011	<0.0011	<0.0011
Methylene chloride	mg/L	<0.013	<0.013	<0.013	<0.013	<0.0013	<0.0013	<0.0013
Toluene	mg/L	0.65	0.23	1.3	0.043 J	<0.0010	<0.0010	<0.0010
Vinyl chloride	mg/L	-	<0.010	-	-	<0.0010	<0.0010	<0.0010
Xylenes (total)	mg/L	0.39	0.40	1.2	0.23	<0.0031	<0.0031	<0.0031
<i>Semi-volatile Organic Compounds</i>								
1,2-Diphenylhydrazine	mg/L	<0.00050	<0.00050	<0.00050	<0.000050	<0.000050	<0.000050	<0.000050
2,4-Dimethylphenol	mg/L	35	1.7	6.3	1.1	<0.000050	<0.000050	0.25
2,4-Dinitrotoluene	mg/L	<0.00050	<0.00050	<0.00050	<0.000050	<0.000050	<0.000050	<0.000050
2,6-Dinitrotoluene	mg/L	<0.00060	<0.00060	<0.00060	<0.000060	<0.000060	<0.000060	<0.000060
2-Chloronaphthalene	mg/L	<0.00050	<0.00050	<0.00050	<0.000050	<0.000050	<0.000050	<0.000050
2-Methylnaphthalene	mg/L	0.28	1.9	0.92	0.082	<0.000050	<0.000050	<0.000050
4,6-Dinitro-2-methylphenol	mg/L	<0.00080	<0.00080	<0.00080	<0.000080	<0.000080	<0.000080	<0.000080
4-Nitrophenol	mg/L	<0.00050	<0.00050	<0.00050	<0.000050	<0.000050	<0.000050	<0.000050
Acenaphthene	mg/L	0.19	1.2	0.35	0.16	<0.000050	<0.000050	0.0017
Acenaphthylene	mg/L	0.0057	0.014	0.0060	0.0011	<0.000050	<0.000050	0.00014 J
Anthracene	mg/L	0.016	0.34	0.023	0.0055	<0.000050	<0.000050	0.000054 J
Benzo(a)anthracene	mg/L	0.0011 J	0.047	0.0011 J	<0.000050	<0.000050	<0.000050	<0.000050
Benzo(a)pyrene	mg/L	<0.00050	0.014	<0.00050	<0.000050	<0.000050	<0.000050	<0.000050
bis(2-Chloroethoxy)methane	mg/L	<0.00050	<0.00050	<0.00050	<0.000050	<0.000050	<0.000050	<0.000050
bis(2-Ethylhexyl)phthalate (DEHP)	mg/L	<0.0010	0.0016 J	<0.0019 J	<0.00010	0.00015 J	0.00068	0.00068
Chrysene	mg/L	<0.00050	0.046	0.00099 J	<0.000050	<0.000050	<0.000050	<0.000050
Dibenzofuran	mg/L	0.15	0.86	0.28	0.13	<0.000050	<0.000050	<0.000050
Di-n-butylphthalate (DBP)	mg/L	<0.00050	<0.00050	<0.00050	<0.000050	<0.000050	<0.000050	<0.000050
Fluoranthene	mg/L	0.0047	0.48	0.0081	0.0036	<0.000050	<0.000050	<0.000050
Fluorene	mg/L	0.090	0.72	0.095	0.080	<0.000050	<0.000050	<0.000050
Naphthalene	mg/L	21	9.2	24	2.2	<0.000050	<0.000050	0.00012 J

TABLE 3

**ANALYTICAL RESULTS SUMMARY
SEMI-ANNUAL SITE-WIDE GROUNDWATER MONITORING
UNION PACIFIC RAILROAD (UPRR)
HOUSTON WOOD PRESERVING WORKS
HOUSTON, TEXAS
FEBRUARY 2012**

	<i>Sample Location:</i>	MW-55B	MW-57A	MW-57B	MW-58A	MW-59A	MW-59B
	<i>Sample ID:</i>	WG-1620-MW55B-20120202	WG-1620-MW57A-20120202	WG-1620-MW57B-20120215	WG-1620-MW58A-20120203	WG-1620-MW59A-20120206	WG-1620-MW59B-20120206
	<i>Sample Date:</i>	2/2/2012	2/2/2012	2/15/2012	2/3/2012	2/6/2012	2/6/2012
<i>Parameters</i>	<i>Units</i>						
<i>Semi-volatile Organic Compounds (Cont'd)</i>							
Nitrobenzene	mg/L	<0.00050	<0.00050	<0.00050	<0.000050	<0.000050	<0.000050
N-Nitrosodiphenylamine	mg/L	<0.00050	<0.00050	<0.00050	<0.000050	<0.000050	<0.000050
Pentachlorophenol	mg/L	<0.00050	<0.00050	<0.00050	<0.000050	<0.000050	0.00011 J
Phenanthrene	mg/L	0.057	2.0	0.16	0.039	<0.000050	0.00025
Phenol	mg/L	150	0.0089	0.45	0.0038	<0.000050	0.00033
Pyrene	mg/L	0.0042	0.34	0.0075	0.0022	<0.000050	0.000062 J

Notes:

- J Estimated.
- JH Estimated. High Bias.
- JL Estimated. Low Bias.
- U Not Detected.
- UJ Not Detected, estimated reporting limit.
- UJL The analyte was not detected above the sample quantitation limit. The reported limit is an estimate quantity and may be biased low.

TABLE 3

ANALYTICAL RESULTS SUMMARY

SEMI-ANNUAL SITE-WIDE GROUNDWATER MONITORING

UNION PACIFIC RAILROAD (UPRR)

HOUSTON WOOD PRESERVING WORKS

HOUSTON, TEXAS

FEBRUARY 2012

	<i>Sample Location:</i>	<i>MW-59D</i>	<i>MW-59D</i>	<i>MW-60A</i>	<i>MW-61A</i>	<i>MW-62B</i>	<i>MW-63B</i>
	<i>Sample ID:</i>	WG-1620-MW59D-20120214	WG-1620-FD06-20120214	WG-1620-MW60A-20120207	WG-1620-MW61A-20120207	WG-1620-MW62B-20120208	WG-1620-MW63B-20120209
	<i>Sample Date:</i>	2/14/2012	2/14/2012	2/7/2012	2/7/2012	2/8/2012	2/9/2012
			<i>Duplicate</i>				
<i>Parameters</i>	<i>Units</i>						
<i>Volatile Organic Compounds</i>							
1,2-Dichloroethane	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Benzene	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Chlorobenzene	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Ethylbenzene	mg/L	<0.0011	<0.0011	<0.0011	<0.0011	<0.0011	0.0012 J
Methylene chloride	mg/L	<0.0013	<0.0013	<0.0013	<0.0013	<0.0013	<0.0013
Toluene	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Vinyl chloride	mg/L	-	<0.0010	<0.0010	<0.0010	-	-
Xylenes (total)	mg/L	<0.0031	<0.0031	<0.0031	<0.0031	<0.0031	<0.0031
<i>Semi-volatile Organic Compounds</i>							
1,2-Diphenylhydrazine	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
2,4-Dimethylphenol	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050 UJ
2,4-Dinitrotoluene	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
2,6-Dinitrotoluene	mg/L	<0.000060	<0.000060	<0.000060	<0.000060	<0.000060	<0.000060
2-Chloronaphthalene	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
2-Methylnaphthalene	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	0.0029
4,6-Dinitro-2-methylphenol	mg/L	<0.000080	<0.000080	<0.000080	<0.000080	<0.000080	<0.000080
4-Nitrophenol	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Acenaphthene	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	0.026	0.0020
Acenaphthylene	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	0.0013	0.00012 J
Anthracene	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	0.00015 J
Benzo(a)anthracene	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Benzo(a)pyrene	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
bis(2-Chloroethoxy)methane	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
bis(2-Ethylhexyl)phthalate (DEHP)	mg/L	<0.00094 U	<0.00068 U	0.00023	0.00038	<0.00029 U	0.00096
Chrysene	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Dibenzofuran	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	0.00012 J	0.0024
Di-n-butylphthalate (DBP)	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	0.00014 J
Fluoranthene	mg/L	<0.000050	0.000075 J	0.00028	<0.000050	0.00053	0.000091 J
Fluorene	mg/L	<0.000050	<0.000050	0.00016 J	<0.000050	0.00020	0.00093
Naphthalene	mg/L	<0.000050	<0.000064 U	<0.000050	<0.000050	<0.00021 U	0.027

TABLE 3

**ANALYTICAL RESULTS SUMMARY
SEMI-ANNUAL SITE-WIDE GROUNDWATER MONITORING
UNION PACIFIC RAILROAD (UPRR)
HOUSTON WOOD PRESERVING WORKS
HOUSTON, TEXAS
FEBRUARY 2012**

	<i>Sample Location:</i>	<i>MW-59D</i>	<i>MW-59D</i>	<i>MW-60A</i>	<i>MW-61A</i>	<i>MW-62B</i>	<i>MW-63B</i>
	<i>Sample ID:</i>	WG-1620-MW59D-20120214	WG-1620-FD06-20120214	WG-1620-MW60A-20120207	WG-1620-MW61A-20120207	WG-1620-MW62B-20120208	WG-1620-MW63B-20120209
	<i>Sample Date:</i>	2/14/2012	2/14/2012	2/7/2012	2/7/2012	2/8/2012	2/9/2012
			<i>Duplicate</i>				
<i>Parameters</i>	<i>Units</i>						
<i>Semi-volatile Organic Compounds (Cont'd)</i>							
Nitrobenzene	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
N-Nitrosodiphenylamine	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Pentachlorophenol	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	0.00018 J
Phenanthrene	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	0.00014 J	0.00072 J
Phenol	mg/L	0.00014 J	0.000087 J	<0.000050	<0.000050	0.000053 J	0.00057 J
Pyrene	mg/L	<0.000050	0.000054 J	0.0013	<0.000050	0.00037	0.000063 J

Notes:

- J Estimated.
- JH Estimated. High Bias.
- JL Estimated. Low Bias.
- U Not Detected.
- UJ Not Detected, estimated reporting limit.
- UJL The analyte was not detected above the sample quantitation limit. The reported limit is an estimate quantity and may be biased low.

TABLE 3
ANALYTICAL RESULTS SUMMARY
SEMI-ANNUAL SITE-WIDE GROUNDWATER MONITORING
UNION PACIFIC RAILROAD (UPRR)
HOUSTON WOOD PRESERVING WORKS
HOUSTON, TEXAS
FEBRUARY 2012

<i>Sample Location:</i>	MW-63B	MW-64A	MW-65D	MW-66D	MW-67B	MW-68B
<i>Sample ID:</i>	WG-1620-FD05-20120209	WG-1620-MW64A-20120208	WG-1620-MW65D-20120214	WG-1620-MW66D-20120214	WG-1620-MW67B-20120209	WG-1620-MW68B-20120216
<i>Sample Date:</i>	2/9/2012	2/8/2012	2/14/2012	2/14/2012	2/9/2012	2/16/2012
<i>Parameters</i>	<i>Units</i>					
<i>Volatile Organic Compounds</i>						
1,2-Dichloroethane	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0050
Benzene	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	2.7
Chlorobenzene	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0050
Ethylbenzene	mg/L	0.0012 J	<0.0011	<0.0011	<0.0011	0.45
Methylene chloride	mg/L	<0.0013	<0.0013	<0.0013	<0.0013	<0.0065
Toluene	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	0.91
Vinyl chloride	mg/L	-	-	-	-	-
Xylenes (total)	mg/L	<0.0031	<0.0031	<0.0031	<0.0031	1.2
<i>Semi-volatile Organic Compounds</i>						
1,2-Diphenylhydrazine	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
2,4-Dimethylphenol	mg/L	0.00044 J	<0.000050	<0.000050	<0.000050	0.19
2,4-Dinitrotoluene	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
2,6-Dinitrotoluene	mg/L	<0.000060	<0.000060	<0.000060	<0.000060	<0.000060
2-Chloronaphthalene	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
2-Methylnaphthalene	mg/L	0.0029	0.00053 J	<0.000050 UJL	<0.000050	0.66
4,6-Dinitro-2-methylphenol	mg/L	<0.000080	<0.000080	<0.000080	<0.000080	<0.000080
4-Nitrophenol	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Acenaphthene	mg/L	0.0019	0.0096	<0.000050	<0.000050	0.15
Acenaphthylene	mg/L	0.00016 J	0.00050	<0.000050	<0.000050	0.0023
Anthracene	mg/L	0.00015 J	<0.000050	<0.000050	0.00027	0.046
Benzo(a)anthracene	mg/L	<0.000050	<0.000050	<0.000050	0.00012 J	0.0060
Benzo(a)pyrene	mg/L	<0.000050	<0.000050	<0.000050	0.00013 J	0.0017
bis(2-Chloroethoxy)methane	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
bis(2-Ethylhexyl)phthalate (DEHP)	mg/L	0.00073	<0.00013 U	<0.00013 U	<0.00020 U	<0.00010
Chrysene	mg/L	<0.000050	<0.000050	<0.000050	0.00052	0.0052
Dibenzofuran	mg/L	0.0019	<0.000050	<0.000050	<0.000050	0.19
Di-n-butylphthalate (DBP)	mg/L	<0.000050 UJ	<0.000050	<0.000050	<0.000050	<0.000050
Fluoranthene	mg/L	<0.000050 UJ	0.00021	<0.000050	0.00057	0.050
Fluorene	mg/L	0.00078	0.00012 J	<0.000050	<0.000050	0.096
Naphthalene	mg/L	0.026	<0.00063 U	<0.000050	<0.000050	14

TABLE 3

**ANALYTICAL RESULTS SUMMARY
SEMI-ANNUAL SITE-WIDE GROUNDWATER MONITORING
UNION PACIFIC RAILROAD (UPRR)
HOUSTON WOOD PRESERVING WORKS
HOUSTON, TEXAS
FEBRUARY 2012**

	<i>Sample Location:</i>	<i>MW-63B</i>	<i>MW-64A</i>	<i>MW-65D</i>	<i>MW-66D</i>	<i>MW-67B</i>	<i>MW-68B</i>
	<i>Sample ID:</i>	WG-1620-FD05-20120209	WG-1620-MW64A-20120208	WG-1620-MW65D-20120214	WG-1620-MW66D-20120214	WG-1620-MW67B-20120209	WG-1620-MW68B-20120216
	<i>Sample Date:</i>	2/9/2012	2/8/2012	2/14/2012	2/14/2012	2/9/2012	2/16/2012
		<i>Duplicate</i>					
<i>Parameters</i>	<i>Units</i>						
<i>Semi-volatile Organic Compounds (Cont'd)</i>							
Nitrobenzene	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
N-Nitrosodiphenylamine	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	0.0011
Pentachlorophenol	mg/L	<0.000050 UJ	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Phenanthrene	mg/L	0.00050 J	<0.000050	<0.000050	0.00011 J	0.00011 J	0.19
Phenol	mg/L	0.00095 J	<0.000050	<0.000050	<0.000050	0.000089 J	0.035
Pyrene	mg/L	<0.000050	0.00013 J	<0.000050	0.00051	<0.000050	0.031

Notes:

- J Estimated.
- JH Estimated. High Bias.
- JL Estimated. Low Bias.
- U Not Detected.
- UJ Not Detected, estimated reporting limit.
- UJL The analyte was not detected above the sample quantitation limit. The reported limit is an estimate quantity and may be biased low.

TABLE 3

ANALYTICAL RESULTS SUMMARY
SEMI-ANNUAL SITE-WIDE GROUNDWATER MONITORING
UNION PACIFIC RAILROAD (UPRR)
HOUSTON WOOD PRESERVING WORKS
HOUSTON, TEXAS
FEBRUARY 2012

		<i>MW-68C</i>	<i>MW-69A</i>	<i>MW-71B</i>	<i>MW-73B</i>	<i>MW-74B</i>	<i>MW-75B</i>
	<i>Sample Location:</i>	<i>MW-68C</i>	<i>MW-69A</i>	<i>MW-71B</i>	<i>MW-73B</i>	<i>MW-74B</i>	<i>MW-75B</i>
	<i>Sample ID:</i>	<i>WG-1620-MW68C-20120216</i>	<i>WG-1620-MW69A-20120208</i>	<i>WG-1620-MW71B-20120208</i>	<i>WG-1620-MW73B-02120202</i>	<i>WG-1620-MW74B-20120209</i>	<i>WG-1620-MW75B-20120208</i>
	<i>Sample Date:</i>	<i>2/16/2012</i>	<i>2/8/2012</i>	<i>2/8/2012</i>	<i>2/2/2012</i>	<i>2/9/2012</i>	<i>2/8/2012</i>
<i>Parameters</i>	<i>Units</i>						
<i>Volatile Organic Compounds</i>							
1,2-Dichloroethane	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.010	<0.010
Benzene	mg/L	0.0069	<0.0010	0.012	0.0097	0.35	0.61
Chlorobenzene	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.010	<0.010
Ethylbenzene	mg/L	<0.0011	<0.0011	0.0045 J	0.0059	0.086	0.13
Methylene chloride	mg/L	<0.0013	<0.0013	<0.0013	<0.0013	<0.013	<0.013
Toluene	mg/L	0.0019 J	<0.0010	0.0077	0.015	0.32	0.51
Vinyl chloride	mg/L	-	<0.0010	-	-	-	-
Xylenes (total)	mg/L	<0.0031	<0.0031	0.016	0.0059 J	0.25	0.41
<i>Semi-volatile Organic Compounds</i>							
1,2-Diphenylhydrazine	mg/L	<0.000050	<0.000050	<0.000050	<0.00050	<0.00050	<0.00050
2,4-Dimethylphenol	mg/L	0.00095	<0.000050	0.0034	0.0070	55	0.18
2,4-Dinitrotoluene	mg/L	<0.000050	<0.000050	<0.000050	<0.00050	<0.00050	<0.00050
2,6-Dinitrotoluene	mg/L	<0.000060	<0.000060	<0.000060	<0.00060	<0.00060	<0.00060
2-Chloronaphthalene	mg/L	<0.000050	<0.000050	<0.000050	<0.00050	<0.00050	<0.00050
2-Methylnaphthalene	mg/L	<0.00011 U	<0.000050	0.0076	0.00055 J	0.39	0.62
4,6-Dinitro-2-methylphenol	mg/L	<0.000080	<0.000080	<0.000080	<0.00080	<0.00080	<0.00080
4-Nitrophenol	mg/L	<0.000050	<0.000050	<0.000050	<0.00050	<0.00050	<0.00050
Acenaphthene	mg/L	<0.000050	<0.000050	0.0039	0.012	0.29	0.34
Acenaphthylene	mg/L	<0.000050	<0.000050	0.00019 J	0.0013 J	0.0058	0.013
Anthracene	mg/L	<0.000050	<0.000050	0.00056	<0.00050	0.037	0.035
Benzo(a)anthracene	mg/L	<0.000050	<0.000050	0.000081 J	<0.00050	<0.00050	0.00064 J
Benzo(a)pyrene	mg/L	<0.000050	<0.000050	0.00012 J	<0.00050	<0.00050	<0.00050
bis(2-Chloroethoxy)methane	mg/L	<0.000050	<0.000050	<0.000050	<0.00050	<0.00050	<0.00050
bis(2-Ethylhexyl)phthalate (DEHP)	mg/L	<0.0015 U	<0.00018 U	<0.0013 U	<0.0010	<0.0010	<0.0010
Chrysene	mg/L	<0.000050	<0.000050	0.000089 J	<0.00050	<0.00050	0.00062 J
Dibenzofuran	mg/L	<0.000078 U	<0.000050	0.0031	0.00078 J	0.25	0.29
Di-n-butylphthalate (DBP)	mg/L	<0.000050	<0.000050	<0.000050	<0.00050	<0.00050	<0.00050
Fluoranthene	mg/L	<0.000050	<0.000050	0.00053	0.010	0.0044	0.016
Fluorene	mg/L	<0.000050	<0.000050	0.0020	0.0041	0.17	0.19
Naphthalene	mg/L	<0.0015 U	<0.00029 U	0.051	0.0014 J	16	8.9

TABLE 3

**ANALYTICAL RESULTS SUMMARY
SEMI-ANNUAL SITE-WIDE GROUNDWATER MONITORING
UNION PACIFIC RAILROAD (UPRR)
HOUSTON WOOD PRESERVING WORKS
HOUSTON, TEXAS
FEBRUARY 2012**

<i>Sample Location:</i>	MW-68C	MW-69A	MW-71B	MW-73B	MW-74B	MW-75B
<i>Sample ID:</i>	WG-1620-MW68C-20120216	WG-1620-MW69A-20120208	WG-1620-MW71B-20120208	WG-1620-MW73B-02120202	WG-1620-MW74B-20120209	WG-1620-MW75B-20120208
<i>Sample Date:</i>	2/16/2012	2/8/2012	2/8/2012	2/2/2012	2/9/2012	2/8/2012

<i>Parameters</i>	<i>Units</i>						
<i>Semi-volatile Organic Compounds (Cont'd)</i>							
Nitrobenzene	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
N-Nitrosodiphenylamine	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Pentachlorophenol	mg/L	<0.000050	<0.000050	0.00022	<0.000050	<0.000050	<0.000050
Phenanthrene	mg/L	<0.000050	<0.000050	0.0025	0.00087 J	0.15	0.24
Phenol	mg/L	0.0074	<0.000050	0.00037	0.0053	43	0.0066
Pyrene	mg/L	<0.000050	<0.000050	0.00057	0.0077	0.0050	0.0098

Notes:

- J Estimated.
- JH Estimated. High Bias.
- JL Estimated. Low Bias.
- U Not Detected.
- UJ Not Detected, estimated reporting limit.
- UJL The analyte was not detected above the sample quantitation limit. The reported limit is an estimate quantity and may be biased low.

TABLE 3

**ANALYTICAL RESULTS SUMMARY
SEMI-ANNUAL SITE-WIDE GROUNDWATER MONITORING
UNION PACIFIC RAILROAD (UPRR)
HOUSTON WOOD PRESERVING WORKS
HOUSTON, TEXAS
FEBRUARY 2012**

	<i>Sample Location:</i>	<i>P-11</i>	<i>TW-41B</i>	<i>TW-56A</i>
	<i>Sample ID:</i>	WG-1620-P11-20120202	WG-1620-TW41B-20120201	WG-1620-TW56A-20120202
	<i>Sample Date:</i>	2/2/2012	2/1/2012	2/2/2012
<i>Parameters</i>	<i>Units</i>			
<i>Volatile Organic Compounds</i>				
1,2-Dichloroethane	mg/L	<0.0010	<0.0010	<0.010
Benzene	mg/L	<0.0010	<0.0010	0.15
Chlorobenzene	mg/L	<0.0010	<0.0010	<0.010
Ethylbenzene	mg/L	<0.0011	<0.0011	0.068
Methylene chloride	mg/L	<0.0013	<0.0013	<0.013
Toluene	mg/L	<0.0010	<0.0010	0.028 J
Vinyl chloride	mg/L	-	-	0.010 J
Xylenes (total)	mg/L	<0.0031	<0.0031	0.53
<i>Semi-volatile Organic Compounds</i>				
1,2-Diphenylhydrazine	mg/L	<0.000050	<0.000050	<0.00050
2,4-Dimethylphenol	mg/L	<0.000050	<0.000050 UJ	4.2
2,4-Dinitrotoluene	mg/L	<0.000050	<0.000050 UJ	<0.00050
2,6-Dinitrotoluene	mg/L	<0.000060	<0.000060 UJ	<0.00060
2-Chloronaphthalene	mg/L	<0.000050	<0.000050 UJ	<0.00050
2-Methylnaphthalene	mg/L	0.00023	<0.000050 UJ	0.11
4,6-Dinitro-2-methylphenol	mg/L	<0.000080	<0.000080	<0.00080
4-Nitrophenol	mg/L	<0.000050	<0.000050 UJ	<0.00050
Acenaphthene	mg/L	0.030	<0.000050 UJ	0.19
Acenaphthylene	mg/L	0.00020	<0.000050 UJ	0.0038
Anthracene	mg/L	0.0016	0.00016 J	0.020
Benzo(a)anthracene	mg/L	<0.000050	<0.000050	0.0016 J
Benzo(a)pyrene	mg/L	<0.000050	<0.000050	0.00051 J
bis(2-Chloroethoxy)methane	mg/L	<0.000050	<0.000050 UJ	<0.00050
bis(2-Ethylhexyl)phthalate (DEHP)	mg/L	<0.00013 U	<0.00023 U	<0.0010
Chrysene	mg/L	<0.000050	<0.000050	0.0018 J
Dibenzofuran	mg/L	0.0035	<0.000050 UJ	0.049
Di-n-butylphthalate (DBP)	mg/L	<0.000050	<0.000050	<0.00050
Fluoranthene	mg/L	0.0022	<0.000050	0.020
Fluorene	mg/L	0.011	<0.000050 UJ	0.058
Naphthalene	mg/L	0.0017	<0.00051 UJ	2.2

TABLE 3

**ANALYTICAL RESULTS SUMMARY
SEMI-ANNUAL SITE-WIDE GROUNDWATER MONITORING
UNION PACIFIC RAILROAD (UPRR)
HOUSTON WOOD PRESERVING WORKS
HOUSTON, TEXAS
FEBRUARY 2012**

<i>Sample Location:</i>	<i>P-11</i>	<i>TW-41B</i>	<i>TW-56A</i>
<i>Sample ID:</i>	WG-1620-P11-20120202	WG-1620-TW41B-20120201	WG-1620-TW56A-20120202
<i>Sample Date:</i>	2/2/2012	2/1/2012	2/2/2012

<i>Parameters</i>	<i>Units</i>			
<i>Semi-volatile Organic Compounds (Cont'd)</i>				
Nitrobenzene	mg/L	<0.000050	<0.000050 UJ	<0.000050
N-Nitrosodiphenylamine	mg/L	<0.000050	<0.000050	<0.000050
Pentachlorophenol	mg/L	<0.000050	<0.000050 UJ	<0.000050
Phenanthrene	mg/L	0.0045	<0.000050	0.20
Phenol	mg/L	<0.00015 U	0.000057 J	0.0063
Pyrene	mg/L	0.0013	<0.000050	0.015

Notes:

- J Estimated.
- JH Estimated. High Bias.
- JL Estimated. Low Bias.
- U Not Detected.
- UJ Not Detected, estimated reporting limit.
- UJL The analyte was not detected above the sample quantitation limit. The reported limit is an estimate quantity and may be biased low.

TABLE 4

**QUALIFIED SAMPLE RESULTS DUE TO ANALYTE CONCENTRATIONS IN THE RINSE BLANKS
SEMI-ANNUAL SITE-WIDE GROUNDWATER MONITORING
UNION PACIFIC RAILROAD (UPRR)
HOUSTON WOOD PRESERVING WORKS
HOUSTON, TEXAS
FEBRUARY 2012**

<i>Parameter</i>	<i>Rinse Blank Date</i>	<i>Analyte</i>	<i>Blank Result</i>	<i>Sample ID</i>	<i>Qualified Sample Result</i>	<i>Units</i>
SVOCs	02/01/12	bis(2-Ethylhexyl)phthalate (DEHP)	0.00015	WG-1620-MW12A-20120201	0.00027 U	mg/L
				WG-1620-MW16-20120201	0.00020 U	mg/L
				WG-1620-MW17C-20120201	0.0010 U	mg/L
				WG-1620-MW18A-20120201	0.0011 U	mg/L
				WG-1620-MW39B-20120201	0.00015 U	mg/L
				WG-1620-TW41B-20120201	0.00023 U	mg/L
SVOCs	02/01/12	Naphthalene	0.00048	WG-1620-MW12C-20120201	0.00054 U	mg/L
				WG-1620-MW39B-20120201	0.00034 U	mg/L
				WG-1620-TW41B-20120201	0.00051 U	mg/L
SVOCs	02/02/12	2,4-Dimethylphenol	0.0001	WG-1620-MW15B-20120202	0.00043 U	mg/L
SVOCs	02/02/12	bis(2-Ethylhexyl)phthalate (DEHP)	0.00015	WG-1620-DUP3-20120202	0.00013 U	mg/L
				WG-1620-DUP4-20120202	0.00022 U	mg/L
				WG-1620-MW21C-20120202	0.00010 U	mg/L
				WG-1620-MW09-20120202	0.00032 U	mg/L
				WG-1620-MW13-20120202	0.00043 U	mg/L
				WG-1620-P11-20120202	0.00013 U	mg/L
SVOCs	02/02/12	Naphthalene	0.00014	WG-1620-MW13-20120202	0.00022 U	mg/L
				WG-1620-MW14-20120202	0.00034 U	mg/L
				WG-1620-DUP4-20120202	0.00015 U	mg/L
SVOCs	02/02/12	Phenol	0.000062	WG-1620-MW09-20120202	0.000098 U	mg/L
				WG-1620-MW15B-20120202	0.00012 U	mg/L
				WG-1620-P11-20120202	0.00015 U	mg/L
SVOCs	02/03/12	Naphthalene	0.00031	WG-1620-MW42B-20120203	0.00063 U	mg/L

TABLE 4

**QUALIFIED SAMPLE RESULTS DUE TO ANALYTE CONCENTRATIONS IN THE RINSE BLANKS
SEMI-ANNUAL SITE-WIDE GROUNDWATER MONITORING
UNION PACIFIC RAILROAD (UPRR)
HOUSTON WOOD PRESERVING WORKS
HOUSTON, TEXAS
FEBRUARY 2012**

<i>Parameter</i>	<i>Rinse Blank Date</i>	<i>Analyte</i>	<i>Blank Result</i>	<i>Sample ID</i>	<i>Qualified Sample Result</i>	<i>Units</i>
SVOCs	02/08/12	bis(2-Ethylhexyl)phthalate (DEHP)	0.0009	WG-1620-MW19C-20120208	0.00022 U	mg/L
				WG-1620-MW34C-20120208	0.00053 U	mg/L
				WG-1620-MW36B-20120208	0.00033 U	mg/L
				WG-1620-MW62B-20120208	0.00029 U	mg/L
				WG-1620-MW64A-20120208	0.00013 U	mg/L
				WG-1620-MW69A-20120208	0.00018 U	mg/L
SVOCs	02/08/12	Naphthalene	0.00018	WG-1620-MW71B-20120208	0.0013 U	mg/L
				WG-1620-MW34C-20120208	0.00043 U	mg/L
				WG-1620-MW36B-20120208	0.00024 U	mg/L
				WG-1620-MW62B-20120208	0.00021 U	mg/L
				WG-1620-MW64A-20120208	0.00063 U	mg/L
				WG-1620-MW69A-20120208	0.00029 U	mg/L
SVOCs	02/14/12	bis(2-Ethylhexyl)phthalate (DEHP)	0.00028	WG-1620-FD06-20120214	0.00068 U	mg/L
				WG-1620-MW36D-20120214	0.0012 U	mg/L
				WG-1620-MW59D-20120214	0.00094 U	mg/L
				WG-1620-MW65D-20120214	0.00013 U	mg/L
				WG-1620-MW66D-20120214	0.00020 U	mg/L
SVOCs	02/14/12	Naphthalene	0.00021	WG-1620-FD06-20120214	0.000064 U	mg/L
				WG-1620-MW36D-20120214	0.000072 U	mg/L
SVOCs	02/15/12	bis(2-Ethylhexyl)phthalate (DEHP)	0.00012	WG-1620-DUP07-20120215	0.00084 U	mg/L
				WG-1620-MW22A-20120215	0.0011 U	mg/L
				WG-1620-MW22B-20120215	0.00051 U	mg/L
				WG-1620-MW33BR-20120215	0.00018 U	mg/L
				WG-1620-MW35A-20120215	0.00013 U	mg/L
				WG-1620-MW35B-20120215	0.00088 U	mg/L
				WG-1620-MW44A-20120215	0.00011 U	mg/L

TABLE 4

**QUALIFIED SAMPLE RESULTS DUE TO ANALYTE CONCENTRATIONS IN THE RINSE BLANKS
SEMI-ANNUAL SITE-WIDE GROUNDWATER MONITORING
UNION PACIFIC RAILROAD (UPRR)
HOUSTON WOOD PRESERVING WORKS
HOUSTON, TEXAS
FEBRUARY 2012**

<i>Parameter</i>	<i>Rinse Blank Date</i>	<i>Analyte</i>	<i>Blank Result</i>	<i>Sample ID</i>	<i>Qualified Sample Result</i>	<i>Units</i>
SVOCs	02/16/12	2-Methylnaphthalene	0.00017	WG-1620-MW28A-20120216	0.000066 U	mg/L
				WG-1620-MW68C-20120216	0.00011 U	mg/L
SVOCs	02/16/12	bis(2-Ethylhexyl)phthalate (DEHP)	0.00039	WG-1620-MW28C-20120216	0.00013 U	mg/L
				WG-1620-MW68C-20120216	0.0015 U	mg/L
SVOCs	02/16/12	Dibenzofuran	0.000098	WG-1620-MW28A-20120216	0.000051 U	mg/L
				WG-1620-MW68C-20120216	0.000078 U	mg/L
SVOCs	02/16/12	Naphthalene	0.002	WG-1620-MW28A-20120216	0.00093 U	mg/L
				WG-1620-MW28C-20120216	0.00031 U	mg/L
				WG-1620-MW68C-20120216	0.0015 U	mg/L

Notes:

SVOCs Semi-Volatile Organic Compounds.

U Not Detected.

TABLE 5

**QUALIFIED SAMPLE DATA DUE TO OUTLYING SURROGATE RECOVERIES
SEMI-ANNUAL SITE-WIDE GROUNDWATER MONITORING
UNION PACIFIC RAILROAD (UPRR)
HOUSTON WOOD PRESERVING WORKS
HOUSTON, TEXAS
FEBRUARY 2012**

<i>Parameter</i>	<i>Surrogate</i>	<i>Surrogate Recovery (percent)</i>	<i>Control Limits (percent)</i>	<i>Sample ID</i>	<i>Analytes</i>	<i>Qualified Sample Results</i>	<i>Units</i>
SVOCs	2-Fluorobiphenyl	38.1	40-125	WG-1620-MW35B-20120215	bis(2-Ethylhexyl)phthalate (DEHP)	0.00088 UJL	mg/L
	Nitrobenzene-d5	32.7	41-120		bis(2-Chloroethoxy)methane	0.000050 UJL	mg/L
					Anthracene	0.0048 JL	mg/L
					2,4-Dinitrotoluene	0.000050 UJL	mg/L
					1,2-Diphenylhydrazine	0.000050 UJL	mg/L
					Pyrene	0.0016 JL	mg/L
					Fluoranthene	0.0026 JL	mg/L
					Acenaphthylene	0.00063 JL	mg/L
					Chrysene	0.00010 JL	mg/L
					Benzo(a)pyrene	0.000050 UJL	mg/L
					Benzo(a)anthracene	0.00011 JL	mg/L
					2,6-Dinitrotoluene	0.000060 UJL	mg/L
					Di-n-butylphthalate (DBP)	0.000050 UJL	mg/L
					N-Nitrosodiphenylamine	0.000050 UJL	mg/L
					2-Chloronaphthalene	0.000050 UJL	mg/L
			Nitrobenzene	0.000050 UJL	mg/L		

Notes:

JL Estimated. Low Bias.

SVOCs Semi-Volatile Organic Compounds.

UJL The analyte was not detected above the sample quantitation limit. The reported quantitation limit is an estimated quantity and may be biased low.

TABLE 6

**QUALIFIED SAMPLE RESULTS DUE TO OUTLYING INTERNAL STANDARD (IS) RECOVERIES
SEMI-ANNUAL SITE-WIDE GROUNDWATER MONITORING
UNION PACIFIC RAILROAD (UPRR)
HOUSTON WOOD PRESERVING WORKS
HOUSTON, TEXAS
FEBRUARY 2012**

<i>Parameter</i>	<i>Sample ID</i>	<i>IS</i>	<i>IS Area Count (percent)</i>	<i>Control Limits (percent)</i>	<i>Analytes</i>	<i>Qualified Sample Results</i>	<i>Units</i>
SVOCs	WG-1620-MW39B-20120201	1,4-Dichlorobenzene Acenaphthene-d10 Naphthalene-d8	< 50% < 50% < 50%	50-200 50-200 50-200	2,4-Dimethylphenol	0.000050 UJ	mg/L
					2,4-Dinitrotoluene	0.000050 UJ	mg/L
					2,6-Dinitrotoluene	0.000060 UJ	mg/L
					2-Chloronaphthalene	0.000050 UJ	mg/L
					2-Methylnaphthalene	0.000050 UJ	mg/L
					4-Nitrophenol	0.000050 UJ	mg/L
					Acenaphthene	0.0011 JH	mg/L
					Acenaphthylene	0.000050 UJ	mg/L
					bis(2-Chloroethoxy)methane	0.000050 UJ	mg/L
					Dibenzofuran	0.00040 JH	mg/L
					Fluorene	0.00032 JH	mg/L
					Naphthalene	0.00034 UJ	mg/L
					Nitrobenzene	0.000050 UJ	mg/L
					Pentachlorophenol	0.000050 UJ	mg/L
SVOCs	WG-1620-TW41B-20120201	1,4-Dichlorobenzene Acenaphthene-d10 Naphthalene-d8	< 50% < 50% < 50%	50-200 50-200 50-200	2,4-Dimethylphenol	0.000050 UJ	mg/L
					2,4-Dinitrotoluene	0.000050 UJ	mg/L
					2,6-Dinitrotoluene	0.000060 UJ	mg/L
					2-Chloronaphthalene	0.000050 UJ	mg/L
					2-Methylnaphthalene	0.000050 UJ	mg/L
					4-Nitrophenol	0.000050 UJ	mg/L
					Acenaphthene	0.000050 UJ	mg/L
					Acenaphthylene	0.000050 UJ	mg/L
					bis(2-Chloroethoxy)methane	0.000050 UJ	mg/L
					Dibenzofuran	0.000050 UJ	mg/L
					Fluorene	0.000050 UJ	mg/L
					Naphthalene	0.00051 UJ	mg/L
					Nitrobenzene	0.000050 UJ	mg/L
					Pentachlorophenol	0.000050 UJ	mg/L
SVOCs	WG-1620-MW32B-20120209	All Internal Standards Except Naphthalene-d8	< 50%	50-200	Ethylbenzene	0.53 JH	mg/L
					1,2-Dichloroethane	0.025 UJ	mg/L
					Toluene	2.2 JH	mg/L

TABLE 6

**QUALIFIED SAMPLE RESULTS DUE TO OUTLYING INTERNAL STANDARD (IS) RECOVERIES
SEMI-ANNUAL SITE-WIDE GROUNDWATER MONITORING
UNION PACIFIC RAILROAD (UPRR)
HOUSTON WOOD PRESERVING WORKS
HOUSTON, TEXAS
FEBRUARY 2012**

<i>Parameter</i>	<i>Sample ID</i>	<i>IS</i>	<i>IS Area Count (percent)</i>	<i>Control Limits (percent)</i>	<i>Analytes</i>	<i>Qualified Sample Results</i>	<i>Units</i>
SVOCs (cont'd)	WG-1620-MW32B-20120209	All Internal Standards Except Naphthalene-d8	< 50%	50-200	Chlorobenzene	0.025 UJ	mg/L
					Xylenes (total)	1.5 JH	mg/L
					Benzene	2.6 JH	mg/L
					Methylene chloride	0.032 UJ	mg/L
					4-Nitrophenol	0.00050 UJ	mg/L
					bis(2-Ethylhexyl)phthalate (DEHP)	0.0010 UJ	mg/L
					Anthracene	0.059 JH	mg/L
					2,4-Dinitrotoluene	0.00050 UJ	mg/L
					1,2-Diphenylhydrazine	0.00050 UJ	mg/L
					Pyrene	0.020 JH	mg/L
					Fluoranthene	0.030 JH	mg/L
					Acenaphthylene	0.0059 JH	mg/L
					Chrysene	0.0042 JH	mg/L
					Benzo(a)pyrene	0.00050 UJ	mg/L
					4,6-Dinitro-2-methylphenol	0.00080 UJ	mg/L
					Benzo(a)anthracene	0.0033 JH	mg/L
					2,6-Dinitrotoluene	0.00060 UJ	mg/L
					Di-n-butylphthalate (DBP)	0.00050 UJ	mg/L
					N-Nitrosodiphenylamine	0.00050 UJ	mg/L
					Pentachlorophenol	0.00050 UJ	mg/L
					2-Chloronaphthalene	0.00050 UJ	mg/L
					Dibenzofuran	0.28 JH	mg/L
					Acenaphthene	0.28 JH	mg/L
Phenanthrene	0.25 JH	mg/L					
Fluorene	0.15 JH	mg/L					
Phenol	38 JH	mg/L					
SVOCs	WG-1620-MW34C-20120208	All Internal Standards	< 50%	50-200	bis(2-Ethylhexyl)phthalate (DEHP)	0.00053 UJ	mg/L
					Ethylbenzene	0.0039 JH	mg/L
					1,2-Dichloroethane	0.0010 UJ	mg/L
					Toluene	0.0041 JH	mg/L
					Chlorobenzene	0.0010 UJ	mg/L
					Xylenes (total)	0.0077 JH	mg/L
					Benzene	0.0014 JH	mg/L
					Methylene chloride	0.0013 UJ	mg/L

TABLE 6

**QUALIFIED SAMPLE RESULTS DUE TO OUTLYING INTERNAL STANDARD (IS) RECOVERIES
SEMI-ANNUAL SITE-WIDE GROUNDWATER MONITORING
UNION PACIFIC RAILROAD (UPRR)
HOUSTON WOOD PRESERVING WORKS
HOUSTON, TEXAS
FEBRUARY 2012**

<i>Parameter</i>	<i>Sample ID</i>	<i>IS</i>	<i>IS Area Count (percent)</i>	<i>Control Limits (percent)</i>	<i>Analytes</i>	<i>Qualified Sample Results</i>	<i>Units</i>
SVOCs (cont'd)	WG-1620-MW34C-20120208	All Internal Standards	< 50%	50-200	4-Nitrophenol	0.000050 UJ	mg/L
					2,4-Dimethylphenol	0.00022 JH	mg/L
					Phenol	0.000072 JH	mg/L
					bis(2-Chloroethoxy)methane	0.000050 UJ	mg/L
					Anthracene	0.000050 UJ	mg/L
					2,4-Dinitrotoluene	0.000050 UJ	mg/L
					1,2-Diphenylhydrazine	0.000050 UJ	mg/L
					Pyrene	0.00021 JH	mg/L
					Dibenzofuran	0.000071 JH	mg/L
					Fluoranthene	0.00017 JH	mg/L
					Acenaphthylene	0.000050 UJ	mg/L
					Chrysene	0.000050 UJ	mg/L
					Benzo(a)pyrene	0.000050 UJ	mg/L
					4,6-Dinitro-2-methylphenol	0.000080 UJ	mg/L
					Benzo(a)anthracene	0.000050 UJ	mg/L
					2,6-Dinitrotoluene	0.000060 UJ	mg/L
					Acenaphthene	0.000050 UJ	mg/L
					Di-n-butylphthalate (DBP)	0.000050 UJ	mg/L
					Phenanthrene	0.00010 JH	mg/L
					N-Nitrosodiphenylamine	0.000050 UJ	mg/L
					Fluorene	0.00011 JH	mg/L
					Pentachlorophenol	0.000050 UJ	mg/L
					2-Methylnaphthalene	0.00011 JH	mg/L
					2-Chloronaphthalene	0.000050 UJ	mg/L
					Nitrobenzene	0.000050 UJ	mg/L
					Naphthalene	0.00043 UJ	mg/L

Notes:

JH Estimated. High Bias.

IS Internal Standard.

SVOCs Semi-Volatile Organic Compounds.

UJ The analyte was not detected above the sample quantitation limit. The reported quantitation limit is an estimated quantity.

TABLE 7

**QUALIFIED SAMPLE RESULTS DUE TO OUTLYING MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERIES
SEMI-ANNUAL SITE-WIDE GROUNDWATER MONITORING
UNION PACIFIC RAILROAD (UPRR)
HOUSTON WOOD PRESERVING WORKS
HOUSTON, TEXAS
FEBRUARY 2012**

Parameter	Associated Sample ID	Analyte	MS Recovery (percent)	MSD Recovery (percent)	RPD	Control Limits		Qualified Sample Result	Units
						Recovery (percent)	RPD (percent)		
SVOCs	WG-1620-MW13-20120202	2-Chloronaphthalene	42.1	65	42.9	50-120	0-20	0.000050 UJL	mg/L
		2-Methylnaphthalene	42.4	56.2	27.9	50-120	0-20	0.000050 UJL	mg/L
		Anthracene	48.7	91.1	24.2	45-120	0-20	0.000068 J	mg/L
		Benzo(a)anthracene	57.2	71.9	21.8	40-120	0-20	0.00014 J	mg/L
		Benzo(a)pyrene	65.7	84.3	24.3	45-120	0-20	0.000073 J	mg/L
		bis(2-Chloroethoxy)methane	38.8	50	25.2	45-120	0-20	0.000050 UJL	mg/L
		bis(2-Ethylhexyl)phthalate (DEHP)	61.9	84.3	27.5	40-139	0-20	0.00043 J	mg/L
		Chrysene	72.3	91.5	22.5	43-120	0-20	0.00017 J	mg/L
		Dibenzofuran	49.6	74.6	39.5	50-120	0-20	0.000063 JL	mg/L
		Fluoranthene	66.6	83.3	21.4	45-125	0-20	0.00015 J	mg/L
		Naphthalene	37.7	50.5	26.6	45-120	0-20	0.00022 UJL	mg/L
		Nitrobenzene	43.3	61.6	34.8	44-120	0-20	0.000050 UJL	mg/L
		Pyrene	64.4	84.7	25.9	40-130	0-20	0.00020 J	mg/L
SVOCs	WG-1620-MW67B-20120209	2,4-Dimethylphenol	77.1	53.8	31	35-120	0-20	0.00050 J	mg/L
		Phenol	65	48.5	28.2	20-124	0-20	0.000089 J	mg/L
		2-Methylnaphthalene	79	62.4	21.9	50-120	0-20	0.00023 J	mg/L
SVOCs	WG-1620-MW65D-20120214	2-Methylnaphthalene	46.1	56.7	20.6	50-120	0-20	0.000050 UJL	mg/L

Notes:

J Estimated.

JL Estimated. Low Bias.

MS Matrix Spike.

MSD Matrix Spike Duplicate.

RPD Relative Percent Difference.

SVOCs Semi-Volatile Organic Compounds.

UJL The analyte was not detected above the sample quantitation limit. The reported quantitation limit is an estimated quantity and may be biased low.

TABLE 8

**QUALIFIED SAMPLE RESULTS DUE TO VARIABILITY IN FIELD DUPLICATE RESULTS
SEMI-ANNUAL SITE-WIDE GROUNDWATER MONITORING
UNION PACIFIC RAILROAD (UPRR)
HOUSTON WOOD PRESERVING WORKS
HOUSTON, TEXAS
FEBRUARY 2012**

<i>Parameter</i>	<i>Analyte</i>	<i>Original Sample ID</i>	<i>Qualified Sample Result</i>	<i>Duplicate Sample ID</i>	<i>Qualified Sample Result</i>	<i>RPD</i>	<i>Units</i>
SVOCs	2,4-Dimethylphenol	WG-1620-MW14-20120202	0.000050 UJ	WG-1620-DUP3-20120202	0.0013 J	185	mg/L
	2-Methylnaphthalene		0.000064 J		0.00017 J	91	mg/L
	Acenaphthene		0.000050 UJ		0.00015 J	100	mg/L
	Naphthalene		0.00034 UJ		0.0014 J	122	mg/L
	Phenol		0.000050 UJ		0.00075 J	175	mg/L
SVOCs	Naphthalene	WG-1620-MW21C-20120202	0.00093 J	WG-1620-DUP4-20120202	0.00015 UJ	144	mg/L
SVOCs	2,4-Dimethylphenol	WG-1620-MW63B-20120209	0.000050 UJ	WG-1620-FD05-20120209	0.00044 J	159	mg/L
	Di-n-butylphthalate (DBP)		0.00014 J		0.000050 UJ	95	mg/L
	Fluoranthene		0.000091 J		0.00005 UJ	58	mg/L
	Pentachlorophenol		0.00018 J		0.000050 UJ	113	mg/L
	Phenanthrene		0.00072 J		0.00050 J	36	mg/L
	Phenol		0.00057 J		0.00095 J	50	mg/L
SVOCs	2,4-Dimethylphenol	WG-1620-MW33A-20120215	0.029 J	WG-1620-DUP07-20120215	0.019 J	42	mg/L
	bis(2-Ethylhexyl)phthalate (DEHP)		0.0013 J		0.00084 UJ	43	mg/L
	Dibenzofuran		0.019 J		0.026 J	31	mg/L
	Naphthalene		0.96 J		1.6 J	50	mg/L
SVOCs	Phenol	WG-1620-MW59D-20120214	0.00014 J	WG-1620-FD06-20120214	0.000087 J	47	mg/L

Notes:

J Estimated.

RPD Relative Percent Difference.

SVOCs Semi-Volatile Organic Compounds.

UJ The analyte was not detected above the sample quantitation limit. The reported quantitation limit is an estimated quantity.



13-Feb-2012

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Tel: (512) 671-3434
Fax: (512) 671-3446

Re: HWPW Site-Wide GW

Work Order: **1202096**

Dear Eric,

ALS Environmental received 39 samples on 01-Feb-2012 through 03-Feb-2012 for the analyses presented in the following report.

The analytical data provided relates directly to the samples received by ALS Environmental and for only the analyses requested. Results are expressed as "as received" unless otherwise noted.

QC sample results for this data met EPA or laboratory specifications except as noted in the Case Narrative or as noted with qualifiers in the QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained by ALS Environmental. Samples will be disposed in 30 days unless storage arrangements are made.

The total number of pages in this report is 115.

If you have any questions regarding this report, please feel free to call me.

Sincerely,

A handwritten signature in cursive script that reads "Patricia L. Lynch".

Electronically approved by: Mary K. Knowles

Patricia L. Lynch
Project Manager



Certificate No: TX: T104704231-11-5

ADDRESS 10450 Standliff Rd, Suite 210 Houston, Texas 77099-4338 | PHONE (281) 530-5656 | FAX (281) 530-5887

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RIGHT SOLUTIONS RIGHT PARTNER

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Work Order: 1202096

**TRRP Laboratory Data
Package Cover Page**

This data package consists of all or some of the following as applicable:

This signature page, the laboratory review checklist, and the following reportable data:

- R1 Field chain-of-custody documentation;
- R2 Sample identification cross-reference;
- R3 Test reports (analytical data sheets) for each environmental sample that includes:
 - a) Items consistent with NELAC Chapter 5,
 - b) dilution factors,
 - c) preparation methods,
 - d) cleanup methods, and
 - e) if required for the project, tentatively identified compounds (TICs).
- R4 Surrogate recovery data including:
 - a) Calculated recovery (%R), and
 - b) The laboratory's surrogate QC limits.
- R5 Test reports/summary forms for blank samples;
- R6 Test reports/summary forms for laboratory control samples (LCSs) including:
 - a) LCS spiking amounts,
 - b) Calculated %R for each analyte, and
 - c) The laboratory's LCS QC limits.
- R7 Test reports for project matrix spike/matrix spike duplicates (MS/MSDs) including:
 - a) Samples associated with the MS/MSD clearly identified,
 - b) MS/MSD spiking amounts,
 - c) Concentration of each MS/MSD analyte measured in the parent and spiked samples,
 - d) Calculated %Rs and relative percent differences (RPDs), and
 - e) The laboratory's MS/MSD QC limits.
- R8 Laboratory analytical duplicate (if applicable) recovery and precision:
 - a) the amount of analyte measured in the duplicate,
 - b) the calculated RPD, and
 - c) the laboratory's QC limits for analytical duplicates.
- R9 List of method quantitation limits (MQLs) and detectability check sample results for each analyte for each method and matrix.
- R10 Other problems or anomalies.
The Exception Report for each "No" or "Not Reviewed (NR)" item in Laboratory Review Checklist and for each analyte, matrix, and method for which the laboratory does not hold NELAC accreditation under the Texas Laboratory Accreditation Program.

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Work Order: 1202096

**TRRP Laboratory Data
Package Cover Page**

Release Statement: I am responsible for the release of this laboratory data package. This laboratory is NELAC accredited under the Texas Laboratory Accreditation Program for all the methods, analytes and matrices reported in this data package except as noted in the Exception Reports. The data have been reviewed and are technically compliant with the requirements of the methods used, except where noted by the laboratory in the attached exception reports. By my signature below, I affirm to the best of my knowledge, all problems/anomalies, observed by the laboratory have been identified by the laboratory in the Laboratory Review Checklist, and no information affecting the quality of the data has been knowingly withheld.

Check, if applicable: [NA] This laboratory meets an exception under 30 TAC §25.6 and was last inspected by TCEQ or _____ on (enter date of last inspection). Any findings affecting the data in this laboratory data package are noted in the Exception Reports herein. The official signing the cover page of the report in which these data are used is responsible for releasing this data package and is by signature affirming the above release statement is true.

Patricia L. Lynch

Patricia L. Lynch
Project Manager

Laboratory Review Checklist: Reportable Data

Laboratory Name: ALS Laboratory Group		LRC Date: 2/13/2012					
Project Name: HWPW Site-Wide GW		Laboratory Job Number: 1202096					
Reviewer Name: Patricia L. Lynch		Prep Batch Number(s): 58686, 58691, R122836, R122842, R122878, R122892, R123047, R123114, R123230					
# ¹	A ²	Description	Yes	No	NA ³	NR ⁴	ER# ⁵
R1	OI	Chain-of-custody (C-O-C)					
		Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?	X				
		Were all departures from standard conditions described in an exception report?	X				
R2	OI	Sample and quality control (QC) identification					
		Are all field sample ID numbers cross-referenced to the laboratory ID numbers?	X				
		Are all laboratory ID numbers cross-referenced to the corresponding QC data?	X				
R3	OI	Test reports					
		Were all samples prepared and analyzed within holding times?	X				
		Other than those results < MQL, were all other raw values bracketed by calibration standards?	X				
		Were calculations checked by a peer or supervisor?	X				
		Were all analyte identifications checked by a peer or supervisor?	X				
		Were sample detection limits reported for all analytes not detected?	X				
		Were all results for soil and sediment samples reported on a dry weight basis?			X		
		Were % moisture (or solids) reported for all soil and sediment samples?			X		
		Were bulk soils/solids samples for volatile analysis extracted with methanol per SW-846 Method 5035?			X		
		If required for the project, TICs reported?			X		
R4	O	Surrogate recovery data					
		Were surrogates added prior to extraction?	X				
		Were surrogate percent recoveries in all samples within the laboratory QC limits?		X			1
R5	OI	Test reports/summary forms for blank samples					
		Were appropriate type(s) of blanks analyzed?	X				
		Were blanks analyzed at the appropriate frequency?	X				
		Were method blanks taken through the entire analytical process, including preparation and, if applicable, cleanup procedures?	X				
		Were blank concentrations < MQL?	X				
R6	OI	Laboratory control samples (LCS):					
		Were all COCs included in the LCS?	X				
		Was each LCS taken through the entire analytical procedure, including prep and cleanup steps?	X				
		Were LCSs analyzed at the required frequency?	X				
		Were LCS (and LCSD, if applicable) %Rs within the laboratory QC limits?	X				
		Does the detectability data document the laboratory's capability to detect the COCs at the MDL used to calculate the SDLs?	X				
		Was the LCSD RPD within QC limits?		X			2
R7	OI	Matrix spike (MS) and matrix spike duplicate (MSD) data					
		Were the project/method specified analytes included in the MS and MSD?	X				
		Were MS/MSD analyzed at the appropriate frequency?		X			3
		Were MS (and MSD, if applicable) %Rs within the laboratory QC limits?		X			4
		Were MS/MSD RPDs within laboratory QC limits?		X			5
R8	OI	Analytical duplicate data					
		Were appropriate analytical duplicates analyzed for each matrix?	X				
		Were analytical duplicates analyzed at the appropriate frequency?	X				
		Were RPDs or relative standard deviations within the laboratory QC limits?	X				
R9	OI	Method quantitation limits (MQLs):					
		Are the MQLs for each method analyte included in the laboratory data package?	X				
		Do the MQLs correspond to the concentration of the lowest non-zero calibration standard?	X				
		Are unadjusted MQLs and DCSs included in the laboratory data package?	X				
R10	OI	Other problems/anomalies					
		Are all known problems/anomalies/special conditions noted in this LRC and ER?	X				
		Were all necessary corrective actions performed for the reported data?	X				
		Was applicable and available technology used to lower the SDL and minimize the matrix interference affects on the sample results?		X			6
		Is the laboratory NELAC-accredited under the Texas Laboratory Program for the analytes, matrices and methods associated with this laboratory data package?	X				

Laboratory Review Checklist: Reportable Data

Laboratory Name: ALS Laboratory Group		LRC Date: 2/13/2012					
Project Name: HWPW Site-Wide GW		Laboratory Job Number: 1202096					
Reviewer Name: Patricia L. Lynch		Prep Batch Number(s): 58686, 58691, R122836, R122842, R122878, R122892, R123047, R123114, R123230					
# ¹	A ²	Description	Yes	No	NA ³	NR ⁴	ER# ⁵
S1	OI	Initial calibration (ICAL)					
		Were response factors and/or relative response factors for each analyte within QC limits?	X				
		Were percent RSDs or correlation coefficient criteria met?	X				
		Was the number of standards recommended in the method used for all analytes?	X				
		Were all points generated between the lowest and highest standard used to calculate the curve?	X				
		Are ICAL data available for all instruments used?	X				
		Has the initial calibration curve been verified using an appropriate second source standard?	X				
S2	OI	Initial and continuing calibration verification (ICCV and CCV) and continuing calibration blank (CCB)					
		Was the CCV analyzed at the method-required frequency?	X				
		Were percent differences for each analyte within the method-required QC limits?		X			7
		Was the ICAL curve verified for each analyte?	X				
		Was the absolute value of the analyte concentration in the inorganic CCB < MDL?	X				
S3	O	Mass spectral tuning:					
		Was the appropriate compound for the method used for tuning?	X				
		Were ion abundance data within the method-required QC limits?	X				
S4	O	Internal standards (IS):					
		Were IS area counts and retention times within the method-required QC limits?		X			8
S5	OI	Raw data (NELAC section 1 appendix A glossary, and section 5.12 or ISO/IEC 17025 section					
		Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?	X				
		Were data associated with manual integrations flagged on the raw data?	X				
S6	O	Dual column confirmation					
		Did dual column confirmation results meet the method-required QC?			X		
S7	O	Tentatively identified compounds (TICs):					
		If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?			X		
S8	I	Interference Check Sample (ICS) results:					
		Were percent recoveries within method QC limits?	X				
S9	I	Serial dilutions, post digestion spikes, and method of standard additions					
		Were percent differences, recoveries, and the linearity within the QC limits specified in the method?	X				
S10	OI	Method detection limit (MDL) studies					
		Was a MDL study performed for each reported analyte?	X				
		Is the MDL either adjusted or supported by the analysis of DCSs?	X				
S11	OI	Proficiency test reports:					
		Was the laboratory's performance acceptable on the applicable proficiency tests or evaluation studies?	X				
S12	OI	Standards documentation					
		Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?	X				
S13	OI	Compound/analyte identification procedures					
		Are the procedures for compound/analyte identification documented?	X				
S14	OI	Demonstration of analyst competency (DOC)					
		Was DOC conducted consistent with NELAC Chapter 5C or ISO/IEC 4?	X				
		Is documentation of the analyst's competency up-to-date and on file?	X				
S15	OI	Verification/validation documentation for methods (NELAC Chap 5 or ISO/IEC 17025 Section 5)					
		Are all the methods used to generate the data documented, verified, and validated, where applicable?	X				
S16	OI	Laboratory standard operating procedures (SOPs):					
		Are laboratory SOPs current and on file for each method performed?	X				

Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.

O = Organic Analyses; I = Inorganic Analyses (and general chemistry, when applicable);

NA = Not Applicable;

NR = Not Reviewed;

R# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

Laboratory Review Checklist: Reportable Data

Laboratory Name: ALS Laboratory Group	LRC Date: 2/13/2012
Project Name: HWPW Site-Wide GW	Laboratory Job Number: 1202096
Reviewer Name: Patricia L. Lynch	Prep Batch Number(s): 58686, 58691, R122836, R122842, R122878, R122892, R123047, R123114, R123230

ER# ⁵	Description
1	<p>Low-Level Semivolatile Organics: Surrogate recoveries in many samples were diluted out in the higher dilutions, but were in control I the lower dilutions.</p> <p>Low-Level Semivolatile Organics: Surrogate recovery (2-fluorbiphenyl) was marginally below the control limits for sample WG-1620-MW21C-20120202. Result was confirmed as matrix interference by re-analysis at dilution.</p> <p>Volatile Organics: Surrogate recovery (4-bromofluorobenzene) was marginally below the control limits for sample WG-1620-MW18C-20120202. Result was confirmed as matrix interference by re-analysis at dilution.</p>
2	Batch 58686, Low-Level Semivolatile Organics: LCS/ LCSD RPDs were above the control limits for 4,6-dinitro-2-methylphenol and N-nitrosodiphenylamine. The individual recoveries were in control.
3	Batch 58691, Low-Level Semivolatile Organics, Insufficient sample to perform MS/MSD. LCS/LCSD analyses were performed.
4	<p>Batch 58686, Low-Level Semivolatile Organics, Sample WG-1620-MW13-20120202: MS/ recoveries were below the control limits for several target compounds. The associated LCS recoveries were within the control limits.</p> <p>Batch R122836, Volatile Organics, Sample 1202006-06 : MS/MSD is for an unrelated sample.</p> <p>Batch R122842, Volatile Organics, Sample 1202006-01 : MS/MSD is for an unrelated sample.</p> <p>Batch R122892, Volatile Organics, Sample WG-1620-MW13-20120202 : MSD recoveries for ethylbenzene and vinyl chloride were below the control limits. The associated LCS and MS recoveries were in control.</p>
5	<p>Batch 58686, Low-Level Semivolatile Organics, Sample WG-1620-MW13-20120202: MS/MSD RPDs were above the control limits for numerous target compounds.</p> <p>Batch R122842, Volatile Organics, Sample 1202006-01 : MS/MSD RPDs are for an unrelated sample.</p> <p>Batch R122892, Volatile Organics, Sample WG-1620-MW13-20120202: MS/MSD RPDs were above the control limits for methylene chloride and vinyl chloride.</p>
6	<p>Low-Level Semivolatile Organics: Many samples could not be analyzed at a lower dilution due to matrix interference.</p> <p>Naphthalene was detected in WG-1602-FB01-20120201 and WG-1602-FB03-20120202 at concentrations that are above the MQLs. This compound was non-detect in the associated method blanks. The extracts were reanalyzed and the results were confirmed.</p>
7	Batch R122892, Volatile Organics : CCV %D was above the control limits for toluene-d8.
8	Semivolatile Organics : Internal standard recoveries for 1,4-dichlorobenzene, acenaphthene-d10 and naphthalene-d8 were below the control limits for samples WG-1620-MW39B-20120201 and WG-1620-TW41B-20120201. Reanalysis confirms matrix interference.

Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.

O = Organic Analyses; I = Inorganic Analyses (and general chemistry, when applicable);

NA = Not Applicable;

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Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Work Order: 1202096

Work Order Sample Summary

<u>Lab Samp ID</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Tag Number</u>	<u>Collection Date</u>	<u>Date Received</u>	<u>Hold</u>
1202096-01	WG-1620-MW18A-20120201	Water		2/1/2012 10:40	2/1/2012 17:55	<input type="checkbox"/>
1202096-02	WG-1620-MW18C-20120201	Water		2/1/2012 13:10	2/1/2012 17:55	<input type="checkbox"/>
1202096-03	WG-1620-MW17-20120201	Water		2/1/2012 14:10	2/1/2012 17:55	<input type="checkbox"/>
1202096-04	WG-1620-MW17C-20120201	Water		2/1/2012 14:50	2/1/2012 17:55	<input type="checkbox"/>
1202096-05	WG-1620-MW20A-20120201	Water		2/1/2012 15:50	2/1/2012 17:55	<input type="checkbox"/>
1202096-06	WG-1620-MW16-10120201	Water		2/1/2012 16:40	2/1/2012 17:55	<input type="checkbox"/>
1202096-07	WG-1620-TB01-20120201	Water		2/1/2012 16:20	2/1/2012 17:55	<input type="checkbox"/>
1202096-08	WG-1620-MW39B-20120201	Water		2/1/2012 13:15	2/1/2012 17:55	<input type="checkbox"/>
1202096-09	WG-1620-MW12C-20120201	Water		2/1/2012 14:15	2/1/2012 17:55	<input type="checkbox"/>
1202096-10	WG-1620-MW12A-20120201	Water		2/1/2012 15:20	2/1/2012 17:55	<input type="checkbox"/>
1202096-11	WG-1620-TW41B-20120201	Water		2/1/2012 16:30	2/1/2012 17:55	<input type="checkbox"/>
1202096-12	WG-1620-FB01-20120201	Water		2/1/2012 16:45	2/1/2012 17:55	<input type="checkbox"/>
1202096-13	WG-1620-MW15A-20120202	Water		2/2/2012 07:30	2/2/2012 17:55	<input type="checkbox"/>
1202096-14	WG-1620-MW15C-20120202	Water		2/2/2012 08:20	2/2/2012 17:55	<input type="checkbox"/>
1202096-15	WG-1620-MW15B-20120202	Water		2/2/2012 09:15	2/2/2012 17:55	<input type="checkbox"/>
1202096-16	WG-1620-MW14-20120202	Water		2/2/2012 10:05	2/2/2012 17:55	<input type="checkbox"/>
1202096-17	WG-1620-DUP3-20120202	Water		2/2/2012 10:05	2/2/2012 17:55	<input type="checkbox"/>
1202096-18	WG-1620-MW13-20120202	Water		2/2/2012 11:25	2/2/2012 17:55	<input type="checkbox"/>
1202096-19	WG-1620-TB02-20120202	Water		2/2/2012 12:05	2/2/2012 17:55	<input type="checkbox"/>
1202096-20	WG-1620-MW05-20120202	Water		2/2/2012 13:15	2/2/2012 17:55	<input type="checkbox"/>
1202096-21	WG-1620-MW55B-20120202	Water		2/2/2012 09:10	2/2/2012 17:55	<input type="checkbox"/>
1202096-22	WG-1620-MW73B-02120202	Water		2/2/2012 10:05	2/2/2012 17:55	<input type="checkbox"/>
1202096-23	WG-1620-MW57A-20120202	Water		2/2/2012 11:00	2/2/2012 17:55	<input type="checkbox"/>
1202096-24	WG-1620-MW23C-20120202	Water		2/2/2012 11:50	2/2/2012 17:55	<input type="checkbox"/>
1202096-25	WG-1620-TW56A-20120202	Water		2/2/2012 13:05	2/2/2012 17:55	<input type="checkbox"/>
1202096-26	WG-1620-FB02-20120202	Water		2/2/2012 13:30	2/2/2012 17:55	<input type="checkbox"/>
1202096-27	WG-1620-MW21C-20120202	Water		2/2/2012 14:15	2/3/2012 15:16	<input type="checkbox"/>
1202096-28	WG-1620-DUP4-20120202	Water		2/2/2012 14:15	2/3/2012 15:16	<input type="checkbox"/>
1202096-29	WG-1620-MW09-20120202	Water		2/2/2012 15:40	2/3/2012 15:16	<input type="checkbox"/>
1202096-30	WG-1620-P11-20120202	Water		2/2/2012 16:30	2/3/2012 15:16	<input type="checkbox"/>
1202096-31	WG-1620-TB3-20120203	Water		2/3/2012 07:10	2/3/2012 15:16	<input type="checkbox"/>
1202096-32	WG-1620-MW40B-20120203	Water		2/3/2012 07:30	2/3/2012 15:16	<input type="checkbox"/>
1202096-33	WG-1620-MW42B-20120203	Water		2/3/2012 08:25	2/3/2012 15:16	<input type="checkbox"/>
1202096-34	WG-1620-MW55A-20120203	Water		2/3/2012 09:20	2/3/2012 15:16	<input type="checkbox"/>
1202096-35	WG-1620-MW31A-20120203	Water		2/3/2012 10:10	2/3/2012 15:16	<input type="checkbox"/>
1202096-36	WG-1620-MW30A-20120203	Water		2/3/2012 11:00	2/3/2012 15:16	<input type="checkbox"/>
1202096-37	WG-1620-MW52A-20120203	Water		2/3/2012 12:20	2/3/2012 15:16	<input type="checkbox"/>
1202096-38	WG-1620-MW58A-20120203	Water		2/3/2012 13:30	2/3/2012 15:16	<input type="checkbox"/>
1202096-39	WG-1620-FB03-20120203	Water		2/3/2012 13:45	2/3/2012 15:16	<input type="checkbox"/>

ALS Environmental

Date: 13-Feb-12

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-MW18A-20120201
Collection Date: 2/1/2012 10:40 AM

Work Order: 1202096
Lab ID: 1202096-01
Matrix: WATER

Analyses	Result	Qual	SDL	ML	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270	Prep: SW3510 / 2/4/12		Analyst: LG	
1,2-Diphenylhydrazine		U	0.00050	0.0020	mg/L	10	2/8/2012 02:16
2,4-Dimethylphenol	5.8		0.050	0.20	mg/L	1000	2/9/2012 05:00
2,4-Dinitrotoluene		U	0.00050	0.0020	mg/L	10	2/8/2012 02:16
2,6-Dinitrotoluene		U	0.00060	0.0020	mg/L	10	2/8/2012 02:16
2-Chloronaphthalene		U	0.00050	0.0020	mg/L	10	2/8/2012 02:16
2-Methylnaphthalene	0.23		0.0050	0.020	mg/L	100	2/8/2012 10:34
4,6-Dinitro-2-methylphenol		U	0.00080	0.0020	mg/L	10	2/8/2012 02:16
4-Nitrophenol		U	0.00050	0.010	mg/L	10	2/8/2012 02:16
Acenaphthene	0.15		0.0050	0.020	mg/L	100	2/8/2012 10:34
Acenaphthylene	0.0070		0.00050	0.0020	mg/L	10	2/8/2012 02:16
Anthracene	0.0046		0.00050	0.0020	mg/L	10	2/8/2012 02:16
Benz(a)anthracene		U	0.00050	0.0020	mg/L	10	2/8/2012 02:16
Benzo(a)pyrene		U	0.00050	0.0020	mg/L	10	2/8/2012 02:16
Bis(2-chloroethoxy)methane		U	0.00050	0.0020	mg/L	10	2/8/2012 02:16
Bis(2-ethylhexyl)phthalate	0.0011	J	0.0010	0.0020	mg/L	10	2/8/2012 02:16
Chrysene		U	0.00050	0.0020	mg/L	10	2/8/2012 02:16
Dibenzofuran	0.075		0.00050	0.0020	mg/L	10	2/8/2012 02:16
Di-n-butylphthalate		U	0.00050	0.0020	mg/L	10	2/8/2012 02:16
Fluoranthene	0.0013	J	0.00050	0.0020	mg/L	10	2/8/2012 02:16
Fluorene	0.057		0.00050	0.0020	mg/L	10	2/8/2012 02:16
Naphthalene	3.6		0.025	0.10	mg/L	500	2/8/2012 22:25
Nitrobenzene		U	0.00050	0.0020	mg/L	10	2/8/2012 02:16
N-Nitrosodiphenylamine		U	0.00050	0.0020	mg/L	10	2/8/2012 02:16
Pentachlorophenol		U	0.00050	0.0020	mg/L	10	2/8/2012 02:16
Phenanthrene	0.042		0.00050	0.0020	mg/L	10	2/8/2012 02:16
Phenol	0.011		0.00050	0.0020	mg/L	10	2/8/2012 02:16
Pyrene	0.00077	J	0.00050	0.0020	mg/L	10	2/8/2012 02:16
Surr:2,4,6-Tribromophenol	51.9			34-129	%REC	10	2/8/2012 02:16
Surr:2,4,6-Tribromophenol	71.6	J		34-129	%REC	100	2/8/2012 10:34
Surr:2,4,6-Tribromophenol	0	S		34-129	%REC	500	2/8/2012 22:25
Surr:2,4,6-Tribromophenol	0	S		34-129	%REC	1000	2/9/2012 05:00
Surr:2-Fluorobiphenyl	60.2			40-125	%REC	10	2/8/2012 02:16
Surr:2-Fluorobiphenyl	81.2	J		40-125	%REC	100	2/8/2012 10:34
Surr:2-Fluorobiphenyl	0	S		40-125	%REC	500	2/8/2012 22:25
Surr:2-Fluorobiphenyl	0	S		40-125	%REC	1000	2/9/2012 05:00
Surr:2-Fluorophenol	102			20-120	%REC	10	2/8/2012 02:16
Surr:2-Fluorophenol	65.7	J		20-120	%REC	100	2/8/2012 10:34
Surr:2-Fluorophenol	0	S		20-120	%REC	500	2/8/2012 22:25

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 13-Feb-12

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-MW18A-20120201
Collection Date: 2/1/2012 10:40 AM

Work Order: 1202096
Lab ID: 1202096-01
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
Surr: 2-Fluorophenol	0	S		20-120	%REC	1000	2/9/2012 05:00
Surr: 4-Terphenyl-d14	83.8			40-135	%REC	10	2/8/2012 02:16
Surr: 4-Terphenyl-d14	76.1	J		40-135	%REC	100	2/8/2012 10:34
Surr: 4-Terphenyl-d14	0	S		40-135	%REC	500	2/8/2012 22:25
Surr: 4-Terphenyl-d14	0	S		40-135	%REC	1000	2/9/2012 05:00
Surr: Nitrobenzene-d5	73.3			41-120	%REC	10	2/8/2012 02:16
Surr: Nitrobenzene-d5	91.5	J		41-120	%REC	100	2/8/2012 10:34
Surr: Nitrobenzene-d5	0	S		41-120	%REC	500	2/8/2012 22:25
Surr: Nitrobenzene-d5	0	S		41-120	%REC	1000	2/9/2012 05:00
Surr: Phenol-d6	86.0			20-120	%REC	10	2/8/2012 02:16
Surr: Phenol-d6	54.4	J		20-120	%REC	100	2/8/2012 10:34
Surr: Phenol-d6	0	S		20-120	%REC	500	2/8/2012 22:25
Surr: Phenol-d6	0	S		20-120	%REC	1000	2/9/2012 05:00

VOLATILES		Method: SW8260				Analyst: PC	
1,2-Dichloroethane	U	0.0050	0.025	mg/L	5	2/8/2012 15:05	
Benzene	0.28	0.0050	0.025	mg/L	5	2/8/2012 15:05	
Chlorobenzene	U	0.0050	0.025	mg/L	5	2/8/2012 15:05	
Ethylbenzene	0.55	0.0055	0.025	mg/L	5	2/8/2012 15:05	
Methylenechloride	U	0.0065	0.050	mg/L	5	2/8/2012 15:05	
Toluene	0.21	0.0050	0.025	mg/L	5	2/8/2012 15:05	
Vinyl chloride	0.047	0.0050	0.010	mg/L	5	2/8/2012 15:05	
Xylenes, Total	1.1	0.016	0.075	mg/L	5	2/8/2012 15:05	
Surr: 1,2-Dichloroethane-d4	88.4		70-125	%REC	5	2/8/2012 15:05	
Surr: 4-Bromofluorobenzene	98.2		72-125	%REC	5	2/8/2012 15:05	
Surr: Dibromofluoromethane	95.5		71-125	%REC	5	2/8/2012 15:05	
Surr: Toluene-d8	98.1		75-125	%REC	5	2/8/2012 15:05	

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 13-Feb-12

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-MW18C-20120201
Collection Date: 2/1/2012 01:10 PM

Work Order: 1202096
Lab ID: 1202096-02
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270		Prep: SW3510 / 2/4/12		Analyst: LG
1,2-Diphenylhydrazine		U	0.00050	0.0020	mg/L	10	2/8/2012 02:37
2,4-Dimethylphenol	0.010		0.00050	0.0020	mg/L	10	2/8/2012 02:37
2,4-Dinitrotoluene		U	0.00050	0.0020	mg/L	10	2/8/2012 02:37
2,6-Dinitrotoluene		U	0.00060	0.0020	mg/L	10	2/8/2012 02:37
2-Chloronaphthalene		U	0.00050	0.0020	mg/L	10	2/8/2012 02:37
2-Methylnaphthalene	0.16		0.0050	0.020	mg/L	100	2/8/2012 10:55
4,6-Dinitro-2-methylphenol		U	0.00080	0.0020	mg/L	10	2/8/2012 02:37
4-Nitrophenol		U	0.00050	0.010	mg/L	10	2/8/2012 02:37
Acenaphthene	0.062		0.00050	0.0020	mg/L	10	2/8/2012 02:37
Acenaphthylene	0.0018	J	0.00050	0.0020	mg/L	10	2/8/2012 02:37
Anthracene	0.012		0.00050	0.0020	mg/L	10	2/8/2012 02:37
Benz(a)anthracene		U	0.00050	0.0020	mg/L	10	2/8/2012 02:37
Benzo(a)pyrene		U	0.00050	0.0020	mg/L	10	2/8/2012 02:37
Bis(2-chloroethoxy)methane		U	0.00050	0.0020	mg/L	10	2/8/2012 02:37
Bis(2-ethylhexyl)phthalate		U	0.0010	0.0020	mg/L	10	2/8/2012 02:37
Chrysene		U	0.00050	0.0020	mg/L	10	2/8/2012 02:37
Dibenzofuran	0.060		0.00050	0.0020	mg/L	10	2/8/2012 02:37
Di-n-butylphthalate		U	0.00050	0.0020	mg/L	10	2/8/2012 02:37
Fluoranthene	0.0018	J	0.00050	0.0020	mg/L	10	2/8/2012 02:37
Fluorene	0.028		0.00050	0.0020	mg/L	10	2/8/2012 02:37
Naphthalene	9.7		0.050	0.20	mg/L	1000	2/8/2012 22:46
Nitrobenzene		U	0.00050	0.0020	mg/L	10	2/8/2012 02:37
N-Nitrosodiphenylamine		U	0.00050	0.0020	mg/L	10	2/8/2012 02:37
Pentachlorophenol	0.085		0.00050	0.0020	mg/L	10	2/8/2012 02:37
Phenanthrene	0.027		0.00050	0.0020	mg/L	10	2/8/2012 02:37
Phenol	0.027		0.00050	0.0020	mg/L	10	2/8/2012 02:37
Pyrene	0.0010	J	0.00050	0.0020	mg/L	10	2/8/2012 02:37
Surr: 2,4,6-Tribromophenol	47.6			34-129	%REC	10	2/8/2012 02:37
Surr: 2,4,6-Tribromophenol	73.7	J		34-129	%REC	100	2/8/2012 10:55
Surr: 2,4,6-Tribromophenol	0	S		34-129	%REC	1000	2/8/2012 22:46
Surr: 2-Fluorobiphenyl	54.4			40-125	%REC	10	2/8/2012 02:37
Surr: 2-Fluorobiphenyl	57.4	J		40-125	%REC	100	2/8/2012 10:55
Surr: 2-Fluorobiphenyl	0	S		40-125	%REC	1000	2/8/2012 22:46
Surr: 2-Fluorophenol	118			20-120	%REC	10	2/8/2012 02:37
Surr: 2-Fluorophenol	105	J		20-120	%REC	100	2/8/2012 10:55
Surr: 2-Fluorophenol	0	S		20-120	%REC	1000	2/8/2012 22:46
Surr: 4-Terphenyl-d14	74.8			40-135	%REC	10	2/8/2012 02:37
Surr: 4-Terphenyl-d14	75.5	J		40-135	%REC	100	2/8/2012 10:55

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 13-Feb-12

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-MW18C-20120201
Collection Date: 2/1/2012 01:10 PM

Work Order: 1202096
Lab ID: 1202096-02
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
Surr: 4-Terphenyl-d14	0	S		40-135	%REC	1000	2/8/2012 22:46
Surr: Nitrobenzene-d5	91.6			41-120	%REC	10	2/8/2012 02:37
Surr: Nitrobenzene-d5	113	J		41-120	%REC	100	2/8/2012 10:55
Surr: Nitrobenzene-d5	0	S		41-120	%REC	1000	2/8/2012 22:46
Surr: Phenol-d6	67.1			20-120	%REC	10	2/8/2012 02:37
Surr: Phenol-d6	39.9	J		20-120	%REC	100	2/8/2012 10:55
Surr: Phenol-d6	0	S		20-120	%REC	1000	2/8/2012 22:46

VOLATILES		Method: SW8260				Analyst: PC	
1,2-Dichloroethane	U		0.0050	0.025	mg/L	5	2/4/2012 09:10
Benzene	1.3		0.025	0.12	mg/L	25	2/8/2012 15:32
Chlorobenzene	U		0.0050	0.025	mg/L	5	2/4/2012 09:10
Ethylbenzene	0.19		0.0055	0.025	mg/L	5	2/4/2012 09:10
Methylenechloride	U		0.0065	0.050	mg/L	5	2/4/2012 09:10
Toluene	0.83		0.0050	0.025	mg/L	5	2/4/2012 09:10
Vinyl chloride	U		0.0050	0.010	mg/L	5	2/4/2012 09:10
Xylenes, Total	0.82		0.016	0.075	mg/L	5	2/4/2012 09:10
Surr: 1,2-Dichloroethane-d4	99.7			70-125	%REC	5	2/4/2012 09:10
Surr: 1,2-Dichloroethane-d4	90.8			70-125	%REC	25	2/8/2012 15:32
Surr: 4-Bromofluorobenzene	71.5	S		72-125	%REC	5	2/4/2012 09:10
Surr: 4-Bromofluorobenzene	90.8			72-125	%REC	25	2/8/2012 15:32
Surr: Dibromofluoromethane	100			71-125	%REC	5	2/4/2012 09:10
Surr: Dibromofluoromethane	98.2			71-125	%REC	25	2/8/2012 15:32
Surr: Toluene-d8	93.9			75-125	%REC	5	2/4/2012 09:10
Surr: Toluene-d8	99.1			75-125	%REC	25	2/8/2012 15:32

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 13-Feb-12

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-MW17-20120201
Collection Date: 2/1/2012 02:10 PM

Work Order: 1202096
Lab ID: 1202096-03
Matrix: WATER

Analyses	Result	Qual	SDL	ML	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270	Prep: SW3510 / 2/4/12	Analyst: LG		
1,2-Diphenylhydrazine	U		0.00050	0.0020	mg/L	10	2/8/2012 02:57
2,4-Dimethylphenol	3.0		0.050	0.20	mg/L	1000	2/8/2012 23:07
2,4-Dinitrotoluene	U		0.00050	0.0020	mg/L	10	2/8/2012 02:57
2,6-Dinitrotoluene	U		0.00060	0.0020	mg/L	10	2/8/2012 02:57
2-Chloronaphthalene	U		0.00050	0.0020	mg/L	10	2/8/2012 02:57
2-Methylnaphthalene	0.29		0.0050	0.020	mg/L	100	2/8/2012 11:16
4,6-Dinitro-2-methylphenol	U		0.00080	0.0020	mg/L	10	2/8/2012 02:57
4-Nitrophenol	U		0.00050	0.010	mg/L	10	2/8/2012 02:57
Acenaphthene	0.13		0.0050	0.020	mg/L	100	2/8/2012 11:16
Acenaphthylene	0.0056		0.00050	0.0020	mg/L	10	2/8/2012 02:57
Anthracene	0.0096		0.00050	0.0020	mg/L	10	2/8/2012 02:57
Benz(a)anthracene	U		0.00050	0.0020	mg/L	10	2/8/2012 02:57
Benzo(a)pyrene	U		0.00050	0.0020	mg/L	10	2/8/2012 02:57
Bis(2-chloroethoxy)methane	U		0.00050	0.0020	mg/L	10	2/8/2012 02:57
Bis(2-ethylhexyl)phthalate	U		0.0010	0.0020	mg/L	10	2/8/2012 02:57
Chrysene	U		0.00050	0.0020	mg/L	10	2/8/2012 02:57
Dibenzofuran	0.093		0.00050	0.0020	mg/L	10	2/8/2012 02:57
Di-n-butylphthalate	U		0.00050	0.0020	mg/L	10	2/8/2012 02:57
Fluoranthene	0.0026		0.00050	0.0020	mg/L	10	2/8/2012 02:57
Fluorene	0.059		0.00050	0.0020	mg/L	10	2/8/2012 02:57
Naphthalene	10		0.050	0.20	mg/L	1000	2/8/2012 23:07
Nitrobenzene	U		0.00050	0.0020	mg/L	10	2/8/2012 02:57
N-Nitrosodiphenylamine	U		0.00050	0.0020	mg/L	10	2/8/2012 02:57
Pentachlorophenol	U		0.00050	0.0020	mg/L	10	2/8/2012 02:57
Phenanthrene	0.042		0.00050	0.0020	mg/L	10	2/8/2012 02:57
Phenol	3.7		0.050	0.20	mg/L	1000	2/8/2012 23:07
Pyrene	0.0018	J	0.00050	0.0020	mg/L	10	2/8/2012 02:57
Surr: 2,4,6-Tribromophenol	53.0			34-129	%REC	10	2/8/2012 02:57
Surr: 2,4,6-Tribromophenol	49.5	J		34-129	%REC	100	2/8/2012 11:16
Surr: 2,4,6-Tribromophenol	0	S		34-129	%REC	1000	2/8/2012 23:07
Surr: 2-Fluorobiphenyl	49.6			40-125	%REC	10	2/8/2012 02:57
Surr: 2-Fluorobiphenyl	49.7	J		40-125	%REC	100	2/8/2012 11:16
Surr: 2-Fluorobiphenyl	0	S		40-125	%REC	1000	2/8/2012 23:07
Surr: 2-Fluorophenol	80.9			20-120	%REC	10	2/8/2012 02:57
Surr: 2-Fluorophenol	79.1	J		20-120	%REC	100	2/8/2012 11:16
Surr: 2-Fluorophenol	0	S		20-120	%REC	1000	2/8/2012 23:07
Surr: 4-Terphenyl-d14	76.1			40-135	%REC	10	2/8/2012 02:57
Surr: 4-Terphenyl-d14	71.4	J		40-135	%REC	100	2/8/2012 11:16

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 13-Feb-12

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-MW17-20120201
Collection Date: 2/1/2012 02:10 PM

Work Order: 1202096
Lab ID: 1202096-03
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
Surr: 4-Terphenyl-d14	0	S		40-135	%REC	1000	2/8/2012 23:07
Surr: Nitrobenzene-d5	59.9			41-120	%REC	10	2/8/2012 02:57
Surr: Nitrobenzene-d5	64.3	J		41-120	%REC	100	2/8/2012 11:16
Surr: Nitrobenzene-d5	0	S		41-120	%REC	1000	2/8/2012 23:07
Surr: Phenol-d6	86.2			20-120	%REC	10	2/8/2012 02:57
Surr: Phenol-d6	62.6	J		20-120	%REC	100	2/8/2012 11:16
Surr: Phenol-d6	0	S		20-120	%REC	1000	2/8/2012 23:07

VOLATILES		Method: SW8260				Analyst: PC	
1,2-Dichloroethane	U	0.0050	0.025	mg/L	5	2/4/2012 08:17	
Benzene	0.24	0.0050	0.025	mg/L	5	2/4/2012 08:17	
Chlorobenzene	U	0.0050	0.025	mg/L	5	2/4/2012 08:17	
Ethylbenzene	0.23	0.0055	0.025	mg/L	5	2/4/2012 08:17	
Methylenechloride	U	0.0065	0.050	mg/L	5	2/4/2012 08:17	
Toluene	0.74	0.0050	0.025	mg/L	5	2/4/2012 08:17	
Xylenes, Total	0.63	0.016	0.075	mg/L	5	2/4/2012 08:17	
Surr: 1,2-Dichloroethane-d4	108		70-125	%REC	5	2/4/2012 08:17	
Surr: 4-Bromofluorobenzene	91.2		72-125	%REC	5	2/4/2012 08:17	
Surr: Dibromofluoromethane	104		71-125	%REC	5	2/4/2012 08:17	
Surr: Toluene-d8	98.4		75-125	%REC	5	2/4/2012 08:17	

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 13-Feb-12

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-MW17C-20120201
Collection Date: 2/1/2012 02:50 PM

Work Order: 1202096
Lab ID: 1202096-04
Matrix: WATER

Analyses	Result	Qual	SDL	ML	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270	Prep: SW3510 / 2/4/12	Analyst: LG		
1,2-Diphenylhydrazine	U		0.000050	0.00020	mg/L	1	2/4/2012 17:28
2,4-Dimethylphenol	U		0.000050	0.00020	mg/L	1	2/4/2012 17:28
2,4-Dinitrotoluene	U		0.000050	0.00020	mg/L	1	2/4/2012 17:28
2,6-Dinitrotoluene	U		0.000060	0.00020	mg/L	1	2/4/2012 17:28
2-Chloronaphthalene	U		0.000050	0.00020	mg/L	1	2/4/2012 17:28
2-Methylnaphthalene	0.062		0.000050	0.00020	mg/L	10	2/7/2012 21:39
4,6-Dinitro-2-methylphenol	U		0.000080	0.00020	mg/L	1	2/4/2012 17:28
4-Nitrophenol	U		0.000050	0.0010	mg/L	1	2/4/2012 17:28
Acenaphthene	0.097		0.000050	0.00020	mg/L	10	2/7/2012 21:39
Acenaphthylene	0.0011		0.000050	0.00020	mg/L	1	2/4/2012 17:28
Anthracene	0.0048		0.000050	0.00020	mg/L	1	2/4/2012 17:28
Benz(a)anthracene	0.000091	J	0.000050	0.00020	mg/L	1	2/4/2012 17:28
Benzo(a)pyrene	U		0.000050	0.00020	mg/L	1	2/4/2012 17:28
Bis(2-chloroethoxy)methane	U		0.000050	0.00020	mg/L	1	2/4/2012 17:28
Bis(2-ethylhexyl)phthalate	0.0010		0.000010	0.00020	mg/L	1	2/4/2012 17:28
Chrysene	0.00013	J	0.000050	0.00020	mg/L	1	2/4/2012 17:28
Dibenzofuran	0.096		0.000050	0.00020	mg/L	10	2/7/2012 21:39
Di-n-butylphthalate	U		0.000050	0.00020	mg/L	1	2/4/2012 17:28
Fluoranthene	0.0020		0.000050	0.00020	mg/L	1	2/4/2012 17:28
Fluorene	0.054		0.000050	0.00020	mg/L	10	2/7/2012 21:39
Naphthalene	3.3		0.025	0.10	mg/L	500	2/8/2012 21:43
Nitrobenzene	U		0.000050	0.00020	mg/L	1	2/4/2012 17:28
N-Nitrosodiphenylamine	U		0.000050	0.00020	mg/L	1	2/4/2012 17:28
Pentachlorophenol	U		0.000050	0.00020	mg/L	1	2/4/2012 17:28
Phenanthrene	0.0081		0.000050	0.00020	mg/L	1	2/4/2012 17:28
Phenol	0.00014	J	0.000050	0.00020	mg/L	1	2/4/2012 17:28
Pyrene	0.0025		0.000050	0.00020	mg/L	1	2/4/2012 17:28
Surr: 2,4,6-Tribromophenol	59.2			34-129	%REC	1	2/4/2012 17:28
Surr: 2,4,6-Tribromophenol	57.1			34-129	%REC	10	2/7/2012 21:39
Surr: 2,4,6-Tribromophenol	0	S		34-129	%REC	500	2/8/2012 21:43
Surr: 2-Fluorobiphenyl	33.4	S		40-125	%REC	1	2/4/2012 17:28
Surr: 2-Fluorobiphenyl	47.7			40-125	%REC	10	2/7/2012 21:39
Surr: 2-Fluorobiphenyl	0	S		40-125	%REC	500	2/8/2012 21:43
Surr: 2-Fluorophenol	102			20-120	%REC	1	2/4/2012 17:28
Surr: 2-Fluorophenol	73.4			20-120	%REC	10	2/7/2012 21:39
Surr: 2-Fluorophenol	0	S		20-120	%REC	500	2/8/2012 21:43
Surr: 4-Terphenyl-d14	63.8			40-135	%REC	1	2/4/2012 17:28
Surr: 4-Terphenyl-d14	91.6			40-135	%REC	10	2/7/2012 21:39

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 13-Feb-12

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-MW17C-20120201
Collection Date: 2/1/2012 02:50 PM

Work Order: 1202096
Lab ID: 1202096-04
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
Surr: 4-Terphenyl-d14	0	S		40-135	%REC	500	2/8/2012 21:43
Surr: Nitrobenzene-d5	42.1			41-120	%REC	1	2/4/2012 17:28
Surr: Nitrobenzene-d5	57.0			41-120	%REC	10	2/7/2012 21:39
Surr: Nitrobenzene-d5	0	S		41-120	%REC	500	2/8/2012 21:43
Surr: Phenol-d6	40.7			20-120	%REC	1	2/4/2012 17:28
Surr: Phenol-d6	47.5			20-120	%REC	10	2/7/2012 21:39
Surr: Phenol-d6	0	S		20-120	%REC	500	2/8/2012 21:43

VOLATILES		Method: SW8260				Analyst: PC	
1,2-Dichloroethane	U		0.0050	0.025	mg/L	5	2/8/2012 16:51
Benzene	0.016	J	0.0050	0.025	mg/L	5	2/8/2012 16:51
Chlorobenzene	U		0.0050	0.025	mg/L	5	2/8/2012 16:51
Ethylbenzene	0.19		0.0055	0.025	mg/L	5	2/8/2012 16:51
Methylenechloride	U		0.0065	0.050	mg/L	5	2/8/2012 16:51
Toluene	0.0067	J	0.0050	0.025	mg/L	5	2/8/2012 16:51
Xylenes, Total	0.22		0.016	0.075	mg/L	5	2/8/2012 16:51
Surr: 1,2-Dichloroethane-d4	89.3			70-125	%REC	5	2/8/2012 16:51
Surr: 4-Bromofluorobenzene	93.1			72-125	%REC	5	2/8/2012 16:51
Surr: Dibromofluoromethane	97.3			71-125	%REC	5	2/8/2012 16:51
Surr: Toluene-d8	99.7			75-125	%REC	5	2/8/2012 16:51

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 13-Feb-12

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-MW20A-20120201
Collection Date: 2/1/2012 03:50 PM

Work Order: 1202096
Lab ID: 1202096-05
Matrix: WATER

Analyses	Result	Qual	SDL	ML	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270	Prep: SW3510 / 2/4/12	Analyst: LG		
1,2-Diphenylhydrazine	U		0.00050	0.0020	mg/L	10	2/8/2012 03:18
2,4-Dimethylphenol	0.076		0.00050	0.0020	mg/L	10	2/8/2012 03:18
2,4-Dinitrotoluene	U		0.00050	0.0020	mg/L	10	2/8/2012 03:18
2,6-Dinitrotoluene	U		0.00060	0.0020	mg/L	10	2/8/2012 03:18
2-Chloronaphthalene	U		0.00050	0.0020	mg/L	10	2/8/2012 03:18
2-Methylnaphthalene	0.064		0.00050	0.0020	mg/L	10	2/8/2012 03:18
4,6-Dinitro-2-methylphenol	U		0.00080	0.0020	mg/L	10	2/8/2012 03:18
4-Nitrophenol	U		0.00050	0.010	mg/L	10	2/8/2012 03:18
Acenaphthene	0.15		0.00050	0.020	mg/L	100	2/9/2012 20:38
Acenaphthylene	0.0015	J	0.00050	0.0020	mg/L	10	2/8/2012 03:18
Anthracene	0.0044		0.00050	0.0020	mg/L	10	2/8/2012 03:18
Benz(a)anthracene	U		0.00050	0.0020	mg/L	10	2/8/2012 03:18
Benzo(a)pyrene	U		0.00050	0.0020	mg/L	10	2/8/2012 03:18
Bis(2-chloroethoxy)methane	U		0.00050	0.0020	mg/L	10	2/8/2012 03:18
Bis(2-ethylhexyl)phthalate	U		0.0010	0.0020	mg/L	10	2/8/2012 03:18
Chrysene	U		0.00050	0.0020	mg/L	10	2/8/2012 03:18
Dibenzofuran	0.073		0.00050	0.0020	mg/L	10	2/8/2012 03:18
Di-n-butylphthalate	U		0.00050	0.0020	mg/L	10	2/8/2012 03:18
Fluoranthene	0.00082	J	0.00050	0.0020	mg/L	10	2/8/2012 03:18
Fluorene	0.060		0.00050	0.0020	mg/L	10	2/8/2012 03:18
Naphthalene	0.96		0.00050	0.020	mg/L	100	2/9/2012 20:38
Nitrobenzene	U		0.00050	0.0020	mg/L	10	2/8/2012 03:18
N-Nitrosodiphenylamine	U		0.00050	0.0020	mg/L	10	2/8/2012 03:18
Pentachlorophenol	U		0.00050	0.0020	mg/L	10	2/8/2012 03:18
Phenanthrene	0.030		0.00050	0.0020	mg/L	10	2/8/2012 03:18
Phenol	U		0.00050	0.0020	mg/L	10	2/8/2012 03:18
Pyrene	0.00056	J	0.00050	0.0020	mg/L	10	2/8/2012 03:18
Surr: 2,4,6-Tribromophenol	57.5			34-129	%REC	10	2/8/2012 03:18
Surr: 2,4,6-Tribromophenol	38.1	J		34-129	%REC	100	2/9/2012 20:38
Surr: 2-Fluorobiphenyl	64.5			40-125	%REC	10	2/8/2012 03:18
Surr: 2-Fluorobiphenyl	64.8	J		40-125	%REC	100	2/9/2012 20:38
Surr: 2-Fluorophenol	61.0			20-120	%REC	10	2/8/2012 03:18
Surr: 2-Fluorophenol	70.1	J		20-120	%REC	100	2/9/2012 20:38
Surr: 4-Terphenyl-d14	80.7			40-135	%REC	10	2/8/2012 03:18
Surr: 4-Terphenyl-d14	83.9	J		40-135	%REC	100	2/9/2012 20:38
Surr: Nitrobenzene-d5	50.9			41-120	%REC	10	2/8/2012 03:18
Surr: Nitrobenzene-d5	119	J		41-120	%REC	100	2/9/2012 20:38
Surr: Phenol-d6	65.0			20-120	%REC	10	2/8/2012 03:18

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 13-Feb-12

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-MW20A-20120201
Collection Date: 2/1/2012 03:50 PM

Work Order: 1202096
Lab ID: 1202096-05
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
Surr: Phenol-d6	26.1	J		20-120	%REC	100	2/9/2012 20:38
VOLATILES			Method:SW8260			Analyst: PC	
1,2-Dichloroethane	U		0.0050	0.025	mg/L	5	2/8/2012 07:56
Benzene	0.057		0.0050	0.025	mg/L	5	2/8/2012 07:56
Chlorobenzene	U		0.0050	0.025	mg/L	5	2/8/2012 07:56
Ethylbenzene	0.046		0.0055	0.025	mg/L	5	2/8/2012 07:56
Methylenechloride	U		0.0065	0.050	mg/L	5	2/8/2012 07:56
Toluene	U		0.0050	0.025	mg/L	5	2/8/2012 07:56
Xylenes, Total	0.028	J	0.016	0.075	mg/L	5	2/8/2012 07:56
Surr: 1,2-Dichloroethane-d4	94.4			70-125	%REC	5	2/8/2012 07:56
Surr: 4-Bromofluorobenzene	92.5			72-125	%REC	5	2/8/2012 07:56
Surr: Dibromofluoromethane	97.8			71-125	%REC	5	2/8/2012 07:56
Surr: Toluene-d8	102			75-125	%REC	5	2/8/2012 07:56

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 13-Feb-12

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-MW16-10120201
Collection Date: 2/1/2012 04:40 PM

Work Order: 1202096
Lab ID: 1202096-06
Matrix: WATER

Analyses	Result	Qual	SDL	ML	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270	Prep: SW3510 / 2/4/12		Analyst: LG	
1,2-Diphenylhydrazine		U	0.000050	0.00020	mg/L	1	2/7/2012 19:32
2,4-Dimethylphenol	0.00077		0.000050	0.00020	mg/L	1	2/7/2012 19:32
2,4-Dinitrotoluene		U	0.000050	0.00020	mg/L	1	2/7/2012 19:32
2,6-Dinitrotoluene		U	0.000060	0.00020	mg/L	1	2/7/2012 19:32
2-Chloronaphthalene		U	0.000050	0.00020	mg/L	1	2/7/2012 19:32
2-Methylnaphthalene	0.034		0.000050	0.00020	mg/L	10	2/7/2012 19:53
4,6-Dinitro-2-methylphenol		U	0.000080	0.00020	mg/L	1	2/7/2012 19:32
4-Nitrophenol		U	0.000050	0.0010	mg/L	1	2/7/2012 19:32
Acenaphthene	0.21		0.000050	0.00020	mg/L	100	2/9/2012 19:15
Acenaphthylene	0.0021		0.000050	0.00020	mg/L	1	2/7/2012 19:32
Anthracene	0.0034		0.000050	0.00020	mg/L	1	2/7/2012 19:32
Benz(a)anthracene	0.000059	J	0.000050	0.00020	mg/L	1	2/7/2012 19:32
Benzo(a)pyrene		U	0.000050	0.00020	mg/L	1	2/7/2012 19:32
Bis(2-chloroethoxy)methane		U	0.000050	0.00020	mg/L	1	2/7/2012 19:32
Bis(2-ethylhexyl)phthalate	0.00020		0.000010	0.00020	mg/L	1	2/7/2012 19:32
Chrysene	0.000053	J	0.000050	0.00020	mg/L	1	2/7/2012 19:32
Dibenzofuran	0.098		0.000050	0.00020	mg/L	10	2/7/2012 19:53
Di-n-butylphthalate		U	0.000050	0.00020	mg/L	1	2/7/2012 19:32
Fluoranthene	0.0021		0.000050	0.00020	mg/L	1	2/7/2012 19:32
Fluorene	0.085		0.000050	0.00020	mg/L	10	2/7/2012 19:53
Naphthalene	1.8		0.000050	0.00020	mg/L	500	2/8/2012 21:02
Nitrobenzene		U	0.000050	0.00020	mg/L	1	2/7/2012 19:32
N-Nitrosodiphenylamine		U	0.000050	0.00020	mg/L	1	2/7/2012 19:32
Pentachlorophenol		U	0.000050	0.00020	mg/L	1	2/7/2012 19:32
Phenanthrene	0.042		0.000050	0.00020	mg/L	10	2/7/2012 19:53
Phenol	0.00015	J	0.000050	0.00020	mg/L	1	2/7/2012 19:32
Pyrene	0.0017		0.000050	0.00020	mg/L	1	2/7/2012 19:32
Surr:2,4,6-Tribromophenol	53.8			34-129	%REC	1	2/7/2012 19:32
Surr:2,4,6-Tribromophenol	55.6			34-129	%REC	10	2/7/2012 19:53
Surr:2,4,6-Tribromophenol	0	S		34-129	%REC	500	2/8/2012 21:02
Surr:2,4,6-Tribromophenol	80.2	J		34-129	%REC	100	2/9/2012 19:15
Surr:2-Fluorobiphenyl	40.0			40-125	%REC	1	2/7/2012 19:32
Surr:2-Fluorobiphenyl	69.6			40-125	%REC	10	2/7/2012 19:53
Surr:2-Fluorobiphenyl	0	S		40-125	%REC	500	2/8/2012 21:02
Surr:2-Fluorobiphenyl	87.9	J		40-125	%REC	100	2/9/2012 19:15
Surr:2-Fluorophenol	53.5			20-120	%REC	1	2/7/2012 19:32
Surr:2-Fluorophenol	60.2			20-120	%REC	10	2/7/2012 19:53
Surr:2-Fluorophenol	0	S		20-120	%REC	500	2/8/2012 21:02

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 13-Feb-12

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-MW16-10120201
Collection Date: 2/1/2012 04:40 PM

Work Order: 1202096
Lab ID: 1202096-06
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
Surr: 2-Fluorophenol	74.8	J		20-120	%REC	100	2/9/2012 19:15
Surr: 4-Terphenyl-d14	68.0			40-135	%REC	1	2/7/2012 19:32
Surr: 4-Terphenyl-d14	98.0			40-135	%REC	10	2/7/2012 19:53
Surr: 4-Terphenyl-d14	0	S		40-135	%REC	500	2/8/2012 21:02
Surr: 4-Terphenyl-d14	111	J		40-135	%REC	100	2/9/2012 19:15
Surr: Nitrobenzene-d5	47.1			41-120	%REC	1	2/7/2012 19:32
Surr: Nitrobenzene-d5	58.2			41-120	%REC	10	2/7/2012 19:53
Surr: Nitrobenzene-d5	0	S		41-120	%REC	500	2/8/2012 21:02
Surr: Nitrobenzene-d5	76.2	J		41-120	%REC	100	2/9/2012 19:15
Surr: Phenol-d6	47.6			20-120	%REC	1	2/7/2012 19:32
Surr: Phenol-d6	53.4			20-120	%REC	10	2/7/2012 19:53
Surr: Phenol-d6	0	S		20-120	%REC	500	2/8/2012 21:02
Surr: Phenol-d6	30.8	J		20-120	%REC	100	2/9/2012 19:15

VOLATILES		Method: SW8260				Analyst: PC	
1,2-Dichloroethane	U		0.010	0.050	mg/L	10	2/8/2012 08:23
Benzene	0.025	J	0.010	0.050	mg/L	10	2/8/2012 08:23
Chlorobenzene	U		0.010	0.050	mg/L	10	2/8/2012 08:23
Ethylbenzene	0.021	J	0.011	0.050	mg/L	10	2/8/2012 08:23
Methylenechloride	U		0.013	0.10	mg/L	10	2/8/2012 08:23
Toluene	U		0.010	0.050	mg/L	10	2/8/2012 08:23
Xylenes, Total	U		0.031	0.15	mg/L	10	2/8/2012 08:23
Surr: 1,2-Dichloroethane-d4	91.2			70-125	%REC	10	2/8/2012 08:23
Surr: 4-Bromofluorobenzene	92.3			72-125	%REC	10	2/8/2012 08:23
Surr: Dibromofluoromethane	98.9			71-125	%REC	10	2/8/2012 08:23
Surr: Toluene-d8	101			75-125	%REC	10	2/8/2012 08:23

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 13-Feb-12

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-TB01-20120201
Collection Date: 2/1/2012 04:20 PM

Work Order: 1202096
Lab ID: 1202096-07
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
VOLATILES			Method: SW8260			Analyst: PC	
1,2-Dichloroethane	U		0.0010	0.0050	mg/L	1	2/2/2012 20:04
Benzene	U		0.0010	0.0050	mg/L	1	2/2/2012 20:04
Chlorobenzene	U		0.0010	0.0050	mg/L	1	2/2/2012 20:04
Ethylbenzene	U		0.0011	0.0050	mg/L	1	2/2/2012 20:04
Methylenechloride	U		0.0013	0.010	mg/L	1	2/2/2012 20:04
Toluene	U		0.0010	0.0050	mg/L	1	2/2/2012 20:04
Vinyl chloride	U		0.0010	0.0020	mg/L	1	2/2/2012 20:04
Xylenes, Total	U		0.0031	0.015	mg/L	1	2/2/2012 20:04
Surr: 1,2-Dichloroethane-d4	105			70-125	%REC	1	2/2/2012 20:04
Surr: 4-Bromofluorobenzene	95.6			72-125	%REC	1	2/2/2012 20:04
Surr: Dibromofluoromethane	101			71-125	%REC	1	2/2/2012 20:04
Surr: Toluene-d8	98.2			75-125	%REC	1	2/2/2012 20:04

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 13-Feb-12

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-MW39B-20120201
Collection Date: 2/1/2012 01:15 PM

Work Order: 1202096
Lab ID: 1202096-08
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270	Prep: SW3510 / 2/4/12		Analyst: LG	
1,2-Diphenylhydrazine	U		0.000050	0.00020	mg/L	1	2/4/2012 18:09
2,4-Dimethylphenol	U		0.000050	0.00020	mg/L	1	2/4/2012 18:09
2,4-Dinitrotoluene	U		0.000050	0.00020	mg/L	1	2/4/2012 18:09
2,6-Dinitrotoluene	U		0.000060	0.00020	mg/L	1	2/4/2012 18:09
2-Chloronaphthalene	U		0.000050	0.00020	mg/L	1	2/4/2012 18:09
2-Methylnaphthalene	U		0.000050	0.00020	mg/L	1	2/4/2012 18:09
4,6-Dinitro-2-methylphenol	U		0.000080	0.00020	mg/L	1	2/4/2012 18:09
4-Nitrophenol	U		0.000050	0.0010	mg/L	1	2/4/2012 18:09
Acenaphthene	0.0011		0.000050	0.00020	mg/L	1	2/4/2012 18:09
Acenaphthylene	U		0.000050	0.00020	mg/L	1	2/4/2012 18:09
Anthracene	U		0.000050	0.00020	mg/L	1	2/4/2012 18:09
Benz(a)anthracene	0.000050	J	0.000050	0.00020	mg/L	1	2/4/2012 18:09
Benzo(a)pyrene	U		0.000050	0.00020	mg/L	1	2/4/2012 18:09
Bis(2-chloroethoxy)methane	U		0.000050	0.00020	mg/L	1	2/4/2012 18:09
Bis(2-ethylhexyl)phthalate	0.00015	J	0.00010	0.00020	mg/L	1	2/4/2012 18:09
Chrysene	U		0.000050	0.00020	mg/L	1	2/4/2012 18:09
Dibenzofuran	0.00040		0.000050	0.00020	mg/L	1	2/4/2012 18:09
Di-n-butylphthalate	U		0.000050	0.00020	mg/L	1	2/4/2012 18:09
Fluoranthene	0.0011		0.000050	0.00020	mg/L	1	2/4/2012 18:09
Fluorene	0.00032		0.000050	0.00020	mg/L	1	2/4/2012 18:09
Naphthalene	0.00034		0.000050	0.00020	mg/L	1	2/4/2012 18:09
Nitrobenzene	U		0.000050	0.00020	mg/L	1	2/4/2012 18:09
N-Nitrosodiphenylamine	U		0.000050	0.00020	mg/L	1	2/4/2012 18:09
Pentachlorophenol	U		0.000050	0.00020	mg/L	1	2/4/2012 18:09
Phenanthrene	U		0.000050	0.00020	mg/L	1	2/4/2012 18:09
Phenol	U		0.000050	0.00020	mg/L	1	2/4/2012 18:09
Pyrene	0.0013		0.000050	0.00020	mg/L	1	2/4/2012 18:09
Surr: 2,4,6-Tribromophenol	60.2			34-129	%REC	1	2/4/2012 18:09
Surr: 2-Fluorobiphenyl	43.7			40-125	%REC	1	2/4/2012 18:09
Surr: 2-Fluorophenol	30.3			20-120	%REC	1	2/4/2012 18:09
Surr: 4-Terphenyl-d14	59.7			40-135	%REC	1	2/4/2012 18:09
Surr: Nitrobenzene-d5	65.6			41-120	%REC	1	2/4/2012 18:09
Surr: Phenol-d6	27.5			20-120	%REC	1	2/4/2012 18:09

VOLATILES			Method: SW8260			Analyst: PC	
1,2-Dichloroethane	U		0.0010	0.0050	mg/L	1	2/3/2012 21:20
Benzene	U		0.0010	0.0050	mg/L	1	2/3/2012 21:20
Chlorobenzene	U		0.0010	0.0050	mg/L	1	2/3/2012 21:20
Ethylbenzene	U		0.0011	0.0050	mg/L	1	2/3/2012 21:20

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 13-Feb-12

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-MW39B-20120201
Collection Date: 2/1/2012 01:15 PM

Work Order: 1202096
Lab ID: 1202096-08
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
Methylenechloride	U		0.0013	0.010	mg/L	1	2/3/2012 21:20
Toluene	U		0.0010	0.0050	mg/L	1	2/3/2012 21:20
Xylenes, Total	U		0.0031	0.015	mg/L	1	2/3/2012 21:20
<i>Surr: 1,2-Dichloroethane-d4</i>	112			70-125	%REC	1	2/3/2012 21:20
<i>Surr: 4-Bromofluorobenzene</i>	94.1			72-125	%REC	1	2/3/2012 21:20
<i>Surr: Dibromofluoromethane</i>	106			71-125	%REC	1	2/3/2012 21:20
<i>Surr: Toluene-d8</i>	101			75-125	%REC	1	2/3/2012 21:20

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 13-Feb-12

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-MW12C-20120201
Collection Date: 2/1/2012 02:15 PM

Work Order: 1202096
Lab ID: 1202096-09
Matrix: WATER

Analyses	Result	Qual	SDL	ML	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270	Prep: SW3510 / 2/4/12		Analyst: LG	
1,2-Diphenylhydrazine	U		0.000050	0.00020	mg/L	1	2/7/2012 18:28
2,4-Dimethylphenol	U		0.000050	0.00020	mg/L	1	2/7/2012 18:28
2,4-Dinitrotoluene	U		0.000050	0.00020	mg/L	1	2/7/2012 18:28
2,6-Dinitrotoluene	U		0.000060	0.00020	mg/L	1	2/7/2012 18:28
2-Chloronaphthalene	U		0.000050	0.00020	mg/L	1	2/7/2012 18:28
2-Methylnaphthalene	U		0.000050	0.00020	mg/L	1	2/7/2012 18:28
4,6-Dinitro-2-methylphenol	U		0.000080	0.00020	mg/L	1	2/7/2012 18:28
4-Nitrophenol	U		0.000050	0.0010	mg/L	1	2/7/2012 18:28
Acenaphthene	U		0.000050	0.00020	mg/L	1	2/7/2012 18:28
Acenaphthylene	U		0.000050	0.00020	mg/L	1	2/7/2012 18:28
Anthracene	U		0.000050	0.00020	mg/L	1	2/7/2012 18:28
Benz(a)anthracene	U		0.000050	0.00020	mg/L	1	2/7/2012 18:28
Benzo(a)pyrene	U		0.000050	0.00020	mg/L	1	2/7/2012 18:28
Bis(2-chloroethoxy)methane	U		0.000050	0.00020	mg/L	1	2/7/2012 18:28
Bis(2-ethylhexyl)phthalate	U		0.00010	0.00020	mg/L	1	2/7/2012 18:28
Chrysene	U		0.000050	0.00020	mg/L	1	2/7/2012 18:28
Dibenzofuran	U		0.000050	0.00020	mg/L	1	2/7/2012 18:28
Di-n-butylphthalate	U		0.000050	0.00020	mg/L	1	2/7/2012 18:28
Fluoranthene	U		0.000050	0.00020	mg/L	1	2/7/2012 18:28
Fluorene	0.00010	J	0.000050	0.00020	mg/L	1	2/7/2012 18:28
Naphthalene	0.00054		0.000050	0.00020	mg/L	1	2/7/2012 18:28
Nitrobenzene	U		0.000050	0.00020	mg/L	1	2/7/2012 18:28
N-Nitrosodiphenylamine	U		0.000050	0.00020	mg/L	1	2/7/2012 18:28
Pentachlorophenol	U		0.000050	0.00020	mg/L	1	2/7/2012 18:28
Phenanthrene	U		0.000050	0.00020	mg/L	1	2/7/2012 18:28
Phenol	U		0.000050	0.00020	mg/L	1	2/7/2012 18:28
Pyrene	U		0.000050	0.00020	mg/L	1	2/7/2012 18:28
Surr: 2,4,6-Tribromophenol	49.6			34-129	%REC	1	2/7/2012 18:28
Surr: 2,4,6-Tribromophenol	47.4			34-129	%REC	10	2/7/2012 18:50
Surr: 2-Fluorobiphenyl	25.2	S		40-125	%REC	1	2/7/2012 18:28
Surr: 2-Fluorobiphenyl	48.6			40-125	%REC	10	2/7/2012 18:50
Surr: 2-Fluorophenol	24.5			20-120	%REC	1	2/7/2012 18:28
Surr: 2-Fluorophenol	40.0	J		20-120	%REC	10	2/7/2012 18:50
Surr: 4-Terphenyl-d14	60.1			40-135	%REC	1	2/7/2012 18:28
Surr: 4-Terphenyl-d14	89.6			40-135	%REC	10	2/7/2012 18:50
Surr: Nitrobenzene-d5	44.7			41-120	%REC	1	2/7/2012 18:28
Surr: Nitrobenzene-d5	57.7			41-120	%REC	10	2/7/2012 18:50
Surr: Phenol-d6	21.5			20-120	%REC	1	2/7/2012 18:28

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 13-Feb-12

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-MW12C-20120201
Collection Date: 2/1/2012 02:15 PM

Work Order: 1202096
Lab ID: 1202096-09
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
Surr: Phenol-d6	34.6	J		20-120	%REC	10	2/7/2012 18:50
VOLATILES			Method: SW8260			Analyst: PC	
1,2-Dichloroethane	U		0.0010	0.0050	mg/L	1	2/3/2012 21:47
Benzene	U		0.0010	0.0050	mg/L	1	2/3/2012 21:47
Chlorobenzene	U		0.0010	0.0050	mg/L	1	2/3/2012 21:47
Ethylbenzene	U		0.0011	0.0050	mg/L	1	2/3/2012 21:47
Methylenechloride	U		0.0013	0.010	mg/L	1	2/3/2012 21:47
Toluene	U		0.0010	0.0050	mg/L	1	2/3/2012 21:47
Xylenes, Total	U		0.0031	0.015	mg/L	1	2/3/2012 21:47
Surr: 1,2-Dichloroethane-d4	109			70-125	%REC	1	2/3/2012 21:47
Surr: 4-Bromofluorobenzene	94.8			72-125	%REC	1	2/3/2012 21:47
Surr: Dibromofluoromethane	101			71-125	%REC	1	2/3/2012 21:47
Surr: Toluene-d8	101			75-125	%REC	1	2/3/2012 21:47

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 13-Feb-12

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-MW12A-20120201
Collection Date: 2/1/2012 03:20 PM

Work Order: 1202096
Lab ID: 1202096-10
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270	Prep: SW3510 / 2/4/12		Analyst: LG	
1,2-Diphenylhydrazine	U		0.000050	0.00020	mg/L	1	2/4/2012 18:50
2,4-Dimethylphenol	U		0.000050	0.00020	mg/L	1	2/4/2012 18:50
2,4-Dinitrotoluene	U		0.000050	0.00020	mg/L	1	2/4/2012 18:50
2,6-Dinitrotoluene	U		0.000060	0.00020	mg/L	1	2/4/2012 18:50
2-Chloronaphthalene	U		0.000050	0.00020	mg/L	1	2/4/2012 18:50
2-Methylnaphthalene	0.061		0.00050	0.0020	mg/L	10	2/7/2012 22:00
4,6-Dinitro-2-methylphenol	U		0.000080	0.00020	mg/L	1	2/4/2012 18:50
4-Nitrophenol	U		0.000050	0.0010	mg/L	1	2/4/2012 18:50
Acenaphthene	0.13		0.0050	0.020	mg/L	100	2/9/2012 19:56
Acenaphthylene	0.0015		0.000050	0.00020	mg/L	1	2/4/2012 18:50
Anthracene	0.028		0.00050	0.0020	mg/L	10	2/7/2012 22:00
Benz(a)anthracene	U		0.000050	0.00020	mg/L	1	2/4/2012 18:50
Benzo(a)pyrene	U		0.000050	0.00020	mg/L	1	2/4/2012 18:50
Bis(2-chloroethoxy)methane	U		0.000050	0.00020	mg/L	1	2/4/2012 18:50
Bis(2-ethylhexyl)phthalate	0.00027		0.00010	0.00020	mg/L	1	2/4/2012 18:50
Chrysene	U		0.000050	0.00020	mg/L	1	2/4/2012 18:50
Dibenzofuran	0.13		0.0050	0.020	mg/L	100	2/9/2012 19:56
Di-n-butylphthalate	U		0.000050	0.00020	mg/L	1	2/4/2012 18:50
Fluoranthene	0.0031		0.000050	0.00020	mg/L	1	2/4/2012 18:50
Fluorene	0.067		0.0050	0.020	mg/L	100	2/9/2012 19:56
Naphthalene	1.5		0.025	0.10	mg/L	500	2/8/2012 22:04
Nitrobenzene	U		0.000050	0.00020	mg/L	1	2/4/2012 18:50
N-Nitrosodiphenylamine	U		0.000050	0.00020	mg/L	1	2/4/2012 18:50
Pentachlorophenol	U		0.000050	0.00020	mg/L	1	2/4/2012 18:50
Phenanthrene	0.078		0.00050	0.0020	mg/L	10	2/7/2012 22:00
Phenol	U		0.000050	0.00020	mg/L	1	2/4/2012 18:50
Pyrene	0.0026		0.000050	0.00020	mg/L	1	2/4/2012 18:50
Surr:2,4,6-Tribromophenol	42.8			34-129	%REC	1	2/4/2012 18:50
Surr:2,4,6-Tribromophenol	63.0			34-129	%REC	10	2/7/2012 22:00
Surr:2,4,6-Tribromophenol	0	S		34-129	%REC	500	2/8/2012 22:04
Surr:2,4,6-Tribromophenol	59.1	J		34-129	%REC	100	2/9/2012 19:56
Surr:2-Fluorobiphenyl	40.8			40-125	%REC	1	2/4/2012 18:50
Surr:2-Fluorobiphenyl	69.7			40-125	%REC	10	2/7/2012 22:00
Surr:2-Fluorobiphenyl	0	S		40-125	%REC	500	2/8/2012 22:04
Surr:2-Fluorobiphenyl	51.9	J		40-125	%REC	100	2/9/2012 19:56
Surr:2-Fluorophenol	50.0			20-120	%REC	1	2/4/2012 18:50
Surr:2-Fluorophenol	71.5			20-120	%REC	10	2/7/2012 22:00
Surr:2-Fluorophenol	0	S		20-120	%REC	500	2/8/2012 22:04

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 13-Feb-12

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-MW12A-20120201
Collection Date: 2/1/2012 03:20 PM

Work Order: 1202096
Lab ID: 1202096-10
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
Surr: 2-Fluorophenol	70.7	J		20-120	%REC	100	2/9/2012 19:56
Surr: 4-Terphenyl-d14	74.2			40-135	%REC	1	2/4/2012 18:50
Surr: 4-Terphenyl-d14	117			40-135	%REC	10	2/7/2012 22:00
Surr: 4-Terphenyl-d14	0	S		40-135	%REC	500	2/8/2012 22:04
Surr: 4-Terphenyl-d14	99.5	J		40-135	%REC	100	2/9/2012 19:56
Surr: Nitrobenzene-d5	42.1			41-120	%REC	1	2/4/2012 18:50
Surr: Nitrobenzene-d5	64.4			41-120	%REC	10	2/7/2012 22:00
Surr: Nitrobenzene-d5	0	S		41-120	%REC	500	2/8/2012 22:04
Surr: Nitrobenzene-d5	44.2	J		41-120	%REC	100	2/9/2012 19:56
Surr: Phenol-d6	42.6			20-120	%REC	1	2/4/2012 18:50
Surr: Phenol-d6	56.9			20-120	%REC	10	2/7/2012 22:00
Surr: Phenol-d6	0	S		20-120	%REC	500	2/8/2012 22:04
Surr: Phenol-d6	43.5	J		20-120	%REC	100	2/9/2012 19:56

VOLATILES		Method: SW8260				Analyst: PC	
1,2-Dichloroethane	U		0.0010	0.0050	mg/L	1	2/3/2012 22:13
Benzene	U		0.0010	0.0050	mg/L	1	2/3/2012 22:13
Chlorobenzene	U		0.0010	0.0050	mg/L	1	2/3/2012 22:13
Ethylbenzene	0.0042	J	0.0011	0.0050	mg/L	1	2/3/2012 22:13
Methylenechloride	U		0.0013	0.010	mg/L	1	2/3/2012 22:13
Toluene	U		0.0010	0.0050	mg/L	1	2/3/2012 22:13
Xylenes, Total	0.0048	J	0.0031	0.015	mg/L	1	2/3/2012 22:13
Surr: 1,2-Dichloroethane-d4	113			70-125	%REC	1	2/3/2012 22:13
Surr: 4-Bromofluorobenzene	96.2			72-125	%REC	1	2/3/2012 22:13
Surr: Dibromofluoromethane	102			71-125	%REC	1	2/3/2012 22:13
Surr: Toluene-d8	101			75-125	%REC	1	2/3/2012 22:13

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 13-Feb-12

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-TW41B-20120201
Collection Date: 2/1/2012 04:30 PM

Work Order: 1202096
Lab ID: 1202096-11
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270	Prep: SW3510 / 2/4/12		Analyst: LG	
1,2-Diphenylhydrazine	U		0.000050	0.00020	mg/L	1	2/4/2012 19:11
2,4-Dimethylphenol	U		0.000050	0.00020	mg/L	1	2/4/2012 19:11
2,4-Dinitrotoluene	U		0.000050	0.00020	mg/L	1	2/4/2012 19:11
2,6-Dinitrotoluene	U		0.000060	0.00020	mg/L	1	2/4/2012 19:11
2-Chloronaphthalene	U		0.000050	0.00020	mg/L	1	2/4/2012 19:11
2-Methylnaphthalene	U		0.000050	0.00020	mg/L	1	2/4/2012 19:11
4,6-Dinitro-2-methylphenol	U		0.000080	0.00020	mg/L	1	2/4/2012 19:11
4-Nitrophenol	U		0.000050	0.0010	mg/L	1	2/4/2012 19:11
Acenaphthene	U		0.000050	0.00020	mg/L	1	2/4/2012 19:11
Acenaphthylene	U		0.000050	0.00020	mg/L	1	2/4/2012 19:11
Anthracene	0.00016	J	0.000050	0.00020	mg/L	1	2/4/2012 19:11
Benz(a)anthracene	U		0.000050	0.00020	mg/L	1	2/4/2012 19:11
Benzo(a)pyrene	U		0.000050	0.00020	mg/L	1	2/4/2012 19:11
Bis(2-chloroethoxy)methane	U		0.000050	0.00020	mg/L	1	2/4/2012 19:11
Bis(2-ethylhexyl)phthalate	0.00023		0.00010	0.00020	mg/L	1	2/4/2012 19:11
Chrysene	U		0.000050	0.00020	mg/L	1	2/4/2012 19:11
Dibenzofuran	U		0.000050	0.00020	mg/L	1	2/4/2012 19:11
Di-n-butylphthalate	U		0.000050	0.00020	mg/L	1	2/4/2012 19:11
Fluoranthene	U		0.000050	0.00020	mg/L	1	2/4/2012 19:11
Fluorene	U		0.000050	0.00020	mg/L	1	2/4/2012 19:11
Naphthalene	0.00051		0.000050	0.00020	mg/L	1	2/4/2012 19:11
Nitrobenzene	U		0.000050	0.00020	mg/L	1	2/4/2012 19:11
N-Nitrosodiphenylamine	U		0.000050	0.00020	mg/L	1	2/4/2012 19:11
Pentachlorophenol	U		0.000050	0.00020	mg/L	1	2/4/2012 19:11
Phenanthrene	U		0.000050	0.00020	mg/L	1	2/4/2012 19:11
Phenol	0.000057	J	0.000050	0.00020	mg/L	1	2/4/2012 19:11
Pyrene	U		0.000050	0.00020	mg/L	1	2/4/2012 19:11
Surr: 2,4,6-Tribromophenol	63.1			34-129	%REC	1	2/4/2012 19:11
Surr: 2-Fluorobiphenyl	46.7			40-125	%REC	1	2/4/2012 19:11
Surr: 2-Fluorophenol	44.2			20-120	%REC	1	2/4/2012 19:11
Surr: 4-Terphenyl-d14	76.9			40-135	%REC	1	2/4/2012 19:11
Surr: Nitrobenzene-d5	70.5			41-120	%REC	1	2/4/2012 19:11
Surr: Phenol-d6	35.7			20-120	%REC	1	2/4/2012 19:11

VOLATILES			Method: SW8260			Analyst: PC	
1,2-Dichloroethane	U		0.0010	0.0050	mg/L	1	2/4/2012 03:29
Benzene	U		0.0010	0.0050	mg/L	1	2/4/2012 03:29
Chlorobenzene	U		0.0010	0.0050	mg/L	1	2/4/2012 03:29
Ethylbenzene	U		0.0011	0.0050	mg/L	1	2/4/2012 03:29

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 13-Feb-12

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-TW41B-20120201
Collection Date: 2/1/2012 04:30 PM

Work Order: 1202096
Lab ID: 1202096-11
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
Methylenechloride	U		0.0013	0.010	mg/L	1	2/4/2012 03:29
Toluene	U		0.0010	0.0050	mg/L	1	2/4/2012 03:29
Xylenes, Total	U		0.0031	0.015	mg/L	1	2/4/2012 03:29
<i>Surr: 1,2-Dichloroethane-d4</i>	111			70-125	%REC	1	2/4/2012 03:29
<i>Surr: 4-Bromofluorobenzene</i>	98.9			72-125	%REC	1	2/4/2012 03:29
<i>Surr: Dibromofluoromethane</i>	103			71-125	%REC	1	2/4/2012 03:29
<i>Surr: Toluene-d8</i>	101			75-125	%REC	1	2/4/2012 03:29

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 13-Feb-12

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-FB01-20120201
Collection Date: 2/1/2012 04:45 PM

Work Order: 1202096
Lab ID: 1202096-12
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270	Prep: SW3510 / 2/4/12	Analyst: LG		
1,2-Diphenylhydrazine	U		0.000050	0.00020	mg/L	1	2/7/2012 14:14
2,4-Dimethylphenol	U		0.000050	0.00020	mg/L	1	2/7/2012 14:14
2,4-Dinitrotoluene	U		0.000050	0.00020	mg/L	1	2/7/2012 14:14
2,6-Dinitrotoluene	U		0.000060	0.00020	mg/L	1	2/7/2012 14:14
2-Chloronaphthalene	U		0.000050	0.00020	mg/L	1	2/7/2012 14:14
2-Methylnaphthalene	U		0.000050	0.00020	mg/L	1	2/7/2012 14:14
4,6-Dinitro-2-methylphenol	U		0.000080	0.00020	mg/L	1	2/7/2012 14:14
4-Nitrophenol	U		0.000050	0.0010	mg/L	1	2/7/2012 14:14
Acenaphthene	U		0.000050	0.00020	mg/L	1	2/7/2012 14:14
Acenaphthylene	U		0.000050	0.00020	mg/L	1	2/7/2012 14:14
Anthracene	U		0.000050	0.00020	mg/L	1	2/7/2012 14:14
Benz(a)anthracene	U		0.000050	0.00020	mg/L	1	2/7/2012 14:14
Benzo(a)pyrene	U		0.000050	0.00020	mg/L	1	2/7/2012 14:14
Bis(2-chloroethoxy)methane	U		0.000050	0.00020	mg/L	1	2/7/2012 14:14
Bis(2-ethylhexyl)phthalate	0.00015	J	0.00010	0.00020	mg/L	1	2/7/2012 14:14
Chrysene	U		0.000050	0.00020	mg/L	1	2/7/2012 14:14
Dibenzofuran	U		0.000050	0.00020	mg/L	1	2/7/2012 14:14
Di-n-butylphthalate	U		0.000050	0.00020	mg/L	1	2/7/2012 14:14
Fluoranthene	U		0.000050	0.00020	mg/L	1	2/7/2012 14:14
Fluorene	U		0.000050	0.00020	mg/L	1	2/7/2012 14:14
Naphthalene	0.00048		0.000050	0.00020	mg/L	1	2/7/2012 14:14
Nitrobenzene	U		0.000050	0.00020	mg/L	1	2/7/2012 14:14
N-Nitrosodiphenylamine	U		0.000050	0.00020	mg/L	1	2/7/2012 14:14
Pentachlorophenol	U		0.000050	0.00020	mg/L	1	2/7/2012 14:14
Phenanthrene	U		0.000050	0.00020	mg/L	1	2/7/2012 14:14
Phenol	U		0.000050	0.00020	mg/L	1	2/7/2012 14:14
Pyrene	U		0.000050	0.00020	mg/L	1	2/7/2012 14:14
Surr: 2,4,6-Tribromophenol	66.7			34-129	%REC	1	2/7/2012 14:14
Surr: 2-Fluorobiphenyl	69.9			40-125	%REC	1	2/7/2012 14:14
Surr: 2-Fluorophenol	53.3			20-120	%REC	1	2/7/2012 14:14
Surr: 4-Terphenyl-d14	76.8			40-135	%REC	1	2/7/2012 14:14
Surr: Nitrobenzene-d5	56.9			41-120	%REC	1	2/7/2012 14:14
Surr: Phenol-d6	53.9			20-120	%REC	1	2/7/2012 14:14
VOLATILES			Method: SW8260	Analyst: PC			
1,2-Dichloroethane	U		0.0010	0.0050	mg/L	1	2/3/2012 18:51
Benzene	U		0.0010	0.0050	mg/L	1	2/3/2012 18:51
Chlorobenzene	U		0.0010	0.0050	mg/L	1	2/3/2012 18:51
Ethylbenzene	U		0.0011	0.0050	mg/L	1	2/3/2012 18:51

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 13-Feb-12

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-FB01-20120201
Collection Date: 2/1/2012 04:45 PM

Work Order: 1202096
Lab ID: 1202096-12
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
Methylenechloride	U		0.0013	0.010	mg/L	1	2/3/2012 18:51
Toluene	U		0.0010	0.0050	mg/L	1	2/3/2012 18:51
Vinylchloride	U		0.0010	0.0020	mg/L	1	2/3/2012 18:51
Xylenes, Total	U		0.0031	0.015	mg/L	1	2/3/2012 18:51
<i>Surr: 1,2-Dichloroethane-d4</i>		103		70-125	%REC	1	2/3/2012 18:51
<i>Surr: 4-Bromofluorobenzene</i>		95.2		72-125	%REC	1	2/3/2012 18:51
<i>Surr: Dibromofluoromethane</i>		102		71-125	%REC	1	2/3/2012 18:51
<i>Surr: Toluene-d8</i>		99.8		75-125	%REC	1	2/3/2012 18:51

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 13-Feb-12

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-MW15A-20120202
Collection Date: 2/2/2012 07:30 AM

Work Order: 1202096
Lab ID: 1202096-13
Matrix: WATER

Analyses	Result	Qual	SDL	ML	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270	Prep: SW3510 / 2/4/12	Analyst: LG		
1,2-Diphenylhydrazine		U	0.000050	0.00020	mg/L	1	2/8/2012 06:25
2,4-Dimethylphenol	0.00059		0.000050	0.00020	mg/L	1	2/8/2012 06:25
2,4-Dinitrotoluene		U	0.000050	0.00020	mg/L	1	2/8/2012 06:25
2,6-Dinitrotoluene		U	0.000060	0.00020	mg/L	1	2/8/2012 06:25
2-Chloronaphthalene		U	0.000050	0.00020	mg/L	1	2/8/2012 06:25
2-Methylnaphthalene	0.0010		0.000050	0.00020	mg/L	1	2/8/2012 06:25
4,6-Dinitro-2-methylphenol		U	0.000080	0.00020	mg/L	1	2/8/2012 06:25
4-Nitrophenol		U	0.000050	0.0010	mg/L	1	2/8/2012 06:25
Acenaphthene	0.13		0.0010	0.0040	mg/L	20	2/9/2012 23:25
Acenaphthylene	0.00071		0.000050	0.00020	mg/L	1	2/8/2012 06:25
Anthracene	0.0028		0.000050	0.00020	mg/L	1	2/8/2012 06:25
Benz(a)anthracene		U	0.000050	0.00020	mg/L	1	2/8/2012 06:25
Benzo(a)pyrene		U	0.000050	0.00020	mg/L	1	2/8/2012 06:25
Bis(2-chloroethoxy)methane		U	0.000050	0.00020	mg/L	1	2/8/2012 06:25
Bis(2-ethylhexyl)phthalate		U	0.00010	0.00020	mg/L	1	2/8/2012 06:25
Chrysene		U	0.000050	0.00020	mg/L	1	2/8/2012 06:25
Dibenzofuran	0.028		0.000050	0.0020	mg/L	10	2/9/2012 18:54
Di-n-butylphthalate		U	0.000050	0.00020	mg/L	1	2/8/2012 06:25
Fluoranthene	0.00094		0.000050	0.00020	mg/L	1	2/8/2012 06:25
Fluorene	0.043		0.000050	0.0020	mg/L	10	2/9/2012 18:54
Naphthalene	0.0080		0.000050	0.00020	mg/L	1	2/8/2012 06:25
Nitrobenzene		U	0.000050	0.00020	mg/L	1	2/8/2012 06:25
N-Nitrosodiphenylamine		U	0.000050	0.00020	mg/L	1	2/8/2012 06:25
Pentachlorophenol		U	0.000050	0.00020	mg/L	1	2/8/2012 06:25
Phenanthrene	0.0056		0.000050	0.00020	mg/L	1	2/8/2012 06:25
Phenol		U	0.000050	0.00020	mg/L	1	2/8/2012 06:25
Pyrene	0.00053		0.000050	0.00020	mg/L	1	2/8/2012 06:25
Surr: 2,4,6-Tribromophenol	43.8			34-129	%REC	1	2/8/2012 06:25
Surr: 2,4,6-Tribromophenol	69.0			34-129	%REC	10	2/9/2012 18:54
Surr: 2,4,6-Tribromophenol	81.7			34-129	%REC	20	2/9/2012 23:25
Surr: 2-Fluorobiphenyl	45.9			40-125	%REC	1	2/8/2012 06:25
Surr: 2-Fluorobiphenyl	75.1			40-125	%REC	10	2/9/2012 18:54
Surr: 2-Fluorobiphenyl	88.3			40-125	%REC	20	2/9/2012 23:25
Surr: 2-Fluorophenol	55.3			20-120	%REC	1	2/8/2012 06:25
Surr: 2-Fluorophenol	71.4			20-120	%REC	10	2/9/2012 18:54
Surr: 2-Fluorophenol	65.7	J		20-120	%REC	20	2/9/2012 23:25
Surr: 4-Terphenyl-d14	76.9			40-135	%REC	1	2/8/2012 06:25
Surr: 4-Terphenyl-d14	101			40-135	%REC	10	2/9/2012 18:54

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 13-Feb-12

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-MW15A-20120202
Collection Date: 2/2/2012 07:30 AM

Work Order: 1202096
Lab ID: 1202096-13
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
Surr: 4-Terphenyl-d14	89.6			40-135	%REC	20	2/9/2012 23:25
Surr: Nitrobenzene-d5	57.8			41-120	%REC	1	2/8/2012 06:25
Surr: Nitrobenzene-d5	67.9			41-120	%REC	10	2/9/2012 18:54
Surr: Nitrobenzene-d5	65.7	J		41-120	%REC	20	2/9/2012 23:25
Surr: Phenol-d6	46.5			20-120	%REC	1	2/8/2012 06:25
Surr: Phenol-d6	29.6	J		20-120	%REC	10	2/9/2012 18:54
Surr: Phenol-d6	32.0	J		20-120	%REC	20	2/9/2012 23:25

VOLATILES		Method: SW8260				Analyst: PC	
1,2-Dichloroethane	U		0.0010	0.0050	mg/L	1	2/4/2012 03:55
Benzene	0.0012	J	0.0010	0.0050	mg/L	1	2/4/2012 03:55
Chlorobenzene	U		0.0010	0.0050	mg/L	1	2/4/2012 03:55
Ethylbenzene	0.0024	J	0.0011	0.0050	mg/L	1	2/4/2012 03:55
Methylenechloride	U		0.0013	0.010	mg/L	1	2/4/2012 03:55
Toluene	U		0.0010	0.0050	mg/L	1	2/4/2012 03:55
Xylenes, Total	0.0073	J	0.0031	0.015	mg/L	1	2/4/2012 03:55
Surr: 1,2-Dichloroethane-d4	100			70-125	%REC	1	2/4/2012 03:55
Surr: 4-Bromofluorobenzene	82.5			72-125	%REC	1	2/4/2012 03:55
Surr: Dibromofluoromethane	105			71-125	%REC	1	2/4/2012 03:55
Surr: Toluene-d8	104			75-125	%REC	1	2/4/2012 03:55

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 13-Feb-12

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-MW15C-20120202
Collection Date: 2/2/2012 08:20 AM

Work Order: 1202096
Lab ID: 1202096-14
Matrix: WATER

Analyses	Result	Qual	SDL	ML	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270	Prep: SW3510 / 2/4/12	Analyst: LG		
1,2-Diphenylhydrazine	U		0.000050	0.00020	mg/L	1	2/4/2012 20:13
2,4-Dimethylphenol	U		0.000050	0.00020	mg/L	1	2/4/2012 20:13
2,4-Dinitrotoluene	U		0.000050	0.00020	mg/L	1	2/4/2012 20:13
2,6-Dinitrotoluene	U		0.000060	0.00020	mg/L	1	2/4/2012 20:13
2-Chloronaphthalene	U		0.000050	0.00020	mg/L	1	2/4/2012 20:13
2-Methylnaphthalene	0.000099	J	0.000050	0.00020	mg/L	1	2/4/2012 20:13
4,6-Dinitro-2-methylphenol	U		0.000080	0.00020	mg/L	1	2/4/2012 20:13
4-Nitrophenol	U		0.000050	0.0010	mg/L	1	2/4/2012 20:13
Acenaphthene	0.041		0.00050	0.0020	mg/L	10	2/7/2012 22:21
Acenaphthylene	0.0013		0.000050	0.00020	mg/L	1	2/4/2012 20:13
Anthracene	0.00021		0.000050	0.00020	mg/L	1	2/4/2012 20:13
Benz(a)anthracene	U		0.000050	0.00020	mg/L	1	2/4/2012 20:13
Benzo(a)pyrene	U		0.000050	0.00020	mg/L	1	2/4/2012 20:13
Bis(2-chloroethoxy)methane	U		0.000050	0.00020	mg/L	1	2/4/2012 20:13
Bis(2-ethylhexyl)phthalate	U		0.00010	0.00020	mg/L	1	2/4/2012 20:13
Chrysene	U		0.000050	0.00020	mg/L	1	2/4/2012 20:13
Dibenzofuran	0.027		0.00050	0.0020	mg/L	10	2/7/2012 22:21
Di-n-butylphthalate	U		0.000050	0.00020	mg/L	1	2/4/2012 20:13
Fluoranthene	0.0016		0.000050	0.00020	mg/L	1	2/4/2012 20:13
Fluorene	0.0025		0.000050	0.00020	mg/L	1	2/4/2012 20:13
Naphthalene	0.0011		0.000050	0.00020	mg/L	1	2/4/2012 20:13
Nitrobenzene	U		0.000050	0.00020	mg/L	1	2/4/2012 20:13
N-Nitrosodiphenylamine	U		0.000050	0.00020	mg/L	1	2/4/2012 20:13
Pentachlorophenol	U		0.000050	0.00020	mg/L	1	2/4/2012 20:13
Phenanthrene	0.0015		0.000050	0.00020	mg/L	1	2/4/2012 20:13
Phenol	U		0.000050	0.00020	mg/L	1	2/4/2012 20:13
Pyrene	0.00093		0.000050	0.00020	mg/L	1	2/4/2012 20:13
Surr: 2,4,6-Tribromophenol	65.6			34-129	%REC	1	2/4/2012 20:13
Surr: 2,4,6-Tribromophenol	37.7	J		34-129	%REC	10	2/7/2012 22:21
Surr: 2-Fluorobiphenyl	43.3			40-125	%REC	1	2/4/2012 20:13
Surr: 2-Fluorobiphenyl	49.4			40-125	%REC	10	2/7/2012 22:21
Surr: 2-Fluorophenol	45.7			20-120	%REC	1	2/4/2012 20:13
Surr: 2-Fluorophenol	48.0			20-120	%REC	10	2/7/2012 22:21
Surr: 4-Terphenyl-d14	79.5			40-135	%REC	1	2/4/2012 20:13
Surr: 4-Terphenyl-d14	85.9			40-135	%REC	10	2/7/2012 22:21
Surr: Nitrobenzene-d5	43.6			41-120	%REC	1	2/4/2012 20:13
Surr: Nitrobenzene-d5	67.6			41-120	%REC	10	2/7/2012 22:21
Surr: Phenol-d6	38.9			20-120	%REC	1	2/4/2012 20:13

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 13-Feb-12

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-MW15C-20120202
Collection Date: 2/2/2012 08:20 AM

Work Order: 1202096
Lab ID: 1202096-14
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
Surr: Phenol-d6	29.0	J		20-120	%REC	10	2/7/2012 22:21
VOLATILES			Method: SW8260			Analyst: PC	
1,2-Dichloroethane	U		0.0010	0.0050	mg/L	1	2/4/2012 04:21
Benzene	U		0.0010	0.0050	mg/L	1	2/4/2012 04:21
Chlorobenzene	U		0.0010	0.0050	mg/L	1	2/4/2012 04:21
Ethylbenzene	0.0017	J	0.0011	0.0050	mg/L	1	2/4/2012 04:21
Methylenechloride	U		0.0013	0.010	mg/L	1	2/4/2012 04:21
Toluene	U		0.0010	0.0050	mg/L	1	2/4/2012 04:21
Xylenes, Total	U		0.0031	0.015	mg/L	1	2/4/2012 04:21
Surr: 1,2-Dichloroethane-d4	82.7			70-125	%REC	1	2/4/2012 04:21
Surr: 4-Bromofluorobenzene	104			72-125	%REC	1	2/4/2012 04:21
Surr: Dibromofluoromethane	102			71-125	%REC	1	2/4/2012 04:21
Surr: Toluene-d8	107			75-125	%REC	1	2/4/2012 04:21

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 13-Feb-12

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-MW15B-20120202
Collection Date: 2/2/2012 09:15 AM

Work Order: 1202096
Lab ID: 1202096-15
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270	Prep: SW3510 / 2/4/12		Analyst: LG	
1,2-Diphenylhydrazine		U	0.000050	0.00020	mg/L	1	2/7/2012 20:56
2,4-Dimethylphenol	0.00043		0.000050	0.00020	mg/L	1	2/7/2012 20:56
2,4-Dinitrotoluene		U	0.000050	0.00020	mg/L	1	2/7/2012 20:56
2,6-Dinitrotoluene		U	0.000060	0.00020	mg/L	1	2/7/2012 20:56
2-Chloronaphthalene		U	0.000050	0.00020	mg/L	1	2/7/2012 20:56
2-Methylnaphthalene	0.29		0.0050	0.020	mg/L	100	2/9/2012 19:36
4,6-Dinitro-2-methylphenol		U	0.000080	0.00020	mg/L	1	2/7/2012 20:56
4-Nitrophenol		U	0.000050	0.0010	mg/L	1	2/7/2012 20:56
Acenaphthene	0.17		0.0050	0.020	mg/L	100	2/9/2012 19:36
Acenaphthylene	0.0011		0.000050	0.00020	mg/L	1	2/7/2012 20:56
Anthracene	0.039		0.00050	0.0020	mg/L	10	2/7/2012 21:17
Benz(a)anthracene	0.00016	J	0.000050	0.00020	mg/L	1	2/7/2012 20:56
Benzo(a)pyrene		U	0.000050	0.00020	mg/L	1	2/7/2012 20:56
Bis(2-chloroethoxy)methane		U	0.000050	0.00020	mg/L	1	2/7/2012 20:56
Bis(2-ethylhexyl)phthalate		U	0.00010	0.00020	mg/L	1	2/7/2012 20:56
Chrysene	0.00019	J	0.000050	0.00020	mg/L	1	2/7/2012 20:56
Dibenzofuran	0.15		0.0050	0.020	mg/L	100	2/9/2012 19:36
Di-n-butylphthalate		U	0.000050	0.00020	mg/L	1	2/7/2012 20:56
Fluoranthene	0.012		0.00050	0.0020	mg/L	10	2/7/2012 21:17
Fluorene	0.084		0.00050	0.0020	mg/L	10	2/7/2012 21:17
Naphthalene	2.5		0.025	0.10	mg/L	500	2/8/2012 21:23
Nitrobenzene		U	0.000050	0.00020	mg/L	1	2/7/2012 20:56
N-Nitrosodiphenylamine		U	0.000050	0.00020	mg/L	1	2/7/2012 20:56
Pentachlorophenol		U	0.000050	0.00020	mg/L	1	2/7/2012 20:56
Phenanthrene	0.080		0.00050	0.0020	mg/L	10	2/7/2012 21:17
Phenol	0.00012	J	0.000050	0.00020	mg/L	1	2/7/2012 20:56
Pyrene	0.0050		0.000050	0.00020	mg/L	1	2/7/2012 20:56
Surr:2,4,6-Tribromophenol	41.3			34-129	%REC	1	2/7/2012 20:56
Surr:2,4,6-Tribromophenol	45.9			34-129	%REC	10	2/7/2012 21:17
Surr:2,4,6-Tribromophenol	0	S		34-129	%REC	500	2/8/2012 21:23
Surr:2,4,6-Tribromophenol	59.4	J		34-129	%REC	100	2/9/2012 19:36
Surr:2-Fluorobiphenyl	43.1			40-125	%REC	1	2/7/2012 20:56
Surr:2-Fluorobiphenyl	56.6			40-125	%REC	10	2/7/2012 21:17
Surr:2-Fluorobiphenyl	0	S		40-125	%REC	500	2/8/2012 21:23
Surr:2-Fluorobiphenyl	73.0	J		40-125	%REC	100	2/9/2012 19:36
Surr:2-Fluorophenol	55.1			20-120	%REC	1	2/7/2012 20:56
Surr:2-Fluorophenol	63.2			20-120	%REC	10	2/7/2012 21:17
Surr:2-Fluorophenol	0	S		20-120	%REC	500	2/8/2012 21:23

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 13-Feb-12

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-MW15B-20120202
Collection Date: 2/2/2012 09:15 AM

Work Order: 1202096
Lab ID: 1202096-15
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
Surr: 2-Fluorophenol	71.0	J		20-120	%REC	100	2/9/2012 19:36
Surr: 4-Terphenyl-d14	75.9			40-135	%REC	1	2/7/2012 20:56
Surr: 4-Terphenyl-d14	87.2			40-135	%REC	10	2/7/2012 21:17
Surr: 4-Terphenyl-d14	0	S		40-135	%REC	500	2/8/2012 21:23
Surr: 4-Terphenyl-d14	84.2	J		40-135	%REC	100	2/9/2012 19:36
Surr: Nitrobenzene-d5	50.4			41-120	%REC	1	2/7/2012 20:56
Surr: Nitrobenzene-d5	42.8			41-120	%REC	10	2/7/2012 21:17
Surr: Nitrobenzene-d5	0	S		41-120	%REC	500	2/8/2012 21:23
Surr: Nitrobenzene-d5	58.0	J		41-120	%REC	100	2/9/2012 19:36
Surr: Phenol-d6	58.3			20-120	%REC	1	2/7/2012 20:56
Surr: Phenol-d6	48.7			20-120	%REC	10	2/7/2012 21:17
Surr: Phenol-d6	0	S		20-120	%REC	500	2/8/2012 21:23
Surr: Phenol-d6	27.3	J		20-120	%REC	100	2/9/2012 19:36

VOLATILES		Method: SW8260				Analyst: PC	
1,2-Dichloroethane	U		0.0050	0.025	mg/L	5	2/8/2012 08:49
Benzene	U		0.0050	0.025	mg/L	5	2/8/2012 08:49
Chlorobenzene	U		0.0050	0.025	mg/L	5	2/8/2012 08:49
Ethylbenzene	0.020	J	0.0055	0.025	mg/L	5	2/8/2012 08:49
Methylenechloride	U		0.0065	0.050	mg/L	5	2/8/2012 08:49
Toluene	U		0.0050	0.025	mg/L	5	2/8/2012 08:49
Xylenes, Total	U		0.016	0.075	mg/L	5	2/8/2012 08:49
Surr: 1,2-Dichloroethane-d4	92.2			70-125	%REC	5	2/8/2012 08:49
Surr: 4-Bromofluorobenzene	92.1			72-125	%REC	5	2/8/2012 08:49
Surr: Dibromofluoromethane	96.5			71-125	%REC	5	2/8/2012 08:49
Surr: Toluene-d8	101			75-125	%REC	5	2/8/2012 08:49

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 13-Feb-12

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-MW14-20120202
Collection Date: 2/2/2012 10:05 AM

Work Order: 1202096
Lab ID: 1202096-16
Matrix: WATER

Analyses	Result	Qual	SDL	ML	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270	Prep: SW3510 / 2/4/12	Analyst: LG		
1,2-Diphenylhydrazine	U		0.000050	0.00020	mg/L	1	2/7/2012 14:36
2,4-Dimethylphenol	U		0.000050	0.00020	mg/L	1	2/7/2012 14:36
2,4-Dinitrotoluene	U		0.000050	0.00020	mg/L	1	2/7/2012 14:36
2,6-Dinitrotoluene	U		0.000060	0.00020	mg/L	1	2/7/2012 14:36
2-Chloronaphthalene	U		0.000050	0.00020	mg/L	1	2/7/2012 14:36
2-Methylnaphthalene	0.000064	J	0.000050	0.00020	mg/L	1	2/7/2012 14:36
4,6-Dinitro-2-methylphenol	U		0.000080	0.00020	mg/L	1	2/7/2012 14:36
4-Nitrophenol	U		0.000050	0.0010	mg/L	1	2/7/2012 14:36
Acenaphthene	U		0.000050	0.00020	mg/L	1	2/7/2012 14:36
Acenaphthylene	U		0.000050	0.00020	mg/L	1	2/7/2012 14:36
Anthracene	U		0.000050	0.00020	mg/L	1	2/7/2012 14:36
Benz(a)anthracene	U		0.000050	0.00020	mg/L	1	2/7/2012 14:36
Benzo(a)pyrene	U		0.000050	0.00020	mg/L	1	2/7/2012 14:36
Bis(2-chloroethoxy)methane	U		0.000050	0.00020	mg/L	1	2/7/2012 14:36
Bis(2-ethylhexyl)phthalate	U		0.00010	0.00020	mg/L	1	2/7/2012 14:36
Chrysene	U		0.000050	0.00020	mg/L	1	2/7/2012 14:36
Dibenzofuran	0.00012	J	0.000050	0.00020	mg/L	1	2/7/2012 14:36
Di-n-butylphthalate	U		0.000050	0.00020	mg/L	1	2/7/2012 14:36
Fluoranthene	0.00024		0.000050	0.00020	mg/L	1	2/7/2012 14:36
Fluorene	U		0.000050	0.00020	mg/L	1	2/7/2012 14:36
Naphthalene	0.00034		0.000050	0.00020	mg/L	1	2/7/2012 14:36
Nitrobenzene	U		0.000050	0.00020	mg/L	1	2/7/2012 14:36
N-Nitrosodiphenylamine	U		0.000050	0.00020	mg/L	1	2/7/2012 14:36
Pentachlorophenol	U		0.000050	0.00020	mg/L	1	2/7/2012 14:36
Phenanthrene	0.00011	J	0.000050	0.00020	mg/L	1	2/7/2012 14:36
Phenol	U		0.000050	0.00020	mg/L	1	2/7/2012 14:36
Pyrene	0.00029		0.000050	0.00020	mg/L	1	2/7/2012 14:36
Surr: 2,4,6-Tribromophenol	73.6			34-129	%REC	1	2/7/2012 14:36
Surr: 2-Fluorobiphenyl	61.3			40-125	%REC	1	2/7/2012 14:36
Surr: 2-Fluorophenol	67.0			20-120	%REC	1	2/7/2012 14:36
Surr: 4-Terphenyl-d14	77.1			40-135	%REC	1	2/7/2012 14:36
Surr: Nitrobenzene-d5	70.7			41-120	%REC	1	2/7/2012 14:36
Surr: Phenol-d6	62.3			20-120	%REC	1	2/7/2012 14:36

VOLATILES			Method: SW8260	Analyst: PC			
1,2-Dichloroethane	U		0.0010	0.0050	mg/L	1	2/4/2012 04:47
Benzene	U		0.0010	0.0050	mg/L	1	2/4/2012 04:47
Chlorobenzene	U		0.0010	0.0050	mg/L	1	2/4/2012 04:47
Ethylbenzene	U		0.0011	0.0050	mg/L	1	2/4/2012 04:47

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 13-Feb-12

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-MW14-20120202
Collection Date: 2/2/2012 10:05 AM

Work Order: 1202096
Lab ID: 1202096-16
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
Methylenechloride	U		0.0013	0.010	mg/L	1	2/4/2012 04:47
Toluene	U		0.0010	0.0050	mg/L	1	2/4/2012 04:47
Xylenes, Total	U		0.0031	0.015	mg/L	1	2/4/2012 04:47
Surr: 1,2-Dichloroethane-d4	93.7			70-125	%REC	1	2/4/2012 04:47
Surr: 4-Bromofluorobenzene	98.7			72-125	%REC	1	2/4/2012 04:47
Surr: Dibromofluoromethane	104			71-125	%REC	1	2/4/2012 04:47
Surr: Toluene-d8	104			75-125	%REC	1	2/4/2012 04:47

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 13-Feb-12

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-DUP3-20120202
Collection Date: 2/2/2012 10:05 AM

Work Order: 1202096
Lab ID: 1202096-17
Matrix: WATER

Analyses	Result	Qual	SDL	ML	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES		Method: SW8270			Prep: SW3510 / 2/4/12		Analyst: LG
1,2-Diphenylhydrazine		U	0.000050	0.00020	mg/L	1	2/7/2012 14:57
2,4-Dimethylphenol	0.0013		0.000050	0.00020	mg/L	1	2/7/2012 14:57
2,4-Dinitrotoluene		U	0.000050	0.00020	mg/L	1	2/7/2012 14:57
2,6-Dinitrotoluene		U	0.000060	0.00020	mg/L	1	2/7/2012 14:57
2-Chloronaphthalene		U	0.000050	0.00020	mg/L	1	2/7/2012 14:57
2-Methylnaphthalene	0.00017	J	0.000050	0.00020	mg/L	1	2/7/2012 14:57
4,6-Dinitro-2-methylphenol		U	0.000080	0.00020	mg/L	1	2/7/2012 14:57
4-Nitrophenol		U	0.000050	0.0010	mg/L	1	2/7/2012 14:57
Acenaphthene	0.00015	J	0.000050	0.00020	mg/L	1	2/7/2012 14:57
Acenaphthylene		U	0.000050	0.00020	mg/L	1	2/7/2012 14:57
Anthracene		U	0.000050	0.00020	mg/L	1	2/7/2012 14:57
Benz(a)anthracene		U	0.000050	0.00020	mg/L	1	2/7/2012 14:57
Benzo(a)pyrene		U	0.000050	0.00020	mg/L	1	2/7/2012 14:57
Bis(2-chloroethoxy)methane		U	0.000050	0.00020	mg/L	1	2/7/2012 14:57
Bis(2-ethylhexyl)phthalate	0.00013	J	0.00010	0.00020	mg/L	1	2/7/2012 14:57
Chrysene		U	0.000050	0.00020	mg/L	1	2/7/2012 14:57
Dibenzofuran	0.00015	J	0.000050	0.00020	mg/L	1	2/7/2012 14:57
Di-n-butylphthalate		U	0.000050	0.00020	mg/L	1	2/7/2012 14:57
Fluoranthene	0.00031		0.000050	0.00020	mg/L	1	2/7/2012 14:57
Fluorene		U	0.000050	0.00020	mg/L	1	2/7/2012 14:57
Naphthalene	0.0014		0.000050	0.00020	mg/L	1	2/7/2012 14:57
Nitrobenzene		U	0.000050	0.00020	mg/L	1	2/7/2012 14:57
N-Nitrosodiphenylamine		U	0.000050	0.00020	mg/L	1	2/7/2012 14:57
Pentachlorophenol		U	0.000050	0.00020	mg/L	1	2/7/2012 14:57
Phenanthrene	0.00014	J	0.000050	0.00020	mg/L	1	2/7/2012 14:57
Phenol	0.00075		0.000050	0.00020	mg/L	1	2/7/2012 14:57
Pyrene	0.00029		0.000050	0.00020	mg/L	1	2/7/2012 14:57
Surr: 2,4,6-Tribromophenol	71.3			34-129	%REC	1	2/7/2012 14:57
Surr: 2-Fluorobiphenyl	71.3			40-125	%REC	1	2/7/2012 14:57
Surr: 2-Fluorophenol	70.9			20-120	%REC	1	2/7/2012 14:57
Surr: 4-Terphenyl-d14	73.1			40-135	%REC	1	2/7/2012 14:57
Surr: Nitrobenzene-d5	72.3			41-120	%REC	1	2/7/2012 14:57
Surr: Phenol-d6	68.9			20-120	%REC	1	2/7/2012 14:57

VOLATILES		Method: SW8260			Analyst: PC		
1,2-Dichloroethane		U	0.0010	0.0050	mg/L	1	2/4/2012 05:13
Benzene		U	0.0010	0.0050	mg/L	1	2/4/2012 05:13
Chlorobenzene		U	0.0010	0.0050	mg/L	1	2/4/2012 05:13
Ethylbenzene		U	0.0011	0.0050	mg/L	1	2/4/2012 05:13

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 13-Feb-12

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-DUP3-20120202
Collection Date: 2/2/2012 10:05 AM

Work Order: 1202096
Lab ID: 1202096-17
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
Methylenechloride	U		0.0013	0.010	mg/L	1	2/4/2012 05:13
Toluene	U		0.0010	0.0050	mg/L	1	2/4/2012 05:13
Xylenes, Total	U		0.0031	0.015	mg/L	1	2/4/2012 05:13
Surr: 1,2-Dichloroethane-d4	106			70-125	%REC	1	2/4/2012 05:13
Surr: 4-Bromofluorobenzene	95.2			72-125	%REC	1	2/4/2012 05:13
Surr: Dibromofluoromethane	96.1			71-125	%REC	1	2/4/2012 05:13
Surr: Toluene-d8	93.4			75-125	%REC	1	2/4/2012 05:13

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 13-Feb-12

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-MW13-20120202
Collection Date: 2/2/2012 11:25 AM

Work Order: 1202096
Lab ID: 1202096-18
Matrix: WATER

Analyses	Result	Qual	SDL	ML	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270	Prep: SW3510 / 2/4/12	Analyst: LG		
1,2-Diphenylhydrazine	U		0.000050	0.00020	mg/L	1	2/4/2012 16:26
2,4-Dimethylphenol	U		0.000050	0.00020	mg/L	1	2/4/2012 16:26
2,4-Dinitrotoluene	U		0.000050	0.00020	mg/L	1	2/4/2012 16:26
2,6-Dinitrotoluene	U		0.000060	0.00020	mg/L	1	2/4/2012 16:26
2-Chloronaphthalene	U		0.000050	0.00020	mg/L	1	2/4/2012 16:26
2-Methylnaphthalene	U		0.000050	0.00020	mg/L	1	2/4/2012 16:26
4,6-Dinitro-2-methylphenol	U		0.000080	0.00020	mg/L	1	2/4/2012 16:26
4-Nitrophenol	U		0.000050	0.0010	mg/L	1	2/4/2012 16:26
Acenaphthene	U		0.000050	0.00020	mg/L	1	2/4/2012 16:26
Acenaphthylene	U		0.000050	0.00020	mg/L	1	2/4/2012 16:26
Anthracene	0.000068	J	0.000050	0.00020	mg/L	1	2/4/2012 16:26
Benz(a)anthracene	0.00014	J	0.000050	0.00020	mg/L	1	2/4/2012 16:26
Benzo(a)pyrene	0.000073	J	0.000050	0.00020	mg/L	1	2/4/2012 16:26
Bis(2-chloroethoxy)methane	U		0.000050	0.00020	mg/L	1	2/4/2012 16:26
Bis(2-ethylhexyl)phthalate	0.00043		0.00010	0.00020	mg/L	1	2/4/2012 16:26
Chrysene	0.00017	J	0.000050	0.00020	mg/L	1	2/4/2012 16:26
Dibenzofuran	0.000063	J	0.000050	0.00020	mg/L	1	2/4/2012 16:26
Di-n-butylphthalate	U		0.000050	0.00020	mg/L	1	2/4/2012 16:26
Fluoranthene	0.00015	J	0.000050	0.00020	mg/L	1	2/4/2012 16:26
Fluorene	U		0.000050	0.00020	mg/L	1	2/4/2012 16:26
Naphthalene	0.00022		0.000050	0.00020	mg/L	1	2/4/2012 16:26
Nitrobenzene	U		0.000050	0.00020	mg/L	1	2/4/2012 16:26
N-Nitrosodiphenylamine	U		0.000050	0.00020	mg/L	1	2/4/2012 16:26
Pentachlorophenol	U		0.000050	0.00020	mg/L	1	2/4/2012 16:26
Phenanthrene	0.00015	J	0.000050	0.00020	mg/L	1	2/4/2012 16:26
Phenol	U		0.000050	0.00020	mg/L	1	2/4/2012 16:26
Pyrene	0.00020	J	0.000050	0.00020	mg/L	1	2/4/2012 16:26
Surr: 2,4,6-Tribromophenol	51.4			34-129	%REC	1	2/4/2012 16:26
Surr: 2-Fluorobiphenyl	57.5			40-125	%REC	1	2/4/2012 16:26
Surr: 2-Fluorophenol	36.7			20-120	%REC	1	2/4/2012 16:26
Surr: 4-Terphenyl-d14	66.8			40-135	%REC	1	2/4/2012 16:26
Surr: Nitrobenzene-d5	44.8			41-120	%REC	1	2/4/2012 16:26
Surr: Phenol-d6	39.5			20-120	%REC	1	2/4/2012 16:26
VOLATILES			Method: SW8260	Analyst: PC			
1,2-Dichloroethane	U		0.0010	0.0050	mg/L	1	2/4/2012 01:43
Benzene	U		0.0010	0.0050	mg/L	1	2/4/2012 01:43
Chlorobenzene	U		0.0010	0.0050	mg/L	1	2/4/2012 01:43
Ethylbenzene	U		0.0011	0.0050	mg/L	1	2/4/2012 01:43

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 13-Feb-12

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-MW13-20120202
Collection Date: 2/2/2012 11:25 AM

Work Order: 1202096
Lab ID: 1202096-18
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
Methylenechloride	U		0.0013	0.010	mg/L	1	2/4/2012 01:43
Toluene	U		0.0010	0.0050	mg/L	1	2/4/2012 01:43
Xylenes, Total	U		0.0031	0.015	mg/L	1	2/4/2012 01:43
Surr: 1,2-Dichloroethane-d4	110			70-125	%REC	1	2/4/2012 01:43
Surr: 4-Bromofluorobenzene	84.7			72-125	%REC	1	2/4/2012 01:43
Surr: Dibromofluoromethane	95.3			71-125	%REC	1	2/4/2012 01:43
Surr: Toluene-d8	101			75-125	%REC	1	2/4/2012 01:43

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 13-Feb-12

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-TB02-20120202
Collection Date: 2/2/2012 12:05 PM

Work Order: 1202096
Lab ID: 1202096-19
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
VOLATILES			Method: SW8260			Analyst: PC	
1,2-Dichloroethane	U		0.0010	0.0050	mg/L	1	2/2/2012 20:30
Benzene	U		0.0010	0.0050	mg/L	1	2/2/2012 20:30
Chlorobenzene	U		0.0010	0.0050	mg/L	1	2/2/2012 20:30
Ethylbenzene	U		0.0011	0.0050	mg/L	1	2/2/2012 20:30
Methylenechloride	U		0.0013	0.010	mg/L	1	2/2/2012 20:30
Toluene	U		0.0010	0.0050	mg/L	1	2/2/2012 20:30
Vinyl chloride	U		0.0010	0.0020	mg/L	1	2/2/2012 20:30
Xylenes, Total	U		0.0031	0.015	mg/L	1	2/2/2012 20:30
Surr: 1,2-Dichloroethane-d4	99.2			70-125	%REC	1	2/2/2012 20:30
Surr: 4-Bromofluorobenzene	82.1			72-125	%REC	1	2/2/2012 20:30
Surr: Dibromofluoromethane	101			71-125	%REC	1	2/2/2012 20:30
Surr: Toluene-d8	100			75-125	%REC	1	2/2/2012 20:30

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 13-Feb-12

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-MW05-20120202
Collection Date: 2/2/2012 01:15 PM

Work Order: 1202096
Lab ID: 1202096-20
Matrix: WATER

Analyses	Result	Qual	SDL	ML	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270		Prep: SW3510 / 2/4/12		Analyst: LG
1,2-Diphenylhydrazine	U		0.000050	0.00020	mg/L	1	2/7/2012 15:18
2,4-Dimethylphenol	U		0.000050	0.00020	mg/L	1	2/7/2012 15:18
2,4-Dinitrotoluene	U		0.000050	0.00020	mg/L	1	2/7/2012 15:18
2,6-Dinitrotoluene	U		0.000060	0.00020	mg/L	1	2/7/2012 15:18
2-Chloronaphthalene	U		0.000050	0.00020	mg/L	1	2/7/2012 15:18
2-Methylnaphthalene	0.000085	J	0.000050	0.00020	mg/L	1	2/7/2012 15:18
4,6-Dinitro-2-methylphenol	U		0.000080	0.00020	mg/L	1	2/7/2012 15:18
4-Nitrophenol	U		0.000050	0.0010	mg/L	1	2/7/2012 15:18
Acenaphthene	0.00034		0.000050	0.00020	mg/L	1	2/7/2012 15:18
Acenaphthylene	U		0.000050	0.00020	mg/L	1	2/7/2012 15:18
Anthracene	U		0.000050	0.00020	mg/L	1	2/7/2012 15:18
Benz(a)anthracene	U		0.000050	0.00020	mg/L	1	2/7/2012 15:18
Benzo(a)pyrene	U		0.000050	0.00020	mg/L	1	2/7/2012 15:18
Bis(2-chloroethoxy)methane	U		0.000050	0.00020	mg/L	1	2/7/2012 15:18
Bis(2-ethylhexyl)phthalate	U		0.00010	0.00020	mg/L	1	2/7/2012 15:18
Chrysene	U		0.000050	0.00020	mg/L	1	2/7/2012 15:18
Dibenzofuran	0.00011	J	0.000050	0.00020	mg/L	1	2/7/2012 15:18
Di-n-butylphthalate	U		0.000050	0.00020	mg/L	1	2/7/2012 15:18
Fluoranthene	U		0.000050	0.00020	mg/L	1	2/7/2012 15:18
Fluorene	0.00012	J	0.000050	0.00020	mg/L	1	2/7/2012 15:18
Naphthalene	0.00087		0.000050	0.00020	mg/L	1	2/7/2012 15:18
Nitrobenzene	U		0.000050	0.00020	mg/L	1	2/7/2012 15:18
N-Nitrosodiphenylamine	U		0.000050	0.00020	mg/L	1	2/7/2012 15:18
Pentachlorophenol	U		0.000050	0.00020	mg/L	1	2/7/2012 15:18
Phenanthrene	U		0.000050	0.00020	mg/L	1	2/7/2012 15:18
Phenol	U		0.000050	0.00020	mg/L	1	2/7/2012 15:18
Pyrene	U		0.000050	0.00020	mg/L	1	2/7/2012 15:18
Surr: 2,4,6-Tribromophenol	75.9			34-129	%REC	1	2/7/2012 15:18
Surr: 2-Fluorobiphenyl	82.1			40-125	%REC	1	2/7/2012 15:18
Surr: 2-Fluorophenol	63.3			20-120	%REC	1	2/7/2012 15:18
Surr: 4-Terphenyl-d14	73.3			40-135	%REC	1	2/7/2012 15:18
Surr: Nitrobenzene-d5	95.5			41-120	%REC	1	2/7/2012 15:18
Surr: Phenol-d6	51.1			20-120	%REC	1	2/7/2012 15:18

VOLATILES			Method: SW8260				Analyst: PC
1,2-Dichloroethane	U		0.0010	0.0050	mg/L	1	2/8/2012 05:19
Benzene	U		0.0010	0.0050	mg/L	1	2/8/2012 05:19
Chlorobenzene	U		0.0010	0.0050	mg/L	1	2/8/2012 05:19
Ethylbenzene	U		0.0011	0.0050	mg/L	1	2/8/2012 05:19

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 13-Feb-12

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-MW05-20120202
Collection Date: 2/2/2012 01:15 PM

Work Order: 1202096
Lab ID: 1202096-20
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
Methylenechloride	U		0.0013	0.010	mg/L	1	2/8/2012 05:19
Toluene	U		0.0010	0.0050	mg/L	1	2/8/2012 05:19
Xylenes, Total	U		0.0031	0.015	mg/L	1	2/8/2012 05:19
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>91.1</i>			<i>70-125</i>	<i>%REC</i>	<i>1</i>	<i>2/8/2012 05:19</i>
<i>Surr: 4-Bromofluorobenzene</i>	<i>90.8</i>			<i>72-125</i>	<i>%REC</i>	<i>1</i>	<i>2/8/2012 05:19</i>
<i>Surr: Dibromofluoromethane</i>	<i>94.7</i>			<i>71-125</i>	<i>%REC</i>	<i>1</i>	<i>2/8/2012 05:19</i>
<i>Surr: Toluene-d8</i>	<i>101</i>			<i>75-125</i>	<i>%REC</i>	<i>1</i>	<i>2/8/2012 05:19</i>

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 13-Feb-12

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-MW55B-20120202
Collection Date: 2/2/2012 09:10 AM

Work Order: 1202096
Lab ID: 1202096-21
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270	Prep: SW3510 / 2/4/12		Analyst: LG	
1,2-Diphenylhydrazine	U		0.00050	0.0020	mg/L	10	2/9/2012 04:39
2,4-Dimethylphenol	35		0.50	2.0	mg/L	10000	2/9/2012 22:02
2,4-Dinitrotoluene	U		0.00050	0.0020	mg/L	10	2/9/2012 04:39
2,6-Dinitrotoluene	U		0.00060	0.0020	mg/L	10	2/9/2012 04:39
2-Chloronaphthalene	U		0.00050	0.0020	mg/L	10	2/9/2012 04:39
2-Methylnaphthalene	0.28		0.0050	0.020	mg/L	100	2/8/2012 11:58
4,6-Dinitro-2-methylphenol	U		0.00080	0.0020	mg/L	10	2/9/2012 04:39
4-Nitrophenol	U		0.00050	0.010	mg/L	10	2/9/2012 04:39
Acenaphthene	0.19		0.0050	0.020	mg/L	100	2/8/2012 11:58
Acenaphthylene	0.0057		0.00050	0.0020	mg/L	10	2/9/2012 04:39
Anthracene	0.016		0.00050	0.0020	mg/L	10	2/9/2012 04:39
Benz(a)anthracene	0.0011	J	0.00050	0.0020	mg/L	10	2/9/2012 04:39
Benzo(a)pyrene	U		0.00050	0.0020	mg/L	10	2/9/2012 04:39
Bis(2-chloroethoxy)methane	U		0.00050	0.0020	mg/L	10	2/9/2012 04:39
Bis(2-ethylhexyl)phthalate	U		0.0010	0.0020	mg/L	10	2/9/2012 04:39
Chrysene	U		0.00050	0.0020	mg/L	10	2/9/2012 04:39
Dibenzofuran	0.15		0.0050	0.020	mg/L	100	2/8/2012 11:58
Di-n-butylphthalate	U		0.00050	0.0020	mg/L	10	2/9/2012 04:39
Fluoranthene	0.0047		0.00050	0.0020	mg/L	10	2/9/2012 04:39
Fluorene	0.090		0.00050	0.0020	mg/L	10	2/9/2012 04:39
Naphthalene	21		0.50	2.0	mg/L	10000	2/9/2012 22:02
Nitrobenzene	U		0.00050	0.0020	mg/L	10	2/9/2012 04:39
N-Nitrosodiphenylamine	U		0.00050	0.0020	mg/L	10	2/9/2012 04:39
Pentachlorophenol	U		0.00050	0.0020	mg/L	10	2/9/2012 04:39
Phenanthrene	0.057		0.00050	0.0020	mg/L	10	2/9/2012 04:39
Phenol	150		1.0	4.0	mg/L	20000	2/9/2012 23:46
Pyrene	0.0042		0.00050	0.0020	mg/L	10	2/9/2012 04:39
Surr:2,4,6-Tribromophenol	81.7	J		34-129	%REC	100	2/8/2012 11:58
Surr:2,4,6-Tribromophenol	45.0			34-129	%REC	10	2/9/2012 04:39
Surr:2,4,6-Tribromophenol	0	S		34-129	%REC	10000	2/9/2012 22:02
Surr:2,4,6-Tribromophenol	0	S		34-129	%REC	20000	2/9/2012 23:46
Surr:2-Fluorobiphenyl	63.2	J		40-125	%REC	100	2/8/2012 11:58
Surr:2-Fluorobiphenyl	109			40-125	%REC	10	2/9/2012 04:39
Surr:2-Fluorobiphenyl	0	S		40-125	%REC	10000	2/9/2012 22:02
Surr:2-Fluorobiphenyl	0	S		40-125	%REC	20000	2/9/2012 23:46
Surr:2-Fluorophenol	101	J		20-120	%REC	100	2/8/2012 11:58
Surr:2-Fluorophenol	36.0	J		20-120	%REC	10	2/9/2012 04:39
Surr:2-Fluorophenol	0	S		20-120	%REC	10000	2/9/2012 22:02

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 13-Feb-12

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-MW55B-20120202
Collection Date: 2/2/2012 09:10 AM

Work Order: 1202096
Lab ID: 1202096-21
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
Surr: 2-Fluorophenol	0	S		20-120	%REC	20000	2/9/2012 23:46
Surr: 4-Terphenyl-d14	61.2	J		40-135	%REC	100	2/8/2012 11:58
Surr: 4-Terphenyl-d14	61.8			40-135	%REC	10	2/9/2012 04:39
Surr: 4-Terphenyl-d14	0	S		40-135	%REC	10000	2/9/2012 22:02
Surr: 4-Terphenyl-d14	0	S		40-135	%REC	20000	2/9/2012 23:46
Surr: Nitrobenzene-d5	82.7	J		41-120	%REC	100	2/8/2012 11:58
Surr: Nitrobenzene-d5	56.3			41-120	%REC	10	2/9/2012 04:39
Surr: Nitrobenzene-d5	0	S		41-120	%REC	10000	2/9/2012 22:02
Surr: Nitrobenzene-d5	0	S		41-120	%REC	20000	2/9/2012 23:46
Surr: Phenol-d6	35.4	J		20-120	%REC	100	2/8/2012 11:58
Surr: Phenol-d6	76.4			20-120	%REC	10	2/9/2012 04:39
Surr: Phenol-d6	0	S		20-120	%REC	10000	2/9/2012 22:02
Surr: Phenol-d6	0	S		20-120	%REC	20000	2/9/2012 23:46

VOLATILES		Method: SW8260				Analyst: PC	
1,2-Dichloroethane	U	0.010	0.050	mg/L	10	2/8/2012 17:44	
Benzene	0.78	0.010	0.050	mg/L	10	2/8/2012 17:44	
Chlorobenzene	U	0.010	0.050	mg/L	10	2/8/2012 17:44	
Ethylbenzene	0.13	0.011	0.050	mg/L	10	2/8/2012 17:44	
Methylenechloride	U	0.013	0.10	mg/L	10	2/8/2012 17:44	
Toluene	0.65	0.010	0.050	mg/L	10	2/8/2012 17:44	
Xylenes, Total	0.39	0.031	0.15	mg/L	10	2/8/2012 17:44	
Surr: 1,2-Dichloroethane-d4	89.2		70-125	%REC	10	2/8/2012 17:44	
Surr: 4-Bromofluorobenzene	91.4		72-125	%REC	10	2/8/2012 17:44	
Surr: Dibromofluoromethane	97.5		71-125	%REC	10	2/8/2012 17:44	
Surr: Toluene-d8	96.9		75-125	%REC	10	2/8/2012 17:44	

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 13-Feb-12

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-MW73B-02120202
Collection Date: 2/2/2012 10:05 AM

Work Order: 1202096
Lab ID: 1202096-22
Matrix: WATER

Analyses	Result	Qual	SDL	ML	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270	Prep: SW3510 / 2/4/12		Analyst: LG	
1,2-Diphenylhydrazine		U	0.00050	0.0020	mg/L	10	2/8/2012 04:00
2,4-Dimethylphenol	0.0070		0.00050	0.0020	mg/L	10	2/8/2012 04:00
2,4-Dinitrotoluene		U	0.00050	0.0020	mg/L	10	2/8/2012 04:00
2,6-Dinitrotoluene		U	0.00060	0.0020	mg/L	10	2/8/2012 04:00
2-Chloronaphthalene		U	0.00050	0.0020	mg/L	10	2/8/2012 04:00
2-Methylnaphthalene	0.00055	J	0.00050	0.0020	mg/L	10	2/8/2012 04:00
4,6-Dinitro-2-methylphenol		U	0.00080	0.0020	mg/L	10	2/8/2012 04:00
4-Nitrophenol		U	0.00050	0.010	mg/L	10	2/8/2012 04:00
Acenaphthene	0.012		0.00050	0.0020	mg/L	10	2/8/2012 04:00
Acenaphthylene	0.0013	J	0.00050	0.0020	mg/L	10	2/8/2012 04:00
Anthracene		U	0.00050	0.0020	mg/L	10	2/8/2012 04:00
Benz(a)anthracene		U	0.00050	0.0020	mg/L	10	2/8/2012 04:00
Benzo(a)pyrene		U	0.00050	0.0020	mg/L	10	2/8/2012 04:00
Bis(2-chloroethoxy)methane		U	0.00050	0.0020	mg/L	10	2/8/2012 04:00
Bis(2-ethylhexyl)phthalate		U	0.0010	0.0020	mg/L	10	2/8/2012 04:00
Chrysene		U	0.00050	0.0020	mg/L	10	2/8/2012 04:00
Dibenzofuran	0.00078	J	0.00050	0.0020	mg/L	10	2/8/2012 04:00
Di-n-butylphthalate		U	0.00050	0.0020	mg/L	10	2/8/2012 04:00
Fluoranthene	0.010		0.00050	0.0020	mg/L	10	2/8/2012 04:00
Fluorene	0.0041		0.00050	0.0020	mg/L	10	2/8/2012 04:00
Naphthalene	0.0014	J	0.00050	0.0020	mg/L	10	2/8/2012 04:00
Nitrobenzene		U	0.00050	0.0020	mg/L	10	2/8/2012 04:00
N-Nitrosodiphenylamine		U	0.00050	0.0020	mg/L	10	2/8/2012 04:00
Pentachlorophenol		U	0.00050	0.0020	mg/L	10	2/8/2012 04:00
Phenanthrene	0.00087	J	0.00050	0.0020	mg/L	10	2/8/2012 04:00
Phenol	0.0053		0.00050	0.0020	mg/L	10	2/8/2012 04:00
Pyrene	0.0077		0.00050	0.0020	mg/L	10	2/8/2012 04:00
Surr: 2,4,6-Tribromophenol	64.0			34-129	%REC	10	2/8/2012 04:00
Surr: 2-Fluorobiphenyl	59.5			40-125	%REC	10	2/8/2012 04:00
Surr: 2-Fluorophenol	35.4	J		20-120	%REC	10	2/8/2012 04:00
Surr: 4-Terphenyl-d14	81.3			40-135	%REC	10	2/8/2012 04:00
Surr: Nitrobenzene-d5	69.8			41-120	%REC	10	2/8/2012 04:00
Surr: Phenol-d6	53.6			20-120	%REC	10	2/8/2012 04:00
VOLATILES			Method: SW8260			Analyst: PC	
1,2-Dichloroethane		U	0.0010	0.0050	mg/L	1	2/8/2012 18:36
Benzene	0.0097		0.0010	0.0050	mg/L	1	2/8/2012 18:36
Chlorobenzene		U	0.0010	0.0050	mg/L	1	2/8/2012 18:36
Ethylbenzene	0.0059		0.0011	0.0050	mg/L	1	2/8/2012 18:36

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 13-Feb-12

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-MW73B-02120202
Collection Date: 2/2/2012 10:05 AM

Work Order: 1202096
Lab ID: 1202096-22
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
Methylenechloride		U	0.0013	0.010	mg/L	1	2/8/2012 18:36
Toluene	0.015		0.0010	0.0050	mg/L	1	2/8/2012 18:36
Xylenes, Total	0.0059	J	0.0031	0.015	mg/L	1	2/8/2012 18:36
Surr: 1,2-Dichloroethane-d4	89.5			70-125	%REC	1	2/8/2012 18:36
Surr: 4-Bromofluorobenzene	91.9			72-125	%REC	1	2/8/2012 18:36
Surr: Dibromofluoromethane	95.7			71-125	%REC	1	2/8/2012 18:36
Surr: Toluene-d8	99.9			75-125	%REC	1	2/8/2012 18:36

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 13-Feb-12

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-MW57A-20120202
Collection Date: 2/2/2012 11:00 AM

Work Order: 1202096
Lab ID: 1202096-23
Matrix: WATER

Analyses	Result	Qual	SDL	ML	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270	Prep: SW3510 / 2/4/12		Analyst: LG	
1,2-Diphenylhydrazine	U		0.00050	0.0020	mg/L	10	2/8/2012 04:20
2,4-Dimethylphenol	1.7		0.050	0.20	mg/L	1000	2/9/2012 00:09
2,4-Dinitrotoluene	U		0.00050	0.0020	mg/L	10	2/8/2012 04:20
2,6-Dinitrotoluene	U		0.00060	0.0020	mg/L	10	2/8/2012 04:20
2-Chloronaphthalene	U		0.00050	0.0020	mg/L	10	2/8/2012 04:20
2-Methylnaphthalene	1.9		0.050	0.20	mg/L	1000	2/9/2012 00:09
4,6-Dinitro-2-methylphenol	U		0.00080	0.0020	mg/L	10	2/8/2012 04:20
4-Nitrophenol	U		0.00050	0.010	mg/L	10	2/8/2012 04:20
Acenaphthene	1.2		0.050	0.20	mg/L	1000	2/9/2012 00:09
Acenaphthylene	0.014		0.00050	0.0020	mg/L	10	2/8/2012 04:20
Anthracene	0.34		0.0050	0.020	mg/L	100	2/9/2012 20:59
Benz(a)anthracene	0.047		0.00050	0.0020	mg/L	10	2/8/2012 04:20
Benzo(a)pyrene	0.014		0.00050	0.0020	mg/L	10	2/8/2012 04:20
Bis(2-chloroethoxy)methane	U		0.00050	0.0020	mg/L	10	2/8/2012 04:20
Bis(2-ethylhexyl)phthalate	0.0016	J	0.0010	0.0020	mg/L	10	2/8/2012 04:20
Chrysene	0.046		0.00050	0.0020	mg/L	10	2/8/2012 04:20
Dibenzofuran	0.86		0.0050	0.020	mg/L	100	2/9/2012 20:59
Di-n-butylphthalate	U		0.00050	0.0020	mg/L	10	2/8/2012 04:20
Fluoranthene	0.48		0.0050	0.020	mg/L	100	2/9/2012 20:59
Fluorene	0.72		0.0050	0.020	mg/L	100	2/9/2012 20:59
Naphthalene	9.2		0.050	0.20	mg/L	1000	2/9/2012 00:09
Nitrobenzene	U		0.00050	0.0020	mg/L	10	2/8/2012 04:20
N-Nitrosodiphenylamine	U		0.00050	0.0020	mg/L	10	2/8/2012 04:20
Pentachlorophenol	U		0.00050	0.0020	mg/L	10	2/8/2012 04:20
Phenanthrene	2.0		0.050	0.20	mg/L	1000	2/9/2012 00:09
Phenol	0.0089		0.00050	0.0020	mg/L	10	2/8/2012 04:20
Pyrene	0.34		0.0050	0.020	mg/L	100	2/9/2012 20:59
Surr: 2,4,6-Tribromophenol	51.2			34-129	%REC	10	2/8/2012 04:20
Surr: 2,4,6-Tribromophenol	0	S		34-129	%REC	1000	2/9/2012 00:09
Surr: 2,4,6-Tribromophenol	102	J		34-129	%REC	100	2/9/2012 20:59
Surr: 2-Fluorobiphenyl	50.5			40-125	%REC	10	2/8/2012 04:20
Surr: 2-Fluorobiphenyl	0	S		40-125	%REC	1000	2/9/2012 00:09
Surr: 2-Fluorobiphenyl	85.5	J		40-125	%REC	100	2/9/2012 20:59
Surr: 2-Fluorophenol	86.4			20-120	%REC	10	2/8/2012 04:20
Surr: 2-Fluorophenol	0	S		20-120	%REC	1000	2/9/2012 00:09
Surr: 2-Fluorophenol	108	J		20-120	%REC	100	2/9/2012 20:59
Surr: 4-Terphenyl-d14	91.8			40-135	%REC	10	2/8/2012 04:20
Surr: 4-Terphenyl-d14	0	S		40-135	%REC	1000	2/9/2012 00:09

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 13-Feb-12

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-MW57A-20120202
Collection Date: 2/2/2012 11:00 AM

Work Order: 1202096
Lab ID: 1202096-23
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
Surr: 4-Terphenyl-d14	116	J		40-135	%REC	100	2/9/2012 20:59
Surr: Nitrobenzene-d5	89.4			41-120	%REC	10	2/8/2012 04:20
Surr: Nitrobenzene-d5	0	S		41-120	%REC	1000	2/9/2012 00:09
Surr: Nitrobenzene-d5	55.1	J		41-120	%REC	100	2/9/2012 20:59
Surr: Phenol-d6	69.0			20-120	%REC	10	2/8/2012 04:20
Surr: Phenol-d6	0	S		20-120	%REC	1000	2/9/2012 00:09

VOLATILES		Method: SW8260				Analyst: PC	
1,2-Dichloroethane	U	0.010	0.050	mg/L	10	2/8/2012 20:21	
Benzene	0.14	0.010	0.050	mg/L	10	2/8/2012 20:21	
Chlorobenzene	U	0.010	0.050	mg/L	10	2/8/2012 20:21	
Ethylbenzene	0.22	0.011	0.050	mg/L	10	2/8/2012 20:21	
Methylenechloride	U	0.013	0.10	mg/L	10	2/8/2012 20:21	
Toluene	0.23	0.010	0.050	mg/L	10	2/8/2012 20:21	
Vinyl chloride	U	0.010	0.020	mg/L	10	2/8/2012 20:21	
Xylenes, Total	0.40	0.031	0.15	mg/L	10	2/8/2012 20:21	
Surr: 1,2-Dichloroethane-d4	87.3		70-125	%REC	10	2/8/2012 20:21	
Surr: 4-Bromofluorobenzene	93.7		72-125	%REC	10	2/8/2012 20:21	
Surr: Dibromofluoromethane	94.8		71-125	%REC	10	2/8/2012 20:21	
Surr: Toluene-d8	101		75-125	%REC	10	2/8/2012 20:21	

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 13-Feb-12

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-MW23C-20120202
Collection Date: 2/2/2012 11:50 AM

Work Order: 1202096
Lab ID: 1202096-24
Matrix: WATER

Analyses	Result	Qual	SDL	ML	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270		Prep: SW3510 / 2/4/12		Analyst: LG
1,2-Diphenylhydrazine		U	0.00050	0.0020	mg/L	10	2/8/2012 04:41
2,4-Dimethylphenol	0.0014	J	0.00050	0.0020	mg/L	10	2/8/2012 04:41
2,4-Dinitrotoluene		U	0.00050	0.0020	mg/L	10	2/8/2012 04:41
2,6-Dinitrotoluene		U	0.00060	0.0020	mg/L	10	2/8/2012 04:41
2-Chloronaphthalene		U	0.00050	0.0020	mg/L	10	2/8/2012 04:41
2-Methylnaphthalene	0.65		0.0050	0.020	mg/L	100	2/9/2012 21:20
4,6-Dinitro-2-methylphenol		U	0.00080	0.0020	mg/L	10	2/8/2012 04:41
4-Nitrophenol		U	0.00050	0.010	mg/L	10	2/8/2012 04:41
Acenaphthene	0.89		0.0050	0.020	mg/L	100	2/9/2012 21:20
Acenaphthylene	0.0068		0.00050	0.0020	mg/L	10	2/8/2012 04:41
Anthracene	0.25		0.0050	0.020	mg/L	100	2/9/2012 21:20
Benz(a)anthracene	0.046		0.00050	0.0020	mg/L	10	2/8/2012 04:41
Benzo(a)pyrene	0.016		0.00050	0.0020	mg/L	10	2/8/2012 04:41
Bis(2-chloroethoxy)methane		U	0.00050	0.0020	mg/L	10	2/8/2012 04:41
Bis(2-ethylhexyl)phthalate		U	0.0010	0.0020	mg/L	10	2/8/2012 04:41
Chrysene	0.044		0.00050	0.0020	mg/L	10	2/8/2012 04:41
Dibenzofuran	0.85		0.0050	0.020	mg/L	100	2/9/2012 21:20
Di-n-butylphthalate		U	0.00050	0.0020	mg/L	10	2/8/2012 04:41
Fluoranthene	0.48		0.0050	0.020	mg/L	100	2/9/2012 21:20
Fluorene	0.57		0.0050	0.020	mg/L	100	2/9/2012 21:20
Naphthalene	7.8		0.050	0.20	mg/L	1000	2/9/2012 00:30
Nitrobenzene		U	0.00050	0.0020	mg/L	10	2/8/2012 04:41
N-Nitrosodiphenylamine		U	0.00050	0.0020	mg/L	10	2/8/2012 04:41
Pentachlorophenol		U	0.00050	0.0020	mg/L	10	2/8/2012 04:41
Phenanthrene	1.9		0.050	0.20	mg/L	1000	2/9/2012 00:30
Phenol	0.0011	J	0.00050	0.0020	mg/L	10	2/8/2012 04:41
Pyrene	0.35		0.0050	0.020	mg/L	100	2/9/2012 21:20
Surr: 2,4,6-Tribromophenol	55.5			34-129	%REC	10	2/8/2012 04:41
Surr: 2,4,6-Tribromophenol	0	S		34-129	%REC	1000	2/9/2012 00:30
Surr: 2,4,6-Tribromophenol	89.9	J		34-129	%REC	100	2/9/2012 21:20
Surr: 2-Fluorobiphenyl	49.7			40-125	%REC	10	2/8/2012 04:41
Surr: 2-Fluorobiphenyl	0	S		40-125	%REC	1000	2/9/2012 00:30
Surr: 2-Fluorobiphenyl	90.7	J		40-125	%REC	100	2/9/2012 21:20
Surr: 2-Fluorophenol	82.0			20-120	%REC	10	2/8/2012 04:41
Surr: 2-Fluorophenol	0	S		20-120	%REC	1000	2/9/2012 00:30
Surr: 2-Fluorophenol	87.6	J		20-120	%REC	100	2/9/2012 21:20
Surr: 4-Terphenyl-d14	96.0			40-135	%REC	10	2/8/2012 04:41
Surr: 4-Terphenyl-d14	0	S		40-135	%REC	1000	2/9/2012 00:30

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 13-Feb-12

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-MW23C-20120202
Collection Date: 2/2/2012 11:50 AM

Work Order: 1202096
Lab ID: 1202096-24
Matrix: WATER

Analyses	Result	Qual	SDL	SQL	Units	Dilution Factor	Date Analyzed
Surr: 4-Terphenyl-d14	115	J		40-135	%REC	100	2/9/2012 21:20
Surr: Nitrobenzene-d5	43.4			41-120	%REC	10	2/8/2012 04:41
Surr: Nitrobenzene-d5	0	S		41-120	%REC	1000	2/9/2012 00:30
Surr: Nitrobenzene-d5	88.9	J		41-120	%REC	100	2/9/2012 21:20
Surr: Phenol-d6	66.8			20-120	%REC	10	2/8/2012 04:41
Surr: Phenol-d6	0	S		20-120	%REC	1000	2/9/2012 00:30
Surr: Phenol-d6	23.1	J		20-120	%REC	100	2/9/2012 21:20

VOLATILES		Method: SW8260				Analyst: PC	
1,2-Dichloroethane	U		0.010	0.050	mg/L	10	2/8/2012 21:14
Benzene	U		0.010	0.050	mg/L	10	2/8/2012 21:14
Chlorobenzene	U		0.010	0.050	mg/L	10	2/8/2012 21:14
Ethylbenzene	0.10		0.011	0.050	mg/L	10	2/8/2012 21:14
Methylenechloride	U		0.013	0.10	mg/L	10	2/8/2012 21:14
Toluene	U		0.010	0.050	mg/L	10	2/8/2012 21:14
Vinyl chloride	U		0.010	0.020	mg/L	10	2/8/2012 21:14
Xylenes, Total	0.039	J	0.031	0.15	mg/L	10	2/8/2012 21:14
Surr: 1,2-Dichloroethane-d4	88.4			70-125	%REC	10	2/8/2012 21:14
Surr: 4-Bromofluorobenzene	90.7			72-125	%REC	10	2/8/2012 21:14
Surr: Dibromofluoromethane	97.7			71-125	%REC	10	2/8/2012 21:14
Surr: Toluene-d8	98.8			75-125	%REC	10	2/8/2012 21:14

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 13-Feb-12

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-TW56A-20120202
Collection Date: 2/2/2012 01:05 PM

Work Order: 1202096
Lab ID: 1202096-25
Matrix: WATER

Analyses	Result	Qual	SDL	ML	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270		Prep: SW3510 / 2/4/12		Analyst: LG
1,2-Diphenylhydrazine		U	0.00050	0.0020	mg/L	10	2/8/2012 05:02
2,4-Dimethylphenol	4.2		0.025	0.10	mg/L	500	2/9/2012 00:50
2,4-Dinitrotoluene		U	0.00050	0.0020	mg/L	10	2/8/2012 05:02
2,6-Dinitrotoluene		U	0.00060	0.0020	mg/L	10	2/8/2012 05:02
2-Chloronaphthalene		U	0.00050	0.0020	mg/L	10	2/8/2012 05:02
2-Methylnaphthalene	0.11		0.0050	0.020	mg/L	100	2/9/2012 21:41
4,6-Dinitro-2-methylphenol		U	0.00080	0.0020	mg/L	10	2/8/2012 05:02
4-Nitrophenol		U	0.00050	0.010	mg/L	10	2/8/2012 05:02
Acenaphthene	0.19		0.0050	0.020	mg/L	100	2/9/2012 21:41
Acenaphthylene	0.0038		0.00050	0.0020	mg/L	10	2/8/2012 05:02
Anthracene	0.020		0.00050	0.0020	mg/L	10	2/8/2012 05:02
Benz(a)anthracene	0.0016	J	0.00050	0.0020	mg/L	10	2/8/2012 05:02
Benzo(a)pyrene	0.00051	J	0.00050	0.0020	mg/L	10	2/8/2012 05:02
Bis(2-chloroethoxy)methane		U	0.00050	0.0020	mg/L	10	2/8/2012 05:02
Bis(2-ethylhexyl)phthalate		U	0.0010	0.0020	mg/L	10	2/8/2012 05:02
Chrysene	0.0018	J	0.00050	0.0020	mg/L	10	2/8/2012 05:02
Dibenzofuran	0.049		0.00050	0.0020	mg/L	10	2/8/2012 05:02
Di-n-butylphthalate		U	0.00050	0.0020	mg/L	10	2/8/2012 05:02
Fluoranthene	0.020		0.00050	0.0020	mg/L	10	2/8/2012 05:02
Fluorene	0.058		0.00050	0.0020	mg/L	10	2/8/2012 05:02
Naphthalene	2.2		0.025	0.10	mg/L	500	2/9/2012 00:50
Nitrobenzene		U	0.00050	0.0020	mg/L	10	2/8/2012 05:02
N-Nitrosodiphenylamine		U	0.00050	0.0020	mg/L	10	2/8/2012 05:02
Pentachlorophenol		U	0.00050	0.0020	mg/L	10	2/8/2012 05:02
Phenanthrene	0.20		0.0050	0.020	mg/L	100	2/9/2012 21:41
Phenol	0.0063		0.00050	0.0020	mg/L	10	2/8/2012 05:02
Pyrene	0.015		0.00050	0.0020	mg/L	10	2/8/2012 05:02
Surr: 2,4,6-Tribromophenol	46.3			34-129	%REC	10	2/8/2012 05:02
Surr: 2,4,6-Tribromophenol	0	S		34-129	%REC	500	2/9/2012 00:50
Surr: 2,4,6-Tribromophenol	103	J		34-129	%REC	100	2/9/2012 21:41
Surr: 2-Fluorobiphenyl	48.8			40-125	%REC	10	2/8/2012 05:02
Surr: 2-Fluorobiphenyl	0	S		40-125	%REC	500	2/9/2012 00:50
Surr: 2-Fluorobiphenyl	111	J		40-125	%REC	100	2/9/2012 21:41
Surr: 2-Fluorophenol	84.2			20-120	%REC	10	2/8/2012 05:02
Surr: 2-Fluorophenol	0	S		20-120	%REC	500	2/9/2012 00:50
Surr: 2-Fluorophenol	98.9	J		20-120	%REC	100	2/9/2012 21:41
Surr: 4-Terphenyl-d14	83.9			40-135	%REC	10	2/8/2012 05:02
Surr: 4-Terphenyl-d14	0	S		40-135	%REC	500	2/9/2012 00:50

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 13-Feb-12

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-TW56A-20120202
Collection Date: 2/2/2012 01:05 PM

Work Order: 1202096
Lab ID: 1202096-25
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
Surr: 4-Terphenyl-d14	103	J		40-135	%REC	100	2/9/2012 21:41
Surr: Nitrobenzene-d5	66.3			41-120	%REC	10	2/8/2012 05:02
Surr: Nitrobenzene-d5	0	S		41-120	%REC	500	2/9/2012 00:50
Surr: Nitrobenzene-d5	109	J		41-120	%REC	100	2/9/2012 21:41
Surr: Phenol-d6	68.0			20-120	%REC	10	2/8/2012 05:02
Surr: Phenol-d6	0	S		20-120	%REC	500	2/9/2012 00:50
Surr: Phenol-d6	44.0	J		20-120	%REC	100	2/9/2012 21:41

VOLATILES		Method: SW8260				Analyst: PC	
1,2-Dichloroethane	U		0.010	0.050	mg/L	10	2/8/2012 22:07
Benzene	0.15		0.010	0.050	mg/L	10	2/8/2012 22:07
Chlorobenzene	U		0.010	0.050	mg/L	10	2/8/2012 22:07
Ethylbenzene	0.068		0.011	0.050	mg/L	10	2/8/2012 22:07
Methylenechloride	U		0.013	0.10	mg/L	10	2/8/2012 22:07
Toluene	0.028	J	0.010	0.050	mg/L	10	2/8/2012 22:07
Vinyl chloride	0.010	J	0.010	0.020	mg/L	10	2/8/2012 22:07
Xylenes, Total	0.53		0.031	0.15	mg/L	10	2/8/2012 22:07
Surr: 1,2-Dichloroethane-d4	90.4			70-125	%REC	10	2/8/2012 22:07
Surr: 4-Bromofluorobenzene	93.7			72-125	%REC	10	2/8/2012 22:07
Surr: Dibromofluoromethane	99.9			71-125	%REC	10	2/8/2012 22:07
Surr: Toluene-d8	99.0			75-125	%REC	10	2/8/2012 22:07

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 13-Feb-12

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-FB02-20120202
Collection Date: 2/2/2012 01:30 PM

Work Order: 1202096
Lab ID: 1202096-26
Matrix: WATER

Analyses	Result	Qual	SDL	ML	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270	Prep: SW3510 / 2/4/12	Analyst: LG		
1,2-Diphenylhydrazine	U		0.000050	0.00020	mg/L	1	2/7/2012 15:39
2,4-Dimethylphenol	0.00010	J	0.000050	0.00020	mg/L	1	2/7/2012 15:39
2,4-Dinitrotoluene	U		0.000050	0.00020	mg/L	1	2/7/2012 15:39
2,6-Dinitrotoluene	U		0.000060	0.00020	mg/L	1	2/7/2012 15:39
2-Chloronaphthalene	U		0.000050	0.00020	mg/L	1	2/7/2012 15:39
2-Methylnaphthalene	U		0.000050	0.00020	mg/L	1	2/7/2012 15:39
4,6-Dinitro-2-methylphenol	U		0.000080	0.00020	mg/L	1	2/7/2012 15:39
4-Nitrophenol	U		0.000050	0.0010	mg/L	1	2/7/2012 15:39
Acenaphthene	U		0.000050	0.00020	mg/L	1	2/7/2012 15:39
Acenaphthylene	U		0.000050	0.00020	mg/L	1	2/7/2012 15:39
Anthracene	U		0.000050	0.00020	mg/L	1	2/7/2012 15:39
Benz(a)anthracene	U		0.000050	0.00020	mg/L	1	2/7/2012 15:39
Benzo(a)pyrene	U		0.000050	0.00020	mg/L	1	2/7/2012 15:39
Bis(2-chloroethoxy)methane	U		0.000050	0.00020	mg/L	1	2/7/2012 15:39
Bis(2-ethylhexyl)phthalate	0.00015	J	0.00010	0.00020	mg/L	1	2/7/2012 15:39
Chrysene	U		0.000050	0.00020	mg/L	1	2/7/2012 15:39
Dibenzofuran	U		0.000050	0.00020	mg/L	1	2/7/2012 15:39
Di-n-butylphthalate	U		0.000050	0.00020	mg/L	1	2/7/2012 15:39
Fluoranthene	U		0.000050	0.00020	mg/L	1	2/7/2012 15:39
Fluorene	U		0.000050	0.00020	mg/L	1	2/7/2012 15:39
Naphthalene	0.00014	J	0.000050	0.00020	mg/L	1	2/7/2012 15:39
Nitrobenzene	U		0.000050	0.00020	mg/L	1	2/7/2012 15:39
N-Nitrosodiphenylamine	U		0.000050	0.00020	mg/L	1	2/7/2012 15:39
Pentachlorophenol	U		0.000050	0.00020	mg/L	1	2/7/2012 15:39
Phenanthrene	U		0.000050	0.00020	mg/L	1	2/7/2012 15:39
Phenol	0.000062	J	0.000050	0.00020	mg/L	1	2/7/2012 15:39
Pyrene	U		0.000050	0.00020	mg/L	1	2/7/2012 15:39
Surr: 2,4,6-Tribromophenol	76.1			34-129	%REC	1	2/7/2012 15:39
Surr: 2-Fluorobiphenyl	72.7			40-125	%REC	1	2/7/2012 15:39
Surr: 2-Fluorophenol	59.9			20-120	%REC	1	2/7/2012 15:39
Surr: 4-Terphenyl-d14	72.0			40-135	%REC	1	2/7/2012 15:39
Surr: Nitrobenzene-d5	70.0			41-120	%REC	1	2/7/2012 15:39
Surr: Phenol-d6	53.4			20-120	%REC	1	2/7/2012 15:39
VOLATILES			Method: SW8260	Analyst: PC			
1,2-Dichloroethane	U		0.0010	0.0050	mg/L	1	2/3/2012 14:19
Benzene	U		0.0010	0.0050	mg/L	1	2/3/2012 14:19
Chlorobenzene	U		0.0010	0.0050	mg/L	1	2/3/2012 14:19
Ethylbenzene	U		0.0011	0.0050	mg/L	1	2/3/2012 14:19

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 13-Feb-12

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-FB02-20120202
Collection Date: 2/2/2012 01:30 PM

Work Order: 1202096
Lab ID: 1202096-26
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
Methylenechloride	U		0.0013	0.010	mg/L	1	2/3/2012 14:19
Toluene	U		0.0010	0.0050	mg/L	1	2/3/2012 14:19
Vinylchloride	U		0.0010	0.0020	mg/L	1	2/3/2012 14:19
Xylenes, Total	U		0.0031	0.015	mg/L	1	2/3/2012 14:19
<i>Surr: 1,2-Dichloroethane-d4</i>	108			70-125	%REC	1	2/3/2012 14:19
<i>Surr: 4-Bromofluorobenzene</i>	95.5			72-125	%REC	1	2/3/2012 14:19
<i>Surr: Dibromofluoromethane</i>	99.2			71-125	%REC	1	2/3/2012 14:19
<i>Surr: Toluene-d8</i>	83.2			75-125	%REC	1	2/3/2012 14:19

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 13-Feb-12

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-MW21C-20120202
Collection Date: 2/2/2012 02:15 PM

Work Order: 1202096
Lab ID: 1202096-27
Matrix: WATER

Analyses	Result	Qual	SDL	ML	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270	Prep: SW3510 / 2/4/12	Analyst: LG		
1,2-Diphenylhydrazine	U		0.000050	0.00020	mg/L	1	2/7/2012 16:00
2,4-Dimethylphenol	U		0.000050	0.00020	mg/L	1	2/7/2012 16:00
2,4-Dinitrotoluene	U		0.000050	0.00020	mg/L	1	2/7/2012 16:00
2,6-Dinitrotoluene	U		0.000060	0.00020	mg/L	1	2/7/2012 16:00
2-Chloronaphthalene	U		0.000050	0.00020	mg/L	1	2/7/2012 16:00
2-Methylnaphthalene	0.000067	J	0.000050	0.00020	mg/L	1	2/7/2012 16:00
4,6-Dinitro-2-methylphenol	U		0.000080	0.00020	mg/L	1	2/7/2012 16:00
4-Nitrophenol	U		0.000050	0.0010	mg/L	1	2/7/2012 16:00
Acenaphthene	U		0.000050	0.00020	mg/L	1	2/7/2012 16:00
Acenaphthylene	U		0.000050	0.00020	mg/L	1	2/7/2012 16:00
Anthracene	U		0.000050	0.00020	mg/L	1	2/7/2012 16:00
Benz(a)anthracene	U		0.000050	0.00020	mg/L	1	2/7/2012 16:00
Benzo(a)pyrene	U		0.000050	0.00020	mg/L	1	2/7/2012 16:00
Bis(2-chloroethoxy)methane	U		0.000050	0.00020	mg/L	1	2/7/2012 16:00
Bis(2-ethylhexyl)phthalate	0.00010	J	0.00010	0.00020	mg/L	1	2/7/2012 16:00
Chrysene	U		0.000050	0.00020	mg/L	1	2/7/2012 16:00
Dibenzofuran	U		0.000050	0.00020	mg/L	1	2/7/2012 16:00
Di-n-butylphthalate	U		0.000050	0.00020	mg/L	1	2/7/2012 16:00
Fluoranthene	U		0.000050	0.00020	mg/L	1	2/7/2012 16:00
Fluorene	U		0.000050	0.00020	mg/L	1	2/7/2012 16:00
Naphthalene	0.00093		0.000050	0.00020	mg/L	1	2/7/2012 16:00
Nitrobenzene	U		0.000050	0.00020	mg/L	1	2/7/2012 16:00
N-Nitrosodiphenylamine	U		0.000050	0.00020	mg/L	1	2/7/2012 16:00
Pentachlorophenol	U		0.000050	0.00020	mg/L	1	2/7/2012 16:00
Phenanthrene	U		0.000050	0.00020	mg/L	1	2/7/2012 16:00
Phenol	U		0.000050	0.00020	mg/L	1	2/7/2012 16:00
Pyrene	U		0.000050	0.00020	mg/L	1	2/7/2012 16:00
Surr: 2,4,6-Tribromophenol	44.3			34-129	%REC	1	2/7/2012 16:00
Surr: 2-Fluorobiphenyl	39.2	S		40-125	%REC	1	2/7/2012 16:00
Surr: 2-Fluorophenol	45.9			20-120	%REC	1	2/7/2012 16:00
Surr: 4-Terphenyl-d14	75.0			40-135	%REC	1	2/7/2012 16:00
Surr: Nitrobenzene-d5	48.1			41-120	%REC	1	2/7/2012 16:00
Surr: Phenol-d6	34.7			20-120	%REC	1	2/7/2012 16:00

VOLATILES			Method: SW8260	Analyst: PC			
1,2-Dichloroethane	U		0.0010	0.0050	mg/L	1	2/8/2012 05:45
Benzene	U		0.0010	0.0050	mg/L	1	2/8/2012 05:45
Chlorobenzene	U		0.0010	0.0050	mg/L	1	2/8/2012 05:45
Ethylbenzene	U		0.0011	0.0050	mg/L	1	2/8/2012 05:45

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 13-Feb-12

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-MW21C-20120202
Collection Date: 2/2/2012 02:15 PM

Work Order: 1202096
Lab ID: 1202096-27
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
Methylenechloride	U		0.0013	0.010	mg/L	1	2/8/2012 05:45
Toluene	U		0.0010	0.0050	mg/L	1	2/8/2012 05:45
Xylenes, Total	U		0.0031	0.015	mg/L	1	2/8/2012 05:45
<i>Surr: 1,2-Dichloroethane-d4</i>	91.3			70-125	%REC	1	2/8/2012 05:45
<i>Surr: 4-Bromofluorobenzene</i>	90.2			72-125	%REC	1	2/8/2012 05:45
<i>Surr: Dibromofluoromethane</i>	97.0			71-125	%REC	1	2/8/2012 05:45
<i>Surr: Toluene-d8</i>	100			75-125	%REC	1	2/8/2012 05:45

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 13-Feb-12

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-DUP4-20120202
Collection Date: 2/2/2012 02:15 PM

Work Order: 1202096
Lab ID: 1202096-28
Matrix: WATER

Analyses	Result	Qual	SDL	ML	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270	Prep: SW3510 / 2/4/12	Analyst: LG		
1,2-Diphenylhydrazine	U		0.000050	0.00020	mg/L	1	2/7/2012 16:21
2,4-Dimethylphenol	U		0.000050	0.00020	mg/L	1	2/7/2012 16:21
2,4-Dinitrotoluene	U		0.000050	0.00020	mg/L	1	2/7/2012 16:21
2,6-Dinitrotoluene	U		0.000060	0.00020	mg/L	1	2/7/2012 16:21
2-Chloronaphthalene	U		0.000050	0.00020	mg/L	1	2/7/2012 16:21
2-Methylnaphthalene	U		0.000050	0.00020	mg/L	1	2/7/2012 16:21
4,6-Dinitro-2-methylphenol	U		0.000080	0.00020	mg/L	1	2/7/2012 16:21
4-Nitrophenol	U		0.000050	0.0010	mg/L	1	2/7/2012 16:21
Acenaphthene	U		0.000050	0.00020	mg/L	1	2/7/2012 16:21
Acenaphthylene	U		0.000050	0.00020	mg/L	1	2/7/2012 16:21
Anthracene	U		0.000050	0.00020	mg/L	1	2/7/2012 16:21
Benz(a)anthracene	U		0.000050	0.00020	mg/L	1	2/7/2012 16:21
Benzo(a)pyrene	U		0.000050	0.00020	mg/L	1	2/7/2012 16:21
Bis(2-chloroethoxy)methane	U		0.000050	0.00020	mg/L	1	2/7/2012 16:21
Bis(2-ethylhexyl)phthalate	0.00022		0.00010	0.00020	mg/L	1	2/7/2012 16:21
Chrysene	U		0.000050	0.00020	mg/L	1	2/7/2012 16:21
Dibenzofuran	U		0.000050	0.00020	mg/L	1	2/7/2012 16:21
Di-n-butylphthalate	U		0.000050	0.00020	mg/L	1	2/7/2012 16:21
Fluoranthene	U		0.000050	0.00020	mg/L	1	2/7/2012 16:21
Fluorene	U		0.000050	0.00020	mg/L	1	2/7/2012 16:21
Naphthalene	0.00015	J	0.000050	0.00020	mg/L	1	2/7/2012 16:21
Nitrobenzene	U		0.000050	0.00020	mg/L	1	2/7/2012 16:21
N-Nitrosodiphenylamine	U		0.000050	0.00020	mg/L	1	2/7/2012 16:21
Pentachlorophenol	U		0.000050	0.00020	mg/L	1	2/7/2012 16:21
Phenanthrene	U		0.000050	0.00020	mg/L	1	2/7/2012 16:21
Phenol	U		0.000050	0.00020	mg/L	1	2/7/2012 16:21
Pyrene	U		0.000050	0.00020	mg/L	1	2/7/2012 16:21
Surr: 2,4,6-Tribromophenol	49.1			34-129	%REC	1	2/7/2012 16:21
Surr: 2-Fluorobiphenyl	45.9			40-125	%REC	1	2/7/2012 16:21
Surr: 2-Fluorophenol	59.9			20-120	%REC	1	2/7/2012 16:21
Surr: 4-Terphenyl-d14	72.8			40-135	%REC	1	2/7/2012 16:21
Surr: Nitrobenzene-d5	49.1			41-120	%REC	1	2/7/2012 16:21
Surr: Phenol-d6	39.7			20-120	%REC	1	2/7/2012 16:21
VOLATILES			Method: SW8260	Analyst: PC			
1,2-Dichloroethane	U		0.0010	0.0050	mg/L	1	2/8/2012 06:12
Benzene	U		0.0010	0.0050	mg/L	1	2/8/2012 06:12
Chlorobenzene	U		0.0010	0.0050	mg/L	1	2/8/2012 06:12
Ethylbenzene	U		0.0011	0.0050	mg/L	1	2/8/2012 06:12

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 13-Feb-12

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-DUP4-20120202
Collection Date: 2/2/2012 02:15 PM

Work Order: 1202096
Lab ID: 1202096-28
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
Methylenechloride	U		0.0013	0.010	mg/L	1	2/8/2012 06:12
Toluene	U		0.0010	0.0050	mg/L	1	2/8/2012 06:12
Xylenes, Total	U		0.0031	0.015	mg/L	1	2/8/2012 06:12
<i>Surr: 1,2-Dichloroethane-d4</i>	89.1			70-125	%REC	1	2/8/2012 06:12
<i>Surr: 4-Bromofluorobenzene</i>	89.2			72-125	%REC	1	2/8/2012 06:12
<i>Surr: Dibromofluoromethane</i>	96.1			71-125	%REC	1	2/8/2012 06:12
<i>Surr: Toluene-d8</i>	99.8			75-125	%REC	1	2/8/2012 06:12

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 13-Feb-12

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-MW09-20120202
Collection Date: 2/2/2012 03:40 PM

Work Order: 1202096
Lab ID: 1202096-29
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270	Prep: SW3510 / 2/4/12		Analyst: LG	
1,2-Diphenylhydrazine	U		0.000050	0.00020	mg/L	1	2/7/2012 16:43
2,4-Dimethylphenol	U		0.000050	0.00020	mg/L	1	2/7/2012 16:43
2,4-Dinitrotoluene	U		0.000050	0.00020	mg/L	1	2/7/2012 16:43
2,6-Dinitrotoluene	U		0.000060	0.00020	mg/L	1	2/7/2012 16:43
2-Chloronaphthalene	U		0.000050	0.00020	mg/L	1	2/7/2012 16:43
2-Methylnaphthalene	U		0.000050	0.00020	mg/L	1	2/7/2012 16:43
4,6-Dinitro-2-methylphenol	U		0.000080	0.00020	mg/L	1	2/7/2012 16:43
4-Nitrophenol	U		0.000050	0.0010	mg/L	1	2/7/2012 16:43
Acenaphthene	U		0.000050	0.00020	mg/L	1	2/7/2012 16:43
Acenaphthylene	U		0.000050	0.00020	mg/L	1	2/7/2012 16:43
Anthracene	U		0.000050	0.00020	mg/L	1	2/7/2012 16:43
Benz(a)anthracene	U		0.000050	0.00020	mg/L	1	2/7/2012 16:43
Benzo(a)pyrene	U		0.000050	0.00020	mg/L	1	2/7/2012 16:43
Bis(2-chloroethoxy)methane	U		0.000050	0.00020	mg/L	1	2/7/2012 16:43
Bis(2-ethylhexyl)phthalate	0.00032		0.00010	0.00020	mg/L	1	2/7/2012 16:43
Chrysene	U		0.000050	0.00020	mg/L	1	2/7/2012 16:43
Dibenzofuran	U		0.000050	0.00020	mg/L	1	2/7/2012 16:43
Di-n-butylphthalate	U		0.000050	0.00020	mg/L	1	2/7/2012 16:43
Fluoranthene	U		0.000050	0.00020	mg/L	1	2/7/2012 16:43
Fluorene	U		0.000050	0.00020	mg/L	1	2/7/2012 16:43
Naphthalene	U		0.000050	0.00020	mg/L	1	2/7/2012 16:43
Nitrobenzene	U		0.000050	0.00020	mg/L	1	2/7/2012 16:43
N-Nitrosodiphenylamine	U		0.000050	0.00020	mg/L	1	2/7/2012 16:43
Pentachlorophenol	U		0.000050	0.00020	mg/L	1	2/7/2012 16:43
Phenanthrene	U		0.000050	0.00020	mg/L	1	2/7/2012 16:43
Phenol	0.000098	J	0.000050	0.00020	mg/L	1	2/7/2012 16:43
Pyrene	U		0.000050	0.00020	mg/L	1	2/7/2012 16:43
Surr: 2,4,6-Tribromophenol	65.2			34-129	%REC	1	2/7/2012 16:43
Surr: 2-Fluorobiphenyl	59.7			40-125	%REC	1	2/7/2012 16:43
Surr: 2-Fluorophenol	40.5			20-120	%REC	1	2/7/2012 16:43
Surr: 4-Terphenyl-d14	72.2			40-135	%REC	1	2/7/2012 16:43
Surr: Nitrobenzene-d5	61.1			41-120	%REC	1	2/7/2012 16:43
Surr: Phenol-d6	33.8			20-120	%REC	1	2/7/2012 16:43

VOLATILES			Method: SW8260			Analyst: PC	
1,2-Dichloroethane	U		0.0010	0.0050	mg/L	1	2/8/2012 19:29
Benzene	U		0.0010	0.0050	mg/L	1	2/8/2012 19:29
Chlorobenzene	U		0.0010	0.0050	mg/L	1	2/8/2012 19:29
Ethylbenzene	U		0.0011	0.0050	mg/L	1	2/8/2012 19:29

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 13-Feb-12

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-MW09-20120202
Collection Date: 2/2/2012 03:40 PM

Work Order: 1202096
Lab ID: 1202096-29
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
Methylenechloride	U		0.0013	0.010	mg/L	1	2/8/2012 19:29
Toluene	U		0.0010	0.0050	mg/L	1	2/8/2012 19:29
Xylenes, Total	U		0.0031	0.015	mg/L	1	2/8/2012 19:29
<i>Surr: 1,2-Dichloroethane-d4</i>	89.9			70-125	%REC	1	2/8/2012 19:29
<i>Surr: 4-Bromofluorobenzene</i>	89.0			72-125	%REC	1	2/8/2012 19:29
<i>Surr: Dibromofluoromethane</i>	96.2			71-125	%REC	1	2/8/2012 19:29
<i>Surr: Toluene-d8</i>	99.0			75-125	%REC	1	2/8/2012 19:29

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 13-Feb-12

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-P11-20120202
Collection Date: 2/2/2012 04:30 PM

Work Order: 1202096
Lab ID: 1202096-30
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270	Prep: SW3510 / 2/4/12	Analyst: LG		
1,2-Diphenylhydrazine	U		0.000050	0.00020	mg/L	1	2/7/2012 17:46
2,4-Dimethylphenol	U		0.000050	0.00020	mg/L	1	2/7/2012 17:46
2,4-Dinitrotoluene	U		0.000050	0.00020	mg/L	1	2/7/2012 17:46
2,6-Dinitrotoluene	U		0.000060	0.00020	mg/L	1	2/7/2012 17:46
2-Chloronaphthalene	U		0.000050	0.00020	mg/L	1	2/7/2012 17:46
2-Methylnaphthalene	0.00023		0.000050	0.00020	mg/L	1	2/7/2012 17:46
4,6-Dinitro-2-methylphenol	U		0.000080	0.00020	mg/L	1	2/7/2012 17:46
4-Nitrophenol	U		0.000050	0.0010	mg/L	1	2/7/2012 17:46
Acenaphthene	0.030		0.00025	0.0010	mg/L	5	2/8/2012 20:41
Acenaphthylene	0.00020		0.000050	0.00020	mg/L	1	2/7/2012 17:46
Anthracene	0.0016		0.000050	0.00020	mg/L	1	2/7/2012 17:46
Benz(a)anthracene	U		0.000050	0.00020	mg/L	1	2/7/2012 17:46
Benzo(a)pyrene	U		0.000050	0.00020	mg/L	1	2/7/2012 17:46
Bis(2-chloroethoxy)methane	U		0.000050	0.00020	mg/L	1	2/7/2012 17:46
Bis(2-ethylhexyl)phthalate	0.00013	J	0.00010	0.00020	mg/L	1	2/7/2012 17:46
Chrysene	U		0.000050	0.00020	mg/L	1	2/7/2012 17:46
Dibenzofuran	0.0035		0.000050	0.00020	mg/L	1	2/7/2012 17:46
Di-n-butylphthalate	U		0.000050	0.00020	mg/L	1	2/7/2012 17:46
Fluoranthene	0.0022		0.000050	0.00020	mg/L	1	2/7/2012 17:46
Fluorene	0.011		0.00025	0.0010	mg/L	5	2/8/2012 20:41
Naphthalene	0.0017		0.000050	0.00020	mg/L	1	2/7/2012 17:46
Nitrobenzene	U		0.000050	0.00020	mg/L	1	2/7/2012 17:46
N-Nitrosodiphenylamine	U		0.000050	0.00020	mg/L	1	2/7/2012 17:46
Pentachlorophenol	U		0.000050	0.00020	mg/L	1	2/7/2012 17:46
Phenanthrene	0.0045		0.000050	0.00020	mg/L	1	2/7/2012 17:46
Phenol	0.00015	J	0.000050	0.00020	mg/L	1	2/7/2012 17:46
Pyrene	0.0013		0.000050	0.00020	mg/L	1	2/7/2012 17:46
Surr: 2,4,6-Tribromophenol	59.1			34-129	%REC	1	2/7/2012 17:46
Surr: 2,4,6-Tribromophenol	63.1			34-129	%REC	5	2/8/2012 20:41
Surr: 2-Fluorobiphenyl	79.4			40-125	%REC	1	2/7/2012 17:46
Surr: 2-Fluorobiphenyl	71.3			40-125	%REC	5	2/8/2012 20:41
Surr: 2-Fluorophenol	51.9			20-120	%REC	1	2/7/2012 17:46
Surr: 2-Fluorophenol	59.1			20-120	%REC	5	2/8/2012 20:41
Surr: 4-Terphenyl-d14	71.2			40-135	%REC	1	2/7/2012 17:46
Surr: 4-Terphenyl-d14	91.0			40-135	%REC	5	2/8/2012 20:41
Surr: Nitrobenzene-d5	55.9			41-120	%REC	1	2/7/2012 17:46
Surr: Nitrobenzene-d5	66.0			41-120	%REC	5	2/8/2012 20:41
Surr: Phenol-d6	38.7			20-120	%REC	1	2/7/2012 17:46

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 13-Feb-12

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-P11-20120202
Collection Date: 2/2/2012 04:30 PM

Work Order: 1202096
Lab ID: 1202096-30
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
Surr: Phenol-d6	59.7			20-120	%REC	5	2/8/2012 20:41
VOLATILES			Method: SW8260			Analyst: PC	
1,2-Dichloroethane	U		0.0010	0.0050	mg/L	1	2/8/2012 06:38
Benzene	U		0.0010	0.0050	mg/L	1	2/8/2012 06:38
Chlorobenzene	U		0.0010	0.0050	mg/L	1	2/8/2012 06:38
Ethylbenzene	U		0.0011	0.0050	mg/L	1	2/8/2012 06:38
Methylenechloride	U		0.0013	0.010	mg/L	1	2/8/2012 06:38
Toluene	U		0.0010	0.0050	mg/L	1	2/8/2012 06:38
Xylenes, Total	U		0.0031	0.015	mg/L	1	2/8/2012 06:38
Surr: 1,2-Dichloroethane-d4	89.7			70-125	%REC	1	2/8/2012 06:38
Surr: 4-Bromofluorobenzene	90.2			72-125	%REC	1	2/8/2012 06:38
Surr: Dibromofluoromethane	97.2			71-125	%REC	1	2/8/2012 06:38
Surr: Toluene-d8	100			75-125	%REC	1	2/8/2012 06:38

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 13-Feb-12

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-TB3-20120203
Collection Date: 2/3/2012 07:10 AM

Work Order: 1202096
Lab ID: 1202096-31
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
VOLATILES			Method: SW8260			Analyst: PC	
1,2-Dichloroethane	U		0.0010	0.0050	mg/L	1	2/8/2012 07:04
Benzene	U		0.0010	0.0050	mg/L	1	2/8/2012 07:04
Chlorobenzene	U		0.0010	0.0050	mg/L	1	2/8/2012 07:04
Ethylbenzene	U		0.0011	0.0050	mg/L	1	2/8/2012 07:04
Methylenechloride	U		0.0013	0.010	mg/L	1	2/8/2012 07:04
Toluene	U		0.0010	0.0050	mg/L	1	2/8/2012 07:04
Xylenes, Total	U		0.0031	0.015	mg/L	1	2/8/2012 07:04
Surr: 1,2-Dichloroethane-d4	91.8			70-125	%REC	1	2/8/2012 07:04
Surr: 4-Bromofluorobenzene	88.2			72-125	%REC	1	2/8/2012 07:04
Surr: Dibromofluoromethane	98.4			71-125	%REC	1	2/8/2012 07:04
Surr: Toluene-d8	101			75-125	%REC	1	2/8/2012 07:04

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 13-Feb-12

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-MW40B-20120203
Collection Date: 2/3/2012 07:30 AM

Work Order: 1202096
Lab ID: 1202096-32
Matrix: WATER

Analyses	Result	Qual	SDL	ML	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270		Prep: SW3510 / 2/4/12		Analyst: LG
1,2-Diphenylhydrazine		U	0.000050	0.00020	mg/L	1	2/8/2012 07:48
2,4-Dimethylphenol	0.0040		0.000050	0.00020	mg/L	1	2/8/2012 07:48
2,4-Dinitrotoluene		U	0.000050	0.00020	mg/L	1	2/8/2012 07:48
2,6-Dinitrotoluene		U	0.000060	0.00020	mg/L	1	2/8/2012 07:48
2-Chloronaphthalene		U	0.000050	0.00020	mg/L	1	2/8/2012 07:48
2-Methylnaphthalene	0.20		0.0050	0.020	mg/L	100	2/9/2012 01:32
4,6-Dinitro-2-methylphenol		U	0.000080	0.00020	mg/L	1	2/8/2012 07:48
4-Nitrophenol		U	0.000050	0.0010	mg/L	1	2/8/2012 07:48
Acenaphthene	0.20		0.0050	0.020	mg/L	100	2/9/2012 01:32
Acenaphthylene	0.0022		0.000050	0.00020	mg/L	1	2/8/2012 07:48
Anthracene	0.019		0.00050	0.0020	mg/L	10	2/8/2012 08:09
Benz(a)anthracene	0.000095	J	0.000050	0.00020	mg/L	1	2/8/2012 07:48
Benzo(a)pyrene		U	0.000050	0.00020	mg/L	1	2/8/2012 07:48
Bis(2-chloroethoxy)methane		U	0.000050	0.00020	mg/L	1	2/8/2012 07:48
Bis(2-ethylhexyl)phthalate	0.00033		0.00010	0.00020	mg/L	1	2/8/2012 07:48
Chrysene	0.00011	J	0.000050	0.00020	mg/L	1	2/8/2012 07:48
Dibenzofuran	0.15		0.0050	0.020	mg/L	100	2/9/2012 01:32
Di-n-butylphthalate		U	0.000050	0.00020	mg/L	1	2/8/2012 07:48
Fluoranthene	0.0042		0.000050	0.00020	mg/L	1	2/8/2012 07:48
Fluorene	0.13		0.0050	0.020	mg/L	100	2/9/2012 01:32
Naphthalene	4.2		0.050	0.20	mg/L	1000	2/9/2012 22:22
Nitrobenzene		U	0.000050	0.00020	mg/L	1	2/8/2012 07:48
N-Nitrosodiphenylamine		U	0.000050	0.00020	mg/L	1	2/8/2012 07:48
Pentachlorophenol		U	0.000050	0.00020	mg/L	1	2/8/2012 07:48
Phenanthrene	0.080		0.00050	0.0020	mg/L	10	2/8/2012 08:09
Phenol		U	0.000050	0.00020	mg/L	1	2/8/2012 07:48
Pyrene	0.0033		0.000050	0.00020	mg/L	1	2/8/2012 07:48
Surr:2,4,6-Tribromophenol	60.7			34-129	%REC	1	2/8/2012 07:48
Surr:2,4,6-Tribromophenol	64.9			34-129	%REC	10	2/8/2012 08:09
Surr:2,4,6-Tribromophenol	91.1	J		34-129	%REC	100	2/9/2012 01:32
Surr:2,4,6-Tribromophenol	0	S		34-129	%REC	1000	2/9/2012 22:22
Surr:2-Fluorobiphenyl	40.2			40-125	%REC	1	2/8/2012 07:48
Surr:2-Fluorobiphenyl	45.2			40-125	%REC	10	2/8/2012 08:09
Surr:2-Fluorobiphenyl	70.3	J		40-125	%REC	100	2/9/2012 01:32
Surr:2-Fluorobiphenyl	0	S		40-125	%REC	1000	2/9/2012 22:22
Surr:2-Fluorophenol	57.3			20-120	%REC	1	2/8/2012 07:48
Surr:2-Fluorophenol	90.6			20-120	%REC	10	2/8/2012 08:09
Surr:2-Fluorophenol	56.3	J		20-120	%REC	100	2/9/2012 01:32

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 13-Feb-12

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-MW40B-20120203
Collection Date: 2/3/2012 07:30 AM

Work Order: 1202096
Lab ID: 1202096-32
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
Surr: 2-Fluorophenol	0	S		20-120	%REC	1000	2/9/2012 22:22
Surr: 4-Terphenyl-d14	76.9			40-135	%REC	1	2/8/2012 07:48
Surr: 4-Terphenyl-d14	88.8			40-135	%REC	10	2/8/2012 08:09
Surr: 4-Terphenyl-d14	93.6	J		40-135	%REC	100	2/9/2012 01:32
Surr: 4-Terphenyl-d14	0	S		40-135	%REC	1000	2/9/2012 22:22
Surr: Nitrobenzene-d5	42.5			41-120	%REC	1	2/8/2012 07:48
Surr: Nitrobenzene-d5	41.0			41-120	%REC	10	2/8/2012 08:09
Surr: Nitrobenzene-d5	79.3	J		41-120	%REC	100	2/9/2012 01:32
Surr: Nitrobenzene-d5	0	S		41-120	%REC	1000	2/9/2012 22:22
Surr: Phenol-d6	43.9			20-120	%REC	1	2/8/2012 07:48
Surr: Phenol-d6	45.5			20-120	%REC	10	2/8/2012 08:09
Surr: Phenol-d6	26.8	J		20-120	%REC	100	2/9/2012 01:32
Surr: Phenol-d6	0	S		20-120	%REC	1000	2/9/2012 22:22

VOLATILES		Method: SW8260				Analyst: PC	
1,2-Dichloroethane	U		0.010	0.050	mg/L	10	2/8/2012 22:59
Benzene	0.013	J	0.010	0.050	mg/L	10	2/8/2012 22:59
Chlorobenzene	U		0.010	0.050	mg/L	10	2/8/2012 22:59
Ethylbenzene	0.080		0.011	0.050	mg/L	10	2/8/2012 22:59
Methylenechloride	U		0.013	0.10	mg/L	10	2/8/2012 22:59
Toluene	0.028	J	0.010	0.050	mg/L	10	2/8/2012 22:59
Xylenes, Total	0.13	J	0.031	0.15	mg/L	10	2/8/2012 22:59
Surr: 1,2-Dichloroethane-d4	90.2			70-125	%REC	10	2/8/2012 22:59
Surr: 4-Bromofluorobenzene	90.6			72-125	%REC	10	2/8/2012 22:59
Surr: Dibromofluoromethane	96.0			71-125	%REC	10	2/8/2012 22:59
Surr: Toluene-d8	98.6			75-125	%REC	10	2/8/2012 22:59

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 13-Feb-12

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-MW42B-20120203
Collection Date: 2/3/2012 08:25 AM

Work Order: 1202096
Lab ID: 1202096-33
Matrix: WATER

Analyses	Result	Qual	SDL	ML	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270	Prep: SW3510 / 2/4/12		Analyst: LG	
1,2-Diphenylhydrazine	U		0.000050	0.00020	mg/L	1	2/7/2012 17:04
2,4-Dimethylphenol	U		0.000050	0.00020	mg/L	1	2/7/2012 17:04
2,4-Dinitrotoluene	U		0.000050	0.00020	mg/L	1	2/7/2012 17:04
2,6-Dinitrotoluene	U		0.000060	0.00020	mg/L	1	2/7/2012 17:04
2-Chloronaphthalene	U		0.000050	0.00020	mg/L	1	2/7/2012 17:04
2-Methylnaphthalene	0.000089	J	0.000050	0.00020	mg/L	1	2/7/2012 17:04
4,6-Dinitro-2-methylphenol	U		0.000080	0.00020	mg/L	1	2/7/2012 17:04
4-Nitrophenol	U		0.000050	0.0010	mg/L	1	2/7/2012 17:04
Acenaphthene	0.0017		0.000050	0.00020	mg/L	1	2/7/2012 17:04
Acenaphthylene	U		0.000050	0.00020	mg/L	1	2/7/2012 17:04
Anthracene	U		0.000050	0.00020	mg/L	1	2/7/2012 17:04
Benz(a)anthracene	U		0.000050	0.00020	mg/L	1	2/7/2012 17:04
Benzo(a)pyrene	U		0.000050	0.00020	mg/L	1	2/7/2012 17:04
Bis(2-chloroethoxy)methane	U		0.000050	0.00020	mg/L	1	2/7/2012 17:04
Bis(2-ethylhexyl)phthalate	U		0.00010	0.00020	mg/L	1	2/7/2012 17:04
Chrysene	U		0.000050	0.00020	mg/L	1	2/7/2012 17:04
Dibenzofuran	0.00016	J	0.000050	0.00020	mg/L	1	2/7/2012 17:04
Di-n-butylphthalate	U		0.000050	0.00020	mg/L	1	2/7/2012 17:04
Fluoranthene	0.00085		0.000050	0.00020	mg/L	1	2/7/2012 17:04
Fluorene	0.00050		0.000050	0.00020	mg/L	1	2/7/2012 17:04
Naphthalene	0.00063		0.000050	0.00020	mg/L	1	2/7/2012 17:04
Nitrobenzene	U		0.000050	0.00020	mg/L	1	2/7/2012 17:04
N-Nitrosodiphenylamine	U		0.000050	0.00020	mg/L	1	2/7/2012 17:04
Pentachlorophenol	U		0.000050	0.00020	mg/L	1	2/7/2012 17:04
Phenanthrene	0.00012	J	0.000050	0.00020	mg/L	1	2/7/2012 17:04
Phenol	U		0.000050	0.00020	mg/L	1	2/7/2012 17:04
Pyrene	0.00044		0.000050	0.00020	mg/L	1	2/7/2012 17:04
Surr: 2,4,6-Tribromophenol	48.1			34-129	%REC	1	2/7/2012 17:04
Surr: 2-Fluorobiphenyl	47.4			40-125	%REC	1	2/7/2012 17:04
Surr: 2-Fluorophenol	64.5			20-120	%REC	1	2/7/2012 17:04
Surr: 4-Terphenyl-d14	61.5			40-135	%REC	1	2/7/2012 17:04
Surr: Nitrobenzene-d5	51.9			41-120	%REC	1	2/7/2012 17:04
Surr: Phenol-d6	52.7			20-120	%REC	1	2/7/2012 17:04

VOLATILES			Method: SW8260			Analyst: PC	
1,2-Dichloroethane	U		0.0010	0.0050	mg/L	1	2/3/2012 19:17
Benzene	U		0.0010	0.0050	mg/L	1	2/3/2012 19:17
Chlorobenzene	U		0.0010	0.0050	mg/L	1	2/3/2012 19:17
Ethylbenzene	U		0.0011	0.0050	mg/L	1	2/3/2012 19:17

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 13-Feb-12

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-MW42B-20120203
Collection Date: 2/3/2012 08:25 AM

Work Order: 1202096
Lab ID: 1202096-33
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
Methylenechloride	U		0.0013	0.010	mg/L	1	2/3/2012 19:17
Toluene	U		0.0010	0.0050	mg/L	1	2/3/2012 19:17
Xylenes, Total	U		0.0031	0.015	mg/L	1	2/3/2012 19:17
Surr: 1,2-Dichloroethane-d4	98.0			70-125	%REC	1	2/3/2012 19:17
Surr: 4-Bromofluorobenzene	99.4			72-125	%REC	1	2/3/2012 19:17
Surr: Dibromofluoromethane	98.4			71-125	%REC	1	2/3/2012 19:17
Surr: Toluene-d8	103			75-125	%REC	1	2/3/2012 19:17

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 13-Feb-12

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-MW55A-20120203
Collection Date: 2/3/2012 09:20 AM

Work Order: 1202096
Lab ID: 1202096-34
Matrix: WATER

Analyses	Result	Qual	SDL	ML	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270	Prep: SW3510 / 2/4/12		Analyst: LG	
1,2-Diphenylhydrazine	U		0.00050	0.0020	mg/L	10	2/8/2012 05:23
2,4-Dimethylphenol	1.8		0.050	0.20	mg/L	1000	2/9/2012 02:34
2,4-Dinitrotoluene	U		0.00050	0.0020	mg/L	10	2/8/2012 05:23
2,6-Dinitrotoluene	U		0.00060	0.0020	mg/L	10	2/8/2012 05:23
2-Chloronaphthalene	U		0.00050	0.0020	mg/L	10	2/8/2012 05:23
2-Methylnaphthalene	0.25		0.0050	0.020	mg/L	100	2/9/2012 02:13
4,6-Dinitro-2-methylphenol	U		0.00080	0.0020	mg/L	10	2/8/2012 05:23
4-Nitrophenol	U		0.00050	0.010	mg/L	10	2/8/2012 05:23
Acenaphthene	0.14		0.0050	0.020	mg/L	100	2/9/2012 02:13
Acenaphthylene	0.0019	J	0.00050	0.0020	mg/L	10	2/8/2012 05:23
Anthracene	0.016		0.00050	0.0020	mg/L	10	2/8/2012 05:23
Benz(a)anthracene	U		0.00050	0.0020	mg/L	10	2/8/2012 05:23
Benzo(a)pyrene	U		0.00050	0.0020	mg/L	10	2/8/2012 05:23
Bis(2-chloroethoxy)methane	U		0.00050	0.0020	mg/L	10	2/8/2012 05:23
Bis(2-ethylhexyl)phthalate	U		0.0010	0.0020	mg/L	10	2/8/2012 05:23
Chrysene	U		0.00050	0.0020	mg/L	10	2/8/2012 05:23
Dibenzofuran	0.084		0.00050	0.0020	mg/L	10	2/8/2012 05:23
Di-n-butylphthalate	U		0.00050	0.0020	mg/L	10	2/8/2012 05:23
Fluoranthene	0.0044		0.00050	0.0020	mg/L	10	2/8/2012 05:23
Fluorene	0.057		0.00050	0.0020	mg/L	10	2/8/2012 05:23
Naphthalene	9.9		0.050	0.20	mg/L	1000	2/9/2012 02:34
Nitrobenzene	U		0.00050	0.0020	mg/L	10	2/8/2012 05:23
N-Nitrosodiphenylamine	U		0.00050	0.0020	mg/L	10	2/8/2012 05:23
Pentachlorophenol	U		0.00050	0.0020	mg/L	10	2/8/2012 05:23
Phenanthrene	0.047		0.00050	0.0020	mg/L	10	2/8/2012 05:23
Phenol	0.079		0.00050	0.0020	mg/L	10	2/8/2012 05:23
Pyrene	0.0041		0.00050	0.0020	mg/L	10	2/8/2012 05:23
Surr: 2,4,6-Tribromophenol	56.1			34-129	%REC	10	2/8/2012 05:23
Surr: 2,4,6-Tribromophenol	77.9	J		34-129	%REC	100	2/9/2012 02:13
Surr: 2,4,6-Tribromophenol	0	S		34-129	%REC	1000	2/9/2012 02:34
Surr: 2-Fluorobiphenyl	58.8			40-125	%REC	10	2/8/2012 05:23
Surr: 2-Fluorobiphenyl	83.3	J		40-125	%REC	100	2/9/2012 02:13
Surr: 2-Fluorobiphenyl	0	S		40-125	%REC	1000	2/9/2012 02:34
Surr: 2-Fluorophenol	83.9			20-120	%REC	10	2/8/2012 05:23
Surr: 2-Fluorophenol	108	J		20-120	%REC	100	2/9/2012 02:13
Surr: 2-Fluorophenol	0	S		20-120	%REC	1000	2/9/2012 02:34
Surr: 4-Terphenyl-d14	88.5			40-135	%REC	10	2/8/2012 05:23
Surr: 4-Terphenyl-d14	104	J		40-135	%REC	100	2/9/2012 02:13

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 13-Feb-12

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-MW55A-20120203
Collection Date: 2/3/2012 09:20 AM

Work Order: 1202096
Lab ID: 1202096-34
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
Surr: 4-Terphenyl-d14	0	S		40-135	%REC	1000	2/9/2012 02:34
Surr: Nitrobenzene-d5	70.8			41-120	%REC	10	2/8/2012 05:23
Surr: Nitrobenzene-d5	62.7	J		41-120	%REC	100	2/9/2012 02:13
Surr: Nitrobenzene-d5	0	S		41-120	%REC	1000	2/9/2012 02:34
Surr: Phenol-d6	49.4			20-120	%REC	10	2/8/2012 05:23
Surr: Phenol-d6	89.3	J		20-120	%REC	100	2/9/2012 02:13
Surr: Phenol-d6	0	S		20-120	%REC	1000	2/9/2012 02:34

VOLATILES		Method: SW8260				Analyst: PC	
1,2-Dichloroethane	U	0.010	0.050	mg/L	10	2/8/2012 23:52	
Benzene	0.15	0.010	0.050	mg/L	10	2/8/2012 23:52	
Chlorobenzene	U	0.010	0.050	mg/L	10	2/8/2012 23:52	
Ethylbenzene	0.20	0.011	0.050	mg/L	10	2/8/2012 23:52	
Methylenechloride	U	0.013	0.10	mg/L	10	2/8/2012 23:52	
Toluene	0.41	0.010	0.050	mg/L	10	2/8/2012 23:52	
Xylenes, Total	0.48	0.031	0.15	mg/L	10	2/8/2012 23:52	
Surr: 1,2-Dichloroethane-d4	86.9		70-125	%REC	10	2/8/2012 23:52	
Surr: 4-Bromofluorobenzene	90.8		72-125	%REC	10	2/8/2012 23:52	
Surr: Dibromofluoromethane	96.2		71-125	%REC	10	2/8/2012 23:52	
Surr: Toluene-d8	97.8		75-125	%REC	10	2/8/2012 23:52	

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 13-Feb-12

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-MW31A-20120203
Collection Date: 2/3/2012 10:10 AM

Work Order: 1202096
Lab ID: 1202096-35
Matrix: WATER

Analyses	Result	Qual	SDL	ML	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270	Prep: SW3510 / 2/4/12		Analyst: LG	
1,2-Diphenylhydrazine	U		0.00050	0.0020	mg/L	10	2/8/2012 05:43
2,4-Dimethylphenol	5.1		0.050	0.20	mg/L	1000	2/9/2012 03:16
2,4-Dinitrotoluene	U		0.00050	0.0020	mg/L	10	2/8/2012 05:43
2,6-Dinitrotoluene	U		0.00060	0.0020	mg/L	10	2/8/2012 05:43
2-Chloronaphthalene	U		0.00050	0.0020	mg/L	10	2/8/2012 05:43
2-Methylnaphthalene	0.65		0.0050	0.020	mg/L	100	2/9/2012 02:55
4,6-Dinitro-2-methylphenol	U		0.00080	0.0020	mg/L	10	2/8/2012 05:43
4-Nitrophenol	U		0.00050	0.010	mg/L	10	2/8/2012 05:43
Acenaphthene	0.30		0.0050	0.020	mg/L	100	2/9/2012 02:55
Acenaphthylene	0.0044		0.00050	0.0020	mg/L	10	2/8/2012 05:43
Anthracene	0.026		0.00050	0.0020	mg/L	10	2/8/2012 05:43
Benz(a)anthracene	U		0.00050	0.0020	mg/L	10	2/8/2012 05:43
Benzo(a)pyrene	U		0.00050	0.0020	mg/L	10	2/8/2012 05:43
Bis(2-chloroethoxy)methane	U		0.00050	0.0020	mg/L	10	2/8/2012 05:43
Bis(2-ethylhexyl)phthalate	U		0.0010	0.0020	mg/L	10	2/8/2012 05:43
Chrysene	U		0.00050	0.0020	mg/L	10	2/8/2012 05:43
Dibenzofuran	0.26		0.0050	0.020	mg/L	100	2/9/2012 02:55
Di-n-butylphthalate	U		0.00050	0.0020	mg/L	10	2/8/2012 05:43
Fluoranthene	0.0029		0.00050	0.0020	mg/L	10	2/8/2012 05:43
Fluorene	0.17		0.0050	0.020	mg/L	100	2/9/2012 02:55
Naphthalene	18		0.20	0.80	mg/L	4000	2/9/2012 23:04
Nitrobenzene	U		0.00050	0.0020	mg/L	10	2/8/2012 05:43
N-Nitrosodiphenylamine	U		0.00050	0.0020	mg/L	10	2/8/2012 05:43
Pentachlorophenol	0.11		0.0050	0.020	mg/L	100	2/9/2012 02:55
Phenanthrene	0.14		0.0050	0.020	mg/L	100	2/9/2012 02:55
Phenol	0.76		0.0050	0.020	mg/L	100	2/9/2012 02:55
Pyrene	0.0025		0.00050	0.0020	mg/L	10	2/8/2012 05:43
Surr:2,4,6-Tribromophenol	51.4			34-129	%REC	10	2/8/2012 05:43
Surr:2,4,6-Tribromophenol	105	J		34-129	%REC	100	2/9/2012 02:55
Surr:2,4,6-Tribromophenol	0	S		34-129	%REC	1000	2/9/2012 03:16
Surr:2,4,6-Tribromophenol	0	S		34-129	%REC	4000	2/9/2012 23:04
Surr:2-Fluorobiphenyl	50.6			40-125	%REC	10	2/8/2012 05:43
Surr:2-Fluorobiphenyl	104	J		40-125	%REC	100	2/9/2012 02:55
Surr:2-Fluorobiphenyl	0	S		40-125	%REC	1000	2/9/2012 03:16
Surr:2-Fluorobiphenyl	0	S		40-125	%REC	4000	2/9/2012 23:04
Surr:2-Fluorophenol	70.7			20-120	%REC	10	2/8/2012 05:43
Surr:2-Fluorophenol	86.5	J		20-120	%REC	100	2/9/2012 02:55
Surr:2-Fluorophenol	0	S		20-120	%REC	1000	2/9/2012 03:16

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 13-Feb-12

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-MW31A-20120203
Collection Date: 2/3/2012 10:10 AM

Work Order: 1202096
Lab ID: 1202096-35
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
Surr: 2-Fluorophenol	0	S		20-120	%REC	4000	2/9/2012 23:04
Surr: 4-Terphenyl-d14	82.5			40-135	%REC	10	2/8/2012 05:43
Surr: 4-Terphenyl-d14	112	J		40-135	%REC	100	2/9/2012 02:55
Surr: 4-Terphenyl-d14	0	S		40-135	%REC	1000	2/9/2012 03:16
Surr: 4-Terphenyl-d14	0	S		40-135	%REC	4000	2/9/2012 23:04
Surr: Nitrobenzene-d5	85.5			41-120	%REC	10	2/8/2012 05:43
Surr: Nitrobenzene-d5	69.9	J		41-120	%REC	100	2/9/2012 02:55
Surr: Nitrobenzene-d5	0	S		41-120	%REC	1000	2/9/2012 03:16
Surr: Nitrobenzene-d5	0	S		41-120	%REC	4000	2/9/2012 23:04
Surr: Phenol-d6	86.5			20-120	%REC	10	2/8/2012 05:43
Surr: Phenol-d6	110	J		20-120	%REC	100	2/9/2012 02:55
Surr: Phenol-d6	0	S		20-120	%REC	1000	2/9/2012 03:16
Surr: Phenol-d6	0	S		20-120	%REC	4000	2/9/2012 23:04

VOLATILES		Method: SW8260			Analyst: PC		
1,2-Dichloroethane	U	0.025	0.12	mg/L	25	2/12/2012 13:57	
Benzene	0.14	0.025	0.12	mg/L	25	2/12/2012 13:57	
Chlorobenzene	U	0.025	0.12	mg/L	25	2/12/2012 13:57	
Ethylbenzene	0.17	0.028	0.12	mg/L	25	2/12/2012 13:57	
Methylenechloride	U	0.032	0.25	mg/L	25	2/12/2012 13:57	
Toluene	0.36	0.025	0.12	mg/L	25	2/12/2012 13:57	
Xylenes, Total	0.71	0.078	0.38	mg/L	25	2/12/2012 13:57	
Surr: 1,2-Dichloroethane-d4	97.1		70-125	%REC	25	2/12/2012 13:57	
Surr: 4-Bromofluorobenzene	95.6		72-125	%REC	25	2/12/2012 13:57	
Surr: Dibromofluoromethane	98.3		71-125	%REC	25	2/12/2012 13:57	
Surr: Toluene-d8	100		75-125	%REC	25	2/12/2012 13:57	

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 13-Feb-12

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-MW30A-20120203
Collection Date: 2/3/2012 11:00 AM

Work Order: 1202096
Lab ID: 1202096-36
Matrix: WATER

Analyses	Result	Qual	SDL	ML	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270	Prep: SW3510 / 2/4/12		Analyst: LG	
1,2-Diphenylhydrazine	U		0.00050	0.0020	mg/L	10	2/9/2012 03:37
2,4-Dimethylphenol	3.0		0.050	0.20	mg/L	1000	2/9/2012 04:18
2,4-Dinitrotoluene	U		0.00050	0.0020	mg/L	10	2/9/2012 03:37
2,6-Dinitrotoluene	U		0.00060	0.0020	mg/L	10	2/9/2012 03:37
2-Chloronaphthalene	U		0.00050	0.0020	mg/L	10	2/9/2012 03:37
2-Methylnaphthalene	0.42		0.0050	0.020	mg/L	100	2/9/2012 03:58
4,6-Dinitro-2-methylphenol	U		0.00080	0.0020	mg/L	10	2/9/2012 03:37
4-Nitrophenol	U		0.00050	0.010	mg/L	10	2/9/2012 03:37
Acenaphthene	0.23		0.0050	0.020	mg/L	100	2/9/2012 03:58
Acenaphthylene	0.0064		0.00050	0.0020	mg/L	10	2/9/2012 03:37
Anthracene	0.013		0.00050	0.0020	mg/L	10	2/9/2012 03:37
Benz(a)anthracene	U		0.00050	0.0020	mg/L	10	2/9/2012 03:37
Benzo(a)pyrene	U		0.00050	0.0020	mg/L	10	2/9/2012 03:37
Bis(2-chloroethoxy)methane	U		0.00050	0.0020	mg/L	10	2/9/2012 03:37
Bis(2-ethylhexyl)phthalate	U		0.0010	0.0020	mg/L	10	2/9/2012 03:37
Chrysene	U		0.00050	0.0020	mg/L	10	2/9/2012 03:37
Dibenzofuran	0.21		0.0050	0.020	mg/L	100	2/9/2012 03:58
Di-n-butylphthalate	U		0.00050	0.0020	mg/L	10	2/9/2012 03:37
Fluoranthene	0.0031		0.00050	0.0020	mg/L	10	2/9/2012 03:37
Fluorene	0.13		0.0050	0.020	mg/L	100	2/9/2012 03:58
Naphthalene	7.8		0.050	0.20	mg/L	1000	2/9/2012 04:18
Nitrobenzene	U		0.00050	0.0020	mg/L	10	2/9/2012 03:37
N-Nitrosodiphenylamine	U		0.00050	0.0020	mg/L	10	2/9/2012 03:37
Pentachlorophenol	U		0.00050	0.0020	mg/L	10	2/9/2012 03:37
Phenanthrene	0.064		0.00050	0.0020	mg/L	10	2/9/2012 03:37
Phenol	0.015		0.00050	0.0020	mg/L	10	2/9/2012 03:37
Pyrene	0.0021		0.00050	0.0020	mg/L	10	2/9/2012 03:37
Surr: 2,4,6-Tribromophenol	63.6			34-129	%REC	10	2/9/2012 03:37
Surr: 2,4,6-Tribromophenol	102	J		34-129	%REC	100	2/9/2012 03:58
Surr: 2,4,6-Tribromophenol	0	S		34-129	%REC	1000	2/9/2012 04:18
Surr: 2-Fluorobiphenyl	60.7			40-125	%REC	10	2/9/2012 03:37
Surr: 2-Fluorobiphenyl	98.0	J		40-125	%REC	100	2/9/2012 03:58
Surr: 2-Fluorobiphenyl	0	S		40-125	%REC	1000	2/9/2012 04:18
Surr: 2-Fluorophenol	62.6			20-120	%REC	10	2/9/2012 03:37
Surr: 2-Fluorophenol	111	J		20-120	%REC	100	2/9/2012 03:58
Surr: 2-Fluorophenol	0	S		20-120	%REC	1000	2/9/2012 04:18
Surr: 4-Terphenyl-d14	95.8			40-135	%REC	10	2/9/2012 03:37
Surr: 4-Terphenyl-d14	99.7	J		40-135	%REC	100	2/9/2012 03:58

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 13-Feb-12

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-MW30A-20120203
Collection Date: 2/3/2012 11:00 AM

Work Order: 1202096
Lab ID: 1202096-36
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
Surr: 4-Terphenyl-d14	0	S		40-135	%REC	1000	2/9/2012 04:18
Surr: Nitrobenzene-d5	58.2			41-120	%REC	10	2/9/2012 03:37
Surr: Nitrobenzene-d5	88.3	J		41-120	%REC	100	2/9/2012 03:58
Surr: Nitrobenzene-d5	0	S		41-120	%REC	1000	2/9/2012 04:18
Surr: Phenol-d6	63.9			20-120	%REC	10	2/9/2012 03:37
Surr: Phenol-d6	64.9	J		20-120	%REC	100	2/9/2012 03:58
Surr: Phenol-d6	0	S		20-120	%REC	1000	2/9/2012 04:18

VOLATILES		Method: SW8260				Analyst: PC	
1,2-Dichloroethane	U	0.010	0.050	mg/L	10	2/12/2012 14:23	
Benzene	0.13	0.010	0.050	mg/L	10	2/12/2012 14:23	
Chlorobenzene	U	0.010	0.050	mg/L	10	2/12/2012 14:23	
Ethylbenzene	0.11	0.011	0.050	mg/L	10	2/12/2012 14:23	
Methylenechloride	U	0.013	0.10	mg/L	10	2/12/2012 14:23	
Toluene	0.49	0.010	0.050	mg/L	10	2/12/2012 14:23	
Xylenes, Total	0.32	0.031	0.15	mg/L	10	2/12/2012 14:23	
Surr: 1,2-Dichloroethane-d4	97.4		70-125	%REC	10	2/12/2012 14:23	
Surr: 4-Bromofluorobenzene	95.6		72-125	%REC	10	2/12/2012 14:23	
Surr: Dibromofluoromethane	98.0		71-125	%REC	10	2/12/2012 14:23	
Surr: Toluene-d8	100		75-125	%REC	10	2/12/2012 14:23	

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 13-Feb-12

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-MW52A-20120203
Collection Date: 2/3/2012 12:20 PM

Work Order: 1202096
Lab ID: 1202096-37
Matrix: WATER

Analyses	Result	Qual	SDL	ML	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270		Prep: SW3510 / 2/4/12		Analyst: LG
1,2-Diphenylhydrazine		U	0.000050	0.00020	mg/L	1	2/7/2012 20:14
2,4-Dimethylphenol	0.0034		0.000050	0.00020	mg/L	1	2/7/2012 20:14
2,4-Dinitrotoluene		U	0.000050	0.00020	mg/L	1	2/7/2012 20:14
2,6-Dinitrotoluene		U	0.000060	0.00020	mg/L	1	2/7/2012 20:14
2-Chloronaphthalene		U	0.000050	0.00020	mg/L	1	2/7/2012 20:14
2-Methylnaphthalene	0.096		0.000050	0.00020	mg/L	10	2/7/2012 20:35
4,6-Dinitro-2-methylphenol		U	0.000080	0.00020	mg/L	1	2/7/2012 20:14
4-Nitrophenol		U	0.000050	0.0010	mg/L	1	2/7/2012 20:14
Acenaphthene	0.19		0.000050	0.00020	mg/L	100	2/9/2012 01:11
Acenaphthylene	0.0024		0.000050	0.00020	mg/L	1	2/7/2012 20:14
Anthracene	0.036		0.000050	0.00020	mg/L	10	2/7/2012 20:35
Benz(a)anthracene	0.00031		0.000050	0.00020	mg/L	1	2/7/2012 20:14
Benzo(a)pyrene	0.000066	J	0.000050	0.00020	mg/L	1	2/7/2012 20:14
Bis(2-chloroethoxy)methane		U	0.000050	0.00020	mg/L	1	2/7/2012 20:14
Bis(2-ethylhexyl)phthalate	0.00043		0.000010	0.00020	mg/L	1	2/7/2012 20:14
Chrysene	0.00033		0.000050	0.00020	mg/L	1	2/7/2012 20:14
Dibenzofuran	0.14		0.000050	0.00020	mg/L	100	2/9/2012 01:11
Di-n-butylphthalate		U	0.000050	0.00020	mg/L	1	2/7/2012 20:14
Fluoranthene	0.013		0.000050	0.00020	mg/L	10	2/7/2012 20:35
Fluorene	0.12		0.000050	0.00020	mg/L	100	2/9/2012 01:11
Naphthalene	0.77		0.000050	0.00020	mg/L	100	2/9/2012 01:11
Nitrobenzene		U	0.000050	0.00020	mg/L	1	2/7/2012 20:14
N-Nitrosodiphenylamine		U	0.000050	0.00020	mg/L	1	2/7/2012 20:14
Pentachlorophenol		U	0.000050	0.00020	mg/L	1	2/7/2012 20:14
Phenanthrene	0.081		0.000050	0.00020	mg/L	10	2/7/2012 20:35
Phenol	0.000052	J	0.000050	0.00020	mg/L	1	2/7/2012 20:14
Pyrene	0.0054		0.000050	0.00020	mg/L	1	2/7/2012 20:14
Surr:2,4,6-Tribromophenol	44.7			34-129	%REC	1	2/7/2012 20:14
Surr:2,4,6-Tribromophenol	47.4			34-129	%REC	10	2/7/2012 20:35
Surr:2,4,6-Tribromophenol	0	S		34-129	%REC	100	2/9/2012 01:11
Surr:2-Fluorobiphenyl	40.2			40-125	%REC	1	2/7/2012 20:14
Surr:2-Fluorobiphenyl	50.0			40-125	%REC	10	2/7/2012 20:35
Surr:2-Fluorobiphenyl	0	S		40-125	%REC	100	2/9/2012 01:11
Surr:2-Fluorophenol	51.3			20-120	%REC	1	2/7/2012 20:14
Surr:2-Fluorophenol	43.6			20-120	%REC	10	2/7/2012 20:35
Surr:2-Fluorophenol	0	S		20-120	%REC	100	2/9/2012 01:11
Surr:4-Terphenyl-d14	61.0			40-135	%REC	1	2/7/2012 20:14
Surr:4-Terphenyl-d14	63.8			40-135	%REC	10	2/7/2012 20:35

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 13-Feb-12

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-MW52A-20120203
Collection Date: 2/3/2012 12:20 PM

Work Order: 1202096
Lab ID: 1202096-37
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
Surr: 4-Terphenyl-d14	0	S		40-135	%REC	100	2/9/2012 01:11
Surr: Nitrobenzene-d5	43.1			41-120	%REC	1	2/7/2012 20:14
Surr: Nitrobenzene-d5	49.5			41-120	%REC	10	2/7/2012 20:35
Surr: Nitrobenzene-d5	0	S		41-120	%REC	100	2/9/2012 01:11
Surr: Phenol-d6	50.0			20-120	%REC	1	2/7/2012 20:14
Surr: Phenol-d6	38.2	J		20-120	%REC	10	2/7/2012 20:35
Surr: Phenol-d6	0	S		20-120	%REC	100	2/9/2012 01:11

VOLATILES		Method: SW8260				Analyst: PC	
1,2-Dichloroethane	U		0.0010	0.0050	mg/L	1	2/8/2012 07:30
Benzene	0.0017	J	0.0010	0.0050	mg/L	1	2/8/2012 07:30
Chlorobenzene	U		0.0010	0.0050	mg/L	1	2/8/2012 07:30
Ethylbenzene	0.0053		0.0011	0.0050	mg/L	1	2/8/2012 07:30
Methylenechloride	U		0.0013	0.010	mg/L	1	2/8/2012 07:30
Toluene	0.0034	J	0.0010	0.0050	mg/L	1	2/8/2012 07:30
Xylenes, Total	0.011	J	0.0031	0.015	mg/L	1	2/8/2012 07:30
Surr: 1,2-Dichloroethane-d4	90.1			70-125	%REC	1	2/8/2012 07:30
Surr: 4-Bromofluorobenzene	90.6			72-125	%REC	1	2/8/2012 07:30
Surr: Dibromofluoromethane	95.2			71-125	%REC	1	2/8/2012 07:30
Surr: Toluene-d8	99.4			75-125	%REC	1	2/8/2012 07:30

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 13-Feb-12

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-MW58A-20120203
Collection Date: 2/3/2012 01:30 PM

Work Order: 1202096
Lab ID: 1202096-38
Matrix: WATER

Analyses	Result	Qual	SDL	ML	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270	Prep: SW3510 / 2/4/12	Analyst: LG		
1,2-Diphenylhydrazine	U		0.000050	0.00020	mg/L	1	2/8/2012 07:07
2,4-Dimethylphenol	1.1		0.025	0.10	mg/L	500	2/9/2012 22:43
2,4-Dinitrotoluene	U		0.000050	0.00020	mg/L	1	2/8/2012 07:07
2,6-Dinitrotoluene	U		0.000060	0.00020	mg/L	1	2/8/2012 07:07
2-Chloronaphthalene	U		0.000050	0.00020	mg/L	1	2/8/2012 07:07
2-Methylnaphthalene	0.082		0.00050	0.0020	mg/L	10	2/8/2012 07:27
4,6-Dinitro-2-methylphenol	U		0.000080	0.00020	mg/L	1	2/8/2012 07:07
4-Nitrophenol	U		0.000050	0.0010	mg/L	1	2/8/2012 07:07
Acenaphthene	0.16		0.0050	0.020	mg/L	100	2/9/2012 01:53
Acenaphthylene	0.0011		0.000050	0.00020	mg/L	1	2/8/2012 07:07
Anthracene	0.0055		0.000050	0.00020	mg/L	1	2/8/2012 07:07
Benz(a)anthracene	U		0.000050	0.00020	mg/L	1	2/8/2012 07:07
Benzo(a)pyrene	U		0.000050	0.00020	mg/L	1	2/8/2012 07:07
Bis(2-chloroethoxy)methane	U		0.000050	0.00020	mg/L	1	2/8/2012 07:07
Bis(2-ethylhexyl)phthalate	U		0.00010	0.00020	mg/L	1	2/8/2012 07:07
Chrysene	U		0.000050	0.00020	mg/L	1	2/8/2012 07:07
Dibenzofuran	0.13		0.0050	0.020	mg/L	100	2/9/2012 01:53
Di-n-butylphthalate	U		0.000050	0.00020	mg/L	1	2/8/2012 07:07
Fluoranthene	0.0036		0.000050	0.00020	mg/L	1	2/8/2012 07:07
Fluorene	0.080		0.00050	0.0020	mg/L	10	2/8/2012 07:27
Naphthalene	2.2		0.025	0.10	mg/L	500	2/9/2012 22:43
Nitrobenzene	U		0.000050	0.00020	mg/L	1	2/8/2012 07:07
N-Nitrosodiphenylamine	U		0.000050	0.00020	mg/L	1	2/8/2012 07:07
Pentachlorophenol	U		0.000050	0.00020	mg/L	1	2/8/2012 07:07
Phenanthrene	0.039		0.00050	0.0020	mg/L	10	2/8/2012 07:27
Phenol	0.0038		0.000050	0.00020	mg/L	1	2/8/2012 07:07
Pyrene	0.0022		0.000050	0.00020	mg/L	1	2/8/2012 07:07
Surr:2,4,6-Tribromophenol	50.0			34-129	%REC	1	2/8/2012 07:07
Surr:2,4,6-Tribromophenol	50.2			34-129	%REC	10	2/8/2012 07:27
Surr:2,4,6-Tribromophenol	59.9	J		34-129	%REC	100	2/9/2012 01:53
Surr:2,4,6-Tribromophenol	0	S		34-129	%REC	500	2/9/2012 22:43
Surr:2-Fluorobiphenyl	43.0			40-125	%REC	1	2/8/2012 07:07
Surr:2-Fluorobiphenyl	55.0			40-125	%REC	10	2/8/2012 07:27
Surr:2-Fluorobiphenyl	60.1	J		40-125	%REC	100	2/9/2012 01:53
Surr:2-Fluorobiphenyl	0	S		40-125	%REC	500	2/9/2012 22:43
Surr:2-Fluorophenol	50.6			20-120	%REC	1	2/8/2012 07:07
Surr:2-Fluorophenol	69.6			20-120	%REC	10	2/8/2012 07:27
Surr:2-Fluorophenol	77.0	J		20-120	%REC	100	2/9/2012 01:53

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 13-Feb-12

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-MW58A-20120203
Collection Date: 2/3/2012 01:30 PM

Work Order: 1202096
Lab ID: 1202096-38
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
Surr: 2-Fluorophenol	0	S		20-120	%REC	500	2/9/2012 22:43
Surr: 4-Terphenyl-d14	67.4			40-135	%REC	1	2/8/2012 07:07
Surr: 4-Terphenyl-d14	86.8			40-135	%REC	10	2/8/2012 07:27
Surr: 4-Terphenyl-d14	102	J		40-135	%REC	100	2/9/2012 01:53
Surr: 4-Terphenyl-d14	0	S		40-135	%REC	500	2/9/2012 22:43
Surr: Nitrobenzene-d5	42.1			41-120	%REC	1	2/8/2012 07:07
Surr: Nitrobenzene-d5	42.5			41-120	%REC	10	2/8/2012 07:27
Surr: Nitrobenzene-d5	100	J		41-120	%REC	100	2/9/2012 01:53
Surr: Nitrobenzene-d5	0	S		41-120	%REC	500	2/9/2012 22:43
Surr: Phenol-d6	42.6			20-120	%REC	1	2/8/2012 07:07
Surr: Phenol-d6	60.8			20-120	%REC	10	2/8/2012 07:27
Surr: Phenol-d6	34.2	J		20-120	%REC	100	2/9/2012 01:53
Surr: Phenol-d6	0	S		20-120	%REC	500	2/9/2012 22:43

VOLATILES		Method: SW8260				Analyst: PC	
1,2-Dichloroethane	U		0.010	0.050	mg/L	10	2/12/2012 14:49
Benzene	0.12		0.010	0.050	mg/L	10	2/12/2012 14:49
Chlorobenzene	U		0.010	0.050	mg/L	10	2/12/2012 14:49
Ethylbenzene	0.085		0.011	0.050	mg/L	10	2/12/2012 14:49
Methylenechloride	U		0.013	0.10	mg/L	10	2/12/2012 14:49
Toluene	0.043	J	0.010	0.050	mg/L	10	2/12/2012 14:49
Xylenes, Total	0.23		0.031	0.15	mg/L	10	2/12/2012 14:49
Surr: 1,2-Dichloroethane-d4	97.1			70-125	%REC	10	2/12/2012 14:49
Surr: 4-Bromofluorobenzene	95.5			72-125	%REC	10	2/12/2012 14:49
Surr: Dibromofluoromethane	97.7			71-125	%REC	10	2/12/2012 14:49
Surr: Toluene-d8	100			75-125	%REC	10	2/12/2012 14:49

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 13-Feb-12

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-FB03-20120203
Collection Date: 2/3/2012 01:45 PM

Work Order: 1202096
Lab ID: 1202096-39
Matrix: WATER

Analyses	Result	Qual	SDL	ML	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270	Prep: SW3510 / 2/4/12		Analyst: LG	
1,2-Diphenylhydrazine	U		0.000050	0.00020	mg/L	1	2/7/2012 17:25
2,4-Dimethylphenol	U		0.000050	0.00020	mg/L	1	2/7/2012 17:25
2,4-Dinitrotoluene	U		0.000050	0.00020	mg/L	1	2/7/2012 17:25
2,6-Dinitrotoluene	U		0.000060	0.00020	mg/L	1	2/7/2012 17:25
2-Chloronaphthalene	U		0.000050	0.00020	mg/L	1	2/7/2012 17:25
2-Methylnaphthalene	U		0.000050	0.00020	mg/L	1	2/7/2012 17:25
4,6-Dinitro-2-methylphenol	U		0.000080	0.00020	mg/L	1	2/7/2012 17:25
4-Nitrophenol	U		0.000050	0.0010	mg/L	1	2/7/2012 17:25
Acenaphthene	U		0.000050	0.00020	mg/L	1	2/7/2012 17:25
Acenaphthylene	U		0.000050	0.00020	mg/L	1	2/7/2012 17:25
Anthracene	U		0.000050	0.00020	mg/L	1	2/7/2012 17:25
Benz(a)anthracene	U		0.000050	0.00020	mg/L	1	2/7/2012 17:25
Benzo(a)pyrene	U		0.000050	0.00020	mg/L	1	2/7/2012 17:25
Bis(2-chloroethoxy)methane	U		0.000050	0.00020	mg/L	1	2/7/2012 17:25
Bis(2-ethylhexyl)phthalate	U		0.00010	0.00020	mg/L	1	2/7/2012 17:25
Chrysene	U		0.000050	0.00020	mg/L	1	2/7/2012 17:25
Dibenzofuran	U		0.000050	0.00020	mg/L	1	2/7/2012 17:25
Di-n-butylphthalate	U		0.000050	0.00020	mg/L	1	2/7/2012 17:25
Fluoranthene	U		0.000050	0.00020	mg/L	1	2/7/2012 17:25
Fluorene	U		0.000050	0.00020	mg/L	1	2/7/2012 17:25
Naphthalene	0.00031		0.000050	0.00020	mg/L	1	2/7/2012 17:25
Nitrobenzene	U		0.000050	0.00020	mg/L	1	2/7/2012 17:25
N-Nitrosodiphenylamine	U		0.000050	0.00020	mg/L	1	2/7/2012 17:25
Pentachlorophenol	U		0.000050	0.00020	mg/L	1	2/7/2012 17:25
Phenanthrene	U		0.000050	0.00020	mg/L	1	2/7/2012 17:25
Phenol	U		0.000050	0.00020	mg/L	1	2/7/2012 17:25
Pyrene	U		0.000050	0.00020	mg/L	1	2/7/2012 17:25
Surr: 2,4,6-Tribromophenol	45.0			34-129	%REC	1	2/7/2012 17:25
Surr: 2-Fluorobiphenyl	46.7			40-125	%REC	1	2/7/2012 17:25
Surr: 2-Fluorophenol	55.3			20-120	%REC	1	2/7/2012 17:25
Surr: 4-Terphenyl-d14	72.5			40-135	%REC	1	2/7/2012 17:25
Surr: Nitrobenzene-d5	61.3			41-120	%REC	1	2/7/2012 17:25
Surr: Phenol-d6	45.7			20-120	%REC	1	2/7/2012 17:25
VOLATILES			Method: SW8260			Analyst: PC	
1,2-Dichloroethane	U		0.0010	0.0050	mg/L	1	2/8/2012 04:53
Benzene	U		0.0010	0.0050	mg/L	1	2/8/2012 04:53
Chlorobenzene	U		0.0010	0.0050	mg/L	1	2/8/2012 04:53
Ethylbenzene	U		0.0011	0.0050	mg/L	1	2/8/2012 04:53

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 13-Feb-12

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-FB03-20120203
Collection Date: 2/3/2012 01:45 PM

Work Order: 1202096
Lab ID: 1202096-39
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
Methylenechloride	U		0.0013	0.010	mg/L	1	2/8/2012 04:53
Toluene	U		0.0010	0.0050	mg/L	1	2/8/2012 04:53
Xylenes, Total	U		0.0031	0.015	mg/L	1	2/8/2012 04:53
Surr: 1,2-Dichloroethane-d4	93.3			70-125	%REC	1	2/8/2012 04:53
Surr: 4-Bromofluorobenzene	89.5			72-125	%REC	1	2/8/2012 04:53
Surr: Dibromofluoromethane	99.5			71-125	%REC	1	2/8/2012 04:53
Surr: Toluene-d8	100			75-125	%REC	1	2/8/2012 04:53

Note: See Qualifiers Page for a list of qualifiers and their explanation.

WorkOrder: 1202096
InstrumentID: SV-2
Test Code: 8270_LOW_W
Test Number: SW8270
Test Name: Low-LevelSemivolatiles

**METHOD DETECTION /
 REPORTING LIMITS**

Matrix: Aqueous **Units:** mg/L

Type	Analyte	CAS	DCS	MDL	Unadjusted MQL
A	1,2-Diphenylhydrazine	122-66-7	0.000082	0.000050	0.00020
A	2,4-Dimethylphenol	105-67-9	0.000054	0.000050	0.00020
A	2,4-Dinitrotoluene	121-14-2	0.000063	0.000050	0.00020
A	2,6-Dinitrotoluene	606-20-2	0.000067	0.000060	0.00020
A	2-Chloronaphthalene	91-58-7	0.000071	0.000050	0.00020
A	2-Methylnaphthalene	91-57-6	0.00014	0.000050	0.00020
A	4,6-Dinitro-2-methylphenol	534-52-1	0.000040	0.000080	0.00020
A	4-Nitrophenol	100-02-7	0.000048	0.000050	0.0010
A	Acenaphthene	83-32-9	0.000080	0.000050	0.00020
A	Acenaphthylene	208-96-8	0.000072	0.000050	0.00020
A	Anthracene	120-12-7	0.000079	0.000050	0.00020
A	Benz(a)anthracene	56-55-3	0.000078	0.000050	0.00020
A	Benzo(a)pyrene	50-32-8	0.000064	0.000050	0.00020
A	Bis(2-chloroethoxy)methane	111-91-1	0.000067	0.000050	0.00020
A	Bis(2-ethylhexyl)phthalate	117-81-7	0.000067	0.00010	0.00020
A	Chrysene	218-01-9	0.000076	0.000050	0.00020
A	Dibenzofuran	132-64-9	0.000085	0.000050	0.00020
A	Di-n-butyl phthalate	84-74-2	0.000088	0.000050	0.00020
A	Fluoranthene	206-44-0	0.000083	0.000050	0.00020
A	Fluorene	86-73-7	0.000076	0.000050	0.00020
A	Naphthalene	91-20-3	0.00011	0.000050	0.00020
A	Nitrobenzene	98-95-3	0.00010	0.000050	0.00020
A	N-Nitrosodiphenylamine	86-30-6	0.000069	0.000050	0.00020
A	Pentachlorophenol	87-86-5	0.000055	0.000050	0.00020
A	Phenanthrene	85-01-8	0.000078	0.000050	0.00020
A	Phenol	108-95-2	0.000085	0.000050	0.00020
A	Pyrene	129-00-0	0.000075	0.000050	0.00020
S	Surr: 2,4,6-Tribromophenol	118-79-6	0	0	0.00020
S	Surr: 2-Fluorobiphenyl	321-60-8	0	0	0.00020
S	Surr: 2-Fluorophenol	367-12-4	0	0	0.00020
S	Surr: 4-Terphenyl-d14	1718-51-0	0	0	0.00020
S	Surr: Nitrobenzene-d5	4165-60-0	0	0	0.00020
S	Surr: Phenol-d6	13127-88-3	0	0	0.00020

WorkOrder: 1202096
InstrumentID: VOA1
Test Code: 8260_W
Test Number: SW8260
Test Name: Volatiles

**METHOD DETECTION /
 REPORTING LIMITS**

Matrix: Aqueous **Units:** mg/L

Type	Analyte	CAS	DCS	MDL	Unadjusted MQL
A	1,2-Dichloroethane	107-06-2	0.0013	0.0010	0.0050
A	Benzene	71-43-2	0.0013	0.0010	0.0050
A	Chlorobenzene	108-90-7	0.0013	0.0010	0.0050
A	Ethylbenzene	100-41-4	0.0013	0.0011	0.0050
A	Methylene chloride	75-09-2	0.0017	0.0013	0.010
A	Toluene	108-88-3	0.0014	0.0010	0.0050
A	Vinyl chloride	75-01-4	0.0013	0.0010	0.0020
M	Xylenes, Total	1330-20-7	0.0037	0.0031	0.015
S	Surr: 1,2-Dichloroethane-d4	17060-07-0	0	0	0.0050
S	Surr: 4-Bromofluorobenzene	460-00-4	0	0	0.0050
S	Surr: Dibromofluoromethane	1868-53-7	0	0	0.0050
S	Surr: Toluene-d8	2037-26-5	0	0	0.0050

WorkOrder: 1202096
InstrumentID: VOA6
Test Code: 8260_W
Test Number: SW8260
Test Name: Volatiles

**METHOD DETECTION /
 REPORTING LIMITS**

Matrix: Aqueous **Units:** mg/L

Type	Analyte	CAS	DCS	MDL	Unadjusted MQL
A	1,2-Dichloroethane	107-06-2	0.0016	0.0010	0.0050
A	Benzene	71-43-2	0.0013	0.0010	0.0050
A	Chlorobenzene	108-90-7	0.0013	0.0010	0.0050
A	Ethylbenzene	100-41-4	0.0013	0.0011	0.0050
A	Methylene chloride	75-09-2	0.0014	0.0013	0.010
A	Toluene	108-88-3	0.0013	0.0010	0.0050
A	Vinyl chloride	75-01-4	0.0010	0.0010	0.0020
M	Xylenes, Total	1330-20-7	0.0038	0.0031	0.015
S	Surr: 1,2-Dichloroethane-d4	17060-07-0	0	0	0.0050
S	Surr: 4-Bromofluorobenzene	460-00-4	0	0	0.0050
S	Surr: Dibromofluoromethane	1868-53-7	0	0	0.0050
S	Surr: Toluene-d8	2037-26-5	0	0	0.0050

ALS Environmental

Date: 13-Feb-12

Client: Pastor, Behling & Wheeler, LLC
Work Order: 1202096
Project: HWPW Site-Wide GW

QC BATCH REPORT

Batch ID: **58686** Instrument ID: **SV-2** Method: **SW8270**

MBLK	Sample ID: SBLKW2-120204-58686						Units: µg/L	Analysis Date: 2/4/2012 02:16 PM			
Client ID:	Run ID: SV-2_120204A				SeqNo: 2682884	Prep Date: 2/4/2012	DF: 1				
Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
1,2-Diphenylhydrazine	U	0.20									
2,4-Dimethylphenol	U	0.20									
2,4-Dinitrotoluene	U	0.20									
2,6-Dinitrotoluene	U	0.20									
2-Chloronaphthalene	U	0.20									
2-Methylnaphthalene	U	0.20									
4,6-Dinitro-2-methylphenol	U	0.20									
4-Nitrophenol	U	1.0									
Acenaphthene	U	0.20									
Acenaphthylene	U	0.20									
Anthracene	U	0.20									
Benz(a)anthracene	U	0.20									
Benzo(a)pyrene	U	0.20									
Bis(2-chloroethoxy)methane	U	0.20									
Bis(2-ethylhexyl)phthalate	U	0.20									
Chrysene	U	0.20									
Dibenzofuran	U	0.20									
Di-n-butylphthalate	U	0.20									
Fluoranthene	U	0.20									
Fluorene	U	0.20									
Naphthalene	U	0.20									
Nitrobenzene	U	0.20									
N-Nitrosodiphenylamine	U	0.20									
Pentachlorophenol	U	0.20									
Phenanthrene	U	0.20									
Phenol	U	0.20									
Pyrene	U	0.20									
<i>Surr: 2,4,6-Tribromophenol</i>	3.56	0.20	5	0	71.2	34-129	0				
<i>Surr: 2-Fluorobiphenyl</i>	3.361	0.20	5	0	67.2	40-125	0				
<i>Surr: 2-Fluorophenol</i>	3.667	0.20	5	0	73.3	20-120	0				
<i>Surr: 4-Terphenyl-d14</i>	3.712	0.20	5	0	74.2	40-135	0				
<i>Surr: Nitrobenzene-d5</i>	3.098	0.20	5	0	62	41-120	0				
<i>Surr: Phenol-d6</i>	3.188	0.20	5	0	63.8	20-120	0				

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Pastor, Behling & Wheeler, LLC
 Work Order: 1202096
 Project: HWPW Site-Wide GW

QC BATCH REPORT

Batch ID: **58686** Instrument ID: **SV-2** Method: **SW8270**

LCS		Sample ID: SLCSW2-120204-58686			Units: µg/L		Analysis Date: 2/4/2012 02:37 PM			
Client ID:		Run ID: SV-2_120204A			SeqNo: 2682885		Prep Date: 2/4/2012		DF: 1	
Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Diphenylhydrazine	3.209	0.20	5	0	64.2	39-127	0			
2,4-Dimethylphenol	3.23	0.20	5	0	64.6	35-120	0			
2,4-Dinitrotoluene	3.885	0.20	5	0	77.7	50-122	0			
2,6-Dinitrotoluene	3.022	0.20	5	0	60.4	50-120	0			
2-Chloronaphthalene	2.949	0.20	5	0	59	50-120	0			
2-Methylnaphthalene	3.535	0.20	5	0	70.7	50-120	0			
4,6-Dinitro-2-methylphenol	3.868	0.20	5	0	77.4	25-121	0			
4-Nitrophenol	3.478	1.0	5	0	69.6	30-130	0			
Acenaphthene	3.35	0.20	5	0	67	45-120	0			
Acenaphthylene	3.449	0.20	5	0	69	47-120	0			
Anthracene	3.438	0.20	5	0	68.8	45-120	0			
Benz(a)anthracene	3.603	0.20	5	0	72.1	40-120	0			
Benzo(a)pyrene	3.552	0.20	5	0	71	45-120	0			
Bis(2-chloroethoxy)methane	3.562	0.20	5	0	71.2	45-120	0			
Bis(2-ethylhexyl)phthalate	3.759	0.20	5	0	75.2	40-139	0			
Chrysene	3.305	0.20	5	0	66.1	43-120	0			
Dibenzofuran	3.745	0.20	5	0	74.9	50-120	0			
Di-n-butylphthalate	3.309	0.20	5	0	66.2	45-123	0			
Fluoranthene	3.554	0.20	5	0	71.1	45-125	0			
Fluorene	3.795	0.20	5	0	75.9	49-120	0			
Naphthalene	3.362	0.20	5	0	67.2	45-120	0			
Nitrobenzene	3.391	0.20	5	0	67.8	44-120	0			
N-Nitrosodiphenylamine	4.332	0.20	5	0	86.6	40-125	0			
Pentachlorophenol	3.908	0.20	5	0	78.2	19-121	0			
Phenanthrene	3.487	0.20	5	0	69.7	45-121	0			
Phenol	3.231	0.20	5	0	64.6	20-124	0			
Pyrene	3.369	0.20	5	0	67.4	40-130	0			
<i>Surr: 2,4,6-Tribromophenol</i>	<i>4.746</i>	<i>0.20</i>	<i>5</i>	<i>0</i>	<i>94.9</i>	<i>34-129</i>	<i>0</i>			
<i>Surr: 2-Fluorobiphenyl</i>	<i>3.235</i>	<i>0.20</i>	<i>5</i>	<i>0</i>	<i>64.7</i>	<i>40-125</i>	<i>0</i>			
<i>Surr: 2-Fluorophenol</i>	<i>3.14</i>	<i>0.20</i>	<i>5</i>	<i>0</i>	<i>62.8</i>	<i>20-120</i>	<i>0</i>			
<i>Surr: 4-Terphenyl-d14</i>	<i>3.738</i>	<i>0.20</i>	<i>5</i>	<i>0</i>	<i>74.8</i>	<i>40-135</i>	<i>0</i>			
<i>Surr: Nitrobenzene-d5</i>	<i>3.43</i>	<i>0.20</i>	<i>5</i>	<i>0</i>	<i>68.6</i>	<i>41-120</i>	<i>0</i>			
<i>Surr: Phenol-d6</i>	<i>3.438</i>	<i>0.20</i>	<i>5</i>	<i>0</i>	<i>68.8</i>	<i>20-120</i>	<i>0</i>			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Pastor, Behling & Wheeler, LLC

Work Order: 1202096

Project: HWPW Site-Wide GW

QC BATCH REPORT

Batch ID: 58686

Instrument ID: SV-2

Method: SW8270

LCSD	Sample ID: SLCSDW2-120204-58686	Units: µg/L					Analysis Date: 2/4/2012 02:57 PM				
Client ID:	Run ID: SV-2_120204A	SeqNo: 2682886			Prep Date: 2/4/2012		DF: 1				
Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
1,2-Diphenylhydrazine	3.221	0.20	5	0	64.4	39-127	3.209	0.361	20		
2,4-Dimethylphenol	3.46	0.20	5	0	69.2	35-120	3.23	6.86	20		
2,4-Dinitrotoluene	3.849	0.20	5	0	77	50-122	3.885	0.929	20		
2,6-Dinitrotoluene	3.483	0.20	5	0	69.7	50-120	3.022	14.2	20		
2-Chloronaphthalene	3.319	0.20	5	0	66.4	50-120	2.949	11.8	20		
2-Methylnaphthalene	3.552	0.20	5	0	71	50-120	3.535	0.484	20		
4,6-Dinitro-2-methylphenol	2.93	0.20	5	0	58.6	25-121	3.868	27.6	20	R	
4-Nitrophenol	3.386	1.0	5	0	67.7	30-130	3.478	2.68	20		
Acenaphthene	3.084	0.20	5	0	61.7	45-120	3.35	8.26	20		
Acenaphthylene	3.508	0.20	5	0	70.2	47-120	3.449	1.7	20		
Anthracene	3.687	0.20	5	0	73.7	45-120	3.438	6.98	20		
Benz(a)anthracene	3.645	0.20	5	0	72.9	40-120	3.603	1.17	20		
Benzo(a)pyrene	3.745	0.20	5	0	74.9	45-120	3.552	5.29	20		
Bis(2-chloroethoxy)methane	3.587	0.20	5	0	71.7	45-120	3.562	0.695	20		
Bis(2-ethylhexyl)phthalate	3.663	0.20	5	0	73.3	40-139	3.759	2.57	20		
Chrysene	3.699	0.20	5	0	74	43-120	3.305	11.2	20		
Dibenzofuran	3.581	0.20	5	0	71.6	50-120	3.745	4.49	20		
Di-n-butylphthalate	3.714	0.20	5	0	74.3	45-123	3.309	11.5	20		
Fluoranthene	3.789	0.20	5	0	75.8	45-125	3.554	6.4	20		
Fluorene	3.554	0.20	5	0	71.1	49-120	3.795	6.54	20		
Naphthalene	3.395	0.20	5	0	67.9	45-120	3.362	0.977	20		
Nitrobenzene	3.459	0.20	5	0	69.2	44-120	3.391	1.97	20		
N-Nitrosodiphenylamine	3.298	0.20	5	0	66	40-125	4.332	27.1	20	R	
Pentachlorophenol	3.671	0.20	5	0	73.4	19-121	3.908	6.24	20		
Phenanthrene	3.669	0.20	5	0	73.4	45-121	3.487	5.1	20		
Phenol	2.99	0.20	5	0	59.8	20-124	3.231	7.76	20		
Pyrene	3.765	0.20	5	0	75.3	40-130	3.369	11.1	20		
<i>Surr: 2,4,6-Tribromophenol</i>	<i>3.947</i>	<i>0.20</i>	<i>5</i>	<i>0</i>	<i>78.9</i>	<i>34-129</i>	<i>4.746</i>	<i>18.4</i>	<i>0</i>		
<i>Surr: 2-Fluorobiphenyl</i>	<i>4.033</i>	<i>0.20</i>	<i>5</i>	<i>0</i>	<i>80.7</i>	<i>40-125</i>	<i>3.235</i>	<i>21.9</i>	<i>0</i>		
<i>Surr: 2-Fluorophenol</i>	<i>3.004</i>	<i>0.20</i>	<i>5</i>	<i>0</i>	<i>60.1</i>	<i>20-120</i>	<i>3.14</i>	<i>4.41</i>	<i>0</i>		
<i>Surr: 4-Terphenyl-d14</i>	<i>3.934</i>	<i>0.20</i>	<i>5</i>	<i>0</i>	<i>78.7</i>	<i>40-135</i>	<i>3.738</i>	<i>5.11</i>	<i>0</i>		
<i>Surr: Nitrobenzene-d5</i>	<i>3.447</i>	<i>0.20</i>	<i>5</i>	<i>0</i>	<i>68.9</i>	<i>41-120</i>	<i>3.43</i>	<i>0.486</i>	<i>0</i>		
<i>Surr: Phenol-d6</i>	<i>3.37</i>	<i>0.20</i>	<i>5</i>	<i>0</i>	<i>67.4</i>	<i>20-120</i>	<i>3.438</i>	<i>2.01</i>	<i>0</i>		

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Pastor, Behling & Wheeler, LLC
 Work Order: 1202096
 Project: HWPW Site-Wide GW

QC BATCH REPORT

Batch ID: 58686 Instrument ID: SV-2 Method: SW8270

MS	Sample ID: 1202096-18BMS	Units: µg/L					Analysis Date: 2/4/2012 04:46 PM			
Client ID: WG-1620-MW13-20120202	Run ID: SV-2_120204A	SeqNo: 2682888	Prep Date: 2/4/2012	DF: 1						
Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Diphenylhydrazine	2.38	0.20	5	0	47.6	39-127	0			
2,4-Dimethylphenol	2.344	0.20	5	0	46.9	35-120	0			
2,4-Dinitrotoluene	2.682	0.20	5	0	53.6	50-122	0			
2,6-Dinitrotoluene	2.757	0.20	5	0	55.1	50-120	0			
2-Chloronaphthalene	2.103	0.20	5	0	42.1	50-120	0			S
2-Methylnaphthalene	2.122	0.20	5	0	42.4	50-120	0			S
4,6-Dinitro-2-methylphenol	2.492	0.20	5	0	49.8	25-121	0			
4-Nitrophenol	3.477	1.0	5	0	69.5	30-130	0			
Acenaphthene	2.434	0.20	5	0	48.7	45-120	0			
Acenaphthylene	2.514	0.20	5	0	50.3	47-120	0			
Anthracene	3.626	0.20	5	0.06821	71.1	45-120	0			
Benz(a)anthracene	3.004	0.20	5	0.1414	57.2	40-120	0			
Benzo(a)pyrene	3.359	0.20	5	0.07272	65.7	45-120	0			
Bis(2-chloroethoxy)methane	1.941	0.20	5	0	38.8	45-120	0			S
Bis(2-ethylhexyl)phthalate	3.525	0.20	5	0.4324	61.9	40-139	0			
Chrysene	3.788	0.20	5	0.1736	72.3	43-120	0			
Dibenzofuran	2.542	0.20	5	0.06279	49.6	50-120	0			S
Di-n-butylphthalate	3.403	0.20	5	0	68.1	45-123	0			
Fluoranthene	3.484	0.20	5	0.1541	66.6	45-125	0			
Fluorene	2.491	0.20	5	0	49.8	49-120	0			
Naphthalene	2.1	0.20	5	0.2166	37.7	45-120	0			S
Nitrobenzene	2.167	0.20	5	0	43.3	44-120	0			S
N-Nitrosodiphenylamine	2.473	0.20	5	0	49.5	40-125	0			
Pentachlorophenol	3.667	0.20	5	0	73.3	19-121	0			
Phenanthrene	3.24	0.20	5	0.1492	61.8	45-121	0			
Phenol	1.73	0.20	5	0	34.6	20-124	0			
Pyrene	3.416	0.20	5	0.198	64.4	40-130	0			
Surr:2,4,6-Tribromophenol	2.556	0.20	5	0	51.1	34-129	0			
Surr:2-Fluorobiphenyl	2.434	0.20	5	0	48.7	40-125	0			
Surr:2-Fluorophenol	1.572	0.20	5	0	31.4	20-120	0			
Surr: 4-Terphenyl-d14	3.406	0.20	5	0	68.1	40-135	0			
Surr: Nitrobenzene-d5	2.156	0.20	5	0	43.1	41-120	0			
Surr: Phenol-d6	1.547	0.20	5	0	30.9	20-120	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Pastor, Behling & Wheeler, LLC
 Work Order: 1202096
 Project: HWPW Site-Wide GW

QC BATCH REPORT

Batch ID: 58686 Instrument ID: SV-2 Method: SW8270

MSD Sample ID: 1202096-18BMSD Units: µg/L Analysis Date: 2/4/2012 05:07 PM

Client ID: WG-1620-MW13-20120202 Run ID: SV-2_120204A SeqNo: 2682889 Prep Date: 2/4/2012 DF: 1

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Diphenylhydrazine	3.111	0.20	5	0	62.2	39-127	2.38	26.6	20	R
2,4-Dimethylphenol	2.765	0.20	5	0	55.3	35-120	2.344	16.5	20	
2,4-Dinitrotoluene	4.309	0.20	5	0	86.2	50-122	2.682	46.5	20	R
2,6-Dinitrotoluene	3.683	0.20	5	0	73.7	50-120	2.757	28.8	20	R
2-Chloronaphthalene	3.252	0.20	5	0	65	50-120	2.103	42.9	20	R
2-Methylnaphthalene	2.811	0.20	5	0	56.2	50-120	2.122	27.9	20	R
4,6-Dinitro-2-methylphenol	3.037	0.20	5	0	60.7	25-121	2.492	19.7	20	
4-Nitrophenol	3.684	1.0	5	0	73.7	30-130	3.477	5.77	20	
Acenaphthene	3.692	0.20	5	0	73.8	45-120	2.434	41.1	20	R
Acenaphthylene	3.754	0.20	5	0	75.1	47-120	2.514	39.6	20	R
Anthracene	4.624	0.20	5	0.06821	91.1	45-120	3.626	24.2	20	R
Benz(a)anthracene	3.738	0.20	5	0.1414	71.9	40-120	3.004	21.8	20	R
Benzo(a)pyrene	4.288	0.20	5	0.07272	84.3	45-120	3.359	24.3	20	R
Bis(2-chloroethoxy)methane	2.502	0.20	5	0	50	45-120	1.941	25.2	20	R
Bis(2-ethylhexyl)phthalate	4.649	0.20	5	0.4324	84.3	40-139	3.525	27.5	20	R
Chrysene	4.747	0.20	5	0.1736	91.5	43-120	3.788	22.5	20	R
Dibenzofuran	3.794	0.20	5	0.06279	74.6	50-120	2.542	39.5	20	R
Di-n-butylphthalate	4.284	0.20	5	0	85.7	45-123	3.403	22.9	20	R
Fluoranthene	4.317	0.20	5	0.1541	83.3	45-125	3.484	21.4	20	R
Fluorene	3.636	0.20	5	0	72.7	49-120	2.491	37.4	20	R
Naphthalene	2.744	0.20	5	0.2166	50.5	45-120	2.1	26.6	20	R
Nitrobenzene	3.081	0.20	5	0	61.6	44-120	2.167	34.8	20	R
N-Nitrosodiphenylamine	2.895	0.20	5	0	57.9	40-125	2.473	15.7	20	
Pentachlorophenol	4.519	0.20	5	0	90.4	19-121	3.667	20.8	20	R
Phenanthrene	3.705	0.20	5	0.1492	71.1	45-121	3.24	13.4	20	
Phenol	2.279	0.20	5	0	45.6	20-124	1.73	27.4	20	R
Pyrene	4.434	0.20	5	0.198	84.7	40-130	3.416	25.9	20	R
Surr: 2,4,6-Tribromophenol	3.491	0.20	5	0	69.8	34-129	2.556	30.9	0	
Surr: 2-Fluorobiphenyl	3.213	0.20	5	0	64.3	40-125	2.434	27.6	0	
Surr: 2-Fluorophenol	2.419	0.20	5	0	48.4	20-120	1.572	42.5	0	
Surr: 4-Terphenyl-d14	4.272	0.20	5	0	85.4	40-135	3.406	22.6	0	
Surr: Nitrobenzene-d5	2.805	0.20	5	0	56.1	41-120	2.156	26.2	0	
Surr: Phenol-d6	2.043	0.20	5	0	40.9	20-120	1.547	27.6	0	

The following samples were analyzed in this batch:

1202096-01B	1202096-02B	1202096-03B
1202096-04B	1202096-05B	1202096-06B
1202096-08B	1202096-09B	1202096-10B
1202096-11B	1202096-12B	1202096-13B
1202096-14B	1202096-15B	1202096-16B
1202096-17B	1202096-18B	1202096-20B
1202096-21B	1202096-22B	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Pastor, Behling & Wheeler, LLC

QC BATCH REPORT

Work Order: 1202096

Project: HWPW Site-Wide GW

Batch ID: 58691

Instrument ID: SV-2

Method: SW8270

MBLK	Sample ID: SBLKW3-120204-58691	Units: µg/L					Analysis Date: 2/4/2012 03:24 PM			
Client ID:	Run ID: SV-2_120204B	SeqNo: 2682934	Prep Date: 2/4/2012	DF: 1						
Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Diphenylhydrazine	U	0.20								
2,4-Dimethylphenol	U	0.20								
2,4-Dinitrotoluene	U	0.20								
2,6-Dinitrotoluene	U	0.20								
2-Chloronaphthalene	U	0.20								
2-Methylnaphthalene	U	0.20								
4,6-Dinitro-2-methylphenol	U	0.20								
4-Nitrophenol	U	1.0								
Acenaphthene	U	0.20								
Acenaphthylene	U	0.20								
Anthracene	U	0.20								
Benz(a)anthracene	U	0.20								
Benzo(a)pyrene	U	0.20								
Bis(2-chloroethoxy)methane	U	0.20								
Bis(2-ethylhexyl)phthalate	U	0.20								
Chrysene	U	0.20								
Dibenzofuran	U	0.20								
Di-n-butylphthalate	U	0.20								
Fluoranthene	U	0.20								
Fluorene	U	0.20								
Naphthalene	U	0.20								
Nitrobenzene	U	0.20								
N-Nitrosodiphenylamine	U	0.20								
Pentachlorophenol	U	0.20								
Phenanthrene	U	0.20								
Phenol	U	0.20								
Pyrene	U	0.20								
Surr: 2,4,6-Tribromophenol	3.622	0.20	5	0	72.4	34-129	0			
Surr: 2-Fluorobiphenyl	3.718	0.20	5	0	74.4	40-125	0			
Surr: 2-Fluorophenol	3.358	0.20	5	0	67.2	20-120	0			
Surr: 4-Terphenyl-d14	3.916	0.20	5	0	78.3	40-135	0			
Surr: Nitrobenzene-d5	3.586	0.20	5	0	71.7	41-120	0			
Surr: Phenol-d6	3.232	0.20	5	0	64.6	20-120	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Pastor, Behling & Wheeler, LLC

Work Order: 1202096

Project: HWPW Site-Wide GW

QC BATCH REPORT

Batch ID: 58691

Instrument ID: SV-2

Method: SW8270

LCS		Sample ID: SLCSW3-120204-58691			Units: µg/L			Analysis Date: 2/4/2012 03:44 PM		
Client ID:		Run ID: SV-2_120204B			SeqNo: 2682935		Prep Date: 2/4/2012		DF: 1	
Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Diphenylhydrazine	3.247	0.20	5	0	64.9	39-127	0			
2,4-Dimethylphenol	3.163	0.20	5	0	63.3	35-120	0			
2,4-Dinitrotoluene	3.905	0.20	5	0	78.1	50-122	0			
2,6-Dinitrotoluene	3.637	0.20	5	0	72.7	50-120	0			
2-Chloronaphthalene	3.505	0.20	5	0	70.1	50-120	0			
2-Methylnaphthalene	3.49	0.20	5	0	69.8	50-120	0			
4,6-Dinitro-2-methylphenol	2.914	0.20	5	0	58.3	25-121	0			
4-Nitrophenol	3.614	1.0	5	0	72.3	30-130	0			
Acenaphthene	3.566	0.20	5	0	71.3	45-120	0			
Acenaphthylene	3.807	0.20	5	0	76.1	47-120	0			
Anthracene	3.726	0.20	5	0	74.5	45-120	0			
Benz(a)anthracene	3.548	0.20	5	0	71	40-120	0			
Benzo(a)pyrene	3.735	0.20	5	0	74.7	45-120	0			
Bis(2-chloroethoxy)methane	3.723	0.20	5	0	74.5	45-120	0			
Bis(2-ethylhexyl)phthalate	3.771	0.20	5	0	75.4	40-139	0			
Chrysene	3.647	0.20	5	0	72.9	43-120	0			
Dibenzofuran	3.859	0.20	5	0	77.2	50-120	0			
Di-n-butylphthalate	3.616	0.20	5	0	72.3	45-123	0			
Fluoranthene	3.748	0.20	5	0	75	45-125	0			
Fluorene	3.837	0.20	5	0	76.7	49-120	0			
Naphthalene	3.502	0.20	5	0	70	45-120	0			
Nitrobenzene	3.703	0.20	5	0	74.1	44-120	0			
N-Nitrosodiphenylamine	3.299	0.20	5	0	66	40-125	0			
Pentachlorophenol	3.817	0.20	5	0	76.3	19-121	0			
Phenanthrene	3.742	0.20	5	0	74.8	45-121	0			
Phenol	3.59	0.20	5	0	71.8	20-124	0			
Pyrene	3.716	0.20	5	0	74.3	40-130	0			
<i>Surr: 2,4,6-Tribromophenol</i>	<i>4.104</i>	<i>0.20</i>	<i>5</i>	<i>0</i>	<i>82.1</i>	<i>34-129</i>	<i>0</i>			
<i>Surr: 2-Fluorobiphenyl</i>	<i>4.174</i>	<i>0.20</i>	<i>5</i>	<i>0</i>	<i>83.5</i>	<i>40-125</i>	<i>0</i>			
<i>Surr: 2-Fluorophenol</i>	<i>3.646</i>	<i>0.20</i>	<i>5</i>	<i>0</i>	<i>72.9</i>	<i>20-120</i>	<i>0</i>			
<i>Surr: 4-Terphenyl-d14</i>	<i>3.903</i>	<i>0.20</i>	<i>5</i>	<i>0</i>	<i>78.1</i>	<i>40-135</i>	<i>0</i>			
<i>Surr: Nitrobenzene-d5</i>	<i>3.566</i>	<i>0.20</i>	<i>5</i>	<i>0</i>	<i>71.3</i>	<i>41-120</i>	<i>0</i>			
<i>Surr: Phenol-d6</i>	<i>3.404</i>	<i>0.20</i>	<i>5</i>	<i>0</i>	<i>68.1</i>	<i>20-120</i>	<i>0</i>			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Pastor, Behling & Wheeler, LLC

Work Order: 1202096

Project: HWPW Site-Wide GW

QC BATCH REPORT

Batch ID: 58691

Instrument ID: SV-2

Method: SW8270

LCSD	Sample ID: SLCSDW3-120204-58691	Units: µg/L					Analysis Date: 2/4/2012 04:05 PM				
Client ID:	Run ID: SV-2_120204B	SeqNo: 2682936			Prep Date: 2/4/2012		DF: 1				
Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
1,2-Diphenylhydrazine	3.003	0.20	5	0	60.1	39-127	3.247	7.81	20		
2,4-Dimethylphenol	3.315	0.20	5	0	66.3	35-120	3.163	4.69	20		
2,4-Dinitrotoluene	3.836	0.20	5	0	76.7	50-122	3.905	1.79	20		
2,6-Dinitrotoluene	3.433	0.20	5	0	68.7	50-120	3.637	5.75	20		
2-Chloronaphthalene	3.08	0.20	5	0	61.6	50-120	3.505	12.9	20		
2-Methylnaphthalene	3.495	0.20	5	0	69.9	50-120	3.49	0.136	20		
4,6-Dinitro-2-methylphenol	3.115	0.20	5	0	62.3	25-121	2.914	6.67	20		
4-Nitrophenol	3.796	1.0	5	0	75.9	30-130	3.614	4.9	20		
Acenaphthene	3.384	0.20	5	0	67.7	45-120	3.566	5.22	20		
Acenaphthylene	3.624	0.20	5	0	72.5	47-120	3.807	4.93	20		
Anthracene	3.348	0.20	5	0	67	45-120	3.726	10.7	20		
Benz(a)anthracene	3.359	0.20	5	0	67.2	40-120	3.548	5.46	20		
Benzo(a)pyrene	3.684	0.20	5	0	73.7	45-120	3.735	1.37	20		
Bis(2-chloroethoxy)methane	3.64	0.20	5	0	72.8	45-120	3.723	2.28	20		
Bis(2-ethylhexyl)phthalate	3.552	0.20	5	0	71	40-139	3.771	5.97	20		
Chrysene	3.432	0.20	5	0	68.6	43-120	3.647	6.08	20		
Dibenzofuran	3.744	0.20	5	0	74.9	50-120	3.859	3.03	20		
Di-n-butylphthalate	3.302	0.20	5	0	66	45-123	3.616	9.07	20		
Fluoranthene	3.485	0.20	5	0	69.7	45-125	3.748	7.29	20		
Fluorene	3.722	0.20	5	0	74.4	49-120	3.837	3.04	20		
Naphthalene	3.519	0.20	5	0	70.4	45-120	3.502	0.488	20		
Nitrobenzene	3.657	0.20	5	0	73.1	44-120	3.703	1.25	20		
N-Nitrosodiphenylamine	3.168	0.20	5	0	63.4	40-125	3.299	4.06	20		
Pentachlorophenol	3.556	0.20	5	0	71.1	19-121	3.817	7.09	20		
Phenanthrene	3.398	0.20	5	0	68	45-121	3.742	9.64	20		
Phenol	3.289	0.20	5	0	65.8	20-124	3.59	8.78	20		
Pyrene	3.387	0.20	5	0	67.7	40-130	3.716	9.27	20		
Surr: 2,4,6-Tribromophenol	3.852	0.20	5	0	77	34-129	4.104	6.34	0		
Surr: 2-Fluorobiphenyl	3.93	0.20	5	0	78.6	40-125	4.174	6.04	0		
Surr: 2-Fluorophenol	3.361	0.20	5	0	67.2	20-120	3.646	8.13	0		
Surr: 4-Terphenyl-d14	3.633	0.20	5	0	72.7	40-135	3.903	7.18	0		
Surr: Nitrobenzene-d5	3.597	0.20	5	0	71.9	41-120	3.566	0.865	0		
Surr: Phenol-d6	3.343	0.20	5	0	66.9	20-120	3.404	1.82	0		

The following samples were analyzed in this batch:

1202096-23B	1202096-24B	1202096-25B
1202096-26B	1202096-27B	1202096-28B
1202096-29B	1202096-30B	1202096-32B
1202096-33B	1202096-34B	1202096-35B
1202096-36B	1202096-37B	1202096-38B
1202096-39B		

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Pastor, Behling & Wheeler, LLC

Work Order: 1202096

Project: HWPW Site-Wide GW

QC BATCH REPORT

Batch ID: R122836

Instrument ID: VOA6

Method: SW8260

MBLK		Sample ID: VBLKW-020112-R122836			Units: µg/L			Analysis Date: 2/2/2012 06:18 PM		
Client ID:		Run ID: VOA6_120202A			SeqNo: 2675761		Prep Date:		DF: 1	
Analyte	Result	MLQ	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Dichloroethane	U	5.0								
Benzene	U	5.0								
Chlorobenzene	U	5.0								
Ethylbenzene	U	5.0								
Methylenechloride	U	10								
Toluene	U	5.0								
Vinyl chloride	U	2.0								
Xylenes, Total	U	15								
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>51.94</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>104</i>	<i>70-125</i>	<i>0</i>			
<i>Surr: 4-Bromofluorobenzene</i>	<i>46.7</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>93.4</i>	<i>72-125</i>	<i>0</i>			
<i>Surr: Dibromofluoromethane</i>	<i>50.54</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>101</i>	<i>71-125</i>	<i>0</i>			
<i>Surr: Toluene-d8</i>	<i>51.3</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>103</i>	<i>75-125</i>	<i>0</i>			

LCS		Sample ID: VLCSW-020212-R122836			Units: µg/L			Analysis Date: 2/2/2012 04:33 PM		
Client ID:		Run ID: VOA6_120202A			SeqNo: 2675760		Prep Date:		DF: 1	
Analyte	Result	MLQ	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Dichloroethane	49.93	5.0	50	0	99.9	78-120	0			
Benzene	48	5.0	50	0	96	73-121	0			
Chlorobenzene	47.25	5.0	50	0	94.5	80-120	0			
Ethylbenzene	46.03	5.0	50	0	92.1	80-120	0			
Methylenechloride	53.07	10	50	0	106	65-133	0			
Toluene	47.2	5.0	50	0	94.4	80-120	0			
Vinyl chloride	44.87	2.0	50	0	89.7	70-127	0			
Xylenes, Total	144.4	15	150	0	96.2	80-120	0			
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>52.12</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>104</i>	<i>70-125</i>	<i>0</i>			
<i>Surr: 4-Bromofluorobenzene</i>	<i>49.95</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>99.9</i>	<i>72-125</i>	<i>0</i>			
<i>Surr: Dibromofluoromethane</i>	<i>50.88</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>102</i>	<i>71-125</i>	<i>0</i>			
<i>Surr: Toluene-d8</i>	<i>51.51</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>103</i>	<i>75-125</i>	<i>0</i>			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Pastor, Behling & Wheeler, LLC

Work Order: 1202096

Project: HWPW Site-Wide GW

QC BATCH REPORT

Batch ID: R122836

Instrument ID: VOA6

Method: SW8260

MS		Sample ID: 1202006-06AMS			Units: µg/L			Analysis Date: 2/2/2012 07:11 PM		
Client ID:		Run ID: VOA6_120202A			SeqNo: 2675763		Prep Date:		DF: 1	
Analyte	Result	ML	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Dichloroethane	46.26	5.0	50	0	92.5	78-120	0			
Benzene	44.97	5.0	50	0	89.9	73-121	0			
Chlorobenzene	46.02	5.0	50	0	92	80-120	0			
Ethylbenzene	40.43	5.0	50	0	80.9	80-120	0			
Methylenechloride	44.23	10	50	0	88.5	65-133	0			
Toluene	42.42	5.0	50	0	84.8	80-120	0			
Vinylchloride	32.87	2.0	50	0	65.7	70-127	0			S
Xylenes, Total	132.4	15	150	0	88.3	80-120	0			
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>54.46</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>109</i>	<i>70-125</i>	<i>0</i>			
<i>Surr: 4-Bromofluorobenzene</i>	<i>57.5</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>115</i>	<i>72-125</i>	<i>0</i>			
<i>Surr: Dibromofluoromethane</i>	<i>46.88</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>93.8</i>	<i>71-125</i>	<i>0</i>			
<i>Surr: Toluene-d8</i>	<i>48.75</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>97.5</i>	<i>75-125</i>	<i>0</i>			

MSD		Sample ID: 1202006-06AMSD			Units: µg/L			Analysis Date: 2/2/2012 07:37 PM		
Client ID:		Run ID: VOA6_120202A			SeqNo: 2675764		Prep Date:		DF: 1	
Analyte	Result	ML	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Dichloroethane	45.68	5.0	50	0	91.4	78-120	46.26	1.25	20	
Benzene	44.36	5.0	50	0	88.7	73-121	44.97	1.37	20	
Chlorobenzene	45.55	5.0	50	0	91.1	80-120	46.02	1.03	20	
Ethylbenzene	43.87	5.0	50	0	87.7	80-120	40.43	8.14	20	
Methylenechloride	40.53	10	50	0	81.1	65-133	44.23	8.72	20	
Toluene	44.31	5.0	50	0	88.6	80-120	42.42	4.34	20	
Vinylchloride	29.9	2.0	50	0	59.8	70-127	32.87	9.48	20	S
Xylenes, Total	148.1	15	150	0	98.7	80-120	132.4	11.2	20	
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>42.33</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>84.7</i>	<i>70-125</i>	<i>54.46</i>	<i>25.1</i>	<i>20</i>	<i>R</i>
<i>Surr: 4-Bromofluorobenzene</i>	<i>59.13</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>118</i>	<i>72-125</i>	<i>57.5</i>	<i>2.8</i>	<i>20</i>	
<i>Surr: Dibromofluoromethane</i>	<i>52.39</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>105</i>	<i>71-125</i>	<i>46.88</i>	<i>11.1</i>	<i>20</i>	
<i>Surr: Toluene-d8</i>	<i>51.08</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>102</i>	<i>75-125</i>	<i>48.75</i>	<i>4.67</i>	<i>20</i>	

The following samples were analyzed in this batch:

1202096-07A 1202096-19A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Pastor, Behling & Wheeler, LLC

Work Order: 1202096

Project: HWPW Site-Wide GW

QC BATCH REPORT

Batch ID: R122842

Instrument ID: VOA6

Method: SW8260

MBLK		Sample ID: VBLKW-020312-R122842			Units: µg/L			Analysis Date: 2/3/2012 01:00 PM		
Client ID:		Run ID: VOA6_120203A			SeqNo: 2675835		Prep Date:		DF: 1	
Analyte	Result	MLQ	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Dichloroethane	U	5.0								
Benzene	U	5.0								
Chlorobenzene	U	5.0								
Ethylbenzene	U	5.0								
Methylenechloride	U	10								
Toluene	U	5.0								
Vinyl chloride	U	2.0								
Xylenes, Total	U	15								
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>52.5</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>105</i>	<i>70-125</i>	<i>0</i>			
<i>Surr: 4-Bromofluorobenzene</i>	<i>50.48</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>101</i>	<i>72-125</i>	<i>0</i>			
<i>Surr: Dibromofluoromethane</i>	<i>50.81</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>102</i>	<i>71-125</i>	<i>0</i>			
<i>Surr: Toluene-d8</i>	<i>52.27</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>105</i>	<i>75-125</i>	<i>0</i>			

LCS		Sample ID: VLCSW-020312-R122842			Units: µg/L			Analysis Date: 2/3/2012 11:14 AM		
Client ID:		Run ID: VOA6_120203A			SeqNo: 2675834		Prep Date:		DF: 1	
Analyte	Result	MLQ	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Dichloroethane	48.55	5.0	50	0	97.1	78-120	0			
Benzene	45.11	5.0	50	0	90.2	73-121	0			
Chlorobenzene	46.46	5.0	50	0	92.9	80-120	0			
Ethylbenzene	41.22	5.0	50	0	82.4	80-120	0			
Methylenechloride	45.7	10	50	0	91.4	65-133	0			
Toluene	45.76	5.0	50	0	91.5	80-120	0			
Vinyl chloride	47.03	2.0	50	0	94.1	70-127	0			
Xylenes, Total	130	15	150	0	86.7	80-120	0			
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>52.41</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>105</i>	<i>70-125</i>	<i>0</i>			
<i>Surr: 4-Bromofluorobenzene</i>	<i>51.38</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>103</i>	<i>72-125</i>	<i>0</i>			
<i>Surr: Dibromofluoromethane</i>	<i>50.32</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>101</i>	<i>71-125</i>	<i>0</i>			
<i>Surr: Toluene-d8</i>	<i>53.7</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>107</i>	<i>75-125</i>	<i>0</i>			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Pastor, Behling & Wheeler, LLC
 Work Order: 1202096
 Project: HWPW Site-Wide GW

QC BATCH REPORT

Batch ID: R122842 Instrument ID: VOA6 Method: SW8260

MS		Sample ID: 1202006-01AMS			Units: µg/L			Analysis Date: 2/3/2012 02:45 PM		
Client ID:		Run ID: VOA6_120203A			SeqNo: 2676007		Prep Date:		DF: 1	
Analyte	Result	MLQ	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Dichloroethane	43.75	5.0	50	0	87.5	78-120	0			
Benzene	49.25	5.0	50	7.954	82.6	73-121	0			
Chlorobenzene	39.84	5.0	50	0	79.7	80-120	0			S
Ethylbenzene	29.67	5.0	50	0	59.3	80-120	0			S
Methylenechloride	33.72	10	50	0	67.4	65-133	0			
Toluene	36.81	5.0	50	0	73.6	80-120	0			S
Vinylchloride	33.73	2.0	50	0	67.5	70-127	0			S
Xylenes, Total	110.9	15	150	0	73.9	80-120	0			S
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>53.17</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>106</i>	<i>70-125</i>	<i>0</i>			
<i>Surr: 4-Bromofluorobenzene</i>	<i>47.61</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>95.2</i>	<i>72-125</i>	<i>0</i>			
<i>Surr: Dibromofluoromethane</i>	<i>52.09</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>104</i>	<i>71-125</i>	<i>0</i>			
<i>Surr: Toluene-d8</i>	<i>46.66</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>93.3</i>	<i>75-125</i>	<i>0</i>			

MSD		Sample ID: 1202006-01AMSD			Units: µg/L			Analysis Date: 2/3/2012 03:12 PM		
Client ID:		Run ID: VOA6_120203A			SeqNo: 2676008		Prep Date:		DF: 1	
Analyte	Result	MLQ	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Dichloroethane	41.7	5.0	50	0	83.4	78-120	43.75	4.8	20	
Benzene	46.66	5.0	50	7.954	77.4	73-121	49.25	5.41	20	
Chlorobenzene	44.27	5.0	50	0	88.5	80-120	39.84	10.6	20	
Ethylbenzene	39.67	5.0	50	0	79.3	80-120	29.67	28.8	20	SR
Methylenechloride	36.21	10	50	0	72.4	65-133	33.72	7.13	20	
Toluene	41.43	5.0	50	0	82.9	80-120	36.81	11.8	20	
Vinylchloride	41.45	2.0	50	0	82.9	70-127	33.73	20.5	20	R
Xylenes, Total	130.3	15	150	0	86.9	80-120	110.9	16.1	20	
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>50.05</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>100</i>	<i>70-125</i>	<i>53.17</i>	<i>6.06</i>	<i>20</i>	
<i>Surr: 4-Bromofluorobenzene</i>	<i>42.65</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>85.3</i>	<i>72-125</i>	<i>47.61</i>	<i>11</i>	<i>20</i>	
<i>Surr: Dibromofluoromethane</i>	<i>49.97</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>99.9</i>	<i>71-125</i>	<i>52.09</i>	<i>4.14</i>	<i>20</i>	
<i>Surr: Toluene-d8</i>	<i>47.54</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>95.1</i>	<i>75-125</i>	<i>46.66</i>	<i>1.88</i>	<i>20</i>	

The following samples were analyzed in this batch:

1202096-08A	1202096-09A	1202096-10A
1202096-26A		

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Pastor, Behling & Wheeler, LLC

Work Order: 1202096

Project: HWPW Site-Wide GW

QC BATCH REPORT

Batch ID: R122878

Instrument ID: VOA1

Method: SW8260

MBLK		Sample ID: VBLKW-020312-R122878				Units: µg/L		Analysis Date: 2/3/2012 05:09 PM		
Client ID:		Run ID: VOA1_120203A				SeqNo: 2676805		Prep Date:		DF: 1
Analyte	Result	MLQ	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Dichloroethane	U	5.0								
Benzene	U	5.0								
Chlorobenzene	U	5.0								
Ethylbenzene	U	5.0								
Methylenechloride	U	10								
Toluene	U	5.0								
Vinyl chloride	U	2.0								
Xylenes, Total	U	15								
<i>Surr: 1,2-Dichloroethane-d4</i>	49.38	5.0	50	0	98.8	70-125	0			
<i>Surr: 4-Bromofluorobenzene</i>	47.56	5.0	50	0	95.1	72-125	0			
<i>Surr: Dibromofluoromethane</i>	48.79	5.0	50	0	97.6	71-125	0			
<i>Surr: Toluene-d8</i>	46.68	5.0	50	0	93.4	75-125	0			

LCS		Sample ID: VLCSW-020312-R122878				Units: µg/L		Analysis Date: 2/3/2012 03:52 PM		
Client ID:		Run ID: VOA1_120203A				SeqNo: 2676804		Prep Date:		DF: 1
Analyte	Result	MLQ	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Dichloroethane	49.88	5.0	50	0	99.8	78-120	0			
Benzene	48.69	5.0	50	0	97.4	73-121	0			
Chlorobenzene	50.12	5.0	50	0	100	80-120	0			
Ethylbenzene	51.62	5.0	50	0	103	80-120	0			
Methylenechloride	48.75	10	50	0	97.5	65-133	0			
Toluene	50.76	5.0	50	0	102	80-120	0			
Vinyl chloride	50.56	2.0	50	0	101	70-127	0			
Xylenes, Total	158.5	15	150	0	106	80-120	0			
<i>Surr: 1,2-Dichloroethane-d4</i>	49.55	5.0	50	0	99.1	70-125	0			
<i>Surr: 4-Bromofluorobenzene</i>	48.7	5.0	50	0	97.4	72-125	0			
<i>Surr: Dibromofluoromethane</i>	49.7	5.0	50	0	99.4	71-125	0			
<i>Surr: Toluene-d8</i>	48.51	5.0	50	0	97	75-125	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Pastor, Behling & Wheeler, LLC

Work Order: 1202096

Project: HWPW Site-Wide GW

QC BATCH REPORT

Batch ID: R122878

Instrument ID: VOA1

Method: SW8260

MS		Sample ID: 1202006-26AMS			Units: µg/L			Analysis Date: 2/3/2012 06:01 PM		
Client ID:		Run ID: VOA1_120203A			SeqNo: 2676807			Prep Date:		DF: 1
Analyte	Result	ML	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Dichloroethane	49.97	5.0	50	0	99.9	78-120	0			
Benzene	48.6	5.0	50	0	97.2	73-121	0			
Chlorobenzene	47.78	5.0	50	0	95.6	80-120	0			
Ethylbenzene	43.06	5.0	50	0	86.1	80-120	0			
Methylenechloride	49.43	10	50	0	98.9	65-133	0			
Toluene	46.09	5.0	50	0	92.2	80-120	0			
Vinylchloride	45.2	2.0	50	0	90.4	70-127	0			
Xylenes, Total	133.9	15	150	0	89.2	80-120	0			
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>50.42</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>101</i>	<i>70-125</i>	<i>0</i>			
<i>Surr: 4-Bromofluorobenzene</i>	<i>48.71</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>97.4</i>	<i>72-125</i>	<i>0</i>			
<i>Surr: Dibromofluoromethane</i>	<i>50.12</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>100</i>	<i>71-125</i>	<i>0</i>			
<i>Surr: Toluene-d8</i>	<i>47.92</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>95.8</i>	<i>75-125</i>	<i>0</i>			

MSD		Sample ID: 1202006-26AMSD			Units: µg/L			Analysis Date: 2/3/2012 06:26 PM		
Client ID:		Run ID: VOA1_120203A			SeqNo: 2676808			Prep Date:		DF: 1
Analyte	Result	ML	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Dichloroethane	51.46	5.0	50	0	103	78-120	49.97	2.93	20	
Benzene	48.75	5.0	50	0	97.5	73-121	48.6	0.307	20	
Chlorobenzene	47.18	5.0	50	0	94.4	80-120	47.78	1.26	20	
Ethylbenzene	46.32	5.0	50	0	92.6	80-120	43.06	7.3	20	
Methylenechloride	44.39	10	50	0	88.8	65-133	49.43	10.7	20	
Toluene	45.75	5.0	50	0	91.5	80-120	46.09	0.737	20	
Vinylchloride	43.98	2.0	50	0	88	70-127	45.2	2.74	20	
Xylenes, Total	141.1	15	150	0	94.1	80-120	133.9	5.26	20	
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>47.83</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>95.7</i>	<i>70-125</i>	<i>50.42</i>	<i>5.27</i>	<i>20</i>	
<i>Surr: 4-Bromofluorobenzene</i>	<i>48.88</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>97.8</i>	<i>72-125</i>	<i>48.71</i>	<i>0.367</i>	<i>20</i>	
<i>Surr: Dibromofluoromethane</i>	<i>49.1</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>98.2</i>	<i>71-125</i>	<i>50.12</i>	<i>2.04</i>	<i>20</i>	
<i>Surr: Toluene-d8</i>	<i>49.58</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>99.2</i>	<i>75-125</i>	<i>47.92</i>	<i>3.4</i>	<i>20</i>	

The following samples were analyzed in this batch:

1202096-12A 1202096-33A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Pastor, Behling & Wheeler, LLC

Work Order: 1202096

Project: HWPW Site-Wide GW

QC BATCH REPORT

Batch ID: R122892

Instrument ID: VOA6

Method: SW8260

MBLK		Sample ID: VBLKW-020312-R122892				Units: µg/L		Analysis Date: 2/4/2012 01:17 AM		
Client ID:		Run ID: VOA6_120203B				SeqNo: 2677056		Prep Date:		DF: 1
Analyte	Result	MLQ	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Dichloroethane	U	5.0								
Benzene	U	5.0								
Chlorobenzene	U	5.0								
Ethylbenzene	U	5.0								
Methylenechloride	U	10								
Toluene	U	5.0								
Vinyl chloride	U	2.0								
Xylenes, Total	U	15								
<i>Surr: 1,2-Dichloroethane-d4</i>	46.15	5.0	50	0	92.3	70-125	0			
<i>Surr: 4-Bromofluorobenzene</i>	49.42	5.0	50	0	98.8	72-125	0			
<i>Surr: Dibromofluoromethane</i>	51.64	5.0	50	0	103	71-125	0			
<i>Surr: Toluene-d8</i>	56.8	5.0	50	0	114	75-125	0			

LCS		Sample ID: VLCSW-020312-R122892				Units: µg/L		Analysis Date: 2/4/2012 12:24 AM		
Client ID:		Run ID: VOA6_120203B				SeqNo: 2677055		Prep Date:		DF: 1
Analyte	Result	MLQ	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Dichloroethane	49.66	5.0	50	0	99.3	78-120	0			
Benzene	46	5.0	50	0	92	73-121	0			
Chlorobenzene	46.7	5.0	50	0	93.4	80-120	0			
Ethylbenzene	44.14	5.0	50	0	88.3	80-120	0			
Methylenechloride	40.3	10	50	0	80.6	65-133	0			
Toluene	58.95	5.0	50	0	118	80-120	0			
Vinyl chloride	46.51	2.0	50	0	93	70-127	0			
Xylenes, Total	136.5	15	150	0	91	80-120	0			
<i>Surr: 1,2-Dichloroethane-d4</i>	52.26	5.0	50	0	105	70-125	0			
<i>Surr: 4-Bromofluorobenzene</i>	47.98	5.0	50	0	96	72-125	0			
<i>Surr: Dibromofluoromethane</i>	50.99	5.0	50	0	102	71-125	0			
<i>Surr: Toluene-d8</i>	61.23	5.0	50	0	122	75-125	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Pastor, Behling & Wheeler, LLC

QC BATCH REPORT

Work Order: 1202096

Project: HWPW Site-Wide GW

Batch ID: R122892

Instrument ID: VOA6

Method: SW8260

MS		Sample ID: 1202096-18AMS			Units: µg/L			Analysis Date: 2/4/2012 02:36 AM		
Client ID: WG-1620-MW13-20120202		Run ID: VOA6_120203B			SeqNo: 2677059			Prep Date:		DF: 1
Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Dichloroethane	51.58	5.0	50	0	103	78-120	0			
Benzene	42.64	5.0	50	0	85.3	73-121	0			
Chlorobenzene	45.98	5.0	50	0	92	80-120	0			
Ethylbenzene	42	5.0	50	0	84	80-120	0			
Methylenechloride	42.59	10	50	0	85.2	65-133	0			
Toluene	55.75	5.0	50	0	111	80-120	0			
Vinylchloride	60.06	2.0	50	0	120	70-127	0			
Xylenes, Total	127.8	15	150	0	85.2	80-120	0			
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>49.04</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>98.1</i>	<i>70-125</i>	<i>0</i>			
<i>Surr: 4-Bromofluorobenzene</i>	<i>47.75</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>95.5</i>	<i>72-125</i>	<i>0</i>			
<i>Surr: Dibromofluoromethane</i>	<i>54.13</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>108</i>	<i>71-125</i>	<i>0</i>			
<i>Surr: Toluene-d8</i>	<i>61.13</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>122</i>	<i>75-125</i>	<i>0</i>			

MSD		Sample ID: 1202096-18AMSD			Units: µg/L			Analysis Date: 2/4/2012 03:02 AM		
Client ID: WG-1620-MW13-20120202		Run ID: VOA6_120203B			SeqNo: 2677060			Prep Date:		DF: 1
Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Dichloroethane	47.42	5.0	50	0	94.8	78-120	51.58	8.41	20	
Benzene	45.43	5.0	50	0	90.9	73-121	42.64	6.33	20	
Chlorobenzene	42.49	5.0	50	0	85	80-120	45.98	7.89	20	
Ethylbenzene	39.78	5.0	50	0	79.6	80-120	42	5.43	20	S
Methylenechloride	34.42	10	50	0	68.8	65-133	42.59	21.2	20	R
Toluene	57.9	5.0	50	0	116	80-120	55.75	3.79	20	
Vinylchloride	31.26	2.0	50	0	62.5	70-127	60.06	63.1	20	SR
Xylenes, Total	125.6	15	150	0	83.8	80-120	127.8	1.74	20	
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>55.06</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>110</i>	<i>70-125</i>	<i>49.04</i>	<i>11.6</i>	<i>20</i>	
<i>Surr: 4-Bromofluorobenzene</i>	<i>41.88</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>83.8</i>	<i>72-125</i>	<i>47.75</i>	<i>13.1</i>	<i>20</i>	
<i>Surr: Dibromofluoromethane</i>	<i>48.16</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>96.3</i>	<i>71-125</i>	<i>54.13</i>	<i>11.7</i>	<i>20</i>	
<i>Surr: Toluene-d8</i>	<i>62.33</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>125</i>	<i>75-125</i>	<i>61.13</i>	<i>1.95</i>	<i>20</i>	

The following samples were analyzed in this batch:

1202096-02A	1202096-03A	1202096-11A
1202096-13A	1202096-14A	1202096-16A
1202096-17A	1202096-18A	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Pastor, Behling & Wheeler, LLC

Work Order: 1202096

Project: HWPW Site-Wide GW

QC BATCH REPORT

Batch ID: R123047

Instrument ID: VOA6

Method: SW8260

MBLK		Sample ID: VBLKW-020712-R123047			Units: µg/L			Analysis Date: 2/8/2012 12:04 AM		
Client ID:		Run ID: VOA6_120207D			SeqNo: 2680628		Prep Date:		DF: 1	
Analyte	Result	ML	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Dichloroethane	U	5.0								
Benzene	U	5.0								
Chlorobenzene	U	5.0								
Ethylbenzene	U	5.0								
Methylenechloride	U	10								
Toluene	U	5.0								
Xylenes, Total	U	15								
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>47.4</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>94.8</i>	<i>70-125</i>	<i>0</i>			
<i>Surr: 4-Bromofluorobenzene</i>	<i>45.87</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>91.7</i>	<i>72-125</i>	<i>0</i>			
<i>Surr: Dibromofluoromethane</i>	<i>49.79</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>99.6</i>	<i>71-125</i>	<i>0</i>			
<i>Surr: Toluene-d8</i>	<i>50.56</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>101</i>	<i>75-125</i>	<i>0</i>			

LCS		Sample ID: VLCSW-020712-R123047			Units: µg/L			Analysis Date: 2/7/2012 11:11 PM		
Client ID:		Run ID: VOA6_120207D			SeqNo: 2680627		Prep Date:		DF: 1	
Analyte	Result	ML	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Dichloroethane	48.46	5.0	50	0	96.9	78-120	0			
Benzene	47.71	5.0	50	0	95.4	73-121	0			
Chlorobenzene	48.5	5.0	50	0	97	80-120	0			
Ethylbenzene	50.24	5.0	50	0	100	80-120	0			
Methylenechloride	44.9	10	50	0	89.8	65-133	0			
Toluene	46.88	5.0	50	0	93.8	80-120	0			
Xylenes, Total	149.5	15	150	0	99.6	80-120	0			
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>46.04</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>92.1</i>	<i>70-125</i>	<i>0</i>			
<i>Surr: 4-Bromofluorobenzene</i>	<i>50.53</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>101</i>	<i>72-125</i>	<i>0</i>			
<i>Surr: Dibromofluoromethane</i>	<i>49.07</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>98.1</i>	<i>71-125</i>	<i>0</i>			
<i>Surr: Toluene-d8</i>	<i>48.26</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>96.5</i>	<i>75-125</i>	<i>0</i>			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Pastor, Behling & Wheeler, LLC

Work Order: 1202096

Project: HWPW Site-Wide GW

QC BATCH REPORT

Batch ID: R123047

Instrument ID: VOA6

Method: SW8260

MS		Sample ID: 1202126-01ZMS			Units: µg/L			Analysis Date: 2/8/2012 01:49 AM		
Client ID:		Run ID: VOA6_120207D			SeqNo: 2680630			Prep Date:		DF: 20
Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Dichloroethane	928.8	100	1000	0	92.9	78-120	0			
Benzene	881.1	100	1000	0	88.1	73-121	0			
Chlorobenzene	924.6	100	1000	0	92.5	80-120	0			
Ethylbenzene	905.8	100	1000	0	90.6	80-120	0			
Methylenechloride	901.5	200	1000	49.08	85.2	65-133	0			
Toluene	876.5	100	1000	0	87.7	80-120	0			
Xylenes, Total	2712	300	3000	0	90.4	80-120	0			
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>902.3</i>	<i>100</i>	<i>1000</i>	<i>0</i>	<i>90.2</i>	<i>70-125</i>	<i>0</i>			
<i>Surr: 4-Bromofluorobenzene</i>	<i>1001</i>	<i>100</i>	<i>1000</i>	<i>0</i>	<i>100</i>	<i>72-125</i>	<i>0</i>			
<i>Surr: Dibromofluoromethane</i>	<i>969.1</i>	<i>100</i>	<i>1000</i>	<i>0</i>	<i>96.9</i>	<i>71-125</i>	<i>0</i>			
<i>Surr: Toluene-d8</i>	<i>973.8</i>	<i>100</i>	<i>1000</i>	<i>0</i>	<i>97.4</i>	<i>75-125</i>	<i>0</i>			

MSD		Sample ID: 1202126-01ZMSD			Units: µg/L			Analysis Date: 2/8/2012 02:15 AM		
Client ID:		Run ID: VOA6_120207D			SeqNo: 2680631			Prep Date:		DF: 20
Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Dichloroethane	913.3	100	1000	0	91.3	78-120	928.8	1.68	20	
Benzene	864.8	100	1000	0	86.5	73-121	881.1	1.87	20	
Chlorobenzene	893.7	100	1000	0	89.4	80-120	924.6	3.4	20	
Ethylbenzene	906.2	100	1000	0	90.6	80-120	905.8	0.0382	20	
Methylenechloride	912.2	200	1000	49.08	86.3	65-133	901.5	1.18	20	
Toluene	865.3	100	1000	0	86.5	80-120	876.5	1.29	20	
Xylenes, Total	2704	300	3000	0	90.1	80-120	2712	0.298	20	
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>916.8</i>	<i>100</i>	<i>1000</i>	<i>0</i>	<i>91.7</i>	<i>70-125</i>	<i>902.3</i>	<i>1.59</i>	<i>20</i>	
<i>Surr: 4-Bromofluorobenzene</i>	<i>1006</i>	<i>100</i>	<i>1000</i>	<i>0</i>	<i>101</i>	<i>72-125</i>	<i>1001</i>	<i>0.54</i>	<i>20</i>	
<i>Surr: Dibromofluoromethane</i>	<i>984.4</i>	<i>100</i>	<i>1000</i>	<i>0</i>	<i>98.4</i>	<i>71-125</i>	<i>969.1</i>	<i>1.57</i>	<i>20</i>	
<i>Surr: Toluene-d8</i>	<i>961.2</i>	<i>100</i>	<i>1000</i>	<i>0</i>	<i>96.1</i>	<i>75-125</i>	<i>973.8</i>	<i>1.3</i>	<i>20</i>	

The following samples were analyzed in this batch:

1202096-05A	1202096-06A	1202096-15A
1202096-20A	1202096-27A	1202096-28A
1202096-30A	1202096-31A	1202096-37A
1202096-39A		

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Pastor, Behling & Wheeler, LLC

Work Order: 1202096

Project: HWPW Site-Wide GW

QC BATCH REPORT

Batch ID: R123114

Instrument ID: VOA6

Method: SW8260

MBLK		Sample ID: VBLKW-020812-R123114			Units: µg/L			Analysis Date: 2/8/2012 02:13 PM		
Client ID:		Run ID: VOA6_120208G			SeqNo: 2682223		Prep Date:		DF: 1	
Analyte	Result	MLQ	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Dichloroethane	U	5.0								
Benzene	U	5.0								
Chlorobenzene	U	5.0								
Ethylbenzene	U	5.0								
Methylenechloride	U	10								
Toluene	U	5.0								
Vinyl chloride	U	2.0								
Xylenes, Total	U	15								
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>43.51</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>87</i>	<i>70-125</i>	<i>0</i>			
<i>Surr: 4-Bromofluorobenzene</i>	<i>45.93</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>91.9</i>	<i>72-125</i>	<i>0</i>			
<i>Surr: Dibromofluoromethane</i>	<i>47.69</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>95.4</i>	<i>71-125</i>	<i>0</i>			
<i>Surr: Toluene-d8</i>	<i>50.08</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>100</i>	<i>75-125</i>	<i>0</i>			

LCS		Sample ID: VLCSW-020712-R123114			Units: µg/L			Analysis Date: 2/8/2012 01:20 PM		
Client ID:		Run ID: VOA6_120208G			SeqNo: 2682222		Prep Date:		DF: 1	
Analyte	Result	MLQ	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Dichloroethane	47.36	5.0	50	0	94.7	78-120	0			
Benzene	45.94	5.0	50	0	91.9	73-121	0			
Chlorobenzene	47.65	5.0	50	0	95.3	80-120	0			
Ethylbenzene	48	5.0	50	0	96	80-120	0			
Methylenechloride	44.38	10	50	0	88.8	65-133	0			
Toluene	45.4	5.0	50	0	90.8	80-120	0			
Vinyl chloride	43.55	2.0	50	0	87.1	70-127	0			
Xylenes, Total	142.2	15	150	0	94.8	80-120	0			
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>44.27</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>88.5</i>	<i>70-125</i>	<i>0</i>			
<i>Surr: 4-Bromofluorobenzene</i>	<i>51.5</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>103</i>	<i>72-125</i>	<i>0</i>			
<i>Surr: Dibromofluoromethane</i>	<i>48.6</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>97.2</i>	<i>71-125</i>	<i>0</i>			
<i>Surr: Toluene-d8</i>	<i>48.62</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>97.2</i>	<i>75-125</i>	<i>0</i>			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Pastor, Behling & Wheeler, LLC

Work Order: 1202096

Project: HWPW Site-Wide GW

QC BATCH REPORT

Batch ID: R123114

Instrument ID: VOA6

Method: SW8260

MS		Sample ID: 1202096-02AMS			Units: µg/L		Analysis Date: 2/8/2012 03:58 PM			
Client ID: WG-1620-MW18C-20120201		Run ID: VOA6_120208G			SeqNo: 2682226		Prep Date:		DF: 25	
Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Dichloroethane	1202	120	1250	0	96.2	78-120	0			
Benzene	2537	120	1250	1288	99.9	73-121	0			
Chlorobenzene	1156	120	1250	0	92.5	80-120	0			
Ethylbenzene	1355	120	1250	196.8	92.6	80-120	0			
Methylenechloride	1107	250	1250	0	88.6	65-133	0			
Toluene	2014	120	1250	876.7	91	80-120	0			
Vinylchloride	988	50	1250	0	79	70-127	0			
Xylenes, Total	4415	380	3750	831.3	95.6	80-120	0			
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>1114</i>	<i>120</i>	<i>1250</i>	<i>0</i>	<i>89.1</i>	<i>70-125</i>	<i>0</i>			
<i>Surr: 4-Bromofluorobenzene</i>	<i>1241</i>	<i>120</i>	<i>1250</i>	<i>0</i>	<i>99.3</i>	<i>72-125</i>	<i>0</i>			
<i>Surr: Dibromofluoromethane</i>	<i>1245</i>	<i>120</i>	<i>1250</i>	<i>0</i>	<i>99.6</i>	<i>71-125</i>	<i>0</i>			
<i>Surr: Toluene-d8</i>	<i>1194</i>	<i>120</i>	<i>1250</i>	<i>0</i>	<i>95.5</i>	<i>75-125</i>	<i>0</i>			

MSD		Sample ID: 1202096-02AMSD			Units: µg/L		Analysis Date: 2/8/2012 04:24 PM			
Client ID: WG-1620-MW18C-20120201		Run ID: VOA6_120208G			SeqNo: 2682227		Prep Date:		DF: 25	
Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Dichloroethane	1161	120	1250	0	92.9	78-120	1202	3.5	20	
Benzene	2512	120	1250	1288	97.9	73-121	2537	0.984	20	
Chlorobenzene	1171	120	1250	0	93.7	80-120	1156	1.3	20	
Ethylbenzene	1377	120	1250	196.8	94.4	80-120	1355	1.65	20	
Methylenechloride	1111	250	1250	0	88.9	65-133	1107	0.348	20	
Toluene	2076	120	1250	876.7	95.9	80-120	2014	3.04	20	
Vinylchloride	965.9	50	1250	0	77.3	70-127	988	2.26	20	
Xylenes, Total	4530	380	3750	831.3	98.6	80-120	4415	2.57	20	
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>1118</i>	<i>120</i>	<i>1250</i>	<i>0</i>	<i>89.4</i>	<i>70-125</i>	<i>1114</i>	<i>0.364</i>	<i>20</i>	
<i>Surr: 4-Bromofluorobenzene</i>	<i>1247</i>	<i>120</i>	<i>1250</i>	<i>0</i>	<i>99.8</i>	<i>72-125</i>	<i>1241</i>	<i>0.447</i>	<i>20</i>	
<i>Surr: Dibromofluoromethane</i>	<i>1236</i>	<i>120</i>	<i>1250</i>	<i>0</i>	<i>98.9</i>	<i>71-125</i>	<i>1245</i>	<i>0.717</i>	<i>20</i>	
<i>Surr: Toluene-d8</i>	<i>1194</i>	<i>120</i>	<i>1250</i>	<i>0</i>	<i>95.5</i>	<i>75-125</i>	<i>1194</i>	<i>3.35E-05</i>	<i>20</i>	

The following samples were analyzed in this batch:

1202096-01A	1202096-02A	1202096-04A
1202096-21A	1202096-22A	1202096-23A
1202096-24A	1202096-25A	1202096-29A
1202096-32A	1202096-34A	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Pastor, Behling & Wheeler, LLC

Work Order: 1202096

Project: HWPW Site-Wide GW

QC BATCH REPORT

Batch ID: R123230

Instrument ID: VOA6

Method: SW8260

MBLK		Sample ID: VBLKW-021212-R123230			Units: µg/L			Analysis Date: 2/12/2012 12:38 PM		
Client ID:		Run ID: VOA6_120212A			SeqNo: 2684641			Prep Date:		DF: 1
Analyte	Result	MLQ	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Dichloroethane	U	5.0								
Benzene	U	5.0								
Chlorobenzene	U	5.0								
Ethylbenzene	U	5.0								
Methylenechloride	U	10								
Toluene	U	5.0								
Xylenes, Total	U	15								
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>48.49</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>97</i>	<i>70-125</i>	<i>0</i>			
<i>Surr: 4-Bromofluorobenzene</i>	<i>46.54</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>93.1</i>	<i>72-125</i>	<i>0</i>			
<i>Surr: Dibromofluoromethane</i>	<i>48.45</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>96.9</i>	<i>71-125</i>	<i>0</i>			
<i>Surr: Toluene-d8</i>	<i>50.55</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>101</i>	<i>75-125</i>	<i>0</i>			

LCS		Sample ID: VLCSW-021212-R123230			Units: µg/L			Analysis Date: 2/12/2012 11:18 AM		
Client ID:		Run ID: VOA6_120212A			SeqNo: 2684640			Prep Date:		DF: 1
Analyte	Result	MLQ	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Dichloroethane	44.38	5.0	50	0	88.8	78-120	0			
Benzene	46.88	5.0	50	0	93.8	73-121	0			
Chlorobenzene	49.55	5.0	50	0	99.1	80-120	0			
Ethylbenzene	50.94	5.0	50	0	102	80-120	0			
Methylenechloride	48.16	10	50	0	96.3	65-133	0			
Toluene	48.65	5.0	50	0	97.3	80-120	0			
Xylenes, Total	136.4	15	150	0	90.9	80-120	0			
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>45.05</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>90.1</i>	<i>70-125</i>	<i>0</i>			
<i>Surr: 4-Bromofluorobenzene</i>	<i>51.87</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>104</i>	<i>72-125</i>	<i>0</i>			
<i>Surr: Dibromofluoromethane</i>	<i>47.49</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>95</i>	<i>71-125</i>	<i>0</i>			
<i>Surr: Toluene-d8</i>	<i>48.45</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>96.9</i>	<i>75-125</i>	<i>0</i>			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Pastor, Behling & Wheeler, LLC
 Work Order: 1202096
 Project: HWPW Site-Wide GW

QC BATCH REPORT

Batch ID: R123230 Instrument ID: VOA6 Method: SW8260

MS		Sample ID: 1202097-06AMS			Units: µg/L			Analysis Date: 2/12/2012 03:16 PM		
Client ID:		Run ID: VOA6_120212A			SeqNo: 2684712		Prep Date:		DF: 25	
Analyte	Result	ML	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Dichloroethane	1177	120	1250	0	94.1	78-120	0			
Benzene	3985	120	1250	2822	93	73-121	0			
Chlorobenzene	1188	120	1250	0	95	80-120	0			
Ethylbenzene	1325	120	1250	118	96.6	80-120	0			
Methylenechloride	1117	250	1250	0	89.4	65-133	0			
Toluene	1190	120	1250	48.22	91.3	80-120	0			
Xylenes, Total	3832	380	3750	805.3	80.7	80-120	0			
Surr: 1,2-Dichloroethane-d4	1141	120	1250	0	91.3	70-125	0			
Surr: 4-Bromofluorobenzene	1262	120	1250	0	101	72-125	0			
Surr: Dibromofluoromethane	1171	120	1250	0	93.7	71-125	0			
Surr: Toluene-d8	1194	120	1250	0	95.5	75-125	0			

MSD		Sample ID: 1202097-06AMSD			Units: µg/L			Analysis Date: 2/12/2012 03:42 PM		
Client ID:		Run ID: VOA6_120212A			SeqNo: 2684713		Prep Date:		DF: 25	
Analyte	Result	ML	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Dichloroethane	1173	120	1250	0	93.8	78-120	1177	0.323	20	
Benzene	4035	120	1250	2822	97	73-121	3985	1.25	20	
Chlorobenzene	1217	120	1250	0	97.4	80-120	1188	2.45	20	
Ethylbenzene	1377	120	1250	118	101	80-120	1325	3.87	20	
Methylenechloride	1176	250	1250	0	94.1	65-133	1117	5.13	20	
Toluene	1239	120	1250	48.22	95.3	80-120	1190	4.06	20	
Xylenes, Total	3967	380	3750	805.3	84.3	80-120	3832	3.46	20	
Surr: 1,2-Dichloroethane-d4	1124	120	1250	0	89.9	70-125	1141	1.48	20	
Surr: 4-Bromofluorobenzene	1270	120	1250	0	102	72-125	1262	0.674	20	
Surr: Dibromofluoromethane	1194	120	1250	0	95.5	71-125	1171	1.93	20	
Surr: Toluene-d8	1203	120	1250	0	96.3	75-125	1194	0.801	20	

The following samples were analyzed in this batch:

1202096-35A	1202096-36A	1202096-38A
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Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
WorkOrder: 1202096

**QUALIFIERS,
ACRONYMS, UNITS**

<u>Qualifier</u>	<u>Description</u>
*	Value exceeds Regulatory Limit
a	Not accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
J	Analyte detected below quantitation limit
M	Manually integrated, see raw data for justification
n	Not offered for accreditation
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL

<u>Acronym</u>	<u>Description</u>
DCS	Detectability Check Study
DUP	Method Duplicate
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
MBLK	Method Blank
MDL	Method Detection Limit
MQL	Method Quantitation Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PDS	Post Digestion Spike
PQL	Practical Quantitation Limit
SD	Serial Dilution
SDL	Sample Detection Limit
TRRP	Texas Risk Reduction Program

<u>Units Reported</u>	<u>Description</u>
mg/L	Milligrams per Liter

Sample Receipt Checklist

Client Name: **PBW**

Date/Time Received: **01-Feb-12 17:55**

Work Order: **1202096**

Received by: **RNG**

Checklist completed by: Pareek M. Giga 02-Feb-12
eSignature Date

Reviewed by: Patricia L. Lynch 06-Feb-12
eSignature Date

Matrices: Water

Carrier name: Client

Shipping container/cooler in good condition?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on shipping container/cooler?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Present <input checked="" type="checkbox"/>
Custody seals intact on sample bottles?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Present <input checked="" type="checkbox"/>
Chain of custody present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody signed when relinquished and received?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody agrees with sample labels?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Samples in proper container/bottle?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample containers intact?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sufficient sample volume for indicated test?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
All samples received within holding time?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Container/Temp Blank temperature in compliance?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Temperature(s)/Thermometer(s):	<input type="text" value="1.7c, 1.9c"/>		<input type="text" value="002"/>
Cooler(s)/Kit(s):	<input type="text" value="2601, 2603"/>		
Water - VOA vials have zero headspace?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	No VOA vials submitted <input type="checkbox"/>
Water - pH acceptable upon receipt?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	N/A <input type="checkbox"/>
pH adjusted?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	N/A <input type="checkbox"/>
pH adjusted by:	<input type="text"/>		

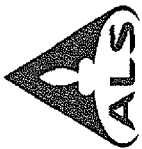
Login Notes: Rec - 2/3/2012

Client Contacted: Date Contacted: Person Contacted:

Contacted By: Regarding:

Comments:

Corrective Action:



Chain of Custody Form

1202096

PBW: Pastor, Behling & Wheeler, LLC

Project: HWPW Site-Wide GW

Page of

COC ID: 54827

Environmental



ALS Project Manager:

Customer Information				Project Information													
Purchase Order	Project Name	UPRR Houston Wood GW	A	VOC (8260) Select													
Work Order	Project Number	1620-04	B	SVOC (8270) Low-Level													
Company Name	Bill To Company	Union Pacific Railroad	C	<i>Vinyl Chloride</i>													
Send Report To	Invoice Attn		D														
Address	Address	1400 Douglas Street Stop 0750	E														
City/State/Zip	City/State/Zip	Omaha, NE 681790750	G														
Phone	Phone		H														
Fax	Fax		I														
e-Mail Address	e-Mail Address		J														
No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	WB-1620-MW18A-20120201	2-1-12	1040	W	HCL ICE	5	X	X	X								
2	WB-1620-MW18C-20120201		1310				X	X	X								
3	WB-1620-MW17-20120201		1410				X	X	X								
4	WB-1620-MW17C-20120201		1450				X	X	X								
5	WB-1620-MW20A-20120201		1550				X	X	X								
6	WB-1620-MW16-20120201		1640				X	X	X								
7	WB-1620-TB01-20120201		1620				X										
8																	
9																	
10																	

Shipments Please Print & Sign

Received by: *Steve Berndt* Date: 2-1-12 Time: 1645

Received by (Laboratory): *John Berner* Date: 2-1-12 Time: 1755

Logged by (Laboratory): *John Berner* Date: Time:

Preservative Key: 1-HCl 2-HNO₃ 3-H₂SO₄ 4-NaOH 5-Na₂S₂O₃ 6-NaHSO₄ 7-Other 8-4°C 9-5035

QC Package: (Check One Box Below)

Level II Std QC TRRP Checklist

Level III Std QC/Raw Data TRRP Level IV

Level IV SW846/CLP Other / EDD

Notes: 10 Day TAT.

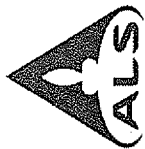
Required Turnaround Time: (Check Box)

Std. 10-WK Days 5 WK Days 2 WK Days 24 Hour

Other: Cooler Temp: Cooler ID: Results Due Date:

Note: 1. Any changes must be made in writing once samples and COC Form have been submitted to ALS Environmental.
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Page 1 of 1

COC ID: 54830

ALS Project Manager: ALS Work Order #: 1202096

Customer Information				Project Information			
Purchase Order	Project Name	UPRR Houston Wood GW	Parameter/Method Request for Analysis	A	VOC (8260) Select		
Work Order	Project Number	1620-04		B	SVOC (8270) Low-Level		
Company Name	Bill To Company	Union Pacific Railroad		C			
Send Report To	Invoice Attn			D			
Address	Address	1400 Douglas Street		E			
City/State/Zip	City/State/Zip	Omaha, NE 681790750		F			
Phone	Phone	(512) 671-3434		G			
Fax	Fax	(512) 671-3446		H			
e-Mail Address	e-Mail Address			I			
				J			

No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	WG-1620-MW39B-20120201	2-1-12	1315	GW		5	X	X									
2	WG-1620-MW12C-20120201		1415	GW		5	X	X									
3	WG-1620-MW12A-20120201		1520	GW		5	X	X									
4	WG-1620-TW41B-20120201		1630	GW		5	X	X									
5	WG-1620-FB01-20120201		1645	GW		5	X	X									
6																	
7																	
8																	
9																	
10																	

Sampler(s) Please Print & Sign: **JOHN BRAYTON** *John Brayton*

Relinquished by: **John Brayton** Date: 2-1-12 Time: 1755

Relinquished by: **John Brayton** Date: 2-1-12 Time: 1755

Logged by (Laboratory): **John Brayton** Date: Time:

Shipment Method: **HAND DELIVERED** Required Turnaround Time: (Check Box) Std. 10 WK Days 5 WK Days 2 WK Days Other

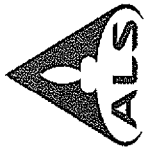
Notes: 10 Day TAT.

QC Package: (Check One Box Below) Level II Std QC TRRP Check List Level III Std QC/Raw Data TRRP Level IV Level IV SW846/CLP Other / EDD

Preservative Key: 1-HCl 2-HNO₃ 3-H₂SO₄ 4-NaOH 5-Na₂S₂O₃ 6-NaHSO₄ 7-Other 8-4°C 9-5035

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Page 1 of 1

COC ID: 54824

ALS Project Manager: ALS Work Order #: 128296

Customer Information			Project Information		
Purchase Order	Project Name	UPRR Houston Wood GW	Parameter/Method Request for Analysis		
Work Order	Project Number	1620-04	VOC (8260) Select		
Company Name	Bill To: Company	Union Pacific Railroad	SVOC (8270) Low-Level		
Send Report To	Invoice Attn				
Address	Address	1400 Douglas Street Stop 0750			
City/State/Zip	City/State/Zip	Omaha, NE 681790750			
Phone	Phone				
Fax	Fax				
e-Mail Address	e-Mail Address				

No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	WB-1620-MW15A-20120202	2-2-12	730				X	X									
2	WB-1620-MW15C-20120202		820				X	X									
3	WB-1620-MW15B-20120202		915				X	X									
4	WB-1620-MW14-20120202		1005				X	X									
5	WB-1620-DUP3-20120202		1005				X	X									
6	WB-1620-MW13-20120202		1125				X	X									
7	WB-1620-MW13MS-20120202		1125				X	X									
8	WB-1620-MW13MSD-20120202		1125				X	X									
9	WB-1620-TB02-20120202		1205				X	X									
10	WB-1620-MW05-20120202		1315				X	X									

Sampler(s) Please Print & Sign: Steve Bernatt

Shipment Method: HAND DELIVERED

Required Turnaround Time: (Check Box) Std. 10-WK Days 5-WK Days Other

Results Due Date: 10 Day TAT

Relinquished by: Steve Bernatt Date: 2-2-12 Time: 1400

Received by: [Signature] Date: 2-2-12 Time: 1400

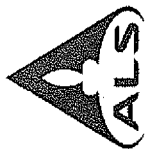
Checked by (Laboratory): [Signature] Date: 2-2-12 Time: 1400

QC Package: (Check One Box Below) Level II Std QC TRRP Check/Level I Level III Std QC/Raw Data TRRP Level IV Level IV SW346/CLP Other / EDD

Preservative Key: 1-HCl 2-HNO3 3-H2SO4 4-NaOH 5-Na2S2O3 6-NaHSO3 7-Other 8-4°C 9-5035

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Page 1 of 1
COC ID: 54825

ALS Project Manager: 1282096

Customer Information		Project Information	
Purchase Order	Project Name	Parameter/Method Request for Analysis	
Work Order	Project Number	A	VOC (8260) Select
Company Name	Bill To Company	B	SVOC (8270) Low-Level
Send Report To	Invoice Attn	C	VINYL CHLORIDE
Address	Address	D	
City/State/Zip	City/State/Zip	E	
Phone	Phone	F	
Fax	Fax	G	
e-Mail Address	e-Mail Address	H	
		I	
		J	

No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	WG-1620-MW55B-20120202	2-2-12	0910	GW		5	X	X									
2	WG-1620-MW73B-20120202		1005	GW		5	X	X									
3	WG-1620-MW57A-20120202		1100	GW		5	X	X	X								
4	WG-1620-MW23C-20120202		1150	GW		5	X	X	X								
5	WG-1620-TW56A-20120202		1305	GW		5	X	X	X								
6	WG-1620-FB02-20120202		1330	GW		5	X	X	X								
7																	
8																	
9																	
10																	

Sampler(s) Please Print & Sign: JOHN BRAYTON John Bray

Shipment Method: HAND DELIVERED Required Turnaround Time: (Check Box) Std 10 WK Days 5 WK Days 2 WK Days 24 Hour

Notes: 10 Day TAT.

Received by (Laboratory): John Bray Date: 2-2-12 Time: 1400

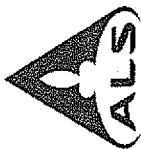
Received by (Laboratory): John Bray Date: 2-2-12 Time: 1400

Checked by (Laboratory): John Bray Date: 2-2-12 Time: 1400

QC Package: (Check One Box Below) Level II Std QC TRRP Checklist Level III Std QC/Raw Data TRRP Level IV Level IV SWB46/CLP Other / EDD

Preservative Key: 1-HCl 2-HNO₃ 3-H₂SO₄ 4-NaOH 5-Na₂S₂O₃ 6-NaHSO₄ 7-Other 8-4°C 9-5035

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Chain of Custody Form

Page 1 of 2

COC ID: 54809

Environmental

ALS Project Manager:

Customer Information		Project Information	
Purchase Order		Project Name	UPRR Houston Wood GW
Work Order		Project Number	1620-04
Company Name	Pastor, Behling & Wheeler, LLC	Bill To Company	Union Pacific Railroad
Send Report To	Eric Matzner	Invoice Attn	
Address	2201 Double Creek Drive Suite 4004	Address	1400 Douglas Street Stop 0750
City/State/Zip	Round Rock, TX 78664	City/State/Zip	Omaha, NE 681790750
Phone	(512) 671-3434	Phone	
Fax	(512) 671-3446	Fax	
e-Mail Address		e-Mail Address	

Cin +1
 EW +1
 For +1

1202096

PBW: Pastor, Behling & Wheeler, LLC
 Project: HWPW Site-Wide GW



No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	WG-1620-MW21C-20120202	2-2-12	1415	W	HCC	5	X	X									
2	WG-1620-DUP4-20120202		1415				X	X									
3	WG-1620-MW09-20120202		1540				X	X									
4	WG-1620-P11-20120202		1630				X	X									
5	WG-1620-TB3-20120203	2-3-12	710				X	X									
6	WG-1620-MW40B-20120203		730				X	X									
7	WG-1620-MW42B-20120203		825				X	X									
8	WG-1620-MW55A-20120203		920				X	X									
9	WG-1620-MW31A-20120203		1010				X	X									
10	WG-1620-MW30A-20120203		1100				X	X									

Sampler(s) Please Print & Sign: *Steve Berndt*

Relinquished by: *Steve Berndt*

Relinquished by: *Steve Berndt*

Logged by (Laboratory):

Preservative Key: 1-HCl, 2-HNO₃, 3-H₂SO₄, 4-NaOH, 5-Na₂S₂O₃, 6-NaHSO₄, 7-Other, 8-4°C, 9-5035

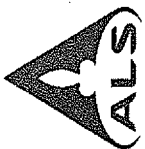
Required Turnaround Time: (Check Box)
 Std 10 WK Days
 5 WK Days
 2 WK Days
 24 Hour
 Other: _____

Notes: 10 Day TAT.

QC Packages: (Check One Box Below)
 Level II Std QC
 Level III Std QC/Raw Data
 Level IV SW846/CLP
 Other / EDD

TRRP Checklist
 TRRP CheckList
 TRRP Level IV

Note: 1. Any changes must be made in writing once samples and COC Form have been submitted to ALS Environmental.
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Page 2 of 2

COC ID: **54811**

ALS Project Manager: _____ ALS Work Order #: **202096**

Customer Information				Project Information			
Purchase Order	Project Name	Project Number	Project Information	Parameter/Method Request for Analysis			
Work Order	UPRR Houston Wood GW	1620-04	VOC (8260) Select	VOC (8270) Low-Level			
Company Name	Bill To Company	Invoice Attn	Union Pacific Railroad				
Send Report To	Eric Matzner	Address	1400 Douglas Street				
Address	Suite 4004	City/State/Zip	Omaha, NE 681790750				
City/State/Zip	Round Rock, TX 78664	Phone	(512) 671-3434				
Phone	(512) 671-3446	Fax					
Fax		e-Mail Address					
e-Mail Address							

No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	WG-1620-MW52A-20120203	2-3-12	1220	W	H ₂ O	5	X	X									
2	WG-1620-MW58A-20120203	↓	1330	↓	↓	↓	X	X									
3	WG-1620-FB03-20120203	↓	1345	↓	↓	↓	X	X									
4																	
5																	
6																	
7																	
8																	
9																	
10																	

Sampler(s) Please Print & Sign: Steve Berndt

Relinquished by: Steve Berndt Date: 2-3-12 Time: 15:10

Relinquished by: Steve Berndt Date: 2-3-12 Time: 15:10

Logged by (Laboratory): _____ Date: _____ Time: _____

Preservative Key: 1-HCl 2-HNO₃ 3-H₂SO₄ 4-NaOH 5-Na₂S₂O₃ 6-NaHSO₄ 7-Other 8-4°C 9-5035

Shipment Method: _____

Required Turnaround Time: (Check Box) Std. 10 WK Days 5 WK Days 2 WK Days 24 Hour

Notes: 10 Day TAT.

QC Package: (Check One Box Below) Level II Std QC Level III Std QC/Raw Data Level IV SWB46/CLP Other / EDD

Cooler Temp. _____ Cooler ID _____

Results Due Date: _____

Note: 1. Any changes must be made in writing once samples and COC Form have been submitted to ALS Environmental.
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16-Feb-2012

Eric Matzner
Pastor, Behling & Wheeler, LLC
2201 Double Creek Drive
Suite 4004
Round Rock, TX 78664

Tel: (512) 671-3434
Fax: (512) 671-3446

Re: HWPW Site-Wide GW

Work Order: **1202263**

Dear Eric,

ALS Environmental received 36 samples on 07-Feb-2012 through 09-Feb-2012 for the analyses presented in the following report.

The analytical data provided relates directly to the samples received by ALS Environmental and for only the analyses requested. Results are expressed as "as received" unless otherwise noted.

QC sample results for this data met EPA or laboratory specifications except as noted in the Case Narrative or as noted with qualifiers in the QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained by ALS Environmental. Samples will be disposed in 30 days unless storage arrangements are made.

The total number of pages in this report is 107.

If you have any questions regarding this report, please feel free to call me.

Sincerely,

A handwritten signature in cursive script that reads "Patricia L. Lynch".

Electronically approved by: Mary K. Knowles

Patricia L. Lynch
Project Manager



Certificate No: TX: T104704231-11-5

ADDRESS 10450 Standliff Rd, Suite 210 Houston, Texas 77099-4338 | PHONE (281) 530-5656 | FAX (281) 530-5887

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RIGHT SOLUTIONS RIGHT PARTNER

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Work Order: 1202263

**TRRP Laboratory Data
Package Cover Page**

This data package consists of all or some of the following as applicable:

This signature page, the laboratory review checklist, and the following reportable data:

- R1 Field chain-of-custody documentation;
- R2 Sample identification cross-reference;
- R3 Test reports (analytical data sheets) for each environmental sample that includes:
 - a) Items consistent with NELAC Chapter 5,
 - b) dilution factors,
 - c) preparation methods,
 - d) cleanup methods, and
 - e) if required for the project, tentatively identified compounds (TICs).
- R4 Surrogate recovery data including:
 - a) Calculated recovery (%R), and
 - b) The laboratory's surrogate QC limits.
- R5 Test reports/summary forms for blank samples;
- R6 Test reports/summary forms for laboratory control samples (LCSs) including:
 - a) LCS spiking amounts,
 - b) Calculated %R for each analyte, and
 - c) The laboratory's LCS QC limits.
- R7 Test reports for project matrix spike/matrix spike duplicates (MS/MSDs) including:
 - a) Samples associated with the MS/MSD clearly identified,
 - b) MS/MSD spiking amounts,
 - c) Concentration of each MS/MSD analyte measured in the parent and spiked samples,
 - d) Calculated %Rs and relative percent differences (RPDs), and
 - e) The laboratory's MS/MSD QC limits.
- R8 Laboratory analytical duplicate (if applicable) recovery and precision:
 - a) the amount of analyte measured in the duplicate,
 - b) the calculated RPD, and
 - c) the laboratory's QC limits for analytical duplicates.
- R9 List of method quantitation limits (MQLs) and detectability check sample results for each analyte for each method and matrix.
- R10 Other problems or anomalies.
The Exception Report for each "No" or "Not Reviewed (NR)" item in Laboratory Review Checklist and for each analyte, matrix, and method for which the laboratory does not hold NELAC accreditation under the Texas Laboratory Accreditation Program.

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Work Order: 1202263

**TRRP Laboratory Data
Package Cover Page**

Release Statement: I am responsible for the release of this laboratory data package. This laboratory is NELAC accredited under the Texas Laboratory Accreditation Program for all the methods, analytes and matrices reported in this data package except as noted in the Exception Reports. The data have been reviewed and are technically compliant with the requirements of the methods used, except where noted by the laboratory in the attached exception reports. By my signature below, I affirm to the best of my knowledge, all problems/anomalies, observed by the laboratory have been identified by the laboratory in the Laboratory Review Checklist, and no information affecting the quality of the data has been knowingly withheld.

Check, if applicable: [NA] This laboratory meets an exception under 30 TAC §25.6 and was last inspected by TCEQ or _____ on (enter date of last inspection). Any findings affecting the data in this laboratory data package are noted in the Exception Reports herein. The official signing the cover page of the report in which these data are used is responsible for releasing this data package and is by signature affirming the above release statement is true.

Patricia L. Lynch

Patricia L. Lynch
Project Manager

Laboratory Review Checklist: Reportable Data

Laboratory Name: ALS Laboratory Group		LRC Date: 2/16/2012					
Project Name: HWPW Site-Wide GW		Laboratory Job Number: 1202263					
Reviewer Name: Patricia L. Lynch		Prep Batch Number(s): 58817, 58851, 58852, R123306, R123346, R123405					
# ¹	A ²	Description	Yes	No	NA ³	NR ⁴	ER# ⁵
R1	OI	Chain-of-custody (C-O-C)					
		Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?	X				
		Were all departures from standard conditions described in an exception report?	X				
R2	OI	Sample and quality control (QC) identification					
		Are all field sample ID numbers cross-referenced to the laboratory ID numbers?	X				
		Are all laboratory ID numbers cross-referenced to the corresponding QC data?	X				
R3	OI	Test reports					
		Were all samples prepared and analyzed within holding times?	X				
		Other than those results < MQL, were all other raw values bracketed by calibration standards?	X				
		Were calculations checked by a peer or supervisor?	X				
		Were all analyte identifications checked by a peer or supervisor?	X				
		Were sample detection limits reported for all analytes not detected?	X				
		Were all results for soil and sediment samples reported on a dry weight basis?			X		
		Was % moisture (or solids) reported for all soil and sediment samples?			X		
		Were bulk soils/solids samples for volatile analysis extracted with methanol per SW-846 Method 5035?			X		
		If required for the project, TICs reported?			X		
R4	O	Surrogate recovery data					
		Were surrogates added prior to extraction?	X				
		Were surrogate percent recoveries in all samples within the laboratory QC limits?		X			1
R5	OI	Test reports/summary forms for blank samples					
		Were appropriate type(s) of blanks analyzed?	X				
		Were blanks analyzed at the appropriate frequency?	X				
		Were method blanks taken through the entire analytical process, including preparation and, if applicable, cleanup procedures?	X				
		Were blank concentrations < MQL?	X				
R6	OI	Laboratory control samples (LCS):					
		Were all COCs included in the LCS?	X				
		Was each LCS taken through the entire analytical procedure, including prep and cleanup steps?	X				
		Were LCSs analyzed at the required frequency?	X				
		Were LCS (and LCSD, if applicable) %Rs within the laboratory QC limits?	X				
		Does the detectability data document the laboratory's capability to detect the COCs at the MDL used to calculate the SDLs?	X				
		Was the LCSD RPD within QC limits?	X				
R7	OI	Matrix spike (MS) and matrix spike duplicate (MSD) data					
		Were the project/method specified analytes included in the MS and MSD?	X				
		Were MS/MSD analyzed at the appropriate frequency?		X			2
		Were MS (and MSD, if applicable) %Rs within the laboratory QC limits?		X			3
		Were MS/MSD RPDs within laboratory QC limits?		X			4
R8	OI	Analytical duplicate data					
		Were appropriate analytical duplicates analyzed for each matrix?			X		
		Were analytical duplicates analyzed at the appropriate frequency?			X		
		Were RPDs or relative standard deviations within the laboratory QC limits?			X		
R9	OI	Method quantitation limits (MQLs):					
		Are the MQLs for each method analyte included in the laboratory data package?	X				
		Do the MQLs correspond to the concentration of the lowest non-zero calibration standard?	X				
		Are unadjusted MQLs and DCSs included in the laboratory data package?	X				
R10	OI	Other problems/anomalies					
		Are all known problems/anomalies/special conditions noted in this LRC and ER?	X				
		Were all necessary corrective actions performed for the reported data?	X				
		Was applicable and available technology used to lower the SDL and minimize the matrix interference affects on the sample results?	X				5
		Is the laboratory NELAC-accredited under the Texas Laboratory Program for the analytes, matrices and methods associated with this laboratory data package?	X				

Laboratory Review Checklist: Reportable Data

Laboratory Name: ALS Laboratory Group		LRC Date: 2/16/2012					
Project Name: HWPW Site-Wide GW		Laboratory Job Number: 1202263					
Reviewer Name: Patricia L. Lynch		Prep Batch Number(s): 58817, 58851, 58852, R123306, R123346, R123405					
# ¹	A ²	Description	Yes	No	NA ³	NR ⁴	ER# ⁵
S1	OI	Initial calibration (ICAL)					
		Were response factors and/or relative response factors for each analyte within QC limits?	X				
		Were percent RSDs or correlation coefficient criteria met?	X				
		Was the number of standards recommended in the method used for all analytes?	X				
		Were all points generated between the lowest and highest standard used to calculate the curve?	X				
		Are ICAL data available for all instruments used?	X				
		Has the initial calibration curve been verified using an appropriate second source standard?	X				
S2	OI	Initial and continuing calibration verification (ICCV and CCV) and continuing calibration blank (CCB)					
		Was the CCV analyzed at the method-required frequency?	X				
		Were percent differences for each analyte within the method-required QC limits?	X				
		Was the ICAL curve verified for each analyte?	X				
		Was the absolute value of the analyte concentration in the inorganic CCB < MDL?			X		
S3	O	Mass spectral tuning:					
		Was the appropriate compound for the method used for tuning?	X				
		Were ion abundance data within the method-required QC limits?	X				
S4	O	Internal standards (IS):					
		Were IS area counts and retention times within the method-required QC limits?		X			6
S5	OI	Raw data (NELAC section 1 appendix A glossary, and section 5.12 or ISO/IEC 17025 section					
		Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?	X				
		Were data associated with manual integrations flagged on the raw data?	X				
S6	O	Dual column confirmation					
		Did dual column confirmation results meet the method-required QC?			X		
S7	O	Tentatively identified compounds (TICs):					
		If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?			X		
S8	I	Interference Check Sample (ICS) results:					
		Were percent recoveries within method QC limits?			X		
S9	I	Serial dilutions, post digestion spikes, and method of standard additions					
		Were percent differences, recoveries, and the linearity within the QC limits specified in the method?			X		
S10	OI	Method detection limit (MDL) studies					
		Was a MDL study performed for each reported analyte?	X				
		Is the MDL either adjusted or supported by the analysis of DCSS?	X				
S11	OI	Proficiency test reports:					
		Was the laboratory's performance acceptable on the applicable proficiency tests or evaluation studies?	X				
S12	OI	Standards documentation					
		Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?	X				
S13	OI	Compound/analyte identification procedures					
		Are the procedures for compound/analyte identification documented?	X				
S14	OI	Demonstration of analyst competency (DOC)					
		Was DOC conducted consistent with NELAC Chapter 5C or ISO/IEC 4?	X				
		Is documentation of the analyst's competency up-to-date and on file?	X				
S15	OI	Verification/validation documentation for methods (NELAC Chap 5 or ISO/IEC 17025 Section 5)					
		Are all the methods used to generate the data documented, verified, and validated, where applicable?	X				
S16	OI	Laboratory standard operating procedures (SOPs):					
		Are laboratory SOPs current and on file for each method performed?	X				

Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.

O = Organic Analyses; I = Inorganic Analyses (and general chemistry, when applicable);

NA = Not Applicable;

NR = Not Reviewed;

R# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

Laboratory Review Checklist: Reportable Data

Laboratory Name: ALS Laboratory Group		LRC Date: 2/16/2012
Project Name: HWPW Site-Wide GW		Laboratory Job Number: 1202263
Reviewer Name: Patricia L. Lynch		Prep Batch Number(s): 58817, 58851, 58852, R123306, R123346, R123405
ER# ⁵	Description	
1	Low-Level Semivolatile Organics: Surrogate recoveries were diluted out in the higher dilutions in several samples, but were in control in the lower dilutions..	
2	Batch 58817, Low-Level Semivolatile Organics, Insufficient sample to perform MS/MSD. LCS/LCSD analyses were performed. Batch 58852, Low-Level Semivolatile Organics, Insufficient sample to perform MS/MSD. LCS/LCSD analyses were performed.	
3	Batch 58851, Low-Level Semivolatile Organics, Sample WG-1620-MW67B-20120209 : MSD recovery was above the control limits for pentachlorophenol. The associated MS and LCS recoveries and MS/MSD RPD were within the control limits.	
4	Batch 58851, Low-Level Semivolatile Organics, Sample WG-1620-MW67B-20120209 : MS/MSD RPDs were above the control limits for several target compounds.	
5	Low-Level Semivolatile Organics and Volatiles Organics: Several samples could not be analyzed at a lower dilution due to high concentrations of non-target compounds. Bis(2-ethylhexyl)phthalate was detected in sample WG-1620-FB05-20120208 at a concentration that is above the MQL. This compound was non-detect in the associated method blank. A recent inquiry from the supplier of sample containers revealed that the bottles are certified to 2.5 ug/L which is above the result for this sample. ALS confirmed the MDL for this compound by analysis of the DCS.	
6	Low-Level Semivolatile Organics: All internal standard areas were below the control limits for samples WG-1620-MW32B-20120209 and WG-1620-MW3CB-20120208. Reanalysis confirms matrix interference.	
<p>Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.</p> <p>O = Organic Analyses; I = Inorganic Analyses (and general chemistry, when applicable); NA = Not Applicable; NR = Not Reviewed; R# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).</p>		

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Work Order: 1202263

Work Order Sample Summary

<u>Lab Samp ID</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Tag Number</u>	<u>Collection Date</u>	<u>Date Received</u>	<u>Hold</u>
1202263-01	WG-1620-MW48C-20120206	Water		2/6/2012 14:00	2/7/2012 16:00	<input type="checkbox"/>
1202263-02	WG-1620-MW59A-20120206	Water		2/6/2012 15:00	2/7/2012 16:00	<input type="checkbox"/>
1202263-03	WG-1620-MW59B-20120206	Water		2/6/2012 15:55	2/7/2012 16:00	<input type="checkbox"/>
1202263-04	WG-1620-MW49B-20120207	Water		2/7/2012 08:30	2/7/2012 16:00	<input type="checkbox"/>
1202263-05	WG-1620-MW49A-20120207	Water		2/7/2012 09:45	2/7/2012 16:00	<input type="checkbox"/>
1202263-06	WG-1620-TB04-20120207	Water		2/7/2012 10:00	2/7/2012 16:00	<input type="checkbox"/>
1202263-07	WG-1620-FB04-20120207	Water		2/7/2012 10:10	2/7/2012 16:00	<input type="checkbox"/>
1202263-08	WG-1620-MW47C-20120207	Water		2/7/2012 11:15	2/7/2012 16:00	<input type="checkbox"/>
1202263-09	WG-1620-MW60A-20120207	Water		2/7/2012 12:20	2/7/2012 16:00	<input type="checkbox"/>
1202263-10	WG-1620-MW61A-20120207	Water		2/7/2012 13:30	2/7/2012 16:00	<input type="checkbox"/>
1202263-11	WG-1620-MW36A-20120207	Water		2/7/2012 15:00	2/7/2012 16:00	<input type="checkbox"/>
1202263-12	WG-1620-MW64A-20120208	Water		2/8/2012 11:35	2/9/2012 18:15	<input type="checkbox"/>
1202263-13	WG-1620-MW62B-20120208	Water		2/8/2012 12:40	2/9/2012 18:15	<input type="checkbox"/>
1202263-14	WG-1620-MW19C-20120208	Water		2/8/2012 13:30	2/9/2012 18:15	<input type="checkbox"/>
1202263-15	WG-1620-MW69A-20120208	Water		2/8/2012 14:20	2/9/2012 18:15	<input type="checkbox"/>
1202263-16	WG-1620-MW75B-20120208	Water		2/8/2012 15:50	2/9/2012 18:15	<input type="checkbox"/>
1202263-17	WG-1620-MW74B-20120209	Water		2/9/2012 07:00	2/9/2012 18:15	<input type="checkbox"/>
1202263-18	WG-1620-MW50A-20120209	Water		2/9/2012 07:45	2/9/2012 18:15	<input type="checkbox"/>
1202263-19	WG-1620-MW24AR-20120209	Water		2/9/2012 08:45	2/9/2012 18:15	<input type="checkbox"/>
1202263-20	WG-1620-MW24B-20120209	Water		2/9/2012 09:35	2/9/2012 18:15	<input type="checkbox"/>
1202263-21	WG-1620-MW24C-20120209	Water		2/9/2012 10:20	2/9/2012 18:15	<input type="checkbox"/>
1202263-22	WG-1620-FB05-20120208	Water		2/8/2012 16:10	2/9/2012 18:15	<input type="checkbox"/>
1202263-23	WG-1620-MW67B-20120209	Water		2/9/2012 11:40	2/9/2012 18:15	<input type="checkbox"/>
1202263-24	WG-1620-MW63B-20120209	Water		2/9/2012 12:30	2/9/2012 18:15	<input type="checkbox"/>
1202263-25	WG-1620-FD05-20120209	Water		2/9/2012 12:30	2/9/2012 18:15	<input type="checkbox"/>
1202263-26	WG-1620-MW27C-20120209	Water		2/9/2012 13:50	2/9/2012 18:15	<input type="checkbox"/>
1202263-27	WG-1620-MW32AR-20120209	Water		2/9/2012 15:05	2/9/2012 18:15	<input type="checkbox"/>
1202263-28	WG-1620-MW32B-20120209	Water		2/9/2012 16:10	2/9/2012 18:15	<input type="checkbox"/>
1202263-29	WG-1620-MW53C-20120209	Water		2/9/2012 17:15	2/9/2012 18:15	<input type="checkbox"/>
1202263-30	WG-1620-MW36B-20120208	Water		2/8/2012 08:50	2/9/2012 18:15	<input type="checkbox"/>
1202263-31	WG-1620-TB05-20120208	Water		2/8/2012 09:00	2/9/2012 18:15	<input type="checkbox"/>
1202263-32	WG-1620-MW71B-20120208	Water		2/8/2012 09:45	2/9/2012 18:15	<input type="checkbox"/>
1202263-33	WG-1620-MW34C-20120208	Water		2/8/2012 11:10	2/9/2012 18:15	<input type="checkbox"/>
1202263-34	WG-1620-MW54C-20120208	Water		2/8/2012 12:15	2/9/2012 18:15	<input type="checkbox"/>
1202263-35	WG-1620-MW25A-20120208	Water		2/8/2012 13:10	2/9/2012 18:15	<input type="checkbox"/>
1202263-36	WG-1620-MW25C-20120208	Water		2/8/2012 13:55	2/9/2012 18:15	<input type="checkbox"/>

ALS Environmental

Date: 16-Feb-12

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-MW48C-20120206
Collection Date: 2/6/2012 02:00 PM

Work Order: 1202263
Lab ID: 1202263-01
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270	Prep: SW3510 / 2/9/12	Analyst: ACN		
1,2-Diphenylhydrazine	U		0.000050	0.00020	mg/L	1	2/11/2012 16:24
2,4-Dimethylphenol	U		0.000050	0.00020	mg/L	1	2/11/2012 16:24
2,4-Dinitrotoluene	U		0.000050	0.00020	mg/L	1	2/11/2012 16:24
2,6-Dinitrotoluene	U		0.000060	0.00020	mg/L	1	2/11/2012 16:24
2-Chloronaphthalene	U		0.000050	0.00020	mg/L	1	2/11/2012 16:24
2-Methylnaphthalene	U		0.000050	0.00020	mg/L	1	2/11/2012 16:24
4,6-Dinitro-2-methylphenol	U		0.000080	0.00020	mg/L	1	2/11/2012 16:24
4-Nitrophenol	U		0.000050	0.0010	mg/L	1	2/11/2012 16:24
Acenaphthene	U		0.000050	0.00020	mg/L	1	2/11/2012 16:24
Acenaphthylene	U		0.000050	0.00020	mg/L	1	2/11/2012 16:24
Anthracene	U		0.000050	0.00020	mg/L	1	2/11/2012 16:24
Benz(a)anthracene	U		0.000050	0.00020	mg/L	1	2/11/2012 16:24
Benzo(a)pyrene	U		0.000050	0.00020	mg/L	1	2/11/2012 16:24
Bis(2-chloroethoxy)methane	U		0.000050	0.00020	mg/L	1	2/11/2012 16:24
Bis(2-ethylhexyl)phthalate	U		0.00010	0.00020	mg/L	1	2/11/2012 16:24
Chrysene	U		0.000050	0.00020	mg/L	1	2/11/2012 16:24
Dibenzofuran	U		0.000050	0.00020	mg/L	1	2/11/2012 16:24
Di-n-butylphthalate	U		0.000050	0.00020	mg/L	1	2/11/2012 16:24
Fluoranthene	U		0.000050	0.00020	mg/L	1	2/11/2012 16:24
Fluorene	U		0.000050	0.00020	mg/L	1	2/11/2012 16:24
Naphthalene	U		0.000050	0.00020	mg/L	1	2/11/2012 16:24
Nitrobenzene	U		0.000050	0.00020	mg/L	1	2/11/2012 16:24
N-Nitrosodiphenylamine	U		0.000050	0.00020	mg/L	1	2/11/2012 16:24
Pentachlorophenol	U		0.000050	0.00020	mg/L	1	2/11/2012 16:24
Phenanthrene	U		0.000050	0.00020	mg/L	1	2/11/2012 16:24
Phenol	U		0.000050	0.00020	mg/L	1	2/11/2012 16:24
Pyrene	U		0.000050	0.00020	mg/L	1	2/11/2012 16:24
Surr: 2,4,6-Tribromophenol	72.3			34-129	%REC	1	2/11/2012 16:24
Surr: 2-Fluorobiphenyl	69.4			40-125	%REC	1	2/11/2012 16:24
Surr: 2-Fluorophenol	51.7			20-120	%REC	1	2/11/2012 16:24
Surr: 4-Terphenyl-d14	71.3			40-135	%REC	1	2/11/2012 16:24
Surr: Nitrobenzene-d5	77.3			41-120	%REC	1	2/11/2012 16:24
Surr: Phenol-d6	48.7			20-120	%REC	1	2/11/2012 16:24

VOLATILES			Method: SW8260	Analyst: AKP			
1,2-Dichloroethane	U		0.0010	0.0050	mg/L	1	2/13/2012 15:05
Benzene	U		0.0010	0.0050	mg/L	1	2/13/2012 15:05
Chlorobenzene	U		0.0010	0.0050	mg/L	1	2/13/2012 15:05
Ethylbenzene	U		0.0011	0.0050	mg/L	1	2/13/2012 15:05

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 16-Feb-12

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-MW48C-20120206
Collection Date: 2/6/2012 02:00 PM

Work Order: 1202263
Lab ID: 1202263-01
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
Methylenechloride	U		0.0013	0.010	mg/L	1	2/13/2012 15:05
Toluene	U		0.0010	0.0050	mg/L	1	2/13/2012 15:05
Xylenes, Total	U		0.0031	0.015	mg/L	1	2/13/2012 15:05
<i>Surr: 1,2-Dichloroethane-d4</i>	116			70-125	%REC	1	2/13/2012 15:05
<i>Surr: 4-Bromofluorobenzene</i>	105			72-125	%REC	1	2/13/2012 15:05
<i>Surr: Dibromofluoromethane</i>	104			71-125	%REC	1	2/13/2012 15:05
<i>Surr: Toluene-d8</i>	101			75-125	%REC	1	2/13/2012 15:05

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 16-Feb-12

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-MW59A-20120206
Collection Date: 2/6/2012 03:00 PM

Work Order: 1202263
Lab ID: 1202263-02
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES		Method: SW8270		Prep: SW3510 / 2/9/12		Analyst: ACN	
1,2-Diphenylhydrazine	U		0.000050	0.00020	mg/L	1	2/11/2012 20:29
2,4-Dimethylphenol	U		0.000050	0.00020	mg/L	1	2/11/2012 20:29
2,4-Dinitrotoluene	U		0.000050	0.00020	mg/L	1	2/11/2012 20:29
2,6-Dinitrotoluene	U		0.000060	0.00020	mg/L	1	2/11/2012 20:29
2-Chloronaphthalene	U		0.000050	0.00020	mg/L	1	2/11/2012 20:29
2-Methylnaphthalene	U		0.000050	0.00020	mg/L	1	2/11/2012 20:29
4,6-Dinitro-2-methylphenol	U		0.000080	0.00020	mg/L	1	2/11/2012 20:29
4-Nitrophenol	U		0.000050	0.0010	mg/L	1	2/11/2012 20:29
Acenaphthene	U		0.000050	0.00020	mg/L	1	2/11/2012 20:29
Acenaphthylene	U		0.000050	0.00020	mg/L	1	2/11/2012 20:29
Anthracene	U		0.000050	0.00020	mg/L	1	2/11/2012 20:29
Benz(a)anthracene	U		0.000050	0.00020	mg/L	1	2/11/2012 20:29
Benzo(a)pyrene	U		0.000050	0.00020	mg/L	1	2/11/2012 20:29
Bis(2-chloroethoxy)methane	U		0.000050	0.00020	mg/L	1	2/11/2012 20:29
Bis(2-ethylhexyl)phthalate	0.00015	J	0.00010	0.00020	mg/L	1	2/11/2012 20:29
Chrysene	U		0.000050	0.00020	mg/L	1	2/11/2012 20:29
Dibenzofuran	U		0.000050	0.00020	mg/L	1	2/11/2012 20:29
Di-n-butylphthalate	U		0.000050	0.00020	mg/L	1	2/11/2012 20:29
Fluoranthene	U		0.000050	0.00020	mg/L	1	2/11/2012 20:29
Fluorene	U		0.000050	0.00020	mg/L	1	2/11/2012 20:29
Naphthalene	U		0.000050	0.00020	mg/L	1	2/11/2012 20:29
Nitrobenzene	U		0.000050	0.00020	mg/L	1	2/11/2012 20:29
N-Nitrosodiphenylamine	U		0.000050	0.00020	mg/L	1	2/11/2012 20:29
Pentachlorophenol	U		0.000050	0.00020	mg/L	1	2/11/2012 20:29
Phenanthrene	U		0.000050	0.00020	mg/L	1	2/11/2012 20:29
Phenol	U		0.000050	0.00020	mg/L	1	2/11/2012 20:29
Pyrene	U		0.000050	0.00020	mg/L	1	2/11/2012 20:29
Surr: 2,4,6-Tribromophenol	62.0			34-129	%REC	1	2/11/2012 20:29
Surr: 2-Fluorobiphenyl	40.1			40-125	%REC	1	2/11/2012 20:29
Surr: 2-Fluorophenol	38.8			20-120	%REC	1	2/11/2012 20:29
Surr: 4-Terphenyl-d14	51.0			40-135	%REC	1	2/11/2012 20:29
Surr: Nitrobenzene-d5	66.9			41-120	%REC	1	2/11/2012 20:29
Surr: Phenol-d6	31.5			20-120	%REC	1	2/11/2012 20:29

VOLATILES		Method: SW8260		Analyst: AKP			
1,2-Dichloroethane	U		0.0010	0.0050	mg/L	1	2/13/2012 17:31
Benzene	U		0.0010	0.0050	mg/L	1	2/13/2012 17:31
Chlorobenzene	U		0.0010	0.0050	mg/L	1	2/13/2012 17:31
Ethylbenzene	U		0.0011	0.0050	mg/L	1	2/13/2012 17:31

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 16-Feb-12

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-MW59A-20120206
Collection Date: 2/6/2012 03:00 PM

Work Order: 1202263
Lab ID: 1202263-02
Matrix: WATER

Analyses	Result	Qual	SDL	ML	Units	Dilution Factor	Date Analyzed
Methylenechloride	U		0.0013	0.010	mg/L	1	2/13/2012 17:31
Toluene	U		0.0010	0.0050	mg/L	1	2/13/2012 17:31
Vinylchloride	U		0.0010	0.0020	mg/L	1	2/13/2012 17:31
Xylenes, Total	U		0.0031	0.015	mg/L	1	2/13/2012 17:31
Surr: 1,2-Dichloroethane-d4	118			70-125	%REC	1	2/13/2012 17:31
Surr: 4-Bromofluorobenzene	104			72-125	%REC	1	2/13/2012 17:31
Surr: Dibromofluoromethane	104			71-125	%REC	1	2/13/2012 17:31
Surr: Toluene-d8	100			75-125	%REC	1	2/13/2012 17:31

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 16-Feb-12

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-MW59B-20120206
Collection Date: 2/6/2012 03:55 PM

Work Order: 1202263
Lab ID: 1202263-03
Matrix: WATER

Analyses	Result	Qual	SDL	ML	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270	Prep: SW3510 / 2/9/12	Analyst: ACN		
1,2-Diphenylhydrazine	U		0.000050	0.00020	mg/L	1	2/13/2012 22:34
2,4-Dimethylphenol	0.25		0.0050	0.020	mg/L	100	2/14/2012 03:20
2,4-Dinitrotoluene	U		0.000050	0.00020	mg/L	1	2/13/2012 22:34
2,6-Dinitrotoluene	U		0.000060	0.00020	mg/L	1	2/13/2012 22:34
2-Chloronaphthalene	U		0.000050	0.00020	mg/L	1	2/13/2012 22:34
2-Methylnaphthalene	U		0.000050	0.00020	mg/L	1	2/13/2012 22:34
4,6-Dinitro-2-methylphenol	U		0.000080	0.00020	mg/L	1	2/13/2012 22:34
4-Nitrophenol	U		0.000050	0.0010	mg/L	1	2/13/2012 22:34
Acenaphthene	0.0017		0.000050	0.00020	mg/L	1	2/13/2012 22:34
Acenaphthylene	0.00014	J	0.000050	0.00020	mg/L	1	2/13/2012 22:34
Anthracene	0.000054	J	0.000050	0.00020	mg/L	1	2/13/2012 22:34
Benz(a)anthracene	U		0.000050	0.00020	mg/L	1	2/13/2012 22:34
Benzo(a)pyrene	U		0.000050	0.00020	mg/L	1	2/13/2012 22:34
Bis(2-chloroethoxy)methane	U		0.000050	0.00020	mg/L	1	2/13/2012 22:34
Bis(2-ethylhexyl)phthalate	0.00068		0.00010	0.00020	mg/L	1	2/13/2012 22:34
Chrysene	U		0.000050	0.00020	mg/L	1	2/13/2012 22:34
Dibenzofuran	U		0.000050	0.00020	mg/L	1	2/13/2012 22:34
Di-n-butylphthalate	U		0.000050	0.00020	mg/L	1	2/13/2012 22:34
Fluoranthene	U		0.000050	0.00020	mg/L	1	2/13/2012 22:34
Fluorene	U		0.000050	0.00020	mg/L	1	2/13/2012 22:34
Naphthalene	0.00012	J	0.000050	0.00020	mg/L	1	2/13/2012 22:34
Nitrobenzene	U		0.000050	0.00020	mg/L	1	2/13/2012 22:34
N-Nitrosodiphenylamine	U		0.000050	0.00020	mg/L	1	2/13/2012 22:34
Pentachlorophenol	0.00011	J	0.000050	0.00020	mg/L	1	2/13/2012 22:34
Phenanthrene	0.00025		0.000050	0.00020	mg/L	1	2/13/2012 22:34
Phenol	0.00033		0.000050	0.00020	mg/L	1	2/13/2012 22:34
Pyrene	0.000062	J	0.000050	0.00020	mg/L	1	2/13/2012 22:34
Surr: 2,4,6-Tribromophenol	59.8			34-129	%REC	1	2/13/2012 22:34
Surr: 2,4,6-Tribromophenol	45.1	J		34-129	%REC	100	2/14/2012 03:20
Surr: 2-Fluorobiphenyl	48.1			40-125	%REC	1	2/13/2012 22:34
Surr: 2-Fluorobiphenyl	77.4	J		40-125	%REC	100	2/14/2012 03:20
Surr: 2-Fluorophenol	39.8			20-120	%REC	1	2/13/2012 22:34
Surr: 2-Fluorophenol	34.6	J		20-120	%REC	100	2/14/2012 03:20
Surr: 4-Terphenyl-d14	59.9			40-135	%REC	1	2/13/2012 22:34
Surr: 4-Terphenyl-d14	82.6	J		40-135	%REC	100	2/14/2012 03:20
Surr: Nitrobenzene-d5	51.5			41-120	%REC	1	2/13/2012 22:34
Surr: Nitrobenzene-d5	60.5	J		41-120	%REC	100	2/14/2012 03:20
Surr: Phenol-d6	50.4			20-120	%REC	1	2/13/2012 22:34

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 16-Feb-12

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-MW59B-20120206
Collection Date: 2/6/2012 03:55 PM

Work Order: 1202263
Lab ID: 1202263-03
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
Surr: Phenol-d6	31.1	J		20-120	%REC	100	2/14/2012 03:20
VOLATILES		Method: SW8260				Analyst: AKP	
1,2-Dichloroethane	U		0.0010	0.0050	mg/L	1	2/13/2012 17:56
Benzene	U		0.0010	0.0050	mg/L	1	2/13/2012 17:56
Chlorobenzene	U		0.0010	0.0050	mg/L	1	2/13/2012 17:56
Ethylbenzene	U		0.0011	0.0050	mg/L	1	2/13/2012 17:56
Methylenechloride	U		0.0013	0.010	mg/L	1	2/13/2012 17:56
Toluene	U		0.0010	0.0050	mg/L	1	2/13/2012 17:56
Vinylchloride	U		0.0010	0.0020	mg/L	1	2/13/2012 17:56
Xylenes, Total	U		0.0031	0.015	mg/L	1	2/13/2012 17:56
Surr: 1,2-Dichloroethane-d4	121			70-125	%REC	1	2/13/2012 17:56
Surr: 4-Bromofluorobenzene	106			72-125	%REC	1	2/13/2012 17:56
Surr: Dibromofluoromethane	106			71-125	%REC	1	2/13/2012 17:56
Surr: Toluene-d8	102			75-125	%REC	1	2/13/2012 17:56

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 16-Feb-12

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-MW49B-20120207
Collection Date: 2/7/2012 08:30 AM

Work Order: 1202263
Lab ID: 1202263-04
Matrix: WATER

Analyses	Result	Qual	SDL	ML	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270	Prep: SW3510 / 2/9/12	Analyst: ACN		
1,2-Diphenylhydrazine	U		0.000050	0.00020	mg/L	1	2/13/2012 22:54
2,4-Dimethylphenol	0.19		0.0050	0.020	mg/L	100	2/14/2012 20:06
2,4-Dinitrotoluene	U		0.000050	0.00020	mg/L	1	2/13/2012 22:54
2,6-Dinitrotoluene	U		0.000060	0.00020	mg/L	1	2/13/2012 22:54
2-Chloronaphthalene	U		0.000050	0.00020	mg/L	1	2/13/2012 22:54
2-Methylnaphthalene	0.0095		0.000050	0.00020	mg/L	1	2/13/2012 22:54
4,6-Dinitro-2-methylphenol	U		0.000080	0.00020	mg/L	1	2/13/2012 22:54
4-Nitrophenol	U		0.000050	0.0010	mg/L	1	2/13/2012 22:54
Acenaphthene	0.034		0.00050	0.0020	mg/L	10	2/14/2012 19:47
Acenaphthylene	0.00070		0.000050	0.00020	mg/L	1	2/13/2012 22:54
Anthracene	0.0029		0.000050	0.00020	mg/L	1	2/13/2012 22:54
Benz(a)anthracene	U		0.000050	0.00020	mg/L	1	2/13/2012 22:54
Benzo(a)pyrene	U		0.000050	0.00020	mg/L	1	2/13/2012 22:54
Bis(2-chloroethoxy)methane	U		0.000050	0.00020	mg/L	1	2/13/2012 22:54
Bis(2-ethylhexyl)phthalate	0.00069		0.00010	0.00020	mg/L	1	2/13/2012 22:54
Chrysene	U		0.000050	0.00020	mg/L	1	2/13/2012 22:54
Dibenzofuran	0.019		0.00050	0.0020	mg/L	10	2/14/2012 19:47
Di-n-butylphthalate	U		0.000050	0.00020	mg/L	1	2/13/2012 22:54
Fluoranthene	0.0015		0.000050	0.00020	mg/L	1	2/13/2012 22:54
Fluorene	0.019		0.00050	0.0020	mg/L	10	2/14/2012 19:47
Naphthalene	0.047		0.00050	0.0020	mg/L	10	2/14/2012 19:47
Nitrobenzene	U		0.000050	0.00020	mg/L	1	2/13/2012 22:54
N-Nitrosodiphenylamine	U		0.000050	0.00020	mg/L	1	2/13/2012 22:54
Pentachlorophenol	U		0.000050	0.00020	mg/L	1	2/13/2012 22:54
Phenanthrene	0.0098		0.000050	0.00020	mg/L	1	2/13/2012 22:54
Phenol	U		0.000050	0.00020	mg/L	1	2/13/2012 22:54
Pyrene	0.00083		0.000050	0.00020	mg/L	1	2/13/2012 22:54
Surr:2,4,6-Tribromophenol	49.9			34-129	%REC	1	2/13/2012 22:54
Surr:2,4,6-Tribromophenol	52.1			34-129	%REC	10	2/14/2012 19:47
Surr:2,4,6-Tribromophenol	44.6	J		34-129	%REC	100	2/14/2012 20:06
Surr:2-Fluorobiphenyl	42.2			40-125	%REC	1	2/13/2012 22:54
Surr:2-Fluorobiphenyl	40.6			40-125	%REC	10	2/14/2012 19:47
Surr:2-Fluorobiphenyl	48.9	J		40-125	%REC	100	2/14/2012 20:06
Surr:2-Fluorophenol	40.2			20-120	%REC	1	2/13/2012 22:54
Surr:2-Fluorophenol	28.2	J		20-120	%REC	10	2/14/2012 19:47
Surr:2-Fluorophenol	36.1	J		20-120	%REC	100	2/14/2012 20:06
Surr:4-Terphenyl-d14	57.3			40-135	%REC	1	2/13/2012 22:54
Surr:4-Terphenyl-d14	56.2			40-135	%REC	10	2/14/2012 19:47

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 16-Feb-12

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-MW49B-20120207
Collection Date: 2/7/2012 08:30 AM

Work Order: 1202263
Lab ID: 1202263-04
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
Surr: 4-Terphenyl-d14	59.5	J		40-135	%REC	100	2/14/2012 20:06
Surr: Nitrobenzene-d5	42.5			41-120	%REC	1	2/13/2012 22:54
Surr: Nitrobenzene-d5	42.0			41-120	%REC	10	2/14/2012 19:47
Surr: Nitrobenzene-d5	54.4	J		41-120	%REC	100	2/14/2012 20:06
Surr: Phenol-d6	37.7			20-120	%REC	1	2/13/2012 22:54
Surr: Phenol-d6	34.4	J		20-120	%REC	10	2/14/2012 19:47
Surr: Phenol-d6	34.7	J		20-120	%REC	100	2/14/2012 20:06

VOLATILES		Method: SW8260				Analyst: AKP	
1,2-Dichloroethane	U		0.0010	0.0050	mg/L	1	2/14/2012 13:55
Benzene	0.0056		0.0010	0.0050	mg/L	1	2/14/2012 13:55
Chlorobenzene	U		0.0010	0.0050	mg/L	1	2/14/2012 13:55
Ethylbenzene	0.0042	J	0.0011	0.0050	mg/L	1	2/14/2012 13:55
Methylenechloride	U		0.0013	0.010	mg/L	1	2/14/2012 13:55
Toluene	0.0057		0.0010	0.0050	mg/L	1	2/14/2012 13:55
Vinyl chloride	U		0.0010	0.0020	mg/L	1	2/14/2012 13:55
Xylenes, Total	0.0080	J	0.0031	0.015	mg/L	1	2/14/2012 13:55
Surr: 1,2-Dichloroethane-d4	102			70-125	%REC	1	2/14/2012 13:55
Surr: 4-Bromofluorobenzene	102			72-125	%REC	1	2/14/2012 13:55
Surr: Dibromofluoromethane	100			71-125	%REC	1	2/14/2012 13:55
Surr: Toluene-d8	100			75-125	%REC	1	2/14/2012 13:55

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 16-Feb-12

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-MW49A-20120207
Collection Date: 2/7/2012 09:45 AM

Work Order: 1202263
Lab ID: 1202263-05
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270	Prep: SW3510 / 2/9/12		Analyst: ACN	
1,2-Diphenylhydrazine	U		0.000050	0.00020	mg/L	1	2/11/2012 16:44
2,4-Dimethylphenol	U		0.000050	0.00020	mg/L	1	2/11/2012 16:44
2,4-Dinitrotoluene	U		0.000050	0.00020	mg/L	1	2/11/2012 16:44
2,6-Dinitrotoluene	U		0.000060	0.00020	mg/L	1	2/11/2012 16:44
2-Chloronaphthalene	U		0.000050	0.00020	mg/L	1	2/11/2012 16:44
2-Methylnaphthalene	U		0.000050	0.00020	mg/L	1	2/11/2012 16:44
4,6-Dinitro-2-methylphenol	U		0.000080	0.00020	mg/L	1	2/11/2012 16:44
4-Nitrophenol	U		0.000050	0.0010	mg/L	1	2/11/2012 16:44
Acenaphthene	U		0.000050	0.00020	mg/L	1	2/11/2012 16:44
Acenaphthylene	U		0.000050	0.00020	mg/L	1	2/11/2012 16:44
Anthracene	U		0.000050	0.00020	mg/L	1	2/11/2012 16:44
Benz(a)anthracene	U		0.000050	0.00020	mg/L	1	2/11/2012 16:44
Benzo(a)pyrene	U		0.000050	0.00020	mg/L	1	2/11/2012 16:44
Bis(2-chloroethoxy)methane	U		0.000050	0.00020	mg/L	1	2/11/2012 16:44
Bis(2-ethylhexyl)phthalate	U		0.00010	0.00020	mg/L	1	2/11/2012 16:44
Chrysene	U		0.000050	0.00020	mg/L	1	2/11/2012 16:44
Dibenzofuran	U		0.000050	0.00020	mg/L	1	2/11/2012 16:44
Di-n-butylphthalate	U		0.000050	0.00020	mg/L	1	2/11/2012 16:44
Fluoranthene	U		0.000050	0.00020	mg/L	1	2/11/2012 16:44
Fluorene	U		0.000050	0.00020	mg/L	1	2/11/2012 16:44
Naphthalene	U		0.000050	0.00020	mg/L	1	2/11/2012 16:44
Nitrobenzene	U		0.000050	0.00020	mg/L	1	2/11/2012 16:44
N-Nitrosodiphenylamine	U		0.000050	0.00020	mg/L	1	2/11/2012 16:44
Pentachlorophenol	U		0.000050	0.00020	mg/L	1	2/11/2012 16:44
Phenanthrene	U		0.000050	0.00020	mg/L	1	2/11/2012 16:44
Phenol	U		0.000050	0.00020	mg/L	1	2/11/2012 16:44
Pyrene	U		0.000050	0.00020	mg/L	1	2/11/2012 16:44
Surr: 2,4,6-Tribromophenol	49.4			34-129	%REC	1	2/11/2012 16:44
Surr: 2-Fluorobiphenyl	68.8			40-125	%REC	1	2/11/2012 16:44
Surr: 2-Fluorophenol	65.6			20-120	%REC	1	2/11/2012 16:44
Surr: 4-Terphenyl-d14	64.8			40-135	%REC	1	2/11/2012 16:44
Surr: Nitrobenzene-d5	77.4			41-120	%REC	1	2/11/2012 16:44
Surr: Phenol-d6	60.6			20-120	%REC	1	2/11/2012 16:44
VOLATILES			Method: SW8260			Analyst: AKP	
1,2-Dichloroethane	U		0.050	0.25	mg/L	50	2/14/2012 00:04
Benzene	U		0.050	0.25	mg/L	50	2/14/2012 00:04
Chlorobenzene	U		0.050	0.25	mg/L	50	2/14/2012 00:04
Ethylbenzene	U		0.055	0.25	mg/L	50	2/14/2012 00:04

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 16-Feb-12

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-MW49A-20120207
Collection Date: 2/7/2012 09:45 AM

Work Order: 1202263
Lab ID: 1202263-05
Matrix: WATER

Analyses	Result	Qual	SDL	ML	Units	Dilution Factor	Date Analyzed
Methylenechloride	U		0.065	0.50	mg/L	50	2/14/2012 00:04
Toluene	U		0.050	0.25	mg/L	50	2/14/2012 00:04
Vinylchloride	U		0.050	0.10	mg/L	50	2/14/2012 00:04
Xylenes, Total	U		0.16	0.75	mg/L	50	2/14/2012 00:04
Surr: 1,2-Dichloroethane-d4	103			70-125	%REC	50	2/14/2012 00:04
Surr: 4-Bromofluorobenzene	98.3			72-125	%REC	50	2/14/2012 00:04
Surr: Dibromofluoromethane	100			71-125	%REC	50	2/14/2012 00:04
Surr: Toluene-d8	102			75-125	%REC	50	2/14/2012 00:04

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 16-Feb-12

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-TB04-20120207
Collection Date: 2/7/2012 10:00 AM

Work Order: 1202263
Lab ID: 1202263-06
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
VOLATILES			Method: SW8260			Analyst: AKP	
1,2-Dichloroethane	U		0.0010	0.0050	mg/L	1	2/13/2012 12:15
Benzene	U		0.0010	0.0050	mg/L	1	2/13/2012 12:15
Chlorobenzene	U		0.0010	0.0050	mg/L	1	2/13/2012 12:15
Ethylbenzene	U		0.0011	0.0050	mg/L	1	2/13/2012 12:15
Methylenechloride	U		0.0013	0.010	mg/L	1	2/13/2012 12:15
Toluene	U		0.0010	0.0050	mg/L	1	2/13/2012 12:15
Vinylchloride	U		0.0010	0.0020	mg/L	1	2/13/2012 12:15
Xylenes, Total	U		0.0031	0.015	mg/L	1	2/13/2012 12:15
Surr: 1,2-Dichloroethane-d4	117			70-125	%REC	1	2/13/2012 12:15
Surr: 4-Bromofluorobenzene	103			72-125	%REC	1	2/13/2012 12:15
Surr: Dibromofluoromethane	104			71-125	%REC	1	2/13/2012 12:15
Surr: Toluene-d8	101			75-125	%REC	1	2/13/2012 12:15

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 16-Feb-12

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-FB04-20120207
Collection Date: 2/7/2012 10:10 AM

Work Order: 1202263
Lab ID: 1202263-07
Matrix: WATER

Analyses	Result	Qual	SDL	ML	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270	Prep: SW3510 / 2/9/12	Analyst: ACN		
1,2-Diphenylhydrazine	U		0.000050	0.00020	mg/L	1	2/11/2012 17:04
2,4-Dimethylphenol	U		0.000050	0.00020	mg/L	1	2/11/2012 17:04
2,4-Dinitrotoluene	U		0.000050	0.00020	mg/L	1	2/11/2012 17:04
2,6-Dinitrotoluene	U		0.000060	0.00020	mg/L	1	2/11/2012 17:04
2-Chloronaphthalene	U		0.000050	0.00020	mg/L	1	2/11/2012 17:04
2-Methylnaphthalene	U		0.000050	0.00020	mg/L	1	2/11/2012 17:04
4,6-Dinitro-2-methylphenol	U		0.000080	0.00020	mg/L	1	2/11/2012 17:04
4-Nitrophenol	U		0.000050	0.0010	mg/L	1	2/11/2012 17:04
Acenaphthene	U		0.000050	0.00020	mg/L	1	2/11/2012 17:04
Acenaphthylene	U		0.000050	0.00020	mg/L	1	2/11/2012 17:04
Anthracene	U		0.000050	0.00020	mg/L	1	2/11/2012 17:04
Benz(a)anthracene	U		0.000050	0.00020	mg/L	1	2/11/2012 17:04
Benzo(a)pyrene	U		0.000050	0.00020	mg/L	1	2/11/2012 17:04
Bis(2-chloroethoxy)methane	U		0.000050	0.00020	mg/L	1	2/11/2012 17:04
Bis(2-ethylhexyl)phthalate	U		0.00010	0.00020	mg/L	1	2/11/2012 17:04
Chrysene	U		0.000050	0.00020	mg/L	1	2/11/2012 17:04
Dibenzofuran	U		0.000050	0.00020	mg/L	1	2/11/2012 17:04
Di-n-butylphthalate	U		0.000050	0.00020	mg/L	1	2/11/2012 17:04
Fluoranthene	U		0.000050	0.00020	mg/L	1	2/11/2012 17:04
Fluorene	U		0.000050	0.00020	mg/L	1	2/11/2012 17:04
Naphthalene	U		0.000050	0.00020	mg/L	1	2/11/2012 17:04
Nitrobenzene	U		0.000050	0.00020	mg/L	1	2/11/2012 17:04
N-Nitrosodiphenylamine	U		0.000050	0.00020	mg/L	1	2/11/2012 17:04
Pentachlorophenol	U		0.000050	0.00020	mg/L	1	2/11/2012 17:04
Phenanthrene	U		0.000050	0.00020	mg/L	1	2/11/2012 17:04
Phenol	U		0.000050	0.00020	mg/L	1	2/11/2012 17:04
Pyrene	U		0.000050	0.00020	mg/L	1	2/11/2012 17:04
Surr: 2,4,6-Tribromophenol	63.5			34-129	%REC	1	2/11/2012 17:04
Surr: 2-Fluorobiphenyl	70.0			40-125	%REC	1	2/11/2012 17:04
Surr: 2-Fluorophenol	43.9			20-120	%REC	1	2/11/2012 17:04
Surr: 4-Terphenyl-d14	66.6			40-135	%REC	1	2/11/2012 17:04
Surr: Nitrobenzene-d5	51.7			41-120	%REC	1	2/11/2012 17:04
Surr: Phenol-d6	42.8			20-120	%REC	1	2/11/2012 17:04
VOLATILES			Method: SW8260	Analyst: AKP			
1,2-Dichloroethane	U		0.0010	0.0050	mg/L	1	2/13/2012 12:39
Benzene	U		0.0010	0.0050	mg/L	1	2/13/2012 12:39
Chlorobenzene	U		0.0010	0.0050	mg/L	1	2/13/2012 12:39
Ethylbenzene	U		0.0011	0.0050	mg/L	1	2/13/2012 12:39

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 16-Feb-12

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-FB04-20120207
Collection Date: 2/7/2012 10:10 AM

Work Order: 1202263
Lab ID: 1202263-07
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
Methylenechloride	U		0.0013	0.010	mg/L	1	2/13/2012 12:39
Toluene	U		0.0010	0.0050	mg/L	1	2/13/2012 12:39
Vinylchloride	U		0.0010	0.0020	mg/L	1	2/13/2012 12:39
Xylenes, Total	U		0.0031	0.015	mg/L	1	2/13/2012 12:39
<i>Surr: 1,2-Dichloroethane-d4</i>	116			70-125	%REC	1	2/13/2012 12:39
<i>Surr: 4-Bromofluorobenzene</i>	104			72-125	%REC	1	2/13/2012 12:39
<i>Surr: Dibromofluoromethane</i>	105			71-125	%REC	1	2/13/2012 12:39
<i>Surr: Toluene-d8</i>	101			75-125	%REC	1	2/13/2012 12:39

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 16-Feb-12

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-MW47C-20120207
Collection Date: 2/7/2012 11:15 AM

Work Order: 1202263
Lab ID: 1202263-08
Matrix: WATER

Analyses	Result	Qual	SDL	ML	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270	Prep: SW3510 / 2/9/12		Analyst: ACN	
1,2-Diphenylhydrazine	U		0.000050	0.00020	mg/L	1	2/11/2012 21:50
2,4-Dimethylphenol	U		0.000050	0.00020	mg/L	1	2/11/2012 21:50
2,4-Dinitrotoluene	U		0.000050	0.00020	mg/L	1	2/11/2012 21:50
2,6-Dinitrotoluene	U		0.000060	0.00020	mg/L	1	2/11/2012 21:50
2-Chloronaphthalene	U		0.000050	0.00020	mg/L	1	2/11/2012 21:50
2-Methylnaphthalene	0.0044		0.000050	0.00020	mg/L	1	2/11/2012 21:50
4,6-Dinitro-2-methylphenol	U		0.000080	0.00020	mg/L	1	2/11/2012 21:50
4-Nitrophenol	U		0.000050	0.0010	mg/L	1	2/11/2012 21:50
Acenaphthene	0.00017	J	0.000050	0.00020	mg/L	1	2/11/2012 21:50
Acenaphthylene	U		0.000050	0.00020	mg/L	1	2/11/2012 21:50
Anthracene	0.000074	J	0.000050	0.00020	mg/L	1	2/11/2012 21:50
Benz(a)anthracene	U		0.000050	0.00020	mg/L	1	2/11/2012 21:50
Benzo(a)pyrene	U		0.000050	0.00020	mg/L	1	2/11/2012 21:50
Bis(2-chloroethoxy)methane	U		0.000050	0.00020	mg/L	1	2/11/2012 21:50
Bis(2-ethylhexyl)phthalate	0.011		0.00040	0.00080	mg/L	4	2/14/2012 01:58
Chrysene	U		0.000050	0.00020	mg/L	1	2/11/2012 21:50
Dibenzofuran	U		0.000050	0.00020	mg/L	1	2/11/2012 21:50
Di-n-butyl phthalate	0.00015	J	0.000050	0.00020	mg/L	1	2/11/2012 21:50
Fluoranthene	U		0.000050	0.00020	mg/L	1	2/11/2012 21:50
Fluorene	0.00025		0.000050	0.00020	mg/L	1	2/11/2012 21:50
Naphthalene	0.0041		0.000050	0.00020	mg/L	1	2/11/2012 21:50
Nitrobenzene	U		0.000050	0.00020	mg/L	1	2/11/2012 21:50
N-Nitrosodiphenylamine	U		0.000050	0.00020	mg/L	1	2/11/2012 21:50
Pentachlorophenol	U		0.000050	0.00020	mg/L	1	2/11/2012 21:50
Phenanthrene	0.00030		0.000050	0.00020	mg/L	1	2/11/2012 21:50
Phenol	0.00044		0.000050	0.00020	mg/L	1	2/11/2012 21:50
Pyrene	0.00015	J	0.000050	0.00020	mg/L	1	2/11/2012 21:50
Surr: 2,4,6-Tribromophenol	63.7			34-129	%REC	1	2/11/2012 21:50
Surr: 2,4,6-Tribromophenol	82.6			34-129	%REC	4	2/14/2012 01:58
Surr: 2-Fluorobiphenyl	61.2			40-125	%REC	1	2/11/2012 21:50
Surr: 2-Fluorobiphenyl	81.2			40-125	%REC	4	2/14/2012 01:58
Surr: 2-Fluorophenol	57.2			20-120	%REC	1	2/11/2012 21:50
Surr: 2-Fluorophenol	56.8			20-120	%REC	4	2/14/2012 01:58
Surr: 4-Terphenyl-d14	83.3			40-135	%REC	1	2/11/2012 21:50
Surr: 4-Terphenyl-d14	75.7			40-135	%REC	4	2/14/2012 01:58
Surr: Nitrobenzene-d5	69.3			41-120	%REC	1	2/11/2012 21:50
Surr: Nitrobenzene-d5	71.0			41-120	%REC	4	2/14/2012 01:58
Surr: Phenol-d6	39.7			20-120	%REC	1	2/11/2012 21:50

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 16-Feb-12

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-MW47C-20120207
Collection Date: 2/7/2012 11:15 AM

Work Order: 1202263
Lab ID: 1202263-08
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
Surr: Phenol-d6	54.8			20-120	%REC	4	2/14/2012 01:58
VOLATILES		Method: SW8260				Analyst: AKP	
1,2-Dichloroethane		U	0.0010	0.0050	mg/L	1	2/13/2012 18:20
Benzene		U	0.0010	0.0050	mg/L	1	2/13/2012 18:20
Chlorobenzene		U	0.0010	0.0050	mg/L	1	2/13/2012 18:20
Ethylbenzene		U	0.0011	0.0050	mg/L	1	2/13/2012 18:20
Methylenechloride		U	0.0013	0.010	mg/L	1	2/13/2012 18:20
Toluene		U	0.0010	0.0050	mg/L	1	2/13/2012 18:20
Xylenes, Total		U	0.0031	0.015	mg/L	1	2/13/2012 18:20
Surr: 1,2-Dichloroethane-d4	122			70-125	%REC	1	2/13/2012 18:20
Surr: 4-Bromofluorobenzene	105			72-125	%REC	1	2/13/2012 18:20
Surr: Dibromofluoromethane	106			71-125	%REC	1	2/13/2012 18:20
Surr: Toluene-d8	101			75-125	%REC	1	2/13/2012 18:20

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 16-Feb-12

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-MW60A-20120207
Collection Date: 2/7/2012 12:20 PM

Work Order: 1202263
Lab ID: 1202263-09
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270	Prep: SW3510 / 2/9/12		Analyst: ACN	
1,2-Diphenylhydrazine	U		0.000050	0.00020	mg/L	1	2/13/2012 19:09
2,4-Dimethylphenol	U		0.000050	0.00020	mg/L	1	2/13/2012 19:09
2,4-Dinitrotoluene	U		0.000050	0.00020	mg/L	1	2/13/2012 19:09
2,6-Dinitrotoluene	U		0.000060	0.00020	mg/L	1	2/13/2012 19:09
2-Chloronaphthalene	U		0.000050	0.00020	mg/L	1	2/13/2012 19:09
2-Methylnaphthalene	U		0.000050	0.00020	mg/L	1	2/13/2012 19:09
4,6-Dinitro-2-methylphenol	U		0.000080	0.00020	mg/L	1	2/13/2012 19:09
4-Nitrophenol	U		0.000050	0.0010	mg/L	1	2/13/2012 19:09
Acenaphthene	U		0.000050	0.00020	mg/L	1	2/13/2012 19:09
Acenaphthylene	U		0.000050	0.00020	mg/L	1	2/13/2012 19:09
Anthracene	U		0.000050	0.00020	mg/L	1	2/13/2012 19:09
Benz(a)anthracene	U		0.000050	0.00020	mg/L	1	2/13/2012 19:09
Benzo(a)pyrene	U		0.000050	0.00020	mg/L	1	2/13/2012 19:09
Bis(2-chloroethoxy)methane	U		0.000050	0.00020	mg/L	1	2/13/2012 19:09
Bis(2-ethylhexyl)phthalate	0.00023		0.00010	0.00020	mg/L	1	2/13/2012 19:09
Chrysene	U		0.000050	0.00020	mg/L	1	2/13/2012 19:09
Dibenzofuran	U		0.000050	0.00020	mg/L	1	2/13/2012 19:09
Di-n-butylphthalate	U		0.000050	0.00020	mg/L	1	2/13/2012 19:09
Fluoranthene	0.00028		0.000050	0.00020	mg/L	1	2/13/2012 19:09
Fluorene	0.00016	J	0.000050	0.00020	mg/L	1	2/13/2012 19:09
Naphthalene	U		0.000050	0.00020	mg/L	1	2/13/2012 19:09
Nitrobenzene	U		0.000050	0.00020	mg/L	1	2/13/2012 19:09
N-Nitrosodiphenylamine	U		0.000050	0.00020	mg/L	1	2/13/2012 19:09
Pentachlorophenol	U		0.000050	0.00020	mg/L	1	2/13/2012 19:09
Phenanthrene	U		0.000050	0.00020	mg/L	1	2/13/2012 19:09
Phenol	U		0.000050	0.00020	mg/L	1	2/13/2012 19:09
Pyrene	0.0013		0.000050	0.00020	mg/L	1	2/13/2012 19:09
Surr: 2,4,6-Tribromophenol	37.6			34-129	%REC	1	2/13/2012 19:09
Surr: 2-Fluorobiphenyl	67.5			40-125	%REC	1	2/13/2012 19:09
Surr: 2-Fluorophenol	34.0			20-120	%REC	1	2/13/2012 19:09
Surr: 4-Terphenyl-d14	66.4			40-135	%REC	1	2/13/2012 19:09
Surr: Nitrobenzene-d5	56.2			41-120	%REC	1	2/13/2012 19:09
Surr: Phenol-d6	42.8			20-120	%REC	1	2/13/2012 19:09
VOLATILES			Method: SW8260			Analyst: AKP	
1,2-Dichloroethane	U		0.0010	0.0050	mg/L	1	2/13/2012 18:45
Benzene	U		0.0010	0.0050	mg/L	1	2/13/2012 18:45
Chlorobenzene	U		0.0010	0.0050	mg/L	1	2/13/2012 18:45
Ethylbenzene	U		0.0011	0.0050	mg/L	1	2/13/2012 18:45

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 16-Feb-12

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-MW60A-20120207
Collection Date: 2/7/2012 12:20 PM

Work Order: 1202263
Lab ID: 1202263-09
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
Methylenechloride	U		0.0013	0.010	mg/L	1	2/13/2012 18:45
Toluene	U		0.0010	0.0050	mg/L	1	2/13/2012 18:45
Vinylchloride	U		0.0010	0.0020	mg/L	1	2/13/2012 18:45
Xylenes, Total	U		0.0031	0.015	mg/L	1	2/13/2012 18:45
<i>Surr: 1,2-Dichloroethane-d4</i>	121			70-125	%REC	1	2/13/2012 18:45
<i>Surr: 4-Bromofluorobenzene</i>	105			72-125	%REC	1	2/13/2012 18:45
<i>Surr: Dibromofluoromethane</i>	105			71-125	%REC	1	2/13/2012 18:45
<i>Surr: Toluene-d8</i>	100			75-125	%REC	1	2/13/2012 18:45

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 16-Feb-12

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-MW61A-20120207
Collection Date: 2/7/2012 01:30 PM

Work Order: 1202263
Lab ID: 1202263-10
Matrix: WATER

Analyses	Result	Qual	SDL	ML	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES		Method: SW8270		Prep: SW3510 / 2/9/12		Analyst: ACN	
1,2-Diphenylhydrazine	U		0.000050	0.00020	mg/L	1	2/11/2012 15:22
2,4-Dimethylphenol	U		0.000050	0.00020	mg/L	1	2/11/2012 15:22
2,4-Dinitrotoluene	U		0.000050	0.00020	mg/L	1	2/11/2012 15:22
2,6-Dinitrotoluene	U		0.000060	0.00020	mg/L	1	2/11/2012 15:22
2-Chloronaphthalene	U		0.000050	0.00020	mg/L	1	2/11/2012 15:22
2-Methylnaphthalene	U		0.000050	0.00020	mg/L	1	2/11/2012 15:22
4,6-Dinitro-2-methylphenol	U		0.000080	0.00020	mg/L	1	2/11/2012 15:22
4-Nitrophenol	U		0.000050	0.0010	mg/L	1	2/11/2012 15:22
Acenaphthene	U		0.000050	0.00020	mg/L	1	2/11/2012 15:22
Acenaphthylene	U		0.000050	0.00020	mg/L	1	2/11/2012 15:22
Anthracene	U		0.000050	0.00020	mg/L	1	2/11/2012 15:22
Benz(a)anthracene	U		0.000050	0.00020	mg/L	1	2/11/2012 15:22
Benzo(a)pyrene	U		0.000050	0.00020	mg/L	1	2/11/2012 15:22
Bis(2-chloroethoxy)methane	U		0.000050	0.00020	mg/L	1	2/11/2012 15:22
Bis(2-ethylhexyl)phthalate	0.00038		0.00010	0.00020	mg/L	1	2/11/2012 15:22
Chrysene	U		0.000050	0.00020	mg/L	1	2/11/2012 15:22
Dibenzofuran	U		0.000050	0.00020	mg/L	1	2/11/2012 15:22
Di-n-butylphthalate	U		0.000050	0.00020	mg/L	1	2/11/2012 15:22
Fluoranthene	U		0.000050	0.00020	mg/L	1	2/11/2012 15:22
Fluorene	U		0.000050	0.00020	mg/L	1	2/11/2012 15:22
Naphthalene	U		0.000050	0.00020	mg/L	1	2/11/2012 15:22
Nitrobenzene	U		0.000050	0.00020	mg/L	1	2/11/2012 15:22
N-Nitrosodiphenylamine	U		0.000050	0.00020	mg/L	1	2/11/2012 15:22
Pentachlorophenol	U		0.000050	0.00020	mg/L	1	2/11/2012 15:22
Phenanthrene	U		0.000050	0.00020	mg/L	1	2/11/2012 15:22
Phenol	U		0.000050	0.00020	mg/L	1	2/11/2012 15:22
Pyrene	U		0.000050	0.00020	mg/L	1	2/11/2012 15:22
Surr: 2,4,6-Tribromophenol	76.1			34-129	%REC	1	2/11/2012 15:22
Surr: 2-Fluorobiphenyl	86.9			40-125	%REC	1	2/11/2012 15:22
Surr: 2-Fluorophenol	54.2			20-120	%REC	1	2/11/2012 15:22
Surr: 4-Terphenyl-d14	77.5			40-135	%REC	1	2/11/2012 15:22
Surr: Nitrobenzene-d5	88.3			41-120	%REC	1	2/11/2012 15:22
Surr: Phenol-d6	55.0			20-120	%REC	1	2/11/2012 15:22
VOLATILES		Method: SW8260		Analyst: AKP			
1,2-Dichloroethane	U		0.0010	0.0050	mg/L	1	2/13/2012 16:21
Benzene	U		0.0010	0.0050	mg/L	1	2/13/2012 16:21
Chlorobenzene	U		0.0010	0.0050	mg/L	1	2/13/2012 16:21
Ethylbenzene	U		0.0011	0.0050	mg/L	1	2/13/2012 16:21

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 16-Feb-12

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-MW61A-20120207
Collection Date: 2/7/2012 01:30 PM

Work Order: 1202263
Lab ID: 1202263-10
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
Methylenechloride	U		0.0013	0.010	mg/L	1	2/13/2012 16:21
Toluene	U		0.0010	0.0050	mg/L	1	2/13/2012 16:21
Vinylchloride	U		0.0010	0.0020	mg/L	1	2/13/2012 16:21
Xylenes, Total	U		0.0031	0.015	mg/L	1	2/13/2012 16:21
<i>Surr: 1,2-Dichloroethane-d4</i>	101			70-125	%REC	1	2/13/2012 16:21
<i>Surr: 4-Bromofluorobenzene</i>	97.9			72-125	%REC	1	2/13/2012 16:21
<i>Surr: Dibromofluoromethane</i>	97.4			71-125	%REC	1	2/13/2012 16:21
<i>Surr: Toluene-d8</i>	98.9			75-125	%REC	1	2/13/2012 16:21

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 16-Feb-12

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-MW36A-20120207
Collection Date: 2/7/2012 03:00 PM

Work Order: 1202263
Lab ID: 1202263-11
Matrix: WATER

Analyses	Result	Qual	SDL	ML	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270	Prep: SW3510 / 2/9/12	Analyst: ACN		
1,2-Diphenylhydrazine	U		0.000050	0.00020	mg/L	1	2/13/2012 19:50
2,4-Dimethylphenol	U		0.000050	0.00020	mg/L	1	2/13/2012 19:50
2,4-Dinitrotoluene	U		0.000050	0.00020	mg/L	1	2/13/2012 19:50
2,6-Dinitrotoluene	U		0.000060	0.00020	mg/L	1	2/13/2012 19:50
2-Chloronaphthalene	U		0.000050	0.00020	mg/L	1	2/13/2012 19:50
2-Methylnaphthalene	U		0.000050	0.00020	mg/L	1	2/13/2012 19:50
4,6-Dinitro-2-methylphenol	U		0.000080	0.00020	mg/L	1	2/13/2012 19:50
4-Nitrophenol	U		0.000050	0.0010	mg/L	1	2/13/2012 19:50
Acenaphthene	U		0.000050	0.00020	mg/L	1	2/13/2012 19:50
Acenaphthylene	U		0.000050	0.00020	mg/L	1	2/13/2012 19:50
Anthracene	U		0.000050	0.00020	mg/L	1	2/13/2012 19:50
Benz(a)anthracene	U		0.000050	0.00020	mg/L	1	2/13/2012 19:50
Benzo(a)pyrene	U		0.000050	0.00020	mg/L	1	2/13/2012 19:50
Bis(2-chloroethoxy)methane	U		0.000050	0.00020	mg/L	1	2/13/2012 19:50
Bis(2-ethylhexyl)phthalate	0.0025		0.00010	0.00020	mg/L	1	2/13/2012 19:50
Chrysene	U		0.000050	0.00020	mg/L	1	2/13/2012 19:50
Dibenzofuran	U		0.000050	0.00020	mg/L	1	2/13/2012 19:50
Di-n-butylphthalate	U		0.000050	0.00020	mg/L	1	2/13/2012 19:50
Fluoranthene	U		0.000050	0.00020	mg/L	1	2/13/2012 19:50
Fluorene	U		0.000050	0.00020	mg/L	1	2/13/2012 19:50
Naphthalene	U		0.000050	0.00020	mg/L	1	2/13/2012 19:50
Nitrobenzene	U		0.000050	0.00020	mg/L	1	2/13/2012 19:50
N-Nitrosodiphenylamine	U		0.000050	0.00020	mg/L	1	2/13/2012 19:50
Pentachlorophenol	U		0.000050	0.00020	mg/L	1	2/13/2012 19:50
Phenanthrene	U		0.000050	0.00020	mg/L	1	2/13/2012 19:50
Phenol	U		0.000050	0.00020	mg/L	1	2/13/2012 19:50
Pyrene	U		0.000050	0.00020	mg/L	1	2/13/2012 19:50
Surr: 2,4,6-Tribromophenol	50.5			34-129	%REC	1	2/13/2012 19:50
Surr: 2-Fluorobiphenyl	50.0			40-125	%REC	1	2/13/2012 19:50
Surr: 2-Fluorophenol	44.1			20-120	%REC	1	2/13/2012 19:50
Surr: 4-Terphenyl-d14	70.6			40-135	%REC	1	2/13/2012 19:50
Surr: Nitrobenzene-d5	49.9			41-120	%REC	1	2/13/2012 19:50
Surr: Phenol-d6	51.2			20-120	%REC	1	2/13/2012 19:50
VOLATILES			Method: SW8260	Analyst: AKP			
1,2-Dichloroethane	U		0.0010	0.0050	mg/L	1	2/13/2012 19:33
Benzene	U		0.0010	0.0050	mg/L	1	2/13/2012 19:33
Chlorobenzene	U		0.0010	0.0050	mg/L	1	2/13/2012 19:33
Ethylbenzene	U		0.0011	0.0050	mg/L	1	2/13/2012 19:33

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 16-Feb-12

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-MW36A-20120207
Collection Date: 2/7/2012 03:00 PM

Work Order: 1202263
Lab ID: 1202263-11
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
Methylenechloride	U		0.0013	0.010	mg/L	1	2/13/2012 19:33
Toluene	U		0.0010	0.0050	mg/L	1	2/13/2012 19:33
Vinylchloride	U		0.0010	0.0020	mg/L	1	2/13/2012 19:33
Xylenes, Total	U		0.0031	0.015	mg/L	1	2/13/2012 19:33
<i>Surr: 1,2-Dichloroethane-d4</i>	121			70-125	%REC	1	2/13/2012 19:33
<i>Surr: 4-Bromofluorobenzene</i>	104			72-125	%REC	1	2/13/2012 19:33
<i>Surr: Dibromofluoromethane</i>	105			71-125	%REC	1	2/13/2012 19:33
<i>Surr: Toluene-d8</i>	100			75-125	%REC	1	2/13/2012 19:33

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 16-Feb-12

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-MW64A-20120208
Collection Date: 2/8/2012 11:35 AM

Work Order: 1202263
Lab ID: 1202263-12
Matrix: WATER

Analyses	Result	Qual	SDL	ML	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270	Prep: SW3510 / 2/11/12		Analyst: LG	
1,2-Diphenylhydrazine	U		0.000050	0.00020	mg/L	1	2/11/2012 19:27
2,4-Dimethylphenol	U		0.000050	0.00020	mg/L	1	2/11/2012 19:27
2,4-Dinitrotoluene	U		0.000050	0.00020	mg/L	1	2/11/2012 19:27
2,6-Dinitrotoluene	U		0.000060	0.00020	mg/L	1	2/11/2012 19:27
2-Chloronaphthalene	U		0.000050	0.00020	mg/L	1	2/11/2012 19:27
2-Methylnaphthalene	0.000053	J	0.000050	0.00020	mg/L	1	2/11/2012 19:27
4,6-Dinitro-2-methylphenol	U		0.000080	0.00020	mg/L	1	2/11/2012 19:27
4-Nitrophenol	U		0.000050	0.0010	mg/L	1	2/11/2012 19:27
Acenaphthene	0.0096		0.000050	0.00020	mg/L	1	2/11/2012 19:27
Acenaphthylene	0.00050		0.000050	0.00020	mg/L	1	2/11/2012 19:27
Anthracene	U		0.000050	0.00020	mg/L	1	2/11/2012 19:27
Benz(a)anthracene	U		0.000050	0.00020	mg/L	1	2/11/2012 19:27
Benzo(a)pyrene	U		0.000050	0.00020	mg/L	1	2/11/2012 19:27
Bis(2-chloroethoxy)methane	U		0.000050	0.00020	mg/L	1	2/11/2012 19:27
Bis(2-ethylhexyl)phthalate	0.00013	J	0.00010	0.00020	mg/L	1	2/11/2012 19:27
Chrysene	U		0.000050	0.00020	mg/L	1	2/11/2012 19:27
Dibenzofuran	U		0.000050	0.00020	mg/L	1	2/11/2012 19:27
Di-n-butylphthalate	U		0.000050	0.00020	mg/L	1	2/11/2012 19:27
Fluoranthene	0.00021		0.000050	0.00020	mg/L	1	2/11/2012 19:27
Fluorene	0.00012	J	0.000050	0.00020	mg/L	1	2/11/2012 19:27
Naphthalene	0.00063		0.000050	0.00020	mg/L	1	2/11/2012 19:27
Nitrobenzene	U		0.000050	0.00020	mg/L	1	2/11/2012 19:27
N-Nitrosodiphenylamine	U		0.000050	0.00020	mg/L	1	2/11/2012 19:27
Pentachlorophenol	U		0.000050	0.00020	mg/L	1	2/11/2012 19:27
Phenanthrene	U		0.000050	0.00020	mg/L	1	2/11/2012 19:27
Phenol	U		0.000050	0.00020	mg/L	1	2/11/2012 19:27
Pyrene	0.00013	J	0.000050	0.00020	mg/L	1	2/11/2012 19:27
Surr: 2,4,6-Tribromophenol	70.4			34-129	%REC	1	2/11/2012 19:27
Surr: 2-Fluorobiphenyl	55.8			40-125	%REC	1	2/11/2012 19:27
Surr: 2-Fluorophenol	73.6			20-120	%REC	1	2/11/2012 19:27
Surr: 4-Terphenyl-d14	64.5			40-135	%REC	1	2/11/2012 19:27
Surr: Nitrobenzene-d5	63.4			41-120	%REC	1	2/11/2012 19:27
Surr: Phenol-d6	49.6			20-120	%REC	1	2/11/2012 19:27
VOLATILES			Method: SW8260	Analyst: AKP			
1,2-Dichloroethane	U		0.0010	0.0050	mg/L	1	2/13/2012 19:58
Benzene	U		0.0010	0.0050	mg/L	1	2/13/2012 19:58
Chlorobenzene	U		0.0010	0.0050	mg/L	1	2/13/2012 19:58
Ethylbenzene	U		0.0011	0.0050	mg/L	1	2/13/2012 19:58

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 16-Feb-12

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-MW64A-20120208
Collection Date: 2/8/2012 11:35 AM

Work Order: 1202263
Lab ID: 1202263-12
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
Methylenechloride	U		0.0013	0.010	mg/L	1	2/13/2012 19:58
Toluene	U		0.0010	0.0050	mg/L	1	2/13/2012 19:58
Xylenes, Total	U		0.0031	0.015	mg/L	1	2/13/2012 19:58
<i>Surr: 1,2-Dichloroethane-d4</i>	123			70-125	%REC	1	2/13/2012 19:58
<i>Surr: 4-Bromofluorobenzene</i>	105			72-125	%REC	1	2/13/2012 19:58
<i>Surr: Dibromofluoromethane</i>	106			71-125	%REC	1	2/13/2012 19:58
<i>Surr: Toluene-d8</i>	101			75-125	%REC	1	2/13/2012 19:58

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 16-Feb-12

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-MW62B-20120208
Collection Date: 2/8/2012 12:40 PM

Work Order: 1202263
Lab ID: 1202263-13
Matrix: WATER

Analyses	Result	Qual	SDL	ML	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270	Prep: SW3510 / 2/11/12	Analyst: LG		
1,2-Diphenylhydrazine	U		0.000050	0.00020	mg/L	1	2/11/2012 22:10
2,4-Dimethylphenol	U		0.000050	0.00020	mg/L	1	2/11/2012 22:10
2,4-Dinitrotoluene	U		0.000050	0.00020	mg/L	1	2/11/2012 22:10
2,6-Dinitrotoluene	U		0.000060	0.00020	mg/L	1	2/11/2012 22:10
2-Chloronaphthalene	U		0.000050	0.00020	mg/L	1	2/11/2012 22:10
2-Methylnaphthalene	U		0.000050	0.00020	mg/L	1	2/11/2012 22:10
4,6-Dinitro-2-methylphenol	U		0.000080	0.00020	mg/L	1	2/11/2012 22:10
4-Nitrophenol	U		0.000050	0.0010	mg/L	1	2/11/2012 22:10
Acenaphthene	0.026		0.00025	0.0010	mg/L	5	2/14/2012 02:19
Acenaphthylene	0.0013		0.000050	0.00020	mg/L	1	2/11/2012 22:10
Anthracene	U		0.000050	0.00020	mg/L	1	2/11/2012 22:10
Benz(a)anthracene	U		0.000050	0.00020	mg/L	1	2/11/2012 22:10
Benzo(a)pyrene	U		0.000050	0.00020	mg/L	1	2/11/2012 22:10
Bis(2-chloroethoxy)methane	U		0.000050	0.00020	mg/L	1	2/11/2012 22:10
Bis(2-ethylhexyl)phthalate	0.00029		0.00010	0.00020	mg/L	1	2/11/2012 22:10
Chrysene	U		0.000050	0.00020	mg/L	1	2/11/2012 22:10
Dibenzofuran	0.00012	J	0.000050	0.00020	mg/L	1	2/11/2012 22:10
Di-n-butylphthalate	U		0.000050	0.00020	mg/L	1	2/11/2012 22:10
Fluoranthene	0.00053		0.000050	0.00020	mg/L	1	2/11/2012 22:10
Fluorene	0.00020		0.000050	0.00020	mg/L	1	2/11/2012 22:10
Naphthalene	0.00021		0.000050	0.00020	mg/L	1	2/11/2012 22:10
Nitrobenzene	U		0.000050	0.00020	mg/L	1	2/11/2012 22:10
N-Nitrosodiphenylamine	U		0.000050	0.00020	mg/L	1	2/11/2012 22:10
Pentachlorophenol	U		0.000050	0.00020	mg/L	1	2/11/2012 22:10
Phenanthrene	0.00014	J	0.000050	0.00020	mg/L	1	2/11/2012 22:10
Phenol	0.000053	J	0.000050	0.00020	mg/L	1	2/11/2012 22:10
Pyrene	0.00037		0.000050	0.00020	mg/L	1	2/11/2012 22:10
Surr: 2,4,6-Tribromophenol	74.7			34-129	%REC	1	2/11/2012 22:10
Surr: 2,4,6-Tribromophenol	94.2			34-129	%REC	5	2/14/2012 02:19
Surr: 2-Fluorobiphenyl	57.0			40-125	%REC	1	2/11/2012 22:10
Surr: 2-Fluorobiphenyl	75.9			40-125	%REC	5	2/14/2012 02:19
Surr: 2-Fluorophenol	45.2			20-120	%REC	1	2/11/2012 22:10
Surr: 2-Fluorophenol	55.8			20-120	%REC	5	2/14/2012 02:19
Surr: 4-Terphenyl-d14	80.0			40-135	%REC	1	2/11/2012 22:10
Surr: 4-Terphenyl-d14	95.2			40-135	%REC	5	2/14/2012 02:19
Surr: Nitrobenzene-d5	74.4			41-120	%REC	1	2/11/2012 22:10
Surr: Nitrobenzene-d5	68.8			41-120	%REC	5	2/14/2012 02:19
Surr: Phenol-d6	28.6			20-120	%REC	1	2/11/2012 22:10

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 16-Feb-12

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-MW62B-20120208
Collection Date: 2/8/2012 12:40 PM

Work Order: 1202263
Lab ID: 1202263-13
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
Surr: Phenol-d6	65.2			20-120	%REC	5	2/14/2012 02:19
VOLATILES		Method: SW8260				Analyst: AKP	
1,2-Dichloroethane		U	0.0010	0.0050	mg/L	1	2/13/2012 20:22
Benzene		U	0.0010	0.0050	mg/L	1	2/13/2012 20:22
Chlorobenzene		U	0.0010	0.0050	mg/L	1	2/13/2012 20:22
Ethylbenzene		U	0.0011	0.0050	mg/L	1	2/13/2012 20:22
Methylenechloride		U	0.0013	0.010	mg/L	1	2/13/2012 20:22
Toluene		U	0.0010	0.0050	mg/L	1	2/13/2012 20:22
Xylenes, Total		U	0.0031	0.015	mg/L	1	2/13/2012 20:22
Surr: 1,2-Dichloroethane-d4	123			70-125	%REC	1	2/13/2012 20:22
Surr: 4-Bromofluorobenzene	106			72-125	%REC	1	2/13/2012 20:22
Surr: Dibromofluoromethane	105			71-125	%REC	1	2/13/2012 20:22
Surr: Toluene-d8	102			75-125	%REC	1	2/13/2012 20:22

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 16-Feb-12

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-MW19C-20120208
Collection Date: 2/8/2012 01:30 PM

Work Order: 1202263
Lab ID: 1202263-14
Matrix: WATER

Analyses	Result	Qual	SDL	ML	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES		Method: SW8270		Prep: SW3510 / 2/11/12		Analyst: LG	
1,2-Diphenylhydrazine	U		0.000050	0.00020	mg/L	1	2/13/2012 20:10
2,4-Dimethylphenol	U		0.000050	0.00020	mg/L	1	2/13/2012 20:10
2,4-Dinitrotoluene	U		0.000050	0.00020	mg/L	1	2/13/2012 20:10
2,6-Dinitrotoluene	U		0.000060	0.00020	mg/L	1	2/13/2012 20:10
2-Chloronaphthalene	U		0.000050	0.00020	mg/L	1	2/13/2012 20:10
2-Methylnaphthalene	U		0.000050	0.00020	mg/L	1	2/13/2012 20:10
4,6-Dinitro-2-methylphenol	U		0.000080	0.00020	mg/L	1	2/13/2012 20:10
4-Nitrophenol	U		0.000050	0.0010	mg/L	1	2/13/2012 20:10
Acenaphthene	0.0012		0.000050	0.00020	mg/L	1	2/13/2012 20:10
Acenaphthylene	U		0.000050	0.00020	mg/L	1	2/13/2012 20:10
Anthracene	U		0.000050	0.00020	mg/L	1	2/13/2012 20:10
Benz(a)anthracene	U		0.000050	0.00020	mg/L	1	2/13/2012 20:10
Benzo(a)pyrene	U		0.000050	0.00020	mg/L	1	2/13/2012 20:10
Bis(2-chloroethoxy)methane	U		0.000050	0.00020	mg/L	1	2/13/2012 20:10
Bis(2-ethylhexyl)phthalate	0.00022		0.00010	0.00020	mg/L	1	2/13/2012 20:10
Chrysene	U		0.000050	0.00020	mg/L	1	2/13/2012 20:10
Dibenzofuran	0.00014	J	0.000050	0.00020	mg/L	1	2/13/2012 20:10
Di-n-butylphthalate	U		0.000050	0.00020	mg/L	1	2/13/2012 20:10
Fluoranthene	U		0.000050	0.00020	mg/L	1	2/13/2012 20:10
Fluorene	U		0.000050	0.00020	mg/L	1	2/13/2012 20:10
Naphthalene	0.00077		0.000050	0.00020	mg/L	1	2/13/2012 20:10
Nitrobenzene	U		0.000050	0.00020	mg/L	1	2/13/2012 20:10
N-Nitrosodiphenylamine	U		0.000050	0.00020	mg/L	1	2/13/2012 20:10
Pentachlorophenol	U		0.000050	0.00020	mg/L	1	2/13/2012 20:10
Phenanthrene	U		0.000050	0.00020	mg/L	1	2/13/2012 20:10
Phenol	U		0.000050	0.00020	mg/L	1	2/13/2012 20:10
Pyrene	U		0.000050	0.00020	mg/L	1	2/13/2012 20:10
Surr: 2,4,6-Tribromophenol	66.0			34-129	%REC	1	2/13/2012 20:10
Surr: 2-Fluorobiphenyl	59.9			40-125	%REC	1	2/13/2012 20:10
Surr: 2-Fluorophenol	51.3			20-120	%REC	1	2/13/2012 20:10
Surr: 4-Terphenyl-d14	69.1			40-135	%REC	1	2/13/2012 20:10
Surr: Nitrobenzene-d5	62.3			41-120	%REC	1	2/13/2012 20:10
Surr: Phenol-d6	50.9			20-120	%REC	1	2/13/2012 20:10
VOLATILES		Method: SW8260		Analyst: AKP			
1,2-Dichloroethane	U		0.0010	0.0050	mg/L	1	2/13/2012 20:46
Benzene	0.0050		0.0010	0.0050	mg/L	1	2/13/2012 20:46
Chlorobenzene	U		0.0010	0.0050	mg/L	1	2/13/2012 20:46
Ethylbenzene	0.0031	J	0.0011	0.0050	mg/L	1	2/13/2012 20:46

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 16-Feb-12

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-MW19C-20120208
Collection Date: 2/8/2012 01:30 PM

Work Order: 1202263
Lab ID: 1202263-14
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
Methylenechloride		U	0.0013	0.010	mg/L	1	2/13/2012 20:46
Toluene	0.0085		0.0010	0.0050	mg/L	1	2/13/2012 20:46
Vinyl chloride		U	0.0010	0.0020	mg/L	1	2/13/2012 20:46
Xylenes, Total	0.0063	J	0.0031	0.015	mg/L	1	2/13/2012 20:46
Surr: 1,2-Dichloroethane-d4	123			70-125	%REC	1	2/13/2012 20:46
Surr: 4-Bromofluorobenzene	107			72-125	%REC	1	2/13/2012 20:46
Surr: Dibromofluoromethane	106			71-125	%REC	1	2/13/2012 20:46
Surr: Toluene-d8	100			75-125	%REC	1	2/13/2012 20:46

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 16-Feb-12

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-MW69A-20120208
Collection Date: 2/8/2012 02:20 PM

Work Order: 1202263
Lab ID: 1202263-15
Matrix: WATER

Analyses	Result	Qual	SDL	ML	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270	Prep: SW3510 / 2/11/12	Analyst: LG		
1,2-Diphenylhydrazine	U		0.000050	0.00020	mg/L	1	2/13/2012 20:31
2,4-Dimethylphenol	U		0.000050	0.00020	mg/L	1	2/13/2012 20:31
2,4-Dinitrotoluene	U		0.000050	0.00020	mg/L	1	2/13/2012 20:31
2,6-Dinitrotoluene	U		0.000060	0.00020	mg/L	1	2/13/2012 20:31
2-Chloronaphthalene	U		0.000050	0.00020	mg/L	1	2/13/2012 20:31
2-Methylnaphthalene	U		0.000050	0.00020	mg/L	1	2/13/2012 20:31
4,6-Dinitro-2-methylphenol	U		0.000080	0.00020	mg/L	1	2/13/2012 20:31
4-Nitrophenol	U		0.000050	0.0010	mg/L	1	2/13/2012 20:31
Acenaphthene	U		0.000050	0.00020	mg/L	1	2/13/2012 20:31
Acenaphthylene	U		0.000050	0.00020	mg/L	1	2/13/2012 20:31
Anthracene	U		0.000050	0.00020	mg/L	1	2/13/2012 20:31
Benz(a)anthracene	U		0.000050	0.00020	mg/L	1	2/13/2012 20:31
Benzo(a)pyrene	U		0.000050	0.00020	mg/L	1	2/13/2012 20:31
Bis(2-chloroethoxy)methane	U		0.000050	0.00020	mg/L	1	2/13/2012 20:31
Bis(2-ethylhexyl)phthalate	0.00018	J	0.00010	0.00020	mg/L	1	2/13/2012 20:31
Chrysene	U		0.000050	0.00020	mg/L	1	2/13/2012 20:31
Dibenzofuran	U		0.000050	0.00020	mg/L	1	2/13/2012 20:31
Di-n-butylphthalate	U		0.000050	0.00020	mg/L	1	2/13/2012 20:31
Fluoranthene	U		0.000050	0.00020	mg/L	1	2/13/2012 20:31
Fluorene	U		0.000050	0.00020	mg/L	1	2/13/2012 20:31
Naphthalene	0.00029		0.000050	0.00020	mg/L	1	2/13/2012 20:31
Nitrobenzene	U		0.000050	0.00020	mg/L	1	2/13/2012 20:31
N-Nitrosodiphenylamine	U		0.000050	0.00020	mg/L	1	2/13/2012 20:31
Pentachlorophenol	U		0.000050	0.00020	mg/L	1	2/13/2012 20:31
Phenanthrene	U		0.000050	0.00020	mg/L	1	2/13/2012 20:31
Phenol	U		0.000050	0.00020	mg/L	1	2/13/2012 20:31
Pyrene	U		0.000050	0.00020	mg/L	1	2/13/2012 20:31
Surr: 2,4,6-Tribromophenol	59.4			34-129	%REC	1	2/13/2012 20:31
Surr: 2-Fluorobiphenyl	53.3			40-125	%REC	1	2/13/2012 20:31
Surr: 2-Fluorophenol	43.2			20-120	%REC	1	2/13/2012 20:31
Surr: 4-Terphenyl-d14	69.6			40-135	%REC	1	2/13/2012 20:31
Surr: Nitrobenzene-d5	56.0			41-120	%REC	1	2/13/2012 20:31
Surr: Phenol-d6	51.7			20-120	%REC	1	2/13/2012 20:31
VOLATILES			Method: SW8260	Analyst: AKP			
1,2-Dichloroethane	U		0.0010	0.0050	mg/L	1	2/13/2012 19:09
Benzene	U		0.0010	0.0050	mg/L	1	2/13/2012 19:09
Chlorobenzene	U		0.0010	0.0050	mg/L	1	2/13/2012 19:09
Ethylbenzene	U		0.0011	0.0050	mg/L	1	2/13/2012 19:09

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 16-Feb-12

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-MW69A-20120208
Collection Date: 2/8/2012 02:20 PM

Work Order: 1202263
Lab ID: 1202263-15
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
Methylenechloride	U		0.0013	0.010	mg/L	1	2/13/2012 19:09
Toluene	U		0.0010	0.0050	mg/L	1	2/13/2012 19:09
Vinylchloride	U		0.0010	0.0020	mg/L	1	2/13/2012 19:09
Xylenes, Total	U		0.0031	0.015	mg/L	1	2/13/2012 19:09
<i>Surr: 1,2-Dichloroethane-d4</i>	120			70-125	%REC	1	2/13/2012 19:09
<i>Surr: 4-Bromofluorobenzene</i>	105			72-125	%REC	1	2/13/2012 19:09
<i>Surr: Dibromofluoromethane</i>	105			71-125	%REC	1	2/13/2012 19:09
<i>Surr: Toluene-d8</i>	101			75-125	%REC	1	2/13/2012 19:09

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 16-Feb-12

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-MW75B-20120208
Collection Date: 2/8/2012 03:50 PM

Work Order: 1202263
Lab ID: 1202263-16
Matrix: WATER

Analyses	Result	Qual	SDL	ML	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270	Prep: SW3510 / 2/11/12		Analyst: LG	
1,2-Diphenylhydrazine		U	0.00050	0.0020	mg/L	10	2/14/2012 00:16
2,4-Dimethylphenol	0.18		0.0050	0.020	mg/L	100	2/14/2012 00:37
2,4-Dinitrotoluene		U	0.00050	0.0020	mg/L	10	2/14/2012 00:16
2,6-Dinitrotoluene		U	0.00060	0.0020	mg/L	10	2/14/2012 00:16
2-Chloronaphthalene		U	0.00050	0.0020	mg/L	10	2/14/2012 00:16
2-Methylnaphthalene	0.62		0.0050	0.020	mg/L	100	2/14/2012 00:37
4,6-Dinitro-2-methylphenol		U	0.00080	0.0020	mg/L	10	2/14/2012 00:16
4-Nitrophenol		U	0.00050	0.010	mg/L	10	2/14/2012 00:16
Acenaphthene	0.34		0.0050	0.020	mg/L	100	2/14/2012 00:37
Acenaphthylene	0.013		0.00050	0.0020	mg/L	10	2/14/2012 00:16
Anthracene	0.035		0.00050	0.0020	mg/L	10	2/14/2012 00:16
Benz(a)anthracene	0.00064	J	0.00050	0.0020	mg/L	10	2/14/2012 00:16
Benzo(a)pyrene		U	0.00050	0.0020	mg/L	10	2/14/2012 00:16
Bis(2-chloroethoxy)methane		U	0.00050	0.0020	mg/L	10	2/14/2012 00:16
Bis(2-ethylhexyl)phthalate		U	0.0010	0.0020	mg/L	10	2/14/2012 00:16
Chrysene	0.00062	J	0.00050	0.0020	mg/L	10	2/14/2012 00:16
Dibenzofuran	0.29		0.0050	0.020	mg/L	100	2/14/2012 00:37
Di-n-butylphthalate		U	0.00050	0.0020	mg/L	10	2/14/2012 00:16
Fluoranthene	0.016		0.00050	0.0020	mg/L	10	2/14/2012 00:16
Fluorene	0.19		0.0050	0.020	mg/L	100	2/14/2012 00:37
Naphthalene	8.9		0.050	0.20	mg/L	1000	2/14/2012 04:42
Nitrobenzene		U	0.00050	0.0020	mg/L	10	2/14/2012 00:16
N-Nitrosodiphenylamine		U	0.00050	0.0020	mg/L	10	2/14/2012 00:16
Pentachlorophenol		U	0.00050	0.0020	mg/L	10	2/14/2012 00:16
Phenanthrene	0.24		0.0050	0.020	mg/L	100	2/14/2012 00:37
Phenol	0.0066		0.00050	0.0020	mg/L	10	2/14/2012 00:16
Pyrene	0.0098		0.00050	0.0020	mg/L	10	2/14/2012 00:16
Surr:2,4,6-Tribromophenol	86.0			34-129	%REC	10	2/14/2012 00:16
Surr:2,4,6-Tribromophenol	68.6	J		34-129	%REC	100	2/14/2012 00:37
Surr:2,4,6-Tribromophenol	0	S		34-129	%REC	1000	2/14/2012 04:42
Surr:2-Fluorobiphenyl	72.5			40-125	%REC	10	2/14/2012 00:16
Surr:2-Fluorobiphenyl	101	J		40-125	%REC	100	2/14/2012 00:37
Surr:2-Fluorobiphenyl	0	S		40-125	%REC	1000	2/14/2012 04:42
Surr:2-Fluorophenol	89.8			20-120	%REC	10	2/14/2012 00:16
Surr:2-Fluorophenol	95.7	J		20-120	%REC	100	2/14/2012 00:37
Surr:2-Fluorophenol	0	S		20-120	%REC	1000	2/14/2012 04:42
Surr:4-Terphenyl-d14	88.0			40-135	%REC	10	2/14/2012 00:16
Surr:4-Terphenyl-d14	84.0	J		40-135	%REC	100	2/14/2012 00:37

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 16-Feb-12

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-MW75B-20120208
Collection Date: 2/8/2012 03:50 PM

Work Order: 1202263
Lab ID: 1202263-16
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
Surr: 4-Terphenyl-d14	0	S		40-135	%REC	1000	2/14/2012 04:42
Surr: Nitrobenzene-d5	56.4			41-120	%REC	10	2/14/2012 00:16
Surr: Nitrobenzene-d5	96.7	J		41-120	%REC	100	2/14/2012 00:37
Surr: Nitrobenzene-d5	0	S		41-120	%REC	1000	2/14/2012 04:42
Surr: Phenol-d6	66.2			20-120	%REC	10	2/14/2012 00:16
Surr: Phenol-d6	35.1	J		20-120	%REC	100	2/14/2012 00:37
Surr: Phenol-d6	0	S		20-120	%REC	1000	2/14/2012 04:42

VOLATILES		Method: SW8260				Analyst: AKP	
1,2-Dichloroethane	U	0.010	0.050	mg/L	10	2/14/2012 14:44	
Benzene	0.61	0.010	0.050	mg/L	10	2/14/2012 14:44	
Chlorobenzene	U	0.010	0.050	mg/L	10	2/14/2012 14:44	
Ethylbenzene	0.13	0.011	0.050	mg/L	10	2/14/2012 14:44	
Methylenechloride	U	0.013	0.10	mg/L	10	2/14/2012 14:44	
Toluene	0.51	0.010	0.050	mg/L	10	2/14/2012 14:44	
Xylenes, Total	0.41	0.031	0.15	mg/L	10	2/14/2012 14:44	
Surr: 1,2-Dichloroethane-d4	105		70-125	%REC	10	2/14/2012 14:44	
Surr: 4-Bromofluorobenzene	103		72-125	%REC	10	2/14/2012 14:44	
Surr: Dibromofluoromethane	100		71-125	%REC	10	2/14/2012 14:44	
Surr: Toluene-d8	97.4		75-125	%REC	10	2/14/2012 14:44	

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 16-Feb-12

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-MW74B-20120209
Collection Date: 2/9/2012 07:00 AM

Work Order: 1202263
Lab ID: 1202263-17
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270	Prep: SW3510 / 2/11/12		Analyst: LG	
1,2-Diphenylhydrazine	U		0.00050	0.0020	mg/L	10	2/11/2012 23:32
2,4-Dimethylphenol	55		0.50	2.0	mg/L	10000	2/14/2012 21:03
2,4-Dinitrotoluene	U		0.00050	0.0020	mg/L	10	2/11/2012 23:32
2,6-Dinitrotoluene	U		0.00060	0.0020	mg/L	10	2/11/2012 23:32
2-Chloronaphthalene	U		0.00050	0.0020	mg/L	10	2/11/2012 23:32
2-Methylnaphthalene	0.39		0.0050	0.020	mg/L	100	2/14/2012 00:57
4,6-Dinitro-2-methylphenol	U		0.00080	0.0020	mg/L	10	2/11/2012 23:32
4-Nitrophenol	U		0.00050	0.010	mg/L	10	2/11/2012 23:32
Acenaphthene	0.29		0.0050	0.020	mg/L	100	2/14/2012 00:57
Acenaphthylene	0.0058		0.00050	0.0020	mg/L	10	2/11/2012 23:32
Anthracene	0.037		0.00050	0.0020	mg/L	10	2/11/2012 23:32
Benz(a)anthracene	U		0.00050	0.0020	mg/L	10	2/11/2012 23:32
Benzo(a)pyrene	U		0.00050	0.0020	mg/L	10	2/11/2012 23:32
Bis(2-chloroethoxy)methane	U		0.00050	0.0020	mg/L	10	2/11/2012 23:32
Bis(2-ethylhexyl)phthalate	U		0.0010	0.0020	mg/L	10	2/11/2012 23:32
Chrysene	U		0.00050	0.0020	mg/L	10	2/11/2012 23:32
Dibenzofuran	0.25		0.0050	0.020	mg/L	100	2/14/2012 00:57
Di-n-butylphthalate	U		0.00050	0.0020	mg/L	10	2/11/2012 23:32
Fluoranthene	0.0044		0.00050	0.0020	mg/L	10	2/11/2012 23:32
Fluorene	0.17		0.0050	0.020	mg/L	100	2/14/2012 00:57
Naphthalene	16		0.50	2.0	mg/L	10000	2/14/2012 21:03
Nitrobenzene	U		0.00050	0.0020	mg/L	10	2/11/2012 23:32
N-Nitrosodiphenylamine	U		0.00050	0.0020	mg/L	10	2/11/2012 23:32
Pentachlorophenol	U		0.00050	0.0020	mg/L	10	2/11/2012 23:32
Phenanthrene	0.15		0.0050	0.020	mg/L	100	2/14/2012 00:57
Phenol	43		0.50	2.0	mg/L	10000	2/14/2012 21:03
Pyrene	0.0050		0.00050	0.0020	mg/L	10	2/11/2012 23:32
Surr: 2,4,6-Tribromophenol	76.1			34-129	%REC	10	2/11/2012 23:32
Surr: 2,4,6-Tribromophenol	86.6	J		34-129	%REC	100	2/14/2012 00:57
Surr: 2,4,6-Tribromophenol	0	S		34-129	%REC	10000	2/14/2012 21:03
Surr: 2-Fluorobiphenyl	91.0			40-125	%REC	10	2/11/2012 23:32
Surr: 2-Fluorobiphenyl	80.5	J		40-125	%REC	100	2/14/2012 00:57
Surr: 2-Fluorobiphenyl	0	S		40-125	%REC	10000	2/14/2012 21:03
Surr: 2-Fluorophenol	102			20-120	%REC	10	2/11/2012 23:32
Surr: 2-Fluorophenol	80.2	J		20-120	%REC	100	2/14/2012 00:57
Surr: 2-Fluorophenol	0	S		20-120	%REC	10000	2/14/2012 21:03
Surr: 4-Terphenyl-d14	96.0			40-135	%REC	10	2/11/2012 23:32
Surr: 4-Terphenyl-d14	104	J		40-135	%REC	100	2/14/2012 00:57

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 16-Feb-12

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-MW74B-20120209
Collection Date: 2/9/2012 07:00 AM

Work Order: 1202263
Lab ID: 1202263-17
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
Surr: 4-Terphenyl-d14	0	S		40-135	%REC	10000	2/14/2012 21:03
Surr: Nitrobenzene-d5	87.3			41-120	%REC	10	2/11/2012 23:32
Surr: Nitrobenzene-d5	52.9	J		41-120	%REC	100	2/14/2012 00:57
Surr: Nitrobenzene-d5	0	S		41-120	%REC	10000	2/14/2012 21:03
Surr: Phenol-d6	94.3			20-120	%REC	10	2/11/2012 23:32
Surr: Phenol-d6	84.4	J		20-120	%REC	100	2/14/2012 00:57
Surr: Phenol-d6	0	S		20-120	%REC	10000	2/14/2012 21:03

VOLATILES		Method: SW8260				Analyst: AKP	
1,2-Dichloroethane	U	0.010	0.050	mg/L	10	2/14/2012 15:08	
Benzene	0.35	0.010	0.050	mg/L	10	2/14/2012 15:08	
Chlorobenzene	U	0.010	0.050	mg/L	10	2/14/2012 15:08	
Ethylbenzene	0.086	0.011	0.050	mg/L	10	2/14/2012 15:08	
Methylenechloride	U	0.013	0.10	mg/L	10	2/14/2012 15:08	
Toluene	0.32	0.010	0.050	mg/L	10	2/14/2012 15:08	
Xylenes, Total	0.25	0.031	0.15	mg/L	10	2/14/2012 15:08	
Surr: 1,2-Dichloroethane-d4	102		70-125	%REC	10	2/14/2012 15:08	
Surr: 4-Bromofluorobenzene	101		72-125	%REC	10	2/14/2012 15:08	
Surr: Dibromofluoromethane	98.1		71-125	%REC	10	2/14/2012 15:08	
Surr: Toluene-d8	97.7		75-125	%REC	10	2/14/2012 15:08	

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 16-Feb-12

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-MW50A-20120209
Collection Date: 2/9/2012 07:45 AM

Work Order: 1202263
Lab ID: 1202263-18
Matrix: WATER

Analyses	Result	Qual	SDL	ML	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270	Prep: SW3510 / 2/11/12	Analyst: LG		
1,2-Diphenylhydrazine	U		0.000050	0.00020	mg/L	1	2/11/2012 19:48
2,4-Dimethylphenol	U		0.000050	0.00020	mg/L	1	2/11/2012 19:48
2,4-Dinitrotoluene	U		0.000050	0.00020	mg/L	1	2/11/2012 19:48
2,6-Dinitrotoluene	U		0.000060	0.00020	mg/L	1	2/11/2012 19:48
2-Chloronaphthalene	U		0.000050	0.00020	mg/L	1	2/11/2012 19:48
2-Methylnaphthalene	U		0.000050	0.00020	mg/L	1	2/11/2012 19:48
4,6-Dinitro-2-methylphenol	U		0.000080	0.00020	mg/L	1	2/11/2012 19:48
4-Nitrophenol	U		0.000050	0.0010	mg/L	1	2/11/2012 19:48
Acenaphthene	U		0.000050	0.00020	mg/L	1	2/11/2012 19:48
Acenaphthylene	U		0.000050	0.00020	mg/L	1	2/11/2012 19:48
Anthracene	U		0.000050	0.00020	mg/L	1	2/11/2012 19:48
Benz(a)anthracene	U		0.000050	0.00020	mg/L	1	2/11/2012 19:48
Benzo(a)pyrene	U		0.000050	0.00020	mg/L	1	2/11/2012 19:48
Bis(2-chloroethoxy)methane	U		0.000050	0.00020	mg/L	1	2/11/2012 19:48
Bis(2-ethylhexyl)phthalate	0.00032		0.00010	0.00020	mg/L	1	2/11/2012 19:48
Chrysene	U		0.000050	0.00020	mg/L	1	2/11/2012 19:48
Dibenzofuran	U		0.000050	0.00020	mg/L	1	2/11/2012 19:48
Di-n-butylphthalate	U		0.000050	0.00020	mg/L	1	2/11/2012 19:48
Fluoranthene	U		0.000050	0.00020	mg/L	1	2/11/2012 19:48
Fluorene	U		0.000050	0.00020	mg/L	1	2/11/2012 19:48
Naphthalene	U		0.000050	0.00020	mg/L	1	2/11/2012 19:48
Nitrobenzene	U		0.000050	0.00020	mg/L	1	2/11/2012 19:48
N-Nitrosodiphenylamine	U		0.000050	0.00020	mg/L	1	2/11/2012 19:48
Pentachlorophenol	U		0.000050	0.00020	mg/L	1	2/11/2012 19:48
Phenanthrene	U		0.000050	0.00020	mg/L	1	2/11/2012 19:48
Phenol	0.00038		0.000050	0.00020	mg/L	1	2/11/2012 19:48
Pyrene	U		0.000050	0.00020	mg/L	1	2/11/2012 19:48
Surr: 2,4,6-Tribromophenol	62.2			34-129	%REC	1	2/11/2012 19:48
Surr: 2-Fluorobiphenyl	49.8			40-125	%REC	1	2/11/2012 19:48
Surr: 2-Fluorophenol	42.3			20-120	%REC	1	2/11/2012 19:48
Surr: 4-Terphenyl-d14	57.6			40-135	%REC	1	2/11/2012 19:48
Surr: Nitrobenzene-d5	64.5			41-120	%REC	1	2/11/2012 19:48
Surr: Phenol-d6	26.6			20-120	%REC	1	2/11/2012 19:48
VOLATILES			Method: SW8260	Analyst: AKP			
1,2-Dichloroethane	U		0.0010	0.0050	mg/L	1	2/13/2012 16:45
Benzene	U		0.0010	0.0050	mg/L	1	2/13/2012 16:45
Chlorobenzene	U		0.0010	0.0050	mg/L	1	2/13/2012 16:45
Ethylbenzene	U		0.0011	0.0050	mg/L	1	2/13/2012 16:45

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 16-Feb-12

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-MW50A-20120209
Collection Date: 2/9/2012 07:45 AM

Work Order: 1202263
Lab ID: 1202263-18
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
Methylenechloride	U		0.0013	0.010	mg/L	1	2/13/2012 16:45
Toluene	U		0.0010	0.0050	mg/L	1	2/13/2012 16:45
Xylenes, Total	U		0.0031	0.015	mg/L	1	2/13/2012 16:45
Surr: 1,2-Dichloroethane-d4	103			70-125	%REC	1	2/13/2012 16:45
Surr: 4-Bromofluorobenzene	102			72-125	%REC	1	2/13/2012 16:45
Surr: Dibromofluoromethane	99.3			71-125	%REC	1	2/13/2012 16:45
Surr: Toluene-d8	101			75-125	%REC	1	2/13/2012 16:45

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 16-Feb-12

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-MW24AR-20120209
Collection Date: 2/9/2012 08:45 AM

Work Order: 1202263
Lab ID: 1202263-19
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270	Prep: SW3510 / 2/11/12		Analyst: LG	
1,2-Diphenylhydrazine		U	0.000050	0.00020	mg/L	1	2/13/2012 20:51
2,4-Dimethylphenol	0.00013	J	0.000050	0.00020	mg/L	1	2/13/2012 20:51
2,4-Dinitrotoluene		U	0.000050	0.00020	mg/L	1	2/13/2012 20:51
2,6-Dinitrotoluene		U	0.000060	0.00020	mg/L	1	2/13/2012 20:51
2-Chloronaphthalene		U	0.000050	0.00020	mg/L	1	2/13/2012 20:51
2-Methylnaphthalene		U	0.000050	0.00020	mg/L	1	2/13/2012 20:51
4,6-Dinitro-2-methylphenol		U	0.000080	0.00020	mg/L	1	2/13/2012 20:51
4-Nitrophenol		U	0.000050	0.0010	mg/L	1	2/13/2012 20:51
Acenaphthene		U	0.000050	0.00020	mg/L	1	2/13/2012 20:51
Acenaphthylene		U	0.000050	0.00020	mg/L	1	2/13/2012 20:51
Anthracene		U	0.000050	0.00020	mg/L	1	2/13/2012 20:51
Benz(a)anthracene		U	0.000050	0.00020	mg/L	1	2/13/2012 20:51
Benzo(a)pyrene		U	0.000050	0.00020	mg/L	1	2/13/2012 20:51
Bis(2-chloroethoxy)methane		U	0.000050	0.00020	mg/L	1	2/13/2012 20:51
Bis(2-ethylhexyl)phthalate	0.00048		0.00010	0.00020	mg/L	1	2/13/2012 20:51
Chrysene		U	0.000050	0.00020	mg/L	1	2/13/2012 20:51
Dibenzofuran		U	0.000050	0.00020	mg/L	1	2/13/2012 20:51
Di-n-butyl phthalate	0.00017	J	0.000050	0.00020	mg/L	1	2/13/2012 20:51
Fluoranthene	0.000069	J	0.000050	0.00020	mg/L	1	2/13/2012 20:51
Fluorene		U	0.000050	0.00020	mg/L	1	2/13/2012 20:51
Naphthalene		U	0.000050	0.00020	mg/L	1	2/13/2012 20:51
Nitrobenzene		U	0.000050	0.00020	mg/L	1	2/13/2012 20:51
N-Nitrosodiphenylamine		U	0.000050	0.00020	mg/L	1	2/13/2012 20:51
Pentachlorophenol		U	0.000050	0.00020	mg/L	1	2/13/2012 20:51
Phenanthrene		U	0.000050	0.00020	mg/L	1	2/13/2012 20:51
Phenol	0.000050	J	0.000050	0.00020	mg/L	1	2/13/2012 20:51
Pyrene	0.000067	J	0.000050	0.00020	mg/L	1	2/13/2012 20:51
Surr: 2,4,6-Tribromophenol	76.9			34-129	%REC	1	2/13/2012 20:51
Surr: 2-Fluorobiphenyl	59.2			40-125	%REC	1	2/13/2012 20:51
Surr: 2-Fluorophenol	38.3			20-120	%REC	1	2/13/2012 20:51
Surr: 4-Terphenyl-d14	77.3			40-135	%REC	1	2/13/2012 20:51
Surr: Nitrobenzene-d5	56.2			41-120	%REC	1	2/13/2012 20:51
Surr: Phenol-d6	49.9			20-120	%REC	1	2/13/2012 20:51
VOLATILES			Method: SW8260			Analyst: AKP	
1,2-Dichloroethane		U	0.0010	0.0050	mg/L	1	2/13/2012 17:09
Benzene		U	0.0010	0.0050	mg/L	1	2/13/2012 17:09
Chlorobenzene		U	0.0010	0.0050	mg/L	1	2/13/2012 17:09
Ethylbenzene		U	0.0011	0.0050	mg/L	1	2/13/2012 17:09

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 16-Feb-12

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-MW24AR-20120209
Collection Date: 2/9/2012 08:45 AM

Work Order: 1202263
Lab ID: 1202263-19
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
Methylenechloride	U		0.0013	0.010	mg/L	1	2/13/2012 17:09
Toluene	U		0.0010	0.0050	mg/L	1	2/13/2012 17:09
Xylenes, Total	U		0.0031	0.015	mg/L	1	2/13/2012 17:09
<i>Surr: 1,2-Dichloroethane-d4</i>	102			70-125	%REC	1	2/13/2012 17:09
<i>Surr: 4-Bromofluorobenzene</i>	99.8			72-125	%REC	1	2/13/2012 17:09
<i>Surr: Dibromofluoromethane</i>	97.9			71-125	%REC	1	2/13/2012 17:09
<i>Surr: Toluene-d8</i>	97.8			75-125	%REC	1	2/13/2012 17:09

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 16-Feb-12

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-MW24B-20120209
Collection Date: 2/9/2012 09:35 AM

Work Order: 1202263
Lab ID: 1202263-20
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270	Prep: SW3510 / 2/11/12		Analyst: LG	
1,2-Diphenylhydrazine	U		0.000050	0.00020	mg/L	1	2/11/2012 17:25
2,4-Dimethylphenol	U		0.000050	0.00020	mg/L	1	2/11/2012 17:25
2,4-Dinitrotoluene	U		0.000050	0.00020	mg/L	1	2/11/2012 17:25
2,6-Dinitrotoluene	U		0.000060	0.00020	mg/L	1	2/11/2012 17:25
2-Chloronaphthalene	U		0.000050	0.00020	mg/L	1	2/11/2012 17:25
2-Methylnaphthalene	U		0.000050	0.00020	mg/L	1	2/11/2012 17:25
4,6-Dinitro-2-methylphenol	U		0.000080	0.00020	mg/L	1	2/11/2012 17:25
4-Nitrophenol	U		0.000050	0.0010	mg/L	1	2/11/2012 17:25
Acenaphthene	U		0.000050	0.00020	mg/L	1	2/11/2012 17:25
Acenaphthylene	U		0.000050	0.00020	mg/L	1	2/11/2012 17:25
Anthracene	U		0.000050	0.00020	mg/L	1	2/11/2012 17:25
Benz(a)anthracene	U		0.000050	0.00020	mg/L	1	2/11/2012 17:25
Benzo(a)pyrene	U		0.000050	0.00020	mg/L	1	2/11/2012 17:25
Bis(2-chloroethoxy)methane	U		0.000050	0.00020	mg/L	1	2/11/2012 17:25
Bis(2-ethylhexyl)phthalate	0.00011	J	0.00010	0.00020	mg/L	1	2/11/2012 17:25
Chrysene	U		0.000050	0.00020	mg/L	1	2/11/2012 17:25
Dibenzofuran	U		0.000050	0.00020	mg/L	1	2/11/2012 17:25
Di-n-butylphthalate	U		0.000050	0.00020	mg/L	1	2/11/2012 17:25
Fluoranthene	U		0.000050	0.00020	mg/L	1	2/11/2012 17:25
Fluorene	U		0.000050	0.00020	mg/L	1	2/11/2012 17:25
Naphthalene	U		0.000050	0.00020	mg/L	1	2/11/2012 17:25
Nitrobenzene	U		0.000050	0.00020	mg/L	1	2/11/2012 17:25
N-Nitrosodiphenylamine	U		0.000050	0.00020	mg/L	1	2/11/2012 17:25
Pentachlorophenol	U		0.000050	0.00020	mg/L	1	2/11/2012 17:25
Phenanthrene	U		0.000050	0.00020	mg/L	1	2/11/2012 17:25
Phenol	U		0.000050	0.00020	mg/L	1	2/11/2012 17:25
Pyrene	U		0.000050	0.00020	mg/L	1	2/11/2012 17:25
Surr: 2,4,6-Tribromophenol	63.8			34-129	%REC	1	2/11/2012 17:25
Surr: 2-Fluorobiphenyl	64.3			40-125	%REC	1	2/11/2012 17:25
Surr: 2-Fluorophenol	57.8			20-120	%REC	1	2/11/2012 17:25
Surr: 4-Terphenyl-d14	70.0			40-135	%REC	1	2/11/2012 17:25
Surr: Nitrobenzene-d5	90.5			41-120	%REC	1	2/11/2012 17:25
Surr: Phenol-d6	54.4			20-120	%REC	1	2/11/2012 17:25
VOLATILES			Method: SW8260	Analyst: AKP			
1,2-Dichloroethane	U		0.0010	0.0050	mg/L	1	2/13/2012 17:34
Benzene	U		0.0010	0.0050	mg/L	1	2/13/2012 17:34
Chlorobenzene	U		0.0010	0.0050	mg/L	1	2/13/2012 17:34
Ethylbenzene	U		0.0011	0.0050	mg/L	1	2/13/2012 17:34

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 16-Feb-12

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-MW24B-20120209
Collection Date: 2/9/2012 09:35 AM

Work Order: 1202263
Lab ID: 1202263-20
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
Methylenechloride	U		0.0013	0.010	mg/L	1	2/13/2012 17:34
Toluene	U		0.0010	0.0050	mg/L	1	2/13/2012 17:34
Xylenes, Total	U		0.0031	0.015	mg/L	1	2/13/2012 17:34
<i>Surr: 1,2-Dichloroethane-d4</i>	103			70-125	%REC	1	2/13/2012 17:34
<i>Surr: 4-Bromofluorobenzene</i>	98.2			72-125	%REC	1	2/13/2012 17:34
<i>Surr: Dibromofluoromethane</i>	99.4			71-125	%REC	1	2/13/2012 17:34
<i>Surr: Toluene-d8</i>	100			75-125	%REC	1	2/13/2012 17:34

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 16-Feb-12

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-MW24C-20120209
Collection Date: 2/9/2012 10:20 AM

Work Order: 1202263
Lab ID: 1202263-21
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270	Prep: SW3510 / 2/11/12	Analyst: LG		
1,2-Diphenylhydrazine	U		0.000050	0.00020	mg/L	1	2/13/2012 18:48
2,4-Dimethylphenol	U		0.000050	0.00020	mg/L	1	2/13/2012 18:48
2,4-Dinitrotoluene	U		0.000050	0.00020	mg/L	1	2/13/2012 18:48
2,6-Dinitrotoluene	U		0.000060	0.00020	mg/L	1	2/13/2012 18:48
2-Chloronaphthalene	U		0.000050	0.00020	mg/L	1	2/13/2012 18:48
2-Methylnaphthalene	U		0.000050	0.00020	mg/L	1	2/13/2012 18:48
4,6-Dinitro-2-methylphenol	U		0.000080	0.00020	mg/L	1	2/13/2012 18:48
4-Nitrophenol	U		0.000050	0.0010	mg/L	1	2/13/2012 18:48
Acenaphthene	U		0.000050	0.00020	mg/L	1	2/13/2012 18:48
Acenaphthylene	U		0.000050	0.00020	mg/L	1	2/13/2012 18:48
Anthracene	U		0.000050	0.00020	mg/L	1	2/13/2012 18:48
Benz(a)anthracene	U		0.000050	0.00020	mg/L	1	2/13/2012 18:48
Benzo(a)pyrene	U		0.000050	0.00020	mg/L	1	2/13/2012 18:48
Bis(2-chloroethoxy)methane	U		0.000050	0.00020	mg/L	1	2/13/2012 18:48
Bis(2-ethylhexyl)phthalate	0.0013		0.00010	0.00020	mg/L	1	2/13/2012 18:48
Chrysene	U		0.000050	0.00020	mg/L	1	2/13/2012 18:48
Dibenzofuran	U		0.000050	0.00020	mg/L	1	2/13/2012 18:48
Di-n-butylphthalate	U		0.000050	0.00020	mg/L	1	2/13/2012 18:48
Fluoranthene	U		0.000050	0.00020	mg/L	1	2/13/2012 18:48
Fluorene	U		0.000050	0.00020	mg/L	1	2/13/2012 18:48
Naphthalene	U		0.000050	0.00020	mg/L	1	2/13/2012 18:48
Nitrobenzene	U		0.000050	0.00020	mg/L	1	2/13/2012 18:48
N-Nitrosodiphenylamine	U		0.000050	0.00020	mg/L	1	2/13/2012 18:48
Pentachlorophenol	U		0.000050	0.00020	mg/L	1	2/13/2012 18:48
Phenanthrene	U		0.000050	0.00020	mg/L	1	2/13/2012 18:48
Phenol	U		0.000050	0.00020	mg/L	1	2/13/2012 18:48
Pyrene	U		0.000050	0.00020	mg/L	1	2/13/2012 18:48
Surr: 2,4,6-Tribromophenol	66.3			34-129	%REC	1	2/13/2012 18:48
Surr: 2-Fluorobiphenyl	67.3			40-125	%REC	1	2/13/2012 18:48
Surr: 2-Fluorophenol	50.8			20-120	%REC	1	2/13/2012 18:48
Surr: 4-Terphenyl-d14	70.3			40-135	%REC	1	2/13/2012 18:48
Surr: Nitrobenzene-d5	66.2			41-120	%REC	1	2/13/2012 18:48
Surr: Phenol-d6	66.3			20-120	%REC	1	2/13/2012 18:48
VOLATILES			Method: SW8260	Analyst: AKP			
1,2-Dichloroethane	U		0.0010	0.0050	mg/L	1	2/13/2012 17:58
Benzene	U		0.0010	0.0050	mg/L	1	2/13/2012 17:58
Chlorobenzene	U		0.0010	0.0050	mg/L	1	2/13/2012 17:58
Ethylbenzene	U		0.0011	0.0050	mg/L	1	2/13/2012 17:58

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 16-Feb-12

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-MW24C-20120209
Collection Date: 2/9/2012 10:20 AM

Work Order: 1202263
Lab ID: 1202263-21
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
Methylenechloride	U		0.0013	0.010	mg/L	1	2/13/2012 17:58
Toluene	U		0.0010	0.0050	mg/L	1	2/13/2012 17:58
Xylenes, Total	U		0.0031	0.015	mg/L	1	2/13/2012 17:58
Surr: 1,2-Dichloroethane-d4	101			70-125	%REC	1	2/13/2012 17:58
Surr: 4-Bromofluorobenzene	99.7			72-125	%REC	1	2/13/2012 17:58
Surr: Dibromofluoromethane	96.8			71-125	%REC	1	2/13/2012 17:58
Surr: Toluene-d8	100			75-125	%REC	1	2/13/2012 17:58

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 16-Feb-12

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-FB05-20120208
Collection Date: 2/8/2012 04:10 PM

Work Order: 1202263
Lab ID: 1202263-22
Matrix: WATER

Analyses	Result	Qual	SDL	ML	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270	Prep: SW3510 / 2/11/12	Analyst: LG		
1,2-Diphenylhydrazine	U		0.000050	0.00020	mg/L	1	2/11/2012 18:06
2,4-Dimethylphenol	U		0.000050	0.00020	mg/L	1	2/11/2012 18:06
2,4-Dinitrotoluene	U		0.000050	0.00020	mg/L	1	2/11/2012 18:06
2,6-Dinitrotoluene	U		0.000060	0.00020	mg/L	1	2/11/2012 18:06
2-Chloronaphthalene	U		0.000050	0.00020	mg/L	1	2/11/2012 18:06
2-Methylnaphthalene	U		0.000050	0.00020	mg/L	1	2/11/2012 18:06
4,6-Dinitro-2-methylphenol	U		0.000080	0.00020	mg/L	1	2/11/2012 18:06
4-Nitrophenol	U		0.000050	0.0010	mg/L	1	2/11/2012 18:06
Acenaphthene	U		0.000050	0.00020	mg/L	1	2/11/2012 18:06
Acenaphthylene	U		0.000050	0.00020	mg/L	1	2/11/2012 18:06
Anthracene	U		0.000050	0.00020	mg/L	1	2/11/2012 18:06
Benz(a)anthracene	U		0.000050	0.00020	mg/L	1	2/11/2012 18:06
Benzo(a)pyrene	U		0.000050	0.00020	mg/L	1	2/11/2012 18:06
Bis(2-chloroethoxy)methane	U		0.000050	0.00020	mg/L	1	2/11/2012 18:06
Bis(2-ethylhexyl)phthalate	0.00090		0.00010	0.00020	mg/L	1	2/11/2012 18:06
Chrysene	U		0.000050	0.00020	mg/L	1	2/11/2012 18:06
Dibenzofuran	U		0.000050	0.00020	mg/L	1	2/11/2012 18:06
Di-n-butylphthalate	U		0.000050	0.00020	mg/L	1	2/11/2012 18:06
Fluoranthene	U		0.000050	0.00020	mg/L	1	2/11/2012 18:06
Fluorene	U		0.000050	0.00020	mg/L	1	2/11/2012 18:06
Naphthalene	0.00018	J	0.000050	0.00020	mg/L	1	2/11/2012 18:06
Nitrobenzene	U		0.000050	0.00020	mg/L	1	2/11/2012 18:06
N-Nitrosodiphenylamine	U		0.000050	0.00020	mg/L	1	2/11/2012 18:06
Pentachlorophenol	U		0.000050	0.00020	mg/L	1	2/11/2012 18:06
Phenanthrene	U		0.000050	0.00020	mg/L	1	2/11/2012 18:06
Phenol	U		0.000050	0.00020	mg/L	1	2/11/2012 18:06
Pyrene	U		0.000050	0.00020	mg/L	1	2/11/2012 18:06
Surr: 2,4,6-Tribromophenol	57.9			34-129	%REC	1	2/11/2012 18:06
Surr: 2-Fluorobiphenyl	69.2			40-125	%REC	1	2/11/2012 18:06
Surr: 2-Fluorophenol	58.3			20-120	%REC	1	2/11/2012 18:06
Surr: 4-Terphenyl-d14	68.6			40-135	%REC	1	2/11/2012 18:06
Surr: Nitrobenzene-d5	97.8			41-120	%REC	1	2/11/2012 18:06
Surr: Phenol-d6	66.9			20-120	%REC	1	2/11/2012 18:06

VOLATILES			Method: SW8260	Analyst: AKP			
1,2-Dichloroethane	U		0.0010	0.0050	mg/L	1	2/13/2012 13:04
Benzene	U		0.0010	0.0050	mg/L	1	2/13/2012 13:04
Chlorobenzene	U		0.0010	0.0050	mg/L	1	2/13/2012 13:04
Ethylbenzene	U		0.0011	0.0050	mg/L	1	2/13/2012 13:04

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 16-Feb-12

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-FB05-20120208
Collection Date: 2/8/2012 04:10 PM

Work Order: 1202263
Lab ID: 1202263-22
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
Methylenechloride	U		0.0013	0.010	mg/L	1	2/13/2012 13:04
Toluene	U		0.0010	0.0050	mg/L	1	2/13/2012 13:04
Vinylchloride	U		0.0010	0.0020	mg/L	1	2/13/2012 13:04
Xylenes, Total	U		0.0031	0.015	mg/L	1	2/13/2012 13:04
Surr: 1,2-Dichloroethane-d4	117			70-125	%REC	1	2/13/2012 13:04
Surr: 4-Bromofluorobenzene	104			72-125	%REC	1	2/13/2012 13:04
Surr: Dibromofluoromethane	104			71-125	%REC	1	2/13/2012 13:04
Surr: Toluene-d8	100			75-125	%REC	1	2/13/2012 13:04

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 16-Feb-12

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-MW67B-20120209
Collection Date: 2/9/2012 11:40 AM

Work Order: 1202263
Lab ID: 1202263-23
Matrix: WATER

Analyses	Result	Qual	SDL	ML	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270	Prep: SW3510 / 2/11/12		Analyst: LG	
1,2-Diphenylhydrazine		U	0.000050	0.00020	mg/L	1	2/11/2012 14:21
2,4-Dimethylphenol	0.00050		0.000050	0.00020	mg/L	1	2/11/2012 14:21
2,4-Dinitrotoluene		U	0.000050	0.00020	mg/L	1	2/11/2012 14:21
2,6-Dinitrotoluene		U	0.000060	0.00020	mg/L	1	2/11/2012 14:21
2-Chloronaphthalene		U	0.000050	0.00020	mg/L	1	2/11/2012 14:21
2-Methylnaphthalene	0.00023		0.000050	0.00020	mg/L	1	2/11/2012 14:21
4,6-Dinitro-2-methylphenol		U	0.000080	0.00020	mg/L	1	2/11/2012 14:21
4-Nitrophenol		U	0.000050	0.0010	mg/L	1	2/11/2012 14:21
Acenaphthene	0.00012	J	0.000050	0.00020	mg/L	1	2/11/2012 14:21
Acenaphthylene		U	0.000050	0.00020	mg/L	1	2/11/2012 14:21
Anthracene		U	0.000050	0.00020	mg/L	1	2/11/2012 14:21
Benz(a)anthracene		U	0.000050	0.00020	mg/L	1	2/11/2012 14:21
Benzo(a)pyrene		U	0.000050	0.00020	mg/L	1	2/11/2012 14:21
Bis(2-chloroethoxy)methane		U	0.000050	0.00020	mg/L	1	2/11/2012 14:21
Bis(2-ethylhexyl)phthalate	0.00042		0.00010	0.00020	mg/L	1	2/11/2012 14:21
Chrysene		U	0.000050	0.00020	mg/L	1	2/11/2012 14:21
Dibenzofuran	0.00013	J	0.000050	0.00020	mg/L	1	2/11/2012 14:21
Di-n-butylphthalate		U	0.000050	0.00020	mg/L	1	2/11/2012 14:21
Fluoranthene		U	0.000050	0.00020	mg/L	1	2/11/2012 14:21
Fluorene	0.00010	J	0.000050	0.00020	mg/L	1	2/11/2012 14:21
Naphthalene	0.0019		0.000050	0.00020	mg/L	1	2/11/2012 14:21
Nitrobenzene		U	0.000050	0.00020	mg/L	1	2/11/2012 14:21
N-Nitrosodiphenylamine		U	0.000050	0.00020	mg/L	1	2/11/2012 14:21
Pentachlorophenol		U	0.000050	0.00020	mg/L	1	2/11/2012 14:21
Phenanthrene	0.00011	J	0.000050	0.00020	mg/L	1	2/11/2012 14:21
Phenol	0.000089	J	0.000050	0.00020	mg/L	1	2/11/2012 14:21
Pyrene		U	0.000050	0.00020	mg/L	1	2/11/2012 14:21
Surr: 2,4,6-Tribromophenol	81.2			34-129	%REC	1	2/11/2012 14:21
Surr: 2-Fluorobiphenyl	81.7			40-125	%REC	1	2/11/2012 14:21
Surr: 2-Fluorophenol	64.2			20-120	%REC	1	2/11/2012 14:21
Surr: 4-Terphenyl-d14	83.3			40-135	%REC	1	2/11/2012 14:21
Surr: Nitrobenzene-d5	71.7			41-120	%REC	1	2/11/2012 14:21
Surr: Phenol-d6	62.1			20-120	%REC	1	2/11/2012 14:21
VOLATILES			Method: SW8260			Analyst: AKP	
1,2-Dichloroethane		U	0.0010	0.0050	mg/L	1	2/13/2012 15:54
Benzene		U	0.0010	0.0050	mg/L	1	2/13/2012 15:54
Chlorobenzene		U	0.0010	0.0050	mg/L	1	2/13/2012 15:54
Ethylbenzene		U	0.0011	0.0050	mg/L	1	2/13/2012 15:54

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 16-Feb-12

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-MW67B-20120209
Collection Date: 2/9/2012 11:40 AM

Work Order: 1202263
Lab ID: 1202263-23
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
Methylenechloride	U		0.0013	0.010	mg/L	1	2/13/2012 15:54
Toluene	U		0.0010	0.0050	mg/L	1	2/13/2012 15:54
Xylenes, Total	U		0.0031	0.015	mg/L	1	2/13/2012 15:54
<i>Surr: 1,2-Dichloroethane-d4</i>	121			70-125	%REC	1	2/13/2012 15:54
<i>Surr: 4-Bromofluorobenzene</i>	106			72-125	%REC	1	2/13/2012 15:54
<i>Surr: Dibromofluoromethane</i>	108			71-125	%REC	1	2/13/2012 15:54
<i>Surr: Toluene-d8</i>	101			75-125	%REC	1	2/13/2012 15:54

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 16-Feb-12

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-MW63B-20120209
Collection Date: 2/9/2012 12:30 PM

Work Order: 1202263
Lab ID: 1202263-24
Matrix: WATER

Analyses	Result	Qual	SDL	ML	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270	Prep: SW3510 / 2/11/12	Analyst: LG		
1,2-Diphenylhydrazine	U		0.000050	0.00020	mg/L	1	2/13/2012 21:12
2,4-Dimethylphenol	U		0.000050	0.00020	mg/L	1	2/13/2012 21:12
2,4-Dinitrotoluene	U		0.000050	0.00020	mg/L	1	2/13/2012 21:12
2,6-Dinitrotoluene	U		0.000060	0.00020	mg/L	1	2/13/2012 21:12
2-Chloronaphthalene	U		0.000050	0.00020	mg/L	1	2/13/2012 21:12
2-Methylnaphthalene	0.0029		0.000050	0.00020	mg/L	1	2/13/2012 21:12
4,6-Dinitro-2-methylphenol	U		0.000080	0.00020	mg/L	1	2/13/2012 21:12
4-Nitrophenol	U		0.000050	0.0010	mg/L	1	2/13/2012 21:12
Acenaphthene	0.0020		0.000050	0.00020	mg/L	1	2/13/2012 21:12
Acenaphthylene	0.00012	J	0.000050	0.00020	mg/L	1	2/13/2012 21:12
Anthracene	0.00015	J	0.000050	0.00020	mg/L	1	2/13/2012 21:12
Benz(a)anthracene	U		0.000050	0.00020	mg/L	1	2/13/2012 21:12
Benzo(a)pyrene	U		0.000050	0.00020	mg/L	1	2/13/2012 21:12
Bis(2-chloroethoxy)methane	U		0.000050	0.00020	mg/L	1	2/13/2012 21:12
Bis(2-ethylhexyl)phthalate	0.00096		0.00010	0.00020	mg/L	1	2/13/2012 21:12
Chrysene	U		0.000050	0.00020	mg/L	1	2/13/2012 21:12
Dibenzofuran	0.0024		0.000050	0.00020	mg/L	1	2/13/2012 21:12
Di-n-butyl phthalate	0.00014	J	0.000050	0.00020	mg/L	1	2/13/2012 21:12
Fluoranthene	0.000091	J	0.000050	0.00020	mg/L	1	2/13/2012 21:12
Fluorene	0.00093		0.000050	0.00020	mg/L	1	2/13/2012 21:12
Naphthalene	0.027		0.00050	0.0020	mg/L	10	2/12/2012 00:12
Nitrobenzene	U		0.000050	0.00020	mg/L	1	2/13/2012 21:12
N-Nitrosodiphenylamine	U		0.000050	0.00020	mg/L	1	2/13/2012 21:12
Pentachlorophenol	0.00018	J	0.000050	0.00020	mg/L	1	2/13/2012 21:12
Phenanthrene	0.00072		0.000050	0.00020	mg/L	1	2/13/2012 21:12
Phenol	0.00057		0.000050	0.00020	mg/L	1	2/13/2012 21:12
Pyrene	0.000063	J	0.000050	0.00020	mg/L	1	2/13/2012 21:12
Surr: 2,4,6-Tribromophenol	61.1			34-129	%REC	10	2/12/2012 00:12
Surr: 2,4,6-Tribromophenol	77.5			34-129	%REC	1	2/13/2012 21:12
Surr: 2-Fluorobiphenyl	60.6			40-125	%REC	10	2/12/2012 00:12
Surr: 2-Fluorobiphenyl	59.5			40-125	%REC	1	2/13/2012 21:12
Surr: 2-Fluorophenol	59.0			20-120	%REC	10	2/12/2012 00:12
Surr: 2-Fluorophenol	52.3			20-120	%REC	1	2/13/2012 21:12
Surr: 4-Terphenyl-d14	68.9			40-135	%REC	10	2/12/2012 00:12
Surr: 4-Terphenyl-d14	79.8			40-135	%REC	1	2/13/2012 21:12
Surr: Nitrobenzene-d5	64.8			41-120	%REC	10	2/12/2012 00:12
Surr: Nitrobenzene-d5	49.0			41-120	%REC	1	2/13/2012 21:12
Surr: Phenol-d6	62.2			20-120	%REC	10	2/12/2012 00:12

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 16-Feb-12

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-MW63B-20120209
Collection Date: 2/9/2012 12:30 PM

Work Order: 1202263
Lab ID: 1202263-24
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
Surr: Phenol-d6	68.6			20-120	%REC	1	2/13/2012 21:12
VOLATILES		Method:SW8260				Analyst: AKP	
1,2-Dichloroethane	U		0.0010	0.0050	mg/L	1	2/13/2012 18:23
Benzene	U		0.0010	0.0050	mg/L	1	2/13/2012 18:23
Chlorobenzene	U		0.0010	0.0050	mg/L	1	2/13/2012 18:23
Ethylbenzene	0.0012	J	0.0011	0.0050	mg/L	1	2/13/2012 18:23
Methylenechloride	U		0.0013	0.010	mg/L	1	2/13/2012 18:23
Toluene	U		0.0010	0.0050	mg/L	1	2/13/2012 18:23
Xylenes, Total	U		0.0031	0.015	mg/L	1	2/13/2012 18:23
Surr: 1,2-Dichloroethane-d4	102			70-125	%REC	1	2/13/2012 18:23
Surr: 4-Bromofluorobenzene	98.0			72-125	%REC	1	2/13/2012 18:23
Surr: Dibromofluoromethane	98.5			71-125	%REC	1	2/13/2012 18:23
Surr: Toluene-d8	99.1			75-125	%REC	1	2/13/2012 18:23

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 16-Feb-12

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-FD05-20120209
Collection Date: 2/9/2012 12:30 PM

Work Order: 1202263
Lab ID: 1202263-25
Matrix: WATER

Analyses	Result	Qual	SDL	ML	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270	Prep: SW3510 / 2/11/12		Analyst: LG	
1,2-Diphenylhydrazine		U	0.000050	0.00020	mg/L	1	2/13/2012 21:32
2,4-Dimethylphenol	0.00044		0.000050	0.00020	mg/L	1	2/13/2012 21:32
2,4-Dinitrotoluene		U	0.000050	0.00020	mg/L	1	2/13/2012 21:32
2,6-Dinitrotoluene		U	0.000060	0.00020	mg/L	1	2/13/2012 21:32
2-Chloronaphthalene		U	0.000050	0.00020	mg/L	1	2/13/2012 21:32
2-Methylnaphthalene	0.0029		0.000050	0.00020	mg/L	1	2/13/2012 21:32
4,6-Dinitro-2-methylphenol		U	0.000080	0.00020	mg/L	1	2/13/2012 21:32
4-Nitrophenol		U	0.000050	0.0010	mg/L	1	2/13/2012 21:32
Acenaphthene	0.0019		0.000050	0.00020	mg/L	1	2/13/2012 21:32
Acenaphthylene	0.00016	J	0.000050	0.00020	mg/L	1	2/13/2012 21:32
Anthracene	0.00015	J	0.000050	0.00020	mg/L	1	2/13/2012 21:32
Benz(a)anthracene		U	0.000050	0.00020	mg/L	1	2/13/2012 21:32
Benzo(a)pyrene		U	0.000050	0.00020	mg/L	1	2/13/2012 21:32
Bis(2-chloroethoxy)methane		U	0.000050	0.00020	mg/L	1	2/13/2012 21:32
Bis(2-ethylhexyl)phthalate	0.00073		0.00010	0.00020	mg/L	1	2/13/2012 21:32
Chrysene		U	0.000050	0.00020	mg/L	1	2/13/2012 21:32
Dibenzofuran	0.0019		0.000050	0.00020	mg/L	1	2/13/2012 21:32
Di-n-butylphthalate		U	0.000050	0.00020	mg/L	1	2/13/2012 21:32
Fluoranthene		U	0.000050	0.00020	mg/L	1	2/13/2012 21:32
Fluorene	0.00078		0.000050	0.00020	mg/L	1	2/13/2012 21:32
Naphthalene	0.026		0.00025	0.0010	mg/L	5	2/14/2012 02:39
Nitrobenzene		U	0.000050	0.00020	mg/L	1	2/13/2012 21:32
N-Nitrosodiphenylamine		U	0.000050	0.00020	mg/L	1	2/13/2012 21:32
Pentachlorophenol		U	0.000050	0.00020	mg/L	1	2/13/2012 21:32
Phenanthrene	0.00050		0.000050	0.00020	mg/L	1	2/13/2012 21:32
Phenol	0.00095		0.000050	0.00020	mg/L	1	2/13/2012 21:32
Pyrene		U	0.000050	0.00020	mg/L	1	2/13/2012 21:32
Surr: 2,4,6-Tribromophenol	72.9			34-129	%REC	1	2/13/2012 21:32
Surr: 2,4,6-Tribromophenol	67.8			34-129	%REC	5	2/14/2012 02:39
Surr: 2-Fluorobiphenyl	66.3			40-125	%REC	1	2/13/2012 21:32
Surr: 2-Fluorobiphenyl	63.4			40-125	%REC	5	2/14/2012 02:39
Surr: 2-Fluorophenol	62.1			20-120	%REC	1	2/13/2012 21:32
Surr: 2-Fluorophenol	50.7			20-120	%REC	5	2/14/2012 02:39
Surr: 4-Terphenyl-d14	73.8			40-135	%REC	1	2/13/2012 21:32
Surr: 4-Terphenyl-d14	71.9			40-135	%REC	5	2/14/2012 02:39
Surr: Nitrobenzene-d5	57.4			41-120	%REC	1	2/13/2012 21:32
Surr: Nitrobenzene-d5	58.1			41-120	%REC	5	2/14/2012 02:39
Surr: Phenol-d6	56.2			20-120	%REC	1	2/13/2012 21:32

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 16-Feb-12

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-FD05-20120209
Collection Date: 2/9/2012 12:30 PM

Work Order: 1202263
Lab ID: 1202263-25
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
Surr: Phenol-d6	79.6			20-120	%REC	5	2/14/2012 02:39
VOLATILES			Method:SW8260			Analyst: AKP	
1,2-Dichloroethane	U		0.0010	0.0050	mg/L	1	2/13/2012 18:47
Benzene	U		0.0010	0.0050	mg/L	1	2/13/2012 18:47
Chlorobenzene	U		0.0010	0.0050	mg/L	1	2/13/2012 18:47
Ethylbenzene	0.0012	J	0.0011	0.0050	mg/L	1	2/13/2012 18:47
Methylenechloride	U		0.0013	0.010	mg/L	1	2/13/2012 18:47
Toluene	U		0.0010	0.0050	mg/L	1	2/13/2012 18:47
Xylenes, Total	U		0.0031	0.015	mg/L	1	2/13/2012 18:47
Surr: 1,2-Dichloroethane-d4	101			70-125	%REC	1	2/13/2012 18:47
Surr: 4-Bromofluorobenzene	100			72-125	%REC	1	2/13/2012 18:47
Surr: Dibromofluoromethane	97.4			71-125	%REC	1	2/13/2012 18:47
Surr: Toluene-d8	97.0			75-125	%REC	1	2/13/2012 18:47

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 16-Feb-12

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-MW27C-20120209
Collection Date: 2/9/2012 01:50 PM

Work Order: 1202263
Lab ID: 1202263-26
Matrix: WATER

Analyses	Result	Qual	SDL	ML	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270	Prep: SW3510 / 2/11/12	Analyst: LG		
1,2-Diphenylhydrazine	U		0.000050	0.00020	mg/L	1	2/13/2012 21:53
2,4-Dimethylphenol	U		0.000050	0.00020	mg/L	1	2/13/2012 21:53
2,4-Dinitrotoluene	U		0.000050	0.00020	mg/L	1	2/13/2012 21:53
2,6-Dinitrotoluene	U		0.000060	0.00020	mg/L	1	2/13/2012 21:53
2-Chloronaphthalene	U		0.000050	0.00020	mg/L	1	2/13/2012 21:53
2-Methylnaphthalene	U		0.000050	0.00020	mg/L	1	2/13/2012 21:53
4,6-Dinitro-2-methylphenol	U		0.000080	0.00020	mg/L	1	2/13/2012 21:53
4-Nitrophenol	U		0.000050	0.0010	mg/L	1	2/13/2012 21:53
Acenaphthene	U		0.000050	0.00020	mg/L	1	2/13/2012 21:53
Acenaphthylene	U		0.000050	0.00020	mg/L	1	2/13/2012 21:53
Anthracene	U		0.000050	0.00020	mg/L	1	2/13/2012 21:53
Benz(a)anthracene	U		0.000050	0.00020	mg/L	1	2/13/2012 21:53
Benzo(a)pyrene	U		0.000050	0.00020	mg/L	1	2/13/2012 21:53
Bis(2-chloroethoxy)methane	U		0.000050	0.00020	mg/L	1	2/13/2012 21:53
Bis(2-ethylhexyl)phthalate	0.00014	J	0.00010	0.00020	mg/L	1	2/13/2012 21:53
Chrysene	U		0.000050	0.00020	mg/L	1	2/13/2012 21:53
Dibenzofuran	U		0.000050	0.00020	mg/L	1	2/13/2012 21:53
Di-n-butylphthalate	U		0.000050	0.00020	mg/L	1	2/13/2012 21:53
Fluoranthene	U		0.000050	0.00020	mg/L	1	2/13/2012 21:53
Fluorene	U		0.000050	0.00020	mg/L	1	2/13/2012 21:53
Naphthalene	U		0.000050	0.00020	mg/L	1	2/13/2012 21:53
Nitrobenzene	U		0.000050	0.00020	mg/L	1	2/13/2012 21:53
N-Nitrosodiphenylamine	U		0.000050	0.00020	mg/L	1	2/13/2012 21:53
Pentachlorophenol	U		0.000050	0.00020	mg/L	1	2/13/2012 21:53
Phenanthrene	U		0.000050	0.00020	mg/L	1	2/13/2012 21:53
Phenol	U		0.000050	0.00020	mg/L	1	2/13/2012 21:53
Pyrene	U		0.000050	0.00020	mg/L	1	2/13/2012 21:53
Surr: 2,4,6-Tribromophenol	69.4			34-129	%REC	1	2/13/2012 21:53
Surr: 2-Fluorobiphenyl	73.2			40-125	%REC	1	2/13/2012 21:53
Surr: 2-Fluorophenol	44.2			20-120	%REC	1	2/13/2012 21:53
Surr: 4-Terphenyl-d14	60.6			40-135	%REC	1	2/13/2012 21:53
Surr: Nitrobenzene-d5	47.6			41-120	%REC	1	2/13/2012 21:53
Surr: Phenol-d6	55.0			20-120	%REC	1	2/13/2012 21:53
VOLATILES			Method: SW8260	Analyst: AKP			
1,2-Dichloroethane	U		0.0010	0.0050	mg/L	1	2/13/2012 19:12
Benzene	U		0.0010	0.0050	mg/L	1	2/13/2012 19:12
Chlorobenzene	U		0.0010	0.0050	mg/L	1	2/13/2012 19:12
Ethylbenzene	U		0.0011	0.0050	mg/L	1	2/13/2012 19:12

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 16-Feb-12

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-MW27C-20120209
Collection Date: 2/9/2012 01:50 PM

Work Order: 1202263
Lab ID: 1202263-26
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
Methylenechloride	U		0.0013	0.010	mg/L	1	2/13/2012 19:12
Toluene	U		0.0010	0.0050	mg/L	1	2/13/2012 19:12
Xylenes, Total	U		0.0031	0.015	mg/L	1	2/13/2012 19:12
<i>Surr: 1,2-Dichloroethane-d4</i>	103			70-125	%REC	1	2/13/2012 19:12
<i>Surr: 4-Bromofluorobenzene</i>	100			72-125	%REC	1	2/13/2012 19:12
<i>Surr: Dibromofluoromethane</i>	97.5			71-125	%REC	1	2/13/2012 19:12
<i>Surr: Toluene-d8</i>	100			75-125	%REC	1	2/13/2012 19:12

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 16-Feb-12

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-MW32AR-20120209
Collection Date: 2/9/2012 03:05 PM

Work Order: 1202263
Lab ID: 1202263-27
Matrix: WATER

Analyses	Result	Qual	SDL	ML	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270	Prep: SW3510 / 2/11/12		Analyst: LG	
1,2-Diphenylhydrazine		U	0.000050	0.00020	mg/L	1	2/13/2012 19:29
2,4-Dimethylphenol	0.0012		0.000050	0.00020	mg/L	1	2/13/2012 19:29
2,4-Dinitrotoluene		U	0.000050	0.00020	mg/L	1	2/13/2012 19:29
2,6-Dinitrotoluene		U	0.000060	0.00020	mg/L	1	2/13/2012 19:29
2-Chloronaphthalene		U	0.000050	0.00020	mg/L	1	2/13/2012 19:29
2-Methylnaphthalene	0.000088	J	0.000050	0.00020	mg/L	1	2/13/2012 19:29
4,6-Dinitro-2-methylphenol		U	0.000080	0.00020	mg/L	1	2/13/2012 19:29
4-Nitrophenol		U	0.000050	0.0010	mg/L	1	2/13/2012 19:29
Acenaphthene	0.0046		0.000050	0.00020	mg/L	1	2/13/2012 19:29
Acenaphthylene	0.00032		0.000050	0.00020	mg/L	1	2/13/2012 19:29
Anthracene	0.00041		0.000050	0.00020	mg/L	1	2/13/2012 19:29
Benz(a)anthracene	0.00012	J	0.000050	0.00020	mg/L	1	2/13/2012 19:29
Benzo(a)pyrene		U	0.000050	0.00020	mg/L	1	2/13/2012 19:29
Bis(2-chloroethoxy)methane		U	0.000050	0.00020	mg/L	1	2/13/2012 19:29
Bis(2-ethylhexyl)phthalate	0.00054		0.00010	0.00020	mg/L	1	2/13/2012 19:29
Chrysene	0.000093	J	0.000050	0.00020	mg/L	1	2/13/2012 19:29
Dibenzofuran	0.00096		0.000050	0.00020	mg/L	1	2/13/2012 19:29
Di-n-butylphthalate		U	0.000050	0.00020	mg/L	1	2/13/2012 19:29
Fluoranthene	0.0020		0.000050	0.00020	mg/L	1	2/13/2012 19:29
Fluorene	0.0017		0.000050	0.00020	mg/L	1	2/13/2012 19:29
Naphthalene	0.00044		0.000050	0.00020	mg/L	1	2/13/2012 19:29
Nitrobenzene		U	0.000050	0.00020	mg/L	1	2/13/2012 19:29
N-Nitrosodiphenylamine		U	0.000050	0.00020	mg/L	1	2/13/2012 19:29
Pentachlorophenol		U	0.000050	0.00020	mg/L	1	2/13/2012 19:29
Phenanthrene	0.00033		0.000050	0.00020	mg/L	1	2/13/2012 19:29
Phenol	0.00012	J	0.000050	0.00020	mg/L	1	2/13/2012 19:29
Pyrene	0.0041		0.000050	0.00020	mg/L	1	2/13/2012 19:29
Surr: 2,4,6-Tribromophenol	72.7			34-129	%REC	1	2/13/2012 19:29
Surr: 2-Fluorobiphenyl	66.4			40-125	%REC	1	2/13/2012 19:29
Surr: 2-Fluorophenol	51.9			20-120	%REC	1	2/13/2012 19:29
Surr: 4-Terphenyl-d14	74.0			40-135	%REC	1	2/13/2012 19:29
Surr: Nitrobenzene-d5	73.0			41-120	%REC	1	2/13/2012 19:29
Surr: Phenol-d6	61.6			20-120	%REC	1	2/13/2012 19:29

VOLATILES			Method: SW8260			Analyst: AKP	
1,2-Dichloroethane		U	0.0010	0.0050	mg/L	1	2/13/2012 19:36
Benzene		U	0.0010	0.0050	mg/L	1	2/13/2012 19:36
Chlorobenzene		U	0.0010	0.0050	mg/L	1	2/13/2012 19:36
Ethylbenzene		U	0.0011	0.0050	mg/L	1	2/13/2012 19:36

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 16-Feb-12

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-MW32AR-20120209
Collection Date: 2/9/2012 03:05 PM

Work Order: 1202263
Lab ID: 1202263-27
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
Methylenechloride		U	0.0013	0.010	mg/L	1	2/13/2012 19:36
Toluene		U	0.0010	0.0050	mg/L	1	2/13/2012 19:36
Xylenes, Total		U	0.0031	0.015	mg/L	1	2/13/2012 19:36
<i>Surr: 1,2-Dichloroethane-d4</i>		102		70-125	%REC	1	2/13/2012 19:36
<i>Surr: 4-Bromofluorobenzene</i>		100		72-125	%REC	1	2/13/2012 19:36
<i>Surr: Dibromofluoromethane</i>		98.2		71-125	%REC	1	2/13/2012 19:36
<i>Surr: Toluene-d8</i>		98.6		75-125	%REC	1	2/13/2012 19:36

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 16-Feb-12

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-MW32B-20120209
Collection Date: 2/9/2012 04:10 PM

Work Order: 1202263
Lab ID: 1202263-28
Matrix: WATER

Analyses	Result	Qual	SDL	ML	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270	Prep: SW3510 / 2/11/12		Analyst: LG	
1,2-Diphenylhydrazine	U		0.00050	0.0020	mg/L	10	2/14/2012 04:01
2,4-Dimethylphenol	46		0.50	2.0	mg/L	10000	2/14/2012 20:44
2,4-Dinitrotoluene	U		0.00050	0.0020	mg/L	10	2/14/2012 04:01
2,6-Dinitrotoluene	U		0.00060	0.0020	mg/L	10	2/14/2012 04:01
2-Chloronaphthalene	U		0.00050	0.0020	mg/L	10	2/14/2012 04:01
2-Methylnaphthalene	0.53		0.0050	0.020	mg/L	100	2/14/2012 04:21
4,6-Dinitro-2-methylphenol	U		0.00080	0.0020	mg/L	10	2/14/2012 04:01
4-Nitrophenol	U		0.00050	0.010	mg/L	10	2/14/2012 04:01
Acenaphthene	0.28		0.0050	0.020	mg/L	100	2/14/2012 04:21
Acenaphthylene	0.0059		0.00050	0.0020	mg/L	10	2/14/2012 04:01
Anthracene	0.059		0.00050	0.0020	mg/L	10	2/14/2012 04:01
Benz(a)anthracene	0.0033		0.00050	0.0020	mg/L	10	2/14/2012 04:01
Benzo(a)pyrene	U		0.00050	0.0020	mg/L	10	2/14/2012 04:01
Bis(2-chloroethoxy)methane	U		0.00050	0.0020	mg/L	10	2/14/2012 04:01
Bis(2-ethylhexyl)phthalate	U		0.0010	0.0020	mg/L	10	2/14/2012 04:01
Chrysene	0.0042		0.00050	0.0020	mg/L	10	2/14/2012 04:01
Dibenzofuran	0.28		0.0050	0.020	mg/L	100	2/14/2012 04:21
Di-n-butylphthalate	U		0.00050	0.0020	mg/L	10	2/14/2012 04:01
Fluoranthene	0.030		0.00050	0.0020	mg/L	10	2/14/2012 04:01
Fluorene	0.15		0.0050	0.020	mg/L	100	2/14/2012 04:21
Naphthalene	26		0.50	2.0	mg/L	10000	2/14/2012 20:44
Nitrobenzene	U		0.00050	0.0020	mg/L	10	2/14/2012 04:01
N-Nitrosodiphenylamine	U		0.00050	0.0020	mg/L	10	2/14/2012 04:01
Pentachlorophenol	U		0.00050	0.0020	mg/L	10	2/14/2012 04:01
Phenanthrene	0.25		0.0050	0.020	mg/L	100	2/14/2012 04:21
Phenol	38		0.50	2.0	mg/L	10000	2/14/2012 20:44
Pyrene	0.020		0.00050	0.0020	mg/L	10	2/14/2012 04:01
Surr: 2,4,6-Tribromophenol	43.3			34-129	%REC	10	2/14/2012 04:01
Surr: 2,4,6-Tribromophenol	102	J		34-129	%REC	100	2/14/2012 04:21
Surr: 2,4,6-Tribromophenol	0	S		34-129	%REC	10000	2/14/2012 20:44
Surr: 2-Fluorobiphenyl	47.9			40-125	%REC	10	2/14/2012 04:01
Surr: 2-Fluorobiphenyl	95.1	J		40-125	%REC	100	2/14/2012 04:21
Surr: 2-Fluorobiphenyl	0	S		40-125	%REC	10000	2/14/2012 20:44
Surr: 2-Fluorophenol	103			20-120	%REC	10	2/14/2012 04:01
Surr: 2-Fluorophenol	109	J		20-120	%REC	100	2/14/2012 04:21
Surr: 2-Fluorophenol	0	S		20-120	%REC	10000	2/14/2012 20:44
Surr: 4-Terphenyl-d14	83.2			40-135	%REC	10	2/14/2012 04:01
Surr: 4-Terphenyl-d14	78.7	J		40-135	%REC	100	2/14/2012 04:21

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 16-Feb-12

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-MW32B-20120209
Collection Date: 2/9/2012 04:10 PM

Work Order: 1202263
Lab ID: 1202263-28
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
Surr: 4-Terphenyl-d14	0	S		40-135	%REC	10000	2/14/2012 20:44
Surr: Nitrobenzene-d5	84.9			41-120	%REC	10	2/14/2012 04:01
Surr: Nitrobenzene-d5	83.0	J		41-120	%REC	100	2/14/2012 04:21
Surr: Nitrobenzene-d5	0	S		41-120	%REC	10000	2/14/2012 20:44
Surr: Phenol-d6	40.1			20-120	%REC	10	2/14/2012 04:01
Surr: Phenol-d6	32.8	J		20-120	%REC	100	2/14/2012 04:21
Surr: Phenol-d6	0	S		20-120	%REC	10000	2/14/2012 20:44

VOLATILES		Method:SW8260				Analyst: AKP	
1,2-Dichloroethane	U	0.025	0.12	mg/L	25	2/14/2012 15:57	
Benzene	2.6	0.025	0.12	mg/L	25	2/14/2012 15:57	
Chlorobenzene	U	0.025	0.12	mg/L	25	2/14/2012 15:57	
Ethylbenzene	0.53	0.028	0.12	mg/L	25	2/14/2012 15:57	
Methylenechloride	U	0.032	0.25	mg/L	25	2/14/2012 15:57	
Toluene	2.2	0.025	0.12	mg/L	25	2/14/2012 15:57	
Xylenes, Total	1.5	0.078	0.38	mg/L	25	2/14/2012 15:57	
Surr: 1,2-Dichloroethane-d4	104		70-125	%REC	25	2/14/2012 15:57	
Surr: 4-Bromofluorobenzene	102		72-125	%REC	25	2/14/2012 15:57	
Surr: Dibromofluoromethane	97.3		71-125	%REC	25	2/14/2012 15:57	
Surr: Toluene-d8	100		75-125	%REC	25	2/14/2012 15:57	

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 16-Feb-12

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-MW53C-20120209
Collection Date: 2/9/2012 05:15 PM

Work Order: 1202263
Lab ID: 1202263-29
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270	Prep: SW3510 / 2/11/12		Analyst: LG	
1,2-Diphenylhydrazine	U		0.000050	0.00020	mg/L	1	2/11/2012 18:26
2,4-Dimethylphenol	U		0.000050	0.00020	mg/L	1	2/11/2012 18:26
2,4-Dinitrotoluene	U		0.000050	0.00020	mg/L	1	2/11/2012 18:26
2,6-Dinitrotoluene	U		0.000060	0.00020	mg/L	1	2/11/2012 18:26
2-Chloronaphthalene	U		0.000050	0.00020	mg/L	1	2/11/2012 18:26
2-Methylnaphthalene	0.000080	J	0.000050	0.00020	mg/L	1	2/11/2012 18:26
4,6-Dinitro-2-methylphenol	U		0.000080	0.00020	mg/L	1	2/11/2012 18:26
4-Nitrophenol	U		0.000050	0.0010	mg/L	1	2/11/2012 18:26
Acenaphthene	0.00020	J	0.000050	0.00020	mg/L	1	2/11/2012 18:26
Acenaphthylene	U		0.000050	0.00020	mg/L	1	2/11/2012 18:26
Anthracene	U		0.000050	0.00020	mg/L	1	2/11/2012 18:26
Benz(a)anthracene	U		0.000050	0.00020	mg/L	1	2/11/2012 18:26
Benzo(a)pyrene	U		0.000050	0.00020	mg/L	1	2/11/2012 18:26
Bis(2-chloroethoxy)methane	U		0.000050	0.00020	mg/L	1	2/11/2012 18:26
Bis(2-ethylhexyl)phthalate	U		0.00010	0.00020	mg/L	1	2/11/2012 18:26
Chrysene	U		0.000050	0.00020	mg/L	1	2/11/2012 18:26
Dibenzofuran	U		0.000050	0.00020	mg/L	1	2/11/2012 18:26
Di-n-butylphthalate	U		0.000050	0.00020	mg/L	1	2/11/2012 18:26
Fluoranthene	U		0.000050	0.00020	mg/L	1	2/11/2012 18:26
Fluorene	U		0.000050	0.00020	mg/L	1	2/11/2012 18:26
Naphthalene	0.00066		0.000050	0.00020	mg/L	1	2/11/2012 18:26
Nitrobenzene	U		0.000050	0.00020	mg/L	1	2/11/2012 18:26
N-Nitrosodiphenylamine	U		0.000050	0.00020	mg/L	1	2/11/2012 18:26
Pentachlorophenol	U		0.000050	0.00020	mg/L	1	2/11/2012 18:26
Phenanthrene	U		0.000050	0.00020	mg/L	1	2/11/2012 18:26
Phenol	U		0.000050	0.00020	mg/L	1	2/11/2012 18:26
Pyrene	U		0.000050	0.00020	mg/L	1	2/11/2012 18:26
Surr: 2,4,6-Tribromophenol	73.9			34-129	%REC	1	2/11/2012 18:26
Surr: 2-Fluorobiphenyl	61.5			40-125	%REC	1	2/11/2012 18:26
Surr: 2-Fluorophenol	40.4			20-120	%REC	1	2/11/2012 18:26
Surr: 4-Terphenyl-d14	71.0			40-135	%REC	1	2/11/2012 18:26
Surr: Nitrobenzene-d5	69.9			41-120	%REC	1	2/11/2012 18:26
Surr: Phenol-d6	38.9			20-120	%REC	1	2/11/2012 18:26
VOLATILES			Method: SW8260			Analyst: AKP	
1,2-Dichloroethane	U		0.0010	0.0050	mg/L	1	2/13/2012 20:00
Benzene	U		0.0010	0.0050	mg/L	1	2/13/2012 20:00
Chlorobenzene	U		0.0010	0.0050	mg/L	1	2/13/2012 20:00
Ethylbenzene	U		0.0011	0.0050	mg/L	1	2/13/2012 20:00

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 16-Feb-12

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-MW53C-20120209
Collection Date: 2/9/2012 05:15 PM

Work Order: 1202263
Lab ID: 1202263-29
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
Methylenechloride	U		0.0013	0.010	mg/L	1	2/13/2012 20:00
Toluene	U		0.0010	0.0050	mg/L	1	2/13/2012 20:00
Xylenes, Total	U		0.0031	0.015	mg/L	1	2/13/2012 20:00
<i>Surr: 1,2-Dichloroethane-d4</i>	105			70-125	%REC	1	2/13/2012 20:00
<i>Surr: 4-Bromofluorobenzene</i>	101			72-125	%REC	1	2/13/2012 20:00
<i>Surr: Dibromofluoromethane</i>	99.9			71-125	%REC	1	2/13/2012 20:00
<i>Surr: Toluene-d8</i>	99.5			75-125	%REC	1	2/13/2012 20:00

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 16-Feb-12

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-MW36B-20120208
Collection Date: 2/8/2012 08:50 AM

Work Order: 1202263
Lab ID: 1202263-30
Matrix: WATER

Analyses	Result	Qual	SDL	ML	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270	Prep: SW3510 / 2/11/12	Analyst: LG		
1,2-Diphenylhydrazine	U		0.000050	0.00020	mg/L	1	2/11/2012 20:08
2,4-Dimethylphenol	U		0.000050	0.00020	mg/L	1	2/11/2012 20:08
2,4-Dinitrotoluene	U		0.000050	0.00020	mg/L	1	2/11/2012 20:08
2,6-Dinitrotoluene	U		0.000060	0.00020	mg/L	1	2/11/2012 20:08
2-Chloronaphthalene	U		0.000050	0.00020	mg/L	1	2/11/2012 20:08
2-Methylnaphthalene	U		0.000050	0.00020	mg/L	1	2/11/2012 20:08
4,6-Dinitro-2-methylphenol	U		0.000080	0.00020	mg/L	1	2/11/2012 20:08
4-Nitrophenol	U		0.000050	0.0010	mg/L	1	2/11/2012 20:08
Acenaphthene	0.00023		0.000050	0.00020	mg/L	1	2/11/2012 20:08
Acenaphthylene	U		0.000050	0.00020	mg/L	1	2/11/2012 20:08
Anthracene	U		0.000050	0.00020	mg/L	1	2/11/2012 20:08
Benz(a)anthracene	U		0.000050	0.00020	mg/L	1	2/11/2012 20:08
Benzo(a)pyrene	U		0.000050	0.00020	mg/L	1	2/11/2012 20:08
Bis(2-chloroethoxy)methane	U		0.000050	0.00020	mg/L	1	2/11/2012 20:08
Bis(2-ethylhexyl)phthalate	0.00033		0.00010	0.00020	mg/L	1	2/11/2012 20:08
Chrysene	U		0.000050	0.00020	mg/L	1	2/11/2012 20:08
Dibenzofuran	U		0.000050	0.00020	mg/L	1	2/11/2012 20:08
Di-n-butylphthalate	U		0.000050	0.00020	mg/L	1	2/11/2012 20:08
Fluoranthene	U		0.000050	0.00020	mg/L	1	2/11/2012 20:08
Fluorene	0.00011	J	0.000050	0.00020	mg/L	1	2/11/2012 20:08
Naphthalene	0.00024		0.000050	0.00020	mg/L	1	2/11/2012 20:08
Nitrobenzene	U		0.000050	0.00020	mg/L	1	2/11/2012 20:08
N-Nitrosodiphenylamine	U		0.000050	0.00020	mg/L	1	2/11/2012 20:08
Pentachlorophenol	U		0.000050	0.00020	mg/L	1	2/11/2012 20:08
Phenanthrene	U		0.000050	0.00020	mg/L	1	2/11/2012 20:08
Phenol	0.00026		0.000050	0.00020	mg/L	1	2/11/2012 20:08
Pyrene	U		0.000050	0.00020	mg/L	1	2/11/2012 20:08
Surr: 2,4,6-Tribromophenol	75.1			34-129	%REC	1	2/11/2012 20:08
Surr: 2-Fluorobiphenyl	47.6			40-125	%REC	1	2/11/2012 20:08
Surr: 2-Fluorophenol	49.1			20-120	%REC	1	2/11/2012 20:08
Surr: 4-Terphenyl-d14	57.5			40-135	%REC	1	2/11/2012 20:08
Surr: Nitrobenzene-d5	62.7			41-120	%REC	1	2/11/2012 20:08
Surr: Phenol-d6	43.2			20-120	%REC	1	2/11/2012 20:08
VOLATILES			Method: SW8260	Analyst: AKP			
1,2-Dichloroethane	U		0.0010	0.0050	mg/L	1	2/13/2012 20:25
Benzene	U		0.0010	0.0050	mg/L	1	2/13/2012 20:25
Chlorobenzene	U		0.0010	0.0050	mg/L	1	2/13/2012 20:25
Ethylbenzene	U		0.0011	0.0050	mg/L	1	2/13/2012 20:25

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 16-Feb-12

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-MW36B-20120208
Collection Date: 2/8/2012 08:50 AM

Work Order: 1202263
Lab ID: 1202263-30
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
Methylenechloride	U		0.0013	0.010	mg/L	1	2/13/2012 20:25
Toluene	U		0.0010	0.0050	mg/L	1	2/13/2012 20:25
Xylenes, Total	U		0.0031	0.015	mg/L	1	2/13/2012 20:25
<i>Surr: 1,2-Dichloroethane-d4</i>	106			70-125	%REC	1	2/13/2012 20:25
<i>Surr: 4-Bromofluorobenzene</i>	98.8			72-125	%REC	1	2/13/2012 20:25
<i>Surr: Dibromofluoromethane</i>	98.2			71-125	%REC	1	2/13/2012 20:25
<i>Surr: Toluene-d8</i>	97.5			75-125	%REC	1	2/13/2012 20:25

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 16-Feb-12

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-TB05-20120208
Collection Date: 2/8/2012 09:00 AM

Work Order: 1202263
Lab ID: 1202263-31
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
VOLATILES			Method: SW8260			Analyst: AKP	
1,2-Dichloroethane	U		0.0010	0.0050	mg/L	1	2/13/2012 13:28
Benzene	U		0.0010	0.0050	mg/L	1	2/13/2012 13:28
Chlorobenzene	U		0.0010	0.0050	mg/L	1	2/13/2012 13:28
Ethylbenzene	U		0.0011	0.0050	mg/L	1	2/13/2012 13:28
Methylenechloride	U		0.0013	0.010	mg/L	1	2/13/2012 13:28
Toluene	U		0.0010	0.0050	mg/L	1	2/13/2012 13:28
Vinylchloride	U		0.0010	0.0020	mg/L	1	2/13/2012 13:28
Xylenes, Total	U		0.0031	0.015	mg/L	1	2/13/2012 13:28
Surr: 1,2-Dichloroethane-d4	116			70-125	%REC	1	2/13/2012 13:28
Surr: 4-Bromofluorobenzene	106			72-125	%REC	1	2/13/2012 13:28
Surr: Dibromofluoromethane	104			71-125	%REC	1	2/13/2012 13:28
Surr: Toluene-d8	101			75-125	%REC	1	2/13/2012 13:28

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 16-Feb-12

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-MW71B-20120208
Collection Date: 2/8/2012 09:45 AM

Work Order: 1202263
Lab ID: 1202263-32
Matrix: WATER

Analyses	Result	Qual	SDL	ML	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270	Prep: SW3510 / 2/11/12	Analyst: LG		
1,2-Diphenylhydrazine		U	0.000050	0.00020	mg/L	1	2/13/2012 22:13
2,4-Dimethylphenol	0.0034		0.000050	0.00020	mg/L	1	2/13/2012 22:13
2,4-Dinitrotoluene		U	0.000050	0.00020	mg/L	1	2/13/2012 22:13
2,6-Dinitrotoluene		U	0.000060	0.00020	mg/L	1	2/13/2012 22:13
2-Chloronaphthalene		U	0.000050	0.00020	mg/L	1	2/13/2012 22:13
2-Methylnaphthalene	0.0076		0.000050	0.00020	mg/L	1	2/13/2012 22:13
4,6-Dinitro-2-methylphenol		U	0.000080	0.00020	mg/L	1	2/13/2012 22:13
4-Nitrophenol		U	0.000050	0.0010	mg/L	1	2/13/2012 22:13
Acenaphthene	0.0039		0.000050	0.00020	mg/L	1	2/13/2012 22:13
Acenaphthylene	0.00019	J	0.000050	0.00020	mg/L	1	2/13/2012 22:13
Anthracene	0.00056		0.000050	0.00020	mg/L	1	2/13/2012 22:13
Benz(a)anthracene	0.000081	J	0.000050	0.00020	mg/L	1	2/13/2012 22:13
Benzo(a)pyrene	0.00012	J	0.000050	0.00020	mg/L	1	2/13/2012 22:13
Bis(2-chloroethoxy)methane		U	0.000050	0.00020	mg/L	1	2/13/2012 22:13
Bis(2-ethylhexyl)phthalate	0.0013		0.00010	0.00020	mg/L	1	2/13/2012 22:13
Chrysene	0.000089	J	0.000050	0.00020	mg/L	1	2/13/2012 22:13
Dibenzofuran	0.0031		0.000050	0.00020	mg/L	1	2/13/2012 22:13
Di-n-butylphthalate		U	0.000050	0.00020	mg/L	1	2/13/2012 22:13
Fluoranthene	0.00053		0.000050	0.00020	mg/L	1	2/13/2012 22:13
Fluorene	0.0020		0.000050	0.00020	mg/L	1	2/13/2012 22:13
Naphthalene	0.051		0.00050	0.0020	mg/L	10	2/14/2012 03:00
Nitrobenzene		U	0.000050	0.00020	mg/L	1	2/13/2012 22:13
N-Nitrosodiphenylamine		U	0.000050	0.00020	mg/L	1	2/13/2012 22:13
Pentachlorophenol	0.00022		0.000050	0.00020	mg/L	1	2/13/2012 22:13
Phenanthrene	0.0025		0.000050	0.00020	mg/L	1	2/13/2012 22:13
Phenol	0.00037		0.000050	0.00020	mg/L	1	2/13/2012 22:13
Pyrene	0.00057		0.000050	0.00020	mg/L	1	2/13/2012 22:13
Surr: 2,4,6-Tribromophenol	72.2			34-129	%REC	1	2/13/2012 22:13
Surr: 2,4,6-Tribromophenol	46.6			34-129	%REC	10	2/14/2012 03:00
Surr: 2-Fluorobiphenyl	60.4			40-125	%REC	1	2/13/2012 22:13
Surr: 2-Fluorobiphenyl	55.8			40-125	%REC	10	2/14/2012 03:00
Surr: 2-Fluorophenol	49.6			20-120	%REC	1	2/13/2012 22:13
Surr: 2-Fluorophenol	41.5			20-120	%REC	10	2/14/2012 03:00
Surr: 4-Terphenyl-d14	70.6			40-135	%REC	1	2/13/2012 22:13
Surr: 4-Terphenyl-d14	61.4			40-135	%REC	10	2/14/2012 03:00
Surr: Nitrobenzene-d5	55.1			41-120	%REC	1	2/13/2012 22:13
Surr: Nitrobenzene-d5	46.3			41-120	%REC	10	2/14/2012 03:00
Surr: Phenol-d6	51.5			20-120	%REC	1	2/13/2012 22:13

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 16-Feb-12

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-MW71B-20120208
Collection Date: 2/8/2012 09:45 AM

Work Order: 1202263
Lab ID: 1202263-32
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
Surr: Phenol-d6	32.1	J		20-120	%REC	10	2/14/2012 03:00
VOLATILES			Method:SW8260			Analyst: AKP	
1,2-Dichloroethane	U		0.0010	0.0050	mg/L	1	2/13/2012 20:49
Benzene	0.012		0.0010	0.0050	mg/L	1	2/13/2012 20:49
Chlorobenzene	U		0.0010	0.0050	mg/L	1	2/13/2012 20:49
Ethylbenzene	0.0045	J	0.0011	0.0050	mg/L	1	2/13/2012 20:49
Methylenechloride	U		0.0013	0.010	mg/L	1	2/13/2012 20:49
Toluene	0.0077		0.0010	0.0050	mg/L	1	2/13/2012 20:49
Xylenes, Total	0.016		0.0031	0.015	mg/L	1	2/13/2012 20:49
Surr: 1,2-Dichloroethane-d4	99.8			70-125	%REC	1	2/13/2012 20:49
Surr: 4-Bromofluorobenzene	101			72-125	%REC	1	2/13/2012 20:49
Surr: Dibromofluoromethane	96.1			71-125	%REC	1	2/13/2012 20:49
Surr: Toluene-d8	98.9			75-125	%REC	1	2/13/2012 20:49

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 16-Feb-12

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-MW34C-20120208
Collection Date: 2/8/2012 11:10 AM

Work Order: 1202263
Lab ID: 1202263-33
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270	Prep: SW3510 / 2/11/12		Analyst: LG	
1,2-Diphenylhydrazine		U	0.000050	0.00020	mg/L	1	2/14/2012 01:18
2,4-Dimethylphenol	0.00022		0.000050	0.00020	mg/L	1	2/14/2012 01:18
2,4-Dinitrotoluene		U	0.000050	0.00020	mg/L	1	2/14/2012 01:18
2,6-Dinitrotoluene		U	0.000060	0.00020	mg/L	1	2/14/2012 01:18
2-Chloronaphthalene		U	0.000050	0.00020	mg/L	1	2/14/2012 01:18
2-Methylnaphthalene	0.00011	J	0.000050	0.00020	mg/L	1	2/14/2012 01:18
4,6-Dinitro-2-methylphenol		U	0.000080	0.00020	mg/L	1	2/14/2012 01:18
4-Nitrophenol		U	0.000050	0.0010	mg/L	1	2/14/2012 01:18
Acenaphthene		U	0.000050	0.00020	mg/L	1	2/14/2012 01:18
Acenaphthylene		U	0.000050	0.00020	mg/L	1	2/14/2012 01:18
Anthracene		U	0.000050	0.00020	mg/L	1	2/14/2012 01:18
Benz(a)anthracene		U	0.000050	0.00020	mg/L	1	2/14/2012 01:18
Benzo(a)pyrene		U	0.000050	0.00020	mg/L	1	2/14/2012 01:18
Bis(2-chloroethoxy)methane		U	0.000050	0.00020	mg/L	1	2/14/2012 01:18
Bis(2-ethylhexyl)phthalate	0.00053		0.00010	0.00020	mg/L	1	2/14/2012 01:18
Chrysene		U	0.000050	0.00020	mg/L	1	2/14/2012 01:18
Dibenzofuran	0.000071	J	0.000050	0.00020	mg/L	1	2/14/2012 01:18
Di-n-butylphthalate		U	0.000050	0.00020	mg/L	1	2/14/2012 01:18
Fluoranthene	0.00017	J	0.000050	0.00020	mg/L	1	2/14/2012 01:18
Fluorene	0.00011	J	0.000050	0.00020	mg/L	1	2/14/2012 01:18
Naphthalene	0.00043		0.000050	0.00020	mg/L	1	2/14/2012 01:18
Nitrobenzene		U	0.000050	0.00020	mg/L	1	2/14/2012 01:18
N-Nitrosodiphenylamine		U	0.000050	0.00020	mg/L	1	2/14/2012 01:18
Pentachlorophenol		U	0.000050	0.00020	mg/L	1	2/14/2012 01:18
Phenanthrene	0.00010	J	0.000050	0.00020	mg/L	1	2/14/2012 01:18
Phenol	0.000072	J	0.000050	0.00020	mg/L	1	2/14/2012 01:18
Pyrene	0.00021		0.000050	0.00020	mg/L	1	2/14/2012 01:18
Surr: 2,4,6-Tribromophenol	68.5			34-129	%REC	1	2/14/2012 01:18
Surr: 2-Fluorobiphenyl	46.3			40-125	%REC	1	2/14/2012 01:18
Surr: 2-Fluorophenol	34.1			20-120	%REC	1	2/14/2012 01:18
Surr: 4-Terphenyl-d14	70.2			40-135	%REC	1	2/14/2012 01:18
Surr: Nitrobenzene-d5	43.8			41-120	%REC	1	2/14/2012 01:18
Surr: Phenol-d6	38.1			20-120	%REC	1	2/14/2012 01:18
VOLATILES			Method: SW8260			Analyst: AKP	
1,2-Dichloroethane		U	0.0010	0.0050	mg/L	1	2/13/2012 21:14
Benzene	0.0014	J	0.0010	0.0050	mg/L	1	2/13/2012 21:14
Chlorobenzene		U	0.0010	0.0050	mg/L	1	2/13/2012 21:14
Ethylbenzene	0.0039	J	0.0011	0.0050	mg/L	1	2/13/2012 21:14

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 16-Feb-12

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-MW34C-20120208
Collection Date: 2/8/2012 11:10 AM

Work Order: 1202263
Lab ID: 1202263-33
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
Methylenechloride		U	0.0013	0.010	mg/L	1	2/13/2012 21:14
Toluene	0.0041	J	0.0010	0.0050	mg/L	1	2/13/2012 21:14
Xylenes, Total	0.0077	J	0.0031	0.015	mg/L	1	2/13/2012 21:14
Surr: 1,2-Dichloroethane-d4	105			70-125	%REC	1	2/13/2012 21:14
Surr: 4-Bromofluorobenzene	100			72-125	%REC	1	2/13/2012 21:14
Surr: Dibromofluoromethane	97.8			71-125	%REC	1	2/13/2012 21:14
Surr: Toluene-d8	98.9			75-125	%REC	1	2/13/2012 21:14

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 16-Feb-12

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-MW54C-20120208
Collection Date: 2/8/2012 12:15 PM

Work Order: 1202263
Lab ID: 1202263-34
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270	Prep: SW3510 / 2/11/12		Analyst: LG	
1,2-Diphenylhydrazine		U	0.000050	0.00020	mg/L	1	2/11/2012 18:47
2,4-Dimethylphenol	0.000098	J	0.000050	0.00020	mg/L	1	2/11/2012 18:47
2,4-Dinitrotoluene		U	0.000050	0.00020	mg/L	1	2/11/2012 18:47
2,6-Dinitrotoluene		U	0.000060	0.00020	mg/L	1	2/11/2012 18:47
2-Chloronaphthalene		U	0.000050	0.00020	mg/L	1	2/11/2012 18:47
2-Methylnaphthalene	0.0065		0.000050	0.00020	mg/L	1	2/11/2012 18:47
4,6-Dinitro-2-methylphenol		U	0.000080	0.00020	mg/L	1	2/11/2012 18:47
4-Nitrophenol		U	0.000050	0.0010	mg/L	1	2/11/2012 18:47
Acenaphthene	0.035		0.000050	0.0020	mg/L	10	2/14/2012 01:38
Acenaphthylene	0.00051		0.000050	0.00020	mg/L	1	2/11/2012 18:47
Anthracene	0.0024		0.000050	0.00020	mg/L	1	2/11/2012 18:47
Benz(a)anthracene		U	0.000050	0.00020	mg/L	1	2/11/2012 18:47
Benzo(a)pyrene		U	0.000050	0.00020	mg/L	1	2/11/2012 18:47
Bis(2-chloroethoxy)methane		U	0.000050	0.00020	mg/L	1	2/11/2012 18:47
Bis(2-ethylhexyl)phthalate		U	0.00010	0.00020	mg/L	1	2/11/2012 18:47
Chrysene		U	0.000050	0.00020	mg/L	1	2/11/2012 18:47
Dibenzofuran	0.047		0.000050	0.0020	mg/L	10	2/14/2012 01:38
Di-n-butylphthalate		U	0.000050	0.00020	mg/L	1	2/11/2012 18:47
Fluoranthene	0.0026		0.000050	0.00020	mg/L	1	2/11/2012 18:47
Fluorene	0.021		0.000050	0.0020	mg/L	10	2/14/2012 01:38
Naphthalene	0.35		0.0025	0.010	mg/L	50	2/14/2012 19:28
Nitrobenzene		U	0.000050	0.00020	mg/L	1	2/11/2012 18:47
N-Nitrosodiphenylamine		U	0.000050	0.00020	mg/L	1	2/11/2012 18:47
Pentachlorophenol		U	0.000050	0.00020	mg/L	1	2/11/2012 18:47
Phenanthrene	0.034		0.000050	0.0020	mg/L	10	2/14/2012 01:38
Phenol	0.00011	J	0.000050	0.00020	mg/L	1	2/11/2012 18:47
Pyrene	0.0015		0.000050	0.00020	mg/L	1	2/11/2012 18:47
Surr: 2,4,6-Tribromophenol	51.2			34-129	%REC	1	2/11/2012 18:47
Surr: 2,4,6-Tribromophenol	59.7			34-129	%REC	10	2/14/2012 01:38
Surr: 2,4,6-Tribromophenol	58.2	J		34-129	%REC	50	2/14/2012 19:28
Surr: 2-Fluorobiphenyl	60.9			40-125	%REC	1	2/11/2012 18:47
Surr: 2-Fluorobiphenyl	70.5			40-125	%REC	10	2/14/2012 01:38
Surr: 2-Fluorobiphenyl	82.2	J		40-125	%REC	50	2/14/2012 19:28
Surr: 2-Fluorophenol	45.5			20-120	%REC	1	2/11/2012 18:47
Surr: 2-Fluorophenol	49.7			20-120	%REC	10	2/14/2012 01:38
Surr: 2-Fluorophenol	58.2	J		20-120	%REC	50	2/14/2012 19:28
Surr: 4-Terphenyl-d14	71.3			40-135	%REC	1	2/11/2012 18:47
Surr: 4-Terphenyl-d14	75.2			40-135	%REC	10	2/14/2012 01:38

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 16-Feb-12

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-MW54C-20120208
Collection Date: 2/8/2012 12:15 PM

Work Order: 1202263
Lab ID: 1202263-34
Matrix: WATER

Analyses	Result	Qual	SDL	ML	Units	Dilution Factor	Date Analyzed
Surr: 4-Terphenyl-d14	104	J		40-135	%REC	50	2/14/2012 19:28
Surr: Nitrobenzene-d5	56.3			41-120	%REC	1	2/11/2012 18:47
Surr: Nitrobenzene-d5	67.8			41-120	%REC	10	2/14/2012 01:38
Surr: Nitrobenzene-d5	70.3	J		41-120	%REC	50	2/14/2012 19:28
Surr: Phenol-d6	45.8			20-120	%REC	1	2/11/2012 18:47
Surr: Phenol-d6	37.9	J		20-120	%REC	10	2/14/2012 01:38
Surr: Phenol-d6	46.0	J		20-120	%REC	50	2/14/2012 19:28

VOLATILES		Method: SW8260				Analyst: AKP	
1,2-Dichloroethane	U		0.0010	0.0050	mg/L	1	2/13/2012 21:38
Benzene	U		0.0010	0.0050	mg/L	1	2/13/2012 21:38
Chlorobenzene	U		0.0010	0.0050	mg/L	1	2/13/2012 21:38
Ethylbenzene	0.0011	J	0.0011	0.0050	mg/L	1	2/13/2012 21:38
Methylenechloride	U		0.0013	0.010	mg/L	1	2/13/2012 21:38
Toluene	U		0.0010	0.0050	mg/L	1	2/13/2012 21:38
Xylenes, Total	U		0.0031	0.015	mg/L	1	2/13/2012 21:38
Surr: 1,2-Dichloroethane-d4	102			70-125	%REC	1	2/13/2012 21:38
Surr: 4-Bromofluorobenzene	101			72-125	%REC	1	2/13/2012 21:38
Surr: Dibromofluoromethane	97.8			71-125	%REC	1	2/13/2012 21:38
Surr: Toluene-d8	98.4			75-125	%REC	1	2/13/2012 21:38

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 16-Feb-12

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-MW25A-20120208
Collection Date: 2/8/2012 01:10 PM

Work Order: 1202263
Lab ID: 1202263-35
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270	Prep: SW3510 / 2/11/12		Analyst: LG	
1,2-Diphenylhydrazine	U		0.000050	0.00020	mg/L	1	2/11/2012 19:07
2,4-Dimethylphenol	U		0.000050	0.00020	mg/L	1	2/11/2012 19:07
2,4-Dinitrotoluene	U		0.000050	0.00020	mg/L	1	2/11/2012 19:07
2,6-Dinitrotoluene	U		0.000060	0.00020	mg/L	1	2/11/2012 19:07
2-Chloronaphthalene	U		0.000050	0.00020	mg/L	1	2/11/2012 19:07
2-Methylnaphthalene	U		0.000050	0.00020	mg/L	1	2/11/2012 19:07
4,6-Dinitro-2-methylphenol	U		0.000080	0.00020	mg/L	1	2/11/2012 19:07
4-Nitrophenol	U		0.000050	0.0010	mg/L	1	2/11/2012 19:07
Acenaphthene	0.00053		0.000050	0.00020	mg/L	1	2/11/2012 19:07
Acenaphthylene	U		0.000050	0.00020	mg/L	1	2/11/2012 19:07
Anthracene	U		0.000050	0.00020	mg/L	1	2/11/2012 19:07
Benz(a)anthracene	U		0.000050	0.00020	mg/L	1	2/11/2012 19:07
Benzo(a)pyrene	U		0.000050	0.00020	mg/L	1	2/11/2012 19:07
Bis(2-chloroethoxy)methane	U		0.000050	0.00020	mg/L	1	2/11/2012 19:07
Bis(2-ethylhexyl)phthalate	U		0.00010	0.00020	mg/L	1	2/11/2012 19:07
Chrysene	U		0.000050	0.00020	mg/L	1	2/11/2012 19:07
Dibenzofuran	0.00050		0.000050	0.00020	mg/L	1	2/11/2012 19:07
Di-n-butylphthalate	U		0.000050	0.00020	mg/L	1	2/11/2012 19:07
Fluoranthene	U		0.000050	0.00020	mg/L	1	2/11/2012 19:07
Fluorene	0.00011	J	0.000050	0.00020	mg/L	1	2/11/2012 19:07
Naphthalene	0.00017	J	0.000050	0.00020	mg/L	1	2/11/2012 19:07
Nitrobenzene	U		0.000050	0.00020	mg/L	1	2/11/2012 19:07
N-Nitrosodiphenylamine	U		0.000050	0.00020	mg/L	1	2/11/2012 19:07
Pentachlorophenol	U		0.000050	0.00020	mg/L	1	2/11/2012 19:07
Phenanthrene	U		0.000050	0.00020	mg/L	1	2/11/2012 19:07
Phenol	0.000050	J	0.000050	0.00020	mg/L	1	2/11/2012 19:07
Pyrene	U		0.000050	0.00020	mg/L	1	2/11/2012 19:07
Surr: 2,4,6-Tribromophenol	75.2			34-129	%REC	1	2/11/2012 19:07
Surr: 2-Fluorobiphenyl	59.3			40-125	%REC	1	2/11/2012 19:07
Surr: 2-Fluorophenol	56.8			20-120	%REC	1	2/11/2012 19:07
Surr: 4-Terphenyl-d14	66.9			40-135	%REC	1	2/11/2012 19:07
Surr: Nitrobenzene-d5	82.0			41-120	%REC	1	2/11/2012 19:07
Surr: Phenol-d6	50.7			20-120	%REC	1	2/11/2012 19:07
VOLATILES			Method: SW8260			Analyst: AKP	
1,2-Dichloroethane	U		0.0010	0.0050	mg/L	1	2/13/2012 22:02
Benzene	U		0.0010	0.0050	mg/L	1	2/13/2012 22:02
Chlorobenzene	U		0.0010	0.0050	mg/L	1	2/13/2012 22:02
Ethylbenzene	U		0.0011	0.0050	mg/L	1	2/13/2012 22:02

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 16-Feb-12

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-MW25A-20120208
Collection Date: 2/8/2012 01:10 PM

Work Order: 1202263
Lab ID: 1202263-35
Matrix: WATER

Analyses	Result	Qual	SDL	ML	Units	Dilution Factor	Date Analyzed
Methylenechloride	U		0.0013	0.010	mg/L	1	2/13/2012 22:02
Toluene	U		0.0010	0.0050	mg/L	1	2/13/2012 22:02
Vinylchloride	U		0.0010	0.0020	mg/L	1	2/13/2012 22:02
Xylenes, Total	U		0.0031	0.015	mg/L	1	2/13/2012 22:02
Surr: 1,2-Dichloroethane-d4	103			70-125	%REC	1	2/13/2012 22:02
Surr: 4-Bromofluorobenzene	97.5			72-125	%REC	1	2/13/2012 22:02
Surr: Dibromofluoromethane	101			71-125	%REC	1	2/13/2012 22:02
Surr: Toluene-d8	99.2			75-125	%REC	1	2/13/2012 22:02

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 16-Feb-12

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-MW25C-20120208
Collection Date: 2/8/2012 01:55 PM

Work Order: 1202263
Lab ID: 1202263-36
Matrix: WATER

Analyses	Result	Qual	SDL	ML	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270	Prep: SW3510 / 2/11/12	Analyst: LG		
1,2-Diphenylhydrazine	U		0.000050	0.00020	mg/L	1	2/13/2012 23:15
2,4-Dimethylphenol	U		0.000050	0.00020	mg/L	1	2/13/2012 23:15
2,4-Dinitrotoluene	U		0.000050	0.00020	mg/L	1	2/13/2012 23:15
2,6-Dinitrotoluene	U		0.000060	0.00020	mg/L	1	2/13/2012 23:15
2-Chloronaphthalene	U		0.000050	0.00020	mg/L	1	2/13/2012 23:15
2-Methylnaphthalene	0.92		0.0050	0.020	mg/L	100	2/14/2012 21:41
4,6-Dinitro-2-methylphenol	U		0.000080	0.00020	mg/L	1	2/13/2012 23:15
4-Nitrophenol	U		0.000050	0.0010	mg/L	1	2/13/2012 23:15
Acenaphthene	0.26		0.0050	0.020	mg/L	100	2/14/2012 21:41
Acenaphthylene	0.0021		0.000050	0.00020	mg/L	1	2/13/2012 23:15
Anthracene	0.021		0.00050	0.0020	mg/L	10	2/14/2012 21:22
Benz(a)anthracene	0.00054		0.000050	0.00020	mg/L	1	2/13/2012 23:15
Benzo(a)pyrene	0.00017	J	0.000050	0.00020	mg/L	1	2/13/2012 23:15
Bis(2-chloroethoxy)methane	U		0.000050	0.00020	mg/L	1	2/13/2012 23:15
Bis(2-ethylhexyl)phthalate	U		0.00010	0.00020	mg/L	1	2/13/2012 23:15
Chrysene	0.00062		0.000050	0.00020	mg/L	1	2/13/2012 23:15
Dibenzofuran	0.26		0.0050	0.020	mg/L	100	2/14/2012 21:41
Di-n-butylphthalate	U		0.000050	0.00020	mg/L	1	2/13/2012 23:15
Fluoranthene	0.011		0.00050	0.0020	mg/L	10	2/14/2012 21:22
Fluorene	0.13		0.0050	0.020	mg/L	100	2/14/2012 21:41
Naphthalene	15		0.25	1.0	mg/L	5000	2/14/2012 22:05
Nitrobenzene	U		0.000050	0.00020	mg/L	1	2/13/2012 23:15
N-Nitrosodiphenylamine	U		0.000050	0.00020	mg/L	1	2/13/2012 23:15
Pentachlorophenol	U		0.000050	0.00020	mg/L	1	2/13/2012 23:15
Phenanthrene	0.14		0.0050	0.020	mg/L	100	2/14/2012 21:41
Phenol	0.0030		0.000050	0.00020	mg/L	1	2/13/2012 23:15
Pyrene	0.0047		0.000050	0.00020	mg/L	1	2/13/2012 23:15
Surr:2,4,6-Tribromophenol	53.6			34-129	%REC	1	2/13/2012 23:15
Surr:2,4,6-Tribromophenol	91.1			34-129	%REC	10	2/14/2012 21:22
Surr:2,4,6-Tribromophenol	96.7	J		34-129	%REC	100	2/14/2012 21:41
Surr:2,4,6-Tribromophenol	0	S		34-129	%REC	5000	2/14/2012 22:05
Surr:2-Fluorobiphenyl	40.0			40-125	%REC	1	2/13/2012 23:15
Surr:2-Fluorobiphenyl	74.8			40-125	%REC	10	2/14/2012 21:22
Surr:2-Fluorobiphenyl	86.6	J		40-125	%REC	100	2/14/2012 21:41
Surr:2-Fluorobiphenyl	0	S		40-125	%REC	5000	2/14/2012 22:05
Surr:2-Fluorophenol	106			20-120	%REC	1	2/13/2012 23:15
Surr:2-Fluorophenol	75.8			20-120	%REC	10	2/14/2012 21:22
Surr:2-Fluorophenol	72.7	J		20-120	%REC	100	2/14/2012 21:41

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 16-Feb-12

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-MW25C-20120208
Collection Date: 2/8/2012 01:55 PM

Work Order: 1202263
Lab ID: 1202263-36
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
Surr: 2-Fluorophenol	0	S		20-120	%REC	5000	2/14/2012 22:05
Surr: 4-Terphenyl-d14	64.5			40-135	%REC	1	2/13/2012 23:15
Surr: 4-Terphenyl-d14	91.3			40-135	%REC	10	2/14/2012 21:22
Surr: 4-Terphenyl-d14	91.1	J		40-135	%REC	100	2/14/2012 21:41
Surr: 4-Terphenyl-d14	0	S		40-135	%REC	5000	2/14/2012 22:05
Surr: Nitrobenzene-d5	68.1			41-120	%REC	1	2/13/2012 23:15
Surr: Nitrobenzene-d5	100			41-120	%REC	10	2/14/2012 21:22
Surr: Nitrobenzene-d5	80.4	J		41-120	%REC	100	2/14/2012 21:41
Surr: Nitrobenzene-d5	0	S		41-120	%REC	5000	2/14/2012 22:05
Surr: Phenol-d6	82.9			20-120	%REC	1	2/13/2012 23:15
Surr: Phenol-d6	63.9			20-120	%REC	10	2/14/2012 21:22
Surr: Phenol-d6	64.4	J		20-120	%REC	100	2/14/2012 21:41
Surr: Phenol-d6	0	S		20-120	%REC	5000	2/14/2012 22:05

VOLATILES		Method: SW8260				Analyst: AKP	
1,2-Dichloroethane	U		0.010	0.050	mg/L	10	2/14/2012 15:33
Benzene	0.039	J	0.010	0.050	mg/L	10	2/14/2012 15:33
Chlorobenzene	U		0.010	0.050	mg/L	10	2/14/2012 15:33
Ethylbenzene	0.34		0.011	0.050	mg/L	10	2/14/2012 15:33
Methylenechloride	U		0.013	0.10	mg/L	10	2/14/2012 15:33
Toluene	0.31		0.010	0.050	mg/L	10	2/14/2012 15:33
Vinyl chloride	U		0.010	0.020	mg/L	10	2/14/2012 15:33
Xylenes, Total	0.98		0.031	0.15	mg/L	10	2/14/2012 15:33
Surr: 1,2-Dichloroethane-d4	102			70-125	%REC	10	2/14/2012 15:33
Surr: 4-Bromofluorobenzene	102			72-125	%REC	10	2/14/2012 15:33
Surr: Dibromofluoromethane	99.9			71-125	%REC	10	2/14/2012 15:33
Surr: Toluene-d8	99.5			75-125	%REC	10	2/14/2012 15:33

Note: See Qualifiers Page for a list of qualifiers and their explanation.

WorkOrder: 1202263
InstrumentID: SV-2
Test Code: 8270_LOW_W
Test Number: SW8270
Test Name: Low-LevelSemivolatiles

**METHOD DETECTION /
 REPORTING LIMITS**

Matrix: Aqueous **Units:** mg/L

Type	Analyte	CAS	DCS	MDL	Unadjusted MQL
A	1,2-Diphenylhydrazine	122-66-7	0.000082	0.000050	0.00020
A	2,4-Dimethylphenol	105-67-9	0.000054	0.000050	0.00020
A	2,4-Dinitrotoluene	121-14-2	0.000063	0.000050	0.00020
A	2,6-Dinitrotoluene	606-20-2	0.000067	0.000060	0.00020
A	2-Chloronaphthalene	91-58-7	0.000071	0.000050	0.00020
A	2-Methylnaphthalene	91-57-6	0.00014	0.000050	0.00020
A	4,6-Dinitro-2-methylphenol	534-52-1	0.000040	0.000080	0.00020
A	4-Nitrophenol	100-02-7	0.000048	0.000050	0.0010
A	Acenaphthene	83-32-9	0.000080	0.000050	0.00020
A	Acenaphthylene	208-96-8	0.000072	0.000050	0.00020
A	Anthracene	120-12-7	0.000079	0.000050	0.00020
A	Benz(a)anthracene	56-55-3	0.000078	0.000050	0.00020
A	Benzo(a)pyrene	50-32-8	0.000064	0.000050	0.00020
A	Bis(2-chloroethoxy)methane	111-91-1	0.000067	0.000050	0.00020
A	Bis(2-ethylhexyl)phthalate	117-81-7	0.000067	0.00010	0.00020
A	Chrysene	218-01-9	0.000076	0.000050	0.00020
A	Dibenzofuran	132-64-9	0.000085	0.000050	0.00020
A	Di-n-butyl phthalate	84-74-2	0.000088	0.000050	0.00020
A	Fluoranthene	206-44-0	0.000083	0.000050	0.00020
A	Fluorene	86-73-7	0.000076	0.000050	0.00020
A	Naphthalene	91-20-3	0.00011	0.000050	0.00020
A	Nitrobenzene	98-95-3	0.00010	0.000050	0.00020
A	N-Nitrosodiphenylamine	86-30-6	0.000069	0.000050	0.00020
A	Pentachlorophenol	87-86-5	0.000055	0.000050	0.00020
A	Phenanthrene	85-01-8	0.000078	0.000050	0.00020
A	Phenol	108-95-2	0.000085	0.000050	0.00020
A	Pyrene	129-00-0	0.000075	0.000050	0.00020
S	Surr: 2,4,6-Tribromophenol	118-79-6	0	0	0.00020
S	Surr: 2-Fluorobiphenyl	321-60-8	0	0	0.00020
S	Surr: 2-Fluorophenol	367-12-4	0	0	0.00020
S	Surr: 4-Terphenyl-d14	1718-51-0	0	0	0.00020
S	Surr: Nitrobenzene-d5	4165-60-0	0	0	0.00020
S	Surr: Phenol-d6	13127-88-3	0	0	0.00020

WorkOrder: 1202263
 InstrumentID: SV-6
 Test Code: 8270_LOW_W
 Test Number: SW8270
 Test Name: Low-LevelSemivolatiles

**METHOD DETECTION /
 REPORTING LIMITS**

Matrix: Aqueous Units: mg/L

Type	Analyte	CAS	DCS	MDL	Unadjusted MQL
A	2,4-Dimethylphenol	105-67-9	0.000067	0.000050	0.00020
A	2-Methylnaphthalene	91-57-6	0.00013	0.000050	0.00020
A	Acenaphthene	83-32-9	0.000071	0.000050	0.00020
A	Anthracene	120-12-7	0.000072	0.000050	0.00020
A	Dibenzofuran	132-64-9	0.000079	0.000050	0.00020
A	Fluoranthene	206-44-0	0.000068	0.000050	0.00020
A	Fluorene	86-73-7	0.000073	0.000050	0.00020
A	Naphthalene	91-20-3	0.000093	0.000050	0.00020
A	Phenanthrene	85-01-8	0.000070	0.000050	0.00020
A	Phenol	108-95-2	0.000060	0.000050	0.00020
S	Surr: 2,4,6-Tribromophenol	118-79-6	0	0	0.00020
S	Surr: 2-Fluorobiphenyl	321-60-8	0	0	0.00020
S	Surr: 2-Fluorophenol	367-12-4	0	0	0.00020
S	Surr: 4-Terphenyl-d14	1718-51-0	0	0	0.00020
S	Surr: Nitrobenzene-d5	4165-60-0	0	0	0.00020
S	Surr: Phenol-d6	13127-88-3	0	0	0.00020

WorkOrder: 1202263
InstrumentID: VOA4
Test Code: 8260_W
Test Number: SW8260
Test Name: Volatiles

**METHOD DETECTION /
 REPORTING LIMITS**

Matrix: Aqueous **Units:** mg/L

Type	Analyte	CAS	DCS	MDL	Unadjusted MQL
A	1,2-Dichloroethane	107-06-2	0.00095	0.0010	0.0050
A	Benzene	71-43-2	0.0010	0.0010	0.0050
A	Chlorobenzene	108-90-7	0.0011	0.0010	0.0050
A	Ethylbenzene	100-41-4	0.0011	0.0011	0.0050
A	Methylene chloride	75-09-2	0.0013	0.0013	0.010
A	Toluene	108-88-3	0.0010	0.0010	0.0050
A	Vinyl chloride	75-01-4	0.00082	0.0010	0.0020
M	Xylenes, Total	1330-20-7	0.0032	0.0031	0.015
S	Surr: 1,2-Dichloroethane-d4	17060-07-0	0	0	0.0050
S	Surr: 4-Bromofluorobenzene	460-00-4	0	0	0.0050
S	Surr: Dibromofluoromethane	1868-53-7	0	0	0.0050
S	Surr: Toluene-d8	2037-26-5	0	0	0.0050

WorkOrder: 1202263
InstrumentID: VOA8
Test Code: 8260_W
Test Number: SW8260
Test Name: Volatiles

**METHOD DETECTION /
 REPORTING LIMITS**

Matrix: Aqueous **Units:** mg/L

Type	Analyte	CAS	DCS	MDL	Unadjusted MQL
A	1,2-Dichloroethane	107-06-2	0.0010	0.0010	0.0050
A	Benzene	71-43-2	0.0011	0.0010	0.0050
A	Chlorobenzene	108-90-7	0.0011	0.0010	0.0050
A	Ethylbenzene	100-41-4	0.0010	0.0011	0.0050
A	Methylene chloride	75-09-2	0.0013	0.0013	0.010
A	Toluene	108-88-3	0.0011	0.0010	0.0050
A	Vinyl chloride	75-01-4	0.00085	0.0010	0.0020
M	Xylenes, Total	1330-20-7	0.0032	0.0031	0.015
S	Surr: 1,2-Dichloroethane-d4	17060-07-0	0	0	0.0050
S	Surr: 4-Bromofluorobenzene	460-00-4	0	0	0.0050
S	Surr: Dibromofluoromethane	1868-53-7	0	0	0.0050
S	Surr: Toluene-d8	2037-26-5	0	0	0.0050

ALS Environmental

Date: 16-Feb-12

Client: Pastor, Behling & Wheeler, LLC
Work Order: 1202263
Project: HWPW Site-Wide GW

QC BATCH REPORT

Batch ID: **58817** Instrument ID: **SV-6** Method: **SW8270**

MBLK Sample ID: **SBLKW2-120209-58817** Units: **µg/L** Analysis Date: **2/10/2012 11:17 AM**

Client ID: Run ID: **SV-6_120210A** SeqNo: **2683791** Prep Date: **2/9/2012** DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Diphenylhydrazine	U	0.20								
2,4-Dimethylphenol	U	0.20								
2,4-Dinitrotoluene	U	0.20								
2,6-Dinitrotoluene	U	0.20								
2-Chloronaphthalene	U	0.20								
2-Methylnaphthalene	U	0.20								
4,6-Dinitro-2-methylphenol	U	0.20								
4-Nitrophenol	U	1.0								
Acenaphthene	U	0.20								
Acenaphthylene	U	0.20								
Anthracene	U	0.20								
Benz(a)anthracene	U	0.20								
Benzo(a)pyrene	U	0.20								
Bis(2-chloroethoxy)methane	U	0.20								
Bis(2-ethylhexyl)phthalate	U	0.20								
Chrysene	U	0.20								
Dibenzofuran	U	0.20								
Di-n-butylphthalate	U	0.20								
Fluoranthene	U	0.20								
Fluorene	U	0.20								
Naphthalene	U	0.20								
Nitrobenzene	U	0.20								
N-Nitrosodiphenylamine	U	0.20								
Pentachlorophenol	U	0.20								
Phenanthrene	U	0.20								
Phenol	U	0.20								
Pyrene	U	0.20								
<i>Surr: 2,4,6-Tribromophenol</i>	<i>4.171</i>	<i>0.20</i>	<i>5</i>	<i>0</i>	<i>83.4</i>	<i>34-129</i>	<i>0</i>			
<i>Surr: 2-Fluorobiphenyl</i>	<i>3.884</i>	<i>0.20</i>	<i>5</i>	<i>0</i>	<i>77.7</i>	<i>40-125</i>	<i>0</i>			
<i>Surr: 2-Fluorophenol</i>	<i>3.392</i>	<i>0.20</i>	<i>5</i>	<i>0</i>	<i>67.8</i>	<i>20-120</i>	<i>0</i>			
<i>Surr: 4-Terphenyl-d14</i>	<i>4.018</i>	<i>0.20</i>	<i>5</i>	<i>0</i>	<i>80.4</i>	<i>40-135</i>	<i>0</i>			
<i>Surr: Nitrobenzene-d5</i>	<i>3.651</i>	<i>0.20</i>	<i>5</i>	<i>0</i>	<i>73</i>	<i>41-120</i>	<i>0</i>			
<i>Surr: Phenol-d6</i>	<i>3.771</i>	<i>0.20</i>	<i>5</i>	<i>0</i>	<i>75.4</i>	<i>20-120</i>	<i>0</i>			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Pastor, Behling & Wheeler, LLC
 Work Order: 1202263
 Project: HWPW Site-Wide GW

QC BATCH REPORT

Batch ID: 58817 Instrument ID: SV-6 Method: SW8270

LCS		Sample ID: SLCSW2-120209-58817			Units: µg/L		Analysis Date: 2/10/2012 11:36 AM			
Client ID:		Run ID: SV-6_120210A			SeqNo: 2683792		Prep Date: 2/9/2012		DF: 1	
Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Diphenylhydrazine	4.165	0.20	5	0	83.3	39-127	0			
2,4-Dimethylphenol	3.753	0.20	5	0	75.1	35-120	0			
2,4-Dinitrotoluene	4.4	0.20	5	0	88	50-122	0			
2,6-Dinitrotoluene	4.408	0.20	5	0	88.2	50-120	0			
2-Chloronaphthalene	3.776	0.20	5	0	75.5	50-120	0			
2-Methylnaphthalene	4.012	0.20	5	0	80.2	50-120	0			
4,6-Dinitro-2-methylphenol	5.261	0.20	5	0	105	25-121	0			
4-Nitrophenol	4.62	1.0	5	0	92.4	30-130	0			
Acenaphthene	4.123	0.20	5	0	82.5	45-120	0			
Acenaphthylene	3.965	0.20	5	0	79.3	47-120	0			
Anthracene	4.084	0.20	5	0	81.7	45-120	0			
Benz(a)anthracene	4.166	0.20	5	0	83.3	40-120	0			
Benzo(a)pyrene	4.128	0.20	5	0	82.6	45-120	0			
Bis(2-chloroethoxy)methane	3.936	0.20	5	0	78.7	45-120	0			
Bis(2-ethylhexyl)phthalate	4.537	0.20	5	0	90.7	40-139	0			
Chrysene	4.037	0.20	5	0	80.7	43-120	0			
Dibenzofuran	4.131	0.20	5	0	82.6	50-120	0			
Di-n-butylphthalate	4.206	0.20	5	0	84.1	45-123	0			
Fluoranthene	4.1	0.20	5	0	82	45-125	0			
Fluorene	4.046	0.20	5	0	80.9	49-120	0			
Naphthalene	4.06	0.20	5	0	81.2	45-120	0			
Nitrobenzene	4.021	0.20	5	0	80.4	44-120	0			
N-Nitrosodiphenylamine	4.153	0.20	5	0	83.1	40-125	0			
Pentachlorophenol	4.841	0.20	5	0	96.8	19-121	0			
Phenanthrene	3.99	0.20	5	0	79.8	45-121	0			
Phenol	4.199	0.20	5	0	84	20-124	0			
Pyrene	4.09	0.20	5	0	81.8	40-130	0			
Surr: 2,4,6-Tribromophenol	4.8	0.20	5	0	96	34-129	0			
Surr: 2-Fluorobiphenyl	4.365	0.20	5	0	87.3	40-125	0			
Surr: 2-Fluorophenol	4.243	0.20	5	0	84.9	20-120	0			
Surr: 4-Terphenyl-d14	4.52	0.20	5	0	90.4	40-135	0			
Surr: Nitrobenzene-d5	4.261	0.20	5	0	85.2	41-120	0			
Surr: Phenol-d6	4.336	0.20	5	0	86.7	20-120	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Pastor, Behling & Wheeler, LLC

Work Order: 1202263

Project: HWPW Site-Wide GW

QC BATCH REPORT

Batch ID: 58817

Instrument ID: SV-6

Method: SW8270

LCSD	Sample ID: SLCSDW2-120209-58817	Units: µg/L					Analysis Date: 2/10/2012 11:55 AM			
Client ID:	Run ID: SV-6_120210A	SeqNo: 2683793	Prep Date: 2/9/2012	DF: 1						
Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Diphenylhydrazine	3.817	0.20	5	0	76.3	39-127	4.165	8.71	20	
2,4-Dimethylphenol	3.383	0.20	5	0	67.7	35-120	3.753	10.4	20	
2,4-Dinitrotoluene	4.27	0.20	5	0	85.4	50-122	4.4	3	20	
2,6-Dinitrotoluene	4.156	0.20	5	0	83.1	50-120	4.408	5.89	20	
2-Chloronaphthalene	3.485	0.20	5	0	69.7	50-120	3.776	8.01	20	
2-Methylnaphthalene	3.68	0.20	5	0	73.6	50-120	4.012	8.64	20	
4,6-Dinitro-2-methylphenol	4.725	0.20	5	0	94.5	25-121	5.261	10.7	20	
4-Nitrophenol	4.169	1.0	5	0	83.4	30-130	4.62	10.3	20	
Acenaphthene	3.795	0.20	5	0	75.9	45-120	4.123	8.3	20	
Acenaphthylene	3.748	0.20	5	0	75	47-120	3.965	5.61	20	
Anthracene	3.766	0.20	5	0	75.3	45-120	4.084	8.1	20	
Benz(a)anthracene	3.919	0.20	5	0	78.4	40-120	4.166	6.1	20	
Benzo(a)pyrene	3.76	0.20	5	0	75.2	45-120	4.128	9.32	20	
Bis(2-chloroethoxy)methane	3.627	0.20	5	0	72.5	45-120	3.936	8.16	20	
Bis(2-ethylhexyl)phthalate	4.272	0.20	5	0	85.4	40-139	4.537	6.01	20	
Chrysene	3.818	0.20	5	0	76.4	43-120	4.037	5.56	20	
Dibenzofuran	3.891	0.20	5	0	77.8	50-120	4.131	6	20	
Di-n-butylphthalate	3.937	0.20	5	0	78.7	45-123	4.206	6.59	20	
Fluoranthene	3.783	0.20	5	0	75.7	45-125	4.1	8.04	20	
Fluorene	3.849	0.20	5	0	77	49-120	4.046	4.99	20	
Naphthalene	3.706	0.20	5	0	74.1	45-120	4.06	9.13	20	
Nitrobenzene	3.596	0.20	5	0	71.9	44-120	4.021	11.2	20	
N-Nitrosodiphenylamine	3.895	0.20	5	0	77.9	40-125	4.153	6.4	20	
Pentachlorophenol	4.442	0.20	5	0	88.8	19-121	4.841	8.6	20	
Phenanthrene	3.707	0.20	5	0	74.1	45-121	3.99	7.36	20	
Phenol	3.724	0.20	5	0	74.5	20-124	4.199	12	20	
Pyrene	3.827	0.20	5	0	76.5	40-130	4.09	6.65	20	
Surr: 2,4,6-Tribromophenol	4.447	0.20	5	0	88.9	34-129	4.8	7.64	0	
Surr: 2-Fluorobiphenyl	4.071	0.20	5	0	81.4	40-125	4.365	6.97	0	
Surr: 2-Fluorophenol	3.774	0.20	5	0	75.5	20-120	4.243	11.7	0	
Surr: 4-Terphenyl-d14	4.207	0.20	5	0	84.1	40-135	4.52	7.18	0	
Surr: Nitrobenzene-d5	3.926	0.20	5	0	78.5	41-120	4.261	8.17	0	
Surr: Phenol-d6	3.896	0.20	5	0	77.9	20-120	4.336	10.7	0	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Pastor, Behling & Wheeler, LLC

QC BATCH REPORT

Work Order: 1202263

Project: HWPW Site-Wide GW

Batch ID: 58817

Instrument ID: SV-6

Method: SW8270

MS	Sample ID: 1202263-10BMS	Units: µg/L					Analysis Date: 2/11/2012 03:43 PM			
Client ID: WG-1620-MW61A-20120207	Run ID: SV-6_120210A	SeqNo: 2687584	Prep Date: 2/9/2012	DF: 1						
Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Diphenylhydrazine	2.938	0.20	5	0	58.8	39-127	0			
2,4-Dimethylphenol	3.109	0.20	5	0	62.2	35-120	0			
2,4-Dinitrotoluene	3.498	0.20	5	0	70	50-122	0			
2,6-Dinitrotoluene	3.274	0.20	5	0	65.5	50-120	0			
2-Chloronaphthalene	3.833	0.20	5	0	76.7	50-120	0			
2-Methylnaphthalene	3.711	0.20	5	0	74.2	50-120	0			
4,6-Dinitro-2-methylphenol	2.495	0.20	5	0	49.9	25-121	0			
4-Nitrophenol	4.969	1.0	5	0	99.4	30-130	0			
Acenaphthene	3.108	0.20	5	0	62.2	45-120	0			
Acenaphthylene	3.424	0.20	5	0	68.5	47-120	0			
Anthracene	3.33	0.20	5	0	66.6	45-120	0			
Benz(a)anthracene	3.343	0.20	5	0	66.9	40-120	0			
Benzo(a)pyrene	3.706	0.20	5	0	74.1	45-120	0			
Bis(2-chloroethoxy)methane	3.658	0.20	5	0	73.2	45-120	0			
Bis(2-ethylhexyl)phthalate	4.491	0.20	5	0.3797	82.2	40-139	0			
Chrysene	3.774	0.20	5	0	75.5	43-120	0			
Dibenzofuran	3.658	0.20	5	0	73.2	50-120	0			
Di-n-butylphthalate	3.826	0.20	5	0	76.5	45-123	0			
Fluoranthene	3.683	0.20	5	0	73.7	45-125	0			
Fluorene	3.95	0.20	5	0	79	49-120	0			
Naphthalene	3.346	0.20	5	0	66.9	45-120	0			
Nitrobenzene	4.308	0.20	5	0	86.2	44-120	0			
N-Nitrosodiphenylamine	2.507	0.20	5	0	50.1	40-125	0			
Pentachlorophenol	5.211	0.20	5	0	104	19-121	0			
Phenanthrene	3.308	0.20	5	0	66.2	45-121	0			
Phenol	3.629	0.20	5	0	72.6	20-124	0			
Pyrene	3.733	0.20	5	0	74.7	40-130	0			
Surr: 2,4,6-Tribromophenol	4.005	0.20	5	0	80.1	34-129	0			
Surr: 2-Fluorobiphenyl	3.591	0.20	5	0	71.8	40-125	0			
Surr: 2-Fluorophenol	3.095	0.20	5	0	61.9	20-120	0			
Surr: 4-Terphenyl-d14	3.807	0.20	5	0	76.1	40-135	0			
Surr: Nitrobenzene-d5	4.35	0.20	5	0	87	41-120	0			
Surr: Phenol-d6	3.104	0.20	5	0	62.1	20-120	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Pastor, Behling & Wheeler, LLC
 Work Order: 1202263
 Project: HWPW Site-Wide GW

QC BATCH REPORT

Batch ID: 58817 Instrument ID: SV-6 Method: SW8270

MSD	Sample ID: 1202263-10BMSD	Units: µg/L					Analysis Date: 2/11/2012 04:03 PM			
Client ID: WG-1620-MW61A-20120207	Run ID: SV-6_120210A	SeqNo: 2687585	Prep Date: 2/9/2012	DF: 1						
Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Diphenylhydrazine	3.17	0.20	5	0	63.4	39-127	2.938	7.6	20	
2,4-Dimethylphenol	3.06	0.20	5	0	61.2	35-120	3.109	1.59	20	
2,4-Dinitrotoluene	2.882	0.20	5	0	57.6	50-122	3.498	19.3	20	
2,6-Dinitrotoluene	3.035	0.20	5	0	60.7	50-120	3.274	7.59	20	
2-Chloronaphthalene	3.595	0.20	5	0	71.9	50-120	3.833	6.4	20	
2-Methylnaphthalene	3.381	0.20	5	0	67.6	50-120	3.711	9.3	20	
4,6-Dinitro-2-methylphenol	2.508	0.20	5	0	50.2	25-121	2.495	0.54	20	
4-Nitrophenol	4.495	1.0	5	0	89.9	30-130	4.969	10	20	
Acenaphthene	3.082	0.20	5	0	61.6	45-120	3.108	0.847	20	
Acenaphthylene	3.346	0.20	5	0	66.9	47-120	3.424	2.31	20	
Anthracene	3.924	0.20	5	0	78.5	45-120	3.33	16.4	20	
Benz(a)anthracene	3.195	0.20	5	0	63.9	40-120	3.343	4.54	20	
Benzo(a)pyrene	3.695	0.20	5	0	73.9	45-120	3.706	0.291	20	
Bis(2-chloroethoxy)methane	2.995	0.20	5	0	59.9	45-120	3.658	19.9	20	
Bis(2-ethylhexyl)phthalate	3.795	0.20	5	0.3797	68.3	40-139	4.491	16.8	20	
Chrysene	3.889	0.20	5	0	77.8	43-120	3.774	2.99	20	
Dibenzofuran	3.543	0.20	5	0	70.9	50-120	3.658	3.19	20	
Di-n-butylphthalate	3.86	0.20	5	0	77.2	45-123	3.826	0.903	20	
Fluoranthene	3.851	0.20	5	0	77	45-125	3.683	4.45	20	
Fluorene	3.497	0.20	5	0	69.9	49-120	3.95	12.2	20	
Naphthalene	3.465	0.20	5	0	69.3	45-120	3.346	3.48	20	
Nitrobenzene	4.391	0.20	5	0	87.8	44-120	4.308	1.92	20	
N-Nitrosodiphenylamine	2.401	0.20	5	0	48	40-125	2.507	4.32	20	
Pentachlorophenol	4.908	0.20	5	0	98.2	19-121	5.211	5.99	20	
Phenanthrene	3.503	0.20	5	0	70.1	45-121	3.308	5.73	20	
Phenol	3.274	0.20	5	0	65.5	20-124	3.629	10.3	20	
Pyrene	3.752	0.20	5	0	75	40-130	3.733	0.526	20	
Surr: 2,4,6-Tribromophenol	3.347	0.20	5	0	66.9	34-129	4.005	17.9	0	
Surr: 2-Fluorobiphenyl	3.497	0.20	5	0	69.9	40-125	3.591	2.64	0	
Surr: 2-Fluorophenol	3.325	0.20	5	0	66.5	20-120	3.095	7.18	0	
Surr: 4-Terphenyl-d14	3.759	0.20	5	0	75.2	40-135	3.807	1.27	0	
Surr: Nitrobenzene-d5	4.211	0.20	5	0	84.2	41-120	4.35	3.26	0	
Surr: Phenol-d6	2.914	0.20	5	0	58.3	20-120	3.104	6.34	0	

The following samples were analyzed in this batch:

1202263-01B	1202263-02B	1202263-03B
1202263-04B	1202263-05B	1202263-07B
1202263-08B	1202263-09B	1202263-10B
1202263-11B		

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Pastor, Behling & Wheeler, LLC

Work Order: 1202263

Project: HWPW Site-Wide GW

QC BATCH REPORT

Batch ID: 58851

Instrument ID: SV-2

Method: SW8270

MBLK Sample ID: SBLKW1-120211-58851 Units: µg/L Analysis Date: 2/11/2012 01:20 PM

Client ID: Run ID: SV-2_120211A SeqNo: 2687599 Prep Date: 2/11/2012 DF: 1

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Diphenylhydrazine	U	0.20								
2,4-Dimethylphenol	U	0.20								
2,4-Dinitrotoluene	U	0.20								
2,6-Dinitrotoluene	U	0.20								
2-Chloronaphthalene	U	0.20								
2-Methylnaphthalene	U	0.20								
4,6-Dinitro-2-methylphenol	U	0.20								
4-Nitrophenol	U	1.0								
Acenaphthene	U	0.20								
Acenaphthylene	U	0.20								
Anthracene	U	0.20								
Benz(a)anthracene	U	0.20								
Benzo(a)pyrene	U	0.20								
Bis(2-chloroethoxy)methane	U	0.20								
Bis(2-ethylhexyl)phthalate	U	0.20								
Chrysene	U	0.20								
Dibenzofuran	U	0.20								
Di-n-butylphthalate	U	0.20								
Fluoranthene	U	0.20								
Fluorene	U	0.20								
Naphthalene	U	0.20								
Nitrobenzene	U	0.20								
N-Nitrosodiphenylamine	U	0.20								
Pentachlorophenol	U	0.20								
Phenanthrene	U	0.20								
Phenol	U	0.20								
Pyrene	U	0.20								
Surr: 2,4,6-Tribromophenol	3.84	0.20	5	0	76.8	34-129		0		
Surr: 2-Fluorobiphenyl	3.86	0.20	5	0	77.2	40-125		0		
Surr: 2-Fluorophenol	3.316	0.20	5	0	66.3	20-120		0		
Surr: 4-Terphenyl-d14	4.33	0.20	5	0	86.6	40-135		0		
Surr: Nitrobenzene-d5	5.059	0.20	5	0	101	41-120		0		
Surr: Phenol-d6	3.138	0.20	5	0	62.8	20-120		0		

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Pastor, Behling & Wheeler, LLC
 Work Order: 1202263
 Project: HWPW Site-Wide GW

QC BATCH REPORT

Batch ID: 58851 Instrument ID: SV-2 Method: SW8270

LCS		Sample ID: SLCSW1-120211-58851			Units: µg/L			Analysis Date: 2/11/2012 01:40 PM		
Client ID:		Run ID: SV-2_120211A			SeqNo: 2687600		Prep Date: 2/11/2012		DF: 1	
Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Diphenylhydrazine	3.878	0.20	5	0	77.6	39-127	0			
2,4-Dimethylphenol	3.202	0.20	5	0	64	35-120	0			
2,4-Dinitrotoluene	3.804	0.20	5	0	76.1	50-122	0			
2,6-Dinitrotoluene	4.11	0.20	5	0	82.2	50-120	0			
2-Chloronaphthalene	4.318	0.20	5	0	86.4	50-120	0			
2-Methylnaphthalene	3.886	0.20	5	0	77.7	50-120	0			
4,6-Dinitro-2-methylphenol	3.283	0.20	5	0	65.7	25-121	0			
4-Nitrophenol	5.512	1.0	5	0	110	30-130	0			
Acenaphthene	3.904	0.20	5	0	78.1	45-120	0			
Acenaphthylene	4.073	0.20	5	0	81.5	47-120	0			
Anthracene	4.599	0.20	5	0	92	45-120	0			
Benz(a)anthracene	4.192	0.20	5	0	83.8	40-120	0			
Benzo(a)pyrene	4.601	0.20	5	0	92	45-120	0			
Bis(2-chloroethoxy)methane	3.497	0.20	5	0	69.9	45-120	0			
Bis(2-ethylhexyl)phthalate	4.46	0.20	5	0	89.2	40-139	0			
Chrysene	3.894	0.20	5	0	77.9	43-120	0			
Dibenzofuran	4.403	0.20	5	0	88.1	50-120	0			
Di-n-butylphthalate	4.665	0.20	5	0	93.3	45-123	0			
Fluoranthene	4.479	0.20	5	0	89.6	45-125	0			
Fluorene	4.628	0.20	5	0	92.6	49-120	0			
Naphthalene	4.028	0.20	5	0	80.6	45-120	0			
Nitrobenzene	4.562	0.20	5	0	91.2	44-120	0			
N-Nitrosodiphenylamine	3.024	0.20	5	0	60.5	40-125	0			
Pentachlorophenol	5.529	0.20	5	0	111	19-121	0			
Phenanthrene	4.301	0.20	5	0	86	45-121	0			
Phenol	3.774	0.20	5	0	75.5	20-124	0			
Pyrene	4.381	0.20	5	0	87.6	40-130	0			
Surr: 2,4,6-Tribromophenol	4.213	0.20	5	0	84.3	34-129	0			
Surr: 2-Fluorobiphenyl	4.122	0.20	5	0	82.4	40-125	0			
Surr: 2-Fluorophenol	3.627	0.20	5	0	72.5	20-120	0			
Surr: 4-Terphenyl-d14	4.489	0.20	5	0	89.8	40-135	0			
Surr: Nitrobenzene-d5	4.595	0.20	5	0	91.9	41-120	0			
Surr: Phenol-d6	3.675	0.20	5	0	73.5	20-120	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Pastor, Behling & Wheeler, LLC
 Work Order: 1202263
 Project: HWPW Site-Wide GW

QC BATCH REPORT

Batch ID: 58851 Instrument ID: SV-2 Method: SW8270

LCSD	Sample ID: SLCSDW1-120211-58851	Units: µg/L					Analysis Date: 2/11/2012 02:01 PM			
Client ID:	Run ID: SV-2_120211A	SeqNo: 2687601	Prep Date: 2/11/2012	DF: 1						
Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Diphenylhydrazine	3.557	0.20	5	0	71.1	39-127	3.878	8.64	20	
2,4-Dimethylphenol	3.431	0.20	5	0	68.6	35-120	3.202	6.89	20	
2,4-Dinitrotoluene	4.305	0.20	5	0	86.1	50-122	3.804	12.4	20	
2,6-Dinitrotoluene	3.658	0.20	5	0	73.2	50-120	4.11	11.6	20	
2-Chloronaphthalene	3.855	0.20	5	0	77.1	50-120	4.318	11.3	20	
2-Methylnaphthalene	3.805	0.20	5	0	76.1	50-120	3.886	2.1	20	
4,6-Dinitro-2-methylphenol	2.987	0.20	5	0	59.7	25-121	3.283	9.44	20	
4-Nitrophenol	5.862	1.0	5	0	117	30-130	5.512	6.16	20	
Acenaphthene	3.785	0.20	5	0	75.7	45-120	3.904	3.08	20	
Acenaphthylene	4.037	0.20	5	0	80.7	47-120	4.073	0.882	20	
Anthracene	4.109	0.20	5	0	82.2	45-120	4.599	11.2	20	
Benz(a)anthracene	3.778	0.20	5	0	75.6	40-120	4.192	10.4	20	
Benzo(a)pyrene	4.262	0.20	5	0	85.2	45-120	4.601	7.64	20	
Bis(2-chloroethoxy)methane	3.539	0.20	5	0	70.8	45-120	3.497	1.19	20	
Bis(2-ethylhexyl)phthalate	4.102	0.20	5	0	82	40-139	4.46	8.35	20	
Chrysene	3.985	0.20	5	0	79.7	43-120	3.894	2.3	20	
Dibenzofuran	4.43	0.20	5	0	88.6	50-120	4.403	0.619	20	
Di-n-butylphthalate	4.263	0.20	5	0	85.3	45-123	4.665	9.02	20	
Fluoranthene	4.252	0.20	5	0	85	45-125	4.479	5.18	20	
Fluorene	4.798	0.20	5	0	96	49-120	4.628	3.61	20	
Naphthalene	4.028	0.20	5	0	80.6	45-120	4.028	0.0155	20	
Nitrobenzene	4.442	0.20	5	0	88.8	44-120	4.562	2.67	20	
N-Nitrosodiphenylamine	3.03	0.20	5	0	60.6	40-125	3.024	0.205	20	
Pentachlorophenol	5.914	0.20	5	0	118	19-121	5.529	6.73	20	
Phenanthrene	4.02	0.20	5	0	80.4	45-121	4.301	6.75	20	
Phenol	3.93	0.20	5	0	78.6	20-124	3.774	4.06	20	
Pyrene	3.939	0.20	5	0	78.8	40-130	4.381	10.6	20	
Surr:2,4,6-Tribromophenol	4.756	0.20	5	0	95.1	34-129	4.213	12.1	0	
Surr:2-Fluorobiphenyl	3.964	0.20	5	0	79.3	40-125	4.122	3.89	0	
Surr:2-Fluorophenol	3.648	0.20	5	0	73	20-120	3.627	0.569	0	
Surr:4-Terphenyl-d14	4.138	0.20	5	0	82.8	40-135	4.489	8.16	0	
Surr:Nitrobenzene-d5	4.15	0.20	5	0	83	41-120	4.595	10.2	0	
Surr:Phenol-d6	3.45	0.20	5	0	69	20-120	3.675	6.33	0	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Pastor, Behling & Wheeler, LLC
 Work Order: 1202263
 Project: HWPW Site-Wide GW

QC BATCH REPORT

Batch ID: 58851 Instrument ID: SV-2 Method: SW8270

MS	Sample ID: 1202263-23BMS	Units: µg/L					Analysis Date: 2/11/2012 02:42 PM			
Client ID: WG-1620-MW67B-20120209	Run ID: SV-2_120211A	SeqNo: 2687603	Prep Date: 2/11/2012	DF: 1						
Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Diphenylhydrazine	3.09	0.20	5	0	61.8	39-127	0			
2,4-Dimethylphenol	4.354	0.20	5	0.4978	77.1	35-120	0			
2,4-Dinitrotoluene	3.76	0.20	5	0	75.2	50-122	0			
2,6-Dinitrotoluene	3.688	0.20	5	0	73.8	50-120	0			
2-Chloronaphthalene	4.365	0.20	5	0	87.3	50-120	0			
2-Methylnaphthalene	4.177	0.20	5	0.2291	79	50-120	0			
4,6-Dinitro-2-methylphenol	3.142	0.20	5	0	62.8	25-121	0			
4-Nitrophenol	5.897	1.0	5	0	118	30-130	0			
Acenaphthene	3.618	0.20	5	0.1193	70	45-120	0			
Acenaphthylene	3.934	0.20	5	0	78.7	47-120	0			
Anthracene	3.507	0.20	5	0	70.1	45-120	0			
Benz(a)anthracene	3.554	0.20	5	0	71.1	40-120	0			
Benzo(a)pyrene	3.604	0.20	5	0	72.1	45-120	0			
Bis(2-chloroethoxy)methane	3.39	0.20	5	0	67.8	45-120	0			
Bis(2-ethylhexyl)phthalate	3.835	0.20	5	0.4193	68.3	40-139	0			
Chrysene	3.349	0.20	5	0	67	43-120	0			
Dibenzofuran	4.181	0.20	5	0.1312	81	50-120	0			
Di-n-butylphthalate	3.823	0.20	5	0	76.5	45-123	0			
Fluoranthene	3.648	0.20	5	0	73	45-125	0			
Fluorene	4.025	0.20	5	0.1028	78.4	49-120	0			
Naphthalene	5.902	0.20	5	1.892	80.2	45-120	0			
Nitrobenzene	3.943	0.20	5	0	78.9	44-120	0			
N-Nitrosodiphenylamine	2.433	0.20	5	0	48.7	40-125	0			
Pentachlorophenol	5.954	0.20	5	0	119	19-121	0			
Phenanthrene	3.521	0.20	5	0.1148	68.1	45-121	0			
Phenol	3.34	0.20	5	0.08922	65	20-124	0			
Pyrene	3.48	0.20	5	0	69.6	40-130	0			
Surr:2,4,6-Tribromophenol	4.151	0.20	5	0	83	34-129	0			
Surr:2-Fluorobiphenyl	4.433	0.20	5	0	88.7	40-125	0			
Surr:2-Fluorophenol	2.885	0.20	5	0	57.7	20-120	0			
Surr: 4-Terphenyl-d14	3.698	0.20	5	0	74	40-135	0			
Surr: Nitrobenzene-d5	4.153	0.20	5	0	83.1	41-120	0			
Surr: Phenol-d6	3.249	0.20	5	0	65	20-120	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Pastor, Behling & Wheeler, LLC
 Work Order: 1202263
 Project: HWPW Site-Wide GW

QC BATCH REPORT

Batch ID: 58851 Instrument ID: SV-2 Method: SW8270

MSD	Sample ID: 1202263-23BMSD	Units: µg/L					Analysis Date: 2/11/2012 03:02 PM				
Client ID: WG-1620-MW67B-20120209	Run ID: SV-2_120211A	SeqNo: 2687604	Prep Date: 2/11/2012	DF: 1							
Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
1,2-Diphenylhydrazine	3.026	0.20	5	0	60.5	39-127	3.09	2.09	20		
2,4-Dimethylphenol	3.186	0.20	5	0.4978	53.8	35-120	4.354	31	20	R	
2,4-Dinitrotoluene	3.347	0.20	5	0	66.9	50-122	3.76	11.6	20		
2,6-Dinitrotoluene	3.532	0.20	5	0	70.6	50-120	3.688	4.34	20		
2-Chloronaphthalene	3.27	0.20	5	0	65.4	50-120	4.365	28.7	20	R	
2-Methylnaphthalene	3.351	0.20	5	0.2291	62.4	50-120	4.177	21.9	20	R	
4,6-Dinitro-2-methylphenol	3.071	0.20	5	0	61.4	25-121	3.142	2.3	20		
4-Nitrophenol	5.854	1.0	5	0	117	30-130	5.897	0.741	20		
Acenaphthene	3.005	0.20	5	0.1193	57.7	45-120	3.618	18.5	20		
Acenaphthylene	3.352	0.20	5	0	67	47-120	3.934	16	20		
Anthracene	3.424	0.20	5	0	68.5	45-120	3.507	2.4	20		
Benz(a)anthracene	3.358	0.20	5	0	67.2	40-120	3.554	5.67	20		
Benzo(a)pyrene	3.572	0.20	5	0	71.4	45-120	3.604	0.884	20		
Bis(2-chloroethoxy)methane	2.564	0.20	5	0	51.3	45-120	3.39	27.8	20	R	
Bis(2-ethylhexyl)phthalate	3.884	0.20	5	0.4193	69.3	40-139	3.835	1.28	20		
Chrysene	3.485	0.20	5	0	69.7	43-120	3.349	3.99	20		
Dibenzofuran	3.471	0.20	5	0.1312	66.8	50-120	4.181	18.6	20		
Di-n-butylphthalate	3.831	0.20	5	0	76.6	45-123	3.823	0.209	20		
Fluoranthene	3.719	0.20	5	0	74.4	45-125	3.648	1.92	20		
Fluorene	3.554	0.20	5	0.1028	69	49-120	4.025	12.4	20		
Naphthalene	5.409	0.20	5	1.892	70.3	45-120	5.902	8.71	20		
Nitrobenzene	3.499	0.20	5	0	70	44-120	3.943	11.9	20		
N-Nitrosodiphenylamine	2.328	0.20	5	0	46.6	40-125	2.433	4.42	20		
Pentachlorophenol	6.697	0.20	5	0	134	19-121	5.954	11.8	20	S	
Phenanthrene	3.528	0.20	5	0.1148	68.3	45-121	3.521	0.203	20		
Phenol	2.513	0.20	5	0.08922	48.5	20-124	3.34	28.2	20	R	
Pyrene	3.547	0.20	5	0	70.9	40-130	3.48	1.88	20		
Surr: 2,4,6-Tribromophenol	4.506	0.20	5	0	90.1	34-129	4.151	8.21	0		
Surr: 2-Fluorobiphenyl	3.759	0.20	5	0	75.2	40-125	4.433	16.4	0		
Surr: 2-Fluorophenol	2.825	0.20	5	0	56.5	20-120	2.885	2.11	0		
Surr: 4-Terphenyl-d14	3.9	0.20	5	0	78	40-135	3.698	5.3	0		
Surr: Nitrobenzene-d5	3.45	0.20	5	0	69	41-120	4.153	18.5	0		
Surr: Phenol-d6	2.484	0.20	5	0	49.7	20-120	3.249	26.7	0		

The following samples were analyzed in this batch:

1202263-12B	1202263-13B	1202263-14B
1202263-15B	1202263-16B	1202263-17B
1202263-18B	1202263-19B	1202263-20B
1202263-21B	1202263-22B	1202263-23B
1202263-24B	1202263-25B	1202263-26B
1202263-27B	1202263-28B	1202263-29B
1202263-30B	1202263-32B	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Pastor, Behling & Wheeler, LLC

QC BATCH REPORT

Work Order: 1202263

Project: HWPW Site-Wide GW

Batch ID: 58852

Instrument ID: SV-6

Method: SW8270

MBLK Sample ID: SBLKW2-120211-58852 Units: µg/L Analysis Date: 2/11/2012 02:05 PM

Client ID: Run ID: SV-6_120211B SeqNo: 2687635 Prep Date: 2/11/2012 DF: 1

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Diphenylhydrazine	U	0.20								
2,4-Dimethylphenol	U	0.20								
2,4-Dinitrotoluene	U	0.20								
2,6-Dinitrotoluene	U	0.20								
2-Chloronaphthalene	U	0.20								
2-Methylnaphthalene	U	0.20								
4,6-Dinitro-2-methylphenol	U	0.20								
4-Nitrophenol	U	1.0								
Acenaphthene	U	0.20								
Acenaphthylene	U	0.20								
Anthracene	U	0.20								
Benz(a)anthracene	U	0.20								
Benzo(a)pyrene	U	0.20								
Bis(2-chloroethoxy)methane	U	0.20								
Bis(2-ethylhexyl)phthalate	U	0.20								
Chrysene	U	0.20								
Dibenzofuran	U	0.20								
Di-n-butylphthalate	U	0.20								
Fluoranthene	U	0.20								
Fluorene	U	0.20								
Naphthalene	U	0.20								
Nitrobenzene	U	0.20								
N-Nitrosodiphenylamine	U	0.20								
Pentachlorophenol	U	0.20								
Phenanthrene	U	0.20								
Phenol	U	0.20								
Pyrene	U	0.20								
Surr: 2,4,6-Tribromophenol	4.34	0.20	5	0	86.8	34-129		0		
Surr: 2-Fluorobiphenyl	3.921	0.20	5	0	78.4	40-125		0		
Surr: 2-Fluorophenol	3.467	0.20	5	0	69.3	20-120		0		
Surr: 4-Terphenyl-d14	4.443	0.20	5	0	88.9	40-135		0		
Surr: Nitrobenzene-d5	3.813	0.20	5	0	76.3	41-120		0		
Surr: Phenol-d6	3.85	0.20	5	0	77	20-120		0		

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Pastor, Behling & Wheeler, LLC

QC BATCH REPORT

Work Order: 1202263

Project: HWPW Site-Wide GW

Batch ID: **58852**

Instrument ID: **SV-6**

Method: **SW8270**

LCS		Sample ID: SLCSW2-120211-58852			Units: µg/L		Analysis Date: 2/11/2012 02:24 PM			
Client ID:		Run ID: SV-6_120211B			SeqNo: 2687636		Prep Date: 2/11/2012		DF: 1	
Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Diphenylhydrazine	3.829	0.20	5	0	76.6	39-127	0			
2,4-Dimethylphenol	3.693	0.20	5	0	73.9	35-120	0			
2,4-Dinitrotoluene	4.246	0.20	5	0	84.9	50-122	0			
2,6-Dinitrotoluene	4.116	0.20	5	0	82.3	50-120	0			
2-Chloronaphthalene	3.565	0.20	5	0	71.3	50-120	0			
2-Methylnaphthalene	3.759	0.20	5	0	75.2	50-120	0			
4,6-Dinitro-2-methylphenol	4.919	0.20	5	0	98.4	25-121	0			
4-Nitrophenol	4.262	1.0	5	0	85.2	30-130	0			
Acenaphthene	3.843	0.20	5	0	76.9	45-120	0			
Acenaphthylene	3.776	0.20	5	0	75.5	47-120	0			
Anthracene	3.891	0.20	5	0	77.8	45-120	0			
Benz(a)anthracene	4.111	0.20	5	0	82.2	40-120	0			
Benzo(a)pyrene	4.001	0.20	5	0	80	45-120	0			
Bis(2-chloroethoxy)methane	3.645	0.20	5	0	72.9	45-120	0			
Bis(2-ethylhexyl)phthalate	4.351	0.20	5	0	87	40-139	0			
Chrysene	3.923	0.20	5	0	78.5	43-120	0			
Dibenzofuran	3.975	0.20	5	0	79.5	50-120	0			
Di-n-butylphthalate	4.077	0.20	5	0	81.5	45-123	0			
Fluoranthene	4.012	0.20	5	0	80.2	45-125	0			
Fluorene	3.926	0.20	5	0	78.5	49-120	0			
Naphthalene	3.767	0.20	5	0	75.3	45-120	0			
Nitrobenzene	3.592	0.20	5	0	71.8	44-120	0			
N-Nitrosodiphenylamine	3.924	0.20	5	0	78.5	40-125	0			
Pentachlorophenol	4.284	0.20	5	0	85.7	19-121	0			
Phenanthrene	3.825	0.20	5	0	76.5	45-121	0			
Phenol	3.902	0.20	5	0	78	20-124	0			
Pyrene	3.885	0.20	5	0	77.7	40-130	0			
<i>Surr: 2,4,6-Tribromophenol</i>	<i>4.261</i>	<i>0.20</i>	<i>5</i>	<i>0</i>	<i>85.2</i>	<i>34-129</i>	<i>0</i>			
<i>Surr: 2-Fluorobiphenyl</i>	<i>3.879</i>	<i>0.20</i>	<i>5</i>	<i>0</i>	<i>77.6</i>	<i>40-125</i>	<i>0</i>			
<i>Surr: 2-Fluorophenol</i>	<i>3.456</i>	<i>0.20</i>	<i>5</i>	<i>0</i>	<i>69.1</i>	<i>20-120</i>	<i>0</i>			
<i>Surr: 4-Terphenyl-d14</i>	<i>4.142</i>	<i>0.20</i>	<i>5</i>	<i>0</i>	<i>82.8</i>	<i>40-135</i>	<i>0</i>			
<i>Surr: Nitrobenzene-d5</i>	<i>3.661</i>	<i>0.20</i>	<i>5</i>	<i>0</i>	<i>73.2</i>	<i>41-120</i>	<i>0</i>			
<i>Surr: Phenol-d6</i>	<i>3.866</i>	<i>0.20</i>	<i>5</i>	<i>0</i>	<i>77.3</i>	<i>20-120</i>	<i>0</i>			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Pastor, Behling & Wheeler, LLC

QC BATCH REPORT

Work Order: 1202263

Project: HWPW Site-Wide GW

Batch ID: 58852

Instrument ID: SV-6

Method: SW8270

LCSD	Sample ID: SLCSDW2-120211-58852	Units: µg/L					Analysis Date: 2/11/2012 02:43 PM			
Client ID:	Run ID: SV-6_120211B	SeqNo: 2687637	Prep Date: 2/11/2012	DF: 1						
Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Diphenylhydrazine	3.791	0.20	5	0	75.8	39-127	3.829	1.01	20	
2,4-Dimethylphenol	3.654	0.20	5	0	73.1	35-120	3.693	1.06	20	
2,4-Dinitrotoluene	4.13	0.20	5	0	82.6	50-122	4.246	2.76	20	
2,6-Dinitrotoluene	4.038	0.20	5	0	80.8	50-120	4.116	1.91	20	
2-Chloronaphthalene	3.67	0.20	5	0	73.4	50-120	3.565	2.9	20	
2-Methylnaphthalene	3.701	0.20	5	0	74	50-120	3.759	1.57	20	
4,6-Dinitro-2-methylphenol	5.006	0.20	5	0	100	25-121	4.919	1.74	20	
4-Nitrophenol	4.175	1.0	5	0	83.5	30-130	4.262	2.07	20	
Acenaphthene	3.766	0.20	5	0	75.3	45-120	3.843	2.02	20	
Acenaphthylene	3.801	0.20	5	0	76	47-120	3.776	0.678	20	
Anthracene	3.925	0.20	5	0	78.5	45-120	3.891	0.879	20	
Benz(a)anthracene	4.082	0.20	5	0	81.6	40-120	4.111	0.72	20	
Benzo(a)pyrene	4.069	0.20	5	0	81.4	45-120	4.001	1.7	20	
Bis(2-chloroethoxy)methane	3.659	0.20	5	0	73.2	45-120	3.645	0.377	20	
Bis(2-ethylhexyl)phthalate	4.401	0.20	5	0	88	40-139	4.351	1.15	20	
Chrysene	3.928	0.20	5	0	78.6	43-120	3.923	0.144	20	
Dibenzofuran	3.904	0.20	5	0	78.1	50-120	3.975	1.78	20	
Di-n-butylphthalate	4.105	0.20	5	0	82.1	45-123	4.077	0.669	20	
Fluoranthene	4.012	0.20	5	0	80.2	45-125	4.012	0.00982	20	
Fluorene	3.825	0.20	5	0	76.5	49-120	3.926	2.6	20	
Naphthalene	3.828	0.20	5	0	76.6	45-120	3.767	1.59	20	
Nitrobenzene	3.542	0.20	5	0	70.8	44-120	3.592	1.4	20	
N-Nitrosodiphenylamine	4.031	0.20	5	0	80.6	40-125	3.924	2.7	20	
Pentachlorophenol	4.373	0.20	5	0	87.5	19-121	4.284	2.04	20	
Phenanthrene	3.808	0.20	5	0	76.2	45-121	3.825	0.442	20	
Phenol	3.746	0.20	5	0	74.9	20-124	3.902	4.07	20	
Pyrene	3.958	0.20	5	0	79.2	40-130	3.885	1.85	20	
Surr: 2,4,6-Tribromophenol	4.215	0.20	5	0	84.3	34-129	4.261	1.08	0	
Surr: 2-Fluorobiphenyl	3.901	0.20	5	0	78	40-125	3.879	0.57	0	
Surr: 2-Fluorophenol	3.288	0.20	5	0	65.8	20-120	3.456	5	0	
Surr: 4-Terphenyl-d14	4.175	0.20	5	0	83.5	40-135	4.142	0.782	0	
Surr: Nitrobenzene-d5	3.69	0.20	5	0	73.8	41-120	3.661	0.798	0	
Surr: Phenol-d6	3.761	0.20	5	0	75.2	20-120	3.866	2.75	0	

The following samples were analyzed in this batch:

1202263-33B	1202263-34B	1202263-35B
1202263-36B		

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Pastor, Behling & Wheeler, LLC

Work Order: 1202263

Project: HWPW Site-Wide GW

QC BATCH REPORT

Batch ID: R123306

Instrument ID: VOA4

Method: SW8260

MBLK		Sample ID: VBLKW-120213-R123306				Units: µg/L		Analysis Date: 2/13/2012 11:26 AM		
Client ID:		Run ID: VOA4_120213A			SeqNo: 2685822		Prep Date:		DF: 1	
Analyte	Result	ML	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Dichloroethane	U	5.0								
Benzene	U	5.0								
Chlorobenzene	U	5.0								
Ethylbenzene	U	5.0								
Methylenechloride	U	10								
Toluene	U	5.0								
Vinylchloride	U	2.0								
Xylenes, Total	U	15								
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>57.96</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>116</i>	<i>70-125</i>	<i>0</i>			
<i>Surr: 4-Bromofluorobenzene</i>	<i>51.3</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>103</i>	<i>72-125</i>	<i>0</i>			
<i>Surr: Dibromofluoromethane</i>	<i>52.74</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>105</i>	<i>71-125</i>	<i>0</i>			
<i>Surr: Toluene-d8</i>	<i>50.17</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>100</i>	<i>75-125</i>	<i>0</i>			

LCS		Sample ID: VLCSW-120213-R123306				Units: µg/L		Analysis Date: 2/13/2012 10:37 AM		
Client ID:		Run ID: VOA4_120213A			SeqNo: 2685821		Prep Date:		DF: 1	
Analyte	Result	ML	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Dichloroethane	55.17	5.0	50	0	110	78-120	0			
Benzene	47.74	5.0	50	0	95.5	73-121	0			
Chlorobenzene	47.15	5.0	50	0	94.3	80-120	0			
Ethylbenzene	49.55	5.0	50	0	99.1	80-120	0			
Methylenechloride	44.47	10	50	0	88.9	65-133	0			
Toluene	47.34	5.0	50	0	94.7	80-120	0			
Vinylchloride	48.75	2.0	50	0	97.5	70-127	0			
Xylenes, Total	149.7	15	150	0	99.8	80-120	0			
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>55.8</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>112</i>	<i>70-125</i>	<i>0</i>			
<i>Surr: 4-Bromofluorobenzene</i>	<i>54.94</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>110</i>	<i>72-125</i>	<i>0</i>			
<i>Surr: Dibromofluoromethane</i>	<i>52.72</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>105</i>	<i>71-125</i>	<i>0</i>			
<i>Surr: Toluene-d8</i>	<i>48.54</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>97.1</i>	<i>75-125</i>	<i>0</i>			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Pastor, Behling & Wheeler, LLC

QC BATCH REPORT

Work Order: 1202263

Project: HWPW Site-Wide GW

Batch ID: R123306

Instrument ID: VOA4

Method: SW8260

MS		Sample ID: 1202263-23AMS			Units: µg/L		Analysis Date: 2/13/2012 04:18 PM			
Client ID: WG-1620-MW67B-20120209		Run ID: VOA4_120213A			SeqNo: 2686831		Prep Date:		DF: 1	
Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Dichloroethane	54.61	5.0	50	0	109	78-120	0			
Benzene	47.27	5.0	50	0	94.5	73-121	0			
Chlorobenzene	47.25	5.0	50	0	94.5	80-120	0			
Ethylbenzene	49.96	5.0	50	0	99.9	80-120	0			
Methylenechloride	43.19	10	50	0	86.4	65-133	0			
Toluene	47.59	5.0	50	0	95.2	80-120	0			
Vinylchloride	49.44	2.0	50	0	98.9	70-127	0			
Xylenes, Total	151.8	15	150	0	101	80-120	0			
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>58.47</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>117</i>	<i>70-125</i>	<i>0</i>			
<i>Surr: 4-Bromofluorobenzene</i>	<i>56.12</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>112</i>	<i>72-125</i>	<i>0</i>			
<i>Surr: Dibromofluoromethane</i>	<i>53.03</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>106</i>	<i>71-125</i>	<i>0</i>			
<i>Surr: Toluene-d8</i>	<i>48.99</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>98</i>	<i>75-125</i>	<i>0</i>			

MSD		Sample ID: 1202263-23AMSD			Units: µg/L		Analysis Date: 2/13/2012 04:43 PM			
Client ID: WG-1620-MW67B-20120209		Run ID: VOA4_120213A			SeqNo: 2686832		Prep Date:		DF: 1	
Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Dichloroethane	54.1	5.0	50	0	108	78-120	54.61	0.94	20	
Benzene	45.39	5.0	50	0	90.8	73-121	47.27	4.06	20	
Chlorobenzene	46.04	5.0	50	0	92.1	80-120	47.25	2.59	20	
Ethylbenzene	48.45	5.0	50	0	96.9	80-120	49.96	3.07	20	
Methylenechloride	42.94	10	50	0	85.9	65-133	43.19	0.584	20	
Toluene	45.93	5.0	50	0	91.9	80-120	47.59	3.53	20	
Vinylchloride	48.05	2.0	50	0	96.1	70-127	49.44	2.84	20	
Xylenes, Total	146.8	15	150	0	97.9	80-120	151.8	3.33	20	
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>59.01</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>118</i>	<i>70-125</i>	<i>58.47</i>	<i>0.921</i>	<i>20</i>	
<i>Surr: 4-Bromofluorobenzene</i>	<i>55.21</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>110</i>	<i>72-125</i>	<i>56.12</i>	<i>1.63</i>	<i>20</i>	
<i>Surr: Dibromofluoromethane</i>	<i>53.54</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>107</i>	<i>71-125</i>	<i>53.03</i>	<i>0.958</i>	<i>20</i>	
<i>Surr: Toluene-d8</i>	<i>48.72</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>97.4</i>	<i>75-125</i>	<i>48.99</i>	<i>0.563</i>	<i>20</i>	

The following samples were analyzed in this batch:

1202263-01A	1202263-02A	1202263-03A
1202263-06A	1202263-07A	1202263-08A
1202263-09A	1202263-11A	1202263-12A
1202263-13A	1202263-14A	1202263-15A
1202263-22A	1202263-23A	1202263-31A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Pastor, Behling & Wheeler, LLC

Work Order: 1202263

Project: HWPW Site-Wide GW

QC BATCH REPORT

Batch ID: R123346

Instrument ID: VOA8

Method: SW8260

MBLK Sample ID: VBLKW-120213-R123346 Units: µg/L Analysis Date: 2/13/2012 03:56 PM

Client ID: Run ID: VOA8_120213A SeqNo: 2686762 Prep Date: DF: 1

Analyte	Result	MLQ	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Dichloroethane	U	5.0								
Benzene	U	5.0								
Chlorobenzene	U	5.0								
Ethylbenzene	U	5.0								
Methylenechloride	U	10								
Toluene	U	5.0								
Vinylchloride	U	2.0								
Xylenes, Total	U	15								
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>52.69</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>105</i>	<i>70-125</i>	<i>0</i>			
<i>Surr: 4-Bromofluorobenzene</i>	<i>49.95</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>99.9</i>	<i>72-125</i>	<i>0</i>			
<i>Surr: Dibromofluoromethane</i>	<i>50.28</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>101</i>	<i>71-125</i>	<i>0</i>			
<i>Surr: Toluene-d8</i>	<i>50.45</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>101</i>	<i>75-125</i>	<i>0</i>			

LCS Sample ID: VLCSW-120213-R123346 Units: µg/L Analysis Date: 2/13/2012 02:43 PM

Client ID: Run ID: VOA8_120213A SeqNo: 2686761 Prep Date: DF: 1

Analyte	Result	MLQ	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Dichloroethane	45.69	5.0	50	0	91.4	78-120	0			
Benzene	44.29	5.0	50	0	88.6	73-121	0			
Chlorobenzene	45.87	5.0	50	0	91.7	80-120	0			
Ethylbenzene	47.28	5.0	50	0	94.6	80-120	0			
Methylenechloride	40.61	10	50	0	81.2	65-133	0			
Toluene	45.9	5.0	50	0	91.8	80-120	0			
Vinylchloride	52.8	2.0	50	0	106	70-127	0			
Xylenes, Total	143.4	15	150	0	95.6	80-120	0			
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>49.01</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>98</i>	<i>70-125</i>	<i>0</i>			
<i>Surr: 4-Bromofluorobenzene</i>	<i>50.93</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>102</i>	<i>72-125</i>	<i>0</i>			
<i>Surr: Dibromofluoromethane</i>	<i>48.34</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>96.7</i>	<i>71-125</i>	<i>0</i>			
<i>Surr: Toluene-d8</i>	<i>49.08</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>98.2</i>	<i>75-125</i>	<i>0</i>			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Pastor, Behling & Wheeler, LLC

Work Order: 1202263

Project: HWPW Site-Wide GW

QC BATCH REPORT

Batch ID: R123346

Instrument ID: VOA8

Method: SW8260

MS		Sample ID: 1202263-10AMS			Units: µg/L		Analysis Date: 2/14/2012 12:29 AM			
Client ID: WG-1620-MW61A-20120207		Run ID: VOA8_120213A			SeqNo: 2686843		Prep Date:		DF: 1	
Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Dichloroethane	48.48	5.0	50	0	97	78-120	0			
Benzene	46.58	5.0	50	0	93.2	73-121	0			
Chlorobenzene	47.51	5.0	50	0	95	80-120	0			
Ethylbenzene	48.85	5.0	50	0	97.7	80-120	0			
Methylenechloride	43.55	10	50	0	87.1	65-133	0			
Toluene	47.3	5.0	50	0	94.6	80-120	0			
Vinylchloride	53.19	2.0	50	0	106	70-127	0			
Xylenes, Total	146.9	15	150	0	97.9	80-120	0			
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>52.17</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>104</i>	<i>70-125</i>	<i>0</i>			
<i>Surr: 4-Bromofluorobenzene</i>	<i>51.72</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>103</i>	<i>72-125</i>	<i>0</i>			
<i>Surr: Dibromofluoromethane</i>	<i>49.03</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>98.1</i>	<i>71-125</i>	<i>0</i>			
<i>Surr: Toluene-d8</i>	<i>49.07</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>98.1</i>	<i>75-125</i>	<i>0</i>			

MSD		Sample ID: 1202263-10AMSD			Units: µg/L		Analysis Date: 2/14/2012 12:53 AM			
Client ID: WG-1620-MW61A-20120207		Run ID: VOA8_120213A			SeqNo: 2686844		Prep Date:		DF: 1	
Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Dichloroethane	47.3	5.0	50	0	94.6	78-120	48.48	2.46	20	
Benzene	45.59	5.0	50	0	91.2	73-121	46.58	2.15	20	
Chlorobenzene	46.32	5.0	50	0	92.6	80-120	47.51	2.53	20	
Ethylbenzene	47.92	5.0	50	0	95.8	80-120	48.85	1.91	20	
Methylenechloride	43.87	10	50	0	87.7	65-133	43.55	0.752	20	
Toluene	45.81	5.0	50	0	91.6	80-120	47.3	3.2	20	
Vinylchloride	54.05	2.0	50	0	108	70-127	53.19	1.61	20	
Xylenes, Total	142	15	150	0	94.7	80-120	146.9	3.38	20	
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>51.9</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>104</i>	<i>70-125</i>	<i>52.17</i>	<i>0.527</i>	<i>20</i>	
<i>Surr: 4-Bromofluorobenzene</i>	<i>50.08</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>100</i>	<i>72-125</i>	<i>51.72</i>	<i>3.22</i>	<i>20</i>	
<i>Surr: Dibromofluoromethane</i>	<i>50.79</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>102</i>	<i>71-125</i>	<i>49.03</i>	<i>3.54</i>	<i>20</i>	
<i>Surr: Toluene-d8</i>	<i>49.25</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>98.5</i>	<i>75-125</i>	<i>49.07</i>	<i>0.364</i>	<i>20</i>	

The following samples were analyzed in this batch:

1202263-05A	1202263-10A	1202263-18A
1202263-19A	1202263-20A	1202263-21A
1202263-24A	1202263-25A	1202263-26A
1202263-27A	1202263-29A	1202263-30A
1202263-32A	1202263-33A	1202263-34A
1202263-35A		

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Pastor, Behling & Wheeler, LLC

Work Order: 1202263

Project: HWPW Site-Wide GW

QC BATCH REPORT

Batch ID: R123405

Instrument ID: VOA8

Method: SW8260

MBLK		Sample ID: VBLKW-120214-R123405			Units: µg/L			Analysis Date: 2/14/2012 12:10 PM		
Client ID:		Run ID: VOA8_120214B			SeqNo: 2687951		Prep Date:		DF: 1	
Analyte	Result	MLQ	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Dichloroethane	U	5.0								
Benzene	U	5.0								
Chlorobenzene	U	5.0								
Ethylbenzene	U	5.0								
Methylenechloride	U	10								
Toluene	U	5.0								
Vinylchloride	U	2.0								
Xylenes, Total	U	15								
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>51.81</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>104</i>	<i>70-125</i>	<i>0</i>			
<i>Surr: 4-Bromofluorobenzene</i>	<i>50.04</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>100</i>	<i>72-125</i>	<i>0</i>			
<i>Surr: Dibromofluoromethane</i>	<i>49.25</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>98.5</i>	<i>71-125</i>	<i>0</i>			
<i>Surr: Toluene-d8</i>	<i>50.3</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>101</i>	<i>75-125</i>	<i>0</i>			

LCS		Sample ID: VLCSW-120214-R123405			Units: µg/L			Analysis Date: 2/14/2012 10:57 AM		
Client ID:		Run ID: VOA8_120214B			SeqNo: 2687948		Prep Date:		DF: 1	
Analyte	Result	MLQ	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Dichloroethane	48.51	5.0	50	0	97	78-120	0			
Benzene	46.59	5.0	50	0	93.2	73-121	0			
Chlorobenzene	48.4	5.0	50	0	96.8	80-120	0			
Ethylbenzene	50.07	5.0	50	0	100	80-120	0			
Methylenechloride	44.18	10	50	0	88.4	65-133	0			
Toluene	47.71	5.0	50	0	95.4	80-120	0			
Vinylchloride	50.74	2.0	50	0	101	70-127	0			
Xylenes, Total	149.8	15	150	0	99.9	80-120	0			
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>50.58</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>101</i>	<i>70-125</i>	<i>0</i>			
<i>Surr: 4-Bromofluorobenzene</i>	<i>51.03</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>102</i>	<i>72-125</i>	<i>0</i>			
<i>Surr: Dibromofluoromethane</i>	<i>49.3</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>98.6</i>	<i>71-125</i>	<i>0</i>			
<i>Surr: Toluene-d8</i>	<i>50.17</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>100</i>	<i>75-125</i>	<i>0</i>			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Pastor, Behling & Wheeler, LLC

QC BATCH REPORT

Work Order: 1202263

Project: HWPW Site-Wide GW

Batch ID: R123405

Instrument ID: VOA8

Method: SW8260

MS		Sample ID: 1202260-03AMS			Units: µg/L			Analysis Date: 2/14/2012 06:24 PM		
Client ID:		Run ID: VOA8_120214B			SeqNo: 2687969		Prep Date:		DF: 1000	
Analyte	Result	MLL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Dichloroethane	49380	5,000	50000	0	98.8	78-120	0			
Benzene	50220	5,000	50000	2335	95.8	73-121	0			
Chlorobenzene	48580	5,000	50000	0	97.2	80-120	0			
Ethylbenzene	51420	5,000	50000	644	102	80-120	0			
Methylenechloride	44780	10,000	50000	0	89.6	65-133	0			
Toluene	49190	5,000	50000	0	98.4	80-120	0			
Vinylchloride	52020	2,000	50000	0	104	70-127	0			
Xylenes, Total	152600	15,000	150000	425.3	101	80-120	0			
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>51750</i>	<i>5,000</i>	<i>50000</i>	<i>0</i>	<i>103</i>	<i>70-125</i>	<i>0</i>			
<i>Surr: 4-Bromofluorobenzene</i>	<i>51120</i>	<i>5,000</i>	<i>50000</i>	<i>0</i>	<i>102</i>	<i>72-125</i>	<i>0</i>			
<i>Surr: Dibromofluoromethane</i>	<i>50200</i>	<i>5,000</i>	<i>50000</i>	<i>0</i>	<i>100</i>	<i>71-125</i>	<i>0</i>			
<i>Surr: Toluene-d8</i>	<i>50330</i>	<i>5,000</i>	<i>50000</i>	<i>0</i>	<i>101</i>	<i>75-125</i>	<i>0</i>			

MSD		Sample ID: 1202260-03AMSD			Units: µg/L			Analysis Date: 2/14/2012 06:48 PM		
Client ID:		Run ID: VOA8_120214B			SeqNo: 2687971		Prep Date:		DF: 1000	
Analyte	Result	MLL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Dichloroethane	48660	5,000	50000	0	97.3	78-120	49380	1.46	20	
Benzene	48300	5,000	50000	2335	91.9	73-121	50220	3.9	20	
Chlorobenzene	47370	5,000	50000	0	94.7	80-120	48580	2.53	20	
Ethylbenzene	50330	5,000	50000	644	99.4	80-120	51420	2.14	20	
Methylenechloride	43390	10,000	50000	0	86.8	65-133	44780	3.16	20	
Toluene	48370	5,000	50000	0	96.7	80-120	49190	1.67	20	
Vinylchloride	49770	2,000	50000	0	99.5	70-127	52020	4.42	20	
Xylenes, Total	149000	15,000	150000	425.3	99.1	80-120	152600	2.36	20	
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>50550</i>	<i>5,000</i>	<i>50000</i>	<i>0</i>	<i>101</i>	<i>70-125</i>	<i>51750</i>	<i>2.35</i>	<i>20</i>	
<i>Surr: 4-Bromofluorobenzene</i>	<i>50530</i>	<i>5,000</i>	<i>50000</i>	<i>0</i>	<i>101</i>	<i>72-125</i>	<i>51120</i>	<i>1.15</i>	<i>20</i>	
<i>Surr: Dibromofluoromethane</i>	<i>49290</i>	<i>5,000</i>	<i>50000</i>	<i>0</i>	<i>98.6</i>	<i>71-125</i>	<i>50200</i>	<i>1.82</i>	<i>20</i>	
<i>Surr: Toluene-d8</i>	<i>49030</i>	<i>5,000</i>	<i>50000</i>	<i>0</i>	<i>98.1</i>	<i>75-125</i>	<i>50330</i>	<i>2.63</i>	<i>20</i>	

The following samples were analyzed in this batch:

1202263-04A	1202263-16A	1202263-17A
1202263-28A	1202263-36A	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
WorkOrder: 1202263

**QUALIFIERS,
ACRONYMS, UNITS**

<u>Qualifier</u>	<u>Description</u>
*	Value exceeds Regulatory Limit
a	Not accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
J	Analyte detected below quantitation limit
M	Manually integrated, see raw data for justification
n	Not offered for accreditation
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL

<u>Acronym</u>	<u>Description</u>
DCS	Detectability Check Study
DUP	Method Duplicate
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
MBLK	Method Blank
MDL	Method Detection Limit
MQL	Method Quantitation Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PDS	Post Digestion Spike
PQL	Practical Quantitation Limit
SD	Serial Dilution
SDL	Sample Detection Limit
TRRP	Texas Risk Reduction Program

<u>Units Reported</u>	<u>Description</u>
mg/L	Milligrams per Liter

Sample Receipt Checklist

Client Name: **PBW**

Date/Time Received: **09-Feb-12 18:15**

Work Order: **1202263**

Received by: **PMG**

Checklist completed by: Parash M. Giga 08-Feb-12
eSignature Date

Reviewed by: Patricia L. Lynch 08-Feb-12
eSignature Date

Matrices: Water

Carrier name: Client

- Shipping container/cooler in good condition? Yes No Not Present
- Custody seals intact on shipping container/cooler? Yes No Not Present
- Custody seals intact on sample bottles? Yes No Not Present
- Chain of custody present? Yes No
- Chain of custody signed when relinquished and received? Yes No
- Chain of custody agrees with sample labels? Yes No
- Samples in proper container/bottle? Yes No
- Sample containers intact? Yes No
- Sufficient sample volume for indicated test? Yes No
- All samples received within holding time? Yes No
- Container/Temp Blank temperature in compliance? Yes No

Temperature(s)/Thermometer(s): 2.3, 1.9, 2.2, 2.0, 2.1 002

Cooler(s)/Kit(s): 2600, 2604, 2602, 4210, 3943

Water - VOA vials have zero headspace? Yes No No VOA vials submitted

Water - pH acceptable upon receipt? Yes No N/A

pH adjusted? Yes No N/A

pH adjusted by:

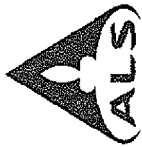
Login Notes: SRC for samples received on 2/9/2012

Client Contacted: Date Contacted: Person Contacted:

Contacted By: Regarding:

Comments:

Corrective Action:



Environmental

Chain of Custody Form

Page 1 of 2

COC ID: 54829

ALS Project Manager:

Customer Information

Purchase Order: UPRR Houston Wood GW
 Work Order: 1620-04
 Company Name: Pastor, Behling & Wheeler, LLC
 Send Report To: Eric Matzner
 Address: 2201 Double Creek Drive, Suite 4004
 City/State/Zip: Round Rock, TX 79694
 Phone: (512) 671-3434
 Fax: (512) 671-3446
 e-Mail Address:

Project Information

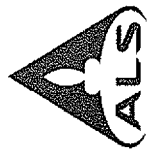
Project Name: UPRR Houston Wood GW
 Project Number: 1620-04
 Bill To Company: Union Pacific Railroad
 Invoice Attn:
 Address: 1400 Douglas Street, Stop 0750
 City/State/Zip: Omaha, NE 681790750
 Phone:
 Fax:
 e-Mail Address:

VOC (8260) Select
 SVOC (8270) Low-Level
 VINYL CHLORIDE

No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	WG-1620-MW64A-20120208	2-8-12	1135	GW		5	X	X									
2	WG-1620-MW62B-20120208	2-8-12	1240	GW		5	X	X									
3	WG-1620-MW19C-20120208	2-8-12	1330	GW		5	X	X	X								
4	WG-1620-MW69A-20120208	2-8-12	1420	GW		5	X	X	X								
5	WG-1620-MW75B-20120208	2-8-12	1550	GW		5	X	X	X								
6	WG-1620-MW74B-20120208	2-9-12	0700	GW		5	X	X	X								
7	WG-1620-MW50A-20120208	2-9-12	0745	GW		5	X	X	X								
8	WG-1620-MW24AR-20120209	2-9-12	0845	GW		5	X	X	X								
9	WG-1620-MW24B-20120209	2-9-12	0935	GW		5	X	X	X								
10	WG-1620-MW24C-20120209	2-9-12	1020	GW		5	X	X	X								

Sampler(s) Please Print & Sign: JOHN BEARSON, Vol Bear
 Relinquished by: Vol Bear
 Date: 2-9-12
 Time: 1815
 Relinquished by: Vol Bear
 Date: 2-9-12
 Time: 1815
 Logged by (Laboratory):
 Date:
 Time:
 Preservative Key: 1-HCl 2-HNO₃ 3-H₂SO₄ 4-NaOH 5-Na₂S₂O₈ 6-NaHSO₄ 7-Other 8-4°C 9-5035
 Shipment Method: HAND DELIVERED
 Required Turnaround Times (Check Box):
 Std 10-WK Days
 5-WK Days
 2-WK Days
 24 Hour
 Results Due Date:
 Notes: 10 Day TAT.
 Cooler ID:
 Cooler Temp:
 OC Package: (Check One Box Below)
 Level II Std OC
 Level III Std OC/Raw Data
 Level IV SW846/CLP
 TRRP Checklist
 TRRP Level IV
 Other / EDD:

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 Spring City, PA +1 610 948 4903
 York, PA +1 717 505 5280

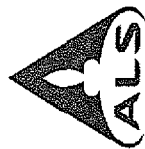
Page 2 of 2
 COC ID: **54810**
 ALS Project Manager: 1252263

Customer Information				Project Information				Parameter/Method Request for Analysis											
Purchase Order	Project Name	UPRR Houston Wood GW	A	VOC (8260) Select															
Work Order	Project Number	1620-04	B	SVOC (8270) Low-Level															
Company Name	Bill To Company	Union Pacific Railroad	C	VINYL CHLORIDE															
Send Report To	Invoice Attn		D																
Address	Address	1400 Douglas Street	E																
City/State/Zip	City/State/Zip	Omaha, NE 681790750	F																
Phone	Phone		G																
Fax	Fax		H																
e-Mail Address	e-Mail Address		I																
			J																

No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	WG-1620-FB05-20120208	2-8-12	1610	GW		5	X	X	X								
2	WG-1620-MW17B-20120209	2-9-12	1140	GW		5	X	X									
3	WG-1620-MW17BMS-20120209	2-9-12	1140	GW		5	X	X									
4	WG-1620-MW17BMSD-20120209	2-9-12	1140	GW		5	X	X									
5	WG-1620-MW163B-20120209	2-9-12	1230	GW		5	X	X									
6	WG-1620-FD05-20120209	2-9-12	1230	GW		5	X	X									
7	WG-1620-MW127C-20120209	2-9-12	1350	GW		5	X	X									
8	WG-1620-MW32AR-20120209	2-9-12	1505	GW		5	X	X									
9	WG-1620-MW32B-20120209	2-9-12	1610	GW		5	X	X									
10	WG-1620-MW53C-20120209	2-9-12	1715	GW		5	X	X									

Sampler(s) Please Print & Sign	Shipment Method	Required Turnaround Time: (Check Box)	Results Due Date:						
JOHN BEATSON John Beatson	HAND DELIVERED	<input type="checkbox"/> 5 WK Days <input checked="" type="checkbox"/> Std. 10 WK Days <input type="checkbox"/> 2 WK Days <input type="checkbox"/> 24 Hour <input type="checkbox"/> Other							
Relinquished by:	Date:	Time:	Notes:						
John Beatson	2-9-12	1815	10 Day TAT.						
Relinquished by:	Date:	Time:	Notes:						
	2-9-12	1815							
Logged by (Laboratory):	Date:	Time:	Notes:						
Preservative Key:	1-HCl	2-HNO3	3-H2SO4	4-NaOH	5-Na2S2O3	6-NaHSO4	7-Other	8-4°C	9-5035

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Page 1 of 1
 COC ID: 55148

ALS Project Manager: ALS Work Order #: 1202263

Customer Information				Project Information			
Purchase Order	Project Name	UPRR Houston Wood GW	Parameter/Method Request for Analysis	A	VOC (8260) Select		
Work Order	Project Number	1620-04		B	SVOC (8270) Low-Level		
Company Name	Bill To Company	Union Pacific Railroad		C	<i>Vinyl Chloride</i>		
Send Report To	Invoice Attn			D			
Address	Address	1400 Douglas Street		E			
City/State/Zip	City/State/Zip	Stop 0750		F			
Phone	Phone	Omaha, NE 681790750		G			
Fax	Fax			H			
e-Mail Address	e-Mail Address			I			

No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	WB-1620-MW36B-20120208	2-8-12	8:50	W	Hold: See	5	X	X	X								
2	WB-1620-TB05-20120208		9:00			2	X	X	X								
3	WB-1620-MW71B-20120208		9:45			5	X	X	X								
4	WB-1620-MW34C-20120208		11:10				X	X	X								
5	WB-1620-MW54C-20120208		12:15				X	X	X								
6	WB-1620-MW25A-20120208		13:10				X	X	X								
7	WB-1620-MW25C-20120208		13:55				X	X	X								
8	WB-1620-MW71C-20120208		13:10				X	X	X								
9																	
10																	

Shipment Method: **HAND DELIVERED** Required Turnaround Time: (Check Box) Other 2 WK Days 24 Hour

Received by: *Steve Bender* Date: *2-9-12* Time: *8:15*

Received by (Laboratory): *Steve Bender* Date: *2-9-12* Time: *18:15*

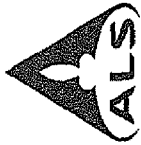
Checked by (Laboratory): *Steve Bender* Date: *2-9-12* Time: *18:15*

Preservative Key: 1-HCl 2-HNO₃ 3-H₂SO₄ 4-NaOH 5-Na₂S₂O₃ 6-NaHSO₄ 7-Other 8-4°C 9-5035

Notes: 10 Day TAT.

QC Package: (Check One Box Below)
 Level II Std QC TRRP Checklist
 Level III Std QC/Raw Data TRRP Level IV
 Level IV SIM846/CLP Other / EDO

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Chain of Custody Form

Page 1 of 2

COC ID: 54826

ALS Project Manager:

1202263

PBW: Pastor, Behling & Wheeler, LLC

Project: HWPW Site-Wide GW



UT 30

03

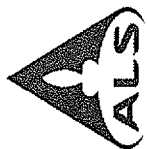
80

Customer Information				Project Information			
Purchase Order	Project Name	Project Number	Project Manager	A	B	C	D
Work Order	Project Number	Bill To Company	ALS Project Manager:	VOC (8260) Select	SVOC (8270) Low-Level		
Company Name	Invoice Attn	Address					
Send Report To	Address	City/State/Zip					
Address	Phone	Fax					
City/State/Zip	e-Mail Address	Date	Time	Matrix	Pres.	# Bottles	A
Phone							B
Fax							C
e-Mail Address							D
							E
							F
							G
							H
							I
							J
1	WB-1620-MW48C-20120206	2-6-12	1400	W	Heck	5	X
2	WB-1620-MW59A-20120206		1500				X
3	WB-1620-MW59B-20120206		1555				X
4	WB-1620-MW49B-20120207	2-7-12	830				X
5	WB-1620-MW49A-20120207		945				X
6	WB-1620-FB04-20120207		1000				X
7	WB-1620-FB04-20120207		1010				X
8	WB-1620-MW47C-20120207		1115				X
9	WB-1620-MW60A-20120207		1220				X
10	WB-1620-MW61A-20120207		1330				X

Sampler(s) Please Print & Sign	Shipment/Method	Required Turnaround Time: (Check Box)	Results Due Date:
<i>Steve Berndt</i>	<i>Imp Parady</i>	<input checked="" type="checkbox"/> Std. 10 WK Days <input type="checkbox"/> 5 WK Days <input type="checkbox"/> 2 WK Days <input type="checkbox"/> 24 Hour	
Relinquished by:	Received by:	Notes:	10 Day TAT.
<i>Steve Berndt</i>	<i>Steve Berndt</i>		
Date: 2-7-12	Date: 2-7-12		
Time: 1600	Time: 1600		
Logged by (Laboratory):	Checked by (Laboratory):	Cooler ID	Cooler Temp.
Preservative Key: 1-HCl 2-HNO ₃ 3-H ₂ SO ₄ 4-NaOH 5-Na ₂ S ₂ O ₈ 6-NaHSO ₄ 7-Other 8-4°C 9-5035	QC Package: (Check One Box Below)	<input type="checkbox"/> Level II Std QC	<input checked="" type="checkbox"/> TRRP Checklist
	<input type="checkbox"/> Level III Std QC/RAW Data	<input type="checkbox"/> Level IV SW346/C.L.P	<input type="checkbox"/> TRRP Level IV
	<input type="checkbox"/> Other / EDD		

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- Salt Lake City, UT +1 801 266 7700
- Spring Gty, PA +1 610 948 4903
- York, PA +1 717 505 5280

Page 2 of 2
 COC ID: 54807

ALS Project Manager: _____ ALS Work Order #: 1202263

Customer Information		Project Information	
Purchase Order	Project Name	Parameter/Method Request for Analysis	
Work Order	Project Number	A	VOC (8260) Select
Company Name	Bill To Company	B	SVOC (8270) Low-Level
Send Report To	Invoice Attn	C	<i>Vanrypl chloride</i>
Address	Address	D	
City/State/Zip	City/State/Zip	E	
Phone	Phone	F	
Fax	Fax	G	
e-Mail Address	e-Mail Address	H	
		I	
		J	

No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	W67620-MW61A MS-20120207	2-7-12	1330	W	<i>Heck</i>	5	X	X	X								
2	W67620-MW61A MSD-20120207	↓	1500	↓	↓	↓	X	X	X								
3	W67620-MW36A-20120207	↓					X	X	X								
4																	
5																	
6																	
7																	
8																	
9																	
10																	

Sampler(s) Please Print & Sign: *Steve Berndt* Shipment Method: *Person* Required Turnaround Time: (Check Box) 5 WK Days 10 WK Days 24 Hour

Relinquished by: *Steve Berndt* Date: *2-7-12* Time: *1000* Received by: _____

Relinquished by: *Steve Berndt* Date: *2-7-12* Time: _____

Logged by (Laboratory): _____ Date: _____ Time: _____

Preservative Key: 1-HCl 2-HNO₃ 3-H₂SO₄ 4-NaOH 5-Na₂S₂O₃ 6-NaHSO₄ 7-Other 8-4°C 9-5035

QC Package: (Check One Box Below) Level II Std QC TRRP Check List Level III Std QC/Raw Data TRRP Level IV Level IV SW/46/CLP Other / EDD

Notes: 10 Day TAT. Cooler ID: _____ Cooler Temp: _____

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23-Feb-2012

Eric Matzner
Pastor, Behling & Wheeler, LLC
2201 Double Creek Drive
Suite 4004
Round Rock, TX 78664

Tel: (512) 671-3434
Fax: (512) 671-3446

Re: HWPW Site-Wide GW

Work Order: **1202555**

Dear Eric,

ALS Environmental received 26 samples on 16-Feb-2012 02:20 PM for the analyses presented in the following report.

The analytical data provided relates directly to the samples received by ALS Environmental and for only the analyses requested. Results are expressed as "as received" unless otherwise noted.

QC sample results for this data met EPA or laboratory specifications except as noted in the Case Narrative or as noted with qualifiers in the QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained by ALS Environmental. Samples will be disposed in 30 days unless storage arrangements are made.

The total number of pages in this report is 83.

If you have any questions regarding this report, please feel free to call me.

Sincerely,

Electronically approved by: Yvan K. Ty

Patricia L. Lynch
Project Manager



Certificate No: TX: T104704231-11-5

ADDRESS 10450 Stancliff Rd, Suite 210 Houston, Texas 77099-4338 | PHONE (281) 530-5656 | FAX (281) 530-5887

DOV#T UR XS#K VD /#R US##Sdu#r i#kh#D OV#Dderudaru|#T urxs##D #F dp seha#Eurkhu#Op lbg#F rp sdg |

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Work Order: 1202555

**TRRP Laboratory Data
Package Cover Page**

This data package consists of all or some of the following as applicable:

This signature page, the laboratory review checklist, and the following reportable data:

- R1 Field chain-of-custody documentation;
- R2 Sample identification cross-reference;
- R3 Test reports (analytical data sheets) for each environmental sample that includes:
 - a) Items consistent with NELAC Chapter 5,
 - b) dilution factors,
 - c) preparation methods,
 - d) cleanup methods, and
 - e) if required for the project, tentatively identified compounds (TICs).
- R4 Surrogate recovery data including:
 - a) Calculated recovery (%R), and
 - b) The laboratory's surrogate QC limits.
- R5 Test reports/summary forms for blank samples;
- R6 Test reports/summary forms for laboratory control samples (LCSs) including:
 - a) LCS spiking amounts,
 - b) Calculated %R for each analyte, and
 - c) The laboratory's LCS QC limits.
- R7 Test reports for project matrix spike/matrix spike duplicates (MS/MSDs) including:
 - a) Samples associated with the MS/MSD clearly identified,
 - b) MS/MSD spiking amounts,
 - c) Concentration of each MS/MSD analyte measured in the parent and spiked samples,
 - d) Calculated %Rs and relative percent differences (RPDs), and
 - e) The laboratory's MS/MSD QC limits.
- R8 Laboratory analytical duplicate (if applicable) recovery and precision:
 - a) the amount of analyte measured in the duplicate,
 - b) the calculated RPD, and
 - c) the laboratory's QC limits for analytical duplicates.
- R9 List of method quantitation limits (MQLs) and detectability check sample results for each analyte for each method and matrix.
- R10 Other problems or anomalies.
The Exception Report for each "No" or "Not Reviewed (NR)" item in Laboratory Review Checklist and for each analyte, matrix, and method for which the laboratory does not hold NELAC accreditation under the Texas Laboratory Accreditation Program.

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Work Order: 1202555

**TRRP Laboratory Data
Package Cover Page**

Release Statement: I am responsible for the release of this laboratory data package. This laboratory is NELAC accredited under the Texas Laboratory Accreditation Program for all the methods, analytes and matrices reported in this data package except as noted in the Exception Reports. The data have been reviewed and are technically compliant with the requirements of the methods used, except where noted by the laboratory in the attached exception reports. By my signature below, I affirm to the best of my knowledge, all problems/anomalies, observed by the laboratory have been identified by the laboratory in the Laboratory Review Checklist, and no information affecting the quality of the data has been knowingly withheld.

Check, if applicable: [NA] This laboratory meets an exception under 30 TAC §25.6 and was last inspected by TCEQ or _____ on (enter date of last inspection). Any findings affecting the data in this laboratory data package are noted in the Exception Reports herein. The official signing the cover page of the report in which these data are used is responsible for releasing this data package and is by signature affirming the above release statement is true.

Patricia L. Lynch

Patricia L. Lynch
Project Manager

Laboratory Review Checklist: Reportable Data

Laboratory Name: ALS Laboratory Group		LRC Date: 02/23/2012					
Project Name: HWPW Site-Wide GW		Laboratory Job Number: 1202555					
Reviewer Name: Pat Lynch		Prep Batch Number(s): 58983, 58985, R123573, R123589, R123671					
# ¹	A ²	Description	Yes	No	NA ³	NR ⁴	ER# ⁵
R1	OI	Chain-of-custody (C-O-C)					
		Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?	X				
		Were all departures from standard conditions described in an exception report?	X				
R2	OI	Sample and quality control (QC) identification					
		Are all field sample ID numbers cross-referenced to the laboratory ID numbers?	X				
		Are all laboratory ID numbers cross-referenced to the corresponding QC data?	X				
R3	OI	Test reports					
		Were all samples prepared and analyzed within holding times?	X				
		Other than those results < MQL, were all other raw values bracketed by calibration standards?	X				
		Were calculations checked by a peer or supervisor?	X				
		Were all analyte identifications checked by a peer or supervisor?	X				
		Were sample detection limits reported for all analytes not detected?	X				
		Were all results for soil and sediment samples reported on a dry weight basis?			X		
		Were % moisture (or solids) reported for all soil and sediment samples?			X		
		Were bulk soils/solids samples for volatile analysis extracted with methanol per SW-846 Method 5035?			X		
		If required for the project, TICs reported?			X		
R4	O	Surrogate recovery data					
		Were surrogates added prior to extraction?	X				
		Were surrogate percent recoveries in all samples within the laboratory QC limits?		X			1
R5	OI	Test reports/summary forms for blank samples					
		Were appropriate type(s) of blanks analyzed?	X				
		Were blanks analyzed at the appropriate frequency?	X				
		Were method blanks taken through the entire analytical process, including preparation and, if applicable, cleanup procedures?	X				
		Were blank concentrations < MQL?	X				
R6	OI	Laboratory control samples (LCS):					
		Were all COCs included in the LCS?	X				
		Was each LCS taken through the entire analytical procedure, including prep and cleanup steps?	X				
		Were LCSs analyzed at the required frequency?	X				
		Were LCS (and LCSD, if applicable) %Rs within the laboratory QC limits?	X				
		Does the detectability data document the laboratory's capability to detect the COCs at the MDL used to calculate the SDLs?	X				
		Was the LCSD RPD within QC limits?	X				
R7	OI	Matrix spike (MS) and matrix spike duplicate (MSD) data					
		Were the project/method specified analytes included in the MS and MSD?	X				
		Were MS/MSD analyzed at the appropriate frequency?	X				
		Were MS (and MSD, if applicable) %Rs within the laboratory QC limits?		X			2
		Were MS/MSD RPDs within laboratory QC limits?		X			3
R8	OI	Analytical duplicate data					
		Were appropriate analytical duplicates analyzed for each matrix?			X		
		Were analytical duplicates analyzed at the appropriate frequency?			X		
		Were RPDs or relative standard deviations within the laboratory QC limits?			X		
R9	OI	Method quantitation limits (MQLs):					
		Are the MQLs for each method analyte included in the laboratory data package?	X				
		Do the MQLs correspond to the concentration of the lowest non-zero calibration standard?	X				
		Are unadjusted MQLs and DCSs included in the laboratory data package?	X				
R10	OI	Other problems/anomalies					
		Are all known problems/anomalies/special conditions noted in this LRC and ER?	X				4
		Were all necessary corrective actions performed for the reported data?	X				
		Was applicable and available technology used to lower the SDL and minimize the matrix interference affects on the sample results?	X				5
		Is the laboratory NELAC-accredited under the Texas Laboratory Program for the analytes, matrices and methods associated with this laboratory data package?	X				

Laboratory Review Checklist: Reportable Data								
Laboratory Name: ALS Laboratory Group					LRC Date: 02/23/2012			
Project Name: HWPW Site-Wide GW					Laboratory Job Number: 1202555			
Reviewer Name: Pat Lynch					Prep Batch Number(s): 58983, 58985, R123573, R123589, R123671			
# ¹	A ²	Description	Yes	No	NA ³	NR ⁴	ER# ⁵	
S1	OI	Initial calibration (ICAL)						
		Were response factors and/or relative response factors for each analyte within QC limits?	X					
		Were percent RSDs or correlation coefficient criteria met?	X					
		Was the number of standards recommended in the method used for all analytes?	X					
		Were all points generated between the lowest and highest standard used to calculate the curve?	X					
		Are ICAL data available for all instruments used?	X					
		Has the initial calibration curve been verified using an appropriate second source standard?	X					
S2	OI	Initial and continuing calibration verification (ICCV and CCV) and continuing calibration blank (CCB)						
		Was the CCV analyzed at the method-required frequency?	X					
		Were percent differences for each analyte within the method-required QC limits?	X					
		Was the ICAL curve verified for each analyte?	X					
		Was the absolute value of the analyte concentration in the inorganic CCB < MDL?			X			
S3	O	Mass spectral tuning:						
		Was the appropriate compound for the method used for tuning?	X					
		Were ion abundance data within the method-required QC limits?	X					
S4	O	Internal standards (IS):						
		Were IS area counts and retention times within the method-required QC limits?	X					
S5	OI	Raw data (NELAC section 1 appendix A glossary, and section 5.12 or ISO/IEC 17025 section)						
		Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?	X					
		Were data associated with manual integrations flagged on the raw data?	X					
S6	O	Dual column confirmation						
		Did dual column confirmation results meet the method-required QC?			X			
S7	O	Tentatively identified compounds (TICs):						
		If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?			X			
S8	I	Interference Check Sample (ICS) results:						
		Were percent recoveries within method QC limits?			X			
S9	I	Serial dilutions, post digestion spikes, and method of standard additions						
		Were percent differences, recoveries, and the linearity within the QC limits specified in the method?			X			
S10	OI	Method detection limit (MDL) studies						
		Was a MDL study performed for each reported analyte?	X					
		Is the MDL either adjusted or supported by the analysis of DCSs?	X					
S11	OI	Proficiency test reports:						
		Was the laboratory's performance acceptable on the applicable proficiency tests or evaluation studies?	X					
S12	OI	Standards documentation						
		Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?	X					
S13	OI	Compound/analyte identification procedures						
		Are the procedures for compound/analyte identification documented?	X					
S14	OI	Demonstration of analyst competency (DOC)						
		Was DOC conducted consistent with NELAC Chapter 5C or ISO/IEC 4?	X					
		Is documentation of the analyst's competency up-to-date and on file?	X					
S15	OI	Verification/validation documentation for methods (NELAC Chap 5 or ISO/IEC 17025 Section 5)						
		Are all the methods used to generate the data documented, verified, and validated, where applicable?	X					
S16	OI	Laboratory standard operating procedures (SOPs):						
		Are laboratory SOPs current and on file for each method performed?	X					

Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.

O = Organic Analyses; I = Inorganic Analyses (and general chemistry, when applicable);

NA = Not Applicable;

NR = Not Reviewed;

R# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

Laboratory Review Checklist: Reportable Data

Laboratory Name: ALS Laboratory Group	LRC Date: 02/23/2012
Project Name: HWPW Site-Wide GW	Laboratory Job Number: 1202555
Reviewer Name: Pat Lynch	Prep Batch Number(s): 58983, 58985, R123573, R123589, R123671

ER# ⁵	Description
1	<p>Low-Level Semivolatile Organics: Surrogate recoveries were diluted out in the higher dilutions in several samples, but were in control in the lower dilutions.</p> <p>Low-Level Semivolatile Organics: The recoveries of the surrogate 2-fluorobiphenyl were below the control limits in sample WG-1620-MW68B-20120216 and WG-1620-MW35B-20120215. Also, the recovery of the surrogate nitrobenzene-d5 was below the control limits in sample WG-1620-MW35B-20120215. The surrogate recoveries were in control in one of the higher dilutions.</p>
2	<p>Batch 58983, Low-Level Semivolatile Organics, Sample WG-1620-MW65D-20120214: MS recoveries were marginally below the control limits for 2-chloronaphthalene and 2-methylnaphthalene. The associated MSD and LCS recoveries were within the control limits.</p> <p>Batch 58985, Low-Level Semivolatile Organics, Sample WG-1620-MW65D-20120214: MS/ MSD recoveries were below the control limits for 2-methylnaphthalene. The associated LCS recovery and MS/MSD RPD were within the control limits.</p>
3	<p>Batch 58983, Low-Level Semivolatile Organics, Sample WG-1620-MW65D-20120214: MS/MSD RPD was above the control limits for several target compounds.</p>
4	<p>Bis(2-ethylhexyl)phthalate was detected in samples WG-1620-FB06-20120214 and WG-1620-FB08-20120216 at concentrations that are above the MQL. This compound was non-detect in the associated method blanks. A recent inquiry from the supplier of sample containers revealed that the bottles are certified to 2.5 ug/L which is above the result for these samples. ALS confirmed the MDL for this compound by analysis of the DCS.</p> <p>Naphthalene was detected in samples WG-1620-FB06-20120214 and WG-1620-FB08-20120216 at concentrations that are marginally above the MQL. This compound was non-detect in the associated method blanks.</p>
5	<p>Low-Level Semivolatile Organics, Sample WG-1620-MW57B-20120215 could not be analyzed at a lower dilution due to sample matrix.</p>

Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.

O = Organic Analyses; I = Inorganic Analyses (and general chemistry, when applicable);

NA = Not Applicable;

NR = Not Reviewed;

R# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

Client: Pastor, Behling & Wheeler, LLC
 Project: HWPW Site-Wide GW
 Work Order: 1202555

Work Order Sample Summary

<u>Lab Samp ID</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Tag Number</u>	<u>Collection Date</u>	<u>Date Received</u>	<u>Hold</u>
1202555-01	WG-1620-MW66D-20120214	Water		2/14/2012 13:45	2/16/2012 14:20	<input type="checkbox"/>
1202555-02	WG-1620-MW59D-20120214	Water		2/14/2012 15:00	2/16/2012 14:20	<input type="checkbox"/>
1202555-03	WG-1620-MW65D-20120214	Water		2/14/2012 16:30	2/16/2012 14:20	<input type="checkbox"/>
1202555-04	WG-1620-MW36D-20120214	Water		2/14/2012 17:30	2/16/2012 14:20	<input type="checkbox"/>
1202555-05	WG-1620-MW51A-20120215	Water		2/15/2012 09:40	2/16/2012 14:20	<input type="checkbox"/>
1202555-06	WG-1620-MW44A-20120215	Water		2/15/2012 10:40	2/16/2012 14:20	<input type="checkbox"/>
1202555-07	WG-1620-MW33BR-20120215	Water		2/15/2012 11:45	2/16/2012 14:20	<input type="checkbox"/>
1202555-08	WG-1620-MW26A-20120215	Water		2/15/2012 13:35	2/16/2012 14:20	<input type="checkbox"/>
1202555-09	WG-1620-MW57B-20120215	Water		2/15/2012 14:40	2/16/2012 14:20	<input type="checkbox"/>
1202555-10	WG-1620-FB06-20120214	Water		2/14/2012 17:45	2/16/2012 14:20	<input type="checkbox"/>
1202555-11	WG-1620-FB07-20120215	Water		2/15/2012 15:00	2/16/2012 14:20	<input type="checkbox"/>
1202555-12	WG-1620-MW38A-20120215	Water		2/15/2012 09:10	2/16/2012 14:20	<input type="checkbox"/>
1202555-13	WG-1620-MW38B-20120215	Water		2/15/2012 10:05	2/16/2012 14:20	<input type="checkbox"/>
1202555-14	WG-1620-MW22A-20120215	Water		2/15/2012 11:15	2/16/2012 14:20	<input type="checkbox"/>
1202555-15	WG-1620-MW22B-20120215	Water		2/15/2012 12:00	2/16/2012 14:20	<input type="checkbox"/>
1202555-16	WG-1620-MW35A-20120215	Water		2/15/2012 13:00	2/16/2012 14:20	<input type="checkbox"/>
1202555-17	WG-1620-MW35B-20120215	Water		2/15/2012 13:45	2/16/2012 14:20	<input type="checkbox"/>
1202555-18	WG-1620-MW33A-20120215	Water		2/15/2012 14:50	2/16/2012 14:20	<input type="checkbox"/>
1202555-19	WG-1620-DUP07-20120215	Water		2/15/2012 14:50	2/16/2012 14:20	<input type="checkbox"/>
1202555-20	WG-1620-TB06-20120215	Water		2/15/2012 15:00	2/16/2012 14:20	<input type="checkbox"/>
1202555-21	WG-1620-MW68C-20120216	Water		2/16/2012 08:40	2/16/2012 14:20	<input type="checkbox"/>
1202555-22	WG-1620-MW68B-20120216	Water		2/16/2012 09:25	2/16/2012 14:20	<input type="checkbox"/>
1202555-23	WG-1620-MW28C-20120216	Water		2/16/2012 10:25	2/16/2012 14:20	<input type="checkbox"/>
1202555-24	WG-1620-MW28A-20120216	Water		2/16/2012 12:00	2/16/2012 14:20	<input type="checkbox"/>
1202555-25	WG-1620-FB08-20120216	Water		2/16/2012 12:15	2/16/2012 14:20	<input type="checkbox"/>
1202555-26	WG-1620-FD06-20120214	Water		2/14/2012 15:00	2/16/2012 14:20	<input type="checkbox"/>

ALS Environmental

Date: 23-Feb-12

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-MW66D-20120214
Collection Date: 2/14/2012 01:45 PM

Work Order: 1202555
Lab ID: 1202555-01
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270	Prep: SW3510 / 2/16/12	Analyst: ACN		
1,2-Diphenylhydrazine	U		0.000050	0.00020	mg/L	1	2/21/2012 16:59
2,4-Dimethylphenol	U		0.000050	0.00020	mg/L	1	2/21/2012 16:59
2,4-Dinitrotoluene	U		0.000050	0.00020	mg/L	1	2/21/2012 16:59
2,6-Dinitrotoluene	U		0.000060	0.00020	mg/L	1	2/21/2012 16:59
2-Chloronaphthalene	U		0.000050	0.00020	mg/L	1	2/21/2012 16:59
2-Methylnaphthalene	U		0.000050	0.00020	mg/L	1	2/21/2012 16:59
4,6-Dinitro-2-methylphenol	U		0.000080	0.00020	mg/L	1	2/21/2012 16:59
4-Nitrophenol	U		0.000050	0.0010	mg/L	1	2/21/2012 16:59
Acenaphthene	U		0.000050	0.00020	mg/L	1	2/21/2012 16:59
Acenaphthylene	U		0.000050	0.00020	mg/L	1	2/21/2012 16:59
Anthracene	0.00027		0.000050	0.00020	mg/L	1	2/21/2012 16:59
Benz(a)anthracene	0.00012	J	0.000050	0.00020	mg/L	1	2/21/2012 16:59
Benzo(a)pyrene	0.00013	J	0.000050	0.00020	mg/L	1	2/21/2012 16:59
Bis(2-chloroethoxy)methane	U		0.000050	0.00020	mg/L	1	2/21/2012 16:59
Bis(2-ethylhexyl)phthalate	0.00020	J	0.00010	0.00020	mg/L	1	2/21/2012 16:59
Chrysene	0.00052		0.000050	0.00020	mg/L	1	2/21/2012 16:59
Dibenzofuran	U		0.000050	0.00020	mg/L	1	2/21/2012 16:59
Di-n-butyl phthalate	U		0.000050	0.00020	mg/L	1	2/21/2012 16:59
Fluoranthene	0.00057		0.000050	0.00020	mg/L	1	2/21/2012 16:59
Fluorene	U		0.000050	0.00020	mg/L	1	2/21/2012 16:59
Naphthalene	U		0.000050	0.00020	mg/L	1	2/21/2012 16:59
Nitrobenzene	U		0.000050	0.00020	mg/L	1	2/21/2012 16:59
N-Nitrosodiphenylamine	U		0.000050	0.00020	mg/L	1	2/21/2012 16:59
Pentachlorophenol	U		0.000050	0.00020	mg/L	1	2/21/2012 16:59
Phenanthrene	0.00011	J	0.000050	0.00020	mg/L	1	2/21/2012 16:59
Phenol	U		0.000050	0.00020	mg/L	1	2/21/2012 16:59
Pyrene	0.00051		0.000050	0.00020	mg/L	1	2/21/2012 16:59
Surr: 2,4,6-Tribromophenol	66.7			34-129	%REC	1	2/21/2012 16:59
Surr: 2-Fluorobiphenyl	64.5			40-125	%REC	1	2/21/2012 16:59
Surr: 2-Fluorophenol	54.1			20-120	%REC	1	2/21/2012 16:59
Surr: 4-Terphenyl-d14	73.9			40-135	%REC	1	2/21/2012 16:59
Surr: Nitrobenzene-d5	68.7			41-120	%REC	1	2/21/2012 16:59
Surr: Phenol-d6	54.4			20-120	%REC	1	2/21/2012 16:59

VOLATILES			Method: SW8260	Analyst: PC			
1,2-Dichloroethane	U		0.0010	0.0050	mg/L	1	2/18/2012 04:27
Benzene	U		0.0010	0.0050	mg/L	1	2/18/2012 04:27
Chlorobenzene	U		0.0010	0.0050	mg/L	1	2/18/2012 04:27
Ethylbenzene	U		0.0011	0.0050	mg/L	1	2/18/2012 04:27

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 23-Feb-12

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-MW66D-20120214
Collection Date: 2/14/2012 01:45 PM

Work Order: 1202555
Lab ID: 1202555-01
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
Methylene chloride	U		0.0013	0.010	mg/L	1	2/18/2012 04:27
Toluene	U		0.0010	0.0050	mg/L	1	2/18/2012 04:27
Xylenes, Total	U		0.0031	0.015	mg/L	1	2/18/2012 04:27
Surr: 1,2-Dichloroethane-d4	107			70-125	%REC	1	2/18/2012 04:27
Surr: 4-Bromofluorobenzene	99.0			72-125	%REC	1	2/18/2012 04:27
Surr: Dibromofluoromethane	103			71-125	%REC	1	2/18/2012 04:27
Surr: Toluene-d8	102			75-125	%REC	1	2/18/2012 04:27

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 23-Feb-12

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-MW59D-20120214
Collection Date: 2/14/2012 03:00 PM

Work Order: 1202555
Lab ID: 1202555-02
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270	Prep: SW3510 / 2/16/12	Analyst: ACN		
1,2-Diphenylhydrazine	U		0.000050	0.00020	mg/L	1	2/21/2012 17:19
2,4-Dimethylphenol	U		0.000050	0.00020	mg/L	1	2/21/2012 17:19
2,4-Dinitrotoluene	U		0.000050	0.00020	mg/L	1	2/21/2012 17:19
2,6-Dinitrotoluene	U		0.000060	0.00020	mg/L	1	2/21/2012 17:19
2-Chloronaphthalene	U		0.000050	0.00020	mg/L	1	2/21/2012 17:19
2-Methylnaphthalene	U		0.000050	0.00020	mg/L	1	2/21/2012 17:19
4,6-Dinitro-2-methylphenol	U		0.000080	0.00020	mg/L	1	2/21/2012 17:19
4-Nitrophenol	U		0.000050	0.0010	mg/L	1	2/21/2012 17:19
Acenaphthene	U		0.000050	0.00020	mg/L	1	2/21/2012 17:19
Acenaphthylene	U		0.000050	0.00020	mg/L	1	2/21/2012 17:19
Anthracene	U		0.000050	0.00020	mg/L	1	2/21/2012 17:19
Benz(a)anthracene	U		0.000050	0.00020	mg/L	1	2/21/2012 17:19
Benzo(a)pyrene	U		0.000050	0.00020	mg/L	1	2/21/2012 17:19
Bis(2-chloroethoxy)methane	U		0.000050	0.00020	mg/L	1	2/21/2012 17:19
Bis(2-ethylhexyl)phthalate	0.00094		0.00010	0.00020	mg/L	1	2/21/2012 17:19
Chrysene	U		0.000050	0.00020	mg/L	1	2/21/2012 17:19
Dibenzofuran	U		0.000050	0.00020	mg/L	1	2/21/2012 17:19
Di-n-butyl phthalate	U		0.000050	0.00020	mg/L	1	2/21/2012 17:19
Fluoranthene	U		0.000050	0.00020	mg/L	1	2/21/2012 17:19
Fluorene	U		0.000050	0.00020	mg/L	1	2/21/2012 17:19
Naphthalene	U		0.000050	0.00020	mg/L	1	2/21/2012 17:19
Nitrobenzene	U		0.000050	0.00020	mg/L	1	2/21/2012 17:19
N-Nitrosodiphenylamine	U		0.000050	0.00020	mg/L	1	2/21/2012 17:19
Pentachlorophenol	U		0.000050	0.00020	mg/L	1	2/21/2012 17:19
Phenanthrene	U		0.000050	0.00020	mg/L	1	2/21/2012 17:19
Phenol	0.00014	J	0.000050	0.00020	mg/L	1	2/21/2012 17:19
Pyrene	U		0.000050	0.00020	mg/L	1	2/21/2012 17:19
Surr: 2,4,6-Tribromophenol	76.8			34-129	%REC	1	2/21/2012 17:19
Surr: 2-Fluorobiphenyl	47.5			40-125	%REC	1	2/21/2012 17:19
Surr: 2-Fluorophenol	48.4			20-120	%REC	1	2/21/2012 17:19
Surr: 4-Terphenyl-d14	80.7			40-135	%REC	1	2/21/2012 17:19
Surr: Nitrobenzene-d5	49.6			41-120	%REC	1	2/21/2012 17:19
Surr: Phenol-d6	48.1			20-120	%REC	1	2/21/2012 17:19

VOLATILES			Method: SW8260	Analyst: PC			
1,2-Dichloroethane	U		0.0010	0.0050	mg/L	1	2/18/2012 04:54
Benzene	U		0.0010	0.0050	mg/L	1	2/18/2012 04:54
Chlorobenzene	U		0.0010	0.0050	mg/L	1	2/18/2012 04:54
Ethylbenzene	U		0.0011	0.0050	mg/L	1	2/18/2012 04:54

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 23-Feb-12

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-MW59D-20120214
Collection Date: 2/14/2012 03:00 PM

Work Order: 1202555
Lab ID: 1202555-02
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
Methylene chloride	U		0.0013	0.010	mg/L	1	2/18/2012 04:54
Toluene	U		0.0010	0.0050	mg/L	1	2/18/2012 04:54
Xylenes, Total	U		0.0031	0.015	mg/L	1	2/18/2012 04:54
Surr: 1,2-Dichloroethane-d4	106			70-125	%REC	1	2/18/2012 04:54
Surr: 4-Bromofluorobenzene	99.5			72-125	%REC	1	2/18/2012 04:54
Surr: Dibromofluoromethane	103			71-125	%REC	1	2/18/2012 04:54
Surr: Toluene-d8	98.6			75-125	%REC	1	2/18/2012 04:54

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 23-Feb-12

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-MW65D-20120214
Collection Date: 2/14/2012 04:30 PM

Work Order: 1202555
Lab ID: 1202555-03
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270	Prep: SW3510 / 2/16/12	Analyst: ACN		
1,2-Diphenylhydrazine	U		0.000050	0.00020	mg/L	1	2/18/2012 20:11
2,4-Dimethylphenol	U		0.000050	0.00020	mg/L	1	2/18/2012 20:11
2,4-Dinitrotoluene	U		0.000050	0.00020	mg/L	1	2/18/2012 20:11
2,6-Dinitrotoluene	U		0.000060	0.00020	mg/L	1	2/18/2012 20:11
2-Chloronaphthalene	U		0.000050	0.00020	mg/L	1	2/18/2012 20:11
2-Methylnaphthalene	U		0.000050	0.00020	mg/L	1	2/18/2012 20:11
4,6-Dinitro-2-methylphenol	U		0.000080	0.00020	mg/L	1	2/18/2012 20:11
4-Nitrophenol	U		0.000050	0.0010	mg/L	1	2/18/2012 20:11
Acenaphthene	U		0.000050	0.00020	mg/L	1	2/18/2012 20:11
Acenaphthylene	U		0.000050	0.00020	mg/L	1	2/18/2012 20:11
Anthracene	U		0.000050	0.00020	mg/L	1	2/18/2012 20:11
Benz(a)anthracene	U		0.000050	0.00020	mg/L	1	2/18/2012 20:11
Benzo(a)pyrene	U		0.000050	0.00020	mg/L	1	2/18/2012 20:11
Bis(2-chloroethoxy)methane	U		0.000050	0.00020	mg/L	1	2/18/2012 20:11
Bis(2-ethylhexyl)phthalate	0.00013	J	0.00010	0.00020	mg/L	1	2/18/2012 20:11
Chrysene	U		0.000050	0.00020	mg/L	1	2/18/2012 20:11
Dibenzofuran	U		0.000050	0.00020	mg/L	1	2/18/2012 20:11
Di-n-butyl phthalate	U		0.000050	0.00020	mg/L	1	2/18/2012 20:11
Fluoranthene	U		0.000050	0.00020	mg/L	1	2/18/2012 20:11
Fluorene	U		0.000050	0.00020	mg/L	1	2/18/2012 20:11
Naphthalene	U		0.000050	0.00020	mg/L	1	2/18/2012 20:11
Nitrobenzene	U		0.000050	0.00020	mg/L	1	2/18/2012 20:11
N-Nitrosodiphenylamine	U		0.000050	0.00020	mg/L	1	2/18/2012 20:11
Pentachlorophenol	U		0.000050	0.00020	mg/L	1	2/18/2012 20:11
Phenanthrene	U		0.000050	0.00020	mg/L	1	2/18/2012 20:11
Phenol	U		0.000050	0.00020	mg/L	1	2/18/2012 20:11
Pyrene	U		0.000050	0.00020	mg/L	1	2/18/2012 20:11
Surr: 2,4,6-Tribromophenol	74.3			34-129	%REC	1	2/18/2012 20:11
Surr: 2-Fluorobiphenyl	62.9			40-125	%REC	1	2/18/2012 20:11
Surr: 2-Fluorophenol	50.3			20-120	%REC	1	2/18/2012 20:11
Surr: 4-Terphenyl-d14	79.3			40-135	%REC	1	2/18/2012 20:11
Surr: Nitrobenzene-d5	66.0			41-120	%REC	1	2/18/2012 20:11
Surr: Phenol-d6	57.1			20-120	%REC	1	2/18/2012 20:11

VOLATILES			Method: SW8260	Analyst: PC			
1,2-Dichloroethane	U		0.0010	0.0050	mg/L	1	2/18/2012 00:28
Benzene	U		0.0010	0.0050	mg/L	1	2/18/2012 00:28
Chlorobenzene	U		0.0010	0.0050	mg/L	1	2/18/2012 00:28
Ethylbenzene	U		0.0011	0.0050	mg/L	1	2/18/2012 00:28

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 23-Feb-12

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-MW65D-20120214
Collection Date: 2/14/2012 04:30 PM

Work Order: 1202555
Lab ID: 1202555-03
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
Methylene chloride	U		0.0013	0.010	mg/L	1	2/18/2012 00:28
Toluene	U		0.0010	0.0050	mg/L	1	2/18/2012 00:28
Xylenes, Total	U		0.0031	0.015	mg/L	1	2/18/2012 00:28
Surr: 1,2-Dichloroethane-d4	101			70-125	%REC	1	2/18/2012 00:28
Surr: 4-Bromofluorobenzene	92.7			72-125	%REC	1	2/18/2012 00:28
Surr: Dibromofluoromethane	107			71-125	%REC	1	2/18/2012 00:28
Surr: Toluene-d8	95.0			75-125	%REC	1	2/18/2012 00:28

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 23-Feb-12

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-MW36D-20120214
Collection Date: 2/14/2012 05:30 PM

Work Order: 1202555
Lab ID: 1202555-04
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270	Prep: SW3510 / 2/16/12	Analyst: ACN		
1,2-Diphenylhydrazine	U		0.000050	0.00020	mg/L	1	2/21/2012 15:54
2,4-Dimethylphenol	U		0.000050	0.00020	mg/L	1	2/21/2012 15:54
2,4-Dinitrotoluene	U		0.000050	0.00020	mg/L	1	2/21/2012 15:54
2,6-Dinitrotoluene	U		0.000060	0.00020	mg/L	1	2/21/2012 15:54
2-Chloronaphthalene	U		0.000050	0.00020	mg/L	1	2/21/2012 15:54
2-Methylnaphthalene	U		0.000050	0.00020	mg/L	1	2/21/2012 15:54
4,6-Dinitro-2-methylphenol	U		0.000080	0.00020	mg/L	1	2/21/2012 15:54
4-Nitrophenol	U		0.000050	0.0010	mg/L	1	2/21/2012 15:54
Acenaphthene	U		0.000050	0.00020	mg/L	1	2/21/2012 15:54
Acenaphthylene	U		0.000050	0.00020	mg/L	1	2/21/2012 15:54
Anthracene	U		0.000050	0.00020	mg/L	1	2/21/2012 15:54
Benz(a)anthracene	U		0.000050	0.00020	mg/L	1	2/21/2012 15:54
Benzo(a)pyrene	U		0.000050	0.00020	mg/L	1	2/21/2012 15:54
Bis(2-chloroethoxy)methane	U		0.000050	0.00020	mg/L	1	2/21/2012 15:54
Bis(2-ethylhexyl)phthalate	0.0012		0.00010	0.00020	mg/L	1	2/21/2012 15:54
Chrysene	0.000078	J	0.000050	0.00020	mg/L	1	2/21/2012 15:54
Dibenzofuran	U		0.000050	0.00020	mg/L	1	2/21/2012 15:54
Di-n-butyl phthalate	0.000052	J	0.000050	0.00020	mg/L	1	2/21/2012 15:54
Fluoranthene	0.00013	J	0.000050	0.00020	mg/L	1	2/21/2012 15:54
Fluorene	U		0.000050	0.00020	mg/L	1	2/21/2012 15:54
Naphthalene	0.000072	J	0.000050	0.00020	mg/L	1	2/21/2012 15:54
Nitrobenzene	U		0.000050	0.00020	mg/L	1	2/21/2012 15:54
N-Nitrosodiphenylamine	U		0.000050	0.00020	mg/L	1	2/21/2012 15:54
Pentachlorophenol	U		0.000050	0.00020	mg/L	1	2/21/2012 15:54
Phenanthrene	0.000069	J	0.000050	0.00020	mg/L	1	2/21/2012 15:54
Phenol	0.00023		0.000050	0.00020	mg/L	1	2/21/2012 15:54
Pyrene	0.000087	J	0.000050	0.00020	mg/L	1	2/21/2012 15:54
Surr: 2,4,6-Tribromophenol	67.1			34-129	%REC	1	2/21/2012 15:54
Surr: 2-Fluorobiphenyl	49.6			40-125	%REC	1	2/21/2012 15:54
Surr: 2-Fluorophenol	49.0			20-120	%REC	1	2/21/2012 15:54
Surr: 4-Terphenyl-d14	83.8			40-135	%REC	1	2/21/2012 15:54
Surr: Nitrobenzene-d5	49.0			41-120	%REC	1	2/21/2012 15:54
Surr: Phenol-d6	47.7			20-120	%REC	1	2/21/2012 15:54

VOLATILES			Method: SW8260	Analyst: PC			
1,2-Dichloroethane	U		0.0010	0.0050	mg/L	1	2/18/2012 05:20
Benzene	U		0.0010	0.0050	mg/L	1	2/18/2012 05:20
Chlorobenzene	U		0.0010	0.0050	mg/L	1	2/18/2012 05:20
Ethylbenzene	U		0.0011	0.0050	mg/L	1	2/18/2012 05:20

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 23-Feb-12

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-MW36D-20120214
Collection Date: 2/14/2012 05:30 PM

Work Order: 1202555
Lab ID: 1202555-04
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
Methylene chloride	U		0.0013	0.010	mg/L	1	2/18/2012 05:20
Toluene	U		0.0010	0.0050	mg/L	1	2/18/2012 05:20
Xylenes, Total	U		0.0031	0.015	mg/L	1	2/18/2012 05:20
Surr: 1,2-Dichloroethane-d4	102			70-125	%REC	1	2/18/2012 05:20
Surr: 4-Bromofluorobenzene	107			72-125	%REC	1	2/18/2012 05:20
Surr: Dibromofluoromethane	103			71-125	%REC	1	2/18/2012 05:20
Surr: Toluene-d8	103			75-125	%REC	1	2/18/2012 05:20

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 23-Feb-12

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-MW51A-20120215
Collection Date: 2/15/2012 09:40 AM

Work Order: 1202555
Lab ID: 1202555-05
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270	Prep: SW3510 / 2/16/12	Analyst: ACN		
1,2-Diphenylhydrazine	U		0.000050	0.00020	mg/L	1	2/21/2012 10:13
2,4-Dimethylphenol	U		0.000050	0.00020	mg/L	1	2/21/2012 10:13
2,4-Dinitrotoluene	U		0.000050	0.00020	mg/L	1	2/21/2012 10:13
2,6-Dinitrotoluene	U		0.000060	0.00020	mg/L	1	2/21/2012 10:13
2-Chloronaphthalene	U		0.000050	0.00020	mg/L	1	2/21/2012 10:13
2-Methylnaphthalene	U		0.000050	0.00020	mg/L	1	2/21/2012 10:13
4,6-Dinitro-2-methylphenol	U		0.000080	0.00020	mg/L	1	2/21/2012 10:13
4-Nitrophenol	U		0.000050	0.0010	mg/L	1	2/21/2012 10:13
Acenaphthene	U		0.000050	0.00020	mg/L	1	2/21/2012 10:13
Acenaphthylene	U		0.000050	0.00020	mg/L	1	2/21/2012 10:13
Anthracene	U		0.000050	0.00020	mg/L	1	2/21/2012 10:13
Benz(a)anthracene	U		0.000050	0.00020	mg/L	1	2/21/2012 10:13
Benzo(a)pyrene	U		0.000050	0.00020	mg/L	1	2/21/2012 10:13
Bis(2-chloroethoxy)methane	U		0.000050	0.00020	mg/L	1	2/21/2012 10:13
Bis(2-ethylhexyl)phthalate	U		0.00010	0.00020	mg/L	1	2/21/2012 10:13
Chrysene	U		0.000050	0.00020	mg/L	1	2/21/2012 10:13
Dibenzofuran	U		0.000050	0.00020	mg/L	1	2/21/2012 10:13
Di-n-butyl phthalate	U		0.000050	0.00020	mg/L	1	2/21/2012 10:13
Fluoranthene	U		0.000050	0.00020	mg/L	1	2/21/2012 10:13
Fluorene	U		0.000050	0.00020	mg/L	1	2/21/2012 10:13
Naphthalene	U		0.000050	0.00020	mg/L	1	2/21/2012 10:13
Nitrobenzene	U		0.000050	0.00020	mg/L	1	2/21/2012 10:13
N-Nitrosodiphenylamine	U		0.000050	0.00020	mg/L	1	2/21/2012 10:13
Pentachlorophenol	U		0.000050	0.00020	mg/L	1	2/21/2012 10:13
Phenanthrene	U		0.000050	0.00020	mg/L	1	2/21/2012 10:13
Phenol	U		0.000050	0.00020	mg/L	1	2/21/2012 10:13
Pyrene	U		0.000050	0.00020	mg/L	1	2/21/2012 10:13
Surr: 2,4,6-Tribromophenol	54.5			34-129	%REC	1	2/21/2012 10:13
Surr: 2-Fluorobiphenyl	49.4			40-125	%REC	1	2/21/2012 10:13
Surr: 2-Fluorophenol	46.0			20-120	%REC	1	2/21/2012 10:13
Surr: 4-Terphenyl-d14	63.2			40-135	%REC	1	2/21/2012 10:13
Surr: Nitrobenzene-d5	50.2			41-120	%REC	1	2/21/2012 10:13
Surr: Phenol-d6	50.1			20-120	%REC	1	2/21/2012 10:13

VOLATILES			Method: SW8260	Analyst: PC			
1,2-Dichloroethane	U		0.0010	0.0050	mg/L	1	2/18/2012 05:46
Benzene	U		0.0010	0.0050	mg/L	1	2/18/2012 05:46
Chlorobenzene	U		0.0010	0.0050	mg/L	1	2/18/2012 05:46
Ethylbenzene	U		0.0011	0.0050	mg/L	1	2/18/2012 05:46

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 23-Feb-12

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-MW51A-20120215
Collection Date: 2/15/2012 09:40 AM

Work Order: 1202555
Lab ID: 1202555-05
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
Methylene chloride	U		0.0013	0.010	mg/L	1	2/18/2012 05:46
Toluene	U		0.0010	0.0050	mg/L	1	2/18/2012 05:46
Xylenes, Total	U		0.0031	0.015	mg/L	1	2/18/2012 05:46
Surr: 1,2-Dichloroethane-d4	106			70-125	%REC	1	2/18/2012 05:46
Surr: 4-Bromofluorobenzene	94.8			72-125	%REC	1	2/18/2012 05:46
Surr: Dibromofluoromethane	101			71-125	%REC	1	2/18/2012 05:46
Surr: Toluene-d8	95.6			75-125	%REC	1	2/18/2012 05:46

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 23-Feb-12

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-MW44A-20120215
Collection Date: 2/15/2012 10:40 AM

Work Order: 1202555
Lab ID: 1202555-06
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270	Prep: SW3510 / 2/16/12	Analyst: ACN		
1,2-Diphenylhydrazine	U		0.000050	0.00020	mg/L	1	2/21/2012 12:33
2,4-Dimethylphenol	U		0.000050	0.00020	mg/L	1	2/21/2012 12:33
2,4-Dinitrotoluene	U		0.000050	0.00020	mg/L	1	2/21/2012 12:33
2,6-Dinitrotoluene	U		0.000060	0.00020	mg/L	1	2/21/2012 12:33
2-Chloronaphthalene	U		0.000050	0.00020	mg/L	1	2/21/2012 12:33
2-Methylnaphthalene	0.0048		0.000050	0.00020	mg/L	1	2/21/2012 12:33
4,6-Dinitro-2-methylphenol	U		0.000080	0.00020	mg/L	1	2/21/2012 12:33
4-Nitrophenol	U		0.000050	0.0010	mg/L	1	2/21/2012 12:33
Acenaphthene	0.21		0.0025	0.010	mg/L	50	2/22/2012 04:19
Acenaphthylene	0.0010		0.000050	0.00020	mg/L	1	2/21/2012 12:33
Anthracene	0.0068		0.000050	0.00020	mg/L	1	2/21/2012 12:33
Benz(a)anthracene	U		0.000050	0.00020	mg/L	1	2/21/2012 12:33
Benzo(a)pyrene	U		0.000050	0.00020	mg/L	1	2/21/2012 12:33
Bis(2-chloroethoxy)methane	U		0.000050	0.00020	mg/L	1	2/21/2012 12:33
Bis(2-ethylhexyl)phthalate	0.00011	J	0.00010	0.00020	mg/L	1	2/21/2012 12:33
Chrysene	U		0.000050	0.00020	mg/L	1	2/21/2012 12:33
Dibenzofuran	0.0010		0.000050	0.00020	mg/L	1	2/21/2012 12:33
Di-n-butyl phthalate	U		0.000050	0.00020	mg/L	1	2/21/2012 12:33
Fluoranthene	0.0094		0.000050	0.00020	mg/L	1	2/21/2012 12:33
Fluorene	0.11		0.0025	0.010	mg/L	50	2/22/2012 04:19
Naphthalene	0.32		0.0025	0.010	mg/L	50	2/22/2012 04:19
Nitrobenzene	U		0.000050	0.00020	mg/L	1	2/21/2012 12:33
N-Nitrosodiphenylamine	0.00065		0.000050	0.00020	mg/L	1	2/21/2012 12:33
Pentachlorophenol	U		0.000050	0.00020	mg/L	1	2/21/2012 12:33
Phenanthrene	0.0073		0.000050	0.00020	mg/L	1	2/21/2012 12:33
Phenol	U		0.000050	0.00020	mg/L	1	2/21/2012 12:33
Pyrene	0.0054		0.000050	0.00020	mg/L	1	2/21/2012 12:33
Surr: 2,4,6-Tribromophenol	73.1			34-129	%REC	1	2/21/2012 12:33
Surr: 2,4,6-Tribromophenol	107	J		34-129	%REC	50	2/22/2012 04:19
Surr: 2-Fluorobiphenyl	70.2			40-125	%REC	1	2/21/2012 12:33
Surr: 2-Fluorobiphenyl	109	J		40-125	%REC	50	2/22/2012 04:19
Surr: 2-Fluorophenol	70.4			20-120	%REC	1	2/21/2012 12:33
Surr: 2-Fluorophenol	71.8	J		20-120	%REC	50	2/22/2012 04:19
Surr: 4-Terphenyl-d14	81.6			40-135	%REC	1	2/21/2012 12:33
Surr: 4-Terphenyl-d14	107	J		40-135	%REC	50	2/22/2012 04:19
Surr: Nitrobenzene-d5	65.5			41-120	%REC	1	2/21/2012 12:33
Surr: Nitrobenzene-d5	87.5	J		41-120	%REC	50	2/22/2012 04:19
Surr: Phenol-d6	64.5			20-120	%REC	1	2/21/2012 12:33

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 23-Feb-12

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-MW44A-20120215
Collection Date: 2/15/2012 10:40 AM

Work Order: 1202555
Lab ID: 1202555-06
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
<i>Surr: Phenol-d6</i>	48.7	J		20-120	%REC	50	2/22/2012 04:19
VOLATILES			Method: SW8260			Analyst: PC	
1,2-Dichloroethane	U		0.0010	0.0050	mg/L	1	2/18/2012 06:12
Benzene	0.0042	J	0.0010	0.0050	mg/L	1	2/18/2012 06:12
Chlorobenzene	U		0.0010	0.0050	mg/L	1	2/18/2012 06:12
Ethylbenzene	U		0.0011	0.0050	mg/L	1	2/18/2012 06:12
Methylene chloride	U		0.0013	0.010	mg/L	1	2/18/2012 06:12
Toluene	U		0.0010	0.0050	mg/L	1	2/18/2012 06:12
Vinyl chloride	U		0.0010	0.0020	mg/L	1	2/18/2012 06:12
Xylenes, Total	0.0052	J	0.0031	0.015	mg/L	1	2/18/2012 06:12
<i>Surr: 1,2-Dichloroethane-d4</i>	98.4			70-125	%REC	1	2/18/2012 06:12
<i>Surr: 4-Bromofluorobenzene</i>	102			72-125	%REC	1	2/18/2012 06:12
<i>Surr: Dibromofluoromethane</i>	102			71-125	%REC	1	2/18/2012 06:12
<i>Surr: Toluene-d8</i>	102			75-125	%REC	1	2/18/2012 06:12

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 23-Feb-12

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-MW33BR-20120215
Collection Date: 2/15/2012 11:45 AM

Work Order: 1202555
Lab ID: 1202555-07
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270	Prep: SW3510 / 2/16/12	Analyst: ACN		
1,2-Diphenylhydrazine	U		0.000050	0.00020	mg/L	1	2/21/2012 14:14
2,4-Dimethylphenol	U		0.000050	0.00020	mg/L	1	2/21/2012 14:14
2,4-Dinitrotoluene	U		0.000050	0.00020	mg/L	1	2/21/2012 14:14
2,6-Dinitrotoluene	U		0.000060	0.00020	mg/L	1	2/21/2012 14:14
2-Chloronaphthalene	U		0.000050	0.00020	mg/L	1	2/21/2012 14:14
2-Methylnaphthalene	0.81		0.0050	0.020	mg/L	100	2/22/2012 04:39
4,6-Dinitro-2-methylphenol	U		0.000080	0.00020	mg/L	1	2/21/2012 14:14
4-Nitrophenol	U		0.000050	0.0010	mg/L	1	2/21/2012 14:14
Acenaphthene	0.23		0.0050	0.020	mg/L	100	2/22/2012 04:39
Acenaphthylene	U		0.000050	0.00020	mg/L	1	2/21/2012 14:14
Anthracene	0.054		0.0050	0.020	mg/L	100	2/22/2012 04:39
Benz(a)anthracene	0.000074	J	0.000050	0.00020	mg/L	1	2/21/2012 14:14
Benzo(a)pyrene	U		0.000050	0.00020	mg/L	1	2/21/2012 14:14
Bis(2-chloroethoxy)methane	U		0.000050	0.00020	mg/L	1	2/21/2012 14:14
Bis(2-ethylhexyl)phthalate	0.00018	J	0.00010	0.00020	mg/L	1	2/21/2012 14:14
Chrysene	0.000073	J	0.000050	0.00020	mg/L	1	2/21/2012 14:14
Dibenzofuran	0.38		0.0050	0.020	mg/L	100	2/22/2012 04:39
Di-n-butyl phthalate	U		0.000050	0.00020	mg/L	1	2/21/2012 14:14
Fluoranthene	0.0049		0.000050	0.00020	mg/L	1	2/21/2012 14:14
Fluorene	0.12		0.0050	0.020	mg/L	100	2/22/2012 04:39
Naphthalene	21		0.25	1.0	mg/L	5000	2/22/2012 17:07
Nitrobenzene	U		0.000050	0.00020	mg/L	1	2/21/2012 14:14
N-Nitrosodiphenylamine	0.00081		0.000050	0.00020	mg/L	1	2/21/2012 14:14
Pentachlorophenol	U		0.000050	0.00020	mg/L	1	2/21/2012 14:14
Phenanthrene	0.17		0.0050	0.020	mg/L	100	2/22/2012 04:39
Phenol	0.0043		0.000050	0.00020	mg/L	1	2/21/2012 14:14
Pyrene	0.0025		0.000050	0.00020	mg/L	1	2/21/2012 14:14
Surr: 2,4,6-Tribromophenol	80.1			34-129	%REC	1	2/21/2012 14:14
Surr: 2,4,6-Tribromophenol	0	S		34-129	%REC	100	2/22/2012 04:39
Surr: 2,4,6-Tribromophenol	0	S		34-129	%REC	5000	2/22/2012 17:07
Surr: 2-Fluorobiphenyl	54.3			40-125	%REC	1	2/21/2012 14:14
Surr: 2-Fluorobiphenyl	0	S		40-125	%REC	100	2/22/2012 04:39
Surr: 2-Fluorobiphenyl	0	S		40-125	%REC	5000	2/22/2012 17:07
Surr: 2-Fluorophenol	99.6			20-120	%REC	1	2/21/2012 14:14
Surr: 2-Fluorophenol	0	S		20-120	%REC	100	2/22/2012 04:39
Surr: 2-Fluorophenol	0	S		20-120	%REC	5000	2/22/2012 17:07
Surr: 4-Terphenyl-d14	81.9			40-135	%REC	1	2/21/2012 14:14
Surr: 4-Terphenyl-d14	0	S		40-135	%REC	100	2/22/2012 04:39

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 23-Feb-12

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-MW33BR-20120215
Collection Date: 2/15/2012 11:45 AM

Work Order: 1202555
Lab ID: 1202555-07
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
Surr: 4-Terphenyl-d14	0	S		40-135	%REC	5000	2/22/2012 17:07
Surr: Nitrobenzene-d5	47.0			41-120	%REC	1	2/21/2012 14:14
Surr: Nitrobenzene-d5	0	S		41-120	%REC	100	2/22/2012 04:39
Surr: Nitrobenzene-d5	0	S		41-120	%REC	5000	2/22/2012 17:07
Surr: Phenol-d6	67.5			20-120	%REC	1	2/21/2012 14:14
Surr: Phenol-d6	0	S		20-120	%REC	100	2/22/2012 04:39
Surr: Phenol-d6	0	S		20-120	%REC	5000	2/22/2012 17:07

VOLATILES		Method: SW8260				Analyst: PC	
1,2-Dichloroethane	U	0.0050	0.025	mg/L	5	2/20/2012 17:06	
Benzene	2.0	0.050	0.25	mg/L	50	2/20/2012 17:33	
Chlorobenzene	U	0.0050	0.025	mg/L	5	2/20/2012 17:06	
Ethylbenzene	0.46	0.0055	0.025	mg/L	5	2/20/2012 17:06	
Methylene chloride	U	0.0065	0.050	mg/L	5	2/20/2012 17:06	
Toluene	0.12	0.0050	0.025	mg/L	5	2/20/2012 17:06	
Vinyl chloride	U	0.0050	0.010	mg/L	5	2/20/2012 17:06	
Xylenes, Total	0.82	0.016	0.075	mg/L	5	2/20/2012 17:06	
Surr: 1,2-Dichloroethane-d4	99.9		70-125	%REC	5	2/20/2012 17:06	
Surr: 1,2-Dichloroethane-d4	96.0		70-125	%REC	50	2/20/2012 17:33	
Surr: 4-Bromofluorobenzene	102		72-125	%REC	5	2/20/2012 17:06	
Surr: 4-Bromofluorobenzene	97.5		72-125	%REC	50	2/20/2012 17:33	
Surr: Dibromofluoromethane	104		71-125	%REC	5	2/20/2012 17:06	
Surr: Dibromofluoromethane	99.2		71-125	%REC	50	2/20/2012 17:33	
Surr: Toluene-d8	95.8		75-125	%REC	5	2/20/2012 17:06	
Surr: Toluene-d8	97.7		75-125	%REC	50	2/20/2012 17:33	

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 23-Feb-12

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-MW26A-20120215
Collection Date: 2/15/2012 01:35 PM

Work Order: 1202555
Lab ID: 1202555-08
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270	Prep: SW3510 / 2/16/12	Analyst: ACN		
1,2-Diphenylhydrazine	U		0.000050	0.00020	mg/L	1	2/21/2012 10:33
2,4-Dimethylphenol	U		0.000050	0.00020	mg/L	1	2/21/2012 10:33
2,4-Dinitrotoluene	U		0.000050	0.00020	mg/L	1	2/21/2012 10:33
2,6-Dinitrotoluene	U		0.000060	0.00020	mg/L	1	2/21/2012 10:33
2-Chloronaphthalene	U		0.000050	0.00020	mg/L	1	2/21/2012 10:33
2-Methylnaphthalene	U		0.000050	0.00020	mg/L	1	2/21/2012 10:33
4,6-Dinitro-2-methylphenol	U		0.000080	0.00020	mg/L	1	2/21/2012 10:33
4-Nitrophenol	U		0.000050	0.0010	mg/L	1	2/21/2012 10:33
Acenaphthene	0.0095		0.000050	0.00020	mg/L	1	2/21/2012 10:33
Acenaphthylene	0.00013	J	0.000050	0.00020	mg/L	1	2/21/2012 10:33
Anthracene	0.00025		0.000050	0.00020	mg/L	1	2/21/2012 10:33
Benz(a)anthracene	U		0.000050	0.00020	mg/L	1	2/21/2012 10:33
Benzo(a)pyrene	U		0.000050	0.00020	mg/L	1	2/21/2012 10:33
Bis(2-chloroethoxy)methane	U		0.000050	0.00020	mg/L	1	2/21/2012 10:33
Bis(2-ethylhexyl)phthalate	U		0.00010	0.00020	mg/L	1	2/21/2012 10:33
Chrysene	U		0.000050	0.00020	mg/L	1	2/21/2012 10:33
Dibenzofuran	0.0014		0.000050	0.00020	mg/L	1	2/21/2012 10:33
Di-n-butyl phthalate	U		0.000050	0.00020	mg/L	1	2/21/2012 10:33
Fluoranthene	0.00049		0.000050	0.00020	mg/L	1	2/21/2012 10:33
Fluorene	0.00060		0.000050	0.00020	mg/L	1	2/21/2012 10:33
Naphthalene	0.00010	J	0.000050	0.00020	mg/L	1	2/21/2012 10:33
Nitrobenzene	U		0.000050	0.00020	mg/L	1	2/21/2012 10:33
N-Nitrosodiphenylamine	U		0.000050	0.00020	mg/L	1	2/21/2012 10:33
Pentachlorophenol	U		0.000050	0.00020	mg/L	1	2/21/2012 10:33
Phenanthrene	U		0.000050	0.00020	mg/L	1	2/21/2012 10:33
Phenol	U		0.000050	0.00020	mg/L	1	2/21/2012 10:33
Pyrene	0.00024		0.000050	0.00020	mg/L	1	2/21/2012 10:33
Surr: 2,4,6-Tribromophenol	62.6			34-129	%REC	1	2/21/2012 10:33
Surr: 2-Fluorobiphenyl	50.1			40-125	%REC	1	2/21/2012 10:33
Surr: 2-Fluorophenol	54.8			20-120	%REC	1	2/21/2012 10:33
Surr: 4-Terphenyl-d14	64.7			40-135	%REC	1	2/21/2012 10:33
Surr: Nitrobenzene-d5	56.1			41-120	%REC	1	2/21/2012 10:33
Surr: Phenol-d6	53.5			20-120	%REC	1	2/21/2012 10:33

VOLATILES			Method: SW8260	Analyst: PC			
1,2-Dichloroethane	U		0.0010	0.0050	mg/L	1	2/18/2012 06:39
Benzene	U		0.0010	0.0050	mg/L	1	2/18/2012 06:39
Chlorobenzene	U		0.0010	0.0050	mg/L	1	2/18/2012 06:39
Ethylbenzene	U		0.0011	0.0050	mg/L	1	2/18/2012 06:39

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 23-Feb-12

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-MW26A-20120215
Collection Date: 2/15/2012 01:35 PM

Work Order: 1202555
Lab ID: 1202555-08
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
Methylene chloride	U		0.0013	0.010	mg/L	1	2/18/2012 06:39
Toluene	U		0.0010	0.0050	mg/L	1	2/18/2012 06:39
Xylenes, Total	U		0.0031	0.015	mg/L	1	2/18/2012 06:39
Surr: 1,2-Dichloroethane-d4	101			70-125	%REC	1	2/18/2012 06:39
Surr: 4-Bromofluorobenzene	96.9			72-125	%REC	1	2/18/2012 06:39
Surr: Dibromofluoromethane	103			71-125	%REC	1	2/18/2012 06:39
Surr: Toluene-d8	96.3			75-125	%REC	1	2/18/2012 06:39

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 23-Feb-12

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-MW57B-20120215
Collection Date: 2/15/2012 02:40 PM

Work Order: 1202555
Lab ID: 1202555-09
Matrix: WATER

Analyses	Result	Qual	SDL	ML	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270	Prep: SW3510 / 2/16/12		Analyst: ACN	
1,2-Diphenylhydrazine		U	0.00050	0.0020	mg/L	10	2/22/2012 05:21
2,4-Dimethylphenol	6.3		0.050	0.20	mg/L	1000	2/22/2012 05:41
2,4-Dinitrotoluene		U	0.00050	0.0020	mg/L	10	2/22/2012 05:21
2,6-Dinitrotoluene		U	0.00060	0.0020	mg/L	10	2/22/2012 05:21
2-Chloronaphthalene		U	0.00050	0.0020	mg/L	10	2/22/2012 05:21
2-Methylnaphthalene	0.92		0.0050	0.020	mg/L	100	2/21/2012 18:39
4,6-Dinitro-2-methylphenol		U	0.00080	0.0020	mg/L	10	2/22/2012 05:21
4-Nitrophenol		U	0.00050	0.010	mg/L	10	2/22/2012 05:21
Acenaphthene	0.35		0.0050	0.020	mg/L	100	2/21/2012 18:39
Acenaphthylene	0.0060		0.00050	0.0020	mg/L	10	2/22/2012 05:21
Anthracene	0.023		0.00050	0.0020	mg/L	10	2/22/2012 05:21
Benz(a)anthracene	0.0011	J	0.00050	0.0020	mg/L	10	2/22/2012 05:21
Benzo(a)pyrene		U	0.00050	0.0020	mg/L	10	2/22/2012 05:21
Bis(2-chloroethoxy)methane		U	0.00050	0.0020	mg/L	10	2/22/2012 05:21
Bis(2-ethylhexyl)phthalate	0.0019	J	0.0010	0.0020	mg/L	10	2/22/2012 05:21
Chrysene	0.00099	J	0.00050	0.0020	mg/L	10	2/22/2012 05:21
Dibenzofuran	0.28		0.0050	0.020	mg/L	100	2/21/2012 18:39
Di-n-butyl phthalate		U	0.00050	0.0020	mg/L	10	2/22/2012 05:21
Fluoranthene	0.0081		0.00050	0.0020	mg/L	10	2/22/2012 05:21
Fluorene	0.095		0.00050	0.0020	mg/L	10	2/22/2012 05:21
Naphthalene	24		0.25	1.0	mg/L	5000	2/22/2012 06:02
Nitrobenzene		U	0.00050	0.0020	mg/L	10	2/22/2012 05:21
N-Nitrosodiphenylamine		U	0.00050	0.0020	mg/L	10	2/22/2012 05:21
Pentachlorophenol		U	0.00050	0.0020	mg/L	10	2/22/2012 05:21
Phenanthrene	0.16		0.0050	0.020	mg/L	100	2/21/2012 18:39
Phenol	0.45		0.0050	0.020	mg/L	100	2/21/2012 18:39
Pyrene	0.0075		0.00050	0.0020	mg/L	10	2/22/2012 05:21
Surr: 2,4,6-Tribromophenol	105	J		34-129	%REC	100	2/21/2012 18:39
Surr: 2,4,6-Tribromophenol	37.2	J		34-129	%REC	10	2/22/2012 05:21
Surr: 2,4,6-Tribromophenol	0	S		34-129	%REC	1000	2/22/2012 05:41
Surr: 2,4,6-Tribromophenol	0	S		34-129	%REC	5000	2/22/2012 06:02
Surr: 2-Fluorobiphenyl	111	J		40-125	%REC	100	2/21/2012 18:39
Surr: 2-Fluorobiphenyl	53.6			40-125	%REC	10	2/22/2012 05:21
Surr: 2-Fluorobiphenyl	0	S		40-125	%REC	1000	2/22/2012 05:41
Surr: 2-Fluorobiphenyl	0	S		40-125	%REC	5000	2/22/2012 06:02
Surr: 2-Fluorophenol	108	J		20-120	%REC	100	2/21/2012 18:39
Surr: 2-Fluorophenol	149	S		20-120	%REC	10	2/22/2012 05:21
Surr: 2-Fluorophenol	0	S		20-120	%REC	1000	2/22/2012 05:41

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 23-Feb-12

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-MW57B-20120215
Collection Date: 2/15/2012 02:40 PM

Work Order: 1202555
Lab ID: 1202555-09
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
Surr: 2-Fluorophenol	0	S		20-120	%REC	5000	2/22/2012 06:02
Surr: 4-Terphenyl-d14	164	JS		40-135	%REC	100	2/21/2012 18:39
Surr: 4-Terphenyl-d14	86.8			40-135	%REC	10	2/22/2012 05:21
Surr: 4-Terphenyl-d14	0	S		40-135	%REC	1000	2/22/2012 05:41
Surr: 4-Terphenyl-d14	0	S		40-135	%REC	5000	2/22/2012 06:02
Surr: Nitrobenzene-d5	104	J		41-120	%REC	100	2/21/2012 18:39
Surr: Nitrobenzene-d5	41.1			41-120	%REC	10	2/22/2012 05:21
Surr: Nitrobenzene-d5	0	S		41-120	%REC	1000	2/22/2012 05:41
Surr: Nitrobenzene-d5	0	S		41-120	%REC	5000	2/22/2012 06:02
Surr: Phenol-d6	97.2	J		20-120	%REC	100	2/21/2012 18:39
Surr: Phenol-d6	79.3			20-120	%REC	10	2/22/2012 05:21
Surr: Phenol-d6	0	S		20-120	%REC	1000	2/22/2012 05:41
Surr: Phenol-d6	0	S		20-120	%REC	5000	2/22/2012 06:02

VOLATILES		Method: SW8260				Analyst: PC	
1,2-Dichloroethane	U	0.010	0.050	mg/L	10	2/20/2012 17:59	
Benzene	1.4	0.010	0.050	mg/L	10	2/20/2012 17:59	
Chlorobenzene	U	0.010	0.050	mg/L	10	2/20/2012 17:59	
Ethylbenzene	0.39	0.011	0.050	mg/L	10	2/20/2012 17:59	
Methylene chloride	U	0.013	0.10	mg/L	10	2/20/2012 17:59	
Toluene	1.3	0.010	0.050	mg/L	10	2/20/2012 17:59	
Xylenes, Total	1.2	0.031	0.15	mg/L	10	2/20/2012 17:59	
Surr: 1,2-Dichloroethane-d4	97.7		70-125	%REC	10	2/20/2012 17:59	
Surr: 4-Bromofluorobenzene	100		72-125	%REC	10	2/20/2012 17:59	
Surr: Dibromofluoromethane	101		71-125	%REC	10	2/20/2012 17:59	
Surr: Toluene-d8	97.3		75-125	%REC	10	2/20/2012 17:59	

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 23-Feb-12

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-FB06-20120214
Collection Date: 2/14/2012 05:45 PM

Work Order: 1202555
Lab ID: 1202555-10
Matrix: WATER

Analyses	Result	Qual	SDL	ML	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270	Prep: SW3510 / 2/16/12	Analyst: ACN		
1,2-Diphenylhydrazine	U		0.000050	0.00020	mg/L	1	2/19/2012 00:52
2,4-Dimethylphenol	U		0.000050	0.00020	mg/L	1	2/19/2012 00:52
2,4-Dinitrotoluene	U		0.000050	0.00020	mg/L	1	2/19/2012 00:52
2,6-Dinitrotoluene	U		0.000060	0.00020	mg/L	1	2/19/2012 00:52
2-Chloronaphthalene	U		0.000050	0.00020	mg/L	1	2/19/2012 00:52
2-Methylnaphthalene	U		0.000050	0.00020	mg/L	1	2/19/2012 00:52
4,6-Dinitro-2-methylphenol	U		0.000080	0.00020	mg/L	1	2/19/2012 00:52
4-Nitrophenol	U		0.000050	0.0010	mg/L	1	2/19/2012 00:52
Acenaphthene	U		0.000050	0.00020	mg/L	1	2/19/2012 00:52
Acenaphthylene	U		0.000050	0.00020	mg/L	1	2/19/2012 00:52
Anthracene	U		0.000050	0.00020	mg/L	1	2/19/2012 00:52
Benz(a)anthracene	U		0.000050	0.00020	mg/L	1	2/19/2012 00:52
Benzo(a)pyrene	U		0.000050	0.00020	mg/L	1	2/19/2012 00:52
Bis(2-chloroethoxy)methane	U		0.000050	0.00020	mg/L	1	2/19/2012 00:52
Bis(2-ethylhexyl)phthalate	0.00028		0.00010	0.00020	mg/L	1	2/19/2012 00:52
Chrysene	U		0.000050	0.00020	mg/L	1	2/19/2012 00:52
Dibenzofuran	U		0.000050	0.00020	mg/L	1	2/19/2012 00:52
Di-n-butyl phthalate	U		0.000050	0.00020	mg/L	1	2/19/2012 00:52
Fluoranthene	U		0.000050	0.00020	mg/L	1	2/19/2012 00:52
Fluorene	U		0.000050	0.00020	mg/L	1	2/19/2012 00:52
Naphthalene	0.00021		0.000050	0.00020	mg/L	1	2/19/2012 00:52
Nitrobenzene	U		0.000050	0.00020	mg/L	1	2/19/2012 00:52
N-Nitrosodiphenylamine	U		0.000050	0.00020	mg/L	1	2/19/2012 00:52
Pentachlorophenol	U		0.000050	0.00020	mg/L	1	2/19/2012 00:52
Phenanthrene	U		0.000050	0.00020	mg/L	1	2/19/2012 00:52
Phenol	U		0.000050	0.00020	mg/L	1	2/19/2012 00:52
Pyrene	U		0.000050	0.00020	mg/L	1	2/19/2012 00:52
Surr: 2,4,6-Tribromophenol	55.2			34-129	%REC	1	2/19/2012 00:52
Surr: 2-Fluorobiphenyl	73.8			40-125	%REC	1	2/19/2012 00:52
Surr: 2-Fluorophenol	66.1			20-120	%REC	1	2/19/2012 00:52
Surr: 4-Terphenyl-d14	72.9			40-135	%REC	1	2/19/2012 00:52
Surr: Nitrobenzene-d5	72.7			41-120	%REC	1	2/19/2012 00:52
Surr: Phenol-d6	66.5			20-120	%REC	1	2/19/2012 00:52

VOLATILES			Method: SW8260	Analyst: PC			
1,2-Dichloroethane	U		0.0010	0.0050	mg/L	1	2/18/2012 03:08
Benzene	U		0.0010	0.0050	mg/L	1	2/18/2012 03:08
Chlorobenzene	U		0.0010	0.0050	mg/L	1	2/18/2012 03:08
Ethylbenzene	U		0.0011	0.0050	mg/L	1	2/18/2012 03:08

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 23-Feb-12

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-FB06-20120214
Collection Date: 2/14/2012 05:45 PM

Work Order: 1202555
Lab ID: 1202555-10
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
Methylene chloride	U		0.0013	0.010	mg/L	1	2/18/2012 03:08
Toluene	U		0.0010	0.0050	mg/L	1	2/18/2012 03:08
Xylenes, Total	U		0.0031	0.015	mg/L	1	2/18/2012 03:08
Surr: 1,2-Dichloroethane-d4	95.1			70-125	%REC	1	2/18/2012 03:08
Surr: 4-Bromofluorobenzene	98.3			72-125	%REC	1	2/18/2012 03:08
Surr: Dibromofluoromethane	104			71-125	%REC	1	2/18/2012 03:08
Surr: Toluene-d8	97.9			75-125	%REC	1	2/18/2012 03:08

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 23-Feb-12

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-FB07-20120215
Collection Date: 2/15/2012 03:00 PM

Work Order: 1202555
Lab ID: 1202555-11
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270	Prep: SW3510 / 2/16/12	Analyst: ACN		
1,2-Diphenylhydrazine	U		0.000050	0.00020	mg/L	1	2/19/2012 01:12
2,4-Dimethylphenol	U		0.000050	0.00020	mg/L	1	2/19/2012 01:12
2,4-Dinitrotoluene	U		0.000050	0.00020	mg/L	1	2/19/2012 01:12
2,6-Dinitrotoluene	U		0.000060	0.00020	mg/L	1	2/19/2012 01:12
2-Chloronaphthalene	U		0.000050	0.00020	mg/L	1	2/19/2012 01:12
2-Methylnaphthalene	U		0.000050	0.00020	mg/L	1	2/19/2012 01:12
4,6-Dinitro-2-methylphenol	U		0.000080	0.00020	mg/L	1	2/19/2012 01:12
4-Nitrophenol	U		0.000050	0.0010	mg/L	1	2/19/2012 01:12
Acenaphthene	U		0.000050	0.00020	mg/L	1	2/19/2012 01:12
Acenaphthylene	U		0.000050	0.00020	mg/L	1	2/19/2012 01:12
Anthracene	U		0.000050	0.00020	mg/L	1	2/19/2012 01:12
Benz(a)anthracene	U		0.000050	0.00020	mg/L	1	2/19/2012 01:12
Benzo(a)pyrene	U		0.000050	0.00020	mg/L	1	2/19/2012 01:12
Bis(2-chloroethoxy)methane	U		0.000050	0.00020	mg/L	1	2/19/2012 01:12
Bis(2-ethylhexyl)phthalate	0.00012	J	0.00010	0.00020	mg/L	1	2/19/2012 01:12
Chrysene	U		0.000050	0.00020	mg/L	1	2/19/2012 01:12
Dibenzofuran	U		0.000050	0.00020	mg/L	1	2/19/2012 01:12
Di-n-butyl phthalate	U		0.000050	0.00020	mg/L	1	2/19/2012 01:12
Fluoranthene	U		0.000050	0.00020	mg/L	1	2/19/2012 01:12
Fluorene	U		0.000050	0.00020	mg/L	1	2/19/2012 01:12
Naphthalene	U		0.000050	0.00020	mg/L	1	2/19/2012 01:12
Nitrobenzene	U		0.000050	0.00020	mg/L	1	2/19/2012 01:12
N-Nitrosodiphenylamine	U		0.000050	0.00020	mg/L	1	2/19/2012 01:12
Pentachlorophenol	U		0.000050	0.00020	mg/L	1	2/19/2012 01:12
Phenanthrene	U		0.000050	0.00020	mg/L	1	2/19/2012 01:12
Phenol	U		0.000050	0.00020	mg/L	1	2/19/2012 01:12
Pyrene	U		0.000050	0.00020	mg/L	1	2/19/2012 01:12
Surr: 2,4,6-Tribromophenol	42.0			34-129	%REC	1	2/19/2012 01:12
Surr: 2-Fluorobiphenyl	65.6			40-125	%REC	1	2/19/2012 01:12
Surr: 2-Fluorophenol	60.3			20-120	%REC	1	2/19/2012 01:12
Surr: 4-Terphenyl-d14	79.5			40-135	%REC	1	2/19/2012 01:12
Surr: Nitrobenzene-d5	66.4			41-120	%REC	1	2/19/2012 01:12
Surr: Phenol-d6	60.4			20-120	%REC	1	2/19/2012 01:12

VOLATILES			Method: SW8260	Analyst: PC			
1,2-Dichloroethane	U		0.0010	0.0050	mg/L	1	2/18/2012 03:34
Benzene	U		0.0010	0.0050	mg/L	1	2/18/2012 03:34
Chlorobenzene	U		0.0010	0.0050	mg/L	1	2/18/2012 03:34
Ethylbenzene	U		0.0011	0.0050	mg/L	1	2/18/2012 03:34

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 23-Feb-12

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-FB07-20120215
Collection Date: 2/15/2012 03:00 PM

Work Order: 1202555
Lab ID: 1202555-11
Matrix: WATER

Analyses	Result	Qual	SDL	ML	Units	Dilution Factor	Date Analyzed
Methylene chloride	U		0.0013	0.010	mg/L	1	2/18/2012 03:34
Toluene	U		0.0010	0.0050	mg/L	1	2/18/2012 03:34
Vinyl chloride	U		0.0010	0.0020	mg/L	1	2/18/2012 03:34
Xylenes, Total	U		0.0031	0.015	mg/L	1	2/18/2012 03:34
Surr: 1,2-Dichloroethane-d4	110			70-125	%REC	1	2/18/2012 03:34
Surr: 4-Bromofluorobenzene	103			72-125	%REC	1	2/18/2012 03:34
Surr: Dibromofluoromethane	110			71-125	%REC	1	2/18/2012 03:34
Surr: Toluene-d8	99.6			75-125	%REC	1	2/18/2012 03:34

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 23-Feb-12

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-MW38A-20120215
Collection Date: 2/15/2012 09:10 AM

Work Order: 1202555
Lab ID: 1202555-12
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270	Prep: SW3510 / 2/16/12	Analyst: ACN		
1,2-Diphenylhydrazine	U		0.000050	0.00020	mg/L	1	2/19/2012 02:13
2,4-Dimethylphenol	U		0.000050	0.00020	mg/L	1	2/19/2012 02:13
2,4-Dinitrotoluene	U		0.000050	0.00020	mg/L	1	2/19/2012 02:13
2,6-Dinitrotoluene	U		0.000060	0.00020	mg/L	1	2/19/2012 02:13
2-Chloronaphthalene	U		0.000050	0.00020	mg/L	1	2/19/2012 02:13
2-Methylnaphthalene	U		0.000050	0.00020	mg/L	1	2/19/2012 02:13
4,6-Dinitro-2-methylphenol	U		0.000080	0.00020	mg/L	1	2/19/2012 02:13
4-Nitrophenol	U		0.000050	0.0010	mg/L	1	2/19/2012 02:13
Acenaphthene	U		0.000050	0.00020	mg/L	1	2/19/2012 02:13
Acenaphthylene	U		0.000050	0.00020	mg/L	1	2/19/2012 02:13
Anthracene	U		0.000050	0.00020	mg/L	1	2/19/2012 02:13
Benz(a)anthracene	U		0.000050	0.00020	mg/L	1	2/19/2012 02:13
Benzo(a)pyrene	U		0.000050	0.00020	mg/L	1	2/19/2012 02:13
Bis(2-chloroethoxy)methane	U		0.000050	0.00020	mg/L	1	2/19/2012 02:13
Bis(2-ethylhexyl)phthalate	0.0016		0.00010	0.00020	mg/L	1	2/19/2012 02:13
Chrysene	U		0.000050	0.00020	mg/L	1	2/19/2012 02:13
Dibenzofuran	U		0.000050	0.00020	mg/L	1	2/19/2012 02:13
Di-n-butyl phthalate	U		0.000050	0.00020	mg/L	1	2/19/2012 02:13
Fluoranthene	U		0.000050	0.00020	mg/L	1	2/19/2012 02:13
Fluorene	U		0.000050	0.00020	mg/L	1	2/19/2012 02:13
Naphthalene	U		0.000050	0.00020	mg/L	1	2/19/2012 02:13
Nitrobenzene	U		0.000050	0.00020	mg/L	1	2/19/2012 02:13
N-Nitrosodiphenylamine	U		0.000050	0.00020	mg/L	1	2/19/2012 02:13
Pentachlorophenol	U		0.000050	0.00020	mg/L	1	2/19/2012 02:13
Phenanthrene	0.00011	J	0.000050	0.00020	mg/L	1	2/19/2012 02:13
Phenol	U		0.000050	0.00020	mg/L	1	2/19/2012 02:13
Pyrene	U		0.000050	0.00020	mg/L	1	2/19/2012 02:13
Surr: 2,4,6-Tribromophenol	72.0			34-129	%REC	1	2/19/2012 02:13
Surr: 2-Fluorobiphenyl	68.2			40-125	%REC	1	2/19/2012 02:13
Surr: 2-Fluorophenol	63.3			20-120	%REC	1	2/19/2012 02:13
Surr: 4-Terphenyl-d14	77.0			40-135	%REC	1	2/19/2012 02:13
Surr: Nitrobenzene-d5	69.3			41-120	%REC	1	2/19/2012 02:13
Surr: Phenol-d6	63.2			20-120	%REC	1	2/19/2012 02:13

VOLATILES			Method: SW8260	Analyst: PC			
1,2-Dichloroethane	U		0.0010	0.0050	mg/L	1	2/20/2012 12:17
Benzene	U		0.0010	0.0050	mg/L	1	2/20/2012 12:17
Chlorobenzene	U		0.0010	0.0050	mg/L	1	2/20/2012 12:17
Ethylbenzene	U		0.0011	0.0050	mg/L	1	2/20/2012 12:17

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 23-Feb-12

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-MW38A-20120215
Collection Date: 2/15/2012 09:10 AM

Work Order: 1202555
Lab ID: 1202555-12
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
Methylene chloride	U		0.0013	0.010	mg/L	1	2/20/2012 12:17
Toluene	U		0.0010	0.0050	mg/L	1	2/20/2012 12:17
Xylenes, Total	U		0.0031	0.015	mg/L	1	2/20/2012 12:17
Surr: 1,2-Dichloroethane-d4	97.1			70-125	%REC	1	2/20/2012 12:17
Surr: 4-Bromofluorobenzene	95.0			72-125	%REC	1	2/20/2012 12:17
Surr: Dibromofluoromethane	103			71-125	%REC	1	2/20/2012 12:17
Surr: Toluene-d8	92.5			75-125	%REC	1	2/20/2012 12:17

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 23-Feb-12

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-MW38B-20120215
Collection Date: 2/15/2012 10:05 AM

Work Order: 1202555
Lab ID: 1202555-13
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270	Prep: SW3510 / 2/16/12	Analyst: ACN		
1,2-Diphenylhydrazine	U		0.000050	0.00020	mg/L	1	2/21/2012 09:33
2,4-Dimethylphenol	U		0.000050	0.00020	mg/L	1	2/21/2012 09:33
2,4-Dinitrotoluene	U		0.000050	0.00020	mg/L	1	2/21/2012 09:33
2,6-Dinitrotoluene	U		0.000060	0.00020	mg/L	1	2/21/2012 09:33
2-Chloronaphthalene	U		0.000050	0.00020	mg/L	1	2/21/2012 09:33
2-Methylnaphthalene	U		0.000050	0.00020	mg/L	1	2/21/2012 09:33
4,6-Dinitro-2-methylphenol	U		0.000080	0.00020	mg/L	1	2/21/2012 09:33
4-Nitrophenol	U		0.000050	0.0010	mg/L	1	2/21/2012 09:33
Acenaphthene	0.00010	J	0.000050	0.00020	mg/L	1	2/21/2012 09:33
Acenaphthylene	U		0.000050	0.00020	mg/L	1	2/21/2012 09:33
Anthracene	0.00021		0.000050	0.00020	mg/L	1	2/21/2012 09:33
Benz(a)anthracene	U		0.000050	0.00020	mg/L	1	2/21/2012 09:33
Benzo(a)pyrene	U		0.000050	0.00020	mg/L	1	2/21/2012 09:33
Bis(2-chloroethoxy)methane	U		0.000050	0.00020	mg/L	1	2/21/2012 09:33
Bis(2-ethylhexyl)phthalate	U		0.00010	0.00020	mg/L	1	2/21/2012 09:33
Chrysene	U		0.000050	0.00020	mg/L	1	2/21/2012 09:33
Dibenzofuran	U		0.000050	0.00020	mg/L	1	2/21/2012 09:33
Di-n-butyl phthalate	U		0.000050	0.00020	mg/L	1	2/21/2012 09:33
Fluoranthene	U		0.000050	0.00020	mg/L	1	2/21/2012 09:33
Fluorene	U		0.000050	0.00020	mg/L	1	2/21/2012 09:33
Naphthalene	0.00037		0.000050	0.00020	mg/L	1	2/21/2012 09:33
Nitrobenzene	U		0.000050	0.00020	mg/L	1	2/21/2012 09:33
N-Nitrosodiphenylamine	U		0.000050	0.00020	mg/L	1	2/21/2012 09:33
Pentachlorophenol	U		0.000050	0.00020	mg/L	1	2/21/2012 09:33
Phenanthrene	U		0.000050	0.00020	mg/L	1	2/21/2012 09:33
Phenol	U		0.000050	0.00020	mg/L	1	2/21/2012 09:33
Pyrene	U		0.000050	0.00020	mg/L	1	2/21/2012 09:33
Surr: 2,4,6-Tribromophenol	62.4			34-129	%REC	1	2/21/2012 09:33
Surr: 2-Fluorobiphenyl	58.5			40-125	%REC	1	2/21/2012 09:33
Surr: 2-Fluorophenol	48.7			20-120	%REC	1	2/21/2012 09:33
Surr: 4-Terphenyl-d14	73.3			40-135	%REC	1	2/21/2012 09:33
Surr: Nitrobenzene-d5	50.0			41-120	%REC	1	2/21/2012 09:33
Surr: Phenol-d6	51.8			20-120	%REC	1	2/21/2012 09:33

VOLATILES			Method: SW8260	Analyst: PC			
1,2-Dichloroethane	U		0.0010	0.0050	mg/L	1	2/18/2012 07:06
Benzene	U		0.0010	0.0050	mg/L	1	2/18/2012 07:06
Chlorobenzene	U		0.0010	0.0050	mg/L	1	2/18/2012 07:06
Ethylbenzene	U		0.0011	0.0050	mg/L	1	2/18/2012 07:06

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 23-Feb-12

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-MW38B-20120215
Collection Date: 2/15/2012 10:05 AM

Work Order: 1202555
Lab ID: 1202555-13
Matrix: WATER

Analyses	Result	Qual	SDL	ML	Units	Dilution Factor	Date Analyzed
Methylene chloride	U		0.0013	0.010	mg/L	1	2/18/2012 07:06
Toluene	U		0.0010	0.0050	mg/L	1	2/18/2012 07:06
Xylenes, Total	U		0.0031	0.015	mg/L	1	2/18/2012 07:06
Surr: 1,2-Dichloroethane-d4	106			70-125	%REC	1	2/18/2012 07:06
Surr: 4-Bromofluorobenzene	100			72-125	%REC	1	2/18/2012 07:06
Surr: Dibromofluoromethane	101			71-125	%REC	1	2/18/2012 07:06
Surr: Toluene-d8	102			75-125	%REC	1	2/18/2012 07:06

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 23-Feb-12

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-MW22A-20120215
Collection Date: 2/15/2012 11:15 AM

Work Order: 1202555
Lab ID: 1202555-14
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270	Prep: SW3510 / 2/16/12	Analyst: ACN		
1,2-Diphenylhydrazine	U		0.000050	0.00020	mg/L	1	2/21/2012 10:53
2,4-Dimethylphenol	U		0.000050	0.00020	mg/L	1	2/21/2012 10:53
2,4-Dinitrotoluene	U		0.000050	0.00020	mg/L	1	2/21/2012 10:53
2,6-Dinitrotoluene	U		0.000060	0.00020	mg/L	1	2/21/2012 10:53
2-Chloronaphthalene	U		0.000050	0.00020	mg/L	1	2/21/2012 10:53
2-Methylnaphthalene	U		0.000050	0.00020	mg/L	1	2/21/2012 10:53
4,6-Dinitro-2-methylphenol	U		0.000080	0.00020	mg/L	1	2/21/2012 10:53
4-Nitrophenol	U		0.000050	0.0010	mg/L	1	2/21/2012 10:53
Acenaphthene	0.000090	J	0.000050	0.00020	mg/L	1	2/21/2012 10:53
Acenaphthylene	U		0.000050	0.00020	mg/L	1	2/21/2012 10:53
Anthracene	0.000058	J	0.000050	0.00020	mg/L	1	2/21/2012 10:53
Benz(a)anthracene	U		0.000050	0.00020	mg/L	1	2/21/2012 10:53
Benzo(a)pyrene	U		0.000050	0.00020	mg/L	1	2/21/2012 10:53
Bis(2-chloroethoxy)methane	U		0.000050	0.00020	mg/L	1	2/21/2012 10:53
Bis(2-ethylhexyl)phthalate	0.0011		0.00010	0.00020	mg/L	1	2/21/2012 10:53
Chrysene	U		0.000050	0.00020	mg/L	1	2/21/2012 10:53
Dibenzofuran	0.000074	J	0.000050	0.00020	mg/L	1	2/21/2012 10:53
Di-n-butyl phthalate	U		0.000050	0.00020	mg/L	1	2/21/2012 10:53
Fluoranthene	0.000086	J	0.000050	0.00020	mg/L	1	2/21/2012 10:53
Fluorene	0.000080	J	0.000050	0.00020	mg/L	1	2/21/2012 10:53
Naphthalene	0.00024		0.000050	0.00020	mg/L	1	2/21/2012 10:53
Nitrobenzene	U		0.000050	0.00020	mg/L	1	2/21/2012 10:53
N-Nitrosodiphenylamine	U		0.000050	0.00020	mg/L	1	2/21/2012 10:53
Pentachlorophenol	U		0.000050	0.00020	mg/L	1	2/21/2012 10:53
Phenanthrene	0.00020	J	0.000050	0.00020	mg/L	1	2/21/2012 10:53
Phenol	U		0.000050	0.00020	mg/L	1	2/21/2012 10:53
Pyrene	0.000055	J	0.000050	0.00020	mg/L	1	2/21/2012 10:53
Surr: 2,4,6-Tribromophenol	58.5			34-129	%REC	1	2/21/2012 10:53
Surr: 2-Fluorobiphenyl	54.6			40-125	%REC	1	2/21/2012 10:53
Surr: 2-Fluorophenol	51.3			20-120	%REC	1	2/21/2012 10:53
Surr: 4-Terphenyl-d14	70.9			40-135	%REC	1	2/21/2012 10:53
Surr: Nitrobenzene-d5	57.3			41-120	%REC	1	2/21/2012 10:53
Surr: Phenol-d6	53.6			20-120	%REC	1	2/21/2012 10:53
VOLATILES			Method: SW8260	Analyst: PC			
1,2-Dichloroethane	U		0.0010	0.0050	mg/L	1	2/18/2012 07:32
Benzene	U		0.0010	0.0050	mg/L	1	2/18/2012 07:32
Chlorobenzene	U		0.0010	0.0050	mg/L	1	2/18/2012 07:32
Ethylbenzene	U		0.0011	0.0050	mg/L	1	2/18/2012 07:32

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 23-Feb-12

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-MW22A-20120215
Collection Date: 2/15/2012 11:15 AM

Work Order: 1202555
Lab ID: 1202555-14
Matrix: WATER

Analyses	Result	Qual	SDL	ML	Units	Dilution Factor	Date Analyzed
Methylene chloride	U		0.0013	0.010	mg/L	1	2/18/2012 07:32
Toluene	U		0.0010	0.0050	mg/L	1	2/18/2012 07:32
Xylenes, Total	U		0.0031	0.015	mg/L	1	2/18/2012 07:32
Surr: 1,2-Dichloroethane-d4	98.6			70-125	%REC	1	2/18/2012 07:32
Surr: 4-Bromofluorobenzene	105			72-125	%REC	1	2/18/2012 07:32
Surr: Dibromofluoromethane	99.4			71-125	%REC	1	2/18/2012 07:32
Surr: Toluene-d8	107			75-125	%REC	1	2/18/2012 07:32

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 23-Feb-12

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-MW22B-20120215
Collection Date: 2/15/2012 12:00 PM

Work Order: 1202555
Lab ID: 1202555-15
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270	Prep: SW3510 / 2/16/12	Analyst: ACN		
1,2-Diphenylhydrazine		U	0.000050	0.00020	mg/L	1	2/21/2012 12:54
2,4-Dimethylphenol	0.00014	J	0.000050	0.00020	mg/L	1	2/21/2012 12:54
2,4-Dinitrotoluene		U	0.000050	0.00020	mg/L	1	2/21/2012 12:54
2,6-Dinitrotoluene		U	0.000060	0.00020	mg/L	1	2/21/2012 12:54
2-Chloronaphthalene		U	0.000050	0.00020	mg/L	1	2/21/2012 12:54
2-Methylnaphthalene	0.00044		0.000050	0.00020	mg/L	1	2/21/2012 12:54
4,6-Dinitro-2-methylphenol		U	0.000080	0.00020	mg/L	1	2/21/2012 12:54
4-Nitrophenol		U	0.000050	0.0010	mg/L	1	2/21/2012 12:54
Acenaphthene	0.068		0.000050	0.0020	mg/L	10	2/21/2012 18:59
Acenaphthylene	0.00046		0.000050	0.00020	mg/L	1	2/21/2012 12:54
Anthracene	0.0017		0.000050	0.00020	mg/L	1	2/21/2012 12:54
Benz(a)anthracene		U	0.000050	0.00020	mg/L	1	2/21/2012 12:54
Benzo(a)pyrene		U	0.000050	0.00020	mg/L	1	2/21/2012 12:54
Bis(2-chloroethoxy)methane		U	0.000050	0.00020	mg/L	1	2/21/2012 12:54
Bis(2-ethylhexyl)phthalate	0.00051		0.00010	0.00020	mg/L	1	2/21/2012 12:54
Chrysene		U	0.000050	0.00020	mg/L	1	2/21/2012 12:54
Dibenzofuran	0.0079		0.000050	0.00020	mg/L	1	2/21/2012 12:54
Di-n-butyl phthalate		U	0.000050	0.00020	mg/L	1	2/21/2012 12:54
Fluoranthene	0.0022		0.000050	0.00020	mg/L	1	2/21/2012 12:54
Fluorene	0.0035		0.000050	0.00020	mg/L	1	2/21/2012 12:54
Naphthalene	0.0032		0.000050	0.00020	mg/L	1	2/21/2012 12:54
Nitrobenzene		U	0.000050	0.00020	mg/L	1	2/21/2012 12:54
N-Nitrosodiphenylamine	0.00029		0.000050	0.00020	mg/L	1	2/21/2012 12:54
Pentachlorophenol		U	0.000050	0.00020	mg/L	1	2/21/2012 12:54
Phenanthrene	0.00026		0.000050	0.00020	mg/L	1	2/21/2012 12:54
Phenol		U	0.000050	0.00020	mg/L	1	2/21/2012 12:54
Pyrene	0.0010		0.000050	0.00020	mg/L	1	2/21/2012 12:54
Surr: 2,4,6-Tribromophenol	55.0			34-129	%REC	1	2/21/2012 12:54
Surr: 2,4,6-Tribromophenol	77.1			34-129	%REC	10	2/21/2012 18:59
Surr: 2-Fluorobiphenyl	48.4			40-125	%REC	1	2/21/2012 12:54
Surr: 2-Fluorobiphenyl	71.5			40-125	%REC	10	2/21/2012 18:59
Surr: 2-Fluorophenol	52.3			20-120	%REC	1	2/21/2012 12:54
Surr: 2-Fluorophenol	71.2			20-120	%REC	10	2/21/2012 18:59
Surr: 4-Terphenyl-d14	65.2			40-135	%REC	1	2/21/2012 12:54
Surr: 4-Terphenyl-d14	93.1			40-135	%REC	10	2/21/2012 18:59
Surr: Nitrobenzene-d5	51.0			41-120	%REC	1	2/21/2012 12:54
Surr: Nitrobenzene-d5	81.4			41-120	%REC	10	2/21/2012 18:59
Surr: Phenol-d6	53.0			20-120	%REC	1	2/21/2012 12:54

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 23-Feb-12

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-MW22B-20120215
Collection Date: 2/15/2012 12:00 PM

Work Order: 1202555
Lab ID: 1202555-15
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
<i>Surr: Phenol-d6</i>	60.9			20-120	%REC	10	2/21/2012 18:59
VOLATILES	Method: SW8260						Analyst: PC
1,2-Dichloroethane	U		0.0010	0.0050	mg/L	1	2/18/2012 07:59
Benzene	U		0.0010	0.0050	mg/L	1	2/18/2012 07:59
Chlorobenzene	U		0.0010	0.0050	mg/L	1	2/18/2012 07:59
Ethylbenzene	U		0.0011	0.0050	mg/L	1	2/18/2012 07:59
Methylene chloride	U		0.0013	0.010	mg/L	1	2/18/2012 07:59
Toluene	U		0.0010	0.0050	mg/L	1	2/18/2012 07:59
Xylenes, Total	U		0.0031	0.015	mg/L	1	2/18/2012 07:59
<i>Surr: 1,2-Dichloroethane-d4</i>	101			70-125	%REC	1	2/18/2012 07:59
<i>Surr: 4-Bromofluorobenzene</i>	95.6			72-125	%REC	1	2/18/2012 07:59
<i>Surr: Dibromofluoromethane</i>	101			71-125	%REC	1	2/18/2012 07:59
<i>Surr: Toluene-d8</i>	97.3			75-125	%REC	1	2/18/2012 07:59

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 23-Feb-12

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-MW35A-20120215
Collection Date: 2/15/2012 01:00 PM

Work Order: 1202555
Lab ID: 1202555-16
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270	Prep: SW3510 / 2/16/12	Analyst: ACN		
1,2-Diphenylhydrazine	U		0.000050	0.00020	mg/L	1	2/21/2012 09:53
2,4-Dimethylphenol	U		0.000050	0.00020	mg/L	1	2/21/2012 09:53
2,4-Dinitrotoluene	U		0.000050	0.00020	mg/L	1	2/21/2012 09:53
2,6-Dinitrotoluene	U		0.000060	0.00020	mg/L	1	2/21/2012 09:53
2-Chloronaphthalene	U		0.000050	0.00020	mg/L	1	2/21/2012 09:53
2-Methylnaphthalene	U		0.000050	0.00020	mg/L	1	2/21/2012 09:53
4,6-Dinitro-2-methylphenol	U		0.000080	0.00020	mg/L	1	2/21/2012 09:53
4-Nitrophenol	U		0.000050	0.0010	mg/L	1	2/21/2012 09:53
Acenaphthene	0.00041		0.000050	0.00020	mg/L	1	2/21/2012 09:53
Acenaphthylene	U		0.000050	0.00020	mg/L	1	2/21/2012 09:53
Anthracene	U		0.000050	0.00020	mg/L	1	2/21/2012 09:53
Benz(a)anthracene	U		0.000050	0.00020	mg/L	1	2/21/2012 09:53
Benzo(a)pyrene	U		0.000050	0.00020	mg/L	1	2/21/2012 09:53
Bis(2-chloroethoxy)methane	U		0.000050	0.00020	mg/L	1	2/21/2012 09:53
Bis(2-ethylhexyl)phthalate	0.00013	J	0.00010	0.00020	mg/L	1	2/21/2012 09:53
Chrysene	U		0.000050	0.00020	mg/L	1	2/21/2012 09:53
Dibenzofuran	0.000080	J	0.000050	0.00020	mg/L	1	2/21/2012 09:53
Di-n-butyl phthalate	U		0.000050	0.00020	mg/L	1	2/21/2012 09:53
Fluoranthene	0.000070	J	0.000050	0.00020	mg/L	1	2/21/2012 09:53
Fluorene	U		0.000050	0.00020	mg/L	1	2/21/2012 09:53
Naphthalene	0.00027		0.000050	0.00020	mg/L	1	2/21/2012 09:53
Nitrobenzene	U		0.000050	0.00020	mg/L	1	2/21/2012 09:53
N-Nitrosodiphenylamine	U		0.000050	0.00020	mg/L	1	2/21/2012 09:53
Pentachlorophenol	U		0.000050	0.00020	mg/L	1	2/21/2012 09:53
Phenanthrene	U		0.000050	0.00020	mg/L	1	2/21/2012 09:53
Phenol	U		0.000050	0.00020	mg/L	1	2/21/2012 09:53
Pyrene	U		0.000050	0.00020	mg/L	1	2/21/2012 09:53
Surr: 2,4,6-Tribromophenol	77.3			34-129	%REC	1	2/21/2012 09:53
Surr: 2-Fluorobiphenyl	63.1			40-125	%REC	1	2/21/2012 09:53
Surr: 2-Fluorophenol	41.4			20-120	%REC	1	2/21/2012 09:53
Surr: 4-Terphenyl-d14	67.7			40-135	%REC	1	2/21/2012 09:53
Surr: Nitrobenzene-d5	50.5			41-120	%REC	1	2/21/2012 09:53
Surr: Phenol-d6	44.3			20-120	%REC	1	2/21/2012 09:53

VOLATILES			Method: SW8260	Analyst: PC			
1,2-Dichloroethane	U		0.0010	0.0050	mg/L	1	2/18/2012 08:25
Benzene	U		0.0010	0.0050	mg/L	1	2/18/2012 08:25
Chlorobenzene	U		0.0010	0.0050	mg/L	1	2/18/2012 08:25
Ethylbenzene	U		0.0011	0.0050	mg/L	1	2/18/2012 08:25

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 23-Feb-12

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-MW35A-20120215
Collection Date: 2/15/2012 01:00 PM

Work Order: 1202555
Lab ID: 1202555-16
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
Methylene chloride	U		0.0013	0.010	mg/L	1	2/18/2012 08:25
Toluene	U		0.0010	0.0050	mg/L	1	2/18/2012 08:25
Xylenes, Total	U		0.0031	0.015	mg/L	1	2/18/2012 08:25
Surr: 1,2-Dichloroethane-d4	102			70-125	%REC	1	2/18/2012 08:25
Surr: 4-Bromofluorobenzene	95.6			72-125	%REC	1	2/18/2012 08:25
Surr: Dibromofluoromethane	104			71-125	%REC	1	2/18/2012 08:25
Surr: Toluene-d8	93.0			75-125	%REC	1	2/18/2012 08:25

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 23-Feb-12

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-MW35B-20120215
Collection Date: 2/15/2012 01:45 PM

Work Order: 1202555
Lab ID: 1202555-17
Matrix: WATER

Analyses	Result	Qual	SDL	ML	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270	Prep: SW3510 / 2/16/12	Analyst: ACN		
1,2-Diphenylhydrazine	U		0.000050	0.00020	mg/L	1	2/21/2012 13:14
2,4-Dimethylphenol	U		0.000050	0.00020	mg/L	1	2/21/2012 13:14
2,4-Dinitrotoluene	U		0.000050	0.00020	mg/L	1	2/21/2012 13:14
2,6-Dinitrotoluene	U		0.000060	0.00020	mg/L	1	2/21/2012 13:14
2-Chloronaphthalene	U		0.000050	0.00020	mg/L	1	2/21/2012 13:14
2-Methylnaphthalene	0.18		0.0010	0.0040	mg/L	20	2/22/2012 06:22
4,6-Dinitro-2-methylphenol	U		0.000080	0.00020	mg/L	1	2/21/2012 13:14
4-Nitrophenol	U		0.000050	0.0010	mg/L	1	2/21/2012 13:14
Acenaphthene	0.080		0.0010	0.0040	mg/L	20	2/22/2012 06:22
Acenaphthylene	0.00063		0.000050	0.00020	mg/L	1	2/21/2012 13:14
Anthracene	0.0048		0.000050	0.00020	mg/L	1	2/21/2012 13:14
Benz(a)anthracene	0.00011	J	0.000050	0.00020	mg/L	1	2/21/2012 13:14
Benzo(a)pyrene	U		0.000050	0.00020	mg/L	1	2/21/2012 13:14
Bis(2-chloroethoxy)methane	U		0.000050	0.00020	mg/L	1	2/21/2012 13:14
Bis(2-ethylhexyl)phthalate	0.00088		0.00010	0.00020	mg/L	1	2/21/2012 13:14
Chrysene	0.00010	J	0.000050	0.00020	mg/L	1	2/21/2012 13:14
Dibenzofuran	0.097		0.0010	0.0040	mg/L	20	2/22/2012 06:22
Di-n-butyl phthalate	U		0.000050	0.00020	mg/L	1	2/21/2012 13:14
Fluoranthene	0.0026		0.000050	0.00020	mg/L	1	2/21/2012 13:14
Fluorene	0.048		0.0010	0.0040	mg/L	20	2/22/2012 06:22
Naphthalene	7.4		0.050	0.20	mg/L	1000	2/22/2012 17:28
Nitrobenzene	U		0.000050	0.00020	mg/L	1	2/21/2012 13:14
N-Nitrosodiphenylamine	U		0.000050	0.00020	mg/L	1	2/21/2012 13:14
Pentachlorophenol	U		0.000050	0.00020	mg/L	1	2/21/2012 13:14
Phenanthrene	0.052		0.0010	0.0040	mg/L	20	2/22/2012 06:22
Phenol	U		0.000050	0.00020	mg/L	1	2/21/2012 13:14
Pyrene	0.0016		0.000050	0.00020	mg/L	1	2/21/2012 13:14
Surr: 2,4,6-Tribromophenol	47.1			34-129	%REC	1	2/21/2012 13:14
Surr: 2,4,6-Tribromophenol	43.6	J		34-129	%REC	20	2/22/2012 06:22
Surr: 2,4,6-Tribromophenol	0	S		34-129	%REC	1000	2/22/2012 17:28
Surr: 2-Fluorobiphenyl	38.1	S		40-125	%REC	1	2/21/2012 13:14
Surr: 2-Fluorobiphenyl	61.9	J		40-125	%REC	20	2/22/2012 06:22
Surr: 2-Fluorobiphenyl	0	S		40-125	%REC	1000	2/22/2012 17:28
Surr: 2-Fluorophenol	63.5			20-120	%REC	1	2/21/2012 13:14
Surr: 2-Fluorophenol	80.6			20-120	%REC	20	2/22/2012 06:22
Surr: 2-Fluorophenol	0	S		20-120	%REC	1000	2/22/2012 17:28
Surr: 4-Terphenyl-d14	57.9			40-135	%REC	1	2/21/2012 13:14
Surr: 4-Terphenyl-d14	67.2	J		40-135	%REC	20	2/22/2012 06:22

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 23-Feb-12

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-MW35B-20120215
Collection Date: 2/15/2012 01:45 PM

Work Order: 1202555
Lab ID: 1202555-17
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
Surr: 4-Terphenyl-d14	0	S		40-135	%REC	1000	2/22/2012 17:28
Surr: Nitrobenzene-d5	32.7	S		41-120	%REC	1	2/21/2012 13:14
Surr: Nitrobenzene-d5	60.0	J		41-120	%REC	20	2/22/2012 06:22
Surr: Nitrobenzene-d5	0	S		41-120	%REC	1000	2/22/2012 17:28
Surr: Phenol-d6	47.4			20-120	%REC	1	2/21/2012 13:14
Surr: Phenol-d6	39.3	J		20-120	%REC	20	2/22/2012 06:22
Surr: Phenol-d6	0	S		20-120	%REC	1000	2/22/2012 17:28

VOLATILES		Method: SW8260				Analyst: PC	
1,2-Dichloroethane	U		0.0010	0.0050	mg/L	1	2/18/2012 09:44
Benzene	0.077		0.0010	0.0050	mg/L	1	2/18/2012 09:44
Chlorobenzene	U		0.0010	0.0050	mg/L	1	2/18/2012 09:44
Ethylbenzene	0.19		0.0011	0.0050	mg/L	1	2/18/2012 09:44
Methylene chloride	U		0.0013	0.010	mg/L	1	2/18/2012 09:44
Toluene	0.0042	J	0.0010	0.0050	mg/L	1	2/18/2012 09:44
Xylenes, Total	0.13		0.0031	0.015	mg/L	1	2/18/2012 09:44
Surr: 1,2-Dichloroethane-d4	97.2			70-125	%REC	1	2/18/2012 09:44
Surr: 4-Bromofluorobenzene	95.0			72-125	%REC	1	2/18/2012 09:44
Surr: Dibromofluoromethane	100			71-125	%REC	1	2/18/2012 09:44
Surr: Toluene-d8	97.2			75-125	%REC	1	2/18/2012 09:44

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 23-Feb-12

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-MW33A-20120215
Collection Date: 2/15/2012 02:50 PM

Work Order: 1202555
Lab ID: 1202555-18
Matrix: WATER

Analyses	Result	Qual	SDL	ML	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270	Prep: SW3510 / 2/16/12	Analyst: ACN		
1,2-Diphenylhydrazine		U	0.000050	0.00020	mg/L	1	2/21/2012 11:13
2,4-Dimethylphenol	0.029		0.00050	0.0020	mg/L	10	2/21/2012 19:39
2,4-Dinitrotoluene		U	0.000050	0.00020	mg/L	1	2/21/2012 11:13
2,6-Dinitrotoluene		U	0.000060	0.00020	mg/L	1	2/21/2012 11:13
2-Chloronaphthalene		U	0.000050	0.00020	mg/L	1	2/21/2012 11:13
2-Methylnaphthalene	0.030		0.00050	0.0020	mg/L	10	2/21/2012 19:39
4,6-Dinitro-2-methylphenol		U	0.000080	0.00020	mg/L	1	2/21/2012 11:13
4-Nitrophenol		U	0.000050	0.0010	mg/L	1	2/21/2012 11:13
Acenaphthene	0.048		0.00050	0.0020	mg/L	10	2/21/2012 19:39
Acenaphthylene	0.00030		0.000050	0.00020	mg/L	1	2/21/2012 11:13
Anthracene	0.00082		0.000050	0.00020	mg/L	1	2/21/2012 11:13
Benz(a)anthracene	0.00010	J	0.000050	0.00020	mg/L	1	2/21/2012 11:13
Benzo(a)pyrene		U	0.000050	0.00020	mg/L	1	2/21/2012 11:13
Bis(2-chloroethoxy)methane		U	0.000050	0.00020	mg/L	1	2/21/2012 11:13
Bis(2-ethylhexyl)phthalate	0.0013		0.00010	0.00020	mg/L	1	2/21/2012 11:13
Chrysene	0.000061	J	0.000050	0.00020	mg/L	1	2/21/2012 11:13
Dibenzofuran	0.019		0.00050	0.0020	mg/L	10	2/21/2012 19:39
Di-n-butyl phthalate		U	0.000050	0.00020	mg/L	1	2/21/2012 11:13
Fluoranthene	0.0012		0.000050	0.00020	mg/L	1	2/21/2012 11:13
Fluorene	0.015		0.00050	0.0020	mg/L	10	2/21/2012 19:39
Naphthalene	0.96		0.010	0.040	mg/L	200	2/22/2012 07:03
Nitrobenzene		U	0.000050	0.00020	mg/L	1	2/21/2012 11:13
N-Nitrosodiphenylamine		U	0.000050	0.00020	mg/L	1	2/21/2012 11:13
Pentachlorophenol		U	0.000050	0.00020	mg/L	1	2/21/2012 11:13
Phenanthrene	0.0038		0.000050	0.00020	mg/L	1	2/21/2012 11:13
Phenol		U	0.000050	0.00020	mg/L	1	2/21/2012 11:13
Pyrene	0.0021		0.000050	0.00020	mg/L	1	2/21/2012 11:13
Surr: 2,4,6-Tribromophenol	52.8			34-129	%REC	1	2/21/2012 11:13
Surr: 2,4,6-Tribromophenol	48.9			34-129	%REC	10	2/21/2012 19:39
Surr: 2,4,6-Tribromophenol	0	S		34-129	%REC	200	2/22/2012 07:03
Surr: 2-Fluorobiphenyl	40.8			40-125	%REC	1	2/21/2012 11:13
Surr: 2-Fluorobiphenyl	52.6			40-125	%REC	10	2/21/2012 19:39
Surr: 2-Fluorobiphenyl	0	S		40-125	%REC	200	2/22/2012 07:03
Surr: 2-Fluorophenol	42.9			20-120	%REC	1	2/21/2012 11:13
Surr: 2-Fluorophenol	50.8			20-120	%REC	10	2/21/2012 19:39
Surr: 2-Fluorophenol	0	S		20-120	%REC	200	2/22/2012 07:03
Surr: 4-Terphenyl-d14	66.7			40-135	%REC	1	2/21/2012 11:13
Surr: 4-Terphenyl-d14	85.4			40-135	%REC	10	2/21/2012 19:39

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 23-Feb-12

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-MW33A-20120215
Collection Date: 2/15/2012 02:50 PM

Work Order: 1202555
Lab ID: 1202555-18
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
Surr: 4-Terphenyl-d14	0	S		40-135	%REC	200	2/22/2012 07:03
Surr: Nitrobenzene-d5	34.7	S		41-120	%REC	1	2/21/2012 11:13
Surr: Nitrobenzene-d5	44.1			41-120	%REC	10	2/21/2012 19:39
Surr: Nitrobenzene-d5	0	S		41-120	%REC	200	2/22/2012 07:03
Surr: Phenol-d6	37.8			20-120	%REC	1	2/21/2012 11:13
Surr: Phenol-d6	35.4	J		20-120	%REC	10	2/21/2012 19:39
Surr: Phenol-d6	0	S		20-120	%REC	200	2/22/2012 07:03

VOLATILES		Method: SW8260				Analyst: PC	
1,2-Dichloroethane	U	0.0010	0.0050	mg/L	1	2/18/2012 08:51	
Benzene	0.054	0.0010	0.0050	mg/L	1	2/18/2012 08:51	
Chlorobenzene	U	0.0010	0.0050	mg/L	1	2/18/2012 08:51	
Ethylbenzene	0.075	0.0011	0.0050	mg/L	1	2/18/2012 08:51	
Methylene chloride	U	0.0013	0.010	mg/L	1	2/18/2012 08:51	
Toluene	0.019	0.0010	0.0050	mg/L	1	2/18/2012 08:51	
Xylenes, Total	0.11	0.0031	0.015	mg/L	1	2/18/2012 08:51	
Surr: 1,2-Dichloroethane-d4	103		70-125	%REC	1	2/18/2012 08:51	
Surr: 4-Bromofluorobenzene	98.5		72-125	%REC	1	2/18/2012 08:51	
Surr: Dibromofluoromethane	106		71-125	%REC	1	2/18/2012 08:51	
Surr: Toluene-d8	103		75-125	%REC	1	2/18/2012 08:51	

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 23-Feb-12

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-DUP07-20120215
Collection Date: 2/15/2012 02:50 PM

Work Order: 1202555
Lab ID: 1202555-19
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270	Prep: SW3510 / 2/16/12	Analyst: ACN		
1,2-Diphenylhydrazine	U		0.000050	0.00020	mg/L	1	2/21/2012 11:33
2,4-Dimethylphenol	0.019		0.00050	0.0020	mg/L	10	2/22/2012 07:24
2,4-Dinitrotoluene	U		0.000050	0.00020	mg/L	1	2/21/2012 11:33
2,6-Dinitrotoluene	U		0.000060	0.00020	mg/L	1	2/21/2012 11:33
2-Chloronaphthalene	U		0.000050	0.00020	mg/L	1	2/21/2012 11:33
2-Methylnaphthalene	0.024		0.00050	0.0020	mg/L	10	2/22/2012 07:24
4,6-Dinitro-2-methylphenol	U		0.000080	0.00020	mg/L	1	2/21/2012 11:33
4-Nitrophenol	U		0.000050	0.0010	mg/L	1	2/21/2012 11:33
Acenaphthene	0.064		0.00050	0.0020	mg/L	10	2/22/2012 07:24
Acenaphthylene	0.00040		0.000050	0.00020	mg/L	1	2/21/2012 11:33
Anthracene	0.00078		0.000050	0.00020	mg/L	1	2/21/2012 11:33
Benz(a)anthracene	0.00011	J	0.000050	0.00020	mg/L	1	2/21/2012 11:33
Benzo(a)pyrene	U		0.000050	0.00020	mg/L	1	2/21/2012 11:33
Bis(2-chloroethoxy)methane	U		0.000050	0.00020	mg/L	1	2/21/2012 11:33
Bis(2-ethylhexyl)phthalate	0.00084		0.00010	0.00020	mg/L	1	2/21/2012 11:33
Chrysene	U		0.000050	0.00020	mg/L	1	2/21/2012 11:33
Dibenzofuran	0.026		0.00050	0.0020	mg/L	10	2/22/2012 07:24
Di-n-butyl phthalate	U		0.000050	0.00020	mg/L	1	2/21/2012 11:33
Fluoranthene	0.0011		0.000050	0.00020	mg/L	1	2/21/2012 11:33
Fluorene	0.019		0.00050	0.0020	mg/L	10	2/22/2012 07:24
Naphthalene	1.6		0.010	0.040	mg/L	200	2/22/2012 07:45
Nitrobenzene	U		0.000050	0.00020	mg/L	1	2/21/2012 11:33
N-Nitrosodiphenylamine	U		0.000050	0.00020	mg/L	1	2/21/2012 11:33
Pentachlorophenol	U		0.000050	0.00020	mg/L	1	2/21/2012 11:33
Phenanthrene	0.0032		0.000050	0.00020	mg/L	1	2/21/2012 11:33
Phenol	U		0.000050	0.00020	mg/L	1	2/21/2012 11:33
Pyrene	0.0022		0.000050	0.00020	mg/L	1	2/21/2012 11:33
Surr: 2,4,6-Tribromophenol	50.7			34-129	%REC	1	2/21/2012 11:33
Surr: 2,4,6-Tribromophenol	73.7			34-129	%REC	10	2/22/2012 07:24
Surr: 2,4,6-Tribromophenol	0	S		34-129	%REC	200	2/22/2012 07:45
Surr: 2-Fluorobiphenyl	50.7			40-125	%REC	1	2/21/2012 11:33
Surr: 2-Fluorobiphenyl	67.2			40-125	%REC	10	2/22/2012 07:24
Surr: 2-Fluorobiphenyl	0	S		40-125	%REC	200	2/22/2012 07:45
Surr: 2-Fluorophenol	60.3			20-120	%REC	1	2/21/2012 11:33
Surr: 2-Fluorophenol	53.4			20-120	%REC	10	2/22/2012 07:24
Surr: 2-Fluorophenol	0	S		20-120	%REC	200	2/22/2012 07:45
Surr: 4-Terphenyl-d14	70.2			40-135	%REC	1	2/21/2012 11:33
Surr: 4-Terphenyl-d14	89.2			40-135	%REC	10	2/22/2012 07:24

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 23-Feb-12

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-DUP07-20120215
Collection Date: 2/15/2012 02:50 PM

Work Order: 1202555
Lab ID: 1202555-19
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
Surr: 4-Terphenyl-d14	0	S		40-135	%REC	200	2/22/2012 07:45
Surr: Nitrobenzene-d5	52.7			41-120	%REC	1	2/21/2012 11:33
Surr: Nitrobenzene-d5	47.1			41-120	%REC	10	2/22/2012 07:24
Surr: Nitrobenzene-d5	0	S		41-120	%REC	200	2/22/2012 07:45
Surr: Phenol-d6	58.7			20-120	%REC	1	2/21/2012 11:33
Surr: Phenol-d6	60.7			20-120	%REC	10	2/22/2012 07:24
Surr: Phenol-d6	0	S		20-120	%REC	200	2/22/2012 07:45

VOLATILES		Method: SW8260				Analyst: PC	
1,2-Dichloroethane	U		0.0050	0.025	mg/L	5	2/20/2012 18:25
Benzene	0.051		0.0050	0.025	mg/L	5	2/20/2012 18:25
Chlorobenzene	U		0.0050	0.025	mg/L	5	2/20/2012 18:25
Ethylbenzene	0.061		0.0055	0.025	mg/L	5	2/20/2012 18:25
Methylene chloride	U		0.0065	0.050	mg/L	5	2/20/2012 18:25
Toluene	0.018	J	0.0050	0.025	mg/L	5	2/20/2012 18:25
Xylenes, Total	0.092		0.016	0.075	mg/L	5	2/20/2012 18:25
Surr: 1,2-Dichloroethane-d4	102			70-125	%REC	5	2/20/2012 18:25
Surr: 4-Bromofluorobenzene	97.2			72-125	%REC	5	2/20/2012 18:25
Surr: Dibromofluoromethane	103			71-125	%REC	5	2/20/2012 18:25
Surr: Toluene-d8	94.4			75-125	%REC	5	2/20/2012 18:25

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 23-Feb-12

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-TB06-20120215
Collection Date: 2/15/2012 03:00 PM

Work Order: 1202555
Lab ID: 1202555-20
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
VOLATILES			Method: SW8260			Analyst: PC	
1,2-Dichloroethane	U		0.0010	0.0050	mg/L	1	2/18/2012 02:41
Benzene	U		0.0010	0.0050	mg/L	1	2/18/2012 02:41
Chlorobenzene	U		0.0010	0.0050	mg/L	1	2/18/2012 02:41
Ethylbenzene	U		0.0011	0.0050	mg/L	1	2/18/2012 02:41
Methylene chloride	U		0.0013	0.010	mg/L	1	2/18/2012 02:41
Toluene	U		0.0010	0.0050	mg/L	1	2/18/2012 02:41
Vinyl chloride	U		0.0010	0.0020	mg/L	1	2/18/2012 02:41
Xylenes, Total	U		0.0031	0.015	mg/L	1	2/18/2012 02:41
Surr: 1,2-Dichloroethane-d4	102			70-125	%REC	1	2/18/2012 02:41
Surr: 4-Bromofluorobenzene	97.0			72-125	%REC	1	2/18/2012 02:41
Surr: Dibromofluoromethane	101			71-125	%REC	1	2/18/2012 02:41
Surr: Toluene-d8	95.4			75-125	%REC	1	2/18/2012 02:41

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 23-Feb-12

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-MW68C-20120216
Collection Date: 2/16/2012 08:40 AM

Work Order: 1202555
Lab ID: 1202555-21
Matrix: WATER

Analyses	Result	Qual	SDL	ML	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270	Prep: SW3510 / 2/16/12	Analyst: ACN		
1,2-Diphenylhydrazine		U	0.000050	0.00020	mg/L	1	2/21/2012 11:53
2,4-Dimethylphenol	0.00095		0.000050	0.00020	mg/L	1	2/21/2012 11:53
2,4-Dinitrotoluene		U	0.000050	0.00020	mg/L	1	2/21/2012 11:53
2,6-Dinitrotoluene		U	0.000060	0.00020	mg/L	1	2/21/2012 11:53
2-Chloronaphthalene		U	0.000050	0.00020	mg/L	1	2/21/2012 11:53
2-Methylnaphthalene	0.00011	J	0.000050	0.00020	mg/L	1	2/21/2012 11:53
4,6-Dinitro-2-methylphenol		U	0.000080	0.00020	mg/L	1	2/21/2012 11:53
4-Nitrophenol		U	0.000050	0.0010	mg/L	1	2/21/2012 11:53
Acenaphthene		U	0.000050	0.00020	mg/L	1	2/21/2012 11:53
Acenaphthylene		U	0.000050	0.00020	mg/L	1	2/21/2012 11:53
Anthracene		U	0.000050	0.00020	mg/L	1	2/21/2012 11:53
Benz(a)anthracene		U	0.000050	0.00020	mg/L	1	2/21/2012 11:53
Benzo(a)pyrene		U	0.000050	0.00020	mg/L	1	2/21/2012 11:53
Bis(2-chloroethoxy)methane		U	0.000050	0.00020	mg/L	1	2/21/2012 11:53
Bis(2-ethylhexyl)phthalate	0.0015		0.00010	0.00020	mg/L	1	2/21/2012 11:53
Chrysene		U	0.000050	0.00020	mg/L	1	2/21/2012 11:53
Dibenzofuran	0.000078	J	0.000050	0.00020	mg/L	1	2/21/2012 11:53
Di-n-butyl phthalate		U	0.000050	0.00020	mg/L	1	2/21/2012 11:53
Fluoranthene		U	0.000050	0.00020	mg/L	1	2/21/2012 11:53
Fluorene		U	0.000050	0.00020	mg/L	1	2/21/2012 11:53
Naphthalene	0.0015		0.000050	0.00020	mg/L	1	2/21/2012 11:53
Nitrobenzene		U	0.000050	0.00020	mg/L	1	2/21/2012 11:53
N-Nitrosodiphenylamine		U	0.000050	0.00020	mg/L	1	2/21/2012 11:53
Pentachlorophenol		U	0.000050	0.00020	mg/L	1	2/21/2012 11:53
Phenanthrene		U	0.000050	0.00020	mg/L	1	2/21/2012 11:53
Phenol	0.0074		0.000050	0.00020	mg/L	1	2/21/2012 11:53
Pyrene		U	0.000050	0.00020	mg/L	1	2/21/2012 11:53
Surr: 2,4,6-Tribromophenol	57.8			34-129	%REC	1	2/21/2012 11:53
Surr: 2-Fluorobiphenyl	52.3			40-125	%REC	1	2/21/2012 11:53
Surr: 2-Fluorophenol	48.1			20-120	%REC	1	2/21/2012 11:53
Surr: 4-Terphenyl-d14	67.2			40-135	%REC	1	2/21/2012 11:53
Surr: Nitrobenzene-d5	55.2			41-120	%REC	1	2/21/2012 11:53
Surr: Phenol-d6	52.8			20-120	%REC	1	2/21/2012 11:53

VOLATILES			Method: SW8260	Analyst: PC			
1,2-Dichloroethane		U	0.0010	0.0050	mg/L	1	2/18/2012 09:17
Benzene	0.0069		0.0010	0.0050	mg/L	1	2/18/2012 09:17
Chlorobenzene		U	0.0010	0.0050	mg/L	1	2/18/2012 09:17
Ethylbenzene		U	0.0011	0.0050	mg/L	1	2/18/2012 09:17

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 23-Feb-12

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-MW68C-20120216
Collection Date: 2/16/2012 08:40 AM

Work Order: 1202555
Lab ID: 1202555-21
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
Methylene chloride	U		0.0013	0.010	mg/L	1	2/18/2012 09:17
Toluene	0.0019	J	0.0010	0.0050	mg/L	1	2/18/2012 09:17
Xylenes, Total	U		0.0031	0.015	mg/L	1	2/18/2012 09:17
Surr: 1,2-Dichloroethane-d4	99.3			70-125	%REC	1	2/18/2012 09:17
Surr: 4-Bromofluorobenzene	104			72-125	%REC	1	2/18/2012 09:17
Surr: Dibromofluoromethane	103			71-125	%REC	1	2/18/2012 09:17
Surr: Toluene-d8	89.2			75-125	%REC	1	2/18/2012 09:17

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 23-Feb-12

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-MW68B-20120216
Collection Date: 2/16/2012 09:25 AM

Work Order: 1202555
Lab ID: 1202555-22
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270	Prep: SW3510 / 2/16/12	Analyst: ACN		
1,2-Diphenylhydrazine	U		0.000050	0.00020	mg/L	1	2/21/2012 13:54
2,4-Dimethylphenol	0.19		0.0010	0.0040	mg/L	20	2/22/2012 08:05
2,4-Dinitrotoluene	U		0.000050	0.00020	mg/L	1	2/21/2012 13:54
2,6-Dinitrotoluene	U		0.000060	0.00020	mg/L	1	2/21/2012 13:54
2-Chloronaphthalene	U		0.000050	0.00020	mg/L	1	2/21/2012 13:54
2-Methylnaphthalene	0.66		0.010	0.040	mg/L	200	2/22/2012 08:26
4,6-Dinitro-2-methylphenol	U		0.000080	0.00020	mg/L	1	2/21/2012 13:54
4-Nitrophenol	U		0.000050	0.0010	mg/L	1	2/21/2012 13:54
Acenaphthene	0.15		0.0010	0.0040	mg/L	20	2/22/2012 08:05
Acenaphthylene	0.0023		0.000050	0.00020	mg/L	1	2/21/2012 13:54
Anthracene	0.046		0.0010	0.0040	mg/L	20	2/22/2012 08:05
Benz(a)anthracene	0.0060		0.000050	0.00020	mg/L	1	2/21/2012 13:54
Benzo(a)pyrene	0.0017		0.000050	0.00020	mg/L	1	2/21/2012 13:54
Bis(2-chloroethoxy)methane	U		0.000050	0.00020	mg/L	1	2/21/2012 13:54
Bis(2-ethylhexyl)phthalate	U		0.00010	0.00020	mg/L	1	2/21/2012 13:54
Chrysene	0.0052		0.000050	0.00020	mg/L	1	2/21/2012 13:54
Dibenzofuran	0.19		0.0010	0.0040	mg/L	20	2/22/2012 08:05
Di-n-butyl phthalate	U		0.000050	0.00020	mg/L	1	2/21/2012 13:54
Fluoranthene	0.050		0.0010	0.0040	mg/L	20	2/22/2012 08:05
Fluorene	0.096		0.0010	0.0040	mg/L	20	2/22/2012 08:05
Naphthalene	14		0.10	0.40	mg/L	2000	2/22/2012 08:46
Nitrobenzene	U		0.000050	0.00020	mg/L	1	2/21/2012 13:54
N-Nitrosodiphenylamine	0.0011		0.000050	0.00020	mg/L	1	2/21/2012 13:54
Pentachlorophenol	U		0.000050	0.00020	mg/L	1	2/21/2012 13:54
Phenanthrene	0.19		0.0010	0.0040	mg/L	20	2/22/2012 08:05
Phenol	0.035		0.0010	0.0040	mg/L	20	2/22/2012 08:05
Pyrene	0.031		0.0010	0.0040	mg/L	20	2/22/2012 08:05
Surr: 2,4,6-Tribromophenol	57.1			34-129	%REC	1	2/21/2012 13:54
Surr: 2,4,6-Tribromophenol	81.3			34-129	%REC	20	2/22/2012 08:05
Surr: 2,4,6-Tribromophenol	0	S		34-129	%REC	200	2/22/2012 08:26
Surr: 2,4,6-Tribromophenol	0	S		34-129	%REC	2000	2/22/2012 08:46
Surr: 2-Fluorobiphenyl	37.1	S		40-125	%REC	1	2/21/2012 13:54
Surr: 2-Fluorobiphenyl	73.0	J		40-125	%REC	20	2/22/2012 08:05
Surr: 2-Fluorobiphenyl	0	S		40-125	%REC	200	2/22/2012 08:26
Surr: 2-Fluorobiphenyl	0	S		40-125	%REC	2000	2/22/2012 08:46
Surr: 2-Fluorophenol	82.7			20-120	%REC	1	2/21/2012 13:54
Surr: 2-Fluorophenol	94.2			20-120	%REC	20	2/22/2012 08:05
Surr: 2-Fluorophenol	0	S		20-120	%REC	200	2/22/2012 08:26

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 23-Feb-12

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-MW68B-20120216
Collection Date: 2/16/2012 09:25 AM

Work Order: 1202555
Lab ID: 1202555-22
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
Surr: 2-Fluorophenol	0	S		20-120	%REC	2000	2/22/2012 08:46
Surr: 4-Terphenyl-d14	81.5			40-135	%REC	1	2/21/2012 13:54
Surr: 4-Terphenyl-d14	90.5			40-135	%REC	20	2/22/2012 08:05
Surr: 4-Terphenyl-d14	0	S		40-135	%REC	200	2/22/2012 08:26
Surr: 4-Terphenyl-d14	0	S		40-135	%REC	2000	2/22/2012 08:46
Surr: Nitrobenzene-d5	52.2			41-120	%REC	1	2/21/2012 13:54
Surr: Nitrobenzene-d5	57.3	J		41-120	%REC	20	2/22/2012 08:05
Surr: Nitrobenzene-d5	0	S		41-120	%REC	200	2/22/2012 08:26
Surr: Nitrobenzene-d5	0	S		41-120	%REC	2000	2/22/2012 08:46
Surr: Phenol-d6	64.0			20-120	%REC	1	2/21/2012 13:54
Surr: Phenol-d6	54.3	J		20-120	%REC	20	2/22/2012 08:05
Surr: Phenol-d6	0	S		20-120	%REC	200	2/22/2012 08:26
Surr: Phenol-d6	0	S		20-120	%REC	2000	2/22/2012 08:46

VOLATILES		Method: SW8260				Analyst: PC	
1,2-Dichloroethane	U	0.0050	0.025	mg/L	5	2/20/2012 18:51	
Benzene	2.7	0.050	0.25	mg/L	50	2/20/2012 19:17	
Chlorobenzene	U	0.0050	0.025	mg/L	5	2/20/2012 18:51	
Ethylbenzene	0.45	0.0055	0.025	mg/L	5	2/20/2012 18:51	
Methylene chloride	U	0.0065	0.050	mg/L	5	2/20/2012 18:51	
Toluene	0.91	0.0050	0.025	mg/L	5	2/20/2012 18:51	
Xylenes, Total	1.2	0.016	0.075	mg/L	5	2/20/2012 18:51	
Surr: 1,2-Dichloroethane-d4	104		70-125	%REC	5	2/20/2012 18:51	
Surr: 1,2-Dichloroethane-d4	103		70-125	%REC	50	2/20/2012 19:17	
Surr: 4-Bromofluorobenzene	99.5		72-125	%REC	5	2/20/2012 18:51	
Surr: 4-Bromofluorobenzene	92.6		72-125	%REC	50	2/20/2012 19:17	
Surr: Dibromofluoromethane	101		71-125	%REC	5	2/20/2012 18:51	
Surr: Dibromofluoromethane	104		71-125	%REC	50	2/20/2012 19:17	
Surr: Toluene-d8	97.1		75-125	%REC	5	2/20/2012 18:51	
Surr: Toluene-d8	94.7		75-125	%REC	50	2/20/2012 19:17	

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 23-Feb-12

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-MW28C-20120216
Collection Date: 2/16/2012 10:25 AM

Work Order: 1202555
Lab ID: 1202555-23
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270	Prep: SW3510 / 2/16/12	Analyst: ACN		
1,2-Diphenylhydrazine	U		0.000050	0.00020	mg/L	1	2/18/2012 21:11
2,4-Dimethylphenol	U		0.000050	0.00020	mg/L	1	2/18/2012 21:11
2,4-Dinitrotoluene	U		0.000050	0.00020	mg/L	1	2/18/2012 21:11
2,6-Dinitrotoluene	U		0.000060	0.00020	mg/L	1	2/18/2012 21:11
2-Chloronaphthalene	U		0.000050	0.00020	mg/L	1	2/18/2012 21:11
2-Methylnaphthalene	U		0.000050	0.00020	mg/L	1	2/18/2012 21:11
4,6-Dinitro-2-methylphenol	U		0.000080	0.00020	mg/L	1	2/18/2012 21:11
4-Nitrophenol	U		0.000050	0.0010	mg/L	1	2/18/2012 21:11
Acenaphthene	U		0.000050	0.00020	mg/L	1	2/18/2012 21:11
Acenaphthylene	U		0.000050	0.00020	mg/L	1	2/18/2012 21:11
Anthracene	U		0.000050	0.00020	mg/L	1	2/18/2012 21:11
Benz(a)anthracene	U		0.000050	0.00020	mg/L	1	2/18/2012 21:11
Benzo(a)pyrene	U		0.000050	0.00020	mg/L	1	2/18/2012 21:11
Bis(2-chloroethoxy)methane	U		0.000050	0.00020	mg/L	1	2/18/2012 21:11
Bis(2-ethylhexyl)phthalate	0.00013	J	0.00010	0.00020	mg/L	1	2/18/2012 21:11
Chrysene	U		0.000050	0.00020	mg/L	1	2/18/2012 21:11
Dibenzofuran	U		0.000050	0.00020	mg/L	1	2/18/2012 21:11
Di-n-butyl phthalate	U		0.000050	0.00020	mg/L	1	2/18/2012 21:11
Fluoranthene	U		0.000050	0.00020	mg/L	1	2/18/2012 21:11
Fluorene	U		0.000050	0.00020	mg/L	1	2/18/2012 21:11
Naphthalene	0.00031		0.000050	0.00020	mg/L	1	2/18/2012 21:11
Nitrobenzene	U		0.000050	0.00020	mg/L	1	2/18/2012 21:11
N-Nitrosodiphenylamine	U		0.000050	0.00020	mg/L	1	2/18/2012 21:11
Pentachlorophenol	U		0.000050	0.00020	mg/L	1	2/18/2012 21:11
Phenanthrene	U		0.000050	0.00020	mg/L	1	2/18/2012 21:11
Phenol	U		0.000050	0.00020	mg/L	1	2/18/2012 21:11
Pyrene	U		0.000050	0.00020	mg/L	1	2/18/2012 21:11
Surr: 2,4,6-Tribromophenol	63.0			34-129	%REC	1	2/18/2012 21:11
Surr: 2-Fluorobiphenyl	57.6			40-125	%REC	1	2/18/2012 21:11
Surr: 2-Fluorophenol	51.6			20-120	%REC	1	2/18/2012 21:11
Surr: 4-Terphenyl-d14	63.8			40-135	%REC	1	2/18/2012 21:11
Surr: Nitrobenzene-d5	53.8			41-120	%REC	1	2/18/2012 21:11
Surr: Phenol-d6	53.1			20-120	%REC	1	2/18/2012 21:11

VOLATILES			Method: SW8260	Analyst: PC			
1,2-Dichloroethane	U		0.0010	0.0050	mg/L	1	2/19/2012 13:02
Benzene	U		0.0010	0.0050	mg/L	1	2/19/2012 13:02
Chlorobenzene	U		0.0010	0.0050	mg/L	1	2/19/2012 13:02
Ethylbenzene	U		0.0011	0.0050	mg/L	1	2/19/2012 13:02

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 23-Feb-12

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-MW28C-20120216
Collection Date: 2/16/2012 10:25 AM

Work Order: 1202555
Lab ID: 1202555-23
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
Methylene chloride	U		0.0013	0.010	mg/L	1	2/19/2012 13:02
Toluene	U		0.0010	0.0050	mg/L	1	2/19/2012 13:02
Xylenes, Total	U		0.0031	0.015	mg/L	1	2/19/2012 13:02
Surr: 1,2-Dichloroethane-d4	97.0			70-125	%REC	1	2/19/2012 13:02
Surr: 4-Bromofluorobenzene	100			72-125	%REC	1	2/19/2012 13:02
Surr: Dibromofluoromethane	105			71-125	%REC	1	2/19/2012 13:02
Surr: Toluene-d8	97.2			75-125	%REC	1	2/19/2012 13:02

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 23-Feb-12

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-MW28A-20120216
Collection Date: 2/16/2012 12:00 PM

Work Order: 1202555
Lab ID: 1202555-24
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270	Prep: SW3510 / 2/16/12	Analyst: ACN		
1,2-Diphenylhydrazine	U		0.000050	0.00020	mg/L	1	2/19/2012 02:53
2,4-Dimethylphenol	U		0.000050	0.00020	mg/L	1	2/19/2012 02:53
2,4-Dinitrotoluene	U		0.000050	0.00020	mg/L	1	2/19/2012 02:53
2,6-Dinitrotoluene	U		0.000060	0.00020	mg/L	1	2/19/2012 02:53
2-Chloronaphthalene	U		0.000050	0.00020	mg/L	1	2/19/2012 02:53
2-Methylnaphthalene	0.000066	J	0.000050	0.00020	mg/L	1	2/19/2012 02:53
4,6-Dinitro-2-methylphenol	U		0.000080	0.00020	mg/L	1	2/19/2012 02:53
4-Nitrophenol	U		0.000050	0.0010	mg/L	1	2/19/2012 02:53
Acenaphthene	0.000098		0.000050	0.00020	mg/L	1	2/19/2012 02:53
Acenaphthylene	U		0.000050	0.00020	mg/L	1	2/19/2012 02:53
Anthracene	U		0.000050	0.00020	mg/L	1	2/19/2012 02:53
Benz(a)anthracene	U		0.000050	0.00020	mg/L	1	2/19/2012 02:53
Benzo(a)pyrene	U		0.000050	0.00020	mg/L	1	2/19/2012 02:53
Bis(2-chloroethoxy)methane	U		0.000050	0.00020	mg/L	1	2/19/2012 02:53
Bis(2-ethylhexyl)phthalate	U		0.00010	0.00020	mg/L	1	2/19/2012 02:53
Chrysene	U		0.000050	0.00020	mg/L	1	2/19/2012 02:53
Dibenzofuran	0.000051	J	0.000050	0.00020	mg/L	1	2/19/2012 02:53
Di-n-butyl phthalate	U		0.000050	0.00020	mg/L	1	2/19/2012 02:53
Fluoranthene	U		0.000050	0.00020	mg/L	1	2/19/2012 02:53
Fluorene	U		0.000050	0.00020	mg/L	1	2/19/2012 02:53
Naphthalene	0.000093		0.000050	0.00020	mg/L	1	2/19/2012 02:53
Nitrobenzene	U		0.000050	0.00020	mg/L	1	2/19/2012 02:53
N-Nitrosodiphenylamine	U		0.000050	0.00020	mg/L	1	2/19/2012 02:53
Pentachlorophenol	U		0.000050	0.00020	mg/L	1	2/19/2012 02:53
Phenanthrene	U		0.000050	0.00020	mg/L	1	2/19/2012 02:53
Phenol	U		0.000050	0.00020	mg/L	1	2/19/2012 02:53
Pyrene	0.00011	J	0.000050	0.00020	mg/L	1	2/19/2012 02:53
Surr: 2,4,6-Tribromophenol	49.2			34-129	%REC	1	2/19/2012 02:53
Surr: 2-Fluorobiphenyl	55.2			40-125	%REC	1	2/19/2012 02:53
Surr: 2-Fluorophenol	53.9			20-120	%REC	1	2/19/2012 02:53
Surr: 4-Terphenyl-d14	73.8			40-135	%REC	1	2/19/2012 02:53
Surr: Nitrobenzene-d5	49.6			41-120	%REC	1	2/19/2012 02:53
Surr: Phenol-d6	53.7			20-120	%REC	1	2/19/2012 02:53

VOLATILES			Method: SW8260	Analyst: PC			
1,2-Dichloroethane	U		0.0010	0.0050	mg/L	1	2/19/2012 19:37
Benzene	U		0.0010	0.0050	mg/L	1	2/19/2012 19:37
Chlorobenzene	U		0.0010	0.0050	mg/L	1	2/19/2012 19:37
Ethylbenzene	U		0.0011	0.0050	mg/L	1	2/19/2012 19:37

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 23-Feb-12

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-MW28A-20120216
Collection Date: 2/16/2012 12:00 PM

Work Order: 1202555
Lab ID: 1202555-24
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
Methylene chloride	U		0.0013	0.010	mg/L	1	2/19/2012 19:37
Toluene	U		0.0010	0.0050	mg/L	1	2/19/2012 19:37
Xylenes, Total	U		0.0031	0.015	mg/L	1	2/19/2012 19:37
Surr: 1,2-Dichloroethane-d4	100			70-125	%REC	1	2/19/2012 19:37
Surr: 4-Bromofluorobenzene	97.2			72-125	%REC	1	2/19/2012 19:37
Surr: Dibromofluoromethane	104			71-125	%REC	1	2/19/2012 19:37
Surr: Toluene-d8	98.8			75-125	%REC	1	2/19/2012 19:37

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 23-Feb-12

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-FB08-20120216
Collection Date: 2/16/2012 12:15 PM

Work Order: 1202555
Lab ID: 1202555-25
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270	Prep: SW3510 / 2/16/12	Analyst: ACN		
1,2-Diphenylhydrazine	U		0.000050	0.00020	mg/L	1	2/19/2012 03:13
2,4-Dimethylphenol	U		0.000050	0.00020	mg/L	1	2/19/2012 03:13
2,4-Dinitrotoluene	U		0.000050	0.00020	mg/L	1	2/19/2012 03:13
2,6-Dinitrotoluene	U		0.000060	0.00020	mg/L	1	2/19/2012 03:13
2-Chloronaphthalene	U		0.000050	0.00020	mg/L	1	2/19/2012 03:13
2-Methylnaphthalene	0.00017	J	0.000050	0.00020	mg/L	1	2/19/2012 03:13
4,6-Dinitro-2-methylphenol	U		0.000080	0.00020	mg/L	1	2/19/2012 03:13
4-Nitrophenol	U		0.000050	0.0010	mg/L	1	2/19/2012 03:13
Acenaphthene	U		0.000050	0.00020	mg/L	1	2/19/2012 03:13
Acenaphthylene	U		0.000050	0.00020	mg/L	1	2/19/2012 03:13
Anthracene	U		0.000050	0.00020	mg/L	1	2/19/2012 03:13
Benz(a)anthracene	U		0.000050	0.00020	mg/L	1	2/19/2012 03:13
Benzo(a)pyrene	U		0.000050	0.00020	mg/L	1	2/19/2012 03:13
Bis(2-chloroethoxy)methane	U		0.000050	0.00020	mg/L	1	2/19/2012 03:13
Bis(2-ethylhexyl)phthalate	0.00039		0.00010	0.00020	mg/L	1	2/19/2012 03:13
Chrysene	U		0.000050	0.00020	mg/L	1	2/19/2012 03:13
Dibenzofuran	0.000098	J	0.000050	0.00020	mg/L	1	2/19/2012 03:13
Di-n-butyl phthalate	U		0.000050	0.00020	mg/L	1	2/19/2012 03:13
Fluoranthene	U		0.000050	0.00020	mg/L	1	2/19/2012 03:13
Fluorene	U		0.000050	0.00020	mg/L	1	2/19/2012 03:13
Naphthalene	0.0020		0.000050	0.00020	mg/L	1	2/19/2012 03:13
Nitrobenzene	U		0.000050	0.00020	mg/L	1	2/19/2012 03:13
N-Nitrosodiphenylamine	U		0.000050	0.00020	mg/L	1	2/19/2012 03:13
Pentachlorophenol	U		0.000050	0.00020	mg/L	1	2/19/2012 03:13
Phenanthrene	0.000067	J	0.000050	0.00020	mg/L	1	2/19/2012 03:13
Phenol	U		0.000050	0.00020	mg/L	1	2/19/2012 03:13
Pyrene	U		0.000050	0.00020	mg/L	1	2/19/2012 03:13
Surr: 2,4,6-Tribromophenol	51.0			34-129	%REC	1	2/19/2012 03:13
Surr: 2-Fluorobiphenyl	63.1			40-125	%REC	1	2/19/2012 03:13
Surr: 2-Fluorophenol	60.0			20-120	%REC	1	2/19/2012 03:13
Surr: 4-Terphenyl-d14	72.1			40-135	%REC	1	2/19/2012 03:13
Surr: Nitrobenzene-d5	62.0			41-120	%REC	1	2/19/2012 03:13
Surr: Phenol-d6	60.9			20-120	%REC	1	2/19/2012 03:13

VOLATILES			Method: SW8260	Analyst: PC			
1,2-Dichloroethane	U		0.0010	0.0050	mg/L	1	2/18/2012 04:01
Benzene	U		0.0010	0.0050	mg/L	1	2/18/2012 04:01
Chlorobenzene	U		0.0010	0.0050	mg/L	1	2/18/2012 04:01
Ethylbenzene	U		0.0011	0.0050	mg/L	1	2/18/2012 04:01

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 23-Feb-12

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-FB08-20120216
Collection Date: 2/16/2012 12:15 PM

Work Order: 1202555
Lab ID: 1202555-25
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
Methylene chloride	U		0.0013	0.010	mg/L	1	2/18/2012 04:01
Toluene	U		0.0010	0.0050	mg/L	1	2/18/2012 04:01
Xylenes, Total	U		0.0031	0.015	mg/L	1	2/18/2012 04:01
Surr: 1,2-Dichloroethane-d4	100			70-125	%REC	1	2/18/2012 04:01
Surr: 4-Bromofluorobenzene	103			72-125	%REC	1	2/18/2012 04:01
Surr: Dibromofluoromethane	102			71-125	%REC	1	2/18/2012 04:01
Surr: Toluene-d8	95.8			75-125	%REC	1	2/18/2012 04:01

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 23-Feb-12

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-FD06-20120214
Collection Date: 2/14/2012 03:00 PM

Work Order: 1202555
Lab ID: 1202555-26
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270	Prep: SW3510 / 2/16/12	Analyst: ACN		
1,2-Diphenylhydrazine	U		0.000050	0.00020	mg/L	1	2/21/2012 14:54
2,4-Dimethylphenol	U		0.000050	0.00020	mg/L	1	2/21/2012 14:54
2,4-Dinitrotoluene	U		0.000050	0.00020	mg/L	1	2/21/2012 14:54
2,6-Dinitrotoluene	U		0.000060	0.00020	mg/L	1	2/21/2012 14:54
2-Chloronaphthalene	U		0.000050	0.00020	mg/L	1	2/21/2012 14:54
2-Methylnaphthalene	U		0.000050	0.00020	mg/L	1	2/21/2012 14:54
4,6-Dinitro-2-methylphenol	U		0.000080	0.00020	mg/L	1	2/21/2012 14:54
4-Nitrophenol	U		0.000050	0.0010	mg/L	1	2/21/2012 14:54
Acenaphthene	U		0.000050	0.00020	mg/L	1	2/21/2012 14:54
Acenaphthylene	U		0.000050	0.00020	mg/L	1	2/21/2012 14:54
Anthracene	U		0.000050	0.00020	mg/L	1	2/21/2012 14:54
Benz(a)anthracene	U		0.000050	0.00020	mg/L	1	2/21/2012 14:54
Benzo(a)pyrene	U		0.000050	0.00020	mg/L	1	2/21/2012 14:54
Bis(2-chloroethoxy)methane	U		0.000050	0.00020	mg/L	1	2/21/2012 14:54
Bis(2-ethylhexyl)phthalate	0.000068		0.00010	0.00020	mg/L	1	2/21/2012 14:54
Chrysene	U		0.000050	0.00020	mg/L	1	2/21/2012 14:54
Dibenzofuran	U		0.000050	0.00020	mg/L	1	2/21/2012 14:54
Di-n-butyl phthalate	U		0.000050	0.00020	mg/L	1	2/21/2012 14:54
Fluoranthene	0.000075	J	0.000050	0.00020	mg/L	1	2/21/2012 14:54
Fluorene	U		0.000050	0.00020	mg/L	1	2/21/2012 14:54
Naphthalene	0.000064	J	0.000050	0.00020	mg/L	1	2/21/2012 14:54
Nitrobenzene	U		0.000050	0.00020	mg/L	1	2/21/2012 14:54
N-Nitrosodiphenylamine	U		0.000050	0.00020	mg/L	1	2/21/2012 14:54
Pentachlorophenol	U		0.000050	0.00020	mg/L	1	2/21/2012 14:54
Phenanthrene	U		0.000050	0.00020	mg/L	1	2/21/2012 14:54
Phenol	0.000087	J	0.000050	0.00020	mg/L	1	2/21/2012 14:54
Pyrene	0.000054	J	0.000050	0.00020	mg/L	1	2/21/2012 14:54
Surr: 2,4,6-Tribromophenol	74.1			34-129	%REC	1	2/21/2012 14:54
Surr: 2-Fluorobiphenyl	53.2			40-125	%REC	1	2/21/2012 14:54
Surr: 2-Fluorophenol	45.9			20-120	%REC	1	2/21/2012 14:54
Surr: 4-Terphenyl-d14	78.7			40-135	%REC	1	2/21/2012 14:54
Surr: Nitrobenzene-d5	47.5			41-120	%REC	1	2/21/2012 14:54
Surr: Phenol-d6	45.9			20-120	%REC	1	2/21/2012 14:54

VOLATILES			Method: SW8260	Analyst: PC			
1,2-Dichloroethane	U		0.0010	0.0050	mg/L	1	2/19/2012 20:03
Benzene	U		0.0010	0.0050	mg/L	1	2/19/2012 20:03
Chlorobenzene	U		0.0010	0.0050	mg/L	1	2/19/2012 20:03
Ethylbenzene	U		0.0011	0.0050	mg/L	1	2/19/2012 20:03

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 23-Feb-12

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
Sample ID: WG-1620-FD06-20120214
Collection Date: 2/14/2012 03:00 PM

Work Order: 1202555
Lab ID: 1202555-26
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
Methylene chloride	U		0.0013	0.010	mg/L	1	2/19/2012 20:03
Toluene	U		0.0010	0.0050	mg/L	1	2/19/2012 20:03
Vinyl chloride	U		0.0010	0.0020	mg/L	1	2/19/2012 20:03
Xylenes, Total	U		0.0031	0.015	mg/L	1	2/19/2012 20:03
Surr: 1,2-Dichloroethane-d4	99.7			70-125	%REC	1	2/19/2012 20:03
Surr: 4-Bromofluorobenzene	102			72-125	%REC	1	2/19/2012 20:03
Surr: Dibromofluoromethane	103			71-125	%REC	1	2/19/2012 20:03
Surr: Toluene-d8	93.1			75-125	%REC	1	2/19/2012 20:03

Note: See Qualifiers Page for a list of qualifiers and their explanation.

WorkOrder: 1202555
 InstrumentID: SV-2
 Test Code: 8270_LOW_W
 Test Number: SW8270
 Test Name: Low-Level Semivolatiles

**METHOD DETECTION /
 REPORTING LIMITS**

Matrix: Aqueous Units: mg/L

Type	Analyte	CAS	DCS	MDL	Unadjusted MQL
A	1,2-Diphenylhydrazine	122-66-7	0.000082	0.000050	0.00020
A	2,4-Dimethylphenol	105-67-9	0.000054	0.000050	0.00020
A	2,4-Dinitrotoluene	121-14-2	0.000063	0.000050	0.00020
A	2,6-Dinitrotoluene	606-20-2	0.000067	0.000060	0.00020
A	2-Chloronaphthalene	91-58-7	0.000071	0.000050	0.00020
A	2-Methylnaphthalene	91-57-6	0.00014	0.000050	0.00020
A	4,6-Dinitro-2-methylphenol	534-52-1	0.000040	0.000080	0.00020
A	4-Nitrophenol	100-02-7	0.000048	0.000050	0.0010
A	Acenaphthene	83-32-9	0.000080	0.000050	0.00020
A	Acenaphthylene	208-96-8	0.000072	0.000050	0.00020
A	Anthracene	120-12-7	0.000079	0.000050	0.00020
A	Benz(a)anthracene	56-55-3	0.000078	0.000050	0.00020
A	Benzo(a)pyrene	50-32-8	0.000064	0.000050	0.00020
A	Bis(2-chloroethoxy)methane	111-91-1	0.000067	0.000050	0.00020
A	Bis(2-ethylhexyl)phthalate	117-81-7	0.000067	0.00010	0.00020
A	Chrysene	218-01-9	0.000076	0.000050	0.00020
A	Dibenzofuran	132-64-9	0.000085	0.000050	0.00020
A	Di-n-butyl phthalate	84-74-2	0.000088	0.000050	0.00020
A	Fluoranthene	206-44-0	0.000083	0.000050	0.00020
A	Fluorene	86-73-7	0.000076	0.000050	0.00020
A	Naphthalene	91-20-3	0.00011	0.000050	0.00020
A	Nitrobenzene	98-95-3	0.00010	0.000050	0.00020
A	N-Nitrosodiphenylamine	86-30-6	0.000069	0.000050	0.00020
A	Pentachlorophenol	87-86-5	0.000055	0.000050	0.00020
A	Phenanthrene	85-01-8	0.000078	0.000050	0.00020
A	Phenol	108-95-2	0.000085	0.000050	0.00020
A	Pyrene	129-00-0	0.000075	0.000050	0.00020
S	Surr: 2,4,6-Tribromophenol	118-79-6	0	0	0.00020
S	Surr: 2-Fluorobiphenyl	321-60-8	0	0	0.00020
S	Surr: 2-Fluorophenol	367-12-4	0	0	0.00020
S	Surr: 4-Terphenyl-d14	1718-51-0	0	0	0.00020
S	Surr: Nitrobenzene-d5	4165-60-0	0	0	0.00020
S	Surr: Phenol-d6	13127-88-3	0	0	0.00020

WorkOrder: 1202555
 InstrumentID: SV-4
 Test Code: 8270_LOW_W
 Test Number: SW8270
 Test Name: Low-Level Semivolatiles

**METHOD DETECTION /
 REPORTING LIMITS**

Matrix: Aqueous Units: mg/L

Type	Analyte	CAS	DCS	MDL	Unadjusted MQL
A	1,2-Diphenylhydrazine	122-66-7	0.000071	0.000050	0.00020
A	2,4-Dimethylphenol	105-67-9	0.000054	0.000050	0.00020
A	2,4-Dinitrotoluene	121-14-2	0.000041	0.000050	0.00020
A	2,6-Dinitrotoluene	606-20-2	0.000059	0.000060	0.00020
A	2-Chloronaphthalene	91-58-7	0.000065	0.000050	0.00020
A	2-Methylnaphthalene	91-57-6	0.00012	0.000050	0.00020
A	4,6-Dinitro-2-methylphenol	534-52-1	0.00015	0.000080	0.00020
A	4-Nitrophenol	100-02-7	0.000059	0.000050	0.0010
A	Acenaphthene	83-32-9	0.000057	0.000050	0.00020
A	Acenaphthylene	208-96-8	0.000073	0.000050	0.00020
A	Anthracene	120-12-7	0.000078	0.000050	0.00020
A	Benz(a)anthracene	56-55-3	0.000072	0.000050	0.00020
A	Benzo(a)pyrene	50-32-8	0.000071	0.000050	0.00020
A	Bis(2-chloroethoxy)methane	111-91-1	0.000066	0.000050	0.00020
A	Bis(2-ethylhexyl)phthalate	117-81-7	0.000075	0.00010	0.00020
A	Chrysene	218-01-9	0.000074	0.000050	0.00020
A	Dibenzofuran	132-64-9	0.000076	0.000050	0.00020
A	Di-n-butyl phthalate	84-74-2	0.000077	0.000050	0.00020
A	Fluoranthene	206-44-0	0.000068	0.000050	0.00020
A	Fluorene	86-73-7	0.000083	0.000050	0.00020
A	Naphthalene	91-20-3	0.00011	0.000050	0.00020
A	Nitrobenzene	98-95-3	0.000079	0.000050	0.00020
A	N-Nitrosodiphenylamine	86-30-6	0.000064	0.000050	0.00020
A	Pentachlorophenol	87-86-5	0.000035	0.000050	0.00020
A	Phenanthrene	85-01-8	0.000082	0.000050	0.00020
A	Phenol	108-95-2	0.000074	0.000050	0.00020
A	Pyrene	129-00-0	0.000067	0.000050	0.00020
S	Surr: 2,4,6-Tribromophenol	118-79-6	0	0	0.00020
S	Surr: 2-Fluorobiphenyl	321-60-8	0	0	0.00020
S	Surr: 2-Fluorophenol	367-12-4	0	0	0.00020
S	Surr: 4-Terphenyl-d14	1718-51-0	0	0	0.00020
S	Surr: Nitrobenzene-d5	4165-60-0	0	0	0.00020
S	Surr: Phenol-d6	13127-88-3	0	0	0.00020

WorkOrder: 1202555
InstrumentID: VOA1
Test Code: 8260_W
Test Number: SW8260
Test Name: Volatiles

**METHOD DETECTION /
 REPORTING LIMITS**

Matrix: Aqueous **Units:** mg/L

Type	Analyte	CAS	DCS	MDL	Unadjusted MQL
A	1,2-Dichloroethane	107-06-2	0.0013	0.0010	0.0050
A	Benzene	71-43-2	0.0013	0.0010	0.0050
A	Chlorobenzene	108-90-7	0.0013	0.0010	0.0050
A	Ethylbenzene	100-41-4	0.0013	0.0011	0.0050
A	Methylene chloride	75-09-2	0.0017	0.0013	0.010
A	Toluene	108-88-3	0.0014	0.0010	0.0050
A	Vinyl chloride	75-01-4	0.0013	0.0010	0.0020
M	Xylenes, Total	1330-20-7	0.0037	0.0031	0.015
S	Surr: 1,2-Dichloroethane-d4	17060-07-0	0	0	0.0050
S	Surr: 4-Bromofluorobenzene	460-00-4	0	0	0.0050
S	Surr: Dibromofluoromethane	1868-53-7	0	0	0.0050
S	Surr: Toluene-d8	2037-26-5	0	0	0.0050

ALS Environmental

Date: 23-Feb-12

Client: Pastor, Behling & Wheeler, LLC
Work Order: 1202555
Project: HWPW Site-Wide GW

QC BATCH REPORT

Batch ID: **58983** Instrument ID **SV-4** Method: **SW8270**

MBLK Sample ID: **SBLKW2-120216-58983** Units: **µg/L** Analysis Date: **2/18/2012 06:10 PM**

Client ID: Run ID: **SV-4_120218B** SeqNo: **2693793** Prep Date: **2/16/2012** DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Diphenylhydrazine	U	0.20								
2,4-Dimethylphenol	U	0.20								
2,4-Dinitrotoluene	U	0.20								
2,6-Dinitrotoluene	U	0.20								
2-Chloronaphthalene	U	0.20								
2-Methylnaphthalene	U	0.20								
4,6-Dinitro-2-methylphenol	U	0.20								
4-Nitrophenol	U	1.0								
Acenaphthene	U	0.20								
Acenaphthylene	U	0.20								
Anthracene	U	0.20								
Benz(a)anthracene	U	0.20								
Benzo(a)pyrene	U	0.20								
Bis(2-chloroethoxy)methane	U	0.20								
Bis(2-ethylhexyl)phthalate	U	0.20								
Chrysene	U	0.20								
Dibenzofuran	U	0.20								
Di-n-butyl phthalate	U	0.20								
Fluoranthene	U	0.20								
Fluorene	U	0.20								
Naphthalene	U	0.20								
Nitrobenzene	U	0.20								
N-Nitrosodiphenylamine	U	0.20								
Pentachlorophenol	U	0.20								
Phenanthrene	U	0.20								
Phenol	U	0.20								
Pyrene	U	0.20								
<i>Surr: 2,4,6-Tribromophenol</i>	3.983	0.20	5	0	79.7	34-129	0			
<i>Surr: 2-Fluorobiphenyl</i>	4.088	0.20	5	0	81.8	40-125	0			
<i>Surr: 2-Fluorophenol</i>	3.728	0.20	5	0	74.6	20-120	0			
<i>Surr: 4-Terphenyl-d14</i>	4.41	0.20	5	0	88.2	40-135	0			
<i>Surr: Nitrobenzene-d5</i>	4.093	0.20	5	0	81.9	41-120	0			
<i>Surr: Phenol-d6</i>	3.729	0.20	5	0	74.6	20-120	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Pastor, Behling & Wheeler, LLC
 Work Order: 1202555
 Project: HWPW Site-Wide GW

QC BATCH REPORT

Batch ID: **58983** Instrument ID **SV-4** Method: **SW8270**

LCS		Sample ID: SLCSW2-120216-58983			Units: µg/L		Analysis Date: 2/18/2012 06:30 PM			
Client ID:		Run ID: SV-4_120218B			SeqNo: 2693794		Prep Date: 2/16/2012		DF: 1	
Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Diphenylhydrazine	4.199	0.20	5	0	84	39-127	0			
2,4-Dimethylphenol	3.583	0.20	5	0	71.7	35-120	0			
2,4-Dinitrotoluene	4.086	0.20	5	0	81.7	50-122	0			
2,6-Dinitrotoluene	4.114	0.20	5	0	82.3	50-120	0			
2-Chloronaphthalene	3.873	0.20	5	0	77.5	50-120	0			
2-Methylnaphthalene	3.862	0.20	5	0	77.2	50-120	0			
4,6-Dinitro-2-methylphenol	4.85	0.20	5	0	97	25-121	0			
4-Nitrophenol	4.719	1.0	5	0	94.4	30-130	0			
Acenaphthene	3.738	0.20	5	0	74.8	45-120	0			
Acenaphthylene	3.762	0.20	5	0	75.2	47-120	0			
Anthracene	4.469	0.20	5	0	89.4	45-120	0			
Benz(a)anthracene	4.378	0.20	5	0	87.6	40-120	0			
Benzo(a)pyrene	4.707	0.20	5	0	94.1	45-120	0			
Bis(2-ethylhexyl)phthalate	4.512	0.20	5	0	90.2	40-139	0			
Chrysene	4.537	0.20	5	0	90.7	43-120	0			
Dibenzofuran	4.034	0.20	5	0	80.7	50-120	0			
Di-n-butyl phthalate	4.755	0.20	5	0	95.1	45-123	0			
Fluoranthene	4.537	0.20	5	0	90.7	45-125	0			
Fluorene	3.902	0.20	5	0	78	49-120	0			
Naphthalene	3.949	0.20	5	0	79	45-120	0			
Nitrobenzene	3.973	0.20	5	0	79.5	44-120	0			
N-Nitrosodiphenylamine	4.451	0.20	5	0	89	40-125	0			
Pentachlorophenol	4.888	0.20	5	0	97.8	19-121	0			
Phenanthrene	4.269	0.20	5	0	85.4	45-121	0			
Phenol	4.024	0.20	5	0	80.5	20-124	0			
Pyrene	4.171	0.20	5	0	83.4	40-130	0			
<i>Surr: 2,4,6-Tribromophenol</i>	4.259	0.20	5	0	85.2	34-129	0			
<i>Surr: 2-Fluorobiphenyl</i>	3.951	0.20	5	0	79	40-125	0			
<i>Surr: 2-Fluorophenol</i>	3.902	0.20	5	0	78	20-120	0			
<i>Surr: 4-Terphenyl-d14</i>	4.377	0.20	5	0	87.5	40-135	0			
<i>Surr: Nitrobenzene-d5</i>	4.082	0.20	5	0	81.6	41-120	0			
<i>Surr: Phenol-d6</i>	3.849	0.20	5	0	77	20-120	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Pastor, Behling & Wheeler, LLC
 Work Order: 1202555
 Project: HWPW Site-Wide GW

QC BATCH REPORT

Batch ID: **58983** Instrument ID **SV-4** Method: **SW8270**

LCSD	Sample ID: SLCSDW2-120216-58983	Units: µg/L					Analysis Date: 2/18/2012 06:50 PM				
Client ID:	Run ID: SV-4_120218B	SeqNo: 2693795			Prep Date: 2/16/2012		DF: 1				
Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
1,2-Diphenylhydrazine	3.811	0.20	5	0	76.2	39-127	4.199	9.69	20		
2,4-Dimethylphenol	3.539	0.20	5	0	70.8	35-120	3.583	1.24	20		
2,4-Dinitrotoluene	3.941	0.20	5	0	78.8	50-122	4.086	3.64	20		
2,6-Dinitrotoluene	4.146	0.20	5	0	82.9	50-120	4.114	0.795	20		
2-Chloronaphthalene	3.73	0.20	5	0	74.6	50-120	3.873	3.75	20		
2-Methylnaphthalene	3.73	0.20	5	0	74.6	50-120	3.862	3.46	20		
4,6-Dinitro-2-methylphenol	4.488	0.20	5	0	89.8	25-121	4.85	7.74	20		
4-Nitrophenol	4.329	1.0	5	0	86.6	30-130	4.719	8.63	20		
Acenaphthene	3.486	0.20	5	0	69.7	45-120	3.738	6.97	20		
Acenaphthylene	3.636	0.20	5	0	72.7	47-120	3.762	3.38	20		
Anthracene	4.114	0.20	5	0	82.3	45-120	4.469	8.27	20		
Benz(a)anthracene	4.501	0.20	5	0	90	40-120	4.378	2.77	20		
Benzo(a)pyrene	4.43	0.20	5	0	88.6	45-120	4.707	6.08	20		
Bis(2-ethylhexyl)phthalate	4.454	0.20	5	0	89.1	40-139	4.512	1.3	20		
Chrysene	4.561	0.20	5	0	91.2	43-120	4.537	0.532	20		
Dibenzofuran	3.972	0.20	5	0	79.4	50-120	4.034	1.55	20		
Di-n-butyl phthalate	4.339	0.20	5	0	86.8	45-123	4.755	9.15	20		
Fluoranthene	4.167	0.20	5	0	83.3	45-125	4.537	8.49	20		
Fluorene	3.639	0.20	5	0	72.8	49-120	3.902	6.99	20		
Naphthalene	3.725	0.20	5	0	74.5	45-120	3.949	5.85	20		
Nitrobenzene	3.69	0.20	5	0	73.8	44-120	3.973	7.38	20		
N-Nitrosodiphenylamine	4.212	0.20	5	0	84.2	40-125	4.451	5.53	20		
Pentachlorophenol	4.191	0.20	5	0	83.8	19-121	4.888	15.3	20		
Phenanthrene	4	0.20	5	0	80	45-121	4.269	6.52	20		
Phenol	3.672	0.20	5	0	73.4	20-124	4.024	9.14	20		
Pyrene	4.117	0.20	5	0	82.3	40-130	4.171	1.31	20		
<i>Surr: 2,4,6-Tribromophenol</i>	4.033	0.20	5	0	80.7	34-129	4.259	5.45	0		
<i>Surr: 2-Fluorobiphenyl</i>	3.902	0.20	5	0	78	40-125	3.951	1.24	0		
<i>Surr: 2-Fluorophenol</i>	3.618	0.20	5	0	72.4	20-120	3.902	7.56	0		
<i>Surr: 4-Terphenyl-d14</i>	4.627	0.20	5	0	92.5	40-135	4.377	5.55	0		
<i>Surr: Nitrobenzene-d5</i>	3.85	0.20	5	0	77	41-120	4.082	5.85	0		
<i>Surr: Phenol-d6</i>	3.662	0.20	5	0	73.2	20-120	3.849	4.99	0		

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Pastor, Behling & Wheeler, LLC
 Work Order: 1202555
 Project: HWPW Site-Wide GW

QC BATCH REPORT

Batch ID: **58983** Instrument ID **SV-4** Method: **SW8270**

MS		Sample ID: 1202555-03BMS			Units: µg/L			Analysis Date: 2/18/2012 08:31 PM		
Client ID: WG-1620-MW65D-20120214		Run ID: SV-4_120218B			SeqNo: 2693797			Prep Date: 2/16/2012		DF: 1
Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Diphenylhydrazine	2.554	0.20	5	0	51.1	39-127	0			
2,4-Dimethylphenol	2.409	0.20	5	0	48.2	35-120	0			
2,4-Dinitrotoluene	3.182	0.20	5	0	63.6	50-122	0			
2,6-Dinitrotoluene	3.128	0.20	5	0	62.6	50-120	0			
2-Chloronaphthalene	2.398	0.20	5	0	48	50-120	0			S
2-Methylnaphthalene	2.305	0.20	5	0	46.1	50-120	0			S
4,6-Dinitro-2-methylphenol	3.164	0.20	5	0	63.3	25-121	0			
4-Nitrophenol	3.866	1.0	5	0	77.3	30-130	0			
Acenaphthene	2.535	0.20	5	0	50.7	45-120	0			
Acenaphthylene	2.621	0.20	5	0	52.4	47-120	0			
Anthracene	3.133	0.20	5	0	62.7	45-120	0			
Benz(a)anthracene	3.124	0.20	5	0	62.5	40-120	0			
Benzo(a)pyrene	3.304	0.20	5	0	66.1	45-120	0			
Bis(2-ethylhexyl)phthalate	3.434	0.20	5	0.1312	66	40-139	0			
Chrysene	3.148	0.20	5	0	63	43-120	0			
Dibenzofuran	2.805	0.20	5	0	56.1	50-120	0			
Di-n-butyl phthalate	3.427	0.20	5	0	68.5	45-123	0			
Fluoranthene	3.478	0.20	5	0	69.6	45-125	0			
Fluorene	2.658	0.20	5	0	53.2	49-120	0			
Naphthalene	2.415	0.20	5	0	48.3	45-120	0			
Nitrobenzene	2.256	0.20	5	0	45.1	44-120	0			
N-Nitrosodiphenylamine	3.07	0.20	5	0	61.4	40-125	0			
Pentachlorophenol	3.539	0.20	5	0	70.8	19-121	0			
Phenanthrene	3.198	0.20	5	0	64	45-121	0			
Phenol	2.493	0.20	5	0	49.9	20-124	0			
Pyrene	2.892	0.20	5	0	57.8	40-130	0			
<i>Surr: 2,4,6-Tribromophenol</i>	3.211	0.20	5	0	64.2	34-129	0			
<i>Surr: 2-Fluorobiphenyl</i>	2.631	0.20	5	0	52.6	40-125	0			
<i>Surr: 2-Fluorophenol</i>	2.165	0.20	5	0	43.3	20-120	0			
<i>Surr: 4-Terphenyl-d14</i>	3.275	0.20	5	0	65.5	40-135	0			
<i>Surr: Nitrobenzene-d5</i>	2.425	0.20	5	0	48.5	41-120	0			
<i>Surr: Phenol-d6</i>	2.232	0.20	5	0	44.6	20-120	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Pastor, Behling & Wheeler, LLC
 Work Order: 1202555
 Project: HWPW Site-Wide GW

QC BATCH REPORT

Batch ID: 58983 Instrument ID SV-4 Method: SW8270

MSD	Sample ID: 1202555-03BMSD	Units: µg/L					Analysis Date: 2/18/2012 08:51 PM				
Client ID: WG-1620-MW65D-20120214	Run ID: SV-4_120218B	SeqNo: 2693798	Prep Date: 2/16/2012	DF: 1							
Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
1,2-Diphenylhydrazine	2.988	0.20	5	0	59.8	39-127	2.554	15.7	20		
2,4-Dimethylphenol	3.031	0.20	5	0	60.6	35-120	2.409	22.9	20	R	
2,4-Dinitrotoluene	3.491	0.20	5	0	69.8	50-122	3.182	9.26	20		
2,6-Dinitrotoluene	3.468	0.20	5	0	69.4	50-120	3.128	10.3	20		
2-Chloronaphthalene	2.613	0.20	5	0	52.3	50-120	2.398	8.57	20		
2-Methylnaphthalene	2.835	0.20	5	0	56.7	50-120	2.305	20.6	20	R	
4,6-Dinitro-2-methylphenol	3.33	0.20	5	0	66.6	25-121	3.164	5.1	20		
4-Nitrophenol	3.665	1.0	5	0	73.3	30-130	3.866	5.34	20		
Acenaphthene	2.881	0.20	5	0	57.6	45-120	2.535	12.8	20		
Acenaphthylene	2.904	0.20	5	0	58.1	47-120	2.621	10.2	20		
Anthracene	3.481	0.20	5	0	69.6	45-120	3.133	10.5	20		
Benz(a)anthracene	3.671	0.20	5	0	73.4	40-120	3.124	16.1	20		
Benzo(a)pyrene	3.465	0.20	5	0	69.3	45-120	3.304	4.77	20		
Bis(2-ethylhexyl)phthalate	3.819	0.20	5	0.1312	73.8	40-139	3.434	10.6	20		
Chrysene	3.377	0.20	5	0	67.5	43-120	3.148	7.01	20		
Dibenzofuran	3.154	0.20	5	0	63.1	50-120	2.805	11.7	20		
Di-n-butyl phthalate	3.989	0.20	5	0	79.8	45-123	3.427	15.2	20		
Fluoranthene	3.802	0.20	5	0	76	45-125	3.478	8.91	20		
Fluorene	3.012	0.20	5	0	60.2	49-120	2.658	12.5	20		
Naphthalene	3.03	0.20	5	0	60.6	45-120	2.415	22.6	20	R	
Nitrobenzene	2.752	0.20	5	0	55	44-120	2.256	19.8	20		
N-Nitrosodiphenylamine	3.524	0.20	5	0	70.5	40-125	3.07	13.8	20		
Pentachlorophenol	4.205	0.20	5	0	84.1	19-121	3.539	17.2	20		
Phenanthrene	3.381	0.20	5	0	67.6	45-121	3.198	5.58	20		
Phenol	3.166	0.20	5	0	63.3	20-124	2.493	23.8	20	R	
Pyrene	3.307	0.20	5	0	66.1	40-130	2.892	13.4	20		
Surr: 2,4,6-Tribromophenol	3.76	0.20	5	0	75.2	34-129	3.211	15.8	0		
Surr: 2-Fluorobiphenyl	3.061	0.20	5	0	61.2	40-125	2.631	15.1	0		
Surr: 2-Fluorophenol	2.7	0.20	5	0	54	20-120	2.165	22	0		
Surr: 4-Terphenyl-d14	3.588	0.20	5	0	71.8	40-135	3.275	9.12	0		
Surr: Nitrobenzene-d5	3.056	0.20	5	0	61.1	41-120	2.425	23	0		
Surr: Phenol-d6	2.932	0.20	5	0	58.6	20-120	2.232	27.1	0		

The following samples were analyzed in this batch:

1202555-01B	1202555-02B	1202555-03B
1202555-04B	1202555-05B	1202555-06B
1202555-07B	1202555-08B	1202555-09B
1202555-10B	1202555-11B	1202555-12B
1202555-13B	1202555-14B	1202555-15B
1202555-16B	1202555-17B	1202555-18B
1202555-19B	1202555-21B	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Pastor, Behling & Wheeler, LLC
Work Order: 1202555
Project: HWPW Site-Wide GW

QC BATCH REPORT

Batch ID: **58985** Instrument ID **SV-4** Method: **SW8270**

MBLK	Sample ID: SBLKW4-120216-58985	Units: µg/L					Analysis Date: 2/18/2012 07:10 PM				
Client ID:	Run ID: SV-4_120218C	SeqNo: 2693806			Prep Date: 2/16/2012		DF: 1				
Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
1,2-Diphenylhydrazine	U	0.20									
2,4-Dimethylphenol	U	0.20									
2,4-Dinitrotoluene	U	0.20									
2,6-Dinitrotoluene	U	0.20									
2-Chloronaphthalene	U	0.20									
2-Methylnaphthalene	U	0.20									
4,6-Dinitro-2-methylphenol	U	0.20									
4-Nitrophenol	U	1.0									
Acenaphthene	U	0.20									
Acenaphthylene	U	0.20									
Anthracene	U	0.20									
Benz(a)anthracene	U	0.20									
Benzo(a)pyrene	U	0.20									
Bis(2-chloroethoxy)methane	U	0.20									
Bis(2-ethylhexyl)phthalate	U	0.20									
Chrysene	U	0.20									
Dibenzofuran	U	0.20									
Di-n-butyl phthalate	U	0.20									
Fluoranthene	U	0.20									
Fluorene	U	0.20									
Naphthalene	U	0.20									
Nitrobenzene	U	0.20									
N-Nitrosodiphenylamine	U	0.20									
Pentachlorophenol	U	0.20									
Phenanthrene	U	0.20									
Phenol	U	0.20									
Pyrene	U	0.20									
<i>Surr: 2,4,6-Tribromophenol</i>	<i>3.305</i>	<i>0.20</i>	<i>5</i>	<i>0</i>	<i>66.1</i>	<i>34-129</i>	<i>0</i>				
<i>Surr: 2-Fluorobiphenyl</i>	<i>3.426</i>	<i>0.20</i>	<i>5</i>	<i>0</i>	<i>68.5</i>	<i>40-125</i>	<i>0</i>				
<i>Surr: 2-Fluorophenol</i>	<i>3.382</i>	<i>0.20</i>	<i>5</i>	<i>0</i>	<i>67.6</i>	<i>20-120</i>	<i>0</i>				
<i>Surr: 4-Terphenyl-d14</i>	<i>3.542</i>	<i>0.20</i>	<i>5</i>	<i>0</i>	<i>70.8</i>	<i>40-135</i>	<i>0</i>				
<i>Surr: Nitrobenzene-d5</i>	<i>3.444</i>	<i>0.20</i>	<i>5</i>	<i>0</i>	<i>68.9</i>	<i>41-120</i>	<i>0</i>				
<i>Surr: Phenol-d6</i>	<i>3.704</i>	<i>0.20</i>	<i>5</i>	<i>0</i>	<i>74.1</i>	<i>20-120</i>	<i>0</i>				

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Pastor, Behling & Wheeler, LLC
 Work Order: 1202555
 Project: HWPW Site-Wide GW

QC BATCH REPORT

Batch ID: 58985 Instrument ID SV-4 Method: SW8270

LCS		Sample ID: SLCSW4-120216-58985			Units: µg/L			Analysis Date: 2/18/2012 07:31 PM		
Client ID:		Run ID: SV-4_120218C			SeqNo: 2693807		Prep Date: 2/16/2012		DF: 1	
Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Diphenylhydrazine	3.226	0.20	5	0	64.5	39-127	0			
2,4-Dimethylphenol	3.49	0.20	5	0	69.8	35-120	0			
2,4-Dinitrotoluene	3.546	0.20	5	0	70.9	50-122	0			
2,6-Dinitrotoluene	3.518	0.20	5	0	70.4	50-120	0			
2-Chloronaphthalene	3.057	0.20	5	0	61.1	50-120	0			
2-Methylnaphthalene	3.301	0.20	5	0	66	50-120	0			
4,6-Dinitro-2-methylphenol	3.763	0.20	5	0	75.3	25-121	0			
4-Nitrophenol	3.909	1.0	5	0	78.2	30-130	0			
Acenaphthene	3.203	0.20	5	0	64.1	45-120	0			
Acenaphthylene	3.379	0.20	5	0	67.6	47-120	0			
Anthracene	3.58	0.20	5	0	71.6	45-120	0			
Benz(a)anthracene	3.305	0.20	5	0	66.1	40-120	0			
Benzo(a)pyrene	3.538	0.20	5	0	70.8	45-120	0			
Bis(2-chloroethoxy)methane	3.546	0.20	5	0	70.9	45-120	0			
Bis(2-ethylhexyl)phthalate	3.442	0.20	5	0	68.8	40-139	0			
Chrysene	3.334	0.20	5	0	66.7	43-120	0			
Dibenzofuran	3.463	0.20	5	0	69.3	50-120	0			
Di-n-butyl phthalate	3.536	0.20	5	0	70.7	45-123	0			
Fluoranthene	3.499	0.20	5	0	70	45-125	0			
Fluorene	3.287	0.20	5	0	65.7	49-120	0			
Naphthalene	3.37	0.20	5	0	67.4	45-120	0			
Nitrobenzene	3.388	0.20	5	0	67.8	44-120	0			
N-Nitrosodiphenylamine	3.499	0.20	5	0	70	40-125	0			
Pentachlorophenol	3.779	0.20	5	0	75.6	19-121	0			
Phenanthrene	3.431	0.20	5	0	68.6	45-121	0			
Phenol	3.492	0.20	5	0	69.8	20-124	0			
Pyrene	3.224	0.20	5	0	64.5	40-130	0			
Surr: 2,4,6-Tribromophenol	3.797	0.20	5	0	75.9	34-129	0			
Surr: 2-Fluorobiphenyl	3.561	0.20	5	0	71.2	40-125	0			
Surr: 2-Fluorophenol	3.5	0.20	5	0	70	20-120	0			
Surr: 4-Terphenyl-d14	3.665	0.20	5	0	73.3	40-135	0			
Surr: Nitrobenzene-d5	3.57	0.20	5	0	71.4	41-120	0			
Surr: Phenol-d6	3.444	0.20	5	0	68.9	20-120	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Pastor, Behling & Wheeler, LLC
 Work Order: 1202555
 Project: HWPW Site-Wide GW

QC BATCH REPORT

Batch ID: 58985 Instrument ID SV-4 Method: SW8270

LCSD	Sample ID: SLCSDW4-120216-58985	Units: µg/L					Analysis Date: 2/18/2012 07:51 PM				
Client ID:	Run ID: SV-4_120218C	SeqNo: 2693808			Prep Date: 2/16/2012		DF: 1				
Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
1,2-Diphenylhydrazine	3.692	0.20	5	0	73.8	39-127	3.226	13.5	20		
2,4-Dimethylphenol	4.219	0.20	5	0	84.4	35-120	3.49	18.9	20		
2,4-Dinitrotoluene	3.805	0.20	5	0	76.1	50-122	3.546	7.03	20		
2,6-Dinitrotoluene	3.867	0.20	5	0	77.3	50-120	3.518	9.44	20		
2-Chloronaphthalene	3.184	0.20	5	0	63.7	50-120	3.057	4.09	20		
2-Methylnaphthalene	3.906	0.20	5	0	78.1	50-120	3.301	16.8	20		
4,6-Dinitro-2-methylphenol	4.32	0.20	5	0	86.4	25-121	3.763	13.8	20		
4-Nitrophenol	3.936	1.0	5	0	78.7	30-130	3.909	0.695	20		
Acenaphthene	3.493	0.20	5	0	69.9	45-120	3.203	8.68	20		
Acenaphthylene	3.663	0.20	5	0	73.3	47-120	3.379	8.07	20		
Anthracene	4.086	0.20	5	0	81.7	45-120	3.58	13.2	20		
Benz(a)anthracene	3.804	0.20	5	0	76.1	40-120	3.305	14	20		
Benzo(a)pyrene	3.898	0.20	5	0	78	45-120	3.538	9.67	20		
Bis(2-chloroethoxy)methane	4.166	0.20	5	0	83.3	45-120	3.546	16.1	20		
Bis(2-ethylhexyl)phthalate	3.873	0.20	5	0	77.5	40-139	3.442	11.8	20		
Chrysene	3.693	0.20	5	0	73.9	43-120	3.334	10.2	20		
Dibenzofuran	3.789	0.20	5	0	75.8	50-120	3.463	8.99	20		
Di-n-butyl phthalate	4.144	0.20	5	0	82.9	45-123	3.536	15.8	20		
Fluoranthene	3.936	0.20	5	0	78.7	45-125	3.499	11.7	20		
Fluorene	3.643	0.20	5	0	72.9	49-120	3.287	10.3	20		
Naphthalene	3.941	0.20	5	0	78.8	45-120	3.37	15.6	20		
Nitrobenzene	3.852	0.20	5	0	77	44-120	3.388	12.8	20		
N-Nitrosodiphenylamine	4.056	0.20	5	0	81.1	40-125	3.499	14.7	20		
Pentachlorophenol	4.196	0.20	5	0	83.9	19-121	3.779	10.4	20		
Phenanthrene	3.885	0.20	5	0	77.7	45-121	3.431	12.4	20		
Phenol	3.92	0.20	5	0	78.4	20-124	3.492	11.6	20		
Pyrene	3.579	0.20	5	0	71.6	40-130	3.224	10.4	20		
Surr: 2,4,6-Tribromophenol	4.005	0.20	5	0	80.1	34-129	3.797	5.33	0		
Surr: 2-Fluorobiphenyl	3.74	0.20	5	0	74.8	40-125	3.561	4.91	0		
Surr: 2-Fluorophenol	3.89	0.20	5	0	77.8	20-120	3.5	10.6	0		
Surr: 4-Terphenyl-d14	3.947	0.20	5	0	78.9	40-135	3.665	7.4	0		
Surr: Nitrobenzene-d5	4.16	0.20	5	0	83.2	41-120	3.57	15.3	0		
Surr: Phenol-d6	3.8	0.20	5	0	76	20-120	3.444	9.82	0		

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Pastor, Behling & Wheeler, LLC
Work Order: 1202555
Project: HWPW Site-Wide GW

QC BATCH REPORT

Batch ID: **58985** Instrument ID **SV-4** Method: **SW8270**

MS		Sample ID: 1202555-23BMS			Units: µg/L			Analysis Date: 2/18/2012 09:31 PM		
Client ID: WG-1620-MW28C-20120216		Run ID: SV-4_120218C			SeqNo: 2693810			Prep Date: 2/16/2012		DF: 1
Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Diphenylhydrazine	2.909	0.20	5	0	58.2	39-127	0			
2,4-Dimethylphenol	2.832	0.20	5	0	56.6	35-120	0			
2,4-Dinitrotoluene	3.452	0.20	5	0	69	50-122	0			
2,6-Dinitrotoluene	3.063	0.20	5	0	61.3	50-120	0			
2-Chloronaphthalene	2.543	0.20	5	0	50.9	50-120	0			
2-Methylnaphthalene	2.363	0.20	5	0	47.3	50-120	0			S
4,6-Dinitro-2-methylphenol	2.836	0.20	5	0	56.7	25-121	0			
4-Nitrophenol	4.41	1.0	5	0	88.2	30-130	0			
Acenaphthene	2.813	0.20	5	0	56.3	45-120	0			
Acenaphthylene	2.745	0.20	5	0	54.9	47-120	0			
Anthracene	3.529	0.20	5	0	70.6	45-120	0			
Benz(a)anthracene	3.752	0.20	5	0	75	40-120	0			
Benzo(a)pyrene	3.779	0.20	5	0	75.6	45-120	0			
Bis(2-chloroethoxy)methane	2.657	0.20	5	0	53.1	45-120	0			
Bis(2-ethylhexyl)phthalate	3.929	0.20	5	0.1252	76.1	40-139	0			
Chrysene	3.648	0.20	5	0	73	43-120	0			
Dibenzofuran	3.025	0.20	5	0	60.5	50-120	0			
Di-n-butyl phthalate	3.838	0.20	5	0	76.8	45-123	0			
Fluoranthene	3.7	0.20	5	0	74	45-125	0			
Fluorene	3.12	0.20	5	0	62.4	49-120	0			
Naphthalene	2.607	0.20	5	0.3099	45.9	45-120	0			
Nitrobenzene	2.282	0.20	5	0	45.6	44-120	0			
N-Nitrosodiphenylamine	3.354	0.20	5	0	67.1	40-125	0			
Pentachlorophenol	3.009	0.20	5	0	60.2	19-121	0			
Phenanthrene	3.536	0.20	5	0	70.7	45-121	0			
Phenol	2.348	0.20	5	0	47	20-124	0			
Pyrene	3.541	0.20	5	0	70.8	40-130	0			
<i>Surr: 2,4,6-Tribromophenol</i>	3.366	0.20	5	0	67.3	34-129	0			
<i>Surr: 2-Fluorobiphenyl</i>	3.009	0.20	5	0	60.2	40-125	0			
<i>Surr: 2-Fluorophenol</i>	2.143	0.20	5	0	42.9	20-120	0			
<i>Surr: 4-Terphenyl-d14</i>	3.798	0.20	5	0	76	40-135	0			
<i>Surr: Nitrobenzene-d5</i>	2.552	0.20	5	0	51	41-120	0			
<i>Surr: Phenol-d6</i>	2.42	0.20	5	0	48.4	20-120	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Pastor, Behling & Wheeler, LLC
 Work Order: 1202555
 Project: HWPW Site-Wide GW

QC BATCH REPORT

Batch ID: 58985 Instrument ID SV-4 Method: SW8270

MSD	Sample ID: 1202555-23BMSD	Units: µg/L					Analysis Date: 2/18/2012 09:51 PM				
Client ID: WG-1620-MW28C-20120216	Run ID: SV-4_120218C	SeqNo: 2693811	Prep Date: 2/16/2012	DF: 1							
Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
1,2-Diphenylhydrazine	2.694	0.20	5	0	53.9	39-127	2.909	7.69	20		
2,4-Dimethylphenol	2.73	0.20	5	0	54.6	35-120	2.832	3.69	20		
2,4-Dinitrotoluene	3.221	0.20	5	0	64.4	50-122	3.452	6.9	20		
2,6-Dinitrotoluene	2.934	0.20	5	0	58.7	50-120	3.063	4.31	20		
2-Chloronaphthalene	2.411	0.20	5	0	48.2	50-120	2.543	5.33	20	S	
2-Methylnaphthalene	2.508	0.20	5	0	50.2	50-120	2.363	5.96	20		
4,6-Dinitro-2-methylphenol	3.169	0.20	5	0	63.4	25-121	2.836	11.1	20		
4-Nitrophenol	3.938	1.0	5	0	78.8	30-130	4.41	11.3	20		
Acenaphthene	2.459	0.20	5	0	49.2	45-120	2.813	13.4	20		
Acenaphthylene	2.518	0.20	5	0	50.4	47-120	2.745	8.64	20		
Anthracene	3.306	0.20	5	0	66.1	45-120	3.529	6.52	20		
Benz(a)anthracene	3.768	0.20	5	0	75.4	40-120	3.752	0.432	20		
Benzo(a)pyrene	3.877	0.20	5	0	77.5	45-120	3.779	2.54	20		
Bis(2-chloroethoxy)methane	2.451	0.20	5	0	49	45-120	2.657	8.09	20		
Bis(2-ethylhexyl)phthalate	4.127	0.20	5	0.1252	80	40-139	3.929	4.91	20		
Chrysene	3.447	0.20	5	0	68.9	43-120	3.648	5.65	20		
Dibenzofuran	2.723	0.20	5	0	54.5	50-120	3.025	10.5	20		
Di-n-butyl phthalate	3.848	0.20	5	0	77	45-123	3.838	0.262	20		
Fluoranthene	3.748	0.20	5	0	75	45-125	3.7	1.27	20		
Fluorene	2.566	0.20	5	0	51.3	49-120	3.12	19.5	20		
Naphthalene	2.73	0.20	5	0.3099	48.4	45-120	2.607	4.62	20		
Nitrobenzene	2.529	0.20	5	0	50.6	44-120	2.282	10.3	20		
N-Nitrosodiphenylamine	3.077	0.20	5	0	61.5	40-125	3.354	8.61	20		
Pentachlorophenol	3.365	0.20	5	0	67.3	19-121	3.009	11.2	20		
Phenanthrene	3.166	0.20	5	0	63.3	45-121	3.536	11	20		
Phenol	2.558	0.20	5	0	51.2	20-124	2.348	8.54	20		
Pyrene	3.439	0.20	5	0	68.8	40-130	3.541	2.94	20		
Surr: 2,4,6-Tribromophenol	3.416	0.20	5	0	68.3	34-129	3.366	1.45	0		
Surr: 2-Fluorobiphenyl	2.624	0.20	5	0	52.5	40-125	3.009	13.6	0		
Surr: 2-Fluorophenol	2.41	0.20	5	0	48.2	20-120	2.143	11.7	0		
Surr: 4-Terphenyl-d14	3.815	0.20	5	0	76.3	40-135	3.798	0.468	0		
Surr: Nitrobenzene-d5	2.73	0.20	5	0	54.6	41-120	2.552	6.75	0		
Surr: Phenol-d6	2.694	0.20	5	0	53.9	20-120	2.42	10.7	0		

The following samples were analyzed in this batch:

1202555-22B	1202555-23B	1202555-24B
1202555-25B	1202555-26B	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Pastor, Behling & Wheeler, LLC

Work Order: 1202555

Project: HWPW Site-Wide GW

QC BATCH REPORT

Batch ID: R123573

Instrument ID VOA1

Method: SW8260

MBLK		Sample ID: VBLKW-021712-R123573			Units: µg/L			Analysis Date: 2/18/2012 12:02 AM		
Client ID:		Run ID: VOA1_120217C			SeqNo: 2692055		Prep Date:		DF: 1	
Analyte	Result	MLQ	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Dichloroethane	U	5.0								
Benzene	U	5.0								
Chlorobenzene	U	5.0								
Ethylbenzene	U	5.0								
Methylene chloride	U	10								
Toluene	U	5.0								
Vinyl chloride	U	2.0								
Xylenes, Total	U	15								
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>48.97</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>97.9</i>	<i>70-125</i>	<i>0</i>			
<i>Surr: 4-Bromofluorobenzene</i>	<i>52.38</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>105</i>	<i>72-125</i>	<i>0</i>			
<i>Surr: Dibromofluoromethane</i>	<i>50.44</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>101</i>	<i>71-125</i>	<i>0</i>			
<i>Surr: Toluene-d8</i>	<i>50.46</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>101</i>	<i>75-125</i>	<i>0</i>			

LCS		Sample ID: VLCSW-021712-R123573			Units: µg/L			Analysis Date: 2/17/2012 11:10 PM		
Client ID:		Run ID: VOA1_120217C			SeqNo: 2692054		Prep Date:		DF: 1	
Analyte	Result	MLQ	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Dichloroethane	50.36	5.0	50	0	101	78-120	0			
Benzene	49.65	5.0	50	0	99.3	73-121	0			
Chlorobenzene	47.41	5.0	50	0	94.8	80-120	0			
Ethylbenzene	42.49	5.0	50	0	85	80-120	0			
Methylene chloride	51.45	10	50	0	103	65-133	0			
Toluene	45.64	5.0	50	0	91.3	80-120	0			
Vinyl chloride	44.13	2.0	50	0	88.3	70-127	0			
Xylenes, Total	134.7	15	150	0	89.8	80-120	0			
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>49.52</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>99</i>	<i>70-125</i>	<i>0</i>			
<i>Surr: 4-Bromofluorobenzene</i>	<i>49.54</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>99.1</i>	<i>72-125</i>	<i>0</i>			
<i>Surr: Dibromofluoromethane</i>	<i>50.21</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>100</i>	<i>71-125</i>	<i>0</i>			
<i>Surr: Toluene-d8</i>	<i>48.46</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>96.9</i>	<i>75-125</i>	<i>0</i>			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Pastor, Behling & Wheeler, LLC
 Work Order: 1202555
 Project: HWPW Site-Wide GW

QC BATCH REPORT

Batch ID: R123573 Instrument ID VOA1 Method: SW8260

MS		Sample ID: 1202555-03AMS			Units: µg/L			Analysis Date: 2/18/2012 01:47 AM		
Client ID: WG-1620-MW65D-20120214		Run ID: VOA1_120217C			SeqNo: 2692059			Prep Date:		DF: 1
Analyte	Result	ML	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Dichloroethane	52.56	5.0	50	0	105	78-120	0			
Benzene	52.57	5.0	50	0	105	73-121	0			
Chlorobenzene	47.82	5.0	50	0	95.6	80-120	0			
Ethylbenzene	44.5	5.0	50	0	89	80-120	0			
Methylene chloride	54.8	10	50	0	110	65-133	0			
Toluene	46.68	5.0	50	0	93.4	80-120	0			
Vinyl chloride	56.29	2.0	50	0	113	70-127	0			
Xylenes, Total	137.3	15	150	0	91.5	80-120	0			
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>49.14</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>98.3</i>	<i>70-125</i>	<i>0</i>			
<i>Surr: 4-Bromofluorobenzene</i>	<i>50.73</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>101</i>	<i>72-125</i>	<i>0</i>			
<i>Surr: Dibromofluoromethane</i>	<i>49.76</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>99.5</i>	<i>71-125</i>	<i>0</i>			
<i>Surr: Toluene-d8</i>	<i>49.25</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>98.5</i>	<i>75-125</i>	<i>0</i>			

MSD		Sample ID: 1202555-03AMSD			Units: µg/L			Analysis Date: 2/18/2012 02:14 AM		
Client ID: WG-1620-MW65D-20120214		Run ID: VOA1_120217C			SeqNo: 2692060			Prep Date:		DF: 1
Analyte	Result	ML	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Dichloroethane	55.94	5.0	50	0	112	78-120	52.56	6.24	20	
Benzene	58.24	5.0	50	0	116	73-121	52.57	10.2	20	
Chlorobenzene	47.68	5.0	50	0	95.4	80-120	47.82	0.3	20	
Ethylbenzene	44.44	5.0	50	0	88.9	80-120	44.5	0.138	20	
Methylene chloride	57.68	10	50	0	115	65-133	54.8	5.11	20	
Toluene	44.88	5.0	50	0	89.8	80-120	46.68	3.94	20	
Vinyl chloride	59.73	2.0	50	0	119	70-127	56.29	5.94	20	
Xylenes, Total	139.6	15	150	0	93	80-120	137.3	1.63	20	
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>49.33</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>98.7</i>	<i>70-125</i>	<i>49.14</i>	<i>0.4</i>	<i>20</i>	
<i>Surr: 4-Bromofluorobenzene</i>	<i>50.87</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>102</i>	<i>72-125</i>	<i>50.73</i>	<i>0.284</i>	<i>20</i>	
<i>Surr: Dibromofluoromethane</i>	<i>49.93</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>99.9</i>	<i>71-125</i>	<i>49.76</i>	<i>0.333</i>	<i>20</i>	
<i>Surr: Toluene-d8</i>	<i>47.74</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>95.5</i>	<i>75-125</i>	<i>49.25</i>	<i>3.11</i>	<i>20</i>	

The following samples were analyzed in this batch:

1202555-01A	1202555-02A	1202555-03A
1202555-04A	1202555-05A	1202555-06A
1202555-08A	1202555-10A	1202555-11A
1202555-13A	1202555-14A	1202555-15A
1202555-16A	1202555-17A	1202555-18A
1202555-20A	1202555-21A	1202555-25A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Pastor, Behling & Wheeler, LLC
Work Order: 1202555
Project: HWPW Site-Wide GW

QC BATCH REPORT

Batch ID: **R123589** Instrument ID **VOA1** Method: **SW8260**

MBLK		Sample ID: VBLKW-021912-R123589			Units: µg/L		Analysis Date: 2/19/2012 12:36 PM			
Client ID:		Run ID: VOA1_120219A			SeqNo: 2692616		Prep Date:		DF: 1	
Analyte	Result	MLQ	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Dichloroethane	U	5.0								
Benzene	U	5.0								
Chlorobenzene	U	5.0								
Ethylbenzene	U	5.0								
Methylene chloride	U	10								
Toluene	U	5.0								
Vinyl chloride	U	2.0								
Xylenes, Total	U	15								
<i>Surr: 1,2-Dichloroethane-d4</i>										
	47.83	5.0	50	0	95.7	70-125	0			
<i>Surr: 4-Bromofluorobenzene</i>										
	48.42	5.0	50	0	96.8	72-125	0			
<i>Surr: Dibromofluoromethane</i>										
	50.95	5.0	50	0	102	71-125	0			
<i>Surr: Toluene-d8</i>										
	46.4	5.0	50	0	92.8	75-125	0			

LCS		Sample ID: VLCSW-021912-R123589			Units: µg/L		Analysis Date: 2/19/2012 11:43 AM			
Client ID:		Run ID: VOA1_120219A			SeqNo: 2692615		Prep Date:		DF: 1	
Analyte	Result	MLQ	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Dichloroethane	51.99	5.0	50	0	104	78-120	0			
Benzene	46.76	5.0	50	0	93.5	73-121	0			
Chlorobenzene	47.63	5.0	50	0	95.3	80-120	0			
Ethylbenzene	45.23	5.0	50	0	90.5	80-120	0			
Methylene chloride	49.26	10	50	0	98.5	65-133	0			
Toluene	46.68	5.0	50	0	93.4	80-120	0			
Vinyl chloride	45.88	2.0	50	0	91.8	70-127	0			
Xylenes, Total	136	15	150	0	90.7	80-120	0			
<i>Surr: 1,2-Dichloroethane-d4</i>										
	47.76	5.0	50	0	95.5	70-125	0			
<i>Surr: 4-Bromofluorobenzene</i>										
	46.82	5.0	50	0	93.6	72-125	0			
<i>Surr: Dibromofluoromethane</i>										
	51.11	5.0	50	0	102	71-125	0			
<i>Surr: Toluene-d8</i>										
	45.69	5.0	50	0	91.4	75-125	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Pastor, Behling & Wheeler, LLC

Work Order: 1202555

Project: HWPW Site-Wide GW

QC BATCH REPORT

Batch ID: R123589

Instrument ID VOA1

Method: SW8260

MS		Sample ID: 1202555-23AMS			Units: µg/L		Analysis Date: 2/19/2012 01:56 PM			
Client ID: WG-1620-MW28C-20120216		Run ID: VOA1_120219A			SeqNo: 2692619		Prep Date:		DF: 1	
Analyte	Result	ML	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Dichloroethane	49.4	5.0	50	0	98.8	78-120	0			
Benzene	49.2	5.0	50	0	98.4	73-121	0			
Chlorobenzene	46.37	5.0	50	0	92.7	80-120	0			
Ethylbenzene	48.19	5.0	50	0	96.4	80-120	0			
Methylene chloride	49.71	10	50	0	99.4	65-133	0			
Toluene	46.17	5.0	50	0	92.3	80-120	0			
Vinyl chloride	39.98	2.0	50	0	80	70-127	0			
Xylenes, Total	153.5	15	150	0	102	80-120	0			
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>47.54</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>95.1</i>	<i>70-125</i>	<i>0</i>			
<i>Surr: 4-Bromofluorobenzene</i>	<i>53.52</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>107</i>	<i>72-125</i>	<i>0</i>			
<i>Surr: Dibromofluoromethane</i>	<i>49.31</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>98.6</i>	<i>71-125</i>	<i>0</i>			
<i>Surr: Toluene-d8</i>	<i>49.63</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>99.3</i>	<i>75-125</i>	<i>0</i>			

MSD		Sample ID: 1202555-23AMSD			Units: µg/L		Analysis Date: 2/19/2012 02:22 PM			
Client ID: WG-1620-MW28C-20120216		Run ID: VOA1_120219A			SeqNo: 2692620		Prep Date:		DF: 1	
Analyte	Result	ML	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Dichloroethane	49.12	5.0	50	0	98.2	78-120	49.4	0.555	20	
Benzene	46.82	5.0	50	0	93.6	73-121	49.2	4.95	20	
Chlorobenzene	46.84	5.0	50	0	93.7	80-120	46.37	1.02	20	
Ethylbenzene	44.32	5.0	50	0	88.6	80-120	48.19	8.35	20	
Methylene chloride	49.6	10	50	0	99.2	65-133	49.71	0.22	20	
Toluene	41.99	5.0	50	0	84	80-120	46.17	9.47	20	
Vinyl chloride	39.94	2.0	50	0	79.9	70-127	39.98	0.11	20	
Xylenes, Total	138	15	150	0	92	80-120	153.5	10.6	20	
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>49.13</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>98.3</i>	<i>70-125</i>	<i>47.54</i>	<i>3.29</i>	<i>20</i>	
<i>Surr: 4-Bromofluorobenzene</i>	<i>50.79</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>102</i>	<i>72-125</i>	<i>53.52</i>	<i>5.24</i>	<i>20</i>	
<i>Surr: Dibromofluoromethane</i>	<i>52.2</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>104</i>	<i>71-125</i>	<i>49.31</i>	<i>5.69</i>	<i>20</i>	
<i>Surr: Toluene-d8</i>	<i>48.1</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>96.2</i>	<i>75-125</i>	<i>49.63</i>	<i>3.13</i>	<i>20</i>	

The following samples were analyzed in this batch:

1202555-23A	1202555-24A	1202555-26A
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Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Pastor, Behling & Wheeler, LLC
Work Order: 1202555
Project: HWPW Site-Wide GW

QC BATCH REPORT

Batch ID: **R123671** Instrument ID **VOA1** Method: **SW8260**

MBLK		Sample ID: VBLKW-022012-R123671			Units: µg/L			Analysis Date: 2/20/2012 11:00 AM		
Client ID:		Run ID: VOA1_120220A			SeqNo: 2694274		Prep Date:		DF: 1	
Analyte	Result	ML	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Dichloroethane	U	5.0								
Benzene	U	5.0								
Chlorobenzene	U	5.0								
Ethylbenzene	U	5.0								
Methylene chloride	U	10								
Toluene	U	5.0								
Vinyl chloride	U	2.0								
Xylenes, Total	U	15								
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>52.49</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>105</i>	<i>70-125</i>	<i>0</i>			
<i>Surr: 4-Bromofluorobenzene</i>	<i>50.7</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>101</i>	<i>72-125</i>	<i>0</i>			
<i>Surr: Dibromofluoromethane</i>	<i>54.29</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>109</i>	<i>71-125</i>	<i>0</i>			
<i>Surr: Toluene-d8</i>	<i>52.27</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>105</i>	<i>75-125</i>	<i>0</i>			

LCS		Sample ID: VLCSW-022012-R123671			Units: µg/L			Analysis Date: 2/20/2012 10:07 AM		
Client ID:		Run ID: VOA1_120220A			SeqNo: 2694273		Prep Date:		DF: 1	
Analyte	Result	ML	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Dichloroethane	49.23	5.0	50	0	98.5	78-120	0			
Benzene	49.74	5.0	50	0	99.5	73-121	0			
Chlorobenzene	49.85	5.0	50	0	99.7	80-120	0			
Ethylbenzene	49.6	5.0	50	0	99.2	80-120	0			
Methylene chloride	49.67	10	50	0	99.3	65-133	0			
Toluene	46.91	5.0	50	0	93.8	80-120	0			
Vinyl chloride	44.33	2.0	50	0	88.7	70-127	0			
Xylenes, Total	147.1	15	150	0	98.1	80-120	0			
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>48.83</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>97.7</i>	<i>70-125</i>	<i>0</i>			
<i>Surr: 4-Bromofluorobenzene</i>	<i>53.12</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>106</i>	<i>72-125</i>	<i>0</i>			
<i>Surr: Dibromofluoromethane</i>	<i>50.5</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>101</i>	<i>71-125</i>	<i>0</i>			
<i>Surr: Toluene-d8</i>	<i>48.29</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>96.6</i>	<i>75-125</i>	<i>0</i>			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Pastor, Behling & Wheeler, LLC
 Work Order: 1202555
 Project: HWPW Site-Wide GW

QC BATCH REPORT

Batch ID: R123671 Instrument ID VOA1 Method: SW8260

MS		Sample ID: 1202555-12AMS			Units: µg/L			Analysis Date: 2/20/2012 12:43 PM		
Client ID: WG-1620-MW38A-20120215		Run ID: VOA1_120220A			SeqNo: 2694278			Prep Date:		DF: 1
Analyte	Result	ML	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Dichloroethane	55.07	5.0	50	0	110	78-120	0			
Benzene	52.87	5.0	50	0	106	73-121	0			
Chlorobenzene	47.69	5.0	50	0	95.4	80-120	0			
Ethylbenzene	42.96	5.0	50	0	85.9	80-120	0			
Methylene chloride	54.83	10	50	0	110	65-133	0			
Toluene	46.14	5.0	50	0	92.3	80-120	0			
Vinyl chloride	63.02	2.0	50	0	126	70-127	0			
Xylenes, Total	139.6	15	150	0	93.1	80-120	0			
<i>Surr: 1,2-Dichloroethane-d4</i>	49.57	5.0	50	0	99.1	70-125	0			
<i>Surr: 4-Bromofluorobenzene</i>	49.43	5.0	50	0	98.9	72-125	0			
<i>Surr: Dibromofluoromethane</i>	52.22	5.0	50	0	104	71-125	0			
<i>Surr: Toluene-d8</i>	45.99	5.0	50	0	92	75-125	0			

MSD		Sample ID: 1202555-12AMSD			Units: µg/L			Analysis Date: 2/20/2012 01:09 PM		
Client ID: WG-1620-MW38A-20120215		Run ID: VOA1_120220A			SeqNo: 2694279			Prep Date:		DF: 1
Analyte	Result	ML	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Dichloroethane	54.49	5.0	50	0	109	78-120	55.07	1.05	20	
Benzene	54.22	5.0	50	0	108	73-121	52.87	2.53	20	
Chlorobenzene	45.45	5.0	50	0	90.9	80-120	47.69	4.8	20	
Ethylbenzene	43.3	5.0	50	0	86.6	80-120	42.96	0.772	20	
Methylene chloride	55.49	10	50	0	111	65-133	54.83	1.21	20	
Toluene	46.83	5.0	50	0	93.7	80-120	46.14	1.49	20	
Vinyl chloride	57.81	2.0	50	0	116	70-127	63.02	8.63	20	
Xylenes, Total	133.2	15	150	0	88.8	80-120	139.6	4.72	20	
<i>Surr: 1,2-Dichloroethane-d4</i>	48.93	5.0	50	0	97.9	70-125	49.57	1.3	20	
<i>Surr: 4-Bromofluorobenzene</i>	47.15	5.0	50	0	94.3	72-125	49.43	4.72	20	
<i>Surr: Dibromofluoromethane</i>	48.08	5.0	50	0	96.2	71-125	52.22	8.24	20	
<i>Surr: Toluene-d8</i>	44.87	5.0	50	0	89.7	75-125	45.99	2.48	20	

The following samples were analyzed in this batch:

1202555-07A	1202555-09A	1202555-12A
1202555-19A	1202555-22A	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Pastor, Behling & Wheeler, LLC
Project: HWPW Site-Wide GW
WorkOrder: 1202555

**QUALIFIERS,
ACRONYMS, UNITS**

<u>Qualifier</u>	<u>Description</u>
*	Value exceeds Regulatory Limit
a	Not accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
J	Analyte detected below quantitation limit
M	Manually integrated, see raw data for justification
n	Not offered for accreditation
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL

<u>Acronym</u>	<u>Description</u>
DCS	Detectability Check Study
DUP	Method Duplicate
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
MBLK	Method Blank
MDL	Method Detection Limit
MQL	Method Quantitation Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PDS	Post Digestion Spike
PQL	Practical Quantitation Limit
SD	Serial Dilution
SDL	Sample Detection Limit
TRRP	Texas Risk Reduction Program

<u>Units Reported</u>	<u>Description</u>
mg/L	Milligrams per Liter

Sample Receipt Checklist

Client Name: **PBW**

Date/Time Received: **16-Feb-12 14:20**

Work Order: **1202555**

Received by: **RNG**

Checklist completed by Parash M. Ciga 16-Feb-12
eSignature Date

Reviewed by: Patricia L. Lynch 27-Feb-12
eSignature Date

Matrices: Water

Carrier name: Client

Shipping container/cooler in good condition? Yes No Not Present

Custody seals intact on shipping container/cooler? Yes No Not Present

Custody seals intact on sample bottles? Yes No Not Present

Chain of custody present? Yes No

Chain of custody signed when relinquished and received? Yes No

Chain of custody agrees with sample labels? Yes No

Samples in proper container/bottle? Yes No

Sample containers intact? Yes No

Sufficient sample volume for indicated test? Yes No

All samples received within holding time? Yes No

Container/Temp Blank temperature in compliance? Yes No

Temperature(s)/Thermometer(s):

Cooler(s)/Kit(s):

Water - VOA vials have zero headspace? Yes No No VOA vials submitted

Water - pH acceptable upon receipt? Yes No N/A

pH adjusted? Yes No N/A

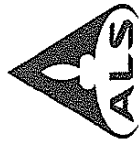
pH adjusted by:

Login Notes: Received an extra sample not quoted on chain - WG-1620-FD06-201202 2/14/12 @ 15:00 - Logged in for all tests (No VC)

Client Contacted: Date Contacted: Person Contacted:
Contacted By: Regarding:

Comments:

CorrectiveAction:



Chain of Custody Form

Page 1 of 2

COC ID: 54814

Environmental

Customer Information		Project Information	
Purchase Order		Project Name	UPRR Houston Wood GW
Work Order		Project Number	1620-04
Company Name	Pastor, Behling & Wheeler, LLC	Bill To Company	Union Pacific Railroad
Send Report To	Eric Matzner	Invoice Attn	
Address	2201 Double Creek Drive Suite 4004	Address	1400 Douglas Street Stop 0750
City/State/Zip	Round Rock, TX 78664	City/State/Zip	Omaha, NE 681790750
Phone	(512) 871-3434	Phone	
Fax	(512) 871-3446	Fax	
e-Mail Address		e-Mail Address	



VOC (8260) Select
SVOC (8270) Low-Level

VINYL CHLORIDE

ity, UT
7700
PA
4903
5280

1202555

PBW, Pastor, Behling & Wheeler, LLC

Project: HWPW Site-Wide GW

No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	WG-1620-MW66D-20120214	2-14-12	1345	GW		5	X	X									
2	WG-1620-MW59D-20120214		1500	GW		5	X	X									
3	WG-1620-MW65D-20120214		1630	GW		5	X	X									
4	WG-1620-MW65DMS-20120214		1630	GW		5	X	X									
5	WG-1620-MW65MSD-20120214		1630	GW		5	X	X									
6	WG-1620-MW36D-20120214		1730	GW		5	X	X									
7	WG-1620-MW51A-20120215	2-15-12	0940	GW		5	X	X									
8	WG-1620-MW44A-20120215		1040	GW		5	X	X									
9	WG-1620-MW33BR-20120215		1145	GW		5	X	X									
10	WG-1620-MW26A-20120215		1335	GW		5	X	X									

Sampler(s) Please Print & Sign: **JOHN BEATON**

Relinquished by: **John Beaton** Date: **2-15-12** Time: **1545**

Relinquished to: **John Beaton** Date: **2-16-12** Time: **1420**

Logged by (Laboratory): **John Beaton** Date: **2-16-12** Time: **1420**

Shipment Method: **HAND DELIVERED**

Required Turnaround Time: (Check Box)
 Std 10 WK Days
 5 WK Days
 24 Hour
 Other

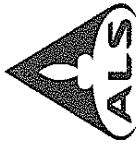
Notes: 10 Day TAT.

QC Package: (Check One Box Below)
 Level II Std QC
 Level III Std QC/Raw Data
 Level IV SW846/CLP
 TRRP Checklist
 TRRP Level IV

Preservative Key: 1-HCl 2-HNO₃ 3-H₂SO₄ 4-NaOH 5-Na₂S₂O₃ 6-NaHSO₄ 7-Other 8-4°C 9-5035

Note: 1. Any changes must be made in writing once samples and COC Form have been submitted to ALS Environmental.
 2. Unless otherwise agreed in a formal contract, services provided by ALS Environmental are expressly limited to the terms and conditions stated on the reverse.
 3. The Chain of Custody is a legal document. All information recorded on this document is the property of ALS Environmental.

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Environmental

Chain of Custody Form

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- Fort Collins, CO +1 970 490 1511
- Holland, MI +1 616 399 6070
- Houston, TX +1 281 530 5656
- Middletown, PA +1 717 944 5541
- Salt Lake City, UT +1 801 266 7700
- Spring City, PA +1 610 948 4903
- York, PA +1 717 505 5280

Page 2 of 2

COC ID: 54813

ALS Project Manager: 1202 SSS ALS Work Order #: 1202 SSS

Customer Information				Project Information				Parameter/Method Request for Analysis											
Purchase Order	Project Name	UPRR Houston Wood GW		A	VOC (8260) Select														
Work Order	Project Number	1620-04		B	SVOC (8270) Low-Level														
Company Name	Bill To Company	Pastor, Behling & Wheeler, LLC		C	VINYL CHLORIDE														
Send Report To	Invoice Attn	Erf. Matzner		D															
Address	Address	2201 Double Creek Drive Suite 4004		E															
City/State/Zip	City/State/Zip	Round Rock, TX 78664		F															
Phone	Phone	(512) 671-3434		G															
Fax	Fax	(512) 671-3446		H															
e-Mail Address	e-Mail Address			I															
				J															
No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold		
1	WG-1620-MW57B-20120215	2-15-12	1440	GW		5	X	X											
2	WG-1620-FB06-20120214	2-14-12	1745	GW		5	X	X											
3	WG-1620-FB07-20120215	2-15-12	1500	GW		5	X	X											
4																			
5																			
6																			
7																			
8																			
9																			
10																			

Sampler(s) Please Print & Sign: JOHN BRAYON John Brayon

Relinquished by: John Brayon

Requested by: John Brayon

Logged by (Laboratory): John Brayon

Shipment Method: HAND DELIVERED

Required Turnaround Time: (Check Box) Std 10 WK Days 5 WK Days 24 Hour

Other: 2 WK Days 10 Day TAT.

Time: 2-15-12 1545

Date: 2-16-12 1420

Time: 1420

Date: 2-16-12

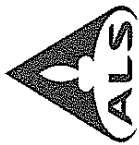
Time: 1420

Date: 2-16-12

QC Package: (Check One Box Below) Level II Std QC TRRP Check List Level III Std QC/Raw Data Level IV SW846/CLP Other / EDD

Preservative Key: 1-HCl 2-HNO₃ 3-H₂SO₄ 4-NaOH 5-Na₂S₂O₃ 6-NaHSO₄ 7-Other 8-4°C 9-5035

Note: 1. Any changes must be made in writing once samples and COC Form have been submitted to ALS Environmental.
 2. Unless otherwise agreed in a formal contract, services provided by ALS Environmental are expressly limited to the terms and conditions stated on the reverse.
 3. The Chain of Custody is a legal document. All information must be completed accurately.



Environmental

Chain of Custody Form

- Cincinnati, OH +1 513 733 5336
- Everett, WA +1 425 356 2600
- Fort Collins, CO +1 970 490 1511
- Holland, MI +1 616 399 6070
- Houston, TX +1 281 530 5656
- Middletown, PA +1 717 944 5541
- Salt Lake City, UT +1 801 266 7700
- Spring City, PA +1 610 948 4903
- York, PA +1 717 505 5280

Page 1 of 2

COC ID: **55144**

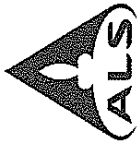
ALS Work Order #: **1202555**

Customer Information				Project Information											
Purchase Order	Project Name	Project Number	Project Manager	Parameter/Method Request for Analysis											
Work Order	UPRR Houston Wood GW	1620-04	ALS Project Manager:	VOC (8260) Select											
Company Name	Bill To Company	Invoice Attn	ALS Work Order #:	VOC (8270) Low-Level											
Send Report To	Eric Matzner	2201 Double Creek Drive	1202555												
Address	Suite 4004	1400 Douglas Street													
City/State/Zip	Round Rock, TX 78664	Stop 0750													
Phone	(512) 671-3434	Omaha, NE 681790750													
Fax	(512) 671-3446														
e-Mail Address															

No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	WB-1620-MW38A-20120215	2-15-12	910	W	HTLA	5	X	X									
2	WB-1620-MW38B-20120215		1005				X	X									
3	WB-1620-MW22A-20120215		1115				X	X									
4	WB-1620-MW22B-20120215		1200				X	X									
5	WB-1620-MW35A-20120215		1300				X	X									
6	WB-1620-MW35B-20120215		1345				X	X									
7	WB-1620-MW33A-20120215		1450				X	X									
8	WB-1620-DUP07-20120215		1450				X	X									
9	WB-1620-TB06-20120215		1500				X	X									
10	WB-1620-MW68C-20120216	2-16-12	840				X	X									

Sampler(s) Please Print & Sign	Shipment Method	Required Turnaround Time: (Check Box)	Results Due Date:
Steve Berndt	Hand Delivered	<input checked="" type="checkbox"/> Std 10 WK Days	
Relinquished by:	Received by:	<input type="checkbox"/> 5 WK Days	
Steve Berndt	Steve Berndt	<input type="checkbox"/> 2 WK Days	
Date: 2-16-12	Date: 2-16-12	<input type="checkbox"/> Other	
Time: 14:20	Time: 14:20	<input type="checkbox"/> 24 Hour	
Date:	Date:	Notes: 10 Day TAT.	
Date:	Date:	Cooler ID	
Date:	Date:	Cooler Temp.	
Date:	Date:	QC Package: (Check One Box Below)	
Date:	Date:	<input type="checkbox"/> Level II Std QC	<input checked="" type="checkbox"/> TRRP Checklist
Date:	Date:	<input type="checkbox"/> Level III Std QC/Raw Data	<input type="checkbox"/> TRRP Level IV
Date:	Date:	<input type="checkbox"/> Level IV SW846/CLP	
Date:	Date:	<input type="checkbox"/> Other / EDD	

Note: 1. Any changes must be made in writing once samples and COC Form have been submitted to ALS Environmental.
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Chain of Custody Form

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- Houston, TX +1 281 530 5656
- Middletown, PA +1 717 944 5541
- Spring City, PA +1 610 948 4903
- York, PA +1 717 505 5280

Page 2 of 3

COC ID: 55143

Environmental

ALS Project Manager: ALS Work Order #: 120255

Customer Information		Project Information	
Purchase Order	Project Name	Parameter/Method Request for Analysis	
Work Order	Project Number	VOC (8260) Select	
Company Name	Bill To Company	VOC (8270) Low-Level	
Send Report To	Invoice Attn		
Address	Address		
City/State/Zip	City/State/Zip		
Phone	Phone		
Fax	Fax		
e-Mail Address	e-Mail Address		

No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold			
1	WB-1620-MW688-20120216	2-16-12	925	W	MLT Ice	5	X	X												
2	WB-1620-MW28C-20120216	↓	1025	↓	↓	↓	X	X												
3	WB-1620-MW28CMS-20120216		1025				X	X												
4	WB-1620-MW28CMSD-20120216		1025				X	X												
5	WB-1620-MW28A-20120216	↓	1200	↓	↓	↓	X	X												
6	WB-1620-FB08-20120216		1215				X	X												
7																				
8																				
9																				
10																				

Sampler(s) Please Print & Sign: *Steve Bergdt* Shipment Method: *Hand Delivered* Required Turnaround Time: (Check Box) Std 10-WK Days 5-WK Days Other 24 Hour

Relinquished by: *Steve Bergdt* Date: 2-16-12 Time: 14:20

Relinquished by: *Steve Bergdt* Date: 2-16-12 Time: 14:20

Received by (Laboratory): *[Signature]* Date: 2-16-12 Time: 14:20

Checked by (Laboratory): *[Signature]* Date: 2-16-12 Time: 14:20

Notes: 10 Day TAT.

QC Package: (Check One Box Below) Level II Std QC TRRP Checklist Level III Std QC/Raw Data TRRP Level IV Level IV SW846/CLP Other / EDD

Preservative Key: 1-HCl 2-HNO₃ 3-H₂SO₄ 4-NaOH 5-Na₂S₂O₃ 6-NaHSO₄ 7-Other 8-4°C 9-5035

Note: 1. Any changes must be made in writing once samples and COC Form have been submitted to ALS Environmental.
 2. Unless otherwise agreed in a formal contract, services provided by ALS Environmental are expressly limited to the terms and conditions stated on the reverse.
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**CONESTOGA-ROVERS
& ASSOCIATES**

E-Mail Date: August 24, 2012
E-Mail To: Eric Matzner/Pastor, Behling & Wheeler, LLC
c.c.: Angela Bown
E-Mail and Hard Copy if Requested

**DATA USABILITY SUMMARY
UNION PACIFIC RAILROAD (UPRR)
HOUSTON WOOD PRESERVING WORKS
SEMI-ANNUAL GROUNDWATER MONITORING
HOUSTON, TEXAS
JULY 2012**

PREPARED BY:
CONESTOGA-ROVERS & ASSOCIATES
9033 Meridian Way
West Chester, Ohio 45069
Telephone: 513-942-4750 Fax: 513-942-8585
Contact: Angela Bown *ABown*
Date: August 24, 2012
www.CRAworld.com

Data Usability Summary

Reviewer:	Angela Bown – Conestoga-Rovers & Associates, Inc.
Contract Laboratory:	ALS Laboratory Group – Houston, Texas
Project/Area of Interest:	UPRR Houston Wood Preserving Works – Houston, Texas
Description of Data Packages Reviewed:	Groundwater sample results in data packages: 1207587, 1207818, 1207933, 12071122, 12071247, 12071248, & 12071310
Sample Collection Date(s):	July 11-27, 2012
Intended Use of Data:	To monitor the COCs in groundwater at the site and to evaluate whether migration of Chemicals of Concern (COC) could result in risk to human or ecological health.

1.0 Scope of Data Usability Summary

Data were reviewed and validated in accordance with Title 30 of the Texas Administrative Code Section 350.54 (30 TAC 350.54) as described in *Review and Reporting of COC Concentration Data*, (RG-366/TRRP-13) and the results of the review/validation are discussed in this Data Usability Summary (DUS). The review included examination of the reported data, the laboratory review checklist (LRC), and field/laboratory quality assurance/quality control (QA/QC) samples collected at the Site. Tables summarizing data qualifications discussed in this DUS can be found in Appendix A.

A sampling and analysis summary is presented in Table 1. This summary includes a cross-reference of field sample identification numbers and location codes. Each sample was assigned a unique field identification number.

106 groundwater samples including quality control samples were analyzed for the parameters outlined in Table 2. The validated sample results are presented in Table 3.

2.0 Laboratory Qualifications

Analytical services were provided by ALS Laboratory Group (ALS) located in Houston, Texas. The laboratory's quality assurance program is consistent with the quality standards outlined in the National Environmental Laboratory Accreditation Program (NELAP). The laboratory was accredited under Texas Certification Number TX: T104704231-12-10 at the time the analyses were performed.

3.0 Project Objectives

3.1 Levels of Required Performance (LORP)

Prior to sampling, the LORP for each COC was established for the investigation. Standard available analytical methods were selected and minimal detection limits that are at or below the

Texas Risk Reduction Tier 1 Residential Protective Concentration Levels (PCLs), ^{GW} _{ING} for groundwater were sought.

3.2 Sampling/ Analytical QA/QC Objectives

Pastor, Behling & Wheeler, LLC designed the QA/QC program to identify contamination resulting from sample collection, sample transport and the analytical process.

- The trip blank is a zero headspace sample container filled by the laboratory with analyte-free water. Trip blanks were submitted and analyzed with the samples requiring volatile organic analyses. The trip blank samples were kept in the same environment in which the other field samples were collected.
- Field and equipment blanks are sample containers filled in the field with analyte-free water, which has been used to rinse sampling equipment to check effectiveness of the decontamination procedures.
- Method blanks of a similar matrix to that of the associated samples are prepared by the laboratory and analyzed to determine if laboratory contaminants are affecting the analytical results. Method blanks are prepared and analyzed with each batch.

Similarly, the QA/QC program was designed to evaluate the quality of the resulting data with respect to bias and precision. First, a laboratory control sample (LCS) or laboratory control sample duplicate (LCSD) was prepared and analyzed with each batch. The recovery ranges established by the laboratory are adopted as the acceptance criteria for the project. Second, a matrix spike/matrix spike duplicate (MS/MSD) was prepared and analyzed with each batch. The recovery ranges and relative percent differences (RPDs) established by the laboratory are adopted as the acceptance criteria for the project. Third, field duplicates were collected and submitted for analysis. The RPD acceptance criterion for the water field duplicates is 30 percent. This RPD criterion is only used when sample concentrations are above the estimated regions of detection.

4.0 Data Review/Validation Results

4.1 Analytical Results

Analytes with concentrations above the Sample Detection Limits (SDLs) but below the Method Quantitation Limits (MQL) have been qualified as estimated on the analytical tables per the TRRP-13 document.

4.2 LORP

All SDLs and unadjusted MQLs met the LORP for this investigation.

Most Detectability Check Standard (DCS) results supported the laboratory Method Detection Limits (MDL).

4.3 Preservation and Holding Times

Samples were properly preserved in the field and cooled to 4°C ($\pm 2^\circ\text{C}$). Samples were shipped with chains of custody, and the paperwork was filled out properly. All samples were shipped on ice. All samples were prepared and analyzed within the applicable holding times.

4.4 Sample Containers

Sample containers were certified pre-cleaned glass provided by the laboratory. These containers meet or exceed analyte specifications established in the USEPA *Specifications and Guidance for Contaminant-free Sample Containers*.

4.5 Calibrations

According to the LRCs, instrument tuning and initial calibration and continuing calibration data met the criteria for the selected methods.

4.6 Blanks

Method Blanks: As these were not discrete samples handled in the field, the method blanks are not listed on the sample identification cross-reference list found in Table 1. Results are reported in the data packages on a laboratory batch basis. All of the laboratory blank results were reported as ND (not detected).

Trip Blanks: The trip blanks, which were discrete samples handled in the field, are listed on the sample identification cross-reference table found in the laboratory data packages. Results are reported in the data package with the other project sample results. All of the trip blank results were reported as ND (not detected).

Field Blanks and Equipment Blanks: The field and equipment blanks, which were discrete samples handled in the field, are listed on the sample identification cross-reference table found in the laboratory data packages. Results are reported in the data package with the other project sample results. Sample results with analyte concentrations similar to those found in the blanks were qualified as non-detect (see Table 4).

4.7 Internal Standard and Surrogate Recoveries

Recoveries of internal standards and surrogates are addressed in the LRCs of the laboratory data packages. All surrogate recoveries were within the acceptance limits.

All internal standard areas and retention limits were acceptable per the LRCs with the exception of sample WG-1620-MW18A-20120711. All internal Standard recoveries were below the control limits. Table 5 presents the sample results that were qualified due to outlying internal standard recoveries.

4.8 Laboratory Control Samples (LCS)/ Laboratory Control Sample Duplicates (LCSD)

LCS or LCS/LCSD data for all COCs were reported for each batch. LCS spike recoveries and RPDs for all COCs were within the project objectives with the exception of the sample results presented with qualifiers in Table 6.

4.9 Matrix Spikes

Matrix spike/matrix spike duplicates were prepared and analyzed with most batches for all requested parameters. The results are reported in the data package on a laboratory batch basis. For some semivolatile organic compound (SVOC) and volatile organic compound (VOC) batches, insufficient sample was available for MS/MSD analyses. In these cases, analyses of LCS/LCSD were used to determine batch precision and accuracy for VOCs and SVOCs.

All recoveries and RPD met criteria with the exception of the sample results presented with qualifiers in Table 7.

The laboratory also performed MS/MSD on unrelated samples from other projects. The data for these unrelated samples cannot be used to assess accuracy and precision for the associated project samples.

4.10 Field Duplicate

Field duplicate samples were collected and analyzed for the target analytes as outlined in Table 1.

All RPDs were < 30% for sample results greater than 5 times the MQL indicating acceptable precision above the estimated regions of detection with the exception of the sample results presented with qualifiers in Table 8.

4.11 Field Procedures

Pastor, Behling & Wheeler, LLC collected groundwater samples in accordance with their Standard Operating Procedures (SOP) for sample collection.

4.12 Summary

The analytical data in this report are usable to assess the impact of COCs in groundwater at the site with the qualification noted herein.

APPENDIX A

TABLES

TABLE 1
SAMPLE AND ANALYSIS SUMMARY
SEMI-ANNUAL SITE-WIDE GROUNDWATER MONITORING
UNION PACIFIC RAILROAD (UPRR)
HOUSTON WOOD PRESERVING WORKS
HOUSTON, TEXAS
JULY 2012

<i>Sample I.D.</i>	<i>Location I.D.</i>	<i>Matrix</i>	<i>Collection Date (mm/dd/yy)</i>	<i>Collection Time (hr:min)</i>	<i>Analysis/Parameters</i>		<i>Comment</i>
					<i>Select VOCs</i>	<i>Select SVOCs</i>	
WG-1620-MW18A-20120711	MW-18A	WG	07/11/12	4:00:00 PM	X	X	
WG-1620-MW18C-20120711	MW-18C	WG	07/11/12	4:50:00 PM	X	X	
WG-1620-TW56A-20120711	TW-56A	WG	07/11/12	6:00:00 PM	X	X	
WG-1620-FB1-20120711	Field Blank	WG	07/11/12	6:20:00 PM	X	X	
WG-1620-MW72B-20120712	MW-72B	WG	07/12/12	7:45:00 AM	X	X	
WG-1620-MW23C-20120712	MW-23C	WG	07/12/12	8:45:00 AM	X	X	
WG-1620-MW31A-20120712	MW-31A	WG	07/12/12	9:45:00 AM	X	X	
WG-1620-MW55B-20120712	MW-55B	WG	07/12/12	10:40:00 AM	X	X	
WG-1620-MW55A-20120712	MW-55A	WG	07/12/12	11:25:00 AM	X	X	
WG-1620-FB2-20120712	Field Blank	WG	07/12/12	11:45:00 AM	X	X	
WG-1620-MW19C-20120712	MW-19C	WG	07/12/12	12:45:00 PM	X	X	
WG-1620-MW52A-20120712	MW-52A	WG	07/12/12	1:45:00 PM	X	X	
WG-1620-MW30A-20120712	MW-30A	WG	07/12/12	2:25:00 PM	X	X	
WG-1620-MW17-20120712	MW-17	WG	07/12/12	3:20:00 PM	X	X	
WG-1620-MW17C-20120712	MW-17C	WG	07/12/12	4:20:00 PM	X	X	
WG-1620-TB1-20120712	Trip Blank	WG	07/12/12	7/12/2012	X		
WG-1620-MW20A-20120716	MW-20A	WG	07/16/12	10:45:00 AM	X	X	
WG-1620-MW16-20120716	MW-16	WG	07/16/12	11:40:00 AM	X	X	
WG-1620-MW73B-20120716	MW-73B	WG	07/16/12	12:40:00 PM	X	X	
WG-1620-MW14-20120716	MW-14	WG	07/16/12	1:30:00 PM	X	X	
WG-1620-DUP1-20120716	MW-14	WG	07/16/12	1:30:00 PM	X	X	
WG-1620-MW13-20120716	MW-13	WG	07/16/12	3:00:00 PM	X	X	
WG-1620-MW32AR-20120716	MW-32AR	WG	07/16/12	4:15:00 PM	X	X	
WG-1620-MW32B-20120716	MW-32B	WG	07/16/12	5:15:00 PM	X	X	

WG-1620-MW14-20120716
MS/MSD

TABLE 1

**SAMPLE AND ANALYSIS SUMMARY
SEMI-ANNUAL SITE-WIDE GROUNDWATER MONITORING
UNION PACIFIC RAILROAD (UPRR)
HOUSTON WOOD PRESERVING WORKS
HOUSTON, TEXAS
JULY 2012**

Sample I.D.	Location I.D.	Matrix	Collection Date (mm/dd/yy)	Collection Time (hr:min)	Analysis/Parameters		Comment
					Select VOCs	Select SVOCs	
WG-1620-MW68B-20120716	MW-68B	WG	07/16/12	6:00:00 PM	X	X	MS/MSD
WG-1620-FB3-20120716	Field Blank	WG	07/16/12	6:15:00 PM	X	X	
WG-1620-MW68C-20120717	MW-68C	WG	07/17/12	7:50:00 AM	X	X	
WG-1620-MW33A-20120717	MW-33A	WG	07/17/12	9:00:00 AM	X	X	
WG-1620-FD2-20120717	MW-33A	WG	07/17/12	9:00:00 AM	X	X	WG-1620-MW33A-20120717
WG-1620-MW33BR-20120717	MW-33B	WG	07/17/12	10:00:00 AM	X	X	
WG-1620-MW26A-20120717	MW-26A	WG	07/17/12	10:50:00 AM	X	X	MS/MSD
WG-1620-MW67B-20120717	MW-67B	WG	07/17/12	11:50:00 AM	X	X	
WG-1620-MW70B-20120717	MW-70B	WG	07/17/12	1:30:00 PM	X	X	
WG-1620-MW36B-20120717	MW-36B	WG	07/17/12	2:20:00 PM	X	X	
WG-1620-MW36A-20120717	MW-36A	WG	07/17/12	3:20:00 PM	X	X	
WG-1620-MW28C-20120717	MW-28C	WG	07/17/12	4:25:00 PM	X	X	
WG-1620-TB-20120717	Trip Blank	WG	07/17/12	7/17/2012	X		
WG-1620-MW28A-20120717	MW-28A	WG	07/17/12	5:20:00 PM	X	X	
WG-1620-FB4-20120717	Field Blank	WG	07/17/12	5:40:00 PM	X	X	
WG-1620-MW53C-20120718	MW-53C	WG	07/18/12	7:45:00 AM	X	X	
WG-1620-MW25A-20120718	MW-25A	WG	07/18/12	8:40:00 AM	X	X	
WG-1620-MW25C-20120718	MW-25C	WG	07/18/12	9:25:00 AM	X	X	
WG-1620-MW44C-20120718	MW-44C	WG	07/18/12	10:15:00 AM	X	X	
WG-1620-MW35A-20120718	MW-35A	WG	07/18/12	11:10:00 AM	X	X	
WG-1620-MW35B-20120718	MW-35B	WG	07/18/12	12:00:00 PM	X	X	
WG-1620-MW63B-20120718	MW-63B	WG	07/18/12	1:30:00 PM	X	X	
WG-1620-FD3-20120718	MW-63B	WG	07/18/12	1:30:00 PM	X	X	WG-1620-MW63B-20120718
WG-1620-MW71B-20120718	MW-71B	WG	07/18/12	2:25:00 PM	X	X	

TABLE 1
SAMPLE AND ANALYSIS SUMMARY
SEMI-ANNUAL SITE-WIDE GROUNDWATER MONITORING
UNION PACIFIC RAILROAD (UPRR)
HOUSTON WOOD PRESERVING WORKS
HOUSTON, TEXAS
JULY 2012

<i>Sample I.D.</i>	<i>Location I.D.</i>	<i>Matrix</i>	<i>Collection Date (mm/dd/yy)</i>	<i>Collection Time (hr:min)</i>	<i>Analysis/Parameters</i>		<i>Comment</i>
					<i>Select VOCs</i>	<i>Select SVOCs</i>	
WG-1620-MW38A-20120718	MW-38A	WG	07/18/12	3:20:00 PM	X	X	
WG-1620-MW38B-20120718	MW-38B	WG	07/18/12	4:15:00 PM	X	X	
WG-1620-MW22A-20120718	MW-22A	WG	07/18/12	5:15:00 PM	X	X	
WG-1620-MW22B-20120718	MW-22B	WG	07/18/12	6:05:00 PM	X	X	
WG-1620-FB5-20120718	Field Blank	WG	07/18/12	6:05:00 PM	X	X	
WG-1620-MW15A-20120719	MW-15A	WG	07/19/12	7:40:00 AM	X	X	
WG-1620-MW15C-20120719	MW-15C	WG	07/19/12	8:25:00 AM	X	X	
WG-1620-MW15B-20120719	MW-15B	WG	07/19/12	9:15:00 AM	X	X	
WG-1620-MW40B-20120719	MW-40B	WG	07/19/12	10:10:00 AM	X	X	
WG-1620-MW42B-20120719	MW-42B	WG	07/19/12	11:05:00 AM	X	X	
WG-1620-MW39B-20120719	MW-39B	WG	07/19/12	12:05:00 PM	X	X	
WG-1620-FB6-20120719	Field Blank	WG	07/19/12	12:15:00 PM	X	X	
WG-1620-MW12C-20120719	MW-12C	WG	07/19/12	1:45:00 PM	X	X	
WG-1620-MW12A-20120719	MW-12A	WG	07/19/12	2:30:00 PM	X	X	
WG-1620-TB-20120719	Trip Blank	WG	07/19/12	7/19/2012	X		
WG-1620-MW66D-20120723	MW-66D	WG	07/23/12	10:50:00 AM	X	X	
WG-1620-MW49B-20120723	MW-49B	WG	07/23/12	11:45:00 AM	X	X	
WG-1620-MW59D-20120723	MW-59D	WG	07/23/12	1:00:00 PM	X	X	
WG-1620-MW65D-20120723	MW-65D	WG	07/23/12	2:30:00 PM	X	X	
WG-1620-MW36D-20120723	MW-36D	WG	07/23/12	3:45:00 PM	X	X	
WG-1620-FD4-20120723	MW-36D	WG	07/23/12	3:45:00 PM	X	X	WG-1620-MW36D-20120723
WG-1620-MW60A-20120723	MW-60A	WG	07/23/12	4:45:00 PM	X	X	
WG-1620-FB7-20120723	Field Blank	WG	07/23/12	5:15:00 PM	X	X	
WG-1620-MW50A-20120724	MW-50A	WG	07/24/12	7:40:00 AM	X	X	

TABLE 1

**SAMPLE AND ANALYSIS SUMMARY
SEMI-ANNUAL SITE-WIDE GROUNDWATER MONITORING
UNION PACIFIC RAILROAD (UPRR)
HOUSTON WOOD PRESERVING WORKS
HOUSTON, TEXAS
JULY 2012**

Sample I.D.	Location I.D.	Matrix	Collection Date (mm/dd/yy)	Collection Time (hr:min)	Analysis/Parameters		Comment
					Select VOCs	Select SVOCs	
WG-1620-MW69A-20120724	MW-69A	WG	07/24/12	8:45:00 AM	X	X	
WG-1620-MW48C-20120724	MW-48C	WG	07/24/12	10:00:00 AM	X	X	
WG-1620-MW51A-20120724	MW-51A	WG	07/24/12	11:05:00 AM	X	X	
WG-1620-MW57B-20120724	MW-57B	WG	07/24/12	12:20:00 PM	X	X	
WG-1620-MW57A-20120724	MW-57A	WG	07/24/12	2:00:00 PM	X	X	
WG-1620-MW58A-20120724	MW-58A	WG	07/24/12	3:00:00 PM	X	X	
WG-1620-FB8-20120724	Field Blank	WG	07/24/12	3:20:00 PM	X	X	
WG-1620-TB-20120724	Trip Blank	WG	07/24/12	7/24/2012	X		
WG-1620-MW54C-20120725	MW-54C	WG	07/25/12	8:40:00 AM	X	X	
WG-1620-MW09-20120725	MW-09	WG	07/25/12	9:35:00 AM	X	X	
WG-1620-MW05-20120725	MW-05	WG	07/25/12	6:45:00 AM	X	X	
WG-1620-MW64A-20120725	MW-64A	WG	07/25/12	7:45:00 AM	X	X	
WG-1620-MW27C-20120725	MW-27C	WG	07/25/12	9:30:00 AM	X	X	
WG-1620-MW24C-20120725	MW-24C	WG	07/25/12	11:30:00 AM	X	X	
WG-1620-MW24B-20120725	MW-24B	WG	07/25/12	12:25:00 PM	X	X	
WG-1620-MW24AR-20120725	MW-24AR	WG	07/25/12	1:25:00 PM	X	X	
WG-1620-MW44A-20120725	MW-44A	WG	07/25/12	3:15:00 PM	X	X	
WG-1620-FB9-20120725	Field Blank	WG	07/25/12	5:00:00 PM	X	X	
WG-1620-MW49A-20120726	MW-49A	WG	07/26/12	7:00:00 AM	X	X	
WG-1620-MW21C-20120726	MW-21C	WG	07/26/12	8:40:00 AM	X	X	
WG-1620-FD5-20120726	MW-21C	WG	07/26/12	8:40:00 AM	X	X	WG-1620-MW21C-20120726
WG-1620-TB-20120726	Trip Blank	WG	07/26/12	7:05:00 AM	X		
WG-1620-P11-20120726	P-11	WG	07/26/12	9:45:00 AM	X	X	
WG-1620-MW62B-20120726	MW-62B	WG	07/26/12	11:25:00 AM	X	X	

TABLE 1

**SAMPLE AND ANALYSIS SUMMARY
SEMI-ANNUAL SITE-WIDE GROUNDWATER MONITORING
UNION PACIFIC RAILROAD (UPRR)
HOUSTON WOOD PRESERVING WORKS
HOUSTON, TEXAS
JULY 2012**

<i>Sample I.D.</i>	<i>Location I.D.</i>	<i>Matrix</i>	<i>Collection Date (mm/dd/yy)</i>	<i>Collection Time (hr:min)</i>	<i>Analysis/Parameters</i>		<i>Comment</i>
					<i>Select VOCs</i>	<i>Select SVOCs</i>	
WG-1620-TW41B-20120726	TW-41B	WG	07/26/12	12:10:00 PM	X	X	
WG-1620-MW75B-20120726	MW-75B	WG	07/26/12	1:50:00 PM	X	X	
WG-1620-FB10-20120726	Field Blank	WG	07/26/12	1:45:00 PM	X	X	
WG-1620-MW74B-20120726	MW-74B	WG	07/26/12	3:20:00 PM	X	X	
WG-1620-TB-20120727	Trip Blank	WG	07/27/12	7/27/2012	X		
WG-1620-MW47C-20120727	MW-47C	WG	07/27/12	7:30:00 AM	X	X	
WG-1620-MW61A-20120727	MW-61A	WG	07/27/12	9:00:00 AM	X	X	
WG-1620-MW59A-20120727	MW-59A	WG	07/27/12	10:25:00 AM	X	X	
WG-1620-MW59B-20120727	MW-59B	WG	07/27/12	11:10:00 AM	X	X	
WG-1620-FB11-20120727	Field Blank	WG	07/27/12	10:30:00 AM	X	X	

Notes:

MS Matrix Spike.
MSD Matrix Spike Duplicate.
SVOCs Semi-Volatile Organic Compounds.
VOCs Volatile Organic Compounds.

TABLE 2

**SUMMARY OF ANALYTICAL METHODOLOGIES
SEMI-ANNUAL SITE-WIDE GROUNDWATER MONITORING
UNION PACIFIC RAILROAD (UPRR)
HOUSTON WOOD PRESERVING WORKS
HOUSTON, TEXAS
JULY 2012**

<i>Parameter</i>	<i>Method</i>
Select VOCs	SW-846 8260 ¹
Select SVOCs	SW-846 8270 ¹

Notes:

¹ "Test Methods for Solid Waste/Physical Chemical Methods," SW-846, 3rd Edition, September 1986 (with all subsequent revisions).

SVOCs Semi-Volatile Organic Compounds.

VOCs Volatile Organic Compounds.

TABLE 3
ANALYTICAL RESULTS SUMMARY
SEMI-ANNUAL SITE-WIDE GROUNDWATER MONITORING
UNION PACIFIC RAILROAD (UPRR)
HOUSTON WOOD PRESERVING WORKS
HOUSTON, TEXAS
JULY 2012

<i>Sample Location:</i>	MW-05	MW-09	MW-12A	MW-12C	MW-13	
<i>Sample ID:</i>	WG-1620-MW05-20120725	WG-1620-MW09-20120725	WG-1620-MW12A-20120719	WG-1620-MW12C-20120719	WG-1620-MW13-20120716	
<i>Sample Date:</i>	7/25/2012	7/25/2012	7/19/2012	7/19/2012	7/16/2012	
<i>Parameters</i>	<i>Units</i>					
<i>Volatile Organic Compounds</i>						
1,2-Dichloroethane	mg/L	<0.00050	<0.00050	<0.0025	<0.00050	<0.00050
Benzene	mg/L	<0.00050	<0.00050	<0.0025	<0.00050	<0.00050
Chlorobenzene	mg/L	<0.00050	<0.00050	<0.0025	<0.00050	<0.00050
Ethylbenzene	mg/L	<0.00050	<0.00050	<0.0025	<0.00050	<0.00050
Methylene chloride	mg/L	<0.0010	<0.0010	0.0087 J	<0.0010	<0.0010
Toluene	mg/L	<0.00050	<0.00050	<0.0025	<0.00050	<0.00050
Vinyl chloride	mg/L	-	-	-	-	-
Xylenes (total)	mg/L	<0.0015	<0.0015	<0.0075	<0.0015	<0.0015
<i>Semi-volatile Organic Compounds</i>						
1,2-Diphenylhydrazine	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
2,4-Dimethylphenol	mg/L	<0.000050	<0.000050	0.000056 J	<0.000050	<0.000050
2,4-Dinitrotoluene	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
2,6-Dinitrotoluene	mg/L	<0.000060	<0.000060	<0.000060	<0.000060	<0.000060
2-Chloronaphthalene	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
2-Methylnaphthalene	mg/L	<0.000050	<0.000050	0.17	0.000086 J	0.000063 J
4,6-Dinitro-2-methylphenol	mg/L	<0.000080	<0.000080	<0.000080	<0.000080	<0.000080
4-Nitrophenol	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Acenaphthene	mg/L	<0.000050	<0.000050	0.20	0.00011 J	<0.000050
Acenaphthylene	mg/L	<0.000050	<0.000050	0.0015	<0.000050	<0.000050
Anthracene	mg/L	<0.000050	<0.000050	0.023	<0.000050	0.00011 J
Benzo(a)anthracene	mg/L	<0.000050	<0.000050	0.00011 J	<0.000050	<0.000050
Benzo(a)pyrene	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
bis(2-Chloroethoxy)methane	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
bis(2-Ethylhexyl)phthalate (DEHP)	mg/L	0.00019 J	0.00022	<0.00012 U	<0.00011 U	<0.00010
Chrysene	mg/L	<0.000050	<0.000050	0.00013 J	<0.000050	<0.000050
Dibenzofuran	mg/L	<0.000050	<0.000050	0.16	0.000054 J	0.00019 J
Di-n-butylphthalate (DBP)	mg/L	0.000065 J	0.000074 J	<0.000050	<0.000050	<0.000050
Fluoranthene	mg/L	<0.000050	<0.000050	0.0070	<0.000050	0.00013 J
Fluorene	mg/L	<0.000050	<0.000050	0.15	0.000082 J	0.00012 J
Naphthalene	mg/L	<0.000050	<0.000050	0.36	0.00052	<0.00023 U
Nitrobenzene	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050

TABLE 3

**ANALYTICAL RESULTS SUMMARY
SEMI-ANNUAL SITE-WIDE GROUNDWATER MONITORING
UNION PACIFIC RAILROAD (UPRR)
HOUSTON WOOD PRESERVING WORKS
HOUSTON, TEXAS
JULY 2012**

	<i>Sample Location:</i>	MW-05	MW-09	MW-12A	MW-12C	MW-13
	<i>Sample ID:</i>	WG-1620-MW05-20120725	WG-1620-MW09-20120725	WG-1620-MW12A-20120719	WG-1620-MW12C-20120719	WG-1620-MW13-20120716
	<i>Sample Date:</i>	7/25/2012	7/25/2012	7/19/2012	7/19/2012	7/16/2012
<i>Parameters</i>	<i>Units</i>					
<i>Semi-volatile Organic Compounds (Cont'd)</i>						
N-Nitrosodiphenylamine	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Pentachlorophenol	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Phenanthrene	mg/L	<0.000050	<0.000050	0.12	0.000059 J	0.00049
Phenol	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Pyrene	mg/L	<0.000050	<0.000050	0.0036	<0.000050	0.000089 J

TABLE 3
ANALYTICAL RESULTS SUMMARY
SEMI-ANNUAL SITE-WIDE GROUNDWATER MONITORING
UNION PACIFIC RAILROAD (UPRR)
HOUSTON WOOD PRESERVING WORKS
HOUSTON, TEXAS
JULY 2012

<i>Sample Location:</i>	MW-14	MW-14	MW-15A	MW-15B	MW-15C
<i>Sample ID:</i>	WG-1620-MW14-20120716	WG-1620-DUP1-20120716	WG-1620-MW15A-20120719	WG-1620-MW15B-20120719	WG-1620-MW15C-20120719
<i>Sample Date:</i>	7/16/2012	7/16/2012 <i>Duplicate</i>	7/19/2012	7/19/2012	7/19/2012
<i>Parameters</i>	<i>Units</i>				
<i>Volatile Organic Compounds</i>					
1,2-Dichloroethane	mg/L	<0.00050	<0.00050	<0.00050	<0.00050
Benzene	mg/L	<0.00050	<0.00050	0.0016 J	0.0053 J
Chlorobenzene	mg/L	<0.00050	<0.00050	<0.00050	<0.00050
Ethylbenzene	mg/L	<0.00050	<0.00050	0.0012 J	0.014 J
Methylene chloride	mg/L	<0.0010	<0.0010	<0.0010	<0.0050
Toluene	mg/L	<0.00050	<0.00050	<0.00050	<0.0025
Vinyl chloride	mg/L	-	-	-	-
Xylenes (total)	mg/L	<0.0015	<0.0015	0.0097 J	<0.0075
<i>Semi-volatile Organic Compounds</i>					
1,2-Diphenylhydrazine	mg/L	<0.000050	<0.000050	<0.000050	<0.000050
2,4-Dimethylphenol	mg/L	<0.000050	<0.000050	0.00056	<0.000050
2,4-Dinitrotoluene	mg/L	<0.000050	<0.000050	<0.000050	<0.000050
2,6-Dinitrotoluene	mg/L	<0.000060	<0.000060	<0.000060	<0.000060
2-Chloronaphthalene	mg/L	<0.000050	<0.000050	<0.000050	<0.000050
2-Methylnaphthalene	mg/L	0.00030	0.00044	0.046	0.023
4,6-Dinitro-2-methylphenol	mg/L	<0.000080	<0.000080	<0.000080	<0.000080
4-Nitrophenol	mg/L	<0.000050	<0.000050	<0.000050	<0.000050
Acenaphthene	mg/L	0.00030	0.00035	0.13	0.075
Acenaphthylene	mg/L	<0.000050	<0.000050	0.0012	0.00080
Anthracene	mg/L	0.000069 J	<0.000050	0.0046	0.0071
Benzo(a)anthracene	mg/L	<0.000050	<0.000050	<0.000050	0.00017 J
Benzo(a)pyrene	mg/L	<0.000050	<0.000050	<0.000050	<0.000050
bis(2-Chloroethoxy)methane	mg/L	<0.000050	<0.000050	<0.000050	<0.000050
bis(2-Ethylhexyl)phthalate (DEHP)	mg/L	0.00011 J	0.00011 J	<0.00010	<0.00018 U
Chrysene	mg/L	<0.000050	<0.000050	<0.000050	0.00013 J
Dibenzofuran	mg/L	0.00032	0.00034	0.046	0.052
Di-n-butylphthalate (DBP)	mg/L	<0.000050	<0.000050	<0.000050	<0.000050
Fluoranthene	mg/L	0.000055 J	<0.000050	0.0015	0.0062
Fluorene	mg/L	0.000076 J	<0.000050	0.063	0.036
Naphthalene	mg/L	<0.0015 U	<0.0020 U	0.27	0.82
Nitrobenzene	mg/L	<0.000050	0.000080 J	<0.000050	<0.000050

TABLE 3

**ANALYTICAL RESULTS SUMMARY
SEMI-ANNUAL SITE-WIDE GROUNDWATER MONITORING
UNION PACIFIC RAILROAD (UPRR)
HOUSTON WOOD PRESERVING WORKS
HOUSTON, TEXAS
JULY 2012**

	<i>Sample Location:</i>	<i>MW-14</i>	<i>MW-14</i>	<i>MW-15A</i>	<i>MW-15B</i>	<i>MW-15C</i>
	<i>Sample ID:</i>	WG-1620-MW14-20120716	WG-1620-DUP1-20120716	WG-1620-MW15A-20120719	WG-1620-MW15B-20120719	WG-1620-MW15C-20120719
	<i>Sample Date:</i>	7/16/2012	7/16/2012 <i>Duplicate</i>	7/19/2012	7/19/2012	7/19/2012
<i>Parameters</i>	<i>Units</i>					
<i>Semi-volatile Organic Compounds (Cont'd.)</i>						
N-Nitrosodiphenylamine	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Pentachlorophenol	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Phenanthrene	mg/L	0.00038	0.00039	0.014	0.052	0.00038
Phenol	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Pyrene	mg/L	<0.000050	<0.000050	0.00084	0.0031	0.00046

TABLE 3
ANALYTICAL RESULTS SUMMARY
SEMI-ANNUAL SITE-WIDE GROUNDWATER MONITORING
UNION PACIFIC RAILROAD (UPRR)
HOUSTON WOOD PRESERVING WORKS
HOUSTON, TEXAS
JULY 2012

<i>Sample Location:</i>	MW-16	MW-17	MW-17C	MW-18A	MW-18C
<i>Sample ID:</i>	WG-1620-MW16-20120716	WG-1620-MW17-20120712	WG-1620-MW17C-20120712	WG-1620-MW18A-20120711	WG-1620-MW18C-20120711
<i>Sample Date:</i>	7/16/2012	7/12/2012	7/12/2012	7/11/2012	7/11/2012
<i>Parameters</i>	<i>Units</i>				
<i>Volatile Organic Compounds</i>					
1,2-Dichloroethane	mg/L	<0.00050	<0.0050	<0.00050	<0.0050
Benzene	mg/L	0.056	0.46	0.013	0.68
Chlorobenzene	mg/L	<0.00050	<0.0050	<0.00050	<0.0050
Ethylbenzene	mg/L	0.027	0.21	0.17	0.30
Methylene chloride	mg/L	<0.0010	<0.010	<0.0010	<0.010
Toluene	mg/L	0.0070	0.81	0.0057	0.21
Vinyl chloride	mg/L	-	-	-	<0.0050
Xylenes (total)	mg/L	0.034	0.69	0.21	0.51
<i>Semi-volatile Organic Compounds</i>					
1,2-Diphenylhydrazine	mg/L	<0.000050	<0.000050	<0.000050	<0.000050 UJ
2,4-Dimethylphenol	mg/L	0.0054	4.0	0.039	9.4 JH
2,4-Dinitrotoluene	mg/L	<0.000050	<0.000050	<0.000050	<0.000050 UJ
2,6-Dinitrotoluene	mg/L	<0.000060	<0.000060	<0.000060	<0.000060 UJ
2-Chloronaphthalene	mg/L	<0.000050	<0.000050	<0.000050	<0.000050 UJ
2-Methylnaphthalene	mg/L	0.045	0.51	0.10	0.64 JH
4,6-Dinitro-2-methylphenol	mg/L	<0.000080	<0.000080	<0.000080	<0.000080 UJ
4-Nitrophenol	mg/L	<0.000050	<0.000050	<0.000050	<0.000050 UJ
Acenaphthene	mg/L	0.28	0.14	0.14	0.30 JH
Acenaphthylene	mg/L	0.0028	0.0050	0.0018	0.0067 JH
Anthracene	mg/L	0.017	0.014	0.0080	0.0090 JH
Benzo(a)anthracene	mg/L	0.00013 J	0.00018 J	0.00022	<0.000050 UJ
Benzo(a)pyrene	mg/L	<0.000050	<0.000050	<0.000050	<0.000050 UJ
bis(2-Chloroethoxy)methane	mg/L	<0.000050	<0.000050	<0.000050	<0.000050 UJ
bis(2-Ethylhexyl)phthalate (DEHP)	mg/L	<0.00010	0.00027	0.0048	<0.00010 UJ
Chrysene	mg/L	0.00010 J	0.00011 J	0.00016 J	<0.000050 UJ
Dibenzofuran	mg/L	0.17	0.13	0.14	0.21 JH
Di-n-butylphthalate (DBP)	mg/L	<0.000050	<0.000050	<0.000050	<0.000050 UJ
Fluoranthene	mg/L	0.0059	0.0034	0.0048	0.0016 JH
Fluorene	mg/L	0.15	0.082	0.066	0.14 JH
Naphthalene	mg/L	2.1	14	4.0	7.8 JH
Nitrobenzene	mg/L	<0.000050	<0.000050	<0.000050	<0.000050 UJ

TABLE 3

ANALYTICAL RESULTS SUMMARY
SEMI-ANNUAL SITE-WIDE GROUNDWATER MONITORING
UNION PACIFIC RAILROAD (UPRR)
HOUSTON WOOD PRESERVING WORKS
HOUSTON, TEXAS
JULY 2012

	<i>Sample Location:</i>	MW-16	MW-17	MW-17C	MW-18A	MW-18C
	<i>Sample ID:</i>	WG-1620-MW16-20120716	WG-1620-MW17-20120712	WG-1620-MW17C-20120712	WG-1620-MW18A-20120711	WG-1620-MW18C-20120711
	<i>Sample Date:</i>	7/16/2012	7/12/2012	7/12/2012	7/11/2012	7/11/2012
<i>Parameters</i>	<i>Units</i>					
<i>Semi-volatile Organic Compounds (Cont'd.)</i>						
N-Nitrosodiphenylamine	mg/L	<0.000050	<0.000050	<0.000050	<0.000050 UJ	<0.000050
Pentachlorophenol	mg/L	<0.000050	<0.000050	<0.000050	<0.000050 UJ	0.075
Phenanthrene	mg/L	0.070	0.063	0.076	0.083 JH	0.055
Phenol	mg/L	0.000088 J	6.1	<0.00020 U	0.12 JH	0.075
Pyrene	mg/L	0.0034	0.0018	0.0028	0.00081 JH	0.0011

TABLE 3
ANALYTICAL RESULTS SUMMARY
SEMI-ANNUAL SITE-WIDE GROUNDWATER MONITORING
UNION PACIFIC RAILROAD (UPRR)
HOUSTON WOOD PRESERVING WORKS
HOUSTON, TEXAS
JULY 2012

<i>Parameters</i>	<i>Units</i>	<i>Sample Location:</i>	<i>MW-19C</i>	<i>MW-20A</i>	<i>MW-21C</i>	<i>MW-21C</i>	<i>MW-22A</i>
		<i>Sample ID:</i>	<i>WG-1620-MW19C-20120712</i>	<i>WG-1620-MW20A-20120716</i>	<i>WG-1620-MW21C-20120726</i>	<i>WG-1620-FD5-20120726</i>	<i>WG-1620-MW22A-20120718</i>
		<i>Sample Date:</i>	<i>7/12/2012</i>	<i>7/16/2012</i>	<i>7/26/2012</i>	<i>7/26/2012</i> <i>Duplicate</i>	<i>7/18/2012</i>
<i>Volatile Organic Compounds</i>							
1,2-Dichloroethane	mg/L		<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Benzene	mg/L		<0.00050	0.089	<0.00050	<0.00050	<0.00050
Chlorobenzene	mg/L		<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Ethylbenzene	mg/L		<0.00050	0.10	<0.00050	<0.00050	<0.00050
Methylene chloride	mg/L		<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Toluene	mg/L		<0.00050	0.022	<0.00050	<0.00050	<0.00050
Vinyl chloride	mg/L		<0.00050	-	-	-	-
Xylenes (total)	mg/L		<0.0015	0.088	<0.0015	<0.0015	<0.0015
<i>Semi-volatile Organic Compounds</i>							
1,2-Diphenylhydrazine	mg/L		<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
2,4-Dimethylphenol	mg/L		0.00016 J	0.10	<0.000050	<0.000050	<0.000050
2,4-Dinitrotoluene	mg/L		<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
2,6-Dinitrotoluene	mg/L		<0.000060	<0.000060	<0.000060	<0.000060	<0.000060
2-Chloronaphthalene	mg/L		<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
2-Methylnaphthalene	mg/L		<0.000053 U	0.36	<0.000050	<0.000050	<0.000059 U
4,6-Dinitro-2-methylphenol	mg/L		<0.000080	<0.000080	<0.000080	<0.000080	<0.000080
4-Nitrophenol	mg/L		<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Acenaphthene	mg/L		0.00017 J	0.19	<0.000050	<0.000050	<0.000031 U
Acenaphthylene	mg/L		<0.000050	0.0015	<0.000050	<0.000050	<0.000050
Anthracene	mg/L		<0.000050	0.0042	<0.000050	<0.000050	0.00040
Benzo(a)anthracene	mg/L		<0.000050	<0.000050	<0.000050	<0.000050	0.00011 J
Benzo(a)pyrene	mg/L		<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
bis(2-Chloroethoxy)methane	mg/L		<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
bis(2-Ethylhexyl)phthalate (DEHP)	mg/L		0.00014 J	<0.00010	<0.00010	<0.00010	0.00011 J
Chrysene	mg/L		<0.000050	<0.000050	<0.000050	<0.000050	0.00010 J
Dibenzofuran	mg/L		<0.00011 U	0.15	<0.000050	<0.000050	<0.000048 U
Di-n-butylphthalate (DBP)	mg/L		0.00015 J	<0.000050	<0.000072 U	<0.000051 U	<0.000050
Fluoranthene	mg/L		0.0018	0.00061	<0.000050	<0.000050	<0.000041 U
Fluorene	mg/L		0.00033	0.11	<0.000050	<0.000050	<0.000029 U
Naphthalene	mg/L		<0.00048 U	6.1	<0.000050	<0.000050	<0.00018 U
Nitrobenzene	mg/L		<0.000050	<0.000050	<0.000050	<0.000050	<0.000050

TABLE 3

**ANALYTICAL RESULTS SUMMARY
SEMI-ANNUAL SITE-WIDE GROUNDWATER MONITORING
UNION PACIFIC RAILROAD (UPRR)
HOUSTON WOOD PRESERVING WORKS
HOUSTON, TEXAS
JULY 2012**

	<i>Sample Location:</i>	MW-19C	MW-20A	MW-21C	MW-21C	MW-22A
	<i>Sample ID:</i>	WG-1620-MW19C-20120712	WG-1620-MW20A-20120716	WG-1620-MW21C-20120726	WG-1620-FD5-20120726	WG-1620-MW22A-20120718
	<i>Sample Date:</i>	7/12/2012	7/16/2012	7/26/2012	7/26/2012 <i>Duplicate</i>	7/18/2012
<i>Parameters</i>	<i>Units</i>					
<i>Semi-volatile Organic Compounds (Cont'd.)</i>						
N-Nitrosodiphenylamine	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Pentachlorophenol	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Phenanthrene	mg/L	<0.000050	0.043	<0.000050	<0.000050	<0.0015 U
Phenol	mg/L	<0.00024 U	<0.000050	<0.000050	<0.000050	<0.000050
Pyrene	mg/L	0.0014	0.00030	<0.000050	<0.000050	<0.00033 U

TABLE 3

**ANALYTICAL RESULTS SUMMARY
SEMI-ANNUAL SITE-WIDE GROUNDWATER MONITORING
UNION PACIFIC RAILROAD (UPRR)
HOUSTON WOOD PRESERVING WORKS
HOUSTON, TEXAS
JULY 2012**

	<i>Sample Location:</i>	MW-22B	MW-23C	MW-24AR	MW-24B	MW-24C
	<i>Sample ID:</i>	WG-1620-MW22B-20120718	WG-1620-MW23C-20120712	WG-1620-MW24AR-20120725	WG-1620-MW24B-20120725	WG-1620-MW24C-20120725
	<i>Sample Date:</i>	7/18/2012	7/12/2012	7/25/2012	7/25/2012	7/25/2012
<i>Parameters</i>	<i>Units</i>					
<i>Volatile Organic Compounds</i>						
1,2-Dichloroethane	mg/L	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Benzene	mg/L	0.0042 J	0.0071	<0.00050	<0.00050	<0.00050
Chlorobenzene	mg/L	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Ethylbenzene	mg/L	0.0088	0.17	<0.00050	<0.00050	<0.00050
Methylene chloride	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Toluene	mg/L	0.0033 J	0.0025 J	<0.00050	<0.00050	<0.00050
Vinyl chloride	mg/L	-	<0.00050	-	-	-
Xylenes (total)	mg/L	0.0057 J	0.11	<0.0015	<0.0015	<0.0015
<i>Semi-volatile Organic Compounds</i>						
1,2-Diphenylhydrazine	mg/L	<0.000050	<0.0010	<0.000050	<0.000050	<0.000050
2,4-Dimethylphenol	mg/L	<0.000050	0.028	<0.000050	<0.000050	<0.000050
2,4-Dinitrotoluene	mg/L	<0.000050	<0.0010	<0.000050	<0.000050	<0.000050
2,6-Dinitrotoluene	mg/L	<0.000060	<0.0012	<0.000060	<0.000060	<0.000060
2-Chloronaphthalene	mg/L	<0.000050	<0.0010	<0.000050	<0.000050	<0.000050
2-Methylnaphthalene	mg/L	<0.00063 U	28	<0.000050	<0.000050	0.000077 J
4,6-Dinitro-2-methylphenol	mg/L	<0.000080	<0.0016	<0.000080	<0.000080	<0.000080
4-Nitrophenol	mg/L	<0.000050	<0.0010	<0.000050	<0.000050	<0.000050
Acenaphthene	mg/L	0.18	39	<0.000050	<0.000050	<0.000050
Acenaphthylene	mg/L	0.0018	0.45	<0.000050	<0.000050	<0.000050
Anthracene	mg/L	0.0067	16	<0.000050	<0.000050	<0.000050
Benzo(a)anthracene	mg/L	<0.000050	4.8	<0.000050	<0.000050	<0.000050
Benzo(a)pyrene	mg/L	<0.000050	1.2	<0.000050	<0.000050	<0.000050
bis(2-Chloroethoxy)methane	mg/L	<0.000050	<0.0010	<0.000050	<0.000050	<0.000050
bis(2-Ethylhexyl)phthalate (DEHP)	mg/L	<0.00010	0.042	<0.00010	<0.00015 U	<0.00013 U
Chrysene	mg/L	<0.000050	4.3	<0.000050	<0.000050	<0.000050
Dibenzofuran	mg/L	0.046	46	<0.000050	<0.000050	<0.000050
Di-n-butylphthalate (DBP)	mg/L	<0.000050	<0.0010	<0.000071 U	<0.00013 U	<0.000050
Fluoranthene	mg/L	0.0065	34	<0.000050	<0.000050	<0.000050
Fluorene	mg/L	0.019	32	<0.000050	<0.000050	<0.000050
Naphthalene	mg/L	0.032	83	<0.000050	0.00015 J	0.00019 J
Nitrobenzene	mg/L	<0.000050	<0.0010	<0.000050	<0.000050	<0.000050

TABLE 3

ANALYTICAL RESULTS SUMMARY
SEMI-ANNUAL SITE-WIDE GROUNDWATER MONITORING
UNION PACIFIC RAILROAD (UPRR)
HOUSTON WOOD PRESERVING WORKS
HOUSTON, TEXAS
JULY 2012

<i>Sample Location:</i>	<i>MW-22B</i>	<i>MW-23C</i>	<i>MW-24AR</i>	<i>MW-24B</i>	<i>MW-24C</i>
<i>Sample ID:</i>	<i>WG-1620-MW22B-20120718</i>	<i>WG-1620-MW23C-20120712</i>	<i>WG-1620-MW24AR-20120725</i>	<i>WG-1620-MW24B-20120725</i>	<i>WG-1620-MW24C-20120725</i>
<i>Sample Date:</i>	<i>7/18/2012</i>	<i>7/12/2012</i>	<i>7/25/2012</i>	<i>7/25/2012</i>	<i>7/25/2012</i>

<i>Parameters</i>	<i>Units</i>					
<i>Semi-volatile Organic Compounds (Cont'd.)</i>						
N-Nitrosodiphenylamine	mg/L	<0.000050	<0.0010	<0.000050	<0.000050	<0.000050
Pentachlorophenol	mg/L	<0.000050	<0.0010	<0.000050	<0.000050	<0.000050
Phenanthrene	mg/L	0.0027	130	<0.000050	<0.000050	<0.000050
Phenol	mg/L	0.00010 J	<0.0010	<0.000050	<0.000050	<0.000050
Pyrene	mg/L	0.0033	21	<0.000050	<0.000050	<0.000050

TABLE 3
ANALYTICAL RESULTS SUMMARY
SEMI-ANNUAL SITE-WIDE GROUNDWATER MONITORING
UNION PACIFIC RAILROAD (UPRR)
HOUSTON WOOD PRESERVING WORKS
HOUSTON, TEXAS
JULY 2012

	<i>Sample Location:</i>	MW-25A	MW-25C	MW-26A	MW-27C	MW-28A
	<i>Sample ID:</i>	WG-1620-MW25A-20120718	WG-1620-MW25C-20120718	WG-1620-MW26A-20120717	WG-1620-MW27C-20120725	WG-1620-MW28A-20120717
	<i>Sample Date:</i>	7/18/2012	7/18/2012	7/17/2012	7/25/2012	7/17/2012
<i>Parameters</i>	<i>Units</i>					
<i>Volatile Organic Compounds</i>						
1,2-Dichloroethane	mg/L	<0.00050	<0.0050	<0.00050	<0.00050	<0.00050
Benzene	mg/L	<0.00050	0.030 J	<0.00050	<0.00050	<0.00050
Chlorobenzene	mg/L	<0.00050	<0.0050	<0.00050	<0.00050	<0.00050
Ethylbenzene	mg/L	<0.00050	0.33	<0.00050	<0.00050	<0.00050
Methylene chloride	mg/L	<0.0010	<0.010	<0.0010	<0.0010	<0.0010
Toluene	mg/L	<0.00050	0.31	<0.00050	<0.00050	<0.00050
Vinyl chloride	mg/L	<0.00050	<0.0050	-	-	-
Xylenes (total)	mg/L	<0.0015	0.96	<0.0015	<0.0015	<0.0015
<i>Semi-volatile Organic Compounds</i>						
1,2-Diphenylhydrazine	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
2,4-Dimethylphenol	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
2,4-Dinitrotoluene	mg/L	<0.000050	<0.000050	<0.00010 J	<0.000050	<0.000050
2,6-Dinitrotoluene	mg/L	<0.000060	<0.000060	<0.000060	<0.000060	<0.000060
2-Chloronaphthalene	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
2-Methylnaphthalene	mg/L	<0.000061 U	0.90	0.000056 J	<0.000050	0.00015 J
4,6-Dinitro-2-methylphenol	mg/L	<0.000080	<0.000080	<0.000080	<0.000080	<0.000080
4-Nitrophenol	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Acenaphthene	mg/L	<0.000050	0.21	0.0087	<0.000050	<0.000050
Acenaphthylene	mg/L	<0.000050	0.0021	<0.000050	<0.000050	<0.000050
Anthracene	mg/L	<0.000050	0.019	0.00027	<0.000050	<0.000050
Benzo(a)anthracene	mg/L	<0.000050	0.00086	<0.000050	<0.000050	<0.000050
Benzo(a)pyrene	mg/L	<0.000050	0.00020	<0.000050	<0.000050	<0.000050
bis(2-Chloroethoxy)methane	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
bis(2-Ethylhexyl)phthalate (DEHP)	mg/L	<0.00010	0.00012 J	0.00020 J	<0.00021 U	<0.00043 U
Chrysene	mg/L	<0.000050	0.00086	<0.000050	<0.000050	<0.000050
Dibenzofuran	mg/L	<0.000050	0.22	0.00084	<0.000050	<0.000050
Di-n-butylphthalate (DBP)	mg/L	<0.000050	<0.000050	<0.000050	<0.000055 U	<0.000050
Fluoranthene	mg/L	<0.000050	0.0088	0.00092	<0.000050	<0.000050
Fluorene	mg/L	<0.000050	0.096	0.00041	<0.000050	<0.000050
Naphthalene	mg/L	<0.00038 U	13	0.00027	0.00019 J	0.0013
Nitrobenzene	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050

TABLE 3

ANALYTICAL RESULTS SUMMARY
SEMI-ANNUAL SITE-WIDE GROUNDWATER MONITORING
UNION PACIFIC RAILROAD (UPRR)
HOUSTON WOOD PRESERVING WORKS
HOUSTON, TEXAS
JULY 2012

	<i>Sample Location:</i>	MW-25A	MW-25C	MW-26A	MW-27C	MW-28A
	<i>Sample ID:</i>	WG-1620-MW25A-20120718	WG-1620-MW25C-20120718	WG-1620-MW26A-20120717	WG-1620-MW27C-20120725	WG-1620-MW28A-20120717
	<i>Sample Date:</i>	7/18/2012	7/18/2012	7/17/2012	7/25/2012	7/17/2012
<i>Parameters</i>	<i>Units</i>					
<i>Semi-volatile Organic Compounds (Cont'd.)</i>						
N-Nitrosodiphenylamine	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Pentachlorophenol	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Phenanthrene	mg/L	<0.000050	0.12	<0.000050	<0.000050	<0.000050
Phenol	mg/L	<0.000050	0.0045	<0.000050	<0.000050	<0.000050
Pyrene	mg/L	<0.000050	0.0063	0.00051	<0.000050	<0.000050

TABLE 3
ANALYTICAL RESULTS SUMMARY
SEMI-ANNUAL SITE-WIDE GROUNDWATER MONITORING
UNION PACIFIC RAILROAD (UPRR)
HOUSTON WOOD PRESERVING WORKS
HOUSTON, TEXAS
JULY 2012

<i>Sample Location:</i>	MW-28C	MW-30A	MW-31A	MW-32AR	MW-32B
<i>Sample ID:</i>	WG-1620-MW28C-20120717	WG-1620-MW30A-20120712	WG-1620-MW31A-20120712	WG-1620-MW32AR-20120716	WG-1620-MW32B-20120716
<i>Sample Date:</i>	7/17/2012	7/12/2012	7/12/2012	7/16/2012	7/16/2012
<i>Parameters</i>	<i>Units</i>				
<i>Volatile Organic Compounds</i>					
1,2-Dichloroethane	mg/L	<0.00050	<0.0025	<0.0050	<0.00050
Benzene	mg/L	<0.00050	0.14	0.11	<0.00050
Chlorobenzene	mg/L	<0.00050	<0.00050	<0.0050	<0.00050
Ethylbenzene	mg/L	<0.00050	0.13	0.18	<0.00050
Methylene chloride	mg/L	<0.0010	<0.0050	<0.010	<0.0010
Toluene	mg/L	<0.00050	0.54	0.31	<0.00050
Vinyl chloride	mg/L	-	-	-	-
Xylenes (total)	mg/L	<0.0015	0.32	0.63	<0.0015
<i>Semi-volatile Organic Compounds</i>					
1,2-Diphenylhydrazine	mg/L	<0.000050	<0.000050	<0.000050	<0.000050
2,4-Dimethylphenol	mg/L	<0.000050	2.7	3.4	0.000061 J
2,4-Dinitrotoluene	mg/L	<0.000050	<0.000050	<0.000050	<0.000050
2,6-Dinitrotoluene	mg/L	<0.000060	<0.000060	<0.000060	<0.000060
2-Chloronaphthalene	mg/L	<0.000050	<0.000050	<0.000050	<0.000050
2-Methylnaphthalene	mg/L	0.00011 J	0.67	0.83	0.00019 J
4,6-Dinitro-2-methylphenol	mg/L	<0.000080	<0.000080	<0.000080	<0.000080
4-Nitrophenol	mg/L	<0.000050	<0.000050	<0.000050	<0.000050
Acenaphthene	mg/L	<0.000050	0.24	0.28	0.0029
Acenaphthylene	mg/L	<0.000050	0.0074	0.0032	<0.000050
Anthracene	mg/L	<0.000050	0.018	0.026	0.0048
Benzo(a)anthracene	mg/L	<0.000050	<0.000050	0.00023	0.0015 J
Benzo(a)pyrene	mg/L	<0.000050	<0.000050	<0.000050	0.00089
bis(2-Chloroethoxy)methane	mg/L	<0.000050	<0.000050	<0.000050	<0.000050
bis(2-Ethylhexyl)phthalate (DEHP)	mg/L	<0.00010	<0.00010	<0.00010	0.00014 J
Chrysene	mg/L	<0.000050	<0.000050	0.00017 J	0.0023
Dibenzofuran	mg/L	<0.000050	0.20	0.26	0.0017
Di-n-butylphthalate (DBP)	mg/L	<0.000050	0.00020	<0.000050	0.000056 J
Fluoranthene	mg/L	<0.000050	0.0038	0.0052	0.0030
Fluorene	mg/L	<0.000050	0.14	0.17	0.0016
Naphthalene	mg/L	0.00064	12	17	0.0036
Nitrobenzene	mg/L	<0.000050	<0.000050	<0.000050	<0.00057 U

TABLE 3

**ANALYTICAL RESULTS SUMMARY
SEMI-ANNUAL SITE-WIDE GROUNDWATER MONITORING
UNION PACIFIC RAILROAD (UPRR)
HOUSTON WOOD PRESERVING WORKS
HOUSTON, TEXAS
JULY 2012**

	<i>Sample Location:</i>	MW-28C	MW-30A	MW-31A	MW-32AR	MW-32B
	<i>Sample ID:</i>	WG-1620-MW28C-20120717	WG-1620-MW30A-20120712	WG-1620-MW31A-20120712	WG-1620-MW32AR-20120716	WG-1620-MW32B-20120716
	<i>Sample Date:</i>	7/17/2012	7/12/2012	7/12/2012	7/16/2012	7/16/2012
<i>Parameters</i>	<i>Units</i>					
<i>Semi-volatile Organic Compounds (Cont'd.)</i>						
N-Nitrosodiphenylamine	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Pentachlorophenol	mg/L	<0.000050	<0.000050	0.094	<0.000050	<0.000050
Phenanthrene	mg/L	<0.000050	0.10	0.13	0.000055 J	0.0012
Phenol	mg/L	<0.000050	0.020	0.29	0.00029	0.000066 J
Pyrene	mg/L	<0.000050	0.0018	0.0020	0.0046	0.040

TABLE 3
ANALYTICAL RESULTS SUMMARY
SEMI-ANNUAL SITE-WIDE GROUNDWATER MONITORING
UNION PACIFIC RAILROAD (UPRR)
HOUSTON WOOD PRESERVING WORKS
HOUSTON, TEXAS
JULY 2012

<i>Sample Location:</i>	MW-33A	MW-33A	MW-33B	MW-35A	MW-35B
<i>Sample ID:</i>	WG-1620-MW33A-20120717	WG-1620-FD2-20120717	WG-1620-MW33BR-20120717	WG-1620-MW35A-20120718	WG-1620-MW35B-20120718
<i>Sample Date:</i>	7/17/2012	7/17/2012 <i>Duplicate</i>	7/17/2012	7/18/2012	7/18/2012
<i>Parameters</i>	<i>Units</i>				
<i>Volatile Organic Compounds</i>					
1,2-Dichloroethane	mg/L	<0.00050	<0.00050	<0.00050	<0.0050
Benzene	mg/L	0.0023 J	0.0022 J	0.30	<0.00050
Chlorobenzene	mg/L	<0.00050	<0.00050	<0.00050	<0.00050
Ethylbenzene	mg/L	<0.00050	<0.00050	0.070	0.0015 J
Methylene chloride	mg/L	<0.0010	<0.0010	<0.0010	<0.0010
Toluene	mg/L	<0.00050	<0.00050	0.023	<0.00050
Vinyl chloride	mg/L	-	<0.00050	<0.00050	-
Xylenes (total)	mg/L	<0.0015	<0.0015	0.15	<0.0015
<i>Semi-volatile Organic Compounds</i>					
1,2-Diphenylhydrazine	mg/L	<0.000050	<0.000050	<0.00050	<0.000050
2,4-Dimethylphenol	mg/L	<0.000050	<0.000050	0.0074	<0.000050
2,4-Dinitrotoluene	mg/L	<0.000050	<0.000050	<0.000050	<0.000050
2,6-Dinitrotoluene	mg/L	<0.000060	<0.000060	<0.000060	<0.000060
2-Chloronaphthalene	mg/L	<0.000050	<0.000050	<0.00050	<0.000050
2-Methylnaphthalene	mg/L	0.0015	0.0011	0.55	0.0063
4,6-Dinitro-2-methylphenol	mg/L	<0.000080	<0.000080	<0.00080	<0.000080
4-Nitrophenol	mg/L	<0.000050	<0.000050	<0.00050	<0.000050
Acenaphthene	mg/L	0.019	0.023	0.099	0.0072
Acenaphthylene	mg/L	<0.000050	<0.000050	0.0014 J	<0.000050
Anthracene	mg/L	0.0026 J	0.0015 J	0.011	0.0013
Benzo(a)anthracene	mg/L	0.00043 J	0.00026 J	<0.00050	0.00030
Benzo(a)pyrene	mg/L	0.00011 J	0.000054 J	<0.00050	<0.000050
bis(2-Chloroethoxy)methane	mg/L	<0.000050	<0.000050	<0.00050	<0.000050
bis(2-Ethylhexyl)phthalate (DEHP)	mg/L	0.00014 J	0.00022	<0.0010	0.00014 J
Chrysene	mg/L	0.00033 J	0.00016 J	<0.00050	0.00027
Dibenzofuran	mg/L	0.0049	0.0061	0.15	0.0043
Di-n-butylphthalate (DBP)	mg/L	<0.000050	<0.000050	<0.00050	<0.000050
Fluoranthene	mg/L	0.0036 J	0.0026 J	0.010	0.0027
Fluorene	mg/L	0.0056	0.0073	0.051	0.0029
Naphthalene	mg/L	0.017	0.021	7.3	0.050
Nitrobenzene	mg/L	<0.000050	<0.000050	<0.00050	<0.000050

TABLE 3
ANALYTICAL RESULTS SUMMARY
SEMI-ANNUAL SITE-WIDE GROUNDWATER MONITORING
UNION PACIFIC RAILROAD (UPRR)
HOUSTON WOOD PRESERVING WORKS
HOUSTON, TEXAS
JULY 2012

	<i>Sample Location:</i>	MW-33A	MW-33A	MW-33B	MW-35A	MW-35B
	<i>Sample ID:</i>	WG-1620-MW33A-20120717	WG-1620-FD2-20120717	WG-1620-MW33BR-20120717	WG-1620-MW35A-20120718	WG-1620-MW35B-20120718
	<i>Sample Date:</i>	7/17/2012	7/17/2012 <i>Duplicate</i>	7/17/2012	7/18/2012	7/18/2012
<i>Parameters</i>	<i>Units</i>					
<i>Semi-volatile Organic Compounds (Cont'd.)</i>						
N-Nitrosodiphenylamine	mg/L	<0.000050	<0.000050	<0.00050	<0.000050	<0.000050
Pentachlorophenol	mg/L	<0.000050	<0.000050	<0.00050	<0.000050	<0.000050
Phenanthrene	mg/L	0.0058 J	0.0026 J	0.091	0.0068	0.066
Phenol	mg/L	<0.000050	<0.000050	0.0014 J	<0.000050	0.00014 J
Pyrene	mg/L	0.0035	0.0032	0.0054	0.0016	0.0019

TABLE 3

**ANALYTICAL RESULTS SUMMARY
SEMI-ANNUAL SITE-WIDE GROUNDWATER MONITORING
UNION PACIFIC RAILROAD (UPRR)
HOUSTON WOOD PRESERVING WORKS
HOUSTON, TEXAS
JULY 2012**

<i>Sample Location:</i>	MW-36A	MW-36B	MW-36D	MW-36D	MW-38A
<i>Sample ID:</i>	WG-1620-MW36A-20120717	WG-1620-MW36B-20120717	WG-1620-MW36D-20120723	WG-1620-FD4-20120723	WG-1620-MW38A-20120718
<i>Sample Date:</i>	7/17/2012	7/17/2012	7/23/2012	7/23/2012 <i>Duplicate</i>	7/18/2012
<i>Parameters</i>	<i>Units</i>				
<i>Volatile Organic Compounds</i>					
1,2-Dichloroethane	mg/L	<0.00050	<0.00050	<0.00050	<0.00050
Benzene	mg/L	<0.00050	<0.00050	<0.00050	<0.00050
Chlorobenzene	mg/L	<0.00050	<0.00050	<0.00050	<0.00050
Ethylbenzene	mg/L	<0.00050	<0.00050	<0.00050	<0.00050
Methylene chloride	mg/L	<0.0010	<0.0010	<0.0010	<0.0010
Toluene	mg/L	<0.00050	<0.00050	<0.00050	<0.00050
Vinyl chloride	mg/L	<0.00050	<0.00050	-	-
Xylenes (total)	mg/L	<0.0015	<0.0015	<0.0015	<0.0015
<i>Semi-volatile Organic Compounds</i>					
1,2-Diphenylhydrazine	mg/L	<0.000050	<0.000050	<0.000050	<0.000050
2,4-Dimethylphenol	mg/L	<0.000050	<0.000050	<0.000050	<0.000050
2,4-Dinitrotoluene	mg/L	<0.000050	<0.000050	<0.000050	<0.000050
2,6-Dinitrotoluene	mg/L	<0.000060	<0.000060	<0.000060	<0.000060
2-Chloronaphthalene	mg/L	<0.000050	<0.000050	<0.000050	<0.000050
2-Methylnaphthalene	mg/L	<0.000050	<0.000050	<0.000050	<0.000031 U
4,6-Dinitro-2-methylphenol	mg/L	<0.000080	<0.000080	<0.000080	<0.000080
4-Nitrophenol	mg/L	<0.000050	<0.000050	<0.000050	<0.000050
Acenaphthene	mg/L	<0.000050	0.00016 J	<0.000050	<0.000025 U
Acenaphthylene	mg/L	<0.000050	<0.000050	<0.000050	<0.000050
Anthracene	mg/L	<0.000050	<0.000050	<0.000050	<0.000013 U
Benzo(a)anthracene	mg/L	<0.000050	<0.000050	<0.000050	<0.000050
Benzo(a)pyrene	mg/L	<0.000050	<0.000050	<0.000050	<0.000050
bis(2-Chloroethoxy)methane	mg/L	<0.000050	<0.000050	<0.000050	<0.000050
bis(2-Ethylhexyl)phthalate (DEHP)	mg/L	<0.00010	0.00021	<0.00035 U	<0.00059 U
Chrysene	mg/L	<0.000050	<0.000050	<0.000050	<0.000050
Dibenzofuran	mg/L	<0.000050	0.00011 J	<0.000050	<0.000050
Di-n-butylphthalate (DBP)	mg/L	<0.000050	<0.000050	<0.000050	<0.000052 J
Fluoranthene	mg/L	<0.000050	<0.000050	0.000054 J	0.000093 J
Fluorene	mg/L	<0.000050	<0.000050	<0.000050	<0.000015 U
Naphthalene	mg/L	0.00030	<0.000050	<0.00014 U	<0.00015 U
Nitrobenzene	mg/L	<0.000050	<0.000050	<0.000050	<0.000050

TABLE 3
ANALYTICAL RESULTS SUMMARY
SEMI-ANNUAL SITE-WIDE GROUNDWATER MONITORING
UNION PACIFIC RAILROAD (UPRR)
HOUSTON WOOD PRESERVING WORKS
HOUSTON, TEXAS
JULY 2012

	<i>Sample Location:</i>	MW-36A	MW-36B	MW-36D	MW-36D	MW-38A
	<i>Sample ID:</i>	WG-1620-MW36A-20120717	WG-1620-MW36B-20120717	WG-1620-MW36D-20120723	WG-1620-FD4-20120723	WG-1620-MW38A-20120718
	<i>Sample Date:</i>	7/17/2012	7/17/2012	7/23/2012	7/23/2012 <i>Duplicate</i>	7/18/2012
<i>Parameters</i>	<i>Units</i>					
<i>Semi-volatile Organic Compounds (Cont'd.)</i>						
N-Nitrosodiphenylamine	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Pentachlorophenol	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Phenanthrene	mg/L	<0.000050	0.00027	<0.000050	0.00014 J	<0.00032 U
Phenol	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Pyrene	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	<0.00016 U

TABLE 3
ANALYTICAL RESULTS SUMMARY
SEMI-ANNUAL SITE-WIDE GROUNDWATER MONITORING
UNION PACIFIC RAILROAD (UPRR)
HOUSTON WOOD PRESERVING WORKS
HOUSTON, TEXAS
JULY 2012

	<i>Sample Location:</i>	<i>MW-38B</i>	<i>MW-39B</i>	<i>MW-40B</i>	<i>MW-42B</i>	<i>MW-44A</i>
	<i>Sample ID:</i>	WG-1620-MW38B-20120718	WG-1620-MW39B-20120719	WG-1620-MW40B-20120719	WG-1620-MW42B-20120719	WG-1620-MW44A-20120725
	<i>Sample Date:</i>	7/18/2012	7/19/2012	7/19/2012	7/19/2012	7/25/2012
<i>Parameters</i>	<i>Units</i>					
<i>Volatile Organic Compounds</i>						
1,2-Dichloroethane	mg/L	<0.00050	<0.00050	<0.0050	<0.0025	<0.00050
Benzene	mg/L	<0.00050	<0.00050	0.013 J	<0.0025	0.0044 J
Chlorobenzene	mg/L	<0.00050	<0.00050	<0.0050	<0.0025	<0.00050
Ethylbenzene	mg/L	<0.00050	<0.00050	0.082	<0.0025	<0.00050
Methylene chloride	mg/L	<0.0010	<0.0010	<0.010	0.0097 J	<0.0010
Toluene	mg/L	<0.00050	<0.00050	0.022 J	<0.0025	<0.00050
Vinyl chloride	mg/L	-	-	-	-	<0.00050
Xylenes (total)	mg/L	<0.0015	<0.0015	0.14 J	<0.0075	0.0033 J
<i>Semi-volatile Organic Compounds</i>						
1,2-Diphenylhydrazine	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
2,4-Dimethylphenol	mg/L	<0.000050	<0.000050	0.0039	<0.000050	<0.000050
2,4-Dinitrotoluene	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
2,6-Dinitrotoluene	mg/L	<0.000060	<0.000060	<0.000060	<0.000060	<0.000060
2-Chloronaphthalene	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
2-Methylnaphthalene	mg/L	<0.00030 U	0.000069 J	0.28	0.00015 J	0.0095 J
4,6-Dinitro-2-methylphenol	mg/L	<0.000080	<0.000080	<0.000080	<0.000080	<0.000080
4-Nitrophenol	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Acenaphthene	mg/L	0.00096	0.00040	0.23	0.00081	0.22
Acenaphthylene	mg/L	<0.000050	<0.000050	0.0021	<0.000050	0.0013
Anthracene	mg/L	<0.00023 U	0.00010 J	0.0070	<0.000050	0.0040
Benzo(a)anthracene	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Benzo(a)pyrene	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
bis(2-Chloroethoxy)methane	mg/L	0.000072 J	<0.000050	<0.000050	<0.000050	<0.000050
bis(2-Ethylhexyl)phthalate (DEHP)	mg/L	<0.00010	<0.00015 U	<0.00016 U	<0.00022 U	<0.00010
Chrysene	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Dibenzofuran	mg/L	<0.00028 U	0.000067 J	0.17	0.000066 J	0.0031
Di-n-butylphthalate (DBP)	mg/L	<0.000050	<0.000050	<0.000050	0.000062 J	<0.000050
Fluoranthene	mg/L	<0.00032 U	0.00036	0.0031	0.00041	0.0065
Fluorene	mg/L	<0.00027 U	0.00019 J	0.15	0.00016 J	0.091 J
Naphthalene	mg/L	<0.0015 U	0.00018 J	6.0	0.0019	0.39
Nitrobenzene	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050

TABLE 3

ANALYTICAL RESULTS SUMMARY
SEMI-ANNUAL SITE-WIDE GROUNDWATER MONITORING
UNION PACIFIC RAILROAD (UPRR)
HOUSTON WOOD PRESERVING WORKS
HOUSTON, TEXAS
JULY 2012

	<i>Sample Location:</i>	<i>MW-38B</i>	<i>MW-39B</i>	<i>MW-40B</i>	<i>MW-42B</i>	<i>MW-44A</i>
	<i>Sample ID:</i>	WG-1620-MW38B-20120718	WG-1620-MW39B-20120719	WG-1620-MW40B-20120719	WG-1620-MW42B-20120719	WG-1620-MW44A-20120725
	<i>Sample Date:</i>	7/18/2012	7/19/2012	7/19/2012	7/19/2012	7/25/2012
<i>Parameters</i>	<i>Units</i>					
<i>Semi-volatile Organic Compounds (Cont'd.)</i>						
N-Nitrosodiphenylamine	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Pentachlorophenol	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Phenanthrene	mg/L	<0.00037 U	0.00016 J	0.10	<0.000050	0.0064
Phenol	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	0.000062 J
Pyrene	mg/L	<0.00037 U	0.00052	0.0019	0.00023	0.0038

TABLE 3
ANALYTICAL RESULTS SUMMARY
SEMI-ANNUAL SITE-WIDE GROUNDWATER MONITORING
UNION PACIFIC RAILROAD (UPRR)
HOUSTON WOOD PRESERVING WORKS
HOUSTON, TEXAS
JULY 2012

<i>Sample Location:</i>	MW-44C	MW-47C	MW-48C	MW-49A	MW-49B
<i>Sample ID:</i>	WG-1620-MW44C-20120718	WG-1620-MW47C-20120727	WG-1620-MW48C-20120724	WG-1620-MW49A-20120726	WG-1620-MW49B-20120723
<i>Sample Date:</i>	7/18/2012	7/27/2012	7/24/2012	7/26/2012	7/23/2012
<i>Parameters</i>	<i>Units</i>				
<i>Volatile Organic Compounds</i>					
1,2-Dichloroethane	mg/L	<0.0050	<0.00050	<0.00050	<0.00050
Benzene	mg/L	<0.0050	<0.00050	0.042	0.11
Chlorobenzene	mg/L	<0.0050	<0.00050	0.0037 J	<0.00050
Ethylbenzene	mg/L	0.32	<0.00050	0.037	0.023
Methylene chloride	mg/L	<0.010	<0.0010	<0.0010	<0.0010
Toluene	mg/L	0.16	<0.00050	0.031	0.089
Vinyl chloride	mg/L	-	-	<0.00050	<0.00050
Xylenes (total)	mg/L	0.84	<0.0015	0.082	0.060
<i>Semi-volatile Organic Compounds</i>					
1,2-Diphenylhydrazine	mg/L	<0.00075	<0.000050	<0.000050	<0.000050
2,4-Dimethylphenol	mg/L	<0.00075	0.00042	0.00014 J	6.3
2,4-Dinitrotoluene	mg/L	<0.00075	<0.000050	<0.000050	<0.000050
2,6-Dinitrotoluene	mg/L	<0.00090	<0.000060	<0.000060	<0.000060
2-Chloronaphthalene	mg/L	<0.00075	<0.000050	<0.000050	<0.000050
2-Methylnaphthalene	mg/L	62	<0.000050	0.0013	0.18
4,6-Dinitro-2-methylphenol	mg/L	<0.0012	<0.000080	<0.000080	<0.000080
4-Nitrophenol	mg/L	<0.00075	<0.000050	<0.000050	<0.000050
Acenaphthene	mg/L	31	0.000058 J	0.0011	0.14
Acenaphthylene	mg/L	0.29	<0.000050	<0.000050	0.0013
Anthracene	mg/L	19	<0.000050	0.00077	0.056
Benzo(a)anthracene	mg/L	3.5	<0.000050	0.000066 J	0.013
Benzo(a)pyrene	mg/L	0.87	<0.000050	<0.000050	0.0038
bis(2-Chloroethoxy)methane	mg/L	<0.00075	<0.000050	<0.000050	<0.000050
bis(2-Ethylhexyl)phthalate (DEHP)	mg/L	0.013	<0.00010	<0.00024 U	0.00010 J
Chrysene	mg/L	3.3	<0.000050	0.000073 J	0.015
Dibenzofuran	mg/L	38	<0.000050	0.00096	0.12
Di-n-butylphthalate (DBP)	mg/L	<0.00075	<0.000050	0.000053 J	<0.000050
Fluoranthene	mg/L	28	<0.000050	0.00095	0.093
Fluorene	mg/L	26	<0.000050	0.0011	0.13
Naphthalene	mg/L	230	0.00046	0.0071	2.3
Nitrobenzene	mg/L	<0.00075	<0.000050	<0.000050	<0.000050

TABLE 3

ANALYTICAL RESULTS SUMMARY
SEMI-ANNUAL SITE-WIDE GROUNDWATER MONITORING
UNION PACIFIC RAILROAD (UPRR)
HOUSTON WOOD PRESERVING WORKS
HOUSTON, TEXAS
JULY 2012

	<i>Sample Location:</i>	<i>MW-44C</i>	<i>MW-47C</i>	<i>MW-48C</i>	<i>MW-49A</i>	<i>MW-49B</i>
	<i>Sample ID:</i>	WG-1620-MW44C-20120718	WG-1620-MW47C-20120727	WG-1620-MW48C-20120724	WG-1620-MW49A-20120726	WG-1620-MW49B-20120723
	<i>Sample Date:</i>	7/18/2012	7/27/2012	7/24/2012	7/26/2012	7/23/2012
<i>Parameters</i>	<i>Units</i>					
<i>Semi-volatile Organic Compounds (Cont'd.)</i>						
N-Nitrosodiphenylamine	mg/L	<0.00075	<0.000050	<0.000050	<0.000050	<0.000050
Pentachlorophenol	mg/L	<0.00075	<0.000050	<0.000050	<0.000050	<0.000050
Phenanthrene	mg/L	88	<0.000050	0.0034	0.0020	0.35
Phenol	mg/L	<0.00075	0.00056	<0.000050	<0.00023 U	0.0063
Pyrene	mg/L	19	<0.000050	0.00052	0.00095	0.062

TABLE 3
ANALYTICAL RESULTS SUMMARY
SEMI-ANNUAL SITE-WIDE GROUNDWATER MONITORING
UNION PACIFIC RAILROAD (UPRR)
HOUSTON WOOD PRESERVING WORKS
HOUSTON, TEXAS
JULY 2012

	<i>Sample Location:</i>	MW-50A	MW-51A	MW-52A	MW-53C	MW-54C
	<i>Sample ID:</i>	WG-1620-MW50A-20120724	WG-1620-MW51A-20120724	WG-1620-MW52A-20120712	WG-1620-MW53C-20120718	WG-1620-MW54C-20120725
	<i>Sample Date:</i>	7/24/2012	7/24/2012	7/12/2012	7/18/2012	7/25/2012
<i>Parameters</i>	<i>Units</i>					
<i>Volatile Organic Compounds</i>						
1,2-Dichloroethane	mg/L	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Benzene	mg/L	<0.00050	<0.00050	0.0053	<0.00050	<0.00050
Chlorobenzene	mg/L	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Ethylbenzene	mg/L	<0.00050	<0.00050	0.0099	<0.00050	0.0011 J
Methylene chloride	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Toluene	mg/L	<0.00050	<0.00050	0.0084	<0.00050	<0.00050
Vinyl chloride	mg/L	-	<0.00050	<0.00050	-	-
Xylenes (total)	mg/L	<0.0015	<0.0015	0.021	<0.0015	<0.0015
<i>Semi-volatile Organic Compounds</i>						
1,2-Diphenylhydrazine	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
2,4-Dimethylphenol	mg/L	0.000083 J	<0.000050	0.029	<0.000050	<0.000050
2,4-Dinitrotoluene	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
2,6-Dinitrotoluene	mg/L	<0.000060	<0.000060	<0.000060	<0.000060	<0.000060
2-Chloronaphthalene	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
2-Methylnaphthalene	mg/L	0.0039	<0.000050	0.16	<0.000091 U	0.0054 J
4,6-Dinitro-2-methylphenol	mg/L	<0.000080	<0.000080	<0.000080	<0.000080	<0.000080
4-Nitrophenol	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Acenaphthene	mg/L	0.0029	<0.000050	0.15	<0.000050	0.022
Acenaphthylene	mg/L	<0.000050	<0.000050	0.0025	<0.000050	0.00039
Anthracene	mg/L	0.00060	<0.000050	0.021	<0.000050	0.0019
Benzo(a)anthracene	mg/L	<0.000050	<0.000050	0.00022	<0.000050	<0.000050
Benzo(a)pyrene	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
bis(2-Chloroethoxy)methane	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
bis(2-Ethylhexyl)phthalate (DEHP)	mg/L	<0.00012 U	<0.00033 U	<0.00010	<0.00010	0.00017 J
Chrysene	mg/L	<0.000050	0.00011 J	0.00028	<0.000050	<0.000050
Dibenzofuran	mg/L	0.0024	<0.000050	0.13	<0.000050	0.029
Di-n-butylphthalate (DBP)	mg/L	0.000086 J	0.000051 J	<0.000050	<0.000050	0.00064 J
Fluoranthene	mg/L	0.00061	0.00012 J	0.017	<0.000050	0.0020
Fluorene	mg/L	0.0022	<0.000050	0.11	<0.000050	0.011
Naphthalene	mg/L	0.020	<0.000050	0.83	<0.00048 U	0.15
Nitrobenzene	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050

TABLE 3

ANALYTICAL RESULTS SUMMARY
SEMI-ANNUAL SITE-WIDE GROUNDWATER MONITORING
UNION PACIFIC RAILROAD (UPRR)
HOUSTON WOOD PRESERVING WORKS
HOUSTON, TEXAS
JULY 2012

	<i>Sample Location:</i>	MW-50A	MW-51A	MW-52A	MW-53C	MW-54C
	<i>Sample ID:</i>	WG-1620-MW50A-20120724	WG-1620-MW51A-20120724	WG-1620-MW52A-20120712	WG-1620-MW53C-20120718	WG-1620-MW54C-20120725
	<i>Sample Date:</i>	7/24/2012	7/24/2012	7/12/2012	7/18/2012	7/25/2012
<i>Parameters</i>	<i>Units</i>					
<i>Semi-volatile Organic Compounds (Cont'd.)</i>						
N-Nitrosodiphenylamine	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	0.00014 J
Pentachlorophenol	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Phenanthrene	mg/L	0.0045	<0.000050	0.12	<0.000050	0.019
Phenol	mg/L	<0.000050	<0.000050	<0.00015 U	<0.000050	<0.000050
Pyrene	mg/L	0.00031	0.000088 J	0.0071	<0.000050	0.0013

TABLE 3
ANALYTICAL RESULTS SUMMARY
SEMI-ANNUAL SITE-WIDE GROUNDWATER MONITORING
UNION PACIFIC RAILROAD (UPRR)
HOUSTON WOOD PRESERVING WORKS
HOUSTON, TEXAS
JULY 2012

<i>Sample Location:</i>	MW-55A	MW-55B	MW-57A	MW-57B	MW-58A
<i>Sample ID:</i>	WG-1620-MW55A-20120712	WG-1620-MW55B-20120712	WG-1620-MW57A-2012074	WG-1620-MW57B-20120724	WG-1620-MW58A-20120724
<i>Sample Date:</i>	7/12/2012	7/12/2012	7/24/2012	7/24/2012	7/24/2012
<i>Parameters</i>	<i>Units</i>				
<i>Volatile Organic Compounds</i>					
1,2-Dichloroethane	mg/L	<0.0050	<0.0050	<0.00050	<0.00050
Benzene	mg/L	0.17	0.89	0.064	0.16
Chlorobenzene	mg/L	<0.0050	<0.0050	<0.00050	0.0018 J
Ethylbenzene	mg/L	0.24	0.21	0.17	0.099
Methylene chloride	mg/L	<0.010	<0.010	<0.0010	0.017 J
Toluene	mg/L	0.39	0.90	0.10	1.4
Vinyl chloride	mg/L	-	-	0.0016 J	-
Xylenes (total)	mg/L	0.62	0.68	0.33	1.1
<i>Semi-volatile Organic Compounds</i>					
1,2-Diphenylhydrazine	mg/L	<0.000050	<0.00050	<0.00050	<0.000050
2,4-Dimethylphenol	mg/L	0.96	30	0.20	16
2,4-Dinitrotoluene	mg/L	<0.000050	<0.00050	<0.00050	<0.000050
2,6-Dinitrotoluene	mg/L	<0.000060	<0.00060	<0.00060	<0.000060
2-Chloronaphthalene	mg/L	<0.000050	<0.00050	<0.00050	<0.000050
2-Methylnaphthalene	mg/L	0.31	0.64	3.1	1.6
4,6-Dinitro-2-methylphenol	mg/L	<0.000080	<0.00080	<0.00080	<0.000080
4-Nitrophenol	mg/L	<0.000050	<0.00050	<0.00050	<0.000050
Acenaphthene	mg/L	0.11	0.26	1.8	0.44
Acenaphthylene	mg/L	0.0017	0.010	0.024	0.0087
Anthracene	mg/L	0.0075	0.030	0.55	0.050
Benzo(a)anthracene	mg/L	0.00034	0.0012 J	0.074	0.0012 J
Benzo(a)pyrene	mg/L	0.000081 J	<0.00050	0.024	<0.00050
bis(2-Chloroethoxy)methane	mg/L	<0.000050	<0.00050	<0.00050	<0.000050
bis(2-Ethylhexyl)phthalate (DEHP)	mg/L	<0.00010	<0.0010	<0.0010	<0.00094 U
Chrysene	mg/L	0.00025	0.00090 J	0.089	0.0016 J
Dibenzofuran	mg/L	0.078	0.23	1.7	0.38
Di-n-butylphthalate (DBP)	mg/L	<0.000050	<0.00050	<0.00050	<0.000050
Fluoranthene	mg/L	0.0042	0.014	0.74	0.016
Fluorene	mg/L	0.048	0.15	1.4	0.23
Naphthalene	mg/L	9.7	24	22	27
Nitrobenzene	mg/L	<0.000050	<0.00050	<0.00050	<0.000050

TABLE 3

**ANALYTICAL RESULTS SUMMARY
SEMI-ANNUAL SITE-WIDE GROUNDWATER MONITORING
UNION PACIFIC RAILROAD (UPRR)
HOUSTON WOOD PRESERVING WORKS
HOUSTON, TEXAS
JULY 2012**

	<i>Sample Location:</i>	MW-55A	MW-55B	MW-57A	MW-57B	MW-58A
	<i>Sample ID:</i>	WG-1620-MW55A-20120712	WG-1620-MW55B-20120712	WG-1620-MW57A-20120724	WG-1620-MW57B-20120724	WG-1620-MW58A-20120724
	<i>Sample Date:</i>	7/12/2012	7/12/2012	7/24/2012	7/24/2012	7/24/2012
<i>Parameters</i>	<i>Units</i>					
<i>Semi-volatile Organic Compounds (Cont'd.)</i>						
N-Nitrosodiphenylamine	mg/L	<0.000050	<0.00050	<0.00050	<0.00050	<0.000050
Pentachlorophenol	mg/L	<0.000050	0.00069 J	<0.00050	<0.00050	0.00017 J
Phenanthrene	mg/L	0.045	0.13	3.0	0.24	0.036
Phenol	mg/L	0.046	130	<0.00050	1.0	0.00074
Pyrene	mg/L	0.0021	0.0076	0.42	0.011	0.0069

TABLE 3
ANALYTICAL RESULTS SUMMARY
SEMI-ANNUAL SITE-WIDE GROUNDWATER MONITORING
UNION PACIFIC RAILROAD (UPRR)
HOUSTON WOOD PRESERVING WORKS
HOUSTON, TEXAS
JULY 2012

	<i>Sample Location:</i>	MW-59A	MW-59B	MW-59D	MW-60A	MW-61A
	<i>Sample ID:</i>	WG-1620-MW59A-20120727	WG-1620-MW59B-20120727	WG-1620-MW59D-20120723	WG-1620-MW60A-20120723	WG-1620-MW61A-20120727
	<i>Sample Date:</i>	7/27/2012	7/27/2012	7/23/2012	7/23/2012	7/27/2012
<i>Parameters</i>	<i>Units</i>					
<i>Volatile Organic Compounds</i>						
1,2-Dichloroethane	mg/L	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Benzene	mg/L	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Chlorobenzene	mg/L	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Ethylbenzene	mg/L	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Methylene chloride	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Toluene	mg/L	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Vinyl chloride	mg/L	<0.00050	<0.00050	-	<0.00050	<0.00050
Xylenes (total)	mg/L	<0.0015	<0.0015	<0.0015	<0.0015	<0.0015
<i>Semi-volatile Organic Compounds</i>						
1,2-Diphenylhydrazine	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
2,4-Dimethylphenol	mg/L	<0.000050	<0.000050	<0.000050	0.0010	<0.000050
2,4-Dinitrotoluene	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
2,6-Dinitrotoluene	mg/L	<0.000060	<0.000060	<0.000060	<0.000060	<0.000060
2-Chloronaphthalene	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
2-Methylnaphthalene	mg/L	<0.000050	<0.000050	0.000071 J	0.0021	<0.000050
4,6-Dinitro-2-methylphenol	mg/L	<0.000080	<0.000080	<0.000080	<0.000080	<0.000080
4-Nitrophenol	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Acenaphthene	mg/L	<0.000050	<0.000050	<0.000050	0.0012	<0.000050
Acenaphthylene	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Anthracene	mg/L	<0.000050	<0.000050	<0.000050	0.00027	<0.000050
Benzo(a)anthracene	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Benzo(a)pyrene	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
bis(2-Chloroethoxy)methane	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
bis(2-Ethylhexyl)phthalate (DEHP)	mg/L	<0.00010	0.00018 J	<0.00014 U	<0.00010 U	0.00027
Chrysene	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Dibenzofuran	mg/L	<0.000050	<0.000050	<0.000050	0.00099	<0.000050
Di-n-butylphthalate (DBP)	mg/L	<0.000075 U	<0.000050	<0.000050	<0.000076 U	<0.000050
Fluoranthene	mg/L	<0.000050	<0.000050	<0.000050	0.00030	<0.000050
Fluorene	mg/L	<0.000050	<0.000050	<0.000050	0.00089	<0.000050
Naphthalene	mg/L	0.000051 J	0.000060 J	<0.00036 U	0.025	<0.000050
Nitrobenzene	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050

TABLE 3

ANALYTICAL RESULTS SUMMARY
SEMI-ANNUAL SITE-WIDE GROUNDWATER MONITORING
UNION PACIFIC RAILROAD (UPRR)
HOUSTON WOOD PRESERVING WORKS
HOUSTON, TEXAS
JULY 2012

	<i>Sample Location:</i>	MW-59A	MW-59B	MW-59D	MW-60A	MW-61A
	<i>Sample ID:</i>	WG-1620-MW59A-20120727	WG-1620-MW59B-20120727	WG-1620-MW59D-20120723	WG-1620-MW60A-20120723	WG-1620-MW61A-20120727
	<i>Sample Date:</i>	7/27/2012	7/27/2012	7/23/2012	7/23/2012	7/27/2012
<i>Parameters</i>	<i>Units</i>					
<i>Semi-volatile Organic Compounds (Cont'd.)</i>						
N-Nitrosodiphenylamine	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Pentachlorophenol	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Phenanthrene	mg/L	<0.000050	<0.000050	<0.000050	0.0015	0.00016 J
Phenol	mg/L	0.000065 J	<0.000050	<0.000050	<0.000050	<0.000050
Pyrene	mg/L	<0.000050	<0.000050	<0.000050	0.00033	<0.000050

TABLE 3

**ANALYTICAL RESULTS SUMMARY
SEMI-ANNUAL SITE-WIDE GROUNDWATER MONITORING
UNION PACIFIC RAILROAD (UPRR)
HOUSTON WOOD PRESERVING WORKS
HOUSTON, TEXAS
JULY 2012**

<i>Parameters</i>	<i>Units</i>	<i>Sample Location:</i>	<i>MW-62B</i>	<i>MW-63B</i>	<i>MW-63B</i>	<i>MW-64A</i>	<i>MW-65D</i>
		<i>Sample ID:</i>	WG-1620-MW62B-20120726	WG-1620-MW63B-20120718	WG-1620-FD3-20120718	WG-1620-MW64A-20120725	WG-1620-MW65D-20120723
		<i>Sample Date:</i>	7/26/2012	7/18/2012	7/18/2012 <i>Duplicate</i>	7/25/2012	7/23/2012
<i>Volatile Organic Compounds</i>							
1,2-Dichloroethane	mg/L		<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Benzene	mg/L		0.0020 J	0.0015 J	0.0016 J	<0.00050	<0.00050
Chlorobenzene	mg/L		<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Ethylbenzene	mg/L		0.0021 J	0.0014 J	0.0014 J	<0.00050	<0.00050
Methylene chloride	mg/L		<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Toluene	mg/L		0.0012 J	0.0038 J	0.0038 J	<0.00050	<0.00050
Vinyl chloride	mg/L		-	-	-	-	-
Xylenes (total)	mg/L		0.0053 J	<0.0015	<0.0015	<0.0015	<0.0015
<i>Semi-volatile Organic Compounds</i>							
1,2-Diphenylhydrazine	mg/L		<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
2,4-Dimethylphenol	mg/L		<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
2,4-Dinitrotoluene	mg/L		<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
2,6-Dinitrotoluene	mg/L		<0.000060	<0.000060	<0.000060	<0.000060	<0.000060
2-Chloronaphthalene	mg/L		<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
2-Methylnaphthalene	mg/L		<0.000060 U	0.0034	0.0032	<0.000050	<0.000050
4,6-Dinitro-2-methylphenol	mg/L		<0.000080	<0.000080	<0.000080	<0.000080	<0.000080
4-Nitrophenol	mg/L		<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Acenaphthene	mg/L		0.085	0.0023	0.0022	<0.000050	<0.000050
Acenaphthylene	mg/L		0.00084	<0.000050	<0.000050	<0.000050	<0.000050
Anthracene	mg/L		0.0032	<0.00013 U	<0.00011 U	<0.000050	<0.000050
Benzo(a)anthracene	mg/L		<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Benzo(a)pyrene	mg/L		<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
bis(2-Chloroethoxy)methane	mg/L		<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
bis(2-Ethylhexyl)phthalate (DEHP)	mg/L		0.00013 J	0.00096 J	0.00051 J	0.00021	<0.00025 U
Chrysene	mg/L		<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Dibenzofuran	mg/L		0.038	0.0026	0.0023	<0.000050	<0.000050
Di-n-butylphthalate (DBP)	mg/L		<0.000078 U	<0.000050	<0.000050	0.000084 J	<0.000050
Fluoranthene	mg/L		0.0040	<0.00013 U	<0.00013 U	<0.000050	<0.000050
Fluorene	mg/L		0.0087 J	0.0011	0.0010	<0.000050	<0.000050
Naphthalene	mg/L		0.0056	0.044	0.040	<0.000050	<0.000094 U
Nitrobenzene	mg/L		<0.000050	<0.000050	<0.000050	<0.000050	<0.000050

TABLE 3

**ANALYTICAL RESULTS SUMMARY
SEMI-ANNUAL SITE-WIDE GROUNDWATER MONITORING
UNION PACIFIC RAILROAD (UPRR)
HOUSTON WOOD PRESERVING WORKS
HOUSTON, TEXAS
JULY 2012**

	<i>Sample Location:</i>	MW-62B	MW-63B	MW-63B	MW-64A	MW-65D
	<i>Sample ID:</i>	WG-1620-MW62B-20120726	WG-1620-MW63B-20120718	WG-1620-FD3-20120718	WG-1620-MW64A-20120725	WG-1620-MW65D-20120723
	<i>Sample Date:</i>	7/26/2012	7/18/2012	7/18/2012 <i>Duplicate</i>	7/25/2012	7/23/2012
<i>Parameters</i>	<i>Units</i>					
<i>Semi-volatile Organic Compounds (Cont'd.)</i>						
N-Nitrosodiphenylamine	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Pentachlorophenol	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Phenanthrene	mg/L	0.0026	<0.0010 U	<0.0010 U	<0.000050	<0.000050
Phenol	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Pyrene	mg/L	0.0021	<0.000050	<0.000050	<0.000050	<0.000050

TABLE 3
ANALYTICAL RESULTS SUMMARY
SEMI-ANNUAL SITE-WIDE GROUNDWATER MONITORING
UNION PACIFIC RAILROAD (UPRR)
HOUSTON WOOD PRESERVING WORKS
HOUSTON, TEXAS
JULY 2012

<i>Sample Location:</i>	<i>MW-66D</i>	<i>MW-67B</i>	<i>MW-68B</i>	<i>MW-68C</i>	<i>MW-69A</i>
<i>Sample ID:</i>	<i>WG-1620-MW66D-20120723</i>	<i>WG-1620-MW67B-20120717</i>	<i>WG-1620-MW68B-20120716</i>	<i>WG-1620-MW68C-20120717</i>	<i>WG-1620-MW69A-20120724</i>
<i>Sample Date:</i>	<i>7/23/2012</i>	<i>7/17/2012</i>	<i>7/16/2012</i>	<i>7/17/2012</i>	<i>7/24/2012</i>
<i>Parameters</i>	<i>Units</i>				
<i>Volatile Organic Compounds</i>					
1,2-Dichloroethane	mg/L	<0.00050	<0.00050	<0.0050	<0.00050
Benzene	mg/L	<0.00050	<0.00050	2.4	<0.00050
Chlorobenzene	mg/L	<0.00050	<0.00050	<0.0050	<0.00050
Ethylbenzene	mg/L	<0.00050	<0.00050	0.49	<0.00050
Methylene chloride	mg/L	<0.0010	<0.0010	<0.010	<0.0010
Toluene	mg/L	<0.00050	<0.00050	0.93	0.0023 J
Vinyl chloride	mg/L	-	-	-	<0.00050
Xylenes (total)	mg/L	<0.0015	<0.0015	1.3	<0.0015
<i>Semi-volatile Organic Compounds</i>					
1,2-Diphenylhydrazine	mg/L	<0.000050	<0.000050	<0.00025	<0.000050
2,4-Dimethylphenol	mg/L	<0.000050	<0.000050	0.27	0.00078 J
2,4-Dinitrotoluene	mg/L	<0.000050	<0.000050	<0.00025	<0.000050
2,6-Dinitrotoluene	mg/L	<0.000060	0.0022 JL	<0.00030	<0.000060
2-Chloronaphthalene	mg/L	<0.000050	<0.000050	<0.00025	<0.000050
2-Methylnaphthalene	mg/L	0.000085 J	0.000062 J	1.3	0.0025
4,6-Dinitro-2-methylphenol	mg/L	<0.000080	<0.000080	<0.00040	<0.000080
4-Nitrophenol	mg/L	<0.000050	<0.000050	<0.00025	<0.000050
Acenaphthene	mg/L	0.000054 J	<0.000050	0.23	0.0013
Acenaphthylene	mg/L	0.000081 J	<0.000050	0.0030	<0.000050
Anthracene	mg/L	0.00059	<0.000050	0.034	0.00089
Benzo(a)anthracene	mg/L	0.00036	<0.000050	0.0054	0.00018 J
Benzo(a)pyrene	mg/L	0.00067	<0.000050	0.0016	<0.000050
bis(2-Chloroethoxy)methane	mg/L	<0.000050	<0.000050	<0.00025	<0.000050
bis(2-Ethylhexyl)phthalate (DEHP)	mg/L	0.0032	0.00012 J	<0.00050	0.0018
Chrysene	mg/L	0.0018	<0.000050	0.0050	0.00016 J
Dibenzofuran	mg/L	0.000066 J	<0.000050	0.30	0.0018
Di-n-butylphthalate (DBP)	mg/L	<0.000078 U	<0.000050	<0.00025	0.00011 J
Fluoranthene	mg/L	0.0019	<0.000050	0.044	0.0016
Fluorene	mg/L	<0.000050	<0.000050	0.13	0.0012
Naphthalene	mg/L	<0.00040 U	0.00049	26	0.015
Nitrobenzene	mg/L	<0.000050	<0.000050	<0.00025	<0.000050

TABLE 3

**ANALYTICAL RESULTS SUMMARY
SEMI-ANNUAL SITE-WIDE GROUNDWATER MONITORING
UNION PACIFIC RAILROAD (UPRR)
HOUSTON WOOD PRESERVING WORKS
HOUSTON, TEXAS
JULY 2012**

	<i>Sample Location:</i>	<i>MW-66D</i>	<i>MW-67B</i>	<i>MW-68B</i>	<i>MW-68C</i>	<i>MW-69A</i>
	<i>Sample ID:</i>	WG-1620-MW66D-20120723	WG-1620-MW67B-20120717	WG-1620-MW68B-20120716	WG-1620-MW68C-20120717	WG-1620-MW69A-20120724
	<i>Sample Date:</i>	7/23/2012	7/17/2012	7/16/2012	7/17/2012	7/24/2012
<i>Parameters</i>	<i>Units</i>					
<i>Semi-volatile Organic Compounds (Cont'd.)</i>						
N-Nitrosodiphenylamine	mg/L	<0.000050	<0.000050	<0.00025	<0.000050	<0.000050
Pentachlorophenol	mg/L	<0.000050	<0.000050	<0.00025	<0.000050	<0.000050
Phenanthrene	mg/L	0.00058	<0.000050	0.24	0.0050	0.0022
Phenol	mg/L	<0.000050	<0.000050	0.058	0.000062 J	<0.000050
Pyrene	mg/L	0.0019	<0.000050	0.024	0.00086	0.00033

TABLE 3
ANALYTICAL RESULTS SUMMARY
SEMI-ANNUAL SITE-WIDE GROUNDWATER MONITORING
UNION PACIFIC RAILROAD (UPRR)
HOUSTON WOOD PRESERVING WORKS
HOUSTON, TEXAS
JULY 2012

	<i>Sample Location:</i>	<i>MW-70B</i>	<i>MW-71B</i>	<i>MW-72B</i>	<i>MW-73B</i>	<i>MW-74B</i>
	<i>Sample ID:</i>	WG-1620-MW70B-20120717	WG-1620-MW71B-20120718	WG-1620-MW72B-20120712	WG-1620-MW73B-20120716	WG-1620-MW74B-20120726
	<i>Sample Date:</i>	7/17/2012	7/18/2012	7/12/2012	7/16/2012	7/26/2012
<i>Parameters</i>	<i>Units</i>					
<i>Volatile Organic Compounds</i>						
1,2-Dichloroethane	mg/L	<0.0025	<0.00050	<0.0050	<0.00050	<0.0050
Benzene	mg/L	0.21	0.0014 J	1.4	<0.00050	0.71
Chlorobenzene	mg/L	<0.0025	<0.00050	<0.0050	<0.00050	<0.0050
Ethylbenzene	mg/L	0.058	0.0075	0.31	<0.00050	0.14
Methylene chloride	mg/L	<0.0050	<0.0010	<0.010	<0.0010	<0.010
Toluene	mg/L	0.22	0.0078	1.1	<0.00050	0.56
Vinyl chloride	mg/L	-	-	-	-	-
Xylenes (total)	mg/L	0.19	0.033	0.88	<0.0015	0.38
<i>Semi-volatile Organic Compounds</i>						
1,2-Diphenylhydrazine	mg/L	<0.00050	<0.000050	<0.00050	<0.000050	<0.00050
2,4-Dimethylphenol	mg/L	2.6	<0.000050	20	0.0028	41
2,4-Dinitrotoluene	mg/L	<0.00050	<0.000050	<0.00050	<0.000050	<0.00050
2,6-Dinitrotoluene	mg/L	<0.00060	<0.000060	<0.00060	<0.000060	<0.00060
2-Chloronaphthalene	mg/L	<0.00050	<0.000050	<0.00050	<0.000050	<0.00050
2-Methylnaphthalene	mg/L	0.94	<0.00040 U	0.74	0.00011 J	0.43 J
4,6-Dinitro-2-methylphenol	mg/L	<0.00080	<0.000080	<0.00080	<0.000080	<0.00080
4-Nitrophenol	mg/L	<0.00050	<0.000050	<0.00050	<0.000050	<0.00050
Acenaphthene	mg/L	0.91	<0.00017 U	0.23	0.00016 J	0.21
Acenaphthylene	mg/L	0.011	<0.000050	0.0073	<0.000050	0.0062
Anthracene	mg/L	0.096	<0.00013 U	0.017	0.00012 J	0.024
Benzo(a)anthracene	mg/L	0.016	0.00011 J	<0.00050	0.000057 J	0.0022
Benzo(a)pyrene	mg/L	0.0041	0.00014 J	<0.00050	<0.000050	0.00085 J
bis(2-Chloroethoxy)methane	mg/L	<0.00050	<0.000050	<0.00050	<0.000050	<0.00050
bis(2-Ethylhexyl)phthalate (DEHP)	mg/L	0.0068	0.00012 J	<0.0010	0.00012 J	<0.0010
Chrysene	mg/L	0.013	0.00015 J	<0.00050	0.000096 J	0.0018 J
Dibenzofuran	mg/L	0.69	<0.00016 U	0.18	0.000067 J	0.19
Di-n-butylphthalate (DBP)	mg/L	<0.00050	<0.000050	<0.00050	<0.000050	<0.00050
Fluoranthene	mg/L	0.28	<0.00026 U	0.0034	0.000059 J	0.018
Fluorene	mg/L	0.66	<0.00023 U	0.11	0.00021	0.14 J
Naphthalene	mg/L	5.3	<0.0019 U	16	<0.00064 U	10
Nitrobenzene	mg/L	<0.00050	<0.000050	<0.00050	<0.000050	<0.00050

TABLE 3

**ANALYTICAL RESULTS SUMMARY
SEMI-ANNUAL SITE-WIDE GROUNDWATER MONITORING
UNION PACIFIC RAILROAD (UPRR)
HOUSTON WOOD PRESERVING WORKS
HOUSTON, TEXAS
JULY 2012**

	<i>Sample Location:</i>	<i>MW-70B</i>	<i>MW-71B</i>	<i>MW-72B</i>	<i>MW-73B</i>	<i>MW-74B</i>
	<i>Sample ID:</i>	WG-1620-MW70B-20120717	WG-1620-MW71B-20120718	WG-1620-MW72B-20120712	WG-1620-MW73B-20120716	WG-1620-MW74B-20120726
	<i>Sample Date:</i>	7/17/2012	7/18/2012	7/12/2012	7/16/2012	7/26/2012
<i>Parameters</i>	<i>Units</i>					
<i>Semi-volatile Organic Compounds (Cont'd.)</i>						
N-Nitrosodiphenylamine	mg/L	<0.00050	<0.000050	<0.00050	<0.000050	<0.00050
Pentachlorophenol	mg/L	<0.00050	<0.000050	<0.00050	<0.000050	<0.00050
Phenanthrene	mg/L	0.93	<0.00034 U	0.079	0.000089 J	0.15
Phenol	mg/L	0.077	<0.000050	3.4	0.00015 J	38
Pyrene	mg/L	0.094	<0.00026 U	0.0019 J	<0.000050	0.010

TABLE 3

ANALYTICAL RESULTS SUMMARY
SEMI-ANNUAL SITE-WIDE GROUNDWATER MONITORING
UNION PACIFIC RAILROAD (UPRR)
HOUSTON WOOD PRESERVING WORKS
HOUSTON, TEXAS
JULY 2012

	<i>Sample Location:</i>	<i>MW-75B</i>	<i>P-11</i>	<i>TW-41B</i>	<i>TW-56A</i>
	<i>Sample ID:</i>	<i>WG-1620-MW75B-20120726</i>	<i>WG-1620-P11-20120726</i>	<i>WG-1620-TW41B-20120726</i>	<i>WG-1620-TW56A-20120711</i>
	<i>Sample Date:</i>	<i>7/26/2012</i>	<i>7/26/2012</i>	<i>7/26/2012</i>	<i>7/11/2012</i>
<i>Parameters</i>	<i>Units</i>				
<i>Volatile Organic Compounds</i>					
1,2-Dichloroethane	mg/L	<0.0025	<0.00050	<0.00050	<0.0025
Benzene	mg/L	0.85	<0.00050	<0.00050	0.26
Chlorobenzene	mg/L	<0.0025	<0.00050	<0.00050	<0.0025
Ethylbenzene	mg/L	0.10	<0.00050	<0.00050	0.14
Methylene chloride	mg/L	<0.0050	<0.0010	<0.0010	<0.0050
Toluene	mg/L	0.50	<0.00050	<0.00050	0.069
Vinyl chloride	mg/L	-	-	-	0.016
Xylenes (total)	mg/L	0.33	<0.0015	<0.0015	0.43
<i>Semi-volatile Organic Compounds</i>					
1,2-Diphenylhydrazine	mg/L	<0.00050	<0.000050	<0.000050	<0.000050
2,4-Dimethylphenol	mg/L	0.64	<0.000050	0.0014	3.8
2,4-Dinitrotoluene	mg/L	<0.00050	<0.000050	<0.000050	<0.000050
2,6-Dinitrotoluene	mg/L	<0.00060	<0.000060	<0.000060	<0.000060
2-Chloronaphthalene	mg/L	<0.00050	<0.000050	<0.000050	<0.000050
2-Methylnaphthalene	mg/L	0.60 J	<0.000052 U	<0.00010 U	0.052
4,6-Dinitro-2-methylphenol	mg/L	<0.00080	<0.000080	<0.000080	<0.000080
4-Nitrophenol	mg/L	<0.00050	<0.000050	<0.000050	<0.000050
Acenaphthene	mg/L	0.26	0.018	0.039	0.095
Acenaphthylene	mg/L	0.0058	0.00010 J	0.00041	0.0028
Anthracene	mg/L	0.045	0.00039	0.0011	0.0083
Benzo(a)anthracene	mg/L	0.0047	<0.000050	<0.000050	0.0024
Benzo(a)pyrene	mg/L	0.0013 J	<0.000050	<0.000050	0.00080
bis(2-Chloroethoxy)methane	mg/L	<0.00050	<0.000050	<0.000050	<0.000050
bis(2-Ethylhexyl)phthalate (DEHP)	mg/L	<0.0010	0.00021	<0.00010	<0.00010
Chrysene	mg/L	0.0042	<0.000050	<0.000050	0.0022
Dibenzofuran	mg/L	0.23	0.00059	0.016	0.038
Di-n-butylphthalate (DBP)	mg/L	<0.00050	<0.000050	<0.00010 U	<0.000050
Fluoranthene	mg/L	0.040	0.00048	0.0015	0.027
Fluorene	mg/L	0.17 J	0.0044 J	0.0054 J	0.047
Naphthalene	mg/L	9.3	<0.00026 U	<0.0013 U	0.81
Nitrobenzene	mg/L	<0.00050	<0.000050	<0.000050	<0.000050

TABLE 3
ANALYTICAL RESULTS SUMMARY
SEMI-ANNUAL SITE-WIDE GROUNDWATER MONITORING
UNION PACIFIC RAILROAD (UPRR)
HOUSTON WOOD PRESERVING WORKS
HOUSTON, TEXAS
JULY 2012

	<i>Sample Location:</i>	<i>MW-75B</i>	<i>P-11</i>	<i>TW-41B</i>	<i>TW-56A</i>
	<i>Sample ID:</i>	WG-1620-MW75B-20120726	WG-1620-P11-20120726	WG-1620-TW41B-20120726	WG-1620-TW56A-20120711
	<i>Sample Date:</i>	7/26/2012	7/26/2012	7/26/2012	7/11/2012
<i>Parameters</i>	<i>Units</i>				
<i>Semi-volatile Organic Compounds (Cont'd.)</i>					
N-Nitrosodiphenylamine	mg/L	<0.00050	<0.000050	<0.000050	<0.000050
Pentachlorophenol	mg/L	<0.00050	<0.000050	<0.000050	0.00091
Phenanthrene	mg/L	0.27	0.00055	<0.000050	0.073
Phenol	mg/L	0.0027	<0.000050	0.0016	<0.000050
Pyrene	mg/L	0.026	0.00023	0.00066	0.018

Notes:

J - Estimated.

JH - Estimated, high bias.

U - Not detected.

UJ - Not detected, estimated reporting limit.

TABLE 4

**QUALIFIED SAMPLE RESULTS DUE TO ANALYTE CONCENTRATIONS IN THE RINSE BLANKS
SEMI-ANNUAL SITE-WIDE GROUNDWATER MONITORING
UNION PACIFIC RAILROAD (UPRR)
HOUSTON WOOD PRESERVING WORKS
HOUSTON, TEXAS
JULY 2012**

<i>Parameter</i>	<i>Rinse Blank Date</i>	<i>Analyte</i>	<i>Blank Result</i>	<i>Sample ID</i>	<i>Qualified Sample Result</i>	<i>Units</i>
SVOCs	7/11/2012	2,4-Dimethylphenol	0.0013	WG-1620-MW18C-20120711	0.0021 U	mg/L
SVOCs	7/12/2012	2-Methylnaphthalene	0.00012	WG-1620-MW19C-20120712	0.000053 U	mg/L
SVOCs	7/12/2012	Dibenzofuran	0.000062	WG-1620-MW19C-20120712	0.00011 U	mg/L
SVOCs	7/12/2012	Naphthalene	0.0013	WG-1620-MW19C-20120712	0.00048 U	mg/L
SVOCs	7/12/2012	Phenol	0.00023	WG-1620-MW17C-20120712	0.00020 U	mg/L
				WG-1620-MW19C-20120712	0.00024 U	mg/L
				WG-1620-MW52A-20120712	0.00015 U	mg/L
SVOCs	07/16/12	Naphthalene	0.00048	WG-1620-DUP1-20120716	0.0020 U	mg/L
				WG-1620-MW13-20120716	0.00023 U	mg/L
				WG-1620-MW14-20120716	0.0015 U	mg/L
				WG-1620-MW32B-20120716	0.00057 U	mg/L
				WG-1620-MW73B-20120716	0.00064 U	mg/L
SVOCs	7/17/2012	bis(2-Ethylhexyl)phthalate (DEHP)	0.00017	WG-1620-MW28A-20120717	0.00043 U	mg/L
SVOCs	7/18/2012	2-Methylnaphthalene	0.00025	WG-1620-MW22A-20120718	0.00059 U	mg/L
				WG-1620-MW22B-20120718	0.00063 U	mg/L
				WG-1620-MW25A-20120718	0.000061 U	mg/L
				WG-1620-MW38A-20120718	0.00031 U	mg/L
				WG-1620-MW38B-20120718	0.00030 U	mg/L
				WG-1620-MW53C-20120718	0.000091 U	mg/L
				WG-1620-MW71B-20120718	0.00040 U	mg/L

TABLE 4

**QUALIFIED SAMPLE RESULTS DUE TO ANALYTE CONCENTRATIONS IN THE RINSE BLANKS
SEMI-ANNUAL SITE-WIDE GROUNDWATER MONITORING
UNION PACIFIC RAILROAD (UPRR)
HOUSTON WOOD PRESERVING WORKS
HOUSTON, TEXAS
JULY 2012**

<i>Parameter</i>	<i>Rinse Blank Date</i>	<i>Analyte</i>	<i>Blank Result</i>	<i>Sample ID</i>	<i>Qualified Sample Result</i>	<i>Units</i>
SVOCs	7/18/2012	Acenaphthene	0.00013	WG-1620-MW22A-20120718	0.00031 U	mg/L
				WG-1620-MW38A-20120718	0.00025 U	mg/L
				WG-1620-MW71B-20120718	0.00017 U	mg/L
SVOCs	7/18/2012	Anthracene	0.000068	WG-1620-FD3-20120718	0.00011 U	mg/L
				WG-1620-MW38A-20120718	0.00013 U	mg/L
				WG-1620-MW38B-20120718	0.00023 U	mg/L
				WG-1620-MW63B-20120718	0.00013 U	mg/L
				WG-1620-MW71B-20120718	0.00013 U	mg/L
SVOCs	7/18/2012	Dibenzofuran	0.00015	WG-1620-MW22A-20120718	0.00048 U	mg/L
				WG-1620-MW38A-20120718	0.00014 U	mg/L
				WG-1620-MW38B-20120718	0.00028 U	mg/L
				WG-1620-MW71B-20120718	0.00016 U	mg/L
SVOCs	7/18/2012	Fluoranthene	0.00011	WG-1620-FD3-20120718	0.00013 U	mg/L
				WG-1620-MW22A-20120718	0.00041 U	mg/L
				WG-1620-MW38A-20120718	0.00017 U	mg/L
				WG-1620-MW38B-20120718	0.00032 U	mg/L
				WG-1620-MW63B-20120718	0.00013 U	mg/L
				WG-1620-MW71B-20120718	0.00026 U	mg/L
SVOCs	7/18/2012	Fluorene	0.00013	WG-1620-MW22A-20120718	0.00029 U	mg/L
				WG-1620-MW38A-20120718	0.00015 U	mg/L
				WG-1620-MW38B-20120718	0.00027 U	mg/L
				WG-1620-MW71B-20120718	0.00023 U	mg/L

TABLE 4

**QUALIFIED SAMPLE RESULTS DUE TO ANALYTE CONCENTRATIONS IN THE RINSE BLANKS
SEMI-ANNUAL SITE-WIDE GROUNDWATER MONITORING
UNION PACIFIC RAILROAD (UPRR)
HOUSTON WOOD PRESERVING WORKS
HOUSTON, TEXAS
JULY 2012**

<i>Parameter</i>	<i>Rinse Blank Date</i>	<i>Analyte</i>	<i>Blank Result</i>	<i>Sample ID</i>	<i>Qualified Sample Result</i>	<i>Units</i>
SVOCs	7/18/2012	Naphthalene	0.00088	WG-1620-MW22A-20120718	0.0018 U	mg/L
				WG-1620-MW25A-20120718	0.00038 U	mg/L
				WG-1620-MW38A-20120718	0.0010 U	mg/L
				WG-1620-MW38B-20120718	0.0015 U	mg/L
				WG-1620-MW53C-20120718	0.00048 U	mg/L
				WG-1620-MW71B-20120718	0.0019 U	mg/L
SVOCs	7/18/2012	Phenanthrene	0.00041	WG-1620-FD3-20120718	0.0010 U	mg/L
				WG-1620-MW22A-20120718	0.0015 U	mg/L
				WG-1620-MW38A-20120718	0.00032 U	mg/L
				WG-1620-MW38B-20120718	0.00037 U	mg/L
				WG-1620-MW63B-20120718	0.0010 U	mg/L
				WG-1620-MW71B-20120718	0.00034 U	mg/L
SVOCs	7/18/2012	Pyrene	0.000077	WG-1620-MW22A-20120718	0.00033 U	mg/L
				WG-1620-MW38A-20120718	0.00016 U	mg/L
				WG-1620-MW38B-20120718	0.00037 U	mg/L
				WG-1620-MW71B-20120718	0.00026 U	mg/L
SVOCs	7/19/2012	bis(2-Ethylhexyl)phthalate (DEHP)	0.00013	WG-1620-MW12A-20120719	0.00012 U	mg/L
				WG-1620-MW12C-20120719	0.00011 U	mg/L
				WG-1620-MW15B-20120719	0.00018 U	mg/L
				WG-1620-MW15C-20120719	0.00012 U	mg/L
				WG-1620-MW39B-20120719	0.00015 U	mg/L
				WG-1620-MW40B-20120719	0.00016 U	mg/L
				WG-1620-MW42B-20120719	0.00022 U	mg/L

TABLE 4

**QUALIFIED SAMPLE RESULTS DUE TO ANALYTE CONCENTRATIONS IN THE RINSE BLANKS
SEMI-ANNUAL SITE-WIDE GROUNDWATER MONITORING
UNION PACIFIC RAILROAD (UPRR)
HOUSTON WOOD PRESERVING WORKS
HOUSTON, TEXAS
JULY 2012**

<i>Parameter</i>	<i>Rinse Blank Date</i>	<i>Analyte</i>	<i>Blank Result</i>	<i>Sample ID</i>	<i>Qualified Sample Result</i>	<i>Units</i>
SVOCs	7/23/2012	bis(2-Ethylhexyl)phthalate (DEHP)	0.00019	WG-1620-FD4-20120723	0.00059 U	mg/L
				WG-1620-MW36D-20120723	0.00035 U	mg/L
				WG-1620-MW49B-20120723	0.00055 U	mg/L
				WG-1620-MW59D-20120723	0.00014 U	mg/L
				WG-1620-MW60A-20120723	0.00010 U	mg/L
				WG-1620-MW65D-20120723	0.00025 U	mg/L
SVOCs	7/23/2012	Di-n-butylphthalate (DBP)	0.000054	WG-1620-MW60A-20120723	0.000076 U	mg/L
				WG-1620-MW66D-20120723	0.000078 U	mg/L
SVOCs	7/23/2012	Naphthalene	0.00021	WG-1620-FD4-20120723	0.00015 U	mg/L
				WG-1620-MW36D-20120723	0.00014 U	mg/L
				WG-1620-MW59D-20120723	0.00036 U	mg/L
				WG-1620-MW65D-20120723	0.000094 U	mg/L
				WG-1620-MW66D-20120723	0.00040 U	mg/L
SVOCs	7/24/2012	bis(2-Ethylhexyl)phthalate (DEHP)	0.00022	WG-1620-MW48C-20120724	0.00024 U	mg/L
				WG-1620-MW50A-20120724	0.00012 U	mg/L
				WG-1620-MW51A-20120724	0.00033 U	mg/L
				WG-1620-MW58A-20120724	0.00094 U	mg/L
				WG-1620-MW69A-20120724	0.00030 U	mg/L
SVOCs	7/24/2012	Naphthalene	0.00021	WG-1620-MW69A-20120724	0.0040 U	mg/L
SVOCs	07/25/12	bis(2-Ethylhexyl)phthalate (DEHP)	0.00011	WG-1620-MW24B-20120725	0.00015 U	mg/L
				WG-1620-MW24C-20120725	0.00013 U	mg/L
				WG-1620-MW27C-20120725	0.00021 U	mg/L

TABLE 4

**QUALIFIED SAMPLE RESULTS DUE TO ANALYTE CONCENTRATIONS IN THE RINSE BLANKS
SEMI-ANNUAL SITE-WIDE GROUNDWATER MONITORING
UNION PACIFIC RAILROAD (UPRR)
HOUSTON WOOD PRESERVING WORKS
HOUSTON, TEXAS
JULY 2012**

<i>Parameter</i>	<i>Rinse Blank Date</i>	<i>Analyte</i>	<i>Blank Result</i>	<i>Sample ID</i>	<i>Qualified Sample Result</i>	<i>Units</i>
SVOCs	07/25/12	Di-n-butylphthalate (DBP)	0.000089	WG-1620-MW24AR-20120725	0.000071 U	mg/L
				WG-1620-MW24B-20120725	0.00013 U	mg/L
				WG-1620-MW27C-20120725	0.000055 U	mg/L
SVOCs	07/26/12	2-Methylnaphthalene	0.000094	WG-1620-MW62B-20120726	0.000060 U	mg/L
				WG-1620-P11-20120726	0.000052 U	mg/L
				WG-1620-TW41B-20120726	0.00010 U	mg/L
SVOCs	07/26/12	Di-n-butylphthalate (DBP)	0.00005	WG-1620-FD5-20120726	0.000051 U	mg/L
				WG-1620-MW21C-20120726	0.000072 U	mg/L
				WG-1620-MW62B-20120726	0.000078 U	mg/L
				WG-1620-TW41B-20120726	0.00010 U	mg/L
SVOCs	07/26/12	Naphthalene	0.0008	WG-1620-P11-20120726	0.00026 U	mg/L
				WG-1620-TW41B-20120726	0.0013 U	mg/L
SVOCs	07/26/12	Phenol	0.000081	WG-1620-MW49A-20120726	0.00023 U	mg/L
SVOCs	07/27/12	Di-n-butylphthalate (DBP)	0.000055	WG-1620-MW59A-20120727	0.000075 U	mg/L

Notes:

SVOCs Semi-Volatile Organic Compounds.

U Not Detected.

TABLE 5

**QUALIFIED SAMPLE RESULTS DUE TO OUTLYING INTERNAL STANDARD (IS) RECOVERIES
SEMI-ANNUAL SITE-WIDE GROUNDWATER MONITORING
UNION PACIFIC RAILROAD (UPRR)
HOUSTON WOOD PRESERVING WORKS
HOUSTON, TEXAS
JULY 2012**

<i>Parameter</i>	<i>Sample ID</i>	<i>IS</i>	<i>IS Area Count (percent)</i>	<i>Control Limits (percent)</i>	<i>Analytes</i>	<i>Qualified Sample Results</i>	<i>Units</i>
SVOCs	WG-1620-MW18A-20120711	All	< 50	50-200	Phenanthrene	0.083 JH	mg/L
					Phenol	0.12 JH	mg/L
					Dibenzofuran	0.21 JH	mg/L
					Acenaphthene	0.30 JH	mg/L
					Fluorene	0.14 JH	mg/L
					2-Methylnaphthalene	0.64 JH	mg/L
					2,4-Dimethylphenol	9.4 JH	mg/L
					Naphthalene	7.8 JH	mg/L
					4-Nitrophenol	0.000050 UJ	mg/L
					bis(2-Chloroethoxy)methane	0.000050 UJ	mg/L
					bis(2-Ethylhexyl)phthalate (DEHP)	0.00010 UJ	mg/L
					Anthracene	0.0090 JH	mg/L
					2,4-Dinitrotoluene	0.000050 UJ	mg/L
					1,2-Diphenylhydrazine	0.000050 UJ	mg/L
					Pyrene	0.00081 JH	mg/L
					Fluoranthene	0.0016 JH	mg/L
					Acenaphthylene	0.0067 JH	mg/L
					Chrysene	0.000050 UJ	mg/L
					Benzo(a)pyrene	0.000050 UJ	mg/L
					4,6-Dinitro-2-methylphenol	0.000080 UJ	mg/L
					Benzo(a)anthracene	0.000050 UJ	mg/L
					2,6-Dinitrotoluene	0.000060 UJ	mg/L
					Di-n-butylphthalate (DBP)	0.000050 UJ	mg/L
					N-Nitrosodiphenylamine	0.000050 UJ	mg/L

TABLE 5

**QUALIFIED SAMPLE RESULTS DUE TO OUTLYING INTERNAL STANDARD (IS) RECOVERIES
SEMI-ANNUAL SITE-WIDE GROUNDWATER MONITORING
UNION PACIFIC RAILROAD (UPRR)
HOUSTON WOOD PRESERVING WORKS
HOUSTON, TEXAS
JULY 2012**

<i>Parameter</i>	<i>Sample ID</i>	<i>IS</i>	<i>IS Area Count (percent)</i>	<i>Control Limits (percent)</i>	<i>Analytes</i>	<i>Qualified Sample Results</i>	<i>Units</i>
SVOCs	WG-1620-MW18A-20120711	All	< 50	50-200	Pentachlorophenol	0.000050 UJ	mg/L
					2-Chloronaphthalene	0.000050 UJ	mg/L
					Nitrobenzene	0.000050 UJ	mg/L

Notes:

IS Internal Standard.

JH Estimated. High Bias.

SVOCs Semi-Volatile Organic Compounds.

UJ The analyte was not detected above the sample quantitation limit. The reported quantitation limit is an estimated quantity.

TABLE 6

**QUALIFIED SAMPLE RESULTS DUE TO OUTLYING LABORATORY CONTROL SAMPLE/LABORATORY CONTROL SAMPLE DUPLICATE RESULTS
SEMI-ANNUAL SITE-WIDE GROUNDWATER MONITORING
UNION PACIFIC RAILROAD (UPRR)
HOUSTON WOOD PRESERVING WORKS
HOUSTON, TEXAS
JULY 2012**

<i>Parameter</i>	<i>Compound</i>	<i>LCS Date</i>	<i>Associated Sample ID</i>	<i>LCS %Rec</i>	<i>LCSD %Rec</i>	<i>RPD (percent)</i>	<i>Control Limits</i>		<i>Qualified Sample Results</i>	<i>Units</i>
							<i>%Rec</i>	<i>%RPD</i>		
SVOCs	2-Methylnaphthalene N-Nitrosodiphenylamine	07/28/12	WG-1620-MW54C-20120725	70	86.5	21	50-120	0-20	0.0054 J	mg/L
				81	104	25	40-125	0-20	0.00014 J	mg/L
SVOCs	2-Methylnaphthalene	07/29/12	WG-1620-MW74B-20120726	71.3	97.6	31.1	50-120	0-20	0.43 J	mg/L
			WG-1620-MW24C-20120725						0.000077 J	mg/L
			WG-1620-MW44A-20120725						0.0095 J	mg/L
			WG-1620-MW75B-20120726						0.60 J	mg/L
SVOCs	Fluorene	07/29/12	WG-1620-MW44A-20120725	90.1	72.9	21.1	49-120	0-20	0.091 J	mg/L
			WG-1620-MW49A-20120726						0.015 J	mg/L
			WG-1620-MW62B-20120726						0.0087 J	mg/L
			WG-1620-MW74B-20120726						0.14 J	mg/L
			WG-1620-MW75B-20120726						0.17 J	mg/L
			WG-1620-P11-20120726						0.0044 J	mg/L
WG-1620-TW41B-20120726	0.0054 J	mg/L								

Notes:

- J Estimated.
LCS Laboratory Control Sample.
LCSD Laboratory Control Sample Duplicate.
RPD Relative Percent Difference.
SVOCs Semi-Volatile Organic Compounds.

TABLE 7

**QUALIFIED SAMPLE RESULTS DUE TO OUTLYING MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERIES
SEMI-ANNUAL SITE-WIDE GROUNDWATER MONITORING
UNION PACIFIC RAILROAD (UPRR)
HOUSTON WOOD PRESERVING WORKS
HOUSTON, TEXAS
JULY 2012**

<i>Parameter</i>	<i>Associated Sample ID</i>	<i>Analyte</i>	<i>MS Recovery (percent)</i>	<i>MSD Recovery (percent)</i>	<i>RPD</i>	<i>Control Limits</i>		<i>Qualified Sample Result</i>	<i>Units</i>
						<i>Recovery (percent)</i>	<i>RPD (percent)</i>		
SVOCs	WG-1620-MW13-20120716	Pyrene	77	58	27	40-130	0-20	0.000089 J	mg/L
		Fluoranthene	80	64	22	45-125	0-20	0.00013 J	mg/L
SVOCs	WG-1620-MW67B-20120717	2,6-Dinitrotoluene	44	43	1	50-120	0-20	0.0022 JL	mg/L

Notes:

J	Estimated.
JL	Estimated. Low Bias.
MS	Matrix Spike.
MSD	Matrix Spike Duplicate.
RPD	Relative Percent Difference.
SVOCs	Semi-Volatile Organic Compounds.

TABLE 8

**QUALIFIED SAMPLE RESULTS DUE TO VARIABILITY IN FIELD DUPLICATE RESULTS
SEMI-ANNUAL SITE-WIDE GROUNDWATER MONITORING
UNION PACIFIC RAILROAD (UPRR)
HOUSTON WOOD PRESERVING WORKS
HOUSTON, TEXAS
JULY 2012**

<i>Parameter</i>	<i>Analyte</i>	<i>Original Sample ID</i>	<i>Qualified Sample Result</i>	<i>Duplicate Sample ID</i>	<i>Qualified Sample Result</i>	<i>RPD</i>	<i>Units</i>
SVOCs	Anthracene	WG-1620-MW33A-20120717	0.0026 J	WG-1620-FD2-20120717	0.0015 J	54	mg/L
	Benzo(a)anthracene		0.00043 J		0.00026 J	49	mg/L
	Benzo(a)pyrene		0.00011 J		0.000054 J	68	mg/L
	Chrysene		0.00033 J		0.00016 J	69	mg/L
	Fluoranthene		0.0036 J		0.0026 J	32	mg/L
	Phenanthrene		0.0058 J		0.0026 J	76	mg/L
SVOCs	bis(2-Ethylhexyl)phthalate (DEHP)	WG-1620-MW63B-20120718	0.00096 J	WG-1620-FD3-20120718	0.00051 J	61	mg/L
SVOCs	Fluoranthene	WG-1620-MW36D-20120723	0.000054 J	WG-1620-FD4-20120723	0.000093 J	53	mg/L

Notes:

J Estimated.

RPD Relative Percent Difference.

SVOCs Semi-Volatile Organic Compounds.

APPENDIX B
LABORATORY DATA



09-Aug-2012

Eric Matzner
Pastor, Behling & Wheeler, LLC
2201 Double Creek Drive
Suite 4004
Round Rock, TX 78664

Tel: (512) 671-3434
Fax: (512) 671-3446

Re: UPRR Houston Wood GW

Work Order: **1207587**

Dear Eric,

ALS Environmental received 16 samples on 13-Jul-2012 12:49 PM for the analyses presented in the following report.

The analytical data provided relates directly to the samples received by ALS Environmental and for only the analyses requested. Results are expressed as "as received" unless otherwise noted.

QC sample results for this data met EPA or laboratory specifications except as noted in the Case Narrative or as noted with qualifiers in the QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained by ALS Environmental. Samples will be disposed in 30 days unless storage arrangements are made.

The total number of pages in this report is 52.

If you have any questions regarding this report, please feel free to call me.

Sincerely,

A handwritten signature in black ink that reads "Patricia L. Lynch".

Electronically approved by: Jumoke M. Lawal

Patricia L. Lynch
Project Manager



Certificate No: TX: T104704231-12-10

ADDRESS 10450 Stancliff Rd, Suite 210 Houston, Texas 77099-4338 | PHONE (281) 530-5656 | FAX (281) 530-5887

ALS GROUP USA, CORP Part of the ALS Laboratory Group A Campbell Brothers Limited Company

Environmental

www.alsglobal.com

RIGHT SOLUTIONS RIGHT PARTNER

Client: Brown & Caldwell
Project: Goodyear Semi-Annual GWS at the Houston Plant
Work Order: 1207831

**TRRP Laboratory Data
Package Cover Page**

This data package consists of all or some of the following as applicable:

This signature page, the laboratory review checklist, and the following reportable data:

- R1 Field chain-of-custody documentation;
- R2 Sample identification cross-reference;
- R3 Test reports (analytical data sheets) for each environmental sample that includes:
 - a) Items consistent with NELAC Chapter 5,
 - b) dilution factors,
 - c) preparation methods,
 - d) cleanup methods, and
 - e) if required for the project, tentatively identified compounds (TICs).
- R4 Surrogate recovery data including:
 - a) Calculated recovery (%R), and
 - b) The laboratory's surrogate QC limits.
- R5 Test reports/summary forms for blank samples;
- R6 Test reports/summary forms for laboratory control samples (LCSs) including:
 - a) LCS spiking amounts,
 - b) Calculated %R for each analyte, and
 - c) The laboratory's LCS QC limits.
- R7 Test reports for project matrix spike/matrix spike duplicates (MS/MSDs) including:
 - a) Samples associated with the MS/MSD clearly identified,
 - b) MS/MSD spiking amounts,
 - c) Concentration of each MS/MSD analyte measured in the parent and spiked samples,
 - d) Calculated %Rs and relative percent differences (RPDs), and
 - e) The laboratory's MS/MSD QC limits.
- R8 Laboratory analytical duplicate (if applicable) recovery and precision:
 - a) the amount of analyte measured in the duplicate,
 - b) the calculated RPD, and
 - c) the laboratory's QC limits for analytical duplicates.
- R9 List of method quantitation limits (MQLs) and detectability check sample results for each analyte for each method and matrix.
- R10 Other problems or anomalies.
The Exception Report for each "No" or "Not Reviewed (NR)" item in Laboratory Review Checklist and for each analyte, matrix, and method for which the laboratory does not hold NELAC accreditation under the Texas Laboratory Accreditation Program.

Client: Brown & Caldwell
Project: Goodyear Semi-Annual GWS at the Houston Plant
Work Order: 1207831

**TRRP Laboratory Data
Package Cover Page**

Release Statement: I am responsible for the release of this laboratory data package. This laboratory is NELAC accredited under the Texas Laboratory Accreditation Program for all the methods, analytes and matrices reported in this data package except as noted in the Exception Reports. The data have been reviewed and are technically compliant with the requirements of the methods used, except where noted by the laboratory in the attached exception reports. By my signature below, I affirm to the best of my knowledge, all problems/anomalies, observed by the laboratory have been identified by the laboratory in the Laboratory Review Checklist, and no information affecting the quality of the data has been knowingly withheld.

Check, if applicable: [NA] This laboratory meets an exception under 30 TAC §25.6 and was last inspected by TCEQ or _____ on (enter date of last inspection). Any findings affecting the data in this laboratory data package are noted in the Exception Reports herein. The official signing the cover page of the report in which these data are used is responsible for releasing this data package and is by signature affirming the above release statement is true.

Patricia L. Lynch

Patricia L. Lynch
Project Manager

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Work Order: 1207587

Work Order Sample Summary

<u>Lab Samp ID</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Tag Number</u>	<u>Collection Date</u>	<u>Date Received</u>	<u>Hold</u>
1207587-01	WG-1620-MW18A-20120711	Groundwater		7/11/2012 16:00	7/13/2012 12:49	<input type="checkbox"/>
1207587-02	WG-1620-MW18C-20120711	Groundwater		7/11/2012 16:50	7/13/2012 12:49	<input type="checkbox"/>
1207587-03	WG-1620-TW56A-20120711	Groundwater		7/11/2012 18:00	7/13/2012 12:49	<input type="checkbox"/>
1207587-04	WG-1620-FB1-20120711	Groundwater		7/11/2012 18:20	7/13/2012 12:49	<input type="checkbox"/>
1207587-05	WG-1620-MW72B-20120712	Groundwater		7/12/2012 07:45	7/13/2012 12:49	<input type="checkbox"/>
1207587-06	WG-1620-MW23C-20120712	Groundwater		7/12/2012 08:45	7/13/2012 12:49	<input type="checkbox"/>
1207587-07	WG-1620-MW31A-20120712	Groundwater		7/12/2012 09:45	7/13/2012 12:49	<input type="checkbox"/>
1207587-08	WG-1620-MW55B-20120712	Groundwater		7/12/2012 10:40	7/13/2012 12:49	<input type="checkbox"/>
1207587-09	WG-1620-MW55A-20120712	Groundwater		7/12/2012 11:25	7/13/2012 12:49	<input type="checkbox"/>
1207587-10	WG-1620-FB2-20120712	Groundwater		7/12/2012 11:45	7/13/2012 12:49	<input type="checkbox"/>
1207587-11	WG-1620-MW19C-20120712	Groundwater		7/12/2012 12:45	7/13/2012 12:49	<input type="checkbox"/>
1207587-12	WG-1620-MW52A-20120712	Groundwater		7/12/2012 13:45	7/13/2012 12:49	<input type="checkbox"/>
1207587-13	WG-1620-MW30A-20120712	Groundwater		7/12/2012 14:25	7/13/2012 12:49	<input type="checkbox"/>
1207587-14	WG-1620-MW17-20120712	Groundwater		7/12/2012 15:20	7/13/2012 12:49	<input type="checkbox"/>
1207587-15	WG-1620-MW17C-20120712	Groundwater		7/12/2012 16:20	7/13/2012 12:49	<input type="checkbox"/>
1207587-16	WG-1620-TB1-20120712	Water		7/12/2012	7/13/2012 12:49	<input type="checkbox"/>

Laboratory Review Checklist: Reportable Data

Laboratory Name: ALS Laboratory Group		LRC Date: 08/09/2012					
Project Name: UPRR Houston Wood GW		Laboratory Job Number: 1207587					
Reviewer Name: Pat Lynch		Prep Batch Number(s): 62673,R131366, R131395					
# ¹	A ²	Description	Yes	No	NA ³	NR ⁴	ER# ⁵
R1	OI	Chain-of-custody (C-O-C)					
		Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?	X				
		Were all departures from standard conditions described in an exception report?	X				
R2	OI	Sample and quality control (QC) identification					
		Are all field sample ID numbers cross-referenced to the laboratory ID numbers?	X				
		Are all laboratory ID numbers cross-referenced to the corresponding QC data?	X				
R3	OI	Test reports					
		Were all samples prepared and analyzed within holding times?	X				
		Other than those results < MQL, were all other raw values bracketed by calibration standards?	X				
		Were calculations checked by a peer or supervisor?	X				
		Were all analyte identifications checked by a peer or supervisor?	X				
		Were sample detection limits reported for all analytes not detected?	X				
		Were all results for soil and sediment samples reported on a dry weight basis?			X		
		Were % moisture (or solids) reported for all soil and sediment samples?			X		
		Were bulk soils/solids samples for volatile analysis extracted with methanol per SW-846 Method 5035?			X		
		If required for the project, TICs reported?			X		
R4	O	Surrogate recovery data					
		Were surrogates added prior to extraction?	X				
		Were surrogate percent recoveries in all samples within the laboratory QC limits?		X			1
R5	OI	Test reports/summary forms for blank samples					
		Were appropriate type(s) of blanks analyzed?	X				
		Were blanks analyzed at the appropriate frequency?	X				
		Were method blanks taken through the entire analytical process, including preparation and, if applicable, cleanup procedures?	X				
		Were blank concentrations < MQL?	X				
R6	OI	Laboratory control samples (LCS):					
		Were all COCs included in the LCS?	X				
		Was each LCS taken through the entire analytical procedure, including prep and cleanup steps?	X				
		Were LCSs analyzed at the required frequency?	X				
		Were LCS (and LCSD, if applicable) %Rs within the laboratory QC limits?	X				
		Does the detectability data document the laboratory's capability to detect the COCs at the MDL used to calculate the SDLs?	X				
		Was the LCSD RPD within QC limits?	X				
R7	OI	Matrix spike (MS) and matrix spike duplicate (MSD) data					
		Were the project/method specified analytes included in the MS and MSD?	X				
		Were MS/MSD analyzed at the appropriate frequency?	X				
		Were MS (and MSD, if applicable) %Rs within the laboratory QC limits?		X			2
		Were MS/MSD RPDs within laboratory QC limits?		X			3
R8	OI	Analytical duplicate data					
		Were appropriate analytical duplicates analyzed for each matrix?			X		
		Were analytical duplicates analyzed at the appropriate frequency?			X		
		Were RPDs or relative standard deviations within the laboratory QC limits?			X		
R9	OI	Method quantitation limits (MQLs):					
		Are the MQLs for each method analyte included in the laboratory data package?	X				
		Do the MQLs correspond to the concentration of the lowest non-zero calibration standard?	X				
		Are unadjusted MQLs and DCSs included in the laboratory data package?	X				
R10	OI	Other problems/anomalies					
		Are all known problems/anomalies/special conditions noted in this LRC and ER?	X				
		Were all necessary corrective actions performed for the reported data?	X				
		Was applicable and available technology used to lower the SDL and minimize the matrix interference affects on the sample results?	X				4
		Is the laboratory NELAC-accredited under the Texas Laboratory Program for the analytes, matrices and methods associated with this laboratory data package?	X				

Laboratory Review Checklist: Reportable Data								
Laboratory Name: ALS Laboratory Group					LRC Date: 08/09/2012			
Project Name: UPRR Houston Wood GW					Laboratory Job Number: 1207587			
Reviewer Name: Pat Lynch					Prep Batch Number(s): 62673,R131366, R131395			
# ¹	A ²	Description	Yes	No	NA ³	NR ⁴	ER# ⁵	
S1	OI	Initial calibration (ICAL)						
		Were response factors and/or relative response factors for each analyte within QC limits?	X					
		Were percent RSDs or correlation coefficient criteria met?	X					
		Was the number of standards recommended in the method used for all analytes?	X					
		Were all points generated between the lowest and highest standard used to calculate the curve?	X					
		Are ICAL data available for all instruments used?	X					
		Has the initial calibration curve been verified using an appropriate second source standard?	X					
S2	OI	Initial and continuing calibration verification (ICCV and CCV) and continuing calibration blank (CCB)						
		Was the CCV analyzed at the method-required frequency?	X					
		Were percent differences for each analyte within the method-required QC limits?		X				5
		Was the ICAL curve verified for each analyte?	X					
		Was the absolute value of the analyte concentration in the inorganic CCB < MDL?			X			
S3	O	Mass spectral tuning:						
		Was the appropriate compound for the method used for tuning?	X					
		Were ion abundance data within the method-required QC limits?	X					
S4	O	Internal standards (IS):						
		Were IS area counts and retention times within the method-required QC limits?		X				6
S5	OI	Raw data (NELAC section 1 appendix A glossary, and section 5.12 or ISO/IEC 17025 section						
		Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?	X					
		Were data associated with manual integrations flagged on the raw data?	X					
S6	O	Dual column confirmation						
		Did dual column confirmation results meet the method-required QC?			X			
S7	O	Tentatively identified compounds (TICs):						
		If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?			X			
S8	I	Interference Check Sample (ICS) results:						
		Were percent recoveries within method QC limits?			X			
S9	I	Serial dilutions, post digestion spikes, and method of standard additions						
		Were percent differences, recoveries, and the linearity within the QC limits specified in the method?			X			
S10	OI	Method detection limit (MDL) studies						
		Was a MDL study performed for each reported analyte?	X					
		Is the MDL either adjusted or supported by the analysis of DCSs?	X					
S11	OI	Proficiency test reports:						
		Was the laboratory's performance acceptable on the applicable proficiency tests or evaluation studies?	X					
S12	OI	Standards documentation						
		Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?	X					
S13	OI	Compound/analyte identification procedures						
		Are the procedures for compound/analyte identification documented?	X					
S14	OI	Demonstration of analyst competency (DOC)						
		Was DOC conducted consistent with NELAC Chapter 5C or ISO/IEC 4?	X					
		Is documentation of the analyst's competency up-to-date and on file?	X					
S15	OI	Verification/validation documentation for methods (NELAC Chap 5 or ISO/IEC 17025 Section 5)						
		Are all the methods used to generate the data documented, verified, and validated, where applicable?	X					
S16	OI	Laboratory standard operating procedures (SOPs):						
		Are laboratory SOPs current and on file for each method performed?	X					

Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.

O = Organic Analyses; I = Inorganic Analyses (and general chemistry, when applicable);

NA = Not Applicable;

NR = Not Reviewed;

R# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

Laboratory Review Checklist: Reportable Data

Laboratory Name: ALS Laboratory Group		LRC Date: 08/09/2012
Project Name: UPRR Houston Wood GW		Laboratory Job Number: 1207587
Reviewer Name: Pat Lynch		Prep Batch Number(s): 62673,R131366, R131395
ER# ⁵	Description	
1	Semi- volatile Organics: Except for samples WG-1620-FB1-20120711, WG-1620-FB2-20120712, WG-1620-MW19C-2012712 and WG-1620-MW52A-20120712, the surrogates recovered above the control limits or were diluted out due to the sample matrix. For most of the samples, the surrogate recoveries were in control in at least one dilution.	
2	Batch R131336, Volatile Organics, Sample 1207628-10: MS/MSD is for an unrelated sample. Batch R131395, Volatile Organics, Sample 1207628-10: MS/MSD is for an unrelated sample.	
3	Batch R131336, Volatile Organics, Sample 1207628-10: MS/MSD RPD is for an unrelated sample. Batch R131395, Volatile Organics, Sample 1207628-10: MS/MSD RPDs are for an unrelated sample.	
4	Semi- volatile Organics: Due to sample matrices, the following samples could not be analyzed at a one- fold dilution: WG-1620-MW72B-20120712, WG-1620-MW23C-20120712 and WG-1620-MW55B-20120712. Volatile Organics: Due to sample matrices, the samples could not be analyzed at a lower dilution. Target semi-volatile compounds were detected in the field blanks at concentrations that exceed the MQLs. However, all target compounds were non-detect in the associated method blank.	
5	Batch R131395, Volatile Organics: CCV %Ds were above the control limits for 4-bromofluorobenzene and toluene-d8. The associated LCS recoveries were within the control limits.	
6	Semi- volatile Organics: All internal standard recoveries were below the control limits for sample WG-1620-MW18A-20120711. Reanalysis confirms matrix interference.	
<p>Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period. O = Organic Analyses; I = Inorganic Analyses (and general chemistry, when applicable); NA = Not Applicable; NR = Not Reviewed; R# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).</p>		

ALS Environmental

Date: 09-Aug-12

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Sample ID: WG-1620-MW18A-20120711
Collection Date: 7/11/2012 04:00 PM

Work Order: 1207587
Lab ID: 1207587-01
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270	Prep: SW3510 / 7/17/12	Analyst: ACN		
1,2-Diphenylhydrazine	U		0.000050	0.00020	mg/L	1	7/23/2012 22:09
2,4-Dimethylphenol	9.4		0.050	0.20	mg/L	1000	7/20/2012 19:21
2,4-Dinitrotoluene	U		0.000050	0.00020	mg/L	1	7/23/2012 22:09
2,6-Dinitrotoluene	U		0.000060	0.00020	mg/L	1	7/23/2012 22:09
2-Chloronaphthalene	U		0.000050	0.00020	mg/L	1	7/23/2012 22:09
2-Methylnaphthalene	0.64		0.0050	0.020	mg/L	100	7/20/2012 06:32
4,6-Dinitro-2-methylphenol	U		0.000080	0.00020	mg/L	1	7/23/2012 22:09
4-Nitrophenol	U		0.000050	0.0010	mg/L	1	7/23/2012 22:09
Acenaphthene	0.30		0.0050	0.020	mg/L	100	7/20/2012 06:32
Acenaphthylene	0.0067		0.000050	0.00020	mg/L	1	7/23/2012 22:09
Anthracene	0.0090		0.000050	0.00020	mg/L	1	7/23/2012 22:09
Benz(a)anthracene	U		0.000050	0.00020	mg/L	1	7/23/2012 22:09
Benzo(a)pyrene	U		0.000050	0.00020	mg/L	1	7/23/2012 22:09
Bis(2-chloroethoxy)methane	U		0.000050	0.00020	mg/L	1	7/23/2012 22:09
Bis(2-ethylhexyl)phthalate	U		0.00010	0.00020	mg/L	1	7/23/2012 22:09
Chrysene	U		0.000050	0.00020	mg/L	1	7/23/2012 22:09
Dibenzofuran	0.21		0.0050	0.020	mg/L	100	7/20/2012 06:32
Di-n-butyl phthalate	U		0.000050	0.00020	mg/L	1	7/23/2012 22:09
Fluoranthene	0.0016		0.000050	0.00020	mg/L	1	7/23/2012 22:09
Fluorene	0.14		0.0050	0.020	mg/L	100	7/20/2012 06:32
Naphthalene	7.8		0.050	0.20	mg/L	1000	7/20/2012 19:21
Nitrobenzene	U		0.000050	0.00020	mg/L	1	7/23/2012 22:09
N-Nitrosodiphenylamine	U		0.000050	0.00020	mg/L	1	7/23/2012 22:09
Pentachlorophenol	U		0.000050	0.00020	mg/L	1	7/23/2012 22:09
Phenanthrene	0.083		0.00050	0.0020	mg/L	10	7/19/2012 02:56
Phenol	0.12		0.0050	0.020	mg/L	100	7/20/2012 06:32
Pyrene	0.00081		0.000050	0.00020	mg/L	1	7/23/2012 22:09
Surr: 2,4,6-Tribromophenol	110			34-129	%REC	10	7/19/2012 02:56
Surr: 2,4,6-Tribromophenol	147	JS		34-129	%REC	100	7/20/2012 06:32
Surr: 2,4,6-Tribromophenol	0	S		34-129	%REC	1000	7/20/2012 19:21
Surr: 2,4,6-Tribromophenol	83.1			34-129	%REC	1	7/23/2012 22:09
Surr: 2-Fluorobiphenyl	93.5			40-125	%REC	10	7/19/2012 02:56
Surr: 2-Fluorobiphenyl	104	J		40-125	%REC	100	7/20/2012 06:32
Surr: 2-Fluorobiphenyl	0	S		40-125	%REC	1000	7/20/2012 19:21
Surr: 2-Fluorobiphenyl	49.6			40-125	%REC	1	7/23/2012 22:09
Surr: 2-Fluorophenol	90.9			20-120	%REC	10	7/19/2012 02:56
Surr: 2-Fluorophenol	91.2	J		20-120	%REC	100	7/20/2012 06:32
Surr: 2-Fluorophenol	0	S		20-120	%REC	1000	7/20/2012 19:21

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 09-Aug-12

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Sample ID: WG-1620-MW18A-20120711
Collection Date: 7/11/2012 04:00 PM

Work Order: 1207587
Lab ID: 1207587-01
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
Surr: 2-Fluorophenol	58.3			20-120	%REC	1	7/23/2012 22:09
Surr: 4-Terphenyl-d14	112			40-135	%REC	10	7/19/2012 02:56
Surr: 4-Terphenyl-d14	121	J		40-135	%REC	100	7/20/2012 06:32
Surr: 4-Terphenyl-d14	0	S		40-135	%REC	1000	7/20/2012 19:21
Surr: 4-Terphenyl-d14	84.3			40-135	%REC	1	7/23/2012 22:09
Surr: Nitrobenzene-d5	55.6			41-120	%REC	10	7/19/2012 02:56
Surr: Nitrobenzene-d5	103	J		41-120	%REC	100	7/20/2012 06:32
Surr: Nitrobenzene-d5	0	S		41-120	%REC	1000	7/20/2012 19:21
Surr: Nitrobenzene-d5	74.7			41-120	%REC	1	7/23/2012 22:09
Surr: Phenol-d6	83.3			20-120	%REC	10	7/19/2012 02:56
Surr: Phenol-d6	111	J		20-120	%REC	100	7/20/2012 06:32
Surr: Phenol-d6	0	S		20-120	%REC	1000	7/20/2012 19:21
Surr: Phenol-d6	70.2			20-120	%REC	1	7/23/2012 22:09

VOLATILES		Method: SW8260				Analyst: PC	
1,2-Dichloroethane	U	0.0050	0.050	mg/L	10	7/18/2012 08:09	
Benzene	0.68	0.0050	0.050	mg/L	10	7/18/2012 08:09	
Chlorobenzene	U	0.0050	0.050	mg/L	10	7/18/2012 08:09	
Ethylbenzene	0.30	0.0050	0.050	mg/L	10	7/18/2012 08:09	
Methylene chloride	U	0.010	0.10	mg/L	10	7/18/2012 08:09	
Toluene	0.21	0.0050	0.050	mg/L	10	7/18/2012 08:09	
Vinyl chloride	U	0.0050	0.020	mg/L	10	7/18/2012 08:09	
Xylenes, Total	0.51	0.015	0.15	mg/L	10	7/18/2012 08:09	
Surr: 1,2-Dichloroethane-d4	96.2			70-125	%REC	10	7/18/2012 08:09
Surr: 4-Bromofluorobenzene	88.3			72-125	%REC	10	7/18/2012 08:09
Surr: Dibromofluoromethane	97.4			71-125	%REC	10	7/18/2012 08:09
Surr: Toluene-d8	92.1			75-125	%REC	10	7/18/2012 08:09

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 09-Aug-12

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Sample ID: WG-1620-MW18C-20120711
Collection Date: 7/11/2012 04:50 PM

Work Order: 1207587
Lab ID: 1207587-02
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	ML	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270	Prep: SW3510 / 7/17/12	Analyst: ACN		
1,2-Diphenylhydrazine		U	0.000050	0.00020	mg/L	1	7/21/2012 01:11
2,4-Dimethylphenol	0.0021		0.000050	0.00020	mg/L	1	7/21/2012 01:11
2,4-Dinitrotoluene		U	0.000050	0.00020	mg/L	1	7/21/2012 01:11
2,6-Dinitrotoluene		U	0.000060	0.00020	mg/L	1	7/21/2012 01:11
2-Chloronaphthalene		U	0.000050	0.00020	mg/L	1	7/21/2012 01:11
2-Methylnaphthalene	0.46		0.0050	0.020	mg/L	100	7/20/2012 06:51
4,6-Dinitro-2-methylphenol		U	0.000080	0.00020	mg/L	1	7/21/2012 01:11
4-Nitrophenol		U	0.000050	0.0010	mg/L	1	7/21/2012 01:11
Acenaphthene	0.13		0.0050	0.020	mg/L	100	7/20/2012 06:51
Acenaphthylene	0.0019		0.000050	0.00020	mg/L	1	7/21/2012 01:11
Anthracene	0.0080		0.000050	0.00020	mg/L	1	7/21/2012 01:11
Benz(a)anthracene	0.00014	J	0.000050	0.00020	mg/L	1	7/21/2012 01:11
Benzo(a)pyrene		U	0.000050	0.00020	mg/L	1	7/21/2012 01:11
Bis(2-chloroethoxy)methane		U	0.000050	0.00020	mg/L	1	7/21/2012 01:11
Bis(2-ethylhexyl)phthalate		U	0.00010	0.00020	mg/L	1	7/21/2012 01:11
Chrysene	0.00010	J	0.000050	0.00020	mg/L	1	7/21/2012 01:11
Dibenzofuran	0.14		0.0050	0.020	mg/L	100	7/20/2012 06:51
Di-n-butyl phthalate		U	0.000050	0.00020	mg/L	1	7/21/2012 01:11
Fluoranthene	0.0023		0.000050	0.00020	mg/L	1	7/21/2012 01:11
Fluorene	0.055		0.00050	0.0020	mg/L	10	7/19/2012 03:16
Naphthalene	13		0.10	0.40	mg/L	2000	7/20/2012 19:41
Nitrobenzene		U	0.000050	0.00020	mg/L	1	7/21/2012 01:11
N-Nitrosodiphenylamine		U	0.000050	0.00020	mg/L	1	7/21/2012 01:11
Pentachlorophenol	0.075		0.00050	0.0020	mg/L	10	7/19/2012 03:16
Phenanthrene	0.055		0.00050	0.0020	mg/L	10	7/19/2012 03:16
Phenol	0.075		0.00050	0.0020	mg/L	10	7/19/2012 03:16
Pyrene	0.0011		0.000050	0.00020	mg/L	1	7/21/2012 01:11
Surr: 2,4,6-Tribromophenol	85.5			34-129	%REC	10	7/19/2012 03:16
Surr: 2,4,6-Tribromophenol	119	J		34-129	%REC	100	7/20/2012 06:51
Surr: 2,4,6-Tribromophenol	0	S		34-129	%REC	2000	7/20/2012 19:41
Surr: 2,4,6-Tribromophenol	49.3			34-129	%REC	1	7/21/2012 01:11
Surr: 2-Fluorobiphenyl	96.3			40-125	%REC	10	7/19/2012 03:16
Surr: 2-Fluorobiphenyl	119	J		40-125	%REC	100	7/20/2012 06:51
Surr: 2-Fluorobiphenyl	0	S		40-125	%REC	2000	7/20/2012 19:41
Surr: 2-Fluorobiphenyl	62.3			40-125	%REC	1	7/21/2012 01:11
Surr: 2-Fluorophenol	74.0			20-120	%REC	10	7/19/2012 03:16
Surr: 2-Fluorophenol	84.2	J		20-120	%REC	100	7/20/2012 06:51
Surr: 2-Fluorophenol	0	S		20-120	%REC	2000	7/20/2012 19:41

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 09-Aug-12

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Sample ID: WG-1620-MW18C-20120711
Collection Date: 7/11/2012 04:50 PM

Work Order: 1207587
Lab ID: 1207587-02
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
Surr: 2-Fluorophenol	90.4			20-120	%REC	1	7/21/2012 01:11
Surr: 4-Terphenyl-d14	94.4			40-135	%REC	10	7/19/2012 03:16
Surr: 4-Terphenyl-d14	122	J		40-135	%REC	100	7/20/2012 06:51
Surr: 4-Terphenyl-d14	0	S		40-135	%REC	2000	7/20/2012 19:41
Surr: 4-Terphenyl-d14	71.9			40-135	%REC	1	7/21/2012 01:11
Surr: Nitrobenzene-d5	69.3			41-120	%REC	10	7/19/2012 03:16
Surr: Nitrobenzene-d5	77.4	J		41-120	%REC	100	7/20/2012 06:51
Surr: Nitrobenzene-d5	0	S		41-120	%REC	2000	7/20/2012 19:41
Surr: Nitrobenzene-d5	45.8			41-120	%REC	1	7/21/2012 01:11
Surr: Phenol-d6	72.2			20-120	%REC	10	7/19/2012 03:16
Surr: Phenol-d6	107	J		20-120	%REC	100	7/20/2012 06:51
Surr: Phenol-d6	0	S		20-120	%REC	2000	7/20/2012 19:41
Surr: Phenol-d6	57.6			20-120	%REC	1	7/21/2012 01:11

VOLATILES		Method: SW8260				Analyst: PC	
1,2-Dichloroethane	U	0.0050	0.050	mg/L	10	7/18/2012 08:36	
Benzene	1.2	0.0050	0.050	mg/L	10	7/18/2012 08:36	
Chlorobenzene	U	0.0050	0.050	mg/L	10	7/18/2012 08:36	
Ethylbenzene	0.15	0.0050	0.050	mg/L	10	7/18/2012 08:36	
Methylene chloride	U	0.010	0.10	mg/L	10	7/18/2012 08:36	
Toluene	0.72	0.0050	0.050	mg/L	10	7/18/2012 08:36	
Vinyl chloride	U	0.0050	0.020	mg/L	10	7/18/2012 08:36	
Xylenes, Total	0.84	0.015	0.15	mg/L	10	7/18/2012 08:36	
Surr: 1,2-Dichloroethane-d4	88.9			70-125	%REC	10	7/18/2012 08:36
Surr: 4-Bromofluorobenzene	106			72-125	%REC	10	7/18/2012 08:36
Surr: Dibromofluoromethane	92.2			71-125	%REC	10	7/18/2012 08:36
Surr: Toluene-d8	87.7			75-125	%REC	10	7/18/2012 08:36

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 09-Aug-12

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Sample ID: WG-1620-TW56A-20120711
Collection Date: 7/11/2012 06:00 PM

Work Order: 1207587
Lab ID: 1207587-03
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270		Prep: SW3510 / 7/17/12		Analyst: ACN
1,2-Diphenylhydrazine		U	0.000050	0.00020	mg/L	1	7/20/2012 18:03
2,4-Dimethylphenol	3.8		0.025	0.10	mg/L	500	7/20/2012 21:18
2,4-Dinitrotoluene		U	0.000050	0.00020	mg/L	1	7/20/2012 18:03
2,6-Dinitrotoluene		U	0.000060	0.00020	mg/L	1	7/20/2012 18:03
2-Chloronaphthalene		U	0.000050	0.00020	mg/L	1	7/20/2012 18:03
2-Methylnaphthalene	0.052		0.00050	0.0020	mg/L	10	7/20/2012 10:05
4,6-Dinitro-2-methylphenol		U	0.000080	0.00020	mg/L	1	7/20/2012 18:03
4-Nitrophenol		U	0.000050	0.0010	mg/L	1	7/20/2012 18:03
Acenaphthene	0.095		0.00050	0.0020	mg/L	10	7/20/2012 10:05
Acenaphthylene	0.0028		0.000050	0.00020	mg/L	1	7/20/2012 18:03
Anthracene	0.0083		0.000050	0.00020	mg/L	1	7/20/2012 18:03
Benz(a)anthracene	0.0024		0.000050	0.00020	mg/L	1	7/20/2012 18:03
Benzo(a)pyrene	0.00080		0.000050	0.00020	mg/L	1	7/20/2012 18:03
Bis(2-chloroethoxy)methane		U	0.000050	0.00020	mg/L	1	7/20/2012 18:03
Bis(2-ethylhexyl)phthalate		U	0.00010	0.00020	mg/L	1	7/20/2012 18:03
Chrysene	0.0022		0.000050	0.00020	mg/L	1	7/20/2012 18:03
Dibenzofuran	0.038		0.00050	0.0020	mg/L	10	7/20/2012 10:05
Di-n-butyl phthalate		U	0.000050	0.00020	mg/L	1	7/20/2012 18:03
Fluoranthene	0.027		0.00050	0.0020	mg/L	10	7/20/2012 10:05
Fluorene	0.047		0.00050	0.0020	mg/L	10	7/20/2012 10:05
Naphthalene	0.81		0.0050	0.020	mg/L	100	7/20/2012 10:24
Nitrobenzene		U	0.000050	0.00020	mg/L	1	7/20/2012 18:03
N-Nitrosodiphenylamine		U	0.000050	0.00020	mg/L	1	7/20/2012 18:03
Pentachlorophenol	0.00091		0.000050	0.00020	mg/L	1	7/20/2012 18:03
Phenanthrene	0.073		0.00050	0.0020	mg/L	10	7/20/2012 10:05
Phenol		U	0.000050	0.00020	mg/L	1	7/20/2012 18:03
Pyrene	0.018		0.00050	0.0020	mg/L	10	7/20/2012 10:05
Surr: 2,4,6-Tribromophenol	94.7			34-129	%REC	10	7/20/2012 10:05
Surr: 2,4,6-Tribromophenol	90.2	J		34-129	%REC	100	7/20/2012 10:24
Surr: 2,4,6-Tribromophenol	104			34-129	%REC	1	7/20/2012 18:03
Surr: 2,4,6-Tribromophenol	0	S		34-129	%REC	500	7/20/2012 21:18
Surr: 2-Fluorobiphenyl	62.2			40-125	%REC	10	7/20/2012 10:05
Surr: 2-Fluorobiphenyl	62.0	J		40-125	%REC	100	7/20/2012 10:24
Surr: 2-Fluorobiphenyl	42.4			40-125	%REC	1	7/20/2012 18:03
Surr: 2-Fluorobiphenyl	0	S		40-125	%REC	500	7/20/2012 21:18
Surr: 2-Fluorophenol	79.4			20-120	%REC	10	7/20/2012 10:05
Surr: 2-Fluorophenol	70.7	J		20-120	%REC	100	7/20/2012 10:24
Surr: 2-Fluorophenol	58.3			20-120	%REC	1	7/20/2012 18:03

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 09-Aug-12

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Sample ID: WG-1620-TW56A-20120711
Collection Date: 7/11/2012 06:00 PM

Work Order: 1207587
Lab ID: 1207587-03
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
Surr: 2-Fluorophenol	0	S		20-120	%REC	500	7/20/2012 21:18
Surr: 4-Terphenyl-d14	90.9			40-135	%REC	10	7/20/2012 10:05
Surr: 4-Terphenyl-d14	112	J		40-135	%REC	100	7/20/2012 10:24
Surr: 4-Terphenyl-d14	72.2			40-135	%REC	1	7/20/2012 18:03
Surr: 4-Terphenyl-d14	0	S		40-135	%REC	500	7/20/2012 21:18
Surr: Nitrobenzene-d5	57.9			41-120	%REC	10	7/20/2012 10:05
Surr: Nitrobenzene-d5	64.2	J		41-120	%REC	100	7/20/2012 10:24
Surr: Nitrobenzene-d5	71.8			41-120	%REC	1	7/20/2012 18:03
Surr: Nitrobenzene-d5	0	S		41-120	%REC	500	7/20/2012 21:18
Surr: Phenol-d6	65.9			20-120	%REC	10	7/20/2012 10:05
Surr: Phenol-d6	68.8	J		20-120	%REC	100	7/20/2012 10:24
Surr: Phenol-d6	52.0			20-120	%REC	1	7/20/2012 18:03
Surr: Phenol-d6	0	S		20-120	%REC	500	7/20/2012 21:18

VOLATILES		Method: SW8260				Analyst: PC	
1,2-Dichloroethane	U	0.0025	0.025	mg/L	5	7/18/2012 05:03	
Benzene	0.26	0.0025	0.025	mg/L	5	7/18/2012 05:03	
Chlorobenzene	U	0.0025	0.025	mg/L	5	7/18/2012 05:03	
Ethylbenzene	0.14	0.0025	0.025	mg/L	5	7/18/2012 05:03	
Methylene chloride	U	0.0050	0.050	mg/L	5	7/18/2012 05:03	
Toluene	0.069	0.0025	0.025	mg/L	5	7/18/2012 05:03	
Vinyl chloride	0.016	0.0025	0.010	mg/L	5	7/18/2012 05:03	
Xylenes, Total	0.43	0.0075	0.075	mg/L	5	7/18/2012 05:03	
Surr: 1,2-Dichloroethane-d4	97.4			70-125	%REC	5	7/18/2012 05:03
Surr: 4-Bromofluorobenzene	84.4			72-125	%REC	5	7/18/2012 05:03
Surr: Dibromofluoromethane	94.6			71-125	%REC	5	7/18/2012 05:03
Surr: Toluene-d8	89.1			75-125	%REC	5	7/18/2012 05:03

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 09-Aug-12

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Sample ID: WG-1620-FB1-20120711
Collection Date: 7/11/2012 06:20 PM

Work Order: 1207587
Lab ID: 1207587-04
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	ML	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270	Prep: SW3510 / 7/17/12	Analyst: ACN		
1,2-Diphenylhydrazine		U	0.000050	0.00020	mg/L	1	7/19/2012 01:14
2,4-Dimethylphenol	0.0013		0.000050	0.00020	mg/L	1	7/19/2012 01:14
2,4-Dinitrotoluene		U	0.000050	0.00020	mg/L	1	7/19/2012 01:14
2,6-Dinitrotoluene		U	0.000060	0.00020	mg/L	1	7/19/2012 01:14
2-Chloronaphthalene		U	0.000050	0.00020	mg/L	1	7/19/2012 01:14
2-Methylnaphthalene	0.000084	J	0.000050	0.00020	mg/L	1	7/19/2012 01:14
4,6-Dinitro-2-methylphenol		U	0.000080	0.00020	mg/L	1	7/19/2012 01:14
4-Nitrophenol		U	0.000050	0.0010	mg/L	1	7/19/2012 01:14
Acenaphthene		U	0.000050	0.00020	mg/L	1	7/19/2012 01:14
Acenaphthylene		U	0.000050	0.00020	mg/L	1	7/19/2012 01:14
Anthracene		U	0.000050	0.00020	mg/L	1	7/19/2012 01:14
Benz(a)anthracene		U	0.000050	0.00020	mg/L	1	7/19/2012 01:14
Benzo(a)pyrene		U	0.000050	0.00020	mg/L	1	7/19/2012 01:14
Bis(2-chloroethoxy)methane		U	0.000050	0.00020	mg/L	1	7/19/2012 01:14
Bis(2-ethylhexyl)phthalate		U	0.00010	0.00020	mg/L	1	7/19/2012 01:14
Chrysene		U	0.000050	0.00020	mg/L	1	7/19/2012 01:14
Dibenzofuran		U	0.000050	0.00020	mg/L	1	7/19/2012 01:14
Di-n-butyl phthalate		U	0.000050	0.00020	mg/L	1	7/19/2012 01:14
Fluoranthene		U	0.000050	0.00020	mg/L	1	7/19/2012 01:14
Fluorene		U	0.000050	0.00020	mg/L	1	7/19/2012 01:14
Naphthalene	0.0014		0.000050	0.00020	mg/L	1	7/19/2012 01:14
Nitrobenzene		U	0.000050	0.00020	mg/L	1	7/19/2012 01:14
N-Nitrosodiphenylamine		U	0.000050	0.00020	mg/L	1	7/19/2012 01:14
Pentachlorophenol		U	0.000050	0.00020	mg/L	1	7/19/2012 01:14
Phenanthrene		U	0.000050	0.00020	mg/L	1	7/19/2012 01:14
Phenol	0.00020		0.000050	0.00020	mg/L	1	7/19/2012 01:14
Pyrene		U	0.000050	0.00020	mg/L	1	7/19/2012 01:14
Surr: 2,4,6-Tribromophenol	56.3			34-129	%REC	1	7/19/2012 01:14
Surr: 2-Fluorobiphenyl	68.4			40-125	%REC	1	7/19/2012 01:14
Surr: 2-Fluorophenol	58.0			20-120	%REC	1	7/19/2012 01:14
Surr: 4-Terphenyl-d14	72.8			40-135	%REC	1	7/19/2012 01:14
Surr: Nitrobenzene-d5	64.0			41-120	%REC	1	7/19/2012 01:14
Surr: Phenol-d6	58.6			20-120	%REC	1	7/19/2012 01:14
VOLATILES			Method: SW8260	Analyst: PC			
1,2-Dichloroethane		U	0.00050	0.0050	mg/L	1	7/17/2012 15:17
Benzene		U	0.00050	0.0050	mg/L	1	7/17/2012 15:17
Chlorobenzene		U	0.00050	0.0050	mg/L	1	7/17/2012 15:17
Ethylbenzene		U	0.00050	0.0050	mg/L	1	7/17/2012 15:17

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 09-Aug-12

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Sample ID: WG-1620-FB1-20120711
Collection Date: 7/11/2012 06:20 PM

Work Order: 1207587
Lab ID: 1207587-04
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
Methylene chloride	U		0.0010	0.010	mg/L	1	7/17/2012 15:17
Toluene	U		0.00050	0.0050	mg/L	1	7/17/2012 15:17
Vinyl chloride	U		0.00050	0.0020	mg/L	1	7/17/2012 15:17
Xylenes, Total	U		0.0015	0.015	mg/L	1	7/17/2012 15:17
Surr: 1,2-Dichloroethane-d4	101			70-125	%REC	1	7/17/2012 15:17
Surr: 4-Bromofluorobenzene	95.3			72-125	%REC	1	7/17/2012 15:17
Surr: Dibromofluoromethane	94.8			71-125	%REC	1	7/17/2012 15:17
Surr: Toluene-d8	95.3			75-125	%REC	1	7/17/2012 15:17

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 09-Aug-12

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Sample ID: WG-1620-MW72B-20120712
Collection Date: 7/12/2012 07:45 AM

Work Order: 1207587
Lab ID: 1207587-05
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270	Prep: SW3510 / 7/17/12	Analyst: ACN		
1,2-Diphenylhydrazine	U		0.00050	0.0020	mg/L	10	7/20/2012 08:47
2,4-Dimethylphenol	20		0.20	0.80	mg/L	4000	7/20/2012 21:57
2,4-Dinitrotoluene	U		0.00050	0.0020	mg/L	10	7/20/2012 08:47
2,6-Dinitrotoluene	U		0.00060	0.0020	mg/L	10	7/20/2012 08:47
2-Chloronaphthalene	U		0.00050	0.0020	mg/L	10	7/20/2012 08:47
2-Methylnaphthalene	0.74		0.0050	0.020	mg/L	100	7/20/2012 09:07
4,6-Dinitro-2-methylphenol	U		0.00080	0.0020	mg/L	10	7/20/2012 08:47
4-Nitrophenol	U		0.00050	0.010	mg/L	10	7/20/2012 08:47
Acenaphthene	0.23		0.0050	0.020	mg/L	100	7/20/2012 09:07
Acenaphthylene	0.0073		0.00050	0.0020	mg/L	10	7/20/2012 08:47
Anthracene	0.017		0.00050	0.0020	mg/L	10	7/20/2012 08:47
Benz(a)anthracene	U		0.00050	0.0020	mg/L	10	7/20/2012 08:47
Benzo(a)pyrene	U		0.00050	0.0020	mg/L	10	7/20/2012 08:47
Bis(2-chloroethoxy)methane	U		0.00050	0.0020	mg/L	10	7/20/2012 08:47
Bis(2-ethylhexyl)phthalate	U		0.0010	0.0020	mg/L	10	7/20/2012 08:47
Chrysene	U		0.00050	0.0020	mg/L	10	7/20/2012 08:47
Dibenzofuran	0.18		0.0050	0.020	mg/L	100	7/20/2012 09:07
Di-n-butyl phthalate	U		0.00050	0.0020	mg/L	10	7/20/2012 08:47
Fluoranthene	0.0034		0.00050	0.0020	mg/L	10	7/20/2012 08:47
Fluorene	0.11		0.0050	0.020	mg/L	100	7/20/2012 09:07
Naphthalene	16		0.20	0.80	mg/L	4000	7/20/2012 21:57
Nitrobenzene	U		0.00050	0.0020	mg/L	10	7/20/2012 08:47
N-Nitrosodiphenylamine	U		0.00050	0.0020	mg/L	10	7/20/2012 08:47
Pentachlorophenol	U		0.00050	0.0020	mg/L	10	7/20/2012 08:47
Phenanthrene	0.079		0.00050	0.0020	mg/L	10	7/20/2012 08:47
Phenol	3.4		0.050	0.20	mg/L	1000	7/20/2012 18:23
Pyrene	0.0019	J	0.00050	0.0020	mg/L	10	7/20/2012 08:47
Surr: 2,4,6-Tribromophenol	140	S		34-129	%REC	10	7/20/2012 08:47
Surr: 2,4,6-Tribromophenol	166	JS		34-129	%REC	100	7/20/2012 09:07
Surr: 2,4,6-Tribromophenol	0	S		34-129	%REC	1000	7/20/2012 18:23
Surr: 2,4,6-Tribromophenol	0	S		34-129	%REC	4000	7/20/2012 21:57
Surr: 2-Fluorobiphenyl	103			40-125	%REC	10	7/20/2012 08:47
Surr: 2-Fluorobiphenyl	119	J		40-125	%REC	100	7/20/2012 09:07
Surr: 2-Fluorobiphenyl	0	S		40-125	%REC	1000	7/20/2012 18:23
Surr: 2-Fluorobiphenyl	0	S		40-125	%REC	4000	7/20/2012 21:57
Surr: 2-Fluorophenol	103			20-120	%REC	10	7/20/2012 08:47
Surr: 2-Fluorophenol	123	JS		20-120	%REC	100	7/20/2012 09:07
Surr: 2-Fluorophenol	0	S		20-120	%REC	1000	7/20/2012 18:23

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 09-Aug-12

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Sample ID: WG-1620-MW72B-20120712
Collection Date: 7/12/2012 07:45 AM

Work Order: 1207587
Lab ID: 1207587-05
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
Surr: 2-Fluorophenol	0	S		20-120	%REC	4000	7/20/2012 21:57
Surr: 4-Terphenyl-d14	116			40-135	%REC	10	7/20/2012 08:47
Surr: 4-Terphenyl-d14	113	J		40-135	%REC	100	7/20/2012 09:07
Surr: 4-Terphenyl-d14	0	S		40-135	%REC	1000	7/20/2012 18:23
Surr: 4-Terphenyl-d14	0	S		40-135	%REC	4000	7/20/2012 21:57
Surr: Nitrobenzene-d5	50.3			41-120	%REC	10	7/20/2012 08:47
Surr: Nitrobenzene-d5	58.9	J		41-120	%REC	100	7/20/2012 09:07
Surr: Nitrobenzene-d5	0	S		41-120	%REC	1000	7/20/2012 18:23
Surr: Nitrobenzene-d5	0	S		41-120	%REC	4000	7/20/2012 21:57
Surr: Phenol-d6	106			20-120	%REC	10	7/20/2012 08:47
Surr: Phenol-d6	111	J		20-120	%REC	100	7/20/2012 09:07
Surr: Phenol-d6	0	S		20-120	%REC	1000	7/20/2012 18:23
Surr: Phenol-d6	0	S		20-120	%REC	4000	7/20/2012 21:57

VOLATILES		Method: SW8260				Analyst: PC	
1,2-Dichloroethane	U	0.0050	0.050	mg/L	10	7/18/2012 05:29	
Benzene	1.4	0.0050	0.050	mg/L	10	7/18/2012 05:29	
Chlorobenzene	U	0.0050	0.050	mg/L	10	7/18/2012 05:29	
Ethylbenzene	0.31	0.0050	0.050	mg/L	10	7/18/2012 05:29	
Methylene chloride	U	0.010	0.10	mg/L	10	7/18/2012 05:29	
Toluene	1.1	0.0050	0.050	mg/L	10	7/18/2012 05:29	
Xylenes, Total	0.88	0.015	0.15	mg/L	10	7/18/2012 05:29	
Surr: 1,2-Dichloroethane-d4	112		70-125	%REC	10	7/18/2012 05:29	
Surr: 4-Bromofluorobenzene	117		72-125	%REC	10	7/18/2012 05:29	
Surr: Dibromofluoromethane	106		71-125	%REC	10	7/18/2012 05:29	
Surr: Toluene-d8	91.0		75-125	%REC	10	7/18/2012 05:29	

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 09-Aug-12

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Sample ID: WG-1620-MW23C-20120712
Collection Date: 7/12/2012 08:45 AM

Work Order: 1207587
Lab ID: 1207587-06
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	ML	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270	Prep: SW3510 / 7/17/12	Analyst: ACN		
1,2-Diphenylhydrazine		U	0.0010	0.0040	mg/L	10	7/20/2012 10:43
2,4-Dimethylphenol	0.028		0.0010	0.0040	mg/L	10	7/20/2012 10:43
2,4-Dinitrotoluene		U	0.0010	0.0040	mg/L	10	7/20/2012 10:43
2,6-Dinitrotoluene		U	0.0012	0.0040	mg/L	10	7/20/2012 10:43
2-Chloronaphthalene		U	0.0010	0.0040	mg/L	10	7/20/2012 10:43
2-Methylnaphthalene	28		0.50	2.0	mg/L	5000	7/20/2012 22:36
4,6-Dinitro-2-methylphenol		U	0.0016	0.0040	mg/L	10	7/20/2012 10:43
4-Nitrophenol		U	0.0010	0.020	mg/L	10	7/20/2012 10:43
Acenaphthene	39		0.50	2.0	mg/L	5000	7/20/2012 22:36
Acenaphthylene	0.45		0.10	0.40	mg/L	1000	7/20/2012 19:02
Anthracene	16		0.10	0.40	mg/L	1000	7/20/2012 19:02
Benz(a)anthracene	4.8		0.10	0.40	mg/L	1000	7/20/2012 19:02
Benzo(a)pyrene	1.2		0.10	0.40	mg/L	1000	7/20/2012 19:02
Bis(2-chloroethoxy)methane		U	0.0010	0.0040	mg/L	10	7/20/2012 10:43
Bis(2-ethylhexyl)phthalate	0.042		0.0020	0.0040	mg/L	10	7/20/2012 10:43
Chrysene	4.3		0.10	0.40	mg/L	1000	7/20/2012 19:02
Dibenzofuran	46		0.50	2.0	mg/L	5000	7/20/2012 22:36
Di-n-butyl phthalate		U	0.0010	0.0040	mg/L	10	7/20/2012 10:43
Fluoranthene	34		0.50	2.0	mg/L	5000	7/20/2012 22:36
Fluorene	32		0.50	2.0	mg/L	5000	7/20/2012 22:36
Naphthalene	83		0.50	2.0	mg/L	5000	7/20/2012 22:36
Nitrobenzene		U	0.0010	0.0040	mg/L	10	7/20/2012 10:43
N-Nitrosodiphenylamine		U	0.0010	0.0040	mg/L	10	7/20/2012 10:43
Pentachlorophenol		U	0.0010	0.0040	mg/L	10	7/20/2012 10:43
Phenanthrene	130		2.5	10	mg/L	25000	7/20/2012 22:55
Phenol		U	0.0010	0.0040	mg/L	10	7/20/2012 10:43
Pyrene	21		0.50	2.0	mg/L	5000	7/20/2012 22:36
Surr: 2,4,6-Tribromophenol	72.9	J		34-129	%REC	10	7/20/2012 10:43
Surr: 2,4,6-Tribromophenol	0	S		34-129	%REC	1000	7/20/2012 19:02
Surr: 2,4,6-Tribromophenol	0	S		34-129	%REC	5000	7/20/2012 22:36
Surr: 2,4,6-Tribromophenol	0	S		34-129	%REC	25000	7/20/2012 22:55
Surr: 2-Fluorobiphenyl	86.0			40-125	%REC	10	7/20/2012 10:43
Surr: 2-Fluorobiphenyl	0	S		40-125	%REC	1000	7/20/2012 19:02
Surr: 2-Fluorobiphenyl	0	S		40-125	%REC	5000	7/20/2012 22:36
Surr: 2-Fluorobiphenyl	0	S		40-125	%REC	25000	7/20/2012 22:55
Surr: 2-Fluorophenol	140	S		20-120	%REC	10	7/20/2012 10:43
Surr: 2-Fluorophenol	0	S		20-120	%REC	1000	7/20/2012 19:02
Surr: 2-Fluorophenol	0	S		20-120	%REC	5000	7/20/2012 22:36

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 09-Aug-12

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Sample ID: WG-1620-MW23C-20120712
Collection Date: 7/12/2012 08:45 AM

Work Order: 1207587
Lab ID: 1207587-06
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
Surr: 2-Fluorophenol	0	S		20-120	%REC	25000	7/20/2012 22:55
Surr: 4-Terphenyl-d14	210	S		40-135	%REC	10	7/20/2012 10:43
Surr: 4-Terphenyl-d14	0	S		40-135	%REC	1000	7/20/2012 19:02
Surr: 4-Terphenyl-d14	0	S		40-135	%REC	5000	7/20/2012 22:36
Surr: 4-Terphenyl-d14	0	S		40-135	%REC	25000	7/20/2012 22:55
Surr: Nitrobenzene-d5	169	S		41-120	%REC	10	7/20/2012 10:43
Surr: Nitrobenzene-d5	0	S		41-120	%REC	1000	7/20/2012 19:02
Surr: Nitrobenzene-d5	0	S		41-120	%REC	5000	7/20/2012 22:36
Surr: Nitrobenzene-d5	0	S		41-120	%REC	25000	7/20/2012 22:55
Surr: Phenol-d6	130	S		20-120	%REC	10	7/20/2012 10:43
Surr: Phenol-d6	0	S		20-120	%REC	1000	7/20/2012 19:02
Surr: Phenol-d6	0	S		20-120	%REC	5000	7/20/2012 22:36
Surr: Phenol-d6	0	S		20-120	%REC	25000	7/20/2012 22:55

VOLATILES		Method: SW8260				Analyst: PC	
1,2-Dichloroethane	U		0.00050	0.0050	mg/L	1	7/17/2012 21:04
Benzene	0.0071		0.00050	0.0050	mg/L	1	7/17/2012 21:04
Chlorobenzene	U		0.00050	0.0050	mg/L	1	7/17/2012 21:04
Ethylbenzene	0.17		0.00050	0.0050	mg/L	1	7/17/2012 21:04
Methylene chloride	U		0.0010	0.010	mg/L	1	7/17/2012 21:04
Toluene	0.0025	J	0.00050	0.0050	mg/L	1	7/17/2012 21:04
Vinyl chloride	U		0.00050	0.0020	mg/L	1	7/17/2012 21:04
Xylenes, Total	0.11		0.0015	0.015	mg/L	1	7/17/2012 21:04
Surr: 1,2-Dichloroethane-d4	86.5			70-125	%REC	1	7/17/2012 21:04
Surr: 4-Bromofluorobenzene	103			72-125	%REC	1	7/17/2012 21:04
Surr: Dibromofluoromethane	99.8			71-125	%REC	1	7/17/2012 21:04
Surr: Toluene-d8	98.5			75-125	%REC	1	7/17/2012 21:04

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 09-Aug-12

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Sample ID: WG-1620-MW31A-20120712
Collection Date: 7/12/2012 09:45 AM

Work Order: 1207587
Lab ID: 1207587-07
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270	Prep: SW3510 / 7/17/12	Analyst: ACN		
1,2-Diphenylhydrazine	U		0.000050	0.00020	mg/L	1	7/21/2012 01:30
2,4-Dimethylphenol	3.4		0.050	0.20	mg/L	1000	7/20/2012 20:00
2,4-Dinitrotoluene	U		0.000050	0.00020	mg/L	1	7/21/2012 01:30
2,6-Dinitrotoluene	U		0.000060	0.00020	mg/L	1	7/21/2012 01:30
2-Chloronaphthalene	U		0.000050	0.00020	mg/L	1	7/21/2012 01:30
2-Methylnaphthalene	0.83		0.0050	0.020	mg/L	100	7/20/2012 07:10
4,6-Dinitro-2-methylphenol	U		0.000080	0.00020	mg/L	1	7/21/2012 01:30
4-Nitrophenol	U		0.000050	0.0010	mg/L	1	7/21/2012 01:30
Acenaphthene	0.28		0.0050	0.020	mg/L	100	7/20/2012 07:10
Acenaphthylene	0.0032		0.000050	0.00020	mg/L	1	7/21/2012 01:30
Anthracene	0.026		0.00050	0.0020	mg/L	10	7/19/2012 03:36
Benz(a)anthracene	0.00023		0.000050	0.00020	mg/L	1	7/21/2012 01:30
Benzo(a)pyrene	U		0.000050	0.00020	mg/L	1	7/21/2012 01:30
Bis(2-chloroethoxy)methane	U		0.000050	0.00020	mg/L	1	7/21/2012 01:30
Bis(2-ethylhexyl)phthalate	U		0.00010	0.00020	mg/L	1	7/21/2012 01:30
Chrysene	0.00017	J	0.000050	0.00020	mg/L	1	7/21/2012 01:30
Dibenzofuran	0.26		0.0050	0.020	mg/L	100	7/20/2012 07:10
Di-n-butyl phthalate	U		0.000050	0.00020	mg/L	1	7/21/2012 01:30
Fluoranthene	0.0052		0.000050	0.00020	mg/L	1	7/21/2012 01:30
Fluorene	0.17		0.0050	0.020	mg/L	100	7/20/2012 07:10
Naphthalene	17		0.20	0.80	mg/L	4000	7/20/2012 23:14
Nitrobenzene	U		0.000050	0.00020	mg/L	1	7/21/2012 01:30
N-Nitrosodiphenylamine	U		0.000050	0.00020	mg/L	1	7/21/2012 01:30
Pentachlorophenol	0.094		0.00050	0.0020	mg/L	10	7/19/2012 03:36
Phenanthrene	0.13		0.0050	0.020	mg/L	100	7/20/2012 07:10
Phenol	0.29		0.0050	0.020	mg/L	100	7/20/2012 07:10
Pyrene	0.0020		0.000050	0.00020	mg/L	1	7/21/2012 01:30
Surr: 2,4,6-Tribromophenol	117			34-129	%REC	10	7/19/2012 03:36
Surr: 2,4,6-Tribromophenol	145	JS		34-129	%REC	100	7/20/2012 07:10
Surr: 2,4,6-Tribromophenol	0	S		34-129	%REC	1000	7/20/2012 20:00
Surr: 2,4,6-Tribromophenol	0	S		34-129	%REC	4000	7/20/2012 23:14
Surr: 2,4,6-Tribromophenol	113			34-129	%REC	1	7/21/2012 01:30
Surr: 2-Fluorobiphenyl	93.1			40-125	%REC	10	7/19/2012 03:36
Surr: 2-Fluorobiphenyl	118	J		40-125	%REC	100	7/20/2012 07:10
Surr: 2-Fluorobiphenyl	0	S		40-125	%REC	1000	7/20/2012 20:00
Surr: 2-Fluorobiphenyl	0	S		40-125	%REC	4000	7/20/2012 23:14
Surr: 2-Fluorobiphenyl	43.6			40-125	%REC	1	7/21/2012 01:30
Surr: 2-Fluorophenol	118			20-120	%REC	10	7/19/2012 03:36

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 09-Aug-12

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Sample ID: WG-1620-MW31A-20120712
Collection Date: 7/12/2012 09:45 AM

Work Order: 1207587
Lab ID: 1207587-07
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
Surr: 2-Fluorophenol	98.2	J		20-120	%REC	100	7/20/2012 07:10
Surr: 2-Fluorophenol	0	S		20-120	%REC	1000	7/20/2012 20:00
Surr: 2-Fluorophenol	0	S		20-120	%REC	4000	7/20/2012 23:14
Surr: 2-Fluorophenol	62.7			20-120	%REC	1	7/21/2012 01:30
Surr: 4-Terphenyl-d14	98.2			40-135	%REC	10	7/19/2012 03:36
Surr: 4-Terphenyl-d14	113	J		40-135	%REC	100	7/20/2012 07:10
Surr: 4-Terphenyl-d14	0	S		40-135	%REC	1000	7/20/2012 20:00
Surr: 4-Terphenyl-d14	0	S		40-135	%REC	4000	7/20/2012 23:14
Surr: 4-Terphenyl-d14	64.9			40-135	%REC	1	7/21/2012 01:30
Surr: Nitrobenzene-d5	96.9			41-120	%REC	10	7/19/2012 03:36
Surr: Nitrobenzene-d5	109	J		41-120	%REC	100	7/20/2012 07:10
Surr: Nitrobenzene-d5	0	S		41-120	%REC	1000	7/20/2012 20:00
Surr: Nitrobenzene-d5	0	S		41-120	%REC	4000	7/20/2012 23:14
Surr: Nitrobenzene-d5	45.8			41-120	%REC	1	7/21/2012 01:30
Surr: Phenol-d6	67.0			20-120	%REC	10	7/19/2012 03:36
Surr: Phenol-d6	90.3	J		20-120	%REC	100	7/20/2012 07:10
Surr: Phenol-d6	0	S		20-120	%REC	1000	7/20/2012 20:00
Surr: Phenol-d6	0	S		20-120	%REC	4000	7/20/2012 23:14
Surr: Phenol-d6	99.2			20-120	%REC	1	7/21/2012 01:30

VOLATILES		Method: SW8260				Analyst: PC	
1,2-Dichloroethane	U	0.0050	0.050	mg/L	10	7/18/2012 05:56	
Benzene	0.11	0.0050	0.050	mg/L	10	7/18/2012 05:56	
Chlorobenzene	U	0.0050	0.050	mg/L	10	7/18/2012 05:56	
Ethylbenzene	0.18	0.0050	0.050	mg/L	10	7/18/2012 05:56	
Methylene chloride	U	0.010	0.10	mg/L	10	7/18/2012 05:56	
Toluene	0.31	0.0050	0.050	mg/L	10	7/18/2012 05:56	
Xylenes, Total	0.63	0.015	0.15	mg/L	10	7/18/2012 05:56	
Surr: 1,2-Dichloroethane-d4	116		70-125	%REC	10	7/18/2012 05:56	
Surr: 4-Bromofluorobenzene	119		72-125	%REC	10	7/18/2012 05:56	
Surr: Dibromofluoromethane	97.8		71-125	%REC	10	7/18/2012 05:56	
Surr: Toluene-d8	94.8		75-125	%REC	10	7/18/2012 05:56	

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 09-Aug-12

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Sample ID: WG-1620-MW55B-20120712
Collection Date: 7/12/2012 10:40 AM

Work Order: 1207587
Lab ID: 1207587-08
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	ML	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270	Prep: SW3510 / 7/17/12	Analyst: ACN		
1,2-Diphenylhydrazine	U		0.00050	0.0020	mg/L	10	7/20/2012 09:26
2,4-Dimethylphenol	30		0.25	1.0	mg/L	5000	7/20/2012 18:42
2,4-Dinitrotoluene	U		0.00050	0.0020	mg/L	10	7/20/2012 09:26
2,6-Dinitrotoluene	U		0.00060	0.0020	mg/L	10	7/20/2012 09:26
2-Chloronaphthalene	U		0.00050	0.0020	mg/L	10	7/20/2012 09:26
2-Methylnaphthalene	0.64		0.0050	0.020	mg/L	100	7/20/2012 09:45
4,6-Dinitro-2-methylphenol	U		0.00080	0.0020	mg/L	10	7/20/2012 09:26
4-Nitrophenol	U		0.00050	0.010	mg/L	10	7/20/2012 09:26
Acenaphthene	0.26		0.0050	0.020	mg/L	100	7/20/2012 09:45
Acenaphthylene	0.010		0.00050	0.0020	mg/L	10	7/20/2012 09:26
Anthracene	0.030		0.00050	0.0020	mg/L	10	7/20/2012 09:26
Benz(a)anthracene	0.0012	J	0.00050	0.0020	mg/L	10	7/20/2012 09:26
Benzo(a)pyrene	U		0.00050	0.0020	mg/L	10	7/20/2012 09:26
Bis(2-chloroethoxy)methane	U		0.00050	0.0020	mg/L	10	7/20/2012 09:26
Bis(2-ethylhexyl)phthalate	U		0.0010	0.0020	mg/L	10	7/20/2012 09:26
Chrysene	0.00090	J	0.00050	0.0020	mg/L	10	7/20/2012 09:26
Dibenzofuran	0.23		0.0050	0.020	mg/L	100	7/20/2012 09:45
Di-n-butyl phthalate	U		0.00050	0.0020	mg/L	10	7/20/2012 09:26
Fluoranthene	0.014		0.00050	0.0020	mg/L	10	7/20/2012 09:26
Fluorene	0.15		0.0050	0.020	mg/L	100	7/20/2012 09:45
Naphthalene	24		0.25	1.0	mg/L	5000	7/20/2012 18:42
Nitrobenzene	U		0.00050	0.0020	mg/L	10	7/20/2012 09:26
N-Nitrosodiphenylamine	U		0.00050	0.0020	mg/L	10	7/20/2012 09:26
Pentachlorophenol	0.00069	J	0.00050	0.0020	mg/L	10	7/20/2012 09:26
Phenanthrene	0.13		0.0050	0.020	mg/L	100	7/20/2012 09:45
Phenol	130		1.2	5.0	mg/L	25000	7/20/2012 22:16
Pyrene	0.0076		0.00050	0.0020	mg/L	10	7/20/2012 09:26
Surr: 2,4,6-Tribromophenol	115			34-129	%REC	10	7/20/2012 09:26
Surr: 2,4,6-Tribromophenol	132	JS		34-129	%REC	100	7/20/2012 09:45
Surr: 2,4,6-Tribromophenol	0	S		34-129	%REC	5000	7/20/2012 18:42
Surr: 2,4,6-Tribromophenol	0	S		34-129	%REC	25000	7/20/2012 22:16
Surr: 2-Fluorobiphenyl	95.7			40-125	%REC	10	7/20/2012 09:26
Surr: 2-Fluorobiphenyl	97.9	J		40-125	%REC	100	7/20/2012 09:45
Surr: 2-Fluorobiphenyl	0	S		40-125	%REC	5000	7/20/2012 18:42
Surr: 2-Fluorobiphenyl	0	S		40-125	%REC	25000	7/20/2012 22:16
Surr: 2-Fluorophenol	95.8			20-120	%REC	10	7/20/2012 09:26
Surr: 2-Fluorophenol	94.6	J		20-120	%REC	100	7/20/2012 09:45
Surr: 2-Fluorophenol	0	S		20-120	%REC	5000	7/20/2012 18:42

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 09-Aug-12

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Sample ID: WG-1620-MW55B-20120712
Collection Date: 7/12/2012 10:40 AM

Work Order: 1207587
Lab ID: 1207587-08
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
Surr: 2-Fluorophenol	0	S		20-120	%REC	25000	7/20/2012 22:16
Surr: 4-Terphenyl-d14	111			40-135	%REC	10	7/20/2012 09:26
Surr: 4-Terphenyl-d14	111	J		40-135	%REC	100	7/20/2012 09:45
Surr: 4-Terphenyl-d14	0	S		40-135	%REC	5000	7/20/2012 18:42
Surr: 4-Terphenyl-d14	0	S		40-135	%REC	25000	7/20/2012 22:16
Surr: Nitrobenzene-d5	98.0			41-120	%REC	10	7/20/2012 09:26
Surr: Nitrobenzene-d5	82.4	J		41-120	%REC	100	7/20/2012 09:45
Surr: Nitrobenzene-d5	0	S		41-120	%REC	5000	7/20/2012 18:42
Surr: Nitrobenzene-d5	0	S		41-120	%REC	25000	7/20/2012 22:16
Surr: Phenol-d6	40.2			20-120	%REC	10	7/20/2012 09:26
Surr: Phenol-d6	79.8	J		20-120	%REC	100	7/20/2012 09:45
Surr: Phenol-d6	0	S		20-120	%REC	5000	7/20/2012 18:42
Surr: Phenol-d6	0	S		20-120	%REC	25000	7/20/2012 22:16

VOLATILES		Method: SW8260				Analyst: PC	
1,2-Dichloroethane	U	0.0050	0.050	mg/L	10	7/18/2012 06:23	
Benzene	0.89	0.0050	0.050	mg/L	10	7/18/2012 06:23	
Chlorobenzene	U	0.0050	0.050	mg/L	10	7/18/2012 06:23	
Ethylbenzene	0.21	0.0050	0.050	mg/L	10	7/18/2012 06:23	
Methylene chloride	U	0.010	0.10	mg/L	10	7/18/2012 06:23	
Toluene	0.90	0.0050	0.050	mg/L	10	7/18/2012 06:23	
Xylenes, Total	0.68	0.015	0.15	mg/L	10	7/18/2012 06:23	
Surr: 1,2-Dichloroethane-d4	97.5		70-125	%REC	10	7/18/2012 06:23	
Surr: 4-Bromofluorobenzene	124		72-125	%REC	10	7/18/2012 06:23	
Surr: Dibromofluoromethane	95.9		71-125	%REC	10	7/18/2012 06:23	
Surr: Toluene-d8	114		75-125	%REC	10	7/18/2012 06:23	

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 09-Aug-12

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Sample ID: WG-1620-MW55A-20120712
Collection Date: 7/12/2012 11:25 AM

Work Order: 1207587
Lab ID: 1207587-09
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270	Prep: SW3510 / 7/17/12	Analyst: ACN		
1,2-Diphenylhydrazine	U		0.000050	0.00020	mg/L	1	7/23/2012 22:28
2,4-Dimethylphenol	0.96		0.010	0.040	mg/L	200	7/20/2012 20:20
2,4-Dinitrotoluene	U		0.000050	0.00020	mg/L	1	7/23/2012 22:28
2,6-Dinitrotoluene	U		0.000060	0.00020	mg/L	1	7/23/2012 22:28
2-Chloronaphthalene	U		0.000050	0.00020	mg/L	1	7/23/2012 22:28
2-Methylnaphthalene	0.31		0.0025	0.010	mg/L	50	7/20/2012 07:30
4,6-Dinitro-2-methylphenol	U		0.000080	0.00020	mg/L	1	7/23/2012 22:28
4-Nitrophenol	U		0.000050	0.0010	mg/L	1	7/23/2012 22:28
Acenaphthene	0.11		0.0025	0.010	mg/L	50	7/20/2012 07:30
Acenaphthylene	0.0017		0.000050	0.00020	mg/L	1	7/23/2012 22:28
Anthracene	0.0075		0.000050	0.00020	mg/L	1	7/23/2012 22:28
Benz(a)anthracene	0.00034		0.000050	0.00020	mg/L	1	7/23/2012 22:28
Benzo(a)pyrene	0.000081	J	0.000050	0.00020	mg/L	1	7/23/2012 22:28
Bis(2-chloroethoxy)methane	U		0.000050	0.00020	mg/L	1	7/23/2012 22:28
Bis(2-ethylhexyl)phthalate	U		0.00010	0.00020	mg/L	1	7/23/2012 22:28
Chrysene	0.00025		0.000050	0.00020	mg/L	1	7/23/2012 22:28
Dibenzofuran	0.078		0.00050	0.0020	mg/L	10	7/19/2012 03:56
Di-n-butyl phthalate	U		0.000050	0.00020	mg/L	1	7/23/2012 22:28
Fluoranthene	0.0042		0.000050	0.00020	mg/L	1	7/23/2012 22:28
Fluorene	0.048		0.00050	0.0020	mg/L	10	7/19/2012 03:56
Naphthalene	9.7		0.10	0.40	mg/L	2000	7/20/2012 23:34
Nitrobenzene	U		0.000050	0.00020	mg/L	1	7/23/2012 22:28
N-Nitrosodiphenylamine	U		0.000050	0.00020	mg/L	1	7/23/2012 22:28
Pentachlorophenol	U		0.000050	0.00020	mg/L	1	7/23/2012 22:28
Phenanthrene	0.045		0.00050	0.0020	mg/L	10	7/19/2012 03:56
Phenol	0.046		0.00050	0.0020	mg/L	10	7/19/2012 03:56
Pyrene	0.0021		0.000050	0.00020	mg/L	1	7/23/2012 22:28
Surr: 2,4,6-Tribromophenol	72.7			34-129	%REC	10	7/19/2012 03:56
Surr: 2,4,6-Tribromophenol	82.4	J		34-129	%REC	50	7/20/2012 07:30
Surr: 2,4,6-Tribromophenol	1,070	S		34-129	%REC	200	7/20/2012 20:20
Surr: 2,4,6-Tribromophenol	0	S		34-129	%REC	2000	7/20/2012 23:34
Surr: 2,4,6-Tribromophenol	53.8			34-129	%REC	1	7/23/2012 22:28
Surr: 2-Fluorobiphenyl	75.9			40-125	%REC	10	7/19/2012 03:56
Surr: 2-Fluorobiphenyl	76.4	J		40-125	%REC	50	7/20/2012 07:30
Surr: 2-Fluorobiphenyl	0	S		40-125	%REC	200	7/20/2012 20:20
Surr: 2-Fluorobiphenyl	0	S		40-125	%REC	2000	7/20/2012 23:34
Surr: 2-Fluorobiphenyl	45.2			40-125	%REC	1	7/23/2012 22:28
Surr: 2-Fluorophenol	75.8			20-120	%REC	10	7/19/2012 03:56

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 09-Aug-12

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Sample ID: WG-1620-MW55A-20120712
Collection Date: 7/12/2012 11:25 AM

Work Order: 1207587
Lab ID: 1207587-09
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
Surr: 2-Fluorophenol	100	J		20-120	%REC	50	7/20/2012 07:30
Surr: 2-Fluorophenol	0	S		20-120	%REC	200	7/20/2012 20:20
Surr: 2-Fluorophenol	0	S		20-120	%REC	2000	7/20/2012 23:34
Surr: 2-Fluorophenol	80.8			20-120	%REC	1	7/23/2012 22:28
Surr: 4-Terphenyl-d14	80.3			40-135	%REC	10	7/19/2012 03:56
Surr: 4-Terphenyl-d14	81.0	J		40-135	%REC	50	7/20/2012 07:30
Surr: 4-Terphenyl-d14	0	S		40-135	%REC	200	7/20/2012 20:20
Surr: 4-Terphenyl-d14	0	S		40-135	%REC	2000	7/20/2012 23:34
Surr: 4-Terphenyl-d14	64.1			40-135	%REC	1	7/23/2012 22:28
Surr: Nitrobenzene-d5	73.5			41-120	%REC	10	7/19/2012 03:56
Surr: Nitrobenzene-d5	70.4	J		41-120	%REC	50	7/20/2012 07:30
Surr: Nitrobenzene-d5	0	S		41-120	%REC	200	7/20/2012 20:20
Surr: Nitrobenzene-d5	0	S		41-120	%REC	2000	7/20/2012 23:34
Surr: Nitrobenzene-d5	55.6			41-120	%REC	1	7/23/2012 22:28
Surr: Phenol-d6	71.1			20-120	%REC	10	7/19/2012 03:56
Surr: Phenol-d6	70.5	J		20-120	%REC	50	7/20/2012 07:30
Surr: Phenol-d6	0	S		20-120	%REC	200	7/20/2012 20:20
Surr: Phenol-d6	0	S		20-120	%REC	2000	7/20/2012 23:34
Surr: Phenol-d6	76.8			20-120	%REC	1	7/23/2012 22:28

VOLATILES	Method: SW8260				Analyst: PC		
1,2-Dichloroethane	U		0.0050	0.050	mg/L	10	7/18/2012 06:49
Benzene	0.17		0.0050	0.050	mg/L	10	7/18/2012 06:49
Chlorobenzene	U		0.0050	0.050	mg/L	10	7/18/2012 06:49
Ethylbenzene	0.24		0.0050	0.050	mg/L	10	7/18/2012 06:49
Methylene chloride	U		0.010	0.10	mg/L	10	7/18/2012 06:49
Toluene	0.39		0.0050	0.050	mg/L	10	7/18/2012 06:49
Xylenes, Total	0.62		0.015	0.15	mg/L	10	7/18/2012 06:49
Surr: 1,2-Dichloroethane-d4	96.7			70-125	%REC	10	7/18/2012 06:49
Surr: 4-Bromofluorobenzene	101			72-125	%REC	10	7/18/2012 06:49
Surr: Dibromofluoromethane	95.5			71-125	%REC	10	7/18/2012 06:49
Surr: Toluene-d8	84.4			75-125	%REC	10	7/18/2012 06:49

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 09-Aug-12

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Sample ID: WG-1620-FB2-20120712
Collection Date: 7/12/2012 11:45 AM

Work Order: 1207587
Lab ID: 1207587-10
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270	Prep: SW3510 / 7/17/12	Analyst: ACN		
1,2-Diphenylhydrazine	U		0.000050	0.00020	mg/L	1	7/19/2012 01:35
2,4-Dimethylphenol	U		0.000050	0.00020	mg/L	1	7/19/2012 01:35
2,4-Dinitrotoluene	U		0.000050	0.00020	mg/L	1	7/19/2012 01:35
2,6-Dinitrotoluene	U		0.000060	0.00020	mg/L	1	7/19/2012 01:35
2-Chloronaphthalene	U		0.000050	0.00020	mg/L	1	7/19/2012 01:35
2-Methylnaphthalene	0.00012	J	0.000050	0.00020	mg/L	1	7/19/2012 01:35
4,6-Dinitro-2-methylphenol	U		0.000080	0.00020	mg/L	1	7/19/2012 01:35
4-Nitrophenol	U		0.000050	0.0010	mg/L	1	7/19/2012 01:35
Acenaphthene	U		0.000050	0.00020	mg/L	1	7/19/2012 01:35
Acenaphthylene	U		0.000050	0.00020	mg/L	1	7/19/2012 01:35
Anthracene	U		0.000050	0.00020	mg/L	1	7/19/2012 01:35
Benz(a)anthracene	U		0.000050	0.00020	mg/L	1	7/19/2012 01:35
Benzo(a)pyrene	U		0.000050	0.00020	mg/L	1	7/19/2012 01:35
Bis(2-chloroethoxy)methane	U		0.000050	0.00020	mg/L	1	7/19/2012 01:35
Bis(2-ethylhexyl)phthalate	0.00010	J	0.00010	0.00020	mg/L	1	7/19/2012 01:35
Chrysene	U		0.000050	0.00020	mg/L	1	7/19/2012 01:35
Dibenzofuran	0.000062	J	0.000050	0.00020	mg/L	1	7/19/2012 01:35
Di-n-butyl phthalate	U		0.000050	0.00020	mg/L	1	7/19/2012 01:35
Fluoranthene	U		0.000050	0.00020	mg/L	1	7/19/2012 01:35
Fluorene	U		0.000050	0.00020	mg/L	1	7/19/2012 01:35
Naphthalene	0.0013		0.000050	0.00020	mg/L	1	7/19/2012 01:35
Nitrobenzene	U		0.000050	0.00020	mg/L	1	7/19/2012 01:35
N-Nitrosodiphenylamine	U		0.000050	0.00020	mg/L	1	7/19/2012 01:35
Pentachlorophenol	U		0.000050	0.00020	mg/L	1	7/19/2012 01:35
Phenanthrene	U		0.000050	0.00020	mg/L	1	7/19/2012 01:35
Phenol	0.00023		0.000050	0.00020	mg/L	1	7/19/2012 01:35
Pyrene	U		0.000050	0.00020	mg/L	1	7/19/2012 01:35
Surr: 2,4,6-Tribromophenol	61.3			34-129	%REC	1	7/19/2012 01:35
Surr: 2-Fluorobiphenyl	62.3			40-125	%REC	1	7/19/2012 01:35
Surr: 2-Fluorophenol	54.1			20-120	%REC	1	7/19/2012 01:35
Surr: 4-Terphenyl-d14	90.3			40-135	%REC	1	7/19/2012 01:35
Surr: Nitrobenzene-d5	56.8			41-120	%REC	1	7/19/2012 01:35
Surr: Phenol-d6	56.1			20-120	%REC	1	7/19/2012 01:35

VOLATILES			Method: SW8260	Analyst: PC			
1,2-Dichloroethane	U		0.00050	0.0050	mg/L	1	7/17/2012 16:37
Benzene	U		0.00050	0.0050	mg/L	1	7/17/2012 16:37
Chlorobenzene	U		0.00050	0.0050	mg/L	1	7/17/2012 16:37
Ethylbenzene	U		0.00050	0.0050	mg/L	1	7/17/2012 16:37

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 09-Aug-12

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Sample ID: WG-1620-FB2-20120712
Collection Date: 7/12/2012 11:45 AM

Work Order: 1207587
Lab ID: 1207587-10
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
Methylene chloride	U		0.0010	0.010	mg/L	1	7/17/2012 16:37
Toluene	U		0.00050	0.0050	mg/L	1	7/17/2012 16:37
Vinyl chloride	U		0.00050	0.0020	mg/L	1	7/17/2012 16:37
Xylenes, Total	U		0.0015	0.015	mg/L	1	7/17/2012 16:37
Surr: 1,2-Dichloroethane-d4	99.9			70-125	%REC	1	7/17/2012 16:37
Surr: 4-Bromofluorobenzene	110			72-125	%REC	1	7/17/2012 16:37
Surr: Dibromofluoromethane	101			71-125	%REC	1	7/17/2012 16:37
Surr: Toluene-d8	95.0			75-125	%REC	1	7/17/2012 16:37

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 09-Aug-12

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Sample ID: WG-1620-MW19C-20120712
Collection Date: 7/12/2012 12:45 PM

Work Order: 1207587
Lab ID: 1207587-11
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270	Prep: SW3510 / 7/17/12	Analyst: ACN		
1,2-Diphenylhydrazine	U		0.000050	0.00020	mg/L	1	7/19/2012 01:55
2,4-Dimethylphenol	0.00016	J	0.000050	0.00020	mg/L	1	7/19/2012 01:55
2,4-Dinitrotoluene	U		0.000050	0.00020	mg/L	1	7/19/2012 01:55
2,6-Dinitrotoluene	U		0.000060	0.00020	mg/L	1	7/19/2012 01:55
2-Chloronaphthalene	U		0.000050	0.00020	mg/L	1	7/19/2012 01:55
2-Methylnaphthalene	0.000053	J	0.000050	0.00020	mg/L	1	7/19/2012 01:55
4,6-Dinitro-2-methylphenol	U		0.000080	0.00020	mg/L	1	7/19/2012 01:55
4-Nitrophenol	U		0.000050	0.0010	mg/L	1	7/19/2012 01:55
Acenaphthene	0.00017	J	0.000050	0.00020	mg/L	1	7/19/2012 01:55
Acenaphthylene	U		0.000050	0.00020	mg/L	1	7/19/2012 01:55
Anthracene	U		0.000050	0.00020	mg/L	1	7/19/2012 01:55
Benz(a)anthracene	U		0.000050	0.00020	mg/L	1	7/19/2012 01:55
Benzo(a)pyrene	U		0.000050	0.00020	mg/L	1	7/19/2012 01:55
Bis(2-chloroethoxy)methane	U		0.000050	0.00020	mg/L	1	7/19/2012 01:55
Bis(2-ethylhexyl)phthalate	0.00014	J	0.00010	0.00020	mg/L	1	7/19/2012 01:55
Chrysene	U		0.000050	0.00020	mg/L	1	7/19/2012 01:55
Dibenzofuran	0.00011	J	0.000050	0.00020	mg/L	1	7/19/2012 01:55
Di-n-butyl phthalate	0.00015	J	0.000050	0.00020	mg/L	1	7/19/2012 01:55
Fluoranthene	0.0018		0.000050	0.00020	mg/L	1	7/19/2012 01:55
Fluorene	0.00033		0.000050	0.00020	mg/L	1	7/19/2012 01:55
Naphthalene	0.00048		0.000050	0.00020	mg/L	1	7/19/2012 01:55
Nitrobenzene	U		0.000050	0.00020	mg/L	1	7/19/2012 01:55
N-Nitrosodiphenylamine	U		0.000050	0.00020	mg/L	1	7/19/2012 01:55
Pentachlorophenol	U		0.000050	0.00020	mg/L	1	7/19/2012 01:55
Phenanthrene	U		0.000050	0.00020	mg/L	1	7/19/2012 01:55
Phenol	0.00024		0.000050	0.00020	mg/L	1	7/19/2012 01:55
Pyrene	0.0014		0.000050	0.00020	mg/L	1	7/19/2012 01:55
Surr: 2,4,6-Tribromophenol	67.1			34-129	%REC	1	7/19/2012 01:55
Surr: 2-Fluorobiphenyl	61.4			40-125	%REC	1	7/19/2012 01:55
Surr: 2-Fluorophenol	53.3			20-120	%REC	1	7/19/2012 01:55
Surr: 4-Terphenyl-d14	82.5			40-135	%REC	1	7/19/2012 01:55
Surr: Nitrobenzene-d5	58.2			41-120	%REC	1	7/19/2012 01:55
Surr: Phenol-d6	53.0			20-120	%REC	1	7/19/2012 01:55
VOLATILES			Method: SW8260	Analyst: PC			
1,2-Dichloroethane	U		0.00050	0.0050	mg/L	1	7/17/2012 19:17
Benzene	U		0.00050	0.0050	mg/L	1	7/17/2012 19:17
Chlorobenzene	U		0.00050	0.0050	mg/L	1	7/17/2012 19:17
Ethylbenzene	U		0.00050	0.0050	mg/L	1	7/17/2012 19:17

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 09-Aug-12

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Sample ID: WG-1620-MW19C-20120712
Collection Date: 7/12/2012 12:45 PM

Work Order: 1207587
Lab ID: 1207587-11
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
Methylene chloride	U		0.0010	0.010	mg/L	1	7/17/2012 19:17
Toluene	U		0.00050	0.0050	mg/L	1	7/17/2012 19:17
Vinyl chloride	U		0.00050	0.0020	mg/L	1	7/17/2012 19:17
Xylenes, Total	U		0.0015	0.015	mg/L	1	7/17/2012 19:17
Surr: 1,2-Dichloroethane-d4	86.3			70-125	%REC	1	7/17/2012 19:17
Surr: 4-Bromofluorobenzene	98.7			72-125	%REC	1	7/17/2012 19:17
Surr: Dibromofluoromethane	102			71-125	%REC	1	7/17/2012 19:17
Surr: Toluene-d8	96.6			75-125	%REC	1	7/17/2012 19:17

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 09-Aug-12

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Sample ID: WG-1620-MW52A-20120712
Collection Date: 7/12/2012 01:45 PM

Work Order: 1207587
Lab ID: 1207587-12
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270	Prep: SW3510 / 7/17/12	Analyst: ACN		
1,2-Diphenylhydrazine	U		0.000050	0.00020	mg/L	1	7/19/2012 02:15
2,4-Dimethylphenol	0.029		0.00050	0.0020	mg/L	10	7/19/2012 04:17
2,4-Dinitrotoluene	U		0.000050	0.00020	mg/L	1	7/19/2012 02:15
2,6-Dinitrotoluene	U		0.000060	0.00020	mg/L	1	7/19/2012 02:15
2-Chloronaphthalene	U		0.000050	0.00020	mg/L	1	7/19/2012 02:15
2-Methylnaphthalene	0.16		0.0050	0.020	mg/L	100	7/20/2012 07:49
4,6-Dinitro-2-methylphenol	U		0.000080	0.00020	mg/L	1	7/19/2012 02:15
4-Nitrophenol	U		0.000050	0.0010	mg/L	1	7/19/2012 02:15
Acenaphthene	0.15		0.0050	0.020	mg/L	100	7/20/2012 07:49
Acenaphthylene	0.0025		0.000050	0.00020	mg/L	1	7/19/2012 02:15
Anthracene	0.021		0.00050	0.0020	mg/L	10	7/19/2012 04:17
Benz(a)anthracene	0.00022		0.000050	0.00020	mg/L	1	7/19/2012 02:15
Benzo(a)pyrene	U		0.000050	0.00020	mg/L	1	7/19/2012 02:15
Bis(2-chloroethoxy)methane	U		0.000050	0.00020	mg/L	1	7/19/2012 02:15
Bis(2-ethylhexyl)phthalate	U		0.00010	0.00020	mg/L	1	7/19/2012 02:15
Chrysene	0.00028		0.000050	0.00020	mg/L	1	7/19/2012 02:15
Dibenzofuran	0.13		0.0050	0.020	mg/L	100	7/20/2012 07:49
Di-n-butyl phthalate	U		0.000050	0.00020	mg/L	1	7/19/2012 02:15
Fluoranthene	0.017		0.00050	0.0020	mg/L	10	7/19/2012 04:17
Fluorene	0.11		0.0050	0.020	mg/L	100	7/20/2012 07:49
Naphthalene	0.83		0.0050	0.020	mg/L	100	7/20/2012 07:49
Nitrobenzene	U		0.000050	0.00020	mg/L	1	7/19/2012 02:15
N-Nitrosodiphenylamine	U		0.000050	0.00020	mg/L	1	7/19/2012 02:15
Pentachlorophenol	U		0.000050	0.00020	mg/L	1	7/19/2012 02:15
Phenanthrene	0.12		0.0050	0.020	mg/L	100	7/20/2012 07:49
Phenol	0.00015	J	0.000050	0.00020	mg/L	1	7/19/2012 02:15
Pyrene	0.0071		0.000050	0.00020	mg/L	1	7/19/2012 02:15
Surr: 2,4,6-Tribromophenol	56.8			34-129	%REC	1	7/19/2012 02:15
Surr: 2,4,6-Tribromophenol	66.2			34-129	%REC	10	7/19/2012 04:17
Surr: 2,4,6-Tribromophenol	53.3	J		34-129	%REC	100	7/20/2012 07:49
Surr: 2-Fluorobiphenyl	50.5			40-125	%REC	1	7/19/2012 02:15
Surr: 2-Fluorobiphenyl	54.7			40-125	%REC	10	7/19/2012 04:17
Surr: 2-Fluorobiphenyl	52.1	J		40-125	%REC	100	7/20/2012 07:49
Surr: 2-Fluorophenol	47.9			20-120	%REC	1	7/19/2012 02:15
Surr: 2-Fluorophenol	47.4			20-120	%REC	10	7/19/2012 04:17
Surr: 2-Fluorophenol	54.1	J		20-120	%REC	100	7/20/2012 07:49
Surr: 4-Terphenyl-d14	68.5			40-135	%REC	1	7/19/2012 02:15
Surr: 4-Terphenyl-d14	59.7			40-135	%REC	10	7/19/2012 04:17

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 09-Aug-12

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Sample ID: WG-1620-MW52A-20120712
Collection Date: 7/12/2012 01:45 PM

Work Order: 1207587
Lab ID: 1207587-12
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
Surr: 4-Terphenyl-d14	75.6	J		40-135	%REC	100	7/20/2012 07:49
Surr: Nitrobenzene-d5	46.8			41-120	%REC	1	7/19/2012 02:15
Surr: Nitrobenzene-d5	58.9			41-120	%REC	10	7/19/2012 04:17
Surr: Nitrobenzene-d5	47.0	J		41-120	%REC	100	7/20/2012 07:49
Surr: Phenol-d6	52.0			20-120	%REC	1	7/19/2012 02:15
Surr: Phenol-d6	50.3			20-120	%REC	10	7/19/2012 04:17
Surr: Phenol-d6	52.2	J		20-120	%REC	100	7/20/2012 07:49

VOLATILES		Method: SW8260				Analyst: PC	
1,2-Dichloroethane	U	0.00050	0.0050	mg/L	1	7/17/2012 19:44	
Benzene	0.0053	0.00050	0.0050	mg/L	1	7/17/2012 19:44	
Chlorobenzene	U	0.00050	0.0050	mg/L	1	7/17/2012 19:44	
Ethylbenzene	0.0099	0.00050	0.0050	mg/L	1	7/17/2012 19:44	
Methylene chloride	U	0.0010	0.010	mg/L	1	7/17/2012 19:44	
Toluene	0.0084	0.00050	0.0050	mg/L	1	7/17/2012 19:44	
Vinyl chloride	U	0.00050	0.0020	mg/L	1	7/17/2012 19:44	
Xylenes, Total	0.021	0.0015	0.015	mg/L	1	7/17/2012 19:44	
Surr: 1,2-Dichloroethane-d4	102		70-125	%REC	1	7/17/2012 19:44	
Surr: 4-Bromofluorobenzene	94.9		72-125	%REC	1	7/17/2012 19:44	
Surr: Dibromofluoromethane	96.7		71-125	%REC	1	7/17/2012 19:44	
Surr: Toluene-d8	94.9		75-125	%REC	1	7/17/2012 19:44	

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 09-Aug-12

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Sample ID: WG-1620-MW30A-20120712
Collection Date: 7/12/2012 02:25 PM

Work Order: 1207587
Lab ID: 1207587-13
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270	Prep: SW3510 / 7/17/12	Analyst: ACN		
1,2-Diphenylhydrazine	U		0.000050	0.00020	mg/L	1	7/23/2012 22:48
2,4-Dimethylphenol	2.7		0.050	0.20	mg/L	1000	7/20/2012 20:39
2,4-Dinitrotoluene	U		0.000050	0.00020	mg/L	1	7/23/2012 22:48
2,6-Dinitrotoluene	U		0.000060	0.00020	mg/L	1	7/23/2012 22:48
2-Chloronaphthalene	U		0.000050	0.00020	mg/L	1	7/23/2012 22:48
2-Methylnaphthalene	0.67		0.0050	0.020	mg/L	100	7/20/2012 08:08
4,6-Dinitro-2-methylphenol	U		0.000080	0.00020	mg/L	1	7/23/2012 22:48
4-Nitrophenol	U		0.000050	0.0010	mg/L	1	7/23/2012 22:48
Acenaphthene	0.24		0.0050	0.020	mg/L	100	7/20/2012 08:08
Acenaphthylene	0.0074		0.000050	0.00020	mg/L	1	7/23/2012 22:48
Anthracene	0.018		0.00050	0.0020	mg/L	10	7/19/2012 04:37
Benz(a)anthracene	U		0.000050	0.00020	mg/L	1	7/23/2012 22:48
Benzo(a)pyrene	U		0.000050	0.00020	mg/L	1	7/23/2012 22:48
Bis(2-chloroethoxy)methane	U		0.000050	0.00020	mg/L	1	7/23/2012 22:48
Bis(2-ethylhexyl)phthalate	U		0.00010	0.00020	mg/L	1	7/23/2012 22:48
Chrysene	U		0.000050	0.00020	mg/L	1	7/23/2012 22:48
Dibenzofuran	0.20		0.0050	0.020	mg/L	100	7/20/2012 08:08
Di-n-butyl phthalate	0.00020		0.000050	0.00020	mg/L	1	7/23/2012 22:48
Fluoranthene	0.0038		0.000050	0.00020	mg/L	1	7/23/2012 22:48
Fluorene	0.14		0.0050	0.020	mg/L	100	7/20/2012 08:08
Naphthalene	12		0.10	0.40	mg/L	2000	7/20/2012 23:53
Nitrobenzene	U		0.000050	0.00020	mg/L	1	7/23/2012 22:48
N-Nitrosodiphenylamine	U		0.000050	0.00020	mg/L	1	7/23/2012 22:48
Pentachlorophenol	U		0.000050	0.00020	mg/L	1	7/23/2012 22:48
Phenanthrene	0.10		0.00050	0.0020	mg/L	10	7/19/2012 04:37
Phenol	0.020		0.00050	0.0020	mg/L	10	7/19/2012 04:37
Pyrene	0.0018		0.000050	0.00020	mg/L	1	7/23/2012 22:48
Surr: 2,4,6-Tribromophenol	73.0			34-129	%REC	10	7/19/2012 04:37
Surr: 2,4,6-Tribromophenol	108	J		34-129	%REC	100	7/20/2012 08:08
Surr: 2,4,6-Tribromophenol	0	S		34-129	%REC	1000	7/20/2012 20:39
Surr: 2,4,6-Tribromophenol	0	S		34-129	%REC	2000	7/20/2012 23:53
Surr: 2,4,6-Tribromophenol	71.1			34-129	%REC	1	7/23/2012 22:48
Surr: 2-Fluorobiphenyl	91.2			40-125	%REC	10	7/19/2012 04:37
Surr: 2-Fluorobiphenyl	84.1	J		40-125	%REC	100	7/20/2012 08:08
Surr: 2-Fluorobiphenyl	0	S		40-125	%REC	1000	7/20/2012 20:39
Surr: 2-Fluorobiphenyl	0	S		40-125	%REC	2000	7/20/2012 23:53
Surr: 2-Fluorobiphenyl	55.5			40-125	%REC	1	7/23/2012 22:48
Surr: 2-Fluorophenol	101			20-120	%REC	10	7/19/2012 04:37

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 09-Aug-12

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Sample ID: WG-1620-MW30A-20120712
Collection Date: 7/12/2012 02:25 PM

Work Order: 1207587
Lab ID: 1207587-13
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
Surr: 2-Fluorophenol	87.8	J		20-120	%REC	100	7/20/2012 08:08
Surr: 2-Fluorophenol	0	S		20-120	%REC	1000	7/20/2012 20:39
Surr: 2-Fluorophenol	0	S		20-120	%REC	2000	7/20/2012 23:53
Surr: 2-Fluorophenol	62.2			20-120	%REC	1	7/23/2012 22:48
Surr: 4-Terphenyl-d14	105			40-135	%REC	10	7/19/2012 04:37
Surr: 4-Terphenyl-d14	91.7	J		40-135	%REC	100	7/20/2012 08:08
Surr: 4-Terphenyl-d14	0	S		40-135	%REC	1000	7/20/2012 20:39
Surr: 4-Terphenyl-d14	0	S		40-135	%REC	2000	7/20/2012 23:53
Surr: 4-Terphenyl-d14	88.6			40-135	%REC	1	7/23/2012 22:48
Surr: Nitrobenzene-d5	93.4			41-120	%REC	10	7/19/2012 04:37
Surr: Nitrobenzene-d5	70.4	J		41-120	%REC	100	7/20/2012 08:08
Surr: Nitrobenzene-d5	0	S		41-120	%REC	1000	7/20/2012 20:39
Surr: Nitrobenzene-d5	0	S		41-120	%REC	2000	7/20/2012 23:53
Surr: Nitrobenzene-d5	105			41-120	%REC	1	7/23/2012 22:48
Surr: Phenol-d6	87.6			20-120	%REC	10	7/19/2012 04:37
Surr: Phenol-d6	51.1	J		20-120	%REC	100	7/20/2012 08:08
Surr: Phenol-d6	0	S		20-120	%REC	1000	7/20/2012 20:39
Surr: Phenol-d6	0	S		20-120	%REC	2000	7/20/2012 23:53
Surr: Phenol-d6	102			20-120	%REC	1	7/23/2012 22:48

VOLATILES		Method: SW8260			Analyst: PC		
1,2-Dichloroethane	U	0.0025	0.025	mg/L	5	7/18/2012 07:16	
Benzene	0.14	0.0025	0.025	mg/L	5	7/18/2012 07:16	
Chlorobenzene	U	0.0025	0.025	mg/L	5	7/18/2012 07:16	
Ethylbenzene	0.13	0.0025	0.025	mg/L	5	7/18/2012 07:16	
Methylene chloride	U	0.0050	0.050	mg/L	5	7/18/2012 07:16	
Toluene	0.54	0.0025	0.025	mg/L	5	7/18/2012 07:16	
Xylenes, Total	0.32	0.0075	0.075	mg/L	5	7/18/2012 07:16	
Surr: 1,2-Dichloroethane-d4	97.9		70-125	%REC	5	7/18/2012 07:16	
Surr: 4-Bromofluorobenzene	106		72-125	%REC	5	7/18/2012 07:16	
Surr: Dibromofluoromethane	96.8		71-125	%REC	5	7/18/2012 07:16	
Surr: Toluene-d8	93.6		75-125	%REC	5	7/18/2012 07:16	

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 09-Aug-12

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Sample ID: WG-1620-MW17-20120712
Collection Date: 7/12/2012 03:20 PM

Work Order: 1207587
Lab ID: 1207587-14
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270	Prep: SW3510 / 7/17/12	Analyst: ACN		
1,2-Diphenylhydrazine	U		0.000050	0.00020	mg/L	1	7/23/2012 23:07
2,4-Dimethylphenol	4.0		0.050	0.20	mg/L	1000	7/20/2012 20:58
2,4-Dinitrotoluene	U		0.000050	0.00020	mg/L	1	7/23/2012 23:07
2,6-Dinitrotoluene	U		0.000060	0.00020	mg/L	1	7/23/2012 23:07
2-Chloronaphthalene	U		0.000050	0.00020	mg/L	1	7/23/2012 23:07
2-Methylnaphthalene	0.51		0.0050	0.020	mg/L	100	7/20/2012 08:28
4,6-Dinitro-2-methylphenol	U		0.000080	0.00020	mg/L	1	7/23/2012 23:07
4-Nitrophenol	U		0.000050	0.0010	mg/L	1	7/23/2012 23:07
Acenaphthene	0.14		0.0050	0.020	mg/L	100	7/20/2012 08:28
Acenaphthylene	0.0050		0.000050	0.00020	mg/L	1	7/23/2012 23:07
Anthracene	0.014		0.00050	0.0020	mg/L	10	7/19/2012 04:57
Benz(a)anthracene	0.00018	J	0.000050	0.00020	mg/L	1	7/23/2012 23:07
Benzo(a)pyrene	U		0.000050	0.00020	mg/L	1	7/23/2012 23:07
Bis(2-chloroethoxy)methane	U		0.000050	0.00020	mg/L	1	7/23/2012 23:07
Bis(2-ethylhexyl)phthalate	0.00027		0.00010	0.00020	mg/L	1	7/23/2012 23:07
Chrysene	0.00011	J	0.000050	0.00020	mg/L	1	7/23/2012 23:07
Dibenzofuran	0.13		0.0050	0.020	mg/L	100	7/20/2012 08:28
Di-n-butyl phthalate	U		0.000050	0.00020	mg/L	1	7/23/2012 23:07
Fluoranthene	0.0034		0.000050	0.00020	mg/L	1	7/23/2012 23:07
Fluorene	0.082		0.00050	0.0020	mg/L	10	7/19/2012 04:57
Naphthalene	14		0.10	0.40	mg/L	2000	7/21/2012 00:13
Nitrobenzene	U		0.000050	0.00020	mg/L	1	7/23/2012 23:07
N-Nitrosodiphenylamine	U		0.000050	0.00020	mg/L	1	7/23/2012 23:07
Pentachlorophenol	U		0.000050	0.00020	mg/L	1	7/23/2012 23:07
Phenanthrene	0.063		0.00050	0.0020	mg/L	10	7/19/2012 04:57
Phenol	6.1		0.050	0.20	mg/L	1000	7/20/2012 20:58
Pyrene	0.0018		0.000050	0.00020	mg/L	1	7/23/2012 23:07
Surr: 2,4,6-Tribromophenol	76.6			34-129	%REC	10	7/19/2012 04:57
Surr: 2,4,6-Tribromophenol	93.6	J		34-129	%REC	100	7/20/2012 08:28
Surr: 2,4,6-Tribromophenol	0	S		34-129	%REC	1000	7/20/2012 20:58
Surr: 2,4,6-Tribromophenol	0	S		34-129	%REC	2000	7/21/2012 00:13
Surr: 2,4,6-Tribromophenol	91.0			34-129	%REC	1	7/23/2012 23:07
Surr: 2-Fluorobiphenyl	84.7			40-125	%REC	10	7/19/2012 04:57
Surr: 2-Fluorobiphenyl	72.8	J		40-125	%REC	100	7/20/2012 08:28
Surr: 2-Fluorobiphenyl	0	S		40-125	%REC	1000	7/20/2012 20:58
Surr: 2-Fluorobiphenyl	0	S		40-125	%REC	2000	7/21/2012 00:13
Surr: 2-Fluorobiphenyl	63.4			40-125	%REC	1	7/23/2012 23:07
Surr: 2-Fluorophenol	76.6			20-120	%REC	10	7/19/2012 04:57

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 09-Aug-12

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Sample ID: WG-1620-MW17-20120712
Collection Date: 7/12/2012 03:20 PM

Work Order: 1207587
Lab ID: 1207587-14
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
Surr: 2-Fluorophenol	97.2	J		20-120	%REC	100	7/20/2012 08:28
Surr: 2-Fluorophenol	0	S		20-120	%REC	1000	7/20/2012 20:58
Surr: 2-Fluorophenol	0	S		20-120	%REC	2000	7/21/2012 00:13
Surr: 2-Fluorophenol	101			20-120	%REC	1	7/23/2012 23:07
Surr: 4-Terphenyl-d14	93.9			40-135	%REC	10	7/19/2012 04:57
Surr: 4-Terphenyl-d14	96.8	J		40-135	%REC	100	7/20/2012 08:28
Surr: 4-Terphenyl-d14	0	S		40-135	%REC	1000	7/20/2012 20:58
Surr: 4-Terphenyl-d14	0	S		40-135	%REC	2000	7/21/2012 00:13
Surr: 4-Terphenyl-d14	96.6			40-135	%REC	1	7/23/2012 23:07
Surr: Nitrobenzene-d5	64.1			41-120	%REC	10	7/19/2012 04:57
Surr: Nitrobenzene-d5	75.4	J		41-120	%REC	100	7/20/2012 08:28
Surr: Nitrobenzene-d5	0	S		41-120	%REC	1000	7/20/2012 20:58
Surr: Nitrobenzene-d5	0	S		41-120	%REC	2000	7/21/2012 00:13
Surr: Nitrobenzene-d5	106			41-120	%REC	1	7/23/2012 23:07
Surr: Phenol-d6	110			20-120	%REC	10	7/19/2012 04:57
Surr: Phenol-d6	77.8	J		20-120	%REC	100	7/20/2012 08:28
Surr: Phenol-d6	0	S		20-120	%REC	1000	7/20/2012 20:58
Surr: Phenol-d6	0	S		20-120	%REC	2000	7/21/2012 00:13
Surr: Phenol-d6	79.8			20-120	%REC	1	7/23/2012 23:07

VOLATILES		Method: SW8260				Analyst: PC	
1,2-Dichloroethane	U	0.0050	0.050	mg/L	10	7/18/2012 07:43	
Benzene	0.46	0.0050	0.050	mg/L	10	7/18/2012 07:43	
Chlorobenzene	U	0.0050	0.050	mg/L	10	7/18/2012 07:43	
Ethylbenzene	0.21	0.0050	0.050	mg/L	10	7/18/2012 07:43	
Methylene chloride	U	0.010	0.10	mg/L	10	7/18/2012 07:43	
Toluene	0.81	0.0050	0.050	mg/L	10	7/18/2012 07:43	
Xylenes, Total	0.69	0.015	0.15	mg/L	10	7/18/2012 07:43	
Surr: 1,2-Dichloroethane-d4	105		70-125	%REC	10	7/18/2012 07:43	
Surr: 4-Bromofluorobenzene	92.6		72-125	%REC	10	7/18/2012 07:43	
Surr: Dibromofluoromethane	93.1		71-125	%REC	10	7/18/2012 07:43	
Surr: Toluene-d8	90.4		75-125	%REC	10	7/18/2012 07:43	

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 09-Aug-12

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Sample ID: WG-1620-MW17C-20120712
Collection Date: 7/12/2012 04:20 PM

Work Order: 1207587
Lab ID: 1207587-15
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	MLQ	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270	Prep: SW3510 / 7/17/12		Analyst: ACN	
1,2-Diphenylhydrazine	U		0.000050	0.00020	mg/L	1	7/19/2012 02:35
2,4-Dimethylphenol	0.039		0.00050	0.0020	mg/L	10	7/20/2012 11:22
2,4-Dinitrotoluene	U		0.000050	0.00020	mg/L	1	7/19/2012 02:35
2,6-Dinitrotoluene	U		0.000060	0.00020	mg/L	1	7/19/2012 02:35
2-Chloronaphthalene	U		0.000050	0.00020	mg/L	1	7/19/2012 02:35
2-Methylnaphthalene	0.10		0.0025	0.010	mg/L	50	7/20/2012 11:41
4,6-Dinitro-2-methylphenol	U		0.000080	0.00020	mg/L	1	7/19/2012 02:35
4-Nitrophenol	U		0.000050	0.0010	mg/L	1	7/19/2012 02:35
Acenaphthene	0.14		0.0025	0.010	mg/L	50	7/20/2012 11:41
Acenaphthylene	0.0018		0.000050	0.00020	mg/L	1	7/19/2012 02:35
Anthracene	0.0080		0.000050	0.00020	mg/L	1	7/19/2012 02:35
Benz(a)anthracene	0.00022		0.000050	0.00020	mg/L	1	7/19/2012 02:35
Benzo(a)pyrene	U		0.000050	0.00020	mg/L	1	7/19/2012 02:35
Bis(2-chloroethoxy)methane	U		0.000050	0.00020	mg/L	1	7/19/2012 02:35
Bis(2-ethylhexyl)phthalate	0.0048		0.00010	0.00020	mg/L	1	7/19/2012 02:35
Chrysene	0.00016	J	0.000050	0.00020	mg/L	1	7/19/2012 02:35
Dibenzofuran	0.14		0.0025	0.010	mg/L	50	7/20/2012 11:41
Di-n-butyl phthalate	U		0.000050	0.00020	mg/L	1	7/19/2012 02:35
Fluoranthene	0.0048		0.000050	0.00020	mg/L	1	7/19/2012 02:35
Fluorene	0.066		0.00050	0.0020	mg/L	10	7/20/2012 11:22
Naphthalene	4.0		0.050	0.20	mg/L	1000	7/20/2012 21:37
Nitrobenzene	U		0.000050	0.00020	mg/L	1	7/19/2012 02:35
N-Nitrosodiphenylamine	U		0.000050	0.00020	mg/L	1	7/19/2012 02:35
Pentachlorophenol	U		0.000050	0.00020	mg/L	1	7/19/2012 02:35
Phenanthrene	0.076		0.00050	0.0020	mg/L	10	7/20/2012 11:22
Phenol	0.00020	J	0.000050	0.00020	mg/L	1	7/19/2012 02:35
Pyrene	0.0028		0.000050	0.00020	mg/L	1	7/19/2012 02:35
Surr: 2,4,6-Tribromophenol	77.8			34-129	%REC	1	7/19/2012 02:35
Surr: 2,4,6-Tribromophenol	98.6			34-129	%REC	10	7/20/2012 11:22
Surr: 2,4,6-Tribromophenol	106	J		34-129	%REC	50	7/20/2012 11:41
Surr: 2,4,6-Tribromophenol	0	S		34-129	%REC	1000	7/20/2012 21:37
Surr: 2-Fluorobiphenyl	61.4			40-125	%REC	1	7/19/2012 02:35
Surr: 2-Fluorobiphenyl	78.5			40-125	%REC	10	7/20/2012 11:22
Surr: 2-Fluorobiphenyl	89.9	J		40-125	%REC	50	7/20/2012 11:41
Surr: 2-Fluorobiphenyl	0	S		40-125	%REC	1000	7/20/2012 21:37
Surr: 2-Fluorophenol	83.6			20-120	%REC	1	7/19/2012 02:35
Surr: 2-Fluorophenol	91.8			20-120	%REC	10	7/20/2012 11:22
Surr: 2-Fluorophenol	95.3	J		20-120	%REC	50	7/20/2012 11:41

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 09-Aug-12

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Sample ID: WG-1620-MW17C-20120712
Collection Date: 7/12/2012 04:20 PM

Work Order: 1207587
Lab ID: 1207587-15
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
Surr: 2-Fluorophenol	0	S		20-120	%REC	1000	7/20/2012 21:37
Surr: 4-Terphenyl-d14	85.2			40-135	%REC	1	7/19/2012 02:35
Surr: 4-Terphenyl-d14	88.1			40-135	%REC	10	7/20/2012 11:22
Surr: 4-Terphenyl-d14	87.6	J		40-135	%REC	50	7/20/2012 11:41
Surr: 4-Terphenyl-d14	0	S		40-135	%REC	1000	7/20/2012 21:37
Surr: Nitrobenzene-d5	70.4			41-120	%REC	1	7/19/2012 02:35
Surr: Nitrobenzene-d5	62.4			41-120	%REC	10	7/20/2012 11:22
Surr: Nitrobenzene-d5	75.9	J		41-120	%REC	50	7/20/2012 11:41
Surr: Nitrobenzene-d5	0	S		41-120	%REC	1000	7/20/2012 21:37
Surr: Phenol-d6	71.7			20-120	%REC	1	7/19/2012 02:35
Surr: Phenol-d6	67.9			20-120	%REC	10	7/20/2012 11:22
Surr: Phenol-d6	76.4	J		20-120	%REC	50	7/20/2012 11:41
Surr: Phenol-d6	0	S		20-120	%REC	1000	7/20/2012 21:37

VOLATILES		Method: SW8260				Analyst: PC	
1,2-Dichloroethane	U	0.00050	0.0050	mg/L	1	7/17/2012 20:10	
Benzene	0.013	0.00050	0.0050	mg/L	1	7/17/2012 20:10	
Chlorobenzene	U	0.00050	0.0050	mg/L	1	7/17/2012 20:10	
Ethylbenzene	0.17	0.00050	0.0050	mg/L	1	7/17/2012 20:10	
Methylene chloride	U	0.0010	0.010	mg/L	1	7/17/2012 20:10	
Toluene	0.0057	0.00050	0.0050	mg/L	1	7/17/2012 20:10	
Xylenes, Total	0.21	0.0015	0.015	mg/L	1	7/17/2012 20:10	
Surr: 1,2-Dichloroethane-d4	95.2		70-125	%REC	1	7/17/2012 20:10	
Surr: 4-Bromofluorobenzene	86.9		72-125	%REC	1	7/17/2012 20:10	
Surr: Dibromofluoromethane	93.5		71-125	%REC	1	7/17/2012 20:10	
Surr: Toluene-d8	96.5		75-125	%REC	1	7/17/2012 20:10	

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 09-Aug-12

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Sample ID: WG-1620-TB1-20120712
Collection Date: 7/12/2012

Work Order: 1207587
Lab ID: 1207587-16
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
VOLATILES			Method: SW8260			Analyst: PC	
1,2-Dichloroethane	U		0.00050	0.0050	mg/L	1	7/17/2012 14:50
Benzene	U		0.00050	0.0050	mg/L	1	7/17/2012 14:50
Chlorobenzene	U		0.00050	0.0050	mg/L	1	7/17/2012 14:50
Ethylbenzene	U		0.00050	0.0050	mg/L	1	7/17/2012 14:50
Methylene chloride	U		0.0010	0.010	mg/L	1	7/17/2012 14:50
Toluene	U		0.00050	0.0050	mg/L	1	7/17/2012 14:50
Vinyl chloride	U		0.00050	0.0020	mg/L	1	7/17/2012 14:50
Xylenes, Total	U		0.0015	0.015	mg/L	1	7/17/2012 14:50
Surr: 1,2-Dichloroethane-d4		104		70-125	%REC	1	7/17/2012 14:50
Surr: 4-Bromofluorobenzene		97.2		72-125	%REC	1	7/17/2012 14:50
Surr: Dibromofluoromethane		95.8		71-125	%REC	1	7/17/2012 14:50
Surr: Toluene-d8		84.5		75-125	%REC	1	7/17/2012 14:50

Note: See Qualifiers Page for a list of qualifiers and their explanation.

WorkOrder: 1207587
 InstrumentID: SV-4
 Test Code: 8270_LOW_W
 Test Number: SW8270
 Test Name: Low-Level Semivolatiles

**METHOD DETECTION /
 REPORTING LIMITS**

Matrix: Aqueous Units: mg/L

Type	Analyte	CAS	DCS	MDL	Unadjusted MQL
A	1,2-Diphenylhydrazine	122-66-7	0.000096	0.000050	0.00020
A	2,4-Dimethylphenol	105-67-9	0.000073	0.000050	0.00020
A	2,4-Dinitrotoluene	121-14-2	0.00010	0.000050	0.00020
A	2,6-Dinitrotoluene	606-20-2	0.000063	0.000060	0.00020
A	2-Chloronaphthalene	91-58-7	0.00010	0.000050	0.00020
A	2-Methylnaphthalene	91-57-6	0.000083	0.000050	0.00020
A	4,6-Dinitro-2-methylphenol	534-52-1	0.000013	0.000080	0.00020
A	4-Nitrophenol	100-02-7	0.000082	0.000050	0.0010
A	Acenaphthene	83-32-9	0.000094	0.000050	0.00020
A	Acenaphthylene	208-96-8	0.000079	0.000050	0.00020
A	Anthracene	120-12-7	0.00010	0.000050	0.00020
A	Benz(a)anthracene	56-55-3	0.000083	0.000050	0.00020
A	Benzo(a)pyrene	50-32-8	0.000071	0.000050	0.00020
A	Bis(2-chloroethoxy)methane	111-91-1	0.00011	0.000050	0.00020
A	Bis(2-ethylhexyl)phthalate	117-81-7	0.000087	0.00010	0.00020
A	Chrysene	218-01-9	0.000089	0.000050	0.00020
A	Dibenzofuran	132-64-9	0.000093	0.000050	0.00020
A	Di-n-butyl phthalate	84-74-2	0.000094	0.000050	0.00020
A	Fluoranthene	206-44-0	0.000075	0.000050	0.00020
A	Fluorene	86-73-7	0.000076	0.000050	0.00020
A	Naphthalene	91-20-3	0.00012	0.000050	0.00020
A	Nitrobenzene	98-95-3	0.00011	0.000050	0.00020
A	N-Nitrosodiphenylamine	86-30-6	0.000098	0.000050	0.00020
A	Pentachlorophenol	87-86-5	0.0000074	0.000050	0.00020
A	Phenanthrene	85-01-8	0.000095	0.000050	0.00020
A	Phenol	108-95-2	0.00011	0.000050	0.00020
A	Pyrene	129-00-0	0.000090	0.000050	0.00020
S	Surr: 2,4,6-Tribromophenol	118-79-6	0	0	0.00020
S	Surr: 2-Fluorobiphenyl	321-60-8	0	0	0.00020
S	Surr: 2-Fluorophenol	367-12-4	0	0	0.00020
S	Surr: 4-Terphenyl-d14	1718-51-0	0	0	0.00020
S	Surr: Nitrobenzene-d5	4165-60-0	0	0	0.00020
S	Surr: Phenol-d6	13127-88-3	0	0	0.00020

WorkOrder: 1207587
 InstrumentID: SV-6
 Test Code: 8270_LOW_W
 Test Number: SW8270
 Test Name: Low-Level Semivolatiles

**METHOD DETECTION /
 REPORTING LIMITS**

Matrix: Aqueous Units: mg/L

Type	Analyte	CAS	DCS	MDL	Unadjusted MQL
A	1,2-Diphenylhydrazine	122-66-7	0.000093	0.000050	0.00020
A	2,4-Dimethylphenol	105-67-9	0.000090	0.000050	0.00020
A	2,4-Dinitrotoluene	121-14-2	0.000086	0.000050	0.00020
A	2,6-Dinitrotoluene	606-20-2	0.000099	0.000060	0.00020
A	2-Chloronaphthalene	91-58-7	0.00011	0.000050	0.00020
A	2-Methylnaphthalene	91-57-6	0.000095	0.000050	0.00020
A	4,6-Dinitro-2-methylphenol	534-52-1	0.000044	0.000080	0.00020
A	4-Nitrophenol	100-02-7	0.000086	0.000050	0.0010
A	Acenaphthene	83-32-9	0.000089	0.000050	0.00020
A	Acenaphthylene	208-96-8	0.000096	0.000050	0.00020
A	Anthracene	120-12-7	0.000092	0.000050	0.00020
A	Benz(a)anthracene	56-55-3	0.00011	0.000050	0.00020
A	Benzo(a)pyrene	50-32-8	0.000093	0.000050	0.00020
A	Bis(2-chloroethoxy)methane	111-91-1	0.000086	0.000050	0.00020
A	Bis(2-ethylhexyl)phthalate	117-81-7	0.000097	0.00010	0.00020
A	Chrysene	218-01-9	0.000091	0.000050	0.00020
A	Dibenzofuran	132-64-9	0.00011	0.000050	0.00020
A	Di-n-butyl phthalate	84-74-2	0.000093	0.000050	0.00020
A	Fluoranthene	206-44-0	0.000093	0.000050	0.00020
A	Fluorene	86-73-7	0.000096	0.000050	0.00020
A	Naphthalene	91-20-3	0.000097	0.000050	0.00020
A	Nitrobenzene	98-95-3	0.00011	0.000050	0.00020
A	N-Nitrosodiphenylamine	86-30-6	0.000097	0.000050	0.00020
A	Pentachlorophenol	87-86-5	0.000072	0.000050	0.00020
A	Phenanthrene	85-01-8	0.000094	0.000050	0.00020
A	Phenol	108-95-2	0.00011	0.000050	0.00020
A	Pyrene	129-00-0	0.000098	0.000050	0.00020
S	Surr: 2,4,6-Tribromophenol	118-79-6	0	0	0.00020
S	Surr: 2-Fluorobiphenyl	321-60-8	0	0	0.00020
S	Surr: 2-Fluorophenol	367-12-4	0	0	0.00020
S	Surr: 4-Terphenyl-d14	1718-51-0	0	0	0.00020
S	Surr: Nitrobenzene-d5	4165-60-0	0	0	0.00020
S	Surr: Phenol-d6	13127-88-3	0	0	0.00020

WorkOrder: 1207587
InstrumentID: VOA6
Test Code: 8260_W
Test Number: SW8260
Test Name: Volatiles

**METHOD DETECTION /
 REPORTING LIMITS**

Matrix: Aqueous **Units:** mg/L

Type	Analyte	CAS	DCS	MDL	Unadjusted MQL
A	1,2-Dichloroethane	107-06-2	0.0017	0.00050	0.0050
A	Benzene	71-43-2	0.0016	0.00050	0.0050
A	Chlorobenzene	108-90-7	0.0015	0.00050	0.0050
A	Ethylbenzene	100-41-4	0.0014	0.00050	0.0050
A	Methylene chloride	75-09-2	0.0010	0.0010	0.010
A	Toluene	108-88-3	0.0015	0.00050	0.0050
A	Vinyl chloride	75-01-4	0.0017	0.00050	0.0020
M	Xylenes, Total	1330-20-7	0.0044	0.0015	0.015
S	Surr: 1,2-Dichloroethane-d4	17060-07-0	0	0	0.0050
S	Surr: 4-Bromofluorobenzene	460-00-4	0	0	0.0050
S	Surr: Dibromofluoromethane	1868-53-7	0	0	0.0050
S	Surr: Toluene-d8	2037-26-5	0	0	0.0050

ALS Environmental

Date: 09-Aug-12

Client: Pastor, Behling & Wheeler, LLC
Work Order: 1207587
Project: UPRR Houston Wood GW

QC BATCH REPORT

Batch ID: **62673** Instrument ID **SV-4** Method: **SW8270**

MBLK	Sample ID: SBLKW1-120717-62673					Units: µg/L	Analysis Date: 7/17/2012 12:22 PM			
Client ID:	Run ID: SV-4_120717A					SeqNo: 2862201	Prep Date: 7/17/2012	DF: 1		
Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Diphenylhydrazine	U	0.20								
2,4-Dimethylphenol	U	0.20								
2,4-Dinitrotoluene	U	0.20								
2,6-Dinitrotoluene	U	0.20								
2-Chloronaphthalene	U	0.20								
2-Methylnaphthalene	U	0.20								
4,6-Dinitro-2-methylphenol	U	0.20								
4-Nitrophenol	U	1.0								
Acenaphthene	U	0.20								
Acenaphthylene	U	0.20								
Anthracene	U	0.20								
Benz(a)anthracene	U	0.20								
Benzo(a)pyrene	U	0.20								
Bis(2-chloroethoxy)methane	U	0.20								
Bis(2-ethylhexyl)phthalate	U	0.20								
Chrysene	U	0.20								
Dibenzofuran	U	0.20								
Di-n-butyl phthalate	U	0.20								
Fluoranthene	U	0.20								
Fluorene	U	0.20								
Naphthalene	U	0.20								
Nitrobenzene	U	0.20								
N-Nitrosodiphenylamine	U	0.20								
Pentachlorophenol	U	0.20								
Phenanthrene	U	0.20								
Phenol	U	0.20								
Pyrene	U	0.20								
<i>Surr: 2,4,6-Tribromophenol</i>	3.066	0.20	5	0	61.3	34-129		0		
<i>Surr: 2-Fluorobiphenyl</i>	4.729	0.20	5	0	94.6	40-125		0		
<i>Surr: 2-Fluorophenol</i>	4.433	0.20	5	0	88.7	20-120		0		
<i>Surr: 4-Terphenyl-d14</i>	5.49	0.20	5	0	110	40-135		0		
<i>Surr: Nitrobenzene-d5</i>	4.732	0.20	5	0	94.6	41-120		0		
<i>Surr: Phenol-d6</i>	4.62	0.20	5	0	92.4	20-120		0		

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Pastor, Behling & Wheeler, LLC
Work Order: 1207587
Project: UPRR Houston Wood GW

QC BATCH REPORT

Batch ID: **62673** Instrument ID **SV-4** Method: **SW8270**

LCS		Sample ID: SLCSW1-120717-62673			Units: µg/L			Analysis Date: 7/17/2012 12:42 PM		
Client ID:		Run ID: SV-4_120717A			SeqNo: 2862202		Prep Date: 7/17/2012		DF: 1	
Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Diphenylhydrazine	5.606	0.20	5	0	112	39-127	0			
2,4-Dimethylphenol	4.581	0.20	5	0	91.6	35-120	0			
2,4-Dinitrotoluene	4.613	0.20	5	0	92.3	50-122	0			
2,6-Dinitrotoluene	4.424	0.20	5	0	88.5	50-120	0			
2-Chloronaphthalene	4.643	0.20	5	0	92.9	50-120	0			
2-Methylnaphthalene	4.639	0.20	5	0	92.8	50-120	0			
4,6-Dinitro-2-methylphenol	3.639	0.20	5	0	72.8	25-121	0			
4-Nitrophenol	4.571	1.0	5	0	91.4	30-130	0			
Acenaphthene	4.413	0.20	5	0	88.3	45-120	0			
Acenaphthylene	4.714	0.20	5	0	94.3	47-120	0			
Anthracene	5.082	0.20	5	0	102	45-120	0			
Benz(a)anthracene	4.543	0.20	5	0	90.9	40-120	0			
Benzo(a)pyrene	4.679	0.20	5	0	93.6	45-120	0			
Bis(2-chloroethoxy)methane	5.04	0.20	5	0	101	45-120	0			
Bis(2-ethylhexyl)phthalate	5.176	0.20	5	0	104	40-139	0			
Chrysene	4.478	0.20	5	0	89.6	43-120	0			
Dibenzofuran	4.781	0.20	5	0	95.6	50-120	0			
Di-n-butyl phthalate	5.485	0.20	5	0	110	45-123	0			
Fluoranthene	5.006	0.20	5	0	100	45-125	0			
Fluorene	4.669	0.20	5	0	93.4	49-120	0			
Naphthalene	4.867	0.20	5	0	97.3	45-120	0			
Nitrobenzene	5.025	0.20	5	0	101	44-120	0			
N-Nitrosodiphenylamine	5.12	0.20	5	0	102	40-125	0			
Pentachlorophenol	3.752	0.20	5	0	75	19-121	0			
Phenanthrene	5.055	0.20	5	0	101	45-121	0			
Phenol	5.809	0.20	5	0	116	20-124	0			
Pyrene	4.899	0.20	5	0	98	40-130	0			
<i>Surr: 2,4,6-Tribromophenol</i>	4.145	0.20	5	0	82.9	34-129	0			
<i>Surr: 2-Fluorobiphenyl</i>	4.507	0.20	5	0	90.1	40-125	0			
<i>Surr: 2-Fluorophenol</i>	3.868	0.20	5	0	77.4	20-120	0			
<i>Surr: 4-Terphenyl-d14</i>	5.336	0.20	5	0	107	40-135	0			
<i>Surr: Nitrobenzene-d5</i>	4.783	0.20	5	0	95.7	41-120	0			
<i>Surr: Phenol-d6</i>	4.537	0.20	5	0	90.7	20-120	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Pastor, Behling & Wheeler, LLC
 Work Order: 1207587
 Project: UPRR Houston Wood GW

QC BATCH REPORT

Batch ID: 62673 Instrument ID SV-4 Method: SW8270

LCSD	Sample ID: SLCS DW1-120717-62673	Units: µg/L					Analysis Date: 7/17/2012 01:02 PM				
Client ID:	Run ID: SV-4_120717A	SeqNo: 2862203			Prep Date: 7/17/2012		DF: 1				
Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
1,2-Diphenylhydrazine	5.572	0.20	5	0	111	39-127	5.606	0.604	20		
2,4-Dimethylphenol	4.603	0.20	5	0	92.1	35-120	4.581	0.487	20		
2,4-Dinitrotoluene	5.035	0.20	5	0	101	50-122	4.613	8.76	20		
2,6-Dinitrotoluene	4.915	0.20	5	0	98.3	50-120	4.424	10.5	20		
2-Chloronaphthalene	4.766	0.20	5	0	95.3	50-120	4.643	2.6	20		
2-Methylnaphthalene	4.58	0.20	5	0	91.6	50-120	4.639	1.3	20		
4,6-Dinitro-2-methylphenol	3.965	0.20	5	0	79.3	25-121	3.639	8.56	20		
4-Nitrophenol	4.411	1.0	5	0	88.2	30-130	4.571	3.57	20		
Acenaphthene	4.602	0.20	5	0	92	45-120	4.413	4.19	20		
Acenaphthylene	4.986	0.20	5	0	99.7	47-120	4.714	5.62	20		
Anthracene	5.059	0.20	5	0	101	45-120	5.082	0.462	20		
Benz(a)anthracene	4.786	0.20	5	0	95.7	40-120	4.543	5.2	20		
Benzo(a)pyrene	4.858	0.20	5	0	97.2	45-120	4.679	3.75	20		
Bis(2-chloroethoxy)methane	4.893	0.20	5	0	97.9	45-120	5.04	2.96	20		
Bis(2-ethylhexyl)phthalate	5.385	0.20	5	0	108	40-139	5.176	3.96	20		
Chrysene	4.596	0.20	5	0	91.9	43-120	4.478	2.6	20		
Dibenzofuran	4.948	0.20	5	0	99	50-120	4.781	3.43	20		
Di-n-butyl phthalate	5.639	0.20	5	0	113	45-123	5.485	2.78	20		
Fluoranthene	5.138	0.20	5	0	103	45-125	5.006	2.61	20		
Fluorene	4.881	0.20	5	0	97.6	49-120	4.669	4.44	20		
Naphthalene	4.787	0.20	5	0	95.7	45-120	4.867	1.65	20		
Nitrobenzene	5.033	0.20	5	0	101	44-120	5.025	0.158	20		
N-Nitrosodiphenylamine	5.237	0.20	5	0	105	40-125	5.12	2.26	20		
Pentachlorophenol	3.26	0.20	5	0	65.2	19-121	3.752	14	20		
Phenanthrene	5.012	0.20	5	0	100	45-121	5.055	0.844	20		
Phenol	6.134	0.20	5	0	123	20-124	5.809	5.43	20		
Pyrene	5.284	0.20	5	0	106	40-130	4.899	7.57	20		
Surr: 2,4,6-Tribromophenol	4.143	0.20	5	0	82.9	34-129	4.145	0.0469	0		
Surr: 2-Fluorobiphenyl	4.721	0.20	5	0	94.4	40-125	4.507	4.64	0		
Surr: 2-Fluorophenol	4.174	0.20	5	0	83.5	20-120	3.868	7.59	0		
Surr: 4-Terphenyl-d14	5.282	0.20	5	0	106	40-135	5.336	1.01	0		
Surr: Nitrobenzene-d5	4.664	0.20	5	0	93.3	41-120	4.783	2.52	0		
Surr: Phenol-d6	4.752	0.20	5	0	95	20-120	4.537	4.64	0		

The following samples were analyzed in this batch:

1207587-01B	1207587-02B	1207587-03B
1207587-04B	1207587-05B	1207587-06B
1207587-07B	1207587-08B	1207587-09B
1207587-10B	1207587-11B	1207587-12B
1207587-13B	1207587-14B	1207587-15B

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Pastor, Behling & Wheeler, LLC
Work Order: 1207587
Project: UPRR Houston Wood GW

QC BATCH REPORT

Batch ID: **R131336** Instrument ID **VOA6** Method: **SW8260**

MBLK		Sample ID: VBLKW-071712-R131336			Units: µg/L			Analysis Date: 7/17/2012 11:43 AM		
Client ID:		Run ID: VOA6_120717A			SeqNo: 2861772		Prep Date:		DF: 1	
Analyte	Result	MLQ	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Dichloroethane	U	5.0								
Benzene	U	5.0								
Chlorobenzene	U	5.0								
Ethylbenzene	U	5.0								
Methylene chloride	U	10								
Toluene	U	5.0								
Vinyl chloride	U	2.0								
Xylenes, Total	U	15								
<i>Surr: 1,2-Dichloroethane-d4</i>										
	56.37	5.0	50	0	113	70-125	0			
<i>Surr: 4-Bromofluorobenzene</i>										
	43.87	5.0	50	0	87.7	72-125	0			
<i>Surr: Dibromofluoromethane</i>										
	48.52	5.0	50	0	97	71-125	0			
<i>Surr: Toluene-d8</i>										
	43.48	5.0	50	0	87	75-125	0			

LCS		Sample ID: VLCSW-071712-R131336			Units: µg/L			Analysis Date: 7/17/2012 10:50 AM		
Client ID:		Run ID: VOA6_120717A			SeqNo: 2861771		Prep Date:		DF: 1	
Analyte	Result	MLQ	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Dichloroethane	51.99	5.0	50	0	104	78-120	0			
Benzene	48.25	5.0	50	0	96.5	73-121	0			
Chlorobenzene	50.16	5.0	50	0	100	80-120	0			
Ethylbenzene	50.2	5.0	50	0	100	80-120	0			
Methylene chloride	39.96	10	50	0	79.9	65-133	0			
Toluene	47.89	5.0	50	0	95.8	80-120	0			
Vinyl chloride	38	2.0	50	0	76	70-127	0			
Xylenes, Total	169.3	15	150	0	113	80-120	0			
<i>Surr: 1,2-Dichloroethane-d4</i>										
	42.5	5.0	50	0	85	70-125	0			
<i>Surr: 4-Bromofluorobenzene</i>										
	52.53	5.0	50	0	105	72-125	0			
<i>Surr: Dibromofluoromethane</i>										
	48.26	5.0	50	0	96.5	71-125	0			
<i>Surr: Toluene-d8</i>										
	48.86	5.0	50	0	97.7	75-125	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Pastor, Behling & Wheeler, LLC
 Work Order: 1207587
 Project: UPRR Houston Wood GW

QC BATCH REPORT

Batch ID: R131336 Instrument ID VOA6 Method: SW8260

MS		Sample ID: 1207628-10AMS			Units: µg/L			Analysis Date: 7/17/2012 01:57 PM		
Client ID:		Run ID: VOA6_120717A			SeqNo: 2863069		Prep Date:		DF: 1	
Analyte	Result	ML	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Dichloroethane	56.98	5.0	50	0	114	78-120	0			
Benzene	49.39	5.0	50	0	98.8	73-121	0			
Chlorobenzene	47.47	5.0	50	0	94.9	80-120	0			
Ethylbenzene	53.45	5.0	50	0	107	80-120	0			
Methylene chloride	39.48	10	50	0	79	65-133	0			
Toluene	44.13	5.0	50	0	88.3	80-120	0			
Vinyl chloride	32.79	2.0	50	0	65.6	70-127	0			S
Xylenes, Total	151	15	150	0	101	80-120	0			
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>50.61</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>101</i>	<i>70-125</i>	<i>0</i>			
<i>Surr: 4-Bromofluorobenzene</i>	<i>59.08</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>118</i>	<i>72-125</i>	<i>0</i>			
<i>Surr: Dibromofluoromethane</i>	<i>50.49</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>101</i>	<i>71-125</i>	<i>0</i>			
<i>Surr: Toluene-d8</i>	<i>47.51</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>95</i>	<i>75-125</i>	<i>0</i>			

MSD		Sample ID: 1207628-10AMSD			Units: µg/L			Analysis Date: 7/17/2012 02:24 PM		
Client ID:		Run ID: VOA6_120717A			SeqNo: 2863070		Prep Date:		DF: 1	
Analyte	Result	ML	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Dichloroethane	51.24	5.0	50	0	102	78-120	56.98	10.6	20	
Benzene	47.56	5.0	50	0	95.1	73-121	49.39	3.78	20	
Chlorobenzene	48.25	5.0	50	0	96.5	80-120	47.47	1.63	20	
Ethylbenzene	45.78	5.0	50	0	91.6	80-120	53.45	15.5	20	
Methylene chloride	42.32	10	50	0	84.6	65-133	39.48	6.95	20	
Toluene	40.98	5.0	50	0	82	80-120	44.13	7.41	20	
Vinyl chloride	29.8	2.0	50	0	59.6	70-127	32.79	9.57	20	S
Xylenes, Total	142	15	150	0	94.6	80-120	151	6.17	20	
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>44.58</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>89.2</i>	<i>70-125</i>	<i>50.61</i>	<i>12.7</i>	<i>20</i>	
<i>Surr: 4-Bromofluorobenzene</i>	<i>47.75</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>95.5</i>	<i>72-125</i>	<i>59.08</i>	<i>21.2</i>	<i>20</i>	R
<i>Surr: Dibromofluoromethane</i>	<i>47.17</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>94.3</i>	<i>71-125</i>	<i>50.49</i>	<i>6.81</i>	<i>20</i>	
<i>Surr: Toluene-d8</i>	<i>41.76</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>83.5</i>	<i>75-125</i>	<i>47.51</i>	<i>12.9</i>	<i>20</i>	

The following samples were analyzed in this batch:

1207587-04A	1207587-06A	1207587-10A
1207587-11A	1207587-12A	1207587-15A
1207587-16A		

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Pastor, Behling & Wheeler, LLC
Work Order: 1207587
Project: UPRR Houston Wood GW

QC BATCH REPORT

Batch ID: **R131395** Instrument ID **VOA6** Method: **SW8260**

MBLK Sample ID: **VBLKW-071712-R131395** Units: **µg/L** Analysis Date: **7/18/2012 12:10 AM**

Client ID: Run ID: **VOA6_120717D** SeqNo: **2863103** Prep Date: DF: **1**

Analyte	Result	MLQ	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Dichloroethane	U	5.0								
Benzene	U	5.0								
Chlorobenzene	U	5.0								
Ethylbenzene	U	5.0								
Methylene chloride	U	10								
Toluene	U	5.0								
Vinyl chloride	U	2.0								
Xylenes, Total	U	15								
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>49.96</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>99.9</i>	<i>70-125</i>	<i>0</i>			
<i>Surr: 4-Bromofluorobenzene</i>	<i>50.9</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>102</i>	<i>72-125</i>	<i>0</i>			
<i>Surr: Dibromofluoromethane</i>	<i>47.77</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>95.5</i>	<i>71-125</i>	<i>0</i>			
<i>Surr: Toluene-d8</i>	<i>49.71</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>99.4</i>	<i>75-125</i>	<i>0</i>			

LCS Sample ID: **VLCSW-071712-R131395** Units: **µg/L** Analysis Date: **7/17/2012 11:17 PM**

Client ID: Run ID: **VOA6_120717D** SeqNo: **2863102** Prep Date: DF: **1**

Analyte	Result	MLQ	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Dichloroethane	43.67	5.0	50	0	87.3	78-120	0			
Benzene	41.65	5.0	50	0	83.3	73-121	0			
Chlorobenzene	47.74	5.0	50	0	95.5	80-120	0			
Ethylbenzene	47	5.0	50	0	94	80-120	0			
Methylene chloride	43.86	10	50	0	87.7	65-133	0			
Toluene	44.89	5.0	50	0	89.8	80-120	0			
Vinyl chloride	38.73	2.0	50	0	77.5	70-127	0			
Xylenes, Total	149.1	15	150	0	99.4	80-120	0			
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>47.12</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>94.2</i>	<i>70-125</i>	<i>0</i>			
<i>Surr: 4-Bromofluorobenzene</i>	<i>47.6</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>95.2</i>	<i>72-125</i>	<i>0</i>			
<i>Surr: Dibromofluoromethane</i>	<i>48.61</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>97.2</i>	<i>71-125</i>	<i>0</i>			
<i>Surr: Toluene-d8</i>	<i>45.21</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>90.4</i>	<i>75-125</i>	<i>0</i>			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Pastor, Behling & Wheeler, LLC
 Work Order: 1207587
 Project: UPRR Houston Wood GW

QC BATCH REPORT

Batch ID: R131395 Instrument ID VOA6 Method: SW8260

MS		Sample ID: 1207616-01AMS			Units: µg/L			Analysis Date: 7/18/2012 01:03 AM		
Client ID:		Run ID: VOA6_120717D			SeqNo: 2863105		Prep Date:		DF: 25	
Analyte	Result	ML	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Dichloroethane	1326	120	1250	0	106	78-120	0			
Benzene	1181	120	1250	0	94.5	73-121	0			
Chlorobenzene	1166	120	1250	0	93.3	80-120	0			
Ethylbenzene	1083	120	1250	36.7	83.7	80-120	0			
Methylene chloride	978.5	250	1250	0	78.3	65-133	0			
Toluene	999	120	1250	0	79.9	80-120	0			S
Vinyl chloride	779.6	50	1250	0	62.4	70-127	0			S
Xylenes, Total	3009	380	3750	0	80.2	80-120	0			
<i>Surr: 1,2-Dichloroethane-d4</i>		1245	120	1250	0	99.6	70-125	0		
<i>Surr: 4-Bromofluorobenzene</i>		1139	120	1250	0	91.1	72-125	0		
<i>Surr: Dibromofluoromethane</i>		1188	120	1250	0	95.1	71-125	0		
<i>Surr: Toluene-d8</i>		1162	120	1250	0	93	75-125	0		

MSD		Sample ID: 1207616-01AMSD			Units: µg/L			Analysis Date: 7/18/2012 01:30 AM		
Client ID:		Run ID: VOA6_120717D			SeqNo: 2863106		Prep Date:		DF: 25	
Analyte	Result	ML	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Dichloroethane	1149	120	1250	0	91.9	78-120	1326	14.3	20	
Benzene	978.6	120	1250	0	78.3	73-121	1181	18.8	20	
Chlorobenzene	1237	120	1250	0	99	80-120	1166	5.93	20	
Ethylbenzene	1163	120	1250	36.7	90.1	80-120	1083	7.13	20	
Methylene chloride	1098	250	1250	0	87.8	65-133	978.5	11.5	20	
Toluene	1330	120	1250	0	106	80-120	999	28.4	20	R
Vinyl chloride	968.9	50	1250	0	77.5	70-127	779.6	21.7	20	R
Xylenes, Total	3500	380	3750	0	93.3	80-120	3009	15.1	20	
<i>Surr: 1,2-Dichloroethane-d4</i>		1174	120	1250	0	94	70-125	1245	5.85	20
<i>Surr: 4-Bromofluorobenzene</i>		1285	120	1250	0	103	72-125	1139	12.1	20
<i>Surr: Dibromofluoromethane</i>		1200	120	1250	0	96	71-125	1188	0.954	20
<i>Surr: Toluene-d8</i>		1404	120	1250	0	112	75-125	1162	18.9	20

The following samples were analyzed in this batch:

1207587-01A	1207587-02A	1207587-03A
1207587-05A	1207587-07A	1207587-08A
1207587-09A	1207587-13A	1207587-14A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
WorkOrder: 1207587

**QUALIFIERS,
ACRONYMS, UNITS**

<u>Qualifier</u>	<u>Description</u>
*	Value exceeds Regulatory Limit
a	Not accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
J	Analyte detected below quantitation limit
M	Manually integrated, see raw data for justification
n	Not offered for accreditation
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL

<u>Acronym</u>	<u>Description</u>
DCS	Detectability Check Study
DUP	Method Duplicate
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
MBLK	Method Blank
MDL	Method Detection Limit
MQL	Method Quantitation Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PDS	Post Digestion Spike
PQL	Practical Quantitation Limit
SD	Serial Dilution
SDL	Sample Detection Limit
TRRP	Texas Risk Reduction Program

<u>Units Reported</u>	<u>Description</u>
mg/L	Milligrams per Liter

Sample Receipt Checklist

Client Name: **PBW**

Date/Time Received: **13-Jul-12 12:49**

Work Order: **1207587**

Received by: **RDN**

Checklist completed by Robert D. Harris 14-Jul-12
eSignature Date

Reviewed by: Patricia L. Lynch 18-Jul-12
eSignature Date

Matrices: groundwater/water

Carrier name: Client

- Shipping container/cooler in good condition? Yes No Not Present
- Custody seals intact on shipping container/cooler? Yes No Not Present
- Custody seals intact on sample bottles? Yes No Not Present
- Chain of custody present? Yes No
- Chain of custody signed when relinquished and received? Yes No
- Chain of custody agrees with sample labels? Yes No
- Samples in proper container/bottle? Yes No
- Sample containers intact? Yes No
- Sufficient sample volume for indicated test? Yes No
- All samples received within holding time? Yes No
- Container/Temp Blank temperature in compliance? Yes No

Temperature(s)/Thermometer(s): 1.7c,2.1c,1.5c c/u 003

Cooler(s)/Kit(s): 4053,2646,2593

Date/Time sample(s) sent to storage: 7/14/12 9:00

Water - VOA vials have zero headspace? Yes No No VOA vials submitted

Water - pH acceptable upon receipt? Yes No N/A

pH adjusted? Yes No N/A

pH adjusted by: _____

Login Notes:

Client Contacted: Date Contacted: Person Contacted:

Contacted By: Regarding:

Comments: _____

CorrectiveAction: _____



Environmental

Chain of Custody Form

1207587

PBW: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW

Page 1 of 2
COC ID: 52174



ALS Project Manager:

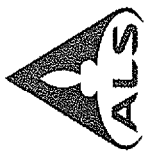
Customer Information				Project Information			
Purchase Order	Project Name	UPRR Houston Wood GW	A	VOC (8260) Select			
Work Order	Project Number	1620-04	B	SVOC (8270) Low-Level			
Company Name	Bill To Company	Union Pacific Railroad	C	VINYL CHLORIDE			
Send Report To	Invoice Attn		D				
Address	Address	1400 Douglas Street	E				
City/State/Zip	City/State/Zip	Omaha, NE 681790750	F				
Phone	Phone		G				
Fax	Fax		H				
e-Mail Address	e-Mail Address		I				
			J				

No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	WG-1620-MW18A-20120711	7-11-12	1600	GW	-	5	X	X	X								
2	WG-1620-MW18C-20120711		1650	GW		5	X	X	X								
3	WG-1620-TW56A-20120711		1800	GW		5	X	X	X								
4	WG-1620-FB1-20120711		1820	GW		5	X	X	X								
5	WG-1620-MW72B-20120712	7-12-12	0745	GW		5	X	X	X								
6	WG-1620-MW23C-20120712		0845	GW		5	X	X	X								
7	WG-1620-MW31A-20120712		0945	GW		5	X	X	X								
8	WG-1620-MW55B-20120712		1040	GW		5	X	X	X								
9	WG-1620-MW55A-20120712		1125	GW		5	X	X	X								
10	WG-1620-FB2-20120712		1145	GW		5	X	X	X								

Sampler(s) Please Print & Sign	SHIPMENT METHOD	Required Turnaround Time: (Check Box)	Results Due Date:
JOHN BEAULTON	HAND DELIVERED	<input checked="" type="checkbox"/> Std 10 WK Days <input type="checkbox"/> 5 WK Days <input type="checkbox"/> 2 WK Days <input type="checkbox"/> 24 Hour	
Relinquished by:	Received by:	Notes:	10 Day TAT.
JOHN BRO	ER	ALS	
Date: 7-13-12	Date:	Time: 12:49	Time:
Relinquished by:	Received by (Laboratory):	Checked by (Laboratory):	Time:
Logged by (Laboratory):	Date:	Time:	
Preservative Key:	1-HCl 2-HNO ₃ 3-H ₂ SO ₄ 4-NaOH 5-Na ₂ S ₂ O ₃ 6-NaHSO ₄ 7-Other 8-4°C 9-5035	QC Package: (Check One Box Below)	TRRP Checklist
		<input type="checkbox"/> Level II Std QC <input checked="" type="checkbox"/> TRRP Level IV	<input type="checkbox"/> Level III Std QC/Raw Data <input type="checkbox"/> TRRP Level IV
		<input type="checkbox"/> Level IV SW846/CLP <input type="checkbox"/> Other / EDD	

Note: 1. Any changes must be made in writing once samples and COC Form have been submitted to ALS Environmental.
 2. Unless otherwise agreed in a formal contract, services provided by ALS Environmental are expressly limited to the terms and conditions stated on the reverse.
 3. The Chain of Custody is a legal document. All information must be completed accurately.

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Environmental

Chain of Custody Form

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 Fort Collins, CO +1 970 490 1511
 Holland, MI +1 616 399 6070
 Houston, TX +1 281 530 5656
 Middletown, PA +1 717 944 5541
 Salt Lake City, UT +1 801 266 7700
 Spring City, PA +1 610 948 4903
 York, PA +1 717 505 5280

Page 2 of 2
 COC ID: 52173
 ALS Work Order #: 1707081

Customer Information				Project Information				Parameter/Method Request for Analysis											
Purchase Order	Project Name	UPRR Houston Wood GW	A	VOC (8260) Select															
Work Order	Project Number	1620-04	B	SVOC (8270) Low-Level															
Company Name	Bill To Company	Union Pacific Railroad	C	VINYL CHLORIDE															
Send Report To	Invoice Attn		D																
Address	Address	1400 Douglas Street	E																
	Suite 4004	Stop 0750	F																
City/State/Zip	City/State/Zip	Omaha, NE 681780750	G																
Phone	Phone		H																
Fax	Fax		I																
e-Mail Address	e-Mail Address		J																
No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold		
1	WG-1620-MW19C-20120712	7-12-12	1245	GW		5	X	X	X										
2	WG-1620-MW52A-20120712		1345	GW		5	X	X	X										
3	WG-1620-MW30A-20120712		1425	GW		5	X	X	X										
4	WG-1620-MW17-20120712		1520	GW		5	X	X	X										
5	WG-1620-MW17C-20120712		1620	GW		5	X	X	X										
6	WG-1620-TB1-20120712																		
7																			
8																			
9																			
10																			

Shipper Method: HANDELIVER
 Required Turnaround Time: (Check Box)
 Std 10 WK Days
 5 WK Days
 24 Hour
 Other: 2 WK Days
 Notes: 10 Day TAT.

Cooler ID: _____ Cooler Temp: _____
 QC Package: (Check One Box Below)
 Level II Std QC
 Level III Std QC/Raw Data
 Level IV SW646/CLP
 TRRP CheckList
 TRRP Level IV

Received by: John Buan
 Date: 7-13-12 Time: 12:49
 Received by (Laboratory): ALS

Checked by (Laboratory): _____
 Date: _____ Time: _____
 Preservative Key: 1-HCl 2-HNO₃ 3-H₂SO₄ 4-NaOH 5-Na₂S₂O₃ 6-NaHSO₄ 7-Other 8-4°C 9-5035

Note: 1. Any changes must be made in writing once samples and COC Form have been submitted to ALS Environmental.
 2. Unless otherwise agreed in a formal contract, services provided by ALS Environmental are expressly limited to the terms and conditions stated on the reverse.
 3. The Chain of Custody is a legal document. All information must be completed accurately.



€J-œ * -2012

Eric Matzner
Pastor, Behling & Wheeler, LLC
2201 Double Creek Drive
Suite 4004
Round Rock, TX 78664

Tel: (512) 671-3434
Fax: (512) 671-3446

Re: UPRR Houston Wood GW

Work Order: **1207818**

Dear Eric,

ALS Environmental received 21 samples on 17-Jul-2012 06:15 PM for the analyses presented in the following report.

The analytical data provided relates directly to the samples received by ALS Environmental and for only the analyses requested. Results are expressed as "as received" unless otherwise noted.

QC sample results for this data met EPA or laboratory specifications except as noted in the Case Narrative or as noted with qualifiers in the QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained by ALS Environmental. Samples will be disposed in 30 days unless storage arrangements are made.

The total number of pages in this report is 72.

If you have any questions regarding this report, please feel free to call me.

Sincerely,

A handwritten signature in black ink that reads "Patricia L. Lynch".

Electronically approved by: Jumoke M. Lawal

Patricia L. Lynch
Project Manager



Certificate No: TX: T104704231-12-10

ADDRESS 10450 Stancliff Rd, Suite 210 Houston, Texas 77099-4338 | PHONE (281) 530-5656 | FAX (281) 530-5887

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Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Work Order: 1207818

**TRRP Laboratory Data
Package Cover Page**

This data package consists of all or some of the following as applicable:

This signature page, the laboratory review checklist, and the following reportable data:

- R1 Field chain-of-custody documentation;
- R2 Sample identification cross-reference;
- R3 Test reports (analytical data sheets) for each environmental sample that includes:
 - a) Items consistent with NELAC Chapter 5,
 - b) dilution factors,
 - c) preparation methods,
 - d) cleanup methods, and
 - e) if required for the project, tentatively identified compounds (TICs).
- R4 Surrogate recovery data including:
 - a) Calculated recovery (%R), and
 - b) The laboratory's surrogate QC limits.
- R5 Test reports/summary forms for blank samples;
- R6 Test reports/summary forms for laboratory control samples (LCSs) including:
 - a) LCS spiking amounts,
 - b) Calculated %R for each analyte, and
 - c) The laboratory's LCS QC limits.
- R7 Test reports for project matrix spike/matrix spike duplicates (MS/MSDs) including:
 - a) Samples associated with the MS/MSD clearly identified,
 - b) MS/MSD spiking amounts,
 - c) Concentration of each MS/MSD analyte measured in the parent and spiked samples,
 - d) Calculated %Rs and relative percent differences (RPDs), and
 - e) The laboratory's MS/MSD QC limits.
- R8 Laboratory analytical duplicate (if applicable) recovery and precision:
 - a) the amount of analyte measured in the duplicate,
 - b) the calculated RPD, and
 - c) the laboratory's QC limits for analytical duplicates.
- R9 List of method quantitation limits (MQLs) and detectability check sample results for each analyte for each method and matrix.
- R10 Other problems or anomalies.
The Exception Report for each "No" or "Not Reviewed (NR)" item in Laboratory Review Checklist and for each analyte, matrix, and method for which the laboratory does not hold NELAC accreditation under the Texas Laboratory Accreditation Program.

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Work Order: 1207818

**TRRP Laboratory Data
Package Cover Page**

Release Statement: I am responsible for the release of this laboratory data package. This laboratory is NELAC accredited under the Texas Laboratory Accreditation Program for all the methods, analytes and matrices reported in this data package except as noted in the Exception Reports. The data have been reviewed and are technically compliant with the requirements of the methods used, except where noted by the laboratory in the attached exception reports. By my signature below, I affirm to the best of my knowledge, all problems/anomalies, observed by the laboratory have been identified by the laboratory in the Laboratory Review Checklist, and no information affecting the quality of the data has been knowingly withheld.

Check, if applicable: [NA] This laboratory meets an exception under 30 TAC §25.6 and was last inspected by TCEQ or _____ on (enter date of last inspection). Any findings affecting the data in this laboratory data package are noted in the Exception Reports herein. The official signing the cover page of the report in which these data are used is responsible for releasing this data package and is by signature affirming the above release statement is true.

Patricia L. Lynch

Patricia L. Lynch
Project Manager

Laboratory Review Checklist: Reportable Data

Laboratory Name: ALS Laboratory Group		LRC Date: 08/09/2012					
Project Name: UPRR Houston Wood		Laboratory Job Number: 1207818					
Reviewer Name: Pat Lynch		Prep Batch Number(s): 62745, 62746, R131576, R131720, R131757					
# ¹	A ²	Description	Yes	No	NA ³	NR ⁴	ER# ⁵
R1	OI	Chain-of-custody (C-O-C)					
		Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?	X				
		Were all departures from standard conditions described in an exception report?	X				
R2	OI	Sample and quality control (QC) identification					
		Are all field sample ID numbers cross-referenced to the laboratory ID numbers?	X				
		Are all laboratory ID numbers cross-referenced to the corresponding QC data?	X				
R3	OI	Test reports					
		Were all samples prepared and analyzed within holding times?	X				
		Other than those results < MQL, were all other raw values bracketed by calibration standards?	X				
		Were calculations checked by a peer or supervisor?	X				
		Were all analyte identifications checked by a peer or supervisor?	X				
		Were sample detection limits reported for all analytes not detected?	X				
		Were all results for soil and sediment samples reported on a dry weight basis?			X		
		Were % moisture (or solids) reported for all soil and sediment samples?			X		
		Were bulk soils/solids samples for volatile analysis extracted with methanol per SW-846 Method 5035?			X		
		If required for the project, TICs reported?			X		
R4	O	Surrogate recovery data					
		Were surrogates added prior to extraction?	X				
		Were surrogate percent recoveries in all samples within the laboratory QC limits?		X			1
R5	OI	Test reports/summary forms for blank samples					
		Were appropriate type(s) of blanks analyzed?	X				
		Were blanks analyzed at the appropriate frequency?	X				
		Were method blanks taken through the entire analytical process, including preparation and, if applicable, cleanup procedures?	X				
		Were blank concentrations < MQL?	X				
R6	OI	Laboratory control samples (LCS):					
		Were all COCs included in the LCS?	X				
		Was each LCS taken through the entire analytical procedure, including prep and cleanup steps?	X				
		Were LCSs analyzed at the required frequency?	X				
		Were LCS (and LCSD, if applicable) %Rs within the laboratory QC limits?	X				
		Does the detectability data document the laboratory's capability to detect the COCs at the MDL used to calculate the SDLs?	X				
		Was the LCSD RPD within QC limits?		X			2
R7	OI	Matrix spike (MS) and matrix spike duplicate (MSD) data					
		Were the project/method specified analytes included in the MS and MSD?	X				
		Were MS/MSD analyzed at the appropriate frequency?	X				
		Were MS (and MSD, if applicable) %Rs within the laboratory QC limits?	X				3
		Were MS/MSD RPDs within laboratory QC limits?	X				4
R8	OI	Analytical duplicate data					
		Were appropriate analytical duplicates analyzed for each matrix?			X		
		Were analytical duplicates analyzed at the appropriate frequency?			X		
		Were RPDs or relative standard deviations within the laboratory QC limits?			X		
R9	OI	Method quantitation limits (MQLs):					
		Are the MQLs for each method analyte included in the laboratory data package?	X				
		Do the MQLs correspond to the concentration of the lowest non-zero calibration standard?	X				
		Are unadjusted MQLs and DCSs included in the laboratory data package?	X				
R10	OI	Other problems/anomalies					
		Are all known problems/anomalies/special conditions noted in this LRC and ER?	X				5
		Were all necessary corrective actions performed for the reported data?	X				
		Was applicable and available technology used to lower the SDL and minimize the matrix interference affects on the sample results?	X				
		Is the laboratory NELAC-accredited under the Texas Laboratory Program for the analytes, matrices and methods associated with this laboratory data package?	X				

Laboratory Review Checklist: Reportable Data								
Laboratory Name: ALS Laboratory Group					LRC Date: 08/09/2012			
Project Name: UPRR Houston Wood					Laboratory Job Number: 1207818			
Reviewer Name: Pat Lynch					Prep Batch Number(s): 62745, 62746, R131576, R131720, R131757			
# ¹	A ²	Description	Yes	No	NA ³	NR ⁴	ER# ⁵	
S1	OI	Initial calibration (ICAL)						
		Were response factors and/or relative response factors for each analyte within QC limits?	X					
		Were percent RSDs or correlation coefficient criteria met?	X					
		Was the number of standards recommended in the method used for all analytes?	X					
		Were all points generated between the lowest and highest standard used to calculate the curve?	X					
		Are ICAL data available for all instruments used?	X					
		Has the initial calibration curve been verified using an appropriate second source standard?	X					
S2	OI	Initial and continuing calibration verification (ICCV and CCV) and continuing calibration blank (CCB)						
		Was the CCV analyzed at the method-required frequency?	X					
		Were percent differences for each analyte within the method-required QC limits?	X					
		Was the ICAL curve verified for each analyte?	X					
		Was the absolute value of the analyte concentration in the inorganic CCB < MDL?			X			
S3	O	Mass spectral tuning:						
		Was the appropriate compound for the method used for tuning?	X					
		Were ion abundance data within the method-required QC limits?	X					
S4	O	Internal standards (IS):						
		Were IS area counts and retention times within the method-required QC limits?	X					
S5	OI	Raw data (NELAC section 1 appendix A glossary, and section 5.12 or ISO/IEC 17025 section)						
		Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?	X					
		Were data associated with manual integrations flagged on the raw data?	X					
S6	O	Dual column confirmation						
		Did dual column confirmation results meet the method-required QC?			X			
S7	O	Tentatively identified compounds (TICs):						
		If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?			X			
S8	I	Interference Check Sample (ICS) results:						
		Were percent recoveries within method QC limits?			X			
S9	I	Serial dilutions, post digestion spikes, and method of standard additions						
		Were percent differences, recoveries, and the linearity within the QC limits specified in the method?			X			
S10	OI	Method detection limit (MDL) studies						
		Was a MDL study performed for each reported analyte?	X					
		Is the MDL either adjusted or supported by the analysis of DCSs?	X					
S11	OI	Proficiency test reports:						
		Was the laboratory's performance acceptable on the applicable proficiency tests or evaluation studies?	X					
S12	OI	Standards documentation						
		Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?	X					
S13	OI	Compound/analyte identification procedures						
		Are the procedures for compound/analyte identification documented?	X					
S14	OI	Demonstration of analyst competency (DOC)						
		Was DOC conducted consistent with NELAC Chapter 5C or ISO/IEC 4?	X					
		Is documentation of the analyst's competency up-to-date and on file?	X					
S15	OI	Verification/validation documentation for methods (NELAC Chap 5 or ISO/IEC 17025 Section 5)						
		Are all the methods used to generate the data documented, verified, and validated, where applicable?	X					
S16	OI	Laboratory standard operating procedures (SOPs):						
		Are laboratory SOPs current and on file for each method performed?	X					

Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.

O = Organic Analyses; I = Inorganic Analyses (and general chemistry, when applicable);

NA = Not Applicable;

NR = Not Reviewed;

R# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

Laboratory Review Checklist: Reportable Data

Laboratory Name: ALS Laboratory Group		LRC Date: 08/09/2012
Project Name: UPRR Houston Wood		Laboratory Job Number: 1207818
Reviewer Name: Pat Lynch		Prep Batch Number(s): 62745, 62746, R131576, R131720, R131757
ER# ⁵	Description	
1	Surrogates were diluted out in the higher dilutions for several samples for semi-volatile organics. Except for 2,4,6-tribromophenol in sample WG-1620-MW33BR-20120717, surrogate recoveries were in control in the lowest dilutions.	
2	Batch 62746, Semi-volatile Organics: LCS/LCSD RPD was above the control limits for nitrobenzene. The individual recoveries were in control.	
3	Batch 62746, Semi-volatile Organics , Sample WG-1620-MW67B-20120717 : MS recoveries for 2,6-dinitrotoluene, 2-chloronaphthalene and bis(2-chloroethoxy)methane and MSD recovery for 2,6-dinitrotoluene were below the control limits. The associated LCS recoveries and MS/MSD RPDs were within the control limits. Batch R131757, Volatile Organics, Sample WG-1620-MW68B-20120716 : MS/MSD recovery was below the control limits for benzene. The associated LCS recovery and MS/MSD RPD were within the control limits.	
4	Batch 62745, Semi-volatile Organics, Sample WG-1620-MW13-20120716 : MS/MSD RPDs were above the control limits for several target compounds.	
5	Naphthalene was detected at a concentration that is above the control limits in sample WG-1620-FB3-20120716, but this compound was non-detect in the associated method blank.	
<p>Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period. O = Organic Analyses; I = Inorganic Analyses (and general chemistry, when applicable); NA = Not Applicable; NR = Not Reviewed; R# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).</p>		

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Work Order: 1207818

Work Order Sample Summary

<u>Lab Samp ID</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Tag Number</u>	<u>Collection Date</u>	<u>Date Received</u>	<u>Hold</u>
1207818-01	WG-1620-MW20A-20120716	Groundwater		7/16/2012 10:45	7/17/2012 18:15	<input type="checkbox"/>
1207818-02	WG-1620-MW16-20120716	Groundwater		7/16/2012 11:40	7/17/2012 18:15	<input type="checkbox"/>
1207818-03	WG-1620-MW73B-20120716	Groundwater		7/16/2012 12:40	7/17/2012 18:15	<input type="checkbox"/>
1207818-04	WG-1620-MW14-20120716	Groundwater		7/16/2012 13:30	7/17/2012 18:15	<input type="checkbox"/>
1207818-05	WG-1620-DUP1-20120716	Groundwater		7/16/2012 13:30	7/17/2012 18:15	<input type="checkbox"/>
1207818-06	WG-1620-MW13-20120716	Groundwater		7/16/2012 15:00	7/17/2012 18:15	<input type="checkbox"/>
1207818-07	WG-1620-MW32AR-20120716	Groundwater		7/16/2012 16:15	7/17/2012 18:15	<input type="checkbox"/>
1207818-08	WG-1620-MW32B-20120716	Groundwater		7/16/2012 17:15	7/17/2012 18:15	<input type="checkbox"/>
1207818-09	WG-1620-MW68B-20120716	Groundwater		7/16/2012 18:00	7/17/2012 18:15	<input type="checkbox"/>
1207818-10	WG-1620-FB3-20120716	Groundwater		7/16/2012 18:15	7/17/2012 18:15	<input type="checkbox"/>
1207818-11	WG-1620-MW68C-20120717	Groundwater		7/17/2012 07:50	7/17/2012 18:15	<input type="checkbox"/>
1207818-12	WG-1620-MW33A-20120717	Groundwater		7/17/2012 09:00	7/17/2012 18:15	<input type="checkbox"/>
1207818-13	WG-1620-FD2-20120717	Groundwater		7/17/2012 09:00	7/17/2012 18:15	<input type="checkbox"/>
1207818-14	WG-1620-MW33BR-20120717	Groundwater		7/17/2012 10:00	7/17/2012 18:15	<input type="checkbox"/>
1207818-15	WG-1620-MW26A-20120717	Groundwater		7/17/2012 10:50	7/17/2012 18:15	<input type="checkbox"/>
1207818-16	WG-1620-MW67B-20120717	Groundwater		7/17/2012 11:50	7/17/2012 18:15	<input type="checkbox"/>
1207818-17	WG-1620-MW70B-20120717	Groundwater		7/17/2012 13:30	7/17/2012 18:15	<input type="checkbox"/>
1207818-18	WG-1620-MW36B-20120717	Groundwater		7/17/2012 14:20	7/17/2012 18:15	<input type="checkbox"/>
1207818-19	WG-1620-MW36A-20120717	Groundwater		7/17/2012 15:20	7/17/2012 18:15	<input type="checkbox"/>
1207818-20	WG-1620-MW28C-20120717	Groundwater		7/17/2012 16:25	7/17/2012 18:15	<input type="checkbox"/>
1207818-21	WG-1620-TB-20120717	Water		7/17/2012	7/17/2012 18:15	<input type="checkbox"/>

ALS Environmental

Date: 09-Aug-12

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Sample ID: WG-1620-MW20A-20120716
Collection Date: 7/16/2012 10:45 AM

Work Order: 1207818
Lab ID: 1207818-01
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270	Prep: SW3510 / 7/19/12	Analyst: LG		
1,2-Diphenylhydrazine	U		0.000050	0.00020	mg/L	1	7/24/2012 05:33
2,4-Dimethylphenol	0.10		0.0010	0.0040	mg/L	20	7/23/2012 23:26
2,4-Dinitrotoluene	U		0.000050	0.00020	mg/L	1	7/24/2012 05:33
2,6-Dinitrotoluene	U		0.000060	0.00020	mg/L	1	7/24/2012 05:33
2-Chloronaphthalene	U		0.000050	0.00020	mg/L	1	7/24/2012 05:33
2-Methylnaphthalene	0.36		0.0050	0.020	mg/L	100	7/24/2012 01:43
4,6-Dinitro-2-methylphenol	U		0.000080	0.00020	mg/L	1	7/24/2012 05:33
4-Nitrophenol	U		0.000050	0.0010	mg/L	1	7/24/2012 05:33
Acenaphthene	0.19		0.0050	0.020	mg/L	100	7/24/2012 01:43
Acenaphthylene	0.0015		0.000050	0.00020	mg/L	1	7/24/2012 05:33
Anthracene	0.0042		0.000050	0.00020	mg/L	1	7/24/2012 05:33
Benz(a)anthracene	U		0.000050	0.00020	mg/L	1	7/24/2012 05:33
Benzo(a)pyrene	U		0.000050	0.00020	mg/L	1	7/24/2012 05:33
Bis(2-chloroethoxy)methane	U		0.000050	0.00020	mg/L	1	7/24/2012 05:33
Bis(2-ethylhexyl)phthalate	U		0.00010	0.00020	mg/L	1	7/24/2012 05:33
Chrysene	U		0.000050	0.00020	mg/L	1	7/24/2012 05:33
Dibenzofuran	0.15		0.0010	0.0040	mg/L	20	7/23/2012 23:26
Di-n-butyl phthalate	U		0.000050	0.00020	mg/L	1	7/24/2012 05:33
Fluoranthene	0.00061		0.000050	0.00020	mg/L	1	7/24/2012 05:33
Fluorene	0.11		0.0010	0.0040	mg/L	20	7/23/2012 23:26
Naphthalene	6.1		0.050	0.20	mg/L	1000	7/25/2012 10:41
Nitrobenzene	U		0.000050	0.00020	mg/L	1	7/24/2012 05:33
N-Nitrosodiphenylamine	U		0.000050	0.00020	mg/L	1	7/24/2012 05:33
Pentachlorophenol	U		0.000050	0.00020	mg/L	1	7/24/2012 05:33
Phenanthrene	0.043		0.0010	0.0040	mg/L	20	7/23/2012 23:26
Phenol	U		0.000050	0.00020	mg/L	1	7/24/2012 05:33
Pyrene	0.00030		0.000050	0.00020	mg/L	1	7/24/2012 05:33
Surr: 2,4,6-Tribromophenol	111			34-129	%REC	20	7/23/2012 23:26
Surr: 2,4,6-Tribromophenol	121	J		34-129	%REC	100	7/24/2012 01:43
Surr: 2,4,6-Tribromophenol	60.8			34-129	%REC	1	7/24/2012 05:33
Surr: 2,4,6-Tribromophenol	0	S		34-129	%REC	1000	7/25/2012 10:41
Surr: 2-Fluorobiphenyl	99.6			40-125	%REC	20	7/23/2012 23:26
Surr: 2-Fluorobiphenyl	84.2	J		40-125	%REC	100	7/24/2012 01:43
Surr: 2-Fluorobiphenyl	54.6			40-125	%REC	1	7/24/2012 05:33
Surr: 2-Fluorobiphenyl	0	S		40-125	%REC	1000	7/25/2012 10:41
Surr: 2-Fluorophenol	98.1			20-120	%REC	20	7/23/2012 23:26
Surr: 2-Fluorophenol	101	J		20-120	%REC	100	7/24/2012 01:43
Surr: 2-Fluorophenol	65.7			20-120	%REC	1	7/24/2012 05:33

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 09-Aug-12

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Sample ID: WG-1620-MW20A-20120716
Collection Date: 7/16/2012 10:45 AM

Work Order: 1207818
Lab ID: 1207818-01
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
Surr: 2-Fluorophenol	0	S		20-120	%REC	1000	7/25/2012 10:41
Surr: 4-Terphenyl-d14	98.6			40-135	%REC	20	7/23/2012 23:26
Surr: 4-Terphenyl-d14	96.5	J		40-135	%REC	100	7/24/2012 01:43
Surr: 4-Terphenyl-d14	68.5			40-135	%REC	1	7/24/2012 05:33
Surr: 4-Terphenyl-d14	0	S		40-135	%REC	1000	7/25/2012 10:41
Surr: Nitrobenzene-d5	74.2	J		41-120	%REC	20	7/23/2012 23:26
Surr: Nitrobenzene-d5	98.8	J		41-120	%REC	100	7/24/2012 01:43
Surr: Nitrobenzene-d5	41.1			41-120	%REC	1	7/24/2012 05:33
Surr: Nitrobenzene-d5	0	S		41-120	%REC	1000	7/25/2012 10:41
Surr: Phenol-d6	76.5	J		20-120	%REC	20	7/23/2012 23:26
Surr: Phenol-d6	77.7	J		20-120	%REC	100	7/24/2012 01:43
Surr: Phenol-d6	55.2			20-120	%REC	1	7/24/2012 05:33
Surr: Phenol-d6	0	S		20-120	%REC	1000	7/25/2012 10:41

VOLATILES		Method: SW8260				Analyst: PC	
1,2-Dichloroethane	U	0.00050	0.0050	mg/L	1	7/20/2012 22:30	
Benzene	0.089	0.00050	0.0050	mg/L	1	7/20/2012 22:30	
Chlorobenzene	U	0.00050	0.0050	mg/L	1	7/20/2012 22:30	
Ethylbenzene	0.10	0.00050	0.0050	mg/L	1	7/20/2012 22:30	
Methylene chloride	U	0.0010	0.010	mg/L	1	7/20/2012 22:30	
Toluene	0.022	0.00050	0.0050	mg/L	1	7/20/2012 22:30	
Xylenes, Total	0.088	0.0015	0.015	mg/L	1	7/20/2012 22:30	
Surr: 1,2-Dichloroethane-d4	98.1		70-125	%REC	1	7/20/2012 22:30	
Surr: 4-Bromofluorobenzene	93.5		72-125	%REC	1	7/20/2012 22:30	
Surr: Dibromofluoromethane	107		71-125	%REC	1	7/20/2012 22:30	
Surr: Toluene-d8	89.9		75-125	%REC	1	7/20/2012 22:30	

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 09-Aug-12

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Sample ID: WG-1620-MW16-20120716
Collection Date: 7/16/2012 11:40 AM

Work Order: 1207818
Lab ID: 1207818-02
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270	Prep: SW3510 / 7/19/12	Analyst: LG		
1,2-Diphenylhydrazine		U	0.000050	0.00020	mg/L	1	7/24/2012 05:52
2,4-Dimethylphenol	0.0054		0.000050	0.00020	mg/L	1	7/24/2012 05:52
2,4-Dinitrotoluene		U	0.000050	0.00020	mg/L	1	7/24/2012 05:52
2,6-Dinitrotoluene		U	0.000060	0.00020	mg/L	1	7/24/2012 05:52
2-Chloronaphthalene		U	0.000050	0.00020	mg/L	1	7/24/2012 05:52
2-Methylnaphthalene	0.045		0.0010	0.0040	mg/L	20	7/23/2012 23:45
4,6-Dinitro-2-methylphenol		U	0.000080	0.00020	mg/L	1	7/24/2012 05:52
4-Nitrophenol		U	0.000050	0.0010	mg/L	1	7/24/2012 05:52
Acenaphthene	0.28		0.0050	0.020	mg/L	100	7/24/2012 02:02
Acenaphthylene	0.0028		0.000050	0.00020	mg/L	1	7/24/2012 05:52
Anthracene	0.017		0.0010	0.0040	mg/L	20	7/23/2012 23:45
Benz(a)anthracene	0.00013	J	0.000050	0.00020	mg/L	1	7/24/2012 05:52
Benzo(a)pyrene		U	0.000050	0.00020	mg/L	1	7/24/2012 05:52
Bis(2-chloroethoxy)methane		U	0.000050	0.00020	mg/L	1	7/24/2012 05:52
Bis(2-ethylhexyl)phthalate		U	0.00010	0.00020	mg/L	1	7/24/2012 05:52
Chrysene	0.00010	J	0.000050	0.00020	mg/L	1	7/24/2012 05:52
Dibenzofuran	0.17		0.0010	0.0040	mg/L	20	7/23/2012 23:45
Di-n-butyl phthalate		U	0.000050	0.00020	mg/L	1	7/24/2012 05:52
Fluoranthene	0.0059		0.000050	0.00020	mg/L	1	7/24/2012 05:52
Fluorene	0.15		0.0010	0.0040	mg/L	20	7/23/2012 23:45
Naphthalene	2.1		0.025	0.10	mg/L	500	7/24/2012 02:21
Nitrobenzene		U	0.000050	0.00020	mg/L	1	7/24/2012 05:52
N-Nitrosodiphenylamine		U	0.000050	0.00020	mg/L	1	7/24/2012 05:52
Pentachlorophenol		U	0.000050	0.00020	mg/L	1	7/24/2012 05:52
Phenanthrene	0.070		0.0010	0.0040	mg/L	20	7/23/2012 23:45
Phenol	0.000088	J	0.000050	0.00020	mg/L	1	7/24/2012 05:52
Pyrene	0.0034		0.000050	0.00020	mg/L	1	7/24/2012 05:52
Surr: 2,4,6-Tribromophenol	100			34-129	%REC	20	7/23/2012 23:45
Surr: 2,4,6-Tribromophenol	95.8	J		34-129	%REC	100	7/24/2012 02:02
Surr: 2,4,6-Tribromophenol	0	S		34-129	%REC	500	7/24/2012 02:21
Surr: 2,4,6-Tribromophenol	73.5			34-129	%REC	1	7/24/2012 05:52
Surr: 2-Fluorobiphenyl	88.0			40-125	%REC	20	7/23/2012 23:45
Surr: 2-Fluorobiphenyl	105	J		40-125	%REC	100	7/24/2012 02:02
Surr: 2-Fluorobiphenyl	0	S		40-125	%REC	500	7/24/2012 02:21
Surr: 2-Fluorobiphenyl	54.2			40-125	%REC	1	7/24/2012 05:52
Surr: 2-Fluorophenol	81.3			20-120	%REC	20	7/23/2012 23:45
Surr: 2-Fluorophenol	99.2	J		20-120	%REC	100	7/24/2012 02:02
Surr: 2-Fluorophenol	0	S		20-120	%REC	500	7/24/2012 02:21

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 09-Aug-12

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Sample ID: WG-1620-MW16-20120716
Collection Date: 7/16/2012 11:40 AM

Work Order: 1207818
Lab ID: 1207818-02
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
Surr: 2-Fluorophenol	49.7			20-120	%REC	1	7/24/2012 05:52
Surr: 4-Terphenyl-d14	103			40-135	%REC	20	7/23/2012 23:45
Surr: 4-Terphenyl-d14	117	J		40-135	%REC	100	7/24/2012 02:02
Surr: 4-Terphenyl-d14	0	S		40-135	%REC	500	7/24/2012 02:21
Surr: 4-Terphenyl-d14	78.9			40-135	%REC	1	7/24/2012 05:52
Surr: Nitrobenzene-d5	77.9	J		41-120	%REC	20	7/23/2012 23:45
Surr: Nitrobenzene-d5	79.3	J		41-120	%REC	100	7/24/2012 02:02
Surr: Nitrobenzene-d5	0	S		41-120	%REC	500	7/24/2012 02:21
Surr: Nitrobenzene-d5	53.6			41-120	%REC	1	7/24/2012 05:52
Surr: Phenol-d6	84.2			20-120	%REC	20	7/23/2012 23:45
Surr: Phenol-d6	74.3	J		20-120	%REC	100	7/24/2012 02:02
Surr: Phenol-d6	0	S		20-120	%REC	500	7/24/2012 02:21
Surr: Phenol-d6	56.3			20-120	%REC	1	7/24/2012 05:52

VOLATILES		Method: SW8260				Analyst: PC	
1,2-Dichloroethane	U	0.00050	0.0050	mg/L	1	7/23/2012 15:46	
Benzene	0.056	0.00050	0.0050	mg/L	1	7/23/2012 15:46	
Chlorobenzene	U	0.00050	0.0050	mg/L	1	7/23/2012 15:46	
Ethylbenzene	0.027	0.00050	0.0050	mg/L	1	7/23/2012 15:46	
Methylene chloride	U	0.0010	0.010	mg/L	1	7/23/2012 15:46	
Toluene	0.0070	0.00050	0.0050	mg/L	1	7/23/2012 15:46	
Xylenes, Total	0.034	0.0015	0.015	mg/L	1	7/23/2012 15:46	
Surr: 1,2-Dichloroethane-d4	108			70-125	%REC	1	7/23/2012 15:46
Surr: 4-Bromofluorobenzene	104			72-125	%REC	1	7/23/2012 15:46
Surr: Dibromofluoromethane	109			71-125	%REC	1	7/23/2012 15:46
Surr: Toluene-d8	102			75-125	%REC	1	7/23/2012 15:46

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 09-Aug-12

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Sample ID: WG-1620-MW73B-20120716
Collection Date: 7/16/2012 12:40 PM

Work Order: 1207818
Lab ID: 1207818-03
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270	Prep: SW3510 / 7/19/12	Analyst: LG		
1,2-Diphenylhydrazine		U	0.000050	0.00020	mg/L	1	7/21/2012 03:27
2,4-Dimethylphenol	0.0028		0.000050	0.00020	mg/L	1	7/21/2012 03:27
2,4-Dinitrotoluene		U	0.000050	0.00020	mg/L	1	7/21/2012 03:27
2,6-Dinitrotoluene		U	0.000060	0.00020	mg/L	1	7/21/2012 03:27
2-Chloronaphthalene		U	0.000050	0.00020	mg/L	1	7/21/2012 03:27
2-Methylnaphthalene	0.00011	J	0.000050	0.00020	mg/L	1	7/21/2012 03:27
4,6-Dinitro-2-methylphenol		U	0.000080	0.00020	mg/L	1	7/21/2012 03:27
4-Nitrophenol		U	0.000050	0.0010	mg/L	1	7/21/2012 03:27
Acenaphthene	0.00016	J	0.000050	0.00020	mg/L	1	7/21/2012 03:27
Acenaphthylene		U	0.000050	0.00020	mg/L	1	7/21/2012 03:27
Anthracene	0.00012	J	0.000050	0.00020	mg/L	1	7/21/2012 03:27
Benz(a)anthracene	0.000057	J	0.000050	0.00020	mg/L	1	7/21/2012 03:27
Benzo(a)pyrene		U	0.000050	0.00020	mg/L	1	7/21/2012 03:27
Bis(2-chloroethoxy)methane		U	0.000050	0.00020	mg/L	1	7/21/2012 03:27
Bis(2-ethylhexyl)phthalate	0.00012	J	0.00010	0.00020	mg/L	1	7/21/2012 03:27
Chrysene	0.000096	J	0.000050	0.00020	mg/L	1	7/21/2012 03:27
Dibenzofuran	0.000067	J	0.000050	0.00020	mg/L	1	7/21/2012 03:27
Di-n-butyl phthalate		U	0.000050	0.00020	mg/L	1	7/21/2012 03:27
Fluoranthene	0.000059	J	0.000050	0.00020	mg/L	1	7/21/2012 03:27
Fluorene	0.00021		0.000050	0.00020	mg/L	1	7/21/2012 03:27
Naphthalene	0.00064		0.000050	0.00020	mg/L	1	7/21/2012 03:27
Nitrobenzene		U	0.000050	0.00020	mg/L	1	7/21/2012 03:27
N-Nitrosodiphenylamine		U	0.000050	0.00020	mg/L	1	7/21/2012 03:27
Pentachlorophenol		U	0.000050	0.00020	mg/L	1	7/21/2012 03:27
Phenanthrene	0.000089	J	0.000050	0.00020	mg/L	1	7/21/2012 03:27
Phenol	0.00015	J	0.000050	0.00020	mg/L	1	7/21/2012 03:27
Pyrene		U	0.000050	0.00020	mg/L	1	7/21/2012 03:27
Surr: 2,4,6-Tribromophenol	71.6			34-129	%REC	1	7/21/2012 03:27
Surr: 2-Fluorobiphenyl	62.9			40-125	%REC	1	7/21/2012 03:27
Surr: 2-Fluorophenol	50.8			20-120	%REC	1	7/21/2012 03:27
Surr: 4-Terphenyl-d14	77.0			40-135	%REC	1	7/21/2012 03:27
Surr: Nitrobenzene-d5	55.6			41-120	%REC	1	7/21/2012 03:27
Surr: Phenol-d6	57.4			20-120	%REC	1	7/21/2012 03:27

VOLATILES			Method: SW8260	Analyst: PC			
1,2-Dichloroethane		U	0.00050	0.0050	mg/L	1	7/20/2012 17:33
Benzene		U	0.00050	0.0050	mg/L	1	7/20/2012 17:33
Chlorobenzene		U	0.00050	0.0050	mg/L	1	7/20/2012 17:33
Ethylbenzene		U	0.00050	0.0050	mg/L	1	7/20/2012 17:33

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 09-Aug-12

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Sample ID: WG-1620-MW73B-20120716
Collection Date: 7/16/2012 12:40 PM

Work Order: 1207818
Lab ID: 1207818-03
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
Methylene chloride	U		0.0010	0.010	mg/L	1	7/20/2012 17:33
Toluene	U		0.00050	0.0050	mg/L	1	7/20/2012 17:33
Xylenes, Total	U		0.0015	0.015	mg/L	1	7/20/2012 17:33
Surr: 1,2-Dichloroethane-d4	101			70-125	%REC	1	7/20/2012 17:33
Surr: 4-Bromofluorobenzene	94.1			72-125	%REC	1	7/20/2012 17:33
Surr: Dibromofluoromethane	107			71-125	%REC	1	7/20/2012 17:33
Surr: Toluene-d8	89.3			75-125	%REC	1	7/20/2012 17:33

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 09-Aug-12

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Sample ID: WG-1620-MW14-20120716
Collection Date: 7/16/2012 01:30 PM

Work Order: 1207818
Lab ID: 1207818-04
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270	Prep: SW3510 / 7/19/12	Analyst: LG		
1,2-Diphenylhydrazine	U		0.000050	0.00020	mg/L	1	7/21/2012 03:46
2,4-Dimethylphenol	U		0.000050	0.00020	mg/L	1	7/21/2012 03:46
2,4-Dinitrotoluene	U		0.000050	0.00020	mg/L	1	7/21/2012 03:46
2,6-Dinitrotoluene	U		0.000060	0.00020	mg/L	1	7/21/2012 03:46
2-Chloronaphthalene	U		0.000050	0.00020	mg/L	1	7/21/2012 03:46
2-Methylnaphthalene	0.00030		0.000050	0.00020	mg/L	1	7/21/2012 03:46
4,6-Dinitro-2-methylphenol	U		0.000080	0.00020	mg/L	1	7/21/2012 03:46
4-Nitrophenol	U		0.000050	0.0010	mg/L	1	7/21/2012 03:46
Acenaphthene	0.00030		0.000050	0.00020	mg/L	1	7/21/2012 03:46
Acenaphthylene	U		0.000050	0.00020	mg/L	1	7/21/2012 03:46
Anthracene	0.000069	J	0.000050	0.00020	mg/L	1	7/21/2012 03:46
Benz(a)anthracene	U		0.000050	0.00020	mg/L	1	7/21/2012 03:46
Benzo(a)pyrene	U		0.000050	0.00020	mg/L	1	7/21/2012 03:46
Bis(2-chloroethoxy)methane	U		0.000050	0.00020	mg/L	1	7/21/2012 03:46
Bis(2-ethylhexyl)phthalate	0.00011	J	0.00010	0.00020	mg/L	1	7/21/2012 03:46
Chrysene	U		0.000050	0.00020	mg/L	1	7/21/2012 03:46
Dibenzofuran	0.00032		0.000050	0.00020	mg/L	1	7/21/2012 03:46
Di-n-butyl phthalate	U		0.000050	0.00020	mg/L	1	7/21/2012 03:46
Fluoranthene	0.000055	J	0.000050	0.00020	mg/L	1	7/21/2012 03:46
Fluorene	0.000076	J	0.000050	0.00020	mg/L	1	7/21/2012 03:46
Naphthalene	0.0015		0.000050	0.00020	mg/L	1	7/21/2012 03:46
Nitrobenzene	U		0.000050	0.00020	mg/L	1	7/21/2012 03:46
N-Nitrosodiphenylamine	U		0.000050	0.00020	mg/L	1	7/21/2012 03:46
Pentachlorophenol	U		0.000050	0.00020	mg/L	1	7/21/2012 03:46
Phenanthrene	0.00038		0.000050	0.00020	mg/L	1	7/21/2012 03:46
Phenol	U		0.000050	0.00020	mg/L	1	7/21/2012 03:46
Pyrene	U		0.000050	0.00020	mg/L	1	7/21/2012 03:46
Surr: 2,4,6-Tribromophenol	72.7			34-129	%REC	1	7/21/2012 03:46
Surr: 2-Fluorobiphenyl	52.6			40-125	%REC	1	7/21/2012 03:46
Surr: 2-Fluorophenol	42.6			20-120	%REC	1	7/21/2012 03:46
Surr: 4-Terphenyl-d14	79.1			40-135	%REC	1	7/21/2012 03:46
Surr: Nitrobenzene-d5	44.8			41-120	%REC	1	7/21/2012 03:46
Surr: Phenol-d6	48.0			20-120	%REC	1	7/21/2012 03:46
VOLATILES			Method: SW8260	Analyst: PC			
1,2-Dichloroethane	U		0.00050	0.0050	mg/L	1	7/20/2012 18:01
Benzene	U		0.00050	0.0050	mg/L	1	7/20/2012 18:01
Chlorobenzene	U		0.00050	0.0050	mg/L	1	7/20/2012 18:01
Ethylbenzene	U		0.00050	0.0050	mg/L	1	7/20/2012 18:01

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 09-Aug-12

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Sample ID: WG-1620-MW14-20120716
Collection Date: 7/16/2012 01:30 PM

Work Order: 1207818
Lab ID: 1207818-04
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
Methylene chloride	U		0.0010	0.010	mg/L	1	7/20/2012 18:01
Toluene	U		0.00050	0.0050	mg/L	1	7/20/2012 18:01
Xylenes, Total	U		0.0015	0.015	mg/L	1	7/20/2012 18:01
Surr: 1,2-Dichloroethane-d4	97.4			70-125	%REC	1	7/20/2012 18:01
Surr: 4-Bromofluorobenzene	96.7			72-125	%REC	1	7/20/2012 18:01
Surr: Dibromofluoromethane	108			71-125	%REC	1	7/20/2012 18:01
Surr: Toluene-d8	92.5			75-125	%REC	1	7/20/2012 18:01

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 09-Aug-12

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Sample ID: WG-1620-DUP1-20120716
Collection Date: 7/16/2012 01:30 PM

Work Order: 1207818
Lab ID: 1207818-05
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270	Prep: SW3510 / 7/19/12	Analyst: LG		
1,2-Diphenylhydrazine	U		0.000050	0.00020	mg/L	1	7/21/2012 04:06
2,4-Dimethylphenol	U		0.000050	0.00020	mg/L	1	7/21/2012 04:06
2,4-Dinitrotoluene	U		0.000050	0.00020	mg/L	1	7/21/2012 04:06
2,6-Dinitrotoluene	U		0.000060	0.00020	mg/L	1	7/21/2012 04:06
2-Chloronaphthalene	U		0.000050	0.00020	mg/L	1	7/21/2012 04:06
2-Methylnaphthalene	0.00044		0.000050	0.00020	mg/L	1	7/21/2012 04:06
4,6-Dinitro-2-methylphenol	U		0.000080	0.00020	mg/L	1	7/21/2012 04:06
4-Nitrophenol	U		0.000050	0.0010	mg/L	1	7/21/2012 04:06
Acenaphthene	0.00035		0.000050	0.00020	mg/L	1	7/21/2012 04:06
Acenaphthylene	U		0.000050	0.00020	mg/L	1	7/21/2012 04:06
Anthracene	U		0.000050	0.00020	mg/L	1	7/21/2012 04:06
Benz(a)anthracene	U		0.000050	0.00020	mg/L	1	7/21/2012 04:06
Benzo(a)pyrene	U		0.000050	0.00020	mg/L	1	7/21/2012 04:06
Bis(2-chloroethoxy)methane	U		0.000050	0.00020	mg/L	1	7/21/2012 04:06
Bis(2-ethylhexyl)phthalate	0.00011	J	0.00010	0.00020	mg/L	1	7/21/2012 04:06
Chrysene	U		0.000050	0.00020	mg/L	1	7/21/2012 04:06
Dibenzofuran	0.00034		0.000050	0.00020	mg/L	1	7/21/2012 04:06
Di-n-butyl phthalate	U		0.000050	0.00020	mg/L	1	7/21/2012 04:06
Fluoranthene	U		0.000050	0.00020	mg/L	1	7/21/2012 04:06
Fluorene	U		0.000050	0.00020	mg/L	1	7/21/2012 04:06
Naphthalene	0.0020		0.000050	0.00020	mg/L	1	7/21/2012 04:06
Nitrobenzene	0.000080	J	0.000050	0.00020	mg/L	1	7/21/2012 04:06
N-Nitrosodiphenylamine	U		0.000050	0.00020	mg/L	1	7/21/2012 04:06
Pentachlorophenol	U		0.000050	0.00020	mg/L	1	7/21/2012 04:06
Phenanthrene	0.00039		0.000050	0.00020	mg/L	1	7/21/2012 04:06
Phenol	U		0.000050	0.00020	mg/L	1	7/21/2012 04:06
Pyrene	U		0.000050	0.00020	mg/L	1	7/21/2012 04:06
Surr: 2,4,6-Tribromophenol	72.3			34-129	%REC	1	7/21/2012 04:06
Surr: 2-Fluorobiphenyl	65.3			40-125	%REC	1	7/21/2012 04:06
Surr: 2-Fluorophenol	54.7			20-120	%REC	1	7/21/2012 04:06
Surr: 4-Terphenyl-d14	81.5			40-135	%REC	1	7/21/2012 04:06
Surr: Nitrobenzene-d5	61.6			41-120	%REC	1	7/21/2012 04:06
Surr: Phenol-d6	59.3			20-120	%REC	1	7/21/2012 04:06
VOLATILES			Method: SW8260	Analyst: PC			
1,2-Dichloroethane	U		0.00050	0.0050	mg/L	1	7/20/2012 18:28
Benzene	U		0.00050	0.0050	mg/L	1	7/20/2012 18:28
Chlorobenzene	U		0.00050	0.0050	mg/L	1	7/20/2012 18:28
Ethylbenzene	U		0.00050	0.0050	mg/L	1	7/20/2012 18:28

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 09-Aug-12

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Sample ID: WG-1620-DUP1-20120716
Collection Date: 7/16/2012 01:30 PM

Work Order: 1207818
Lab ID: 1207818-05
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
Methylene chloride	U		0.0010	0.010	mg/L	1	7/20/2012 18:28
Toluene	U		0.00050	0.0050	mg/L	1	7/20/2012 18:28
Xylenes, Total	U		0.0015	0.015	mg/L	1	7/20/2012 18:28
Surr: 1,2-Dichloroethane-d4	87.7			70-125	%REC	1	7/20/2012 18:28
Surr: 4-Bromofluorobenzene	97.0			72-125	%REC	1	7/20/2012 18:28
Surr: Dibromofluoromethane	103			71-125	%REC	1	7/20/2012 18:28
Surr: Toluene-d8	90.3			75-125	%REC	1	7/20/2012 18:28

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 09-Aug-12

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Sample ID: WG-1620-MW13-20120716
Collection Date: 7/16/2012 03:00 PM

Work Order: 1207818
Lab ID: 1207818-06
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270	Prep: SW3510 / 7/19/12	Analyst: LG		
1,2-Diphenylhydrazine	U		0.000050	0.00020	mg/L	1	7/20/2012 16:45
2,4-Dimethylphenol	U		0.000050	0.00020	mg/L	1	7/20/2012 16:45
2,4-Dinitrotoluene	U		0.000050	0.00020	mg/L	1	7/20/2012 16:45
2,6-Dinitrotoluene	U		0.000060	0.00020	mg/L	1	7/20/2012 16:45
2-Chloronaphthalene	U		0.000050	0.00020	mg/L	1	7/20/2012 16:45
2-Methylnaphthalene	0.000063	J	0.000050	0.00020	mg/L	1	7/20/2012 16:45
4,6-Dinitro-2-methylphenol	U		0.000080	0.00020	mg/L	1	7/20/2012 16:45
4-Nitrophenol	U		0.000050	0.0010	mg/L	1	7/20/2012 16:45
Acenaphthene	U		0.000050	0.00020	mg/L	1	7/20/2012 16:45
Acenaphthylene	U		0.000050	0.00020	mg/L	1	7/20/2012 16:45
Anthracene	0.00011	J	0.000050	0.00020	mg/L	1	7/20/2012 16:45
Benz(a)anthracene	U		0.000050	0.00020	mg/L	1	7/20/2012 16:45
Benzo(a)pyrene	U		0.000050	0.00020	mg/L	1	7/20/2012 16:45
Bis(2-chloroethoxy)methane	U		0.000050	0.00020	mg/L	1	7/20/2012 16:45
Bis(2-ethylhexyl)phthalate	U		0.00010	0.00020	mg/L	1	7/20/2012 16:45
Chrysene	U		0.000050	0.00020	mg/L	1	7/20/2012 16:45
Dibenzofuran	0.00019	J	0.000050	0.00020	mg/L	1	7/20/2012 16:45
Di-n-butyl phthalate	U		0.000050	0.00020	mg/L	1	7/20/2012 16:45
Fluoranthene	0.00013	J	0.000050	0.00020	mg/L	1	7/20/2012 16:45
Fluorene	0.00012	J	0.000050	0.00020	mg/L	1	7/20/2012 16:45
Naphthalene	0.00023		0.000050	0.00020	mg/L	1	7/20/2012 16:45
Nitrobenzene	U		0.000050	0.00020	mg/L	1	7/20/2012 16:45
N-Nitrosodiphenylamine	U		0.000050	0.00020	mg/L	1	7/20/2012 16:45
Pentachlorophenol	U		0.000050	0.00020	mg/L	1	7/20/2012 16:45
Phenanthrene	0.00049		0.000050	0.00020	mg/L	1	7/20/2012 16:45
Phenol	U		0.000050	0.00020	mg/L	1	7/20/2012 16:45
Pyrene	0.000089	J	0.000050	0.00020	mg/L	1	7/20/2012 16:45
Surr: 2,4,6-Tribromophenol	90.3			34-129	%REC	1	7/20/2012 16:45
Surr: 2-Fluorobiphenyl	64.8			40-125	%REC	1	7/20/2012 16:45
Surr: 2-Fluorophenol	42.4			20-120	%REC	1	7/20/2012 16:45
Surr: 4-Terphenyl-d14	95.5			40-135	%REC	1	7/20/2012 16:45
Surr: Nitrobenzene-d5	49.6			41-120	%REC	1	7/20/2012 16:45
Surr: Phenol-d6	47.7			20-120	%REC	1	7/20/2012 16:45
VOLATILES			Method: SW8260	Analyst: PC			
1,2-Dichloroethane	U		0.00050	0.0050	mg/L	1	7/20/2012 13:24
Benzene	U		0.00050	0.0050	mg/L	1	7/20/2012 13:24
Chlorobenzene	U		0.00050	0.0050	mg/L	1	7/20/2012 13:24
Ethylbenzene	U		0.00050	0.0050	mg/L	1	7/20/2012 13:24

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 09-Aug-12

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Sample ID: WG-1620-MW13-20120716
Collection Date: 7/16/2012 03:00 PM

Work Order: 1207818
Lab ID: 1207818-06
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	ML	Units	Dilution Factor	Date Analyzed
Methylene chloride	U		0.0010	0.010	mg/L	1	7/20/2012 13:24
Toluene	U		0.00050	0.0050	mg/L	1	7/20/2012 13:24
Xylenes, Total	U		0.0015	0.015	mg/L	1	7/20/2012 13:24
Surr: 1,2-Dichloroethane-d4	94.9			70-125	%REC	1	7/20/2012 13:24
Surr: 4-Bromofluorobenzene	97.6			72-125	%REC	1	7/20/2012 13:24
Surr: Dibromofluoromethane	105			71-125	%REC	1	7/20/2012 13:24
Surr: Toluene-d8	90.1			75-125	%REC	1	7/20/2012 13:24

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 09-Aug-12

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Sample ID: WG-1620-MW32AR-20120716
Collection Date: 7/16/2012 04:15 PM

Work Order: 1207818
Lab ID: 1207818-07
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270	Prep: SW3510 / 7/19/12		Analyst: ACN	
1,2-Diphenylhydrazine		U	0.000050	0.00020	mg/L	1	7/20/2012 22:47
2,4-Dimethylphenol	0.000061	J	0.000050	0.00020	mg/L	1	7/20/2012 22:47
2,4-Dinitrotoluene		U	0.000050	0.00020	mg/L	1	7/20/2012 22:47
2,6-Dinitrotoluene		U	0.000060	0.00020	mg/L	1	7/20/2012 22:47
2-Chloronaphthalene		U	0.000050	0.00020	mg/L	1	7/20/2012 22:47
2-Methylnaphthalene	0.00019	J	0.000050	0.00020	mg/L	1	7/20/2012 22:47
4,6-Dinitro-2-methylphenol		U	0.000080	0.00020	mg/L	1	7/20/2012 22:47
4-Nitrophenol		U	0.000050	0.0010	mg/L	1	7/20/2012 22:47
Acenaphthene	0.0029		0.000050	0.00020	mg/L	1	7/20/2012 22:47
Acenaphthylene		U	0.000050	0.00020	mg/L	1	7/20/2012 22:47
Anthracene	0.00026		0.000050	0.00020	mg/L	1	7/20/2012 22:47
Benz(a)anthracene	0.00015	J	0.000050	0.00020	mg/L	1	7/20/2012 22:47
Benzo(a)pyrene		U	0.000050	0.00020	mg/L	1	7/20/2012 22:47
Bis(2-chloroethoxy)methane		U	0.000050	0.00020	mg/L	1	7/20/2012 22:47
Bis(2-ethylhexyl)phthalate	0.00014	J	0.00010	0.00020	mg/L	1	7/20/2012 22:47
Chrysene	0.00023		0.000050	0.00020	mg/L	1	7/20/2012 22:47
Dibenzofuran	0.0017		0.000050	0.00020	mg/L	1	7/20/2012 22:47
Di-n-butyl phthalate	0.000056	J	0.000050	0.00020	mg/L	1	7/20/2012 22:47
Fluoranthene	0.0030		0.000050	0.00020	mg/L	1	7/20/2012 22:47
Fluorene	0.0016		0.000050	0.00020	mg/L	1	7/20/2012 22:47
Naphthalene	0.0036		0.000050	0.00020	mg/L	1	7/20/2012 22:47
Nitrobenzene		U	0.000050	0.00020	mg/L	1	7/20/2012 22:47
N-Nitrosodiphenylamine		U	0.000050	0.00020	mg/L	1	7/20/2012 22:47
Pentachlorophenol		U	0.000050	0.00020	mg/L	1	7/20/2012 22:47
Phenanthrene	0.000055	J	0.000050	0.00020	mg/L	1	7/20/2012 22:47
Phenol	0.00029		0.000050	0.00020	mg/L	1	7/20/2012 22:47
Pyrene	0.0046		0.000050	0.00020	mg/L	1	7/20/2012 22:47
Surr: 2,4,6-Tribromophenol	81.6			34-129	%REC	1	7/20/2012 22:47
Surr: 2-Fluorobiphenyl	86.4			40-125	%REC	1	7/20/2012 22:47
Surr: 2-Fluorophenol	66.0			20-120	%REC	1	7/20/2012 22:47
Surr: 4-Terphenyl-d14	98.1			40-135	%REC	1	7/20/2012 22:47
Surr: Nitrobenzene-d5	77.5			41-120	%REC	1	7/20/2012 22:47
Surr: Phenol-d6	73.4			20-120	%REC	1	7/20/2012 22:47

VOLATILES			Method: SW8260			Analyst: PC	
1,2-Dichloroethane		U	0.00050	0.0050	mg/L	1	7/20/2012 18:55
Benzene		U	0.00050	0.0050	mg/L	1	7/20/2012 18:55
Chlorobenzene		U	0.00050	0.0050	mg/L	1	7/20/2012 18:55
Ethylbenzene		U	0.00050	0.0050	mg/L	1	7/20/2012 18:55

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 09-Aug-12

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Sample ID: WG-1620-MW32AR-20120716
Collection Date: 7/16/2012 04:15 PM

Work Order: 1207818
Lab ID: 1207818-07
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
Methylene chloride	U		0.0010	0.010	mg/L	1	7/20/2012 18:55
Toluene	U		0.00050	0.0050	mg/L	1	7/20/2012 18:55
Xylenes, Total	U		0.0015	0.015	mg/L	1	7/20/2012 18:55
Surr: 1,2-Dichloroethane-d4	96.2			70-125	%REC	1	7/20/2012 18:55
Surr: 4-Bromofluorobenzene	93.2			72-125	%REC	1	7/20/2012 18:55
Surr: Dibromofluoromethane	106			71-125	%REC	1	7/20/2012 18:55
Surr: Toluene-d8	90.8			75-125	%REC	1	7/20/2012 18:55

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 09-Aug-12

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Sample ID: WG-1620-MW32B-20120716
Collection Date: 7/16/2012 05:15 PM

Work Order: 1207818
Lab ID: 1207818-08
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270	Prep: SW3510 / 7/19/12	Analyst: ACN		
1,2-Diphenylhydrazine	U		0.000050	0.00020	mg/L	1	7/20/2012 23:07
2,4-Dimethylphenol	0.0014		0.000050	0.00020	mg/L	1	7/20/2012 23:07
2,4-Dinitrotoluene	U		0.000050	0.00020	mg/L	1	7/20/2012 23:07
2,6-Dinitrotoluene	U		0.000060	0.00020	mg/L	1	7/20/2012 23:07
2-Chloronaphthalene	U		0.000050	0.00020	mg/L	1	7/20/2012 23:07
2-Methylnaphthalene	0.00019	J	0.000050	0.00020	mg/L	1	7/20/2012 23:07
4,6-Dinitro-2-methylphenol	U		0.000080	0.00020	mg/L	1	7/20/2012 23:07
4-Nitrophenol	U		0.000050	0.0010	mg/L	1	7/20/2012 23:07
Acenaphthene	0.014		0.00050	0.0020	mg/L	10	7/20/2012 18:44
Acenaphthylene	0.00085		0.000050	0.00020	mg/L	1	7/20/2012 23:07
Anthracene	0.0048		0.000050	0.00020	mg/L	1	7/20/2012 23:07
Benz(a)anthracene	0.0033		0.000050	0.00020	mg/L	1	7/20/2012 23:07
Benzo(a)pyrene	0.00089		0.000050	0.00020	mg/L	1	7/20/2012 23:07
Bis(2-chloroethoxy)methane	U		0.000050	0.00020	mg/L	1	7/20/2012 23:07
Bis(2-ethylhexyl)phthalate	0.00079		0.00010	0.00020	mg/L	1	7/20/2012 23:07
Chrysene	0.0023		0.000050	0.00020	mg/L	1	7/20/2012 23:07
Dibenzofuran	0.0012		0.000050	0.00020	mg/L	1	7/20/2012 23:07
Di-n-butyl phthalate	U		0.000050	0.00020	mg/L	1	7/20/2012 23:07
Fluoranthene	0.031		0.00050	0.0020	mg/L	10	7/20/2012 18:44
Fluorene	0.0021		0.000050	0.00020	mg/L	1	7/20/2012 23:07
Naphthalene	0.00057		0.000050	0.00020	mg/L	1	7/20/2012 23:07
Nitrobenzene	U		0.000050	0.00020	mg/L	1	7/20/2012 23:07
N-Nitrosodiphenylamine	U		0.000050	0.00020	mg/L	1	7/20/2012 23:07
Pentachlorophenol	U		0.000050	0.00020	mg/L	1	7/20/2012 23:07
Phenanthrene	0.0012		0.000050	0.00020	mg/L	1	7/20/2012 23:07
Phenol	0.000066	J	0.000050	0.00020	mg/L	1	7/20/2012 23:07
Pyrene	0.040		0.00050	0.0020	mg/L	10	7/20/2012 18:44
Surr: 2,4,6-Tribromophenol	65.8			34-129	%REC	10	7/20/2012 18:44
Surr: 2,4,6-Tribromophenol	65.2			34-129	%REC	1	7/20/2012 23:07
Surr: 2-Fluorobiphenyl	56.9			40-125	%REC	10	7/20/2012 18:44
Surr: 2-Fluorobiphenyl	53.0			40-125	%REC	1	7/20/2012 23:07
Surr: 2-Fluorophenol	52.3			20-120	%REC	10	7/20/2012 18:44
Surr: 2-Fluorophenol	46.8			20-120	%REC	1	7/20/2012 23:07
Surr: 4-Terphenyl-d14	69.3			40-135	%REC	10	7/20/2012 18:44
Surr: 4-Terphenyl-d14	69.1			40-135	%REC	1	7/20/2012 23:07
Surr: Nitrobenzene-d5	55.0			41-120	%REC	10	7/20/2012 18:44
Surr: Nitrobenzene-d5	55.5			41-120	%REC	1	7/20/2012 23:07
Surr: Phenol-d6	51.9			20-120	%REC	10	7/20/2012 18:44

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 09-Aug-12

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Sample ID: WG-1620-MW32B-20120716
Collection Date: 7/16/2012 05:15 PM

Work Order: 1207818
Lab ID: 1207818-08
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	MQL	Units	Dilution Factor	Date Analyzed
<i>Surr: Phenol-d6</i>	54.8			20-120	%REC	1	7/20/2012 23:07
VOLATILES	Method: SW8260						Analyst: PC
1,2-Dichloroethane		U	0.00050	0.0050	mg/L	1	7/20/2012 19:23
Benzene		U	0.00050	0.0050	mg/L	1	7/20/2012 19:23
Chlorobenzene		U	0.00050	0.0050	mg/L	1	7/20/2012 19:23
Ethylbenzene		U	0.00050	0.0050	mg/L	1	7/20/2012 19:23
Methylene chloride		U	0.0010	0.010	mg/L	1	7/20/2012 19:23
Toluene		U	0.00050	0.0050	mg/L	1	7/20/2012 19:23
Xylenes, Total		U	0.0015	0.015	mg/L	1	7/20/2012 19:23
<i>Surr: 1,2-Dichloroethane-d4</i>	93.7			70-125	%REC	1	7/20/2012 19:23
<i>Surr: 4-Bromofluorobenzene</i>	96.1			72-125	%REC	1	7/20/2012 19:23
<i>Surr: Dibromofluoromethane</i>	104			71-125	%REC	1	7/20/2012 19:23
<i>Surr: Toluene-d8</i>	95.8			75-125	%REC	1	7/20/2012 19:23

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 09-Aug-12

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Sample ID: WG-1620-MW68B-20120716
Collection Date: 7/16/2012 06:00 PM

Work Order: 1207818
Lab ID: 1207818-09
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270	Prep: SW3510 / 7/19/12	Analyst: ACN		
1,2-Diphenylhydrazine	U		0.00025	0.0010	mg/L	5	7/24/2012 00:04
2,4-Dimethylphenol	0.27		0.0025	0.010	mg/L	50	7/24/2012 02:41
2,4-Dinitrotoluene	U		0.00025	0.0010	mg/L	5	7/24/2012 00:04
2,6-Dinitrotoluene	U		0.00030	0.0010	mg/L	5	7/24/2012 00:04
2-Chloronaphthalene	U		0.00025	0.0010	mg/L	5	7/24/2012 00:04
2-Methylnaphthalene	1.3		0.012	0.050	mg/L	250	7/24/2012 03:00
4,6-Dinitro-2-methylphenol	U		0.00040	0.0010	mg/L	5	7/24/2012 00:04
4-Nitrophenol	U		0.00025	0.0050	mg/L	5	7/24/2012 00:04
Acenaphthene	0.23		0.0025	0.010	mg/L	50	7/24/2012 02:41
Acenaphthylene	0.0030		0.00025	0.0010	mg/L	5	7/24/2012 00:04
Anthracene	0.034		0.00025	0.0010	mg/L	5	7/24/2012 00:04
Benz(a)anthracene	0.0054		0.00025	0.0010	mg/L	5	7/24/2012 00:04
Benzo(a)pyrene	0.0016		0.00025	0.0010	mg/L	5	7/24/2012 00:04
Bis(2-chloroethoxy)methane	U		0.00025	0.0010	mg/L	5	7/24/2012 00:04
Bis(2-ethylhexyl)phthalate	U		0.00050	0.0010	mg/L	5	7/24/2012 00:04
Chrysene	0.0050		0.00025	0.0010	mg/L	5	7/24/2012 00:04
Dibenzofuran	0.30		0.0025	0.010	mg/L	50	7/24/2012 02:41
Di-n-butyl phthalate	U		0.00025	0.0010	mg/L	5	7/24/2012 00:04
Fluoranthene	0.044		0.00025	0.0010	mg/L	5	7/24/2012 00:04
Fluorene	0.13		0.0025	0.010	mg/L	50	7/24/2012 02:41
Naphthalene	26		0.25	1.0	mg/L	5000	7/25/2012 12:18
Nitrobenzene	U		0.00025	0.0010	mg/L	5	7/24/2012 00:04
N-Nitrosodiphenylamine	U		0.00025	0.0010	mg/L	5	7/24/2012 00:04
Pentachlorophenol	U		0.00025	0.0010	mg/L	5	7/24/2012 00:04
Phenanthrene	0.24		0.0025	0.010	mg/L	50	7/24/2012 02:41
Phenol	0.058		0.0025	0.010	mg/L	50	7/24/2012 02:41
Pyrene	0.024		0.00025	0.0010	mg/L	5	7/24/2012 00:04
Surr: 2,4,6-Tribromophenol	126			34-129	%REC	5	7/24/2012 00:04
Surr: 2,4,6-Tribromophenol	110			34-129	%REC	50	7/24/2012 02:41
Surr: 2,4,6-Tribromophenol	0	S		34-129	%REC	250	7/24/2012 03:00
Surr: 2,4,6-Tribromophenol	0	S		34-129	%REC	5000	7/25/2012 12:18
Surr: 2-Fluorobiphenyl	50.6			40-125	%REC	5	7/24/2012 00:04
Surr: 2-Fluorobiphenyl	56.9	J		40-125	%REC	50	7/24/2012 02:41
Surr: 2-Fluorobiphenyl	0	S		40-125	%REC	250	7/24/2012 03:00
Surr: 2-Fluorobiphenyl	0	S		40-125	%REC	5000	7/25/2012 12:18
Surr: 2-Fluorophenol	102			20-120	%REC	5	7/24/2012 00:04
Surr: 2-Fluorophenol	106			20-120	%REC	50	7/24/2012 02:41
Surr: 2-Fluorophenol	0	S		20-120	%REC	250	7/24/2012 03:00

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 09-Aug-12

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Sample ID: WG-1620-MW68B-20120716
Collection Date: 7/16/2012 06:00 PM

Work Order: 1207818
Lab ID: 1207818-09
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
Surr: 2-Fluorophenol	0	S		20-120	%REC	5000	7/25/2012 12:18
Surr: 4-Terphenyl-d14	54.5			40-135	%REC	5	7/24/2012 00:04
Surr: 4-Terphenyl-d14	60.4	J		40-135	%REC	50	7/24/2012 02:41
Surr: 4-Terphenyl-d14	0	S		40-135	%REC	250	7/24/2012 03:00
Surr: 4-Terphenyl-d14	0	S		40-135	%REC	5000	7/25/2012 12:18
Surr: Nitrobenzene-d5	81.8			41-120	%REC	5	7/24/2012 00:04
Surr: Nitrobenzene-d5	66.2	J		41-120	%REC	50	7/24/2012 02:41
Surr: Nitrobenzene-d5	0	S		41-120	%REC	250	7/24/2012 03:00
Surr: Nitrobenzene-d5	0	S		41-120	%REC	5000	7/25/2012 12:18
Surr: Phenol-d6	51.9			20-120	%REC	5	7/24/2012 00:04
Surr: Phenol-d6	47.1	J		20-120	%REC	50	7/24/2012 02:41
Surr: Phenol-d6	0	S		20-120	%REC	250	7/24/2012 03:00
Surr: Phenol-d6	0	S		20-120	%REC	5000	7/25/2012 12:18

VOLATILES		Method: SW8260				Analyst: PC	
1,2-Dichloroethane	U	0.0050	0.050	mg/L	10	7/23/2012 20:40	
Benzene	2.4	0.025	0.25	mg/L	50	7/24/2012 00:07	
Chlorobenzene	U	0.0050	0.050	mg/L	10	7/23/2012 20:40	
Ethylbenzene	0.49	0.0050	0.050	mg/L	10	7/23/2012 20:40	
Methylene chloride	U	0.010	0.10	mg/L	10	7/23/2012 20:40	
Toluene	0.93	0.0050	0.050	mg/L	10	7/23/2012 20:40	
Xylenes, Total	1.3	0.015	0.15	mg/L	10	7/23/2012 20:40	
Surr: 1,2-Dichloroethane-d4	112		70-125	%REC	10	7/23/2012 20:40	
Surr: 1,2-Dichloroethane-d4	102		70-125	%REC	50	7/24/2012 00:07	
Surr: 4-Bromofluorobenzene	97.3		72-125	%REC	10	7/23/2012 20:40	
Surr: 4-Bromofluorobenzene	94.8		72-125	%REC	50	7/24/2012 00:07	
Surr: Dibromofluoromethane	115		71-125	%REC	10	7/23/2012 20:40	
Surr: Dibromofluoromethane	105		71-125	%REC	50	7/24/2012 00:07	
Surr: Toluene-d8	102		75-125	%REC	10	7/23/2012 20:40	
Surr: Toluene-d8	93.9		75-125	%REC	50	7/24/2012 00:07	

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 09-Aug-12

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Sample ID: WG-1620-FB3-20120716
Collection Date: 7/16/2012 06:15 PM

Work Order: 1207818
Lab ID: 1207818-10
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270	Prep: SW3510 / 7/19/12	Analyst: ACN		
1,2-Diphenylhydrazine	U		0.000050	0.00020	mg/L	1	7/20/2012 23:48
2,4-Dimethylphenol	U		0.000050	0.00020	mg/L	1	7/20/2012 23:48
2,4-Dinitrotoluene	U		0.000050	0.00020	mg/L	1	7/20/2012 23:48
2,6-Dinitrotoluene	U		0.000060	0.00020	mg/L	1	7/20/2012 23:48
2-Chloronaphthalene	U		0.000050	0.00020	mg/L	1	7/20/2012 23:48
2-Methylnaphthalene	U		0.000050	0.00020	mg/L	1	7/20/2012 23:48
4,6-Dinitro-2-methylphenol	U		0.000080	0.00020	mg/L	1	7/20/2012 23:48
4-Nitrophenol	U		0.000050	0.0010	mg/L	1	7/20/2012 23:48
Acenaphthene	U		0.000050	0.00020	mg/L	1	7/20/2012 23:48
Acenaphthylene	U		0.000050	0.00020	mg/L	1	7/20/2012 23:48
Anthracene	U		0.000050	0.00020	mg/L	1	7/20/2012 23:48
Benz(a)anthracene	U		0.000050	0.00020	mg/L	1	7/20/2012 23:48
Benzo(a)pyrene	U		0.000050	0.00020	mg/L	1	7/20/2012 23:48
Bis(2-chloroethoxy)methane	U		0.000050	0.00020	mg/L	1	7/20/2012 23:48
Bis(2-ethylhexyl)phthalate	U		0.00010	0.00020	mg/L	1	7/20/2012 23:48
Chrysene	U		0.000050	0.00020	mg/L	1	7/20/2012 23:48
Dibenzofuran	U		0.000050	0.00020	mg/L	1	7/20/2012 23:48
Di-n-butyl phthalate	U		0.000050	0.00020	mg/L	1	7/20/2012 23:48
Fluoranthene	U		0.000050	0.00020	mg/L	1	7/20/2012 23:48
Fluorene	U		0.000050	0.00020	mg/L	1	7/20/2012 23:48
Naphthalene	0.00048		0.000050	0.00020	mg/L	1	7/20/2012 23:48
Nitrobenzene	U		0.000050	0.00020	mg/L	1	7/20/2012 23:48
N-Nitrosodiphenylamine	U		0.000050	0.00020	mg/L	1	7/20/2012 23:48
Pentachlorophenol	U		0.000050	0.00020	mg/L	1	7/20/2012 23:48
Phenanthrene	U		0.000050	0.00020	mg/L	1	7/20/2012 23:48
Phenol	U		0.000050	0.00020	mg/L	1	7/20/2012 23:48
Pyrene	U		0.000050	0.00020	mg/L	1	7/20/2012 23:48
Surr: 2,4,6-Tribromophenol	62.6			34-129	%REC	1	7/20/2012 23:48
Surr: 2-Fluorobiphenyl	77.8			40-125	%REC	1	7/20/2012 23:48
Surr: 2-Fluorophenol	47.4			20-120	%REC	1	7/20/2012 23:48
Surr: 4-Terphenyl-d14	83.1			40-135	%REC	1	7/20/2012 23:48
Surr: Nitrobenzene-d5	66.5			41-120	%REC	1	7/20/2012 23:48
Surr: Phenol-d6	57.0			20-120	%REC	1	7/20/2012 23:48
VOLATILES			Method: SW8260	Analyst: PC			
1,2-Dichloroethane	U		0.00050	0.0050	mg/L	1	7/20/2012 17:05
Benzene	U		0.00050	0.0050	mg/L	1	7/20/2012 17:05
Chlorobenzene	U		0.00050	0.0050	mg/L	1	7/20/2012 17:05
Ethylbenzene	U		0.00050	0.0050	mg/L	1	7/20/2012 17:05

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 09-Aug-12

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Sample ID: WG-1620-FB3-20120716
Collection Date: 7/16/2012 06:15 PM

Work Order: 1207818
Lab ID: 1207818-10
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
Methylene chloride	U		0.0010	0.010	mg/L	1	7/20/2012 17:05
Toluene	U		0.00050	0.0050	mg/L	1	7/20/2012 17:05
Xylenes, Total	U		0.0015	0.015	mg/L	1	7/20/2012 17:05
Surr: 1,2-Dichloroethane-d4	90.5			70-125	%REC	1	7/20/2012 17:05
Surr: 4-Bromofluorobenzene	100			72-125	%REC	1	7/20/2012 17:05
Surr: Dibromofluoromethane	102			71-125	%REC	1	7/20/2012 17:05
Surr: Toluene-d8	95.8			75-125	%REC	1	7/20/2012 17:05

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 09-Aug-12

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Sample ID: WG-1620-MW68C-20120717
Collection Date: 7/17/2012 07:50 AM

Work Order: 1207818
Lab ID: 1207818-11
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270	Prep: SW3510 / 7/19/12	Analyst: ACN		
1,2-Diphenylhydrazine	U		0.000050	0.00020	mg/L	1	7/21/2012 00:08
2,4-Dimethylphenol	0.0014		0.000050	0.00020	mg/L	1	7/21/2012 00:08
2,4-Dinitrotoluene	U		0.000050	0.00020	mg/L	1	7/21/2012 00:08
2,6-Dinitrotoluene	U		0.000060	0.00020	mg/L	1	7/21/2012 00:08
2-Chloronaphthalene	U		0.000050	0.00020	mg/L	1	7/21/2012 00:08
2-Methylnaphthalene	0.0025		0.000050	0.00020	mg/L	1	7/21/2012 00:08
4,6-Dinitro-2-methylphenol	U		0.000080	0.00020	mg/L	1	7/21/2012 00:08
4-Nitrophenol	U		0.000050	0.0010	mg/L	1	7/21/2012 00:08
Acenaphthene	0.0013		0.000050	0.00020	mg/L	1	7/21/2012 00:08
Acenaphthylene	U		0.000050	0.00020	mg/L	1	7/21/2012 00:08
Anthracene	0.00089		0.000050	0.00020	mg/L	1	7/21/2012 00:08
Benz(a)anthracene	0.00018	J	0.000050	0.00020	mg/L	1	7/21/2012 00:08
Benzo(a)pyrene	U		0.000050	0.00020	mg/L	1	7/21/2012 00:08
Bis(2-chloroethoxy)methane	U		0.000050	0.00020	mg/L	1	7/21/2012 00:08
Bis(2-ethylhexyl)phthalate	0.0018		0.00010	0.00020	mg/L	1	7/21/2012 00:08
Chrysene	0.00016	J	0.000050	0.00020	mg/L	1	7/21/2012 00:08
Dibenzofuran	0.0018		0.000050	0.00020	mg/L	1	7/21/2012 00:08
Di-n-butyl phthalate	0.00011	J	0.000050	0.00020	mg/L	1	7/21/2012 00:08
Fluoranthene	0.0016		0.000050	0.00020	mg/L	1	7/21/2012 00:08
Fluorene	0.0012		0.000050	0.00020	mg/L	1	7/21/2012 00:08
Naphthalene	0.015		0.000050	0.0020	mg/L	10	7/20/2012 19:45
Nitrobenzene	U		0.000050	0.00020	mg/L	1	7/21/2012 00:08
N-Nitrosodiphenylamine	U		0.000050	0.00020	mg/L	1	7/21/2012 00:08
Pentachlorophenol	U		0.000050	0.00020	mg/L	1	7/21/2012 00:08
Phenanthrene	0.0050		0.000050	0.00020	mg/L	1	7/21/2012 00:08
Phenol	0.000062	J	0.000050	0.00020	mg/L	1	7/21/2012 00:08
Pyrene	0.00086		0.000050	0.00020	mg/L	1	7/21/2012 00:08
Surr: 2,4,6-Tribromophenol	68.8			34-129	%REC	10	7/20/2012 19:45
Surr: 2,4,6-Tribromophenol	76.3			34-129	%REC	1	7/21/2012 00:08
Surr: 2-Fluorobiphenyl	54.9			40-125	%REC	10	7/20/2012 19:45
Surr: 2-Fluorobiphenyl	57.8			40-125	%REC	1	7/21/2012 00:08
Surr: 2-Fluorophenol	47.1			20-120	%REC	10	7/20/2012 19:45
Surr: 2-Fluorophenol	52.7			20-120	%REC	1	7/21/2012 00:08
Surr: 4-Terphenyl-d14	77.3			40-135	%REC	10	7/20/2012 19:45
Surr: 4-Terphenyl-d14	80.3			40-135	%REC	1	7/21/2012 00:08
Surr: Nitrobenzene-d5	50.8			41-120	%REC	10	7/20/2012 19:45
Surr: Nitrobenzene-d5	54.9			41-120	%REC	1	7/21/2012 00:08
Surr: Phenol-d6	50.7			20-120	%REC	10	7/20/2012 19:45

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 09-Aug-12

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Sample ID: WG-1620-MW68C-20120717
Collection Date: 7/17/2012 07:50 AM

Work Order: 1207818
Lab ID: 1207818-11
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
<i>Surr: Phenol-d6</i>	58.2			20-120	%REC	1	7/21/2012 00:08
VOLATILES		Method: SW8260				Analyst: PC	
1,2-Dichloroethane	U		0.00050	0.0050	mg/L	1	7/20/2012 19:49
Benzene	0.0079		0.00050	0.0050	mg/L	1	7/20/2012 19:49
Chlorobenzene	U		0.00050	0.0050	mg/L	1	7/20/2012 19:49
Ethylbenzene	U		0.00050	0.0050	mg/L	1	7/20/2012 19:49
Methylene chloride	U		0.0010	0.010	mg/L	1	7/20/2012 19:49
Toluene	0.0023	J	0.00050	0.0050	mg/L	1	7/20/2012 19:49
Xylenes, Total	U		0.0015	0.015	mg/L	1	7/20/2012 19:49
<i>Surr: 1,2-Dichloroethane-d4</i>	95.0			70-125	%REC	1	7/20/2012 19:49
<i>Surr: 4-Bromofluorobenzene</i>	98.3			72-125	%REC	1	7/20/2012 19:49
<i>Surr: Dibromofluoromethane</i>	109			71-125	%REC	1	7/20/2012 19:49
<i>Surr: Toluene-d8</i>	96.0			75-125	%REC	1	7/20/2012 19:49

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 09-Aug-12

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Sample ID: WG-1620-MW33A-20120717
Collection Date: 7/17/2012 09:00 AM

Work Order: 1207818
Lab ID: 1207818-12
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270	Prep: SW3510 / 7/19/12	Analyst: ACN		
1,2-Diphenylhydrazine	U		0.000050	0.00020	mg/L	1	7/21/2012 00:28
2,4-Dimethylphenol	U		0.000050	0.00020	mg/L	1	7/21/2012 00:28
2,4-Dinitrotoluene	U		0.000050	0.00020	mg/L	1	7/21/2012 00:28
2,6-Dinitrotoluene	U		0.000060	0.00020	mg/L	1	7/21/2012 00:28
2-Chloronaphthalene	U		0.000050	0.00020	mg/L	1	7/21/2012 00:28
2-Methylnaphthalene	0.0015		0.000050	0.00020	mg/L	1	7/21/2012 00:28
4,6-Dinitro-2-methylphenol	U		0.000080	0.00020	mg/L	1	7/21/2012 00:28
4-Nitrophenol	U		0.000050	0.0010	mg/L	1	7/21/2012 00:28
Acenaphthene	0.019		0.000050	0.00020	mg/L	10	7/20/2012 20:05
Acenaphthylene	U		0.000050	0.00020	mg/L	1	7/21/2012 00:28
Anthracene	0.0026		0.000050	0.00020	mg/L	1	7/21/2012 00:28
Benz(a)anthracene	0.00043		0.000050	0.00020	mg/L	1	7/21/2012 00:28
Benzo(a)pyrene	0.00011	J	0.000050	0.00020	mg/L	1	7/21/2012 00:28
Bis(2-chloroethoxy)methane	U		0.000050	0.00020	mg/L	1	7/21/2012 00:28
Bis(2-ethylhexyl)phthalate	0.00014	J	0.00010	0.00020	mg/L	1	7/21/2012 00:28
Chrysene	0.00033		0.000050	0.00020	mg/L	1	7/21/2012 00:28
Dibenzofuran	0.0049		0.000050	0.00020	mg/L	1	7/21/2012 00:28
Di-n-butyl phthalate	U		0.000050	0.00020	mg/L	1	7/21/2012 00:28
Fluoranthene	0.0036		0.000050	0.00020	mg/L	1	7/21/2012 00:28
Fluorene	0.0056		0.000050	0.00020	mg/L	1	7/21/2012 00:28
Naphthalene	0.017		0.000050	0.00020	mg/L	10	7/20/2012 20:05
Nitrobenzene	U		0.000050	0.00020	mg/L	1	7/21/2012 00:28
N-Nitrosodiphenylamine	U		0.000050	0.00020	mg/L	1	7/21/2012 00:28
Pentachlorophenol	U		0.000050	0.00020	mg/L	1	7/21/2012 00:28
Phenanthrene	0.0058		0.000050	0.00020	mg/L	1	7/21/2012 00:28
Phenol	U		0.000050	0.00020	mg/L	1	7/21/2012 00:28
Pyrene	0.0035		0.000050	0.00020	mg/L	1	7/21/2012 00:28
Surr: 2,4,6-Tribromophenol	68.9			34-129	%REC	10	7/20/2012 20:05
Surr: 2,4,6-Tribromophenol	67.8			34-129	%REC	1	7/21/2012 00:28
Surr: 2-Fluorobiphenyl	53.1			40-125	%REC	10	7/20/2012 20:05
Surr: 2-Fluorobiphenyl	49.5			40-125	%REC	1	7/21/2012 00:28
Surr: 2-Fluorophenol	44.3			20-120	%REC	10	7/20/2012 20:05
Surr: 2-Fluorophenol	40.6			20-120	%REC	1	7/21/2012 00:28
Surr: 4-Terphenyl-d14	82.0			40-135	%REC	10	7/20/2012 20:05
Surr: 4-Terphenyl-d14	77.0			40-135	%REC	1	7/21/2012 00:28
Surr: Nitrobenzene-d5	46.3			41-120	%REC	10	7/20/2012 20:05
Surr: Nitrobenzene-d5	53.7			41-120	%REC	1	7/21/2012 00:28
Surr: Phenol-d6	44.2			20-120	%REC	10	7/20/2012 20:05

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 09-Aug-12

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Sample ID: WG-1620-MW33A-20120717
Collection Date: 7/17/2012 09:00 AM

Work Order: 1207818
Lab ID: 1207818-12
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
<i>Surr: Phenol-d6</i>	37.2			20-120	%REC	1	7/21/2012 00:28
VOLATILES	Method: SW8260						Analyst: PC
1,2-Dichloroethane	U		0.00050	0.0050	mg/L	1	7/20/2012 20:16
Benzene	0.0023	J	0.00050	0.0050	mg/L	1	7/20/2012 20:16
Chlorobenzene	U		0.00050	0.0050	mg/L	1	7/20/2012 20:16
Ethylbenzene	U		0.00050	0.0050	mg/L	1	7/20/2012 20:16
Methylene chloride	U		0.0010	0.010	mg/L	1	7/20/2012 20:16
Toluene	U		0.00050	0.0050	mg/L	1	7/20/2012 20:16
Xylenes, Total	U		0.0015	0.015	mg/L	1	7/20/2012 20:16
<i>Surr: 1,2-Dichloroethane-d4</i>	98.3			70-125	%REC	1	7/20/2012 20:16
<i>Surr: 4-Bromofluorobenzene</i>	92.1			72-125	%REC	1	7/20/2012 20:16
<i>Surr: Dibromofluoromethane</i>	108			71-125	%REC	1	7/20/2012 20:16
<i>Surr: Toluene-d8</i>	96.1			75-125	%REC	1	7/20/2012 20:16

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 09-Aug-12

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Sample ID: WG-1620-FD2-20120717
Collection Date: 7/17/2012 09:00 AM

Work Order: 1207818
Lab ID: 1207818-13
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270	Prep: SW3510 / 7/19/12	Analyst: ACN		
1,2-Diphenylhydrazine	U		0.000050	0.00020	mg/L	1	7/21/2012 00:48
2,4-Dimethylphenol	U		0.000050	0.00020	mg/L	1	7/21/2012 00:48
2,4-Dinitrotoluene	U		0.000050	0.00020	mg/L	1	7/21/2012 00:48
2,6-Dinitrotoluene	U		0.000060	0.00020	mg/L	1	7/21/2012 00:48
2-Chloronaphthalene	U		0.000050	0.00020	mg/L	1	7/21/2012 00:48
2-Methylnaphthalene	0.0011		0.000050	0.00020	mg/L	1	7/21/2012 00:48
4,6-Dinitro-2-methylphenol	U		0.000080	0.00020	mg/L	1	7/21/2012 00:48
4-Nitrophenol	U		0.000050	0.0010	mg/L	1	7/21/2012 00:48
Acenaphthene	0.023		0.000050	0.00020	mg/L	10	7/20/2012 20:25
Acenaphthylene	U		0.000050	0.00020	mg/L	1	7/21/2012 00:48
Anthracene	0.0015		0.000050	0.00020	mg/L	1	7/21/2012 00:48
Benz(a)anthracene	0.00026		0.000050	0.00020	mg/L	1	7/21/2012 00:48
Benzo(a)pyrene	0.000054	J	0.000050	0.00020	mg/L	1	7/21/2012 00:48
Bis(2-chloroethoxy)methane	U		0.000050	0.00020	mg/L	1	7/21/2012 00:48
Bis(2-ethylhexyl)phthalate	0.00022		0.00010	0.00020	mg/L	1	7/21/2012 00:48
Chrysene	0.00016	J	0.000050	0.00020	mg/L	1	7/21/2012 00:48
Dibenzofuran	0.0061		0.000050	0.00020	mg/L	1	7/21/2012 00:48
Di-n-butyl phthalate	U		0.000050	0.00020	mg/L	1	7/21/2012 00:48
Fluoranthene	0.0026		0.000050	0.00020	mg/L	1	7/21/2012 00:48
Fluorene	0.0073		0.000050	0.00020	mg/L	1	7/21/2012 00:48
Naphthalene	0.021		0.000050	0.00020	mg/L	10	7/20/2012 20:25
Nitrobenzene	U		0.000050	0.00020	mg/L	1	7/21/2012 00:48
N-Nitrosodiphenylamine	U		0.000050	0.00020	mg/L	1	7/21/2012 00:48
Pentachlorophenol	U		0.000050	0.00020	mg/L	1	7/21/2012 00:48
Phenanthrene	0.0026		0.000050	0.00020	mg/L	1	7/21/2012 00:48
Phenol	U		0.000050	0.00020	mg/L	1	7/21/2012 00:48
Pyrene	0.0032		0.000050	0.00020	mg/L	1	7/21/2012 00:48
Surr: 2,4,6-Tribromophenol	80.6			34-129	%REC	10	7/20/2012 20:25
Surr: 2,4,6-Tribromophenol	92.2			34-129	%REC	1	7/21/2012 00:48
Surr: 2-Fluorobiphenyl	57.6			40-125	%REC	10	7/20/2012 20:25
Surr: 2-Fluorobiphenyl	67.8			40-125	%REC	1	7/21/2012 00:48
Surr: 2-Fluorophenol	39.0	J		20-120	%REC	10	7/20/2012 20:25
Surr: 2-Fluorophenol	56.8			20-120	%REC	1	7/21/2012 00:48
Surr: 4-Terphenyl-d14	85.5			40-135	%REC	10	7/20/2012 20:25
Surr: 4-Terphenyl-d14	93.9			40-135	%REC	1	7/21/2012 00:48
Surr: Nitrobenzene-d5	47.9			41-120	%REC	10	7/20/2012 20:25
Surr: Nitrobenzene-d5	67.2			41-120	%REC	1	7/21/2012 00:48
Surr: Phenol-d6	50.0			20-120	%REC	10	7/20/2012 20:25

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 09-Aug-12

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Sample ID: WG-1620-FD2-20120717
Collection Date: 7/17/2012 09:00 AM

Work Order: 1207818
Lab ID: 1207818-13
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
<i>Surr: Phenol-d6</i>	58.4			20-120	%REC	1	7/21/2012 00:48
VOLATILES		Method: SW8260				Analyst: PC	
1,2-Dichloroethane	U		0.00050	0.0050	mg/L	1	7/20/2012 20:43
Benzene	0.0022	J	0.00050	0.0050	mg/L	1	7/20/2012 20:43
Chlorobenzene	U		0.00050	0.0050	mg/L	1	7/20/2012 20:43
Ethylbenzene	U		0.00050	0.0050	mg/L	1	7/20/2012 20:43
Methylene chloride	U		0.0010	0.010	mg/L	1	7/20/2012 20:43
Toluene	U		0.00050	0.0050	mg/L	1	7/20/2012 20:43
Vinyl chloride	U		0.00050	0.0020	mg/L	1	7/20/2012 20:43
Xylenes, Total	U		0.0015	0.015	mg/L	1	7/20/2012 20:43
<i>Surr: 1,2-Dichloroethane-d4</i>	96.8			70-125	%REC	1	7/20/2012 20:43
<i>Surr: 4-Bromofluorobenzene</i>	99.6			72-125	%REC	1	7/20/2012 20:43
<i>Surr: Dibromofluoromethane</i>	105			71-125	%REC	1	7/20/2012 20:43
<i>Surr: Toluene-d8</i>	91.8			75-125	%REC	1	7/20/2012 20:43

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 09-Aug-12

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Sample ID: WG-1620-MW33BR-20120717
Collection Date: 7/17/2012 10:00 AM

Work Order: 1207818
Lab ID: 1207818-14
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270	Prep: SW3510 / 7/19/12	Analyst: ACN		
1,2-Diphenylhydrazine	U		0.00050	0.0020	mg/L	10	7/24/2012 00:23
2,4-Dimethylphenol	0.0074		0.00050	0.0020	mg/L	10	7/24/2012 00:23
2,4-Dinitrotoluene	U		0.00050	0.0020	mg/L	10	7/24/2012 00:23
2,6-Dinitrotoluene	U		0.00060	0.0020	mg/L	10	7/24/2012 00:23
2-Chloronaphthalene	U		0.00050	0.0020	mg/L	10	7/24/2012 00:23
2-Methylnaphthalene	0.55		0.0050	0.020	mg/L	100	7/24/2012 03:19
4,6-Dinitro-2-methylphenol	U		0.00080	0.0020	mg/L	10	7/24/2012 00:23
4-Nitrophenol	U		0.00050	0.010	mg/L	10	7/24/2012 00:23
Acenaphthene	0.099		0.00050	0.0020	mg/L	10	7/24/2012 00:23
Acenaphthylene	0.0014	J	0.00050	0.0020	mg/L	10	7/24/2012 00:23
Anthracene	0.011		0.00050	0.0020	mg/L	10	7/24/2012 00:23
Benz(a)anthracene	U		0.00050	0.0020	mg/L	10	7/24/2012 00:23
Benzo(a)pyrene	U		0.00050	0.0020	mg/L	10	7/24/2012 00:23
Bis(2-chloroethoxy)methane	U		0.00050	0.0020	mg/L	10	7/24/2012 00:23
Bis(2-ethylhexyl)phthalate	U		0.0010	0.0020	mg/L	10	7/24/2012 00:23
Chrysene	U		0.00050	0.0020	mg/L	10	7/24/2012 00:23
Dibenzofuran	0.15		0.0050	0.020	mg/L	100	7/24/2012 03:19
Di-n-butyl phthalate	U		0.00050	0.0020	mg/L	10	7/24/2012 00:23
Fluoranthene	0.010		0.00050	0.0020	mg/L	10	7/24/2012 00:23
Fluorene	0.051		0.00050	0.0020	mg/L	10	7/24/2012 00:23
Naphthalene	7.3		0.050	0.20	mg/L	1000	7/24/2012 03:38
Nitrobenzene	U		0.00050	0.0020	mg/L	10	7/24/2012 00:23
N-Nitrosodiphenylamine	U		0.00050	0.0020	mg/L	10	7/24/2012 00:23
Pentachlorophenol	U		0.00050	0.0020	mg/L	10	7/24/2012 00:23
Phenanthrene	0.091		0.00050	0.0020	mg/L	10	7/24/2012 00:23
Phenol	0.0014	J	0.00050	0.0020	mg/L	10	7/24/2012 00:23
Pyrene	0.0054		0.00050	0.0020	mg/L	10	7/24/2012 00:23
Surr: 2,4,6-Tribromophenol	183	S		34-129	%REC	10	7/24/2012 00:23
Surr: 2,4,6-Tribromophenol	194	JS		34-129	%REC	100	7/24/2012 03:19
Surr: 2,4,6-Tribromophenol	0	S		34-129	%REC	1000	7/24/2012 03:38
Surr: 2-Fluorobiphenyl	79.6			40-125	%REC	10	7/24/2012 00:23
Surr: 2-Fluorobiphenyl	86.1	J		40-125	%REC	100	7/24/2012 03:19
Surr: 2-Fluorobiphenyl	0	S		40-125	%REC	1000	7/24/2012 03:38
Surr: 2-Fluorophenol	105			20-120	%REC	10	7/24/2012 00:23
Surr: 2-Fluorophenol	118	J		20-120	%REC	100	7/24/2012 03:19
Surr: 2-Fluorophenol	0	S		20-120	%REC	1000	7/24/2012 03:38
Surr: 4-Terphenyl-d14	86.9			40-135	%REC	10	7/24/2012 00:23
Surr: 4-Terphenyl-d14	92.4	J		40-135	%REC	100	7/24/2012 03:19

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 09-Aug-12

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Sample ID: WG-1620-MW33BR-20120717
Collection Date: 7/17/2012 10:00 AM

Work Order: 1207818
Lab ID: 1207818-14
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
Surr: 4-Terphenyl-d14	0	S		40-135	%REC	1000	7/24/2012 03:38
Surr: Nitrobenzene-d5	61.5			41-120	%REC	10	7/24/2012 00:23
Surr: Nitrobenzene-d5	80.9	J		41-120	%REC	100	7/24/2012 03:19
Surr: Nitrobenzene-d5	0	S		41-120	%REC	1000	7/24/2012 03:38
Surr: Phenol-d6	69.4			20-120	%REC	10	7/24/2012 00:23
Surr: Phenol-d6	84.0	J		20-120	%REC	100	7/24/2012 03:19
Surr: Phenol-d6	0	S		20-120	%REC	1000	7/24/2012 03:38

VOLATILES		Method: SW8260				Analyst: PC	
1,2-Dichloroethane	U	0.00050	0.0050	mg/L	1	7/23/2012 16:13	
Benzene	0.30	0.0025	0.025	mg/L	5	7/23/2012 19:46	
Chlorobenzene	U	0.00050	0.0050	mg/L	1	7/23/2012 16:13	
Ethylbenzene	0.070	0.00050	0.0050	mg/L	1	7/23/2012 16:13	
Methylene chloride	U	0.0010	0.010	mg/L	1	7/23/2012 16:13	
Toluene	0.023	0.00050	0.0050	mg/L	1	7/23/2012 16:13	
Vinyl chloride	U	0.00050	0.0020	mg/L	1	7/23/2012 16:13	
Xylenes, Total	0.15	0.0015	0.015	mg/L	1	7/23/2012 16:13	
Surr: 1,2-Dichloroethane-d4	112		70-125	%REC	1	7/23/2012 16:13	
Surr: 1,2-Dichloroethane-d4	114		70-125	%REC	5	7/23/2012 19:46	
Surr: 4-Bromofluorobenzene	101		72-125	%REC	1	7/23/2012 16:13	
Surr: 4-Bromofluorobenzene	98.0		72-125	%REC	5	7/23/2012 19:46	
Surr: Dibromofluoromethane	112		71-125	%REC	1	7/23/2012 16:13	
Surr: Dibromofluoromethane	114		71-125	%REC	5	7/23/2012 19:46	
Surr: Toluene-d8	103		75-125	%REC	1	7/23/2012 16:13	
Surr: Toluene-d8	104		75-125	%REC	5	7/23/2012 19:46	

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 09-Aug-12

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Sample ID: WG-1620-MW26A-20120717
Collection Date: 7/17/2012 10:50 AM

Work Order: 1207818
Lab ID: 1207818-15
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270	Prep: SW3510 / 7/19/12	Analyst: ACN		
1,2-Diphenylhydrazine	U		0.000050	0.00020	mg/L	1	7/21/2012 01:29
2,4-Dimethylphenol	U		0.000050	0.00020	mg/L	1	7/21/2012 01:29
2,4-Dinitrotoluene	0.00010	J	0.000050	0.00020	mg/L	1	7/21/2012 01:29
2,6-Dinitrotoluene	U		0.000060	0.00020	mg/L	1	7/21/2012 01:29
2-Chloronaphthalene	U		0.000050	0.00020	mg/L	1	7/21/2012 01:29
2-Methylnaphthalene	0.000056	J	0.000050	0.00020	mg/L	1	7/21/2012 01:29
4,6-Dinitro-2-methylphenol	U		0.000080	0.00020	mg/L	1	7/21/2012 01:29
4-Nitrophenol	U		0.000050	0.0010	mg/L	1	7/21/2012 01:29
Acenaphthene	0.0087		0.000050	0.00020	mg/L	1	7/21/2012 01:29
Acenaphthylene	U		0.000050	0.00020	mg/L	1	7/21/2012 01:29
Anthracene	0.00027		0.000050	0.00020	mg/L	1	7/21/2012 01:29
Benz(a)anthracene	U		0.000050	0.00020	mg/L	1	7/21/2012 01:29
Benzo(a)pyrene	U		0.000050	0.00020	mg/L	1	7/21/2012 01:29
Bis(2-chloroethoxy)methane	U		0.000050	0.00020	mg/L	1	7/21/2012 01:29
Bis(2-ethylhexyl)phthalate	0.00020	J	0.00010	0.00020	mg/L	1	7/21/2012 01:29
Chrysene	U		0.000050	0.00020	mg/L	1	7/21/2012 01:29
Dibenzofuran	0.00084		0.000050	0.00020	mg/L	1	7/21/2012 01:29
Di-n-butyl phthalate	U		0.000050	0.00020	mg/L	1	7/21/2012 01:29
Fluoranthene	0.00092		0.000050	0.00020	mg/L	1	7/21/2012 01:29
Fluorene	0.00041		0.000050	0.00020	mg/L	1	7/21/2012 01:29
Naphthalene	0.00027		0.000050	0.00020	mg/L	1	7/21/2012 01:29
Nitrobenzene	U		0.000050	0.00020	mg/L	1	7/21/2012 01:29
N-Nitrosodiphenylamine	U		0.000050	0.00020	mg/L	1	7/21/2012 01:29
Pentachlorophenol	U		0.000050	0.00020	mg/L	1	7/21/2012 01:29
Phenanthrene	U		0.000050	0.00020	mg/L	1	7/21/2012 01:29
Phenol	U		0.000050	0.00020	mg/L	1	7/21/2012 01:29
Pyrene	0.00051		0.000050	0.00020	mg/L	1	7/21/2012 01:29
Surr: 2,4,6-Tribromophenol	73.7			34-129	%REC	1	7/21/2012 01:29
Surr: 2-Fluorobiphenyl	59.8			40-125	%REC	1	7/21/2012 01:29
Surr: 2-Fluorophenol	44.7			20-120	%REC	1	7/21/2012 01:29
Surr: 4-Terphenyl-d14	84.7			40-135	%REC	1	7/21/2012 01:29
Surr: Nitrobenzene-d5	53.6			41-120	%REC	1	7/21/2012 01:29
Surr: Phenol-d6	54.2			20-120	%REC	1	7/21/2012 01:29

VOLATILES			Method: SW8260	Analyst: PC			
1,2-Dichloroethane	U		0.00050	0.0050	mg/L	1	7/20/2012 22:03
Benzene	U		0.00050	0.0050	mg/L	1	7/20/2012 22:03
Chlorobenzene	U		0.00050	0.0050	mg/L	1	7/20/2012 22:03
Ethylbenzene	U		0.00050	0.0050	mg/L	1	7/20/2012 22:03

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 09-Aug-12

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Sample ID: WG-1620-MW26A-20120717
Collection Date: 7/17/2012 10:50 AM

Work Order: 1207818
Lab ID: 1207818-15
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
Methylene chloride	U		0.0010	0.010	mg/L	1	7/20/2012 22:03
Toluene	U		0.00050	0.0050	mg/L	1	7/20/2012 22:03
Xylenes, Total	U		0.0015	0.015	mg/L	1	7/20/2012 22:03
Surr: 1,2-Dichloroethane-d4	96.8			70-125	%REC	1	7/20/2012 22:03
Surr: 4-Bromofluorobenzene	99.5			72-125	%REC	1	7/20/2012 22:03
Surr: Dibromofluoromethane	103			71-125	%REC	1	7/20/2012 22:03
Surr: Toluene-d8	95.8			75-125	%REC	1	7/20/2012 22:03

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 09-Aug-12

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Sample ID: WG-1620-MW67B-20120717
Collection Date: 7/17/2012 11:50 AM

Work Order: 1207818
Lab ID: 1207818-16
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270	Prep: SW3510 / 7/19/12	Analyst: ACN		
1,2-Diphenylhydrazine	U		0.000050	0.00020	mg/L	1	7/20/2012 16:41
2,4-Dimethylphenol	U		0.000050	0.00020	mg/L	1	7/20/2012 16:41
2,4-Dinitrotoluene	U		0.000050	0.00020	mg/L	1	7/20/2012 16:41
2,6-Dinitrotoluene	0.0022		0.000060	0.00020	mg/L	1	7/20/2012 16:41
2-Chloronaphthalene	U		0.000050	0.00020	mg/L	1	7/20/2012 16:41
2-Methylnaphthalene	0.000062	J	0.000050	0.00020	mg/L	1	7/20/2012 16:41
4,6-Dinitro-2-methylphenol	U		0.000080	0.00020	mg/L	1	7/20/2012 16:41
4-Nitrophenol	U		0.000050	0.0010	mg/L	1	7/20/2012 16:41
Acenaphthene	U		0.000050	0.00020	mg/L	1	7/20/2012 16:41
Acenaphthylene	U		0.000050	0.00020	mg/L	1	7/20/2012 16:41
Anthracene	U		0.000050	0.00020	mg/L	1	7/20/2012 16:41
Benz(a)anthracene	U		0.000050	0.00020	mg/L	1	7/20/2012 16:41
Benzo(a)pyrene	U		0.000050	0.00020	mg/L	1	7/20/2012 16:41
Bis(2-chloroethoxy)methane	U		0.000050	0.00020	mg/L	1	7/20/2012 16:41
Bis(2-ethylhexyl)phthalate	0.00012	J	0.00010	0.00020	mg/L	1	7/20/2012 16:41
Chrysene	U		0.000050	0.00020	mg/L	1	7/20/2012 16:41
Dibenzofuran	U		0.000050	0.00020	mg/L	1	7/20/2012 16:41
Di-n-butyl phthalate	U		0.000050	0.00020	mg/L	1	7/20/2012 16:41
Fluoranthene	U		0.000050	0.00020	mg/L	1	7/20/2012 16:41
Fluorene	U		0.000050	0.00020	mg/L	1	7/20/2012 16:41
Naphthalene	0.00049		0.000050	0.00020	mg/L	1	7/20/2012 16:41
Nitrobenzene	U		0.000050	0.00020	mg/L	1	7/20/2012 16:41
N-Nitrosodiphenylamine	U		0.000050	0.00020	mg/L	1	7/20/2012 16:41
Pentachlorophenol	U		0.000050	0.00020	mg/L	1	7/20/2012 16:41
Phenanthrene	U		0.000050	0.00020	mg/L	1	7/20/2012 16:41
Phenol	U		0.000050	0.00020	mg/L	1	7/20/2012 16:41
Pyrene	U		0.000050	0.00020	mg/L	1	7/20/2012 16:41
Surr: 2,4,6-Tribromophenol	75.6			34-129	%REC	1	7/20/2012 16:41
Surr: 2-Fluorobiphenyl	61.7			40-125	%REC	1	7/20/2012 16:41
Surr: 2-Fluorophenol	58.0			20-120	%REC	1	7/20/2012 16:41
Surr: 4-Terphenyl-d14	88.5			40-135	%REC	1	7/20/2012 16:41
Surr: Nitrobenzene-d5	57.8			41-120	%REC	1	7/20/2012 16:41
Surr: Phenol-d6	58.6			20-120	%REC	1	7/20/2012 16:41
VOLATILES			Method: SW8260	Analyst: PC			
1,2-Dichloroethane	U		0.00050	0.0050	mg/L	1	7/23/2012 12:39
Benzene	U		0.00050	0.0050	mg/L	1	7/23/2012 12:39
Chlorobenzene	U		0.00050	0.0050	mg/L	1	7/23/2012 12:39
Ethylbenzene	U		0.00050	0.0050	mg/L	1	7/23/2012 12:39

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 09-Aug-12

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Sample ID: WG-1620-MW67B-20120717
Collection Date: 7/17/2012 11:50 AM

Work Order: 1207818
Lab ID: 1207818-16
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
Methylene chloride	U		0.0010	0.010	mg/L	1	7/23/2012 12:39
Toluene	U		0.00050	0.0050	mg/L	1	7/23/2012 12:39
Xylenes, Total	U		0.0015	0.015	mg/L	1	7/23/2012 12:39
Surr: 1,2-Dichloroethane-d4	110			70-125	%REC	1	7/23/2012 12:39
Surr: 4-Bromofluorobenzene	96.7			72-125	%REC	1	7/23/2012 12:39
Surr: Dibromofluoromethane	106			71-125	%REC	1	7/23/2012 12:39
Surr: Toluene-d8	101			75-125	%REC	1	7/23/2012 12:39

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 09-Aug-12

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Sample ID: WG-1620-MW70B-20120717
Collection Date: 7/17/2012 01:30 PM

Work Order: 1207818
Lab ID: 1207818-17
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	ML	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270		Prep: SW3510 / 7/19/12		Analyst: ACN
1,2-Diphenylhydrazine		U	0.00050	0.0020	mg/L	10	7/20/2012 21:26
2,4-Dimethylphenol	2.6		0.050	0.20	mg/L	1000	7/25/2012 11:39
2,4-Dinitrotoluene		U	0.00050	0.0020	mg/L	10	7/20/2012 21:26
2,6-Dinitrotoluene		U	0.00060	0.0020	mg/L	10	7/20/2012 21:26
2-Chloronaphthalene		U	0.00050	0.0020	mg/L	10	7/20/2012 21:26
2-Methylnaphthalene	0.94		0.010	0.040	mg/L	200	7/25/2012 11:20
4,6-Dinitro-2-methylphenol		U	0.00080	0.0020	mg/L	10	7/20/2012 21:26
4-Nitrophenol		U	0.00050	0.010	mg/L	10	7/20/2012 21:26
Acenaphthene	0.91		0.010	0.040	mg/L	200	7/25/2012 11:20
Acenaphthylene	0.011		0.00050	0.0020	mg/L	10	7/20/2012 21:26
Anthracene	0.096		0.00050	0.0020	mg/L	10	7/20/2012 21:26
Benz(a)anthracene	0.016		0.00050	0.0020	mg/L	10	7/20/2012 21:26
Benzo(a)pyrene	0.0041		0.00050	0.0020	mg/L	10	7/20/2012 21:26
Bis(2-chloroethoxy)methane		U	0.00050	0.0020	mg/L	10	7/20/2012 21:26
Bis(2-ethylhexyl)phthalate	0.0068		0.0010	0.0020	mg/L	10	7/20/2012 21:26
Chrysene	0.013		0.00050	0.0020	mg/L	10	7/20/2012 21:26
Dibenzofuran	0.69		0.010	0.040	mg/L	200	7/25/2012 11:20
Di-n-butyl phthalate		U	0.00050	0.0020	mg/L	10	7/20/2012 21:26
Fluoranthene	0.28		0.010	0.040	mg/L	200	7/25/2012 11:20
Fluorene	0.66		0.010	0.040	mg/L	200	7/25/2012 11:20
Naphthalene	5.3		0.050	0.20	mg/L	1000	7/25/2012 11:39
Nitrobenzene		U	0.00050	0.0020	mg/L	10	7/20/2012 21:26
N-Nitrosodiphenylamine		U	0.00050	0.0020	mg/L	10	7/20/2012 21:26
Pentachlorophenol		U	0.00050	0.0020	mg/L	10	7/20/2012 21:26
Phenanthrene	0.93		0.010	0.040	mg/L	200	7/25/2012 11:20
Phenol	0.077		0.00050	0.0020	mg/L	10	7/20/2012 21:26
Pyrene	0.094		0.00050	0.0020	mg/L	10	7/20/2012 21:26
Surr: 2,4,6-Tribromophenol	95.9			34-129	%REC	10	7/20/2012 21:26
Surr: 2,4,6-Tribromophenol	0	S		34-129	%REC	200	7/25/2012 11:20
Surr: 2,4,6-Tribromophenol	0	S		34-129	%REC	1000	7/25/2012 11:39
Surr: 2-Fluorobiphenyl	80.5			40-125	%REC	10	7/20/2012 21:26
Surr: 2-Fluorobiphenyl	0	S		40-125	%REC	200	7/25/2012 11:20
Surr: 2-Fluorobiphenyl	0	S		40-125	%REC	1000	7/25/2012 11:39
Surr: 2-Fluorophenol	61.9			20-120	%REC	10	7/20/2012 21:26
Surr: 2-Fluorophenol	0	S		20-120	%REC	200	7/25/2012 11:20
Surr: 2-Fluorophenol	0	S		20-120	%REC	1000	7/25/2012 11:39
Surr: 4-Terphenyl-d14	121			40-135	%REC	10	7/20/2012 21:26
Surr: 4-Terphenyl-d14	0	S		40-135	%REC	200	7/25/2012 11:20

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 09-Aug-12

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Sample ID: WG-1620-MW70B-20120717
Collection Date: 7/17/2012 01:30 PM

Work Order: 1207818
Lab ID: 1207818-17
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
Surr: 4-Terphenyl-d14	0	S		40-135	%REC	1000	7/25/2012 11:39
Surr: Nitrobenzene-d5	65.9			41-120	%REC	10	7/20/2012 21:26
Surr: Nitrobenzene-d5	0	S		41-120	%REC	200	7/25/2012 11:20
Surr: Nitrobenzene-d5	0	S		41-120	%REC	1000	7/25/2012 11:39
Surr: Phenol-d6	71.0			20-120	%REC	10	7/20/2012 21:26
Surr: Phenol-d6	0	S		20-120	%REC	200	7/25/2012 11:20
Surr: Phenol-d6	0	S		20-120	%REC	1000	7/25/2012 11:39

VOLATILES		Method: SW8260				Analyst: PC	
1,2-Dichloroethane	U	0.0025	0.025	mg/L	5	7/23/2012 20:13	
Benzene	0.21	0.0025	0.025	mg/L	5	7/23/2012 20:13	
Chlorobenzene	U	0.0025	0.025	mg/L	5	7/23/2012 20:13	
Ethylbenzene	0.058	0.0025	0.025	mg/L	5	7/23/2012 20:13	
Methylene chloride	U	0.0050	0.050	mg/L	5	7/23/2012 20:13	
Toluene	0.22	0.0025	0.025	mg/L	5	7/23/2012 20:13	
Xylenes, Total	0.19	0.0075	0.075	mg/L	5	7/23/2012 20:13	
Surr: 1,2-Dichloroethane-d4	114		70-125	%REC	5	7/23/2012 20:13	
Surr: 4-Bromofluorobenzene	102		72-125	%REC	5	7/23/2012 20:13	
Surr: Dibromofluoromethane	112		71-125	%REC	5	7/23/2012 20:13	
Surr: Toluene-d8	104		75-125	%REC	5	7/23/2012 20:13	

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 09-Aug-12

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Sample ID: WG-1620-MW36B-20120717
Collection Date: 7/17/2012 02:20 PM

Work Order: 1207818
Lab ID: 1207818-18
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270	Prep: SW3510 / 7/19/12	Analyst: ACN		
1,2-Diphenylhydrazine	U		0.000050	0.00020	mg/L	1	7/25/2012 11:59
2,4-Dimethylphenol	U		0.000050	0.00020	mg/L	1	7/25/2012 11:59
2,4-Dinitrotoluene	U		0.000050	0.00020	mg/L	1	7/25/2012 11:59
2,6-Dinitrotoluene	U		0.000060	0.00020	mg/L	1	7/25/2012 11:59
2-Chloronaphthalene	U		0.000050	0.00020	mg/L	1	7/25/2012 11:59
2-Methylnaphthalene	U		0.000050	0.00020	mg/L	1	7/25/2012 11:59
4,6-Dinitro-2-methylphenol	U		0.000080	0.00020	mg/L	1	7/25/2012 11:59
4-Nitrophenol	U		0.000050	0.0010	mg/L	1	7/25/2012 11:59
Acenaphthene	0.00016	J	0.000050	0.00020	mg/L	1	7/25/2012 11:59
Acenaphthylene	U		0.000050	0.00020	mg/L	1	7/25/2012 11:59
Anthracene	U		0.000050	0.00020	mg/L	1	7/25/2012 11:59
Benz(a)anthracene	U		0.000050	0.00020	mg/L	1	7/25/2012 11:59
Benzo(a)pyrene	U		0.000050	0.00020	mg/L	1	7/25/2012 11:59
Bis(2-chloroethoxy)methane	U		0.000050	0.00020	mg/L	1	7/25/2012 11:59
Bis(2-ethylhexyl)phthalate	0.00021		0.00010	0.00020	mg/L	1	7/25/2012 11:59
Chrysene	U		0.000050	0.00020	mg/L	1	7/25/2012 11:59
Dibenzofuran	0.00011	J	0.000050	0.00020	mg/L	1	7/25/2012 11:59
Di-n-butyl phthalate	U		0.000050	0.00020	mg/L	1	7/25/2012 11:59
Fluoranthene	U		0.000050	0.00020	mg/L	1	7/25/2012 11:59
Fluorene	U		0.000050	0.00020	mg/L	1	7/25/2012 11:59
Naphthalene	U		0.000050	0.00020	mg/L	1	7/25/2012 11:59
Nitrobenzene	U		0.000050	0.00020	mg/L	1	7/25/2012 11:59
N-Nitrosodiphenylamine	U		0.000050	0.00020	mg/L	1	7/25/2012 11:59
Pentachlorophenol	U		0.000050	0.00020	mg/L	1	7/25/2012 11:59
Phenanthrene	0.00027		0.000050	0.00020	mg/L	1	7/25/2012 11:59
Phenol	U		0.000050	0.00020	mg/L	1	7/25/2012 11:59
Pyrene	U		0.000050	0.00020	mg/L	1	7/25/2012 11:59
Surr: 2,4,6-Tribromophenol	65.5			34-129	%REC	1	7/25/2012 11:59
Surr: 2-Fluorobiphenyl	56.5			40-125	%REC	1	7/25/2012 11:59
Surr: 2-Fluorophenol	47.9			20-120	%REC	1	7/25/2012 11:59
Surr: 4-Terphenyl-d14	72.2			40-135	%REC	1	7/25/2012 11:59
Surr: Nitrobenzene-d5	49.6			41-120	%REC	1	7/25/2012 11:59
Surr: Phenol-d6	54.1			20-120	%REC	1	7/25/2012 11:59
VOLATILES			Method: SW8260	Analyst: PC			
1,2-Dichloroethane	U		0.00050	0.0050	mg/L	1	7/20/2012 21:10
Benzene	U		0.00050	0.0050	mg/L	1	7/20/2012 21:10
Chlorobenzene	U		0.00050	0.0050	mg/L	1	7/20/2012 21:10
Ethylbenzene	U		0.00050	0.0050	mg/L	1	7/20/2012 21:10

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 09-Aug-12

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Sample ID: WG-1620-MW36B-20120717
Collection Date: 7/17/2012 02:20 PM

Work Order: 1207818
Lab ID: 1207818-18
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
Methylene chloride	U		0.0010	0.010	mg/L	1	7/20/2012 21:10
Toluene	U		0.00050	0.0050	mg/L	1	7/20/2012 21:10
Vinyl chloride	U		0.00050	0.0020	mg/L	1	7/20/2012 21:10
Xylenes, Total	U		0.0015	0.015	mg/L	1	7/20/2012 21:10
Surr: 1,2-Dichloroethane-d4	96.5			70-125	%REC	1	7/20/2012 21:10
Surr: 4-Bromofluorobenzene	93.1			72-125	%REC	1	7/20/2012 21:10
Surr: Dibromofluoromethane	111			71-125	%REC	1	7/20/2012 21:10
Surr: Toluene-d8	86.1			75-125	%REC	1	7/20/2012 21:10

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 09-Aug-12

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Sample ID: WG-1620-MW36A-20120717
Collection Date: 7/17/2012 03:20 PM

Work Order: 1207818
Lab ID: 1207818-19
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270	Prep: SW3510 / 7/19/12	Analyst: ACN		
1,2-Diphenylhydrazine	U		0.000050	0.00020	mg/L	1	7/24/2012 04:54
2,4-Dimethylphenol	U		0.000050	0.00020	mg/L	1	7/24/2012 04:54
2,4-Dinitrotoluene	U		0.000050	0.00020	mg/L	1	7/24/2012 04:54
2,6-Dinitrotoluene	U		0.000060	0.00020	mg/L	1	7/24/2012 04:54
2-Chloronaphthalene	U		0.000050	0.00020	mg/L	1	7/24/2012 04:54
2-Methylnaphthalene	U		0.000050	0.00020	mg/L	1	7/24/2012 04:54
4,6-Dinitro-2-methylphenol	U		0.000080	0.00020	mg/L	1	7/24/2012 04:54
4-Nitrophenol	U		0.000050	0.0010	mg/L	1	7/24/2012 04:54
Acenaphthene	U		0.000050	0.00020	mg/L	1	7/24/2012 04:54
Acenaphthylene	U		0.000050	0.00020	mg/L	1	7/24/2012 04:54
Anthracene	U		0.000050	0.00020	mg/L	1	7/24/2012 04:54
Benz(a)anthracene	U		0.000050	0.00020	mg/L	1	7/24/2012 04:54
Benzo(a)pyrene	U		0.000050	0.00020	mg/L	1	7/24/2012 04:54
Bis(2-chloroethoxy)methane	U		0.000050	0.00020	mg/L	1	7/24/2012 04:54
Bis(2-ethylhexyl)phthalate	U		0.00010	0.00020	mg/L	1	7/24/2012 04:54
Chrysene	U		0.000050	0.00020	mg/L	1	7/24/2012 04:54
Dibenzofuran	U		0.000050	0.00020	mg/L	1	7/24/2012 04:54
Di-n-butyl phthalate	U		0.000050	0.00020	mg/L	1	7/24/2012 04:54
Fluoranthene	U		0.000050	0.00020	mg/L	1	7/24/2012 04:54
Fluorene	U		0.000050	0.00020	mg/L	1	7/24/2012 04:54
Naphthalene	0.00030		0.000050	0.00020	mg/L	1	7/24/2012 04:54
Nitrobenzene	U		0.000050	0.00020	mg/L	1	7/24/2012 04:54
N-Nitrosodiphenylamine	U		0.000050	0.00020	mg/L	1	7/24/2012 04:54
Pentachlorophenol	U		0.000050	0.00020	mg/L	1	7/24/2012 04:54
Phenanthrene	U		0.000050	0.00020	mg/L	1	7/24/2012 04:54
Phenol	U		0.000050	0.00020	mg/L	1	7/24/2012 04:54
Pyrene	U		0.000050	0.00020	mg/L	1	7/24/2012 04:54
Surr: 2,4,6-Tribromophenol	71.2			34-129	%REC	1	7/24/2012 04:54
Surr: 2-Fluorobiphenyl	63.8			40-125	%REC	1	7/24/2012 04:54
Surr: 2-Fluorophenol	53.3			20-120	%REC	1	7/24/2012 04:54
Surr: 4-Terphenyl-d14	92.7			40-135	%REC	1	7/24/2012 04:54
Surr: Nitrobenzene-d5	55.1			41-120	%REC	1	7/24/2012 04:54
Surr: Phenol-d6	57.3			20-120	%REC	1	7/24/2012 04:54
VOLATILES			Method: SW8260	Analyst: PC			
1,2-Dichloroethane	U		0.00050	0.0050	mg/L	1	7/20/2012 21:37
Benzene	U		0.00050	0.0050	mg/L	1	7/20/2012 21:37
Chlorobenzene	U		0.00050	0.0050	mg/L	1	7/20/2012 21:37
Ethylbenzene	U		0.00050	0.0050	mg/L	1	7/20/2012 21:37

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 09-Aug-12

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Sample ID: WG-1620-MW36A-20120717
Collection Date: 7/17/2012 03:20 PM

Work Order: 1207818
Lab ID: 1207818-19
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	ML	Units	Dilution Factor	Date Analyzed
Methylene chloride	U		0.0010	0.010	mg/L	1	7/20/2012 21:37
Toluene	U		0.00050	0.0050	mg/L	1	7/20/2012 21:37
Vinyl chloride	U		0.00050	0.0020	mg/L	1	7/20/2012 21:37
Xylenes, Total	U		0.0015	0.015	mg/L	1	7/20/2012 21:37
Surr: 1,2-Dichloroethane-d4	94.0			70-125	%REC	1	7/20/2012 21:37
Surr: 4-Bromofluorobenzene	94.3			72-125	%REC	1	7/20/2012 21:37
Surr: Dibromofluoromethane	109			71-125	%REC	1	7/20/2012 21:37
Surr: Toluene-d8	95.5			75-125	%REC	1	7/20/2012 21:37

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 09-Aug-12

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Sample ID: WG-1620-MW28C-20120717
Collection Date: 7/17/2012 04:25 PM

Work Order: 1207818
Lab ID: 1207818-20
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270	Prep: SW3510 / 7/19/12	Analyst: ACN		
1,2-Diphenylhydrazine	U		0.000050	0.00020	mg/L	1	7/24/2012 05:14
2,4-Dimethylphenol	U		0.000050	0.00020	mg/L	1	7/24/2012 05:14
2,4-Dinitrotoluene	U		0.000050	0.00020	mg/L	1	7/24/2012 05:14
2,6-Dinitrotoluene	U		0.000060	0.00020	mg/L	1	7/24/2012 05:14
2-Chloronaphthalene	U		0.000050	0.00020	mg/L	1	7/24/2012 05:14
2-Methylnaphthalene	0.00011	J	0.000050	0.00020	mg/L	1	7/24/2012 05:14
4,6-Dinitro-2-methylphenol	U		0.000080	0.00020	mg/L	1	7/24/2012 05:14
4-Nitrophenol	U		0.000050	0.0010	mg/L	1	7/24/2012 05:14
Acenaphthene	U		0.000050	0.00020	mg/L	1	7/24/2012 05:14
Acenaphthylene	U		0.000050	0.00020	mg/L	1	7/24/2012 05:14
Anthracene	U		0.000050	0.00020	mg/L	1	7/24/2012 05:14
Benz(a)anthracene	U		0.000050	0.00020	mg/L	1	7/24/2012 05:14
Benzo(a)pyrene	U		0.000050	0.00020	mg/L	1	7/24/2012 05:14
Bis(2-chloroethoxy)methane	U		0.000050	0.00020	mg/L	1	7/24/2012 05:14
Bis(2-ethylhexyl)phthalate	U		0.00010	0.00020	mg/L	1	7/24/2012 05:14
Chrysene	U		0.000050	0.00020	mg/L	1	7/24/2012 05:14
Dibenzofuran	U		0.000050	0.00020	mg/L	1	7/24/2012 05:14
Di-n-butyl phthalate	U		0.000050	0.00020	mg/L	1	7/24/2012 05:14
Fluoranthene	U		0.000050	0.00020	mg/L	1	7/24/2012 05:14
Fluorene	U		0.000050	0.00020	mg/L	1	7/24/2012 05:14
Naphthalene	0.00064		0.000050	0.00020	mg/L	1	7/24/2012 05:14
Nitrobenzene	U		0.000050	0.00020	mg/L	1	7/24/2012 05:14
N-Nitrosodiphenylamine	U		0.000050	0.00020	mg/L	1	7/24/2012 05:14
Pentachlorophenol	U		0.000050	0.00020	mg/L	1	7/24/2012 05:14
Phenanthrene	U		0.000050	0.00020	mg/L	1	7/24/2012 05:14
Phenol	U		0.000050	0.00020	mg/L	1	7/24/2012 05:14
Pyrene	U		0.000050	0.00020	mg/L	1	7/24/2012 05:14
Surr: 2,4,6-Tribromophenol	64.1			34-129	%REC	1	7/24/2012 05:14
Surr: 2-Fluorobiphenyl	71.1			40-125	%REC	1	7/24/2012 05:14
Surr: 2-Fluorophenol	53.6			20-120	%REC	1	7/24/2012 05:14
Surr: 4-Terphenyl-d14	97.8			40-135	%REC	1	7/24/2012 05:14
Surr: Nitrobenzene-d5	59.0			41-120	%REC	1	7/24/2012 05:14
Surr: Phenol-d6	60.6			20-120	%REC	1	7/24/2012 05:14
VOLATILES			Method: SW8260	Analyst: PC			
1,2-Dichloroethane	U		0.00050	0.0050	mg/L	1	7/23/2012 17:33
Benzene	U		0.00050	0.0050	mg/L	1	7/23/2012 17:33
Chlorobenzene	U		0.00050	0.0050	mg/L	1	7/23/2012 17:33
Ethylbenzene	U		0.00050	0.0050	mg/L	1	7/23/2012 17:33

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 09-Aug-12

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Sample ID: WG-1620-MW28C-20120717
Collection Date: 7/17/2012 04:25 PM

Work Order: 1207818
Lab ID: 1207818-20
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
Methylene chloride	U		0.0010	0.010	mg/L	1	7/23/2012 17:33
Toluene	U		0.00050	0.0050	mg/L	1	7/23/2012 17:33
Xylenes, Total	U		0.0015	0.015	mg/L	1	7/23/2012 17:33
Surr: 1,2-Dichloroethane-d4	110			70-125	%REC	1	7/23/2012 17:33
Surr: 4-Bromofluorobenzene	101			72-125	%REC	1	7/23/2012 17:33
Surr: Dibromofluoromethane	108			71-125	%REC	1	7/23/2012 17:33
Surr: Toluene-d8	103			75-125	%REC	1	7/23/2012 17:33

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 09-Aug-12

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Sample ID: WG-1620-TB-20120717
Collection Date: 7/17/2012

Work Order: 1207818
Lab ID: 1207818-21
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
VOLATILES			Method: SW8260			Analyst: PC	
1,2-Dichloroethane	U		0.00050	0.0050	mg/L	1	7/20/2012 16:37
Benzene	U		0.00050	0.0050	mg/L	1	7/20/2012 16:37
Chlorobenzene	U		0.00050	0.0050	mg/L	1	7/20/2012 16:37
Ethylbenzene	U		0.00050	0.0050	mg/L	1	7/20/2012 16:37
Methylene chloride	U		0.0010	0.010	mg/L	1	7/20/2012 16:37
Toluene	U		0.00050	0.0050	mg/L	1	7/20/2012 16:37
Vinyl chloride	U		0.00050	0.0020	mg/L	1	7/20/2012 16:37
Xylenes, Total	U		0.0015	0.015	mg/L	1	7/20/2012 16:37
Surr: 1,2-Dichloroethane-d4	97.2			70-125	%REC	1	7/20/2012 16:37
Surr: 4-Bromofluorobenzene	96.6			72-125	%REC	1	7/20/2012 16:37
Surr: Dibromofluoromethane	103			71-125	%REC	1	7/20/2012 16:37
Surr: Toluene-d8	93.9			75-125	%REC	1	7/20/2012 16:37

Note: See Qualifiers Page for a list of qualifiers and their explanation.

WorkOrder: 1207818
 InstrumentID: SV-4
 Test Code: 8270_LOW_W
 Test Number: SW8270
 Test Name: Low-Level Semivolatiles

**METHOD DETECTION /
 REPORTING LIMITS**

Matrix: Aqueous Units: mg/L

Type	Analyte	CAS	DCS	MDL	Unadjusted MQL
A	1,2-Diphenylhydrazine	122-66-7	0.000096	0.000050	0.00020
A	2,4-Dimethylphenol	105-67-9	0.000073	0.000050	0.00020
A	2,4-Dinitrotoluene	121-14-2	0.00010	0.000050	0.00020
A	2,6-Dinitrotoluene	606-20-2	0.000063	0.000060	0.00020
A	2-Chloronaphthalene	91-58-7	0.00010	0.000050	0.00020
A	2-Methylnaphthalene	91-57-6	0.000083	0.000050	0.00020
A	4,6-Dinitro-2-methylphenol	534-52-1	0.000013	0.000080	0.00020
A	4-Nitrophenol	100-02-7	0.000082	0.000050	0.0010
A	Acenaphthene	83-32-9	0.000094	0.000050	0.00020
A	Acenaphthylene	208-96-8	0.000079	0.000050	0.00020
A	Anthracene	120-12-7	0.00010	0.000050	0.00020
A	Benz(a)anthracene	56-55-3	0.000083	0.000050	0.00020
A	Benzo(a)pyrene	50-32-8	0.000071	0.000050	0.00020
A	Bis(2-chloroethoxy)methane	111-91-1	0.00011	0.000050	0.00020
A	Bis(2-ethylhexyl)phthalate	117-81-7	0.000087	0.00010	0.00020
A	Chrysene	218-01-9	0.000089	0.000050	0.00020
A	Dibenzofuran	132-64-9	0.000093	0.000050	0.00020
A	Di-n-butyl phthalate	84-74-2	0.000094	0.000050	0.00020
A	Fluoranthene	206-44-0	0.000075	0.000050	0.00020
A	Fluorene	86-73-7	0.000076	0.000050	0.00020
A	Naphthalene	91-20-3	0.00012	0.000050	0.00020
A	Nitrobenzene	98-95-3	0.00011	0.000050	0.00020
A	N-Nitrosodiphenylamine	86-30-6	0.000098	0.000050	0.00020
A	Pentachlorophenol	87-86-5	0.0000074	0.000050	0.00020
A	Phenanthrene	85-01-8	0.000095	0.000050	0.00020
A	Phenol	108-95-2	0.00011	0.000050	0.00020
A	Pyrene	129-00-0	0.000090	0.000050	0.00020
S	Surr: 2,4,6-Tribromophenol	118-79-6	0	0	0.00020
S	Surr: 2-Fluorobiphenyl	321-60-8	0	0	0.00020
S	Surr: 2-Fluorophenol	367-12-4	0	0	0.00020
S	Surr: 4-Terphenyl-d14	1718-51-0	0	0	0.00020
S	Surr: Nitrobenzene-d5	4165-60-0	0	0	0.00020
S	Surr: Phenol-d6	13127-88-3	0	0	0.00020

WorkOrder: 1207818
 InstrumentID: SV-6
 Test Code: 8270_LOW_W
 Test Number: SW8270
 Test Name: Low-Level Semivolatiles

**METHOD DETECTION /
 REPORTING LIMITS**

Matrix: Aqueous Units: mg/L

Type	Analyte	CAS	DCS	MDL	Unadjusted MQL
A	1,2-Diphenylhydrazine	122-66-7	0.000093	0.000050	0.00020
A	2,4-Dimethylphenol	105-67-9	0.000090	0.000050	0.00020
A	2,4-Dinitrotoluene	121-14-2	0.000086	0.000050	0.00020
A	2,6-Dinitrotoluene	606-20-2	0.000099	0.000060	0.00020
A	2-Chloronaphthalene	91-58-7	0.00011	0.000050	0.00020
A	2-Methylnaphthalene	91-57-6	0.000095	0.000050	0.00020
A	4,6-Dinitro-2-methylphenol	534-52-1	0.000044	0.000080	0.00020
A	4-Nitrophenol	100-02-7	0.000086	0.000050	0.0010
A	Acenaphthene	83-32-9	0.000089	0.000050	0.00020
A	Acenaphthylene	208-96-8	0.000096	0.000050	0.00020
A	Anthracene	120-12-7	0.000092	0.000050	0.00020
A	Benz(a)anthracene	56-55-3	0.00011	0.000050	0.00020
A	Benzo(a)pyrene	50-32-8	0.000093	0.000050	0.00020
A	Bis(2-chloroethoxy)methane	111-91-1	0.000086	0.000050	0.00020
A	Bis(2-ethylhexyl)phthalate	117-81-7	0.000097	0.00010	0.00020
A	Chrysene	218-01-9	0.000091	0.000050	0.00020
A	Dibenzofuran	132-64-9	0.00011	0.000050	0.00020
A	Di-n-butyl phthalate	84-74-2	0.000093	0.000050	0.00020
A	Fluoranthene	206-44-0	0.000093	0.000050	0.00020
A	Fluorene	86-73-7	0.000096	0.000050	0.00020
A	Naphthalene	91-20-3	0.000097	0.000050	0.00020
A	Nitrobenzene	98-95-3	0.00011	0.000050	0.00020
A	N-Nitrosodiphenylamine	86-30-6	0.000097	0.000050	0.00020
A	Pentachlorophenol	87-86-5	0.000072	0.000050	0.00020
A	Phenanthrene	85-01-8	0.000094	0.000050	0.00020
A	Phenol	108-95-2	0.00011	0.000050	0.00020
A	Pyrene	129-00-0	0.000098	0.000050	0.00020
S	Surr: 2,4,6-Tribromophenol	118-79-6	0	0	0.00020
S	Surr: 2-Fluorobiphenyl	321-60-8	0	0	0.00020
S	Surr: 2-Fluorophenol	367-12-4	0	0	0.00020
S	Surr: 4-Terphenyl-d14	1718-51-0	0	0	0.00020
S	Surr: Nitrobenzene-d5	4165-60-0	0	0	0.00020
S	Surr: Phenol-d6	13127-88-3	0	0	0.00020

WorkOrder: 1207818
InstrumentID: VOA1
Test Code: 8260_W
Test Number: SW8260
Test Name: Volatiles

**METHOD DETECTION /
 REPORTING LIMITS**

Matrix: Aqueous **Units:** mg/L

Type	Analyte	CAS	DCS	MDL	Unadjusted MQL
A	1,2-Dichloroethane	107-06-2	0.0010	0.00050	0.0050
A	Benzene	71-43-2	0.0011	0.00050	0.0050
A	Chlorobenzene	108-90-7	0.0012	0.00050	0.0050
A	Ethylbenzene	100-41-4	0.00084	0.00050	0.0050
A	Methylene chloride	75-09-2	0.0012	0.0010	0.010
A	Toluene	108-88-3	0.0012	0.00050	0.0050
A	Vinyl chloride	75-01-4	0.0011	0.00050	0.0020
M	Xylenes, Total	1330-20-7	0.0030	0.0015	0.015
S	Surr: 1,2-Dichloroethane-d4	17060-07-0	0	0	0.0050
S	Surr: 4-Bromofluorobenzene	460-00-4	0	0	0.0050
S	Surr: Dibromofluoromethane	1868-53-7	0	0	0.0050
S	Surr: Toluene-d8	2037-26-5	0	0	0.0050

WorkOrder: 1207818
InstrumentID: VOA6
Test Code: 8260_W
Test Number: SW8260
Test Name: Volatiles

**METHOD DETECTION /
 REPORTING LIMITS**

Matrix: Aqueous **Units:** mg/L

Type	Analyte	CAS	DCS	MDL	Unadjusted MQL
A	1,2-Dichloroethane	107-06-2	0.0017	0.00050	0.0050
A	Benzene	71-43-2	0.0016	0.00050	0.0050
A	Chlorobenzene	108-90-7	0.0015	0.00050	0.0050
A	Ethylbenzene	100-41-4	0.0014	0.00050	0.0050
A	Methylene chloride	75-09-2	0.0010	0.0010	0.010
A	Toluene	108-88-3	0.0015	0.00050	0.0050
A	Vinyl chloride	75-01-4	0.0017	0.00050	0.0020
M	Xylenes, Total	1330-20-7	0.0044	0.0015	0.015
S	Surr: 1,2-Dichloroethane-d4	17060-07-0	0	0	0.0050
S	Surr: 4-Bromofluorobenzene	460-00-4	0	0	0.0050
S	Surr: Dibromofluoromethane	1868-53-7	0	0	0.0050
S	Surr: Toluene-d8	2037-26-5	0	0	0.0050

ALS Environmental

Date: 09-Aug-12

Client: Pastor, Behling & Wheeler, LLC
Work Order: 1207818
Project: UPRR Houston Wood GW

QC BATCH REPORT

Batch ID: **62745** Instrument ID **SV-6** Method: **SW8270**

MBLK	Sample ID: SBLKW1-120719-62745					Units: µg/L	Analysis Date: 7/20/2012 01:22 AM			
Client ID:	Run ID: SV-6_120720A					SeqNo: 2867915	Prep Date: 7/19/2012	DF: 1		
Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Diphenylhydrazine	U	0.20								
2,4-Dimethylphenol	U	0.20								
2,4-Dinitrotoluene	U	0.20								
2,6-Dinitrotoluene	U	0.20								
2-Chloronaphthalene	U	0.20								
2-Methylnaphthalene	U	0.20								
4,6-Dinitro-2-methylphenol	U	0.20								
4-Nitrophenol	U	1.0								
Acenaphthene	U	0.20								
Acenaphthylene	U	0.20								
Anthracene	U	0.20								
Benz(a)anthracene	U	0.20								
Benzo(a)pyrene	U	0.20								
Bis(2-chloroethoxy)methane	U	0.20								
Bis(2-ethylhexyl)phthalate	U	0.20								
Chrysene	U	0.20								
Dibenzofuran	U	0.20								
Di-n-butyl phthalate	U	0.20								
Fluoranthene	U	0.20								
Fluorene	U	0.20								
Naphthalene	U	0.20								
Nitrobenzene	U	0.20								
N-Nitrosodiphenylamine	U	0.20								
Pentachlorophenol	U	0.20								
Phenanthrene	U	0.20								
Phenol	U	0.20								
Pyrene	U	0.20								
<i>Surr: 2,4,6-Tribromophenol</i>	5.764	0.20	5	0	115	34-129		0		
<i>Surr: 2-Fluorobiphenyl</i>	4.495	0.20	5	0	89.9	40-125		0		
<i>Surr: 2-Fluorophenol</i>	4.093	0.20	5	0	81.9	20-120		0		
<i>Surr: 4-Terphenyl-d14</i>	4.891	0.20	5	0	97.8	40-135		0		
<i>Surr: Nitrobenzene-d5</i>	4.142	0.20	5	0	82.8	41-120		0		
<i>Surr: Phenol-d6</i>	4.337	0.20	5	0	86.7	20-120		0		

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Pastor, Behling & Wheeler, LLC
Work Order: 1207818
Project: UPRR Houston Wood GW

QC BATCH REPORT

Batch ID: **62745** Instrument ID **SV-6** Method: **SW8270**

LCS		Sample ID: SLCSW1-120719-62745			Units: µg/L		Analysis Date: 7/20/2012 01:41 AM			
Client ID:		Run ID: SV-6_120720A			SeqNo: 2867916		Prep Date: 7/19/2012		DF: 1	
Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Diphenylhydrazine	3.817	0.20	5	0	76.3	39-127	0			
2,4-Dimethylphenol	4.292	0.20	5	0	85.8	35-120	0			
2,4-Dinitrotoluene	4.717	0.20	5	0	94.3	50-122	0			
2,6-Dinitrotoluene	4.584	0.20	5	0	91.7	50-120	0			
2-Chloronaphthalene	4.265	0.20	5	0	85.3	50-120	0			
2-Methylnaphthalene	4.355	0.20	5	0	87.1	50-120	0			
4,6-Dinitro-2-methylphenol	5.121	0.20	5	0	102	25-121	0			
4-Nitrophenol	4.585	1.0	5	0	91.7	30-130	0			
Acenaphthene	4.318	0.20	5	0	86.4	45-120	0			
Acenaphthylene	4.259	0.20	5	0	85.2	47-120	0			
Anthracene	4.218	0.20	5	0	84.4	45-120	0			
Benz(a)anthracene	4.312	0.20	5	0	86.2	40-120	0			
Benzo(a)pyrene	4.258	0.20	5	0	85.2	45-120	0			
Bis(2-chloroethoxy)methane	3.98	0.20	5	0	79.6	45-120	0			
Bis(2-ethylhexyl)phthalate	4.498	0.20	5	0	90	40-139	0			
Chrysene	4.134	0.20	5	0	82.7	43-120	0			
Dibenzofuran	4.428	0.20	5	0	88.6	50-120	0			
Di-n-butyl phthalate	4.343	0.20	5	0	86.9	45-123	0			
Fluoranthene	4.244	0.20	5	0	84.9	45-125	0			
Fluorene	4.335	0.20	5	0	86.7	49-120	0			
Naphthalene	4.246	0.20	5	0	84.9	45-120	0			
Nitrobenzene	3.889	0.20	5	0	77.8	44-120	0			
N-Nitrosodiphenylamine	4.19	0.20	5	0	83.8	40-125	0			
Pentachlorophenol	5.32	0.20	5	0	106	19-121	0			
Phenanthrene	4.095	0.20	5	0	81.9	45-121	0			
Phenol	4.127	0.20	5	0	82.5	20-124	0			
Pyrene	3.935	0.20	5	0	78.7	40-130	0			
<i>Surr: 2,4,6-Tribromophenol</i>	5.716	0.20	5	0	114	34-129	0			
<i>Surr: 2-Fluorobiphenyl</i>	4.345	0.20	5	0	86.9	40-125	0			
<i>Surr: 2-Fluorophenol</i>	3.984	0.20	5	0	79.7	20-120	0			
<i>Surr: 4-Terphenyl-d14</i>	4.894	0.20	5	0	97.9	40-135	0			
<i>Surr: Nitrobenzene-d5</i>	3.997	0.20	5	0	79.9	41-120	0			
<i>Surr: Phenol-d6</i>	4.269	0.20	5	0	85.4	20-120	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Pastor, Behling & Wheeler, LLC
Work Order: 1207818
Project: UPRR Houston Wood GW

QC BATCH REPORT

Batch ID: **62745** Instrument ID **SV-6** Method: **SW8270**

LCSD	Sample ID: SLCSDW1-120719-62745	Units: µg/L				Analysis Date: 7/20/2012 02:01 AM				
Client ID:	Run ID: SV-6_120720A	SeqNo: 2867917	Prep Date: 7/19/2012	DF: 1						
Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Diphenylhydrazine	3.913	0.20	5	0	78.3	39-127	3.817	2.47	20	
2,4-Dimethylphenol	4.389	0.20	5	0	87.8	35-120	4.292	2.22	20	
2,4-Dinitrotoluene	4.635	0.20	5	0	92.7	50-122	4.717	1.76	20	
2,6-Dinitrotoluene	4.689	0.20	5	0	93.8	50-120	4.584	2.28	20	
2-Chloronaphthalene	4.438	0.20	5	0	88.8	50-120	4.265	3.98	20	
2-Methylnaphthalene	4.458	0.20	5	0	89.2	50-120	4.355	2.34	20	
4,6-Dinitro-2-methylphenol	5.001	0.20	5	0	100	25-121	5.121	2.38	20	
4-Nitrophenol	4.48	1.0	5	0	89.6	30-130	4.585	2.32	20	
Acenaphthene	4.406	0.20	5	0	88.1	45-120	4.318	2.04	20	
Acenaphthylene	4.334	0.20	5	0	86.7	47-120	4.259	1.74	20	
Anthracene	4.213	0.20	5	0	84.3	45-120	4.218	0.114	20	
Benz(a)anthracene	4.345	0.20	5	0	86.9	40-120	4.312	0.761	20	
Benzo(a)pyrene	4.196	0.20	5	0	83.9	45-120	4.258	1.47	20	
Bis(2-chloroethoxy)methane	4.088	0.20	5	0	81.8	45-120	3.98	2.67	20	
Bis(2-ethylhexyl)phthalate	4.482	0.20	5	0	89.6	40-139	4.498	0.345	20	
Chrysene	4.122	0.20	5	0	82.4	43-120	4.134	0.282	20	
Dibenzofuran	4.563	0.20	5	0	91.3	50-120	4.428	3	20	
Di-n-butyl phthalate	4.257	0.20	5	0	85.1	45-123	4.343	2	20	
Fluoranthene	4.166	0.20	5	0	83.3	45-125	4.244	1.86	20	
Fluorene	4.348	0.20	5	0	87	49-120	4.335	0.293	20	
Naphthalene	4.464	0.20	5	0	89.3	45-120	4.246	5	20	
Nitrobenzene	4.069	0.20	5	0	81.4	44-120	3.889	4.53	20	
N-Nitrosodiphenylamine	4.214	0.20	5	0	84.3	40-125	4.19	0.592	20	
Pentachlorophenol	5.203	0.20	5	0	104	19-121	5.32	2.22	20	
Phenanthrene	4.054	0.20	5	0	81.1	45-121	4.095	1.01	20	
Phenol	4.217	0.20	5	0	84.3	20-124	4.127	2.15	20	
Pyrene	3.861	0.20	5	0	77.2	40-130	3.935	1.89	20	
<i>Surr: 2,4,6-Tribromophenol</i>	5.521	0.20	5	0	110	34-129	5.716	3.46	0	
<i>Surr: 2-Fluorobiphenyl</i>	4.374	0.20	5	0	87.5	40-125	4.345	0.672	0	
<i>Surr: 2-Fluorophenol</i>	4.051	0.20	5	0	81	20-120	3.984	1.69	0	
<i>Surr: 4-Terphenyl-d14</i>	4.745	0.20	5	0	94.9	40-135	4.894	3.1	0	
<i>Surr: Nitrobenzene-d5</i>	4.04	0.20	5	0	80.8	41-120	3.997	1.07	0	
<i>Surr: Phenol-d6</i>	4.278	0.20	5	0	85.6	20-120	4.269	0.207	0	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Pastor, Behling & Wheeler, LLC
Work Order: 1207818
Project: UPRR Houston Wood GW

QC BATCH REPORT

Batch ID: **62745** Instrument ID **SV-6** Method: **SW8270**

MS		Sample ID: 1207818-06BMS			Units: µg/L		Analysis Date: 7/20/2012 05:05 PM			
Client ID: WG-1620-MW13-20120716		Run ID: SV-6_120720A			SeqNo: 2867932		Prep Date: 7/19/2012		DF: 1	
Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Diphenylhydrazine	2.953	0.20	5	0	59.1	39-127	0			
2,4-Dimethylphenol	2.109	0.20	5	0	42.2	35-120	0			
2,4-Dinitrotoluene	4.386	0.20	5	0	87.7	50-122	0			
2,6-Dinitrotoluene	3.896	0.20	5	0	77.9	50-120	0			
2-Chloronaphthalene	2.803	0.20	5	0	56.1	50-120	0			
2-Methylnaphthalene	2.768	0.20	5	0.0629	54.1	50-120	0			
4,6-Dinitro-2-methylphenol	4.407	0.20	5	0	88.1	25-121	0			
4-Nitrophenol	4.858	1.0	5	0	97.2	30-130	0			
Acenaphthene	3.313	0.20	5	0	66.3	45-120	0			
Acenaphthylene	3.121	0.20	5	0	62.4	47-120	0			
Anthracene	3.926	0.20	5	0.1103	76.3	45-120	0			
Benz(a)anthracene	4.062	0.20	5	0	81.2	40-120	0			
Benzo(a)pyrene	4.014	0.20	5	0	80.3	45-120	0			
Bis(2-chloroethoxy)methane	2.316	0.20	5	0	46.3	45-120	0			
Bis(2-ethylhexyl)phthalate	4.248	0.20	5	0	85	40-139	0			
Chrysene	3.897	0.20	5	0	77.9	43-120	0			
Dibenzofuran	3.542	0.20	5	0.193	67	50-120	0			
Di-n-butyl phthalate	3.961	0.20	5	0	79.2	45-123	0			
Fluoranthene	4.15	0.20	5	0.1328	80.3	45-125	0			
Fluorene	3.651	0.20	5	0.118	70.7	49-120	0			
Naphthalene	2.935	0.20	5	0.2337	54	45-120	0			
Nitrobenzene	2.403	0.20	5	0	48.1	44-120	0			
N-Nitrosodiphenylamine	3.652	0.20	5	0	73	40-125	0			
Pentachlorophenol	4.687	0.20	5	0	93.7	19-121	0			
Phenanthrene	3.926	0.20	5	0.4916	68.7	45-121	0			
Phenol	2.125	0.20	5	0	42.5	20-124	0			
Pyrene	3.931	0.20	5	0.08893	76.8	40-130	0			
<i>Surr: 2,4,6-Tribromophenol</i>	4.341	0.20	5	0	86.8	34-129	0			
<i>Surr: 2-Fluorobiphenyl</i>	2.883	0.20	5	0	57.7	40-125	0			
<i>Surr: 2-Fluorophenol</i>	2.237	0.20	5	0	44.7	20-120	0			
<i>Surr: 4-Terphenyl-d14</i>	4.692	0.20	5	0	93.8	40-135	0			
<i>Surr: Nitrobenzene-d5</i>	2.412	0.20	5	0	48.2	41-120	0			
<i>Surr: Phenol-d6</i>	2.202	0.20	5	0	44	20-120	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Pastor, Behling & Wheeler, LLC
 Work Order: 1207818
 Project: UPRR Houston Wood GW

QC BATCH REPORT

Batch ID: 62745 Instrument ID SV-6 Method: SW8270

MSD	Sample ID: 1207818-06BMSD	Units: µg/L					Analysis Date: 7/20/2012 05:24 PM				
Client ID: WG-1620-MW13-20120716	Run ID: SV-6_120720A	SeqNo: 2867933	Prep Date: 7/19/2012	DF: 1							
Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
1,2-Diphenylhydrazine	2.632	0.20	5	0	52.6	39-127	2.953	11.5	20		
2,4-Dimethylphenol	2.759	0.20	5	0	55.2	35-120	2.109	26.7	20	R	
2,4-Dinitrotoluene	3.246	0.20	5	0	64.9	50-122	4.386	29.9	20	R	
2,6-Dinitrotoluene	3.214	0.20	5	0	64.3	50-120	3.896	19.2	20		
2-Chloronaphthalene	2.95	0.20	5	0	59	50-120	2.803	5.12	20		
2-Methylnaphthalene	2.931	0.20	5	0.0629	57.4	50-120	2.768	5.7	20		
4,6-Dinitro-2-methylphenol	3.389	0.20	5	0	67.8	25-121	4.407	26.1	20	R	
4-Nitrophenol	3.481	1.0	5	0	69.6	30-130	4.858	33	20	R	
Acenaphthene	2.725	0.20	5	0	54.5	45-120	3.313	19.5	20		
Acenaphthylene	2.871	0.20	5	0	57.4	47-120	3.121	8.34	20		
Anthracene	3.291	0.20	5	0.1103	63.6	45-120	3.926	17.6	20		
Benz(a)anthracene	3.235	0.20	5	0	64.7	40-120	4.062	22.7	20	R	
Benzo(a)pyrene	3.188	0.20	5	0	63.8	45-120	4.014	22.9	20	R	
Bis(2-chloroethoxy)methane	2.447	0.20	5	0	48.9	45-120	2.316	5.51	20		
Bis(2-ethylhexyl)phthalate	3.144	0.20	5	0	62.9	40-139	4.248	29.9	20	R	
Chrysene	3.029	0.20	5	0	60.6	43-120	3.897	25.1	20	R	
Dibenzofuran	3.163	0.20	5	0.193	59.4	50-120	3.542	11.3	20		
Di-n-butyl phthalate	3.078	0.20	5	0	61.6	45-123	3.961	25.1	20	R	
Fluoranthene	3.329	0.20	5	0.1328	63.9	45-125	4.15	22	20	R	
Fluorene	3.045	0.20	5	0.118	58.5	49-120	3.651	18.1	20		
Naphthalene	2.97	0.20	5	0.2337	54.7	45-120	2.935	1.18	20		
Nitrobenzene	2.39	0.20	5	0	47.8	44-120	2.403	0.523	20		
N-Nitrosodiphenylamine	3.065	0.20	5	0	61.3	40-125	3.652	17.5	20		
Pentachlorophenol	3.499	0.20	5	0	70	19-121	4.687	29	20	R	
Phenanthrene	3.362	0.20	5	0.4916	57.4	45-121	3.926	15.5	20		
Phenol	2.604	0.20	5	0	52.1	20-124	2.125	20.2	20	R	
Pyrene	3.009	0.20	5	0.08893	58.4	40-130	3.931	26.6	20	R	
Surr: 2,4,6-Tribromophenol	3.362	0.20	5	0	67.2	34-129	4.341	25.4	0		
Surr: 2-Fluorobiphenyl	2.816	0.20	5	0	56.3	40-125	2.883	2.33	0		
Surr: 2-Fluorophenol	2.454	0.20	5	0	49.1	20-120	2.237	9.25	0		
Surr: 4-Terphenyl-d14	3.604	0.20	5	0	72.1	40-135	4.692	26.2	0		
Surr: Nitrobenzene-d5	2.494	0.20	5	0	49.9	41-120	2.412	3.33	0		
Surr: Phenol-d6	2.775	0.20	5	0	55.5	20-120	2.202	23	0		

The following samples were analyzed in this batch:

1207818-01B	1207818-02B	1207818-03B
1207818-04B	1207818-05B	1207818-06B

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Pastor, Behling & Wheeler, LLC
Work Order: 1207818
Project: UPRR Houston Wood GW

QC BATCH REPORT

Batch ID: **62746** Instrument ID **SV-4** Method: **SW8270**

MBLK Sample ID: **SBLKW2-120719-62746** Units: **µg/L** Analysis Date: **7/20/2012 02:58 PM**

Client ID: Run ID: **SV-4_120720A** SeqNo: **2871564** Prep Date: **7/19/2012** DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Diphenylhydrazine	U	0.20								
2,4-Dimethylphenol	U	0.20								
2,4-Dinitrotoluene	U	0.20								
2,6-Dinitrotoluene	U	0.20								
2-Chloronaphthalene	U	0.20								
2-Methylnaphthalene	U	0.20								
4,6-Dinitro-2-methylphenol	U	0.20								
4-Nitrophenol	U	1.0								
Acenaphthene	U	0.20								
Acenaphthylene	U	0.20								
Anthracene	U	0.20								
Benz(a)anthracene	U	0.20								
Benzo(a)pyrene	U	0.20								
Bis(2-chloroethoxy)methane	U	0.20								
Bis(2-ethylhexyl)phthalate	U	0.20								
Chrysene	U	0.20								
Dibenzofuran	U	0.20								
Di-n-butyl phthalate	U	0.20								
Fluoranthene	U	0.20								
Fluorene	U	0.20								
Naphthalene	U	0.20								
Nitrobenzene	U	0.20								
N-Nitrosodiphenylamine	U	0.20								
Pentachlorophenol	U	0.20								
Phenanthrene	U	0.20								
Phenol	U	0.20								
Pyrene	U	0.20								
<i>Surr: 2,4,6-Tribromophenol</i>	<i>4.831</i>	<i>0.20</i>	<i>5</i>	<i>0</i>	<i>96.6</i>	<i>34-129</i>	<i>0</i>			
<i>Surr: 2-Fluorobiphenyl</i>	<i>5.148</i>	<i>0.20</i>	<i>5</i>	<i>0</i>	<i>103</i>	<i>40-125</i>	<i>0</i>			
<i>Surr: 2-Fluorophenol</i>	<i>4.782</i>	<i>0.20</i>	<i>5</i>	<i>0</i>	<i>95.6</i>	<i>20-120</i>	<i>0</i>			
<i>Surr: 4-Terphenyl-d14</i>	<i>5.359</i>	<i>0.20</i>	<i>5</i>	<i>0</i>	<i>107</i>	<i>40-135</i>	<i>0</i>			
<i>Surr: Nitrobenzene-d5</i>	<i>4.481</i>	<i>0.20</i>	<i>5</i>	<i>0</i>	<i>89.6</i>	<i>41-120</i>	<i>0</i>			
<i>Surr: Phenol-d6</i>	<i>5.74</i>	<i>0.20</i>	<i>5</i>	<i>0</i>	<i>115</i>	<i>20-120</i>	<i>0</i>			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Pastor, Behling & Wheeler, LLC
Work Order: 1207818
Project: UPRR Houston Wood GW

QC BATCH REPORT

Batch ID: **62746** Instrument ID **SV-4** Method: **SW8270**

LCS		Sample ID: SLCSW2-120719-62746			Units: µg/L		Analysis Date: 7/20/2012 03:18 PM			
Client ID:		Run ID: SV-4_120720A			SeqNo: 2871568		Prep Date: 7/19/2012		DF: 1	
Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Diphenylhydrazine	4.823	0.20	5	0	96.5	39-127	0			
2,4-Dimethylphenol	4.743	0.20	5	0	94.9	35-120	0			
2,4-Dinitrotoluene	4.969	0.20	5	0	99.4	50-122	0			
2,6-Dinitrotoluene	4.965	0.20	5	0	99.3	50-120	0			
2-Chloronaphthalene	4.69	0.20	5	0	93.8	50-120	0			
2-Methylnaphthalene	4.835	0.20	5	0	96.7	50-120	0			
4,6-Dinitro-2-methylphenol	4.432	0.20	5	0	88.6	25-121	0			
4-Nitrophenol	6.408	1.0	5	0	128	30-130	0			
Acenaphthene	4.275	0.20	5	0	85.5	45-120	0			
Acenaphthylene	4.675	0.20	5	0	93.5	47-120	0			
Anthracene	5.141	0.20	5	0	103	45-120	0			
Benz(a)anthracene	4.913	0.20	5	0	98.3	40-120	0			
Benzo(a)pyrene	4.901	0.20	5	0	98	45-120	0			
Bis(2-chloroethoxy)methane	4.788	0.20	5	0	95.8	45-120	0			
Bis(2-ethylhexyl)phthalate	5.204	0.20	5	0	104	40-139	0			
Chrysene	4.91	0.20	5	0	98.2	43-120	0			
Dibenzofuran	4.832	0.20	5	0	96.6	50-120	0			
Di-n-butyl phthalate	5.401	0.20	5	0	108	45-123	0			
Fluoranthene	5.365	0.20	5	0	107	45-125	0			
Fluorene	4.914	0.20	5	0	98.3	49-120	0			
Naphthalene	5.155	0.20	5	0	103	45-120	0			
Nitrobenzene	4.648	0.20	5	0	93	44-120	0			
N-Nitrosodiphenylamine	4.885	0.20	5	0	97.7	40-125	0			
Pentachlorophenol	3.918	0.20	5	0	78.4	19-121	0			
Phenanthrene	5.021	0.20	5	0	100	45-121	0			
Phenol	5.052	0.20	5	0	101	20-124	0			
Pyrene	5.021	0.20	5	0	100	40-130	0			
<i>Surr: 2,4,6-Tribromophenol</i>	4.863	0.20	5	0	97.3	34-129	0			
<i>Surr: 2-Fluorobiphenyl</i>	4.712	0.20	5	0	94.2	40-125	0			
<i>Surr: 2-Fluorophenol</i>	4.566	0.20	5	0	91.3	20-120	0			
<i>Surr: 4-Terphenyl-d14</i>	5.487	0.20	5	0	110	40-135	0			
<i>Surr: Nitrobenzene-d5</i>	4.438	0.20	5	0	88.8	41-120	0			
<i>Surr: Phenol-d6</i>	4.739	0.20	5	0	94.8	20-120	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Pastor, Behling & Wheeler, LLC
 Work Order: 1207818
 Project: UPRR Houston Wood GW

QC BATCH REPORT

Batch ID: 62746 Instrument ID SV-4 Method: SW8270

LCSD	Sample ID: SLCS DW2-120719-62746	Units: µg/L					Analysis Date: 7/20/2012 03:38 PM				
Client ID:	Run ID: SV-4_120720A	SeqNo: 2871569			Prep Date: 7/19/2012		DF: 1				
Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
1,2-Diphenylhydrazine	4.41	0.20	5	0	88.2	39-127	4.823	8.94	20		
2,4-Dimethylphenol	5.787	0.20	5	0	116	35-120	4.743	19.8	20		
2,4-Dinitrotoluene	5.237	0.20	5	0	105	50-122	4.969	5.25	20		
2,6-Dinitrotoluene	4.958	0.20	5	0	99.2	50-120	4.965	0.153	20		
2-Chloronaphthalene	5.044	0.20	5	0	101	50-120	4.69	7.27	20		
2-Methylnaphthalene	4.692	0.20	5	0	93.8	50-120	4.835	3.01	20		
4,6-Dinitro-2-methylphenol	4.376	0.20	5	0	87.5	25-121	4.432	1.26	20		
4-Nitrophenol	6.082	1.0	5	0	122	30-130	6.408	5.22	20		
Acenaphthene	4.437	0.20	5	0	88.7	45-120	4.275	3.71	20		
Acenaphthylene	4.74	0.20	5	0	94.8	47-120	4.675	1.38	20		
Anthracene	4.757	0.20	5	0	95.1	45-120	5.141	7.77	20		
Benz(a)anthracene	4.886	0.20	5	0	97.7	40-120	4.913	0.557	20		
Benzo(a)pyrene	4.52	0.20	5	0	90.4	45-120	4.901	8.09	20		
Bis(2-chloroethoxy)methane	5.778	0.20	5	0	116	45-120	4.788	18.7	20		
Bis(2-ethylhexyl)phthalate	4.884	0.20	5	0	97.7	40-139	5.204	6.33	20		
Chrysene	4.616	0.20	5	0	92.3	43-120	4.91	6.16	20		
Dibenzofuran	4.899	0.20	5	0	98	50-120	4.832	1.39	20		
Di-n-butyl phthalate	5.319	0.20	5	0	106	45-123	5.401	1.53	20		
Fluoranthene	4.588	0.20	5	0	91.8	45-125	5.365	15.6	20		
Fluorene	4.913	0.20	5	0	98.3	49-120	4.914	0.0293	20		
Naphthalene	4.833	0.20	5	0	96.7	45-120	5.155	6.46	20		
Nitrobenzene	5.815	0.20	5	0	116	44-120	4.648	22.3	20	R	
N-Nitrosodiphenylamine	4.463	0.20	5	0	89.3	40-125	4.885	9.04	20		
Pentachlorophenol	4.167	0.20	5	0	83.3	19-121	3.918	6.17	20		
Phenanthrene	4.778	0.20	5	0	95.6	45-121	5.021	4.96	20		
Phenol	4.391	0.20	5	0	87.8	20-124	5.052	14	20		
Pyrene	4.808	0.20	5	0	96.2	40-130	5.021	4.34	20		
Surr: 2,4,6-Tribromophenol	5.057	0.20	5	0	101	34-129	4.863	3.91	0		
Surr: 2-Fluorobiphenyl	4.552	0.20	5	0	91	40-125	4.712	3.45	0		
Surr: 2-Fluorophenol	4.037	0.20	5	0	80.7	20-120	4.566	12.3	0		
Surr: 4-Terphenyl-d14	5.214	0.20	5	0	104	40-135	5.487	5.1	0		
Surr: Nitrobenzene-d5	5.61	0.20	5	0	112	41-120	4.438	23.3	0		
Surr: Phenol-d6	4.267	0.20	5	0	85.3	20-120	4.739	10.5	0		

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Pastor, Behling & Wheeler, LLC
Work Order: 1207818
Project: UPRR Houston Wood GW

QC BATCH REPORT

Batch ID: **62746** Instrument ID **SV-4** Method: **SW8270**

MS		Sample ID: 1207818-16BMS			Units: µg/L			Analysis Date: 7/20/2012 05:02 PM		
Client ID: WG-1620-MW67B-20120717		Run ID: SV-4_120720A			SeqNo: 2871571		Prep Date: 7/19/2012		DF: 1	
Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Diphenylhydrazine	2.661	0.20	5	0	53.2	39-127	0			
2,4-Dimethylphenol	2.302	0.20	5	0	46	35-120	0			
2,4-Dinitrotoluene	3.171	0.20	5	0	63.4	50-122	0			
2,6-Dinitrotoluene	4.394	0.20	5	2.191	44.1	50-120	0			S
2-Chloronaphthalene	2.41	0.20	5	0	48.2	50-120	0			S
2-Methylnaphthalene	2.701	0.20	5	0.06227	52.8	50-120	0			
4,6-Dinitro-2-methylphenol	2.787	0.20	5	0	55.7	25-121	0			
4-Nitrophenol	3.957	1.0	5	0	79.1	30-130	0			
Acenaphthene	2.474	0.20	5	0	49.5	45-120	0			
Acenaphthylene	2.659	0.20	5	0	53.2	47-120	0			
Anthracene	3.133	0.20	5	0	62.7	45-120	0			
Benz(a)anthracene	2.992	0.20	5	0	59.8	40-120	0			
Benzo(a)pyrene	2.837	0.20	5	0	56.7	45-120	0			
Bis(2-chloroethoxy)methane	2.224	0.20	5	0	44.5	45-120	0			S
Bis(2-ethylhexyl)phthalate	3.043	0.20	5	0.1237	58.4	40-139	0			
Chrysene	2.89	0.20	5	0	57.8	43-120	0			
Dibenzofuran	2.738	0.20	5	0	54.8	50-120	0			
Di-n-butyl phthalate	3.237	0.20	5	0	64.7	45-123	0			
Fluoranthene	3.643	0.20	5	0	72.9	45-125	0			
Fluorene	2.75	0.20	5	0	55	49-120	0			
Naphthalene	2.926	0.20	5	0.4867	48.8	45-120	0			
Nitrobenzene	2.531	0.20	5	0	50.6	44-120	0			
N-Nitrosodiphenylamine	2.804	0.20	5	0	56.1	40-125	0			
Pentachlorophenol	2.457	0.20	5	0	49.1	19-121	0			
Phenanthrene	3.03	0.20	5	0	60.6	45-121	0			
Phenol	2.358	0.20	5	0	47.2	20-124	0			
Pyrene	3.119	0.20	5	0	62.4	40-130	0			
<i>Surr: 2,4,6-Tribromophenol</i>	2.968	0.20	5	0	59.4	34-129	0			
<i>Surr: 2-Fluorobiphenyl</i>	2.484	0.20	5	0	49.7	40-125	0			
<i>Surr: 2-Fluorophenol</i>	2.501	0.20	5	0	50	20-120	0			
<i>Surr: 4-Terphenyl-d14</i>	3.317	0.20	5	0	66.3	40-135	0			
<i>Surr: Nitrobenzene-d5</i>	2.607	0.20	5	0	52.1	41-120	0			
<i>Surr: Phenol-d6</i>	2.395	0.20	5	0	47.9	20-120	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Pastor, Behling & Wheeler, LLC
 Work Order: 1207818
 Project: UPRR Houston Wood GW

QC BATCH REPORT

Batch ID: 62746 Instrument ID SV-4 Method: SW8270

MSD	Sample ID: 1207818-16BMSD	Units: µg/L				Analysis Date: 7/20/2012 05:22 PM				
Client ID: WG-1620-MW67B-20120717	Run ID: SV-4_120720A	SeqNo: 2871572	Prep Date: 7/19/2012	DF: 1						
Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Diphenylhydrazine	2.812	0.20	5	0	56.2	39-127	2.661	5.51	20	
2,4-Dimethylphenol	2.676	0.20	5	0	53.5	35-120	2.302	15	20	
2,4-Dinitrotoluene	3.183	0.20	5	0	63.7	50-122	3.171	0.395	20	
2,6-Dinitrotoluene	4.35	0.20	5	2.191	43.2	50-120	4.394	1	20	S
2-Chloronaphthalene	2.854	0.20	5	0	57.1	50-120	2.41	16.9	20	
2-Methylnaphthalene	3.029	0.20	5	0.06227	59.3	50-120	2.701	11.4	20	
4,6-Dinitro-2-methylphenol	3.187	0.20	5	0	63.7	25-121	2.787	13.4	20	
4-Nitrophenol	3.842	1.0	5	0	76.8	30-130	3.957	2.96	20	
Acenaphthene	2.437	0.20	5	0	48.7	45-120	2.474	1.51	20	
Acenaphthylene	2.794	0.20	5	0	55.9	47-120	2.659	4.95	20	
Anthracene	3.273	0.20	5	0	65.5	45-120	3.133	4.38	20	
Benz(a)anthracene	3.027	0.20	5	0	60.5	40-120	2.992	1.16	20	
Benzo(a)pyrene	2.87	0.20	5	0	57.4	45-120	2.837	1.15	20	
Bis(2-chloroethoxy)methane	2.558	0.20	5	0	51.2	45-120	2.224	14	20	
Bis(2-ethylhexyl)phthalate	3.012	0.20	5	0.1237	57.8	40-139	3.043	1.02	20	
Chrysene	3.062	0.20	5	0	61.2	43-120	2.89	5.77	20	
Dibenzofuran	2.944	0.20	5	0	58.9	50-120	2.738	7.25	20	
Di-n-butyl phthalate	3.283	0.20	5	0	65.7	45-123	3.237	1.4	20	
Fluoranthene	3.323	0.20	5	0	66.5	45-125	3.643	9.18	20	
Fluorene	2.832	0.20	5	0	56.6	49-120	2.75	2.96	20	
Naphthalene	3.544	0.20	5	0.4867	61.1	45-120	2.926	19.1	20	
Nitrobenzene	2.946	0.20	5	0	58.9	44-120	2.531	15.1	20	
N-Nitrosodiphenylamine	2.982	0.20	5	0	59.6	40-125	2.804	6.16	20	
Pentachlorophenol	2.722	0.20	5	0	54.4	19-121	2.457	10.2	20	
Phenanthrene	3.192	0.20	5	0	63.8	45-121	3.03	5.2	20	
Phenol	2.506	0.20	5	0	50.1	20-124	2.358	6.07	20	
Pyrene	3.267	0.20	5	0	65.3	40-130	3.119	4.62	20	
Surr: 2,4,6-Tribromophenol	2.909	0.20	5	0	58.2	34-129	2.968	2.01	0	
Surr: 2-Fluorobiphenyl	2.821	0.20	5	0	56.4	40-125	2.484	12.7	0	
Surr: 2-Fluorophenol	2.605	0.20	5	0	52.1	20-120	2.501	4.07	0	
Surr: 4-Terphenyl-d14	3.416	0.20	5	0	68.3	40-135	3.317	2.93	0	
Surr: Nitrobenzene-d5	2.758	0.20	5	0	55.2	41-120	2.607	5.63	0	
Surr: Phenol-d6	2.422	0.20	5	0	48.4	20-120	2.395	1.14	0	

The following samples were analyzed in this batch:

1207818-07B	1207818-08B	1207818-09B
1207818-10B	1207818-11B	1207818-12B
1207818-13B	1207818-14B	1207818-15B
1207818-16B	1207818-17B	1207818-18B
1207818-19B	1207818-20B	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Pastor, Behling & Wheeler, LLC
Work Order: 1207818
Project: UPRR Houston Wood GW

QC BATCH REPORT

Batch ID: **R131576** Instrument ID **VOA1** Method: **SW8260**

MBLK Sample ID: **VBLKW-072012-R131576** Units: **µg/L** Analysis Date: **7/20/2012 12:02 PM**

Client ID: Run ID: **VOA1_120720B** SeqNo: **2867443** Prep Date: DF: **1**

Analyte	Result	ML	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Dichloroethane	U	5.0								
Benzene	U	5.0								
Chlorobenzene	U	5.0								
Ethylbenzene	U	5.0								
Methylene chloride	U	10								
Toluene	U	5.0								
Vinyl chloride	U	2.0								
Xylenes, Total	U	15								
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>46.84</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>93.7</i>	<i>70-125</i>	<i>0</i>			
<i>Surr: 4-Bromofluorobenzene</i>	<i>49.85</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>99.7</i>	<i>72-125</i>	<i>0</i>			
<i>Surr: Dibromofluoromethane</i>	<i>54.8</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>110</i>	<i>71-125</i>	<i>0</i>			
<i>Surr: Toluene-d8</i>	<i>47.31</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>94.6</i>	<i>75-125</i>	<i>0</i>			

LCS Sample ID: **VLCSW-072012-R131576** Units: **µg/L** Analysis Date: **7/20/2012 12:29 PM**

Client ID: Run ID: **VOA1_120720B** SeqNo: **2867444** Prep Date: DF: **1**

Analyte	Result	ML	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Dichloroethane	49.35	5.0	50	0	98.7	78-120	0			
Benzene	52.01	5.0	50	0	104	73-121	0			
Chlorobenzene	45.24	5.0	50	0	90.5	80-120	0			
Ethylbenzene	44.95	5.0	50	0	89.9	80-120	0			
Methylene chloride	52.86	10	50	0	106	65-133	0			
Toluene	45.82	5.0	50	0	91.6	80-120	0			
Vinyl chloride	57.11	2.0	50	0	114	70-127	0			
Xylenes, Total	132.2	15	150	0	88.1	80-120	0			
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>46.12</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>92.2</i>	<i>70-125</i>	<i>0</i>			
<i>Surr: 4-Bromofluorobenzene</i>	<i>48.14</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>96.3</i>	<i>72-125</i>	<i>0</i>			
<i>Surr: Dibromofluoromethane</i>	<i>53.26</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>107</i>	<i>71-125</i>	<i>0</i>			
<i>Surr: Toluene-d8</i>	<i>44.66</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>89.3</i>	<i>75-125</i>	<i>0</i>			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Pastor, Behling & Wheeler, LLC
 Work Order: 1207818
 Project: UPRR Houston Wood GW

QC BATCH REPORT

Batch ID: R131576 Instrument ID VOA1 Method: SW8260

MS		Sample ID: 1207818-06AMS			Units: µg/L		Analysis Date: 7/20/2012 03:14 PM			
Client ID: WG-1620-MW13-20120716		Run ID: VOA1_120720B			SeqNo: 2867997		Prep Date:		DF: 1	
Analyte	Result	ML	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Dichloroethane	48.13	5.0	50	0	96.3	78-120	0			
Benzene	50.74	5.0	50	0	101	73-121	0			
Chlorobenzene	45.51	5.0	50	0	91	80-120	0			
Ethylbenzene	45.19	5.0	50	0	90.4	80-120	0			
Methylene chloride	50.5	10	50	0	101	65-133	0			
Toluene	46.11	5.0	50	0	92.2	80-120	0			
Vinyl chloride	46.97	2.0	50	0	93.9	70-127	0			
Xylenes, Total	134	15	150	0	89.4	80-120	0			
<i>Surr: 1,2-Dichloroethane-d4</i>	47.67	5.0	50	0	95.3	70-125	0			
<i>Surr: 4-Bromofluorobenzene</i>	49.76	5.0	50	0	99.5	72-125	0			
<i>Surr: Dibromofluoromethane</i>	53.82	5.0	50	0	108	71-125	0			
<i>Surr: Toluene-d8</i>	49.32	5.0	50	0	98.6	75-125	0			

MSD		Sample ID: 1207818-06AMSD			Units: µg/L		Analysis Date: 7/20/2012 03:42 PM			
Client ID: WG-1620-MW13-20120716		Run ID: VOA1_120720B			SeqNo: 2867998		Prep Date:		DF: 1	
Analyte	Result	ML	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Dichloroethane	47.65	5.0	50	0	95.3	78-120	48.13	0.993	20	
Benzene	48.91	5.0	50	0	97.8	73-121	50.74	3.68	20	
Chlorobenzene	44.89	5.0	50	0	89.8	80-120	45.51	1.36	20	
Ethylbenzene	43.07	5.0	50	0	86.1	80-120	45.19	4.81	20	
Methylene chloride	52.55	10	50	0	105	65-133	50.5	3.97	20	
Toluene	44.57	5.0	50	0	89.1	80-120	46.11	3.38	20	
Vinyl chloride	46.69	2.0	50	0	93.4	70-127	46.97	0.591	20	
Xylenes, Total	134.7	15	150	0	89.8	80-120	134	0.494	20	
<i>Surr: 1,2-Dichloroethane-d4</i>	48.73	5.0	50	0	97.5	70-125	47.67	2.19	20	
<i>Surr: 4-Bromofluorobenzene</i>	50.89	5.0	50	0	102	72-125	49.76	2.25	20	
<i>Surr: Dibromofluoromethane</i>	53.1	5.0	50	0	106	71-125	53.82	1.35	20	
<i>Surr: Toluene-d8</i>	48.87	5.0	50	0	97.7	75-125	49.32	0.924	20	

The following samples were analyzed in this batch:

1207818-01A	1207818-03A	1207818-04A
1207818-05A	1207818-06A	1207818-07A
1207818-08A	1207818-10A	1207818-11A
1207818-12A	1207818-13A	1207818-15A
1207818-18A	1207818-19A	1207818-21A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Pastor, Behling & Wheeler, LLC
Work Order: 1207818
Project: UPRR Houston Wood GW

QC BATCH REPORT

Batch ID: **R131720** Instrument ID **VOA6** Method: **SW8260**

MBLK Sample ID: **VBLKW-072312-R131720** Units: **µg/L** Analysis Date: **7/23/2012 11:46 AM**

Client ID: Run ID: **VOA6_120723C** SeqNo: **2871001** Prep Date: DF: **1**

Analyte	Result	ML	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Dichloroethane	U	5.0								
Benzene	U	5.0								
Chlorobenzene	U	5.0								
Ethylbenzene	U	5.0								
Methylene chloride	U	10								
Toluene	U	5.0								
Vinyl chloride	U	2.0								
Xylenes, Total	U	15								
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>54.51</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>109</i>	<i>70-125</i>	<i>0</i>			
<i>Surr: 4-Bromofluorobenzene</i>	<i>47.82</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>95.6</i>	<i>72-125</i>	<i>0</i>			
<i>Surr: Dibromofluoromethane</i>	<i>55.17</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>110</i>	<i>71-125</i>	<i>0</i>			
<i>Surr: Toluene-d8</i>	<i>50.5</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>101</i>	<i>75-125</i>	<i>0</i>			

LCS Sample ID: **VLCSW-072312-R131720** Units: **µg/L** Analysis Date: **7/23/2012 10:52 AM**

Client ID: Run ID: **VOA6_120723C** SeqNo: **2871000** Prep Date: DF: **1**

Analyte	Result	ML	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Dichloroethane	47.81	5.0	50	0	95.6	78-120	0			
Benzene	51.25	5.0	50	0	103	73-121	0			
Chlorobenzene	49.79	5.0	50	0	99.6	80-120	0			
Ethylbenzene	49.82	5.0	50	0	99.6	80-120	0			
Methylene chloride	53.78	10	50	0	108	65-133	0			
Toluene	49.63	5.0	50	0	99.3	80-120	0			
Vinyl chloride	52.16	2.0	50	0	104	70-127	0			
Xylenes, Total	149.7	15	150	0	99.8	80-120	0			
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>53.1</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>106</i>	<i>70-125</i>	<i>0</i>			
<i>Surr: 4-Bromofluorobenzene</i>	<i>49.01</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>98</i>	<i>72-125</i>	<i>0</i>			
<i>Surr: Dibromofluoromethane</i>	<i>54.3</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>109</i>	<i>71-125</i>	<i>0</i>			
<i>Surr: Toluene-d8</i>	<i>50.88</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>102</i>	<i>75-125</i>	<i>0</i>			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Pastor, Behling & Wheeler, LLC
 Work Order: 1207818
 Project: UPRR Houston Wood GW

QC BATCH REPORT

Batch ID: R131720 Instrument ID VOA6 Method: SW8260

MS Sample ID: 1207818-16AMS Units: µg/L Analysis Date: 7/23/2012 02:53 PM

Client ID: WG-1620-MW67B-20120717 Run ID: VOA6_120723C SeqNo: 2871003 Prep Date: DF: 1

Analyte	Result	ML	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Dichloroethane	49.59	5.0	50	0	99.2	78-120	0			
Benzene	50.9	5.0	50	0	102	73-121	0			
Chlorobenzene	48.08	5.0	50	0	96.2	80-120	0			
Ethylbenzene	45.58	5.0	50	0	91.2	80-120	0			
Methylene chloride	51.77	10	50	0	104	65-133	0			
Toluene	46.71	5.0	50	0	93.4	80-120	0			
Vinyl chloride	50.33	2.0	50	0	101	70-127	0			
Xylenes, Total	137	15	150	0	91.3	80-120	0			
Surr: 1,2-Dichloroethane-d4	53.04	5.0	50	0	106	70-125	0			
Surr: 4-Bromofluorobenzene	49.99	5.0	50	0	100	72-125	0			
Surr: Dibromofluoromethane	55.46	5.0	50	0	111	71-125	0			
Surr: Toluene-d8	49.48	5.0	50	0	99	75-125	0			

MSD Sample ID: 1207818-16AMSD Units: µg/L Analysis Date: 7/23/2012 03:19 PM

Client ID: WG-1620-MW67B-20120717 Run ID: VOA6_120723C SeqNo: 2871004 Prep Date: DF: 1

Analyte	Result	ML	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Dichloroethane	51.04	5.0	50	0	102	78-120	49.59	2.89	20	
Benzene	50.73	5.0	50	0	101	73-121	50.9	0.34	20	
Chlorobenzene	48.63	5.0	50	0	97.3	80-120	48.08	1.14	20	
Ethylbenzene	45.39	5.0	50	0	90.8	80-120	45.58	0.417	20	
Methylene chloride	53.65	10	50	0	107	65-133	51.77	3.56	20	
Toluene	46.54	5.0	50	0	93.1	80-120	46.71	0.367	20	
Vinyl chloride	49.94	2.0	50	0	99.9	70-127	50.33	0.772	20	
Xylenes, Total	138.2	15	150	0	92.2	80-120	137	0.882	20	
Surr: 1,2-Dichloroethane-d4	53.43	5.0	50	0	107	70-125	53.04	0.734	20	
Surr: 4-Bromofluorobenzene	50.97	5.0	50	0	102	72-125	49.99	1.94	20	
Surr: Dibromofluoromethane	53.71	5.0	50	0	107	71-125	55.46	3.2	20	
Surr: Toluene-d8	49.58	5.0	50	0	99.2	75-125	49.48	0.203	20	

The following samples were analyzed in this batch:

1207818-02A	1207818-09A	1207818-14A
1207818-16A	1207818-17A	1207818-20A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Pastor, Behling & Wheeler, LLC
 Work Order: 1207818
 Project: UPRR Houston Wood GW

QC BATCH REPORT

Batch ID: R131757 Instrument ID VOA1 Method: SW8260

MBLK		Sample ID: VBLKW-072312-R131757			Units: µg/L		Analysis Date: 7/23/2012 11:41 PM			
Client ID:		Run ID: VOA1_120723C			SeqNo: 2871834		Prep Date:		DF: 1	
Analyte	Result	MLQ	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	U	5.0								
Surr: 1,2-Dichloroethane-d4	55.08	5.0	50	0	110	70-125	0			
Surr: 4-Bromofluorobenzene	51.17	5.0	50	0	102	72-125	0			
Surr: Dibromofluoromethane	53.34	5.0	50	0	107	71-125	0			
Surr: Toluene-d8	50.42	5.0	50	0	101	75-125	0			

LCS		Sample ID: VLCSW-072312-R131757			Units: µg/L		Analysis Date: 7/23/2012 10:48 PM			
Client ID:		Run ID: VOA1_120723C			SeqNo: 2871833		Prep Date:		DF: 1	
Analyte	Result	MLQ	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	48.39	5.0	50	0	96.8	73-121	0			
Surr: 1,2-Dichloroethane-d4	51.03	5.0	50	0	102	70-125	0			
Surr: 4-Bromofluorobenzene	51.69	5.0	50	0	103	72-125	0			
Surr: Dibromofluoromethane	54.32	5.0	50	0	109	71-125	0			
Surr: Toluene-d8	48.23	5.0	50	0	96.5	75-125	0			

MS		Sample ID: 1207818-09AMS			Units: µg/L		Analysis Date: 7/24/2012 12:33 AM			
Client ID: WG-1620-MW68B-20120716		Run ID: VOA1_120723C			SeqNo: 2871836		Prep Date:		DF: 50	
Analyte	Result	MLQ	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	4173	250	2500	2350	72.9	73-121	0			S
Surr: 1,2-Dichloroethane-d4	2549	250	2500	0	102	70-125	0			
Surr: 4-Bromofluorobenzene	2546	250	2500	0	102	72-125	0			
Surr: Dibromofluoromethane	2570	250	2500	0	103	71-125	0			
Surr: Toluene-d8	2527	250	2500	0	101	75-125	0			

MSD		Sample ID: 1207818-09AMSD			Units: µg/L		Analysis Date: 7/24/2012 12:59 AM			
Client ID: WG-1620-MW68B-20120716		Run ID: VOA1_120723C			SeqNo: 2871837		Prep Date:		DF: 50	
Analyte	Result	MLQ	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	4660	250	2500	2350	92.4	73-121	4173	11	20	
Surr: 1,2-Dichloroethane-d4	2758	250	2500	0	110	70-125	2549	7.89	20	
Surr: 4-Bromofluorobenzene	2722	250	2500	0	109	72-125	2546	6.69	20	
Surr: Dibromofluoromethane	2718	250	2500	0	109	71-125	2570	5.62	20	
Surr: Toluene-d8	2518	250	2500	0	101	75-125	2527	0.364	20	

The following samples were analyzed in this batch: 1207818-09A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
WorkOrder: 1207818

**QUALIFIERS,
ACRONYMS, UNITS**

<u>Qualifier</u>	<u>Description</u>
*	Value exceeds Regulatory Limit
a	Not accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
J	Analyte detected below quantitation limit
M	Manually integrated, see raw data for justification
n	Not offered for accreditation
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL

<u>Acronym</u>	<u>Description</u>
DCS	Detectability Check Study
DUP	Method Duplicate
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
MBLK	Method Blank
MDL	Method Detection Limit
MQL	Method Quantitation Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PDS	Post Digestion Spike
PQL	Practical Quantitation Limit
SD	Serial Dilution
SDL	Sample Detection Limit
TRRP	Texas Risk Reduction Program

<u>Units Reported</u>	<u>Description</u>
mg/L	Milligrams per Liter

ALS Environmental

Sample Receipt Checklist

Client Name: PBW

Date/Time Received: 17-Jul-12 18:15

Work Order: 1207818

Received by: RDH

Checklist completed by Robert D. Harris
eSignature

18-Jul-12
Date

Reviewed by: Patricia L. Lynch
eSignature

23-Jul-12
Date

Matrices: groundwaters/water

Carrier name: Client

- Shipping container/cooler in good condition? Yes [checked] No [] Not Present []
Custody seals intact on shipping container/cooler? Yes [] No [] Not Present [checked]
Custody seals intact on sample bottles? Yes [] No [] Not Present [checked]
Chain of custody present? Yes [checked] No []
Chain of custody signed when relinquished and received? Yes [checked] No []
Chain of custody agrees with sample labels? Yes [checked] No []
Samples in proper container/bottle? Yes [checked] No []
Sample containers intact? Yes [checked] No []
Sufficient sample volume for indicated test? Yes [checked] No []
All samples received within holding time? Yes [checked] No []
Container/Temp Blank temperature in compliance? Yes [checked] No []

Temperature(s)/Thermometer(s): 0.9c,1.2c,0.7c,0.1c,1.7c c/u 003

Cooler(s)/Kit(s): 5046,7131,3390,3949,4207

Date/Time sample(s) sent to storage: 7/18/12 21:25

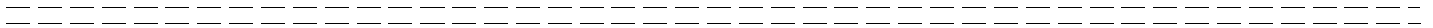
Water - VOA vials have zero headspace? Yes [checked] No [] No VOA vials submitted []

Water - pH acceptable upon receipt? Yes [checked] No [] N/A []

pH adjusted? Yes [] No [] N/A [checked]

pH adjusted by: []

Login Notes:

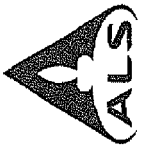


Client Contacted: Date Contacted: Person Contacted:

Contacted By: Regarding:

Comments: []

CorrectiveAction: []



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Chain of Custody Form

Page 1 of 3

COC ID: 67193

1207818

PBW: Pastor, Behling & Wheeler, LLC

Project: UPRR Houston Wood GW

Environmental

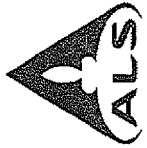
ALS Project Manager:



Customer Information				Project Information				ALS Project Manager:											
Purchase Order	Project Name	Project Name	Project Name	Project Name	Project Name	Project Name	Project Name	A	B	C	D	E	F	G	H	I	J	Hold	
Work Order	Project Number	Project Number	Project Number	Project Number	Project Number	Project Number	Project Number	X	X	X	X	X	X	X	X	X	X		
Company Name	Bill To Company	Bill To Company	Bill To Company	Bill To Company	Bill To Company	Bill To Company	Bill To Company	X	X	X	X	X	X	X	X	X	X		
Send Report To	Invoice Attn	Invoice Attn	Invoice Attn	Invoice Attn	Invoice Attn	Invoice Attn	Invoice Attn	X	X	X	X	X	X	X	X	X	X		
Address	Address	Address	Address	Address	Address	Address	Address	X	X	X	X	X	X	X	X	X	X		
City/State/Zip	City/State/Zip	City/State/Zip	City/State/Zip	City/State/Zip	City/State/Zip	City/State/Zip	City/State/Zip	X	X	X	X	X	X	X	X	X	X		
Phone	Phone	Phone	Phone	Phone	Phone	Phone	Phone	X	X	X	X	X	X	X	X	X	X		
Fax	Fax	Fax	Fax	Fax	Fax	Fax	Fax	X	X	X	X	X	X	X	X	X	X		
e-Mail Address	e-Mail Address	e-Mail Address	e-Mail Address	e-Mail Address	e-Mail Address	e-Mail Address	e-Mail Address	X	X	X	X	X	X	X	X	X	X		
No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold		
1	WG-1620-MW20A-20120716	7-16-12	1045	GW		5	X	X											
2	WG-1620-MW116-20120716		1140	GW		5	X	X											
3	WG-1620-MW13B-20120716		1240	GW		5	X	X											
4	WG-1620-MW14-20120716		1330	GW		5	X	X											
5	WG-1620-DVPI-20120716		1330	GW		5	X	X											
6	WG-1620-MW13-20120716		1500	GW		5	X	X											
7	WG-1620-MW13MS-20120716		1500	GW		5	X	X											
8	WG-1620-MW13MSD-20120716		1500	GW		5	X	X											
9	WG-1620-MW32AR-20120716		1615	GW		5	X	X											
10	WG-1620-MW32B-20120716		1715	GW		5	X	X											

Sampler(s) Please Print & Sign: **JOHN DEAYTON**
 Received by: **JOHN DEAYTON** Date: **7-17-12**
 Time: **1915**
 Required Turnaround Time: (Check Box) Std 10 WK Days 5 WK Days 24 Hour
 Notes: 10 Day TAT.
 QC Package: (Check One Box Below) Level II Std QC TRRP Checklist Level III Std QC/Raw Data TRRP Level IV Level IV SW846/CLP Other / EDD
 Cooler Temp. Cooler Temp. Results Due Date:
 Shipment Method: **HAND DELIVERED**
 Received by (Laboratory): **JOHN DEAYTON**
 Received by (Laboratory): **JOHN DEAYTON**
 Checked by (Laboratory):
 Time:
 Date:
 Time:
 Date:
 Time:
 Date:
 Preservative Key: 1-HCl 2-HNO3 3-H2SO4 4-NaOH 5-Na2S2O3 6-NaHSO4 7-Other 8-4°C 9-5035

Note: 1. Any changes must be made in writing once samples and COC Form have been submitted to ALS Environmental.
 2. Unless otherwise agreed in a formal contract, services provided by ALS Environmental are expressly limited to the terms and conditions stated on the reverse.
 3. The Chain of Custody is a legal document. All information must be completed accurately.



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Chain of Custody Form
Page 2 of 3
COC ID: 67191

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+1 801 266 7700

South Charleston, WV
+1 304 356 3168
York, PA
+1 717 505 5280

Environmental

ALS Project Manager: ALS Work Order #: 120788 Parameter/Method Request for Analysis

Purchase Order	Project Name	UPRR Houston Wood GW
Work Order	Project Number	1620-04
Company Name	Bill To Company	Union Pacific Railroad
Send Report To	Invoice Attn	
Address	Address	1400 Douglas Street Stop 0750
City/State/Zip	City/State/Zip	Omaha, NE 681790750
Phone	Phone	(512) 671-3434
Fax	Fax	(512) 671-3446
e-Mail Address	e-Mail Address	

No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	WG-1620-MW68B-20120714	7-16-12	1800	GW		5	X	X									
2	WG-1620-FB3-20120716	7-16-12	1815	GW		5	X	X									
3	WG-1620-MW66C-20120719	7-17-12	0750	GW		5	X	X									
4	WG-1620-MW33A-20120717		0900	GW		5	X	X									
5	WG-1620-FD2-20120717		0900	GW		5	X	X									
6	WG-1620-MW33BR-20120717		1000	GW		5	X	X									
7	WG-1620-MW26A-20120717		1050	GW		5	X	X									
8	WG-1620-MW67B-20120717		1150	GW		5	X	X									
9	WG-1620-MW67BMS-20120717		1150	GW		5	X	X									
10	WG-1620-MW67BMSD-20120717		1150	GW		5	X	X									

Sampler(s) Please Print & Sign: John DeGAYTON Shipment Method: Hand Delivered Required Turnaround Time: (Check Box) 5 WK Days 10 WK Days 24 Hour

Relinquished by: John DeGAYTON Date: 7-17-12 Received by: John DeGAYTON Time: 1815

Relinquished by: John DeGAYTON Date: 7-17-12 Received by: John DeGAYTON Time: 1815

Logged by: John DeGAYTON Date: 7-17-12 Checked by: John DeGAYTON Time: 1815

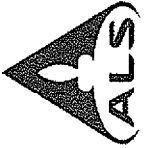
Preservative Key: 1-HCl 2-HNO₃ 3-H₂SO₄ 4-NaOH 5-Na₂S₂O₈ 6-NaHSO₄ 7-Other 8-4°C 9-5035

QC Package: (Check One Box Below) Level II Std QC Level III Std QC/Raw Data Level IV SW846/CLP Other / EDD

Notes: 10 Day TAT.

Note: 1. Any changes must be made in writing once samples and COC Form have been submitted to ALS Environmental.
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York, PA
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Page **3** of **3**
COC ID: **67199**

Environmental

Customer Information				Project Information				ALS Work Order # 970758888 Parameter/Method Request for Analysis											
Purchase Order	Project Name	UJRR Houston Wood GW	A	VOC (8260) Select															
Work Order	Project Number	1620-04	B	SVOC (8270) Low-Level															
Company Name	Bill To Company	Pastor, Behling & Wheeler, LLC	C	VINYL CHLORIDE															
Send Report To	Invoice Attn	Eric Matzner	D																
Address	Address	2201 Double Creek Drive Suite 4004	E																
City/State/Zip	City/State/Zip	Round Rock, TX 78684	G																
Phone	Phone	(512) 671-3434	H																
Fax	Fax	(512) 671-3446	I																
e-Mail Address	e-Mail Address		J																
No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold		
1	WG-1620-MW70B-20120717	7-17-12	1330	GW		5	X	X	X										
2	WG-1620-MW36B-20120717		1420	GW		5	X	X	X										
3	WG-1620-MW36A-20120717		1520	GW		5	X	X	X										
4	WG-1620-MW28C-20120717		1625	GW		5	X	X	X										
5	WG-1620-TB-20120717		-			2	X												
6																			
7																			
8																			
9																			
10																			

Sampler(s) Please Print & Sign: **John Behling** Date: **7-17-12** Time: **1315** Shipment Method: **HAND DELIVERED** Required Turnaround Time: (Check Box) Std 10 WK Days 5 WK Days 2 WK Days Other 24 Hour

Relinquished by: **John Behling** Date: **7-17-12** Time: **1315** Received by (Laboratory): **ASR** Notes: **10 Day TAT.**

Relinquished by: **John Behling** Date: **7-17-12** Time: **1315** Received by (Laboratory): **ASR**

Logged by (Laboratory): _____ Date: _____ Time: _____

Preservative Key: 1-HCl 2-HNO₃ 3-H₂SO₄ 4-NaOH 5-Na₂S₂O₃ 6-NaHSO₄ 7-Other 8-4°C 9-5035

QC Package: (Check One Box Below) Level II Std QC TRRP CheckList Level III Std QC/Raw Data TRRP Level IV Level IV SW846/CLP Other / EDD

Cooler ID: _____ Cooler Temp: _____

Results Due Date: _____

Note: 1. Any changes must be made in writing once samples and COC Form have been submitted to ALS Environmental.
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FH-CE * -2012

Eric Matzner
Pastor, Behling & Wheeler, LLC
2201 Double Creek Drive
Suite 4004
Round Rock, TX 78664

Tel: (512) 671-3434
Fax: (512) 671-3446

Re: UPRR Houston Wood GW

Work Order: **1207933**

Dear Eric,

ALS Environmental received 26 samples on 19-Jul-2012 02:50 PM for the analyses presented in the following report.

The analytical data provided relates directly to the samples received by ALS Environmental and for only the analyses requested. Results are expressed as "as received" unless otherwise noted.

QC sample results for this data met EPA or laboratory specifications except as noted in the Case Narrative or as noted with qualifiers in the QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained by ALS Environmental. Samples will be disposed in 30 days unless storage arrangements are made.

The total number of pages in this report is 85.

If you have any questions regarding this report, please feel free to call me.

Sincerely,

A handwritten signature in cursive script that reads "Patricia L. Lynch".

Electronically approved by: Kelsey N. Brown

Patricia L. Lynch
Project Manager



Certificate No: TX: T104704231-12-10

ADDRESS 10450 Stancliff Rd, Suite 210 Houston, Texas 77099-4338 | PHONE (281) 530-5656 | FAX (281) 530-5887

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www.alsglobal.com

RIGHT SOLUTIONS RIGHT PARTNER

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Work Order: 1207587

**TRRP Laboratory Data
Package Cover Page**

This data package consists of all or some of the following as applicable:

This signature page, the laboratory review checklist, and the following reportable data:

- R1 Field chain-of-custody documentation;
- R2 Sample identification cross-reference;
- R3 Test reports (analytical data sheets) for each environmental sample that includes:
 - a) Items consistent with NELAC Chapter 5,
 - b) dilution factors,
 - c) preparation methods,
 - d) cleanup methods, and
 - e) if required for the project, tentatively identified compounds (TICs).
- R4 Surrogate recovery data including:
 - a) Calculated recovery (%R), and
 - b) The laboratory's surrogate QC limits.
- R5 Test reports/summary forms for blank samples;
- R6 Test reports/summary forms for laboratory control samples (LCSs) including:
 - a) LCS spiking amounts,
 - b) Calculated %R for each analyte, and
 - c) The laboratory's LCS QC limits.
- R7 Test reports for project matrix spike/matrix spike duplicates (MS/MSDs) including:
 - a) Samples associated with the MS/MSD clearly identified,
 - b) MS/MSD spiking amounts,
 - c) Concentration of each MS/MSD analyte measured in the parent and spiked samples,
 - d) Calculated %Rs and relative percent differences (RPDs), and
 - e) The laboratory's MS/MSD QC limits.
- R8 Laboratory analytical duplicate (if applicable) recovery and precision:
 - a) the amount of analyte measured in the duplicate,
 - b) the calculated RPD, and
 - c) the laboratory's QC limits for analytical duplicates.
- R9 List of method quantitation limits (MQLs) and detectability check sample results for each analyte for each method and matrix.
- R10 Other problems or anomalies.
The Exception Report for each "No" or "Not Reviewed (NR)" item in Laboratory Review Checklist and for each analyte, matrix, and method for which the laboratory does not hold NELAC accreditation under the Texas Laboratory Accreditation Program.

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Work Order: 1207587

**TRRP Laboratory Data
Package Cover Page**

Release Statement: I am responsible for the release of this laboratory data package. This laboratory is NELAC accredited under the Texas Laboratory Accreditation Program for all the methods, analytes and matrices reported in this data package except as noted in the Exception Reports. The data have been reviewed and are technically compliant with the requirements of the methods used, except where noted by the laboratory in the attached exception reports. By my signature below, I affirm to the best of my knowledge, all problems/anomalies, observed by the laboratory have been identified by the laboratory in the Laboratory Review Checklist, and no information affecting the quality of the data has been knowingly withheld.

Check, if applicable: [NA] This laboratory meets an exception under 30 TAC §25.6 and was last inspected by TCEQ or _____ on (enter date of last inspection). Any findings affecting the data in this laboratory data package are noted in the Exception Reports herein. The official signing the cover page of the report in which these data are used is responsible for releasing this data package and is by signature affirming the above release statement is true.

Patricia L. Lynch

Patricia L. Lynch
Project Manager

Laboratory Review Checklist: Reportable Data

Laboratory Name: ALS Laboratory Group		LRC Date: 08/13/2012					
Project Name: UPRR Houston Wood GW		Laboratory Job Number: 1207933					
Reviewer Name: Pat Lynch		Prep Batch Number(s): 62814, 62815, R131720, R131825, R131831, R131912, R131997, R132070					
# ¹	A ²	Description	Yes	No	NA ³	NR ⁴	ER# ⁵
R1	OI	Chain-of-custody (C-O-C)					
		Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?	X				
		Were all departures from standard conditions described in an exception report?	X				
R2	OI	Sample and quality control (QC) identification					
		Are all field sample ID numbers cross-referenced to the laboratory ID numbers?	X				
		Are all laboratory ID numbers cross-referenced to the corresponding QC data?	X				
R3	OI	Test reports					
		Were all samples prepared and analyzed within holding times?	X				
		Other than those results < MQL, were all other raw values bracketed by calibration standards?	X				
		Were calculations checked by a peer or supervisor?	X				
		Were all analyte identifications checked by a peer or supervisor?	X				
		Were sample detection limits reported for all analytes not detected?	X				
		Were all results for soil and sediment samples reported on a dry weight basis?			X		
		Were % moisture (or solids) reported for all soil and sediment samples?			X		
		Were bulk soils/solids samples for volatile analysis extracted with methanol per SW-846 Method 5035?			X		
		If required for the project, TICs reported?			X		
R4	O	Surrogate recovery data					
		Were surrogates added prior to extraction?	X				
		Were surrogate percent recoveries in all samples within the laboratory QC limits?		X			1
R5	OI	Test reports/summary forms for blank samples					
		Were appropriate type(s) of blanks analyzed?	X				
		Were blanks analyzed at the appropriate frequency?	X				
		Were method blanks taken through the entire analytical process, including preparation and, if applicable, cleanup procedures?	X				
		Were blank concentrations < MQL?	X				
R6	OI	Laboratory control samples (LCS):					
		Were all COCs included in the LCS?	X				
		Was each LCS taken through the entire analytical procedure, including prep and cleanup steps?	X				
		Were LCSs analyzed at the required frequency?	X				
		Were LCS (and LCSD, if applicable) %Rs within the laboratory QC limits?	X				
		Does the detectability data document the laboratory's capability to detect the COCs at the MDL used to calculate the SDLs?	X				
		Was the LCSD RPD within QC limits?	X				
R7	OI	Matrix spike (MS) and matrix spike duplicate (MSD) data					
		Were the project/method specified analytes included in the MS and MSD?	X				
		Were MS/MSD analyzed at the appropriate frequency?	X				
		Were MS (and MSD, if applicable) %Rs within the laboratory QC limits?		X			2
		Were MS/MSD RPDs within laboratory QC limits?	X				
R8	OI	Analytical duplicate data					
		Were appropriate analytical duplicates analyzed for each matrix?			X		
		Were analytical duplicates analyzed at the appropriate frequency?			X		
		Were RPDs or relative standard deviations within the laboratory QC limits?			X		
R9	OI	Method quantitation limits (MQLs):					
		Are the MQLs for each method analyte included in the laboratory data package?	X				
		Do the MQLs correspond to the concentration of the lowest non-zero calibration standard?	X				
		Are unadjusted MQLs and DCSs included in the laboratory data package?	X				
R10	OI	Other problems/anomalies					
		Are all known problems/anomalies/special conditions noted in this LRC and ER?	X				3
		Were all necessary corrective actions performed for the reported data?	X				
		Was applicable and available technology used to lower the SDL and minimize the matrix interference affects on the sample results?	X				
		Is the laboratory NELAC-accredited under the Texas Laboratory Program for the analytes, matrices and methods associated with this laboratory data package?	X				

Laboratory Review Checklist: Reportable Data

Laboratory Name: ALS Laboratory Group		LRC Date: 08/13/2012					
Project Name: UPRR Houston Wood GW		Laboratory Job Number: 1207933					
Reviewer Name: Pat Lynch		Prep Batch Number(s): 62814, 62815, R131720, R131825, R131831, R131912, R131997, R132070					
# ¹	A ²	Description	Yes	No	NA ³	NR ⁴	ER# ⁵
S1	OI	Initial calibration (ICAL)					
		Were response factors and/or relative response factors for each analyte within QC limits?	X				
		Were percent RSDs or correlation coefficient criteria met?	X				
		Was the number of standards recommended in the method used for all analytes?	X				
		Were all points generated between the lowest and highest standard used to calculate the curve?	X				
		Are ICAL data available for all instruments used?	X				
		Has the initial calibration curve been verified using an appropriate second source standard?	X				
S2	OI	Initial and continuing calibration verification (ICCV and CCV) and continuing calibration blank (CCB)					
		Was the CCV analyzed at the method-required frequency?	X				
		Were percent differences for each analyte within the method-required QC limits?	X				
		Was the ICAL curve verified for each analyte?	X				
		Was the absolute value of the analyte concentration in the inorganic CCB < MDL?			X		
S3	O	Mass spectral tuning:					
		Was the appropriate compound for the method used for tuning?	X				
		Were ion abundance data within the method-required QC limits?	X				
S4	O	Internal standards (IS):					
		Were IS area counts and retention times within the method-required QC limits?	X				
S5	OI	Raw data (NELAC section 1 appendix A glossary, and section 5.12 or ISO/IEC 17025 section)					
		Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?	X				
		Were data associated with manual integrations flagged on the raw data?	X				
S6	O	Dual column confirmation					
		Did dual column confirmation results meet the method-required QC?			X		
S7	O	Tentatively identified compounds (TICs):					
		If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?			X		
S8	I	Interference Check Sample (ICS) results:					
		Were percent recoveries within method QC limits?			X		
S9	I	Serial dilutions, post digestion spikes, and method of standard additions					
		Were percent differences, recoveries, and the linearity within the QC limits specified in the method?			X		
S10	OI	Method detection limit (MDL) studies					
		Was a MDL study performed for each reported analyte?	X				
		Is the MDL either adjusted or supported by the analysis of DCSSs?	X				
S11	OI	Proficiency test reports:					
		Was the laboratory's performance acceptable on the applicable proficiency tests or evaluation studies?	X				
S12	OI	Standards documentation					
		Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?	X				
S13	OI	Compound/analyte identification procedures					
		Are the procedures for compound/analyte identification documented?	X				
S14	OI	Demonstration of analyst competency (DOC)					
		Was DOC conducted consistent with NELAC Chapter 5C or ISO/IEC 4?	X				
		Is documentation of the analyst's competency up-to-date and on file?	X				
S15	OI	Verification/validation documentation for methods (NELAC Chap 5 or ISO/IEC 17025 Section 5)					
		Are all the methods used to generate the data documented, verified, and validated, where applicable?	X				
S16	OI	Laboratory standard operating procedures (SOPs):					
		Are laboratory SOPs current and on file for each method performed?	X				

Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.

O = Organic Analyses; I = Inorganic Analyses (and general chemistry, when applicable);

NA = Not Applicable;

NR = Not Reviewed;

R# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

Laboratory Review Checklist: Reportable Data

Laboratory Name: ALS Laboratory Group		LRC Date: 08/13/2012
Project Name: UPRR Houston Wood GW		Laboratory Job Number: 1207933
Reviewer Name: Pat Lynch		Prep Batch Number(s): 62814, 62815, R131720, R131825, R131831, R131912, R131997, R132070
ER# ⁵	Description	
1	Semi-volatile surrogates were diluted out in the higher dilutions for several samples. The surrogate recoveries were in control in the lower dilutions.	
2	Batch R131825, Volatile Organics, Sample 12071078-02: MSD is for an unrelated sample. Batch R131831, Volatile Organics, Sample 1207961-03: MS is for an unrelated sample. Batch R131912, Volatile Organics, Sample 12071014-01: MSD is for an unrelated sample.	
3	Naphthalene, 2-methylnaphthalene and phenanthrene were reported at concentrations that exceed the MQLs in WG-1620-FB5-20120718, but were non-detect in the associated method blank.	
<p>Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period. O = Organic Analyses; I = Inorganic Analyses (and general chemistry, when applicable); NA = Not Applicable; NR = Not Reviewed; R# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).</p>		

Client: Pastor, Behling & Wheeler, LLC
 Project: UPRR Houston Wood GW
 Work Order: 1207933

Work Order Sample Summary

<u>Lab Samp ID</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Tag Number</u>	<u>Collection Date</u>	<u>Date Received</u>	<u>Hold</u>
1207933-01	WG-1620-MW28A-20120717	Groundwater		7/17/2012 17:20	7/19/2012 14:50	<input type="checkbox"/>
1207933-02	WG-1620-FB4-20120717	Groundwater		7/17/2012 17:40	7/19/2012 14:50	<input type="checkbox"/>
1207933-03	WG-1620-MW53C-20120718	Groundwater		7/18/2012 07:45	7/19/2012 14:50	<input type="checkbox"/>
1207933-04	WG-1620-MW25A-20120718	Groundwater		7/18/2012 08:40	7/19/2012 14:50	<input type="checkbox"/>
1207933-05	WG-1620-MW25C-20120718	Groundwater		7/18/2012 09:25	7/19/2012 14:50	<input type="checkbox"/>
1207933-06	WG-1620-MW44C-20120718	Groundwater		7/18/2012 10:15	7/19/2012 14:50	<input type="checkbox"/>
1207933-07	WG-1620-MW35A-20120718	Groundwater		7/18/2012 11:10	7/19/2012 14:50	<input type="checkbox"/>
1207933-08	WG-1620-MW35B-20120718	Groundwater		7/18/2012 12:00	7/19/2012 14:50	<input type="checkbox"/>
1207933-09	WG-1620-MW63B-20120718	Groundwater		7/18/2012 13:30	7/19/2012 14:50	<input type="checkbox"/>
1207933-10	WG-1620-FD3-20120718	Groundwater		7/18/2012 13:30	7/19/2012 14:50	<input type="checkbox"/>
1207933-11	WG-1620-MW71B-20120718	Groundwater		7/18/2012 14:25	7/19/2012 14:50	<input type="checkbox"/>
1207933-12	WG-1620-MW38A-20120718	Groundwater		7/18/2012 15:20	7/19/2012 14:50	<input type="checkbox"/>
1207933-13	WG-1620-MW38B-20120718	Groundwater		7/18/2012 16:15	7/19/2012 14:50	<input type="checkbox"/>
1207933-14	WG-1620-MW22A-20120718	Groundwater		7/18/2012 17:15	7/19/2012 14:50	<input type="checkbox"/>
1207933-15	WG-1620-MW22B-20120718	Groundwater		7/18/2012 18:05	7/19/2012 14:50	<input type="checkbox"/>
1207933-16	WG-1620-FB5-20120718	Groundwater		7/18/2012 18:05	7/19/2012 14:50	<input type="checkbox"/>
1207933-17	WG-1620-MW15A-20120719	Groundwater		7/19/2012 07:40	7/19/2012 14:50	<input type="checkbox"/>
1207933-18	WG-1620-MW15C-20120719	Groundwater		7/19/2012 08:25	7/19/2012 14:50	<input type="checkbox"/>
1207933-19	WG-1620-MW15B-20120719	Groundwater		7/19/2012 09:15	7/19/2012 14:50	<input type="checkbox"/>
1207933-20	WG-1620-MW40B-20120719	Groundwater		7/19/2012 10:10	7/19/2012 14:50	<input type="checkbox"/>
1207933-21	WG-1620-MW42B-20120719	Groundwater		7/19/2012 11:05	7/19/2012 14:50	<input type="checkbox"/>
1207933-22	WG-1620-MW39B-20120719	Groundwater		7/19/2012 12:05	7/19/2012 14:50	<input type="checkbox"/>
1207933-23	WG-1620-FB6-20120719	Groundwater		7/19/2012 12:15	7/19/2012 14:50	<input type="checkbox"/>
1207933-24	WG-1620-MW12C-20120719	Groundwater		7/19/2012 13:45	7/19/2012 14:50	<input type="checkbox"/>
1207933-25	WG-1620-MW12A-20120719	Groundwater		7/19/2012 14:30	7/19/2012 14:50	<input type="checkbox"/>
1207933-26	WG-1620-TB-20120719	Water		7/19/2012	7/19/2012 14:50	<input type="checkbox"/>

ALS Environmental

Date: 13-Aug-12

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Sample ID: WG-1620-MW28A-20120717
Collection Date: 7/17/2012 05:20 PM

Work Order: 1207933
Lab ID: 1207933-01
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270	Prep: SW3510 / 7/23/12	Analyst: LG		
1,2-Diphenylhydrazine	U		0.000050	0.00020	mg/L	1	7/23/2012 19:37
2,4-Dimethylphenol	U		0.000050	0.00020	mg/L	1	7/23/2012 19:37
2,4-Dinitrotoluene	U		0.000050	0.00020	mg/L	1	7/23/2012 19:37
2,6-Dinitrotoluene	U		0.000060	0.00020	mg/L	1	7/23/2012 19:37
2-Chloronaphthalene	U		0.000050	0.00020	mg/L	1	7/23/2012 19:37
2-Methylnaphthalene	0.00015	J	0.000050	0.00020	mg/L	1	7/23/2012 19:37
4,6-Dinitro-2-methylphenol	U		0.000080	0.00020	mg/L	1	7/23/2012 19:37
4-Nitrophenol	U		0.000050	0.0010	mg/L	1	7/23/2012 19:37
Acenaphthene	U		0.000050	0.00020	mg/L	1	7/23/2012 19:37
Acenaphthylene	U		0.000050	0.00020	mg/L	1	7/23/2012 19:37
Anthracene	U		0.000050	0.00020	mg/L	1	7/23/2012 19:37
Benz(a)anthracene	U		0.000050	0.00020	mg/L	1	7/23/2012 19:37
Benzo(a)pyrene	U		0.000050	0.00020	mg/L	1	7/23/2012 19:37
Bis(2-chloroethoxy)methane	U		0.000050	0.00020	mg/L	1	7/23/2012 19:37
Bis(2-ethylhexyl)phthalate	0.00043		0.00010	0.00020	mg/L	1	7/23/2012 19:37
Chrysene	U		0.000050	0.00020	mg/L	1	7/23/2012 19:37
Dibenzofuran	U		0.000050	0.00020	mg/L	1	7/23/2012 19:37
Di-n-butyl phthalate	U		0.000050	0.00020	mg/L	1	7/23/2012 19:37
Fluoranthene	U		0.000050	0.00020	mg/L	1	7/23/2012 19:37
Fluorene	U		0.000050	0.00020	mg/L	1	7/23/2012 19:37
Naphthalene	0.0013		0.000050	0.00020	mg/L	1	7/23/2012 19:37
Nitrobenzene	U		0.000050	0.00020	mg/L	1	7/23/2012 19:37
N-Nitrosodiphenylamine	U		0.000050	0.00020	mg/L	1	7/23/2012 19:37
Pentachlorophenol	U		0.000050	0.00020	mg/L	1	7/23/2012 19:37
Phenanthrene	U		0.000050	0.00020	mg/L	1	7/23/2012 19:37
Phenol	U		0.000050	0.00020	mg/L	1	7/23/2012 19:37
Pyrene	U		0.000050	0.00020	mg/L	1	7/23/2012 19:37
Surr: 2,4,6-Tribromophenol	80.5			34-129	%REC	1	7/23/2012 19:37
Surr: 2-Fluorobiphenyl	65.6			40-125	%REC	1	7/23/2012 19:37
Surr: 2-Fluorophenol	55.0			20-120	%REC	1	7/23/2012 19:37
Surr: 4-Terphenyl-d14	92.0			40-135	%REC	1	7/23/2012 19:37
Surr: Nitrobenzene-d5	57.4			41-120	%REC	1	7/23/2012 19:37
Surr: Phenol-d6	60.1			20-120	%REC	1	7/23/2012 19:37
VOLATILES			Method: SW8260	Analyst: PC			
1,2-Dichloroethane	U		0.00050	0.0050	mg/L	1	7/23/2012 17:59
Benzene	U		0.00050	0.0050	mg/L	1	7/23/2012 17:59
Chlorobenzene	U		0.00050	0.0050	mg/L	1	7/23/2012 17:59
Ethylbenzene	U		0.00050	0.0050	mg/L	1	7/23/2012 17:59

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 13-Aug-12

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Sample ID: WG-1620-MW28A-20120717
Collection Date: 7/17/2012 05:20 PM

Work Order: 1207933
Lab ID: 1207933-01
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
Methylene chloride	U		0.0010	0.010	mg/L	1	7/23/2012 17:59
Toluene	U		0.00050	0.0050	mg/L	1	7/23/2012 17:59
Xylenes, Total	U		0.0015	0.015	mg/L	1	7/23/2012 17:59
Surr: 1,2-Dichloroethane-d4	113			70-125	%REC	1	7/23/2012 17:59
Surr: 4-Bromofluorobenzene	96.7			72-125	%REC	1	7/23/2012 17:59
Surr: Dibromofluoromethane	109			71-125	%REC	1	7/23/2012 17:59
Surr: Toluene-d8	101			75-125	%REC	1	7/23/2012 17:59

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 13-Aug-12

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Sample ID: WG-1620-FB4-20120717
Collection Date: 7/17/2012 05:40 PM

Work Order: 1207933
Lab ID: 1207933-02
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270	Prep: SW3510 / 7/23/12	Analyst: LG		
1,2-Diphenylhydrazine	U		0.000050	0.00020	mg/L	1	7/23/2012 19:56
2,4-Dimethylphenol	U		0.000050	0.00020	mg/L	1	7/23/2012 19:56
2,4-Dinitrotoluene	U		0.000050	0.00020	mg/L	1	7/23/2012 19:56
2,6-Dinitrotoluene	U		0.000060	0.00020	mg/L	1	7/23/2012 19:56
2-Chloronaphthalene	U		0.000050	0.00020	mg/L	1	7/23/2012 19:56
2-Methylnaphthalene	U		0.000050	0.00020	mg/L	1	7/23/2012 19:56
4,6-Dinitro-2-methylphenol	U		0.000080	0.00020	mg/L	1	7/23/2012 19:56
4-Nitrophenol	U		0.000050	0.0010	mg/L	1	7/23/2012 19:56
Acenaphthene	U		0.000050	0.00020	mg/L	1	7/23/2012 19:56
Acenaphthylene	U		0.000050	0.00020	mg/L	1	7/23/2012 19:56
Anthracene	U		0.000050	0.00020	mg/L	1	7/23/2012 19:56
Benz(a)anthracene	U		0.000050	0.00020	mg/L	1	7/23/2012 19:56
Benzo(a)pyrene	U		0.000050	0.00020	mg/L	1	7/23/2012 19:56
Bis(2-chloroethoxy)methane	U		0.000050	0.00020	mg/L	1	7/23/2012 19:56
Bis(2-ethylhexyl)phthalate	0.00017	J	0.00010	0.00020	mg/L	1	7/23/2012 19:56
Chrysene	U		0.000050	0.00020	mg/L	1	7/23/2012 19:56
Dibenzofuran	U		0.000050	0.00020	mg/L	1	7/23/2012 19:56
Di-n-butyl phthalate	U		0.000050	0.00020	mg/L	1	7/23/2012 19:56
Fluoranthene	U		0.000050	0.00020	mg/L	1	7/23/2012 19:56
Fluorene	U		0.000050	0.00020	mg/L	1	7/23/2012 19:56
Naphthalene	0.00018	J	0.000050	0.00020	mg/L	1	7/23/2012 19:56
Nitrobenzene	U		0.000050	0.00020	mg/L	1	7/23/2012 19:56
N-Nitrosodiphenylamine	U		0.000050	0.00020	mg/L	1	7/23/2012 19:56
Pentachlorophenol	U		0.000050	0.00020	mg/L	1	7/23/2012 19:56
Phenanthrene	U		0.000050	0.00020	mg/L	1	7/23/2012 19:56
Phenol	U		0.000050	0.00020	mg/L	1	7/23/2012 19:56
Pyrene	U		0.000050	0.00020	mg/L	1	7/23/2012 19:56
Surr: 2,4,6-Tribromophenol	64.8			34-129	%REC	1	7/23/2012 19:56
Surr: 2-Fluorobiphenyl	57.7			40-125	%REC	1	7/23/2012 19:56
Surr: 2-Fluorophenol	47.3			20-120	%REC	1	7/23/2012 19:56
Surr: 4-Terphenyl-d14	83.5			40-135	%REC	1	7/23/2012 19:56
Surr: Nitrobenzene-d5	49.0			41-120	%REC	1	7/23/2012 19:56
Surr: Phenol-d6	52.9			20-120	%REC	1	7/23/2012 19:56
VOLATILES			Method: SW8260	Analyst: PC			
1,2-Dichloroethane	U		0.00050	0.0050	mg/L	1	7/23/2012 18:26
Benzene	U		0.00050	0.0050	mg/L	1	7/23/2012 18:26
Chlorobenzene	U		0.00050	0.0050	mg/L	1	7/23/2012 18:26
Ethylbenzene	U		0.00050	0.0050	mg/L	1	7/23/2012 18:26

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 13-Aug-12

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Sample ID: WG-1620-FB4-20120717
Collection Date: 7/17/2012 05:40 PM

Work Order: 1207933
Lab ID: 1207933-02
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
Methylene chloride	U		0.0010	0.010	mg/L	1	7/23/2012 18:26
Toluene	U		0.00050	0.0050	mg/L	1	7/23/2012 18:26
Vinyl chloride	U		0.00050	0.0020	mg/L	1	7/23/2012 18:26
Xylenes, Total	U		0.0015	0.015	mg/L	1	7/23/2012 18:26
Surr: 1,2-Dichloroethane-d4	108			70-125	%REC	1	7/23/2012 18:26
Surr: 4-Bromofluorobenzene	98.3			72-125	%REC	1	7/23/2012 18:26
Surr: Dibromofluoromethane	111			71-125	%REC	1	7/23/2012 18:26
Surr: Toluene-d8	102			75-125	%REC	1	7/23/2012 18:26

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 13-Aug-12

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Sample ID: WG-1620-MW53C-20120718
Collection Date: 7/18/2012 07:45 AM

Work Order: 1207933
Lab ID: 1207933-03
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270	Prep: SW3510 / 7/23/12		Analyst: LG	
1,2-Diphenylhydrazine	U		0.000050	0.00020	mg/L	1	7/23/2012 20:15
2,4-Dimethylphenol	U		0.000050	0.00020	mg/L	1	7/23/2012 20:15
2,4-Dinitrotoluene	U		0.000050	0.00020	mg/L	1	7/23/2012 20:15
2,6-Dinitrotoluene	U		0.000060	0.00020	mg/L	1	7/23/2012 20:15
2-Chloronaphthalene	U		0.000050	0.00020	mg/L	1	7/23/2012 20:15
2-Methylnaphthalene	0.000091	J	0.000050	0.00020	mg/L	1	7/23/2012 20:15
4,6-Dinitro-2-methylphenol	U		0.000080	0.00020	mg/L	1	7/23/2012 20:15
4-Nitrophenol	U		0.000050	0.0010	mg/L	1	7/23/2012 20:15
Acenaphthene	U		0.000050	0.00020	mg/L	1	7/23/2012 20:15
Acenaphthylene	U		0.000050	0.00020	mg/L	1	7/23/2012 20:15
Anthracene	U		0.000050	0.00020	mg/L	1	7/23/2012 20:15
Benz(a)anthracene	U		0.000050	0.00020	mg/L	1	7/23/2012 20:15
Benzo(a)pyrene	U		0.000050	0.00020	mg/L	1	7/23/2012 20:15
Bis(2-chloroethoxy)methane	U		0.000050	0.00020	mg/L	1	7/23/2012 20:15
Bis(2-ethylhexyl)phthalate	U		0.00010	0.00020	mg/L	1	7/23/2012 20:15
Chrysene	U		0.000050	0.00020	mg/L	1	7/23/2012 20:15
Dibenzofuran	U		0.000050	0.00020	mg/L	1	7/23/2012 20:15
Di-n-butyl phthalate	U		0.000050	0.00020	mg/L	1	7/23/2012 20:15
Fluoranthene	U		0.000050	0.00020	mg/L	1	7/23/2012 20:15
Fluorene	U		0.000050	0.00020	mg/L	1	7/23/2012 20:15
Naphthalene	0.00048		0.000050	0.00020	mg/L	1	7/23/2012 20:15
Nitrobenzene	U		0.000050	0.00020	mg/L	1	7/23/2012 20:15
N-Nitrosodiphenylamine	U		0.000050	0.00020	mg/L	1	7/23/2012 20:15
Pentachlorophenol	U		0.000050	0.00020	mg/L	1	7/23/2012 20:15
Phenanthrene	U		0.000050	0.00020	mg/L	1	7/23/2012 20:15
Phenol	U		0.000050	0.00020	mg/L	1	7/23/2012 20:15
Pyrene	U		0.000050	0.00020	mg/L	1	7/23/2012 20:15
Surr: 2,4,6-Tribromophenol	57.5			34-129	%REC	1	7/23/2012 20:15
Surr: 2-Fluorobiphenyl	48.2			40-125	%REC	1	7/23/2012 20:15
Surr: 2-Fluorophenol	44.5			20-120	%REC	1	7/23/2012 20:15
Surr: 4-Terphenyl-d14	63.6			40-135	%REC	1	7/23/2012 20:15
Surr: Nitrobenzene-d5	45.1			41-120	%REC	1	7/23/2012 20:15
Surr: Phenol-d6	48.7			20-120	%REC	1	7/23/2012 20:15
VOLATILES			Method: SW8260			Analyst: PC	
1,2-Dichloroethane	U		0.00050	0.0050	mg/L	1	7/23/2012 18:53
Benzene	U		0.00050	0.0050	mg/L	1	7/23/2012 18:53
Chlorobenzene	U		0.00050	0.0050	mg/L	1	7/23/2012 18:53
Ethylbenzene	U		0.00050	0.0050	mg/L	1	7/23/2012 18:53

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 13-Aug-12

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Sample ID: WG-1620-MW53C-20120718
Collection Date: 7/18/2012 07:45 AM

Work Order: 1207933
Lab ID: 1207933-03
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	ML	Units	Dilution Factor	Date Analyzed
Methylene chloride	U		0.0010	0.010	mg/L	1	7/23/2012 18:53
Toluene	U		0.00050	0.0050	mg/L	1	7/23/2012 18:53
Xylenes, Total	U		0.0015	0.015	mg/L	1	7/23/2012 18:53
Surr: 1,2-Dichloroethane-d4	113			70-125	%REC	1	7/23/2012 18:53
Surr: 4-Bromofluorobenzene	97.9			72-125	%REC	1	7/23/2012 18:53
Surr: Dibromofluoromethane	110			71-125	%REC	1	7/23/2012 18:53
Surr: Toluene-d8	104			75-125	%REC	1	7/23/2012 18:53

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 13-Aug-12

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Sample ID: WG-1620-MW25A-20120718
Collection Date: 7/18/2012 08:40 AM

Work Order: 1207933
Lab ID: 1207933-04
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	ML	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270	Prep: SW3510 / 7/23/12	Analyst: LG		
1,2-Diphenylhydrazine	U		0.000050	0.00020	mg/L	1	7/23/2012 20:34
2,4-Dimethylphenol	U		0.000050	0.00020	mg/L	1	7/23/2012 20:34
2,4-Dinitrotoluene	U		0.000050	0.00020	mg/L	1	7/23/2012 20:34
2,6-Dinitrotoluene	U		0.000060	0.00020	mg/L	1	7/23/2012 20:34
2-Chloronaphthalene	U		0.000050	0.00020	mg/L	1	7/23/2012 20:34
2-Methylnaphthalene	0.000061	J	0.000050	0.00020	mg/L	1	7/23/2012 20:34
4,6-Dinitro-2-methylphenol	U		0.000080	0.00020	mg/L	1	7/23/2012 20:34
4-Nitrophenol	U		0.000050	0.0010	mg/L	1	7/23/2012 20:34
Acenaphthene	U		0.000050	0.00020	mg/L	1	7/23/2012 20:34
Acenaphthylene	U		0.000050	0.00020	mg/L	1	7/23/2012 20:34
Anthracene	U		0.000050	0.00020	mg/L	1	7/23/2012 20:34
Benz(a)anthracene	U		0.000050	0.00020	mg/L	1	7/23/2012 20:34
Benzo(a)pyrene	U		0.000050	0.00020	mg/L	1	7/23/2012 20:34
Bis(2-chloroethoxy)methane	U		0.000050	0.00020	mg/L	1	7/23/2012 20:34
Bis(2-ethylhexyl)phthalate	U		0.00010	0.00020	mg/L	1	7/23/2012 20:34
Chrysene	U		0.000050	0.00020	mg/L	1	7/23/2012 20:34
Dibenzofuran	U		0.000050	0.00020	mg/L	1	7/23/2012 20:34
Di-n-butyl phthalate	U		0.000050	0.00020	mg/L	1	7/23/2012 20:34
Fluoranthene	U		0.000050	0.00020	mg/L	1	7/23/2012 20:34
Fluorene	U		0.000050	0.00020	mg/L	1	7/23/2012 20:34
Naphthalene	0.00038		0.000050	0.00020	mg/L	1	7/23/2012 20:34
Nitrobenzene	U		0.000050	0.00020	mg/L	1	7/23/2012 20:34
N-Nitrosodiphenylamine	U		0.000050	0.00020	mg/L	1	7/23/2012 20:34
Pentachlorophenol	U		0.000050	0.00020	mg/L	1	7/23/2012 20:34
Phenanthrene	U		0.000050	0.00020	mg/L	1	7/23/2012 20:34
Phenol	U		0.000050	0.00020	mg/L	1	7/23/2012 20:34
Pyrene	U		0.000050	0.00020	mg/L	1	7/23/2012 20:34
Surr: 2,4,6-Tribromophenol	81.1			34-129	%REC	1	7/23/2012 20:34
Surr: 2-Fluorobiphenyl	74.0			40-125	%REC	1	7/23/2012 20:34
Surr: 2-Fluorophenol	62.2			20-120	%REC	1	7/23/2012 20:34
Surr: 4-Terphenyl-d14	92.9			40-135	%REC	1	7/23/2012 20:34
Surr: Nitrobenzene-d5	63.4			41-120	%REC	1	7/23/2012 20:34
Surr: Phenol-d6	67.3			20-120	%REC	1	7/23/2012 20:34
VOLATILES			Method: SW8260	Analyst: PC			
1,2-Dichloroethane	U		0.00050	0.0050	mg/L	1	7/23/2012 19:20
Benzene	U		0.00050	0.0050	mg/L	1	7/23/2012 19:20
Chlorobenzene	U		0.00050	0.0050	mg/L	1	7/23/2012 19:20
Ethylbenzene	U		0.00050	0.0050	mg/L	1	7/23/2012 19:20

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 13-Aug-12

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Sample ID: WG-1620-MW25A-20120718
Collection Date: 7/18/2012 08:40 AM

Work Order: 1207933
Lab ID: 1207933-04
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
Methylene chloride	U		0.0010	0.010	mg/L	1	7/23/2012 19:20
Toluene	U		0.00050	0.0050	mg/L	1	7/23/2012 19:20
Vinyl chloride	U		0.00050	0.0020	mg/L	1	7/23/2012 19:20
Xylenes, Total	U		0.0015	0.015	mg/L	1	7/23/2012 19:20
Surr: 1,2-Dichloroethane-d4	113			70-125	%REC	1	7/23/2012 19:20
Surr: 4-Bromofluorobenzene	96.7			72-125	%REC	1	7/23/2012 19:20
Surr: Dibromofluoromethane	108			71-125	%REC	1	7/23/2012 19:20
Surr: Toluene-d8	104			75-125	%REC	1	7/23/2012 19:20

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 13-Aug-12

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Sample ID: WG-1620-MW25C-20120718
Collection Date: 7/18/2012 09:25 AM

Work Order: 1207933
Lab ID: 1207933-05
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270	Prep: SW3510 / 7/23/12	Analyst: LG		
1,2-Diphenylhydrazine	U		0.000050	0.00020	mg/L	1	7/25/2012 23:35
2,4-Dimethylphenol	U		0.000050	0.00020	mg/L	1	7/25/2012 23:35
2,4-Dinitrotoluene	U		0.000050	0.00020	mg/L	1	7/25/2012 23:35
2,6-Dinitrotoluene	U		0.000060	0.00020	mg/L	1	7/25/2012 23:35
2-Chloronaphthalene	U		0.000050	0.00020	mg/L	1	7/25/2012 23:35
2-Methylnaphthalene	0.90		0.10	0.40	mg/L	2000	7/26/2012 22:09
4,6-Dinitro-2-methylphenol	U		0.000080	0.00020	mg/L	1	7/25/2012 23:35
4-Nitrophenol	U		0.000050	0.0010	mg/L	1	7/25/2012 23:35
Acenaphthene	0.21		0.0025	0.010	mg/L	50	7/26/2012 20:50
Acenaphthylene	0.0021		0.000050	0.00020	mg/L	1	7/25/2012 23:35
Anthracene	0.019		0.00050	0.0020	mg/L	10	7/25/2012 23:55
Benz(a)anthracene	0.00086		0.000050	0.00020	mg/L	1	7/25/2012 23:35
Benzo(a)pyrene	0.00020		0.000050	0.00020	mg/L	1	7/25/2012 23:35
Bis(2-chloroethoxy)methane	U		0.000050	0.00020	mg/L	1	7/25/2012 23:35
Bis(2-ethylhexyl)phthalate	0.00012	J	0.00010	0.00020	mg/L	1	7/25/2012 23:35
Chrysene	0.00086		0.000050	0.00020	mg/L	1	7/25/2012 23:35
Dibenzofuran	0.22		0.0025	0.010	mg/L	50	7/26/2012 20:50
Di-n-butyl phthalate	U		0.000050	0.00020	mg/L	1	7/25/2012 23:35
Fluoranthene	0.0088		0.000050	0.00020	mg/L	1	7/25/2012 23:35
Fluorene	0.096		0.00050	0.0020	mg/L	10	7/25/2012 23:55
Naphthalene	13		0.10	0.40	mg/L	2000	7/26/2012 22:09
Nitrobenzene	U		0.000050	0.00020	mg/L	1	7/25/2012 23:35
N-Nitrosodiphenylamine	U		0.000050	0.00020	mg/L	1	7/25/2012 23:35
Pentachlorophenol	U		0.000050	0.00020	mg/L	1	7/25/2012 23:35
Phenanthrene	0.12		0.0025	0.010	mg/L	50	7/26/2012 20:50
Phenol	0.0045		0.000050	0.00020	mg/L	1	7/25/2012 23:35
Pyrene	0.0063		0.000050	0.00020	mg/L	1	7/25/2012 23:35
Surr: 2,4,6-Tribromophenol	69.6			34-129	%REC	1	7/25/2012 23:35
Surr: 2,4,6-Tribromophenol	71.8			34-129	%REC	10	7/25/2012 23:55
Surr: 2,4,6-Tribromophenol	118	J		34-129	%REC	50	7/26/2012 20:50
Surr: 2,4,6-Tribromophenol	0	S		34-129	%REC	2000	7/26/2012 22:09
Surr: 2-Fluorobiphenyl	50.1			40-125	%REC	1	7/25/2012 23:35
Surr: 2-Fluorobiphenyl	88.0			40-125	%REC	10	7/25/2012 23:55
Surr: 2-Fluorobiphenyl	83.3	J		40-125	%REC	50	7/26/2012 20:50
Surr: 2-Fluorobiphenyl	0	S		40-125	%REC	2000	7/26/2012 22:09
Surr: 2-Fluorophenol	48.2			20-120	%REC	1	7/25/2012 23:35
Surr: 2-Fluorophenol	105			20-120	%REC	10	7/25/2012 23:55
Surr: 2-Fluorophenol	107	J		20-120	%REC	50	7/26/2012 20:50

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 13-Aug-12

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Sample ID: WG-1620-MW25C-20120718
Collection Date: 7/18/2012 09:25 AM

Work Order: 1207933
Lab ID: 1207933-05
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
Surr: 2-Fluorophenol	0	S		20-120	%REC	2000	7/26/2012 22:09
Surr: 4-Terphenyl-d14	74.5			40-135	%REC	1	7/25/2012 23:35
Surr: 4-Terphenyl-d14	92.1			40-135	%REC	10	7/25/2012 23:55
Surr: 4-Terphenyl-d14	86.1	J		40-135	%REC	50	7/26/2012 20:50
Surr: 4-Terphenyl-d14	0	S		40-135	%REC	2000	7/26/2012 22:09
Surr: Nitrobenzene-d5	75.8			41-120	%REC	1	7/25/2012 23:35
Surr: Nitrobenzene-d5	104			41-120	%REC	10	7/25/2012 23:55
Surr: Nitrobenzene-d5	78.0	J		41-120	%REC	50	7/26/2012 20:50
Surr: Nitrobenzene-d5	0	S		41-120	%REC	2000	7/26/2012 22:09
Surr: Phenol-d6	66.1			20-120	%REC	1	7/25/2012 23:35
Surr: Phenol-d6	75.4			20-120	%REC	10	7/25/2012 23:55
Surr: Phenol-d6	92.2	J		20-120	%REC	50	7/26/2012 20:50
Surr: Phenol-d6	0	S		20-120	%REC	2000	7/26/2012 22:09

VOLATILES		Method: SW8260				Analyst: PC	
1,2-Dichloroethane	U		0.0050	0.050	mg/L	10	7/26/2012 21:29
Benzene	0.030	J	0.0050	0.050	mg/L	10	7/26/2012 21:29
Chlorobenzene	U		0.0050	0.050	mg/L	10	7/26/2012 21:29
Ethylbenzene	0.33		0.0050	0.050	mg/L	10	7/26/2012 21:29
Methylene chloride	U		0.010	0.10	mg/L	10	7/26/2012 21:29
Toluene	0.31		0.0050	0.050	mg/L	10	7/26/2012 21:29
Vinyl chloride	U		0.0050	0.020	mg/L	10	7/26/2012 21:29
Xylenes, Total	0.96		0.015	0.15	mg/L	10	7/26/2012 21:29
Surr: 1,2-Dichloroethane-d4	112			70-125	%REC	10	7/26/2012 21:29
Surr: 4-Bromofluorobenzene	98.5			72-125	%REC	10	7/26/2012 21:29
Surr: Dibromofluoromethane	105			71-125	%REC	10	7/26/2012 21:29
Surr: Toluene-d8	92.3			75-125	%REC	10	7/26/2012 21:29

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 13-Aug-12

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Sample ID: WG-1620-MW44C-20120718
Collection Date: 7/18/2012 10:15 AM

Work Order: 1207933
Lab ID: 1207933-06
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	ML	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270	Prep: SW3510 / 7/23/12	Analyst: LG		
1,2-Diphenylhydrazine	U		0.00075	0.0030	mg/L	10	7/26/2012 00:15
2,4-Dimethylphenol	U		0.00075	0.0030	mg/L	10	7/26/2012 00:15
2,4-Dinitrotoluene	U		0.00075	0.0030	mg/L	10	7/26/2012 00:15
2,6-Dinitrotoluene	U		0.00090	0.0030	mg/L	10	7/26/2012 00:15
2-Chloronaphthalene	U		0.00075	0.0030	mg/L	10	7/26/2012 00:15
2-Methylnaphthalene	62		1.5	6.0	mg/L	20000	7/26/2012 21:49
4,6-Dinitro-2-methylphenol	U		0.0012	0.0030	mg/L	10	7/26/2012 00:15
4-Nitrophenol	U		0.00075	0.015	mg/L	10	7/26/2012 00:15
Acenaphthene	31		1.5	6.0	mg/L	20000	7/26/2012 21:49
Acenaphthylene	0.29		0.0075	0.030	mg/L	100	7/26/2012 00:35
Anthracene	19		0.15	0.60	mg/L	2000	7/26/2012 21:10
Benz(a)anthracene	3.5		0.15	0.60	mg/L	2000	7/26/2012 21:10
Benzo(a)pyrene	0.87		0.0075	0.030	mg/L	100	7/26/2012 00:35
Bis(2-chloroethoxy)methane	U		0.00075	0.0030	mg/L	10	7/26/2012 00:15
Bis(2-ethylhexyl)phthalate	0.013		0.0015	0.0030	mg/L	10	7/26/2012 00:15
Chrysene	3.3		0.15	0.60	mg/L	2000	7/26/2012 21:10
Dibenzofuran	38		1.5	6.0	mg/L	20000	7/26/2012 21:49
Di-n-butyl phthalate	U		0.00075	0.0030	mg/L	10	7/26/2012 00:15
Fluoranthene	28		0.15	0.60	mg/L	2000	7/26/2012 21:10
Fluorene	26		0.15	0.60	mg/L	2000	7/26/2012 21:10
Naphthalene	230		1.5	6.0	mg/L	20000	7/26/2012 21:49
Nitrobenzene	U		0.00075	0.0030	mg/L	10	7/26/2012 00:15
N-Nitrosodiphenylamine	U		0.00075	0.0030	mg/L	10	7/26/2012 00:15
Pentachlorophenol	U		0.00075	0.0030	mg/L	10	7/26/2012 00:15
Phenanthrene	88		1.5	6.0	mg/L	20000	7/26/2012 21:49
Phenol	U		0.00075	0.0030	mg/L	10	7/26/2012 00:15
Pyrene	19		0.15	0.60	mg/L	2000	7/26/2012 21:10
Surr: 2,4,6-Tribromophenol	80.9			34-129	%REC	10	7/26/2012 00:15
Surr: 2,4,6-Tribromophenol	55.9	J		34-129	%REC	100	7/26/2012 00:35
Surr: 2,4,6-Tribromophenol	0	S		34-129	%REC	2000	7/26/2012 21:10
Surr: 2,4,6-Tribromophenol	0	S		34-129	%REC	20000	7/26/2012 21:49
Surr: 2-Fluorobiphenyl	64.1			40-125	%REC	10	7/26/2012 00:15
Surr: 2-Fluorobiphenyl	81.6	J		40-125	%REC	100	7/26/2012 00:35
Surr: 2-Fluorobiphenyl	0	S		40-125	%REC	2000	7/26/2012 21:10
Surr: 2-Fluorobiphenyl	0	S		40-125	%REC	20000	7/26/2012 21:49
Surr: 2-Fluorophenol	108			20-120	%REC	10	7/26/2012 00:15
Surr: 2-Fluorophenol	92.7	J		20-120	%REC	100	7/26/2012 00:35
Surr: 2-Fluorophenol	0	S		20-120	%REC	2000	7/26/2012 21:10

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 13-Aug-12

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Sample ID: WG-1620-MW44C-20120718
Collection Date: 7/18/2012 10:15 AM

Work Order: 1207933
Lab ID: 1207933-06
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
Surr: 2-Fluorophenol	0	S		20-120	%REC	20000	7/26/2012 21:49
Surr: 4-Terphenyl-d14	84.4			40-135	%REC	10	7/26/2012 00:15
Surr: 4-Terphenyl-d14	69.6	J		40-135	%REC	100	7/26/2012 00:35
Surr: 4-Terphenyl-d14	0	S		40-135	%REC	2000	7/26/2012 21:10
Surr: 4-Terphenyl-d14	0	S		40-135	%REC	20000	7/26/2012 21:49
Surr: Nitrobenzene-d5	108			41-120	%REC	10	7/26/2012 00:15
Surr: Nitrobenzene-d5	81.9	J		41-120	%REC	100	7/26/2012 00:35
Surr: Nitrobenzene-d5	0	S		41-120	%REC	2000	7/26/2012 21:10
Surr: Nitrobenzene-d5	0	S		41-120	%REC	20000	7/26/2012 21:49
Surr: Phenol-d6	100			20-120	%REC	10	7/26/2012 00:15
Surr: Phenol-d6	91.8	J		20-120	%REC	100	7/26/2012 00:35
Surr: Phenol-d6	0	S		20-120	%REC	2000	7/26/2012 21:10
Surr: Phenol-d6	0	S		20-120	%REC	20000	7/26/2012 21:49

VOLATILES		Method: SW8260				Analyst: PC	
1,2-Dichloroethane	U	0.0050	0.050	mg/L	10	7/26/2012 21:56	
Benzene	U	0.0050	0.050	mg/L	10	7/26/2012 21:56	
Chlorobenzene	U	0.0050	0.050	mg/L	10	7/26/2012 21:56	
Ethylbenzene	0.32	0.0050	0.050	mg/L	10	7/26/2012 21:56	
Methylene chloride	U	0.010	0.10	mg/L	10	7/26/2012 21:56	
Toluene	0.16	0.0050	0.050	mg/L	10	7/26/2012 21:56	
Xylenes, Total	0.84	0.015	0.15	mg/L	10	7/26/2012 21:56	
Surr: 1,2-Dichloroethane-d4	109		70-125	%REC	10	7/26/2012 21:56	
Surr: 4-Bromofluorobenzene	97.5		72-125	%REC	10	7/26/2012 21:56	
Surr: Dibromofluoromethane	109		71-125	%REC	10	7/26/2012 21:56	
Surr: Toluene-d8	94.1		75-125	%REC	10	7/26/2012 21:56	

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 13-Aug-12

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Sample ID: WG-1620-MW35A-20120718
Collection Date: 7/18/2012 11:10 AM

Work Order: 1207933
Lab ID: 1207933-07
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270	Prep: SW3510 / 7/23/12	Analyst: LG		
1,2-Diphenylhydrazine	U		0.000050	0.00020	mg/L	1	7/23/2012 20:53
2,4-Dimethylphenol	U		0.000050	0.00020	mg/L	1	7/23/2012 20:53
2,4-Dinitrotoluene	U		0.000050	0.00020	mg/L	1	7/23/2012 20:53
2,6-Dinitrotoluene	U		0.000060	0.00020	mg/L	1	7/23/2012 20:53
2-Chloronaphthalene	U		0.000050	0.00020	mg/L	1	7/23/2012 20:53
2-Methylnaphthalene	0.0063		0.000050	0.00020	mg/L	1	7/23/2012 20:53
4,6-Dinitro-2-methylphenol	U		0.000080	0.00020	mg/L	1	7/23/2012 20:53
4-Nitrophenol	U		0.000050	0.0010	mg/L	1	7/23/2012 20:53
Acenaphthene	0.0072		0.000050	0.00020	mg/L	1	7/23/2012 20:53
Acenaphthylene	U		0.000050	0.00020	mg/L	1	7/23/2012 20:53
Anthracene	0.0013		0.000050	0.00020	mg/L	1	7/23/2012 20:53
Benz(a)anthracene	0.00030		0.000050	0.00020	mg/L	1	7/23/2012 20:53
Benzo(a)pyrene	U		0.000050	0.00020	mg/L	1	7/23/2012 20:53
Bis(2-chloroethoxy)methane	U		0.000050	0.00020	mg/L	1	7/23/2012 20:53
Bis(2-ethylhexyl)phthalate	0.00014	J	0.00010	0.00020	mg/L	1	7/23/2012 20:53
Chrysene	0.00027		0.000050	0.00020	mg/L	1	7/23/2012 20:53
Dibenzofuran	0.0043		0.000050	0.00020	mg/L	1	7/23/2012 20:53
Di-n-butyl phthalate	U		0.000050	0.00020	mg/L	1	7/23/2012 20:53
Fluoranthene	0.0027		0.000050	0.00020	mg/L	1	7/23/2012 20:53
Fluorene	0.0029		0.000050	0.00020	mg/L	1	7/23/2012 20:53
Naphthalene	0.050		0.000050	0.0020	mg/L	10	7/25/2012 21:17
Nitrobenzene	U		0.000050	0.00020	mg/L	1	7/23/2012 20:53
N-Nitrosodiphenylamine	U		0.000050	0.00020	mg/L	1	7/23/2012 20:53
Pentachlorophenol	U		0.000050	0.00020	mg/L	1	7/23/2012 20:53
Phenanthrene	0.0068		0.000050	0.00020	mg/L	1	7/23/2012 20:53
Phenol	U		0.000050	0.00020	mg/L	1	7/23/2012 20:53
Pyrene	0.0016		0.000050	0.00020	mg/L	1	7/23/2012 20:53
Surr: 2,4,6-Tribromophenol	74.4			34-129	%REC	1	7/23/2012 20:53
Surr: 2,4,6-Tribromophenol	46.9			34-129	%REC	10	7/25/2012 21:17
Surr: 2-Fluorobiphenyl	53.7			40-125	%REC	1	7/23/2012 20:53
Surr: 2-Fluorobiphenyl	62.3			40-125	%REC	10	7/25/2012 21:17
Surr: 2-Fluorophenol	46.8			20-120	%REC	1	7/23/2012 20:53
Surr: 2-Fluorophenol	48.3			20-120	%REC	10	7/25/2012 21:17
Surr: 4-Terphenyl-d14	69.8			40-135	%REC	1	7/23/2012 20:53
Surr: 4-Terphenyl-d14	74.2			40-135	%REC	10	7/25/2012 21:17
Surr: Nitrobenzene-d5	47.2			41-120	%REC	1	7/23/2012 20:53
Surr: Nitrobenzene-d5	58.5			41-120	%REC	10	7/25/2012 21:17
Surr: Phenol-d6	52.0			20-120	%REC	1	7/23/2012 20:53

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 13-Aug-12

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Sample ID: WG-1620-MW35A-20120718
Collection Date: 7/18/2012 11:10 AM

Work Order: 1207933
Lab ID: 1207933-07
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
Surr: Phenol-d6	47.4			20-120	%REC	10	7/25/2012 21:17
VOLATILES		Method: SW8260				Analyst: PC	
1,2-Dichloroethane	U		0.00050	0.0050	mg/L	1	7/26/2012 17:25
Benzene	U		0.00050	0.0050	mg/L	1	7/26/2012 17:25
Chlorobenzene	U		0.00050	0.0050	mg/L	1	7/26/2012 17:25
Ethylbenzene	0.0015	J	0.00050	0.0050	mg/L	1	7/26/2012 17:25
Methylene chloride	U		0.0010	0.010	mg/L	1	7/26/2012 17:25
Toluene	U		0.00050	0.0050	mg/L	1	7/26/2012 17:25
Xylenes, Total	U		0.0015	0.015	mg/L	1	7/26/2012 17:25
Surr: 1,2-Dichloroethane-d4	105			70-125	%REC	1	7/26/2012 17:25
Surr: 4-Bromofluorobenzene	102			72-125	%REC	1	7/26/2012 17:25
Surr: Dibromofluoromethane	106			71-125	%REC	1	7/26/2012 17:25
Surr: Toluene-d8	95.3			75-125	%REC	1	7/26/2012 17:25

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 13-Aug-12

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Sample ID: WG-1620-MW35B-20120718
Collection Date: 7/18/2012 12:00 PM

Work Order: 1207933
Lab ID: 1207933-08
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270	Prep: SW3510 / 7/23/12		Analyst: LG	
1,2-Diphenylhydrazine	U		0.000050	0.00020	mg/L	1	7/23/2012 21:12
2,4-Dimethylphenol	U		0.000050	0.00020	mg/L	1	7/23/2012 21:12
2,4-Dinitrotoluene	U		0.000050	0.00020	mg/L	1	7/23/2012 21:12
2,6-Dinitrotoluene	U		0.000060	0.00020	mg/L	1	7/23/2012 21:12
2-Chloronaphthalene	U		0.000050	0.00020	mg/L	1	7/23/2012 21:12
2-Methylnaphthalene	0.26		0.0050	0.020	mg/L	100	7/25/2012 21:56
4,6-Dinitro-2-methylphenol	U		0.000080	0.00020	mg/L	1	7/23/2012 21:12
4-Nitrophenol	U		0.000050	0.0010	mg/L	1	7/23/2012 21:12
Acenaphthene	0.15		0.0050	0.020	mg/L	100	7/25/2012 21:56
Acenaphthylene	0.00078		0.000050	0.00020	mg/L	1	7/23/2012 21:12
Anthracene	0.0064		0.000050	0.00020	mg/L	1	7/23/2012 21:12
Benz(a)anthracene	0.00020		0.000050	0.00020	mg/L	1	7/23/2012 21:12
Benzo(a)pyrene	U		0.000050	0.00020	mg/L	1	7/23/2012 21:12
Bis(2-chloroethoxy)methane	U		0.000050	0.00020	mg/L	1	7/23/2012 21:12
Bis(2-ethylhexyl)phthalate	0.00018	J	0.00010	0.00020	mg/L	1	7/23/2012 21:12
Chrysene	0.00023		0.000050	0.00020	mg/L	1	7/23/2012 21:12
Dibenzofuran	0.14		0.0050	0.020	mg/L	100	7/25/2012 21:56
Di-n-butyl phthalate	U		0.000050	0.00020	mg/L	1	7/23/2012 21:12
Fluoranthene	0.0039		0.000050	0.00020	mg/L	1	7/23/2012 21:12
Fluorene	0.069		0.00050	0.0020	mg/L	10	7/25/2012 21:36
Naphthalene	7.6		0.12	0.50	mg/L	2500	7/25/2012 22:36
Nitrobenzene	U		0.000050	0.00020	mg/L	1	7/23/2012 21:12
N-Nitrosodiphenylamine	U		0.000050	0.00020	mg/L	1	7/23/2012 21:12
Pentachlorophenol	U		0.000050	0.00020	mg/L	1	7/23/2012 21:12
Phenanthrene	0.066		0.00050	0.0020	mg/L	10	7/25/2012 21:36
Phenol	0.00014	J	0.000050	0.00020	mg/L	1	7/23/2012 21:12
Pyrene	0.0019		0.000050	0.00020	mg/L	1	7/23/2012 21:12
Surr: 2,4,6-Tribromophenol	70.9			34-129	%REC	1	7/23/2012 21:12
Surr: 2,4,6-Tribromophenol	75.0			34-129	%REC	10	7/25/2012 21:36
Surr: 2,4,6-Tribromophenol	98.4	J		34-129	%REC	100	7/25/2012 21:56
Surr: 2,4,6-Tribromophenol	0	S		34-129	%REC	2500	7/25/2012 22:36
Surr: 2-Fluorobiphenyl	57.9			40-125	%REC	1	7/23/2012 21:12
Surr: 2-Fluorobiphenyl	75.6			40-125	%REC	10	7/25/2012 21:36
Surr: 2-Fluorobiphenyl	77.2	J		40-125	%REC	100	7/25/2012 21:56
Surr: 2-Fluorobiphenyl	0	S		40-125	%REC	2500	7/25/2012 22:36
Surr: 2-Fluorophenol	59.2			20-120	%REC	1	7/23/2012 21:12
Surr: 2-Fluorophenol	79.2			20-120	%REC	10	7/25/2012 21:36
Surr: 2-Fluorophenol	95.1	J		20-120	%REC	100	7/25/2012 21:56

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 13-Aug-12

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Sample ID: WG-1620-MW35B-20120718
Collection Date: 7/18/2012 12:00 PM

Work Order: 1207933
Lab ID: 1207933-08
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
Surr: 2-Fluorophenol	0	S		20-120	%REC	2500	7/25/2012 22:36
Surr: 4-Terphenyl-d14	75.5			40-135	%REC	1	7/23/2012 21:12
Surr: 4-Terphenyl-d14	94.1			40-135	%REC	10	7/25/2012 21:36
Surr: 4-Terphenyl-d14	124	J		40-135	%REC	100	7/25/2012 21:56
Surr: 4-Terphenyl-d14	0	S		40-135	%REC	2500	7/25/2012 22:36
Surr: Nitrobenzene-d5	57.7			41-120	%REC	1	7/23/2012 21:12
Surr: Nitrobenzene-d5	67.5			41-120	%REC	10	7/25/2012 21:36
Surr: Nitrobenzene-d5	92.3	J		41-120	%REC	100	7/25/2012 21:56
Surr: Nitrobenzene-d5	0	S		41-120	%REC	2500	7/25/2012 22:36
Surr: Phenol-d6	60.4			20-120	%REC	1	7/23/2012 21:12
Surr: Phenol-d6	59.5			20-120	%REC	10	7/25/2012 21:36
Surr: Phenol-d6	56.3	J		20-120	%REC	100	7/25/2012 21:56
Surr: Phenol-d6	0	S		20-120	%REC	2500	7/25/2012 22:36

VOLATILES		Method: SW8260				Analyst: PC	
1,2-Dichloroethane	U		0.0050	0.050	mg/L	10	7/27/2012 13:42
Benzene	0.064		0.0050	0.050	mg/L	10	7/27/2012 13:42
Chlorobenzene	U		0.0050	0.050	mg/L	10	7/27/2012 13:42
Ethylbenzene	0.19		0.0050	0.050	mg/L	10	7/27/2012 13:42
Methylene chloride	0.020	J	0.010	0.10	mg/L	10	7/27/2012 13:42
Toluene	U		0.0050	0.050	mg/L	10	7/27/2012 13:42
Xylenes, Total	0.13	J	0.015	0.15	mg/L	10	7/27/2012 13:42
Surr: 1,2-Dichloroethane-d4	115			70-125	%REC	10	7/27/2012 13:42
Surr: 4-Bromofluorobenzene	102			72-125	%REC	10	7/27/2012 13:42
Surr: Dibromofluoromethane	110			71-125	%REC	10	7/27/2012 13:42
Surr: Toluene-d8	91.0			75-125	%REC	10	7/27/2012 13:42

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 13-Aug-12

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Sample ID: WG-1620-MW63B-20120718
Collection Date: 7/18/2012 01:30 PM

Work Order: 1207933
Lab ID: 1207933-09
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270	Prep: SW3510 / 7/23/12	Analyst: LG		
1,2-Diphenylhydrazine	U		0.000050	0.00020	mg/L	1	7/23/2012 21:31
2,4-Dimethylphenol	U		0.000050	0.00020	mg/L	1	7/23/2012 21:31
2,4-Dinitrotoluene	U		0.000050	0.00020	mg/L	1	7/23/2012 21:31
2,6-Dinitrotoluene	U		0.000060	0.00020	mg/L	1	7/23/2012 21:31
2-Chloronaphthalene	U		0.000050	0.00020	mg/L	1	7/23/2012 21:31
2-Methylnaphthalene	0.0034		0.000050	0.00020	mg/L	1	7/23/2012 21:31
4,6-Dinitro-2-methylphenol	U		0.000080	0.00020	mg/L	1	7/23/2012 21:31
4-Nitrophenol	U		0.000050	0.0010	mg/L	1	7/23/2012 21:31
Acenaphthene	0.0023		0.000050	0.00020	mg/L	1	7/23/2012 21:31
Acenaphthylene	U		0.000050	0.00020	mg/L	1	7/23/2012 21:31
Anthracene	0.00013	J	0.000050	0.00020	mg/L	1	7/23/2012 21:31
Benz(a)anthracene	U		0.000050	0.00020	mg/L	1	7/23/2012 21:31
Benzo(a)pyrene	U		0.000050	0.00020	mg/L	1	7/23/2012 21:31
Bis(2-chloroethoxy)methane	U		0.000050	0.00020	mg/L	1	7/23/2012 21:31
Bis(2-ethylhexyl)phthalate	0.00096		0.00010	0.00020	mg/L	1	7/23/2012 21:31
Chrysene	U		0.000050	0.00020	mg/L	1	7/23/2012 21:31
Dibenzofuran	0.0026		0.000050	0.00020	mg/L	1	7/23/2012 21:31
Di-n-butyl phthalate	U		0.000050	0.00020	mg/L	1	7/23/2012 21:31
Fluoranthene	0.00013	J	0.000050	0.00020	mg/L	1	7/23/2012 21:31
Fluorene	0.0011		0.000050	0.00020	mg/L	1	7/23/2012 21:31
Naphthalene	0.044		0.000050	0.0020	mg/L	10	7/25/2012 22:56
Nitrobenzene	U		0.000050	0.00020	mg/L	1	7/23/2012 21:31
N-Nitrosodiphenylamine	U		0.000050	0.00020	mg/L	1	7/23/2012 21:31
Pentachlorophenol	U		0.000050	0.00020	mg/L	1	7/23/2012 21:31
Phenanthrene	0.0010		0.000050	0.00020	mg/L	1	7/23/2012 21:31
Phenol	U		0.000050	0.00020	mg/L	1	7/23/2012 21:31
Pyrene	U		0.000050	0.00020	mg/L	1	7/23/2012 21:31
Surr: 2,4,6-Tribromophenol	94.3			34-129	%REC	1	7/23/2012 21:31
Surr: 2,4,6-Tribromophenol	76.8			34-129	%REC	10	7/25/2012 22:56
Surr: 2-Fluorobiphenyl	71.3			40-125	%REC	1	7/23/2012 21:31
Surr: 2-Fluorobiphenyl	93.1			40-125	%REC	10	7/25/2012 22:56
Surr: 2-Fluorophenol	58.3			20-120	%REC	1	7/23/2012 21:31
Surr: 2-Fluorophenol	77.3			20-120	%REC	10	7/25/2012 22:56
Surr: 4-Terphenyl-d14	84.6			40-135	%REC	1	7/23/2012 21:31
Surr: 4-Terphenyl-d14	93.8			40-135	%REC	10	7/25/2012 22:56
Surr: Nitrobenzene-d5	61.9			41-120	%REC	1	7/23/2012 21:31
Surr: Nitrobenzene-d5	67.5			41-120	%REC	10	7/25/2012 22:56
Surr: Phenol-d6	66.2			20-120	%REC	1	7/23/2012 21:31

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 13-Aug-12

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Sample ID: WG-1620-MW63B-20120718
Collection Date: 7/18/2012 01:30 PM

Work Order: 1207933
Lab ID: 1207933-09
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
Surr: Phenol-d6	64.6			20-120	%REC	10	7/25/2012 22:56
VOLATILES			Method: SW8260			Analyst: PC	
1,2-Dichloroethane	U		0.00050	0.0050	mg/L	1	7/26/2012 17:53
Benzene	0.0015	J	0.00050	0.0050	mg/L	1	7/26/2012 17:53
Chlorobenzene	U		0.00050	0.0050	mg/L	1	7/26/2012 17:53
Ethylbenzene	0.0014	J	0.00050	0.0050	mg/L	1	7/26/2012 17:53
Methylene chloride	U		0.0010	0.010	mg/L	1	7/26/2012 17:53
Toluene	0.0038	J	0.00050	0.0050	mg/L	1	7/26/2012 17:53
Xylenes, Total	U		0.0015	0.015	mg/L	1	7/26/2012 17:53
Surr: 1,2-Dichloroethane-d4	110			70-125	%REC	1	7/26/2012 17:53
Surr: 4-Bromofluorobenzene	102			72-125	%REC	1	7/26/2012 17:53
Surr: Dibromofluoromethane	111			71-125	%REC	1	7/26/2012 17:53
Surr: Toluene-d8	92.7			75-125	%REC	1	7/26/2012 17:53

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 13-Aug-12

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Sample ID: WG-1620-FD3-20120718
Collection Date: 7/18/2012 01:30 PM

Work Order: 1207933
Lab ID: 1207933-10
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270	Prep: SW3510 / 7/23/12	Analyst: LG		
1,2-Diphenylhydrazine	U		0.000050	0.00020	mg/L	1	7/23/2012 21:50
2,4-Dimethylphenol	U		0.000050	0.00020	mg/L	1	7/23/2012 21:50
2,4-Dinitrotoluene	U		0.000050	0.00020	mg/L	1	7/23/2012 21:50
2,6-Dinitrotoluene	U		0.000060	0.00020	mg/L	1	7/23/2012 21:50
2-Chloronaphthalene	U		0.000050	0.00020	mg/L	1	7/23/2012 21:50
2-Methylnaphthalene	0.0032		0.000050	0.00020	mg/L	1	7/23/2012 21:50
4,6-Dinitro-2-methylphenol	U		0.000080	0.00020	mg/L	1	7/23/2012 21:50
4-Nitrophenol	U		0.000050	0.0010	mg/L	1	7/23/2012 21:50
Acenaphthene	0.0022		0.000050	0.00020	mg/L	1	7/23/2012 21:50
Acenaphthylene	U		0.000050	0.00020	mg/L	1	7/23/2012 21:50
Anthracene	0.00011	J	0.000050	0.00020	mg/L	1	7/23/2012 21:50
Benz(a)anthracene	U		0.000050	0.00020	mg/L	1	7/23/2012 21:50
Benzo(a)pyrene	U		0.000050	0.00020	mg/L	1	7/23/2012 21:50
Bis(2-chloroethoxy)methane	U		0.000050	0.00020	mg/L	1	7/23/2012 21:50
Bis(2-ethylhexyl)phthalate	0.00051		0.00010	0.00020	mg/L	1	7/23/2012 21:50
Chrysene	U		0.000050	0.00020	mg/L	1	7/23/2012 21:50
Dibenzofuran	0.0023		0.000050	0.00020	mg/L	1	7/23/2012 21:50
Di-n-butyl phthalate	U		0.000050	0.00020	mg/L	1	7/23/2012 21:50
Fluoranthene	0.00013	J	0.000050	0.00020	mg/L	1	7/23/2012 21:50
Fluorene	0.0010		0.000050	0.00020	mg/L	1	7/23/2012 21:50
Naphthalene	0.040		0.000050	0.0020	mg/L	10	7/25/2012 23:15
Nitrobenzene	U		0.000050	0.00020	mg/L	1	7/23/2012 21:50
N-Nitrosodiphenylamine	U		0.000050	0.00020	mg/L	1	7/23/2012 21:50
Pentachlorophenol	U		0.000050	0.00020	mg/L	1	7/23/2012 21:50
Phenanthrene	0.0010		0.000050	0.00020	mg/L	1	7/23/2012 21:50
Phenol	U		0.000050	0.00020	mg/L	1	7/23/2012 21:50
Pyrene	U		0.000050	0.00020	mg/L	1	7/23/2012 21:50
Surr: 2,4,6-Tribromophenol	84.8			34-129	%REC	1	7/23/2012 21:50
Surr: 2,4,6-Tribromophenol	66.5			34-129	%REC	10	7/25/2012 23:15
Surr: 2-Fluorobiphenyl	67.2			40-125	%REC	1	7/23/2012 21:50
Surr: 2-Fluorobiphenyl	75.1			40-125	%REC	10	7/25/2012 23:15
Surr: 2-Fluorophenol	54.5			20-120	%REC	1	7/23/2012 21:50
Surr: 2-Fluorophenol	59.6			20-120	%REC	10	7/25/2012 23:15
Surr: 4-Terphenyl-d14	79.3			40-135	%REC	1	7/23/2012 21:50
Surr: 4-Terphenyl-d14	89.1			40-135	%REC	10	7/25/2012 23:15
Surr: Nitrobenzene-d5	57.5			41-120	%REC	1	7/23/2012 21:50
Surr: Nitrobenzene-d5	73.9			41-120	%REC	10	7/25/2012 23:15
Surr: Phenol-d6	61.8			20-120	%REC	1	7/23/2012 21:50

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 13-Aug-12

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Sample ID: WG-1620-FD3-20120718
Collection Date: 7/18/2012 01:30 PM

Work Order: 1207933
Lab ID: 1207933-10
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
<i>Surr: Phenol-d6</i>	57.3			20-120	%REC	10	7/25/2012 23:15
VOLATILES	Method: SW8260						Analyst: PC
1,2-Dichloroethane	U		0.00050	0.0050	mg/L	1	7/26/2012 18:20
Benzene	0.0016	J	0.00050	0.0050	mg/L	1	7/26/2012 18:20
Chlorobenzene	U		0.00050	0.0050	mg/L	1	7/26/2012 18:20
Ethylbenzene	0.0014	J	0.00050	0.0050	mg/L	1	7/26/2012 18:20
Methylene chloride	U		0.0010	0.010	mg/L	1	7/26/2012 18:20
Toluene	0.0038	J	0.00050	0.0050	mg/L	1	7/26/2012 18:20
Xylenes, Total	U		0.0015	0.015	mg/L	1	7/26/2012 18:20
<i>Surr: 1,2-Dichloroethane-d4</i>	110			70-125	%REC	1	7/26/2012 18:20
<i>Surr: 4-Bromofluorobenzene</i>	98.3			72-125	%REC	1	7/26/2012 18:20
<i>Surr: Dibromofluoromethane</i>	108			71-125	%REC	1	7/26/2012 18:20
<i>Surr: Toluene-d8</i>	90.2			75-125	%REC	1	7/26/2012 18:20

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 13-Aug-12

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Sample ID: WG-1620-MW71B-20120718
Collection Date: 7/18/2012 02:25 PM

Work Order: 1207933
Lab ID: 1207933-11
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270	Prep: SW3510 / 7/23/12		Analyst: LG	
1,2-Diphenylhydrazine	U		0.000050	0.00020	mg/L	1	7/25/2012 16:18
2,4-Dimethylphenol	U		0.000050	0.00020	mg/L	1	7/25/2012 16:18
2,4-Dinitrotoluene	U		0.000050	0.00020	mg/L	1	7/25/2012 16:18
2,6-Dinitrotoluene	U		0.000060	0.00020	mg/L	1	7/25/2012 16:18
2-Chloronaphthalene	U		0.000050	0.00020	mg/L	1	7/25/2012 16:18
2-Methylnaphthalene	0.00040		0.000050	0.00020	mg/L	1	7/25/2012 16:18
4,6-Dinitro-2-methylphenol	U		0.000080	0.00020	mg/L	1	7/25/2012 16:18
4-Nitrophenol	U		0.000050	0.0010	mg/L	1	7/25/2012 16:18
Acenaphthene	0.00017	J	0.000050	0.00020	mg/L	1	7/25/2012 16:18
Acenaphthylene	U		0.000050	0.00020	mg/L	1	7/25/2012 16:18
Anthracene	0.00013	J	0.000050	0.00020	mg/L	1	7/25/2012 16:18
Benz(a)anthracene	0.00011	J	0.000050	0.00020	mg/L	1	7/25/2012 16:18
Benzo(a)pyrene	0.00014	J	0.000050	0.00020	mg/L	1	7/25/2012 16:18
Bis(2-chloroethoxy)methane	U		0.000050	0.00020	mg/L	1	7/25/2012 16:18
Bis(2-ethylhexyl)phthalate	0.00012	J	0.00010	0.00020	mg/L	1	7/25/2012 16:18
Chrysene	0.00015	J	0.000050	0.00020	mg/L	1	7/25/2012 16:18
Dibenzofuran	0.00016	J	0.000050	0.00020	mg/L	1	7/25/2012 16:18
Di-n-butyl phthalate	U		0.000050	0.00020	mg/L	1	7/25/2012 16:18
Fluoranthene	0.00026		0.000050	0.00020	mg/L	1	7/25/2012 16:18
Fluorene	0.00023		0.000050	0.00020	mg/L	1	7/25/2012 16:18
Naphthalene	0.0019		0.000050	0.00020	mg/L	1	7/25/2012 16:18
Nitrobenzene	U		0.000050	0.00020	mg/L	1	7/25/2012 16:18
N-Nitrosodiphenylamine	U		0.000050	0.00020	mg/L	1	7/25/2012 16:18
Pentachlorophenol	U		0.000050	0.00020	mg/L	1	7/25/2012 16:18
Phenanthrene	0.00034		0.000050	0.00020	mg/L	1	7/25/2012 16:18
Phenol	U		0.000050	0.00020	mg/L	1	7/25/2012 16:18
Pyrene	0.00026		0.000050	0.00020	mg/L	1	7/25/2012 16:18
Surr: 2,4,6-Tribromophenol	68.5			34-129	%REC	1	7/25/2012 16:18
Surr: 2-Fluorobiphenyl	61.4			40-125	%REC	1	7/25/2012 16:18
Surr: 2-Fluorophenol	45.7			20-120	%REC	1	7/25/2012 16:18
Surr: 4-Terphenyl-d14	82.9			40-135	%REC	1	7/25/2012 16:18
Surr: Nitrobenzene-d5	56.1			41-120	%REC	1	7/25/2012 16:18
Surr: Phenol-d6	51.2			20-120	%REC	1	7/25/2012 16:18

VOLATILES			Method: SW8260			Analyst: PC	
1,2-Dichloroethane	U		0.00050	0.0050	mg/L	1	7/26/2012 18:48
Benzene	0.0014	J	0.00050	0.0050	mg/L	1	7/26/2012 18:48
Chlorobenzene	U		0.00050	0.0050	mg/L	1	7/26/2012 18:48
Ethylbenzene	0.0075		0.00050	0.0050	mg/L	1	7/26/2012 18:48

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 13-Aug-12

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Sample ID: WG-1620-MW71B-20120718
Collection Date: 7/18/2012 02:25 PM

Work Order: 1207933
Lab ID: 1207933-11
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
Methylene chloride		U	0.0010	0.010	mg/L	1	7/26/2012 18:48
Toluene	0.0078		0.00050	0.0050	mg/L	1	7/26/2012 18:48
Xylenes, Total	0.033		0.0015	0.015	mg/L	1	7/26/2012 18:48
Surr: 1,2-Dichloroethane-d4	111			70-125	%REC	1	7/26/2012 18:48
Surr: 4-Bromofluorobenzene	102			72-125	%REC	1	7/26/2012 18:48
Surr: Dibromofluoromethane	111			71-125	%REC	1	7/26/2012 18:48
Surr: Toluene-d8	96.0			75-125	%REC	1	7/26/2012 18:48

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 13-Aug-12

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Sample ID: WG-1620-MW38A-20120718
Collection Date: 7/18/2012 03:20 PM

Work Order: 1207933
Lab ID: 1207933-12
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270	Prep: SW3510 / 7/23/12		Analyst: LG	
1,2-Diphenylhydrazine	U		0.000050	0.00020	mg/L	1	7/25/2012 16:38
2,4-Dimethylphenol	U		0.000050	0.00020	mg/L	1	7/25/2012 16:38
2,4-Dinitrotoluene	U		0.000050	0.00020	mg/L	1	7/25/2012 16:38
2,6-Dinitrotoluene	U		0.000060	0.00020	mg/L	1	7/25/2012 16:38
2-Chloronaphthalene	U		0.000050	0.00020	mg/L	1	7/25/2012 16:38
2-Methylnaphthalene	0.00031		0.000050	0.00020	mg/L	1	7/25/2012 16:38
4,6-Dinitro-2-methylphenol	U		0.000080	0.00020	mg/L	1	7/25/2012 16:38
4-Nitrophenol	U		0.000050	0.0010	mg/L	1	7/25/2012 16:38
Acenaphthene	0.00025		0.000050	0.00020	mg/L	1	7/25/2012 16:38
Acenaphthylene	U		0.000050	0.00020	mg/L	1	7/25/2012 16:38
Anthracene	0.00013	J	0.000050	0.00020	mg/L	1	7/25/2012 16:38
Benz(a)anthracene	U		0.000050	0.00020	mg/L	1	7/25/2012 16:38
Benzo(a)pyrene	U		0.000050	0.00020	mg/L	1	7/25/2012 16:38
Bis(2-chloroethoxy)methane	U		0.000050	0.00020	mg/L	1	7/25/2012 16:38
Bis(2-ethylhexyl)phthalate	0.00023		0.00010	0.00020	mg/L	1	7/25/2012 16:38
Chrysene	U		0.000050	0.00020	mg/L	1	7/25/2012 16:38
Dibenzofuran	0.00014	J	0.000050	0.00020	mg/L	1	7/25/2012 16:38
Di-n-butyl phthalate	0.000052	J	0.000050	0.00020	mg/L	1	7/25/2012 16:38
Fluoranthene	0.00017	J	0.000050	0.00020	mg/L	1	7/25/2012 16:38
Fluorene	0.00015	J	0.000050	0.00020	mg/L	1	7/25/2012 16:38
Naphthalene	0.0010		0.000050	0.00020	mg/L	1	7/25/2012 16:38
Nitrobenzene	U		0.000050	0.00020	mg/L	1	7/25/2012 16:38
N-Nitrosodiphenylamine	U		0.000050	0.00020	mg/L	1	7/25/2012 16:38
Pentachlorophenol	U		0.000050	0.00020	mg/L	1	7/25/2012 16:38
Phenanthrene	0.00032		0.000050	0.00020	mg/L	1	7/25/2012 16:38
Phenol	U		0.000050	0.00020	mg/L	1	7/25/2012 16:38
Pyrene	0.00016	J	0.000050	0.00020	mg/L	1	7/25/2012 16:38
Surr: 2,4,6-Tribromophenol	78.3			34-129	%REC	1	7/25/2012 16:38
Surr: 2-Fluorobiphenyl	72.7			40-125	%REC	1	7/25/2012 16:38
Surr: 2-Fluorophenol	53.4			20-120	%REC	1	7/25/2012 16:38
Surr: 4-Terphenyl-d14	98.7			40-135	%REC	1	7/25/2012 16:38
Surr: Nitrobenzene-d5	70.6			41-120	%REC	1	7/25/2012 16:38
Surr: Phenol-d6	67.0			20-120	%REC	1	7/25/2012 16:38

VOLATILES			Method: SW8260			Analyst: PC	
1,2-Dichloroethane	U		0.00050	0.0050	mg/L	1	7/25/2012 05:09
Benzene	U		0.00050	0.0050	mg/L	1	7/25/2012 05:09
Chlorobenzene	U		0.00050	0.0050	mg/L	1	7/25/2012 05:09
Ethylbenzene	U		0.00050	0.0050	mg/L	1	7/25/2012 05:09

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 13-Aug-12

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Sample ID: WG-1620-MW38A-20120718
Collection Date: 7/18/2012 03:20 PM

Work Order: 1207933
Lab ID: 1207933-12
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
Methylene chloride	U		0.0010	0.010	mg/L	1	7/25/2012 05:09
Toluene	U		0.00050	0.0050	mg/L	1	7/25/2012 05:09
Xylenes, Total	U		0.0015	0.015	mg/L	1	7/25/2012 05:09
Surr: 1,2-Dichloroethane-d4	110			70-125	%REC	1	7/25/2012 05:09
Surr: 4-Bromofluorobenzene	96.8			72-125	%REC	1	7/25/2012 05:09
Surr: Dibromofluoromethane	113			71-125	%REC	1	7/25/2012 05:09
Surr: Toluene-d8	94.8			75-125	%REC	1	7/25/2012 05:09

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 13-Aug-12

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Sample ID: WG-1620-MW38B-20120718
Collection Date: 7/18/2012 04:15 PM

Work Order: 1207933
Lab ID: 1207933-13
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270		Prep: SW3510 / 7/23/12		Analyst: LG
1,2-Diphenylhydrazine		U	0.000050	0.00020	mg/L	1	7/25/2012 16:58
2,4-Dimethylphenol		U	0.000050	0.00020	mg/L	1	7/25/2012 16:58
2,4-Dinitrotoluene		U	0.000050	0.00020	mg/L	1	7/25/2012 16:58
2,6-Dinitrotoluene		U	0.000060	0.00020	mg/L	1	7/25/2012 16:58
2-Chloronaphthalene		U	0.000050	0.00020	mg/L	1	7/25/2012 16:58
2-Methylnaphthalene	0.00030		0.000050	0.00020	mg/L	1	7/25/2012 16:58
4,6-Dinitro-2-methylphenol		U	0.000080	0.00020	mg/L	1	7/25/2012 16:58
4-Nitrophenol		U	0.000050	0.0010	mg/L	1	7/25/2012 16:58
Acenaphthene	0.00096		0.000050	0.00020	mg/L	1	7/25/2012 16:58
Acenaphthylene		U	0.000050	0.00020	mg/L	1	7/25/2012 16:58
Anthracene	0.00023		0.000050	0.00020	mg/L	1	7/25/2012 16:58
Benz(a)anthracene		U	0.000050	0.00020	mg/L	1	7/25/2012 16:58
Benzo(a)pyrene		U	0.000050	0.00020	mg/L	1	7/25/2012 16:58
Bis(2-chloroethoxy)methane	0.000072	J	0.000050	0.00020	mg/L	1	7/25/2012 16:58
Bis(2-ethylhexyl)phthalate		U	0.00010	0.00020	mg/L	1	7/25/2012 16:58
Chrysene		U	0.000050	0.00020	mg/L	1	7/25/2012 16:58
Dibenzofuran	0.00028		0.000050	0.00020	mg/L	1	7/25/2012 16:58
Di-n-butyl phthalate		U	0.000050	0.00020	mg/L	1	7/25/2012 16:58
Fluoranthene	0.00032		0.000050	0.00020	mg/L	1	7/25/2012 16:58
Fluorene	0.00027		0.000050	0.00020	mg/L	1	7/25/2012 16:58
Naphthalene	0.0015		0.000050	0.00020	mg/L	1	7/25/2012 16:58
Nitrobenzene		U	0.000050	0.00020	mg/L	1	7/25/2012 16:58
N-Nitrosodiphenylamine		U	0.000050	0.00020	mg/L	1	7/25/2012 16:58
Pentachlorophenol		U	0.000050	0.00020	mg/L	1	7/25/2012 16:58
Phenanthrene	0.00037		0.000050	0.00020	mg/L	1	7/25/2012 16:58
Phenol		U	0.000050	0.00020	mg/L	1	7/25/2012 16:58
Pyrene	0.00037		0.000050	0.00020	mg/L	1	7/25/2012 16:58
Surr: 2,4,6-Tribromophenol	67.9			34-129	%REC	1	7/25/2012 16:58
Surr: 2-Fluorobiphenyl	74.2			40-125	%REC	1	7/25/2012 16:58
Surr: 2-Fluorophenol	49.6			20-120	%REC	1	7/25/2012 16:58
Surr: 4-Terphenyl-d14	73.0			40-135	%REC	1	7/25/2012 16:58
Surr: Nitrobenzene-d5	55.4			41-120	%REC	1	7/25/2012 16:58
Surr: Phenol-d6	47.1			20-120	%REC	1	7/25/2012 16:58

VOLATILES			Method: SW8260				Analyst: PC
1,2-Dichloroethane		U	0.00050	0.0050	mg/L	1	7/25/2012 05:36
Benzene		U	0.00050	0.0050	mg/L	1	7/25/2012 05:36
Chlorobenzene		U	0.00050	0.0050	mg/L	1	7/25/2012 05:36
Ethylbenzene		U	0.00050	0.0050	mg/L	1	7/25/2012 05:36

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 13-Aug-12

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Sample ID: WG-1620-MW38B-20120718
Collection Date: 7/18/2012 04:15 PM

Work Order: 1207933
Lab ID: 1207933-13
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
Methylene chloride	U		0.0010	0.010	mg/L	1	7/25/2012 05:36
Toluene	U		0.00050	0.0050	mg/L	1	7/25/2012 05:36
Xylenes, Total	U		0.0015	0.015	mg/L	1	7/25/2012 05:36
Surr: 1,2-Dichloroethane-d4	110			70-125	%REC	1	7/25/2012 05:36
Surr: 4-Bromofluorobenzene	97.8			72-125	%REC	1	7/25/2012 05:36
Surr: Dibromofluoromethane	107			71-125	%REC	1	7/25/2012 05:36
Surr: Toluene-d8	94.9			75-125	%REC	1	7/25/2012 05:36

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 13-Aug-12

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Sample ID: WG-1620-MW22A-20120718
Collection Date: 7/18/2012 05:15 PM

Work Order: 1207933
Lab ID: 1207933-14
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270	Prep: SW3510 / 7/23/12		Analyst: LG	
1,2-Diphenylhydrazine	U		0.000050	0.00020	mg/L	1	7/25/2012 17:18
2,4-Dimethylphenol	U		0.000050	0.00020	mg/L	1	7/25/2012 17:18
2,4-Dinitrotoluene	U		0.000050	0.00020	mg/L	1	7/25/2012 17:18
2,6-Dinitrotoluene	U		0.000060	0.00020	mg/L	1	7/25/2012 17:18
2-Chloronaphthalene	U		0.000050	0.00020	mg/L	1	7/25/2012 17:18
2-Methylnaphthalene	0.00059		0.000050	0.00020	mg/L	1	7/25/2012 17:18
4,6-Dinitro-2-methylphenol	U		0.000080	0.00020	mg/L	1	7/25/2012 17:18
4-Nitrophenol	U		0.000050	0.0010	mg/L	1	7/25/2012 17:18
Acenaphthene	0.00031		0.000050	0.00020	mg/L	1	7/25/2012 17:18
Acenaphthylene	U		0.000050	0.00020	mg/L	1	7/25/2012 17:18
Anthracene	0.00040		0.000050	0.00020	mg/L	1	7/25/2012 17:18
Benz(a)anthracene	0.00011	J	0.000050	0.00020	mg/L	1	7/25/2012 17:18
Benzo(a)pyrene	U		0.000050	0.00020	mg/L	1	7/25/2012 17:18
Bis(2-chloroethoxy)methane	U		0.000050	0.00020	mg/L	1	7/25/2012 17:18
Bis(2-ethylhexyl)phthalate	0.00011	J	0.00010	0.00020	mg/L	1	7/25/2012 17:18
Chrysene	0.00010	J	0.000050	0.00020	mg/L	1	7/25/2012 17:18
Dibenzofuran	0.00048		0.000050	0.00020	mg/L	1	7/25/2012 17:18
Di-n-butyl phthalate	U		0.000050	0.00020	mg/L	1	7/25/2012 17:18
Fluoranthene	0.00041		0.000050	0.00020	mg/L	1	7/25/2012 17:18
Fluorene	0.00029		0.000050	0.00020	mg/L	1	7/25/2012 17:18
Naphthalene	0.0018		0.000050	0.00020	mg/L	1	7/25/2012 17:18
Nitrobenzene	U		0.000050	0.00020	mg/L	1	7/25/2012 17:18
N-Nitrosodiphenylamine	U		0.000050	0.00020	mg/L	1	7/25/2012 17:18
Pentachlorophenol	U		0.000050	0.00020	mg/L	1	7/25/2012 17:18
Phenanthrene	0.0015		0.000050	0.00020	mg/L	1	7/25/2012 17:18
Phenol	U		0.000050	0.00020	mg/L	1	7/25/2012 17:18
Pyrene	0.00033		0.000050	0.00020	mg/L	1	7/25/2012 17:18
Surr: 2,4,6-Tribromophenol	72.9			34-129	%REC	1	7/25/2012 17:18
Surr: 2-Fluorobiphenyl	74.5			40-125	%REC	1	7/25/2012 17:18
Surr: 2-Fluorophenol	62.5			20-120	%REC	1	7/25/2012 17:18
Surr: 4-Terphenyl-d14	97.5			40-135	%REC	1	7/25/2012 17:18
Surr: Nitrobenzene-d5	73.2			41-120	%REC	1	7/25/2012 17:18
Surr: Phenol-d6	65.0			20-120	%REC	1	7/25/2012 17:18
VOLATILES			Method: SW8260			Analyst: PC	
1,2-Dichloroethane	U		0.00050	0.0050	mg/L	1	7/25/2012 06:02
Benzene	U		0.00050	0.0050	mg/L	1	7/25/2012 06:02
Chlorobenzene	U		0.00050	0.0050	mg/L	1	7/25/2012 06:02
Ethylbenzene	U		0.00050	0.0050	mg/L	1	7/25/2012 06:02

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 13-Aug-12

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Sample ID: WG-1620-MW22A-20120718
Collection Date: 7/18/2012 05:15 PM

Work Order: 1207933
Lab ID: 1207933-14
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
Methylene chloride	U		0.0010	0.010	mg/L	1	7/25/2012 06:02
Toluene	U		0.00050	0.0050	mg/L	1	7/25/2012 06:02
Xylenes, Total	U		0.0015	0.015	mg/L	1	7/25/2012 06:02
Surr: 1,2-Dichloroethane-d4	109			70-125	%REC	1	7/25/2012 06:02
Surr: 4-Bromofluorobenzene	96.3			72-125	%REC	1	7/25/2012 06:02
Surr: Dibromofluoromethane	113			71-125	%REC	1	7/25/2012 06:02
Surr: Toluene-d8	94.8			75-125	%REC	1	7/25/2012 06:02

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 13-Aug-12

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Sample ID: WG-1620-MW22B-20120718
Collection Date: 7/18/2012 06:05 PM

Work Order: 1207933
Lab ID: 1207933-15
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270	Prep: SW3510 / 7/23/12	Analyst: LG		
1,2-Diphenylhydrazine	U		0.000050	0.00020	mg/L	1	7/25/2012 17:38
2,4-Dimethylphenol	U		0.000050	0.00020	mg/L	1	7/25/2012 17:38
2,4-Dinitrotoluene	U		0.000050	0.00020	mg/L	1	7/25/2012 17:38
2,6-Dinitrotoluene	U		0.000060	0.00020	mg/L	1	7/25/2012 17:38
2-Chloronaphthalene	U		0.000050	0.00020	mg/L	1	7/25/2012 17:38
2-Methylnaphthalene	0.00063		0.000050	0.00020	mg/L	1	7/25/2012 17:38
4,6-Dinitro-2-methylphenol	U		0.000080	0.00020	mg/L	1	7/25/2012 17:38
4-Nitrophenol	U		0.000050	0.0010	mg/L	1	7/25/2012 17:38
Acenaphthene	0.18		0.0025	0.010	mg/L	50	7/26/2012 01:14
Acenaphthylene	0.0018		0.000050	0.00020	mg/L	1	7/25/2012 17:38
Anthracene	0.0067		0.000050	0.00020	mg/L	1	7/25/2012 17:38
Benz(a)anthracene	U		0.000050	0.00020	mg/L	1	7/25/2012 17:38
Benzo(a)pyrene	U		0.000050	0.00020	mg/L	1	7/25/2012 17:38
Bis(2-chloroethoxy)methane	U		0.000050	0.00020	mg/L	1	7/25/2012 17:38
Bis(2-ethylhexyl)phthalate	U		0.00010	0.00020	mg/L	1	7/25/2012 17:38
Chrysene	U		0.000050	0.00020	mg/L	1	7/25/2012 17:38
Dibenzofuran	0.046		0.00050	0.0020	mg/L	10	7/26/2012 00:55
Di-n-butyl phthalate	U		0.000050	0.00020	mg/L	1	7/25/2012 17:38
Fluoranthene	0.0065		0.000050	0.00020	mg/L	1	7/25/2012 17:38
Fluorene	0.019		0.00050	0.0020	mg/L	10	7/26/2012 00:55
Naphthalene	0.032		0.00050	0.0020	mg/L	10	7/26/2012 00:55
Nitrobenzene	U		0.000050	0.00020	mg/L	1	7/25/2012 17:38
N-Nitrosodiphenylamine	U		0.000050	0.00020	mg/L	1	7/25/2012 17:38
Pentachlorophenol	U		0.000050	0.00020	mg/L	1	7/25/2012 17:38
Phenanthrene	0.0027		0.000050	0.00020	mg/L	1	7/25/2012 17:38
Phenol	0.00010	J	0.000050	0.00020	mg/L	1	7/25/2012 17:38
Pyrene	0.0033		0.000050	0.00020	mg/L	1	7/25/2012 17:38
Surr: 2,4,6-Tribromophenol	86.2			34-129	%REC	1	7/25/2012 17:38
Surr: 2,4,6-Tribromophenol	79.1			34-129	%REC	10	7/26/2012 00:55
Surr: 2,4,6-Tribromophenol	102	J		34-129	%REC	50	7/26/2012 01:14
Surr: 2-Fluorobiphenyl	77.7			40-125	%REC	1	7/25/2012 17:38
Surr: 2-Fluorobiphenyl	80.2			40-125	%REC	10	7/26/2012 00:55
Surr: 2-Fluorobiphenyl	87.3	J		40-125	%REC	50	7/26/2012 01:14
Surr: 2-Fluorophenol	69.0			20-120	%REC	1	7/25/2012 17:38
Surr: 2-Fluorophenol	78.3			20-120	%REC	10	7/26/2012 00:55
Surr: 2-Fluorophenol	96.7	J		20-120	%REC	50	7/26/2012 01:14
Surr: 4-Terphenyl-d14	91.9			40-135	%REC	1	7/25/2012 17:38
Surr: 4-Terphenyl-d14	99.1			40-135	%REC	10	7/26/2012 00:55

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 13-Aug-12

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Sample ID: WG-1620-MW22B-20120718
Collection Date: 7/18/2012 06:05 PM

Work Order: 1207933
Lab ID: 1207933-15
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
Surr: 4-Terphenyl-d14	98.7	J		40-135	%REC	50	7/26/2012 01:14
Surr: Nitrobenzene-d5	117			41-120	%REC	1	7/25/2012 17:38
Surr: Nitrobenzene-d5	119			41-120	%REC	10	7/26/2012 00:55
Surr: Nitrobenzene-d5	116	J		41-120	%REC	50	7/26/2012 01:14
Surr: Phenol-d6	81.0			20-120	%REC	1	7/25/2012 17:38
Surr: Phenol-d6	81.3			20-120	%REC	10	7/26/2012 00:55
Surr: Phenol-d6	70.5	J		20-120	%REC	50	7/26/2012 01:14

VOLATILES		Method: SW8260				Analyst: PC	
1,2-Dichloroethane	U		0.00050	0.0050	mg/L	1	7/26/2012 19:15
Benzene	0.0042	J	0.00050	0.0050	mg/L	1	7/26/2012 19:15
Chlorobenzene	U		0.00050	0.0050	mg/L	1	7/26/2012 19:15
Ethylbenzene	0.0088		0.00050	0.0050	mg/L	1	7/26/2012 19:15
Methylene chloride	U		0.0010	0.010	mg/L	1	7/26/2012 19:15
Toluene	0.0033	J	0.00050	0.0050	mg/L	1	7/26/2012 19:15
Xylenes, Total	0.0057	J	0.0015	0.015	mg/L	1	7/26/2012 19:15
Surr: 1,2-Dichloroethane-d4	111			70-125	%REC	1	7/26/2012 19:15
Surr: 4-Bromofluorobenzene	106			72-125	%REC	1	7/26/2012 19:15
Surr: Dibromofluoromethane	104			71-125	%REC	1	7/26/2012 19:15
Surr: Toluene-d8	90.8			75-125	%REC	1	7/26/2012 19:15

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 13-Aug-12

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Sample ID: WG-1620-FB5-20120718
Collection Date: 7/18/2012 06:05 PM

Work Order: 1207933
Lab ID: 1207933-16
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270	Prep: SW3510 / 7/23/12	Analyst: LG		
1,2-Diphenylhydrazine	U		0.000050	0.00020	mg/L	1	7/25/2012 17:58
2,4-Dimethylphenol	U		0.000050	0.00020	mg/L	1	7/25/2012 17:58
2,4-Dinitrotoluene	U		0.000050	0.00020	mg/L	1	7/25/2012 17:58
2,6-Dinitrotoluene	U		0.000060	0.00020	mg/L	1	7/25/2012 17:58
2-Chloronaphthalene	U		0.000050	0.00020	mg/L	1	7/25/2012 17:58
2-Methylnaphthalene	0.00025		0.000050	0.00020	mg/L	1	7/25/2012 17:58
4,6-Dinitro-2-methylphenol	U		0.000080	0.00020	mg/L	1	7/25/2012 17:58
4-Nitrophenol	U		0.000050	0.0010	mg/L	1	7/25/2012 17:58
Acenaphthene	0.00013	J	0.000050	0.00020	mg/L	1	7/25/2012 17:58
Acenaphthylene	U		0.000050	0.00020	mg/L	1	7/25/2012 17:58
Anthracene	0.000068	J	0.000050	0.00020	mg/L	1	7/25/2012 17:58
Benz(a)anthracene	U		0.000050	0.00020	mg/L	1	7/25/2012 17:58
Benzo(a)pyrene	U		0.000050	0.00020	mg/L	1	7/25/2012 17:58
Bis(2-chloroethoxy)methane	U		0.000050	0.00020	mg/L	1	7/25/2012 17:58
Bis(2-ethylhexyl)phthalate	U		0.00010	0.00020	mg/L	1	7/25/2012 17:58
Chrysene	U		0.000050	0.00020	mg/L	1	7/25/2012 17:58
Dibenzofuran	0.00015	J	0.000050	0.00020	mg/L	1	7/25/2012 17:58
Di-n-butyl phthalate	U		0.000050	0.00020	mg/L	1	7/25/2012 17:58
Fluoranthene	0.00011	J	0.000050	0.00020	mg/L	1	7/25/2012 17:58
Fluorene	0.00013	J	0.000050	0.00020	mg/L	1	7/25/2012 17:58
Naphthalene	0.00088		0.000050	0.00020	mg/L	1	7/25/2012 17:58
Nitrobenzene	U		0.000050	0.00020	mg/L	1	7/25/2012 17:58
N-Nitrosodiphenylamine	U		0.000050	0.00020	mg/L	1	7/25/2012 17:58
Pentachlorophenol	U		0.000050	0.00020	mg/L	1	7/25/2012 17:58
Phenanthrene	0.00041		0.000050	0.00020	mg/L	1	7/25/2012 17:58
Phenol	U		0.000050	0.00020	mg/L	1	7/25/2012 17:58
Pyrene	0.000077	J	0.000050	0.00020	mg/L	1	7/25/2012 17:58
Surr: 2,4,6-Tribromophenol	78.5			34-129	%REC	1	7/25/2012 17:58
Surr: 2-Fluorobiphenyl	78.9			40-125	%REC	1	7/25/2012 17:58
Surr: 2-Fluorophenol	77.7			20-120	%REC	1	7/25/2012 17:58
Surr: 4-Terphenyl-d14	85.0			40-135	%REC	1	7/25/2012 17:58
Surr: Nitrobenzene-d5	76.1			41-120	%REC	1	7/25/2012 17:58
Surr: Phenol-d6	66.5			20-120	%REC	1	7/25/2012 17:58

VOLATILES			Method: SW8260	Analyst: PC			
1,2-Dichloroethane	U		0.00050	0.0050	mg/L	1	7/25/2012 06:28
Benzene	U		0.00050	0.0050	mg/L	1	7/25/2012 06:28
Chlorobenzene	U		0.00050	0.0050	mg/L	1	7/25/2012 06:28
Ethylbenzene	U		0.00050	0.0050	mg/L	1	7/25/2012 06:28

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 13-Aug-12

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Sample ID: WG-1620-FB5-20120718
Collection Date: 7/18/2012 06:05 PM

Work Order: 1207933
Lab ID: 1207933-16
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
Methylene chloride	U		0.0010	0.010	mg/L	1	7/25/2012 06:28
Toluene	U		0.00050	0.0050	mg/L	1	7/25/2012 06:28
Vinyl chloride	U		0.00050	0.0020	mg/L	1	7/25/2012 06:28
Xylenes, Total	U		0.0015	0.015	mg/L	1	7/25/2012 06:28
Surr: 1,2-Dichloroethane-d4	110			70-125	%REC	1	7/25/2012 06:28
Surr: 4-Bromofluorobenzene	101			72-125	%REC	1	7/25/2012 06:28
Surr: Dibromofluoromethane	106			71-125	%REC	1	7/25/2012 06:28
Surr: Toluene-d8	91.1			75-125	%REC	1	7/25/2012 06:28

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 13-Aug-12

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Sample ID: WG-1620-MW15A-20120719
Collection Date: 7/19/2012 07:40 AM

Work Order: 1207933
Lab ID: 1207933-17
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270	Prep: SW3510 / 7/23/12	Analyst: LG		
1,2-Diphenylhydrazine	U		0.000050	0.00020	mg/L	1	7/25/2012 18:18
2,4-Dimethylphenol	0.00056		0.000050	0.00020	mg/L	1	7/25/2012 18:18
2,4-Dinitrotoluene	U		0.000050	0.00020	mg/L	1	7/25/2012 18:18
2,6-Dinitrotoluene	U		0.000060	0.00020	mg/L	1	7/25/2012 18:18
2-Chloronaphthalene	U		0.000050	0.00020	mg/L	1	7/25/2012 18:18
2-Methylnaphthalene	0.046		0.000050	0.00020	mg/L	10	7/26/2012 14:50
4,6-Dinitro-2-methylphenol	U		0.000080	0.00020	mg/L	1	7/25/2012 18:18
4-Nitrophenol	U		0.000050	0.0010	mg/L	1	7/25/2012 18:18
Acenaphthene	0.13		0.00020	0.00080	mg/L	40	7/26/2012 17:30
Acenaphthylene	0.0012		0.000050	0.00020	mg/L	1	7/25/2012 18:18
Anthracene	0.0046		0.000050	0.00020	mg/L	1	7/25/2012 18:18
Benz(a)anthracene	U		0.000050	0.00020	mg/L	1	7/25/2012 18:18
Benzo(a)pyrene	U		0.000050	0.00020	mg/L	1	7/25/2012 18:18
Bis(2-chloroethoxy)methane	U		0.000050	0.00020	mg/L	1	7/25/2012 18:18
Bis(2-ethylhexyl)phthalate	U		0.00010	0.00020	mg/L	1	7/25/2012 18:18
Chrysene	U		0.000050	0.00020	mg/L	1	7/25/2012 18:18
Dibenzofuran	0.046		0.000050	0.00020	mg/L	10	7/26/2012 14:50
Di-n-butyl phthalate	U		0.000050	0.00020	mg/L	1	7/25/2012 18:18
Fluoranthene	0.0015		0.000050	0.00020	mg/L	1	7/25/2012 18:18
Fluorene	0.063		0.000050	0.00020	mg/L	10	7/26/2012 14:50
Naphthalene	0.27		0.00020	0.00080	mg/L	40	7/26/2012 17:30
Nitrobenzene	U		0.000050	0.00020	mg/L	1	7/25/2012 18:18
N-Nitrosodiphenylamine	U		0.000050	0.00020	mg/L	1	7/25/2012 18:18
Pentachlorophenol	U		0.000050	0.00020	mg/L	1	7/25/2012 18:18
Phenanthrene	0.014		0.000050	0.00020	mg/L	10	7/26/2012 14:50
Phenol	U		0.000050	0.00020	mg/L	1	7/25/2012 18:18
Pyrene	0.00084		0.000050	0.00020	mg/L	1	7/25/2012 18:18
Surr: 2,4,6-Tribromophenol	99.3			34-129	%REC	1	7/25/2012 18:18
Surr: 2,4,6-Tribromophenol	87.3			34-129	%REC	10	7/26/2012 14:50
Surr: 2,4,6-Tribromophenol	75.1	J		34-129	%REC	40	7/26/2012 17:30
Surr: 2-Fluorobiphenyl	61.4			40-125	%REC	1	7/25/2012 18:18
Surr: 2-Fluorobiphenyl	67.7			40-125	%REC	10	7/26/2012 14:50
Surr: 2-Fluorobiphenyl	72.7	J		40-125	%REC	40	7/26/2012 17:30
Surr: 2-Fluorophenol	47.5			20-120	%REC	1	7/25/2012 18:18
Surr: 2-Fluorophenol	65.0			20-120	%REC	10	7/26/2012 14:50
Surr: 2-Fluorophenol	48.1	J		20-120	%REC	40	7/26/2012 17:30
Surr: 4-Terphenyl-d14	85.1			40-135	%REC	1	7/25/2012 18:18
Surr: 4-Terphenyl-d14	111			40-135	%REC	10	7/26/2012 14:50

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 13-Aug-12

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Sample ID: WG-1620-MW15A-20120719
Collection Date: 7/19/2012 07:40 AM

Work Order: 1207933
Lab ID: 1207933-17
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
Surr: 4-Terphenyl-d14	92.9	J		40-135	%REC	40	7/26/2012 17:30
Surr: Nitrobenzene-d5	66.7			41-120	%REC	1	7/25/2012 18:18
Surr: Nitrobenzene-d5	56.2			41-120	%REC	10	7/26/2012 14:50
Surr: Nitrobenzene-d5	65.4	J		41-120	%REC	40	7/26/2012 17:30
Surr: Phenol-d6	50.8			20-120	%REC	1	7/25/2012 18:18
Surr: Phenol-d6	53.3			20-120	%REC	10	7/26/2012 14:50
Surr: Phenol-d6	54.8	J		20-120	%REC	40	7/26/2012 17:30

VOLATILES		Method: SW8260				Analyst: PC	
1,2-Dichloroethane	U		0.00050	0.0050	mg/L	1	7/26/2012 19:43
Benzene	0.0016	J	0.00050	0.0050	mg/L	1	7/26/2012 19:43
Chlorobenzene	U		0.00050	0.0050	mg/L	1	7/26/2012 19:43
Ethylbenzene	0.0012	J	0.00050	0.0050	mg/L	1	7/26/2012 19:43
Methylene chloride	U		0.0010	0.010	mg/L	1	7/26/2012 19:43
Toluene	U		0.00050	0.0050	mg/L	1	7/26/2012 19:43
Xylenes, Total	0.0097	J	0.0015	0.015	mg/L	1	7/26/2012 19:43
Surr: 1,2-Dichloroethane-d4	120			70-125	%REC	1	7/26/2012 19:43
Surr: 4-Bromofluorobenzene	105			72-125	%REC	1	7/26/2012 19:43
Surr: Dibromofluoromethane	114			71-125	%REC	1	7/26/2012 19:43
Surr: Toluene-d8	90.3			75-125	%REC	1	7/26/2012 19:43

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 13-Aug-12

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Sample ID: WG-1620-MW15C-20120719
Collection Date: 7/19/2012 08:25 AM

Work Order: 1207933
Lab ID: 1207933-18
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270	Prep: SW3510 / 7/23/12	Analyst: LG		
1,2-Diphenylhydrazine	U		0.000050	0.00020	mg/L	1	7/25/2012 18:38
2,4-Dimethylphenol	U		0.000050	0.00020	mg/L	1	7/25/2012 18:38
2,4-Dinitrotoluene	U		0.000050	0.00020	mg/L	1	7/25/2012 18:38
2,6-Dinitrotoluene	U		0.000060	0.00020	mg/L	1	7/25/2012 18:38
2-Chloronaphthalene	U		0.000050	0.00020	mg/L	1	7/25/2012 18:38
2-Methylnaphthalene	0.00022		0.000050	0.00020	mg/L	1	7/25/2012 18:38
4,6-Dinitro-2-methylphenol	U		0.000080	0.00020	mg/L	1	7/25/2012 18:38
4-Nitrophenol	U		0.000050	0.0010	mg/L	1	7/25/2012 18:38
Acenaphthene	0.042		0.000050	0.0020	mg/L	10	7/26/2012 15:10
Acenaphthylene	0.0020		0.000050	0.00020	mg/L	1	7/25/2012 18:38
Anthracene	0.00045		0.000050	0.00020	mg/L	1	7/25/2012 18:38
Benz(a)anthracene	U		0.000050	0.00020	mg/L	1	7/25/2012 18:38
Benzo(a)pyrene	U		0.000050	0.00020	mg/L	1	7/25/2012 18:38
Bis(2-chloroethoxy)methane	U		0.000050	0.00020	mg/L	1	7/25/2012 18:38
Bis(2-ethylhexyl)phthalate	0.00012	J	0.00010	0.00020	mg/L	1	7/25/2012 18:38
Chrysene	U		0.000050	0.00020	mg/L	1	7/25/2012 18:38
Dibenzofuran	0.021		0.000050	0.0020	mg/L	10	7/26/2012 15:10
Di-n-butyl phthalate	0.000059	J	0.000050	0.00020	mg/L	1	7/25/2012 18:38
Fluoranthene	0.00079		0.000050	0.00020	mg/L	1	7/25/2012 18:38
Fluorene	0.0014		0.000050	0.00020	mg/L	1	7/25/2012 18:38
Naphthalene	0.0018		0.000050	0.00020	mg/L	1	7/25/2012 18:38
Nitrobenzene	U		0.000050	0.00020	mg/L	1	7/25/2012 18:38
N-Nitrosodiphenylamine	U		0.000050	0.00020	mg/L	1	7/25/2012 18:38
Pentachlorophenol	U		0.000050	0.00020	mg/L	1	7/25/2012 18:38
Phenanthrene	0.00038		0.000050	0.00020	mg/L	1	7/25/2012 18:38
Phenol	U		0.000050	0.00020	mg/L	1	7/25/2012 18:38
Pyrene	0.00046		0.000050	0.00020	mg/L	1	7/25/2012 18:38
Surr: 2,4,6-Tribromophenol	47.1			34-129	%REC	1	7/25/2012 18:38
Surr: 2,4,6-Tribromophenol	60.2			34-129	%REC	10	7/26/2012 15:10
Surr: 2-Fluorobiphenyl	47.7			40-125	%REC	1	7/25/2012 18:38
Surr: 2-Fluorobiphenyl	64.7			40-125	%REC	10	7/26/2012 15:10
Surr: 2-Fluorophenol	46.9			20-120	%REC	1	7/25/2012 18:38
Surr: 2-Fluorophenol	53.9			20-120	%REC	10	7/26/2012 15:10
Surr: 4-Terphenyl-d14	74.6			40-135	%REC	1	7/25/2012 18:38
Surr: 4-Terphenyl-d14	72.4			40-135	%REC	10	7/26/2012 15:10
Surr: Nitrobenzene-d5	78.3			41-120	%REC	1	7/25/2012 18:38
Surr: Nitrobenzene-d5	53.1			41-120	%REC	10	7/26/2012 15:10
Surr: Phenol-d6	52.1			20-120	%REC	1	7/25/2012 18:38

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 13-Aug-12

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Sample ID: WG-1620-MW15C-20120719
Collection Date: 7/19/2012 08:25 AM

Work Order: 1207933
Lab ID: 1207933-18
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	MQL	Units	Dilution Factor	Date Analyzed	
Surr: Phenol-d6	45.3			20-120	%REC	10	7/26/2012 15:10	
VOLATILES		Method: SW8260					Analyst: PC	
1,2-Dichloroethane	U		0.00050	0.0050	mg/L	1	7/26/2012 20:10	
Benzene	U		0.00050	0.0050	mg/L	1	7/26/2012 20:10	
Chlorobenzene	U		0.00050	0.0050	mg/L	1	7/26/2012 20:10	
Ethylbenzene	U		0.00050	0.0050	mg/L	1	7/26/2012 20:10	
Methylene chloride	U		0.0010	0.010	mg/L	1	7/26/2012 20:10	
Toluene	U		0.00050	0.0050	mg/L	1	7/26/2012 20:10	
Xylenes, Total	U		0.0015	0.015	mg/L	1	7/26/2012 20:10	
Surr: 1,2-Dichloroethane-d4	108			70-125	%REC	1	7/26/2012 20:10	
Surr: 4-Bromofluorobenzene	96.4			72-125	%REC	1	7/26/2012 20:10	
Surr: Dibromofluoromethane	107			71-125	%REC	1	7/26/2012 20:10	
Surr: Toluene-d8	88.6			75-125	%REC	1	7/26/2012 20:10	

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 13-Aug-12

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Sample ID: WG-1620-MW15B-20120719
Collection Date: 7/19/2012 09:15 AM

Work Order: 1207933
Lab ID: 1207933-19
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270	Prep: SW3510 / 7/23/12	Analyst: LG		
1,2-Diphenylhydrazine	U		0.000050	0.00020	mg/L	1	7/25/2012 18:58
2,4-Dimethylphenol	U		0.000050	0.00020	mg/L	1	7/25/2012 18:58
2,4-Dinitrotoluene	U		0.000050	0.00020	mg/L	1	7/25/2012 18:58
2,6-Dinitrotoluene	U		0.000060	0.00020	mg/L	1	7/25/2012 18:58
2-Chloronaphthalene	U		0.000050	0.00020	mg/L	1	7/25/2012 18:58
2-Methylnaphthalene	0.023		0.000050	0.00020	mg/L	10	7/26/2012 15:30
4,6-Dinitro-2-methylphenol	U		0.000080	0.00020	mg/L	1	7/25/2012 18:58
4-Nitrophenol	U		0.000050	0.0010	mg/L	1	7/25/2012 18:58
Acenaphthene	0.075		0.000050	0.00020	mg/L	10	7/26/2012 15:30
Acenaphthylene	0.00080		0.000050	0.00020	mg/L	1	7/25/2012 18:58
Anthracene	0.0071		0.000050	0.00020	mg/L	1	7/25/2012 18:58
Benz(a)anthracene	0.00017	J	0.000050	0.00020	mg/L	1	7/25/2012 18:58
Benzo(a)pyrene	U		0.000050	0.00020	mg/L	1	7/25/2012 18:58
Bis(2-chloroethoxy)methane	U		0.000050	0.00020	mg/L	1	7/25/2012 18:58
Bis(2-ethylhexyl)phthalate	0.00018	J	0.00010	0.00020	mg/L	1	7/25/2012 18:58
Chrysene	0.00013	J	0.000050	0.00020	mg/L	1	7/25/2012 18:58
Dibenzofuran	0.052		0.000050	0.00020	mg/L	10	7/26/2012 15:30
Di-n-butyl phthalate	U		0.000050	0.00020	mg/L	1	7/25/2012 18:58
Fluoranthene	0.0062		0.000050	0.00020	mg/L	1	7/25/2012 18:58
Fluorene	0.036		0.000050	0.00020	mg/L	10	7/26/2012 15:30
Naphthalene	0.82		0.00050	0.020	mg/L	100	7/26/2012 18:30
Nitrobenzene	U		0.000050	0.00020	mg/L	1	7/25/2012 18:58
N-Nitrosodiphenylamine	U		0.000050	0.00020	mg/L	1	7/25/2012 18:58
Pentachlorophenol	U		0.000050	0.00020	mg/L	1	7/25/2012 18:58
Phenanthrene	0.052		0.000050	0.00020	mg/L	10	7/26/2012 15:30
Phenol	U		0.000050	0.00020	mg/L	1	7/25/2012 18:58
Pyrene	0.0031		0.000050	0.00020	mg/L	1	7/25/2012 18:58
Surr: 2,4,6-Tribromophenol	105			34-129	%REC	1	7/25/2012 18:58
Surr: 2,4,6-Tribromophenol	77.8			34-129	%REC	10	7/26/2012 15:30
Surr: 2,4,6-Tribromophenol	47.2	J		34-129	%REC	100	7/26/2012 18:30
Surr: 2-Fluorobiphenyl	71.7			40-125	%REC	1	7/25/2012 18:58
Surr: 2-Fluorobiphenyl	59.4			40-125	%REC	10	7/26/2012 15:30
Surr: 2-Fluorobiphenyl	81.3	J		40-125	%REC	100	7/26/2012 18:30
Surr: 2-Fluorophenol	54.5			20-120	%REC	1	7/25/2012 18:58
Surr: 2-Fluorophenol	48.0			20-120	%REC	10	7/26/2012 15:30
Surr: 2-Fluorophenol	51.0	J		20-120	%REC	100	7/26/2012 18:30
Surr: 4-Terphenyl-d14	91.1			40-135	%REC	1	7/25/2012 18:58
Surr: 4-Terphenyl-d14	87.7			40-135	%REC	10	7/26/2012 15:30

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 13-Aug-12

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Sample ID: WG-1620-MW15B-20120719
Collection Date: 7/19/2012 09:15 AM

Work Order: 1207933
Lab ID: 1207933-19
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
Surr: 4-Terphenyl-d14	93.8	J		40-135	%REC	100	7/26/2012 18:30
Surr: Nitrobenzene-d5	74.2			41-120	%REC	1	7/25/2012 18:58
Surr: Nitrobenzene-d5	57.7			41-120	%REC	10	7/26/2012 15:30
Surr: Nitrobenzene-d5	59.9	J		41-120	%REC	100	7/26/2012 18:30
Surr: Phenol-d6	60.4			20-120	%REC	1	7/25/2012 18:58
Surr: Phenol-d6	53.0			20-120	%REC	10	7/26/2012 15:30
Surr: Phenol-d6	44.7	J		20-120	%REC	100	7/26/2012 18:30

VOLATILES		Method: SW8260				Analyst: PC	
1,2-Dichloroethane	U		0.0025	0.025	mg/L	5	7/27/2012 02:14
Benzene	0.0053	J	0.0025	0.025	mg/L	5	7/27/2012 02:14
Chlorobenzene	U		0.0025	0.025	mg/L	5	7/27/2012 02:14
Ethylbenzene	0.014	J	0.0025	0.025	mg/L	5	7/27/2012 02:14
Methylene chloride	U		0.0050	0.050	mg/L	5	7/27/2012 02:14
Toluene	U		0.0025	0.025	mg/L	5	7/27/2012 02:14
Xylenes, Total	U		0.0075	0.075	mg/L	5	7/27/2012 02:14
Surr: 1,2-Dichloroethane-d4	101			70-125	%REC	5	7/27/2012 02:14
Surr: 4-Bromofluorobenzene	101			72-125	%REC	5	7/27/2012 02:14
Surr: Dibromofluoromethane	101			71-125	%REC	5	7/27/2012 02:14
Surr: Toluene-d8	90.3			75-125	%REC	5	7/27/2012 02:14

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 13-Aug-12

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Sample ID: WG-1620-MW40B-20120719
Collection Date: 7/19/2012 10:10 AM

Work Order: 1207933
Lab ID: 1207933-20
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270	Prep: SW3510 / 7/23/12	Analyst: LG		
1,2-Diphenylhydrazine	U		0.000050	0.00020	mg/L	1	7/25/2012 19:18
2,4-Dimethylphenol	0.0039		0.000050	0.00020	mg/L	1	7/25/2012 19:18
2,4-Dinitrotoluene	U		0.000050	0.00020	mg/L	1	7/25/2012 19:18
2,6-Dinitrotoluene	U		0.000060	0.00020	mg/L	1	7/25/2012 19:18
2-Chloronaphthalene	U		0.000050	0.00020	mg/L	1	7/25/2012 19:18
2-Methylnaphthalene	0.28		0.0050	0.020	mg/L	100	7/26/2012 16:10
4,6-Dinitro-2-methylphenol	U		0.000080	0.00020	mg/L	1	7/25/2012 19:18
4-Nitrophenol	U		0.000050	0.0010	mg/L	1	7/25/2012 19:18
Acenaphthene	0.23		0.0050	0.020	mg/L	100	7/26/2012 16:10
Acenaphthylene	0.0021		0.000050	0.00020	mg/L	1	7/25/2012 19:18
Anthracene	0.0070		0.000050	0.00020	mg/L	1	7/25/2012 19:18
Benz(a)anthracene	U		0.000050	0.00020	mg/L	1	7/25/2012 19:18
Benzo(a)pyrene	U		0.000050	0.00020	mg/L	1	7/25/2012 19:18
Bis(2-chloroethoxy)methane	U		0.000050	0.00020	mg/L	1	7/25/2012 19:18
Bis(2-ethylhexyl)phthalate	0.00016	J	0.00010	0.00020	mg/L	1	7/25/2012 19:18
Chrysene	U		0.000050	0.00020	mg/L	1	7/25/2012 19:18
Dibenzofuran	0.17		0.0050	0.020	mg/L	100	7/26/2012 16:10
Di-n-butyl phthalate	U		0.000050	0.00020	mg/L	1	7/25/2012 19:18
Fluoranthene	0.0031		0.000050	0.00020	mg/L	1	7/25/2012 19:18
Fluorene	0.15		0.0050	0.020	mg/L	100	7/26/2012 16:10
Naphthalene	6.0		0.050	0.20	mg/L	1000	7/26/2012 18:50
Nitrobenzene	U		0.000050	0.00020	mg/L	1	7/25/2012 19:18
N-Nitrosodiphenylamine	U		0.000050	0.00020	mg/L	1	7/25/2012 19:18
Pentachlorophenol	U		0.000050	0.00020	mg/L	1	7/25/2012 19:18
Phenanthrene	0.10		0.0050	0.020	mg/L	100	7/26/2012 16:10
Phenol	U		0.000050	0.00020	mg/L	1	7/25/2012 19:18
Pyrene	0.0019		0.000050	0.00020	mg/L	1	7/25/2012 19:18
Surr: 2,4,6-Tribromophenol	61.2			34-129	%REC	1	7/25/2012 19:18
Surr: 2,4,6-Tribromophenol	116	J		34-129	%REC	100	7/26/2012 16:10
Surr: 2,4,6-Tribromophenol	0	S		34-129	%REC	1000	7/26/2012 18:50
Surr: 2-Fluorobiphenyl	41.6			40-125	%REC	1	7/25/2012 19:18
Surr: 2-Fluorobiphenyl	83.6	J		40-125	%REC	100	7/26/2012 16:10
Surr: 2-Fluorobiphenyl	0	S		40-125	%REC	1000	7/26/2012 18:50
Surr: 2-Fluorophenol	78.0			20-120	%REC	1	7/25/2012 19:18
Surr: 2-Fluorophenol	73.4	J		20-120	%REC	100	7/26/2012 16:10
Surr: 2-Fluorophenol	0	S		20-120	%REC	1000	7/26/2012 18:50
Surr: 4-Terphenyl-d14	73.2			40-135	%REC	1	7/25/2012 19:18
Surr: 4-Terphenyl-d14	94.2	J		40-135	%REC	100	7/26/2012 16:10

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 13-Aug-12

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Sample ID: WG-1620-MW40B-20120719
Collection Date: 7/19/2012 10:10 AM

Work Order: 1207933
Lab ID: 1207933-20
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
Surr: 4-Terphenyl-d14	0	S		40-135	%REC	1000	7/26/2012 18:50
Surr: Nitrobenzene-d5	96.0			41-120	%REC	1	7/25/2012 19:18
Surr: Nitrobenzene-d5	55.0	J		41-120	%REC	100	7/26/2012 16:10
Surr: Nitrobenzene-d5	0	S		41-120	%REC	1000	7/26/2012 18:50
Surr: Phenol-d6	57.2			20-120	%REC	1	7/25/2012 19:18
Surr: Phenol-d6	30.4	J		20-120	%REC	100	7/26/2012 16:10
Surr: Phenol-d6	0	S		20-120	%REC	1000	7/26/2012 18:50

VOLATILES		Method: SW8260				Analyst: PC	
1,2-Dichloroethane	U		0.0050	0.050	mg/L	10	7/27/2012 02:40
Benzene	0.013	J	0.0050	0.050	mg/L	10	7/27/2012 02:40
Chlorobenzene	U		0.0050	0.050	mg/L	10	7/27/2012 02:40
Ethylbenzene	0.082		0.0050	0.050	mg/L	10	7/27/2012 02:40
Methylene chloride	U		0.010	0.10	mg/L	10	7/27/2012 02:40
Toluene	0.022	J	0.0050	0.050	mg/L	10	7/27/2012 02:40
Xylenes, Total	0.14	J	0.015	0.15	mg/L	10	7/27/2012 02:40
Surr: 1,2-Dichloroethane-d4	110			70-125	%REC	10	7/27/2012 02:40
Surr: 4-Bromofluorobenzene	99.0			72-125	%REC	10	7/27/2012 02:40
Surr: Dibromofluoromethane	111			71-125	%REC	10	7/27/2012 02:40
Surr: Toluene-d8	89.9			75-125	%REC	10	7/27/2012 02:40

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 13-Aug-12

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Sample ID: WG-1620-MW42B-20120719
Collection Date: 7/19/2012 11:05 AM

Work Order: 1207933
Lab ID: 1207933-21
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	ML	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270	Prep: SW3510 / 7/23/12	Analyst: LG		
1,2-Diphenylhydrazine	U		0.000050	0.00020	mg/L	1	7/26/2012 12:30
2,4-Dimethylphenol	U		0.000050	0.00020	mg/L	1	7/26/2012 12:30
2,4-Dinitrotoluene	U		0.000050	0.00020	mg/L	1	7/26/2012 12:30
2,6-Dinitrotoluene	U		0.000060	0.00020	mg/L	1	7/26/2012 12:30
2-Chloronaphthalene	U		0.000050	0.00020	mg/L	1	7/26/2012 12:30
2-Methylnaphthalene	0.00015	J	0.000050	0.00020	mg/L	1	7/26/2012 12:30
4,6-Dinitro-2-methylphenol	U		0.000080	0.00020	mg/L	1	7/26/2012 12:30
4-Nitrophenol	U		0.000050	0.0010	mg/L	1	7/26/2012 12:30
Acenaphthene	0.00081		0.000050	0.00020	mg/L	1	7/26/2012 12:30
Acenaphthylene	U		0.000050	0.00020	mg/L	1	7/26/2012 12:30
Anthracene	U		0.000050	0.00020	mg/L	1	7/26/2012 12:30
Benz(a)anthracene	U		0.000050	0.00020	mg/L	1	7/26/2012 12:30
Benzo(a)pyrene	U		0.000050	0.00020	mg/L	1	7/26/2012 12:30
Bis(2-chloroethoxy)methane	U		0.000050	0.00020	mg/L	1	7/26/2012 12:30
Bis(2-ethylhexyl)phthalate	0.00022		0.00010	0.00020	mg/L	1	7/26/2012 12:30
Chrysene	U		0.000050	0.00020	mg/L	1	7/26/2012 12:30
Dibenzofuran	0.000066	J	0.000050	0.00020	mg/L	1	7/26/2012 12:30
Di-n-butyl phthalate	0.000062	J	0.000050	0.00020	mg/L	1	7/26/2012 12:30
Fluoranthene	0.00041		0.000050	0.00020	mg/L	1	7/26/2012 12:30
Fluorene	0.00016	J	0.000050	0.00020	mg/L	1	7/26/2012 12:30
Naphthalene	0.0019		0.000050	0.00020	mg/L	1	7/26/2012 12:30
Nitrobenzene	U		0.000050	0.00020	mg/L	1	7/26/2012 12:30
N-Nitrosodiphenylamine	U		0.000050	0.00020	mg/L	1	7/26/2012 12:30
Pentachlorophenol	U		0.000050	0.00020	mg/L	1	7/26/2012 12:30
Phenanthrene	U		0.000050	0.00020	mg/L	1	7/26/2012 12:30
Phenol	U		0.000050	0.00020	mg/L	1	7/26/2012 12:30
Pyrene	0.00023		0.000050	0.00020	mg/L	1	7/26/2012 12:30
Surr: 2,4,6-Tribromophenol	92.2			34-129	%REC	1	7/26/2012 12:30
Surr: 2-Fluorobiphenyl	74.5			40-125	%REC	1	7/26/2012 12:30
Surr: 2-Fluorophenol	55.7			20-120	%REC	1	7/26/2012 12:30
Surr: 4-Terphenyl-d14	78.2			40-135	%REC	1	7/26/2012 12:30
Surr: Nitrobenzene-d5	58.5			41-120	%REC	1	7/26/2012 12:30
Surr: Phenol-d6	64.1			20-120	%REC	1	7/26/2012 12:30

VOLATILES			Method: SW8260	Analyst: PC			
1,2-Dichloroethane	U		0.0025	0.025	mg/L	5	7/27/2012 03:06
Benzene	U		0.0025	0.025	mg/L	5	7/27/2012 03:06
Chlorobenzene	U		0.0025	0.025	mg/L	5	7/27/2012 03:06
Ethylbenzene	U		0.0025	0.025	mg/L	5	7/27/2012 03:06

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 13-Aug-12

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Sample ID: WG-1620-MW42B-20120719
Collection Date: 7/19/2012 11:05 AM

Work Order: 1207933
Lab ID: 1207933-21
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
Methylene chloride	0.0097	J	0.0050	0.050	mg/L	5	7/27/2012 03:06
Toluene	U		0.0025	0.025	mg/L	5	7/27/2012 03:06
Xylenes, Total	U		0.0075	0.075	mg/L	5	7/27/2012 03:06
Surr: 1,2-Dichloroethane-d4	101			70-125	%REC	5	7/27/2012 03:06
Surr: 4-Bromofluorobenzene	103			72-125	%REC	5	7/27/2012 03:06
Surr: Dibromofluoromethane	106			71-125	%REC	5	7/27/2012 03:06
Surr: Toluene-d8	92.8			75-125	%REC	5	7/27/2012 03:06

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 13-Aug-12

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Sample ID: WG-1620-MW39B-20120719
Collection Date: 7/19/2012 12:05 PM

Work Order: 1207933
Lab ID: 1207933-22
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270	Prep: SW3510 / 7/23/12	Analyst: LG		
1,2-Diphenylhydrazine	U		0.000050	0.00020	mg/L	1	7/26/2012 13:09
2,4-Dimethylphenol	U		0.000050	0.00020	mg/L	1	7/26/2012 13:09
2,4-Dinitrotoluene	U		0.000050	0.00020	mg/L	1	7/26/2012 13:09
2,6-Dinitrotoluene	U		0.000060	0.00020	mg/L	1	7/26/2012 13:09
2-Chloronaphthalene	U		0.000050	0.00020	mg/L	1	7/26/2012 13:09
2-Methylnaphthalene	0.000069	J	0.000050	0.00020	mg/L	1	7/26/2012 13:09
4,6-Dinitro-2-methylphenol	U		0.000080	0.00020	mg/L	1	7/26/2012 13:09
4-Nitrophenol	U		0.000050	0.0010	mg/L	1	7/26/2012 13:09
Acenaphthene	0.00040		0.000050	0.00020	mg/L	1	7/26/2012 13:09
Acenaphthylene	U		0.000050	0.00020	mg/L	1	7/26/2012 13:09
Anthracene	0.00010	J	0.000050	0.00020	mg/L	1	7/26/2012 13:09
Benz(a)anthracene	U		0.000050	0.00020	mg/L	1	7/26/2012 13:09
Benzo(a)pyrene	U		0.000050	0.00020	mg/L	1	7/26/2012 13:09
Bis(2-chloroethoxy)methane	U		0.000050	0.00020	mg/L	1	7/26/2012 13:09
Bis(2-ethylhexyl)phthalate	0.00015	J	0.00010	0.00020	mg/L	1	7/26/2012 13:09
Chrysene	U		0.000050	0.00020	mg/L	1	7/26/2012 13:09
Dibenzofuran	0.000067	J	0.000050	0.00020	mg/L	1	7/26/2012 13:09
Di-n-butyl phthalate	U		0.000050	0.00020	mg/L	1	7/26/2012 13:09
Fluoranthene	0.00036		0.000050	0.00020	mg/L	1	7/26/2012 13:09
Fluorene	0.00019	J	0.000050	0.00020	mg/L	1	7/26/2012 13:09
Naphthalene	0.00018	J	0.000050	0.00020	mg/L	1	7/26/2012 13:09
Nitrobenzene	U		0.000050	0.00020	mg/L	1	7/26/2012 13:09
N-Nitrosodiphenylamine	U		0.000050	0.00020	mg/L	1	7/26/2012 13:09
Pentachlorophenol	U		0.000050	0.00020	mg/L	1	7/26/2012 13:09
Phenanthrene	0.00016	J	0.000050	0.00020	mg/L	1	7/26/2012 13:09
Phenol	U		0.000050	0.00020	mg/L	1	7/26/2012 13:09
Pyrene	0.00052		0.000050	0.00020	mg/L	1	7/26/2012 13:09
Surr: 2,4,6-Tribromophenol	51.9			34-129	%REC	1	7/26/2012 13:09
Surr: 2-Fluorobiphenyl	47.5			40-125	%REC	1	7/26/2012 13:09
Surr: 2-Fluorophenol	52.2			20-120	%REC	1	7/26/2012 13:09
Surr: 4-Terphenyl-d14	76.0			40-135	%REC	1	7/26/2012 13:09
Surr: Nitrobenzene-d5	60.0			41-120	%REC	1	7/26/2012 13:09
Surr: Phenol-d6	44.2			20-120	%REC	1	7/26/2012 13:09

VOLATILES			Method: SW8260	Analyst: PC			
1,2-Dichloroethane	U		0.00050	0.0050	mg/L	1	7/26/2012 20:36
Benzene	U		0.00050	0.0050	mg/L	1	7/26/2012 20:36
Chlorobenzene	U		0.00050	0.0050	mg/L	1	7/26/2012 20:36
Ethylbenzene	U		0.00050	0.0050	mg/L	1	7/26/2012 20:36

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 13-Aug-12

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Sample ID: WG-1620-MW39B-20120719
Collection Date: 7/19/2012 12:05 PM

Work Order: 1207933
Lab ID: 1207933-22
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
Methylene chloride	U		0.0010	0.010	mg/L	1	7/26/2012 20:36
Toluene	U		0.00050	0.0050	mg/L	1	7/26/2012 20:36
Xylenes, Total	U		0.0015	0.015	mg/L	1	7/26/2012 20:36
Surr: 1,2-Dichloroethane-d4	112			70-125	%REC	1	7/26/2012 20:36
Surr: 4-Bromofluorobenzene	98.4			72-125	%REC	1	7/26/2012 20:36
Surr: Dibromofluoromethane	110			71-125	%REC	1	7/26/2012 20:36
Surr: Toluene-d8	90.1			75-125	%REC	1	7/26/2012 20:36

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 13-Aug-12

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Sample ID: WG-1620-FB6-20120719
Collection Date: 7/19/2012 12:15 PM

Work Order: 1207933
Lab ID: 1207933-23
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES		Method: SW8270		Prep: SW3510 / 7/23/12		Analyst: LG	
1,2-Diphenylhydrazine	U		0.000050	0.00020	mg/L	1	7/26/2012 13:30
2,4-Dimethylphenol	U		0.000050	0.00020	mg/L	1	7/26/2012 13:30
2,4-Dinitrotoluene	U		0.000050	0.00020	mg/L	1	7/26/2012 13:30
2,6-Dinitrotoluene	U		0.000060	0.00020	mg/L	1	7/26/2012 13:30
2-Chloronaphthalene	U		0.000050	0.00020	mg/L	1	7/26/2012 13:30
2-Methylnaphthalene	U		0.000050	0.00020	mg/L	1	7/26/2012 13:30
4,6-Dinitro-2-methylphenol	U		0.000080	0.00020	mg/L	1	7/26/2012 13:30
4-Nitrophenol	U		0.000050	0.0010	mg/L	1	7/26/2012 13:30
Acenaphthene	U		0.000050	0.00020	mg/L	1	7/26/2012 13:30
Acenaphthylene	U		0.000050	0.00020	mg/L	1	7/26/2012 13:30
Anthracene	U		0.000050	0.00020	mg/L	1	7/26/2012 13:30
Benz(a)anthracene	U		0.000050	0.00020	mg/L	1	7/26/2012 13:30
Benzo(a)pyrene	U		0.000050	0.00020	mg/L	1	7/26/2012 13:30
Bis(2-chloroethoxy)methane	U		0.000050	0.00020	mg/L	1	7/26/2012 13:30
Bis(2-ethylhexyl)phthalate	0.00013	J	0.00010	0.00020	mg/L	1	7/26/2012 13:30
Chrysene	U		0.000050	0.00020	mg/L	1	7/26/2012 13:30
Dibenzofuran	U		0.000050	0.00020	mg/L	1	7/26/2012 13:30
Di-n-butyl phthalate	U		0.000050	0.00020	mg/L	1	7/26/2012 13:30
Fluoranthene	U		0.000050	0.00020	mg/L	1	7/26/2012 13:30
Fluorene	U		0.000050	0.00020	mg/L	1	7/26/2012 13:30
Naphthalene	U		0.000050	0.00020	mg/L	1	7/26/2012 13:30
Nitrobenzene	U		0.000050	0.00020	mg/L	1	7/26/2012 13:30
N-Nitrosodiphenylamine	U		0.000050	0.00020	mg/L	1	7/26/2012 13:30
Pentachlorophenol	U		0.000050	0.00020	mg/L	1	7/26/2012 13:30
Phenanthrene	U		0.000050	0.00020	mg/L	1	7/26/2012 13:30
Phenol	U		0.000050	0.00020	mg/L	1	7/26/2012 13:30
Pyrene	U		0.000050	0.00020	mg/L	1	7/26/2012 13:30
Surr: 2,4,6-Tribromophenol	64.4			34-129	%REC	1	7/26/2012 13:30
Surr: 2-Fluorobiphenyl	58.3			40-125	%REC	1	7/26/2012 13:30
Surr: 2-Fluorophenol	49.8			20-120	%REC	1	7/26/2012 13:30
Surr: 4-Terphenyl-d14	91.5			40-135	%REC	1	7/26/2012 13:30
Surr: Nitrobenzene-d5	55.9			41-120	%REC	1	7/26/2012 13:30
Surr: Phenol-d6	49.9			20-120	%REC	1	7/26/2012 13:30
VOLATILES		Method: SW8260				Analyst: PC	
1,2-Dichloroethane	U		0.00050	0.0050	mg/L	1	7/26/2012 16:57
Benzene	U		0.00050	0.0050	mg/L	1	7/26/2012 16:57
Chlorobenzene	U		0.00050	0.0050	mg/L	1	7/26/2012 16:57
Ethylbenzene	U		0.00050	0.0050	mg/L	1	7/26/2012 16:57

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 13-Aug-12

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Sample ID: WG-1620-FB6-20120719
Collection Date: 7/19/2012 12:15 PM

Work Order: 1207933
Lab ID: 1207933-23
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
Methylene chloride	U		0.0010	0.010	mg/L	1	7/26/2012 16:57
Toluene	U		0.00050	0.0050	mg/L	1	7/26/2012 16:57
Vinyl chloride	U		0.00050	0.0020	mg/L	1	7/26/2012 16:57
Xylenes, Total	U		0.0015	0.015	mg/L	1	7/26/2012 16:57
Surr: 1,2-Dichloroethane-d4	109			70-125	%REC	1	7/26/2012 16:57
Surr: 4-Bromofluorobenzene	106			72-125	%REC	1	7/26/2012 16:57
Surr: Dibromofluoromethane	105			71-125	%REC	1	7/26/2012 16:57
Surr: Toluene-d8	97.0			75-125	%REC	1	7/26/2012 16:57

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 13-Aug-12

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Sample ID: WG-1620-MW12C-20120719
Collection Date: 7/19/2012 01:45 PM

Work Order: 1207933
Lab ID: 1207933-24
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270	Prep: SW3510 / 7/23/12		Analyst: LG	
1,2-Diphenylhydrazine	U		0.000050	0.00020	mg/L	1	7/26/2012 13:50
2,4-Dimethylphenol	U		0.000050	0.00020	mg/L	1	7/26/2012 13:50
2,4-Dinitrotoluene	U		0.000050	0.00020	mg/L	1	7/26/2012 13:50
2,6-Dinitrotoluene	U		0.000060	0.00020	mg/L	1	7/26/2012 13:50
2-Chloronaphthalene	U		0.000050	0.00020	mg/L	1	7/26/2012 13:50
2-Methylnaphthalene	0.000086	J	0.000050	0.00020	mg/L	1	7/26/2012 13:50
4,6-Dinitro-2-methylphenol	U		0.000080	0.00020	mg/L	1	7/26/2012 13:50
4-Nitrophenol	U		0.000050	0.0010	mg/L	1	7/26/2012 13:50
Acenaphthene	0.00011	J	0.000050	0.00020	mg/L	1	7/26/2012 13:50
Acenaphthylene	U		0.000050	0.00020	mg/L	1	7/26/2012 13:50
Anthracene	U		0.000050	0.00020	mg/L	1	7/26/2012 13:50
Benz(a)anthracene	U		0.000050	0.00020	mg/L	1	7/26/2012 13:50
Benzo(a)pyrene	U		0.000050	0.00020	mg/L	1	7/26/2012 13:50
Bis(2-chloroethoxy)methane	U		0.000050	0.00020	mg/L	1	7/26/2012 13:50
Bis(2-ethylhexyl)phthalate	0.00011	J	0.00010	0.00020	mg/L	1	7/26/2012 13:50
Chrysene	U		0.000050	0.00020	mg/L	1	7/26/2012 13:50
Dibenzofuran	0.000054	J	0.000050	0.00020	mg/L	1	7/26/2012 13:50
Di-n-butyl phthalate	U		0.000050	0.00020	mg/L	1	7/26/2012 13:50
Fluoranthene	U		0.000050	0.00020	mg/L	1	7/26/2012 13:50
Fluorene	0.000082	J	0.000050	0.00020	mg/L	1	7/26/2012 13:50
Naphthalene	0.00052		0.000050	0.00020	mg/L	1	7/26/2012 13:50
Nitrobenzene	U		0.000050	0.00020	mg/L	1	7/26/2012 13:50
N-Nitrosodiphenylamine	U		0.000050	0.00020	mg/L	1	7/26/2012 13:50
Pentachlorophenol	U		0.000050	0.00020	mg/L	1	7/26/2012 13:50
Phenanthrene	0.000059	J	0.000050	0.00020	mg/L	1	7/26/2012 13:50
Phenol	U		0.000050	0.00020	mg/L	1	7/26/2012 13:50
Pyrene	U		0.000050	0.00020	mg/L	1	7/26/2012 13:50
Surr: 2,4,6-Tribromophenol	53.6			34-129	%REC	1	7/26/2012 13:50
Surr: 2-Fluorobiphenyl	54.4			40-125	%REC	1	7/26/2012 13:50
Surr: 2-Fluorophenol	44.3			20-120	%REC	1	7/26/2012 13:50
Surr: 4-Terphenyl-d14	64.9			40-135	%REC	1	7/26/2012 13:50
Surr: Nitrobenzene-d5	47.3			41-120	%REC	1	7/26/2012 13:50
Surr: Phenol-d6	46.5			20-120	%REC	1	7/26/2012 13:50
VOLATILES			Method: SW8260			Analyst: PC	
1,2-Dichloroethane	U		0.00050	0.0050	mg/L	1	7/26/2012 21:03
Benzene	U		0.00050	0.0050	mg/L	1	7/26/2012 21:03
Chlorobenzene	U		0.00050	0.0050	mg/L	1	7/26/2012 21:03
Ethylbenzene	U		0.00050	0.0050	mg/L	1	7/26/2012 21:03

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 13-Aug-12

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Sample ID: WG-1620-MW12C-20120719
Collection Date: 7/19/2012 01:45 PM

Work Order: 1207933
Lab ID: 1207933-24
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
Methylene chloride	U		0.0010	0.010	mg/L	1	7/26/2012 21:03
Toluene	U		0.00050	0.0050	mg/L	1	7/26/2012 21:03
Xylenes, Total	U		0.0015	0.015	mg/L	1	7/26/2012 21:03
Surr: 1,2-Dichloroethane-d4	111			70-125	%REC	1	7/26/2012 21:03
Surr: 4-Bromofluorobenzene	104			72-125	%REC	1	7/26/2012 21:03
Surr: Dibromofluoromethane	114			71-125	%REC	1	7/26/2012 21:03
Surr: Toluene-d8	94.4			75-125	%REC	1	7/26/2012 21:03

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 13-Aug-12

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Sample ID: WG-1620-MW12A-20120719
Collection Date: 7/19/2012 02:30 PM

Work Order: 1207933
Lab ID: 1207933-25
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270	Prep: SW3510 / 7/23/12	Analyst: LG		
1,2-Diphenylhydrazine		U	0.000050	0.00020	mg/L	1	7/26/2012 14:10
2,4-Dimethylphenol	0.000056	J	0.000050	0.00020	mg/L	1	7/26/2012 14:10
2,4-Dinitrotoluene		U	0.000050	0.00020	mg/L	1	7/26/2012 14:10
2,6-Dinitrotoluene		U	0.000060	0.00020	mg/L	1	7/26/2012 14:10
2-Chloronaphthalene		U	0.000050	0.00020	mg/L	1	7/26/2012 14:10
2-Methylnaphthalene	0.17		0.0020	0.0080	mg/L	40	7/26/2012 17:10
4,6-Dinitro-2-methylphenol		U	0.000080	0.00020	mg/L	1	7/26/2012 14:10
4-Nitrophenol		U	0.000050	0.0010	mg/L	1	7/26/2012 14:10
Acenaphthene	0.20		0.0020	0.0080	mg/L	40	7/26/2012 17:10
Acenaphthylene	0.0015		0.000050	0.00020	mg/L	1	7/26/2012 14:10
Anthracene	0.023		0.0020	0.0080	mg/L	40	7/26/2012 17:10
Benz(a)anthracene	0.00011	J	0.000050	0.00020	mg/L	1	7/26/2012 14:10
Benzo(a)pyrene		U	0.000050	0.00020	mg/L	1	7/26/2012 14:10
Bis(2-chloroethoxy)methane		U	0.000050	0.00020	mg/L	1	7/26/2012 14:10
Bis(2-ethylhexyl)phthalate	0.00012	J	0.00010	0.00020	mg/L	1	7/26/2012 14:10
Chrysene	0.00013	J	0.000050	0.00020	mg/L	1	7/26/2012 14:10
Dibenzofuran	0.16		0.0020	0.0080	mg/L	40	7/26/2012 17:10
Di-n-butyl phthalate		U	0.000050	0.00020	mg/L	1	7/26/2012 14:10
Fluoranthene	0.0070		0.000050	0.00020	mg/L	1	7/26/2012 14:10
Fluorene	0.15		0.0020	0.0080	mg/L	40	7/26/2012 17:10
Naphthalene	0.36		0.0020	0.0080	mg/L	40	7/26/2012 17:10
Nitrobenzene		U	0.000050	0.00020	mg/L	1	7/26/2012 14:10
N-Nitrosodiphenylamine		U	0.000050	0.00020	mg/L	1	7/26/2012 14:10
Pentachlorophenol		U	0.000050	0.00020	mg/L	1	7/26/2012 14:10
Phenanthrene	0.12		0.0020	0.0080	mg/L	40	7/26/2012 17:10
Phenol		U	0.000050	0.00020	mg/L	1	7/26/2012 14:10
Pyrene	0.0036		0.000050	0.00020	mg/L	1	7/26/2012 14:10
Surr: 2,4,6-Tribromophenol	69.9			34-129	%REC	1	7/26/2012 14:10
Surr: 2,4,6-Tribromophenol	52.1	J		34-129	%REC	40	7/26/2012 17:10
Surr: 2-Fluorobiphenyl	58.0			40-125	%REC	1	7/26/2012 14:10
Surr: 2-Fluorobiphenyl	75.0	J		40-125	%REC	40	7/26/2012 17:10
Surr: 2-Fluorophenol	53.3			20-120	%REC	1	7/26/2012 14:10
Surr: 2-Fluorophenol	59.7	J		20-120	%REC	40	7/26/2012 17:10
Surr: 4-Terphenyl-d14	72.4			40-135	%REC	1	7/26/2012 14:10
Surr: 4-Terphenyl-d14	73.3	J		40-135	%REC	40	7/26/2012 17:10
Surr: Nitrobenzene-d5	58.2			41-120	%REC	1	7/26/2012 14:10
Surr: Nitrobenzene-d5	63.0	J		41-120	%REC	40	7/26/2012 17:10
Surr: Phenol-d6	58.8			20-120	%REC	1	7/26/2012 14:10

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 13-Aug-12

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Sample ID: WG-1620-MW12A-20120719
Collection Date: 7/19/2012 02:30 PM

Work Order: 1207933
Lab ID: 1207933-25
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
Surr: Phenol-d6	52.6	J		20-120	%REC	40	7/26/2012 17:10
VOLATILES		Method: SW8260				Analyst: PC	
1,2-Dichloroethane	U		0.0025	0.025	mg/L	5	7/27/2012 03:32
Benzene	U		0.0025	0.025	mg/L	5	7/27/2012 03:32
Chlorobenzene	U		0.0025	0.025	mg/L	5	7/27/2012 03:32
Ethylbenzene	U		0.0025	0.025	mg/L	5	7/27/2012 03:32
Methylene chloride	0.0087	J	0.0050	0.050	mg/L	5	7/27/2012 03:32
Toluene	U		0.0025	0.025	mg/L	5	7/27/2012 03:32
Xylenes, Total	U		0.0075	0.075	mg/L	5	7/27/2012 03:32
Surr: 1,2-Dichloroethane-d4	115			70-125	%REC	5	7/27/2012 03:32
Surr: 4-Bromofluorobenzene	102			72-125	%REC	5	7/27/2012 03:32
Surr: Dibromofluoromethane	111			71-125	%REC	5	7/27/2012 03:32
Surr: Toluene-d8	88.6			75-125	%REC	5	7/27/2012 03:32

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 13-Aug-12

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Sample ID: WG-1620-TB-20120719
Collection Date: 7/19/2012

Work Order: 1207933
Lab ID: 1207933-26
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
VOLATILES			Method: SW8260			Analyst: PC	
1,2-Dichloroethane	U		0.00050	0.0050	mg/L	1	7/25/2012 16:39
Benzene	U		0.00050	0.0050	mg/L	1	7/25/2012 16:39
Chlorobenzene	U		0.00050	0.0050	mg/L	1	7/25/2012 16:39
Ethylbenzene	U		0.00050	0.0050	mg/L	1	7/25/2012 16:39
Methylene chloride	U		0.0010	0.010	mg/L	1	7/25/2012 16:39
Toluene	U		0.00050	0.0050	mg/L	1	7/25/2012 16:39
Vinyl chloride	U		0.00050	0.0020	mg/L	1	7/25/2012 16:39
Xylenes, Total	U		0.0015	0.015	mg/L	1	7/25/2012 16:39
Surr: 1,2-Dichloroethane-d4	118			70-125	%REC	1	7/25/2012 16:39
Surr: 4-Bromofluorobenzene	102			72-125	%REC	1	7/25/2012 16:39
Surr: Dibromofluoromethane	118			71-125	%REC	1	7/25/2012 16:39
Surr: Toluene-d8	102			75-125	%REC	1	7/25/2012 16:39

Note: See Qualifiers Page for a list of qualifiers and their explanation.

WorkOrder: 1207933
 InstrumentID: SV-4
 Test Code: 8270_LOW_W
 Test Number: SW8270
 Test Name: Low-Level Semivolatiles

**METHOD DETECTION /
 REPORTING LIMITS**

Matrix: Aqueous Units: mg/L

Type	Analyte	CAS	DCS	MDL	Unadjusted MQL
A	1,2-Diphenylhydrazine	122-66-7	0.000096	0.000050	0.00020
A	2,4-Dimethylphenol	105-67-9	0.000073	0.000050	0.00020
A	2,4-Dinitrotoluene	121-14-2	0.00010	0.000050	0.00020
A	2,6-Dinitrotoluene	606-20-2	0.000063	0.000060	0.00020
A	2-Chloronaphthalene	91-58-7	0.00010	0.000050	0.00020
A	2-Methylnaphthalene	91-57-6	0.000083	0.000050	0.00020
A	4,6-Dinitro-2-methylphenol	534-52-1	0.000013	0.000080	0.00020
A	4-Nitrophenol	100-02-7	0.000082	0.000050	0.0010
A	Acenaphthene	83-32-9	0.000094	0.000050	0.00020
A	Acenaphthylene	208-96-8	0.000079	0.000050	0.00020
A	Anthracene	120-12-7	0.00010	0.000050	0.00020
A	Benz(a)anthracene	56-55-3	0.000083	0.000050	0.00020
A	Benzo(a)pyrene	50-32-8	0.000071	0.000050	0.00020
A	Bis(2-chloroethoxy)methane	111-91-1	0.00011	0.000050	0.00020
A	Bis(2-ethylhexyl)phthalate	117-81-7	0.000087	0.00010	0.00020
A	Chrysene	218-01-9	0.000089	0.000050	0.00020
A	Dibenzofuran	132-64-9	0.000093	0.000050	0.00020
A	Di-n-butyl phthalate	84-74-2	0.000094	0.000050	0.00020
A	Fluoranthene	206-44-0	0.000075	0.000050	0.00020
A	Fluorene	86-73-7	0.000076	0.000050	0.00020
A	Naphthalene	91-20-3	0.00012	0.000050	0.00020
A	Nitrobenzene	98-95-3	0.00011	0.000050	0.00020
A	N-Nitrosodiphenylamine	86-30-6	0.000098	0.000050	0.00020
A	Pentachlorophenol	87-86-5	0.0000074	0.000050	0.00020
A	Phenanthrene	85-01-8	0.000095	0.000050	0.00020
A	Phenol	108-95-2	0.00011	0.000050	0.00020
A	Pyrene	129-00-0	0.000090	0.000050	0.00020
S	Surr: 2,4,6-Tribromophenol	118-79-6	0	0	0.00020
S	Surr: 2-Fluorobiphenyl	321-60-8	0	0	0.00020
S	Surr: 2-Fluorophenol	367-12-4	0	0	0.00020
S	Surr: 4-Terphenyl-d14	1718-51-0	0	0	0.00020
S	Surr: Nitrobenzene-d5	4165-60-0	0	0	0.00020
S	Surr: Phenol-d6	13127-88-3	0	0	0.00020

WorkOrder: 1207933
 InstrumentID: SV-6
 Test Code: 8270_LOW_W
 Test Number: SW8270
 Test Name: Low-Level Semivolatiles

**METHOD DETECTION /
 REPORTING LIMITS**

Matrix: Aqueous Units: mg/L

Type	Analyte	CAS	DCS	MDL	Unadjusted MQL
A	1,2-Diphenylhydrazine	122-66-7	0.000093	0.000050	0.00020
A	2,4-Dimethylphenol	105-67-9	0.000090	0.000050	0.00020
A	2,4-Dinitrotoluene	121-14-2	0.000086	0.000050	0.00020
A	2,6-Dinitrotoluene	606-20-2	0.000099	0.000060	0.00020
A	2-Chloronaphthalene	91-58-7	0.00011	0.000050	0.00020
A	2-Methylnaphthalene	91-57-6	0.000095	0.000050	0.00020
A	4,6-Dinitro-2-methylphenol	534-52-1	0.000044	0.000080	0.00020
A	4-Nitrophenol	100-02-7	0.000086	0.000050	0.0010
A	Acenaphthene	83-32-9	0.000089	0.000050	0.00020
A	Acenaphthylene	208-96-8	0.000096	0.000050	0.00020
A	Anthracene	120-12-7	0.000092	0.000050	0.00020
A	Benz(a)anthracene	56-55-3	0.00011	0.000050	0.00020
A	Benzo(a)pyrene	50-32-8	0.000093	0.000050	0.00020
A	Bis(2-chloroethoxy)methane	111-91-1	0.000086	0.000050	0.00020
A	Bis(2-ethylhexyl)phthalate	117-81-7	0.000097	0.00010	0.00020
A	Chrysene	218-01-9	0.000091	0.000050	0.00020
A	Dibenzofuran	132-64-9	0.00011	0.000050	0.00020
A	Di-n-butyl phthalate	84-74-2	0.000093	0.000050	0.00020
A	Fluoranthene	206-44-0	0.000093	0.000050	0.00020
A	Fluorene	86-73-7	0.000096	0.000050	0.00020
A	Naphthalene	91-20-3	0.000097	0.000050	0.00020
A	Nitrobenzene	98-95-3	0.00011	0.000050	0.00020
A	N-Nitrosodiphenylamine	86-30-6	0.000097	0.000050	0.00020
A	Pentachlorophenol	87-86-5	0.000072	0.000050	0.00020
A	Phenanthrene	85-01-8	0.000094	0.000050	0.00020
A	Phenol	108-95-2	0.00011	0.000050	0.00020
A	Pyrene	129-00-0	0.000098	0.000050	0.00020
S	Surr: 2,4,6-Tribromophenol	118-79-6	0	0	0.00020
S	Surr: 2-Fluorobiphenyl	321-60-8	0	0	0.00020
S	Surr: 2-Fluorophenol	367-12-4	0	0	0.00020
S	Surr: 4-Terphenyl-d14	1718-51-0	0	0	0.00020
S	Surr: Nitrobenzene-d5	4165-60-0	0	0	0.00020
S	Surr: Phenol-d6	13127-88-3	0	0	0.00020

WorkOrder: 1207933
InstrumentID: VOA1
Test Code: 8260_W
Test Number: SW8260
Test Name: Volatiles

**METHOD DETECTION /
 REPORTING LIMITS**

Matrix: Aqueous **Units:** mg/L

Type	Analyte	CAS	DCS	MDL	Unadjusted MQL
A	1,2-Dichloroethane	107-06-2	0.0010	0.00050	0.0050
A	Benzene	71-43-2	0.0011	0.00050	0.0050
A	Chlorobenzene	108-90-7	0.0012	0.00050	0.0050
A	Ethylbenzene	100-41-4	0.00084	0.00050	0.0050
A	Methylene chloride	75-09-2	0.0012	0.0010	0.010
A	Toluene	108-88-3	0.0012	0.00050	0.0050
A	Vinyl chloride	75-01-4	0.0011	0.00050	0.0020
M	Xylenes, Total	1330-20-7	0.0030	0.0015	0.015
S	Surr: 1,2-Dichloroethane-d4	17060-07-0	0	0	0.0050
S	Surr: 4-Bromofluorobenzene	460-00-4	0	0	0.0050
S	Surr: Dibromofluoromethane	1868-53-7	0	0	0.0050
S	Surr: Toluene-d8	2037-26-5	0	0	0.0050

WorkOrder: 1207933
InstrumentID: VOA6
Test Code: 8260_W
Test Number: SW8260
Test Name: Volatiles

**METHOD DETECTION /
 REPORTING LIMITS**

Matrix: Aqueous **Units:** mg/L

Type	Analyte	CAS	DCS	MDL	Unadjusted MQL
A	1,2-Dichloroethane	107-06-2	0.0017	0.00050	0.0050
A	Benzene	71-43-2	0.0016	0.00050	0.0050
A	Chlorobenzene	108-90-7	0.0015	0.00050	0.0050
A	Ethylbenzene	100-41-4	0.0014	0.00050	0.0050
A	Methylene chloride	75-09-2	0.0010	0.0010	0.010
A	Toluene	108-88-3	0.0015	0.00050	0.0050
A	Vinyl chloride	75-01-4	0.0017	0.00050	0.0020
M	Xylenes, Total	1330-20-7	0.0044	0.0015	0.015
S	Surr: 1,2-Dichloroethane-d4	17060-07-0	0	0	0.0050
S	Surr: 4-Bromofluorobenzene	460-00-4	0	0	0.0050
S	Surr: Dibromofluoromethane	1868-53-7	0	0	0.0050
S	Surr: Toluene-d8	2037-26-5	0	0	0.0050

ALS Environmental

Date: 13-Aug-12

Client: Pastor, Behling & Wheeler, LLC
Work Order: 1207933
Project: UPRR Houston Wood GW

QC BATCH REPORT

Batch ID: **62814** Instrument ID **SV-4** Method: **SW8270**

MBLK Sample ID: **SBLKW1-120723-62814** Units: **µg/L** Analysis Date: **7/23/2012 06:39 PM**

Client ID: Run ID: **SV-4_120723D** SeqNo: **2876913** Prep Date: **7/23/2012** DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Diphenylhydrazine	U	0.20								
2,4-Dimethylphenol	U	0.20								
2,4-Dinitrotoluene	U	0.20								
2,6-Dinitrotoluene	U	0.20								
2-Chloronaphthalene	U	0.20								
2-Methylnaphthalene	U	0.20								
4,6-Dinitro-2-methylphenol	U	0.20								
4-Nitrophenol	U	1.0								
Acenaphthene	U	0.20								
Acenaphthylene	U	0.20								
Anthracene	U	0.20								
Benz(a)anthracene	U	0.20								
Benzo(a)pyrene	U	0.20								
Bis(2-chloroethoxy)methane	U	0.20								
Bis(2-ethylhexyl)phthalate	U	0.20								
Chrysene	U	0.20								
Dibenzofuran	U	0.20								
Di-n-butyl phthalate	U	0.20								
Fluoranthene	U	0.20								
Fluorene	U	0.20								
Naphthalene	U	0.20								
Nitrobenzene	U	0.20								
N-Nitrosodiphenylamine	U	0.20								
Pentachlorophenol	U	0.20								
Phenanthrene	U	0.20								
Phenol	U	0.20								
Pyrene	U	0.20								
<i>Surr: 2,4,6-Tribromophenol</i>	<i>4.701</i>	<i>0.20</i>	<i>5</i>	<i>0</i>	<i>94</i>	<i>34-129</i>	<i>0</i>			
<i>Surr: 2-Fluorobiphenyl</i>	<i>4.41</i>	<i>0.20</i>	<i>5</i>	<i>0</i>	<i>88.2</i>	<i>40-125</i>	<i>0</i>			
<i>Surr: 2-Fluorophenol</i>	<i>3.815</i>	<i>0.20</i>	<i>5</i>	<i>0</i>	<i>76.3</i>	<i>20-120</i>	<i>0</i>			
<i>Surr: 4-Terphenyl-d14</i>	<i>4.972</i>	<i>0.20</i>	<i>5</i>	<i>0</i>	<i>99.4</i>	<i>40-135</i>	<i>0</i>			
<i>Surr: Nitrobenzene-d5</i>	<i>3.825</i>	<i>0.20</i>	<i>5</i>	<i>0</i>	<i>76.5</i>	<i>41-120</i>	<i>0</i>			
<i>Surr: Phenol-d6</i>	<i>4.017</i>	<i>0.20</i>	<i>5</i>	<i>0</i>	<i>80.3</i>	<i>20-120</i>	<i>0</i>			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Pastor, Behling & Wheeler, LLC
 Work Order: 1207933
 Project: UPRR Houston Wood GW

QC BATCH REPORT

Batch ID: 62814 Instrument ID SV-4 Method: SW8270

LCS		Sample ID: SLCSW1-120723-62814			Units: µg/L		Analysis Date: 7/23/2012 06:58 PM			
Client ID:		Run ID: SV-4_120723D			SeqNo: 2876914		Prep Date: 7/23/2012		DF: 1	
Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Diphenylhydrazine	3.829	0.20	5	0	76.6	39-127	0			
2,4-Dimethylphenol	4.279	0.20	5	0	85.6	35-120	0			
2,4-Dinitrotoluene	4.67	0.20	5	0	93.4	50-122	0			
2,6-Dinitrotoluene	4.725	0.20	5	0	94.5	50-120	0			
2-Chloronaphthalene	4.022	0.20	5	0	80.4	50-120	0			
2-Methylnaphthalene	4.376	0.20	5	0	87.5	50-120	0			
4,6-Dinitro-2-methylphenol	4.3	0.20	5	0	86	25-121	0			
4-Nitrophenol	4.798	1.0	5	0	96	30-130	0			
Acenaphthene	4.015	0.20	5	0	80.3	45-120	0			
Acenaphthylene	4.367	0.20	5	0	87.3	47-120	0			
Anthracene	4.457	0.20	5	0	89.1	45-120	0			
Benz(a)anthracene	4.515	0.20	5	0	90.3	40-120	0			
Benzo(a)pyrene	4.476	0.20	5	0	89.5	45-120	0			
Bis(2-chloroethoxy)methane	3.945	0.20	5	0	78.9	45-120	0			
Bis(2-ethylhexyl)phthalate	4.594	0.20	5	0	91.9	40-139	0			
Chrysene	4.313	0.20	5	0	86.3	43-120	0			
Dibenzofuran	4.487	0.20	5	0	89.7	50-120	0			
Di-n-butyl phthalate	4.595	0.20	5	0	91.9	45-123	0			
Fluoranthene	4.557	0.20	5	0	91.1	45-125	0			
Fluorene	4.436	0.20	5	0	88.7	49-120	0			
Naphthalene	4.473	0.20	5	0	89.5	45-120	0			
Nitrobenzene	3.745	0.20	5	0	74.9	44-120	0			
N-Nitrosodiphenylamine	4.362	0.20	5	0	87.2	40-125	0			
Pentachlorophenol	3.627	0.20	5	0	72.5	19-121	0			
Phenanthrene	4.273	0.20	5	0	85.5	45-121	0			
Phenol	4.038	0.20	5	0	80.8	20-124	0			
Pyrene	4.142	0.20	5	0	82.8	40-130	0			
Surr: 2,4,6-Tribromophenol	4.802	0.20	5	0	96	34-129	0			
Surr: 2-Fluorobiphenyl	4.505	0.20	5	0	90.1	40-125	0			
Surr: 2-Fluorophenol	3.67	0.20	5	0	73.4	20-120	0			
Surr: 4-Terphenyl-d14	5.145	0.20	5	0	103	40-135	0			
Surr: Nitrobenzene-d5	3.848	0.20	5	0	77	41-120	0			
Surr: Phenol-d6	4.126	0.20	5	0	82.5	20-120	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Pastor, Behling & Wheeler, LLC
 Work Order: 1207933
 Project: UPRR Houston Wood GW

QC BATCH REPORT

Batch ID: 62814 Instrument ID SV-4 Method: SW8270

LCSD	Sample ID: SLCSDW1-120723-62814	Units: µg/L					Analysis Date: 7/23/2012 07:17 PM				
Client ID:	Run ID: SV-4_120723D	SeqNo: 2876915			Prep Date: 7/23/2012		DF: 1				
Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
1,2-Diphenylhydrazine	3.651	0.20	5	0	73	39-127	3.829	4.76	20		
2,4-Dimethylphenol	4.103	0.20	5	0	82.1	35-120	4.279	4.2	20		
2,4-Dinitrotoluene	4.501	0.20	5	0	90	50-122	4.67	3.68	20		
2,6-Dinitrotoluene	4.441	0.20	5	0	88.8	50-120	4.725	6.21	20		
2-Chloronaphthalene	3.703	0.20	5	0	74.1	50-120	4.022	8.27	20		
2-Methylnaphthalene	4.224	0.20	5	0	84.5	50-120	4.376	3.55	20		
4,6-Dinitro-2-methylphenol	4.191	0.20	5	0	83.8	25-121	4.3	2.55	20		
4-Nitrophenol	4.451	1.0	5	0	89	30-130	4.798	7.51	20		
Acenaphthene	3.803	0.20	5	0	76.1	45-120	4.015	5.43	20		
Acenaphthylene	4.177	0.20	5	0	83.5	47-120	4.367	4.45	20		
Anthracene	4.131	0.20	5	0	82.6	45-120	4.457	7.59	20		
Benz(a)anthracene	4.284	0.20	5	0	85.7	40-120	4.515	5.27	20		
Benzo(a)pyrene	4.249	0.20	5	0	85	45-120	4.476	5.2	20		
Bis(2-chloroethoxy)methane	3.889	0.20	5	0	77.8	45-120	3.945	1.42	20		
Bis(2-ethylhexyl)phthalate	4.361	0.20	5	0	87.2	40-139	4.594	5.21	20		
Chrysene	4.03	0.20	5	0	80.6	43-120	4.313	6.77	20		
Dibenzofuran	4.405	0.20	5	0	88.1	50-120	4.487	1.85	20		
Di-n-butyl phthalate	4.272	0.20	5	0	85.4	45-123	4.595	7.28	20		
Fluoranthene	4.242	0.20	5	0	84.8	45-125	4.557	7.15	20		
Fluorene	4.267	0.20	5	0	85.3	49-120	4.436	3.88	20		
Naphthalene	4.274	0.20	5	0	85.5	45-120	4.473	4.55	20		
Nitrobenzene	3.749	0.20	5	0	75	44-120	3.745	0.116	20		
N-Nitrosodiphenylamine	4.156	0.20	5	0	83.1	40-125	4.362	4.82	20		
Pentachlorophenol	3.494	0.20	5	0	69.9	19-121	3.627	3.74	20		
Phenanthrene	4.112	0.20	5	0	82.2	45-121	4.273	3.83	20		
Phenol	3.908	0.20	5	0	78.2	20-124	4.038	3.25	20		
Pyrene	3.994	0.20	5	0	79.9	40-130	4.142	3.64	20		
Surr: 2,4,6-Tribromophenol	4.579	0.20	5	0	91.6	34-129	4.802	4.76	0		
Surr: 2-Fluorobiphenyl	4.317	0.20	5	0	86.3	40-125	4.505	4.27	0		
Surr: 2-Fluorophenol	3.781	0.20	5	0	75.6	20-120	3.67	2.99	0		
Surr: 4-Terphenyl-d14	4.895	0.20	5	0	97.9	40-135	5.145	4.99	0		
Surr: Nitrobenzene-d5	3.755	0.20	5	0	75.1	41-120	3.848	2.45	0		
Surr: Phenol-d6	3.961	0.20	5	0	79.2	20-120	4.126	4.07	0		

The following samples were analyzed in this batch:

1207933-01B	1207933-02B	1207933-03B
1207933-04B	1207933-05B	1207933-06B
1207933-07B	1207933-08B	1207933-09B
1207933-10B	1207933-11B	1207933-12B
1207933-13B	1207933-14B	1207933-15B
1207933-16B	1207933-17B	1207933-18B
1207933-19B	1207933-20B	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Pastor, Behling & Wheeler, LLC
Work Order: 1207933
Project: UPRR Houston Wood GW

QC BATCH REPORT

Batch ID: **62815** Instrument ID **SV-4** Method: **SW8270**

MBLK Sample ID: **SBLKW2-120723-62815** Units: **µg/L** Analysis Date: **7/23/2012 05:54 PM**

Client ID: Run ID: **SV-4_120723A** SeqNo: **2870576** Prep Date: **7/23/2012** DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Diphenylhydrazine	U	0.20								
2,4-Dimethylphenol	U	0.20								
2,4-Dinitrotoluene	U	0.20								
2,6-Dinitrotoluene	U	0.20								
2-Chloronaphthalene	U	0.20								
2-Methylnaphthalene	U	0.20								
4,6-Dinitro-2-methylphenol	U	0.20								
4-Nitrophenol	U	1.0								
Acenaphthene	U	0.20								
Acenaphthylene	U	0.20								
Anthracene	U	0.20								
Benz(a)anthracene	U	0.20								
Benzo(a)pyrene	U	0.20								
Bis(2-chloroethoxy)methane	U	0.20								
Bis(2-ethylhexyl)phthalate	U	0.20								
Chrysene	U	0.20								
Dibenzofuran	U	0.20								
Di-n-butyl phthalate	U	0.20								
Fluoranthene	U	0.20								
Fluorene	U	0.20								
Naphthalene	U	0.20								
Nitrobenzene	U	0.20								
N-Nitrosodiphenylamine	U	0.20								
Pentachlorophenol	U	0.20								
Phenanthrene	U	0.20								
Phenol	U	0.20								
Pyrene	U	0.20								
<i>Surr: 2,4,6-Tribromophenol</i>	3.993	0.20	5	0	79.9	34-129		0		
<i>Surr: 2-Fluorobiphenyl</i>	4.527	0.20	5	0	90.5	40-125		0		
<i>Surr: 2-Fluorophenol</i>	3.477	0.20	5	0	69.5	20-120		0		
<i>Surr: 4-Terphenyl-d14</i>	4.992	0.20	5	0	99.8	40-135		0		
<i>Surr: Nitrobenzene-d5</i>	5.146	0.20	5	0	103	41-120		0		
<i>Surr: Phenol-d6</i>	3.987	0.20	5	0	79.7	20-120		0		

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Pastor, Behling & Wheeler, LLC
 Work Order: 1207933
 Project: UPRR Houston Wood GW

QC BATCH REPORT

Batch ID: 62815 Instrument ID SV-4 Method: SW8270

LCS		Sample ID: SLCSW2-120723-62815			Units: µg/L		Analysis Date: 7/23/2012 06:14 PM			
Client ID:		Run ID: SV-4_120723A			SeqNo: 2870577		Prep Date: 7/23/2012		DF: 1	
Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Diphenylhydrazine	4.667	0.20	5	0	93.3	39-127	0			
2,4-Dimethylphenol	4.612	0.20	5	0	92.2	35-120	0			
2,4-Dinitrotoluene	5.442	0.20	5	0	109	50-122	0			
2,6-Dinitrotoluene	4.806	0.20	5	0	96.1	50-120	0			
2-Chloronaphthalene	4.738	0.20	5	0	94.8	50-120	0			
2-Methylnaphthalene	4.754	0.20	5	0	95.1	50-120	0			
4,6-Dinitro-2-methylphenol	3.607	0.20	5	0	72.1	25-121	0			
4-Nitrophenol	6.029	1.0	5	0	121	30-130	0			
Acenaphthene	4.42	0.20	5	0	88.4	45-120	0			
Acenaphthylene	4.836	0.20	5	0	96.7	47-120	0			
Anthracene	4.766	0.20	5	0	95.3	45-120	0			
Benz(a)anthracene	4.787	0.20	5	0	95.7	40-120	0			
Benzo(a)pyrene	4.551	0.20	5	0	91	45-120	0			
Bis(2-chloroethoxy)methane	4.703	0.20	5	0	94.1	45-120	0			
Bis(2-ethylhexyl)phthalate	4.702	0.20	5	0	94	40-139	0			
Chrysene	4.427	0.20	5	0	88.5	43-120	0			
Dibenzofuran	4.973	0.20	5	0	99.5	50-120	0			
Di-n-butyl phthalate	4.834	0.20	5	0	96.7	45-123	0			
Fluoranthene	4.94	0.20	5	0	98.8	45-125	0			
Fluorene	4.986	0.20	5	0	99.7	49-120	0			
Naphthalene	4.992	0.20	5	0	99.8	45-120	0			
Nitrobenzene	4.784	0.20	5	0	95.7	44-120	0			
N-Nitrosodiphenylamine	4.677	0.20	5	0	93.5	40-125	0			
Pentachlorophenol	2.293	0.20	5	0	45.9	19-121	0			
Phenanthrene	4.555	0.20	5	0	91.1	45-121	0			
Phenol	4.341	0.20	5	0	86.8	20-124	0			
Pyrene	4.744	0.20	5	0	94.9	40-130	0			
Surr: 2,4,6-Tribromophenol	4.865	0.20	5	0	97.3	34-129	0			
Surr: 2-Fluorobiphenyl	4.661	0.20	5	0	93.2	40-125	0			
Surr: 2-Fluorophenol	4.164	0.20	5	0	83.3	20-120	0			
Surr: 4-Terphenyl-d14	5.424	0.20	5	0	108	40-135	0			
Surr: Nitrobenzene-d5	4.608	0.20	5	0	92.2	41-120	0			
Surr: Phenol-d6	4.501	0.20	5	0	90	20-120	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Pastor, Behling & Wheeler, LLC
 Work Order: 1207933
 Project: UPRR Houston Wood GW

QC BATCH REPORT

Batch ID: 62815 Instrument ID SV-4 Method: SW8270

LCSD	Sample ID: SLCS DW2-120723-62815	Units: µg/L					Analysis Date: 7/23/2012 06:34 PM				
Client ID:	Run ID: SV-4_120723A	SeqNo: 2870578			Prep Date: 7/23/2012		DF: 1				
Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
1,2-Diphenylhydrazine	4.33	0.20	5	0	86.6	39-127	4.667	7.49	20		
2,4-Dimethylphenol	4.076	0.20	5	0	81.5	35-120	4.612	12.3	20		
2,4-Dinitrotoluene	4.748	0.20	5	0	95	50-122	5.442	13.6	20		
2,6-Dinitrotoluene	4.886	0.20	5	0	97.7	50-120	4.806	1.64	20		
2-Chloronaphthalene	4.572	0.20	5	0	91.4	50-120	4.738	3.57	20		
2-Methylnaphthalene	4.022	0.20	5	0	80.4	50-120	4.754	16.7	20		
4,6-Dinitro-2-methylphenol	3.117	0.20	5	0	62.3	25-121	3.607	14.6	20		
4-Nitrophenol	5.708	1.0	5	0	114	30-130	6.029	5.47	20		
Acenaphthene	4.044	0.20	5	0	80.9	45-120	4.42	8.89	20		
Acenaphthylene	4.771	0.20	5	0	95.4	47-120	4.836	1.35	20		
Anthracene	4.513	0.20	5	0	90.3	45-120	4.766	5.45	20		
Benz(a)anthracene	4.523	0.20	5	0	90.5	40-120	4.787	5.68	20		
Benzo(a)pyrene	4.415	0.20	5	0	88.3	45-120	4.551	3.04	20		
Bis(2-chloroethoxy)methane	4.147	0.20	5	0	82.9	45-120	4.703	12.6	20		
Bis(2-ethylhexyl)phthalate	4.791	0.20	5	0	95.8	40-139	4.702	1.89	20		
Chrysene	4.465	0.20	5	0	89.3	43-120	4.427	0.871	20		
Dibenzofuran	4.393	0.20	5	0	87.9	50-120	4.973	12.4	20		
Di-n-butyl phthalate	4.747	0.20	5	0	94.9	45-123	4.834	1.82	20		
Fluoranthene	4.729	0.20	5	0	94.6	45-125	4.94	4.36	20		
Fluorene	4.563	0.20	5	0	91.3	49-120	4.986	8.86	20		
Naphthalene	4.348	0.20	5	0	87	45-120	4.992	13.8	20		
Nitrobenzene	4.004	0.20	5	0	80.1	44-120	4.784	17.8	20		
N-Nitrosodiphenylamine	4.311	0.20	5	0	86.2	40-125	4.677	8.15	20		
Pentachlorophenol	1.96	0.20	5	0	39.2	19-121	2.293	15.7	20		
Phenanthrene	4.483	0.20	5	0	89.7	45-121	4.555	1.59	20		
Phenol	3.965	0.20	5	0	79.3	20-124	4.341	9.07	20		
Pyrene	5.008	0.20	5	0	100	40-130	4.744	5.41	20		
Surr: 2,4,6-Tribromophenol	4.227	0.20	5	0	84.5	34-129	4.865	14	0		
Surr: 2-Fluorobiphenyl	4.467	0.20	5	0	89.3	40-125	4.661	4.26	0		
Surr: 2-Fluorophenol	3.894	0.20	5	0	77.9	20-120	4.164	6.71	0		
Surr: 4-Terphenyl-d14	5.713	0.20	5	0	114	40-135	5.424	5.19	0		
Surr: Nitrobenzene-d5	3.984	0.20	5	0	79.7	41-120	4.608	14.5	0		
Surr: Phenol-d6	4.132	0.20	5	0	82.6	20-120	4.501	8.56	0		

The following samples were analyzed in this batch:

1207933-21B	1207933-22B	1207933-23B
1207933-24B	1207933-25B	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Pastor, Behling & Wheeler, LLC
Work Order: 1207933
Project: UPRR Houston Wood GW

QC BATCH REPORT

Batch ID: **R131720** Instrument ID **VOA6** Method: **SW8260**

MBLK Sample ID: **VBLKW-072312-R131720** Units: **µg/L** Analysis Date: **7/23/2012 11:46 AM**

Client ID: Run ID: **VOA6_120723C** SeqNo: **2871001** Prep Date: DF: **1**

Analyte	Result	MLQ	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Dichloroethane	U	5.0								
Benzene	U	5.0								
Chlorobenzene	U	5.0								
Ethylbenzene	U	5.0								
Methylene chloride	U	10								
Toluene	U	5.0								
Vinyl chloride	U	2.0								
Xylenes, Total	U	15								
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>54.51</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>109</i>	<i>70-125</i>	<i>0</i>			
<i>Surr: 4-Bromofluorobenzene</i>	<i>47.82</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>95.6</i>	<i>72-125</i>	<i>0</i>			
<i>Surr: Dibromofluoromethane</i>	<i>55.17</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>110</i>	<i>71-125</i>	<i>0</i>			
<i>Surr: Toluene-d8</i>	<i>50.5</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>101</i>	<i>75-125</i>	<i>0</i>			

LCS Sample ID: **VLCSW-072312-R131720** Units: **µg/L** Analysis Date: **7/23/2012 10:52 AM**

Client ID: Run ID: **VOA6_120723C** SeqNo: **2871000** Prep Date: DF: **1**

Analyte	Result	MLQ	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Dichloroethane	47.81	5.0	50	0	95.6	78-120	0			
Benzene	51.25	5.0	50	0	103	73-121	0			
Chlorobenzene	49.79	5.0	50	0	99.6	80-120	0			
Ethylbenzene	49.82	5.0	50	0	99.6	80-120	0			
Methylene chloride	53.78	10	50	0	108	65-133	0			
Toluene	49.63	5.0	50	0	99.3	80-120	0			
Vinyl chloride	52.16	2.0	50	0	104	70-127	0			
Xylenes, Total	149.7	15	150	0	99.8	80-120	0			
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>53.1</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>106</i>	<i>70-125</i>	<i>0</i>			
<i>Surr: 4-Bromofluorobenzene</i>	<i>49.01</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>98</i>	<i>72-125</i>	<i>0</i>			
<i>Surr: Dibromofluoromethane</i>	<i>54.3</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>109</i>	<i>71-125</i>	<i>0</i>			
<i>Surr: Toluene-d8</i>	<i>50.88</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>102</i>	<i>75-125</i>	<i>0</i>			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Pastor, Behling & Wheeler, LLC
 Work Order: 1207933
 Project: UPRR Houston Wood GW

QC BATCH REPORT

Batch ID: R131720 Instrument ID VOA6 Method: SW8260

MS		Sample ID: 1207818-16AMS			Units: µg/L			Analysis Date: 7/23/2012 02:53 PM		
Client ID:		Run ID: VOA6_120723C			SeqNo: 2871003		Prep Date:		DF: 1	
Analyte	Result	ML	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Dichloroethane	49.59	5.0	50	0	99.2	78-120	0			
Benzene	50.9	5.0	50	0	102	73-121	0			
Chlorobenzene	48.08	5.0	50	0	96.2	80-120	0			
Ethylbenzene	45.58	5.0	50	0	91.2	80-120	0			
Methylene chloride	51.77	10	50	0	104	65-133	0			
Toluene	46.71	5.0	50	0	93.4	80-120	0			
Vinyl chloride	50.33	2.0	50	0	101	70-127	0			
Xylenes, Total	137	15	150	0	91.3	80-120	0			
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>53.04</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>106</i>	<i>70-125</i>	<i>0</i>			
<i>Surr: 4-Bromofluorobenzene</i>	<i>49.99</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>100</i>	<i>72-125</i>	<i>0</i>			
<i>Surr: Dibromofluoromethane</i>	<i>55.46</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>111</i>	<i>71-125</i>	<i>0</i>			
<i>Surr: Toluene-d8</i>	<i>49.48</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>99</i>	<i>75-125</i>	<i>0</i>			

MSD		Sample ID: 1207818-16AMSD			Units: µg/L			Analysis Date: 7/23/2012 03:19 PM		
Client ID:		Run ID: VOA6_120723C			SeqNo: 2871004		Prep Date:		DF: 1	
Analyte	Result	ML	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Dichloroethane	51.04	5.0	50	0	102	78-120	49.59	2.89	20	
Benzene	50.73	5.0	50	0	101	73-121	50.9	0.34	20	
Chlorobenzene	48.63	5.0	50	0	97.3	80-120	48.08	1.14	20	
Ethylbenzene	45.39	5.0	50	0	90.8	80-120	45.58	0.417	20	
Methylene chloride	53.65	10	50	0	107	65-133	51.77	3.56	20	
Toluene	46.54	5.0	50	0	93.1	80-120	46.71	0.367	20	
Vinyl chloride	49.94	2.0	50	0	99.9	70-127	50.33	0.772	20	
Xylenes, Total	138.2	15	150	0	92.2	80-120	137	0.882	20	
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>53.43</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>107</i>	<i>70-125</i>	<i>53.04</i>	<i>0.734</i>	<i>20</i>	
<i>Surr: 4-Bromofluorobenzene</i>	<i>50.97</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>102</i>	<i>72-125</i>	<i>49.99</i>	<i>1.94</i>	<i>20</i>	
<i>Surr: Dibromofluoromethane</i>	<i>53.71</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>107</i>	<i>71-125</i>	<i>55.46</i>	<i>3.2</i>	<i>20</i>	
<i>Surr: Toluene-d8</i>	<i>49.58</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>99.2</i>	<i>75-125</i>	<i>49.48</i>	<i>0.203</i>	<i>20</i>	

The following samples were analyzed in this batch:

1207933-01A	1207933-02A	1207933-03A
1207933-04A		

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Pastor, Behling & Wheeler, LLC
Work Order: 1207933
Project: UPRR Houston Wood GW

QC BATCH REPORT

Batch ID: **R131825** Instrument ID **VOA1** Method: **SW8260**

MBLK		Sample ID: VBLKW-072412-R131825			Units: µg/L			Analysis Date: 7/25/2012 12:47 AM		
Client ID:		Run ID: VOA1_120724D			SeqNo: 2873437		Prep Date:		DF: 1	
Analyte	Result	MLQ	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Dichloroethane	U	5.0								
Benzene	U	5.0								
Chlorobenzene	U	5.0								
Ethylbenzene	U	5.0								
Methylene chloride	U	10								
Toluene	U	5.0								
Vinyl chloride	U	2.0								
Xylenes, Total	U	15								
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>53.73</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>107</i>	<i>70-125</i>	<i>0</i>			
<i>Surr: 4-Bromofluorobenzene</i>	<i>51.01</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>102</i>	<i>72-125</i>	<i>0</i>			
<i>Surr: Dibromofluoromethane</i>	<i>53.13</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>106</i>	<i>71-125</i>	<i>0</i>			
<i>Surr: Toluene-d8</i>	<i>48.36</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>96.7</i>	<i>75-125</i>	<i>0</i>			

LCS		Sample ID: VLCSW-072412-R131825			Units: µg/L			Analysis Date: 7/24/2012 11:55 PM		
Client ID:		Run ID: VOA1_120724D			SeqNo: 2873436		Prep Date:		DF: 1	
Analyte	Result	MLQ	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Dichloroethane	55.57	5.0	50	0	111	78-120	0			
Benzene	53.02	5.0	50	0	106	73-121	0			
Chlorobenzene	51.04	5.0	50	0	102	80-120	0			
Ethylbenzene	51.33	5.0	50	0	103	80-120	0			
Methylene chloride	50.1	10	50	0	100	65-133	0			
Toluene	50	5.0	50	0	100	80-120	0			
Vinyl chloride	56.17	2.0	50	0	112	70-127	0			
Xylenes, Total	146.9	15	150	0	98	80-120	0			
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>54</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>108</i>	<i>70-125</i>	<i>0</i>			
<i>Surr: 4-Bromofluorobenzene</i>	<i>52.78</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>106</i>	<i>72-125</i>	<i>0</i>			
<i>Surr: Dibromofluoromethane</i>	<i>53.84</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>108</i>	<i>71-125</i>	<i>0</i>			
<i>Surr: Toluene-d8</i>	<i>48.93</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>97.9</i>	<i>75-125</i>	<i>0</i>			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Pastor, Behling & Wheeler, LLC

Work Order: 1207933

Project: UPRR Houston Wood GW

QC BATCH REPORT

Batch ID: R131825

Instrument ID VOA1

Method: SW8260

MS		Sample ID: 12071078-02AMS			Units: µg/L			Analysis Date: 7/25/2012 01:39 AM		
Client ID:		Run ID: VOA1_120724D			SeqNo: 2873439		Prep Date:		DF: 50	
Analyte	Result	ML	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Dichloroethane	2586	250	2500	0	103	78-120	0			
Benzene	5272	250	2500	3434	73.5	73-121	0			
Chlorobenzene	2367	250	2500	0	94.7	80-120	0			
Ethylbenzene	2251	250	2500	0	90	80-120	0			
Methylene chloride	2603	500	2500	0	104	65-133	0			
Toluene	2317	250	2500	0	92.7	80-120	0			
Vinyl chloride	2324	100	2500	0	93	70-127	0			
Xylenes, Total	6754	750	7500	0	90.1	80-120	0			
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>2587</i>	<i>250</i>	<i>2500</i>	<i>0</i>	<i>103</i>	<i>70-125</i>	<i>0</i>			
<i>Surr: 4-Bromofluorobenzene</i>	<i>2528</i>	<i>250</i>	<i>2500</i>	<i>0</i>	<i>101</i>	<i>72-125</i>	<i>0</i>			
<i>Surr: Dibromofluoromethane</i>	<i>2501</i>	<i>250</i>	<i>2500</i>	<i>0</i>	<i>100</i>	<i>71-125</i>	<i>0</i>			
<i>Surr: Toluene-d8</i>	<i>2358</i>	<i>250</i>	<i>2500</i>	<i>0</i>	<i>94.3</i>	<i>75-125</i>	<i>0</i>			

MSD		Sample ID: 12071078-02AMSD			Units: µg/L			Analysis Date: 7/25/2012 02:06 AM		
Client ID:		Run ID: VOA1_120724D			SeqNo: 2873440		Prep Date:		DF: 50	
Analyte	Result	ML	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Dichloroethane	2665	250	2500	0	107	78-120	2586	3	20	
Benzene	5493	250	2500	3434	82.4	73-121	5272	4.11	20	
Chlorobenzene	2301	250	2500	0	92	80-120	2367	2.85	20	
Ethylbenzene	2000	250	2500	0	80	80-120	2251	11.8	20	S
Methylene chloride	2596	500	2500	0	104	65-133	2603	0.264	20	
Toluene	2153	250	2500	0	86.1	80-120	2317	7.33	20	
Vinyl chloride	2249	100	2500	0	90	70-127	2324	3.28	20	
Xylenes, Total	6324	750	7500	0	84.3	80-120	6754	6.58	20	
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>2596</i>	<i>250</i>	<i>2500</i>	<i>0</i>	<i>104</i>	<i>70-125</i>	<i>2587</i>	<i>0.366</i>	<i>20</i>	
<i>Surr: 4-Bromofluorobenzene</i>	<i>2464</i>	<i>250</i>	<i>2500</i>	<i>0</i>	<i>98.5</i>	<i>72-125</i>	<i>2528</i>	<i>2.59</i>	<i>20</i>	
<i>Surr: Dibromofluoromethane</i>	<i>2669</i>	<i>250</i>	<i>2500</i>	<i>0</i>	<i>107</i>	<i>71-125</i>	<i>2501</i>	<i>6.51</i>	<i>20</i>	
<i>Surr: Toluene-d8</i>	<i>2284</i>	<i>250</i>	<i>2500</i>	<i>0</i>	<i>91.4</i>	<i>75-125</i>	<i>2358</i>	<i>3.17</i>	<i>20</i>	

The following samples were analyzed in this batch:

1207933-12A	1207933-13A	1207933-14A
1207933-16A		

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Pastor, Behling & Wheeler, LLC
Work Order: 1207933
Project: UPRR Houston Wood GW

QC BATCH REPORT

Batch ID: **R131831** Instrument ID **VOA1** Method: **SW8260**

MBLK		Sample ID: VBLKW-072512-R131831			Units: µg/L			Analysis Date: 7/25/2012 01:29 PM		
Client ID:		Run ID: VOA1_120725A			SeqNo: 2873591		Prep Date:		DF: 1	
Analyte	Result	MLQ	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Dichloroethane	U	5.0								
Benzene	U	5.0								
Chlorobenzene	U	5.0								
Ethylbenzene	U	5.0								
Methylene chloride	U	10								
Toluene	U	5.0								
Vinyl chloride	U	2.0								
Xylenes, Total	U	15								
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>55.2</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>110</i>	<i>70-125</i>	<i>0</i>			
<i>Surr: 4-Bromofluorobenzene</i>	<i>46.4</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>92.8</i>	<i>72-125</i>	<i>0</i>			
<i>Surr: Dibromofluoromethane</i>	<i>53.83</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>108</i>	<i>71-125</i>	<i>0</i>			
<i>Surr: Toluene-d8</i>	<i>45.26</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>90.5</i>	<i>75-125</i>	<i>0</i>			

LCS		Sample ID: VLCSW-072512-R131831			Units: µg/L			Analysis Date: 7/25/2012 12:35 PM		
Client ID:		Run ID: VOA1_120725A			SeqNo: 2873590		Prep Date:		DF: 1	
Analyte	Result	MLQ	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Dichloroethane	55.12	5.0	50	0	110	78-120	0			
Benzene	51.52	5.0	50	0	103	73-121	0			
Chlorobenzene	50.82	5.0	50	0	102	80-120	0			
Ethylbenzene	49.05	5.0	50	0	98.1	80-120	0			
Methylene chloride	55.35	10	50	0	111	65-133	0			
Toluene	46.86	5.0	50	0	93.7	80-120	0			
Vinyl chloride	58.39	2.0	50	0	117	70-127	0			
Xylenes, Total	145.4	15	150	0	96.9	80-120	0			
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>53.74</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>107</i>	<i>70-125</i>	<i>0</i>			
<i>Surr: 4-Bromofluorobenzene</i>	<i>48.2</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>96.4</i>	<i>72-125</i>	<i>0</i>			
<i>Surr: Dibromofluoromethane</i>	<i>53.42</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>107</i>	<i>71-125</i>	<i>0</i>			
<i>Surr: Toluene-d8</i>	<i>43.17</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>86.3</i>	<i>75-125</i>	<i>0</i>			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Pastor, Behling & Wheeler, LLC
Work Order: 1207933
Project: UPRR Houston Wood GW

QC BATCH REPORT

Batch ID: **R131831** Instrument ID **VOA1** Method: **SW8260**

MS		Sample ID: 1207961-03AMS			Units: µg/L		Analysis Date: 7/25/2012 02:50 PM			
Client ID:		Run ID: VOA1_120725A			SeqNo: 2873970		Prep Date:		DF: 1	
Analyte	Result	ML	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Dichloroethane	58.6	5.0	50	0	117	78-120	0			
Benzene	49.11	5.0	50	0	98.2	73-121	0			
Chlorobenzene	45.15	5.0	50	0	90.3	80-120	0			
Ethylbenzene	38.43	5.0	50	0	76.9	80-120	0			S
Methylene chloride	52.91	10	50	0	106	65-133	0			
Toluene	40.25	5.0	50	0	80.5	80-120	0			
Vinyl chloride	46.58	2.0	50	0	93.2	70-127	0			
Xylenes, Total	129.6	15	150	0	86.4	80-120	0			
<i>Surr: 1,2-Dichloroethane-d4</i>		<i>56.02</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>112</i>	<i>70-125</i>	<i>0</i>		
<i>Surr: 4-Bromofluorobenzene</i>		<i>50.16</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>100</i>	<i>72-125</i>	<i>0</i>		
<i>Surr: Dibromofluoromethane</i>		<i>53.76</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>108</i>	<i>71-125</i>	<i>0</i>		
<i>Surr: Toluene-d8</i>		<i>45.66</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>91.3</i>	<i>75-125</i>	<i>0</i>		

MSD		Sample ID: 1207961-03AMSD			Units: µg/L		Analysis Date: 7/25/2012 03:17 PM			
Client ID:		Run ID: VOA1_120725A			SeqNo: 2873971		Prep Date:		DF: 1	
Analyte	Result	ML	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Dichloroethane	53.78	5.0	50	0	108	78-120	58.6	8.57	20	
Benzene	47.76	5.0	50	0	95.5	73-121	49.11	2.8	20	
Chlorobenzene	48.05	5.0	50	0	96.1	80-120	45.15	6.22	20	
Ethylbenzene	44.78	5.0	50	0	89.6	80-120	38.43	15.2	20	
Methylene chloride	51.26	10	50	0	103	65-133	52.91	3.18	20	
Toluene	45.16	5.0	50	0	90.3	80-120	40.25	11.5	20	
Vinyl chloride	50.86	2.0	50	0	102	70-127	46.58	8.79	20	
Xylenes, Total	139.4	15	150	0	93	80-120	129.6	7.33	20	
<i>Surr: 1,2-Dichloroethane-d4</i>		<i>52.64</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>105</i>	<i>70-125</i>	<i>56.02</i>	<i>6.22</i>	<i>20</i>
<i>Surr: 4-Bromofluorobenzene</i>		<i>50.31</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>101</i>	<i>72-125</i>	<i>50.16</i>	<i>0.3</i>	<i>20</i>
<i>Surr: Dibromofluoromethane</i>		<i>52.64</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>105</i>	<i>71-125</i>	<i>53.76</i>	<i>2.12</i>	<i>20</i>
<i>Surr: Toluene-d8</i>		<i>48.56</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>97.1</i>	<i>75-125</i>	<i>45.66</i>	<i>6.14</i>	<i>20</i>

The following samples were analyzed in this batch: 1207933-26A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Pastor, Behling & Wheeler, LLC
Work Order: 1207933
Project: UPRR Houston Wood GW

QC BATCH REPORT

Batch ID: **R131912** Instrument ID **VOA1** Method: **SW8260**

MBLK Sample ID: **VBLKW-072612-R131912** Units: **µg/L** Analysis Date: **7/26/2012 11:52 AM**

Client ID: Run ID: **VOA1_120726B** SeqNo: **2875929** Prep Date: DF: **1**

Analyte	Result	ML	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Dichloroethane	U	5.0								
Benzene	U	5.0								
Chlorobenzene	U	5.0								
Ethylbenzene	U	5.0								
Methylene chloride	U	10								
Toluene	U	5.0								
Vinyl chloride	U	2.0								
Xylenes, Total	U	15								
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>56.17</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>112</i>	<i>70-125</i>	<i>0</i>			
<i>Surr: 4-Bromofluorobenzene</i>	<i>48.01</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>96</i>	<i>72-125</i>	<i>0</i>			
<i>Surr: Dibromofluoromethane</i>	<i>54.28</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>109</i>	<i>71-125</i>	<i>0</i>			
<i>Surr: Toluene-d8</i>	<i>49.24</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>98.5</i>	<i>75-125</i>	<i>0</i>			

LCS Sample ID: **VLCSW-072612-R131912** Units: **µg/L** Analysis Date: **7/26/2012 10:58 AM**

Client ID: Run ID: **VOA1_120726B** SeqNo: **2875928** Prep Date: DF: **1**

Analyte	Result	ML	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Dichloroethane	52.49	5.0	50	0	105	78-120	0			
Benzene	49.96	5.0	50	0	99.9	73-121	0			
Chlorobenzene	51.99	5.0	50	0	104	80-120	0			
Ethylbenzene	49.51	5.0	50	0	99	80-120	0			
Methylene chloride	52.82	10	50	0	106	65-133	0			
Toluene	48.24	5.0	50	0	96.5	80-120	0			
Vinyl chloride	60.77	2.0	50	0	122	70-127	0			
Xylenes, Total	149.8	15	150	0	99.8	80-120	0			
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>55.68</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>111</i>	<i>70-125</i>	<i>0</i>			
<i>Surr: 4-Bromofluorobenzene</i>	<i>51.73</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>103</i>	<i>72-125</i>	<i>0</i>			
<i>Surr: Dibromofluoromethane</i>	<i>53.82</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>108</i>	<i>71-125</i>	<i>0</i>			
<i>Surr: Toluene-d8</i>	<i>47.96</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>95.9</i>	<i>75-125</i>	<i>0</i>			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Pastor, Behling & Wheeler, LLC
 Work Order: 1207933
 Project: UPRR Houston Wood GW

QC BATCH REPORT

Batch ID: R131912 Instrument ID VOA1 Method: SW8260

MS		Sample ID: 12071014-01ZMS			Units: µg/L			Analysis Date: 7/26/2012 01:15 PM		
Client ID:		Run ID: VOA1_120726B			SeqNo: 2875931		Prep Date:		DF: 20	
Analyte	Result	ML	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Dichloroethane	1156	100	1000	0	116	78-120	0			
Benzene	990.1	100	1000	0	99	73-121	0			
Chlorobenzene	915.8	100	1000	0	91.6	80-120	0			
Ethylbenzene	881.8	100	1000	0	88.2	80-120	0			
Methylene chloride	1008	200	1000	70.2	93.8	65-133	0			
Toluene	893.5	100	1000	0	89.3	80-120	0			
Vinyl chloride	1005	40	1000	0	101	70-127	0			
Xylenes, Total	2682	300	3000	0	89.4	80-120	0			
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>1078</i>	<i>100</i>	<i>1000</i>	<i>0</i>	<i>108</i>	<i>70-125</i>	<i>0</i>			
<i>Surr: 4-Bromofluorobenzene</i>	<i>1022</i>	<i>100</i>	<i>1000</i>	<i>0</i>	<i>102</i>	<i>72-125</i>	<i>0</i>			
<i>Surr: Dibromofluoromethane</i>	<i>1118</i>	<i>100</i>	<i>1000</i>	<i>0</i>	<i>112</i>	<i>71-125</i>	<i>0</i>			
<i>Surr: Toluene-d8</i>	<i>906.3</i>	<i>100</i>	<i>1000</i>	<i>0</i>	<i>90.6</i>	<i>75-125</i>	<i>0</i>			

MSD		Sample ID: 12071014-01ZMSD			Units: µg/L			Analysis Date: 7/26/2012 01:42 PM		
Client ID:		Run ID: VOA1_120726B			SeqNo: 2875932		Prep Date:		DF: 20	
Analyte	Result	ML	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Dichloroethane	1220	100	1000	0	122	78-120	1156	5.39	20	S
Benzene	997.9	100	1000	0	99.8	73-121	990.1	0.79	20	
Chlorobenzene	903.3	100	1000	0	90.3	80-120	915.8	1.38	20	
Ethylbenzene	826.4	100	1000	0	82.6	80-120	881.8	6.48	20	
Methylene chloride	1093	200	1000	70.2	102	65-133	1008	8.05	20	
Toluene	844.9	100	1000	0	84.5	80-120	893.5	5.59	20	
Vinyl chloride	898.8	40	1000	0	89.9	70-127	1005	11.2	20	
Xylenes, Total	2499	300	3000	0	83.3	80-120	2682	7.04	20	
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>1100</i>	<i>100</i>	<i>1000</i>	<i>0</i>	<i>110</i>	<i>70-125</i>	<i>1078</i>	<i>2.04</i>	<i>20</i>	
<i>Surr: 4-Bromofluorobenzene</i>	<i>1008</i>	<i>100</i>	<i>1000</i>	<i>0</i>	<i>101</i>	<i>72-125</i>	<i>1022</i>	<i>1.39</i>	<i>20</i>	
<i>Surr: Dibromofluoromethane</i>	<i>1112</i>	<i>100</i>	<i>1000</i>	<i>0</i>	<i>111</i>	<i>71-125</i>	<i>1118</i>	<i>0.507</i>	<i>20</i>	
<i>Surr: Toluene-d8</i>	<i>958.7</i>	<i>100</i>	<i>1000</i>	<i>0</i>	<i>95.9</i>	<i>75-125</i>	<i>906.3</i>	<i>5.62</i>	<i>20</i>	

The following samples were analyzed in this batch:

1207933-05A	1207933-06A	1207933-07A
1207933-09A	1207933-10A	1207933-11A
1207933-15A	1207933-17A	1207933-18A
1207933-22A	1207933-23A	1207933-24A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Pastor, Behling & Wheeler, LLC
Work Order: 1207933
Project: UPRR Houston Wood GW

QC BATCH REPORT

Batch ID: **R131997** Instrument ID **VOA1** Method: **SW8260**

MBLK Sample ID: **VBLKW-072612-R131997** Units: **µg/L** Analysis Date: **7/27/2012 12:30 AM**

Client ID: Run ID: **VOA1_120726C** SeqNo: **2877802** Prep Date: DF: **1**

Analyte	Result	ML	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Dichloroethane	U	5.0								
Benzene	U	5.0								
Chlorobenzene	U	5.0								
Ethylbenzene	U	5.0								
Methylene chloride	U	10								
Toluene	U	5.0								
Xylenes, Total	U	15								
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>52.79</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>106</i>	<i>70-125</i>	<i>0</i>			
<i>Surr: 4-Bromofluorobenzene</i>	<i>52.48</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>105</i>	<i>72-125</i>	<i>0</i>			
<i>Surr: Dibromofluoromethane</i>	<i>53.61</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>107</i>	<i>71-125</i>	<i>0</i>			
<i>Surr: Toluene-d8</i>	<i>49.13</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>98.3</i>	<i>75-125</i>	<i>0</i>			

LCS Sample ID: **VLCSW-072612-R131997** Units: **µg/L** Analysis Date: **7/27/2012 09:58 AM**

Client ID: Run ID: **VOA1_120726C** SeqNo: **2877827** Prep Date: DF: **1**

Analyte	Result	ML	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Dichloroethane	55.46	5.0	50	0	111	78-120	0			
Benzene	50.65	5.0	50	0	101	73-121	0			
Chlorobenzene	41.37	5.0	50	0	82.7	80-120	0			
Ethylbenzene	45.75	5.0	50	0	91.5	80-120	0			
Methylene chloride	52.88	10	50	0	106	65-133	0			
Toluene	46.14	5.0	50	0	92.3	80-120	0			
Xylenes, Total	137	15	150	0	91.3	80-120	0			
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>57.55</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>115</i>	<i>70-125</i>	<i>0</i>			
<i>Surr: 4-Bromofluorobenzene</i>	<i>50.06</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>100</i>	<i>72-125</i>	<i>0</i>			
<i>Surr: Dibromofluoromethane</i>	<i>56.12</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>112</i>	<i>71-125</i>	<i>0</i>			
<i>Surr: Toluene-d8</i>	<i>43.99</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>88</i>	<i>75-125</i>	<i>0</i>			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Pastor, Behling & Wheeler, LLC
 Work Order: 1207933
 Project: UPRR Houston Wood GW

QC BATCH REPORT

Batch ID: R131997 Instrument ID VOA1 Method: SW8260

MS		Sample ID: 1207990-04AMS			Units: µg/L			Analysis Date: 7/27/2012 01:22 AM		
Client ID:		Run ID: VOA1_120726C			SeqNo: 2877804		Prep Date:		DF: 50	
Analyte	Result	ML	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Dichloroethane	2580	250	2500	0	103	78-120	0			
Benzene	4445	250	2500	2209	89.4	73-121	0			
Chlorobenzene	2235	250	2500	0	89.4	80-120	0			
Ethylbenzene	2118	250	2500	68.14	82	80-120	0			
Methylene chloride	2643	500	2500	0	106	65-133	0			
Toluene	2817	250	2500	758.4	82.4	80-120	0			
Xylenes, Total	6545	750	7500	0	87.3	80-120	0			
<i>Surr: 1,2-Dichloroethane-d4</i>	2750	250	2500	0	110	70-125	0			
<i>Surr: 4-Bromofluorobenzene</i>	2546	250	2500	0	102	72-125	0			
<i>Surr: Dibromofluoromethane</i>	2648	250	2500	0	106	71-125	0			
<i>Surr: Toluene-d8</i>	2337	250	2500	0	93.5	75-125	0			

MSD		Sample ID: 1207990-04AMSD			Units: µg/L			Analysis Date: 7/27/2012 01:48 AM		
Client ID:		Run ID: VOA1_120726C			SeqNo: 2877805		Prep Date:		DF: 50	
Analyte	Result	ML	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Dichloroethane	2822	250	2500	0	113	78-120	2580	8.96	20	
Benzene	4563	250	2500	2209	94.2	73-121	4445	2.63	20	
Chlorobenzene	2379	250	2500	0	95.2	80-120	2235	6.24	20	
Ethylbenzene	2355	250	2500	68.14	91.5	80-120	2118	10.6	20	
Methylene chloride	2738	500	2500	0	110	65-133	2643	3.55	20	
Toluene	3053	250	2500	758.4	91.8	80-120	2817	8.03	20	
Xylenes, Total	6779	750	7500	0	90.4	80-120	6545	3.51	20	
<i>Surr: 1,2-Dichloroethane-d4</i>	2740	250	2500	0	110	70-125	2750	0.385	20	
<i>Surr: 4-Bromofluorobenzene</i>	2651	250	2500	0	106	72-125	2546	4.03	20	
<i>Surr: Dibromofluoromethane</i>	2685	250	2500	0	107	71-125	2648	1.4	20	
<i>Surr: Toluene-d8</i>	2461	250	2500	0	98.4	75-125	2337	5.15	20	

The following samples were analyzed in this batch:

1207933-19A	1207933-20A	1207933-21A
1207933-25A		

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Pastor, Behling & Wheeler, LLC
Work Order: 1207933
Project: UPRR Houston Wood GW

QC BATCH REPORT

Batch ID: **R132070** Instrument ID **VOA1** Method: **SW8260**

MBLK Sample ID: **VBLKW-072712-R132070** Units: **µg/L** Analysis Date: **7/27/2012 12:21 PM**

Client ID: Run ID: **VOA1_120727A** SeqNo: **2879348** Prep Date: DF: **1**

Analyte	Result	ML	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Dichloroethane	U	5.0								
Benzene	U	5.0								
Chlorobenzene	U	5.0								
Ethylbenzene	U	5.0								
Methylene chloride	U	10								
Toluene	U	5.0								
Xylenes, Total	U	15								
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>54.66</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>109</i>	<i>70-125</i>	<i>0</i>			
<i>Surr: 4-Bromofluorobenzene</i>	<i>49.44</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>98.9</i>	<i>72-125</i>	<i>0</i>			
<i>Surr: Dibromofluoromethane</i>	<i>55.12</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>110</i>	<i>71-125</i>	<i>0</i>			
<i>Surr: Toluene-d8</i>	<i>44.29</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>88.6</i>	<i>75-125</i>	<i>0</i>			

LCS Sample ID: **VLCSW-072712-R132070** Units: **µg/L** Analysis Date: **7/27/2012 11:26 AM**

Client ID: Run ID: **VOA1_120727A** SeqNo: **2879347** Prep Date: DF: **1**

Analyte	Result	ML	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Dichloroethane	56.77	5.0	50	0	114	78-120	0			
Benzene	50.81	5.0	50	0	102	73-121	0			
Chlorobenzene	49.5	5.0	50	0	99	80-120	0			
Ethylbenzene	49.77	5.0	50	0	99.5	80-120	0			
Methylene chloride	52.99	10	50	0	106	65-133	0			
Toluene	50.39	5.0	50	0	101	80-120	0			
Xylenes, Total	152	15	150	0	101	80-120	0			
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>54.91</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>110</i>	<i>70-125</i>	<i>0</i>			
<i>Surr: 4-Bromofluorobenzene</i>	<i>53.79</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>108</i>	<i>72-125</i>	<i>0</i>			
<i>Surr: Dibromofluoromethane</i>	<i>54.64</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>109</i>	<i>71-125</i>	<i>0</i>			
<i>Surr: Toluene-d8</i>	<i>46.87</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>93.7</i>	<i>75-125</i>	<i>0</i>			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Pastor, Behling & Wheeler, LLC
 Work Order: 1207933
 Project: UPRR Houston Wood GW

QC BATCH REPORT

Batch ID: R132070 Instrument ID VOA1 Method: SW8260

MS		Sample ID: 12071122-04AMS			Units: µg/L			Analysis Date: 7/27/2012 04:00 PM		
Client ID:		Run ID: VOA1_120727A			SeqNo: 2879356		Prep Date:		DF: 1	
Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Dichloroethane	53.93	5.0	50	0	108	78-120	0			
Benzene	47.23	5.0	50	0	94.5	73-121	0			
Chlorobenzene	45.46	5.0	50	0	90.9	80-120	0			
Ethylbenzene	41.01	5.0	50	0	82	80-120	0			
Methylene chloride	49.86	10	50	0	99.7	65-133	0			
Toluene	42.59	5.0	50	0	85.2	80-120	0			
Xylenes, Total	124.2	15	150	0	82.8	80-120	0			
<i>Surr: 1,2-Dichloroethane-d4</i>	58.18	5.0	50	0	116	70-125	0			
<i>Surr: 4-Bromofluorobenzene</i>	53.08	5.0	50	0	106	72-125	0			
<i>Surr: Dibromofluoromethane</i>	56.38	5.0	50	0	113	71-125	0			
<i>Surr: Toluene-d8</i>	47.42	5.0	50	0	94.8	75-125	0			

MSD		Sample ID: 12071122-04AMSD			Units: µg/L			Analysis Date: 7/27/2012 04:28 PM		
Client ID:		Run ID: VOA1_120727A			SeqNo: 2879357		Prep Date:		DF: 1	
Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Dichloroethane	53.87	5.0	50	0	108	78-120	53.93	0.104	20	
Benzene	45.19	5.0	50	0	90.4	73-121	47.23	4.41	20	
Chlorobenzene	47.06	5.0	50	0	94.1	80-120	45.46	3.45	20	
Ethylbenzene	43.8	5.0	50	0	87.6	80-120	41.01	6.56	20	
Methylene chloride	55.74	10	50	0	111	65-133	49.86	11.1	20	
Toluene	44.11	5.0	50	0	88.2	80-120	42.59	3.51	20	
Xylenes, Total	128.4	15	150	0	85.6	80-120	124.2	3.34	20	
<i>Surr: 1,2-Dichloroethane-d4</i>	57.68	5.0	50	0	115	70-125	58.18	0.867	20	
<i>Surr: 4-Bromofluorobenzene</i>	52.66	5.0	50	0	105	72-125	53.08	0.786	20	
<i>Surr: Dibromofluoromethane</i>	54.48	5.0	50	0	109	71-125	56.38	3.43	20	
<i>Surr: Toluene-d8</i>	47.39	5.0	50	0	94.8	75-125	47.42	0.0467	20	

The following samples were analyzed in this batch:

1207933-08A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
WorkOrder: 1207933

**QUALIFIERS,
ACRONYMS, UNITS**

<u>Qualifier</u>	<u>Description</u>
*	Value exceeds Regulatory Limit
a	Not accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
J	Analyte detected below quantitation limit
M	Manually integrated, see raw data for justification
n	Not offered for accreditation
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL

<u>Acronym</u>	<u>Description</u>
DCS	Detectability Check Study
DUP	Method Duplicate
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
MBLK	Method Blank
MDL	Method Detection Limit
MQL	Method Quantitation Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PDS	Post Digestion Spike
PQL	Practical Quantitation Limit
SD	Serial Dilution
SDL	Sample Detection Limit
TRRP	Texas Risk Reduction Program

<u>Units Reported</u>	<u>Description</u>
mg/L	Milligrams per Liter

Sample Receipt Checklist

Client Name: **PBW**

Date/Time Received: **19-Jul-12 14:50**

Work Order: **1207933**

Received by: **ECD**

Checklist completed by Robert D. Harris

20-Jul-12

Reviewed by: Patricia L. Lynch

24-Jul-12

eSignature

Date

eSignature

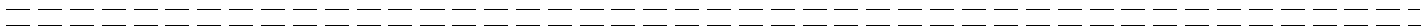
Date

Matrices: **groundwaters/water**

Carrier name: **ALS.HS**

Shipping container/cooler in good condition?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on shipping container/cooler?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Present <input checked="" type="checkbox"/>
Custody seals intact on sample bottles?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Present <input checked="" type="checkbox"/>
Chain of custody present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody signed when relinquished and received?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody agrees with sample labels?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Samples in proper container/bottle?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample containers intact?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sufficient sample volume for indicated test?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
All samples received within holding time?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Container/Temp Blank temperature in compliance?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Temperature(s)/Thermometer(s):	<u>1.1c,2.1c,1.7c,0.9c,1.9c c/u</u>		<u>003</u>
Cooler(s)/Kit(s):	<u>4132,3243,3786,3607,9617</u>		
Date/Time sample(s) sent to storage:	<u>7/20/12 20:15</u>		
Water - VOA vials have zero headspace?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	No VOA vials submitted <input type="checkbox"/>
Water - pH acceptable upon receipt?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	N/A <input type="checkbox"/>
pH adjusted?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>
pH adjusted by:	<u></u>		

Login Notes:



Client Contacted: Date Contacted: Person Contacted:

Contacted By: Regarding:

Comments:

[Empty comment box]

CorrectiveAction:

[Empty corrective action box]

1207933

Chain of Custody Form

Page 1 of 3
COC ID: 67198

Fort Collins, CO
+1 970 490 1511
Holland, MI
+1 616 399 6070

Cincinnati, OH
+1 513 733 5336
Everett, WA
+1 425 356 2600

PBW: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW



ALS Project Manager:

Customer Information				Project Information			
Purchase Order	Project Name	UPRR Houston Wood GW	A	VOC (8260) Select			
Work Order	Project Number	1620-04	B	SVOC (8270) Low-Level			
Company Name	Bill To Company	Union Pacific Railroad	C	VINYL CHLORIDE			
Send Report To	Invoice Attn		D				
Address	Address	1400 Douglas Street	E				
City/State/Zip	City/State/Zip	Stop 0750	F				
Phone	Phone	Omaha, NE 681790750	G				
Fax	Fax		H				
e-Mail Address	e-Mail Address		I				
			J				

No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	WG-1620-MW20A-20120717	7-17-12	1730	GW		5	X	X	X								
2	WG-1620-FB4-20120717	7-17-12	1740	GW		5	X	X	X								
3	WG-1620-MW53C-20120718	7-18-12	0745	GW		5	X	X	X								
4	WG-1620-MW25A-20120718		0840	GW		5	X	X	X								
5	WG-1620-MW25C-20120718		0925	GW		5	X	X	X								
6	WG-1620-MW44C-20120718		1015	GW		5	X	X	X								
7	WG-1620-MW35A-20120718		1110	GW		5	X	X	X								
8	WG-1620-MW35B-20120718		1200	GW		5	X	X	X								
9	WG-1620-MW63B-20120718		1330	GW		5	X	X	X								
10	WG-1620-FD3-20120718		1330	GW		5	X	X	X								

Samplers Please Print & Sign	Shipment Method	Required Turnaround Time: (Check Box)	Results Due Date:
JOHN SPAYTON Job Data	HAND DELIVERED	<input checked="" type="checkbox"/> Std. 10 WK. Days <input type="checkbox"/> 5 WK. Days <input type="checkbox"/> 24 Hour	
Relinquished by:	Received by:	Notes:	
Relinquished by:	Received by:	10 Day TAT.	
Logged by (Laboratory):	Checked by (Laboratory):	Cooler ID	Cooler Temp.
		3607	
		9617	

Preservative Key: 1-HCl 2-HNO₃ 3-H₂SO₄ 4-NaOH 5-Na₂S₂O₃ 6-NaHSO₄ 7-Other 8-4°C 9-5035

Note: 1. Any changes must be made in writing once samples and COC Form have been submitted to ALS Environmental.
 2. Unless otherwise agreed in a formal contract, services provided by ALS Environmental are expressly limited to the terms and conditions stated on the reverse.
 3. The Chain of Custody is a legal document. All information must be completed accurately.

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Chain of Custody Form
Page 2 of 3
COC ID: 67195

Houston, TX
+1 281 530 5656
Middletown, PA
+1 717 944 5541

Spring City, PA
+1 610 948 4903
Salt Lake City, UT
+1 801 266 7700

South Charleston, WV
+1 304 356 3168
York, PA
+1 717 505 5280

Environmental

ALS Project Manager: **120733**

Customer Information

Purchase Order: _____
 Work Order: _____
 Company Name: Pastor, Behling & Wheeler, LLC
 Send Report To: Eric Matzner
 Address: 2201 Double Creek Drive, Suite 4004
 City/State/Zip: Round Rock, TX 78684
 Phone: (512) 671-3434
 Fax: (512) 671-3446
 e-Mail Address: _____

Project Information

Project Name: UPRR Houston Wood GW
 Project Number: 1620-04
 Bill To Company: Union Pacific Railroad
 Invoice Attn: _____
 Address: 1400 Douglas Street, Stop 0750
 City/State/Zip: Omaha, NE 681790750
 Phone: _____
 Fax: _____
 e-Mail Address: _____

Parameter/Method Request for Analysis

Parameter/Method Request for Analysis: VOC (8260) Select, SVOC (8270) Low-Level, VINYL CHLORIDE

No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	WG-1620-MW71B-20120718	7-18-12	1425	GW		5	X	X									
2	WG-1620-MW38A-20120718		1520	GW		5	X	X									
3	WG-1620-MW38B-20120718		1615	GW		5	X	X									
4	WG-1620-MW22A-20120718		1715	GW		5	X	X									
5	WG-1620-MW22B-20120718		1805	GW		5	X	X									
6	WG-1620-FB5-20120718		1815	GW		5	X	X									
7	WG-1620-MW15A-20120719	7-19-12	0740	GW		5	X	X									
8	WG-1620-MW15C-20120719		0825	GW		5	X	X									
9	WG-1620-MW15B-20120719		0915	GW		5	X	X									
10	WG-1620-MW40B-20120719		1010	GW		5	X	X									

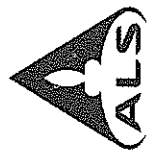
Sampler(s) Please Print & Sign: **John Beaton**
 Relinquished by: **John Beaton** Date: 7-19-12
 Relinquished by: **John Beaton** Date: 7-19-12
 Logged by (Laboratory): _____
 Preservative Key: 1-HCl 2-HNO₃ 3-H₂SO₄ 4-NaOH 5-Na₂S₂O₃ 6-NaHSO₄ 7-Other 8-4°C 9-5035

Shipments Method: **HAND DELIVERED**
 Required Turnaround Time: (Check Box)
 5 WK Days 10 WK Days 24 Hour
 Other: _____
 Results Due Date: _____

Notes: 10 Day TAT.
 Received by: **John Beaton** Date: 7/19/12 Time: 2:50
 Received by (Laboratory): **John Beaton** Date: 7/19/12 Time: 3:55
 (Checked by (Laboratory): _____)

QC Package: (Check One Box Below)
 Level II Std QC TRRP Checklist
 Level III Std QC/Raw Data TRRP Level IV
 Level IV SW846/CLP
 Other / EDD

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Chain of Custody Form

Page 3 of 3
COC ID: 67194

Houston, TX
+1 281 530 5656

Middletown, PA
+1 717 944 5541

Spring City, PA
+1 610 948 4903

Salt Lake City, UT
+1 801 266 7700

South Charleston, WV
+1 304 356 3168

York, PA
+1 717 505 5280

Environmental

Customer Information				Project Information				ALS Work Order #: <u>20733</u>											
ALS Project Manager:				Parameter/Method Request for Analysis															
Project Information				Project Name				VOC (8260) Select											
Project Number				UPRR Houston Wood GW				A VOC (8260) Select											
Bill To Company				1620-04				B SVOC (8270) Low-Level											
Invoice Attn				Union Pacific Railroad				C VINYL CHLORIDE											
Address				1400 Douglas Street															
Suite				Stop 0750															
City/State/Zip				Omaha, NE 681790750															
Phone				(512) 671-3434															
Fax				(512) 671-3446															
e-Mail Address																			
No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold		
1	WG-1620-MW428-20120717	7-19-12	1105	GW		5	X	X											
2	WG-1620-MW398-20120719		1205	GW		5	X	X											
3	WG-1620-FB6-20120719		1215	GW		5	X	X	X										
4	WG-1620-MW12C-20120719		1345	GW		5	X	X	X										
5	WG-1620-MW12A-20120719		1430	GW		5	X	X											
6	WG-1620-TB-20120719					2	X		X										
7																			
8																			
9																			
10																			

Sampler(s) Please Print & Sign	Shipment Method	Required Turnaround Time: (Check Box)	Results Due Date:
JOHN BRAYTON	HAND DELIVERED	<input checked="" type="checkbox"/> 5 WK Days <input type="checkbox"/> 2 WK Days <input type="checkbox"/> 24 Hour	
Relinquished by:	Received by:	Other	
JOHN BRAYTON	E. Brown	<input type="checkbox"/> 2 WK Days <input type="checkbox"/> 24 Hour	
Date: 7/19/12	Date: 7/19/12	Notes: 10 Day TAT.	
Time: 2:50	Time: 2:50		
Relinquished by:	Received by (Laboratory):	Cooler ID	Cooler Temp.
E. Brown	E. Brown	4732	
Date: 7/19/12	Date: 7/19/12	QC Package: (Check One Box Below)	
Time: 3:55	Time: 3:55	<input type="checkbox"/> Level II Std QC <input checked="" type="checkbox"/> TRRP Checklist	
Logged by (Laboratory):	Checked by (Laboratory):	<input type="checkbox"/> Level III Std QC Raw Data <input type="checkbox"/> TRRP Level IV	
		<input type="checkbox"/> Level IV SW846/CLP <input type="checkbox"/> Other / EDD	

Preservative Key:	1-HCl	2-HNO ₃	3-H ₂ SO ₄	4-NaOH	5-Na ₂ S ₂ O ₃	6-NaHSO ₄	7-Other	8-4°C	9-5035
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F3-CE* -2012

Eric Matzner
Pastor, Behling & Wheeler, LLC
2201 Double Creek Drive
Suite 4004
Round Rock, TX 78664

Tel: (512) 671-3434
Fax: (512) 671-3446

Re: UPRR Houston Wood GW

Work Order: **12071122**

Dear Eric,

ALS Environmental received 17 samples on 24-Jul-2012 04:25 PM for the analyses presented in the following report.

The analytical data provided relates directly to the samples received by ALS Environmental and for only the analyses requested. Results are expressed as "as received" unless otherwise noted.

QC sample results for this data met EPA or laboratory specifications except as noted in the Case Narrative or as noted with qualifiers in the QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained by ALS Environmental. Samples will be disposed in 30 days unless storage arrangements are made.

The total number of pages in this report is 51.

If you have any questions regarding this report, please feel free to call me.

Sincerely,

A handwritten signature in cursive script that reads "Patricia L. Lynch".

Electronically approved by: Kelsey N. Brown

Patricia L. Lynch
Project Manager



Certificate No: TX: T104704231-12-10

ADDRESS 10450 Stancliff Rd, Suite 210 Houston, Texas 77099-4338 | PHONE (281) 530-5656 | FAX (281) 530-5887

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Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Work Order: 12071122

**TRRP Laboratory Data
Package Cover Page**

This data package consists of all or some of the following as applicable:

This signature page, the laboratory review checklist, and the following reportable data:

- R1 Field chain-of-custody documentation;
- R2 Sample identification cross-reference;
- R3 Test reports (analytical data sheets) for each environmental sample that includes:
 - a) Items consistent with NELAC Chapter 5,
 - b) dilution factors,
 - c) preparation methods,
 - d) cleanup methods, and
 - e) if required for the project, tentatively identified compounds (TICs).
- R4 Surrogate recovery data including:
 - a) Calculated recovery (%R), and
 - b) The laboratory's surrogate QC limits.
- R5 Test reports/summary forms for blank samples;
- R6 Test reports/summary forms for laboratory control samples (LCSs) including:
 - a) LCS spiking amounts,
 - b) Calculated %R for each analyte, and
 - c) The laboratory's LCS QC limits.
- R7 Test reports for project matrix spike/matrix spike duplicates (MS/MSDs) including:
 - a) Samples associated with the MS/MSD clearly identified,
 - b) MS/MSD spiking amounts,
 - c) Concentration of each MS/MSD analyte measured in the parent and spiked samples,
 - d) Calculated %Rs and relative percent differences (RPDs), and
 - e) The laboratory's MS/MSD QC limits.
- R8 Laboratory analytical duplicate (if applicable) recovery and precision:
 - a) the amount of analyte measured in the duplicate,
 - b) the calculated RPD, and
 - c) the laboratory's QC limits for analytical duplicates.
- R9 List of method quantitation limits (MQLs) and detectability check sample results for each analyte for each method and matrix.
- R10 Other problems or anomalies.
The Exception Report for each "No" or "Not Reviewed (NR)" item in Laboratory Review Checklist and for each analyte, matrix, and method for which the laboratory does not hold NELAC accreditation under the Texas Laboratory Accreditation Program.

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Work Order: 12071122

**TRRP Laboratory Data
Package Cover Page**

Release Statement: I am responsible for the release of this laboratory data package. This laboratory is NELAC accredited under the Texas Laboratory Accreditation Program for all the methods, analytes and matrices reported in this data package except as noted in the Exception Reports. The data have been reviewed and are technically compliant with the requirements of the methods used, except where noted by the laboratory in the attached exception reports. By my signature below, I affirm to the best of my knowledge, all problems/anomalies, observed by the laboratory have been identified by the laboratory in the Laboratory Review Checklist, and no information affecting the quality of the data has been knowingly withheld.

Check, if applicable: [NA] This laboratory meets an exception under 30 TAC §25.6 and was last inspected by TCEQ or _____ on (enter date of last inspection). Any findings affecting the data in this laboratory data package are noted in the Exception Reports herein. The official signing the cover page of the report in which these data are used is responsible for releasing this data package and is by signature affirming the above release statement is true.

Patricia L. Lynch

Patricia L. Lynch
Project Manager

Laboratory Review Checklist: Reportable Data

Laboratory Name: ALS Laboratory Group		LRC Date: 08/13/2012					
Project Name: UPRR Houston Wood GW		Laboratory Job Number: 12071122					
Reviewer Name: Pat Lynch		Prep Batch Number(s): 62921, R132070, R132072, R132093					
# ¹	A ²	Description	Yes	No	NA ³	NR ⁴	ER# ⁵
R1	OI	Chain-of-custody (C-O-C)					
		Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?	X				
		Were all departures from standard conditions described in an exception report?	X				
R2	OI	Sample and quality control (QC) identification					
		Are all field sample ID numbers cross-referenced to the laboratory ID numbers?	X				
		Are all laboratory ID numbers cross-referenced to the corresponding QC data?	X				
R3	OI	Test reports					
		Were all samples prepared and analyzed within holding times?	X				
		Other than those results < MQL, were all other raw values bracketed by calibration standards?	X				
		Were calculations checked by a peer or supervisor?	X				
		Were all analyte identifications checked by a peer or supervisor?	X				
		Were sample detection limits reported for all analytes not detected?	X				
		Were all results for soil and sediment samples reported on a dry weight basis?			X		
		Were % moisture (or solids) reported for all soil and sediment samples?			X		
		Were bulk soils/solids samples for volatile analysis extracted with methanol per SW-846 Method 5035?			X		
		If required for the project, TICs reported?			X		
R4	O	Surrogate recovery data					
		Were surrogates added prior to extraction?	X				
		Were surrogate percent recoveries in all samples within the laboratory QC limits?		X			1
R5	OI	Test reports/summary forms for blank samples					
		Were appropriate type(s) of blanks analyzed?	X				
		Were blanks analyzed at the appropriate frequency?	X				
		Were method blanks taken through the entire analytical process, including preparation and, if applicable, cleanup procedures?	X				
		Were blank concentrations < MQL?	X				
R6	OI	Laboratory control samples (LCS):					
		Were all COCs included in the LCS?	X				
		Was each LCS taken through the entire analytical procedure, including prep and cleanup steps?	X				
		Were LCSs analyzed at the required frequency?	X				
		Were LCS (and LCSD, if applicable) %Rs within the laboratory QC limits?	X				
		Does the detectability data document the laboratory's capability to detect the COCs at the MDL used to calculate the SDLs?	X				
		Was the LCSD RPD within QC limits?	X				
R7	OI	Matrix spike (MS) and matrix spike duplicate (MSD) data					
		Were the project/method specified analytes included in the MS and MSD?	X				
		Were MS/MSD analyzed at the appropriate frequency?	X				
		Were MS (and MSD, if applicable) %Rs within the laboratory QC limits?	X				
		Were MS/MSD RPDs within laboratory QC limits?		X			2
R8	OI	Analytical duplicate data					
		Were appropriate analytical duplicates analyzed for each matrix?			X		
		Were analytical duplicates analyzed at the appropriate frequency?			X		
		Were RPDs or relative standard deviations within the laboratory QC limits?			X		
R9	OI	Method quantitation limits (MQLs):					
		Are the MQLs for each method analyte included in the laboratory data package?	X				
		Do the MQLs correspond to the concentration of the lowest non-zero calibration standard?	X				
		Are unadjusted MQLs and DCSs included in the laboratory data package?	X				
R10	OI	Other problems/anomalies					
		Are all known problems/anomalies/special conditions noted in this LRC and ER?	X				3
		Were all necessary corrective actions performed for the reported data?	X				
		Was applicable and available technology used to lower the SDL and minimize the matrix interference affects on the sample results?	X				
		Is the laboratory NELAC-accredited under the Texas Laboratory Program for the analytes, matrices and methods associated with this laboratory data package?	X				

Laboratory Review Checklist: Reportable Data							
Laboratory Name: ALS Laboratory Group				LRC Date: 08/13/2012			
Project Name: UPRR Houston Wood GW				Laboratory Job Number: 12071122			
Reviewer Name: Pat Lynch				Prep Batch Number(s): 62921, R132070, R132072, R132093			
# ¹	A ²	Description	Yes	No	NA ³	NR ⁴	ER# ⁵
S1	OI	Initial calibration (ICAL)					
		Were response factors and/or relative response factors for each analyte within QC limits?	X				
		Were percent RSDs or correlation coefficient criteria met?	X				
		Was the number of standards recommended in the method used for all analytes?	X				
		Were all points generated between the lowest and highest standard used to calculate the curve?	X				
		Are ICAL data available for all instruments used?	X				
		Has the initial calibration curve been verified using an appropriate second source standard?	X				
S2	OI	Initial and continuing calibration verification (ICCV and CCV) and continuing calibration blank (CCB)					
		Was the CCV analyzed at the method-required frequency?	X				
		Were percent differences for each analyte within the method-required QC limits?		X			4
		Was the ICAL curve verified for each analyte?	X				
		Was the absolute value of the analyte concentration in the inorganic CCB < MDL?			X		
S3	O	Mass spectral tuning:					
		Was the appropriate compound for the method used for tuning?	X				
		Were ion abundance data within the method-required QC limits?	X				
S4	O	Internal standards (IS):					
		Were IS area counts and retention times within the method-required QC limits?	X				
S5	OI	Raw data (NELAC section 1 appendix A glossary, and section 5.12 or ISO/IEC 17025 section					
		Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?	X				
		Were data associated with manual integrations flagged on the raw data?	X				
S6	O	Dual column confirmation					
		Did dual column confirmation results meet the method-required QC?			X		
S7	O	Tentatively identified compounds (TICs):					
		If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?			X		
S8	I	Interference Check Sample (ICS) results:					
		Were percent recoveries within method QC limits?			X		
S9	I	Serial dilutions, post digestion spikes, and method of standard additions					
		Were percent differences, recoveries, and the linearity within the QC limits specified in the method?			X		
S10	OI	Method detection limit (MDL) studies					
		Was a MDL study performed for each reported analyte?	X				
		Is the MDL either adjusted or supported by the analysis of DCSs?	X				
S11	OI	Proficiency test reports:					
		Was the laboratory's performance acceptable on the applicable proficiency tests or evaluation studies?	X				
S12	OI	Standards documentation					
		Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?	X				
S13	OI	Compound/analyte identification procedures					
		Are the procedures for compound/analyte identification documented?	X				
S14	OI	Demonstration of analyst competency (DOC)					
		Was DOC conducted consistent with NELAC Chapter 5C or ISO/IEC 4?	X				
		Is documentation of the analyst's competency up-to-date and on file?	X				
S15	OI	Verification/validation documentation for methods (NELAC Chap 5 or ISO/IEC 17025 Section 5)					
		Are all the methods used to generate the data documented, verified, and validated, where applicable?	X				
S16	OI	Laboratory standard operating procedures (SOPs):					
		Are laboratory SOPs current and on file for each method performed?	X				

Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.

O = Organic Analyses; I = Inorganic Analyses (and general chemistry, when applicable);

NA = Not Applicable;

NR = Not Reviewed;

R# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

Laboratory Review Checklist: Reportable Data

Laboratory Name: ALS Laboratory Group		LRC Date: 08/13/2012
Project Name: UPRR Houston Wood GW		Laboratory Job Number: 12071122
Reviewer Name: Pat Lynch		Prep Batch Number(s): 62921, R132070, R132072, R132093
ER# ⁵	Description	
1	Semivolatile surrogates were diluted out in the higher dilutions or surrogate recoveries were high for several samples. The surrogate recoveries were in control in the lower dilutions.	
2	Batch 62921, Semivolatile Organics, Sample WG-1620-MW65D-20120723: MS/MSD RPDs were above the control limits for 1,2-diphenylhydrazine, 4,6-dinitro-2-methylphenol and N-nitrosodiphenylamine. All MS/MSD recoveries were in control.	
3	Naphthalene was reported at concentrations that exceeds the MQL in WG-1620-FB7-20120723 and WG-1620-FB8-20120724, but was non-detect in the associated method blanks. Bis(2-ethylhexyl)phthalate was also reported at a concentration that was above the MQL in sample WG-1620-FB8-20120724. This compound was non-detect in the associated method blank, and the MQL is lower than the certified level of cleanliness for the amber bottles used to collect the samples.	
4	Batch R132072, Volatile Organics: CCV %D was above the control limits for vinyl chloride. The associated sample results are non-detect.	
<p>Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.</p> <p>O = Organic Analyses; I = Inorganic Analyses (and general chemistry, when applicable); NA = Not Applicable; NR = Not Reviewed; R# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).</p>		

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Work Order: 12071122

Work Order Sample Summary

<u>Lab Samp ID</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Tag Number</u>	<u>Collection Date</u>	<u>Date Received</u>	<u>Hold</u>
12071122-01	WG-1620-MW66D-20120723	Groundwater		7/23/2012 10:50	7/24/2012 16:25	<input type="checkbox"/>
12071122-02	WG-1620-MW49B-20120723	Groundwater		7/23/2012 11:45	7/24/2012 16:25	<input type="checkbox"/>
12071122-03	WG-1620-MW59D-20120723	Groundwater		7/23/2012 13:00	7/24/2012 16:25	<input type="checkbox"/>
12071122-04	WG-1620-MW65D-20120723	Groundwater		7/23/2012 14:30	7/24/2012 16:25	<input type="checkbox"/>
12071122-05	WG-1620-MW36D-20120723	Groundwater		7/23/2012 15:45	7/24/2012 16:25	<input type="checkbox"/>
12071122-06	WG-1620-FD4-20120723	Groundwater		7/23/2012 15:45	7/24/2012 16:25	<input type="checkbox"/>
12071122-07	WG-1620-MW60A-20120723	Groundwater		7/23/2012 16:45	7/24/2012 16:25	<input type="checkbox"/>
12071122-08	WG-1620-FB7-20120723	Water		7/23/2012 17:15	7/24/2012 16:25	<input type="checkbox"/>
12071122-09	WG-1620-MW50A-20120724	Groundwater		7/24/2012 07:40	7/24/2012 16:25	<input type="checkbox"/>
12071122-10	WG-1620-MW69A-20120724	Groundwater		7/24/2012 08:45	7/24/2012 16:25	<input type="checkbox"/>
12071122-11	WG-1620-MW48C-20120724	Groundwater		7/24/2012 10:00	7/24/2012 16:25	<input type="checkbox"/>
12071122-12	WG-1620-MW51A-20120724	Groundwater		7/24/2012 11:05	7/24/2012 16:25	<input type="checkbox"/>
12071122-13	WG-1620-MW57B-20120724	Groundwater		7/24/2012 12:20	7/24/2012 16:25	<input type="checkbox"/>
12071122-14	WG-1620-57A-2012074	Groundwater		7/24/2012 14:00	7/24/2012 16:25	<input type="checkbox"/>
12071122-15	WG-1620-MW58A-20120724	Groundwater		7/24/2012 15:00	7/24/2012 16:25	<input type="checkbox"/>
12071122-16	WG-1620-FB8-20120724	Water		7/24/2012 15:20	7/24/2012 16:25	<input type="checkbox"/>
12071122-17	WG-1620-TB-20120724	Water		7/24/2012	7/24/2012 16:25	<input type="checkbox"/>

ALS Environmental

Date: 13-Aug-12

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Sample ID: WG-1620-MW66D-20120723
Collection Date: 7/23/2012 10:50 AM

Work Order: 12071122
Lab ID: 12071122-01
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270	Prep: SW3510 / 7/26/12	Analyst: LG		
1,2-Diphenylhydrazine	U		0.000050	0.00020	mg/L	1	7/28/2012 16:32
2,4-Dimethylphenol	U		0.000050	0.00020	mg/L	1	7/28/2012 16:32
2,4-Dinitrotoluene	U		0.000050	0.00020	mg/L	1	7/28/2012 16:32
2,6-Dinitrotoluene	U		0.000060	0.00020	mg/L	1	7/28/2012 16:32
2-Chloronaphthalene	U		0.000050	0.00020	mg/L	1	7/28/2012 16:32
2-Methylnaphthalene	0.000085	J	0.000050	0.00020	mg/L	1	7/28/2012 16:32
4,6-Dinitro-2-methylphenol	U		0.000080	0.00020	mg/L	1	7/28/2012 16:32
4-Nitrophenol	U		0.000050	0.0010	mg/L	1	7/28/2012 16:32
Acenaphthene	0.000054	J	0.000050	0.00020	mg/L	1	7/28/2012 16:32
Acenaphthylene	0.000081	J	0.000050	0.00020	mg/L	1	7/28/2012 16:32
Anthracene	0.00059		0.000050	0.00020	mg/L	1	7/28/2012 16:32
Benz(a)anthracene	0.00036		0.000050	0.00020	mg/L	1	7/28/2012 16:32
Benzo(a)pyrene	0.00067		0.000050	0.00020	mg/L	1	7/28/2012 16:32
Bis(2-chloroethoxy)methane	U		0.000050	0.00020	mg/L	1	7/28/2012 16:32
Bis(2-ethylhexyl)phthalate	0.0032		0.00010	0.00020	mg/L	1	7/28/2012 16:32
Chrysene	0.0018		0.000050	0.00020	mg/L	1	7/28/2012 16:32
Dibenzofuran	0.000066	J	0.000050	0.00020	mg/L	1	7/28/2012 16:32
Di-n-butyl phthalate	0.000078	J	0.000050	0.00020	mg/L	1	7/28/2012 16:32
Fluoranthene	0.0019		0.000050	0.00020	mg/L	1	7/28/2012 16:32
Fluorene	U		0.000050	0.00020	mg/L	1	7/28/2012 16:32
Naphthalene	0.00040		0.000050	0.00020	mg/L	1	7/28/2012 16:32
Nitrobenzene	U		0.000050	0.00020	mg/L	1	7/28/2012 16:32
N-Nitrosodiphenylamine	U		0.000050	0.00020	mg/L	1	7/28/2012 16:32
Pentachlorophenol	U		0.000050	0.00020	mg/L	1	7/28/2012 16:32
Phenanthrene	0.00058		0.000050	0.00020	mg/L	1	7/28/2012 16:32
Phenol	U		0.000050	0.00020	mg/L	1	7/28/2012 16:32
Pyrene	0.0019		0.000050	0.00020	mg/L	1	7/28/2012 16:32
Surr: 2,4,6-Tribromophenol	83.5			34-129	%REC	1	7/28/2012 16:32
Surr: 2-Fluorobiphenyl	76.9			40-125	%REC	1	7/28/2012 16:32
Surr: 2-Fluorophenol	61.2			20-120	%REC	1	7/28/2012 16:32
Surr: 4-Terphenyl-d14	112			40-135	%REC	1	7/28/2012 16:32
Surr: Nitrobenzene-d5	59.2			41-120	%REC	1	7/28/2012 16:32
Surr: Phenol-d6	64.5			20-120	%REC	1	7/28/2012 16:32
VOLATILES			Method: SW8260	Analyst: PC			
1,2-Dichloroethane	U		0.00050	0.0050	mg/L	1	7/27/2012 17:24
Benzene	U		0.00050	0.0050	mg/L	1	7/27/2012 17:24
Chlorobenzene	U		0.00050	0.0050	mg/L	1	7/27/2012 17:24
Ethylbenzene	U		0.00050	0.0050	mg/L	1	7/27/2012 17:24

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 13-Aug-12

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Sample ID: WG-1620-MW66D-20120723
Collection Date: 7/23/2012 10:50 AM

Work Order: 12071122
Lab ID: 12071122-01
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
Methylene chloride	U		0.0010	0.010	mg/L	1	7/27/2012 17:24
Toluene	U		0.00050	0.0050	mg/L	1	7/27/2012 17:24
Xylenes, Total	U		0.0015	0.015	mg/L	1	7/27/2012 17:24
Surr: 1,2-Dichloroethane-d4	110			70-125	%REC	1	7/27/2012 17:24
Surr: 4-Bromofluorobenzene	99.2			72-125	%REC	1	7/27/2012 17:24
Surr: Dibromofluoromethane	110			71-125	%REC	1	7/27/2012 17:24
Surr: Toluene-d8	90.9			75-125	%REC	1	7/27/2012 17:24

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 13-Aug-12

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Sample ID: WG-1620-MW49B-20120723
Collection Date: 7/23/2012 11:45 AM

Work Order: 12071122
Lab ID: 12071122-02
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270	Prep: SW3510 / 7/26/12	Analyst: LG		
1,2-Diphenylhydrazine	U		0.000050	0.00020	mg/L	1	7/28/2012 06:57
2,4-Dimethylphenol	6.3		0.050	0.20	mg/L	1000	7/30/2012 19:41
2,4-Dinitrotoluene	U		0.000050	0.00020	mg/L	1	7/28/2012 06:57
2,6-Dinitrotoluene	U		0.000060	0.00020	mg/L	1	7/28/2012 06:57
2-Chloronaphthalene	U		0.000050	0.00020	mg/L	1	7/28/2012 06:57
2-Methylnaphthalene	0.18		0.0050	0.020	mg/L	100	7/30/2012 19:21
4,6-Dinitro-2-methylphenol	U		0.000080	0.00020	mg/L	1	7/28/2012 06:57
4-Nitrophenol	U		0.000050	0.0010	mg/L	1	7/28/2012 06:57
Acenaphthene	0.14		0.0050	0.020	mg/L	100	7/30/2012 19:21
Acenaphthylene	0.0013		0.000050	0.00020	mg/L	1	7/28/2012 06:57
Anthracene	0.056		0.00050	0.0020	mg/L	10	7/30/2012 19:00
Benz(a)anthracene	0.013		0.00050	0.0020	mg/L	10	7/30/2012 19:00
Benzo(a)pyrene	0.0038		0.000050	0.00020	mg/L	1	7/28/2012 06:57
Bis(2-chloroethoxy)methane	U		0.000050	0.00020	mg/L	1	7/28/2012 06:57
Bis(2-ethylhexyl)phthalate	0.00055		0.00010	0.00020	mg/L	1	7/28/2012 06:57
Chrysene	0.015		0.00050	0.0020	mg/L	10	7/30/2012 19:00
Dibenzofuran	0.12		0.0050	0.020	mg/L	100	7/30/2012 19:21
Di-n-butyl phthalate	U		0.000050	0.00020	mg/L	1	7/28/2012 06:57
Fluoranthene	0.093		0.00050	0.0020	mg/L	10	7/30/2012 19:00
Fluorene	0.13		0.0050	0.020	mg/L	100	7/30/2012 19:21
Naphthalene	2.3		0.050	0.20	mg/L	1000	7/30/2012 19:41
Nitrobenzene	U		0.000050	0.00020	mg/L	1	7/28/2012 06:57
N-Nitrosodiphenylamine	U		0.000050	0.00020	mg/L	1	7/28/2012 06:57
Pentachlorophenol	U		0.000050	0.00020	mg/L	1	7/28/2012 06:57
Phenanthrene	0.35		0.0050	0.020	mg/L	100	7/30/2012 19:21
Phenol	0.0063		0.000050	0.00020	mg/L	1	7/28/2012 06:57
Pyrene	0.062		0.00050	0.0020	mg/L	10	7/30/2012 19:00
Surr: 2,4,6-Tribromophenol	65.6			34-129	%REC	1	7/28/2012 06:57
Surr: 2,4,6-Tribromophenol	118			34-129	%REC	10	7/30/2012 19:00
Surr: 2,4,6-Tribromophenol	74.7	J		34-129	%REC	100	7/30/2012 19:21
Surr: 2,4,6-Tribromophenol	0	S		34-129	%REC	1000	7/30/2012 19:41
Surr: 2-Fluorobiphenyl	48.1			40-125	%REC	1	7/28/2012 06:57
Surr: 2-Fluorobiphenyl	119			40-125	%REC	10	7/30/2012 19:00
Surr: 2-Fluorobiphenyl	132	JS		40-125	%REC	100	7/30/2012 19:21
Surr: 2-Fluorobiphenyl	0	S		40-125	%REC	1000	7/30/2012 19:41
Surr: 2-Fluorophenol	75.1			20-120	%REC	1	7/28/2012 06:57
Surr: 2-Fluorophenol	107			20-120	%REC	10	7/30/2012 19:00
Surr: 2-Fluorophenol	87.6	J		20-120	%REC	100	7/30/2012 19:21

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 13-Aug-12

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Sample ID: WG-1620-MW49B-20120723
Collection Date: 7/23/2012 11:45 AM

Work Order: 12071122
Lab ID: 12071122-02
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
Surr: 2-Fluorophenol	0	S		20-120	%REC	1000	7/30/2012 19:41
Surr: 4-Terphenyl-d14	84.5			40-135	%REC	1	7/28/2012 06:57
Surr: 4-Terphenyl-d14	122			40-135	%REC	10	7/30/2012 19:00
Surr: 4-Terphenyl-d14	118	J		40-135	%REC	100	7/30/2012 19:21
Surr: 4-Terphenyl-d14	0	S		40-135	%REC	1000	7/30/2012 19:41
Surr: Nitrobenzene-d5	103			41-120	%REC	1	7/28/2012 06:57
Surr: Nitrobenzene-d5	77.4			41-120	%REC	10	7/30/2012 19:00
Surr: Nitrobenzene-d5	94.1	J		41-120	%REC	100	7/30/2012 19:21
Surr: Nitrobenzene-d5	0	S		41-120	%REC	1000	7/30/2012 19:41
Surr: Phenol-d6	86.3			20-120	%REC	1	7/28/2012 06:57
Surr: Phenol-d6	113			20-120	%REC	10	7/30/2012 19:00
Surr: Phenol-d6	105	J		20-120	%REC	100	7/30/2012 19:21
Surr: Phenol-d6	0	S		20-120	%REC	1000	7/30/2012 19:41

VOLATILES		Method: SW8260				Analyst: PC	
1,2-Dichloroethane	U	0.00050	0.0050	mg/L	1	7/27/2012 17:51	
Benzene	0.11	0.00050	0.0050	mg/L	1	7/27/2012 17:51	
Chlorobenzene	U	0.00050	0.0050	mg/L	1	7/27/2012 17:51	
Ethylbenzene	0.023	0.00050	0.0050	mg/L	1	7/27/2012 17:51	
Methylene chloride	U	0.0010	0.010	mg/L	1	7/27/2012 17:51	
Toluene	0.089	0.00050	0.0050	mg/L	1	7/27/2012 17:51	
Vinyl chloride	U	0.00050	0.0020	mg/L	1	7/27/2012 17:51	
Xylenes, Total	0.060	0.0015	0.015	mg/L	1	7/27/2012 17:51	
Surr: 1,2-Dichloroethane-d4	109		70-125	%REC	1	7/27/2012 17:51	
Surr: 4-Bromofluorobenzene	99.1		72-125	%REC	1	7/27/2012 17:51	
Surr: Dibromofluoromethane	107		71-125	%REC	1	7/27/2012 17:51	
Surr: Toluene-d8	90.4		75-125	%REC	1	7/27/2012 17:51	

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 13-Aug-12

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Sample ID: WG-1620-MW59D-20120723
Collection Date: 7/23/2012 01:00 PM

Work Order: 12071122
Lab ID: 12071122-03
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	ML	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270	Prep: SW3510 / 7/26/12		Analyst: LG	
1,2-Diphenylhydrazine	U		0.000050	0.00020	mg/L	1	7/26/2012 16:30
2,4-Dimethylphenol	U		0.000050	0.00020	mg/L	1	7/26/2012 16:30
2,4-Dinitrotoluene	U		0.000050	0.00020	mg/L	1	7/26/2012 16:30
2,6-Dinitrotoluene	U		0.000060	0.00020	mg/L	1	7/26/2012 16:30
2-Chloronaphthalene	U		0.000050	0.00020	mg/L	1	7/26/2012 16:30
2-Methylnaphthalene	0.000071	J	0.000050	0.00020	mg/L	1	7/26/2012 16:30
4,6-Dinitro-2-methylphenol	U		0.000080	0.00020	mg/L	1	7/26/2012 16:30
4-Nitrophenol	U		0.000050	0.0010	mg/L	1	7/26/2012 16:30
Acenaphthene	U		0.000050	0.00020	mg/L	1	7/26/2012 16:30
Acenaphthylene	U		0.000050	0.00020	mg/L	1	7/26/2012 16:30
Anthracene	U		0.000050	0.00020	mg/L	1	7/26/2012 16:30
Benz(a)anthracene	U		0.000050	0.00020	mg/L	1	7/26/2012 16:30
Benzo(a)pyrene	U		0.000050	0.00020	mg/L	1	7/26/2012 16:30
Bis(2-chloroethoxy)methane	U		0.000050	0.00020	mg/L	1	7/26/2012 16:30
Bis(2-ethylhexyl)phthalate	0.00014	J	0.00010	0.00020	mg/L	1	7/26/2012 16:30
Chrysene	U		0.000050	0.00020	mg/L	1	7/26/2012 16:30
Dibenzofuran	U		0.000050	0.00020	mg/L	1	7/26/2012 16:30
Di-n-butyl phthalate	U		0.000050	0.00020	mg/L	1	7/26/2012 16:30
Fluoranthene	U		0.000050	0.00020	mg/L	1	7/26/2012 16:30
Fluorene	U		0.000050	0.00020	mg/L	1	7/26/2012 16:30
Naphthalene	0.00036		0.000050	0.00020	mg/L	1	7/26/2012 16:30
Nitrobenzene	U		0.000050	0.00020	mg/L	1	7/26/2012 16:30
N-Nitrosodiphenylamine	U		0.000050	0.00020	mg/L	1	7/26/2012 16:30
Pentachlorophenol	U		0.000050	0.00020	mg/L	1	7/26/2012 16:30
Phenanthrene	U		0.000050	0.00020	mg/L	1	7/26/2012 16:30
Phenol	U		0.000050	0.00020	mg/L	1	7/26/2012 16:30
Pyrene	U		0.000050	0.00020	mg/L	1	7/26/2012 16:30
Surr: 2,4,6-Tribromophenol	63.6			34-129	%REC	1	7/26/2012 16:30
Surr: 2-Fluorobiphenyl	69.0			40-125	%REC	1	7/26/2012 16:30
Surr: 2-Fluorophenol	51.2			20-120	%REC	1	7/26/2012 16:30
Surr: 4-Terphenyl-d14	70.7			40-135	%REC	1	7/26/2012 16:30
Surr: Nitrobenzene-d5	62.5			41-120	%REC	1	7/26/2012 16:30
Surr: Phenol-d6	55.3			20-120	%REC	1	7/26/2012 16:30

VOLATILES			Method: SW8260			Analyst: PC	
1,2-Dichloroethane	U		0.00050	0.0050	mg/L	1	7/27/2012 18:19
Benzene	U		0.00050	0.0050	mg/L	1	7/27/2012 18:19
Chlorobenzene	U		0.00050	0.0050	mg/L	1	7/27/2012 18:19
Ethylbenzene	U		0.00050	0.0050	mg/L	1	7/27/2012 18:19

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 13-Aug-12

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Sample ID: WG-1620-MW59D-20120723
Collection Date: 7/23/2012 01:00 PM

Work Order: 12071122
Lab ID: 12071122-03
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
Methylene chloride	U		0.0010	0.010	mg/L	1	7/27/2012 18:19
Toluene	U		0.00050	0.0050	mg/L	1	7/27/2012 18:19
Xylenes, Total	U		0.0015	0.015	mg/L	1	7/27/2012 18:19
Surr: 1,2-Dichloroethane-d4	110			70-125	%REC	1	7/27/2012 18:19
Surr: 4-Bromofluorobenzene	105			72-125	%REC	1	7/27/2012 18:19
Surr: Dibromofluoromethane	109			71-125	%REC	1	7/27/2012 18:19
Surr: Toluene-d8	96.7			75-125	%REC	1	7/27/2012 18:19

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 13-Aug-12

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Sample ID: WG-1620-MW65D-20120723
Collection Date: 7/23/2012 02:30 PM

Work Order: 12071122
Lab ID: 12071122-04
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES		Method: SW8270		Prep: SW3510 / 7/26/12		Analyst: LG	
1,2-Diphenylhydrazine	U		0.000050	0.00020	mg/L	1	7/28/2012 14:10
2,4-Dimethylphenol	U		0.000050	0.00020	mg/L	1	7/28/2012 14:10
2,4-Dinitrotoluene	U		0.000050	0.00020	mg/L	1	7/28/2012 14:10
2,6-Dinitrotoluene	U		0.000060	0.00020	mg/L	1	7/28/2012 14:10
2-Chloronaphthalene	U		0.000050	0.00020	mg/L	1	7/28/2012 14:10
2-Methylnaphthalene	U		0.000050	0.00020	mg/L	1	7/28/2012 14:10
4,6-Dinitro-2-methylphenol	U		0.000080	0.00020	mg/L	1	7/28/2012 14:10
4-Nitrophenol	U		0.000050	0.0010	mg/L	1	7/28/2012 14:10
Acenaphthene	U		0.000050	0.00020	mg/L	1	7/28/2012 14:10
Acenaphthylene	U		0.000050	0.00020	mg/L	1	7/28/2012 14:10
Anthracene	U		0.000050	0.00020	mg/L	1	7/28/2012 14:10
Benz(a)anthracene	U		0.000050	0.00020	mg/L	1	7/28/2012 14:10
Benzo(a)pyrene	U		0.000050	0.00020	mg/L	1	7/28/2012 14:10
Bis(2-chloroethoxy)methane	U		0.000050	0.00020	mg/L	1	7/28/2012 14:10
Bis(2-ethylhexyl)phthalate	0.00025		0.00010	0.00020	mg/L	1	7/28/2012 14:10
Chrysene	U		0.000050	0.00020	mg/L	1	7/28/2012 14:10
Dibenzofuran	U		0.000050	0.00020	mg/L	1	7/28/2012 14:10
Di-n-butyl phthalate	U		0.000050	0.00020	mg/L	1	7/28/2012 14:10
Fluoranthene	U		0.000050	0.00020	mg/L	1	7/28/2012 14:10
Fluorene	U		0.000050	0.00020	mg/L	1	7/28/2012 14:10
Naphthalene	0.000094	J	0.000050	0.00020	mg/L	1	7/28/2012 14:10
Nitrobenzene	U		0.000050	0.00020	mg/L	1	7/28/2012 14:10
N-Nitrosodiphenylamine	U		0.000050	0.00020	mg/L	1	7/28/2012 14:10
Pentachlorophenol	U		0.000050	0.00020	mg/L	1	7/28/2012 14:10
Phenanthrene	U		0.000050	0.00020	mg/L	1	7/28/2012 14:10
Phenol	U		0.000050	0.00020	mg/L	1	7/28/2012 14:10
Pyrene	U		0.000050	0.00020	mg/L	1	7/28/2012 14:10
Surr: 2,4,6-Tribromophenol	84.2			34-129	%REC	1	7/28/2012 14:10
Surr: 2-Fluorobiphenyl	103			40-125	%REC	1	7/28/2012 14:10
Surr: 2-Fluorophenol	65.8			20-120	%REC	1	7/28/2012 14:10
Surr: 4-Terphenyl-d14	80.9			40-135	%REC	1	7/28/2012 14:10
Surr: Nitrobenzene-d5	78.4			41-120	%REC	1	7/28/2012 14:10
Surr: Phenol-d6	75.3			20-120	%REC	1	7/28/2012 14:10

VOLATILES		Method: SW8260		Analyst: PC			
1,2-Dichloroethane	U		0.00050	0.0050	mg/L	1	7/27/2012 14:10
Benzene	U		0.00050	0.0050	mg/L	1	7/27/2012 14:10
Chlorobenzene	U		0.00050	0.0050	mg/L	1	7/27/2012 14:10
Ethylbenzene	U		0.00050	0.0050	mg/L	1	7/27/2012 14:10

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 13-Aug-12

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Sample ID: WG-1620-MW65D-20120723
Collection Date: 7/23/2012 02:30 PM

Work Order: 12071122
Lab ID: 12071122-04
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
Methylene chloride	U		0.0010	0.010	mg/L	1	7/27/2012 14:10
Toluene	U		0.00050	0.0050	mg/L	1	7/27/2012 14:10
Xylenes, Total	U		0.0015	0.015	mg/L	1	7/27/2012 14:10
Surr: 1,2-Dichloroethane-d4	115			70-125	%REC	1	7/27/2012 14:10
Surr: 4-Bromofluorobenzene	102			72-125	%REC	1	7/27/2012 14:10
Surr: Dibromofluoromethane	113			71-125	%REC	1	7/27/2012 14:10
Surr: Toluene-d8	92.8			75-125	%REC	1	7/27/2012 14:10

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 13-Aug-12

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Sample ID: WG-1620-MW36D-20120723
Collection Date: 7/23/2012 03:45 PM

Work Order: 12071122
Lab ID: 12071122-05
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270	Prep: SW3510 / 7/26/12	Analyst: LG		
1,2-Diphenylhydrazine	U		0.000050	0.00020	mg/L	1	7/26/2012 20:30
2,4-Dimethylphenol	U		0.000050	0.00020	mg/L	1	7/26/2012 20:30
2,4-Dinitrotoluene	U		0.000050	0.00020	mg/L	1	7/26/2012 20:30
2,6-Dinitrotoluene	U		0.000060	0.00020	mg/L	1	7/26/2012 20:30
2-Chloronaphthalene	U		0.000050	0.00020	mg/L	1	7/26/2012 20:30
2-Methylnaphthalene	U		0.000050	0.00020	mg/L	1	7/26/2012 20:30
4,6-Dinitro-2-methylphenol	U		0.000080	0.00020	mg/L	1	7/26/2012 20:30
4-Nitrophenol	U		0.000050	0.0010	mg/L	1	7/26/2012 20:30
Acenaphthene	U		0.000050	0.00020	mg/L	1	7/26/2012 20:30
Acenaphthylene	U		0.000050	0.00020	mg/L	1	7/26/2012 20:30
Anthracene	U		0.000050	0.00020	mg/L	1	7/26/2012 20:30
Benz(a)anthracene	U		0.000050	0.00020	mg/L	1	7/26/2012 20:30
Benzo(a)pyrene	U		0.000050	0.00020	mg/L	1	7/26/2012 20:30
Bis(2-chloroethoxy)methane	U		0.000050	0.00020	mg/L	1	7/26/2012 20:30
Bis(2-ethylhexyl)phthalate	0.00035		0.00010	0.00020	mg/L	1	7/26/2012 20:30
Chrysene	U		0.000050	0.00020	mg/L	1	7/26/2012 20:30
Dibenzofuran	U		0.000050	0.00020	mg/L	1	7/26/2012 20:30
Di-n-butyl phthalate	U		0.000050	0.00020	mg/L	1	7/26/2012 20:30
Fluoranthene	0.000054	J	0.000050	0.00020	mg/L	1	7/26/2012 20:30
Fluorene	U		0.000050	0.00020	mg/L	1	7/26/2012 20:30
Naphthalene	0.00014	J	0.000050	0.00020	mg/L	1	7/26/2012 20:30
Nitrobenzene	U		0.000050	0.00020	mg/L	1	7/26/2012 20:30
N-Nitrosodiphenylamine	U		0.000050	0.00020	mg/L	1	7/26/2012 20:30
Pentachlorophenol	U		0.000050	0.00020	mg/L	1	7/26/2012 20:30
Phenanthrene	U		0.000050	0.00020	mg/L	1	7/26/2012 20:30
Phenol	U		0.000050	0.00020	mg/L	1	7/26/2012 20:30
Pyrene	U		0.000050	0.00020	mg/L	1	7/26/2012 20:30
Surr: 2,4,6-Tribromophenol	49.8			34-129	%REC	1	7/26/2012 20:30
Surr: 2-Fluorobiphenyl	43.4			40-125	%REC	1	7/26/2012 20:30
Surr: 2-Fluorophenol	35.1			20-120	%REC	1	7/26/2012 20:30
Surr: 4-Terphenyl-d14	53.2			40-135	%REC	1	7/26/2012 20:30
Surr: Nitrobenzene-d5	41.4			41-120	%REC	1	7/26/2012 20:30
Surr: Phenol-d6	39.8			20-120	%REC	1	7/26/2012 20:30

VOLATILES			Method: SW8260	Analyst: PC			
1,2-Dichloroethane	U		0.00050	0.0050	mg/L	1	7/27/2012 20:08
Benzene	U		0.00050	0.0050	mg/L	1	7/27/2012 20:08
Chlorobenzene	U		0.00050	0.0050	mg/L	1	7/27/2012 20:08
Ethylbenzene	U		0.00050	0.0050	mg/L	1	7/27/2012 20:08

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 13-Aug-12

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Sample ID: WG-1620-MW36D-20120723
Collection Date: 7/23/2012 03:45 PM

Work Order: 12071122
Lab ID: 12071122-05
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
Methylene chloride	U		0.0010	0.010	mg/L	1	7/27/2012 20:08
Toluene	U		0.00050	0.0050	mg/L	1	7/27/2012 20:08
Xylenes, Total	U		0.0015	0.015	mg/L	1	7/27/2012 20:08
Surr: 1,2-Dichloroethane-d4	119			70-125	%REC	1	7/27/2012 20:08
Surr: 4-Bromofluorobenzene	102			72-125	%REC	1	7/27/2012 20:08
Surr: Dibromofluoromethane	110			71-125	%REC	1	7/27/2012 20:08
Surr: Toluene-d8	92.8			75-125	%REC	1	7/27/2012 20:08

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 13-Aug-12

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Sample ID: WG-1620-FD4-20120723
Collection Date: 7/23/2012 03:45 PM

Work Order: 12071122
Lab ID: 12071122-06
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	ML	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270	Prep: SW3510 / 7/26/12	Analyst: LG		
1,2-Diphenylhydrazine	U		0.000050	0.00020	mg/L	1	7/28/2012 15:31
2,4-Dimethylphenol	U		0.000050	0.00020	mg/L	1	7/28/2012 15:31
2,4-Dinitrotoluene	U		0.000050	0.00020	mg/L	1	7/28/2012 15:31
2,6-Dinitrotoluene	U		0.000060	0.00020	mg/L	1	7/28/2012 15:31
2-Chloronaphthalene	U		0.000050	0.00020	mg/L	1	7/28/2012 15:31
2-Methylnaphthalene	U		0.000050	0.00020	mg/L	1	7/28/2012 15:31
4,6-Dinitro-2-methylphenol	U		0.000080	0.00020	mg/L	1	7/28/2012 15:31
4-Nitrophenol	U		0.000050	0.0010	mg/L	1	7/28/2012 15:31
Acenaphthene	U		0.000050	0.00020	mg/L	1	7/28/2012 15:31
Acenaphthylene	U		0.000050	0.00020	mg/L	1	7/28/2012 15:31
Anthracene	U		0.000050	0.00020	mg/L	1	7/28/2012 15:31
Benz(a)anthracene	U		0.000050	0.00020	mg/L	1	7/28/2012 15:31
Benzo(a)pyrene	U		0.000050	0.00020	mg/L	1	7/28/2012 15:31
Bis(2-chloroethoxy)methane	U		0.000050	0.00020	mg/L	1	7/28/2012 15:31
Bis(2-ethylhexyl)phthalate	0.00059		0.00010	0.00020	mg/L	1	7/28/2012 15:31
Chrysene	U		0.000050	0.00020	mg/L	1	7/28/2012 15:31
Dibenzofuran	U		0.000050	0.00020	mg/L	1	7/28/2012 15:31
Di-n-butyl phthalate	U		0.000050	0.00020	mg/L	1	7/28/2012 15:31
Fluoranthene	0.000093	J	0.000050	0.00020	mg/L	1	7/28/2012 15:31
Fluorene	U		0.000050	0.00020	mg/L	1	7/28/2012 15:31
Naphthalene	0.00015	J	0.000050	0.00020	mg/L	1	7/28/2012 15:31
Nitrobenzene	U		0.000050	0.00020	mg/L	1	7/28/2012 15:31
N-Nitrosodiphenylamine	U		0.000050	0.00020	mg/L	1	7/28/2012 15:31
Pentachlorophenol	U		0.000050	0.00020	mg/L	1	7/28/2012 15:31
Phenanthrene	0.00014	J	0.000050	0.00020	mg/L	1	7/28/2012 15:31
Phenol	U		0.000050	0.00020	mg/L	1	7/28/2012 15:31
Pyrene	U		0.000050	0.00020	mg/L	1	7/28/2012 15:31
Surr: 2,4,6-Tribromophenol	51.9			34-129	%REC	1	7/28/2012 15:31
Surr: 2-Fluorobiphenyl	49.2			40-125	%REC	1	7/28/2012 15:31
Surr: 2-Fluorophenol	42.6			20-120	%REC	1	7/28/2012 15:31
Surr: 4-Terphenyl-d14	44.0			40-135	%REC	1	7/28/2012 15:31
Surr: Nitrobenzene-d5	50.8			41-120	%REC	1	7/28/2012 15:31
Surr: Phenol-d6	45.3			20-120	%REC	1	7/28/2012 15:31
VOLATILES			Method: SW8260	Analyst: PC			
1,2-Dichloroethane	U		0.00050	0.0050	mg/L	1	7/27/2012 20:34
Benzene	U		0.00050	0.0050	mg/L	1	7/27/2012 20:34
Chlorobenzene	U		0.00050	0.0050	mg/L	1	7/27/2012 20:34
Ethylbenzene	U		0.00050	0.0050	mg/L	1	7/27/2012 20:34

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 13-Aug-12

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Sample ID: WG-1620-FD4-20120723
Collection Date: 7/23/2012 03:45 PM

Work Order: 12071122
Lab ID: 12071122-06
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	ML	Units	Dilution Factor	Date Analyzed
Methylene chloride	U		0.0010	0.010	mg/L	1	7/27/2012 20:34
Toluene	U		0.00050	0.0050	mg/L	1	7/27/2012 20:34
Xylenes, Total	U		0.0015	0.015	mg/L	1	7/27/2012 20:34
Surr: 1,2-Dichloroethane-d4	114			70-125	%REC	1	7/27/2012 20:34
Surr: 4-Bromofluorobenzene	99.9			72-125	%REC	1	7/27/2012 20:34
Surr: Dibromofluoromethane	106			71-125	%REC	1	7/27/2012 20:34
Surr: Toluene-d8	96.8			75-125	%REC	1	7/27/2012 20:34

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 13-Aug-12

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Sample ID: WG-1620-MW60A-20120723
Collection Date: 7/23/2012 04:45 PM

Work Order: 12071122
Lab ID: 12071122-07
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270	Prep: SW3510 / 7/26/12	Analyst: LG		
1,2-Diphenylhydrazine	U		0.000050	0.00020	mg/L	1	7/26/2012 16:50
2,4-Dimethylphenol	0.0010		0.000050	0.00020	mg/L	1	7/26/2012 16:50
2,4-Dinitrotoluene	U		0.000050	0.00020	mg/L	1	7/26/2012 16:50
2,6-Dinitrotoluene	U		0.000060	0.00020	mg/L	1	7/26/2012 16:50
2-Chloronaphthalene	U		0.000050	0.00020	mg/L	1	7/26/2012 16:50
2-Methylnaphthalene	0.0021		0.000050	0.00020	mg/L	1	7/26/2012 16:50
4,6-Dinitro-2-methylphenol	U		0.000080	0.00020	mg/L	1	7/26/2012 16:50
4-Nitrophenol	U		0.000050	0.0010	mg/L	1	7/26/2012 16:50
Acenaphthene	0.0012		0.000050	0.00020	mg/L	1	7/26/2012 16:50
Acenaphthylene	U		0.000050	0.00020	mg/L	1	7/26/2012 16:50
Anthracene	0.00027		0.000050	0.00020	mg/L	1	7/26/2012 16:50
Benz(a)anthracene	U		0.000050	0.00020	mg/L	1	7/26/2012 16:50
Benzo(a)pyrene	U		0.000050	0.00020	mg/L	1	7/26/2012 16:50
Bis(2-chloroethoxy)methane	U		0.000050	0.00020	mg/L	1	7/26/2012 16:50
Bis(2-ethylhexyl)phthalate	0.00010	J	0.00010	0.00020	mg/L	1	7/26/2012 16:50
Chrysene	U		0.000050	0.00020	mg/L	1	7/26/2012 16:50
Dibenzofuran	0.00099		0.000050	0.00020	mg/L	1	7/26/2012 16:50
Di-n-butyl phthalate	0.000076	J	0.000050	0.00020	mg/L	1	7/26/2012 16:50
Fluoranthene	0.00030		0.000050	0.00020	mg/L	1	7/26/2012 16:50
Fluorene	0.00089		0.000050	0.00020	mg/L	1	7/26/2012 16:50
Naphthalene	0.025		0.00020	0.00080	mg/L	4	7/30/2012 17:17
Nitrobenzene	U		0.000050	0.00020	mg/L	1	7/26/2012 16:50
N-Nitrosodiphenylamine	U		0.000050	0.00020	mg/L	1	7/26/2012 16:50
Pentachlorophenol	U		0.000050	0.00020	mg/L	1	7/26/2012 16:50
Phenanthrene	0.0015		0.000050	0.00020	mg/L	1	7/26/2012 16:50
Phenol	U		0.000050	0.00020	mg/L	1	7/26/2012 16:50
Pyrene	0.00033		0.000050	0.00020	mg/L	1	7/26/2012 16:50
Surr: 2,4,6-Tribromophenol	71.4			34-129	%REC	1	7/26/2012 16:50
Surr: 2,4,6-Tribromophenol	65.4			34-129	%REC	4	7/30/2012 17:17
Surr: 2-Fluorobiphenyl	63.3			40-125	%REC	1	7/26/2012 16:50
Surr: 2-Fluorobiphenyl	76.4			40-125	%REC	4	7/30/2012 17:17
Surr: 2-Fluorophenol	56.0			20-120	%REC	1	7/26/2012 16:50
Surr: 2-Fluorophenol	57.4			20-120	%REC	4	7/30/2012 17:17
Surr: 4-Terphenyl-d14	73.6			40-135	%REC	1	7/26/2012 16:50
Surr: 4-Terphenyl-d14	88.6			40-135	%REC	4	7/30/2012 17:17
Surr: Nitrobenzene-d5	53.9			41-120	%REC	1	7/26/2012 16:50
Surr: Nitrobenzene-d5	65.5			41-120	%REC	4	7/30/2012 17:17
Surr: Phenol-d6	49.1			20-120	%REC	1	7/26/2012 16:50

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 13-Aug-12

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Sample ID: WG-1620-MW60A-20120723
Collection Date: 7/23/2012 04:45 PM

Work Order: 12071122
Lab ID: 12071122-07
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed	
Surr: Phenol-d6	53.5			20-120	%REC	4	7/30/2012 17:17	
VOLATILES		Method: SW8260					Analyst: PC	
1,2-Dichloroethane	U		0.00050	0.0050	mg/L	1	7/27/2012 21:01	
Benzene	U		0.00050	0.0050	mg/L	1	7/27/2012 21:01	
Chlorobenzene	U		0.00050	0.0050	mg/L	1	7/27/2012 21:01	
Ethylbenzene	U		0.00050	0.0050	mg/L	1	7/27/2012 21:01	
Methylene chloride	U		0.0010	0.010	mg/L	1	7/27/2012 21:01	
Toluene	U		0.00050	0.0050	mg/L	1	7/27/2012 21:01	
Vinyl chloride	U		0.00050	0.0020	mg/L	1	7/27/2012 21:01	
Xylenes, Total	U		0.0015	0.015	mg/L	1	7/27/2012 21:01	
Surr: 1,2-Dichloroethane-d4	120			70-125	%REC	1	7/27/2012 21:01	
Surr: 4-Bromofluorobenzene	91.7			72-125	%REC	1	7/27/2012 21:01	
Surr: Dibromofluoromethane	114			71-125	%REC	1	7/27/2012 21:01	
Surr: Toluene-d8	95.1			75-125	%REC	1	7/27/2012 21:01	

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 13-Aug-12

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Sample ID: WG-1620-FB7-20120723
Collection Date: 7/23/2012 05:15 PM

Work Order: 12071122
Lab ID: 12071122-08
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270	Prep: SW3510 / 7/26/12	Analyst: LG		
1,2-Diphenylhydrazine	U		0.000050	0.00020	mg/L	1	7/26/2012 19:10
2,4-Dimethylphenol	U		0.000050	0.00020	mg/L	1	7/26/2012 19:10
2,4-Dinitrotoluene	U		0.000050	0.00020	mg/L	1	7/26/2012 19:10
2,6-Dinitrotoluene	U		0.000060	0.00020	mg/L	1	7/26/2012 19:10
2-Chloronaphthalene	U		0.000050	0.00020	mg/L	1	7/26/2012 19:10
2-Methylnaphthalene	U		0.000050	0.00020	mg/L	1	7/26/2012 19:10
4,6-Dinitro-2-methylphenol	U		0.000080	0.00020	mg/L	1	7/26/2012 19:10
4-Nitrophenol	U		0.000050	0.0010	mg/L	1	7/26/2012 19:10
Acenaphthene	U		0.000050	0.00020	mg/L	1	7/26/2012 19:10
Acenaphthylene	U		0.000050	0.00020	mg/L	1	7/26/2012 19:10
Anthracene	U		0.000050	0.00020	mg/L	1	7/26/2012 19:10
Benz(a)anthracene	U		0.000050	0.00020	mg/L	1	7/26/2012 19:10
Benzo(a)pyrene	U		0.000050	0.00020	mg/L	1	7/26/2012 19:10
Bis(2-chloroethoxy)methane	U		0.000050	0.00020	mg/L	1	7/26/2012 19:10
Bis(2-ethylhexyl)phthalate	0.00019	J	0.00010	0.00020	mg/L	1	7/26/2012 19:10
Chrysene	U		0.000050	0.00020	mg/L	1	7/26/2012 19:10
Dibenzofuran	U		0.000050	0.00020	mg/L	1	7/26/2012 19:10
Di-n-butyl phthalate	0.000054	J	0.000050	0.00020	mg/L	1	7/26/2012 19:10
Fluoranthene	U		0.000050	0.00020	mg/L	1	7/26/2012 19:10
Fluorene	U		0.000050	0.00020	mg/L	1	7/26/2012 19:10
Naphthalene	0.00021		0.000050	0.00020	mg/L	1	7/26/2012 19:10
Nitrobenzene	U		0.000050	0.00020	mg/L	1	7/26/2012 19:10
N-Nitrosodiphenylamine	U		0.000050	0.00020	mg/L	1	7/26/2012 19:10
Pentachlorophenol	U		0.000050	0.00020	mg/L	1	7/26/2012 19:10
Phenanthrene	U		0.000050	0.00020	mg/L	1	7/26/2012 19:10
Phenol	U		0.000050	0.00020	mg/L	1	7/26/2012 19:10
Pyrene	U		0.000050	0.00020	mg/L	1	7/26/2012 19:10
Surr: 2,4,6-Tribromophenol	49.8			34-129	%REC	1	7/26/2012 19:10
Surr: 2-Fluorobiphenyl	81.7			40-125	%REC	1	7/26/2012 19:10
Surr: 2-Fluorophenol	72.4			20-120	%REC	1	7/26/2012 19:10
Surr: 4-Terphenyl-d14	87.9			40-135	%REC	1	7/26/2012 19:10
Surr: Nitrobenzene-d5	80.5			41-120	%REC	1	7/26/2012 19:10
Surr: Phenol-d6	80.7			20-120	%REC	1	7/26/2012 19:10
VOLATILES			Method: SW8260	Analyst: PC			
1,2-Dichloroethane	U		0.00050	0.0050	mg/L	1	7/27/2012 16:56
Benzene	U		0.00050	0.0050	mg/L	1	7/27/2012 16:56
Chlorobenzene	U		0.00050	0.0050	mg/L	1	7/27/2012 16:56
Ethylbenzene	U		0.00050	0.0050	mg/L	1	7/27/2012 16:56

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 13-Aug-12

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Sample ID: WG-1620-FB7-20120723
Collection Date: 7/23/2012 05:15 PM

Work Order: 12071122
Lab ID: 12071122-08
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
Methylene chloride	U		0.0010	0.010	mg/L	1	7/27/2012 16:56
Toluene	U		0.00050	0.0050	mg/L	1	7/27/2012 16:56
Vinyl chloride	U		0.00050	0.0020	mg/L	1	7/27/2012 16:56
Xylenes, Total	U		0.0015	0.015	mg/L	1	7/27/2012 16:56
Surr: 1,2-Dichloroethane-d4	112			70-125	%REC	1	7/27/2012 16:56
Surr: 4-Bromofluorobenzene	92.3			72-125	%REC	1	7/27/2012 16:56
Surr: Dibromofluoromethane	107			71-125	%REC	1	7/27/2012 16:56
Surr: Toluene-d8	91.9			75-125	%REC	1	7/27/2012 16:56

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 13-Aug-12

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Sample ID: WG-1620-MW50A-20120724
Collection Date: 7/24/2012 07:40 AM

Work Order: 12071122
Lab ID: 12071122-09
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270	Prep: SW3510 / 7/26/12	Analyst: LG		
1,2-Diphenylhydrazine		U	0.000050	0.00020	mg/L	1	7/26/2012 19:30
2,4-Dimethylphenol	0.000083	J	0.000050	0.00020	mg/L	1	7/26/2012 19:30
2,4-Dinitrotoluene		U	0.000050	0.00020	mg/L	1	7/26/2012 19:30
2,6-Dinitrotoluene		U	0.000060	0.00020	mg/L	1	7/26/2012 19:30
2-Chloronaphthalene		U	0.000050	0.00020	mg/L	1	7/26/2012 19:30
2-Methylnaphthalene	0.0039		0.000050	0.00020	mg/L	1	7/26/2012 19:30
4,6-Dinitro-2-methylphenol		U	0.000080	0.00020	mg/L	1	7/26/2012 19:30
4-Nitrophenol		U	0.000050	0.0010	mg/L	1	7/26/2012 19:30
Acenaphthene	0.0029		0.000050	0.00020	mg/L	1	7/26/2012 19:30
Acenaphthylene		U	0.000050	0.00020	mg/L	1	7/26/2012 19:30
Anthracene	0.00060		0.000050	0.00020	mg/L	1	7/26/2012 19:30
Benz(a)anthracene		U	0.000050	0.00020	mg/L	1	7/26/2012 19:30
Benzo(a)pyrene		U	0.000050	0.00020	mg/L	1	7/26/2012 19:30
Bis(2-chloroethoxy)methane		U	0.000050	0.00020	mg/L	1	7/26/2012 19:30
Bis(2-ethylhexyl)phthalate	0.00012	J	0.00010	0.00020	mg/L	1	7/26/2012 19:30
Chrysene		U	0.000050	0.00020	mg/L	1	7/26/2012 19:30
Dibenzofuran	0.0024		0.000050	0.00020	mg/L	1	7/26/2012 19:30
Di-n-butyl phthalate	0.000086	J	0.000050	0.00020	mg/L	1	7/26/2012 19:30
Fluoranthene	0.00061		0.000050	0.00020	mg/L	1	7/26/2012 19:30
Fluorene	0.0022		0.000050	0.00020	mg/L	1	7/26/2012 19:30
Naphthalene	0.020		0.00020	0.00080	mg/L	4	7/28/2012 21:17
Nitrobenzene		U	0.000050	0.00020	mg/L	1	7/26/2012 19:30
N-Nitrosodiphenylamine		U	0.000050	0.00020	mg/L	1	7/26/2012 19:30
Pentachlorophenol		U	0.000050	0.00020	mg/L	1	7/26/2012 19:30
Phenanthrene	0.0045		0.000050	0.00020	mg/L	1	7/26/2012 19:30
Phenol		U	0.000050	0.00020	mg/L	1	7/26/2012 19:30
Pyrene	0.00031		0.000050	0.00020	mg/L	1	7/26/2012 19:30
Surr: 2,4,6-Tribromophenol	48.6			34-129	%REC	1	7/26/2012 19:30
Surr: 2,4,6-Tribromophenol	69.5			34-129	%REC	4	7/28/2012 21:17
Surr: 2-Fluorobiphenyl	59.2			40-125	%REC	1	7/26/2012 19:30
Surr: 2-Fluorobiphenyl	69.5			40-125	%REC	4	7/28/2012 21:17
Surr: 2-Fluorophenol	51.0			20-120	%REC	1	7/26/2012 19:30
Surr: 2-Fluorophenol	61.0			20-120	%REC	4	7/28/2012 21:17
Surr: 4-Terphenyl-d14	72.1			40-135	%REC	1	7/26/2012 19:30
Surr: 4-Terphenyl-d14	114			40-135	%REC	4	7/28/2012 21:17
Surr: Nitrobenzene-d5	55.4			41-120	%REC	1	7/26/2012 19:30
Surr: Phenol-d6	59.2			20-120	%REC	1	7/26/2012 19:30

VOLATILES	Method: SW8260	Analyst: PC
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Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 13-Aug-12

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Sample ID: WG-1620-MW50A-20120724
Collection Date: 7/24/2012 07:40 AM

Work Order: 12071122
Lab ID: 12071122-09
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
1,2-Dichloroethane	U		0.00050	0.0050	mg/L	1	7/27/2012 21:28
Benzene	U		0.00050	0.0050	mg/L	1	7/27/2012 21:28
Chlorobenzene	U		0.00050	0.0050	mg/L	1	7/27/2012 21:28
Ethylbenzene	U		0.00050	0.0050	mg/L	1	7/27/2012 21:28
Methylene chloride	U		0.0010	0.010	mg/L	1	7/27/2012 21:28
Toluene	U		0.00050	0.0050	mg/L	1	7/27/2012 21:28
Xylenes, Total	U		0.0015	0.015	mg/L	1	7/27/2012 21:28
Surr: 1,2-Dichloroethane-d4	119			70-125	%REC	1	7/27/2012 21:28
Surr: 4-Bromofluorobenzene	102			72-125	%REC	1	7/27/2012 21:28
Surr: Dibromofluoromethane	114			71-125	%REC	1	7/27/2012 21:28
Surr: Toluene-d8	92.8			75-125	%REC	1	7/27/2012 21:28

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 13-Aug-12

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Sample ID: WG-1620-MW69A-20120724
Collection Date: 7/24/2012 08:45 AM

Work Order: 12071122
Lab ID: 12071122-10
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270	Prep: SW3510 / 7/26/12	Analyst: LG		
1,2-Diphenylhydrazine	U		0.000050	0.00020	mg/L	1	7/28/2012 15:51
2,4-Dimethylphenol	0.000078	J	0.000050	0.00020	mg/L	1	7/28/2012 15:51
2,4-Dinitrotoluene	U		0.000050	0.00020	mg/L	1	7/28/2012 15:51
2,6-Dinitrotoluene	U		0.000060	0.00020	mg/L	1	7/28/2012 15:51
2-Chloronaphthalene	U		0.000050	0.00020	mg/L	1	7/28/2012 15:51
2-Methylnaphthalene	0.00090		0.000050	0.00020	mg/L	1	7/28/2012 15:51
4,6-Dinitro-2-methylphenol	U		0.000080	0.00020	mg/L	1	7/28/2012 15:51
4-Nitrophenol	U		0.000050	0.0010	mg/L	1	7/28/2012 15:51
Acenaphthene	0.00082		0.000050	0.00020	mg/L	1	7/28/2012 15:51
Acenaphthylene	U		0.000050	0.00020	mg/L	1	7/28/2012 15:51
Anthracene	0.00047		0.000050	0.00020	mg/L	1	7/28/2012 15:51
Benz(a)anthracene	U		0.000050	0.00020	mg/L	1	7/28/2012 15:51
Benzo(a)pyrene	U		0.000050	0.00020	mg/L	1	7/28/2012 15:51
Bis(2-chloroethoxy)methane	U		0.000050	0.00020	mg/L	1	7/28/2012 15:51
Bis(2-ethylhexyl)phthalate	0.00030		0.00010	0.00020	mg/L	1	7/28/2012 15:51
Chrysene	U		0.000050	0.00020	mg/L	1	7/28/2012 15:51
Dibenzofuran	0.00071		0.000050	0.00020	mg/L	1	7/28/2012 15:51
Di-n-butyl phthalate	U		0.000050	0.00020	mg/L	1	7/28/2012 15:51
Fluoranthene	0.00045		0.000050	0.00020	mg/L	1	7/28/2012 15:51
Fluorene	0.00085		0.000050	0.00020	mg/L	1	7/28/2012 15:51
Naphthalene	0.0040		0.000050	0.00020	mg/L	1	7/28/2012 15:51
Nitrobenzene	U		0.000050	0.00020	mg/L	1	7/28/2012 15:51
N-Nitrosodiphenylamine	U		0.000050	0.00020	mg/L	1	7/28/2012 15:51
Pentachlorophenol	U		0.000050	0.00020	mg/L	1	7/28/2012 15:51
Phenanthrene	0.0022		0.000050	0.00020	mg/L	1	7/28/2012 15:51
Phenol	U		0.000050	0.00020	mg/L	1	7/28/2012 15:51
Pyrene	0.00033		0.000050	0.00020	mg/L	1	7/28/2012 15:51
Surr: 2,4,6-Tribromophenol	64.1			34-129	%REC	1	7/28/2012 15:51
Surr: 2-Fluorobiphenyl	43.4			40-125	%REC	1	7/28/2012 15:51
Surr: 2-Fluorophenol	44.2			20-120	%REC	1	7/28/2012 15:51
Surr: 4-Terphenyl-d14	64.9			40-135	%REC	1	7/28/2012 15:51
Surr: Nitrobenzene-d5	58.9			41-120	%REC	1	7/28/2012 15:51
Surr: Phenol-d6	46.3			20-120	%REC	1	7/28/2012 15:51

VOLATILES			Method: SW8260	Analyst: PC			
1,2-Dichloroethane	U		0.00050	0.0050	mg/L	1	7/27/2012 21:54
Benzene	U		0.00050	0.0050	mg/L	1	7/27/2012 21:54
Chlorobenzene	U		0.00050	0.0050	mg/L	1	7/27/2012 21:54
Ethylbenzene	U		0.00050	0.0050	mg/L	1	7/27/2012 21:54

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 13-Aug-12

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Sample ID: WG-1620-MW69A-20120724
Collection Date: 7/24/2012 08:45 AM

Work Order: 12071122
Lab ID: 12071122-10
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
Methylene chloride	U		0.0010	0.010	mg/L	1	7/27/2012 21:54
Toluene	U		0.00050	0.0050	mg/L	1	7/27/2012 21:54
Vinyl chloride	U		0.00050	0.0020	mg/L	1	7/27/2012 21:54
Xylenes, Total	U		0.0015	0.015	mg/L	1	7/27/2012 21:54
Surr: 1,2-Dichloroethane-d4	121			70-125	%REC	1	7/27/2012 21:54
Surr: 4-Bromofluorobenzene	102			72-125	%REC	1	7/27/2012 21:54
Surr: Dibromofluoromethane	113			71-125	%REC	1	7/27/2012 21:54
Surr: Toluene-d8	86.0			75-125	%REC	1	7/27/2012 21:54

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 13-Aug-12

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Sample ID: WG-1620-MW48C-20120724
Collection Date: 7/24/2012 10:00 AM

Work Order: 12071122
Lab ID: 12071122-11
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270	Prep: SW3510 / 7/26/12	Analyst: LG		
1,2-Diphenylhydrazine	U		0.000050	0.00020	mg/L	1	7/26/2012 19:50
2,4-Dimethylphenol	0.00014	J	0.000050	0.00020	mg/L	1	7/26/2012 19:50
2,4-Dinitrotoluene	U		0.000050	0.00020	mg/L	1	7/26/2012 19:50
2,6-Dinitrotoluene	U		0.000060	0.00020	mg/L	1	7/26/2012 19:50
2-Chloronaphthalene	U		0.000050	0.00020	mg/L	1	7/26/2012 19:50
2-Methylnaphthalene	0.0013		0.000050	0.00020	mg/L	1	7/26/2012 19:50
4,6-Dinitro-2-methylphenol	U		0.000080	0.00020	mg/L	1	7/26/2012 19:50
4-Nitrophenol	U		0.000050	0.0010	mg/L	1	7/26/2012 19:50
Acenaphthene	0.0011		0.000050	0.00020	mg/L	1	7/26/2012 19:50
Acenaphthylene	U		0.000050	0.00020	mg/L	1	7/26/2012 19:50
Anthracene	0.00077		0.000050	0.00020	mg/L	1	7/26/2012 19:50
Benz(a)anthracene	0.000066	J	0.000050	0.00020	mg/L	1	7/26/2012 19:50
Benzo(a)pyrene	U		0.000050	0.00020	mg/L	1	7/26/2012 19:50
Bis(2-chloroethoxy)methane	U		0.000050	0.00020	mg/L	1	7/26/2012 19:50
Bis(2-ethylhexyl)phthalate	0.00024		0.00010	0.00020	mg/L	1	7/26/2012 19:50
Chrysene	0.000073	J	0.000050	0.00020	mg/L	1	7/26/2012 19:50
Dibenzofuran	0.00096		0.000050	0.00020	mg/L	1	7/26/2012 19:50
Di-n-butyl phthalate	0.000053	J	0.000050	0.00020	mg/L	1	7/26/2012 19:50
Fluoranthene	0.00095		0.000050	0.00020	mg/L	1	7/26/2012 19:50
Fluorene	0.0011		0.000050	0.00020	mg/L	1	7/26/2012 19:50
Naphthalene	0.0071		0.000050	0.00020	mg/L	1	7/26/2012 19:50
Nitrobenzene	U		0.000050	0.00020	mg/L	1	7/26/2012 19:50
N-Nitrosodiphenylamine	U		0.000050	0.00020	mg/L	1	7/26/2012 19:50
Pentachlorophenol	U		0.000050	0.00020	mg/L	1	7/26/2012 19:50
Phenanthrene	0.0034		0.000050	0.00020	mg/L	1	7/26/2012 19:50
Phenol	U		0.000050	0.00020	mg/L	1	7/26/2012 19:50
Pyrene	0.00052		0.000050	0.00020	mg/L	1	7/26/2012 19:50
Surr: 2,4,6-Tribromophenol	51.8			34-129	%REC	1	7/26/2012 19:50
Surr: 2-Fluorobiphenyl	60.4			40-125	%REC	1	7/26/2012 19:50
Surr: 2-Fluorophenol	54.1			20-120	%REC	1	7/26/2012 19:50
Surr: 4-Terphenyl-d14	66.8			40-135	%REC	1	7/26/2012 19:50
Surr: Nitrobenzene-d5	60.5			41-120	%REC	1	7/26/2012 19:50
Surr: Phenol-d6	52.7			20-120	%REC	1	7/26/2012 19:50
VOLATILES			Method: SW8260	Analyst: PC			
1,2-Dichloroethane	U		0.00050	0.0050	mg/L	1	7/27/2012 22:21
Benzene	U		0.00050	0.0050	mg/L	1	7/27/2012 22:21
Chlorobenzene	U		0.00050	0.0050	mg/L	1	7/27/2012 22:21
Ethylbenzene	U		0.00050	0.0050	mg/L	1	7/27/2012 22:21

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 13-Aug-12

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Sample ID: WG-1620-MW48C-20120724
Collection Date: 7/24/2012 10:00 AM

Work Order: 12071122
Lab ID: 12071122-11
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	ML	Units	Dilution Factor	Date Analyzed
Methylene chloride	U		0.0010	0.010	mg/L	1	7/27/2012 22:21
Toluene	U		0.00050	0.0050	mg/L	1	7/27/2012 22:21
Xylenes, Total	U		0.0015	0.015	mg/L	1	7/27/2012 22:21
Surr: 1,2-Dichloroethane-d4	123			70-125	%REC	1	7/27/2012 22:21
Surr: 4-Bromofluorobenzene	97.8			72-125	%REC	1	7/27/2012 22:21
Surr: Dibromofluoromethane	115			71-125	%REC	1	7/27/2012 22:21
Surr: Toluene-d8	89.1			75-125	%REC	1	7/27/2012 22:21

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 13-Aug-12

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Sample ID: WG-1620-MW51A-20120724
Collection Date: 7/24/2012 11:05 AM

Work Order: 12071122
Lab ID: 12071122-12
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270	Prep: SW3510 / 7/26/12	Analyst: LG		
1,2-Diphenylhydrazine	U		0.000050	0.00020	mg/L	1	7/26/2012 20:10
2,4-Dimethylphenol	U		0.000050	0.00020	mg/L	1	7/26/2012 20:10
2,4-Dinitrotoluene	U		0.000050	0.00020	mg/L	1	7/26/2012 20:10
2,6-Dinitrotoluene	U		0.000060	0.00020	mg/L	1	7/26/2012 20:10
2-Chloronaphthalene	U		0.000050	0.00020	mg/L	1	7/26/2012 20:10
2-Methylnaphthalene	U		0.000050	0.00020	mg/L	1	7/26/2012 20:10
4,6-Dinitro-2-methylphenol	U		0.000080	0.00020	mg/L	1	7/26/2012 20:10
4-Nitrophenol	U		0.000050	0.0010	mg/L	1	7/26/2012 20:10
Acenaphthene	U		0.000050	0.00020	mg/L	1	7/26/2012 20:10
Acenaphthylene	U		0.000050	0.00020	mg/L	1	7/26/2012 20:10
Anthracene	U		0.000050	0.00020	mg/L	1	7/26/2012 20:10
Benz(a)anthracene	U		0.000050	0.00020	mg/L	1	7/26/2012 20:10
Benzo(a)pyrene	U		0.000050	0.00020	mg/L	1	7/26/2012 20:10
Bis(2-chloroethoxy)methane	U		0.000050	0.00020	mg/L	1	7/26/2012 20:10
Bis(2-ethylhexyl)phthalate	0.00033		0.00010	0.00020	mg/L	1	7/26/2012 20:10
Chrysene	0.00011	J	0.000050	0.00020	mg/L	1	7/26/2012 20:10
Dibenzofuran	U		0.000050	0.00020	mg/L	1	7/26/2012 20:10
Di-n-butyl phthalate	0.000051	J	0.000050	0.00020	mg/L	1	7/26/2012 20:10
Fluoranthene	0.00012	J	0.000050	0.00020	mg/L	1	7/26/2012 20:10
Fluorene	U		0.000050	0.00020	mg/L	1	7/26/2012 20:10
Naphthalene	U		0.000050	0.00020	mg/L	1	7/26/2012 20:10
Nitrobenzene	U		0.000050	0.00020	mg/L	1	7/26/2012 20:10
N-Nitrosodiphenylamine	U		0.000050	0.00020	mg/L	1	7/26/2012 20:10
Pentachlorophenol	U		0.000050	0.00020	mg/L	1	7/26/2012 20:10
Phenanthrene	U		0.000050	0.00020	mg/L	1	7/26/2012 20:10
Phenol	U		0.000050	0.00020	mg/L	1	7/26/2012 20:10
Pyrene	0.000088	J	0.000050	0.00020	mg/L	1	7/26/2012 20:10
Surr: 2,4,6-Tribromophenol	66.7			34-129	%REC	1	7/26/2012 20:10
Surr: 2-Fluorobiphenyl	65.5			40-125	%REC	1	7/26/2012 20:10
Surr: 2-Fluorophenol	48.8			20-120	%REC	1	7/26/2012 20:10
Surr: 4-Terphenyl-d14	77.9			40-135	%REC	1	7/26/2012 20:10
Surr: Nitrobenzene-d5	58.7			41-120	%REC	1	7/26/2012 20:10
Surr: Phenol-d6	49.4			20-120	%REC	1	7/26/2012 20:10
VOLATILES			Method: SW8260	Analyst: PC			
1,2-Dichloroethane	U		0.00050	0.0050	mg/L	1	7/27/2012 22:47
Benzene	U		0.00050	0.0050	mg/L	1	7/27/2012 22:47
Chlorobenzene	U		0.00050	0.0050	mg/L	1	7/27/2012 22:47
Ethylbenzene	U		0.00050	0.0050	mg/L	1	7/27/2012 22:47

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 13-Aug-12

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Sample ID: WG-1620-MW51A-20120724
Collection Date: 7/24/2012 11:05 AM

Work Order: 12071122
Lab ID: 12071122-12
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
Methylene chloride	U		0.0010	0.010	mg/L	1	7/27/2012 22:47
Toluene	U		0.00050	0.0050	mg/L	1	7/27/2012 22:47
Vinyl chloride	U		0.00050	0.0020	mg/L	1	7/27/2012 22:47
Xylenes, Total	U		0.0015	0.015	mg/L	1	7/27/2012 22:47
Surr: 1,2-Dichloroethane-d4	113			70-125	%REC	1	7/27/2012 22:47
Surr: 4-Bromofluorobenzene	99.3			72-125	%REC	1	7/27/2012 22:47
Surr: Dibromofluoromethane	113			71-125	%REC	1	7/27/2012 22:47
Surr: Toluene-d8	93.8			75-125	%REC	1	7/27/2012 22:47

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 13-Aug-12

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Sample ID: WG-1620-MW57B-20120724
Collection Date: 7/24/2012 12:20 PM

Work Order: 12071122
Lab ID: 12071122-13
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	ML	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270	Prep: SW3510 / 7/26/12		Analyst: LG	
1,2-Diphenylhydrazine	U		0.00050	0.0020	mg/L	10	7/28/2012 22:18
2,4-Dimethylphenol	16		0.25	1.0	mg/L	5000	7/30/2012 20:22
2,4-Dinitrotoluene	U		0.00050	0.0020	mg/L	10	7/28/2012 22:18
2,6-Dinitrotoluene	U		0.00060	0.0020	mg/L	10	7/28/2012 22:18
2-Chloronaphthalene	U		0.00050	0.0020	mg/L	10	7/28/2012 22:18
2-Methylnaphthalene	1.6		0.050	0.20	mg/L	1000	7/30/2012 20:02
4,6-Dinitro-2-methylphenol	U		0.00080	0.0020	mg/L	10	7/28/2012 22:18
4-Nitrophenol	U		0.00050	0.010	mg/L	10	7/28/2012 22:18
Acenaphthene	0.44		0.0050	0.020	mg/L	100	7/28/2012 22:39
Acenaphthylene	0.0087		0.00050	0.0020	mg/L	10	7/28/2012 22:18
Anthracene	0.050		0.00050	0.0020	mg/L	10	7/28/2012 22:18
Benz(a)anthracene	0.0012	J	0.00050	0.0020	mg/L	10	7/28/2012 22:18
Benzo(a)pyrene	U		0.00050	0.0020	mg/L	10	7/28/2012 22:18
Bis(2-chloroethoxy)methane	U		0.00050	0.0020	mg/L	10	7/28/2012 22:18
Bis(2-ethylhexyl)phthalate	U		0.0010	0.0020	mg/L	10	7/28/2012 22:18
Chrysene	0.0016	J	0.00050	0.0020	mg/L	10	7/28/2012 22:18
Dibenzofuran	0.38		0.0050	0.020	mg/L	100	7/28/2012 22:39
Di-n-butyl phthalate	U		0.00050	0.0020	mg/L	10	7/28/2012 22:18
Fluoranthene	0.016		0.00050	0.0020	mg/L	10	7/28/2012 22:18
Fluorene	0.23		0.0050	0.020	mg/L	100	7/28/2012 22:39
Naphthalene	27		0.25	1.0	mg/L	5000	7/30/2012 20:22
Nitrobenzene	U		0.00050	0.0020	mg/L	10	7/28/2012 22:18
N-Nitrosodiphenylamine	U		0.00050	0.0020	mg/L	10	7/28/2012 22:18
Pentachlorophenol	U		0.00050	0.0020	mg/L	10	7/28/2012 22:18
Phenanthrene	0.24		0.0050	0.020	mg/L	100	7/28/2012 22:39
Phenol	1.0		0.0050	0.020	mg/L	100	7/28/2012 22:39
Pyrene	0.011		0.00050	0.0020	mg/L	10	7/28/2012 22:18
Surr: 2,4,6-Tribromophenol	90.4			34-129	%REC	10	7/28/2012 22:18
Surr: 2,4,6-Tribromophenol	151	JS		34-129	%REC	100	7/28/2012 22:39
Surr: 2,4,6-Tribromophenol	0	S		34-129	%REC	1000	7/30/2012 20:02
Surr: 2,4,6-Tribromophenol	0	S		34-129	%REC	5000	7/30/2012 20:22
Surr: 2-Fluorobiphenyl	74.3			40-125	%REC	10	7/28/2012 22:18
Surr: 2-Fluorobiphenyl	123	J		40-125	%REC	100	7/28/2012 22:39
Surr: 2-Fluorobiphenyl	0	S		40-125	%REC	1000	7/30/2012 20:02
Surr: 2-Fluorobiphenyl	0	S		40-125	%REC	5000	7/30/2012 20:22
Surr: 2-Fluorophenol	100			20-120	%REC	10	7/28/2012 22:18
Surr: 2-Fluorophenol	104	J		20-120	%REC	100	7/28/2012 22:39
Surr: 2-Fluorophenol	0	S		20-120	%REC	1000	7/30/2012 20:02

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 13-Aug-12

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Sample ID: WG-1620-MW57B-20120724
Collection Date: 7/24/2012 12:20 PM

Work Order: 12071122
Lab ID: 12071122-13
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
Surr: 2-Fluorophenol	0	S		20-120	%REC	5000	7/30/2012 20:22
Surr: 4-Terphenyl-d14	111			40-135	%REC	10	7/28/2012 22:18
Surr: 4-Terphenyl-d14	113	J		40-135	%REC	100	7/28/2012 22:39
Surr: 4-Terphenyl-d14	0	S		40-135	%REC	1000	7/30/2012 20:02
Surr: 4-Terphenyl-d14	0	S		40-135	%REC	5000	7/30/2012 20:22
Surr: Nitrobenzene-d5	58.5			41-120	%REC	10	7/28/2012 22:18
Surr: Nitrobenzene-d5	100	J		41-120	%REC	100	7/28/2012 22:39
Surr: Nitrobenzene-d5	0	S		41-120	%REC	1000	7/30/2012 20:02
Surr: Nitrobenzene-d5	0	S		41-120	%REC	5000	7/30/2012 20:22
Surr: Phenol-d6	106			20-120	%REC	10	7/28/2012 22:18
Surr: Phenol-d6	92.7	J		20-120	%REC	100	7/28/2012 22:39
Surr: Phenol-d6	0	S		20-120	%REC	1000	7/30/2012 20:02
Surr: Phenol-d6	0	S		20-120	%REC	5000	7/30/2012 20:22

VOLATILES		Method: SW8260				Analyst: PC	
1,2-Dichloroethane	U		0.0050	0.050	mg/L	10	7/28/2012 02:39
Benzene	1.5		0.0050	0.050	mg/L	10	7/28/2012 02:39
Chlorobenzene	U		0.0050	0.050	mg/L	10	7/28/2012 02:39
Ethylbenzene	0.42		0.0050	0.050	mg/L	10	7/28/2012 02:39
Methylene chloride	0.017	J	0.010	0.10	mg/L	10	7/28/2012 02:39
Toluene	1.4		0.0050	0.050	mg/L	10	7/28/2012 02:39
Xylenes, Total	1.1		0.015	0.15	mg/L	10	7/28/2012 02:39
Surr: 1,2-Dichloroethane-d4	112			70-125	%REC	10	7/28/2012 02:39
Surr: 4-Bromofluorobenzene	98.4			72-125	%REC	10	7/28/2012 02:39
Surr: Dibromofluoromethane	102			71-125	%REC	10	7/28/2012 02:39
Surr: Toluene-d8	93.8			75-125	%REC	10	7/28/2012 02:39

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 13-Aug-12

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Sample ID: WG-1620-57A-2012074
Collection Date: 7/24/2012 02:00 PM

Work Order: 12071122
Lab ID: 12071122-14
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270	Prep: SW3510 / 7/26/12	Analyst: LG		
1,2-Diphenylhydrazine	U		0.00050	0.0020	mg/L	10	7/28/2012 15:11
2,4-Dimethylphenol	0.20		0.0050	0.020	mg/L	100	7/30/2012 18:19
2,4-Dinitrotoluene	U		0.00050	0.0020	mg/L	10	7/28/2012 15:11
2,6-Dinitrotoluene	U		0.00060	0.0020	mg/L	10	7/28/2012 15:11
2-Chloronaphthalene	U		0.00050	0.0020	mg/L	10	7/28/2012 15:11
2-Methylnaphthalene	3.1		0.050	0.20	mg/L	1000	7/30/2012 18:40
4,6-Dinitro-2-methylphenol	U		0.00080	0.0020	mg/L	10	7/28/2012 15:11
4-Nitrophenol	U		0.00050	0.010	mg/L	10	7/28/2012 15:11
Acenaphthene	1.8		0.050	0.20	mg/L	1000	7/30/2012 18:40
Acenaphthylene	0.024		0.00050	0.0020	mg/L	10	7/28/2012 15:11
Anthracene	0.55		0.0050	0.020	mg/L	100	7/30/2012 18:19
Benz(a)anthracene	0.074		0.00050	0.0020	mg/L	10	7/28/2012 15:11
Benzo(a)pyrene	0.024		0.00050	0.0020	mg/L	10	7/28/2012 15:11
Bis(2-chloroethoxy)methane	U		0.00050	0.0020	mg/L	10	7/28/2012 15:11
Bis(2-ethylhexyl)phthalate	U		0.0010	0.0020	mg/L	10	7/28/2012 15:11
Chrysene	0.089		0.00050	0.0020	mg/L	10	7/28/2012 15:11
Dibenzofuran	1.7		0.050	0.20	mg/L	1000	7/30/2012 18:40
Di-n-butyl phthalate	U		0.00050	0.0020	mg/L	10	7/28/2012 15:11
Fluoranthene	0.74		0.0050	0.020	mg/L	100	7/30/2012 18:19
Fluorene	1.4		0.050	0.20	mg/L	1000	7/30/2012 18:40
Naphthalene	22		0.20	0.80	mg/L	4000	7/30/2012 22:24
Nitrobenzene	U		0.00050	0.0020	mg/L	10	7/28/2012 15:11
N-Nitrosodiphenylamine	U		0.00050	0.0020	mg/L	10	7/28/2012 15:11
Pentachlorophenol	U		0.00050	0.0020	mg/L	10	7/28/2012 15:11
Phenanthrene	3.0		0.050	0.20	mg/L	1000	7/30/2012 18:40
Phenol	U		0.00050	0.0020	mg/L	10	7/28/2012 15:11
Pyrene	0.42		0.0050	0.020	mg/L	100	7/30/2012 18:19
Surr: 2,4,6-Tribromophenol	81.7			34-129	%REC	10	7/28/2012 15:11
Surr: 2,4,6-Tribromophenol	74.4	J		34-129	%REC	100	7/30/2012 18:19
Surr: 2,4,6-Tribromophenol	0	S		34-129	%REC	1000	7/30/2012 18:40
Surr: 2,4,6-Tribromophenol	0	S		34-129	%REC	4000	7/30/2012 22:24
Surr: 2-Fluorobiphenyl	73.6			40-125	%REC	10	7/28/2012 15:11
Surr: 2-Fluorobiphenyl	109	J		40-125	%REC	100	7/30/2012 18:19
Surr: 2-Fluorobiphenyl	0	S		40-125	%REC	1000	7/30/2012 18:40
Surr: 2-Fluorobiphenyl	0	S		40-125	%REC	4000	7/30/2012 22:24
Surr: 2-Fluorophenol	108			20-120	%REC	10	7/28/2012 15:11
Surr: 2-Fluorophenol	99.0	J		20-120	%REC	100	7/30/2012 18:19
Surr: 2-Fluorophenol	0	S		20-120	%REC	1000	7/30/2012 18:40

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 13-Aug-12

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Sample ID: WG-1620-57A-2012074
Collection Date: 7/24/2012 02:00 PM

Work Order: 12071122
Lab ID: 12071122-14
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
Surr: 2-Fluorophenol	0	S		20-120	%REC	4000	7/30/2012 22:24
Surr: 4-Terphenyl-d14	117			40-135	%REC	10	7/28/2012 15:11
Surr: 4-Terphenyl-d14	107	J		40-135	%REC	100	7/30/2012 18:19
Surr: 4-Terphenyl-d14	0	S		40-135	%REC	1000	7/30/2012 18:40
Surr: 4-Terphenyl-d14	0	S		40-135	%REC	4000	7/30/2012 22:24
Surr: Nitrobenzene-d5	107			41-120	%REC	10	7/28/2012 15:11
Surr: Nitrobenzene-d5	97.0	J		41-120	%REC	100	7/30/2012 18:19
Surr: Nitrobenzene-d5	0	S		41-120	%REC	1000	7/30/2012 18:40
Surr: Nitrobenzene-d5	0	S		41-120	%REC	4000	7/30/2012 22:24
Surr: Phenol-d6	112			20-120	%REC	10	7/28/2012 15:11
Surr: Phenol-d6	102	J		20-120	%REC	100	7/30/2012 18:19
Surr: Phenol-d6	0	S		20-120	%REC	1000	7/30/2012 18:40
Surr: Phenol-d6	0	S		20-120	%REC	4000	7/30/2012 22:24

VOLATILES		Method: SW8260				Analyst: PC	
1,2-Dichloroethane	U	0.00050	0.0050	mg/L	1	7/29/2012 14:11	
Benzene	0.064	0.00050	0.0050	mg/L	1	7/29/2012 14:11	
Chlorobenzene	U	0.00050	0.0050	mg/L	1	7/29/2012 14:11	
Ethylbenzene	0.17	0.00050	0.0050	mg/L	1	7/29/2012 14:11	
Methylene chloride	U	0.0010	0.010	mg/L	1	7/29/2012 14:11	
Toluene	0.10	0.00050	0.0050	mg/L	1	7/29/2012 14:11	
Vinyl chloride	0.0016	J	0.00050	0.0020	mg/L	1	7/29/2012 14:11
Xylenes, Total	0.33		0.0015	0.015	mg/L	1	7/29/2012 14:11
Surr: 1,2-Dichloroethane-d4	114			70-125	%REC	1	7/29/2012 14:11
Surr: 4-Bromofluorobenzene	107			72-125	%REC	1	7/29/2012 14:11
Surr: Dibromofluoromethane	112			71-125	%REC	1	7/29/2012 14:11
Surr: Toluene-d8	88.7			75-125	%REC	1	7/29/2012 14:11

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 13-Aug-12

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Sample ID: WG-1620-MW58A-20120724
Collection Date: 7/24/2012 03:00 PM

Work Order: 12071122
Lab ID: 12071122-15
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270	Prep: SW3510 / 7/26/12	Analyst: LG		
1,2-Diphenylhydrazine	U		0.000050	0.00020	mg/L	1	7/30/2012 17:38
2,4-Dimethylphenol	2.4		0.025	0.10	mg/L	500	7/30/2012 20:42
2,4-Dinitrotoluene	U		0.000050	0.00020	mg/L	1	7/30/2012 17:38
2,6-Dinitrotoluene	U		0.000060	0.00020	mg/L	1	7/30/2012 17:38
2-Chloronaphthalene	U		0.000050	0.00020	mg/L	1	7/30/2012 17:38
2-Methylnaphthalene	0.0076		0.000050	0.00020	mg/L	1	7/30/2012 17:38
4,6-Dinitro-2-methylphenol	U		0.000080	0.00020	mg/L	1	7/30/2012 17:38
4-Nitrophenol	U		0.000050	0.0010	mg/L	1	7/30/2012 17:38
Acenaphthene	0.057		0.000050	0.0020	mg/L	10	7/29/2012 00:42
Acenaphthylene	0.0011		0.000050	0.00020	mg/L	1	7/30/2012 17:38
Anthracene	0.0069		0.000050	0.00020	mg/L	1	7/30/2012 17:38
Benz(a)anthracene	0.00072		0.000050	0.00020	mg/L	1	7/30/2012 17:38
Benzo(a)pyrene	0.00027		0.000050	0.00020	mg/L	1	7/30/2012 17:38
Bis(2-chloroethoxy)methane	U		0.000050	0.00020	mg/L	1	7/30/2012 17:38
Bis(2-ethylhexyl)phthalate	0.00094		0.00010	0.00020	mg/L	1	7/30/2012 17:38
Chrysene	0.0011		0.000050	0.00020	mg/L	1	7/30/2012 17:38
Dibenzofuran	0.0088		0.000050	0.00020	mg/L	1	7/30/2012 17:38
Di-n-butyl phthalate	U		0.000050	0.00020	mg/L	1	7/30/2012 17:38
Fluoranthene	0.0099		0.000050	0.00020	mg/L	1	7/30/2012 17:38
Fluorene	0.027		0.000050	0.0020	mg/L	10	7/29/2012 00:42
Naphthalene	0.068		0.000050	0.0020	mg/L	10	7/29/2012 00:42
Nitrobenzene	U		0.000050	0.00020	mg/L	1	7/30/2012 17:38
N-Nitrosodiphenylamine	U		0.000050	0.00020	mg/L	1	7/30/2012 17:38
Pentachlorophenol	0.00017	J	0.000050	0.00020	mg/L	1	7/30/2012 17:38
Phenanthrene	0.036		0.000050	0.0020	mg/L	10	7/29/2012 00:42
Phenol	0.00074		0.000050	0.00020	mg/L	1	7/30/2012 17:38
Pyrene	0.0069		0.000050	0.00020	mg/L	1	7/30/2012 17:38
Surr: 2,4,6-Tribromophenol	88.3			34-129	%REC	10	7/29/2012 00:42
Surr: 2,4,6-Tribromophenol	39.6			34-129	%REC	1	7/30/2012 17:38
Surr: 2,4,6-Tribromophenol	0	S		34-129	%REC	500	7/30/2012 20:42
Surr: 2-Fluorobiphenyl	80.3			40-125	%REC	10	7/29/2012 00:42
Surr: 2-Fluorobiphenyl	40.6			40-125	%REC	1	7/30/2012 17:38
Surr: 2-Fluorobiphenyl	0	S		40-125	%REC	500	7/30/2012 20:42
Surr: 2-Fluorophenol	86.9			20-120	%REC	10	7/29/2012 00:42
Surr: 2-Fluorophenol	88.5			20-120	%REC	1	7/30/2012 17:38
Surr: 2-Fluorophenol	0	S		20-120	%REC	500	7/30/2012 20:42
Surr: 4-Terphenyl-d14	93.8			40-135	%REC	10	7/29/2012 00:42
Surr: 4-Terphenyl-d14	85.5			40-135	%REC	1	7/30/2012 17:38

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 13-Aug-12

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Sample ID: WG-1620-MW58A-20120724
Collection Date: 7/24/2012 03:00 PM

Work Order: 12071122
Lab ID: 12071122-15
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
Surr: 4-Terphenyl-d14	0	S		40-135	%REC	500	7/30/2012 20:42
Surr: Nitrobenzene-d5	77.9			41-120	%REC	10	7/29/2012 00:42
Surr: Nitrobenzene-d5	55.1			41-120	%REC	1	7/30/2012 17:38
Surr: Nitrobenzene-d5	0	S		41-120	%REC	500	7/30/2012 20:42
Surr: Phenol-d6	93.9			20-120	%REC	10	7/29/2012 00:42
Surr: Phenol-d6	87.0			20-120	%REC	1	7/30/2012 17:38
Surr: Phenol-d6	0	S		20-120	%REC	500	7/30/2012 20:42

VOLATILES		Method: SW8260				Analyst: PC	
1,2-Dichloroethane	U		0.00050	0.0050	mg/L	1	7/27/2012 15:33
Benzene	0.16		0.00050	0.0050	mg/L	1	7/27/2012 15:33
Chlorobenzene	0.0018	J	0.00050	0.0050	mg/L	1	7/27/2012 15:33
Ethylbenzene	0.099		0.00050	0.0050	mg/L	1	7/27/2012 15:33
Methylene chloride	U		0.0010	0.010	mg/L	1	7/27/2012 15:33
Toluene	0.041		0.00050	0.0050	mg/L	1	7/27/2012 15:33
Vinyl chloride	0.011		0.00050	0.0020	mg/L	1	7/27/2012 15:33
Xylenes, Total	0.31		0.0015	0.015	mg/L	1	7/27/2012 15:33
Surr: 1,2-Dichloroethane-d4	124			70-125	%REC	1	7/27/2012 15:33
Surr: 4-Bromofluorobenzene	100			72-125	%REC	1	7/27/2012 15:33
Surr: Dibromofluoromethane	112			71-125	%REC	1	7/27/2012 15:33
Surr: Toluene-d8	93.4			75-125	%REC	1	7/27/2012 15:33

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 13-Aug-12

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Sample ID: WG-1620-FB8-20120724
Collection Date: 7/24/2012 03:20 PM

Work Order: 12071122
Lab ID: 12071122-16
Matrix: WATER

Analyses	Result	Qual	SDL	ML	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270	Prep: SW3510 / 7/26/12	Analyst: LG		
1,2-Diphenylhydrazine	U		0.000050	0.00020	mg/L	1	7/28/2012 16:12
2,4-Dimethylphenol	U		0.000050	0.00020	mg/L	1	7/28/2012 16:12
2,4-Dinitrotoluene	U		0.000050	0.00020	mg/L	1	7/28/2012 16:12
2,6-Dinitrotoluene	U		0.000060	0.00020	mg/L	1	7/28/2012 16:12
2-Chloronaphthalene	U		0.000050	0.00020	mg/L	1	7/28/2012 16:12
2-Methylnaphthalene	U		0.000050	0.00020	mg/L	1	7/28/2012 16:12
4,6-Dinitro-2-methylphenol	U		0.000080	0.00020	mg/L	1	7/28/2012 16:12
4-Nitrophenol	U		0.000050	0.0010	mg/L	1	7/28/2012 16:12
Acenaphthene	U		0.000050	0.00020	mg/L	1	7/28/2012 16:12
Acenaphthylene	U		0.000050	0.00020	mg/L	1	7/28/2012 16:12
Anthracene	U		0.000050	0.00020	mg/L	1	7/28/2012 16:12
Benz(a)anthracene	U		0.000050	0.00020	mg/L	1	7/28/2012 16:12
Benzo(a)pyrene	U		0.000050	0.00020	mg/L	1	7/28/2012 16:12
Bis(2-chloroethoxy)methane	U		0.000050	0.00020	mg/L	1	7/28/2012 16:12
Bis(2-ethylhexyl)phthalate	0.00022		0.00010	0.00020	mg/L	1	7/28/2012 16:12
Chrysene	U		0.000050	0.00020	mg/L	1	7/28/2012 16:12
Dibenzofuran	U		0.000050	0.00020	mg/L	1	7/28/2012 16:12
Di-n-butyl phthalate	U		0.000050	0.00020	mg/L	1	7/28/2012 16:12
Fluoranthene	U		0.000050	0.00020	mg/L	1	7/28/2012 16:12
Fluorene	U		0.000050	0.00020	mg/L	1	7/28/2012 16:12
Naphthalene	0.00021		0.000050	0.00020	mg/L	1	7/28/2012 16:12
Nitrobenzene	U		0.000050	0.00020	mg/L	1	7/28/2012 16:12
N-Nitrosodiphenylamine	U		0.000050	0.00020	mg/L	1	7/28/2012 16:12
Pentachlorophenol	U		0.000050	0.00020	mg/L	1	7/28/2012 16:12
Phenanthrene	U		0.000050	0.00020	mg/L	1	7/28/2012 16:12
Phenol	U		0.000050	0.00020	mg/L	1	7/28/2012 16:12
Pyrene	U		0.000050	0.00020	mg/L	1	7/28/2012 16:12
Surr: 2,4,6-Tribromophenol	47.9			34-129	%REC	1	7/28/2012 16:12
Surr: 2-Fluorobiphenyl	47.7			40-125	%REC	1	7/28/2012 16:12
Surr: 2-Fluorophenol	39.0			20-120	%REC	1	7/28/2012 16:12
Surr: 4-Terphenyl-d14	55.3			40-135	%REC	1	7/28/2012 16:12
Surr: Nitrobenzene-d5	45.7			41-120	%REC	1	7/28/2012 16:12
Surr: Phenol-d6	42.3			20-120	%REC	1	7/28/2012 16:12
VOLATILES			Method: SW8260	Analyst: PC			
1,2-Dichloroethane	U		0.00050	0.0050	mg/L	1	7/27/2012 14:37
Benzene	U		0.00050	0.0050	mg/L	1	7/27/2012 14:37
Chlorobenzene	U		0.00050	0.0050	mg/L	1	7/27/2012 14:37
Ethylbenzene	U		0.00050	0.0050	mg/L	1	7/27/2012 14:37

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 13-Aug-12

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Sample ID: WG-1620-FB8-20120724
Collection Date: 7/24/2012 03:20 PM

Work Order: 12071122
Lab ID: 12071122-16
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
Methylene chloride	U		0.0010	0.010	mg/L	1	7/27/2012 14:37
Toluene	U		0.00050	0.0050	mg/L	1	7/27/2012 14:37
Vinyl chloride	U		0.00050	0.0020	mg/L	1	7/27/2012 14:37
Xylenes, Total	U		0.0015	0.015	mg/L	1	7/27/2012 14:37
Surr: 1,2-Dichloroethane-d4	113			70-125	%REC	1	7/27/2012 14:37
Surr: 4-Bromofluorobenzene	104			72-125	%REC	1	7/27/2012 14:37
Surr: Dibromofluoromethane	112			71-125	%REC	1	7/27/2012 14:37
Surr: Toluene-d8	96.4			75-125	%REC	1	7/27/2012 14:37

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 13-Aug-12

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Sample ID: WG-1620-TB-20120724
Collection Date: 7/24/2012

Work Order: 12071122
Lab ID: 12071122-17
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
VOLATILES			Method: SW8260			Analyst: PC	
1,2-Dichloroethane	U		0.00050	0.0050	mg/L	1	7/27/2012 15:05
Benzene	U		0.00050	0.0050	mg/L	1	7/27/2012 15:05
Chlorobenzene	U		0.00050	0.0050	mg/L	1	7/27/2012 15:05
Ethylbenzene	U		0.00050	0.0050	mg/L	1	7/27/2012 15:05
Methylene chloride	U		0.0010	0.010	mg/L	1	7/27/2012 15:05
Toluene	U		0.00050	0.0050	mg/L	1	7/27/2012 15:05
Vinyl chloride	U		0.00050	0.0020	mg/L	1	7/27/2012 15:05
Xylenes, Total	U		0.0015	0.015	mg/L	1	7/27/2012 15:05
Surr: 1,2-Dichloroethane-d4		116		70-125	%REC	1	7/27/2012 15:05
Surr: 4-Bromofluorobenzene		102		72-125	%REC	1	7/27/2012 15:05
Surr: Dibromofluoromethane		111		71-125	%REC	1	7/27/2012 15:05
Surr: Toluene-d8		94.5		75-125	%REC	1	7/27/2012 15:05

Note: See Qualifiers Page for a list of qualifiers and their explanation.

WorkOrder: 12071122
 InstrumentID: SV-4
 Test Code: 8270_LOW_W
 Test Number: SW8270
 Test Name: Low-Level Semivolatiles

**METHOD DETECTION /
 REPORTING LIMITS**

Matrix: Aqueous Units: mg/L

Type	Analyte	CAS	DCS	MDL	Unadjusted MQL
A	1,2-Diphenylhydrazine	122-66-7	0.000096	0.000050	0.00020
A	2,4-Dimethylphenol	105-67-9	0.000073	0.000050	0.00020
A	2,4-Dinitrotoluene	121-14-2	0.00010	0.000050	0.00020
A	2,6-Dinitrotoluene	606-20-2	0.000063	0.000060	0.00020
A	2-Chloronaphthalene	91-58-7	0.00010	0.000050	0.00020
A	2-Methylnaphthalene	91-57-6	0.000083	0.000050	0.00020
A	4,6-Dinitro-2-methylphenol	534-52-1	0.000013	0.000080	0.00020
A	4-Nitrophenol	100-02-7	0.000082	0.000050	0.0010
A	Acenaphthene	83-32-9	0.000094	0.000050	0.00020
A	Acenaphthylene	208-96-8	0.000079	0.000050	0.00020
A	Anthracene	120-12-7	0.00010	0.000050	0.00020
A	Benz(a)anthracene	56-55-3	0.000083	0.000050	0.00020
A	Benzo(a)pyrene	50-32-8	0.000071	0.000050	0.00020
A	Bis(2-chloroethoxy)methane	111-91-1	0.00011	0.000050	0.00020
A	Bis(2-ethylhexyl)phthalate	117-81-7	0.000087	0.00010	0.00020
A	Chrysene	218-01-9	0.000089	0.000050	0.00020
A	Dibenzofuran	132-64-9	0.000093	0.000050	0.00020
A	Di-n-butyl phthalate	84-74-2	0.000094	0.000050	0.00020
A	Fluoranthene	206-44-0	0.000075	0.000050	0.00020
A	Fluorene	86-73-7	0.000076	0.000050	0.00020
A	Naphthalene	91-20-3	0.00012	0.000050	0.00020
A	Nitrobenzene	98-95-3	0.00011	0.000050	0.00020
A	N-Nitrosodiphenylamine	86-30-6	0.000098	0.000050	0.00020
A	Pentachlorophenol	87-86-5	0.0000074	0.000050	0.00020
A	Phenanthrene	85-01-8	0.000095	0.000050	0.00020
A	Phenol	108-95-2	0.00011	0.000050	0.00020
A	Pyrene	129-00-0	0.000090	0.000050	0.00020
S	Surr: 2,4,6-Tribromophenol	118-79-6	0	0	0.00020
S	Surr: 2-Fluorobiphenyl	321-60-8	0	0	0.00020
S	Surr: 2-Fluorophenol	367-12-4	0	0	0.00020
S	Surr: 4-Terphenyl-d14	1718-51-0	0	0	0.00020
S	Surr: Nitrobenzene-d5	4165-60-0	0	0	0.00020
S	Surr: Phenol-d6	13127-88-3	0	0	0.00020

WorkOrder: 12071122
InstrumentID: VOA1
Test Code: 8260_W
Test Number: SW8260
Test Name: Volatiles

**METHOD DETECTION /
 REPORTING LIMITS**

Matrix: Aqueous **Units:** mg/L

Type	Analyte	CAS	DCS	MDL	Unadjusted MQL
A	1,2-Dichloroethane	107-06-2	0.0010	0.00050	0.0050
A	Benzene	71-43-2	0.0011	0.00050	0.0050
A	Chlorobenzene	108-90-7	0.0012	0.00050	0.0050
A	Ethylbenzene	100-41-4	0.00084	0.00050	0.0050
A	Methylene chloride	75-09-2	0.0012	0.0010	0.010
A	Toluene	108-88-3	0.0012	0.00050	0.0050
A	Vinyl chloride	75-01-4	0.0011	0.00050	0.0020
M	Xylenes, Total	1330-20-7	0.0030	0.0015	0.015
S	Surr: 1,2-Dichloroethane-d4	17060-07-0	0	0	0.0050
S	Surr: 4-Bromofluorobenzene	460-00-4	0	0	0.0050
S	Surr: Dibromofluoromethane	1868-53-7	0	0	0.0050
S	Surr: Toluene-d8	2037-26-5	0	0	0.0050

ALS Environmental

Date: 13-Aug-12

Client: Pastor, Behling & Wheeler, LLC
Work Order: 12071122
Project: UPRR Houston Wood GW

QC BATCH REPORT

Batch ID: **62921** Instrument ID **SV-4** Method: **SW8270**

MBLK	Sample ID: SBLKW1-120726-62921			Units: µg/L	Analysis Date: 7/26/2012 11:09 AM					
Client ID:	Run ID: SV-4_120726A			SeqNo: 2881205	Prep Date: 7/26/2012	DF: 1				
Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Diphenylhydrazine	U	0.20								
2,4-Dimethylphenol	U	0.20								
2,4-Dinitrotoluene	U	0.20								
2,6-Dinitrotoluene	U	0.20								
2-Chloronaphthalene	U	0.20								
2-Methylnaphthalene	U	0.20								
4,6-Dinitro-2-methylphenol	U	0.20								
4-Nitrophenol	U	1.0								
Acenaphthene	U	0.20								
Acenaphthylene	U	0.20								
Anthracene	U	0.20								
Benz(a)anthracene	U	0.20								
Benzo(a)pyrene	U	0.20								
Bis(2-chloroethoxy)methane	U	0.20								
Bis(2-ethylhexyl)phthalate	U	0.20								
Chrysene	U	0.20								
Dibenzofuran	U	0.20								
Di-n-butyl phthalate	U	0.20								
Fluoranthene	U	0.20								
Fluorene	U	0.20								
Naphthalene	U	0.20								
Nitrobenzene	U	0.20								
N-Nitrosodiphenylamine	U	0.20								
Pentachlorophenol	U	0.20								
Phenanthrene	U	0.20								
Phenol	U	0.20								
Pyrene	U	0.20								
<i>Surr: 2,4,6-Tribromophenol</i>	<i>4.579</i>	<i>0.20</i>	<i>5</i>	<i>0</i>	<i>91.6</i>	<i>34-129</i>	<i>0</i>			
<i>Surr: 2-Fluorobiphenyl</i>	<i>4.179</i>	<i>0.20</i>	<i>5</i>	<i>0</i>	<i>83.6</i>	<i>40-125</i>	<i>0</i>			
<i>Surr: 2-Fluorophenol</i>	<i>3.911</i>	<i>0.20</i>	<i>5</i>	<i>0</i>	<i>78.2</i>	<i>20-120</i>	<i>0</i>			
<i>Surr: 4-Terphenyl-d14</i>	<i>4.805</i>	<i>0.20</i>	<i>5</i>	<i>0</i>	<i>96.1</i>	<i>40-135</i>	<i>0</i>			
<i>Surr: Nitrobenzene-d5</i>	<i>4.392</i>	<i>0.20</i>	<i>5</i>	<i>0</i>	<i>87.8</i>	<i>41-120</i>	<i>0</i>			
<i>Surr: Phenol-d6</i>	<i>4.02</i>	<i>0.20</i>	<i>5</i>	<i>0</i>	<i>80.4</i>	<i>20-120</i>	<i>0</i>			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Pastor, Behling & Wheeler, LLC
 Work Order: 12071122
 Project: UPRR Houston Wood GW

QC BATCH REPORT

Batch ID: 62921 Instrument ID SV-4 Method: SW8270

LCS		Sample ID: SLCSW1-120726-62921			Units: µg/L		Analysis Date: 7/26/2012 11:30 AM			
Client ID:		Run ID: SV-4_120726A			SeqNo: 2881206		Prep Date: 7/26/2012		DF: 1	
Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Diphenylhydrazine	4.242	0.20	5	0	84.8	39-127	0			
2,4-Dimethylphenol	4.021	0.20	5	0	80.4	35-120	0			
2,4-Dinitrotoluene	4.698	0.20	5	0	94	50-122	0			
2,6-Dinitrotoluene	4.341	0.20	5	0	86.8	50-120	0			
2-Chloronaphthalene	3.946	0.20	5	0	78.9	50-120	0			
2-Methylnaphthalene	3.673	0.20	5	0	73.5	50-120	0			
4,6-Dinitro-2-methylphenol	3.594	0.20	5	0	71.9	25-121	0			
4-Nitrophenol	5.003	1.0	5	0	100	30-130	0			
Acenaphthene	4.024	0.20	5	0	80.5	45-120	0			
Acenaphthylene	4.272	0.20	5	0	85.4	47-120	0			
Anthracene	4.342	0.20	5	0	86.8	45-120	0			
Benz(a)anthracene	4.216	0.20	5	0	84.3	40-120	0			
Benzo(a)pyrene	4.228	0.20	5	0	84.6	45-120	0			
Bis(2-chloroethoxy)methane	4.107	0.20	5	0	82.1	45-120	0			
Bis(2-ethylhexyl)phthalate	4.408	0.20	5	0	88.2	40-139	0			
Chrysene	3.943	0.20	5	0	78.9	43-120	0			
Dibenzofuran	4.474	0.20	5	0	89.5	50-120	0			
Di-n-butyl phthalate	4.584	0.20	5	0	91.7	45-123	0			
Fluoranthene	4.353	0.20	5	0	87.1	45-125	0			
Fluorene	4.5	0.20	5	0	90	49-120	0			
Naphthalene	4.239	0.20	5	0	84.8	45-120	0			
Nitrobenzene	4.051	0.20	5	0	81	44-120	0			
N-Nitrosodiphenylamine	4.3	0.20	5	0	86	40-125	0			
Pentachlorophenol	3.395	0.20	5	0	67.9	19-121	0			
Phenanthrene	4.444	0.20	5	0	88.9	45-121	0			
Phenol	4.655	0.20	5	0	93.1	20-124	0			
Pyrene	4.845	0.20	5	0	96.9	40-130	0			
Surr: 2,4,6-Tribromophenol	4.127	0.20	5	0	82.5	34-129	0			
Surr: 2-Fluorobiphenyl	4.202	0.20	5	0	84	40-125	0			
Surr: 2-Fluorophenol	3.777	0.20	5	0	75.5	20-120	0			
Surr: 4-Terphenyl-d14	5.232	0.20	5	0	105	40-135	0			
Surr: Nitrobenzene-d5	3.906	0.20	5	0	78.1	41-120	0			
Surr: Phenol-d6	4.348	0.20	5	0	87	20-120	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Pastor, Behling & Wheeler, LLC
 Work Order: 12071122
 Project: UPRR Houston Wood GW

QC BATCH REPORT

Batch ID: 62921 Instrument ID SV-4 Method: SW8270

LCSD	Sample ID: SLCS DW1-120726-62921	Units: µg/L					Analysis Date: 7/26/2012 11:49 AM				
Client ID:	Run ID: SV-4_120726A	SeqNo: 2881207			Prep Date: 7/26/2012		DF: 1				
Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
1,2-Diphenylhydrazine	4.027	0.20	5	0	80.5	39-127	4.242	5.2	20		
2,4-Dimethylphenol	3.82	0.20	5	0	76.4	35-120	4.021	5.12	20		
2,4-Dinitrotoluene	4.604	0.20	5	0	92.1	50-122	4.698	2.03	20		
2,6-Dinitrotoluene	4.156	0.20	5	0	83.1	50-120	4.341	4.35	20		
2-Chloronaphthalene	4.449	0.20	5	0	89	50-120	3.946	12	20		
2-Methylnaphthalene	3.707	0.20	5	0	74.1	50-120	3.673	0.92	20		
4,6-Dinitro-2-methylphenol	3.616	0.20	5	0	72.3	25-121	3.594	0.611	20		
4-Nitrophenol	5.183	1.0	5	0	104	30-130	5.003	3.52	20		
Acenaphthene	4.122	0.20	5	0	82.4	45-120	4.024	2.42	20		
Acenaphthylene	4.434	0.20	5	0	88.7	47-120	4.272	3.72	20		
Anthracene	4.493	0.20	5	0	89.9	45-120	4.342	3.42	20		
Benz(a)anthracene	4.124	0.20	5	0	82.5	40-120	4.216	2.2	20		
Benzo(a)pyrene	3.746	0.20	5	0	74.9	45-120	4.228	12.1	20		
Bis(2-chloroethoxy)methane	3.889	0.20	5	0	77.8	45-120	4.107	5.45	20		
Bis(2-ethylhexyl)phthalate	4.326	0.20	5	0	86.5	40-139	4.408	1.88	20		
Chrysene	4.018	0.20	5	0	80.4	43-120	3.943	1.89	20		
Dibenzofuran	4.587	0.20	5	0	91.7	50-120	4.474	2.49	20		
Di-n-butyl phthalate	4.659	0.20	5	0	93.2	45-123	4.584	1.62	20		
Fluoranthene	4.617	0.20	5	0	92.3	45-125	4.353	5.89	20		
Fluorene	4.617	0.20	5	0	92.3	49-120	4.5	2.57	20		
Naphthalene	4.429	0.20	5	0	88.6	45-120	4.239	4.38	20		
Nitrobenzene	4.367	0.20	5	0	87.3	44-120	4.051	7.5	20		
N-Nitrosodiphenylamine	4.027	0.20	5	0	80.5	40-125	4.3	6.54	20		
Pentachlorophenol	3.755	0.20	5	0	75.1	19-121	3.395	10.1	20		
Phenanthrene	4.375	0.20	5	0	87.5	45-121	4.444	1.57	20		
Phenol	4.359	0.20	5	0	87.2	20-124	4.655	6.57	20		
Pyrene	4.057	0.20	5	0	81.1	40-130	4.845	17.7	20		
Surr: 2,4,6-Tribromophenol	4.591	0.20	5	0	91.8	34-129	4.127	10.6	0		
Surr: 2-Fluorobiphenyl	4.275	0.20	5	0	85.5	40-125	4.202	1.72	0		
Surr: 2-Fluorophenol	4.374	0.20	5	0	87.5	20-120	3.777	14.6	0		
Surr: 4-Terphenyl-d14	4.618	0.20	5	0	92.4	40-135	5.232	12.5	0		
Surr: Nitrobenzene-d5	4.155	0.20	5	0	83.1	41-120	3.906	6.19	0		
Surr: Phenol-d6	4.194	0.20	5	0	83.9	20-120	4.348	3.6	0		

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Pastor, Behling & Wheeler, LLC
Work Order: 12071122
Project: UPRR Houston Wood GW

QC BATCH REPORT

Batch ID: **62921** Instrument ID **SV-4** Method: **SW8270**

MS		Sample ID: 12071122-04BMS			Units: µg/L		Analysis Date: 7/28/2012 02:30 PM			
Client ID: WG-1620-MW65D-20120723		Run ID: SV-4_120726A			SeqNo: 2881217		Prep Date: 7/26/2012		DF: 1	
Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Diphenylhydrazine	5.316	0.20	5	0	106	39-127	0			
2,4-Dimethylphenol	4.081	0.20	5	0	81.6	35-120	0			
2,4-Dinitrotoluene	4.382	0.20	5	0	87.6	50-122	0			
2,6-Dinitrotoluene	4.364	0.20	5	0	87.3	50-120	0			
2-Chloronaphthalene	3.83	0.20	5	0	76.6	50-120	0			
2-Methylnaphthalene	3.904	0.20	5	0	78.1	50-120	0			
4,6-Dinitro-2-methylphenol	5.193	0.20	5	0	104	25-121	0			
4-Nitrophenol	5.082	1.0	5	0	102	30-130	0			
Acenaphthene	3.551	0.20	5	0	71	45-120	0			
Acenaphthylene	3.657	0.20	5	0	73.1	47-120	0			
Anthracene	4.347	0.20	5	0	86.9	45-120	0			
Benz(a)anthracene	4.032	0.20	5	0	80.6	40-120	0			
Benzo(a)pyrene	4.216	0.20	5	0	84.3	45-120	0			
Bis(2-chloroethoxy)methane	4.241	0.20	5	0	84.8	45-120	0			
Bis(2-ethylhexyl)phthalate	4.742	0.20	5	0.2463	89.9	40-139	0			
Chrysene	4.568	0.20	5	0	91.4	43-120	0			
Dibenzofuran	4.042	0.20	5	0	80.8	50-120	0			
Di-n-butyl phthalate	4.877	0.20	5	0	97.5	45-123	0			
Fluoranthene	4.435	0.20	5	0	88.7	45-125	0			
Fluorene	4.206	0.20	5	0	84.1	49-120	0			
Naphthalene	4.251	0.20	5	0.09398	83.1	45-120	0			
Nitrobenzene	4.135	0.20	5	0	82.7	44-120	0			
N-Nitrosodiphenylamine	5.28	0.20	5	0	106	40-125	0			
Pentachlorophenol	4.334	0.20	5	0	86.7	19-121	0			
Phenanthrene	4.524	0.20	5	0	90.5	45-121	0			
Phenol	3.862	0.20	5	0	77.2	20-124	0			
Pyrene	4.088	0.20	5	0	81.8	40-130	0			
<i>Surr: 2,4,6-Tribromophenol</i>	3.949	0.20	5	0	79	34-129	0			
<i>Surr: 2-Fluorobiphenyl</i>	4.081	0.20	5	0	81.6	40-125	0			
<i>Surr: 2-Fluorophenol</i>	3.257	0.20	5	0	65.1	20-120	0			
<i>Surr: 4-Terphenyl-d14</i>	4.692	0.20	5	0	93.8	40-135	0			
<i>Surr: Nitrobenzene-d5</i>	3.969	0.20	5	0	79.4	41-120	0			
<i>Surr: Phenol-d6</i>	3.728	0.20	5	0	74.6	20-120	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Pastor, Behling & Wheeler, LLC
 Work Order: 12071122
 Project: UPRR Houston Wood GW

QC BATCH REPORT

Batch ID: 62921 Instrument ID SV-4 Method: SW8270

MSD		Sample ID: 12071122-04BMSD			Units: µg/L			Analysis Date: 7/28/2012 02:51 PM		
Client ID: WG-1620-MW65D-20120723		Run ID: SV-4_120726A			SeqNo: 2881218		Prep Date: 7/26/2012		DF: 1	
Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Diphenylhydrazine	3.872	0.20	5	0	77.4	39-127	5.316	31.4	20	R
2,4-Dimethylphenol	3.528	0.20	5	0	70.6	35-120	4.081	14.5	20	
2,4-Dinitrotoluene	4.058	0.20	5	0	81.2	50-122	4.382	7.68	20	
2,6-Dinitrotoluene	3.997	0.20	5	0	79.9	50-120	4.364	8.78	20	
2-Chloronaphthalene	3.658	0.20	5	0	73.2	50-120	3.83	4.58	20	
2-Methylnaphthalene	3.531	0.20	5	0	70.6	50-120	3.904	10.1	20	
4,6-Dinitro-2-methylphenol	3.804	0.20	5	0	76.1	25-121	5.193	30.9	20	R
4-Nitrophenol	5.349	1.0	5	0	107	30-130	5.082	5.11	20	
Acenaphthene	3.042	0.20	5	0	60.8	45-120	3.551	15.4	20	
Acenaphthylene	3.609	0.20	5	0	72.2	47-120	3.657	1.31	20	
Anthracene	4.155	0.20	5	0	83.1	45-120	4.347	4.51	20	
Benz(a)anthracene	4.132	0.20	5	0	82.6	40-120	4.032	2.45	20	
Benzo(a)pyrene	5.13	0.20	5	0	103	45-120	4.216	19.6	20	
Bis(2-chloroethoxy)methane	3.629	0.20	5	0	72.6	45-120	4.241	15.6	20	
Bis(2-ethylhexyl)phthalate	4.893	0.20	5	0.2463	92.9	40-139	4.742	3.14	20	
Chrysene	4.805	0.20	5	0	96.1	43-120	4.568	5.05	20	
Dibenzofuran	3.621	0.20	5	0	72.4	50-120	4.042	11	20	
Di-n-butyl phthalate	4.774	0.20	5	0	95.5	45-123	4.877	2.12	20	
Fluoranthene	4.319	0.20	5	0	86.4	45-125	4.435	2.65	20	
Fluorene	3.673	0.20	5	0	73.5	49-120	4.206	13.5	20	
Naphthalene	3.902	0.20	5	0.09398	76.2	45-120	4.251	8.57	20	
Nitrobenzene	3.712	0.20	5	0	74.2	44-120	4.135	10.8	20	
N-Nitrosodiphenylamine	3.965	0.20	5	0	79.3	40-125	5.28	28.4	20	R
Pentachlorophenol	4.345	0.20	5	0	86.9	19-121	4.334	0.253	20	
Phenanthrene	4.538	0.20	5	0	90.8	45-121	4.524	0.307	20	
Phenol	3.829	0.20	5	0	76.6	20-124	3.862	0.86	20	
Pyrene	3.899	0.20	5	0	78	40-130	4.088	4.72	20	
Surr: 2,4,6-Tribromophenol	3.673	0.20	5	0	73.5	34-129	3.949	7.24	0	
Surr: 2-Fluorobiphenyl	3.793	0.20	5	0	75.9	40-125	4.081	7.31	0	
Surr: 2-Fluorophenol	3.108	0.20	5	0	62.2	20-120	3.257	4.68	0	
Surr: 4-Terphenyl-d14	4.235	0.20	5	0	84.7	40-135	4.692	10.2	0	
Surr: Nitrobenzene-d5	3.538	0.20	5	0	70.8	41-120	3.969	11.5	0	
Surr: Phenol-d6	3.484	0.20	5	0	69.7	20-120	3.728	6.75	0	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Pastor, Behling & Wheeler, LLC

Work Order: 12071122

Project: UPRR Houston Wood GW

QC BATCH REPORT

Batch ID: **62921**

Instrument ID **SV-4**

Method: **SW8270**

The following samples were analyzed in this batch:

12071122-01B	12071122-02B	12071122-03B
12071122-04B	12071122-05B	12071122-06B
12071122-07B	12071122-08B	12071122-09B
12071122-10B	12071122-11B	12071122-12B
12071122-13B	12071122-14B	12071122-15B
12071122-16B		

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Pastor, Behling & Wheeler, LLC
Work Order: 12071122
Project: UPRR Houston Wood GW

QC BATCH REPORT

Batch ID: **R132070** Instrument ID **VOA1** Method: **SW8260**

MBLK		Sample ID: VBLKW-072712-R132070			Units: µg/L			Analysis Date: 7/27/2012 12:21 PM		
Client ID:		Run ID: VOA1_120727A			SeqNo: 2879348		Prep Date:		DF: 1	
Analyte	Result	ML	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Dichloroethane	U	5.0								
Benzene	U	5.0								
Chlorobenzene	U	5.0								
Ethylbenzene	U	5.0								
Methylene chloride	U	10								
Toluene	U	5.0								
Vinyl chloride	U	2.0								
Xylenes, Total	U	15								
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>54.66</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>109</i>	<i>70-125</i>	<i>0</i>			
<i>Surr: 4-Bromofluorobenzene</i>	<i>49.44</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>98.9</i>	<i>72-125</i>	<i>0</i>			
<i>Surr: Dibromofluoromethane</i>	<i>55.12</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>110</i>	<i>71-125</i>	<i>0</i>			
<i>Surr: Toluene-d8</i>	<i>44.29</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>88.6</i>	<i>75-125</i>	<i>0</i>			

LCS		Sample ID: VLCSW-072712-R132070			Units: µg/L			Analysis Date: 7/27/2012 11:26 AM		
Client ID:		Run ID: VOA1_120727A			SeqNo: 2879347		Prep Date:		DF: 1	
Analyte	Result	ML	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Dichloroethane	56.77	5.0	50	0	114	78-120	0			
Benzene	50.81	5.0	50	0	102	73-121	0			
Chlorobenzene	49.5	5.0	50	0	99	80-120	0			
Ethylbenzene	49.77	5.0	50	0	99.5	80-120	0			
Methylene chloride	52.99	10	50	0	106	65-133	0			
Toluene	50.39	5.0	50	0	101	80-120	0			
Vinyl chloride	60.83	2.0	50	0	122	70-127	0			
Xylenes, Total	152	15	150	0	101	80-120	0			
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>54.91</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>110</i>	<i>70-125</i>	<i>0</i>			
<i>Surr: 4-Bromofluorobenzene</i>	<i>53.79</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>108</i>	<i>72-125</i>	<i>0</i>			
<i>Surr: Dibromofluoromethane</i>	<i>54.64</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>109</i>	<i>71-125</i>	<i>0</i>			
<i>Surr: Toluene-d8</i>	<i>46.87</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>93.7</i>	<i>75-125</i>	<i>0</i>			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Pastor, Behling & Wheeler, LLC
 Work Order: 12071122
 Project: UPRR Houston Wood GW

QC BATCH REPORT

Batch ID: R132070 Instrument ID VOA1 Method: SW8260

MS		Sample ID: 12071122-04AMS			Units: µg/L			Analysis Date: 7/27/2012 04:00 PM		
Client ID: WG-1620-MW65D-20120723		Run ID: VOA1_120727A			SeqNo: 2879356		Prep Date:		DF: 1	
Analyte	Result	ML	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Dichloroethane	53.93	5.0	50	0	108	78-120	0			
Benzene	47.23	5.0	50	0	94.5	73-121	0			
Chlorobenzene	45.46	5.0	50	0	90.9	80-120	0			
Ethylbenzene	41.01	5.0	50	0	82	80-120	0			
Methylene chloride	49.86	10	50	0	99.7	65-133	0			
Toluene	42.59	5.0	50	0	85.2	80-120	0			
Vinyl chloride	47.99	2.0	50	0	96	70-127	0			
Xylenes, Total	124.2	15	150	0	82.8	80-120	0			
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>58.18</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>116</i>	<i>70-125</i>	<i>0</i>			
<i>Surr: 4-Bromofluorobenzene</i>	<i>53.08</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>106</i>	<i>72-125</i>	<i>0</i>			
<i>Surr: Dibromofluoromethane</i>	<i>56.38</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>113</i>	<i>71-125</i>	<i>0</i>			
<i>Surr: Toluene-d8</i>	<i>47.42</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>94.8</i>	<i>75-125</i>	<i>0</i>			

MSD		Sample ID: 12071122-04AMSD			Units: µg/L			Analysis Date: 7/27/2012 04:28 PM		
Client ID: WG-1620-MW65D-20120723		Run ID: VOA1_120727A			SeqNo: 2879357		Prep Date:		DF: 1	
Analyte	Result	ML	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Dichloroethane	53.87	5.0	50	0	108	78-120	53.93	0.104	20	
Benzene	45.19	5.0	50	0	90.4	73-121	47.23	4.41	20	
Chlorobenzene	47.06	5.0	50	0	94.1	80-120	45.46	3.45	20	
Ethylbenzene	43.8	5.0	50	0	87.6	80-120	41.01	6.56	20	
Methylene chloride	55.74	10	50	0	111	65-133	49.86	11.1	20	
Toluene	44.11	5.0	50	0	88.2	80-120	42.59	3.51	20	
Vinyl chloride	50.98	2.0	50	0	102	70-127	47.99	6.05	20	
Xylenes, Total	128.4	15	150	0	85.6	80-120	124.2	3.34	20	
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>57.68</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>115</i>	<i>70-125</i>	<i>58.18</i>	<i>0.867</i>	<i>20</i>	
<i>Surr: 4-Bromofluorobenzene</i>	<i>52.66</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>105</i>	<i>72-125</i>	<i>53.08</i>	<i>0.786</i>	<i>20</i>	
<i>Surr: Dibromofluoromethane</i>	<i>54.48</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>109</i>	<i>71-125</i>	<i>56.38</i>	<i>3.43</i>	<i>20</i>	
<i>Surr: Toluene-d8</i>	<i>47.39</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>94.8</i>	<i>75-125</i>	<i>47.42</i>	<i>0.0467</i>	<i>20</i>	

The following samples were analyzed in this batch:

12071122-01A	12071122-02A	12071122-03A
12071122-04A	12071122-05A	12071122-06A
12071122-07A	12071122-08A	12071122-09A
12071122-10A	12071122-11A	12071122-12A
12071122-15A	12071122-16A	12071122-17A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Pastor, Behling & Wheeler, LLC
Work Order: 12071122
Project: UPRR Houston Wood GW

QC BATCH REPORT

Batch ID: **R132072** Instrument ID **VOA1** Method: **SW8260**

MBLK Sample ID: **VBLKW-072712-R132072** Units: **µg/L** Analysis Date: **7/28/2012 01:21 AM**

Client ID: Run ID: **VOA1_120727C** SeqNo: **2879388** Prep Date: DF: **1**

Analyte	Result	ML	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Dichloroethane	U	5.0								
Benzene	U	5.0								
Chlorobenzene	U	5.0								
Ethylbenzene	U	5.0								
Methylene chloride	U	10								
Toluene	U	5.0								
Xylenes, Total	U	15								
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>56.29</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>113</i>	<i>70-125</i>	<i>0</i>			
<i>Surr: 4-Bromofluorobenzene</i>	<i>51.22</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>102</i>	<i>72-125</i>	<i>0</i>			
<i>Surr: Dibromofluoromethane</i>	<i>56.08</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>112</i>	<i>71-125</i>	<i>0</i>			
<i>Surr: Toluene-d8</i>	<i>47.17</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>94.3</i>	<i>75-125</i>	<i>0</i>			

LCS Sample ID: **VLCSW-072712-R132072** Units: **µg/L** Analysis Date: **7/28/2012 12:29 AM**

Client ID: Run ID: **VOA1_120727C** SeqNo: **2879387** Prep Date: DF: **1**

Analyte	Result	ML	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Dichloroethane	55.93	5.0	50	0	112	78-120	0			
Benzene	51.5	5.0	50	0	103	73-121	0			
Chlorobenzene	44.94	5.0	50	0	89.9	80-120	0			
Ethylbenzene	46.59	5.0	50	0	93.2	80-120	0			
Methylene chloride	51.27	10	50	0	103	65-133	0			
Toluene	46.78	5.0	50	0	93.6	80-120	0			
Xylenes, Total	141.7	15	150	0	94.5	80-120	0			
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>54.47</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>109</i>	<i>70-125</i>	<i>0</i>			
<i>Surr: 4-Bromofluorobenzene</i>	<i>51.6</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>103</i>	<i>72-125</i>	<i>0</i>			
<i>Surr: Dibromofluoromethane</i>	<i>54.65</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>109</i>	<i>71-125</i>	<i>0</i>			
<i>Surr: Toluene-d8</i>	<i>44.99</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>90</i>	<i>75-125</i>	<i>0</i>			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Pastor, Behling & Wheeler, LLC
 Work Order: 12071122
 Project: UPRR Houston Wood GW

QC BATCH REPORT

Batch ID: R132072 Instrument ID VOA1 Method: SW8260

MS		Sample ID: 12071248-01AMS			Units: µg/L		Analysis Date: 7/28/2012 03:05 AM			
Client ID:		Run ID: VOA1_120727C			SeqNo: 2879391		Prep Date:		DF: 1	
Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Dichloroethane	58.81	5.0	50	0	118	78-120	0			
Benzene	51.71	5.0	50	0	103	73-121	0			
Chlorobenzene	46.47	5.0	50	0	92.9	80-120	0			
Ethylbenzene	42.89	5.0	50	0	85.8	80-120	0			
Methylene chloride	53.58	10	50	0	107	65-133	0			
Toluene	46.5	5.0	50	0	93	80-120	0			
Xylenes, Total	131.3	15	150	0	87.5	80-120	0			
<i>Surr: 1,2-Dichloroethane-d4</i>	55.89	5.0	50	0	112	70-125	0			
<i>Surr: 4-Bromofluorobenzene</i>	50.65	5.0	50	0	101	72-125	0			
<i>Surr: Dibromofluoromethane</i>	52.83	5.0	50	0	106	71-125	0			
<i>Surr: Toluene-d8</i>	46.5	5.0	50	0	93	75-125	0			

MSD		Sample ID: 12071248-01AMSD			Units: µg/L		Analysis Date: 7/28/2012 03:31 AM			
Client ID:		Run ID: VOA1_120727C			SeqNo: 2879392		Prep Date:		DF: 1	
Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Dichloroethane	54.23	5.0	50	0	108	78-120	58.81	8.1	20	
Benzene	47.14	5.0	50	0	94.3	73-121	51.71	9.25	20	
Chlorobenzene	43.85	5.0	50	0	87.7	80-120	46.47	5.81	20	
Ethylbenzene	41.49	5.0	50	0	83	80-120	42.89	3.3	20	
Methylene chloride	53.54	10	50	0	107	65-133	53.58	0.0878	20	
Toluene	43.68	5.0	50	0	87.4	80-120	46.5	6.25	20	
Xylenes, Total	128	15	150	0	85.3	80-120	131.3	2.55	20	
<i>Surr: 1,2-Dichloroethane-d4</i>	55.25	5.0	50	0	111	70-125	55.89	1.16	20	
<i>Surr: 4-Bromofluorobenzene</i>	55.07	5.0	50	0	110	72-125	50.65	8.36	20	
<i>Surr: Dibromofluoromethane</i>	55.73	5.0	50	0	111	71-125	52.83	5.34	20	
<i>Surr: Toluene-d8</i>	47.24	5.0	50	0	94.5	75-125	46.5	1.57	20	

The following samples were analyzed in this batch:

12071122-13A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Pastor, Behling & Wheeler, LLC
Work Order: 12071122
Project: UPRR Houston Wood GW

QC BATCH REPORT

Batch ID: **R132093** Instrument ID **VOA1** Method: **SW8260**

MBLK		Sample ID: VBLKW-072912-R132093			Units: µg/L			Analysis Date: 7/29/2012 12:52 PM		
Client ID:		Run ID: VOA1_120729A			SeqNo: 2880131		Prep Date:		DF: 1	
Analyte	Result	ML	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Dichloroethane	U	5.0								
Benzene	U	5.0								
Chlorobenzene	U	5.0								
Ethylbenzene	U	5.0								
Methylene chloride	U	10								
Toluene	U	5.0								
Vinyl chloride	U	2.0								
Xylenes, Total	U	15								
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>57.39</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>115</i>	<i>70-125</i>	<i>0</i>			
<i>Surr: 4-Bromofluorobenzene</i>	<i>50.1</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>100</i>	<i>72-125</i>	<i>0</i>			
<i>Surr: Dibromofluoromethane</i>	<i>56.39</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>113</i>	<i>71-125</i>	<i>0</i>			
<i>Surr: Toluene-d8</i>	<i>44.41</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>88.8</i>	<i>75-125</i>	<i>0</i>			

LCS		Sample ID: VLCSW-072912-R132093			Units: µg/L			Analysis Date: 7/29/2012 01:18 PM		
Client ID:		Run ID: VOA1_120729A			SeqNo: 2880132		Prep Date:		DF: 1	
Analyte	Result	ML	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Dichloroethane	56.38	5.0	50	0	113	78-120	0			
Benzene	50.93	5.0	50	0	102	73-121	0			
Chlorobenzene	46.32	5.0	50	0	92.6	80-120	0			
Ethylbenzene	41.81	5.0	50	0	83.6	80-120	0			
Methylene chloride	56.03	10	50	0	112	65-133	0			
Toluene	42.01	5.0	50	0	84	80-120	0			
Vinyl chloride	59.14	2.0	50	0	118	70-127	0			
Xylenes, Total	133.6	15	150	0	89.1	80-120	0			
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>57.79</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>116</i>	<i>70-125</i>	<i>0</i>			
<i>Surr: 4-Bromofluorobenzene</i>	<i>49.48</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>99</i>	<i>72-125</i>	<i>0</i>			
<i>Surr: Dibromofluoromethane</i>	<i>57.57</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>115</i>	<i>71-125</i>	<i>0</i>			
<i>Surr: Toluene-d8</i>	<i>46.16</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>92.3</i>	<i>75-125</i>	<i>0</i>			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Pastor, Behling & Wheeler, LLC
 Work Order: 12071122
 Project: UPRR Houston Wood GW

QC BATCH REPORT

Batch ID: R132093 Instrument ID VOA1 Method: SW8260

MS		Sample ID: 12071026-02ZMS			Units: µg/L			Analysis Date: 7/29/2012 02:37 PM		
Client ID:		Run ID: VOA1_120729A			SeqNo: 2880135		Prep Date:		DF: 20	
Analyte	Result	ML	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Dichloroethane	1155	100	1000	0	116	78-120	0			
Benzene	1089	100	1000	0	109	73-121	0			
Chlorobenzene	972.3	100	1000	0	97.2	80-120	0			
Ethylbenzene	942.6	100	1000	0	94.3	80-120	0			
Methylene chloride	1141	200	1000	58.23	108	65-133	0			
Toluene	918.1	100	1000	0	91.8	80-120	0			
Vinyl chloride	1063	40	1000	0	106	70-127	0			
Xylenes, Total	2776	300	3000	0	92.5	80-120	0			
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>1114</i>	<i>100</i>	<i>1000</i>	<i>0</i>	<i>111</i>	<i>70-125</i>	<i>0</i>			
<i>Surr: 4-Bromofluorobenzene</i>	<i>979.8</i>	<i>100</i>	<i>1000</i>	<i>0</i>	<i>98</i>	<i>72-125</i>	<i>0</i>			
<i>Surr: Dibromofluoromethane</i>	<i>1074</i>	<i>100</i>	<i>1000</i>	<i>0</i>	<i>107</i>	<i>71-125</i>	<i>0</i>			
<i>Surr: Toluene-d8</i>	<i>891.3</i>	<i>100</i>	<i>1000</i>	<i>0</i>	<i>89.1</i>	<i>75-125</i>	<i>0</i>			

MSD		Sample ID: 12071026-02ZMSD			Units: µg/L			Analysis Date: 7/29/2012 03:03 PM		
Client ID:		Run ID: VOA1_120729A			SeqNo: 2880136		Prep Date:		DF: 20	
Analyte	Result	ML	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Dichloroethane	1178	100	1000	0	118	78-120	1155	1.96	20	
Benzene	1106	100	1000	0	111	73-121	1089	1.61	20	
Chlorobenzene	975.7	100	1000	0	97.6	80-120	972.3	0.352	20	
Ethylbenzene	951.9	100	1000	0	95.2	80-120	942.6	0.979	20	
Methylene chloride	1184	200	1000	58.23	113	65-133	1141	3.71	20	
Toluene	941.5	100	1000	0	94.2	80-120	918.1	2.51	20	
Vinyl chloride	1134	40	1000	0	113	70-127	1063	6.47	20	
Xylenes, Total	2770	300	3000	0	92.3	80-120	2776	0.232	20	
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>1149</i>	<i>100</i>	<i>1000</i>	<i>0</i>	<i>115</i>	<i>70-125</i>	<i>1114</i>	<i>3.1</i>	<i>20</i>	
<i>Surr: 4-Bromofluorobenzene</i>	<i>1032</i>	<i>100</i>	<i>1000</i>	<i>0</i>	<i>103</i>	<i>72-125</i>	<i>979.8</i>	<i>5.21</i>	<i>20</i>	
<i>Surr: Dibromofluoromethane</i>	<i>1052</i>	<i>100</i>	<i>1000</i>	<i>0</i>	<i>105</i>	<i>71-125</i>	<i>1074</i>	<i>2.16</i>	<i>20</i>	
<i>Surr: Toluene-d8</i>	<i>902.2</i>	<i>100</i>	<i>1000</i>	<i>0</i>	<i>90.2</i>	<i>75-125</i>	<i>891.3</i>	<i>1.22</i>	<i>20</i>	

The following samples were analyzed in this batch:

12071122-14A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
WorkOrder: 12071122

**QUALIFIERS,
ACRONYMS, UNITS**

<u>Qualifier</u>	<u>Description</u>
*	Value exceeds Regulatory Limit
a	Not accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
J	Analyte detected below quantitation limit
M	Manually integrated, see raw data for justification
n	Not offered for accreditation
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL

<u>Acronym</u>	<u>Description</u>
DCS	Detectability Check Study
DUP	Method Duplicate
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
MBLK	Method Blank
MDL	Method Detection Limit
MQL	Method Quantitation Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PDS	Post Digestion Spike
PQL	Practical Quantitation Limit
SD	Serial Dilution
SDL	Sample Detection Limit
TRRP	Texas Risk Reduction Program

<u>Units Reported</u>	<u>Description</u>
mg/L	Milligrams per Liter

Sample Receipt Checklist

Client Name: **PBW**

Date/Time Received: **24-Jul-12 16:25**

Work Order: **12071122**

Received by: **PMG**

Checklist completed by Raymond N Gambia | 25-Jul-12
eSignature | Date

Reviewed by: Patricia L. Lynch | 27-Jul-12
eSignature | Date

Matrices: Groundwater, Water

Carrier name: Client

Shipping container/cooler in good condition?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on shipping container/cooler?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Present <input checked="" type="checkbox"/>
Custody seals intact on sample bottles?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Present <input checked="" type="checkbox"/>
Chain of custody present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody signed when relinquished and received?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody agrees with sample labels?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Samples in proper container/bottle?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample containers intact?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sufficient sample volume for indicated test?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
All samples received within holding time?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Container/Temp Blank temperature in compliance?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Temperature(s)/Thermometer(s):	<u>1.8c, 1.5c, 1.7c</u>		<u>003</u>
Cooler(s)/Kit(s):	<u>4621, 3910, 4129</u>		
Date/Time sample(s) sent to storage:	<u>7/25/2012 08:25</u>		
Water - VOA vials have zero headspace?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	No VOA vials submitted <input type="checkbox"/>
Water - pH acceptable upon receipt?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	N/A <input type="checkbox"/>
pH adjusted?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>
pH adjusted by:	<u>_____</u>		

Login Notes:

Client Contacted:

Date Contacted:

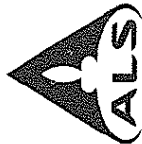
Person Contacted:

Contacted By:

Regarding:

Comments:

CorrectiveAction:



Cincinnati, OH
+1 513 733 5336
Everett, WA
+1 425 356 2600

Fort Collins, CO
+1 970 490 1511
Holland, MI
+1 616 399 6070

Chain of Custody Form

Page 1 of 1

12071122

PBW: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW

Environmental

COC ID: 67196



ALS Project Manager:

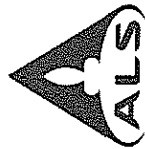
Customer Information				Project Information			
Purchase Order	Project Name	UPRR Houston Wood GW	VOC (8260) Select	A	X		
Work Order	Project Number	1620-04	SVOC (8270) Low-Level	B	X		
Company Name	Bill To Company	Union Pacific Railroad	VINYL CHLORIDE	C	X		
Send Report To	Invoice Attn			D			
Address	Address	1400 Douglas Street		E			
City/State/Zip	City/State/Zip	Omaha, NE 681790750		F			
Phone	Phone			G			
Fax	Fax			H			
e-Mail Address	e-Mail Address			I			
				J			

No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	WG-1620-MWV6D-20120723	7-23-12	1050	GW		5	X	X									
2	WG-1620-MWY9B-20120723		1145	GW		5	X	X									
3	WG-1620-MW59D-20120723		1300	GW		5	X	X									
4	WG-1620-MW ^{NW} 65D-20120723		1430	GW		5	X	X									
5	WG-1620-MW65DMS-20120723		1430	GW		5	X	X									
6	WG-1620-MW65DMSD-20120723		1430	GW		5	X	X									
7	WG-1620-MW36D-20120723		1545	GW		5	X	X									
8	WG-1620-FD4-20120723		1545	GW		5	X	X									
9	WG-1620-MW60A-20120723		1645	GW		5	X	X									
10	WG-1620-FB7-20120723		1715	GW		5	X	X									

Sampler(s) Please Print & Sign	SHIPMENT METHOD	Required Turnaround Time: (Check Box)	Results Due Date:
JOHN BEARAW	HAND DELIVERED	<input checked="" type="checkbox"/> Std 10 WK Days <input type="checkbox"/> 5 WK Days <input type="checkbox"/> 2 WK Days <input type="checkbox"/> Other	
Relinquished by: <i>John Bearaw</i>	Received by:	Notes: 10 Day TAT.	
Date: 7-24-12	Received by (Laboratory):	Cooler ID	QC Package: (Check One Box Below)
Date: 7-24-12	Checked by (Laboratory):	4621	<input type="checkbox"/> Level II Std QC <input checked="" type="checkbox"/> TRRP Checklist
Date:		3919	<input type="checkbox"/> Level III Std QC/Raw Data <input type="checkbox"/> TRRP Level IV
Date:		4129	<input type="checkbox"/> Level IV SW846/CLP <input type="checkbox"/> Other / EDD
Logged by (Laboratory):			
Preservative Key: 1-HCl 2-HNO ₃ 3-H ₂ SO ₄ 4-NaOH 5-Na ₂ S ₂ O ₃ 6-NaHSO ₃ 7-Other 8-4°C 9-5035			

Note: 1. Any changes must be made in writing once samples and COC Form have been submitted to ALS Environmental.
2. Unless otherwise agreed in a formal contract, services provided by ALS Environmental are expressly limited to the terms and conditions stated on the reverse.
3. The Chain of Custody is a legal document. All information must be completed accurately.

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Environmental

Chain of Custody Form

- Cincinnati, OH +1 513 733 5336
- Everett, WA +1 425 356 2600
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- Salt Lake City, UT +1 801 266 7700
- Spring City, PA +1 610 948 4903
- York, PA +1 717 505 5280

Page 2 of 2
COC ID: 52172

ALS Project Manager: 1207112 ALS Work Order #: 1207112

Customer Information				Project Information			
Purchase Order	Project Name	UPRR Houston Wood GW	Parameter/Method Request for Analysis	A	VOC (8260) Select		
Work Order	Project Number	1620-04		B	SVOC (8270) Low-Level		
Company Name	Bill To Company	Pastor, Behling & Wheeler, LLC		C	VINYL CHLORIDE		
Send Report To	Invoice Attn	Eric Matzner		D			
Address	Address	2201 Double Creek Drive Suite 4004		E			
City/State/Zip	City/State/Zip	Round Rock, TX 78664		F			
Phone	Phone	(512) 671-3434		G			
Fax	Fax	(512) 671-3446		H			
e-Mail Address	e-Mail Address			I			
				J			

No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	WG-1620 - MW5DA - 20120724	7-24-12	0740	GW		5	X	X									
2	WG-1620 - MW69A - 20120724		0845	GW		5	X	X	X								
3	WG-1620 - MW48C - 20120724		1000	GW		5	X	X									
4	WG-1620 - MW51A - 20120724		1105	GW		5	X	X									
5	WG-1620 - MW57B - 20120724		1220	GW		5	X	X									
6	WG-1620 - MW57A - 20120724		1400	GW		5	X	X	X								
7	WG-1620 - MW58A - 20120724		1500	GW		5	X	X									
8	WG-1620 - FB 8 - 20120724		1520	GW		5	X	X									
9	WG-1620 - TB - 20120724					2	X										
10																	

Sampler(s) Please Print & Sign: John Brea Date: 7-24-12

Relinquished by: John Brea Date: 7-24-12

Relinquished by: John Brea Date: 7-24-12

Logged by (Laboratory): _____ Date: _____

Preservative Key: 1-HCl 2-HNO₃ 3-H₂SO₄ 4-NaOH 5-Na₂S₂O₃ 6-NaHSO₄ 7-Other 8-4°C 9-5035

Shipment Method: HAND DELIVERED Required Turnaround Time: (Check Box) Std 10 WK Days 5 WK Days Other 2 WK Days 24 Hour

Results Due Date: _____

Notes: 10 Day TAT.

QC Package: (Check One Box Below) Level II Std QC TRRP Checklist Level III Std QC/Raw Data TRRP Level IV Level IV SW846/CLP Other / EDP

Note: 1. Any changes must be made in writing once samples and COC Form have been submitted to ALS Environmental.
 2. Unless otherwise agreed in a formal contract, services provided by ALS Environmental are expressly limited to the terms and conditions stated on the reverse.
 3. The Chain of Custody is a legal document. All information must be completed accurately.



14-Aug-2012

Eric Matzner
Pastor, Behling & Wheeler, LLC
2201 Double Creek Drive
Suite 4004
Round Rock, TX 78664

Tel: (512) 671-3434
Fax: (512) 671-3446

Re: UPRR Houston Wood GW

Work Order: **12071247**

Dear Eric,

ALS Environmental received 4 samples on 26-Jul-2012 04:10 PM for the analyses presented in the following report.

The analytical data provided relates directly to the samples received by ALS Environmental and for only the analyses requested. Results are expressed as "as received" unless otherwise noted.

QC sample results for this data met EPA or laboratory specifications except as noted in the Case Narrative or as noted with qualifiers in the QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained by ALS Environmental. Samples will be disposed in 30 days unless storage arrangements are made.

The total number of pages in this report is 25.

If you have any questions regarding this report, please feel free to call me.

Sincerely,

A handwritten signature in black ink that reads "Patricia L. Lynch".

Electronically approved by: Jumoke M. Lawal

Patricia L. Lynch
Project Manager



Certificate No: TX: T104704231-12-10

ADDRESS 10450 Stancliff Rd, Suite 210 Houston, Texas 77099-4338 | PHONE (281) 530-5656 | FAX (281) 530-5887

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Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Work Order: 12071247

**TRRP Laboratory Data
Package Cover Page**

This data package consists of all or some of the following as applicable:

This signature page, the laboratory review checklist, and the following reportable data:

- R1 Field chain-of-custody documentation;
- R2 Sample identification cross-reference;
- R3 Test reports (analytical data sheets) for each environmental sample that includes:
 - a) Items consistent with NELAC Chapter 5,
 - b) dilution factors,
 - c) preparation methods,
 - d) cleanup methods, and
 - e) if required for the project, tentatively identified compounds (TICs).
- R4 Surrogate recovery data including:
 - a) Calculated recovery (%R), and
 - b) The laboratory's surrogate QC limits.
- R5 Test reports/summary forms for blank samples;
- R6 Test reports/summary forms for laboratory control samples (LCSs) including:
 - a) LCS spiking amounts,
 - b) Calculated %R for each analyte, and
 - c) The laboratory's LCS QC limits.
- R7 Test reports for project matrix spike/matrix spike duplicates (MS/MSDs) including:
 - a) Samples associated with the MS/MSD clearly identified,
 - b) MS/MSD spiking amounts,
 - c) Concentration of each MS/MSD analyte measured in the parent and spiked samples,
 - d) Calculated %Rs and relative percent differences (RPDs), and
 - e) The laboratory's MS/MSD QC limits.
- R8 Laboratory analytical duplicate (if applicable) recovery and precision:
 - a) the amount of analyte measured in the duplicate,
 - b) the calculated RPD, and
 - c) the laboratory's QC limits for analytical duplicates.
- R9 List of method quantitation limits (MQLs) and detectability check sample results for each analyte for each method and matrix.
- R10 Other problems or anomalies.
The Exception Report for each "No" or "Not Reviewed (NR)" item in Laboratory Review Checklist and for each analyte, matrix, and method for which the laboratory does not hold NELAC accreditation under the Texas Laboratory Accreditation Program.

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Work Order: 12071247

**TRRP Laboratory Data
Package Cover Page**

Release Statement: I am responsible for the release of this laboratory data package. This laboratory is NELAC accredited under the Texas Laboratory Accreditation Program for all the methods, analytes and matrices reported in this data package except as noted in the Exception Reports. The data have been reviewed and are technically compliant with the requirements of the methods used, except where noted by the laboratory in the attached exception reports. By my signature below, I affirm to the best of my knowledge, all problems/anomalies, observed by the laboratory have been identified by the laboratory in the Laboratory Review Checklist, and no information affecting the quality of the data has been knowingly withheld.

Check, if applicable: [NA] This laboratory meets an exception under 30 TAC §25.6 and was last inspected by TCEQ or _____ on (enter date of last inspection). Any findings affecting the data in this laboratory data package are noted in the Exception Reports herein. The official signing the cover page of the report in which these data are used is responsible for releasing this data package and is by signature affirming the above release statement is true.

Patricia L. Lynch

Patricia L. Lynch
Project Manager

Laboratory Review Checklist: Reportable Data

Laboratory Name: ALS Laboratory Group		LRC Date: 08/14/2012					
Project Name: UPRR Houston Wood GW		Laboratory Job Number: 12071247					
Reviewer Name: Pat Lynch		Prep Batch Number(s): 62997, R132072					
# ¹	A ²	Description	Yes	No	NA ³	NR ⁴	ER# ⁵
R1	OI	Chain-of-custody (C-O-C)					
		Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?	X				
		Were all departures from standard conditions described in an exception report?	X				
R2	OI	Sample and quality control (QC) identification					
		Are all field sample ID numbers cross-referenced to the laboratory ID numbers?	X				
		Are all laboratory ID numbers cross-referenced to the corresponding QC data?	X				
R3	OI	Test reports					
		Were all samples prepared and analyzed within holding times?	X				
		Other than those results < MQL, were all other raw values bracketed by calibration standards?	X				
		Were calculations checked by a peer or supervisor?	X				
		Were all analyte identifications checked by a peer or supervisor?	X				
		Were sample detection limits reported for all analytes not detected?	X				
		Were all results for soil and sediment samples reported on a dry weight basis?			X		
		Were % moisture (or solids) reported for all soil and sediment samples?			X		
		Were bulk soils/solids samples for volatile analysis extracted with methanol per SW-846 Method 5035?			X		
		If required for the project, TICs reported?			X		
R4	O	Surrogate recovery data					
		Were surrogates added prior to extraction?	X				
		Were surrogate percent recoveries in all samples within the laboratory QC limits?	X				
R5	OI	Test reports/summary forms for blank samples					
		Were appropriate type(s) of blanks analyzed?	X				
		Were blanks analyzed at the appropriate frequency?	X				
		Were method blanks taken through the entire analytical process, including preparation and, if applicable, cleanup procedures?	X				
		Were blank concentrations < MQL?	X				
R6	OI	Laboratory control samples (LCS):					
		Were all COCs included in the LCS?	X				
		Was each LCS taken through the entire analytical procedure, including prep and cleanup steps?	X				
		Were LCSs analyzed at the required frequency?	X				
		Were LCS (and LCSD, if applicable) %Rs within the laboratory QC limits?		X			1
		Does the detectability data document the laboratory's capability to detect the COCs at the MDL used to calculate the SDLs?	X				
		Was the LCSD RPD within QC limits?	X				
R7	OI	Matrix spike (MS) and matrix spike duplicate (MSD) data					
		Were the project/method specified analytes included in the MS and MSD?	X				
		Were MS/MSD analyzed at the appropriate frequency?	X				2
		Were MS (and MSD, if applicable) %Rs within the laboratory QC limits?	X				
		Were MS/MSD RPDs within laboratory QC limits?	X				
R8	OI	Analytical duplicate data					
		Were appropriate analytical duplicates analyzed for each matrix?	X				
		Were analytical duplicates analyzed at the appropriate frequency?	X				
		Were RPDs or relative standard deviations within the laboratory QC limits?	X				
R9	OI	Method quantitation limits (MQLs):					
		Are the MQLs for each method analyte included in the laboratory data package?	X				
		Do the MQLs correspond to the concentration of the lowest non-zero calibration standard?	X				
		Are unadjusted MQLs and DCSs included in the laboratory data package?	X				
R10	OI	Other problems/anomalies					
		Are all known problems/anomalies/special conditions noted in this LRC and ER?	X				
		Were all necessary corrective actions performed for the reported data?	X				
		Was applicable and available technology used to lower the SDL and minimize the matrix interference affects on the sample results?	X				
		Is the laboratory NELAC-accredited under the Texas Laboratory Program for the analytes, matrices and methods associated with this laboratory data package?	X				

Laboratory Review Checklist: Reportable Data

Laboratory Name: ALS Laboratory Group			LRC Date: 08/14/2012				
Project Name: UPRR Houston Wood GW			Laboratory Job Number: 12071247				
Reviewer Name: Pat Lynch			Prep Batch Number(s): 62997, R132072				
# ¹	A ²	Description	Yes	No	NA ³	NR ⁴	ER# ⁵
S1	OI	Initial calibration (ICAL)					
		Were response factors and/or relative response factors for each analyte within QC limits?	X				
		Were percent RSDs or correlation coefficient criteria met?	X				
		Was the number of standards recommended in the method used for all analytes?	X				
		Were all points generated between the lowest and highest standard used to calculate the curve?	X				
		Are ICAL data available for all instruments used?	X				
		Has the initial calibration curve been verified using an appropriate second source standard?	X				
S2	OI	Initial and continuing calibration verification (ICCV and CCV) and continuing calibration blank (CCB)					
		Was the CCV analyzed at the method-required frequency?	X				
		Were percent differences for each analyte within the method-required QC limits?		X			3
		Was the ICAL curve verified for each analyte?	X				
		Was the absolute value of the analyte concentration in the inorganic CCB < MDL?	X				
S3	O	Mass spectral tuning:					
		Was the appropriate compound for the method used for tuning?	X				
		Were ion abundance data within the method-required QC limits?	X				
S4	O	Internal standards (IS):					
		Were IS area counts and retention times within the method-required QC limits?	X				
S5	OI	Raw data (NELAC section 1 appendix A glossary, and section 5.12 or ISO/IEC 17025 section					
		Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?	X				
		Were data associated with manual integrations flagged on the raw data?	X				
S6	O	Dual column confirmation					
		Did dual column confirmation results meet the method-required QC?			X		
S7	O	Tentatively identified compounds (TICs):					
		If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?			X		
S8	I	Interference Check Sample (ICS) results:					
		Were percent recoveries within method QC limits?			X		
S9	I	Serial dilutions, post digestion spikes, and method of standard additions					
		Were percent differences, recoveries, and the linearity within the QC limits specified in the method?			X		
S10	OI	Method detection limit (MDL) studies					
		Was a MDL study performed for each reported analyte?	X				
		Is the MDL either adjusted or supported by the analysis of DCSs?	X				
S11	OI	Proficiency test reports:					
		Was the laboratory's performance acceptable on the applicable proficiency tests or evaluation studies?	X				
S12	OI	Standards documentation					
		Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?	X				
S13	OI	Compound/analyte identification procedures					
		Are the procedures for compound/analyte identification documented?	X				
S14	OI	Demonstration of analyst competency (DOC)					
		Was DOC conducted consistent with NELAC Chapter 5C or ISO/IEC 4?	X				
		Is documentation of the analyst's competency up-to-date and on file?	X				
S15	OI	Verification/validation documentation for methods (NELAC Chap 5 or ISO/IEC 17025 Section 5)					
		Are all the methods used to generate the data documented, verified, and validated, where applicable?	X				
S16	OI	Laboratory standard operating procedures (SOPs):					
		Are laboratory SOPs current and on file for each method performed?	X				
<p>Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period. O = Organic Analyses; I = Inorganic Analyses (and general chemistry, when applicable); NA = Not Applicable; NR = Not Reviewed; R# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).</p>							

Laboratory Review Checklist: Reportable Data

Laboratory Name: ALS Laboratory Group		LRC Date: 08/14/2012
Project Name: UPRR Houston Wood GW		Laboratory Job Number: 12071247
Reviewer Name: Pat Lynch		Prep Batch Number(s): 62997, R132072
ER#⁵	Description	
	Batch 62997, Semivolatile Organics: LCS/LCSD RPDs were above the control limits for 1,2-diphenylhydrazine, 2-methylnaphthalene, nitrobenzene and N-nitrosodiphenylamine . The individual recoveries were in control.	
2	Batch 62997, Semivolatile Organics, Insufficient sample to perform MS/MSD. LCS/LCSD provided as batch quality control.	
3	Batch R132072, Volatile Organics : CCV %D was above the control limits for vinyl chloride. The associated sample results are non-detect.	
<p>Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period. O = Organic Analyses; I = Inorganic Analyses (and general chemistry, when applicable); NA = Not Applicable; NR = Not Reviewed; R# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).</p>		

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Work Order: 12071247

Work Order Sample Summary

<u>Lab Samp ID</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Tag Number</u>	<u>Collection Date</u>	<u>Date Received</u>	<u>Hold</u>
12071247-01	WG-1620-MW54C-20120725	Groundwater		7/25/2012 08:40	7/26/2012 16:10	<input type="checkbox"/>
12071247-02	WG-1620-MW09-20120725	Groundwater		7/25/2012 09:35	7/26/2012 16:10	<input type="checkbox"/>
12071247-03	WG-1620-MW05-20120725	Groundwater		7/25/2012 06:45	7/26/2012 16:10	<input type="checkbox"/>
12071247-04	WG-1620-MW64A-20120725	Groundwater		7/25/2012 07:45	7/26/2012 16:10	<input type="checkbox"/>

ALS Environmental

Date: 14-Aug-12

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Sample ID: WG-1620-MW54C-20120725
Collection Date: 7/25/2012 08:40 AM

Work Order: 12071247
Lab ID: 12071247-01
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270		Prep: SW3510 / 7/28/12		Analyst: LG
1,2-Diphenylhydrazine		U	0.000050	0.00020	mg/L	1	8/1/2012 21:49
2,4-Dimethylphenol		U	0.000050	0.00020	mg/L	1	8/1/2012 21:49
2,4-Dinitrotoluene		U	0.000050	0.00020	mg/L	1	8/1/2012 21:49
2,6-Dinitrotoluene		U	0.000060	0.00020	mg/L	1	8/1/2012 21:49
2-Chloronaphthalene		U	0.000050	0.00020	mg/L	1	8/1/2012 21:49
2-Methylnaphthalene	0.0054		0.000050	0.00020	mg/L	1	8/1/2012 21:49
4,6-Dinitro-2-methylphenol		U	0.000080	0.00020	mg/L	1	8/1/2012 21:49
4-Nitrophenol		U	0.000050	0.0010	mg/L	1	8/1/2012 21:49
Acenaphthene	0.022		0.0010	0.0040	mg/L	20	8/2/2012 21:01
Acenaphthylene	0.00039		0.000050	0.00020	mg/L	1	8/1/2012 21:49
Anthracene	0.0019		0.000050	0.00020	mg/L	1	8/1/2012 21:49
Benz(a)anthracene		U	0.000050	0.00020	mg/L	1	8/1/2012 21:49
Benzo(a)pyrene		U	0.000050	0.00020	mg/L	1	8/1/2012 21:49
Bis(2-chloroethoxy)methane		U	0.000050	0.00020	mg/L	1	8/1/2012 21:49
Bis(2-ethylhexyl)phthalate	0.00017	J	0.00010	0.00020	mg/L	1	8/1/2012 21:49
Chrysene		U	0.000050	0.00020	mg/L	1	8/1/2012 21:49
Dibenzofuran	0.029		0.0010	0.0040	mg/L	20	8/2/2012 21:01
Di-n-butyl phthalate	0.000064	J	0.000050	0.00020	mg/L	1	8/1/2012 21:49
Fluoranthene	0.0020		0.000050	0.00020	mg/L	1	8/1/2012 21:49
Fluorene	0.011		0.0010	0.0040	mg/L	20	8/2/2012 21:01
Naphthalene	0.15		0.0010	0.0040	mg/L	20	8/2/2012 21:01
Nitrobenzene		U	0.000050	0.00020	mg/L	1	8/1/2012 21:49
N-Nitrosodiphenylamine	0.00014	J	0.000050	0.00020	mg/L	1	8/1/2012 21:49
Pentachlorophenol		U	0.000050	0.00020	mg/L	1	8/1/2012 21:49
Phenanthrene	0.019		0.0010	0.0040	mg/L	20	8/2/2012 21:01
Phenol		U	0.000050	0.00020	mg/L	1	8/1/2012 21:49
Pyrene	0.0013		0.000050	0.00020	mg/L	1	8/1/2012 21:49
Surr: 2,4,6-Tribromophenol	59.5			34-129	%REC	1	8/1/2012 21:49
Surr: 2,4,6-Tribromophenol	46.2	J		34-129	%REC	20	8/2/2012 21:01
Surr: 2-Fluorobiphenyl	56.7			40-125	%REC	1	8/1/2012 21:49
Surr: 2-Fluorobiphenyl	51.5	J		40-125	%REC	20	8/2/2012 21:01
Surr: 2-Fluorophenol	49.9			20-120	%REC	1	8/1/2012 21:49
Surr: 2-Fluorophenol	58.9	J		20-120	%REC	20	8/2/2012 21:01
Surr: 4-Terphenyl-d14	74.3			40-135	%REC	1	8/1/2012 21:49
Surr: 4-Terphenyl-d14	65.6	J		40-135	%REC	20	8/2/2012 21:01
Surr: Nitrobenzene-d5	45.1			41-120	%REC	1	8/1/2012 21:49
Surr: Nitrobenzene-d5	52.9	J		41-120	%REC	20	8/2/2012 21:01
Surr: Phenol-d6	61.7			20-120	%REC	1	8/1/2012 21:49

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 14-Aug-12

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Sample ID: WG-1620-MW54C-20120725
Collection Date: 7/25/2012 08:40 AM

Work Order: 12071247
Lab ID: 12071247-01
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
Surr: Phenol-d6	53.2	J		20-120	%REC	20	8/2/2012 21:01
VOLATILES			Method: SW8260			Analyst: PC	
1,2-Dichloroethane	U		0.00050	0.0050	mg/L	1	7/28/2012 09:56
Benzene	U		0.00050	0.0050	mg/L	1	7/28/2012 09:56
Chlorobenzene	U		0.00050	0.0050	mg/L	1	7/28/2012 09:56
Ethylbenzene	0.0011	J	0.00050	0.0050	mg/L	1	7/28/2012 09:56
Methylene chloride	U		0.0010	0.010	mg/L	1	7/28/2012 09:56
Toluene	U		0.00050	0.0050	mg/L	1	7/28/2012 09:56
Xylenes, Total	U		0.0015	0.015	mg/L	1	7/28/2012 09:56
Surr: 1,2-Dichloroethane-d4	114			70-125	%REC	1	7/28/2012 09:56
Surr: 4-Bromofluorobenzene	96.7			72-125	%REC	1	7/28/2012 09:56
Surr: Dibromofluoromethane	111			71-125	%REC	1	7/28/2012 09:56
Surr: Toluene-d8	91.4			75-125	%REC	1	7/28/2012 09:56

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 14-Aug-12

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Sample ID: WG-1620-MW09-20120725
Collection Date: 7/25/2012 09:35 AM

Work Order: 12071247
Lab ID: 12071247-02
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270	Prep: SW3510 / 7/28/12	Analyst: LG		
1,2-Diphenylhydrazine	U		0.000050	0.00020	mg/L	1	8/1/2012 22:09
2,4-Dimethylphenol	U		0.000050	0.00020	mg/L	1	8/1/2012 22:09
2,4-Dinitrotoluene	U		0.000050	0.00020	mg/L	1	8/1/2012 22:09
2,6-Dinitrotoluene	U		0.000060	0.00020	mg/L	1	8/1/2012 22:09
2-Chloronaphthalene	U		0.000050	0.00020	mg/L	1	8/1/2012 22:09
2-Methylnaphthalene	U		0.000050	0.00020	mg/L	1	8/1/2012 22:09
4,6-Dinitro-2-methylphenol	U		0.000080	0.00020	mg/L	1	8/1/2012 22:09
4-Nitrophenol	U		0.000050	0.0010	mg/L	1	8/1/2012 22:09
Acenaphthene	U		0.000050	0.00020	mg/L	1	8/1/2012 22:09
Acenaphthylene	U		0.000050	0.00020	mg/L	1	8/1/2012 22:09
Anthracene	U		0.000050	0.00020	mg/L	1	8/1/2012 22:09
Benz(a)anthracene	U		0.000050	0.00020	mg/L	1	8/1/2012 22:09
Benzo(a)pyrene	U		0.000050	0.00020	mg/L	1	8/1/2012 22:09
Bis(2-chloroethoxy)methane	U		0.000050	0.00020	mg/L	1	8/1/2012 22:09
Bis(2-ethylhexyl)phthalate	0.00022		0.00010	0.00020	mg/L	1	8/1/2012 22:09
Chrysene	U		0.000050	0.00020	mg/L	1	8/1/2012 22:09
Dibenzofuran	U		0.000050	0.00020	mg/L	1	8/1/2012 22:09
Di-n-butyl phthalate	0.000074	J	0.000050	0.00020	mg/L	1	8/1/2012 22:09
Fluoranthene	U		0.000050	0.00020	mg/L	1	8/1/2012 22:09
Fluorene	U		0.000050	0.00020	mg/L	1	8/1/2012 22:09
Naphthalene	U		0.000050	0.00020	mg/L	1	8/1/2012 22:09
Nitrobenzene	U		0.000050	0.00020	mg/L	1	8/1/2012 22:09
N-Nitrosodiphenylamine	U		0.000050	0.00020	mg/L	1	8/1/2012 22:09
Pentachlorophenol	U		0.000050	0.00020	mg/L	1	8/1/2012 22:09
Phenanthrene	U		0.000050	0.00020	mg/L	1	8/1/2012 22:09
Phenol	U		0.000050	0.00020	mg/L	1	8/1/2012 22:09
Pyrene	U		0.000050	0.00020	mg/L	1	8/1/2012 22:09
Surr: 2,4,6-Tribromophenol	60.8			34-129	%REC	1	8/1/2012 22:09
Surr: 2-Fluorobiphenyl	60.2			40-125	%REC	1	8/1/2012 22:09
Surr: 2-Fluorophenol	54.0			20-120	%REC	1	8/1/2012 22:09
Surr: 4-Terphenyl-d14	73.8			40-135	%REC	1	8/1/2012 22:09
Surr: Nitrobenzene-d5	58.3			41-120	%REC	1	8/1/2012 22:09
Surr: Phenol-d6	49.6			20-120	%REC	1	8/1/2012 22:09

VOLATILES			Method: SW8260	Analyst: PC			
1,2-Dichloroethane	U		0.00050	0.0050	mg/L	1	7/28/2012 10:22
Benzene	U		0.00050	0.0050	mg/L	1	7/28/2012 10:22
Chlorobenzene	U		0.00050	0.0050	mg/L	1	7/28/2012 10:22
Ethylbenzene	U		0.00050	0.0050	mg/L	1	7/28/2012 10:22

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 14-Aug-12

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Sample ID: WG-1620-MW09-20120725
Collection Date: 7/25/2012 09:35 AM

Work Order: 12071247
Lab ID: 12071247-02
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
Methylene chloride	U		0.0010	0.010	mg/L	1	7/28/2012 10:22
Toluene	U		0.00050	0.0050	mg/L	1	7/28/2012 10:22
Xylenes, Total	U		0.0015	0.015	mg/L	1	7/28/2012 10:22
Surr: 1,2-Dichloroethane-d4	115			70-125	%REC	1	7/28/2012 10:22
Surr: 4-Bromofluorobenzene	90.9			72-125	%REC	1	7/28/2012 10:22
Surr: Dibromofluoromethane	112			71-125	%REC	1	7/28/2012 10:22
Surr: Toluene-d8	87.8			75-125	%REC	1	7/28/2012 10:22

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 14-Aug-12

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Sample ID: WG-1620-MW05-20120725
Collection Date: 7/25/2012 06:45 AM

Work Order: 12071247
Lab ID: 12071247-03
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270	Prep: SW3510 / 7/28/12	Analyst: LG		
1,2-Diphenylhydrazine	U		0.000050	0.00020	mg/L	1	8/1/2012 22:30
2,4-Dimethylphenol	U		0.000050	0.00020	mg/L	1	8/1/2012 22:30
2,4-Dinitrotoluene	U		0.000050	0.00020	mg/L	1	8/1/2012 22:30
2,6-Dinitrotoluene	U		0.000060	0.00020	mg/L	1	8/1/2012 22:30
2-Chloronaphthalene	U		0.000050	0.00020	mg/L	1	8/1/2012 22:30
2-Methylnaphthalene	U		0.000050	0.00020	mg/L	1	8/1/2012 22:30
4,6-Dinitro-2-methylphenol	U		0.000080	0.00020	mg/L	1	8/1/2012 22:30
4-Nitrophenol	U		0.000050	0.0010	mg/L	1	8/1/2012 22:30
Acenaphthene	U		0.000050	0.00020	mg/L	1	8/1/2012 22:30
Acenaphthylene	U		0.000050	0.00020	mg/L	1	8/1/2012 22:30
Anthracene	U		0.000050	0.00020	mg/L	1	8/1/2012 22:30
Benz(a)anthracene	U		0.000050	0.00020	mg/L	1	8/1/2012 22:30
Benzo(a)pyrene	U		0.000050	0.00020	mg/L	1	8/1/2012 22:30
Bis(2-chloroethoxy)methane	U		0.000050	0.00020	mg/L	1	8/1/2012 22:30
Bis(2-ethylhexyl)phthalate	0.00019	J	0.00010	0.00020	mg/L	1	8/1/2012 22:30
Chrysene	U		0.000050	0.00020	mg/L	1	8/1/2012 22:30
Dibenzofuran	U		0.000050	0.00020	mg/L	1	8/1/2012 22:30
Di-n-butyl phthalate	0.000065	J	0.000050	0.00020	mg/L	1	8/1/2012 22:30
Fluoranthene	U		0.000050	0.00020	mg/L	1	8/1/2012 22:30
Fluorene	U		0.000050	0.00020	mg/L	1	8/1/2012 22:30
Naphthalene	U		0.000050	0.00020	mg/L	1	8/1/2012 22:30
Nitrobenzene	U		0.000050	0.00020	mg/L	1	8/1/2012 22:30
N-Nitrosodiphenylamine	U		0.000050	0.00020	mg/L	1	8/1/2012 22:30
Pentachlorophenol	U		0.000050	0.00020	mg/L	1	8/1/2012 22:30
Phenanthrene	U		0.000050	0.00020	mg/L	1	8/1/2012 22:30
Phenol	U		0.000050	0.00020	mg/L	1	8/1/2012 22:30
Pyrene	U		0.000050	0.00020	mg/L	1	8/1/2012 22:30
Surr: 2,4,6-Tribromophenol	96.9			34-129	%REC	1	8/1/2012 22:30
Surr: 2-Fluorobiphenyl	81.4			40-125	%REC	1	8/1/2012 22:30
Surr: 2-Fluorophenol	54.6			20-120	%REC	1	8/1/2012 22:30
Surr: 4-Terphenyl-d14	76.3			40-135	%REC	1	8/1/2012 22:30
Surr: Nitrobenzene-d5	73.2			41-120	%REC	1	8/1/2012 22:30
Surr: Phenol-d6	52.8			20-120	%REC	1	8/1/2012 22:30
VOLATILES			Method: SW8260	Analyst: PC			
1,2-Dichloroethane	U		0.00050	0.0050	mg/L	1	7/28/2012 10:48
Benzene	U		0.00050	0.0050	mg/L	1	7/28/2012 10:48
Chlorobenzene	U		0.00050	0.0050	mg/L	1	7/28/2012 10:48
Ethylbenzene	U		0.00050	0.0050	mg/L	1	7/28/2012 10:48

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 14-Aug-12

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Sample ID: WG-1620-MW05-20120725
Collection Date: 7/25/2012 06:45 AM

Work Order: 12071247
Lab ID: 12071247-03
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
Methylene chloride	U		0.0010	0.010	mg/L	1	7/28/2012 10:48
Toluene	U		0.00050	0.0050	mg/L	1	7/28/2012 10:48
Xylenes, Total	U		0.0015	0.015	mg/L	1	7/28/2012 10:48
Surr: 1,2-Dichloroethane-d4	122			70-125	%REC	1	7/28/2012 10:48
Surr: 4-Bromofluorobenzene	104			72-125	%REC	1	7/28/2012 10:48
Surr: Dibromofluoromethane	117			71-125	%REC	1	7/28/2012 10:48
Surr: Toluene-d8	88.0			75-125	%REC	1	7/28/2012 10:48

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 14-Aug-12

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Sample ID: WG-1620-MW64A-20120725
Collection Date: 7/25/2012 07:45 AM

Work Order: 12071247
Lab ID: 12071247-04
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270	Prep: SW3510 / 7/28/12	Analyst: LG		
1,2-Diphenylhydrazine	U		0.000050	0.00020	mg/L	1	8/2/2012 20:41
2,4-Dimethylphenol	U		0.000050	0.00020	mg/L	1	8/2/2012 20:41
2,4-Dinitrotoluene	U		0.000050	0.00020	mg/L	1	8/2/2012 20:41
2,6-Dinitrotoluene	U		0.000060	0.00020	mg/L	1	8/2/2012 20:41
2-Chloronaphthalene	U		0.000050	0.00020	mg/L	1	8/2/2012 20:41
2-Methylnaphthalene	U		0.000050	0.00020	mg/L	1	8/2/2012 20:41
4,6-Dinitro-2-methylphenol	U		0.000080	0.00020	mg/L	1	8/2/2012 20:41
4-Nitrophenol	U		0.000050	0.0010	mg/L	1	8/2/2012 20:41
Acenaphthene	U		0.000050	0.00020	mg/L	1	8/2/2012 20:41
Acenaphthylene	U		0.000050	0.00020	mg/L	1	8/2/2012 20:41
Anthracene	U		0.000050	0.00020	mg/L	1	8/2/2012 20:41
Benz(a)anthracene	U		0.000050	0.00020	mg/L	1	8/2/2012 20:41
Benzo(a)pyrene	U		0.000050	0.00020	mg/L	1	8/2/2012 20:41
Bis(2-chloroethoxy)methane	U		0.000050	0.00020	mg/L	1	8/2/2012 20:41
Bis(2-ethylhexyl)phthalate	0.00021		0.00010	0.00020	mg/L	1	8/2/2012 20:41
Chrysene	U		0.000050	0.00020	mg/L	1	8/2/2012 20:41
Dibenzofuran	U		0.000050	0.00020	mg/L	1	8/2/2012 20:41
Di-n-butyl phthalate	0.000084	J	0.000050	0.00020	mg/L	1	8/2/2012 20:41
Fluoranthene	U		0.000050	0.00020	mg/L	1	8/2/2012 20:41
Fluorene	U		0.000050	0.00020	mg/L	1	8/2/2012 20:41
Naphthalene	U		0.000050	0.00020	mg/L	1	8/2/2012 20:41
Nitrobenzene	U		0.000050	0.00020	mg/L	1	8/2/2012 20:41
N-Nitrosodiphenylamine	U		0.000050	0.00020	mg/L	1	8/2/2012 20:41
Pentachlorophenol	U		0.000050	0.00020	mg/L	1	8/2/2012 20:41
Phenanthrene	U		0.000050	0.00020	mg/L	1	8/2/2012 20:41
Phenol	U		0.000050	0.00020	mg/L	1	8/2/2012 20:41
Pyrene	U		0.000050	0.00020	mg/L	1	8/2/2012 20:41
Surr: 2,4,6-Tribromophenol	72.9			34-129	%REC	1	8/2/2012 20:41
Surr: 2-Fluorobiphenyl	62.7			40-125	%REC	1	8/2/2012 20:41
Surr: 2-Fluorophenol	59.0			20-120	%REC	1	8/2/2012 20:41
Surr: 4-Terphenyl-d14	104			40-135	%REC	1	8/2/2012 20:41
Surr: Nitrobenzene-d5	66.4			41-120	%REC	1	8/2/2012 20:41
Surr: Phenol-d6	61.5			20-120	%REC	1	8/2/2012 20:41
VOLATILES			Method: SW8260	Analyst: PC			
1,2-Dichloroethane	U		0.00050	0.0050	mg/L	1	7/28/2012 11:14
Benzene	U		0.00050	0.0050	mg/L	1	7/28/2012 11:14
Chlorobenzene	U		0.00050	0.0050	mg/L	1	7/28/2012 11:14
Ethylbenzene	U		0.00050	0.0050	mg/L	1	7/28/2012 11:14

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 14-Aug-12

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Sample ID: WG-1620-MW64A-20120725
Collection Date: 7/25/2012 07:45 AM

Work Order: 12071247
Lab ID: 12071247-04
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
Methylene chloride	U		0.0010	0.010	mg/L	1	7/28/2012 11:14
Toluene	U		0.00050	0.0050	mg/L	1	7/28/2012 11:14
Xylenes, Total	U		0.0015	0.015	mg/L	1	7/28/2012 11:14
Surr: 1,2-Dichloroethane-d4	119			70-125	%REC	1	7/28/2012 11:14
Surr: 4-Bromofluorobenzene	101			72-125	%REC	1	7/28/2012 11:14
Surr: Dibromofluoromethane	111			71-125	%REC	1	7/28/2012 11:14
Surr: Toluene-d8	95.4			75-125	%REC	1	7/28/2012 11:14

Note: See Qualifiers Page for a list of qualifiers and their explanation.

WorkOrder: 12071247
 InstrumentID: SV-4
 Test Code: 8270_LOW_W
 Test Number: SW8270
 Test Name: Low-Level Semivolatiles

**METHOD DETECTION /
 REPORTING LIMITS**

Matrix: Aqueous Units: mg/L

Type	Analyte	CAS	DCS	MDL	Unadjusted MQL
A	1,2-Diphenylhydrazine	122-66-7	0.000096	0.000050	0.00020
A	2,4-Dimethylphenol	105-67-9	0.000073	0.000050	0.00020
A	2,4-Dinitrotoluene	121-14-2	0.00010	0.000050	0.00020
A	2,6-Dinitrotoluene	606-20-2	0.000063	0.000060	0.00020
A	2-Chloronaphthalene	91-58-7	0.00010	0.000050	0.00020
A	2-Methylnaphthalene	91-57-6	0.000083	0.000050	0.00020
A	4,6-Dinitro-2-methylphenol	534-52-1	0.000013	0.000080	0.00020
A	4-Nitrophenol	100-02-7	0.000082	0.000050	0.0010
A	Acenaphthene	83-32-9	0.000094	0.000050	0.00020
A	Acenaphthylene	208-96-8	0.000079	0.000050	0.00020
A	Anthracene	120-12-7	0.00010	0.000050	0.00020
A	Benz(a)anthracene	56-55-3	0.000083	0.000050	0.00020
A	Benzo(a)pyrene	50-32-8	0.000071	0.000050	0.00020
A	Bis(2-chloroethoxy)methane	111-91-1	0.00011	0.000050	0.00020
A	Bis(2-ethylhexyl)phthalate	117-81-7	0.000087	0.00010	0.00020
A	Chrysene	218-01-9	0.000089	0.000050	0.00020
A	Dibenzofuran	132-64-9	0.000093	0.000050	0.00020
A	Di-n-butyl phthalate	84-74-2	0.000094	0.000050	0.00020
A	Fluoranthene	206-44-0	0.000075	0.000050	0.00020
A	Fluorene	86-73-7	0.000076	0.000050	0.00020
A	Naphthalene	91-20-3	0.00012	0.000050	0.00020
A	Nitrobenzene	98-95-3	0.00011	0.000050	0.00020
A	N-Nitrosodiphenylamine	86-30-6	0.000098	0.000050	0.00020
A	Pentachlorophenol	87-86-5	0.0000074	0.000050	0.00020
A	Phenanthrene	85-01-8	0.000095	0.000050	0.00020
A	Phenol	108-95-2	0.00011	0.000050	0.00020
A	Pyrene	129-00-0	0.000090	0.000050	0.00020
S	Surr: 2,4,6-Tribromophenol	118-79-6	0	0	0.00020
S	Surr: 2-Fluorobiphenyl	321-60-8	0	0	0.00020
S	Surr: 2-Fluorophenol	367-12-4	0	0	0.00020
S	Surr: 4-Terphenyl-d14	1718-51-0	0	0	0.00020
S	Surr: Nitrobenzene-d5	4165-60-0	0	0	0.00020
S	Surr: Phenol-d6	13127-88-3	0	0	0.00020

WorkOrder: 12071247
InstrumentID: VOA1
Test Code: 8260_W
Test Number: SW8260
Test Name: Volatiles

**METHOD DETECTION /
 REPORTING LIMITS**

Matrix: Aqueous **Units:** mg/L

Type	Analyte	CAS	DCS	MDL	Unadjusted MQL
A	1,2-Dichloroethane	107-06-2	0.0010	0.00050	0.0050
A	Benzene	71-43-2	0.0011	0.00050	0.0050
A	Chlorobenzene	108-90-7	0.0012	0.00050	0.0050
A	Ethylbenzene	100-41-4	0.00084	0.00050	0.0050
A	Methylene chloride	75-09-2	0.0012	0.0010	0.010
A	Toluene	108-88-3	0.0012	0.00050	0.0050
M	Xylenes, Total	1330-20-7	0.0030	0.0015	0.015
S	Surr: 1,2-Dichloroethane-d4	17060-07-0	0	0	0.0050
S	Surr: 4-Bromofluorobenzene	460-00-4	0	0	0.0050
S	Surr: Dibromofluoromethane	1868-53-7	0	0	0.0050
S	Surr: Toluene-d8	2037-26-5	0	0	0.0050

ALS Environmental

Date: 14-Aug-12

Client: Pastor, Behling & Wheeler, LLC
Work Order: 12071247
Project: UPRR Houston Wood GW

QC BATCH REPORT

Batch ID: **62997** Instrument ID **SV-4** Method: **SW8270**

MBLK	Sample ID: SBLKW1-120728-62997	Units: µg/L					Analysis Date: 7/30/2012 01:30 PM				
Client ID:	Run ID: SV-4_120730B	SeqNo: 2884660			Prep Date: 7/28/2012		DF: 1				
Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
1,2-Diphenylhydrazine	U	0.20									
2,4-Dimethylphenol	U	0.20									
2,4-Dinitrotoluene	U	0.20									
2,6-Dinitrotoluene	U	0.20									
2-Chloronaphthalene	U	0.20									
2-Methylnaphthalene	U	0.20									
4,6-Dinitro-2-methylphenol	U	0.20									
4-Nitrophenol	U	1.0									
Acenaphthene	U	0.20									
Acenaphthylene	U	0.20									
Anthracene	U	0.20									
Benz(a)anthracene	U	0.20									
Benzo(a)pyrene	U	0.20									
Bis(2-chloroethoxy)methane	U	0.20									
Bis(2-ethylhexyl)phthalate	U	0.20									
Chrysene	U	0.20									
Dibenzofuran	U	0.20									
Di-n-butyl phthalate	U	0.20									
Fluoranthene	U	0.20									
Fluorene	U	0.20									
Naphthalene	U	0.20									
Nitrobenzene	U	0.20									
N-Nitrosodiphenylamine	U	0.20									
Pentachlorophenol	U	0.20									
Phenanthrene	U	0.20									
Phenol	U	0.20									
Pyrene	U	0.20									
<i>Surr: 2,4,6-Tribromophenol</i>	<i>4.19</i>	<i>0.20</i>	<i>5</i>	<i>0</i>	<i>83.8</i>	<i>34-129</i>	<i>0</i>				
<i>Surr: 2-Fluorobiphenyl</i>	<i>4.42</i>	<i>0.20</i>	<i>5</i>	<i>0</i>	<i>88.4</i>	<i>40-125</i>	<i>0</i>				
<i>Surr: 2-Fluorophenol</i>	<i>3.418</i>	<i>0.20</i>	<i>5</i>	<i>0</i>	<i>68.4</i>	<i>20-120</i>	<i>0</i>				
<i>Surr: 4-Terphenyl-d14</i>	<i>4.123</i>	<i>0.20</i>	<i>5</i>	<i>0</i>	<i>82.5</i>	<i>40-135</i>	<i>0</i>				
<i>Surr: Nitrobenzene-d5</i>	<i>4.39</i>	<i>0.20</i>	<i>5</i>	<i>0</i>	<i>87.8</i>	<i>41-120</i>	<i>0</i>				
<i>Surr: Phenol-d6</i>	<i>3.681</i>	<i>0.20</i>	<i>5</i>	<i>0</i>	<i>73.6</i>	<i>20-120</i>	<i>0</i>				

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Pastor, Behling & Wheeler, LLC
 Work Order: 12071247
 Project: UPRR Houston Wood GW

QC BATCH REPORT

Batch ID: 62997 Instrument ID SV-4 Method: SW8270

LCS		Sample ID: SLCSW1-120728-62997			Units: µg/L			Analysis Date: 7/30/2012 01:51 PM		
Client ID:		Run ID: SV-4_120730B			SeqNo: 2884661		Prep Date: 7/28/2012		DF: 1	
Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Diphenylhydrazine	4.123	0.20	5	0	82.5	39-127	0			
2,4-Dimethylphenol	3.175	0.20	5	0	63.5	35-120	0			
2,4-Dinitrotoluene	4.261	0.20	5	0	85.2	50-122	0			
2,6-Dinitrotoluene	4.002	0.20	5	0	80	50-120	0			
2-Chloronaphthalene	3.545	0.20	5	0	70.9	50-120	0			
2-Methylnaphthalene	3.509	0.20	5	0	70.2	50-120	0			
4,6-Dinitro-2-methylphenol	3.585	0.20	5	0	71.7	25-121	0			
4-Nitrophenol	4.661	1.0	5	0	93.2	30-130	0			
Acenaphthene	3.805	0.20	5	0	76.1	45-120	0			
Acenaphthylene	4.233	0.20	5	0	84.7	47-120	0			
Anthracene	4.123	0.20	5	0	82.5	45-120	0			
Benz(a)anthracene	3.538	0.20	5	0	70.8	40-120	0			
Benzo(a)pyrene	4.049	0.20	5	0	81	45-120	0			
Bis(2-chloroethoxy)methane	3.475	0.20	5	0	69.5	45-120	0			
Bis(2-ethylhexyl)phthalate	4.187	0.20	5	0	83.7	40-139	0			
Chrysene	4.537	0.20	5	0	90.7	43-120	0			
Dibenzofuran	4.286	0.20	5	0	85.7	50-120	0			
Di-n-butyl phthalate	4.847	0.20	5	0	96.9	45-123	0			
Fluoranthene	4.387	0.20	5	0	87.7	45-125	0			
Fluorene	4.286	0.20	5	0	85.7	49-120	0			
Naphthalene	4.035	0.20	5	0	80.7	45-120	0			
Nitrobenzene	4.112	0.20	5	0	82.2	44-120	0			
N-Nitrosodiphenylamine	4.051	0.20	5	0	81	40-125	0			
Pentachlorophenol	2.892	0.20	5	0	57.8	19-121	0			
Phenanthrene	4.243	0.20	5	0	84.9	45-121	0			
Phenol	4.229	0.20	5	0	84.6	20-124	0			
Pyrene	4.359	0.20	5	0	87.2	40-130	0			
Surr: 2,4,6-Tribromophenol	4.269	0.20	5	0	85.4	34-129	0			
Surr: 2-Fluorobiphenyl	4.206	0.20	5	0	84.1	40-125	0			
Surr: 2-Fluorophenol	4.125	0.20	5	0	82.5	20-120	0			
Surr: 4-Terphenyl-d14	4.88	0.20	5	0	97.6	40-135	0			
Surr: Nitrobenzene-d5	4.115	0.20	5	0	82.3	41-120	0			
Surr: Phenol-d6	4.44	0.20	5	0	88.8	20-120	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Pastor, Behling & Wheeler, LLC
 Work Order: 12071247
 Project: UPRR Houston Wood GW

QC BATCH REPORT

Batch ID: 62997 Instrument ID SV-4 Method: SW8270

LCSD	Sample ID: SLCSDW1-120728-62997	Units: µg/L					Analysis Date: 7/30/2012 02:11 PM				
Client ID:	Run ID: SV-4_120730B	SeqNo: 2884662	Prep Date: 7/28/2012	DF: 1							
Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
1,2-Diphenylhydrazine	5.315	0.20	5	0	106	39-127	4.123	25.3	20	R	
2,4-Dimethylphenol	3.844	0.20	5	0	76.9	35-120	3.175	19.1	20		
2,4-Dinitrotoluene	4.975	0.20	5	0	99.5	50-122	4.261	15.5	20		
2,6-Dinitrotoluene	3.96	0.20	5	0	79.2	50-120	4.002	1.07	20		
2-Chloronaphthalene	3.634	0.20	5	0	72.7	50-120	3.545	2.46	20		
2-Methylnaphthalene	4.323	0.20	5	0	86.5	50-120	3.509	20.8	20	R	
4,6-Dinitro-2-methylphenol	4.32	0.20	5	0	86.4	25-121	3.585	18.6	20		
4-Nitrophenol	5.494	1.0	5	0	110	30-130	4.661	16.4	20		
Acenaphthene	4.137	0.20	5	0	82.7	45-120	3.805	8.34	20		
Acenaphthylene	4.133	0.20	5	0	82.7	47-120	4.233	2.38	20		
Anthracene	4.098	0.20	5	0	82	45-120	4.123	0.622	20		
Benz(a)anthracene	3.798	0.20	5	0	76	40-120	3.538	7.09	20		
Benzo(a)pyrene	3.988	0.20	5	0	79.8	45-120	4.049	1.54	20		
Bis(2-chloroethoxy)methane	3.833	0.20	5	0	76.7	45-120	3.475	9.8	20		
Bis(2-ethylhexyl)phthalate	4.378	0.20	5	0	87.6	40-139	4.187	4.46	20		
Chrysene	4.616	0.20	5	0	92.3	43-120	4.537	1.72	20		
Dibenzofuran	4.855	0.20	5	0	97.1	50-120	4.286	12.5	20		
Di-n-butyl phthalate	4.584	0.20	5	0	91.7	45-123	4.847	5.56	20		
Fluoranthene	5.283	0.20	5	0	106	45-125	4.387	18.5	20		
Fluorene	4.726	0.20	5	0	94.5	49-120	4.286	9.76	20		
Naphthalene	4.484	0.20	5	0	89.7	45-120	4.035	10.6	20		
Nitrobenzene	5.084	0.20	5	0	102	44-120	4.112	21.1	20	R	
N-Nitrosodiphenylamine	5.212	0.20	5	0	104	40-125	4.051	25.1	20	R	
Pentachlorophenol	2.965	0.20	5	0	59.3	19-121	2.892	2.49	20		
Phenanthrene	4.342	0.20	5	0	86.8	45-121	4.243	2.3	20		
Phenol	4.05	0.20	5	0	81	20-124	4.229	4.33	20		
Pyrene	4.915	0.20	5	0	98.3	40-130	4.359	12	20		
Surr: 2,4,6-Tribromophenol	4.954	0.20	5	0	99.1	34-129	4.269	14.9	0		
Surr: 2-Fluorobiphenyl	3.857	0.20	5	0	77.1	40-125	4.206	8.66	0		
Surr: 2-Fluorophenol	3.795	0.20	5	0	75.9	20-120	4.125	8.33	0		
Surr: 4-Terphenyl-d14	5.409	0.20	5	0	108	40-135	4.88	10.3	0		
Surr: Nitrobenzene-d5	5.18	0.20	5	0	104	41-120	4.115	22.9	0		
Surr: Phenol-d6	4.173	0.20	5	0	83.5	20-120	4.44	6.18	0		

The following samples were analyzed in this batch:

12071247-01B	12071247-02B	12071247-03B
12071247-04B		

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Pastor, Behling & Wheeler, LLC
Work Order: 12071247
Project: UPRR Houston Wood GW

QC BATCH REPORT

Batch ID: **R132072** Instrument ID **VOA1** Method: **SW8260**

MBLK Sample ID: **VBLKW-072712-R132072** Units: **µg/L** Analysis Date: **7/28/2012 01:21 AM**

Client ID: Run ID: **VOA1_120727C** SeqNo: **2879388** Prep Date: DF: **1**

Analyte	Result	ML	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Dichloroethane	U	5.0								
Benzene	U	5.0								
Chlorobenzene	U	5.0								
Ethylbenzene	U	5.0								
Methylene chloride	U	10								
Toluene	U	5.0								
Xylenes, Total	U	15								
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>56.29</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>113</i>	<i>70-125</i>	<i>0</i>			
<i>Surr: 4-Bromofluorobenzene</i>	<i>51.22</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>102</i>	<i>72-125</i>	<i>0</i>			
<i>Surr: Dibromofluoromethane</i>	<i>56.08</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>112</i>	<i>71-125</i>	<i>0</i>			
<i>Surr: Toluene-d8</i>	<i>47.17</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>94.3</i>	<i>75-125</i>	<i>0</i>			

LCS Sample ID: **VLCSW-072712-R132072** Units: **µg/L** Analysis Date: **7/28/2012 12:29 AM**

Client ID: Run ID: **VOA1_120727C** SeqNo: **2879387** Prep Date: DF: **1**

Analyte	Result	ML	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Dichloroethane	55.93	5.0	50	0	112	78-120	0			
Benzene	51.5	5.0	50	0	103	73-121	0			
Chlorobenzene	44.94	5.0	50	0	89.9	80-120	0			
Ethylbenzene	46.59	5.0	50	0	93.2	80-120	0			
Methylene chloride	51.27	10	50	0	103	65-133	0			
Toluene	46.78	5.0	50	0	93.6	80-120	0			
Xylenes, Total	141.7	15	150	0	94.5	80-120	0			
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>54.47</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>109</i>	<i>70-125</i>	<i>0</i>			
<i>Surr: 4-Bromofluorobenzene</i>	<i>51.6</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>103</i>	<i>72-125</i>	<i>0</i>			
<i>Surr: Dibromofluoromethane</i>	<i>54.65</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>109</i>	<i>71-125</i>	<i>0</i>			
<i>Surr: Toluene-d8</i>	<i>44.99</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>90</i>	<i>75-125</i>	<i>0</i>			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Pastor, Behling & Wheeler, LLC
 Work Order: 12071247
 Project: UPRR Houston Wood GW

QC BATCH REPORT

Batch ID: R132072 Instrument ID VOA1 Method: SW8260

MS		Sample ID: 12071248-01AMS			Units: µg/L			Analysis Date: 7/28/2012 03:05 AM		
Client ID:		Run ID: VOA1_120727C			SeqNo: 2879391		Prep Date:		DF: 1	
Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Dichloroethane	58.81	5.0	50	0	118	78-120	0			
Benzene	51.71	5.0	50	0	103	73-121	0			
Chlorobenzene	46.47	5.0	50	0	92.9	80-120	0			
Ethylbenzene	42.89	5.0	50	0	85.8	80-120	0			
Methylene chloride	53.58	10	50	0	107	65-133	0			
Toluene	46.5	5.0	50	0	93	80-120	0			
Xylenes, Total	131.3	15	150	0	87.5	80-120	0			
<i>Surr: 1,2-Dichloroethane-d4</i>	55.89	5.0	50	0	112	70-125	0			
<i>Surr: 4-Bromofluorobenzene</i>	50.65	5.0	50	0	101	72-125	0			
<i>Surr: Dibromofluoromethane</i>	52.83	5.0	50	0	106	71-125	0			
<i>Surr: Toluene-d8</i>	46.5	5.0	50	0	93	75-125	0			

MSD		Sample ID: 12071248-01AMSD			Units: µg/L			Analysis Date: 7/28/2012 03:31 AM		
Client ID:		Run ID: VOA1_120727C			SeqNo: 2879392		Prep Date:		DF: 1	
Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Dichloroethane	54.23	5.0	50	0	108	78-120	58.81	8.1	20	
Benzene	47.14	5.0	50	0	94.3	73-121	51.71	9.25	20	
Chlorobenzene	43.85	5.0	50	0	87.7	80-120	46.47	5.81	20	
Ethylbenzene	41.49	5.0	50	0	83	80-120	42.89	3.3	20	
Methylene chloride	53.54	10	50	0	107	65-133	53.58	0.0878	20	
Toluene	43.68	5.0	50	0	87.4	80-120	46.5	6.25	20	
Xylenes, Total	128	15	150	0	85.3	80-120	131.3	2.55	20	
<i>Surr: 1,2-Dichloroethane-d4</i>	55.25	5.0	50	0	111	70-125	55.89	1.16	20	
<i>Surr: 4-Bromofluorobenzene</i>	55.07	5.0	50	0	110	72-125	50.65	8.36	20	
<i>Surr: Dibromofluoromethane</i>	55.73	5.0	50	0	111	71-125	52.83	5.34	20	
<i>Surr: Toluene-d8</i>	47.24	5.0	50	0	94.5	75-125	46.5	1.57	20	

The following samples were analyzed in this batch:

12071247-01A	12071247-02A	12071247-03A
12071247-04A		

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
WorkOrder: 12071247

**QUALIFIERS,
ACRONYMS, UNITS**

<u>Qualifier</u>	<u>Description</u>
*	Value exceeds Regulatory Limit
a	Not accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
J	Analyte detected below quantitation limit
M	Manually integrated, see raw data for justification
n	Not offered for accreditation
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL

<u>Acronym</u>	<u>Description</u>
DCS	Detectability Check Study
DUP	Method Duplicate
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
MBLK	Method Blank
MDL	Method Detection Limit
MQL	Method Quantitation Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PDS	Post Digestion Spike
PQL	Practical Quantitation Limit
SD	Serial Dilution
SDL	Sample Detection Limit
TRRP	Texas Risk Reduction Program

<u>Units Reported</u>	<u>Description</u>
mg/L	Milligrams per Liter

Sample Receipt Checklist

Client Name: **PBW**

Date/Time Received: **26-Jul-12 16:10**

Work Order: **12071247**

Received by: **PMG**

Checklist completed by Raymond N Gambia | 26-Jul-12
eSignature | Date

Reviewed by: Patricia L. Lynch | 31-Jul-12
eSignature | Date

Matrices: Groundwater

Carrier name: Client

- Shipping container/cooler in good condition? Yes No Not Present
- Custody seals intact on shipping container/cooler? Yes No Not Present
- Custody seals intact on sample bottles? Yes No Not Present
- Chain of custody present? Yes No
- Chain of custody signed when relinquished and received? Yes No
- Chain of custody agrees with sample labels? Yes No
- Samples in proper container/bottle? Yes No
- Sample containers intact? Yes No
- Sufficient sample volume for indicated test? Yes No
- All samples received within holding time? Yes No
- Container/Temp Blank temperature in compliance? Yes No

Temperature(s)/Thermometer(s): 2.4c, 2.1c, 2.1c, 2.3c 003

Cooler(s)/Kit(s): 3405, 2678, 4023, 5008

Date/Time sample(s) sent to storage: 7/26/2012 18:05

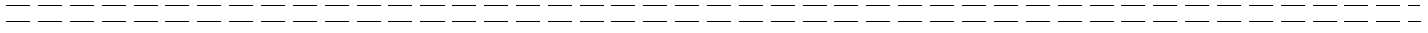
Water - VOA vials have zero headspace? Yes No No VOA vials submitted

Water - pH acceptable upon receipt? Yes No N/A

pH adjusted? Yes No N/A

pH adjusted by: _____

Login Notes:



Client Contacted:

Date Contacted:

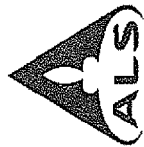
Person Contacted:

Contacted By:

Regarding:

Comments:

CorrectiveAction:



Chain of Custody Form

CR +1
EV +1
For +1

Page 1 of 1

COC ID: 52164

Environmental

ALS Project Manager:

Customer Information

Project Information

Purchase Order	Project Name	UPRR Houston Wood GW	A	VOC (8260) Select
Work Order	Project Number	1620-04	B	SVOC (8270) Low-Level
Company Name	Bill To Company	Union Pacific Railroad	C	
Send Report To	Invoice Attn		D	
Address	Address	1400 Douglas Street Stop 0750	E	
City/State/Zip	City/State/Zip	Omaha, NE 681790750	F	
Phone	Phone		G	
Fax	Fax		H	
e-Mail Address	e-Mail Address		I	
			J	

No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	WG-1620-MW540-20120725	7-25-12	0840	GW		5	X	X									
2	WG-1620-MW09-20120725		0935	GW		5	X	X									
3	WG-1620-MW05-20120725		0645	GW		5	X	X									
4	WG-1620-MW64A-20120725		0745	GW		5	X	X									
5																	
6																	
7																	
8																	
9																	
10																	

Sampler(s) Please Print & Sign: **JOHN BRAYTON**

Relinquished by: **John Brayton** Date: 7-25-12 Time: 1030

Relinquished by: **John Brayton** Date: 7-26-12 Time: 1610

Logged by (Laboratory): **John Brayton** Date: 7-26-12 Time: 1610

Shipment Method: **HAND DELIVERED**

Required Turnaround Time: (Check Box) Std 10 WK Days 5 WK Days 24 Hour

Notes: 10 Day TAT.

QC Package: (Check One Box Below) Level II Std QC TRRP Checklist Level III Std QC/Raw Data TRRP Level IV Level IV SW846/CLP Other / EDD

Preservative Key: 1-HCl 2-HNO₃ 3-H₂SO₄ 4-NaOH 5-Na₂S₂O₃ 6-NaHSO₄ 7-Other 8-4°C 9-5035

Note: 1. Any changes must be made in writing once samples and COC Form have been submitted to ALS Environmental.
 2. Unless otherwise agreed in a formal contract, services provided by ALS Environmental are expressly limited to the terms and conditions stated on the reverse.
 3. The Chain of Custody is a legal document. All information must be completed accurately.



14-Aug-2012

Eric Matzner
Pastor, Behling & Wheeler, LLC
2201 Double Creek Drive
Suite 4004
Round Rock, TX 78664

Tel: (512) 671-3434
Fax: (512) 671-3446

Re: UPRR Houston Wood GW

Work Order: **12071248**

Dear Eric,

ALS Environmental received 16 samples on 26-Jul-2012 04:10 PM for the analyses presented in the following report.

The analytical data provided relates directly to the samples received by ALS Environmental and for only the analyses requested. Results are expressed as "as received" unless otherwise noted.

QC sample results for this data met EPA or laboratory specifications except as noted in the Case Narrative or as noted with qualifiers in the QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained by ALS Environmental. Samples will be disposed in 30 days unless storage arrangements are made.

The total number of pages in this report is 55.

If you have any questions regarding this report, please feel free to call me.

Sincerely,

A handwritten signature in black ink that reads "Patricia L. Lynch".

Electronically approved by: Jumoke M. Lawal

Patricia L. Lynch
Project Manager



Certificate No: TX: T104704231-12-10

ADDRESS 10450 Stancliff Rd, Suite 210 Houston, Texas 77099-4338 | PHONE (281) 530-5656 | FAX (281) 530-5887

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RIGHT SOLUTIONS RIGHT PARTNER

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Work Order: 12071248

**TRRP Laboratory Data
Package Cover Page**

This data package consists of all or some of the following as applicable:

This signature page, the laboratory review checklist, and the following reportable data:

- R1 Field chain-of-custody documentation;
- R2 Sample identification cross-reference;
- R3 Test reports (analytical data sheets) for each environmental sample that includes:
 - a) Items consistent with NELAC Chapter 5,
 - b) dilution factors,
 - c) preparation methods,
 - d) cleanup methods, and
 - e) if required for the project, tentatively identified compounds (TICs).
- R4 Surrogate recovery data including:
 - a) Calculated recovery (%R), and
 - b) The laboratory's surrogate QC limits.
- R5 Test reports/summary forms for blank samples;
- R6 Test reports/summary forms for laboratory control samples (LCSs) including:
 - a) LCS spiking amounts,
 - b) Calculated %R for each analyte, and
 - c) The laboratory's LCS QC limits.
- R7 Test reports for project matrix spike/matrix spike duplicates (MS/MSDs) including:
 - a) Samples associated with the MS/MSD clearly identified,
 - b) MS/MSD spiking amounts,
 - c) Concentration of each MS/MSD analyte measured in the parent and spiked samples,
 - d) Calculated %Rs and relative percent differences (RPDs), and
 - e) The laboratory's MS/MSD QC limits.
- R8 Laboratory analytical duplicate (if applicable) recovery and precision:
 - a) the amount of analyte measured in the duplicate,
 - b) the calculated RPD, and
 - c) the laboratory's QC limits for analytical duplicates.
- R9 List of method quantitation limits (MQLs) and detectability check sample results for each analyte for each method and matrix.
- R10 Other problems or anomalies.
The Exception Report for each "No" or "Not Reviewed (NR)" item in Laboratory Review Checklist and for each analyte, matrix, and method for which the laboratory does not hold NELAC accreditation under the Texas Laboratory Accreditation Program.

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Work Order: 12071248

**TRRP Laboratory Data
Package Cover Page**

Release Statement: I am responsible for the release of this laboratory data package. This laboratory is NELAC accredited under the Texas Laboratory Accreditation Program for all the methods, analytes and matrices reported in this data package except as noted in the Exception Reports. The data have been reviewed and are technically compliant with the requirements of the methods used, except where noted by the laboratory in the attached exception reports. By my signature below, I affirm to the best of my knowledge, all problems/anomalies, observed by the laboratory have been identified by the laboratory in the Laboratory Review Checklist, and no information affecting the quality of the data has been knowingly withheld.

Check, if applicable: [NA] This laboratory meets an exception under 30 TAC §25.6 and was last inspected by TCEQ or _____ on (enter date of last inspection). Any findings affecting the data in this laboratory data package are noted in the Exception Reports herein. The official signing the cover page of the report in which these data are used is responsible for releasing this data package and is by signature affirming the above release statement is true.

Patricia L. Lynch

Patricia L. Lynch
Project Manager

Laboratory Review Checklist: Reportable Data

Laboratory Name: ALS Laboratory Group		LRC Date: 08/14/2012					
Project Name: UPRR Houston Wood GW		Laboratory Job Number: 12071248					
Reviewer Name: Pat Lynch		Prep Batch Number(s): 62997, R132072					
# ¹	A ²	Description	Yes	No	NA ³	NR ⁴	ER# ⁵
R1	OI	Chain-of-custody (C-O-C)					
		Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?	X				
		Were all departures from standard conditions described in an exception report?	X				
R2	OI	Sample and quality control (QC) identification					
		Are all field sample ID numbers cross-referenced to the laboratory ID numbers?	X				
		Are all laboratory ID numbers cross-referenced to the corresponding QC data?	X				
R3	OI	Test reports					
		Were all samples prepared and analyzed within holding times?	X				
		Other than those results < MQL, were all other raw values bracketed by calibration standards?	X				
		Were calculations checked by a peer or supervisor?	X				
		Were all analyte identifications checked by a peer or supervisor?	X				
		Were sample detection limits reported for all analytes not detected?	X				
		Were all results for soil and sediment samples reported on a dry weight basis?			X		
		Were % moisture (or solids) reported for all soil and sediment samples?			X		
		Were bulk soils/solids samples for volatile analysis extracted with methanol per SW-846 Method 5035?			X		
		If required for the project, TICs reported?			X		
R4	O	Surrogate recovery data					
		Were surrogates added prior to extraction?	X				
		Were surrogate percent recoveries in all samples within the laboratory QC limits?		X			1
R5	OI	Test reports/summary forms for blank samples					
		Were appropriate type(s) of blanks analyzed?	X				
		Were blanks analyzed at the appropriate frequency?	X				
		Were method blanks taken through the entire analytical process, including preparation and, if applicable, cleanup procedures?	X				
		Were blank concentrations < MQL?	X				
R6	OI	Laboratory control samples (LCS):					
		Were all COCs included in the LCS?	X				
		Was each LCS taken through the entire analytical procedure, including prep and cleanup steps?	X				
		Were LCSs analyzed at the required frequency?	X				
		Were LCS (and LCSD, if applicable) %Rs within the laboratory QC limits?	X				
		Does the detectability data document the laboratory's capability to detect the COCs at the MDL used to calculate the SDLs?	X				
		Was the LCSD RPD within QC limits?		X			2
R7	OI	Matrix spike (MS) and matrix spike duplicate (MSD) data					
		Were the project/method specified analytes included in the MS and MSD?	X				
		Were MS/MSD analyzed at the appropriate frequency?	X				
		Were MS (and MSD, if applicable) %Rs within the laboratory QC limits?	X				
		Were MS/MSD RPDs within laboratory QC limits?		X			3
R8	OI	Analytical duplicate data					
		Were appropriate analytical duplicates analyzed for each matrix?	X				
		Were analytical duplicates analyzed at the appropriate frequency?	X				
		Were RPDs or relative standard deviations within the laboratory QC limits?	X				
R9	OI	Method quantitation limits (MQLs):					
		Are the MQLs for each method analyte included in the laboratory data package?	X				
		Do the MQLs correspond to the concentration of the lowest non-zero calibration standard?	X				
		Are unadjusted MQLs and DCSs included in the laboratory data package?	X				
R10	OI	Other problems/anomalies					
		Are all known problems/anomalies/special conditions noted in this LRC and ER?	X				
		Were all necessary corrective actions performed for the reported data?	X				
		Was applicable and available technology used to lower the SDL and minimize the matrix interference affects on the sample results?	X				
		Is the laboratory NELAC-accredited under the Texas Laboratory Program for the analytes, matrices and methods associated with this laboratory data package?	X				

Laboratory Review Checklist: Reportable Data

Laboratory Name: ALS Laboratory Group		LRC Date: 08/14/2012					
Project Name: UPRR Houston Wood GW		Laboratory Job Number: 12071248					
Reviewer Name: Pat Lynch		Prep Batch Number(s): 62997, R132072					
# ¹	A ²	Description	Yes	No	NA ³	NR ⁴	ER# ⁵
S1	OI	Initial calibration (ICAL)					
		Were response factors and/or relative response factors for each analyte within QC limits?	X				
		Were percent RSDs or correlation coefficient criteria met?	X				
		Was the number of standards recommended in the method used for all analytes?	X				
		Were all points generated between the lowest and highest standard used to calculate the curve?	X				
		Are ICAL data available for all instruments used?	X				
		Has the initial calibration curve been verified using an appropriate second source standard?	X				
S2	OI	Initial and continuing calibration verification (ICCV and CCV) and continuing calibration blank (CCB)					
		Was the CCV analyzed at the method-required frequency?	X				
		Were percent differences for each analyte within the method-required QC limits?	X				
		Was the ICAL curve verified for each analyte?	X				
		Was the absolute value of the analyte concentration in the inorganic CCB < MDL?	X				
S3	O	Mass spectral tuning:					
		Was the appropriate compound for the method used for tuning?	X				
		Were ion abundance data within the method-required QC limits?			X		
S4	O	Internal standards (IS):					
		Were IS area counts and retention times within the method-required QC limits?	X				
S5	OI	Raw data (NELAC section 1 appendix A glossary, and section 5.12 or ISO/IEC 17025 section)					
		Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?	X				
		Were data associated with manual integrations flagged on the raw data?	X				
S6	O	Dual column confirmation					
		Did dual column confirmation results meet the method-required QC?			X		
S7	O	Tentatively identified compounds (TICs):					
		If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?			X		
S8	I	Interference Check Sample (ICS) results:					
		Were percent recoveries within method QC limits?			X		
S9	I	Serial dilutions, post digestion spikes, and method of standard additions					
		Were percent differences, recoveries, and the linearity within the QC limits specified in the method?			X		
S10	OI	Method detection limit (MDL) studies					
		Was a MDL study performed for each reported analyte?	X				
		Is the MDL either adjusted or supported by the analysis of DCSs?	X				
S11	OI	Proficiency test reports:					
		Was the laboratory's performance acceptable on the applicable proficiency tests or evaluation studies?	X				
S12	OI	Standards documentation					
		Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?	X				
S13	OI	Compound/analyte identification procedures					
		Are the procedures for compound/analyte identification documented?	X				
S14	OI	Demonstration of analyst competency (DOC)					
		Was DOC conducted consistent with NELAC Chapter 5C or ISO/IEC 4?	X				
		Is documentation of the analyst's competency up-to-date and on file?	X				
S15	OI	Verification/validation documentation for methods (NELAC Chap 5 or ISO/IEC 17025 Section 5)					
		Are all the methods used to generate the data documented, verified, and validated, where applicable?	X				
S16	OI	Laboratory standard operating procedures (SOPs):					
		Are laboratory SOPs current and on file for each method performed?	X				
<p>Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period. O = Organic Analyses; I = Inorganic Analyses (and general chemistry, when applicable); NA = Not Applicable; NR = Not Reviewed; R# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).</p>							

Laboratory Review Checklist: Reportable Data

Laboratory Name: ALS Laboratory Group	LRC Date: 08/14/2012
Project Name: UPRR Houston Wood GW	Laboratory Job Number: 12071248
Reviewer Name: Pat Lynch	Prep Batch Number(s): 62997, R132072

ER# ⁵	Description
1	Semivolatile Organics:: Surrogates were diluted out in samples WG-1620-MW44A-20120725 (20X dilution), WG-1620-MW75B-20120726 (2000X) dilution and WG-1620-MW74B-20120726 (5000X dilution). Surrogates were in control in lower dilutions.
2	Batch 63002, Semivolatile Organics : LCS/LCSD RPDs were above the control limits for 2-methylnaphthalene and fluorine . The individual recoveries were in control.
3	Batch 63002, Semivolatile Organics : Sample WG-1620-MW27C-20120725: MS/MSD RPD was above the control limits for 2-methylnaphthalene.

Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.
 O = Organic Analyses; I = Inorganic Analyses (and general chemistry, when applicable);
 NA = Not Applicable;
 NR = Not Reviewed;
 R# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Work Order: 12071248

Work Order Sample Summary

<u>Lab Samp ID</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Tag Number</u>	<u>Collection Date</u>	<u>Date Received</u>	<u>Hold</u>
12071248-01	WG-1620-MW27C-20120725	Groundwater		7/25/2012 09:30	7/26/2012 16:10	<input type="checkbox"/>
12071248-02	WG-1620-MW24C-20120725	Groundwater		7/25/2012 11:30	7/26/2012 16:10	<input type="checkbox"/>
12071248-03	WG-1620-MW24B-20120725	Groundwater		7/25/2012 12:25	7/26/2012 16:10	<input type="checkbox"/>
12071248-04	WG-1620-MW24AR-20120725	Groundwater		7/25/2012 13:25	7/26/2012 16:10	<input type="checkbox"/>
12071248-05	WG-1620-MW44A-20120725	Groundwater		7/25/2012 15:15	7/26/2012 16:10	<input type="checkbox"/>
12071248-06	WG-1620-FB9-20120725	Groundwater		7/25/2012 17:00	7/26/2012 16:10	<input type="checkbox"/>
12071248-07	WG-1620-MW49A-20120726	Groundwater		7/26/2012 07:00	7/26/2012 16:10	<input type="checkbox"/>
12071248-08	WG-1620-MW21C-20120726	Groundwater		7/26/2012 08:40	7/26/2012 16:10	<input type="checkbox"/>
12071248-09	WG-1620-FD5-20120726	Groundwater		7/26/2012 08:40	7/26/2012 16:10	<input type="checkbox"/>
12071248-10	WG-1620-TB-20120726	Water		7/26/2012 07:05	7/26/2012 16:10	<input type="checkbox"/>
12071248-11	WG-1620-P11-20120726	Groundwater		7/26/2012 09:45	7/26/2012 16:10	<input type="checkbox"/>
12071248-12	WG-1620-MW62B-20120726	Groundwater		7/26/2012 11:25	7/26/2012 16:10	<input type="checkbox"/>
12071248-13	WG-1620-TW41B-20120726	Groundwater		7/26/2012 12:10	7/26/2012 16:10	<input type="checkbox"/>
12071248-14	WG-1620-MW75B-20120726	Groundwater		7/26/2012 13:50	7/26/2012 16:10	<input type="checkbox"/>
12071248-15	WG-1620-FB10-20120726	Groundwater		7/26/2012 13:45	7/26/2012 16:10	<input type="checkbox"/>
12071248-16	WG-1620-MW74B-20120726	Groundwater		7/26/2012 15:20	7/26/2012 16:10	<input type="checkbox"/>

ALS Environmental

Date: 14-Aug-12

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Sample ID: WG-1620-MW27C-20120725
Collection Date: 7/25/2012 09:30 AM

Work Order: 12071248
Lab ID: 12071248-01
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	ML	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270	Prep: SW3510 / 7/29/12	Analyst: LG		
1,2-Diphenylhydrazine	U		0.000050	0.00020	mg/L	1	7/31/2012 03:03
2,4-Dimethylphenol	U		0.000050	0.00020	mg/L	1	7/31/2012 03:03
2,4-Dinitrotoluene	U		0.000050	0.00020	mg/L	1	7/31/2012 03:03
2,6-Dinitrotoluene	U		0.000060	0.00020	mg/L	1	7/31/2012 03:03
2-Chloronaphthalene	U		0.000050	0.00020	mg/L	1	7/31/2012 03:03
2-Methylnaphthalene	U		0.000050	0.00020	mg/L	1	7/31/2012 03:03
4,6-Dinitro-2-methylphenol	U		0.000080	0.00020	mg/L	1	7/31/2012 03:03
4-Nitrophenol	U		0.000050	0.0010	mg/L	1	7/31/2012 03:03
Acenaphthene	U		0.000050	0.00020	mg/L	1	7/31/2012 03:03
Acenaphthylene	U		0.000050	0.00020	mg/L	1	7/31/2012 03:03
Anthracene	U		0.000050	0.00020	mg/L	1	7/31/2012 03:03
Benz(a)anthracene	U		0.000050	0.00020	mg/L	1	7/31/2012 03:03
Benzo(a)pyrene	U		0.000050	0.00020	mg/L	1	7/31/2012 03:03
Bis(2-chloroethoxy)methane	U		0.000050	0.00020	mg/L	1	7/31/2012 03:03
Bis(2-ethylhexyl)phthalate	0.00021		0.00010	0.00020	mg/L	1	7/31/2012 03:03
Chrysene	U		0.000050	0.00020	mg/L	1	7/31/2012 03:03
Dibenzofuran	U		0.000050	0.00020	mg/L	1	7/31/2012 03:03
Di-n-butyl phthalate	0.000055	J	0.000050	0.00020	mg/L	1	7/31/2012 03:03
Fluoranthene	U		0.000050	0.00020	mg/L	1	7/31/2012 03:03
Fluorene	U		0.000050	0.00020	mg/L	1	7/31/2012 03:03
Naphthalene	0.00019	J	0.000050	0.00020	mg/L	1	7/31/2012 03:03
Nitrobenzene	U		0.000050	0.00020	mg/L	1	7/31/2012 03:03
N-Nitrosodiphenylamine	U		0.000050	0.00020	mg/L	1	7/31/2012 03:03
Pentachlorophenol	U		0.000050	0.00020	mg/L	1	7/31/2012 03:03
Phenanthrene	U		0.000050	0.00020	mg/L	1	7/31/2012 03:03
Phenol	U		0.000050	0.00020	mg/L	1	7/31/2012 03:03
Pyrene	U		0.000050	0.00020	mg/L	1	7/31/2012 03:03
Surr: 2,4,6-Tribromophenol	71.8			34-129	%REC	1	7/31/2012 03:03
Surr: 2-Fluorobiphenyl	75.3			40-125	%REC	1	7/31/2012 03:03
Surr: 2-Fluorophenol	73.1			20-120	%REC	1	7/31/2012 03:03
Surr: 4-Terphenyl-d14	79.6			40-135	%REC	1	7/31/2012 03:03
Surr: Nitrobenzene-d5	67.5			41-120	%REC	1	7/31/2012 03:03
Surr: Phenol-d6	70.8			20-120	%REC	1	7/31/2012 03:03
VOLATILES			Method: SW8260	Analyst: PC			
1,2-Dichloroethane	U		0.00050	0.0050	mg/L	1	7/28/2012 01:47
Benzene	U		0.00050	0.0050	mg/L	1	7/28/2012 01:47
Chlorobenzene	U		0.00050	0.0050	mg/L	1	7/28/2012 01:47
Ethylbenzene	U		0.00050	0.0050	mg/L	1	7/28/2012 01:47

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 14-Aug-12

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Sample ID: WG-1620-MW27C-20120725
Collection Date: 7/25/2012 09:30 AM

Work Order: 12071248
Lab ID: 12071248-01
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
Methylene chloride	U		0.0010	0.010	mg/L	1	7/28/2012 01:47
Toluene	U		0.00050	0.0050	mg/L	1	7/28/2012 01:47
Xylenes, Total	U		0.0015	0.015	mg/L	1	7/28/2012 01:47
Surr: 1,2-Dichloroethane-d4	110			70-125	%REC	1	7/28/2012 01:47
Surr: 4-Bromofluorobenzene	104			72-125	%REC	1	7/28/2012 01:47
Surr: Dibromofluoromethane	111			71-125	%REC	1	7/28/2012 01:47
Surr: Toluene-d8	91.5			75-125	%REC	1	7/28/2012 01:47

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 14-Aug-12

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Sample ID: WG-1620-MW24C-20120725
Collection Date: 7/25/2012 11:30 AM

Work Order: 12071248
Lab ID: 12071248-02
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270	Prep: SW3510 / 7/29/12		Analyst: LG	
1,2-Diphenylhydrazine	U		0.000050	0.00020	mg/L	1	7/31/2012 08:48
2,4-Dimethylphenol	U		0.000050	0.00020	mg/L	1	7/31/2012 08:48
2,4-Dinitrotoluene	U		0.000050	0.00020	mg/L	1	7/31/2012 08:48
2,6-Dinitrotoluene	U		0.000060	0.00020	mg/L	1	7/31/2012 08:48
2-Chloronaphthalene	U		0.000050	0.00020	mg/L	1	7/31/2012 08:48
2-Methylnaphthalene	0.000077	J	0.000050	0.00020	mg/L	1	7/31/2012 08:48
4,6-Dinitro-2-methylphenol	U		0.000080	0.00020	mg/L	1	7/31/2012 08:48
4-Nitrophenol	U		0.000050	0.0010	mg/L	1	7/31/2012 08:48
Acenaphthene	U		0.000050	0.00020	mg/L	1	7/31/2012 08:48
Acenaphthylene	U		0.000050	0.00020	mg/L	1	7/31/2012 08:48
Anthracene	U		0.000050	0.00020	mg/L	1	7/31/2012 08:48
Benz(a)anthracene	U		0.000050	0.00020	mg/L	1	7/31/2012 08:48
Benzo(a)pyrene	U		0.000050	0.00020	mg/L	1	7/31/2012 08:48
Bis(2-chloroethoxy)methane	U		0.000050	0.00020	mg/L	1	7/31/2012 08:48
Bis(2-ethylhexyl)phthalate	0.00013	J	0.00010	0.00020	mg/L	1	7/31/2012 08:48
Chrysene	U		0.000050	0.00020	mg/L	1	7/31/2012 08:48
Dibenzofuran	U		0.000050	0.00020	mg/L	1	7/31/2012 08:48
Di-n-butyl phthalate	U		0.000050	0.00020	mg/L	1	7/31/2012 08:48
Fluoranthene	U		0.000050	0.00020	mg/L	1	7/31/2012 08:48
Fluorene	U		0.000050	0.00020	mg/L	1	7/31/2012 08:48
Naphthalene	0.00019	J	0.000050	0.00020	mg/L	1	7/31/2012 08:48
Nitrobenzene	U		0.000050	0.00020	mg/L	1	7/31/2012 08:48
N-Nitrosodiphenylamine	U		0.000050	0.00020	mg/L	1	7/31/2012 08:48
Pentachlorophenol	U		0.000050	0.00020	mg/L	1	7/31/2012 08:48
Phenanthrene	U		0.000050	0.00020	mg/L	1	7/31/2012 08:48
Phenol	U		0.000050	0.00020	mg/L	1	7/31/2012 08:48
Pyrene	U		0.000050	0.00020	mg/L	1	7/31/2012 08:48
Surr: 2,4,6-Tribromophenol	85.5			34-129	%REC	1	7/31/2012 08:48
Surr: 2-Fluorobiphenyl	64.5			40-125	%REC	1	7/31/2012 08:48
Surr: 2-Fluorophenol	59.4			20-120	%REC	1	7/31/2012 08:48
Surr: 4-Terphenyl-d14	99.1			40-135	%REC	1	7/31/2012 08:48
Surr: Nitrobenzene-d5	63.0			41-120	%REC	1	7/31/2012 08:48
Surr: Phenol-d6	60.5			20-120	%REC	1	7/31/2012 08:48

VOLATILES			Method: SW8260			Analyst: PC	
1,2-Dichloroethane	U		0.00050	0.0050	mg/L	1	7/28/2012 05:39
Benzene	U		0.00050	0.0050	mg/L	1	7/28/2012 05:39
Chlorobenzene	U		0.00050	0.0050	mg/L	1	7/28/2012 05:39
Ethylbenzene	U		0.00050	0.0050	mg/L	1	7/28/2012 05:39

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 14-Aug-12

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Sample ID: WG-1620-MW24C-20120725
Collection Date: 7/25/2012 11:30 AM

Work Order: 12071248
Lab ID: 12071248-02
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
Methylene chloride	U		0.0010	0.010	mg/L	1	7/28/2012 05:39
Toluene	U		0.00050	0.0050	mg/L	1	7/28/2012 05:39
Xylenes, Total	U		0.0015	0.015	mg/L	1	7/28/2012 05:39
Surr: 1,2-Dichloroethane-d4	110			70-125	%REC	1	7/28/2012 05:39
Surr: 4-Bromofluorobenzene	103			72-125	%REC	1	7/28/2012 05:39
Surr: Dibromofluoromethane	108			71-125	%REC	1	7/28/2012 05:39
Surr: Toluene-d8	90.8			75-125	%REC	1	7/28/2012 05:39

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 14-Aug-12

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Sample ID: WG-1620-MW24B-20120725
Collection Date: 7/25/2012 12:25 PM

Work Order: 12071248
Lab ID: 12071248-03
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES		Method: SW8270		Prep: SW3510 / 7/29/12		Analyst: LG	
1,2-Diphenylhydrazine	U		0.000050	0.00020	mg/L	1	7/31/2012 09:08
2,4-Dimethylphenol	U		0.000050	0.00020	mg/L	1	7/31/2012 09:08
2,4-Dinitrotoluene	U		0.000050	0.00020	mg/L	1	7/31/2012 09:08
2,6-Dinitrotoluene	U		0.000060	0.00020	mg/L	1	7/31/2012 09:08
2-Chloronaphthalene	U		0.000050	0.00020	mg/L	1	7/31/2012 09:08
2-Methylnaphthalene	U		0.000050	0.00020	mg/L	1	7/31/2012 09:08
4,6-Dinitro-2-methylphenol	U		0.000080	0.00020	mg/L	1	7/31/2012 09:08
4-Nitrophenol	U		0.000050	0.0010	mg/L	1	7/31/2012 09:08
Acenaphthene	U		0.000050	0.00020	mg/L	1	7/31/2012 09:08
Acenaphthylene	U		0.000050	0.00020	mg/L	1	7/31/2012 09:08
Anthracene	U		0.000050	0.00020	mg/L	1	7/31/2012 09:08
Benz(a)anthracene	U		0.000050	0.00020	mg/L	1	7/31/2012 09:08
Benzo(a)pyrene	U		0.000050	0.00020	mg/L	1	7/31/2012 09:08
Bis(2-chloroethoxy)methane	U		0.000050	0.00020	mg/L	1	7/31/2012 09:08
Bis(2-ethylhexyl)phthalate	0.00015	J	0.00010	0.00020	mg/L	1	7/31/2012 09:08
Chrysene	U		0.000050	0.00020	mg/L	1	7/31/2012 09:08
Dibenzofuran	U		0.000050	0.00020	mg/L	1	7/31/2012 09:08
Di-n-butyl phthalate	0.00013	J	0.000050	0.00020	mg/L	1	7/31/2012 09:08
Fluoranthene	U		0.000050	0.00020	mg/L	1	7/31/2012 09:08
Fluorene	U		0.000050	0.00020	mg/L	1	7/31/2012 09:08
Naphthalene	0.00015	J	0.000050	0.00020	mg/L	1	7/31/2012 09:08
Nitrobenzene	U		0.000050	0.00020	mg/L	1	7/31/2012 09:08
N-Nitrosodiphenylamine	U		0.000050	0.00020	mg/L	1	7/31/2012 09:08
Pentachlorophenol	U		0.000050	0.00020	mg/L	1	7/31/2012 09:08
Phenanthrene	U		0.000050	0.00020	mg/L	1	7/31/2012 09:08
Phenol	U		0.000050	0.00020	mg/L	1	7/31/2012 09:08
Pyrene	U		0.000050	0.00020	mg/L	1	7/31/2012 09:08
Surr: 2,4,6-Tribromophenol	57.6			34-129	%REC	1	7/31/2012 09:08
Surr: 2-Fluorobiphenyl	58.8			40-125	%REC	1	7/31/2012 09:08
Surr: 2-Fluorophenol	55.1			20-120	%REC	1	7/31/2012 09:08
Surr: 4-Terphenyl-d14	81.7			40-135	%REC	1	7/31/2012 09:08
Surr: Nitrobenzene-d5	62.2			41-120	%REC	1	7/31/2012 09:08
Surr: Phenol-d6	60.0			20-120	%REC	1	7/31/2012 09:08

VOLATILES		Method: SW8260		Analyst: PC			
1,2-Dichloroethane	U		0.00050	0.0050	mg/L	1	7/28/2012 06:05
Benzene	U		0.00050	0.0050	mg/L	1	7/28/2012 06:05
Chlorobenzene	U		0.00050	0.0050	mg/L	1	7/28/2012 06:05
Ethylbenzene	U		0.00050	0.0050	mg/L	1	7/28/2012 06:05

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 14-Aug-12

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Sample ID: WG-1620-MW24B-20120725
Collection Date: 7/25/2012 12:25 PM

Work Order: 12071248
Lab ID: 12071248-03
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
Methylene chloride	U		0.0010	0.010	mg/L	1	7/28/2012 06:05
Toluene	U		0.00050	0.0050	mg/L	1	7/28/2012 06:05
Xylenes, Total	U		0.0015	0.015	mg/L	1	7/28/2012 06:05
Surr: 1,2-Dichloroethane-d4	113			70-125	%REC	1	7/28/2012 06:05
Surr: 4-Bromofluorobenzene	100			72-125	%REC	1	7/28/2012 06:05
Surr: Dibromofluoromethane	110			71-125	%REC	1	7/28/2012 06:05
Surr: Toluene-d8	88.2			75-125	%REC	1	7/28/2012 06:05

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 14-Aug-12

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Sample ID: WG-1620-MW24AR-20120725
Collection Date: 7/25/2012 01:25 PM

Work Order: 12071248
Lab ID: 12071248-04
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	ML	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270	Prep: SW3510 / 7/29/12	Analyst: LG		
1,2-Diphenylhydrazine	U		0.000050	0.00020	mg/L	1	8/1/2012 23:30
2,4-Dimethylphenol	U		0.000050	0.00020	mg/L	1	8/1/2012 23:30
2,4-Dinitrotoluene	U		0.000050	0.00020	mg/L	1	8/1/2012 23:30
2,6-Dinitrotoluene	U		0.000060	0.00020	mg/L	1	8/1/2012 23:30
2-Chloronaphthalene	U		0.000050	0.00020	mg/L	1	8/1/2012 23:30
2-Methylnaphthalene	U		0.000050	0.00020	mg/L	1	8/1/2012 23:30
4,6-Dinitro-2-methylphenol	U		0.000080	0.00020	mg/L	1	8/1/2012 23:30
4-Nitrophenol	U		0.000050	0.0010	mg/L	1	8/1/2012 23:30
Acenaphthene	U		0.000050	0.00020	mg/L	1	8/1/2012 23:30
Acenaphthylene	U		0.000050	0.00020	mg/L	1	8/1/2012 23:30
Anthracene	U		0.000050	0.00020	mg/L	1	8/1/2012 23:30
Benz(a)anthracene	U		0.000050	0.00020	mg/L	1	8/1/2012 23:30
Benzo(a)pyrene	U		0.000050	0.00020	mg/L	1	8/1/2012 23:30
Bis(2-chloroethoxy)methane	U		0.000050	0.00020	mg/L	1	8/1/2012 23:30
Bis(2-ethylhexyl)phthalate	U		0.00010	0.00020	mg/L	1	8/1/2012 23:30
Chrysene	U		0.000050	0.00020	mg/L	1	8/1/2012 23:30
Dibenzofuran	U		0.000050	0.00020	mg/L	1	8/1/2012 23:30
Di-n-butyl phthalate	0.000071	J	0.000050	0.00020	mg/L	1	8/1/2012 23:30
Fluoranthene	U		0.000050	0.00020	mg/L	1	8/1/2012 23:30
Fluorene	U		0.000050	0.00020	mg/L	1	8/1/2012 23:30
Naphthalene	U		0.000050	0.00020	mg/L	1	8/1/2012 23:30
Nitrobenzene	U		0.000050	0.00020	mg/L	1	8/1/2012 23:30
N-Nitrosodiphenylamine	U		0.000050	0.00020	mg/L	1	8/1/2012 23:30
Pentachlorophenol	U		0.000050	0.00020	mg/L	1	8/1/2012 23:30
Phenanthrene	U		0.000050	0.00020	mg/L	1	8/1/2012 23:30
Phenol	U		0.000050	0.00020	mg/L	1	8/1/2012 23:30
Pyrene	U		0.000050	0.00020	mg/L	1	8/1/2012 23:30
Surr: 2,4,6-Tribromophenol	78.5			34-129	%REC	1	8/1/2012 23:30
Surr: 2-Fluorobiphenyl	70.2			40-125	%REC	1	8/1/2012 23:30
Surr: 2-Fluorophenol	59.4			20-120	%REC	1	8/1/2012 23:30
Surr: 4-Terphenyl-d14	91.0			40-135	%REC	1	8/1/2012 23:30
Surr: Nitrobenzene-d5	70.7			41-120	%REC	1	8/1/2012 23:30
Surr: Phenol-d6	63.2			20-120	%REC	1	8/1/2012 23:30
VOLATILES			Method: SW8260	Analyst: PC			
1,2-Dichloroethane	U		0.00050	0.0050	mg/L	1	7/28/2012 09:04
Benzene	U		0.00050	0.0050	mg/L	1	7/28/2012 09:04
Chlorobenzene	U		0.00050	0.0050	mg/L	1	7/28/2012 09:04
Ethylbenzene	U		0.00050	0.0050	mg/L	1	7/28/2012 09:04

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 14-Aug-12

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Sample ID: WG-1620-MW24AR-20120725
Collection Date: 7/25/2012 01:25 PM

Work Order: 12071248
Lab ID: 12071248-04
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
Methylene chloride	U		0.0010	0.010	mg/L	1	7/28/2012 09:04
Toluene	U		0.00050	0.0050	mg/L	1	7/28/2012 09:04
Xylenes, Total	U		0.0015	0.015	mg/L	1	7/28/2012 09:04
Surr: 1,2-Dichloroethane-d4	114			70-125	%REC	1	7/28/2012 09:04
Surr: 4-Bromofluorobenzene	100			72-125	%REC	1	7/28/2012 09:04
Surr: Dibromofluoromethane	106			71-125	%REC	1	7/28/2012 09:04
Surr: Toluene-d8	87.7			75-125	%REC	1	7/28/2012 09:04

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 14-Aug-12

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Sample ID: WG-1620-MW44A-20120725
Collection Date: 7/25/2012 03:15 PM

Work Order: 12071248
Lab ID: 12071248-05
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270	Prep: SW3510 / 7/29/12	Analyst: LG		
1,2-Diphenylhydrazine	U		0.000050	0.00020	mg/L	1	7/31/2012 09:49
2,4-Dimethylphenol	U		0.000050	0.00020	mg/L	1	7/31/2012 09:49
2,4-Dinitrotoluene	U		0.000050	0.00020	mg/L	1	7/31/2012 09:49
2,6-Dinitrotoluene	U		0.000060	0.00020	mg/L	1	7/31/2012 09:49
2-Chloronaphthalene	U		0.000050	0.00020	mg/L	1	7/31/2012 09:49
2-Methylnaphthalene	0.0095		0.000050	0.00020	mg/L	1	7/31/2012 09:49
4,6-Dinitro-2-methylphenol	U		0.000080	0.00020	mg/L	1	7/31/2012 09:49
4-Nitrophenol	U		0.000050	0.0010	mg/L	1	7/31/2012 09:49
Acenaphthene	0.22		0.010	0.040	mg/L	200	8/2/2012 03:54
Acenaphthylene	0.0013		0.000050	0.00020	mg/L	1	7/31/2012 09:49
Anthracene	0.0040		0.000050	0.00020	mg/L	1	7/31/2012 09:49
Benz(a)anthracene	U		0.000050	0.00020	mg/L	1	7/31/2012 09:49
Benzo(a)pyrene	U		0.000050	0.00020	mg/L	1	7/31/2012 09:49
Bis(2-chloroethoxy)methane	U		0.000050	0.00020	mg/L	1	7/31/2012 09:49
Bis(2-ethylhexyl)phthalate	U		0.00010	0.00020	mg/L	1	7/31/2012 09:49
Chrysene	U		0.000050	0.00020	mg/L	1	7/31/2012 09:49
Dibenzofuran	0.0031		0.000050	0.00020	mg/L	1	7/31/2012 09:49
Di-n-butyl phthalate	U		0.000050	0.00020	mg/L	1	7/31/2012 09:49
Fluoranthene	0.0065		0.000050	0.00020	mg/L	1	7/31/2012 09:49
Fluorene	0.091		0.0010	0.0040	mg/L	20	8/1/2012 23:50
Naphthalene	0.39		0.010	0.040	mg/L	200	8/2/2012 03:54
Nitrobenzene	U		0.000050	0.00020	mg/L	1	7/31/2012 09:49
N-Nitrosodiphenylamine	U		0.000050	0.00020	mg/L	1	7/31/2012 09:49
Pentachlorophenol	U		0.000050	0.00020	mg/L	1	7/31/2012 09:49
Phenanthrene	0.0064		0.000050	0.00020	mg/L	1	7/31/2012 09:49
Phenol	0.000062	J	0.000050	0.00020	mg/L	1	7/31/2012 09:49
Pyrene	0.0038		0.000050	0.00020	mg/L	1	7/31/2012 09:49
Surr: 2,4,6-Tribromophenol	89.7			34-129	%REC	1	7/31/2012 09:49
Surr: 2,4,6-Tribromophenol	92.5			34-129	%REC	20	8/1/2012 23:50
Surr: 2,4,6-Tribromophenol	0	S		34-129	%REC	200	8/2/2012 03:54
Surr: 2-Fluorobiphenyl	85.5			40-125	%REC	1	7/31/2012 09:49
Surr: 2-Fluorobiphenyl	102			40-125	%REC	20	8/1/2012 23:50
Surr: 2-Fluorobiphenyl	0	S		40-125	%REC	200	8/2/2012 03:54
Surr: 2-Fluorophenol	73.8			20-120	%REC	1	7/31/2012 09:49
Surr: 2-Fluorophenol	95.7			20-120	%REC	20	8/1/2012 23:50
Surr: 2-Fluorophenol	0	S		20-120	%REC	200	8/2/2012 03:54
Surr: 4-Terphenyl-d14	99.1			40-135	%REC	1	7/31/2012 09:49
Surr: 4-Terphenyl-d14	97.1			40-135	%REC	20	8/1/2012 23:50

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 14-Aug-12

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Sample ID: WG-1620-MW44A-20120725
Collection Date: 7/25/2012 03:15 PM

Work Order: 12071248
Lab ID: 12071248-05
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
Surr: 4-Terphenyl-d14	0	S		40-135	%REC	200	8/2/2012 03:54
Surr: Nitrobenzene-d5	78.3			41-120	%REC	1	7/31/2012 09:49
Surr: Nitrobenzene-d5	102			41-120	%REC	20	8/1/2012 23:50
Surr: Nitrobenzene-d5	0	S		41-120	%REC	200	8/2/2012 03:54
Surr: Phenol-d6	88.4			20-120	%REC	1	7/31/2012 09:49
Surr: Phenol-d6	102			20-120	%REC	20	8/1/2012 23:50
Surr: Phenol-d6	0	S		20-120	%REC	200	8/2/2012 03:54

VOLATILES		Method: SW8260				Analyst: PC	
1,2-Dichloroethane	U		0.00050	0.0050	mg/L	1	7/29/2012 19:28
Benzene	0.0044	J	0.00050	0.0050	mg/L	1	7/29/2012 19:28
Chlorobenzene	U		0.00050	0.0050	mg/L	1	7/29/2012 19:28
Ethylbenzene	U		0.00050	0.0050	mg/L	1	7/29/2012 19:28
Methylene chloride	U		0.0010	0.010	mg/L	1	7/29/2012 19:28
Toluene	U		0.00050	0.0050	mg/L	1	7/29/2012 19:28
Vinyl chloride	U		0.00050	0.0020	mg/L	1	7/29/2012 19:28
Xylenes, Total	0.0033	J	0.0015	0.015	mg/L	1	7/29/2012 19:28
Surr: 1,2-Dichloroethane-d4	111			70-125	%REC	1	7/29/2012 19:28
Surr: 4-Bromofluorobenzene	105			72-125	%REC	1	7/29/2012 19:28
Surr: Dibromofluoromethane	114			71-125	%REC	1	7/29/2012 19:28
Surr: Toluene-d8	89.3			75-125	%REC	1	7/29/2012 19:28

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 14-Aug-12

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Sample ID: WG-1620-FB9-20120725
Collection Date: 7/25/2012 05:00 PM

Work Order: 12071248
Lab ID: 12071248-06
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES		Method: SW8270		Prep: SW3510 / 7/29/12		Analyst: LG	
1,2-Diphenylhydrazine	U		0.000050	0.00020	mg/L	1	7/31/2012 10:09
2,4-Dimethylphenol	U		0.000050	0.00020	mg/L	1	7/31/2012 10:09
2,4-Dinitrotoluene	U		0.000050	0.00020	mg/L	1	7/31/2012 10:09
2,6-Dinitrotoluene	U		0.000060	0.00020	mg/L	1	7/31/2012 10:09
2-Chloronaphthalene	U		0.000050	0.00020	mg/L	1	7/31/2012 10:09
2-Methylnaphthalene	U		0.000050	0.00020	mg/L	1	7/31/2012 10:09
4,6-Dinitro-2-methylphenol	U		0.000080	0.00020	mg/L	1	7/31/2012 10:09
4-Nitrophenol	U		0.000050	0.0010	mg/L	1	7/31/2012 10:09
Acenaphthene	U		0.000050	0.00020	mg/L	1	7/31/2012 10:09
Acenaphthylene	U		0.000050	0.00020	mg/L	1	7/31/2012 10:09
Anthracene	U		0.000050	0.00020	mg/L	1	7/31/2012 10:09
Benz(a)anthracene	U		0.000050	0.00020	mg/L	1	7/31/2012 10:09
Benzo(a)pyrene	U		0.000050	0.00020	mg/L	1	7/31/2012 10:09
Bis(2-chloroethoxy)methane	U		0.000050	0.00020	mg/L	1	7/31/2012 10:09
Bis(2-ethylhexyl)phthalate	0.00011	J	0.00010	0.00020	mg/L	1	7/31/2012 10:09
Chrysene	U		0.000050	0.00020	mg/L	1	7/31/2012 10:09
Dibenzofuran	U		0.000050	0.00020	mg/L	1	7/31/2012 10:09
Di-n-butyl phthalate	0.000089	J	0.000050	0.00020	mg/L	1	7/31/2012 10:09
Fluoranthene	U		0.000050	0.00020	mg/L	1	7/31/2012 10:09
Fluorene	U		0.000050	0.00020	mg/L	1	7/31/2012 10:09
Naphthalene	U		0.000050	0.00020	mg/L	1	7/31/2012 10:09
Nitrobenzene	U		0.000050	0.00020	mg/L	1	7/31/2012 10:09
N-Nitrosodiphenylamine	U		0.000050	0.00020	mg/L	1	7/31/2012 10:09
Pentachlorophenol	U		0.000050	0.00020	mg/L	1	7/31/2012 10:09
Phenanthrene	U		0.000050	0.00020	mg/L	1	7/31/2012 10:09
Phenol	U		0.000050	0.00020	mg/L	1	7/31/2012 10:09
Pyrene	U		0.000050	0.00020	mg/L	1	7/31/2012 10:09
Surr: 2,4,6-Tribromophenol	73.3			34-129	%REC	1	7/31/2012 10:09
Surr: 2-Fluorobiphenyl	66.2			40-125	%REC	1	7/31/2012 10:09
Surr: 2-Fluorophenol	69.5			20-120	%REC	1	7/31/2012 10:09
Surr: 4-Terphenyl-d14	108			40-135	%REC	1	7/31/2012 10:09
Surr: Nitrobenzene-d5	80.4			41-120	%REC	1	7/31/2012 10:09
Surr: Phenol-d6	73.8			20-120	%REC	1	7/31/2012 10:09
VOLATILES		Method: SW8260		Analyst: PC			
1,2-Dichloroethane	U		0.00050	0.0050	mg/L	1	7/28/2012 04:22
Benzene	U		0.00050	0.0050	mg/L	1	7/28/2012 04:22
Chlorobenzene	U		0.00050	0.0050	mg/L	1	7/28/2012 04:22
Ethylbenzene	U		0.00050	0.0050	mg/L	1	7/28/2012 04:22

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 14-Aug-12

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Sample ID: WG-1620-FB9-20120725
Collection Date: 7/25/2012 05:00 PM

Work Order: 12071248
Lab ID: 12071248-06
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
Methylene chloride	U		0.0010	0.010	mg/L	1	7/28/2012 04:22
Toluene	U		0.00050	0.0050	mg/L	1	7/28/2012 04:22
Vinyl chloride	U		0.00050	0.0020	mg/L	1	7/28/2012 04:22
Xylenes, Total	U		0.0015	0.015	mg/L	1	7/28/2012 04:22
Surr: 1,2-Dichloroethane-d4	104			70-125	%REC	1	7/28/2012 04:22
Surr: 4-Bromofluorobenzene	102			72-125	%REC	1	7/28/2012 04:22
Surr: Dibromofluoromethane	106			71-125	%REC	1	7/28/2012 04:22
Surr: Toluene-d8	96.2			75-125	%REC	1	7/28/2012 04:22

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 14-Aug-12

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Sample ID: WG-1620-MW49A-20120726
Collection Date: 7/26/2012 07:00 AM

Work Order: 12071248
Lab ID: 12071248-07
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270	Prep: SW3510 / 7/29/12	Analyst: LG		
1,2-Diphenylhydrazine	U		0.000050	0.00020	mg/L	1	7/31/2012 10:50
2,4-Dimethylphenol	0.037		0.00050	0.0020	mg/L	10	8/2/2012 00:11
2,4-Dinitrotoluene	U		0.000050	0.00020	mg/L	1	7/31/2012 10:50
2,6-Dinitrotoluene	U		0.000060	0.00020	mg/L	1	7/31/2012 10:50
2-Chloronaphthalene	U		0.000050	0.00020	mg/L	1	7/31/2012 10:50
2-Methylnaphthalene	U		0.000050	0.00020	mg/L	1	7/31/2012 10:50
4,6-Dinitro-2-methylphenol	U		0.000080	0.00020	mg/L	1	7/31/2012 10:50
4-Nitrophenol	U		0.000050	0.0010	mg/L	1	7/31/2012 10:50
Acenaphthene	0.033		0.00050	0.0020	mg/L	10	8/2/2012 00:11
Acenaphthylene	0.00062		0.000050	0.00020	mg/L	1	7/31/2012 10:50
Anthracene	0.00076		0.000050	0.00020	mg/L	1	7/31/2012 10:50
Benz(a)anthracene	U		0.000050	0.00020	mg/L	1	7/31/2012 10:50
Benzo(a)pyrene	U		0.000050	0.00020	mg/L	1	7/31/2012 10:50
Bis(2-chloroethoxy)methane	U		0.000050	0.00020	mg/L	1	7/31/2012 10:50
Bis(2-ethylhexyl)phthalate	0.00010	J	0.00010	0.00020	mg/L	1	7/31/2012 10:50
Chrysene	U		0.000050	0.00020	mg/L	1	7/31/2012 10:50
Dibenzofuran	0.0099		0.000050	0.00020	mg/L	1	7/31/2012 10:50
Di-n-butyl phthalate	U		0.000050	0.00020	mg/L	1	7/31/2012 10:50
Fluoranthene	0.0018		0.000050	0.00020	mg/L	1	7/31/2012 10:50
Fluorene	0.015		0.00050	0.0020	mg/L	10	8/2/2012 00:11
Naphthalene	U		0.000050	0.00020	mg/L	1	7/31/2012 10:50
Nitrobenzene	U		0.000050	0.00020	mg/L	1	7/31/2012 10:50
N-Nitrosodiphenylamine	U		0.000050	0.00020	mg/L	1	7/31/2012 10:50
Pentachlorophenol	U		0.000050	0.00020	mg/L	1	7/31/2012 10:50
Phenanthrene	0.0020		0.000050	0.00020	mg/L	1	7/31/2012 10:50
Phenol	0.00023		0.000050	0.00020	mg/L	1	7/31/2012 10:50
Pyrene	0.00095		0.000050	0.00020	mg/L	1	7/31/2012 10:50
Surr: 2,4,6-Tribromophenol	101			34-129	%REC	1	7/31/2012 10:50
Surr: 2,4,6-Tribromophenol	78.0			34-129	%REC	10	8/2/2012 00:11
Surr: 2-Fluorobiphenyl	85.6			40-125	%REC	1	7/31/2012 10:50
Surr: 2-Fluorobiphenyl	83.7			40-125	%REC	10	8/2/2012 00:11
Surr: 2-Fluorophenol	90.1			20-120	%REC	1	7/31/2012 10:50
Surr: 2-Fluorophenol	75.9			20-120	%REC	10	8/2/2012 00:11
Surr: 4-Terphenyl-d14	84.7			40-135	%REC	1	7/31/2012 10:50
Surr: 4-Terphenyl-d14	86.0			40-135	%REC	10	8/2/2012 00:11
Surr: Nitrobenzene-d5	71.7			41-120	%REC	1	7/31/2012 10:50
Surr: Nitrobenzene-d5	92.4			41-120	%REC	10	8/2/2012 00:11
Surr: Phenol-d6	84.7			20-120	%REC	1	7/31/2012 10:50

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 14-Aug-12

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Sample ID: WG-1620-MW49A-20120726
Collection Date: 7/26/2012 07:00 AM

Work Order: 12071248
Lab ID: 12071248-07
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
Surr: Phenol-d6	83.5			20-120	%REC	10	8/2/2012 00:11
VOLATILES			Method: SW8260			Analyst: PC	
1,2-Dichloroethane	U		0.00050	0.0050	mg/L	1	7/29/2012 21:40
Benzene	0.042		0.00050	0.0050	mg/L	1	7/29/2012 21:40
Chlorobenzene	0.0037	J	0.00050	0.0050	mg/L	1	7/29/2012 21:40
Ethylbenzene	0.037		0.00050	0.0050	mg/L	1	7/29/2012 21:40
Methylene chloride	U		0.0010	0.010	mg/L	1	7/29/2012 21:40
Toluene	0.031		0.00050	0.0050	mg/L	1	7/29/2012 21:40
Vinyl chloride	U		0.00050	0.0020	mg/L	1	7/29/2012 21:40
Xylenes, Total	0.082		0.0015	0.015	mg/L	1	7/29/2012 21:40
Surr: 1,2-Dichloroethane-d4	117			70-125	%REC	1	7/29/2012 21:40
Surr: 4-Bromofluorobenzene	101			72-125	%REC	1	7/29/2012 21:40
Surr: Dibromofluoromethane	112			71-125	%REC	1	7/29/2012 21:40
Surr: Toluene-d8	87.3			75-125	%REC	1	7/29/2012 21:40

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 14-Aug-12

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Sample ID: WG-1620-MW21C-20120726
Collection Date: 7/26/2012 08:40 AM

Work Order: 12071248
Lab ID: 12071248-08
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270	Prep: SW3510 / 7/29/12	Analyst: LG		
1,2-Diphenylhydrazine	U		0.000050	0.00020	mg/L	1	7/31/2012 11:31
2,4-Dimethylphenol	U		0.000050	0.00020	mg/L	1	7/31/2012 11:31
2,4-Dinitrotoluene	U		0.000050	0.00020	mg/L	1	7/31/2012 11:31
2,6-Dinitrotoluene	U		0.000060	0.00020	mg/L	1	7/31/2012 11:31
2-Chloronaphthalene	U		0.000050	0.00020	mg/L	1	7/31/2012 11:31
2-Methylnaphthalene	U		0.000050	0.00020	mg/L	1	7/31/2012 11:31
4,6-Dinitro-2-methylphenol	U		0.000080	0.00020	mg/L	1	7/31/2012 11:31
4-Nitrophenol	U		0.000050	0.0010	mg/L	1	7/31/2012 11:31
Acenaphthene	U		0.000050	0.00020	mg/L	1	7/31/2012 11:31
Acenaphthylene	U		0.000050	0.00020	mg/L	1	7/31/2012 11:31
Anthracene	U		0.000050	0.00020	mg/L	1	7/31/2012 11:31
Benz(a)anthracene	U		0.000050	0.00020	mg/L	1	7/31/2012 11:31
Benzo(a)pyrene	U		0.000050	0.00020	mg/L	1	7/31/2012 11:31
Bis(2-chloroethoxy)methane	U		0.000050	0.00020	mg/L	1	7/31/2012 11:31
Bis(2-ethylhexyl)phthalate	U		0.00010	0.00020	mg/L	1	7/31/2012 11:31
Chrysene	U		0.000050	0.00020	mg/L	1	7/31/2012 11:31
Dibenzofuran	U		0.000050	0.00020	mg/L	1	7/31/2012 11:31
Di-n-butyl phthalate	0.000072	J	0.000050	0.00020	mg/L	1	7/31/2012 11:31
Fluoranthene	U		0.000050	0.00020	mg/L	1	7/31/2012 11:31
Fluorene	U		0.000050	0.00020	mg/L	1	7/31/2012 11:31
Naphthalene	U		0.000050	0.00020	mg/L	1	7/31/2012 11:31
Nitrobenzene	U		0.000050	0.00020	mg/L	1	7/31/2012 11:31
N-Nitrosodiphenylamine	U		0.000050	0.00020	mg/L	1	7/31/2012 11:31
Pentachlorophenol	U		0.000050	0.00020	mg/L	1	7/31/2012 11:31
Phenanthrene	U		0.000050	0.00020	mg/L	1	7/31/2012 11:31
Phenol	U		0.000050	0.00020	mg/L	1	7/31/2012 11:31
Pyrene	U		0.000050	0.00020	mg/L	1	7/31/2012 11:31
Surr: 2,4,6-Tribromophenol	51.2			34-129	%REC	1	7/31/2012 11:31
Surr: 2-Fluorobiphenyl	58.2			40-125	%REC	1	7/31/2012 11:31
Surr: 2-Fluorophenol	49.7			20-120	%REC	1	7/31/2012 11:31
Surr: 4-Terphenyl-d14	108			40-135	%REC	1	7/31/2012 11:31
Surr: Nitrobenzene-d5	61.2			41-120	%REC	1	7/31/2012 11:31
Surr: Phenol-d6	57.3			20-120	%REC	1	7/31/2012 11:31
VOLATILES			Method: SW8260	Analyst: PC			
1,2-Dichloroethane	U		0.00050	0.0050	mg/L	1	7/28/2012 09:30
Benzene	U		0.00050	0.0050	mg/L	1	7/28/2012 09:30
Chlorobenzene	U		0.00050	0.0050	mg/L	1	7/28/2012 09:30
Ethylbenzene	U		0.00050	0.0050	mg/L	1	7/28/2012 09:30

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 14-Aug-12

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Sample ID: WG-1620-MW21C-20120726
Collection Date: 7/26/2012 08:40 AM

Work Order: 12071248
Lab ID: 12071248-08
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
Methylene chloride	U		0.0010	0.010	mg/L	1	7/28/2012 09:30
Toluene	U		0.00050	0.0050	mg/L	1	7/28/2012 09:30
Xylenes, Total	U		0.0015	0.015	mg/L	1	7/28/2012 09:30
Surr: 1,2-Dichloroethane-d4	118			70-125	%REC	1	7/28/2012 09:30
Surr: 4-Bromofluorobenzene	102			72-125	%REC	1	7/28/2012 09:30
Surr: Dibromofluoromethane	111			71-125	%REC	1	7/28/2012 09:30
Surr: Toluene-d8	90.6			75-125	%REC	1	7/28/2012 09:30

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 14-Aug-12

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Sample ID: WG-1620-FD5-20120726
Collection Date: 7/26/2012 08:40 AM

Work Order: 12071248
Lab ID: 12071248-09
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	ML	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270	Prep: SW3510 / 7/29/12	Analyst: LG		
1,2-Diphenylhydrazine	U		0.000050	0.00020	mg/L	1	7/31/2012 11:51
2,4-Dimethylphenol	U		0.000050	0.00020	mg/L	1	7/31/2012 11:51
2,4-Dinitrotoluene	U		0.000050	0.00020	mg/L	1	7/31/2012 11:51
2,6-Dinitrotoluene	U		0.000060	0.00020	mg/L	1	7/31/2012 11:51
2-Chloronaphthalene	U		0.000050	0.00020	mg/L	1	7/31/2012 11:51
2-Methylnaphthalene	U		0.000050	0.00020	mg/L	1	7/31/2012 11:51
4,6-Dinitro-2-methylphenol	U		0.000080	0.00020	mg/L	1	7/31/2012 11:51
4-Nitrophenol	U		0.000050	0.0010	mg/L	1	7/31/2012 11:51
Acenaphthene	U		0.000050	0.00020	mg/L	1	7/31/2012 11:51
Acenaphthylene	U		0.000050	0.00020	mg/L	1	7/31/2012 11:51
Anthracene	U		0.000050	0.00020	mg/L	1	7/31/2012 11:51
Benz(a)anthracene	U		0.000050	0.00020	mg/L	1	7/31/2012 11:51
Benzo(a)pyrene	U		0.000050	0.00020	mg/L	1	7/31/2012 11:51
Bis(2-chloroethoxy)methane	U		0.000050	0.00020	mg/L	1	7/31/2012 11:51
Bis(2-ethylhexyl)phthalate	U		0.00010	0.00020	mg/L	1	7/31/2012 11:51
Chrysene	U		0.000050	0.00020	mg/L	1	7/31/2012 11:51
Dibenzofuran	U		0.000050	0.00020	mg/L	1	7/31/2012 11:51
Di-n-butyl phthalate	0.000051	J	0.000050	0.00020	mg/L	1	7/31/2012 11:51
Fluoranthene	U		0.000050	0.00020	mg/L	1	7/31/2012 11:51
Fluorene	U		0.000050	0.00020	mg/L	1	7/31/2012 11:51
Naphthalene	U		0.000050	0.00020	mg/L	1	7/31/2012 11:51
Nitrobenzene	U		0.000050	0.00020	mg/L	1	7/31/2012 11:51
N-Nitrosodiphenylamine	U		0.000050	0.00020	mg/L	1	7/31/2012 11:51
Pentachlorophenol	U		0.000050	0.00020	mg/L	1	7/31/2012 11:51
Phenanthrene	U		0.000050	0.00020	mg/L	1	7/31/2012 11:51
Phenol	U		0.000050	0.00020	mg/L	1	7/31/2012 11:51
Pyrene	U		0.000050	0.00020	mg/L	1	7/31/2012 11:51
Surr: 2,4,6-Tribromophenol	63.6			34-129	%REC	1	7/31/2012 11:51
Surr: 2-Fluorobiphenyl	57.6			40-125	%REC	1	7/31/2012 11:51
Surr: 2-Fluorophenol	54.0			20-120	%REC	1	7/31/2012 11:51
Surr: 4-Terphenyl-d14	78.5			40-135	%REC	1	7/31/2012 11:51
Surr: Nitrobenzene-d5	62.8			41-120	%REC	1	7/31/2012 11:51
Surr: Phenol-d6	56.6			20-120	%REC	1	7/31/2012 11:51
VOLATILES			Method: SW8260	Analyst: PC			
1,2-Dichloroethane	U		0.00050	0.0050	mg/L	1	7/29/2012 19:55
Benzene	U		0.00050	0.0050	mg/L	1	7/29/2012 19:55
Chlorobenzene	U		0.00050	0.0050	mg/L	1	7/29/2012 19:55
Ethylbenzene	U		0.00050	0.0050	mg/L	1	7/29/2012 19:55

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 14-Aug-12

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Sample ID: WG-1620-FD5-20120726
Collection Date: 7/26/2012 08:40 AM

Work Order: 12071248
Lab ID: 12071248-09
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
Methylene chloride	U		0.0010	0.010	mg/L	1	7/29/2012 19:55
Toluene	U		0.00050	0.0050	mg/L	1	7/29/2012 19:55
Xylenes, Total	U		0.0015	0.015	mg/L	1	7/29/2012 19:55
Surr: 1,2-Dichloroethane-d4	108			70-125	%REC	1	7/29/2012 19:55
Surr: 4-Bromofluorobenzene	102			72-125	%REC	1	7/29/2012 19:55
Surr: Dibromofluoromethane	107			71-125	%REC	1	7/29/2012 19:55
Surr: Toluene-d8	88.9			75-125	%REC	1	7/29/2012 19:55

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 14-Aug-12

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Sample ID: WG-1620-TB-20120726
Collection Date: 7/26/2012 07:05 AM

Work Order: 12071248
Lab ID: 12071248-10
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
VOLATILES			Method: SW8260			Analyst: PC	
1,2-Dichloroethane	U		0.00050	0.0050	mg/L	1	7/28/2012 04:48
Benzene	U		0.00050	0.0050	mg/L	1	7/28/2012 04:48
Chlorobenzene	U		0.00050	0.0050	mg/L	1	7/28/2012 04:48
Ethylbenzene	U		0.00050	0.0050	mg/L	1	7/28/2012 04:48
Methylene chloride	U		0.0010	0.010	mg/L	1	7/28/2012 04:48
Toluene	U		0.00050	0.0050	mg/L	1	7/28/2012 04:48
Vinyl chloride	U		0.00050	0.0020	mg/L	1	7/28/2012 04:48
Xylenes, Total	U		0.0015	0.015	mg/L	1	7/28/2012 04:48
Surr: 1,2-Dichloroethane-d4	110			70-125	%REC	1	7/28/2012 04:48
Surr: 4-Bromofluorobenzene	104			72-125	%REC	1	7/28/2012 04:48
Surr: Dibromofluoromethane	111			71-125	%REC	1	7/28/2012 04:48
Surr: Toluene-d8	91.6			75-125	%REC	1	7/28/2012 04:48

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 14-Aug-12

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Sample ID: WG-1620-P11-20120726
Collection Date: 7/26/2012 09:45 AM

Work Order: 12071248
Lab ID: 12071248-11
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270	Prep: SW3510 / 7/29/12	Analyst: LG		
1,2-Diphenylhydrazine	U		0.000050	0.00020	mg/L	1	7/31/2012 12:12
2,4-Dimethylphenol	U		0.000050	0.00020	mg/L	1	7/31/2012 12:12
2,4-Dinitrotoluene	U		0.000050	0.00020	mg/L	1	7/31/2012 12:12
2,6-Dinitrotoluene	U		0.000060	0.00020	mg/L	1	7/31/2012 12:12
2-Chloronaphthalene	U		0.000050	0.00020	mg/L	1	7/31/2012 12:12
2-Methylnaphthalene	0.000052	J	0.000050	0.00020	mg/L	1	7/31/2012 12:12
4,6-Dinitro-2-methylphenol	U		0.000080	0.00020	mg/L	1	7/31/2012 12:12
4-Nitrophenol	U		0.000050	0.0010	mg/L	1	7/31/2012 12:12
Acenaphthene	0.018		0.00025	0.0010	mg/L	5	8/2/2012 00:31
Acenaphthylene	0.00010	J	0.000050	0.00020	mg/L	1	7/31/2012 12:12
Anthracene	0.00039		0.000050	0.00020	mg/L	1	7/31/2012 12:12
Benz(a)anthracene	U		0.000050	0.00020	mg/L	1	7/31/2012 12:12
Benzo(a)pyrene	U		0.000050	0.00020	mg/L	1	7/31/2012 12:12
Bis(2-chloroethoxy)methane	U		0.000050	0.00020	mg/L	1	7/31/2012 12:12
Bis(2-ethylhexyl)phthalate	0.00021		0.00010	0.00020	mg/L	1	7/31/2012 12:12
Chrysene	U		0.000050	0.00020	mg/L	1	7/31/2012 12:12
Dibenzofuran	0.00059		0.000050	0.00020	mg/L	1	7/31/2012 12:12
Di-n-butyl phthalate	U		0.000050	0.00020	mg/L	1	7/31/2012 12:12
Fluoranthene	0.00048		0.000050	0.00020	mg/L	1	7/31/2012 12:12
Fluorene	0.0044		0.000050	0.00020	mg/L	1	7/31/2012 12:12
Naphthalene	0.00026		0.000050	0.00020	mg/L	1	7/31/2012 12:12
Nitrobenzene	U		0.000050	0.00020	mg/L	1	7/31/2012 12:12
N-Nitrosodiphenylamine	U		0.000050	0.00020	mg/L	1	7/31/2012 12:12
Pentachlorophenol	U		0.000050	0.00020	mg/L	1	7/31/2012 12:12
Phenanthrene	0.00055		0.000050	0.00020	mg/L	1	7/31/2012 12:12
Phenol	U		0.000050	0.00020	mg/L	1	7/31/2012 12:12
Pyrene	0.00023		0.000050	0.00020	mg/L	1	7/31/2012 12:12
Surr: 2,4,6-Tribromophenol	85.7			34-129	%REC	1	7/31/2012 12:12
Surr: 2,4,6-Tribromophenol	73.0			34-129	%REC	5	8/2/2012 00:31
Surr: 2-Fluorobiphenyl	70.9			40-125	%REC	1	7/31/2012 12:12
Surr: 2-Fluorobiphenyl	66.2			40-125	%REC	5	8/2/2012 00:31
Surr: 2-Fluorophenol	72.6			20-120	%REC	1	7/31/2012 12:12
Surr: 2-Fluorophenol	78.4			20-120	%REC	5	8/2/2012 00:31
Surr: 4-Terphenyl-d14	90.1			40-135	%REC	1	7/31/2012 12:12
Surr: 4-Terphenyl-d14	89.2			40-135	%REC	5	8/2/2012 00:31
Surr: Nitrobenzene-d5	73.7			41-120	%REC	1	7/31/2012 12:12
Surr: Nitrobenzene-d5	83.3			41-120	%REC	5	8/2/2012 00:31
Surr: Phenol-d6	68.7			20-120	%REC	1	7/31/2012 12:12

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 14-Aug-12

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Sample ID: WG-1620-P11-20120726
Collection Date: 7/26/2012 09:45 AM

Work Order: 12071248
Lab ID: 12071248-11
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	MQL	Units	Dilution Factor	Date Analyzed
<i>Surr: Phenol-d6</i>	82.0			20-120	%REC	5	8/2/2012 00:31
VOLATILES	Method: SW8260						Analyst: PC
1,2-Dichloroethane	U		0.00050	0.0050	mg/L	1	7/29/2012 20:21
Benzene	U		0.00050	0.0050	mg/L	1	7/29/2012 20:21
Chlorobenzene	U		0.00050	0.0050	mg/L	1	7/29/2012 20:21
Ethylbenzene	U		0.00050	0.0050	mg/L	1	7/29/2012 20:21
Methylene chloride	U		0.0010	0.010	mg/L	1	7/29/2012 20:21
Toluene	U		0.00050	0.0050	mg/L	1	7/29/2012 20:21
Xylenes, Total	U		0.0015	0.015	mg/L	1	7/29/2012 20:21
<i>Surr: 1,2-Dichloroethane-d4</i>	108			70-125	%REC	1	7/29/2012 20:21
<i>Surr: 4-Bromofluorobenzene</i>	98.6			72-125	%REC	1	7/29/2012 20:21
<i>Surr: Dibromofluoromethane</i>	113			71-125	%REC	1	7/29/2012 20:21
<i>Surr: Toluene-d8</i>	90.0			75-125	%REC	1	7/29/2012 20:21

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 14-Aug-12

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Sample ID: WG-1620-MW62B-20120726
Collection Date: 7/26/2012 11:25 AM

Work Order: 12071248
Lab ID: 12071248-12
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270	Prep: SW3510 / 7/29/12	Analyst: LG		
1,2-Diphenylhydrazine	U		0.000050	0.00020	mg/L	1	8/2/2012 00:51
2,4-Dimethylphenol	U		0.000050	0.00020	mg/L	1	8/2/2012 00:51
2,4-Dinitrotoluene	U		0.000050	0.00020	mg/L	1	8/2/2012 00:51
2,6-Dinitrotoluene	U		0.000060	0.00020	mg/L	1	8/2/2012 00:51
2-Chloronaphthalene	U		0.000050	0.00020	mg/L	1	8/2/2012 00:51
2-Methylnaphthalene	0.000060	J	0.000050	0.00020	mg/L	1	8/2/2012 00:51
4,6-Dinitro-2-methylphenol	U		0.000080	0.00020	mg/L	1	8/2/2012 00:51
4-Nitrophenol	U		0.000050	0.0010	mg/L	1	8/2/2012 00:51
Acenaphthene	0.085		0.0010	0.0040	mg/L	20	8/2/2012 01:12
Acenaphthylene	0.00084		0.000050	0.00020	mg/L	1	8/2/2012 00:51
Anthracene	0.0032		0.000050	0.00020	mg/L	1	8/2/2012 00:51
Benz(a)anthracene	U		0.000050	0.00020	mg/L	1	8/2/2012 00:51
Benzo(a)pyrene	U		0.000050	0.00020	mg/L	1	8/2/2012 00:51
Bis(2-chloroethoxy)methane	U		0.000050	0.00020	mg/L	1	8/2/2012 00:51
Bis(2-ethylhexyl)phthalate	0.00013	J	0.00010	0.00020	mg/L	1	8/2/2012 00:51
Chrysene	U		0.000050	0.00020	mg/L	1	8/2/2012 00:51
Dibenzofuran	0.038		0.0010	0.0040	mg/L	20	8/2/2012 01:12
Di-n-butyl phthalate	0.000078	J	0.000050	0.00020	mg/L	1	8/2/2012 00:51
Fluoranthene	0.0040		0.000050	0.00020	mg/L	1	8/2/2012 00:51
Fluorene	0.0087		0.000050	0.00020	mg/L	1	8/2/2012 00:51
Naphthalene	0.0056		0.000050	0.00020	mg/L	1	8/2/2012 00:51
Nitrobenzene	U		0.000050	0.00020	mg/L	1	8/2/2012 00:51
N-Nitrosodiphenylamine	U		0.000050	0.00020	mg/L	1	8/2/2012 00:51
Pentachlorophenol	U		0.000050	0.00020	mg/L	1	8/2/2012 00:51
Phenanthrene	0.0026		0.000050	0.00020	mg/L	1	8/2/2012 00:51
Phenol	U		0.000050	0.00020	mg/L	1	8/2/2012 00:51
Pyrene	0.0021		0.000050	0.00020	mg/L	1	8/2/2012 00:51
Surr: 2,4,6-Tribromophenol	88.3			34-129	%REC	1	8/2/2012 00:51
Surr: 2,4,6-Tribromophenol	75.4	J		34-129	%REC	20	8/2/2012 01:12
Surr: 2-Fluorobiphenyl	73.6			40-125	%REC	1	8/2/2012 00:51
Surr: 2-Fluorobiphenyl	86.1			40-125	%REC	20	8/2/2012 01:12
Surr: 2-Fluorophenol	93.4			20-120	%REC	1	8/2/2012 00:51
Surr: 2-Fluorophenol	89.3			20-120	%REC	20	8/2/2012 01:12
Surr: 4-Terphenyl-d14	101			40-135	%REC	1	8/2/2012 00:51
Surr: 4-Terphenyl-d14	108			40-135	%REC	20	8/2/2012 01:12
Surr: Nitrobenzene-d5	86.3			41-120	%REC	1	8/2/2012 00:51
Surr: Nitrobenzene-d5	106			41-120	%REC	20	8/2/2012 01:12
Surr: Phenol-d6	79.0			20-120	%REC	1	8/2/2012 00:51

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 14-Aug-12

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Sample ID: WG-1620-MW62B-20120726
Collection Date: 7/26/2012 11:25 AM

Work Order: 12071248
Lab ID: 12071248-12
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
Surr: Phenol-d6	77.7	J		20-120	%REC	20	8/2/2012 01:12
VOLATILES		Method: SW8260				Analyst: PC	
1,2-Dichloroethane		U	0.00050	0.0050	mg/L	1	7/29/2012 20:48
Benzene	0.0020	J	0.00050	0.0050	mg/L	1	7/29/2012 20:48
Chlorobenzene		U	0.00050	0.0050	mg/L	1	7/29/2012 20:48
Ethylbenzene	0.0021	J	0.00050	0.0050	mg/L	1	7/29/2012 20:48
Methylene chloride		U	0.0010	0.010	mg/L	1	7/29/2012 20:48
Toluene	0.0012	J	0.00050	0.0050	mg/L	1	7/29/2012 20:48
Xylenes, Total	0.0053	J	0.0015	0.015	mg/L	1	7/29/2012 20:48
Surr: 1,2-Dichloroethane-d4	123			70-125	%REC	1	7/29/2012 20:48
Surr: 4-Bromofluorobenzene	102			72-125	%REC	1	7/29/2012 20:48
Surr: Dibromofluoromethane	119			71-125	%REC	1	7/29/2012 20:48
Surr: Toluene-d8	90.7			75-125	%REC	1	7/29/2012 20:48

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 14-Aug-12

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Sample ID: WG-1620-TW41B-20120726
Collection Date: 7/26/2012 12:10 PM

Work Order: 12071248
Lab ID: 12071248-13
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270	Prep: SW3510 / 7/29/12	Analyst: LG		
1,2-Diphenylhydrazine	U		0.000050	0.00020	mg/L	1	8/2/2012 01:32
2,4-Dimethylphenol	0.0014		0.000050	0.00020	mg/L	1	8/2/2012 01:32
2,4-Dinitrotoluene	U		0.000050	0.00020	mg/L	1	8/2/2012 01:32
2,6-Dinitrotoluene	U		0.000060	0.00020	mg/L	1	8/2/2012 01:32
2-Chloronaphthalene	U		0.000050	0.00020	mg/L	1	8/2/2012 01:32
2-Methylnaphthalene	0.00010	J	0.000050	0.00020	mg/L	1	8/2/2012 01:32
4,6-Dinitro-2-methylphenol	U		0.000080	0.00020	mg/L	1	8/2/2012 01:32
4-Nitrophenol	U		0.000050	0.0010	mg/L	1	8/2/2012 01:32
Acenaphthene	0.039		0.00050	0.0020	mg/L	10	8/2/2012 01:52
Acenaphthylene	0.00041		0.000050	0.00020	mg/L	1	8/2/2012 01:32
Anthracene	0.0011		0.000050	0.00020	mg/L	1	8/2/2012 01:32
Benz(a)anthracene	U		0.000050	0.00020	mg/L	1	8/2/2012 01:32
Benzo(a)pyrene	U		0.000050	0.00020	mg/L	1	8/2/2012 01:32
Bis(2-chloroethoxy)methane	U		0.000050	0.00020	mg/L	1	8/2/2012 01:32
Bis(2-ethylhexyl)phthalate	U		0.00010	0.00020	mg/L	1	8/2/2012 01:32
Chrysene	U		0.000050	0.00020	mg/L	1	8/2/2012 01:32
Dibenzofuran	0.016		0.00050	0.0020	mg/L	10	8/2/2012 01:52
Di-n-butyl phthalate	0.00010	J	0.000050	0.00020	mg/L	1	8/2/2012 01:32
Fluoranthene	0.0015		0.000050	0.00020	mg/L	1	8/2/2012 01:32
Fluorene	0.0054		0.000050	0.00020	mg/L	1	8/2/2012 01:32
Naphthalene	0.0013		0.000050	0.00020	mg/L	1	8/2/2012 01:32
Nitrobenzene	U		0.000050	0.00020	mg/L	1	8/2/2012 01:32
N-Nitrosodiphenylamine	U		0.000050	0.00020	mg/L	1	8/2/2012 01:32
Pentachlorophenol	U		0.000050	0.00020	mg/L	1	8/2/2012 01:32
Phenanthrene	U		0.000050	0.00020	mg/L	1	8/2/2012 01:32
Phenol	0.0016		0.000050	0.00020	mg/L	1	8/2/2012 01:32
Pyrene	0.00066		0.000050	0.00020	mg/L	1	8/2/2012 01:32
Surr: 2,4,6-Tribromophenol	102			34-129	%REC	1	8/2/2012 01:32
Surr: 2,4,6-Tribromophenol	99.1			34-129	%REC	10	8/2/2012 01:52
Surr: 2-Fluorobiphenyl	79.7			40-125	%REC	1	8/2/2012 01:32
Surr: 2-Fluorobiphenyl	78.8			40-125	%REC	10	8/2/2012 01:52
Surr: 2-Fluorophenol	74.0			20-120	%REC	1	8/2/2012 01:32
Surr: 2-Fluorophenol	82.0			20-120	%REC	10	8/2/2012 01:52
Surr: 4-Terphenyl-d14	99.3			40-135	%REC	1	8/2/2012 01:32
Surr: 4-Terphenyl-d14	99.4			40-135	%REC	10	8/2/2012 01:52
Surr: Nitrobenzene-d5	87.1			41-120	%REC	1	8/2/2012 01:32
Surr: Nitrobenzene-d5	105			41-120	%REC	10	8/2/2012 01:52
Surr: Phenol-d6	79.3			20-120	%REC	1	8/2/2012 01:32

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 14-Aug-12

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Sample ID: WG-1620-TW41B-20120726
Collection Date: 7/26/2012 12:10 PM

Work Order: 12071248
Lab ID: 12071248-13
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
<i>Surr: Phenol-d6</i>	80.8			20-120	%REC	10	8/2/2012 01:52
VOLATILES		Method: SW8260				Analyst: PC	
1,2-Dichloroethane	U		0.00050	0.0050	mg/L	1	7/29/2012 21:14
Benzene	U		0.00050	0.0050	mg/L	1	7/29/2012 21:14
Chlorobenzene	U		0.00050	0.0050	mg/L	1	7/29/2012 21:14
Ethylbenzene	U		0.00050	0.0050	mg/L	1	7/29/2012 21:14
Methylene chloride	U		0.0010	0.010	mg/L	1	7/29/2012 21:14
Toluene	U		0.00050	0.0050	mg/L	1	7/29/2012 21:14
Xylenes, Total	U		0.0015	0.015	mg/L	1	7/29/2012 21:14
<i>Surr: 1,2-Dichloroethane-d4</i>	111			70-125	%REC	1	7/29/2012 21:14
<i>Surr: 4-Bromofluorobenzene</i>	102			72-125	%REC	1	7/29/2012 21:14
<i>Surr: Dibromofluoromethane</i>	110			71-125	%REC	1	7/29/2012 21:14
<i>Surr: Toluene-d8</i>	88.7			75-125	%REC	1	7/29/2012 21:14

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 14-Aug-12

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Sample ID: WG-1620-MW75B-20120726
Collection Date: 7/26/2012 01:50 PM

Work Order: 12071248
Lab ID: 12071248-14
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270	Prep: SW3510 / 7/29/12	Analyst: LG		
1,2-Diphenylhydrazine		U	0.00050	0.0020	mg/L	10	8/2/2012 21:21
2,4-Dimethylphenol	0.64		0.0050	0.020	mg/L	100	8/2/2012 04:55
2,4-Dinitrotoluene		U	0.00050	0.0020	mg/L	10	8/2/2012 21:21
2,6-Dinitrotoluene		U	0.00060	0.0020	mg/L	10	8/2/2012 21:21
2-Chloronaphthalene		U	0.00050	0.0020	mg/L	10	8/2/2012 21:21
2-Methylnaphthalene	0.60		0.0050	0.020	mg/L	100	8/2/2012 04:55
4,6-Dinitro-2-methylphenol		U	0.00080	0.0020	mg/L	10	8/2/2012 21:21
4-Nitrophenol		U	0.00050	0.010	mg/L	10	8/2/2012 21:21
Acenaphthene	0.26		0.0050	0.020	mg/L	100	8/2/2012 04:55
Acenaphthylene	0.0058		0.00050	0.0020	mg/L	10	8/2/2012 21:21
Anthracene	0.045		0.00050	0.0020	mg/L	10	8/2/2012 21:21
Benz(a)anthracene	0.0047		0.00050	0.0020	mg/L	10	8/2/2012 21:21
Benzo(a)pyrene	0.0013	J	0.00050	0.0020	mg/L	10	8/2/2012 21:21
Bis(2-chloroethoxy)methane		U	0.00050	0.0020	mg/L	10	8/2/2012 21:21
Bis(2-ethylhexyl)phthalate		U	0.0010	0.0020	mg/L	10	8/2/2012 21:21
Chrysene	0.0042		0.00050	0.0020	mg/L	10	8/2/2012 21:21
Dibenzofuran	0.23		0.0050	0.020	mg/L	100	8/2/2012 04:55
Di-n-butyl phthalate		U	0.00050	0.0020	mg/L	10	8/2/2012 21:21
Fluoranthene	0.040		0.00050	0.0020	mg/L	10	8/2/2012 21:21
Fluorene	0.17		0.0050	0.020	mg/L	100	8/2/2012 04:55
Naphthalene	9.3		0.10	0.40	mg/L	2000	8/2/2012 22:01
Nitrobenzene		U	0.00050	0.0020	mg/L	10	8/2/2012 21:21
N-Nitrosodiphenylamine		U	0.00050	0.0020	mg/L	10	8/2/2012 21:21
Pentachlorophenol		U	0.00050	0.0020	mg/L	10	8/2/2012 21:21
Phenanthrene	0.27		0.0050	0.020	mg/L	100	8/2/2012 04:55
Phenol	0.0027		0.00050	0.0020	mg/L	10	8/2/2012 21:21
Pyrene	0.026		0.00050	0.0020	mg/L	10	8/2/2012 21:21
Surr: 2,4,6-Tribromophenol	108	J		34-129	%REC	100	8/2/2012 04:55
Surr: 2,4,6-Tribromophenol	106			34-129	%REC	10	8/2/2012 21:21
Surr: 2,4,6-Tribromophenol	0	S		34-129	%REC	2000	8/2/2012 22:01
Surr: 2-Fluorobiphenyl	89.3	J		40-125	%REC	100	8/2/2012 04:55
Surr: 2-Fluorobiphenyl	89.0			40-125	%REC	10	8/2/2012 21:21
Surr: 2-Fluorobiphenyl	0	S		40-125	%REC	2000	8/2/2012 22:01
Surr: 2-Fluorophenol	112	J		20-120	%REC	100	8/2/2012 04:55
Surr: 2-Fluorophenol	110			20-120	%REC	10	8/2/2012 21:21
Surr: 2-Fluorophenol	0	S		20-120	%REC	2000	8/2/2012 22:01
Surr: 4-Terphenyl-d14	78.4	J		40-135	%REC	100	8/2/2012 04:55
Surr: 4-Terphenyl-d14	91.5			40-135	%REC	10	8/2/2012 21:21

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 14-Aug-12

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Sample ID: WG-1620-MW75B-20120726
Collection Date: 7/26/2012 01:50 PM

Work Order: 12071248
Lab ID: 12071248-14
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
Surr: 4-Terphenyl-d14	0	S		40-135	%REC	2000	8/2/2012 22:01
Surr: Nitrobenzene-d5	116	J		41-120	%REC	100	8/2/2012 04:55
Surr: Nitrobenzene-d5	87.8			41-120	%REC	10	8/2/2012 21:21
Surr: Nitrobenzene-d5	0	S		41-120	%REC	2000	8/2/2012 22:01
Surr: Phenol-d6	100	J		20-120	%REC	100	8/2/2012 04:55
Surr: Phenol-d6	93.0			20-120	%REC	10	8/2/2012 21:21
Surr: Phenol-d6	0	S		20-120	%REC	2000	8/2/2012 22:01

VOLATILES	Method: SW8260					Analyst: PC	
1,2-Dichloroethane	U		0.0025	0.025	mg/L	5	7/29/2012 22:07
Benzene	0.85		0.0025	0.025	mg/L	5	7/29/2012 22:07
Chlorobenzene	U		0.0025	0.025	mg/L	5	7/29/2012 22:07
Ethylbenzene	0.10		0.0025	0.025	mg/L	5	7/29/2012 22:07
Methylene chloride	U		0.0050	0.050	mg/L	5	7/29/2012 22:07
Toluene	0.50		0.0025	0.025	mg/L	5	7/29/2012 22:07
Xylenes, Total	0.33		0.0075	0.075	mg/L	5	7/29/2012 22:07
Surr: 1,2-Dichloroethane-d4	110			70-125	%REC	5	7/29/2012 22:07
Surr: 4-Bromofluorobenzene	108			72-125	%REC	5	7/29/2012 22:07
Surr: Dibromofluoromethane	112			71-125	%REC	5	7/29/2012 22:07
Surr: Toluene-d8	93.4			75-125	%REC	5	7/29/2012 22:07

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 14-Aug-12

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Sample ID: WG-1620-FB10-20120726
Collection Date: 7/26/2012 01:45 PM

Work Order: 12071248
Lab ID: 12071248-15
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270	Prep: SW3510 / 7/29/12	Analyst: LG		
1,2-Diphenylhydrazine	0.000080	J	0.000050	0.00020	mg/L	1	8/1/2012 01:27
2,4-Dimethylphenol		U	0.000050	0.00020	mg/L	1	8/1/2012 01:27
2,4-Dinitrotoluene		U	0.000050	0.00020	mg/L	1	8/1/2012 01:27
2,6-Dinitrotoluene		U	0.000060	0.00020	mg/L	1	8/1/2012 01:27
2-Chloronaphthalene		U	0.000050	0.00020	mg/L	1	8/1/2012 01:27
2-Methylnaphthalene	0.000094	J	0.000050	0.00020	mg/L	1	8/1/2012 01:27
4,6-Dinitro-2-methylphenol		U	0.000080	0.00020	mg/L	1	8/1/2012 01:27
4-Nitrophenol		U	0.000050	0.0010	mg/L	1	8/1/2012 01:27
Acenaphthene		U	0.000050	0.00020	mg/L	1	8/1/2012 01:27
Acenaphthylene		U	0.000050	0.00020	mg/L	1	8/1/2012 01:27
Anthracene		U	0.000050	0.00020	mg/L	1	8/1/2012 01:27
Benz(a)anthracene		U	0.000050	0.00020	mg/L	1	8/1/2012 01:27
Benzo(a)pyrene		U	0.000050	0.00020	mg/L	1	8/1/2012 01:27
Bis(2-chloroethoxy)methane		U	0.000050	0.00020	mg/L	1	8/1/2012 01:27
Bis(2-ethylhexyl)phthalate		U	0.00010	0.00020	mg/L	1	8/1/2012 01:27
Chrysene		U	0.000050	0.00020	mg/L	1	8/1/2012 01:27
Dibenzofuran		U	0.000050	0.00020	mg/L	1	8/1/2012 01:27
Di-n-butyl phthalate	0.000050	J	0.000050	0.00020	mg/L	1	8/1/2012 01:27
Fluoranthene		U	0.000050	0.00020	mg/L	1	8/1/2012 01:27
Fluorene		U	0.000050	0.00020	mg/L	1	8/1/2012 01:27
Naphthalene	0.000080		0.000050	0.00020	mg/L	1	8/1/2012 01:27
Nitrobenzene		U	0.000050	0.00020	mg/L	1	8/1/2012 01:27
N-Nitrosodiphenylamine		U	0.000050	0.00020	mg/L	1	8/1/2012 01:27
Pentachlorophenol		U	0.000050	0.00020	mg/L	1	8/1/2012 01:27
Phenanthrene		U	0.000050	0.00020	mg/L	1	8/1/2012 01:27
Phenol	0.000081	J	0.000050	0.00020	mg/L	1	8/1/2012 01:27
Pyrene		U	0.000050	0.00020	mg/L	1	8/1/2012 01:27
Surr: 2,4,6-Tribromophenol	67.8			34-129	%REC	1	8/1/2012 01:27
Surr: 2-Fluorobiphenyl	80.4			40-125	%REC	1	8/1/2012 01:27
Surr: 2-Fluorophenol	63.0			20-120	%REC	1	8/1/2012 01:27
Surr: 4-Terphenyl-d14	107			40-135	%REC	1	8/1/2012 01:27
Surr: Nitrobenzene-d5	73.4			41-120	%REC	1	8/1/2012 01:27
Surr: Phenol-d6	56.9			20-120	%REC	1	8/1/2012 01:27

VOLATILES			Method: SW8260	Analyst: PC			
1,2-Dichloroethane		U	0.00050	0.0050	mg/L	1	7/28/2012 05:14
Benzene		U	0.00050	0.0050	mg/L	1	7/28/2012 05:14
Chlorobenzene		U	0.00050	0.0050	mg/L	1	7/28/2012 05:14
Ethylbenzene		U	0.00050	0.0050	mg/L	1	7/28/2012 05:14

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 14-Aug-12

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Sample ID: WG-1620-FB10-20120726
Collection Date: 7/26/2012 01:45 PM

Work Order: 12071248
Lab ID: 12071248-15
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
Methylene chloride	U		0.0010	0.010	mg/L	1	7/28/2012 05:14
Toluene	U		0.00050	0.0050	mg/L	1	7/28/2012 05:14
Vinyl chloride	U		0.00050	0.0020	mg/L	1	7/28/2012 05:14
Xylenes, Total	U		0.0015	0.015	mg/L	1	7/28/2012 05:14
Surr: 1,2-Dichloroethane-d4	111			70-125	%REC	1	7/28/2012 05:14
Surr: 4-Bromofluorobenzene	101			72-125	%REC	1	7/28/2012 05:14
Surr: Dibromofluoromethane	114			71-125	%REC	1	7/28/2012 05:14
Surr: Toluene-d8	91.4			75-125	%REC	1	7/28/2012 05:14

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 14-Aug-12

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Sample ID: WG-1620-MW74B-20120726
Collection Date: 7/26/2012 03:20 PM

Work Order: 12071248
Lab ID: 12071248-16
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	ML	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270	Prep: SW3510 / 7/29/12	Analyst: LG		
1,2-Diphenylhydrazine	U		0.00050	0.0020	mg/L	10	8/2/2012 02:33
2,4-Dimethylphenol	41		0.25	1.0	mg/L	5000	8/2/2012 21:41
2,4-Dinitrotoluene	U		0.00050	0.0020	mg/L	10	8/2/2012 02:33
2,6-Dinitrotoluene	U		0.00060	0.0020	mg/L	10	8/2/2012 02:33
2-Chloronaphthalene	U		0.00050	0.0020	mg/L	10	8/2/2012 02:33
2-Methylnaphthalene	0.43		0.0050	0.020	mg/L	100	8/2/2012 05:15
4,6-Dinitro-2-methylphenol	U		0.00080	0.0020	mg/L	10	8/2/2012 02:33
4-Nitrophenol	U		0.00050	0.010	mg/L	10	8/2/2012 02:33
Acenaphthene	0.21		0.0050	0.020	mg/L	100	8/2/2012 05:15
Acenaphthylene	0.0062		0.00050	0.0020	mg/L	10	8/2/2012 02:33
Anthracene	0.024		0.00050	0.0020	mg/L	10	8/2/2012 02:33
Benz(a)anthracene	0.0022		0.00050	0.0020	mg/L	10	8/2/2012 02:33
Benzo(a)pyrene	0.00085	J	0.00050	0.0020	mg/L	10	8/2/2012 02:33
Bis(2-chloroethoxy)methane	U		0.00050	0.0020	mg/L	10	8/2/2012 02:33
Bis(2-ethylhexyl)phthalate	U		0.0010	0.0020	mg/L	10	8/2/2012 02:33
Chrysene	0.0018	J	0.00050	0.0020	mg/L	10	8/2/2012 02:33
Dibenzofuran	0.19		0.0050	0.020	mg/L	100	8/2/2012 05:15
Di-n-butyl phthalate	U		0.00050	0.0020	mg/L	10	8/2/2012 02:33
Fluoranthene	0.018		0.00050	0.0020	mg/L	10	8/2/2012 02:33
Fluorene	0.14		0.0050	0.020	mg/L	100	8/2/2012 05:15
Naphthalene	10		0.25	1.0	mg/L	5000	8/2/2012 21:41
Nitrobenzene	U		0.00050	0.0020	mg/L	10	8/2/2012 02:33
N-Nitrosodiphenylamine	U		0.00050	0.0020	mg/L	10	8/2/2012 02:33
Pentachlorophenol	U		0.00050	0.0020	mg/L	10	8/2/2012 02:33
Phenanthrene	0.15		0.0050	0.020	mg/L	100	8/2/2012 05:15
Phenol	38		0.25	1.0	mg/L	5000	8/2/2012 21:41
Pyrene	0.010		0.00050	0.0020	mg/L	10	8/2/2012 02:33
Surr: 2,4,6-Tribromophenol	86.0			34-129	%REC	10	8/2/2012 02:33
Surr: 2,4,6-Tribromophenol	69.9	J		34-129	%REC	100	8/2/2012 05:15
Surr: 2,4,6-Tribromophenol	0	S		34-129	%REC	5000	8/2/2012 21:41
Surr: 2-Fluorobiphenyl	91.2			40-125	%REC	10	8/2/2012 02:33
Surr: 2-Fluorobiphenyl	103	J		40-125	%REC	100	8/2/2012 05:15
Surr: 2-Fluorobiphenyl	0	S		40-125	%REC	5000	8/2/2012 21:41
Surr: 2-Fluorophenol	82.1			20-120	%REC	10	8/2/2012 02:33
Surr: 2-Fluorophenol	110	J		20-120	%REC	100	8/2/2012 05:15
Surr: 2-Fluorophenol	0	S		20-120	%REC	5000	8/2/2012 21:41
Surr: 4-Terphenyl-d14	76.0			40-135	%REC	10	8/2/2012 02:33
Surr: 4-Terphenyl-d14	110	J		40-135	%REC	100	8/2/2012 05:15

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 14-Aug-12

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Sample ID: WG-1620-MW74B-20120726
Collection Date: 7/26/2012 03:20 PM

Work Order: 12071248
Lab ID: 12071248-16
Matrix: GROUNDWATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
Surr: 4-Terphenyl-d14	0	S		40-135	%REC	5000	8/2/2012 21:41
Surr: Nitrobenzene-d5	77.1			41-120	%REC	10	8/2/2012 02:33
Surr: Nitrobenzene-d5	42.9	J		41-120	%REC	100	8/2/2012 05:15
Surr: Phenol-d6	45.2			20-120	%REC	10	8/2/2012 02:33
Surr: Phenol-d6	109	J		20-120	%REC	100	8/2/2012 05:15

VOLATILES		Method: SW8260				Analyst: PC	
1,2-Dichloroethane	U	0.0050	0.050	mg/L	10	7/29/2012 22:33	
Benzene	0.71	0.0050	0.050	mg/L	10	7/29/2012 22:33	
Chlorobenzene	U	0.0050	0.050	mg/L	10	7/29/2012 22:33	
Ethylbenzene	0.14	0.0050	0.050	mg/L	10	7/29/2012 22:33	
Methylene chloride	U	0.010	0.10	mg/L	10	7/29/2012 22:33	
Toluene	0.56	0.0050	0.050	mg/L	10	7/29/2012 22:33	
Xylenes, Total	0.38	0.015	0.15	mg/L	10	7/29/2012 22:33	
Surr: 1,2-Dichloroethane-d4	119		70-125	%REC	10	7/29/2012 22:33	
Surr: 4-Bromofluorobenzene	107		72-125	%REC	10	7/29/2012 22:33	
Surr: Dibromofluoromethane	116		71-125	%REC	10	7/29/2012 22:33	
Surr: Toluene-d8	93.6		75-125	%REC	10	7/29/2012 22:33	

Note: See Qualifiers Page for a list of qualifiers and their explanation.

WorkOrder: 12071248
 InstrumentID: SV-4
 Test Code: 8270_LOW_W
 Test Number: SW8270
 Test Name: Low-Level Semivolatiles

**METHOD DETECTION /
 REPORTING LIMITS**

Matrix: Aqueous Units: mg/L

Type	Analyte	CAS	DCS	MDL	Unadjusted MQL
A	1,2-Diphenylhydrazine	122-66-7	0.000096	0.000050	0.00020
A	2,4-Dimethylphenol	105-67-9	0.000073	0.000050	0.00020
A	2,4-Dinitrotoluene	121-14-2	0.00010	0.000050	0.00020
A	2,6-Dinitrotoluene	606-20-2	0.000063	0.000060	0.00020
A	2-Chloronaphthalene	91-58-7	0.00010	0.000050	0.00020
A	2-Methylnaphthalene	91-57-6	0.000083	0.000050	0.00020
A	4,6-Dinitro-2-methylphenol	534-52-1	0.000013	0.000080	0.00020
A	4-Nitrophenol	100-02-7	0.000082	0.000050	0.0010
A	Acenaphthene	83-32-9	0.000094	0.000050	0.00020
A	Acenaphthylene	208-96-8	0.000079	0.000050	0.00020
A	Anthracene	120-12-7	0.00010	0.000050	0.00020
A	Benz(a)anthracene	56-55-3	0.000083	0.000050	0.00020
A	Benzo(a)pyrene	50-32-8	0.000071	0.000050	0.00020
A	Bis(2-chloroethoxy)methane	111-91-1	0.00011	0.000050	0.00020
A	Bis(2-ethylhexyl)phthalate	117-81-7	0.000087	0.00010	0.00020
A	Chrysene	218-01-9	0.000089	0.000050	0.00020
A	Dibenzofuran	132-64-9	0.000093	0.000050	0.00020
A	Di-n-butyl phthalate	84-74-2	0.000094	0.000050	0.00020
A	Fluoranthene	206-44-0	0.000075	0.000050	0.00020
A	Fluorene	86-73-7	0.000076	0.000050	0.00020
A	Naphthalene	91-20-3	0.00012	0.000050	0.00020
A	Nitrobenzene	98-95-3	0.00011	0.000050	0.00020
A	N-Nitrosodiphenylamine	86-30-6	0.000098	0.000050	0.00020
A	Pentachlorophenol	87-86-5	0.0000074	0.000050	0.00020
A	Phenanthrene	85-01-8	0.000095	0.000050	0.00020
A	Phenol	108-95-2	0.00011	0.000050	0.00020
A	Pyrene	129-00-0	0.000090	0.000050	0.00020
S	Surr: 2,4,6-Tribromophenol	118-79-6	0	0	0.00020
S	Surr: 2-Fluorobiphenyl	321-60-8	0	0	0.00020
S	Surr: 2-Fluorophenol	367-12-4	0	0	0.00020
S	Surr: 4-Terphenyl-d14	1718-51-0	0	0	0.00020
S	Surr: Nitrobenzene-d5	4165-60-0	0	0	0.00020
S	Surr: Phenol-d6	13127-88-3	0	0	0.00020

WorkOrder: 12071248
InstrumentID: VOA1
Test Code: 8260_W
Test Number: SW8260
Test Name: Volatiles

**METHOD DETECTION /
 REPORTING LIMITS**

Matrix: Aqueous **Units:** mg/L

Type	Analyte	CAS	DCS	MDL	Unadjusted MQL
A	1,2-Dichloroethane	107-06-2	0.0010	0.00050	0.0050
A	Benzene	71-43-2	0.0011	0.00050	0.0050
A	Chlorobenzene	108-90-7	0.0012	0.00050	0.0050
A	Ethylbenzene	100-41-4	0.00084	0.00050	0.0050
A	Methylene chloride	75-09-2	0.0012	0.0010	0.010
A	Toluene	108-88-3	0.0012	0.00050	0.0050
A	Vinyl chloride	75-01-4	0.0011	0.00050	0.0020
M	Xylenes, Total	1330-20-7	0.0030	0.0015	0.015
S	Surr: 1,2-Dichloroethane-d4	17060-07-0	0	0	0.0050
S	Surr: 4-Bromofluorobenzene	460-00-4	0	0	0.0050
S	Surr: Dibromofluoromethane	1868-53-7	0	0	0.0050
S	Surr: Toluene-d8	2037-26-5	0	0	0.0050

ALS Environmental

Date: 14-Aug-12

Client: Pastor, Behling & Wheeler, LLC
Work Order: 12071248
Project: UPRR Houston Wood GW

QC BATCH REPORT

Batch ID: **63002** Instrument ID **SV-4** Method: **SW8270**

MBLK	Sample ID: SBLKW2-120729-63002	Units: µg/L					Analysis Date: 7/30/2012 12:28 PM				
Client ID:	Run ID: SV-4_120730C	SeqNo: 2886656			Prep Date: 7/29/2012		DF: 1				
Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
1,2-Diphenylhydrazine	U	0.20									
2,4-Dimethylphenol	U	0.20									
2,4-Dinitrotoluene	U	0.20									
2,6-Dinitrotoluene	U	0.20									
2-Chloronaphthalene	U	0.20									
2-Methylnaphthalene	U	0.20									
4,6-Dinitro-2-methylphenol	U	0.20									
4-Nitrophenol	U	1.0									
Acenaphthene	U	0.20									
Acenaphthylene	U	0.20									
Anthracene	U	0.20									
Benz(a)anthracene	U	0.20									
Benzo(a)pyrene	U	0.20									
Bis(2-chloroethoxy)methane	U	0.20									
Bis(2-ethylhexyl)phthalate	U	0.20									
Chrysene	U	0.20									
Dibenzofuran	U	0.20									
Di-n-butyl phthalate	U	0.20									
Fluoranthene	U	0.20									
Fluorene	U	0.20									
Naphthalene	U	0.20									
Nitrobenzene	U	0.20									
N-Nitrosodiphenylamine	U	0.20									
Pentachlorophenol	U	0.20									
Phenanthrene	U	0.20									
Phenol	U	0.20									
Pyrene	U	0.20									
<i>Surr: 2,4,6-Tribromophenol</i>	3.826	0.20	5	0	76.5	34-129	0				
<i>Surr: 2-Fluorobiphenyl</i>	3.934	0.20	5	0	78.7	40-125	0				
<i>Surr: 2-Fluorophenol</i>	3.561	0.20	5	0	71.2	20-120	0				
<i>Surr: 4-Terphenyl-d14</i>	4.06	0.20	5	0	81.2	40-135	0				
<i>Surr: Nitrobenzene-d5</i>	3.923	0.20	5	0	78.5	41-120	0				
<i>Surr: Phenol-d6</i>	3.568	0.20	5	0	71.4	20-120	0				

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Pastor, Behling & Wheeler, LLC
 Work Order: 12071248
 Project: UPRR Houston Wood GW

QC BATCH REPORT

Batch ID: **63002** Instrument ID **SV-4** Method: **SW8270**

LCS Sample ID: **SLCSW2-120729-63002** Units: **µg/L** Analysis Date: **7/30/2012 12:49 PM**

Client ID: Run ID: **SV-4_120730C** SeqNo: **2886657** Prep Date: **7/29/2012** DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
2,4-Dimethylphenol	3.909	0.20	5	0	78.2	35-120	0			
2,4-Dinitrotoluene	4.304	0.20	5	0	86.1	50-122	0			
2,6-Dinitrotoluene	4.191	0.20	5	0	83.8	50-120	0			
2-Chloronaphthalene	4.498	0.20	5	0	90	50-120	0			
2-Methylnaphthalene	3.566	0.20	5	0	71.3	50-120	0			
4,6-Dinitro-2-methylphenol	3.302	0.20	5	0	66	25-121	0			
4-Nitrophenol	4.611	1.0	5	0	92.2	30-130	0			
Acenaphthene	3.985	0.20	5	0	79.7	45-120	0			
Acenaphthylene	4.145	0.20	5	0	82.9	47-120	0			
Anthracene	4.517	0.20	5	0	90.3	45-120	0			
Benz(a)anthracene	3.574	0.20	5	0	71.5	40-120	0			
Benzo(a)pyrene	4.12	0.20	5	0	82.4	45-120	0			
Bis(2-chloroethoxy)methane	4.106	0.20	5	0	82.1	45-120	0			
Bis(2-ethylhexyl)phthalate	4.228	0.20	5	0	84.6	40-139	0			
Chrysene	5.031	0.20	5	0	101	43-120	0			
Dibenzofuran	4.437	0.20	5	0	88.7	50-120	0			
Di-n-butyl phthalate	3.589	0.20	5	0	71.8	45-123	0			
Fluoranthene	3.51	0.20	5	0	70.2	45-125	0			
Fluorene	4.503	0.20	5	0	90.1	49-120	0			
Naphthalene	4.505	0.20	5	0	90.1	45-120	0			
Nitrobenzene	4.328	0.20	5	0	86.6	44-120	0			
N-Nitrosodiphenylamine	3.658	0.20	5	0	73.2	40-125	0			
Pentachlorophenol	2.855	0.20	5	0	57.1	19-121	0			
Phenanthrene	4.217	0.20	5	0	84.3	45-121	0			
Phenol	3.864	0.20	5	0	77.3	20-124	0			
Pyrene	3.487	0.20	5	0	69.7	40-130	0			
Surr: 2,4,6-Tribromophenol	5.269	0.20	5	0	105	34-129	0			
Surr: 2-Fluorobiphenyl	5.099	0.20	5	0	102	40-125	0			
Surr: 2-Fluorophenol	3.708	0.20	5	0	74.2	20-120	0			
Surr: 4-Terphenyl-d14	3.976	0.20	5	0	79.5	40-135	0			
Surr: Nitrobenzene-d5	4.249	0.20	5	0	85	41-120	0			
Surr: Phenol-d6	4.107	0.20	5	0	82.1	20-120	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Pastor, Behling & Wheeler, LLC
 Work Order: 12071248
 Project: UPRR Houston Wood GW

QC BATCH REPORT

Batch ID: **63002** Instrument ID **SV-4** Method: **SW8270**

LCSD	Sample ID: SLCSDW2-120729-63002	Units: µg/L					Analysis Date: 7/30/2012 01:10 PM				
Client ID:	Run ID: SV-4_120730C	SeqNo: 2886658			Prep Date: 7/29/2012		DF: 1				
Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
2,4-Dimethylphenol	3.493	0.20	5	0	69.9	35-120	3.909	11.2	20		
2,4-Dinitrotoluene	4.098	0.20	5	0	82	50-122	4.304	4.91	20		
2,6-Dinitrotoluene	4.203	0.20	5	0	84.1	50-120	4.191	0.277	20		
2-Chloronaphthalene	4.403	0.20	5	0	88.1	50-120	4.498	2.14	20		
2-Methylnaphthalene	4.88	0.20	5	0	97.6	50-120	3.566	31.1	20	R	
4,6-Dinitro-2-methylphenol	3.522	0.20	5	0	70.4	25-121	3.302	6.44	20		
4-Nitrophenol	4.68	1.0	5	0	93.6	30-130	4.611	1.47	20		
Acenaphthene	3.963	0.20	5	0	79.3	45-120	3.985	0.561	20		
Acenaphthylene	3.963	0.20	5	0	79.3	47-120	4.145	4.48	20		
Anthracene	3.826	0.20	5	0	76.5	45-120	4.517	16.6	20		
Benz(a)anthracene	3.432	0.20	5	0	68.6	40-120	3.574	4.05	20		
Benzo(a)pyrene	4.256	0.20	5	0	85.1	45-120	4.12	3.26	20		
Bis(2-chloroethoxy)methane	3.492	0.20	5	0	69.8	45-120	4.106	16.2	20		
Bis(2-ethylhexyl)phthalate	4.098	0.20	5	0	82	40-139	4.228	3.13	20		
Chrysene	4.315	0.20	5	0	86.3	43-120	5.031	15.3	20		
Dibenzofuran	3.97	0.20	5	0	79.4	50-120	4.437	11.1	20		
Di-n-butyl phthalate	4.235	0.20	5	0	84.7	45-123	3.589	16.5	20		
Fluoranthene	4.142	0.20	5	0	82.8	45-125	3.51	16.5	20		
Fluorene	3.644	0.20	5	0	72.9	49-120	4.503	21.1	20	R	
Naphthalene	4.192	0.20	5	0	83.8	45-120	4.505	7.21	20		
Nitrobenzene	4.422	0.20	5	0	88.4	44-120	4.328	2.14	20		
N-Nitrosodiphenylamine	3.94	0.20	5	0	78.8	40-125	3.658	7.44	20		
Pentachlorophenol	2.724	0.20	5	0	54.5	19-121	2.855	4.67	20		
Phenanthrene	3.988	0.20	5	0	79.8	45-121	4.217	5.57	20		
Phenol	3.855	0.20	5	0	77.1	20-124	3.864	0.221	20		
Pyrene	3.803	0.20	5	0	76.1	40-130	3.487	8.66	20		
<i>Surr: 2,4,6-Tribromophenol</i>	4.026	0.20	5	0	80.5	34-129	5.269	26.7	0		
<i>Surr: 2-Fluorobiphenyl</i>	4.868	0.20	5	0	97.4	40-125	5.099	4.63	0		
<i>Surr: 2-Fluorophenol</i>	3.796	0.20	5	0	75.9	20-120	3.708	2.34	0		
<i>Surr: 4-Terphenyl-d14</i>	4.576	0.20	5	0	91.5	40-135	3.976	14	0		
<i>Surr: Nitrobenzene-d5</i>	4.586	0.20	5	0	91.7	41-120	4.249	7.63	0		
<i>Surr: Phenol-d6</i>	4.06	0.20	5	0	81.2	20-120	4.107	1.13	0		

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Pastor, Behling & Wheeler, LLC
Work Order: 12071248
Project: UPRR Houston Wood GW

QC BATCH REPORT

Batch ID: **63002** Instrument ID **SV-4** Method: **SW8270**

MS		Sample ID: 12071310-03BMS			Units: µg/L		Analysis Date: 7/31/2012 04:24 AM			
Client ID:		Run ID: SV-4_120730C			SeqNo: 2886660		Prep Date: 7/29/2012		DF: 1	
Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Diphenylhydrazine	4.963	0.20	5	0	99.3	39-127	0			
2,4-Dimethylphenol	4.199	0.20	5	0	84	35-120	0			
2,4-Dinitrotoluene	4.871	0.20	5	0	97.4	50-122	0			
2,6-Dinitrotoluene	4.19	0.20	5	0	83.8	50-120	0			
2-Chloronaphthalene	3.969	0.20	5	0	79.4	50-120	0			
2-Methylnaphthalene	4.556	0.20	5	0	91.1	50-120	0			
4,6-Dinitro-2-methylphenol	3.998	0.20	5	0	80	25-121	0			
4-Nitrophenol	5.518	1.0	5	0	110	30-130	0			
Acenaphthene	4.282	0.20	5	0	85.6	45-120	0			
Acenaphthylene	4.377	0.20	5	0	87.5	47-120	0			
Anthracene	4.68	0.20	5	0	93.6	45-120	0			
Benz(a)anthracene	4.588	0.20	5	0	91.8	40-120	0			
Benzo(a)pyrene	4.563	0.20	5	0	91.3	45-120	0			
Bis(2-chloroethoxy)methane	4.392	0.20	5	0	87.8	45-120	0			
Bis(2-ethylhexyl)phthalate	5.17	0.20	5	0.2699	98	40-139	0			
Chrysene	4.53	0.20	5	0	90.6	43-120	0			
Dibenzofuran	4.552	0.20	5	0	91	50-120	0			
Di-n-butyl phthalate	5.156	0.20	5	0	103	45-123	0			
Fluoranthene	5.011	0.20	5	0	100	45-125	0			
Fluorene	4.655	0.20	5	0	93.1	49-120	0			
Naphthalene	4.616	0.20	5	0	92.3	45-120	0			
Nitrobenzene	4.193	0.20	5	0	83.9	44-120	0			
N-Nitrosodiphenylamine	4.843	0.20	5	0	96.9	40-125	0			
Pentachlorophenol	3.286	0.20	5	0	65.7	19-121	0			
Phenanthrene	4.796	0.20	5	0.1551	92.8	45-121	0			
Phenol	4.216	0.20	5	0	84.3	20-124	0			
Pyrene	4.91	0.20	5	0	98.2	40-130	0			
<i>Surr: 2,4,6-Tribromophenol</i>	4.345	0.20	5	0	86.9	34-129	0			
<i>Surr: 2-Fluorobiphenyl</i>	4.179	0.20	5	0	83.6	40-125	0			
<i>Surr: 2-Fluorophenol</i>	3.887	0.20	5	0	77.7	20-120	0			
<i>Surr: 4-Terphenyl-d14</i>	5.402	0.20	5	0	108	40-135	0			
<i>Surr: Nitrobenzene-d5</i>	4.272	0.20	5	0	85.4	41-120	0			
<i>Surr: Phenol-d6</i>	4.253	0.20	5	0	85.1	20-120	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Pastor, Behling & Wheeler, LLC
Work Order: 12071248
Project: UPRR Houston Wood GW

QC BATCH REPORT

Batch ID: **63002** Instrument ID **SV-4** Method: **SW8270**

MS		Sample ID: 12071248-01BMS			Units: µg/L		Analysis Date: 7/31/2012 03:23 AM			
Client ID: WG-1620-MW27C-20120725		Run ID: SV-4_120730C			SeqNo: 2886667		Prep Date: 7/29/2012		DF: 1	
Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Diphenylhydrazine	3.478	0.20	5	0	69.6	39-127	0			
2,4-Dimethylphenol	3.17	0.20	5	0	63.4	35-120	0			
2,4-Dinitrotoluene	3.708	0.20	5	0	74.2	50-122	0			
2,6-Dinitrotoluene	4.292	0.20	5	0	85.8	50-120	0			
2-Chloronaphthalene	3.325	0.20	5	0	66.5	50-120	0			
2-Methylnaphthalene	2.834	0.20	5	0	56.7	50-120	0			
4,6-Dinitro-2-methylphenol	2.968	0.20	5	0	59.4	25-121	0			
4-Nitrophenol	4.763	1.0	5	0	95.3	30-130	0			
Acenaphthene	3.509	0.20	5	0	70.2	45-120	0			
Acenaphthylene	3.664	0.20	5	0	73.3	47-120	0			
Anthracene	3.768	0.20	5	0	75.4	45-120	0			
Benz(a)anthracene	3.577	0.20	5	0	71.5	40-120	0			
Benzo(a)pyrene	3.452	0.20	5	0	69	45-120	0			
Bis(2-chloroethoxy)methane	3.058	0.20	5	0	61.2	45-120	0			
Bis(2-ethylhexyl)phthalate	4.202	0.20	5	0.2072	79.9	40-139	0			
Chrysene	3.413	0.20	5	0	68.3	43-120	0			
Dibenzofuran	3.836	0.20	5	0	76.7	50-120	0			
Di-n-butyl phthalate	4.213	0.20	5	0.05452	83.2	45-123	0			
Fluoranthene	4.052	0.20	5	0	81	45-125	0			
Fluorene	3.814	0.20	5	0	76.3	49-120	0			
Naphthalene	3.733	0.20	5	0.1929	70.8	45-120	0			
Nitrobenzene	3.128	0.20	5	0	62.6	44-120	0			
N-Nitrosodiphenylamine	3.545	0.20	5	0	70.9	40-125	0			
Pentachlorophenol	2.692	0.20	5	0	53.8	19-121	0			
Phenanthrene	3.726	0.20	5	0	74.5	45-121	0			
Phenol	3.483	0.20	5	0	69.7	20-124	0			
Pyrene	3.635	0.20	5	0	72.7	40-130	0			
<i>Surr: 2,4,6-Tribromophenol</i>	4.161	0.20	5	0	83.2	34-129	0			
<i>Surr: 2-Fluorobiphenyl</i>	3.75	0.20	5	0	75	40-125	0			
<i>Surr: 2-Fluorophenol</i>	3.282	0.20	5	0	65.6	20-120	0			
<i>Surr: 4-Terphenyl-d14</i>	4.157	0.20	5	0	83.1	40-135	0			
<i>Surr: Nitrobenzene-d5</i>	3.164	0.20	5	0	63.3	41-120	0			
<i>Surr: Phenol-d6</i>	3.388	0.20	5	0	67.8	20-120	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Pastor, Behling & Wheeler, LLC
 Work Order: 12071248
 Project: UPRR Houston Wood GW

QC BATCH REPORT

Batch ID: **63002** Instrument ID **SV-4** Method: **SW8270**

MSD		Sample ID: 12071310-03BMSD			Units: µg/L			Analysis Date: 7/31/2012 04:44 AM		
Client ID:		Run ID: SV-4_120730C			SeqNo: 2886661		Prep Date: 7/29/2012		DF: 1	
Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Diphenylhydrazine	4.751	0.20	5	0	95	39-127	4.963	4.35	20	
2,4-Dimethylphenol	4.322	0.20	5	0	86.4	35-120	4.199	2.88	20	
2,4-Dinitrotoluene	4.77	0.20	5	0	95.4	50-122	4.871	2.1	20	
2,6-Dinitrotoluene	4.349	0.20	5	0	87	50-120	4.19	3.71	20	
2-Chloronaphthalene	4.333	0.20	5	0	86.7	50-120	3.969	8.77	20	
2-Methylnaphthalene	4.273	0.20	5	0	85.5	50-120	4.556	6.41	20	
4,6-Dinitro-2-methylphenol	3.922	0.20	5	0	78.4	25-121	3.998	1.93	20	
4-Nitrophenol	5.291	1.0	5	0	106	30-130	5.518	4.19	20	
Acenaphthene	4.162	0.20	5	0	83.2	45-120	4.282	2.84	20	
Acenaphthylene	4.521	0.20	5	0	90.4	47-120	4.377	3.23	20	
Anthracene	4.672	0.20	5	0	93.4	45-120	4.68	0.17	20	
Benz(a)anthracene	4.335	0.20	5	0	86.7	40-120	4.588	5.68	20	
Benzo(a)pyrene	4.963	0.20	5	0	99.3	45-120	4.563	8.41	20	
Bis(2-chloroethoxy)methane	4.123	0.20	5	0	82.5	45-120	4.392	6.3	20	
Bis(2-ethylhexyl)phthalate	4.99	0.20	5	0.2699	94.4	40-139	5.17	3.55	20	
Chrysene	4.041	0.20	5	0	80.8	43-120	4.53	11.4	20	
Dibenzofuran	4.706	0.20	5	0	94.1	50-120	4.552	3.32	20	
Di-n-butyl phthalate	5.363	0.20	5	0	107	45-123	5.156	3.93	20	
Fluoranthene	4.874	0.20	5	0	97.5	45-125	5.011	2.76	20	
Fluorene	4.84	0.20	5	0	96.8	49-120	4.655	3.9	20	
Naphthalene	4.652	0.20	5	0	93	45-120	4.616	0.791	20	
Nitrobenzene	4.339	0.20	5	0	86.8	44-120	4.193	3.41	20	
N-Nitrosodiphenylamine	4.459	0.20	5	0	89.2	40-125	4.843	8.26	20	
Pentachlorophenol	3.195	0.20	5	0	63.9	19-121	3.286	2.82	20	
Phenanthrene	4.88	0.20	5	0.1551	94.5	45-121	4.796	1.73	20	
Phenol	3.648	0.20	5	0	73	20-124	4.216	14.4	20	
Pyrene	4.39	0.20	5	0	87.8	40-130	4.91	11.2	20	
Surr: 2,4,6-Tribromophenol	4.947	0.20	5	0	98.9	34-129	4.345	13	0	
Surr: 2-Fluorobiphenyl	4.249	0.20	5	0	85	40-125	4.179	1.65	0	
Surr: 2-Fluorophenol	3.351	0.20	5	0	67	20-120	3.887	14.8	0	
Surr: 4-Terphenyl-d14	4.737	0.20	5	0	94.7	40-135	5.402	13.1	0	
Surr: Nitrobenzene-d5	4.294	0.20	5	0	85.9	41-120	4.272	0.513	0	
Surr: Phenol-d6	3.773	0.20	5	0	75.5	20-120	4.253	12	0	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Pastor, Behling & Wheeler, LLC
 Work Order: 12071248
 Project: UPRR Houston Wood GW

QC BATCH REPORT

Batch ID: 63002 Instrument ID SV-4 Method: SW8270

MSD Sample ID: 12071248-01BMSD Units: µg/L Analysis Date: 7/31/2012 03:43 AM

Client ID: WG-1620-MW27C-20120725 Run ID: SV-4_120730C SeqNo: 2886668 Prep Date: 7/29/2012 DF: 1

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Diphenylhydrazine	3.718	0.20	5	0	74.4	39-127	3.478	6.67	20	
2,4-Dimethylphenol	3.337	0.20	5	0	66.7	35-120	3.17	5.12	20	
2,4-Dinitrotoluene	3.78	0.20	5	0	75.6	50-122	3.708	1.94	20	
2,6-Dinitrotoluene	3.989	0.20	5	0	79.8	50-120	4.292	7.32	20	
2-Chloronaphthalene	3.629	0.20	5	0	72.6	50-120	3.325	8.75	20	
2-Methylnaphthalene	3.851	0.20	5	0	77	50-120	2.834	30.4	20	R
4,6-Dinitro-2-methylphenol	3.206	0.20	5	0	64.1	25-121	2.968	7.7	20	
4-Nitrophenol	4.529	1.0	5	0	90.6	30-130	4.763	5.04	20	
Acenaphthene	3.399	0.20	5	0	68	45-120	3.509	3.19	20	
Acenaphthylene	3.507	0.20	5	0	70.1	47-120	3.664	4.36	20	
Anthracene	3.867	0.20	5	0	77.3	45-120	3.768	2.59	20	
Benz(a)anthracene	3.405	0.20	5	0	68.1	40-120	3.577	4.93	20	
Benzo(a)pyrene	3.254	0.20	5	0	65.1	45-120	3.452	5.89	20	
Bis(2-chloroethoxy)methane	3.455	0.20	5	0	69.1	45-120	3.058	12.2	20	
Bis(2-ethylhexyl)phthalate	4.03	0.20	5	0.2072	76.5	40-139	4.202	4.17	20	
Chrysene	3.315	0.20	5	0	66.3	43-120	3.413	2.9	20	
Dibenzofuran	3.815	0.20	5	0	76.3	50-120	3.836	0.553	20	
Di-n-butyl phthalate	4.224	0.20	5	0.05452	83.4	45-123	4.213	0.266	20	
Fluoranthene	3.701	0.20	5	0	74	45-125	4.052	9.05	20	
Fluorene	4.056	0.20	5	0	81.1	49-120	3.814	6.13	20	
Naphthalene	3.973	0.20	5	0.1929	75.6	45-120	3.733	6.23	20	
Nitrobenzene	3.471	0.20	5	0	69.4	44-120	3.128	10.4	20	
N-Nitrosodiphenylamine	3.587	0.20	5	0	71.7	40-125	3.545	1.18	20	
Pentachlorophenol	2.439	0.20	5	0	48.8	19-121	2.692	9.86	20	
Phenanthrene	3.777	0.20	5	0	75.5	45-121	3.726	1.35	20	
Phenol	3.579	0.20	5	0	71.6	20-124	3.483	2.74	20	
Pyrene	3.585	0.20	5	0	71.7	40-130	3.635	1.41	20	
Surr: 2,4,6-Tribromophenol	3.613	0.20	5	0	72.3	34-129	4.161	14.1	0	
Surr: 2-Fluorobiphenyl	3.534	0.20	5	0	70.7	40-125	3.75	5.94	0	
Surr: 2-Fluorophenol	2.89	0.20	5	0	57.8	20-120	3.282	12.7	0	
Surr: 4-Terphenyl-d14	3.684	0.20	5	0	73.7	40-135	4.157	12.1	0	
Surr: Nitrobenzene-d5	3.401	0.20	5	0	68	41-120	3.164	7.22	0	
Surr: Phenol-d6	3.752	0.20	5	0	75	20-120	3.388	10.2	0	

The following samples were analyzed in this batch:

12071248-01B	12071248-02B	12071248-03B
12071248-04B	12071248-05B	12071248-06B
12071248-07B	12071248-08B	12071248-09B
12071248-11B	12071248-12B	12071248-13B
12071248-14B	12071248-15B	12071248-16B

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Pastor, Behling & Wheeler, LLC
Work Order: 12071248
Project: UPRR Houston Wood GW

QC BATCH REPORT

Batch ID: **R132072** Instrument ID **VOA1** Method: **SW8260**

MBLK		Sample ID: VBLKW-072712-R132072			Units: µg/L			Analysis Date: 7/28/2012 01:21 AM		
Client ID:		Run ID: VOA1_120727C			SeqNo: 2879388		Prep Date:		DF: 1	
Analyte	Result	ML	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Dichloroethane	U	5.0								
Benzene	U	5.0								
Chlorobenzene	U	5.0								
Ethylbenzene	U	5.0								
Methylene chloride	U	10								
Toluene	U	5.0								
Vinyl chloride	U	2.0								
Xylenes, Total	U	15								
<i>Surr: 1,2-Dichloroethane-d4</i>										
	56.29	5.0	50	0	113	70-125	0			
<i>Surr: 4-Bromofluorobenzene</i>										
	51.22	5.0	50	0	102	72-125	0			
<i>Surr: Dibromofluoromethane</i>										
	56.08	5.0	50	0	112	71-125	0			
<i>Surr: Toluene-d8</i>										
	47.17	5.0	50	0	94.3	75-125	0			

LCS		Sample ID: VLCSW-072712-R132072			Units: µg/L			Analysis Date: 7/28/2012 12:29 AM		
Client ID:		Run ID: VOA1_120727C			SeqNo: 2879387		Prep Date:		DF: 1	
Analyte	Result	ML	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Dichloroethane	55.93	5.0	50	0	112	78-120	0			
Benzene	51.5	5.0	50	0	103	73-121	0			
Chlorobenzene	44.94	5.0	50	0	89.9	80-120	0			
Ethylbenzene	46.59	5.0	50	0	93.2	80-120	0			
Methylene chloride	51.27	10	50	0	103	65-133	0			
Toluene	46.78	5.0	50	0	93.6	80-120	0			
Vinyl chloride	58.98	2.0	50	0	118	70-127	0			
Xylenes, Total	141.7	15	150	0	94.5	80-120	0			
<i>Surr: 1,2-Dichloroethane-d4</i>										
	54.47	5.0	50	0	109	70-125	0			
<i>Surr: 4-Bromofluorobenzene</i>										
	51.6	5.0	50	0	103	72-125	0			
<i>Surr: Dibromofluoromethane</i>										
	54.65	5.0	50	0	109	71-125	0			
<i>Surr: Toluene-d8</i>										
	44.99	5.0	50	0	90	75-125	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Pastor, Behling & Wheeler, LLC
 Work Order: 12071248
 Project: UPRR Houston Wood GW

QC BATCH REPORT

Batch ID: R132072 Instrument ID VOA1 Method: SW8260

MS		Sample ID: 12071248-01AMS			Units: µg/L			Analysis Date: 7/28/2012 03:05 AM		
Client ID: WG-1620-MW27C-20120725		Run ID: VOA1_120727C			SeqNo: 2879391		Prep Date:		DF: 1	
Analyte	Result	ML	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Dichloroethane	58.81	5.0	50	0	118	78-120	0			
Benzene	51.71	5.0	50	0	103	73-121	0			
Chlorobenzene	46.47	5.0	50	0	92.9	80-120	0			
Ethylbenzene	42.89	5.0	50	0	85.8	80-120	0			
Methylene chloride	53.58	10	50	0	107	65-133	0			
Toluene	46.5	5.0	50	0	93	80-120	0			
Vinyl chloride	49.61	2.0	50	0	99.2	70-127	0			
Xylenes, Total	131.3	15	150	0	87.5	80-120	0			
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>55.89</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>112</i>	<i>70-125</i>	<i>0</i>			
<i>Surr: 4-Bromofluorobenzene</i>	<i>50.65</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>101</i>	<i>72-125</i>	<i>0</i>			
<i>Surr: Dibromofluoromethane</i>	<i>52.83</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>106</i>	<i>71-125</i>	<i>0</i>			
<i>Surr: Toluene-d8</i>	<i>46.5</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>93</i>	<i>75-125</i>	<i>0</i>			

MSD		Sample ID: 12071248-01AMSD			Units: µg/L			Analysis Date: 7/28/2012 03:31 AM		
Client ID: WG-1620-MW27C-20120725		Run ID: VOA1_120727C			SeqNo: 2879392		Prep Date:		DF: 1	
Analyte	Result	ML	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Dichloroethane	54.23	5.0	50	0	108	78-120	58.81	8.1	20	
Benzene	47.14	5.0	50	0	94.3	73-121	51.71	9.25	20	
Chlorobenzene	43.85	5.0	50	0	87.7	80-120	46.47	5.81	20	
Ethylbenzene	41.49	5.0	50	0	83	80-120	42.89	3.3	20	
Methylene chloride	53.54	10	50	0	107	65-133	53.58	0.0878	20	
Toluene	43.68	5.0	50	0	87.4	80-120	46.5	6.25	20	
Vinyl chloride	49.46	2.0	50	0	98.9	70-127	49.61	0.311	20	
Xylenes, Total	128	15	150	0	85.3	80-120	131.3	2.55	20	
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>55.25</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>111</i>	<i>70-125</i>	<i>55.89</i>	<i>1.16</i>	<i>20</i>	
<i>Surr: 4-Bromofluorobenzene</i>	<i>55.07</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>110</i>	<i>72-125</i>	<i>50.65</i>	<i>8.36</i>	<i>20</i>	
<i>Surr: Dibromofluoromethane</i>	<i>55.73</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>111</i>	<i>71-125</i>	<i>52.83</i>	<i>5.34</i>	<i>20</i>	
<i>Surr: Toluene-d8</i>	<i>47.24</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>94.5</i>	<i>75-125</i>	<i>46.5</i>	<i>1.57</i>	<i>20</i>	

The following samples were analyzed in this batch:

12071248-01A	12071248-02A	12071248-03A
12071248-04A	12071248-06A	12071248-08A
12071248-10A	12071248-15A	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Pastor, Behling & Wheeler, LLC
Work Order: 12071248
Project: UPRR Houston Wood GW

QC BATCH REPORT

Batch ID: **R132093** Instrument ID **VOA1** Method: **SW8260**

MBLK		Sample ID: VBLKW-072912-R132093			Units: µg/L			Analysis Date: 7/29/2012 12:52 PM		
Client ID:		Run ID: VOA1_120729A			SeqNo: 2880131		Prep Date:		DF: 1	
Analyte	Result	ML	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Dichloroethane	U	5.0								
Benzene	U	5.0								
Chlorobenzene	U	5.0								
Ethylbenzene	U	5.0								
Methylene chloride	U	10								
Toluene	U	5.0								
Vinyl chloride	U	2.0								
Xylenes, Total	U	15								
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>57.39</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>115</i>	<i>70-125</i>	<i>0</i>			
<i>Surr: 4-Bromofluorobenzene</i>	<i>50.1</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>100</i>	<i>72-125</i>	<i>0</i>			
<i>Surr: Dibromofluoromethane</i>	<i>56.39</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>113</i>	<i>71-125</i>	<i>0</i>			
<i>Surr: Toluene-d8</i>	<i>44.41</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>88.8</i>	<i>75-125</i>	<i>0</i>			

LCS		Sample ID: VLCSW-072912-R132093			Units: µg/L			Analysis Date: 7/29/2012 01:18 PM		
Client ID:		Run ID: VOA1_120729A			SeqNo: 2880132		Prep Date:		DF: 1	
Analyte	Result	ML	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Dichloroethane	56.38	5.0	50	0	113	78-120	0			
Benzene	50.93	5.0	50	0	102	73-121	0			
Chlorobenzene	46.32	5.0	50	0	92.6	80-120	0			
Ethylbenzene	41.81	5.0	50	0	83.6	80-120	0			
Methylene chloride	56.03	10	50	0	112	65-133	0			
Toluene	42.01	5.0	50	0	84	80-120	0			
Vinyl chloride	59.14	2.0	50	0	118	70-127	0			
Xylenes, Total	133.6	15	150	0	89.1	80-120	0			
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>57.79</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>116</i>	<i>70-125</i>	<i>0</i>			
<i>Surr: 4-Bromofluorobenzene</i>	<i>49.48</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>99</i>	<i>72-125</i>	<i>0</i>			
<i>Surr: Dibromofluoromethane</i>	<i>57.57</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>115</i>	<i>71-125</i>	<i>0</i>			
<i>Surr: Toluene-d8</i>	<i>46.16</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>92.3</i>	<i>75-125</i>	<i>0</i>			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Pastor, Behling & Wheeler, LLC
 Work Order: 12071248
 Project: UPRR Houston Wood GW

QC BATCH REPORT

Batch ID: R132093 Instrument ID VOA1 Method: SW8260

MS		Sample ID: 12071026-02ZMS			Units: µg/L			Analysis Date: 7/29/2012 02:37 PM		
Client ID:		Run ID: VOA1_120729A			SeqNo: 2880135		Prep Date:		DF: 20	
Analyte	Result	ML	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Dichloroethane	1155	100	1000	0	116	78-120	0			
Benzene	1089	100	1000	0	109	73-121	0			
Chlorobenzene	972.3	100	1000	0	97.2	80-120	0			
Ethylbenzene	942.6	100	1000	0	94.3	80-120	0			
Methylene chloride	1141	200	1000	58.23	108	65-133	0			
Toluene	918.1	100	1000	0	91.8	80-120	0			
Vinyl chloride	1063	40	1000	0	106	70-127	0			
Xylenes, Total	2776	300	3000	0	92.5	80-120	0			
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>1114</i>	<i>100</i>	<i>1000</i>	<i>0</i>	<i>111</i>	<i>70-125</i>	<i>0</i>			
<i>Surr: 4-Bromofluorobenzene</i>	<i>979.8</i>	<i>100</i>	<i>1000</i>	<i>0</i>	<i>98</i>	<i>72-125</i>	<i>0</i>			
<i>Surr: Dibromofluoromethane</i>	<i>1074</i>	<i>100</i>	<i>1000</i>	<i>0</i>	<i>107</i>	<i>71-125</i>	<i>0</i>			
<i>Surr: Toluene-d8</i>	<i>891.3</i>	<i>100</i>	<i>1000</i>	<i>0</i>	<i>89.1</i>	<i>75-125</i>	<i>0</i>			

MSD		Sample ID: 12071026-02ZMSD			Units: µg/L			Analysis Date: 7/29/2012 03:03 PM		
Client ID:		Run ID: VOA1_120729A			SeqNo: 2880136		Prep Date:		DF: 20	
Analyte	Result	ML	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Dichloroethane	1178	100	1000	0	118	78-120	1155	1.96	20	
Benzene	1106	100	1000	0	111	73-121	1089	1.61	20	
Chlorobenzene	975.7	100	1000	0	97.6	80-120	972.3	0.352	20	
Ethylbenzene	951.9	100	1000	0	95.2	80-120	942.6	0.979	20	
Methylene chloride	1184	200	1000	58.23	113	65-133	1141	3.71	20	
Toluene	941.5	100	1000	0	94.2	80-120	918.1	2.51	20	
Vinyl chloride	1134	40	1000	0	113	70-127	1063	6.47	20	
Xylenes, Total	2770	300	3000	0	92.3	80-120	2776	0.232	20	
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>1149</i>	<i>100</i>	<i>1000</i>	<i>0</i>	<i>115</i>	<i>70-125</i>	<i>1114</i>	<i>3.1</i>	<i>20</i>	
<i>Surr: 4-Bromofluorobenzene</i>	<i>1032</i>	<i>100</i>	<i>1000</i>	<i>0</i>	<i>103</i>	<i>72-125</i>	<i>979.8</i>	<i>5.21</i>	<i>20</i>	
<i>Surr: Dibromofluoromethane</i>	<i>1052</i>	<i>100</i>	<i>1000</i>	<i>0</i>	<i>105</i>	<i>71-125</i>	<i>1074</i>	<i>2.16</i>	<i>20</i>	
<i>Surr: Toluene-d8</i>	<i>902.2</i>	<i>100</i>	<i>1000</i>	<i>0</i>	<i>90.2</i>	<i>75-125</i>	<i>891.3</i>	<i>1.22</i>	<i>20</i>	

The following samples were analyzed in this batch:

12071248-05A	12071248-07A	12071248-09A
12071248-11A	12071248-12A	12071248-13A
12071248-14A	12071248-16A	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
WorkOrder: 12071248

**QUALIFIERS,
ACRONYMS, UNITS**

<u>Qualifier</u>	<u>Description</u>
*	Value exceeds Regulatory Limit
a	Not accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
J	Analyte detected below quantitation limit
M	Manually integrated, see raw data for justification
n	Not offered for accreditation
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL

<u>Acronym</u>	<u>Description</u>
DCS	Detectability Check Study
DUP	Method Duplicate
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
MBLK	Method Blank
MDL	Method Detection Limit
MQL	Method Quantitation Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PDS	Post Digestion Spike
PQL	Practical Quantitation Limit
SD	Serial Dilution
SDL	Sample Detection Limit
TRRP	Texas Risk Reduction Program

<u>Units Reported</u>	<u>Description</u>
mg/L	Milligrams per Liter

Sample Receipt Checklist

Client Name: **PBW**

Date/Time Received: **26-Jul-12 16:10**

Work Order: **12071248**

Received by: **PMG**

Checklist completed by Raymond N Gambia 26-Jul-12
eSignature Date

Reviewed by: Patricia L. Lynch 31-Jul-12
eSignature Date

Matrices: Groundwater, Water

Carrier name: Client

- Shipping container/cooler in good condition? Yes No Not Present
- Custody seals intact on shipping container/cooler? Yes No Not Present
- Custody seals intact on sample bottles? Yes No Not Present
- Chain of custody present? Yes No
- Chain of custody signed when relinquished and received? Yes No
- Chain of custody agrees with sample labels? Yes No
- Samples in proper container/bottle? Yes No
- Sample containers intact? Yes No
- Sufficient sample volume for indicated test? Yes No
- All samples received within holding time? Yes No
- Container/Temp Blank temperature in compliance? Yes No

Temperature(s)/Thermometer(s): 2.4c, 2.1c, 2.1c, 2.3c 003

Cooler(s)/Kit(s):

Date/Time sample(s) sent to storage: 7/26/2012 20:10

Water - VOA vials have zero headspace? Yes No No VOA vials submitted

Water - pH acceptable upon receipt? Yes No N/A

pH adjusted? Yes No N/A

pH adjusted by:

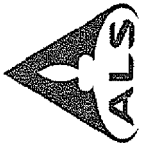
Login Notes:

Client Contacted: Date Contacted: Person Contacted:

Contacted By: Regarding:

Comments:

CorrectiveAction:



Chain of Custody Form

12071248

PBW: Pastor, Behling & Wheeler, LLC

Project: UPRR Houston Wood GW

Clr +1
 EVI +1
 For +1

Page 1 of 2

COC ID: 52165

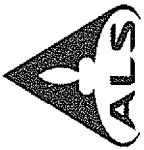
Environmental

ALS Project Manager:

Customer Information				Project Information				VOC											
Purchase Order	Project Name	Project Number	Project Manager	A	B	C	D	E	F	G	H	I	J	Hold					
Work Order	UPRR Houston Wood GW	1620-04	ALS Project Manager																
Company Name	Pastor, Behling & Wheeler, LLC	Bill To Company	Union Pacific Railroad																
Send Report To	Eric Matzner	Invoice Attn	1400 Douglas Street																
Address	2201 Double Creek Drive	Address	Stop 0750																
City/State/Zip	Round Rock, TX 78664	City/State/Zip	Omaha, NE 681790750																
Phone	(512) 671-3434	Phone																	
Fax	(512) 671-3446	Fax																	
e-Mail Address		e-Mail Address																	
No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold		
1	WB-1620-MW27C-20120725	7-25-12	930	GW	None	5	X	X											
2	WB-1620-MW27C-MS-20120725				None	5	X	X											
3	WB-1620-MW27C-MSD-20120725				None	5	X	X											
4	WB-1620-MW27C-20120725		1130		None	5	X	X											
5	WB-1620-MW27B-20120725		1225		None	5	X	X											
6	WB-1620-MW24B-20120725		1325		None	5	X	X											
7	WB-1620-MW44A-20120725		1515		None	5	X	X											
8	WB-1620-FB9-20120725		1700		None	5	X	X											
9	WB-1620-MW49A-20120726	7-26-12	700		None	5	X	X											
10	WB-1620-MW21C-20120726		840		None	5	X	X											
Sampler(s) Please Print & Sign				Shipment Method				Required Turnaround Time: (Check Box)				Results Due Date:							
Steve Berndt				In Person				<input checked="" type="checkbox"/> Std 10 WK Days <input type="checkbox"/> 5 WK Days <input type="checkbox"/> 2 WK Days <input type="checkbox"/> 24 Hour				10 Day TAT.							
Relinquished by:				Received by:				Cooler ID				Cooler Temp.							
Steve Berndt				Steve Berndt															
Relinquished by:				Received by (Laboratory):				QC Package: (Check One Box Below)				TRRP Checklists							
Steve Berndt				7-26-12 1610				<input checked="" type="checkbox"/> Level II Std QC <input type="checkbox"/> Level III Std QC Raw Data <input type="checkbox"/> Level IV SW846/CLP <input type="checkbox"/> Other / EDD				<input checked="" type="checkbox"/> TRRP Checklists <input type="checkbox"/> TRRP Level IV							
Date:				Date:				Preservative Key:				1-HCl 2-HNO3 3-H2SO4 4-NaOH 5-Na2S2O3 6-NaHSO4 7-Other 8-4°C 9-5035							
Date:				Date:															
Date:				Date:															

Note: 1. Any changes must be made in writing once samples and COC Form have been submitted to ALS Environmental.
 2. Unless otherwise agreed in a formal contract, services provided by ALS Environmental are expressly limited to the terms and conditions stated on the reverse.
 3. The Chain of Custody is a legal document. All information must be completed accurately.

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Chain of Custody Form

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Middletown, PA
+1 717 944 5541

Spring City, PA
+1 610 948 4903
Salt Lake City, UT
+1 801 266 7700

South Charleston, WV
+1 304 356 3168
York, PA
+1 717 505 5280

Page 2 of 2
COC ID: 67192

Customer Information

Purchase Order	Project Name	UPRR Houston Wood GW
Work Order	Project Number	1620-04
Company Name	Bill To Company	Union Pacific Railroad
Send Report To	Invoice Attn	
Address	Address	1400 Douglas Street Step 0750
City/State/Zip	City/State/Zip	Omaha, NE 681790750
Phone	Phone	(512) 671-3434
Fax	Fax	(512) 671-3446
e-Mail Address	e-Mail Address	

ALS Project Manager: 2071248
ALS Work Order #: 2071248
Parameter/Method Request for Analysis

No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	WG-1620-FDS-20120726	7-26-12	940	GW		5	X	X									
2	WG-1620-TB-20120726		705			2	X										
3	WG-1620-F11-20120726		945			5	X	X									
4	WG-1620-MW62B-20120726		1125			5	X	X									
5	WG-1620-TJ41B-20120726		1210			5	X	X									
6	WG-1620-MW15B-20120726		1350			5	X	X									
7	WG-1620-FB10-20120726		1345			5	X	X									
8	WG-1620-MW74B-20120726		1520			5	X	X									
9																	
10																	

Sampler(s) Please Print & Sign: Steph Beyerdt Shipment Method: Stu Bach Required Turnaround Time: (Check Box) Std 10 WK Days 5 WK Days 2 WK Days Other 24 Hour

Relinquished by: Steph Beyerdt Date: 7-26-12 Time: 1610 Received by: [Signature] Notes: 10 Day TAT.

Relinquished by: [Signature] Date: 7-26-12 Time: 1610 Checked by (Laboratory): [Signature] Cooler ID: 610 Cooler Temp. 8-4°C QC Package: (Check One Box Below) Level II Std QC Level III Std QC Level IV SW846/CLP Other / EDD

Logged by (Laboratory): [Signature] Date: 7-26-12 Time: 1610 Preservative Key: 1-HCl 2-HNO₃ 3-H₂SO₄ 4-NaOH 5-Na₂S₂O₃ 6-NaHSO₄ 7-Other 8-4°C 9-5035

TRRP Checklist TRRP Level IV

Note: 1. Any changes must be made in writing once samples and COC Form have been submitted to ALS Environmental.
2. Unless otherwise agreed in a formal contract, services provided by ALS Environmental are expressly limited to the terms and conditions stated on the reverse.
3. The Chain of Custody is a legal document. All information must be completed accurately.



14-Aug-2012

Eric Matzner
Pastor, Behling & Wheeler, LLC
2201 Double Creek Drive
Suite 4004
Round Rock, TX 78664

Tel: (512) 671-3434
Fax: (512) 671-3446

Re: UPRR Houston Wood GW

Work Order: **12071310**

Dear Eric,

ALS Environmental received 6 samples on 27-Jul-2012 02:20 PM for the analyses presented in the following report.

The analytical data provided relates directly to the samples received by ALS Environmental and for only the analyses requested. Results are expressed as "as received" unless otherwise noted.

QC sample results for this data met EPA or laboratory specifications except as noted in the Case Narrative or as noted with qualifiers in the QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained by ALS Environmental. Samples will be disposed in 30 days unless storage arrangements are made.

The total number of pages in this report is 35.

If you have any questions regarding this report, please feel free to call me.

Sincerely,

A handwritten signature in black ink that reads "Patricia L. Lynch".

Electronically approved by: Jumoke M. Lawal

Patricia L. Lynch
Project Manager



Certificate No: TX: T104704231-12-10

ADDRESS 10450 Stancliff Rd, Suite 210 Houston, Texas 77099-4338 | PHONE (281) 530-5656 | FAX (281) 530-5887

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RIGHT SOLUTIONS RIGHT PARTNER

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Work Order: 12071310

**TRRP Laboratory Data
Package Cover Page**

This data package consists of all or some of the following as applicable:

This signature page, the laboratory review checklist, and the following reportable data:

- R1 Field chain-of-custody documentation;
- R2 Sample identification cross-reference;
- R3 Test reports (analytical data sheets) for each environmental sample that includes:
 - a) Items consistent with NELAC Chapter 5,
 - b) dilution factors,
 - c) preparation methods,
 - d) cleanup methods, and
 - e) if required for the project, tentatively identified compounds (TICs).
- R4 Surrogate recovery data including:
 - a) Calculated recovery (%R), and
 - b) The laboratory's surrogate QC limits.
- R5 Test reports/summary forms for blank samples;
- R6 Test reports/summary forms for laboratory control samples (LCSs) including:
 - a) LCS spiking amounts,
 - b) Calculated %R for each analyte, and
 - c) The laboratory's LCS QC limits.
- R7 Test reports for project matrix spike/matrix spike duplicates (MS/MSDs) including:
 - a) Samples associated with the MS/MSD clearly identified,
 - b) MS/MSD spiking amounts,
 - c) Concentration of each MS/MSD analyte measured in the parent and spiked samples,
 - d) Calculated %Rs and relative percent differences (RPDs), and
 - e) The laboratory's MS/MSD QC limits.
- R8 Laboratory analytical duplicate (if applicable) recovery and precision:
 - a) the amount of analyte measured in the duplicate,
 - b) the calculated RPD, and
 - c) the laboratory's QC limits for analytical duplicates.
- R9 List of method quantitation limits (MQLs) and detectability check sample results for each analyte for each method and matrix.
- R10 Other problems or anomalies.
The Exception Report for each "No" or "Not Reviewed (NR)" item in Laboratory Review Checklist and for each analyte, matrix, and method for which the laboratory does not hold NELAC accreditation under the Texas Laboratory Accreditation Program.

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Work Order: 12071310

**TRRP Laboratory Data
Package Cover Page**

Release Statement: I am responsible for the release of this laboratory data package. This laboratory is NELAC accredited under the Texas Laboratory Accreditation Program for all the methods, analytes and matrices reported in this data package except as noted in the Exception Reports. The data have been reviewed and are technically compliant with the requirements of the methods used, except where noted by the laboratory in the attached exception reports. By my signature below, I affirm to the best of my knowledge, all problems/anomalies, observed by the laboratory have been identified by the laboratory in the Laboratory Review Checklist, and no information affecting the quality of the data has been knowingly withheld.

Check, if applicable: [NA] This laboratory meets an exception under 30 TAC §25.6 and was last inspected by TCEQ or _____ on (enter date of last inspection). Any findings affecting the data in this laboratory data package are noted in the Exception Reports herein. The official signing the cover page of the report in which these data are used is responsible for releasing this data package and is by signature affirming the above release statement is true.

Patricia L. Lynch

Patricia L. Lynch
Project Manager

Laboratory Review Checklist: Reportable Data

Laboratory Name: ALS Laboratory Group		LRC Date: 08/14/2012					
Project Name: UPRR Houston Wood GW		Laboratory Job Number: 12071310					
Reviewer Name: Pat Lynch		Prep Batch Number(s): 63002, R132166, R132262					
# ¹	A ²	Description	Yes	No	NA ³	NR ⁴	ER# ⁵
R1	OI	Chain-of-custody (C-O-C)					
		Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?	X				
		Were all departures from standard conditions described in an exception report?	X				
R2	OI	Sample and quality control (QC) identification					
		Are all field sample ID numbers cross-referenced to the laboratory ID numbers?	X				
		Are all laboratory ID numbers cross-referenced to the corresponding QC data?	X				
R3	OI	Test reports					
		Were all samples prepared and analyzed within holding times?	X				
		Other than those results < MQL, were all other raw values bracketed by calibration standards?	X				
		Were calculations checked by a peer or supervisor?	X				
		Were all analyte identifications checked by a peer or supervisor?	X				
		Were sample detection limits reported for all analytes not detected?	X				
		Were all results for soil and sediment samples reported on a dry weight basis?			X		
		Were % moisture (or solids) reported for all soil and sediment samples?			X		
		Were bulk soils/solids samples for volatile analysis extracted with methanol per SW-846 Method 5035?			X		
		If required for the project, TICs reported?			X		
R4	O	Surrogate recovery data					
		Were surrogates added prior to extraction?	X				
		Were surrogate percent recoveries in all samples within the laboratory QC limits?	X				
R5	OI	Test reports/summary forms for blank samples					
		Were appropriate type(s) of blanks analyzed?	X				
		Were blanks analyzed at the appropriate frequency?	X				
		Were method blanks taken through the entire analytical process, including preparation and, if applicable, cleanup procedures?	X				
		Were blank concentrations < MQL?	X				
R6	OI	Laboratory control samples (LCS):					
		Were all COCs included in the LCS?	X				
		Was each LCS taken through the entire analytical procedure, including prep and cleanup steps?	X				
		Were LCSs analyzed at the required frequency?	X				
		Were LCS (and LCSD, if applicable) %Rs within the laboratory QC limits?	X				
		Does the detectability data document the laboratory's capability to detect the COCs at the MDL used to calculate the SDLs?	X				
		Was the LCSD RPD within QC limits?		X			1
R7	OI	Matrix spike (MS) and matrix spike duplicate (MSD) data					
		Were the project/method specified analytes included in the MS and MSD?	X				
		Were MS/MSD analyzed at the appropriate frequency?	X				
		Were MS (and MSD, if applicable) %Rs within the laboratory QC limits?	X				
		Were MS/MSD RPDs within laboratory QC limits?		X			2
R8	OI	Analytical duplicate data					
		Were appropriate analytical duplicates analyzed for each matrix?	X				
		Were analytical duplicates analyzed at the appropriate frequency?	X				
		Were RPDs or relative standard deviations within the laboratory QC limits?	X				
R9	OI	Method quantitation limits (MQLs):					
		Are the MQLs for each method analyte included in the laboratory data package?	X				
		Do the MQLs correspond to the concentration of the lowest non-zero calibration standard?	X				
		Are unadjusted MQLs and DCSs included in the laboratory data package?	X				
R10	OI	Other problems/anomalies					
		Are all known problems/anomalies/special conditions noted in this LRC and ER?	X				
		Were all necessary corrective actions performed for the reported data?	X				
		Was applicable and available technology used to lower the SDL and minimize the matrix interference affects on the sample results?	X				
		Is the laboratory NELAC-accredited under the Texas Laboratory Program for the analytes, matrices and methods associated with this laboratory data package?	X				

Laboratory Review Checklist: Reportable Data

Laboratory Name: ALS Laboratory Group			LRC Date: 08/14/2012				
Project Name: UPRR Houston Wood GW			Laboratory Job Number: 12071310				
Reviewer Name: Pat Lynch			Prep Batch Number(s): 63002, R132166, R132262				
# ¹	A ²	Description	Yes	No	NA ³	NR ⁴	ER# ⁵
S1	OI	Initial calibration (ICAL)					
		Were response factors and/or relative response factors for each analyte within QC limits?	X				
		Were percent RSDs or correlation coefficient criteria met?	X				
		Was the number of standards recommended in the method used for all analytes?	X				
		Were all points generated between the lowest and highest standard used to calculate the curve?	X				
		Are ICAL data available for all instruments used?	X				
		Has the initial calibration curve been verified using an appropriate second source standard?	X				
S2	OI	Initial and continuing calibration verification (ICCV and CCV) and continuing calibration blank (CCB)					
		Was the CCV analyzed at the method-required frequency?	X				
		Were percent differences for each analyte within the method-required QC limits?	X				
		Was the ICAL curve verified for each analyte?	X				
		Was the absolute value of the analyte concentration in the inorganic CCB < MDL?			X		
S3	O	Mass spectral tuning:					
		Was the appropriate compound for the method used for tuning?	X				
		Were ion abundance data within the method-required QC limits?	X				
S4	O	Internal standards (IS):					
		Were IS area counts and retention times within the method-required QC limits?	X				
S5	OI	Raw data (NELAC section 1 appendix A glossary, and section 5.12 or ISO/IEC 17025 section					
		Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?	X				
		Were data associated with manual integrations flagged on the raw data?	X				
S6	O	Dual column confirmation					
		Did dual column confirmation results meet the method-required QC?			X		
S7	O	Tentatively identified compounds (TICs):					
		If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?			X		
S8	I	Interference Check Sample (ICS) results:					
		Were percent recoveries within method QC limits?			X		
S9	I	Serial dilutions, post digestion spikes, and method of standard additions					
		Were percent differences, recoveries, and the linearity within the QC limits specified in the method?			X		
S10	OI	Method detection limit (MDL) studies					
		Was a MDL study performed for each reported analyte?	X				
		Is the MDL either adjusted or supported by the analysis of DCSs?	X				
S11	OI	Proficiency test reports:					
		Was the laboratory's performance acceptable on the applicable proficiency tests or evaluation studies?	X				
S12	OI	Standards documentation					
		Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?	X				
S13	OI	Compound/analyte identification procedures					
		Are the procedures for compound/analyte identification documented?	X				
S14	OI	Demonstration of analyst competency (DOC)					
		Was DOC conducted consistent with NELAC Chapter 5C or ISO/IEC 4?	X				
		Is documentation of the analyst's competency up-to-date and on file?	X				
S15	OI	Verification/validation documentation for methods (NELAC Chap 5 or ISO/IEC 17025 Section 5)					
		Are all the methods used to generate the data documented, verified, and validated, where applicable?	X				
S16	OI	Laboratory standard operating procedures (SOPs):					
		Are laboratory SOPs current and on file for each method performed?	X				
<p>Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.</p> <p>O = Organic Analyses; I = Inorganic Analyses (and general chemistry, when applicable); NA = Not Applicable; NR = Not Reviewed; R# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).</p>							

Laboratory Review Checklist: Reportable Data

Laboratory Name: ALS Laboratory Group		LRC Date: 08/14/2012
Project Name: UPRR Houston Wood GW		Laboratory Job Number: 12071310
Reviewer Name: Pat Lynch		Prep Batch Number(s): 63002, R132166, R132262
ER# ⁵	Description	
1	Batch 63002, Semivolatile Organics: LCS/LCSD RPDs were above the control limits for 2-methylnaphthalene and fluorene . The individual recoveries were in control.	
2	Batch 63002, Semivolatile Organics, Sample 12071248-01: MS/MSD RPD is for an unrelated sample.	
<p>Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.</p> <p>O = Organic Analyses; I = Inorganic Analyses (and general chemistry, when applicable); NA = Not Applicable; NR = Not Reviewed; R# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).</p>		

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Work Order: 12071310

Work Order Sample Summary

<u>Lab Samp ID</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Tag Number</u>	<u>Collection Date</u>	<u>Date Received</u>	<u>Hold</u>
12071310-01	WG-1620-TB-20120727	Water		7/27/2012	7/27/2012 14:20	<input type="checkbox"/>
12071310-02	WG-1620-MW47C-20120727	Water		7/27/2012 07:30	7/27/2012 14:20	<input type="checkbox"/>
12071310-03	WG-1620-MW61A-20120727	Water		7/27/2012 09:00	7/27/2012 14:20	<input type="checkbox"/>
12071310-04	WG-1620-MW59A-20120727	Water		7/27/2012 10:25	7/27/2012 14:20	<input type="checkbox"/>
12071310-05	WG-1620-MW59B-20120727	Water		7/27/2012 11:10	7/27/2012 14:20	<input type="checkbox"/>
12071310-06	WG-1620-FB11-20120727	Water		7/27/2012 10:30	7/27/2012 14:20	<input type="checkbox"/>

ALS Environmental

Date: 14-Aug-12

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Sample ID: WG-1620-TB-20120727
Collection Date: 7/27/2012

Work Order: 12071310
Lab ID: 12071310-01
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
VOLATILES			Method: SW8260			Analyst: PC	
1,2-Dichloroethane	U		0.00050	0.0050	mg/L	1	7/31/2012 00:49
Benzene	U		0.00050	0.0050	mg/L	1	7/31/2012 00:49
Chlorobenzene	U		0.00050	0.0050	mg/L	1	7/31/2012 00:49
Ethylbenzene	U		0.00050	0.0050	mg/L	1	7/31/2012 00:49
Methylene chloride	U		0.0010	0.010	mg/L	1	7/31/2012 00:49
Toluene	U		0.00050	0.0050	mg/L	1	7/31/2012 00:49
Vinyl chloride	U		0.00050	0.0020	mg/L	1	7/31/2012 00:49
Xylenes, Total	U		0.0015	0.015	mg/L	1	7/31/2012 00:49
Surr: 1,2-Dichloroethane-d4	95.6			70-125	%REC	1	7/31/2012 00:49
Surr: 4-Bromofluorobenzene	97.0			72-125	%REC	1	7/31/2012 00:49
Surr: Dibromofluoromethane	99.0			71-125	%REC	1	7/31/2012 00:49
Surr: Toluene-d8	95.1			75-125	%REC	1	7/31/2012 00:49

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 14-Aug-12

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Sample ID: WG-1620-MW47C-20120727
Collection Date: 7/27/2012 07:30 AM

Work Order: 12071310
Lab ID: 12071310-02
Matrix: WATER

Analyses	Result	Qual	SDL	ML	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270	Prep: SW3510 / 7/29/12	Analyst: LG		
1,2-Diphenylhydrazine		U	0.000050	0.00020	mg/L	1	8/1/2012 02:07
2,4-Dimethylphenol	0.00042		0.000050	0.00020	mg/L	1	8/1/2012 02:07
2,4-Dinitrotoluene		U	0.000050	0.00020	mg/L	1	8/1/2012 02:07
2,6-Dinitrotoluene		U	0.000060	0.00020	mg/L	1	8/1/2012 02:07
2-Chloronaphthalene		U	0.000050	0.00020	mg/L	1	8/1/2012 02:07
2-Methylnaphthalene		U	0.000050	0.00020	mg/L	1	8/1/2012 02:07
4,6-Dinitro-2-methylphenol		U	0.000080	0.00020	mg/L	1	8/1/2012 02:07
4-Nitrophenol		U	0.000050	0.0010	mg/L	1	8/1/2012 02:07
Acenaphthene	0.000058	J	0.000050	0.00020	mg/L	1	8/1/2012 02:07
Acenaphthylene		U	0.000050	0.00020	mg/L	1	8/1/2012 02:07
Anthracene		U	0.000050	0.00020	mg/L	1	8/1/2012 02:07
Benz(a)anthracene		U	0.000050	0.00020	mg/L	1	8/1/2012 02:07
Benzo(a)pyrene		U	0.000050	0.00020	mg/L	1	8/1/2012 02:07
Bis(2-chloroethoxy)methane		U	0.000050	0.00020	mg/L	1	8/1/2012 02:07
Bis(2-ethylhexyl)phthalate		U	0.00010	0.00020	mg/L	1	8/1/2012 02:07
Chrysene		U	0.000050	0.00020	mg/L	1	8/1/2012 02:07
Dibenzofuran		U	0.000050	0.00020	mg/L	1	8/1/2012 02:07
Di-n-butyl phthalate		U	0.000050	0.00020	mg/L	1	8/1/2012 02:07
Fluoranthene		U	0.000050	0.00020	mg/L	1	8/1/2012 02:07
Fluorene		U	0.000050	0.00020	mg/L	1	8/1/2012 02:07
Naphthalene	0.00046		0.000050	0.00020	mg/L	1	8/1/2012 02:07
Nitrobenzene		U	0.000050	0.00020	mg/L	1	8/1/2012 02:07
N-Nitrosodiphenylamine		U	0.000050	0.00020	mg/L	1	8/1/2012 02:07
Pentachlorophenol		U	0.000050	0.00020	mg/L	1	8/1/2012 02:07
Phenanthrene		U	0.000050	0.00020	mg/L	1	8/1/2012 02:07
Phenol	0.00056		0.000050	0.00020	mg/L	1	8/1/2012 02:07
Pyrene		U	0.000050	0.00020	mg/L	1	8/1/2012 02:07
Surr: 2,4,6-Tribromophenol	55.4			34-129	%REC	1	8/1/2012 02:07
Surr: 2-Fluorobiphenyl	54.7			40-125	%REC	1	8/1/2012 02:07
Surr: 2-Fluorophenol	44.9			20-120	%REC	1	8/1/2012 02:07
Surr: 4-Terphenyl-d14	80.3			40-135	%REC	1	8/1/2012 02:07
Surr: Nitrobenzene-d5	55.4			41-120	%REC	1	8/1/2012 02:07
Surr: Phenol-d6	49.4			20-120	%REC	1	8/1/2012 02:07
VOLATILES			Method: SW8260	Analyst: PC			
1,2-Dichloroethane		U	0.00050	0.0050	mg/L	1	8/1/2012 01:04
Benzene		U	0.00050	0.0050	mg/L	1	8/1/2012 01:04
Chlorobenzene		U	0.00050	0.0050	mg/L	1	8/1/2012 01:04
Ethylbenzene		U	0.00050	0.0050	mg/L	1	8/1/2012 01:04

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 14-Aug-12

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Sample ID: WG-1620-MW47C-20120727
Collection Date: 7/27/2012 07:30 AM

Work Order: 12071310
Lab ID: 12071310-02
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
Methylene chloride	U		0.0010	0.010	mg/L	1	8/1/2012 01:04
Toluene	U		0.00050	0.0050	mg/L	1	8/1/2012 01:04
Xylenes, Total	U		0.0015	0.015	mg/L	1	8/1/2012 01:04
Surr: 1,2-Dichloroethane-d4	124			70-125	%REC	1	8/1/2012 01:04
Surr: 4-Bromofluorobenzene	93.4			72-125	%REC	1	8/1/2012 01:04
Surr: Dibromofluoromethane	106			71-125	%REC	1	8/1/2012 01:04
Surr: Toluene-d8	103			75-125	%REC	1	8/1/2012 01:04

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 14-Aug-12

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Sample ID: WG-1620-MW61A-20120727
Collection Date: 7/27/2012 09:00 AM

Work Order: 12071310
Lab ID: 12071310-03
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270	Prep: SW3510 / 7/29/12	Analyst: LG		
1,2-Diphenylhydrazine	U		0.000050	0.00020	mg/L	1	7/31/2012 04:04
2,4-Dimethylphenol	U		0.000050	0.00020	mg/L	1	7/31/2012 04:04
2,4-Dinitrotoluene	U		0.000050	0.00020	mg/L	1	7/31/2012 04:04
2,6-Dinitrotoluene	U		0.000060	0.00020	mg/L	1	7/31/2012 04:04
2-Chloronaphthalene	U		0.000050	0.00020	mg/L	1	7/31/2012 04:04
2-Methylnaphthalene	U		0.000050	0.00020	mg/L	1	7/31/2012 04:04
4,6-Dinitro-2-methylphenol	U		0.000080	0.00020	mg/L	1	7/31/2012 04:04
4-Nitrophenol	U		0.000050	0.0010	mg/L	1	7/31/2012 04:04
Acenaphthene	U		0.000050	0.00020	mg/L	1	7/31/2012 04:04
Acenaphthylene	U		0.000050	0.00020	mg/L	1	7/31/2012 04:04
Anthracene	U		0.000050	0.00020	mg/L	1	7/31/2012 04:04
Benz(a)anthracene	U		0.000050	0.00020	mg/L	1	7/31/2012 04:04
Benzo(a)pyrene	U		0.000050	0.00020	mg/L	1	7/31/2012 04:04
Bis(2-chloroethoxy)methane	U		0.000050	0.00020	mg/L	1	7/31/2012 04:04
Bis(2-ethylhexyl)phthalate	0.00027		0.00010	0.00020	mg/L	1	7/31/2012 04:04
Chrysene	U		0.000050	0.00020	mg/L	1	7/31/2012 04:04
Dibenzofuran	U		0.000050	0.00020	mg/L	1	7/31/2012 04:04
Di-n-butyl phthalate	U		0.000050	0.00020	mg/L	1	7/31/2012 04:04
Fluoranthene	U		0.000050	0.00020	mg/L	1	7/31/2012 04:04
Fluorene	U		0.000050	0.00020	mg/L	1	7/31/2012 04:04
Naphthalene	U		0.000050	0.00020	mg/L	1	7/31/2012 04:04
Nitrobenzene	U		0.000050	0.00020	mg/L	1	7/31/2012 04:04
N-Nitrosodiphenylamine	U		0.000050	0.00020	mg/L	1	7/31/2012 04:04
Pentachlorophenol	U		0.000050	0.00020	mg/L	1	7/31/2012 04:04
Phenanthrene	0.00016	J	0.000050	0.00020	mg/L	1	7/31/2012 04:04
Phenol	U		0.000050	0.00020	mg/L	1	7/31/2012 04:04
Pyrene	U		0.000050	0.00020	mg/L	1	7/31/2012 04:04
Surr: 2,4,6-Tribromophenol	85.5			34-129	%REC	1	7/31/2012 04:04
Surr: 2-Fluorobiphenyl	72.7			40-125	%REC	1	7/31/2012 04:04
Surr: 2-Fluorophenol	70.0			20-120	%REC	1	7/31/2012 04:04
Surr: 4-Terphenyl-d14	104			40-135	%REC	1	7/31/2012 04:04
Surr: Nitrobenzene-d5	78.8			41-120	%REC	1	7/31/2012 04:04
Surr: Phenol-d6	79.6			20-120	%REC	1	7/31/2012 04:04
VOLATILES			Method: SW8260	Analyst: PC			
1,2-Dichloroethane	U		0.00050	0.0050	mg/L	1	8/1/2012 01:30
Benzene	U		0.00050	0.0050	mg/L	1	8/1/2012 01:30
Chlorobenzene	U		0.00050	0.0050	mg/L	1	8/1/2012 01:30
Ethylbenzene	U		0.00050	0.0050	mg/L	1	8/1/2012 01:30

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 14-Aug-12

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Sample ID: WG-1620-MW61A-20120727
Collection Date: 7/27/2012 09:00 AM

Work Order: 12071310
Lab ID: 12071310-03
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
Methylene chloride	U		0.0010	0.010	mg/L	1	8/1/2012 01:30
Toluene	U		0.00050	0.0050	mg/L	1	8/1/2012 01:30
Vinyl chloride	U		0.00050	0.0020	mg/L	1	8/1/2012 01:30
Xylenes, Total	U		0.0015	0.015	mg/L	1	8/1/2012 01:30
Surr: 1,2-Dichloroethane-d4	119			70-125	%REC	1	8/1/2012 01:30
Surr: 4-Bromofluorobenzene	92.8			72-125	%REC	1	8/1/2012 01:30
Surr: Dibromofluoromethane	107			71-125	%REC	1	8/1/2012 01:30
Surr: Toluene-d8	105			75-125	%REC	1	8/1/2012 01:30

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 14-Aug-12

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Sample ID: WG-1620-MW59A-20120727
Collection Date: 7/27/2012 10:25 AM

Work Order: 12071310
Lab ID: 12071310-04
Matrix: WATER

Analyses	Result	Qual	SDL	ML	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270	Prep: SW3510 / 7/29/12	Analyst: LG		
1,2-Diphenylhydrazine	U		0.000050	0.00020	mg/L	1	8/1/2012 02:27
2,4-Dimethylphenol	U		0.000050	0.00020	mg/L	1	8/1/2012 02:27
2,4-Dinitrotoluene	U		0.000050	0.00020	mg/L	1	8/1/2012 02:27
2,6-Dinitrotoluene	U		0.000060	0.00020	mg/L	1	8/1/2012 02:27
2-Chloronaphthalene	U		0.000050	0.00020	mg/L	1	8/1/2012 02:27
2-Methylnaphthalene	U		0.000050	0.00020	mg/L	1	8/1/2012 02:27
4,6-Dinitro-2-methylphenol	U		0.000080	0.00020	mg/L	1	8/1/2012 02:27
4-Nitrophenol	U		0.000050	0.0010	mg/L	1	8/1/2012 02:27
Acenaphthene	U		0.000050	0.00020	mg/L	1	8/1/2012 02:27
Acenaphthylene	U		0.000050	0.00020	mg/L	1	8/1/2012 02:27
Anthracene	U		0.000050	0.00020	mg/L	1	8/1/2012 02:27
Benz(a)anthracene	U		0.000050	0.00020	mg/L	1	8/1/2012 02:27
Benzo(a)pyrene	U		0.000050	0.00020	mg/L	1	8/1/2012 02:27
Bis(2-chloroethoxy)methane	U		0.000050	0.00020	mg/L	1	8/1/2012 02:27
Bis(2-ethylhexyl)phthalate	U		0.00010	0.00020	mg/L	1	8/1/2012 02:27
Chrysene	U		0.000050	0.00020	mg/L	1	8/1/2012 02:27
Dibenzofuran	U		0.000050	0.00020	mg/L	1	8/1/2012 02:27
Di-n-butyl phthalate	0.000075	J	0.000050	0.00020	mg/L	1	8/1/2012 02:27
Fluoranthene	U		0.000050	0.00020	mg/L	1	8/1/2012 02:27
Fluorene	U		0.000050	0.00020	mg/L	1	8/1/2012 02:27
Naphthalene	0.000051	J	0.000050	0.00020	mg/L	1	8/1/2012 02:27
Nitrobenzene	U		0.000050	0.00020	mg/L	1	8/1/2012 02:27
N-Nitrosodiphenylamine	U		0.000050	0.00020	mg/L	1	8/1/2012 02:27
Pentachlorophenol	U		0.000050	0.00020	mg/L	1	8/1/2012 02:27
Phenanthrene	U		0.000050	0.00020	mg/L	1	8/1/2012 02:27
Phenol	0.000065	J	0.000050	0.00020	mg/L	1	8/1/2012 02:27
Pyrene	U		0.000050	0.00020	mg/L	1	8/1/2012 02:27
Surr: 2,4,6-Tribromophenol	63.2			34-129	%REC	1	8/1/2012 02:27
Surr: 2-Fluorobiphenyl	78.6			40-125	%REC	1	8/1/2012 02:27
Surr: 2-Fluorophenol	61.6			20-120	%REC	1	8/1/2012 02:27
Surr: 4-Terphenyl-d14	77.6			40-135	%REC	1	8/1/2012 02:27
Surr: Nitrobenzene-d5	71.0			41-120	%REC	1	8/1/2012 02:27
Surr: Phenol-d6	64.3			20-120	%REC	1	8/1/2012 02:27
VOLATILES			Method: SW8260	Analyst: PC			
1,2-Dichloroethane	U		0.00050	0.0050	mg/L	1	8/1/2012 02:51
Benzene	U		0.00050	0.0050	mg/L	1	8/1/2012 02:51
Chlorobenzene	U		0.00050	0.0050	mg/L	1	8/1/2012 02:51
Ethylbenzene	U		0.00050	0.0050	mg/L	1	8/1/2012 02:51

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 14-Aug-12

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Sample ID: WG-1620-MW59A-20120727
Collection Date: 7/27/2012 10:25 AM

Work Order: 12071310
Lab ID: 12071310-04
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
Methylene chloride	U		0.0010	0.010	mg/L	1	8/1/2012 02:51
Toluene	U		0.00050	0.0050	mg/L	1	8/1/2012 02:51
Vinyl chloride	U		0.00050	0.0020	mg/L	1	8/1/2012 02:51
Xylenes, Total	U		0.0015	0.015	mg/L	1	8/1/2012 02:51
Surr: 1,2-Dichloroethane-d4	117			70-125	%REC	1	8/1/2012 02:51
Surr: 4-Bromofluorobenzene	97.2			72-125	%REC	1	8/1/2012 02:51
Surr: Dibromofluoromethane	106			71-125	%REC	1	8/1/2012 02:51
Surr: Toluene-d8	107			75-125	%REC	1	8/1/2012 02:51

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 14-Aug-12

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Sample ID: WG-1620-MW59B-20120727
Collection Date: 7/27/2012 11:10 AM

Work Order: 12071310
Lab ID: 12071310-05
Matrix: WATER

Analyses	Result	Qual	SDL	ML	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270	Prep: SW3510 / 7/29/12	Analyst: LG		
1,2-Diphenylhydrazine	U		0.000050	0.00020	mg/L	1	8/1/2012 02:47
2,4-Dimethylphenol	U		0.000050	0.00020	mg/L	1	8/1/2012 02:47
2,4-Dinitrotoluene	U		0.000050	0.00020	mg/L	1	8/1/2012 02:47
2,6-Dinitrotoluene	U		0.000060	0.00020	mg/L	1	8/1/2012 02:47
2-Chloronaphthalene	U		0.000050	0.00020	mg/L	1	8/1/2012 02:47
2-Methylnaphthalene	U		0.000050	0.00020	mg/L	1	8/1/2012 02:47
4,6-Dinitro-2-methylphenol	U		0.000080	0.00020	mg/L	1	8/1/2012 02:47
4-Nitrophenol	U		0.000050	0.0010	mg/L	1	8/1/2012 02:47
Acenaphthene	U		0.000050	0.00020	mg/L	1	8/1/2012 02:47
Acenaphthylene	U		0.000050	0.00020	mg/L	1	8/1/2012 02:47
Anthracene	U		0.000050	0.00020	mg/L	1	8/1/2012 02:47
Benz(a)anthracene	U		0.000050	0.00020	mg/L	1	8/1/2012 02:47
Benzo(a)pyrene	U		0.000050	0.00020	mg/L	1	8/1/2012 02:47
Bis(2-chloroethoxy)methane	U		0.000050	0.00020	mg/L	1	8/1/2012 02:47
Bis(2-ethylhexyl)phthalate	0.00018	J	0.00010	0.00020	mg/L	1	8/1/2012 02:47
Chrysene	U		0.000050	0.00020	mg/L	1	8/1/2012 02:47
Dibenzofuran	U		0.000050	0.00020	mg/L	1	8/1/2012 02:47
Di-n-butyl phthalate	U		0.000050	0.00020	mg/L	1	8/1/2012 02:47
Fluoranthene	U		0.000050	0.00020	mg/L	1	8/1/2012 02:47
Fluorene	U		0.000050	0.00020	mg/L	1	8/1/2012 02:47
Naphthalene	0.000060	J	0.000050	0.00020	mg/L	1	8/1/2012 02:47
Nitrobenzene	U		0.000050	0.00020	mg/L	1	8/1/2012 02:47
N-Nitrosodiphenylamine	U		0.000050	0.00020	mg/L	1	8/1/2012 02:47
Pentachlorophenol	U		0.000050	0.00020	mg/L	1	8/1/2012 02:47
Phenanthrene	U		0.000050	0.00020	mg/L	1	8/1/2012 02:47
Phenol	U		0.000050	0.00020	mg/L	1	8/1/2012 02:47
Pyrene	U		0.000050	0.00020	mg/L	1	8/1/2012 02:47
Surr: 2,4,6-Tribromophenol	44.2			34-129	%REC	1	8/1/2012 02:47
Surr: 2-Fluorobiphenyl	59.8			40-125	%REC	1	8/1/2012 02:47
Surr: 2-Fluorophenol	47.0			20-120	%REC	1	8/1/2012 02:47
Surr: 4-Terphenyl-d14	76.8			40-135	%REC	1	8/1/2012 02:47
Surr: Nitrobenzene-d5	57.7			41-120	%REC	1	8/1/2012 02:47
Surr: Phenol-d6	47.5			20-120	%REC	1	8/1/2012 02:47
VOLATILES			Method: SW8260	Analyst: PC			
1,2-Dichloroethane	U		0.00050	0.0050	mg/L	1	8/1/2012 03:17
Benzene	U		0.00050	0.0050	mg/L	1	8/1/2012 03:17
Chlorobenzene	U		0.00050	0.0050	mg/L	1	8/1/2012 03:17
Ethylbenzene	U		0.00050	0.0050	mg/L	1	8/1/2012 03:17

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 14-Aug-12

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Sample ID: WG-1620-MW59B-20120727
Collection Date: 7/27/2012 11:10 AM

Work Order: 12071310
Lab ID: 12071310-05
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
Methylene chloride	U		0.0010	0.010	mg/L	1	8/1/2012 03:17
Toluene	U		0.00050	0.0050	mg/L	1	8/1/2012 03:17
Vinyl chloride	U		0.00050	0.0020	mg/L	1	8/1/2012 03:17
Xylenes, Total	U		0.0015	0.015	mg/L	1	8/1/2012 03:17
Surr: 1,2-Dichloroethane-d4	120			70-125	%REC	1	8/1/2012 03:17
Surr: 4-Bromofluorobenzene	95.3			72-125	%REC	1	8/1/2012 03:17
Surr: Dibromofluoromethane	106			71-125	%REC	1	8/1/2012 03:17
Surr: Toluene-d8	108			75-125	%REC	1	8/1/2012 03:17

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 14-Aug-12

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Sample ID: WG-1620-FB11-20120727
Collection Date: 7/27/2012 10:30 AM

Work Order: 12071310
Lab ID: 12071310-06
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			Method: SW8270	Prep: SW3510 / 7/29/12	Analyst: LG		
1,2-Diphenylhydrazine	U		0.000050	0.00020	mg/L	1	8/1/2012 03:08
2,4-Dimethylphenol	U		0.000050	0.00020	mg/L	1	8/1/2012 03:08
2,4-Dinitrotoluene	U		0.000050	0.00020	mg/L	1	8/1/2012 03:08
2,6-Dinitrotoluene	U		0.000060	0.00020	mg/L	1	8/1/2012 03:08
2-Chloronaphthalene	U		0.000050	0.00020	mg/L	1	8/1/2012 03:08
2-Methylnaphthalene	U		0.000050	0.00020	mg/L	1	8/1/2012 03:08
4,6-Dinitro-2-methylphenol	U		0.000080	0.00020	mg/L	1	8/1/2012 03:08
4-Nitrophenol	U		0.000050	0.0010	mg/L	1	8/1/2012 03:08
Acenaphthene	U		0.000050	0.00020	mg/L	1	8/1/2012 03:08
Acenaphthylene	U		0.000050	0.00020	mg/L	1	8/1/2012 03:08
Anthracene	U		0.000050	0.00020	mg/L	1	8/1/2012 03:08
Benz(a)anthracene	U		0.000050	0.00020	mg/L	1	8/1/2012 03:08
Benzo(a)pyrene	U		0.000050	0.00020	mg/L	1	8/1/2012 03:08
Bis(2-chloroethoxy)methane	U		0.000050	0.00020	mg/L	1	8/1/2012 03:08
Bis(2-ethylhexyl)phthalate	U		0.00010	0.00020	mg/L	1	8/1/2012 03:08
Chrysene	U		0.000050	0.00020	mg/L	1	8/1/2012 03:08
Dibenzofuran	U		0.000050	0.00020	mg/L	1	8/1/2012 03:08
Di-n-butyl phthalate	0.000055	J	0.000050	0.00020	mg/L	1	8/1/2012 03:08
Fluoranthene	U		0.000050	0.00020	mg/L	1	8/1/2012 03:08
Fluorene	U		0.000050	0.00020	mg/L	1	8/1/2012 03:08
Naphthalene	U		0.000050	0.00020	mg/L	1	8/1/2012 03:08
Nitrobenzene	U		0.000050	0.00020	mg/L	1	8/1/2012 03:08
N-Nitrosodiphenylamine	U		0.000050	0.00020	mg/L	1	8/1/2012 03:08
Pentachlorophenol	U		0.000050	0.00020	mg/L	1	8/1/2012 03:08
Phenanthrene	U		0.000050	0.00020	mg/L	1	8/1/2012 03:08
Phenol	U		0.000050	0.00020	mg/L	1	8/1/2012 03:08
Pyrene	U		0.000050	0.00020	mg/L	1	8/1/2012 03:08
Surr: 2,4,6-Tribromophenol	50.7			34-129	%REC	1	8/1/2012 03:08
Surr: 2-Fluorobiphenyl	80.0			40-125	%REC	1	8/1/2012 03:08
Surr: 2-Fluorophenol	66.8			20-120	%REC	1	8/1/2012 03:08
Surr: 4-Terphenyl-d14	88.4			40-135	%REC	1	8/1/2012 03:08
Surr: Nitrobenzene-d5	76.6			41-120	%REC	1	8/1/2012 03:08
Surr: Phenol-d6	72.1			20-120	%REC	1	8/1/2012 03:08
VOLATILES			Method: SW8260	Analyst: PC			
1,2-Dichloroethane	U		0.00050	0.0050	mg/L	1	8/1/2012 03:44
Benzene	U		0.00050	0.0050	mg/L	1	8/1/2012 03:44
Chlorobenzene	U		0.00050	0.0050	mg/L	1	8/1/2012 03:44
Ethylbenzene	U		0.00050	0.0050	mg/L	1	8/1/2012 03:44

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 14-Aug-12

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
Sample ID: WG-1620-FB11-20120727
Collection Date: 7/27/2012 10:30 AM

Work Order: 12071310
Lab ID: 12071310-06
Matrix: WATER

Analyses	Result	Qual	SDL	MLL	Units	Dilution Factor	Date Analyzed
Methylene chloride	U		0.0010	0.010	mg/L	1	8/1/2012 03:44
Toluene	U		0.00050	0.0050	mg/L	1	8/1/2012 03:44
Vinyl chloride	U		0.00050	0.0020	mg/L	1	8/1/2012 03:44
Xylenes, Total	U		0.0015	0.015	mg/L	1	8/1/2012 03:44
Surr: 1,2-Dichloroethane-d4	119			70-125	%REC	1	8/1/2012 03:44
Surr: 4-Bromofluorobenzene	97.3			72-125	%REC	1	8/1/2012 03:44
Surr: Dibromofluoromethane	103			71-125	%REC	1	8/1/2012 03:44
Surr: Toluene-d8	105			75-125	%REC	1	8/1/2012 03:44

Note: See Qualifiers Page for a list of qualifiers and their explanation.

WorkOrder: 12071310
 InstrumentID: SV-4
 Test Code: 8270_LOW_W
 Test Number: SW8270
 Test Name: Low-Level Semivolatiles

**METHOD DETECTION /
 REPORTING LIMITS**

Matrix: Aqueous Units: mg/L

Type	Analyte	CAS	DCS	MDL	Unadjusted MQL
A	1,2-Diphenylhydrazine	122-66-7	0.000096	0.000050	0.00020
A	2,4-Dimethylphenol	105-67-9	0.000073	0.000050	0.00020
A	2,4-Dinitrotoluene	121-14-2	0.00010	0.000050	0.00020
A	2,6-Dinitrotoluene	606-20-2	0.000063	0.000060	0.00020
A	2-Chloronaphthalene	91-58-7	0.00010	0.000050	0.00020
A	2-Methylnaphthalene	91-57-6	0.000083	0.000050	0.00020
A	4,6-Dinitro-2-methylphenol	534-52-1	0.000013	0.000080	0.00020
A	4-Nitrophenol	100-02-7	0.000082	0.000050	0.0010
A	Acenaphthene	83-32-9	0.000094	0.000050	0.00020
A	Acenaphthylene	208-96-8	0.000079	0.000050	0.00020
A	Anthracene	120-12-7	0.00010	0.000050	0.00020
A	Benz(a)anthracene	56-55-3	0.000083	0.000050	0.00020
A	Benzo(a)pyrene	50-32-8	0.000071	0.000050	0.00020
A	Bis(2-chloroethoxy)methane	111-91-1	0.00011	0.000050	0.00020
A	Bis(2-ethylhexyl)phthalate	117-81-7	0.000087	0.00010	0.00020
A	Chrysene	218-01-9	0.000089	0.000050	0.00020
A	Dibenzofuran	132-64-9	0.000093	0.000050	0.00020
A	Di-n-butyl phthalate	84-74-2	0.000094	0.000050	0.00020
A	Fluoranthene	206-44-0	0.000075	0.000050	0.00020
A	Fluorene	86-73-7	0.000076	0.000050	0.00020
A	Naphthalene	91-20-3	0.00012	0.000050	0.00020
A	Nitrobenzene	98-95-3	0.00011	0.000050	0.00020
A	N-Nitrosodiphenylamine	86-30-6	0.000098	0.000050	0.00020
A	Pentachlorophenol	87-86-5	0.0000074	0.000050	0.00020
A	Phenanthrene	85-01-8	0.000095	0.000050	0.00020
A	Phenol	108-95-2	0.00011	0.000050	0.00020
A	Pyrene	129-00-0	0.000090	0.000050	0.00020
S	Surr: 2,4,6-Tribromophenol	118-79-6	0	0	0.00020
S	Surr: 2-Fluorobiphenyl	321-60-8	0	0	0.00020
S	Surr: 2-Fluorophenol	367-12-4	0	0	0.00020
S	Surr: 4-Terphenyl-d14	1718-51-0	0	0	0.00020
S	Surr: Nitrobenzene-d5	4165-60-0	0	0	0.00020
S	Surr: Phenol-d6	13127-88-3	0	0	0.00020

WorkOrder: 12071310
InstrumentID: VOA1
Test Code: 8260_W
Test Number: SW8260
Test Name: Volatiles

**METHOD DETECTION /
 REPORTING LIMITS**

Matrix: Aqueous **Units:** mg/L

Type	Analyte	CAS	DCS	MDL	Unadjusted MQL
A	1,2-Dichloroethane	107-06-2	0.0010	0.00050	0.0050
A	Benzene	71-43-2	0.0011	0.00050	0.0050
A	Chlorobenzene	108-90-7	0.0012	0.00050	0.0050
A	Ethylbenzene	100-41-4	0.00084	0.00050	0.0050
A	Methylene chloride	75-09-2	0.0012	0.0010	0.010
A	Toluene	108-88-3	0.0012	0.00050	0.0050
A	Vinyl chloride	75-01-4	0.0011	0.00050	0.0020
M	Xylenes, Total	1330-20-7	0.0030	0.0015	0.015
S	Surr: 1,2-Dichloroethane-d4	17060-07-0	0	0	0.0050
S	Surr: 4-Bromofluorobenzene	460-00-4	0	0	0.0050
S	Surr: Dibromofluoromethane	1868-53-7	0	0	0.0050
S	Surr: Toluene-d8	2037-26-5	0	0	0.0050

WorkOrder: 12071310
InstrumentID: VOA6
Test Code: 8260_W
Test Number: SW8260
Test Name: Volatiles

**METHOD DETECTION /
 REPORTING LIMITS**

Matrix: Aqueous **Units:** mg/L

Type	Analyte	CAS	DCS	MDL	Unadjusted MQL
A	1,2-Dichloroethane	107-06-2	0.0017	0.00050	0.0050
A	Benzene	71-43-2	0.0016	0.00050	0.0050
A	Chlorobenzene	108-90-7	0.0015	0.00050	0.0050
A	Ethylbenzene	100-41-4	0.0014	0.00050	0.0050
A	Methylene chloride	75-09-2	0.0010	0.0010	0.010
A	Toluene	108-88-3	0.0015	0.00050	0.0050
A	Vinyl chloride	75-01-4	0.0017	0.00050	0.0020
M	Xylenes, Total	1330-20-7	0.0044	0.0015	0.015
S	Surr: 1,2-Dichloroethane-d4	17060-07-0	0	0	0.0050
S	Surr: 4-Bromofluorobenzene	460-00-4	0	0	0.0050
S	Surr: Dibromofluoromethane	1868-53-7	0	0	0.0050
S	Surr: Toluene-d8	2037-26-5	0	0	0.0050

ALS Environmental

Date: 14-Aug-12

Client: Pastor, Behling & Wheeler, LLC
Work Order: 12071310
Project: UPRR Houston Wood GW

QC BATCH REPORT

Batch ID: **63002** Instrument ID **SV-4** Method: **SW8270**

MBLK	Sample ID: SBLKW2-120729-63002					Units: µg/L	Analysis Date: 7/30/2012 12:28 PM			
Client ID:	Run ID: SV-4_120730C					SeqNo: 2886656	Prep Date: 7/29/2012	DF: 1		
Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Diphenylhydrazine	U	0.20								
2,4-Dimethylphenol	U	0.20								
2,4-Dinitrotoluene	U	0.20								
2,6-Dinitrotoluene	U	0.20								
2-Chloronaphthalene	U	0.20								
2-Methylnaphthalene	U	0.20								
4,6-Dinitro-2-methylphenol	U	0.20								
4-Nitrophenol	U	1.0								
Acenaphthene	U	0.20								
Acenaphthylene	U	0.20								
Anthracene	U	0.20								
Benz(a)anthracene	U	0.20								
Benzo(a)pyrene	U	0.20								
Bis(2-chloroethoxy)methane	U	0.20								
Bis(2-ethylhexyl)phthalate	U	0.20								
Chrysene	U	0.20								
Dibenzofuran	U	0.20								
Di-n-butyl phthalate	U	0.20								
Fluoranthene	U	0.20								
Fluorene	U	0.20								
Naphthalene	U	0.20								
Nitrobenzene	U	0.20								
N-Nitrosodiphenylamine	U	0.20								
Pentachlorophenol	U	0.20								
Phenanthrene	U	0.20								
Phenol	U	0.20								
Pyrene	U	0.20								
<i>Surr: 2,4,6-Tribromophenol</i>	3.826	0.20	5	0	76.5	34-129	0			
<i>Surr: 2-Fluorobiphenyl</i>	3.934	0.20	5	0	78.7	40-125	0			
<i>Surr: 2-Fluorophenol</i>	3.561	0.20	5	0	71.2	20-120	0			
<i>Surr: 4-Terphenyl-d14</i>	4.06	0.20	5	0	81.2	40-135	0			
<i>Surr: Nitrobenzene-d5</i>	3.923	0.20	5	0	78.5	41-120	0			
<i>Surr: Phenol-d6</i>	3.568	0.20	5	0	71.4	20-120	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Pastor, Behling & Wheeler, LLC
Work Order: 12071310
Project: UPRR Houston Wood GW

QC BATCH REPORT

Batch ID: **63002** Instrument ID **SV-4** Method: **SW8270**

LCS		Sample ID: SLCSW2-120729-63002			Units: µg/L		Analysis Date: 7/30/2012 12:49 PM			
Client ID:		Run ID: SV-4_120730C			SeqNo: 2886657		Prep Date: 7/29/2012		DF: 1	
Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
2,4-Dimethylphenol	3.909	0.20	5	0	78.2	35-120	0			
2,4-Dinitrotoluene	4.304	0.20	5	0	86.1	50-122	0			
2,6-Dinitrotoluene	4.191	0.20	5	0	83.8	50-120	0			
2-Chloronaphthalene	4.498	0.20	5	0	90	50-120	0			
2-Methylnaphthalene	3.566	0.20	5	0	71.3	50-120	0			
4,6-Dinitro-2-methylphenol	3.302	0.20	5	0	66	25-121	0			
4-Nitrophenol	4.611	1.0	5	0	92.2	30-130	0			
Acenaphthene	3.985	0.20	5	0	79.7	45-120	0			
Acenaphthylene	4.145	0.20	5	0	82.9	47-120	0			
Anthracene	4.517	0.20	5	0	90.3	45-120	0			
Benz(a)anthracene	3.574	0.20	5	0	71.5	40-120	0			
Benzo(a)pyrene	4.12	0.20	5	0	82.4	45-120	0			
Bis(2-chloroethoxy)methane	4.106	0.20	5	0	82.1	45-120	0			
Bis(2-ethylhexyl)phthalate	4.228	0.20	5	0	84.6	40-139	0			
Chrysene	5.031	0.20	5	0	101	43-120	0			
Dibenzofuran	4.437	0.20	5	0	88.7	50-120	0			
Di-n-butyl phthalate	3.589	0.20	5	0	71.8	45-123	0			
Fluoranthene	3.51	0.20	5	0	70.2	45-125	0			
Fluorene	4.503	0.20	5	0	90.1	49-120	0			
Naphthalene	4.505	0.20	5	0	90.1	45-120	0			
Nitrobenzene	4.328	0.20	5	0	86.6	44-120	0			
N-Nitrosodiphenylamine	3.658	0.20	5	0	73.2	40-125	0			
Pentachlorophenol	2.855	0.20	5	0	57.1	19-121	0			
Phenanthrene	4.217	0.20	5	0	84.3	45-121	0			
Phenol	3.864	0.20	5	0	77.3	20-124	0			
Pyrene	3.487	0.20	5	0	69.7	40-130	0			
<i>Surr: 2,4,6-Tribromophenol</i>	5.269	0.20	5	0	105	34-129	0			
<i>Surr: 2-Fluorobiphenyl</i>	5.099	0.20	5	0	102	40-125	0			
<i>Surr: 2-Fluorophenol</i>	3.708	0.20	5	0	74.2	20-120	0			
<i>Surr: 4-Terphenyl-d14</i>	3.976	0.20	5	0	79.5	40-135	0			
<i>Surr: Nitrobenzene-d5</i>	4.249	0.20	5	0	85	41-120	0			
<i>Surr: Phenol-d6</i>	4.107	0.20	5	0	82.1	20-120	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Pastor, Behling & Wheeler, LLC
 Work Order: 12071310
 Project: UPRR Houston Wood GW

QC BATCH REPORT

Batch ID: **63002** Instrument ID **SV-4** Method: **SW8270**

LCSD	Sample ID: SLCSDW2-120729-63002	Units: µg/L					Analysis Date: 7/30/2012 01:10 PM				
Client ID:	Run ID: SV-4_120730C	SeqNo: 2886658			Prep Date: 7/29/2012		DF: 1				
Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
2,4-Dimethylphenol	3.493	0.20	5	0	69.9	35-120	3.909	11.2	20		
2,4-Dinitrotoluene	4.098	0.20	5	0	82	50-122	4.304	4.91	20		
2,6-Dinitrotoluene	4.203	0.20	5	0	84.1	50-120	4.191	0.277	20		
2-Chloronaphthalene	4.403	0.20	5	0	88.1	50-120	4.498	2.14	20		
2-Methylnaphthalene	4.88	0.20	5	0	97.6	50-120	3.566	31.1	20	R	
4,6-Dinitro-2-methylphenol	3.522	0.20	5	0	70.4	25-121	3.302	6.44	20		
4-Nitrophenol	4.68	1.0	5	0	93.6	30-130	4.611	1.47	20		
Acenaphthene	3.963	0.20	5	0	79.3	45-120	3.985	0.561	20		
Acenaphthylene	3.963	0.20	5	0	79.3	47-120	4.145	4.48	20		
Anthracene	3.826	0.20	5	0	76.5	45-120	4.517	16.6	20		
Benz(a)anthracene	3.432	0.20	5	0	68.6	40-120	3.574	4.05	20		
Benzo(a)pyrene	4.256	0.20	5	0	85.1	45-120	4.12	3.26	20		
Bis(2-chloroethoxy)methane	3.492	0.20	5	0	69.8	45-120	4.106	16.2	20		
Bis(2-ethylhexyl)phthalate	4.098	0.20	5	0	82	40-139	4.228	3.13	20		
Chrysene	4.315	0.20	5	0	86.3	43-120	5.031	15.3	20		
Dibenzofuran	3.97	0.20	5	0	79.4	50-120	4.437	11.1	20		
Di-n-butyl phthalate	4.235	0.20	5	0	84.7	45-123	3.589	16.5	20		
Fluoranthene	4.142	0.20	5	0	82.8	45-125	3.51	16.5	20		
Fluorene	3.644	0.20	5	0	72.9	49-120	4.503	21.1	20	R	
Naphthalene	4.192	0.20	5	0	83.8	45-120	4.505	7.21	20		
Nitrobenzene	4.422	0.20	5	0	88.4	44-120	4.328	2.14	20		
N-Nitrosodiphenylamine	3.94	0.20	5	0	78.8	40-125	3.658	7.44	20		
Pentachlorophenol	2.724	0.20	5	0	54.5	19-121	2.855	4.67	20		
Phenanthrene	3.988	0.20	5	0	79.8	45-121	4.217	5.57	20		
Phenol	3.855	0.20	5	0	77.1	20-124	3.864	0.221	20		
Pyrene	3.803	0.20	5	0	76.1	40-130	3.487	8.66	20		
<i>Surr: 2,4,6-Tribromophenol</i>	4.026	0.20	5	0	80.5	34-129	5.269	26.7	0		
<i>Surr: 2-Fluorobiphenyl</i>	4.868	0.20	5	0	97.4	40-125	5.099	4.63	0		
<i>Surr: 2-Fluorophenol</i>	3.796	0.20	5	0	75.9	20-120	3.708	2.34	0		
<i>Surr: 4-Terphenyl-d14</i>	4.576	0.20	5	0	91.5	40-135	3.976	14	0		
<i>Surr: Nitrobenzene-d5</i>	4.586	0.20	5	0	91.7	41-120	4.249	7.63	0		
<i>Surr: Phenol-d6</i>	4.06	0.20	5	0	81.2	20-120	4.107	1.13	0		

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Pastor, Behling & Wheeler, LLC
Work Order: 12071310
Project: UPRR Houston Wood GW

QC BATCH REPORT

Batch ID: **63002** Instrument ID **SV-4** Method: **SW8270**

MS		Sample ID: 12071310-03BMS			Units: µg/L		Analysis Date: 7/31/2012 04:24 AM			
Client ID: WG-1620-MW61A-20120727		Run ID: SV-4_120730C			SeqNo: 2886660		Prep Date: 7/29/2012		DF: 1	
Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Diphenylhydrazine	4.963	0.20	5	0	99.3	39-127	0			
2,4-Dimethylphenol	4.199	0.20	5	0	84	35-120	0			
2,4-Dinitrotoluene	4.871	0.20	5	0	97.4	50-122	0			
2,6-Dinitrotoluene	4.19	0.20	5	0	83.8	50-120	0			
2-Chloronaphthalene	3.969	0.20	5	0	79.4	50-120	0			
2-Methylnaphthalene	4.556	0.20	5	0	91.1	50-120	0			
4,6-Dinitro-2-methylphenol	3.998	0.20	5	0	80	25-121	0			
4-Nitrophenol	5.518	1.0	5	0	110	30-130	0			
Acenaphthene	4.282	0.20	5	0	85.6	45-120	0			
Acenaphthylene	4.377	0.20	5	0	87.5	47-120	0			
Anthracene	4.68	0.20	5	0	93.6	45-120	0			
Benz(a)anthracene	4.588	0.20	5	0	91.8	40-120	0			
Benzo(a)pyrene	4.563	0.20	5	0	91.3	45-120	0			
Bis(2-chloroethoxy)methane	4.392	0.20	5	0	87.8	45-120	0			
Bis(2-ethylhexyl)phthalate	5.17	0.20	5	0.2699	98	40-139	0			
Chrysene	4.53	0.20	5	0	90.6	43-120	0			
Dibenzofuran	4.552	0.20	5	0	91	50-120	0			
Di-n-butyl phthalate	5.156	0.20	5	0	103	45-123	0			
Fluoranthene	5.011	0.20	5	0	100	45-125	0			
Fluorene	4.655	0.20	5	0	93.1	49-120	0			
Naphthalene	4.616	0.20	5	0	92.3	45-120	0			
Nitrobenzene	4.193	0.20	5	0	83.9	44-120	0			
N-Nitrosodiphenylamine	4.843	0.20	5	0	96.9	40-125	0			
Pentachlorophenol	3.286	0.20	5	0	65.7	19-121	0			
Phenanthrene	4.796	0.20	5	0.1551	92.8	45-121	0			
Phenol	4.216	0.20	5	0	84.3	20-124	0			
Pyrene	4.91	0.20	5	0	98.2	40-130	0			
<i>Surr: 2,4,6-Tribromophenol</i>	4.345	0.20	5	0	86.9	34-129	0			
<i>Surr: 2-Fluorobiphenyl</i>	4.179	0.20	5	0	83.6	40-125	0			
<i>Surr: 2-Fluorophenol</i>	3.887	0.20	5	0	77.7	20-120	0			
<i>Surr: 4-Terphenyl-d14</i>	5.402	0.20	5	0	108	40-135	0			
<i>Surr: Nitrobenzene-d5</i>	4.272	0.20	5	0	85.4	41-120	0			
<i>Surr: Phenol-d6</i>	4.253	0.20	5	0	85.1	20-120	0			

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 Project: UPRR Houston Wood GW

QC BATCH REPORT

Batch ID: **63002** Instrument ID **SV-4** Method: **SW8270**

MS		Sample ID: 12071248-01BMS			Units: µg/L		Analysis Date: 7/31/2012 03:23 AM			
Client ID:		Run ID: SV-4_120730C			SeqNo: 2886667		Prep Date: 7/29/2012		DF: 1	
Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Diphenylhydrazine	3.478	0.20	5	0	69.6	39-127	0			
2,4-Dimethylphenol	3.17	0.20	5	0	63.4	35-120	0			
2,4-Dinitrotoluene	3.708	0.20	5	0	74.2	50-122	0			
2,6-Dinitrotoluene	4.292	0.20	5	0	85.8	50-120	0			
2-Chloronaphthalene	3.325	0.20	5	0	66.5	50-120	0			
2-Methylnaphthalene	2.834	0.20	5	0	56.7	50-120	0			
4,6-Dinitro-2-methylphenol	2.968	0.20	5	0	59.4	25-121	0			
4-Nitrophenol	4.763	1.0	5	0	95.3	30-130	0			
Acenaphthene	3.509	0.20	5	0	70.2	45-120	0			
Acenaphthylene	3.664	0.20	5	0	73.3	47-120	0			
Anthracene	3.768	0.20	5	0	75.4	45-120	0			
Benz(a)anthracene	3.577	0.20	5	0	71.5	40-120	0			
Benzo(a)pyrene	3.452	0.20	5	0	69	45-120	0			
Bis(2-chloroethoxy)methane	3.058	0.20	5	0	61.2	45-120	0			
Bis(2-ethylhexyl)phthalate	4.202	0.20	5	0.2072	79.9	40-139	0			
Chrysene	3.413	0.20	5	0	68.3	43-120	0			
Dibenzofuran	3.836	0.20	5	0	76.7	50-120	0			
Di-n-butyl phthalate	4.213	0.20	5	0.05452	83.2	45-123	0			
Fluoranthene	4.052	0.20	5	0	81	45-125	0			
Fluorene	3.814	0.20	5	0	76.3	49-120	0			
Naphthalene	3.733	0.20	5	0.1929	70.8	45-120	0			
Nitrobenzene	3.128	0.20	5	0	62.6	44-120	0			
N-Nitrosodiphenylamine	3.545	0.20	5	0	70.9	40-125	0			
Pentachlorophenol	2.692	0.20	5	0	53.8	19-121	0			
Phenanthrene	3.726	0.20	5	0	74.5	45-121	0			
Phenol	3.483	0.20	5	0	69.7	20-124	0			
Pyrene	3.635	0.20	5	0	72.7	40-130	0			
Surr: 2,4,6-Tribromophenol	4.161	0.20	5	0	83.2	34-129	0			
Surr: 2-Fluorobiphenyl	3.75	0.20	5	0	75	40-125	0			
Surr: 2-Fluorophenol	3.282	0.20	5	0	65.6	20-120	0			
Surr: 4-Terphenyl-d14	4.157	0.20	5	0	83.1	40-135	0			
Surr: Nitrobenzene-d5	3.164	0.20	5	0	63.3	41-120	0			
Surr: Phenol-d6	3.388	0.20	5	0	67.8	20-120	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Pastor, Behling & Wheeler, LLC
 Work Order: 12071310
 Project: UPRR Houston Wood GW

QC BATCH REPORT

Batch ID: 63002 Instrument ID SV-4 Method: SW8270

MSD		Sample ID: 12071310-03BMSD			Units: µg/L			Analysis Date: 7/31/2012 04:44 AM		
Client ID: WG-1620-MW61A-20120727		Run ID: SV-4_120730C			SeqNo: 2886661		Prep Date: 7/29/2012		DF: 1	
Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Diphenylhydrazine	4.751	0.20	5	0	95	39-127	4.963	4.35	20	
2,4-Dimethylphenol	4.322	0.20	5	0	86.4	35-120	4.199	2.88	20	
2,4-Dinitrotoluene	4.77	0.20	5	0	95.4	50-122	4.871	2.1	20	
2,6-Dinitrotoluene	4.349	0.20	5	0	87	50-120	4.19	3.71	20	
2-Chloronaphthalene	4.333	0.20	5	0	86.7	50-120	3.969	8.77	20	
2-Methylnaphthalene	4.273	0.20	5	0	85.5	50-120	4.556	6.41	20	
4,6-Dinitro-2-methylphenol	3.922	0.20	5	0	78.4	25-121	3.998	1.93	20	
4-Nitrophenol	5.291	1.0	5	0	106	30-130	5.518	4.19	20	
Acenaphthene	4.162	0.20	5	0	83.2	45-120	4.282	2.84	20	
Acenaphthylene	4.521	0.20	5	0	90.4	47-120	4.377	3.23	20	
Anthracene	4.672	0.20	5	0	93.4	45-120	4.68	0.17	20	
Benz(a)anthracene	4.335	0.20	5	0	86.7	40-120	4.588	5.68	20	
Benzo(a)pyrene	4.963	0.20	5	0	99.3	45-120	4.563	8.41	20	
Bis(2-chloroethoxy)methane	4.123	0.20	5	0	82.5	45-120	4.392	6.3	20	
Bis(2-ethylhexyl)phthalate	4.99	0.20	5	0.2699	94.4	40-139	5.17	3.55	20	
Chrysene	4.041	0.20	5	0	80.8	43-120	4.53	11.4	20	
Dibenzofuran	4.706	0.20	5	0	94.1	50-120	4.552	3.32	20	
Di-n-butyl phthalate	5.363	0.20	5	0	107	45-123	5.156	3.93	20	
Fluoranthene	4.874	0.20	5	0	97.5	45-125	5.011	2.76	20	
Fluorene	4.84	0.20	5	0	96.8	49-120	4.655	3.9	20	
Naphthalene	4.652	0.20	5	0	93	45-120	4.616	0.791	20	
Nitrobenzene	4.339	0.20	5	0	86.8	44-120	4.193	3.41	20	
N-Nitrosodiphenylamine	4.459	0.20	5	0	89.2	40-125	4.843	8.26	20	
Pentachlorophenol	3.195	0.20	5	0	63.9	19-121	3.286	2.82	20	
Phenanthrene	4.88	0.20	5	0.1551	94.5	45-121	4.796	1.73	20	
Phenol	3.648	0.20	5	0	73	20-124	4.216	14.4	20	
Pyrene	4.39	0.20	5	0	87.8	40-130	4.91	11.2	20	
Surr: 2,4,6-Tribromophenol	4.947	0.20	5	0	98.9	34-129	4.345	13	0	
Surr: 2-Fluorobiphenyl	4.249	0.20	5	0	85	40-125	4.179	1.65	0	
Surr: 2-Fluorophenol	3.351	0.20	5	0	67	20-120	3.887	14.8	0	
Surr: 4-Terphenyl-d14	4.737	0.20	5	0	94.7	40-135	5.402	13.1	0	
Surr: Nitrobenzene-d5	4.294	0.20	5	0	85.9	41-120	4.272	0.513	0	
Surr: Phenol-d6	3.773	0.20	5	0	75.5	20-120	4.253	12	0	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Pastor, Behling & Wheeler, LLC
 Work Order: 12071310
 Project: UPRR Houston Wood GW

QC BATCH REPORT

Batch ID: 63002 Instrument ID SV-4 Method: SW8270

MSD		Sample ID: 12071248-01BMSD			Units: µg/L			Analysis Date: 7/31/2012 03:43 AM		
Client ID:		Run ID: SV-4_120730C			SeqNo: 2886668		Prep Date: 7/29/2012		DF: 1	
Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Diphenylhydrazine	3.718	0.20	5	0	74.4	39-127	3.478	6.67	20	
2,4-Dimethylphenol	3.337	0.20	5	0	66.7	35-120	3.17	5.12	20	
2,4-Dinitrotoluene	3.78	0.20	5	0	75.6	50-122	3.708	1.94	20	
2,6-Dinitrotoluene	3.989	0.20	5	0	79.8	50-120	4.292	7.32	20	
2-Chloronaphthalene	3.629	0.20	5	0	72.6	50-120	3.325	8.75	20	
2-Methylnaphthalene	3.851	0.20	5	0	77	50-120	2.834	30.4	20	R
4,6-Dinitro-2-methylphenol	3.206	0.20	5	0	64.1	25-121	2.968	7.7	20	
4-Nitrophenol	4.529	1.0	5	0	90.6	30-130	4.763	5.04	20	
Acenaphthene	3.399	0.20	5	0	68	45-120	3.509	3.19	20	
Acenaphthylene	3.507	0.20	5	0	70.1	47-120	3.664	4.36	20	
Anthracene	3.867	0.20	5	0	77.3	45-120	3.768	2.59	20	
Benz(a)anthracene	3.405	0.20	5	0	68.1	40-120	3.577	4.93	20	
Benzo(a)pyrene	3.254	0.20	5	0	65.1	45-120	3.452	5.89	20	
Bis(2-chloroethoxy)methane	3.455	0.20	5	0	69.1	45-120	3.058	12.2	20	
Bis(2-ethylhexyl)phthalate	4.03	0.20	5	0.2072	76.5	40-139	4.202	4.17	20	
Chrysene	3.315	0.20	5	0	66.3	43-120	3.413	2.9	20	
Dibenzofuran	3.815	0.20	5	0	76.3	50-120	3.836	0.553	20	
Di-n-butyl phthalate	4.224	0.20	5	0.05452	83.4	45-123	4.213	0.266	20	
Fluoranthene	3.701	0.20	5	0	74	45-125	4.052	9.05	20	
Fluorene	4.056	0.20	5	0	81.1	49-120	3.814	6.13	20	
Naphthalene	3.973	0.20	5	0.1929	75.6	45-120	3.733	6.23	20	
Nitrobenzene	3.471	0.20	5	0	69.4	44-120	3.128	10.4	20	
N-Nitrosodiphenylamine	3.587	0.20	5	0	71.7	40-125	3.545	1.18	20	
Pentachlorophenol	2.439	0.20	5	0	48.8	19-121	2.692	9.86	20	
Phenanthrene	3.777	0.20	5	0	75.5	45-121	3.726	1.35	20	
Phenol	3.579	0.20	5	0	71.6	20-124	3.483	2.74	20	
Pyrene	3.585	0.20	5	0	71.7	40-130	3.635	1.41	20	
Surr: 2,4,6-Tribromophenol	3.613	0.20	5	0	72.3	34-129	4.161	14.1	0	
Surr: 2-Fluorobiphenyl	3.534	0.20	5	0	70.7	40-125	3.75	5.94	0	
Surr: 2-Fluorophenol	2.89	0.20	5	0	57.8	20-120	3.282	12.7	0	
Surr: 4-Terphenyl-d14	3.684	0.20	5	0	73.7	40-135	4.157	12.1	0	
Surr: Nitrobenzene-d5	3.401	0.20	5	0	68	41-120	3.164	7.22	0	
Surr: Phenol-d6	3.752	0.20	5	0	75	20-120	3.388	10.2	0	

The following samples were analyzed in this batch:

12071310-02B	12071310-03B	12071310-04B
12071310-05B	12071310-06B	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Pastor, Behling & Wheeler, LLC
Work Order: 12071310
Project: UPRR Houston Wood GW

QC BATCH REPORT

Batch ID: **R132166** Instrument ID **VOA1** Method: **SW8260**

MBLK		Sample ID: VBLKW-073012-R132166			Units: µg/L			Analysis Date: 7/30/2012 10:38 PM		
Client ID:		Run ID: VOA1_120730A			SeqNo: 2881735		Prep Date:		DF: 1	
Analyte	Result	ML	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Dichloroethane	U	5.0								
Benzene	U	5.0								
Chlorobenzene	U	5.0								
Ethylbenzene	U	5.0								
Methylene chloride	U	10								
Toluene	U	5.0								
Vinyl chloride	U	2.0								
Xylenes, Total	U	15								
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>46.26</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>92.5</i>	<i>70-125</i>	<i>0</i>			
<i>Surr: 4-Bromofluorobenzene</i>	<i>46.72</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>93.4</i>	<i>72-125</i>	<i>0</i>			
<i>Surr: Dibromofluoromethane</i>	<i>47.86</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>95.7</i>	<i>71-125</i>	<i>0</i>			
<i>Surr: Toluene-d8</i>	<i>50.04</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>100</i>	<i>75-125</i>	<i>0</i>			

LCS		Sample ID: VLCSW-073013-R132166			Units: µg/L			Analysis Date: 7/30/2012 09:19 PM		
Client ID:		Run ID: VOA1_120730A			SeqNo: 2881734		Prep Date:		DF: 1	
Analyte	Result	ML	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Dichloroethane	43.89	5.0	50	0	87.8	78-120	0			
Benzene	47.12	5.0	50	0	94.2	73-121	0			
Chlorobenzene	45.78	5.0	50	0	91.6	80-120	0			
Ethylbenzene	47.22	5.0	50	0	94.4	80-120	0			
Methylene chloride	45.68	10	50	0	91.4	65-133	0			
Toluene	43.96	5.0	50	0	87.9	80-120	0			
Vinyl chloride	46.43	2.0	50	0	92.9	70-127	0			
Xylenes, Total	140.8	15	150	0	93.8	80-120	0			
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>46.82</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>93.6</i>	<i>70-125</i>	<i>0</i>			
<i>Surr: 4-Bromofluorobenzene</i>	<i>47.99</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>96</i>	<i>72-125</i>	<i>0</i>			
<i>Surr: Dibromofluoromethane</i>	<i>48.17</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>96.3</i>	<i>71-125</i>	<i>0</i>			
<i>Surr: Toluene-d8</i>	<i>49.28</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>98.6</i>	<i>75-125</i>	<i>0</i>			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Pastor, Behling & Wheeler, LLC
 Work Order: 12071310
 Project: UPRR Houston Wood GW

QC BATCH REPORT

Batch ID: R132166 Instrument ID VOA1 Method: SW8260

MS		Sample ID: 12071246-03AMS			Units: µg/L		Analysis Date: 7/30/2012 11:31 PM			
Client ID:		Run ID: VOA1_120730A			SeqNo: 2881737		Prep Date:		DF: 5	
Analyte	Result	ML	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Dichloroethane	241.1	25	250	0	96.5	78-120	0			
Benzene	243.4	25	250	0	97.4	73-121	0			
Chlorobenzene	230.7	25	250	0	92.3	80-120	0			
Ethylbenzene	218.5	25	250	0	87.4	80-120	0			
Methylene chloride	217.7	50	250	0	87.1	65-133	0			
Toluene	222.3	25	250	0	88.9	80-120	0			
Vinyl chloride	218.5	10	250	7.859	84.3	70-127	0			
Xylenes, Total	646.3	75	750	0	86.2	80-120	0			
<i>Surr: 1,2-Dichloroethane-d4</i>	247.2	25	250	0	98.9	70-125	0			
<i>Surr: 4-Bromofluorobenzene</i>	260	25	250	0	104	72-125	0			
<i>Surr: Dibromofluoromethane</i>	252	25	250	0	101	71-125	0			
<i>Surr: Toluene-d8</i>	242.9	25	250	0	97.1	75-125	0			

MSD		Sample ID: 12071246-03AMSD			Units: µg/L		Analysis Date: 7/30/2012 11:57 PM			
Client ID:		Run ID: VOA1_120730A			SeqNo: 2881738		Prep Date:		DF: 5	
Analyte	Result	ML	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Dichloroethane	246.6	25	250	0	98.7	78-120	241.1	2.25	20	
Benzene	263.2	25	250	0	105	73-121	243.4	7.83	20	
Chlorobenzene	237.7	25	250	0	95.1	80-120	230.7	2.99	20	
Ethylbenzene	240.5	25	250	0	96.2	80-120	218.5	9.58	20	
Methylene chloride	251.4	50	250	0	101	65-133	217.7	14.4	20	
Toluene	229.9	25	250	0	92	80-120	222.3	3.36	20	
Vinyl chloride	241.4	10	250	7.859	93.4	70-127	218.5	9.95	20	
Xylenes, Total	716.9	75	750	0	95.6	80-120	646.3	10.4	20	
<i>Surr: 1,2-Dichloroethane-d4</i>	253.2	25	250	0	101	70-125	247.2	2.38	20	
<i>Surr: 4-Bromofluorobenzene</i>	254.6	25	250	0	102	72-125	260	2.07	20	
<i>Surr: Dibromofluoromethane</i>	252.1	25	250	0	101	71-125	252	0.0211	20	
<i>Surr: Toluene-d8</i>	247.2	25	250	0	98.9	75-125	242.9	1.77	20	

The following samples were analyzed in this batch:

12071310-01A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Pastor, Behling & Wheeler, LLC
 Work Order: 12071310
 Project: UPRR Houston Wood GW

QC BATCH REPORT

Batch ID: R132262 Instrument ID VOA6 Method: SW8260

MBLK Sample ID: VBLKW-073112-R132262 Units: µg/L Analysis Date: 8/1/2012 12:37 AM

Client ID: Run ID: VOA6_120731B SeqNo: 2883850 Prep Date: DF: 1

Analyte	Result	ML	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Dichloroethane	U	5.0								
Benzene	U	5.0								
Chlorobenzene	U	5.0								
Ethylbenzene	U	5.0								
Methylene chloride	U	10								
Toluene	U	5.0								
Vinyl chloride	U	2.0								
Xylenes, Total	U	15								
<i>Surr: 1,2-Dichloroethane-d4</i>	59.4	5.0	50	0	119	70-125	0			
<i>Surr: 4-Bromofluorobenzene</i>	48.23	5.0	50	0	96.5	72-125	0			
<i>Surr: Dibromofluoromethane</i>	51.63	5.0	50	0	103	71-125	0			
<i>Surr: Toluene-d8</i>	52.35	5.0	50	0	105	75-125	0			

LCS Sample ID: VLCSW-073112-R132262 Units: µg/L Analysis Date: 7/31/2012 11:44 PM

Client ID: Run ID: VOA6_120731B SeqNo: 2883847 Prep Date: DF: 1

Analyte	Result	ML	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Dichloroethane	47.76	5.0	50	0	95.5	78-120	0			
Benzene	50.99	5.0	50	0	102	73-121	0			
Chlorobenzene	46.8	5.0	50	0	93.6	80-120	0			
Ethylbenzene	47.71	5.0	50	0	95.4	80-120	0			
Methylene chloride	49.58	10	50	0	99.2	65-133	0			
Toluene	49.23	5.0	50	0	98.5	80-120	0			
Vinyl chloride	53.72	2.0	50	0	107	70-127	0			
Xylenes, Total	141.5	15	150	0	94.3	80-120	0			
<i>Surr: 1,2-Dichloroethane-d4</i>	56.53	5.0	50	0	113	70-125	0			
<i>Surr: 4-Bromofluorobenzene</i>	50.55	5.0	50	0	101	72-125	0			
<i>Surr: Dibromofluoromethane</i>	51.3	5.0	50	0	103	71-125	0			
<i>Surr: Toluene-d8</i>	49.95	5.0	50	0	99.9	75-125	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Pastor, Behling & Wheeler, LLC
 Work Order: 12071310
 Project: UPRR Houston Wood GW

QC BATCH REPORT

Batch ID: R132262 Instrument ID VOA6 Method: SW8260

MS		Sample ID: 12071310-03AMS			Units: µg/L		Analysis Date: 8/1/2012 01:57 AM			
Client ID: WG-1620-MW61A-20120727		Run ID: VOA6_120731B			SeqNo: 2883853		Prep Date:		DF: 1	
Analyte	Result	ML	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Dichloroethane	48	5.0	50	0	96	78-120	0			
Benzene	51.08	5.0	50	0	102	73-121	0			
Chlorobenzene	46.71	5.0	50	0	93.4	80-120	0			
Ethylbenzene	46.74	5.0	50	0	93.5	80-120	0			
Methylene chloride	51.37	10	50	0	103	65-133	0			
Toluene	47.83	5.0	50	0	95.7	80-120	0			
Vinyl chloride	52.59	2.0	50	0	105	70-127	0			
Xylenes, Total	139	15	150	0	92.7	80-120	0			
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>58.3</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>117</i>	<i>70-125</i>	<i>0</i>			
<i>Surr: 4-Bromofluorobenzene</i>	<i>49.58</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>99.2</i>	<i>72-125</i>	<i>0</i>			
<i>Surr: Dibromofluoromethane</i>	<i>51.85</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>104</i>	<i>71-125</i>	<i>0</i>			
<i>Surr: Toluene-d8</i>	<i>49.29</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>98.6</i>	<i>75-125</i>	<i>0</i>			

MSD		Sample ID: 12071310-03AMSD			Units: µg/L		Analysis Date: 8/1/2012 02:24 AM			
Client ID: WG-1620-MW61A-20120727		Run ID: VOA6_120731B			SeqNo: 2883854		Prep Date:		DF: 1	
Analyte	Result	ML	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2-Dichloroethane	46.99	5.0	50	0	94	78-120	48	2.12	20	
Benzene	50.06	5.0	50	0	100	73-121	51.08	2.03	20	
Chlorobenzene	48.14	5.0	50	0	96.3	80-120	46.71	3.01	20	
Ethylbenzene	47.87	5.0	50	0	95.7	80-120	46.74	2.37	20	
Methylene chloride	53.78	10	50	0	108	65-133	51.37	4.6	20	
Toluene	49.47	5.0	50	0	98.9	80-120	47.83	3.37	20	
Vinyl chloride	52.78	2.0	50	0	106	70-127	52.59	0.369	20	
Xylenes, Total	143.3	15	150	0	95.5	80-120	139	2.98	20	
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>57.86</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>116</i>	<i>70-125</i>	<i>58.3</i>	<i>0.762</i>	<i>20</i>	
<i>Surr: 4-Bromofluorobenzene</i>	<i>52.04</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>104</i>	<i>72-125</i>	<i>49.58</i>	<i>4.84</i>	<i>20</i>	
<i>Surr: Dibromofluoromethane</i>	<i>52.9</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>106</i>	<i>71-125</i>	<i>51.85</i>	<i>2</i>	<i>20</i>	
<i>Surr: Toluene-d8</i>	<i>50.15</i>	<i>5.0</i>	<i>50</i>	<i>0</i>	<i>100</i>	<i>75-125</i>	<i>49.29</i>	<i>1.72</i>	<i>20</i>	

The following samples were analyzed in this batch:

12071310-02A	12071310-03A	12071310-04A
12071310-05A	12071310-06A	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Pastor, Behling & Wheeler, LLC
Project: UPRR Houston Wood GW
WorkOrder: 12071310

**QUALIFIERS,
ACRONYMS, UNITS**

<u>Qualifier</u>	<u>Description</u>
*	Value exceeds Regulatory Limit
a	Not accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
J	Analyte detected below quantitation limit
M	Manually integrated, see raw data for justification
n	Not offered for accreditation
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL

<u>Acronym</u>	<u>Description</u>
DCS	Detectability Check Study
DUP	Method Duplicate
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
MBLK	Method Blank
MDL	Method Detection Limit
MQL	Method Quantitation Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PDS	Post Digestion Spike
PQL	Practical Quantitation Limit
SD	Serial Dilution
SDL	Sample Detection Limit
TRRP	Texas Risk Reduction Program

<u>Units Reported</u>	<u>Description</u>
mg/L	Milligrams per Liter

Sample Receipt Checklist

Client Name: **PBW**

Date/Time Received: **27-Jul-12 14:20**

Work Order: **12071310**

Received by: **RNG**

Checklist completed by Parash M. Ciga 27-Jul-12
eSignature Date

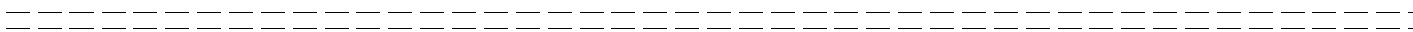
Reviewed by: Patricia L. Lynch 14-Aug-12
eSignature Date

Matrices: Water

Carrier name: Client

Shipping container/cooler in good condition?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on shipping container/cooler?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Present <input checked="" type="checkbox"/>
Custody seals intact on sample bottles?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Present <input checked="" type="checkbox"/>
Chain of custody present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody signed when relinquished and received?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody agrees with sample labels?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Samples in proper container/bottle?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample containers intact?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sufficient sample volume for indicated test?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
All samples received within holding time?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Container/Temp Blank temperature in compliance?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Temperature(s)/Thermometer(s):	<u>2.2c</u> <u>003</u>		
Cooler(s)/Kit(s):	<u>3525, 3306</u>		
Date/Time sample(s) sent to storage:	<u>7/27/12 15:30</u>		
Water - VOA vials have zero headspace?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	No VOA vials submitted <input type="checkbox"/>
Water - pH acceptable upon receipt?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	N/A <input type="checkbox"/>
pH adjusted?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>
pH adjusted by:	<u> </u>		

Login Notes:



Client Contacted:

Date Contacted:

Person Contacted:

Contacted By:

Regarding:

Comments:

CorrectiveAction:



Environmental

Chain of Custody Form

12071310

PBW: Pastor, Behling & Wheeler, LLC

Project: UPRR Houston Wood GW

Page of

COC ID: 52166

ALS Project Manager:

Customer Information				Project Information			
Purchase Order	Project Name	UPRR Houston Wood GW	A	VOC (8260) Select			
Work Order	Project Number	1620-04	B	SVOC (8270) Low-Level			
Company Name	Bill To Company	Union Pacific Railroad	C	<i>Vinyl Chloride</i>			
Send Report To	Invoice Attn		D				
Address	Address	1400 Douglas Street	E				
City/State/Zip	City/State/Zip	Omaha, NE 681790750	F				
Phone	Phone	(512) 671-3434	G				
Fax	Fax	(512) 671-3446	H				
e-Mail Address	e-Mail Address		I				
			J				

No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	WG-1620-TB-20120727	7-27-12	7:24	W	ALL Ions	2	X										
2	WG-1620-MW47C-20120727		7:30			5	X	X									
3	WG-1620-MW61A-20120727		9:00			5	X	X	X								
4	WG-1620-MW61AMS-20120727		9:00			5	X	X	X								
5	WG-1620-MW61AMSD-20120727		9:00			5	X	X	X								
6	WG-1620-MW59A-20120727		10:25			5	X	X	X								
7	WG-1620-MW59B-20120727		11:10			5	X	X	X								
8	WG-1620-FB11-20120727		10:30			5	X	X	X								
9																	
10																	

Sampler(s) Please Print & Sign <i>Steve Berndt</i>	Shipment Method <i>In Person</i>	Required Turnaround Time: (Check Box) <input checked="" type="checkbox"/> Std. 10 WK Days <input type="checkbox"/> 5 WK Days <input type="checkbox"/> Other <input type="checkbox"/> 2 WK Days <input type="checkbox"/> 24 Hour	Results Due Date
Relinquished by <i>Steve Berndt</i>	Received by <i>Samuel</i>	Notes: 10 Day TAT.	
Relinquished by Date: 7-27-12 14:20	Received by Date: 7/27/12 14:20	QC Package: (Check One Box Below) <input checked="" type="checkbox"/> Level II Std QC <input type="checkbox"/> Level III Std QC/Raw Data <input type="checkbox"/> Level IV SW946/CLP <input type="checkbox"/> Other / EDD	TRRP Checklist <input checked="" type="checkbox"/> TRRP Level I <input type="checkbox"/> TRRP Level II <input type="checkbox"/> TRRP Level III <input type="checkbox"/> TRRP Level IV
Logged by (Laboratory):	Preservative Key: 1-HCl 2-HNO ₃ 3-H ₂ SO ₄ 4-NaOH 5-Na ₂ S ₂ O ₃ 6-NaHSO ₄ 7-Other 8-4°C 9-5035	QC Packager: (Check One Box Below) <input type="checkbox"/> Level II Std QC <input type="checkbox"/> Level III Std QC/Raw Data <input type="checkbox"/> Level IV SW946/CLP <input type="checkbox"/> Other / EDD	

Note: 1. Any changes must be made in writing once samples and COC Form have been submitted to ALS Environmental.
 2. Unless otherwise agreed in a formal contract, services provided by ALS Environmental are expressly limited to the terms and conditions stated on the reverse.
 3. The Chain of Custody is a legal document. All information must be completed accurately.

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**CONESTOGA-ROVERS
& ASSOCIATES**

E-Mail Date

April 16, 2013

E-Mail To:

Eric Matzner

c.c.:

Chris G. Knight

E-Mail and Hard Copy if Requested

**DATA USABILITY SUMMARY
SEMI-ANNUAL GROUND WATER SAMPLING
UNION PACIFIC RAILROAD (UPRR)
1620 - WOOD PRESERVING WORKS
HOUSTON, TEXAS
JANUARY & FEBRUARY 2013**

PREPARED BY:

CONESTOGA-ROVERS & ASSOCIATES

13091 Pond Springs Road, Suite A 100

Austin, TX 78729

Telephone: 512-506-8803 Fax: 512-506-8823

Contact: Chris G. Knight [eew]

Date: April 16, 2013

www.CRAworld.com

Data Usability Summary

Reviewer:	Chris G. Knight - Conestoga-Rovers & Associates, Inc.
Contract Laboratory:	TestAmerica - Houston, Texas
Project/Area of Interest:	1620 - Wood Preserving Works
Description of Data Packages Reviewed:	Groundwater sample results in data packages: J67921, J68031, J68161, J68241, J68350, J68442, & J68500
Sample Collection Date:	January and February 2013
Intended Use of Data:	<i>To determine the concentrations of chemicals of concern (COCs) in the groundwater samples at the site.</i>

1.0 Scope of Data Usability Summary

Data was reviewed and validated in accordance with Title 30 of the Texas Administrative Code Section 350.54 (30 TAC 350.54) as described in *Review and Reporting of COC Concentration Data*, (RG-366/TRRP-13) and the results of the review/validation are discussed in this Data Usability Summary (DUS). The review included examination of the reported data, the laboratory review checklist (LRC), and laboratory quality assurance/quality control (QA/QC) samples. Tables summarizing data qualifications discussed in this DUS can be found in Appendix A.

Groundwater samples and associated field quality control samples were collected at the UPRR - 1620 Wood Preserving Works Site in Houston, Texas and submitted for analysis. A sampling and analysis summary is presented in Table 1. The TestAmerica data packages, including the LRC and any associated exception reports, are presented in Appendix B. The data packages include sample identification cross-reference lists. Each sample is assigned a unique field identification number.

2.0 Laboratory Qualifications

Analytical services were provided by TestAmerica located in Houston, Texas. This laboratory's quality assurance program is consistent with the quality standards outlined in the National Environmental Laboratory Accreditation Program (NELAP). TestAmerica held NELAP Certification Number TX (T104704223-10-6-TX) at the time that the analyses were performed.

3.0 Project Objectives

3.1 Levels of Required Performance (LORP)

LORP for COCs are intended to ensure laboratory detection limits are below protective concentration levels (PCL). Prior to sampling, the LORP for each organic COC was established for the investigation. Standard available analytical methods were selected and minimal detection limits were sought.

3.2 Sampling/Analytical QA/QC Objectives

The QA/QC program was designed to identify contamination resulting from sample collection, sample transport and the analytical process.

- Method blanks of a similar matrix to that of the associated samples are prepared by the laboratory and analyzed to determine if laboratory contaminants are affecting the analytical results. Method blanks are prepared and analyzed with each batch.
- Trip blanks evaluate contamination from sample collection, transportation, storage, and analytical activities.
- Field blanks are sample containers filled in the field with analyte-free water, which has been used to rinse sampling equipment to check effectiveness of the decontamination procedures.

Similarly, the QA/QC program was designed to evaluate the quality of the resulting data with respect to bias and precision. First, laboratory control samples (LCS) were prepared and analyzed with each batch. The recovery ranges established by the laboratory are adopted as the acceptance criteria for the project. Second, matrix spike/matrix spike duplicates (MS/MSD) or laboratory duplicates are prepared and analyzed with each batch. The recovery ranges and relative percent differences (RPDs) established by the laboratory are adopted as the acceptance criteria for the project.

4.0 Data Review/Validation Results

4.1 Analytical Results

A summary of the analytical results with qualifiers is reported in Table 3. Analytes with concentrations above the Sample Detection Limits (SDLs) but below the Method Quantitation Limits (MQLs) have been qualified as estimated on the analytical table per the TRRP-13 document and also in the attached copies of the laboratory data packages.

4.2 Preservation and Holding Times

The sample holding time criteria for the analyses are summarized in Table 2. Sample chain of custody documents and analytical reports were used to determine sample holding times. All samples were properly preserved, delivered on ice, and stored by the laboratory at the required temperature (0-6°C).

All samples were analyzed within the required holding times.

4.3 Sample Containers

Sample containers were certified pre-cleaned glass provided by the laboratory. These containers meet or exceed analyte specifications established in the United States Environmental Protection Agency (USEPA) *Specifications and Guidance for Contaminant-free Sample Containers*.

4.4 Calibrations

According to the LRC, initial calibration and continuing calibration data met the criteria for the selected methods.

4.5 Blanks

Method Blanks: The purpose of assessing the results of laboratory method blank analyses is to determine the existence and magnitude of sample contamination introduced during analysis. Laboratory method blanks are prepared from a certified analyte-free matrix and analyzed with the samples. For this study, laboratory method blanks were analyzed at a minimum frequency of one per analytical batch.

Most method blank results were non-detect, indicating that laboratory contamination was not a factor for this investigation. Several method blanks indicated laboratory contamination. Samples with similar detections to those found in the method blanks were qualified as non-detect (see Table 4).

Trip Blank:

To evaluate contamination from sample collection, transportation, storage, and analytical activities, seven trip blanks were collected and submitted to the laboratory for volatile organic compound (VOC) analysis.

All results were non-detect for the compounds of interest.

Field Blanks: To assess field decontamination procedures, nine equipment blanks were submitted for analysis, as identified in Table 1.

Most results were non-detect for the analyte of interest. Samples with similar detections to those found in the trip blanks were qualified as non-detect (see Table 5).

4.6 Internal Standard and Surrogate Recoveries

Recoveries of internal standards are addressed in the LRC of the data packages. All internal standard results associated with the compounds of interest were acceptable per the LRC.

Most surrogate recoveries were acceptable, indicating good analytical efficiency. Sample results associated with surrogate recoveries less than ten percent were rejected (see Table 6).

4.7 Laboratory Control Samples (LCS)

LCS analyses serve as a monitor of the overall performance of all steps in the analysis, including the sample preparation. LCS were analyzed using the same sample preparation, analytical methods, and QA/QC procedures employed for the investigative samples.

All LCS recoveries were within the established control limits, indicating acceptable overall laboratory performance.

4.8 Matrix Spike/Matrix Spike Duplicates (MS/MSD)

To evaluate the effects of sample matrices on the preparation, measurement procedures, and accuracy of a particular analysis, samples are spiked in duplicate with a known concentration of the analytes of concern and analyzed as MS/MSD samples. The RPD between the MS and MSD is used to assess analytical precision. The laboratory established the organic MS/MSD control limits internally.

The laboratory performed site-specific MS/MSD analyses internally. Spike recoveries were not assessed for samples having original concentrations significantly greater than the spike concentration (>four times).

Most recoveries and RPDs were acceptable, demonstrating good analytical accuracy and precision. Associated sample results were qualified as estimated or rejected (see Table 7).

4.9 Field Duplicate Sample Analysis

To assess the analytical and sampling protocol precision, four field duplicate samples were collected and submitted "blind" to the laboratory, as specified in Table 1. The RPDs associated with these duplicate samples must be less than thirty percent for water samples. If the reported concentration in either the investigative sample or its duplicate

is less than five times the reporting limit (RL), the evaluation criteria is one time the RL value for water samples.

Most field duplicate results were within acceptable agreement, demonstrating good sampling and analytical precision. Several semi-volatile organic compounds (SVOC) results did show some variability. All detections results were qualified as estimated (see Table 8).

4.10 Field Procedures

Pastor, Behling & Wheeling (PB&W) collected the samples in accordance with their Standard Operating Procedures (SOP) for groundwater sample collection.

4.11 Summary

Based on this assessment, the data produced by TestAmerica were found to exhibit acceptable levels of accuracy and precision based on the provided information and may be used with the qualifications noted with the exception of the following:

- SVOC data were rejected in a number of samples due to surrogate recoveries less than ten percent.
- SVOC data were rejected in a number of samples due MS/MSD recoveries less than ten percent.

APPENDIX A

TABLES

TABLE 1
SAMPLE AND ANALYSIS SUMMARY
SEMI-ANNUAL GROUNDWATER SAMPLING
UPRR - 1620 WOOD PRESERVING WORKS
HOUSTON, TEXAS
JANUARY & FEBRUARY 2013

Sample I.D.	Location I.D.	Matrix	Collection Date (mm/dd/yy)	Collection Time (hr:min)	Analysis/Parameters		Comments
					VOC	SVOC	
WG-1620-MW20A-20130130	MW-20A	Water	01/30/13	09:40	X	X	
WG-1620-MW36B-20130131	MW-36B	Water	01/31/13	07:45	X	X	
WG-1620-MW36A-20130131	MW-36A	Water	01/31/13	08:35	X	X	
WG-1620-MW48C-20130131	MW-48C	Water	01/31/13	09:40	X	X	
WG-1620-MW59A-20130131	MW-59A	Water	01/31/13	10:40	X	X	
WG-1620-MW59B-20130131	MW-59B	Water	01/31/13	11:25	X	X	
WG-1620-TB01-20130131	-	Water	01/31/13	-	X		Trip Blank
WG-1620-MW73B-20130130	MW-73B	Water	01/30/13	10:30	X	X	
WG-1620-MW16-20130130	MW-16	Water	01/30/13	11:20	X	X	
WG-1620-MW55A-20130130	MW-55A	Water	01/30/13	12:10	X	X	
WG-1620-MW55B-20130130	MW-55B	Water	01/30/13	14:00	X	X	
WG-1620-MW15A-20130130	MW-15A	Water	01/30/13	15:00	X	X	
WG-1620-MW15B-20130130	MW-15B	Water	01/30/13	15:45	X	X	
WG-1620-MW15C-20130130	MW-15C	Water	01/30/13	16:40	X	X	
WG-1620-FB1-20130130	-	Water	01/30/13	17:00	X	X	Field Blank
WG-1620-MW18A-20130131	MW-18A	Water	01/31/13	15:20	X	X	
WG-1620-MW30A-20130201	MW-30A	Water	02/01/13	10:50	X	X	
WG-1620-FB3-20130201	-	Water	02/01/13	11:00	X	X	Field Blank
WG-1620-TB02-20130201	-	Water	02/01/13	-	X		Trip Blank
WG-1620-MW18C-20130131	MW-18C	Water	01/31/13	16:15	X	X	
WG-1620-TW56A-20130131	TW-56A	Water	01/31/13	17:15	X	X	
WG-1620-MW57B-20130131	MW-57B	Water	01/31/13	18:10	X	X	
WG-1620-FB2-20130131	-	Water	01/31/13	18:20	X	X	Field Blank
WG-1620-MW72B-20130201	MW-72B	Water	02/01/13	07:15	X	X	
WG-1620-MW52A-20130201	MW-52A	Water	02/01/13	08:15	X	X	
WG-1620-MW19C-20130201	MW-19C	Water	02/01/13	09:10	X	X	

TABLE 1
SAMPLE AND ANALYSIS SUMMARY
SEMI-ANNUAL GROUNDWATER SAMPLING
UPRR - 1620 WOOD PRESERVING WORKS
HOUSTON, TEXAS
JANUARY & FEBRUARY 2013

Sample I.D.	Location I.D.	Matrix	Collection Date (mm/dd/yy)	Collection Time (hr:min)	Analysis/Parameters		Comments
					VOC	SVOC	
WG-1620-MW31A-20130201	MW-31A	Water	02/01/13	10:00	X	X	
WG-1620-MW13-20130205	MW-13	Water	02/05/13	08:00	X	X	
WG-1620-MW12A-20130205	MW-12A	Water	02/05/13	16:00	X	X	
WG-1620-TW41B-20130205	TW-41B	Water	02/05/13	16:50	X	X	
WG-1620-MW14-20130205	MW-14	Water	02/05/13	17:50	X	X	
WG-1620-FB4-20130205	-	Water	02/05/13	18:10	X	X	Field Blank
WG-1620-TB03-20130205	-	Water	02/05/13	-	X		Trip Blank
WG-1620-MW21C-20130205	MW-21C	Water	02/05/13	09:00	X	X	
WG-1620-DUP1-20130205	MW-21C	Water	02/05/13	09:00	X	X	Duplicate of MW-21C
WG-1620-MW05-20130205	MW-05	Water	02/05/13	10:00	X	X	
WG-1620-P11-20130205	P-11	Water	02/05/13	10:45	X	X	
WG-1620-MW40B-20130205	MW-40B	Water	02/05/13	11:35	X	X	
WG-1620-MW42B-20130205	MW-42B	Water	02/05/13	12:30	X	X	
WG-1620-MW39B-20130205	MW-39B	Water	02/05/13	13:20	X	X	
WG-1620-MW12C-20130205	MW-12C	Water	02/05/13	15:05	X	X	
WG-1620-MW53C-20130206	MW-53C	Water	02/06/13	08:30	X	X	
WG-1620-MW68B-20130206	MW-68B	Water	02/06/13	17:15	X	X	
WG-1620-TB04-20130206	-	Water	02/06/13	-	X		Trip Blank
WG-1620-MW25A-20130206	MW-25A	Water	02/06/13	09:20	X	X	
WG-1620-MW25C-20130206	MW-25C	Water	02/06/13	10:05	X	X	
WG-1620-MW44C-20130206	MW-44C	Water	02/06/13	10:55	X	X	
WG-1620-MW33BR-20130206	MW-33BR	Water	02/06/13	12:00	X	X	
WG-1620-MW26A-20130206	MW-26A	Water	02/06/13	13:45	X	X	
WG-1620-MW32AR-20130206	MW-32AR	Water	02/06/13	14:35	X	X	
WG-1620-MW32B-20130206	MW-32B	Water	02/06/13	15:20	X	X	
WG-1620-MW68C-20130206	MW-68C	Water	02/06/13	16:20	X	X	

TABLE 1
SAMPLE AND ANALYSIS SUMMARY
SEMI-ANNUAL GROUNDWATER SAMPLING
UPRR - 1620 WOOD PRESERVING WORKS
HOUSTON, TEXAS
JANUARY & FEBRUARY 2013

Sample I.D.	Location I.D.	Matrix	Collection Date (mm/dd/yy)	Collection Time (hr:min)	Analysis/Parameters		Comments
					VOC	SVOC	
WG-1620-FB5-20130206	-	Water	02/06/13	17:30	X	X	Field Blank
WG-1620-MW49B-20130207	MW-49B	Water	02/07/13	16:15	X	X	
WG-1620-MW49A-20130207	MW-49A	Water	02/07/13	17:05	X	X	
WG-1620-MW47C-20130207	MW-47C	Water	02/07/13	18:00	X	X	
WG-1620-FB6-20130207	-	Water	02/07/13	18:15	X	X	Field Blank
WG-1620-MW69A-20130208	MW-69A	Water	02/07/13	08:20	X	X	
WG-1620-MW38A-20130208	MW-38A	Water	02/07/13	09:30	X	X	
WG-1620-MW38B-20130208	MW-38B	Water	02/07/13	10:30	X	X	
WG-1620-FB7-20130208	-	Water	02/07/13	11:00	X	X	Field Blank
WG-1620-TB05-20130208	-	Water	02/07/13	-	X		Trip Blank
WG-1620-MW71B-20130207	MW-71B	Water	02/07/13	08:45	X	X	
WG-1620-MW28A-20130207	MW-28A	Water	02/07/13	09:40	X	X	
WG-1620-MW28C-20130207	MW-28C	Water	02/07/13	10:30	X	X	
WG-1620-MW63B-20130207	MW-63B	Water	02/07/13	12:15	X	X	
WG-1620-DUP2-20130207	MW-63B	Water	02/07/13	12:15	X	X	Duplicate of MW-63B
WG-1620-MW70B-20130207	MW-70B	Water	02/07/13	13:20	X	X	
WG-1620-MW35A-20130207	MW-35A	Water	02/07/13	14:20	X	X	
WG-1620-MW35B-20130207	MW-35B	Water	02/07/13	15:15	X	X	
WG-1620-MW57A-20130211	MW-57A	Water	02/11/13	10:30	X	X	
WG-1620-MW58A-20130211	MW-58A	Water	02/11/13	11:20	X	X	
WG-1620-MW23C-20130211	MW-23C	Water	02/11/13	12:20	X	X	
WG-1620-MW62B-20130211	MW-62B	Water	02/11/13	14:00	X	X	
WG-1620-FB8-20130211	-	Water	02/11/13	14:15	X	X	Field Blank
WG-1620-TB06-20130211	-	Water	02/11/13	-	X		Trip Blank
WG-1620-MW36D-20120211	MW-36D	Water	02/11/13	15:45	X	X	
WG-1620-MW24C-20120211	MW-24C	Water	02/12/13	14:00	X	X	

TABLE 1
SAMPLE AND ANALYSIS SUMMARY
SEMI-ANNUAL GROUNDWATER SAMPLING
UPRR - 1620 WOOD PRESERVING WORKS
HOUSTON, TEXAS
JANUARY & FEBRUARY 2013

<i>Sample I.D.</i>	<i>Location I.D.</i>	<i>Matrix</i>	<i>Collection Date (mm/dd/yy)</i>	<i>Collection Time (hr:min)</i>	<i>Analysis/Parameters</i>		<i>Comments</i>
					<i>VOC</i>	<i>SVOC</i>	
WG-1620-MW27C-20120211	MW-27C	Water	02/12/13	15:00	X	X	
WG-1620-MW54C-20120211	MW-54C	Water	02/12/13	16:00	X	X	
WG-1620-MW44A-20120211	MW-44A	Water	02/12/13	17:05	X	X	
WG-1620-FB9-20120211	-	Water	02/12/13	17:30	X	X	Field Blank
WG-1620-TB07-20120211	-	Water	02/12/13	-	X		Trip Blank
WG-1620-MW65D-20120211	MW-65D	Water	02/11/13	17:00	X	X	
WG-1620-MW59D-20120211	MW-59D	Water	02/11/13	18:15	X	X	
WG-1620-DUP 4-20120211	MW-59D	Water	02/11/13	18:15	X	X	Duplicate of MW-59D
WG-1620-MW67B-20120211	MW-67B	Water	02/12/13	08:45	X	X	
WG-1620-MW33A-20120211	MW-33A	Water	02/12/13	10:00	X	X	
WG-1620-DUP3- 20120211	MW-33A	Water	02/12/13	10:00	X	X	Duplicate of MW-33A
WG-1620-MW24AR-20120211	MW-24AR	Water	02/12/13	11:00	X	X	
WG-1620-MW24B-20120211	MW-24B	Water	02/12/13	12:00	X	X	

Notes:

- VOC Volatile organic compounds.
SVOC Semi-volatile organic compounds.

TABLE 2
ANALYTICAL METHODS AND HOLDING TIME CRITERIA
SEMI-ANNUAL GROUNDWATER SAMPLING
UPRR - 1620 WOOD PRESERVING WORKS
HOUSTON, TEXAS
JANUARY & FEBRUARY 2013

<i>Parameter</i>	<i>Method</i>	<i>Matrix</i>	<i>Holding Time</i>	
			<i>Collection to Extraction (Days)</i>	<i>Collection or Extraction to Analysis (Days)</i>
VOC	SW-846 8260B	Water	-	14
SVOC	SW-846 8270C LL	Water	7	40

Notes

- SW-846 "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW-846, Third Edition, 1986, with subsequent revisions.
VOC Volatile organic compounds.
SVOC Semi-volatile organic compounds.

TABLE 3

ANALYTICAL RESULTS SUMMARY
SEMI-ANNUAL GROUNDWATER SAMPLING
UPRR - 1620 WOOD PRESERVING WORKS
HOUSTON, TEXAS
JANUARY & FEBRUARY 2013

<i>Sample Location:</i>	MW-05	MW-12A	MW-12C	MW-13
<i>Sample ID:</i>	WG-1620-MW05-20130205	WG-1620-MW12A-20130205	WG-1620-MW12C-20130205	WG-1620-MW13-20130205
<i>Sample Date:</i>	2/5/2013	2/5/2013	2/5/2013	2/5/2013
<i>Parameters</i>	<i>Units</i>			
<i>Volatile Organic Compounds(VOC)</i>				
1,2-Dichloroethane	mg/L	<0.000140	<0.000140	<0.000140
Benzene	mg/L	<0.0000800	0.000237 J	<0.0000800
Chlorobenzene	mg/L	<0.000120	<0.000120	<0.000120
Ethylbenzene	mg/L	<0.000137	0.000521 J	<0.000145
Methylene chloride	mg/L	<0.000150	<0.000150	<0.000150
Toluene	mg/L	<0.000150	<0.000150	<0.000150
Vinyl chloride	mg/L	<0.000110	<0.000110	<0.000110
Xylenes (total)	mg/L	<0.000260	0.00197 J	<0.000260
<i>Semi-volatile Organic Compounds(SVOC)</i>				
1,2-Diphenylhydrazine	mg/L	<0.000104	<0.000104	<0.000104
2,4-Dimethylphenol	mg/L	<0.000292	<0.000292	R
2,4-Dinitrotoluene	mg/L	<0.000123	<0.000123	<0.000123
2,6-Dinitrotoluene	mg/L	<0.0000755	<0.0000755	<0.0000755
2-Chloronaphthalene	mg/L	<0.0000755	<0.0000755	<0.0000755
2-Methylnaphthalene	mg/L	0.000468 J	0.0477	0.000146 J
4,6-Dinitro-2-methylphenol	mg/L	<0.000783	<0.000783	<0.000783
4-Nitrophenol	mg/L	<0.000528	<0.000528	<0.000528
Acenaphthene	mg/L	<0.0000755	0.253	<0.0000755
Acenaphthylene	mg/L	<0.0000566	<0.0000566	<0.0000566
Anthracene	mg/L	0.000621	0.0179	0.0000745 J
Benzo(a)anthracene	mg/L	<0.0000755	0.000221 J	<0.0000755
Benzo(a)pyrene	mg/L	<0.0000755	<0.0000755	<0.0000755
bis(2-Chloroethoxy)methane	mg/L	<0.000123	<0.000123	<0.000123

TABLE 3
ANALYTICAL RESULTS SUMMARY
SEMI-ANNUAL GROUNDWATER SAMPLING
UPRR - 1620 WOOD PRESERVING WORKS
HOUSTON, TEXAS
JANUARY & FEBRUARY 2013

<i>Sample Location:</i>	MW-05	MW-12A	MW-12C	MW-13
<i>Sample ID:</i>	WG-1620-MW05-20130205	WG-1620-MW12A-20130205	WG-1620-MW12C-20130205	WG-1620-MW13-20130205
<i>Sample Date:</i>	2/5/2013	2/5/2013	2/5/2013	2/5/2013
<i>Parameters</i>	<i>Units</i>			
<i>Semi-volatile Organic Compounds(SVOC) (continued)</i>				
bis(2-Ethylhexyl)phthalate (DEHP)	mg/L	<0.000349	<0.000349	<0.000349
Chrysene	mg/L	<0.0000755	0.000186 J	<0.0000755
Dibenzofuran	mg/L	<0.0000755	0.170	0.0000865 J
Di-n-butylphthalate (DBP)	mg/L	<0.000104	<0.000104	<0.000104
Fluoranthene	mg/L	<0.0000660	0.0111	<0.0000660
Fluorene	mg/L	<0.0000660	0.170	0.000149 J
Naphthalene	mg/L	0.00133	0.0828 J	0.000729
Nitrobenzene	mg/L	<0.000104	<0.000104	<0.000104
N-Nitrosodiphenylamine	mg/L	<0.0000943	<0.0000943	<0.0000943
Pentachlorophenol	mg/L	<0.000575	<0.000575	<0.000575
Phenanthrene	mg/L	0.000143 J	0.130	<0.0000566
Phenol	mg/L	0.000193 J	0.000101 J	<0.0000377
Pyrene	mg/L	<0.000104	0.00515	<0.000104

TABLE 3
ANALYTICAL RESULTS SUMMARY
SEMI-ANNUAL GROUNDWATER SAMPLING
UPRR - 1620 WOOD PRESERVING WORKS
HOUSTON, TEXAS
JANUARY & FEBRUARY 2013

<i>Sample Location:</i>	<i>MW-14</i>	<i>MW-15A</i>	<i>MW-15B</i>	<i>MW-15C</i>
<i>Sample ID:</i>	<i>WG-1620-MW14-20130205</i>	<i>WG-1620-MW15A-20130130</i>	<i>WG-1620-MW15B-20130130</i>	<i>WG-1620-MW15C-20130130</i>
<i>Sample Date:</i>	<i>2/5/2013</i>	<i>1/30/2013</i>	<i>1/30/2013</i>	<i>1/30/2013</i>
<i>Parameters</i>	<i>Units</i>			
<i>Volatile Organic Compounds(VOC)</i>				
1,2-Dichloroethane	mg/L	<0.000140	<0.000140	<0.000140
Benzene	mg/L	<0.0000800	0.00160	0.00220
Chlorobenzene	mg/L	<0.000120	<0.000120	<0.000120
Ethylbenzene	mg/L	<0.000110	0.000660 J	0.00159
Methylene chloride	mg/L	<0.000150	<0.000150	<0.000150
Toluene	mg/L	<0.000150	0.000221 J	<0.000150
Vinyl chloride	mg/L	<0.000110	-	-
Xylenes (total)	mg/L	<0.000260	0.00417	0.000356 J
<i>Semi-volatile Organic Compounds(SVOC)</i>				
1,2-Diphenylhydrazine	mg/L	<0.000104	<0.000104	<0.000104
2,4-Dimethylphenol	mg/L	<0.000292	0.00200	113
2,4-Dinitrotoluene	mg/L	<0.000123	<0.000123	<0.0123
2,6-Dinitrotoluene	mg/L	<0.0000755	<0.0000755	<0.00755
2-Chloronaphthalene	mg/L	<0.0000755	<0.0000755	<0.000755
2-Methylnaphthalene	mg/L	0.000402 J	0.00997	<0.000744
4,6-Dinitro-2-methylphenol	mg/L	<0.000783	<0.000783	<0.0783
4-Nitrophenol	mg/L	<0.000528	<0.000528	<0.0528
Acenaphthene	mg/L	0.000600	0.141	0.0413
Acenaphthylene	mg/L	<0.0000566	<0.0000566	0.000987
Anthracene	mg/L	0.000277 J	0.00313	0.00179
Benzo(a)anthracene	mg/L	<0.0000755	<0.0000755	<0.000755
Benzo(a)pyrene	mg/L	<0.0000755	<0.0000755	<0.000755
bis(2-Chloroethoxy)methane	mg/L	<0.000123	<0.000123	<0.0123

TABLE 3
ANALYTICAL RESULTS SUMMARY
SEMI-ANNUAL GROUNDWATER SAMPLING
UPRR - 1620 WOOD PRESERVING WORKS
HOUSTON, TEXAS
JANUARY & FEBRUARY 2013

<i>Sample Location:</i>	MW-14	MW-15A	MW-15B	MW-15C	
<i>Sample ID:</i>	WG-1620-MW14-20130205	WG-1620-MW15A-20130130	WG-1620-MW15B-20130130	WG-1620-MW15C-20130130	
<i>Sample Date:</i>	2/5/2013	1/30/2013	1/30/2013	1/30/2013	
<i>Parameters</i>	<i>Units</i>				
<i>Semi-volatile Organic Compounds(SVOC) (continued)</i>					
bis(2-Ethylhexyl)phthalate (DEHP)	mg/L	<0.000349	<0.000349	<0.000349	<0.0349
Chrysene	mg/L	<0.0000755	<0.0000755	<0.0000755	<0.00755
Dibenzofuran	mg/L	0.000467 J	0.0416	0.0127	0.116
Di-n-butylphthalate (DBP)	mg/L	<0.000104	<0.000104	<0.000104	<0.0104
Fluoranthene	mg/L	0.0000794 J	0.000885	0.00101	<0.00660
Fluorene	mg/L	<0.0000660	0.0560	0.0110	0.0769
Naphthalene	mg/L	0.00211	0.0501 J	0.0569 J	89.7
Nitrobenzene	mg/L	<0.000104	<0.000104	<0.000104	<0.0104
N-Nitrosodiphenylamine	mg/L	<0.0000943	<0.0000943	<0.0000943	<0.00943
Pentachlorophenol	mg/L	<0.000575	<0.000575	<0.000575	<0.0575
Phenanthrene	mg/L	0.000484	0.00792	0.00199	0.0868
Phenol	mg/L	<0.0000377	<0.0000377	<0.0000377	61.8
Pyrene	mg/L	<0.000104	0.000496	0.000513	<0.0104

TABLE 3
ANALYTICAL RESULTS SUMMARY
SEMI-ANNUAL GROUNDWATER SAMPLING
UPRR - 1620 WOOD PRESERVING WORKS
HOUSTON, TEXAS
JANUARY & FEBRUARY 2013

<i>Sample Location:</i>	MW-16	MW-18A	MW-18C	MW-19C
<i>Sample ID:</i>	WG-1620-MW16-20130130	WG-1620-MW18A-20130131	WG-1620-MW18C-20130131	WG-1620-MW19C-20130201
<i>Sample Date:</i>	1/30/2013	1/31/2013	1/31/2013	2/1/2013
<i>Parameters</i>	<i>Units</i>			
<i>Volatile Organic Compounds(VOC)</i>				
1,2-Dichloroethane	mg/L	<0.000140	<0.00700	<0.000140
Benzene	mg/L	0.0376	0.636	1.51
Chlorobenzene	mg/L	0.000510 J	<0.00600	<0.000120
Ethylbenzene	mg/L	0.0211	0.316	0.203
Methylene chloride	mg/L	<0.000150	<0.00750	<0.000150
Toluene	mg/L	0.000950 J	0.154	0.962
Vinyl chloride	mg/L	-	0.0181 J	<0.00550
Xylenes (total)	mg/L	0.0348	0.519	1.01
<i>Semi-volatile Organic Compounds(SVOC)</i>				
1,2-Diphenylhydrazine	mg/L	<0.000104	<0.00108	<0.0545
2,4-Dimethylphenol	mg/L	<0.000292	11.8	<0.153
2,4-Dinitrotoluene	mg/L	<0.000123	<0.00127	<0.0644
2,6-Dinitrotoluene	mg/L	<0.0000755	<0.000784	<0.0396
2-Chloronaphthalene	mg/L	<0.0000755	<0.000784	<0.0396
2-Methylnaphthalene	mg/L	0.0467 J	0.745	0.977
4,6-Dinitro-2-methylphenol	mg/L	<0.000783	<0.00814	<0.411
4-Nitrophenol	mg/L	<0.000528	<0.00549	<0.277
Acenaphthene	mg/L	0.281	0.464	0.320
Acenaphthylene	mg/L	<0.0000566	0.0151	<0.0297
Anthracene	mg/L	0.0182 J	0.0204	0.0401 J
Benzo(a)anthracene	mg/L	0.000339 J	<0.000784	<0.0396
Benzo(a)pyrene	mg/L	<0.0000755	<0.000784	<0.0396
bis(2-Chloroethoxy)methane	mg/L	<0.000123	<0.00127	<0.0644

TABLE 3
ANALYTICAL RESULTS SUMMARY
SEMI-ANNUAL GROUNDWATER SAMPLING
UPRR - 1620 WOOD PRESERVING WORKS
HOUSTON, TEXAS
JANUARY & FEBRUARY 2013

<i>Sample Location:</i>	MW-16	MW-18A	MW-18C	MW-19C	
<i>Sample ID:</i>	WG-1620-MW16-20130130	WG-1620-MW18A-20130131	WG-1620-MW18C-20130131	WG-1620-MW19C-20130201	
<i>Sample Date:</i>	1/30/2013	1/31/2013	1/31/2013	2/1/2013	
<i>Parameters</i>	<i>Units</i>				
<i>Semi-volatile Organic Compounds(SVOC) (continued)</i>					
bis(2-Ethylhexyl)phthalate (DEHP)	mg/L	<0.000349	<0.00363	<0.183	<0.000370
Chrysene	mg/L	0.000225 J	<0.000784	<0.0396	<0.0000800
Dibenzofuran	mg/L	0.158	0.188	0.288	0.000367 J
Di-n-butylphthalate (DBP)	mg/L	<0.000104	<0.00108	<0.0545	<0.000110
Fluoranthene	mg/L	0.00836	<0.000686	<0.0347	0.00257
Fluorene	mg/L	0.147	0.136	0.132 J	0.000605
Naphthalene	mg/L	1.81	9.29	20.2 J	0.0264 J
Nitrobenzene	mg/L	<0.000104	<0.00108	<0.0545	<0.000110
N-Nitrosodiphenylamine	mg/L	<0.0000943	<0.000980	<0.0495	<0.000100
Pentachlorophenol	mg/L	<0.000575	<0.00598	<0.302	<0.000610
Phenanthrene	mg/L	0.0614	0.101	0.155 J	0.000166 J
Phenol	mg/L	<0.0000377	<0.000392	0.0601 J	0.000230 J
Pyrene	mg/L	0.00590	<0.00108	<0.0545	0.00207

TABLE 3
ANALYTICAL RESULTS SUMMARY
SEMI-ANNUAL GROUNDWATER SAMPLING
UPRR - 1620 WOOD PRESERVING WORKS
HOUSTON, TEXAS
JANUARY & FEBRUARY 2013

<i>Sample Location:</i>	MW-20A	MW-21C	MW-21C	MW-23C
<i>Sample ID:</i>	WG-1620-MW20A-20130130	WG-1620-MW21C-20130205	WG-1620-DUP1-20130205	WG-1620-MW23C-20130211
<i>Sample Date:</i>	1/30/2013	2/5/2013	2/5/2013 <i>Duplicate</i>	2/11/2013
<i>Parameters</i>	<i>Units</i>			
<i>Volatile Organic Compounds(VOC)</i>				
1,2-Dichloroethane	mg/L	<0.000140	<0.000140	<0.000140
Benzene	mg/L	0.0746	<0.0000800	0.0111
Chlorobenzene	mg/L	<0.000120	<0.000120	0.000279 J
Ethylbenzene	mg/L	0.0619	<0.000144	0.151
Methylene chloride	mg/L	<0.000150	<0.000150	<0.000150
Toluene	mg/L	0.00280	<0.000150	0.00433
Vinyl chloride	mg/L	-	<0.000110	<0.000110
Xylenes (total)	mg/L	0.0549	<0.000260	0.0884
<i>Semi-volatile Organic Compounds(SVOC)</i>				
1,2-Diphenylhydrazine	mg/L	<0.00519	<0.000104	<0.00100
2,4-Dimethylphenol	mg/L	0.119	<0.000292	R <0.00282
2,4-Dinitrotoluene	mg/L	<0.00613	<0.000123	<0.000123 <0.00118
2,6-Dinitrotoluene	mg/L	<0.00377	<0.0000755	<0.0000755 <0.000727
2-Chloronaphthalene	mg/L	<0.00377	<0.0000755	<0.0000755 <0.000727
2-Methylnaphthalene	mg/L	0.191	0.000271 J	<0.0000660 1.38
4,6-Dinitro-2-methylphenol	mg/L	<0.0392	<0.000783	R <0.00755
4-Nitrophenol	mg/L	<0.0264	<0.000528	R <0.00509
Acenaphthene	mg/L	0.120	0.000237 J	<0.0000755 1.78
Acenaphthylene	mg/L	<0.00283	<0.0000566	<0.0000566 <0.000545
Anthracene	mg/L	0.00589 J	0.0000527 J	<0.0000472 0.641
Benzo(a)anthracene	mg/L	<0.00377	<0.0000755	<0.0000755 0.104
Benzo(a)pyrene	mg/L	<0.00377	<0.0000755	<0.0000755 0.0283
bis(2-Chloroethoxy)methane	mg/L	<0.00613	<0.000123	<0.000123 <0.00118

TABLE 3
ANALYTICAL RESULTS SUMMARY
SEMI-ANNUAL GROUNDWATER SAMPLING
UPRR - 1620 WOOD PRESERVING WORKS
HOUSTON, TEXAS
JANUARY & FEBRUARY 2013

	<i>Sample Location:</i>	<i>MW-20A</i>	<i>MW-21C</i>	<i>MW-21C</i>	<i>MW-23C</i>
	<i>Sample ID:</i>	<i>WG-1620-MW20A-20130130</i>	<i>WG-1620-MW21C-20130205</i>	<i>WG-1620-DUP1-20130205</i>	<i>WG-1620-MW23C-20130211</i>
	<i>Sample Date:</i>	<i>1/30/2013</i>	<i>2/5/2013</i>	<i>2/5/2013</i> <i>Duplicate</i>	<i>2/11/2013</i>
<i>Parameters</i>	<i>Units</i>				
<i>Semi-volatile Organic Compounds(SVOC) (continued)</i>					
bis(2-Ethylhexyl)phthalate (DEHP)	mg/L	<0.0175	<0.000349	<0.000349	<0.00336
Chrysene	mg/L	<0.00377	<0.0000755	<0.0000755	0.103
Dibenzofuran	mg/L	0.0799	0.000109 J	<0.0000755	1.82
Di-n-butylphthalate (DBP)	mg/L	<0.00519	<0.000104	<0.000104	<0.00100
Fluoranthene	mg/L	<0.00330	<0.0000660	<0.0000660	1.09
Fluorene	mg/L	0.0661	<0.0000660	<0.0000660	1.19
Naphthalene	mg/L	43.9	0.000429 J	<0.0000755	12.2
Nitrobenzene	mg/L	<0.00519	<0.000104	<0.000104	<0.00100
N-Nitrosodiphenylamine	mg/L	<0.00472	<0.0000943	<0.0000943	<0.000909
Pentachlorophenol	mg/L	<0.0288	<0.000575	R	<0.00555
Phenanthrene	mg/L	0.0217 J	0.000184 J	<0.0000566	3.48
Phenol	mg/L	<0.00189	<0.0000377	R	<0.000364
Pyrene	mg/L	<0.00519	<0.000104	<0.000104	0.754

TABLE 3
ANALYTICAL RESULTS SUMMARY
SEMI-ANNUAL GROUNDWATER SAMPLING
UPRR - 1620 WOOD PRESERVING WORKS
HOUSTON, TEXAS
JANUARY & FEBRUARY 2013

<i>Sample Location:</i>	MW-24AR	MW-24B	MW-24C	MW-25A
<i>Sample ID:</i>	WG-1620-MW24AR-20120211	WG-1620-MW24B-20120211	WG-1620-MW24C-20120211	WG-1620-MW25A-20130206
<i>Sample Date:</i>	2/12/2013	2/12/2013	2/12/2013	2/6/2013
<i>Parameters</i>	<i>Units</i>			
<i>Volatile Organic Compounds(VOC)</i>				
1,2-Dichloroethane	mg/L	<0.000140	<0.000140	<0.000140
Benzene	mg/L	<0.0000800	<0.0000800	<0.0000800
Chlorobenzene	mg/L	0.000201 J	<0.000120	0.000497 J
Ethylbenzene	mg/L	<0.000110	<0.000110	<0.000110
Methylene chloride	mg/L	<0.000150	<0.000150	<0.000150
Toluene	mg/L	<0.000150	<0.000150	0.000218 J
Vinyl chloride	mg/L	-	-	<0.000110
Xylenes (total)	mg/L	<0.000260	<0.000260	<0.000260
<i>Semi-volatile Organic Compounds(SVOC)</i>				
1,2-Diphenylhydrazine	mg/L	<0.000105	<0.000105	<0.000106
2,4-Dimethylphenol	mg/L	R	<0.000295	<0.000298
2,4-Dinitrotoluene	mg/L	<0.000124	<0.000124	<0.000125
2,6-Dinitrotoluene	mg/L	<0.0000762	<0.0000762	<0.0000769
2-Chloronaphthalene	mg/L	<0.0000762	<0.0000762	<0.0000769
2-Methylnaphthalene	mg/L	<0.0000667	<0.0000667	<0.0000673
4,6-Dinitro-2-methylphenol	mg/L	<0.000790	<0.000790	<0.000798
4-Nitrophenol	mg/L	R	<0.000533	<0.000538
Acenaphthene	mg/L	<0.0000762	<0.0000762	0.000171 J
Acenaphthylene	mg/L	<0.0000571	<0.0000571	<0.0000577
Anthracene	mg/L	<0.0000476	<0.0000476	<0.0000481
Benzo(a)anthracene	mg/L	<0.0000762	<0.0000762	<0.0000769
Benzo(a)pyrene	mg/L	<0.0000762	<0.0000762	<0.0000769
bis(2-Chloroethoxy)methane	mg/L	<0.000124	<0.000124	<0.000125

TABLE 3
ANALYTICAL RESULTS SUMMARY
SEMI-ANNUAL GROUNDWATER SAMPLING
UPRR - 1620 WOOD PRESERVING WORKS
HOUSTON, TEXAS
JANUARY & FEBRUARY 2013

	<i>Sample Location:</i>	MW-24AR	MW-24B	MW-24C	MW-25A
	<i>Sample ID:</i>	WG-1620-MW24AR-20120211	WG-1620-MW24B-20120211	WG-1620-MW24C-20120211	WG-1620-MW25A-20130206
	<i>Sample Date:</i>	2/12/2013	2/12/2013	2/12/2013	2/6/2013
<i>Parameters</i>	<i>Units</i>				
<i>Semi-volatile Organic Compounds(SVOC) (continued)</i>					
bis(2-Ethylhexyl)phthalate (DEHP)	mg/L	<0.000352	<0.000352	<0.000352	<0.000356
Chrysene	mg/L	<0.0000762	<0.0000762	<0.0000762	<0.0000769
Dibenzofuran	mg/L	<0.0000762	<0.0000762	<0.0000762	<0.0000769
Di-n-butylphthalate (DBP)	mg/L	<0.000105	<0.000105	<0.000105	<0.000106
Fluoranthene	mg/L	<0.0000667	<0.0000667	<0.0000667	<0.0000673
Fluorene	mg/L	<0.0000667	<0.0000667	<0.0000667	<0.0000673
Naphthalene	mg/L	<0.000139	<0.0000762	<0.0000762	<0.0000692
Nitrobenzene	mg/L	<0.000105	<0.000105	<0.000105	<0.000106
N-Nitrosodiphenylamine	mg/L	<0.0000952	<0.0000952	<0.0000952	<0.0000962
Pentachlorophenol	mg/L	R	<0.000581	<0.000581	<0.000587
Phenanthrene	mg/L	0.0000890 J	<0.0000571	<0.0000571	<0.0000577
Phenol	mg/L	R	<0.0000381	<0.0000381	<0.0000385
Pyrene	mg/L	<0.000105	<0.000105	<0.000105	<0.000106

TABLE 3
ANALYTICAL RESULTS SUMMARY
SEMI-ANNUAL GROUNDWATER SAMPLING
UPRR - 1620 WOOD PRESERVING WORKS
HOUSTON, TEXAS
JANUARY & FEBRUARY 2013

<i>Sample Location:</i>	MW-25C	MW-26A	MW-27C	MW-28A
<i>Sample ID:</i>	WG-1620-MW25C-20130206	WG-1620-MW26A-20130206	WG-1620-MW27C-20120211	WG-1620-MW28A-20130207
<i>Sample Date:</i>	2/6/2013	2/6/2013	2/12/2013	2/7/2013
<i>Parameters</i>	<i>Units</i>			
<i>Volatile Organic Compounds(VOC)</i>				
1,2-Dichloroethane	mg/L	<0.00280	<0.000140	<0.000140
Benzene	mg/L	0.0304	0.00118	<0.0000800
Chlorobenzene	mg/L	0.00653 J	0.000176 J	<0.000120
Ethylbenzene	mg/L	0.324	<0.000110	<0.000110
Methylene chloride	mg/L	<0.00300	<0.000150	<0.000150
Toluene	mg/L	0.291	<0.000150	<0.000150
Vinyl chloride	mg/L	<0.00220	-	-
Xylenes (total)	mg/L	1.03	<0.000260	<0.000260
<i>Semi-volatile Organic Compounds(SVOC)</i>				
1,2-Diphenylhydrazine	mg/L	<0.106	<0.00529	<0.000105
2,4-Dimethylphenol	mg/L	<0.298	<0.0149	<0.000295
2,4-Dinitrotoluene	mg/L	<0.125	<0.00625	<0.000124
2,6-Dinitrotoluene	mg/L	<0.0769	<0.00385	<0.0000762
2-Chloronaphthalene	mg/L	<0.0769	<0.00385	<0.0000762
2-Methylnaphthalene	mg/L	0.800	<0.00337	<0.000777
4,6-Dinitro-2-methylphenol	mg/L	<0.798	<0.0399	<0.000790
4-Nitrophenol	mg/L	<0.538	<0.0269	<0.000533
Acenaphthene	mg/L	0.261 J	0.0481	<0.0000762
Acenaphthylene	mg/L	<0.0577	<0.00288	<0.0000571
Anthracene	mg/L	<0.0481	<0.00240	<0.0000476
Benzo(a)anthracene	mg/L	<0.0769	<0.00385	<0.0000762
Benzo(a)pyrene	mg/L	<0.0769	<0.00385	<0.0000762
bis(2-Chloroethoxy)methane	mg/L	<0.125	<0.00625	<0.000124

TABLE 3
ANALYTICAL RESULTS SUMMARY
SEMI-ANNUAL GROUNDWATER SAMPLING
UPRR - 1620 WOOD PRESERVING WORKS
HOUSTON, TEXAS
JANUARY & FEBRUARY 2013

<i>Sample Location:</i>	MW-25C	MW-26A	MW-27C	MW-28A	
<i>Sample ID:</i>	WG-1620-MW25C-20130206	WG-1620-MW26A-20130206	WG-1620-MW27C-20120211	WG-1620-MW28A-20130207	
<i>Sample Date:</i>	2/6/2013	2/6/2013	2/12/2013	2/7/2013	
<i>Parameters</i>	<i>Units</i>				
<i>Semi-volatile Organic Compounds(SVOC) (continued)</i>					
bis(2-Ethylhexyl)phthalate (DEHP)	mg/L	<0.356	<0.0178	0.000652	<0.00352
Chrysene	mg/L	<0.0769	<0.00385	<0.0000762	<0.000762
Dibenzofuran	mg/L	0.174 J	0.00416 J	<0.0000762	<0.000762
Di-n-butylphthalate (DBP)	mg/L	<0.106	<0.00529	<0.000105	<0.00105
Fluoranthene	mg/L	<0.0673	<0.00337	<0.0000667	<0.000667
Fluorene	mg/L	0.102 J	<0.00337	<0.0000667	<0.000667
Naphthalene	mg/L	10.7	<0.00385	<0.0000762	<0.000762
Nitrobenzene	mg/L	<0.106	<0.00529	<0.000105	<0.00105
N-Nitrosodiphenylamine	mg/L	<0.0962	<0.00481	<0.0000952	<0.000952
Pentachlorophenol	mg/L	<0.587	<0.0293	<0.000581	<0.00581
Phenanthrene	mg/L	0.147 J	<0.00288	<0.0000571	<0.000571
Phenol	mg/L	<0.0385	<0.00192	<0.0000381	<0.000381
Pyrene	mg/L	<0.106	<0.00529	<0.000105	<0.00105

TABLE 3
ANALYTICAL RESULTS SUMMARY
SEMI-ANNUAL GROUNDWATER SAMPLING
UPRR - 1620 WOOD PRESERVING WORKS
HOUSTON, TEXAS
JANUARY & FEBRUARY 2013

<i>Sample Location:</i>	MW-28C	MW-30A	MW-31A	MW-32AR	
<i>Sample ID:</i>	WG-1620-MW28C-20130207	WG-1620-MW30A-20130201	WG-1620-MW31A-20130201	WG-1620-MW32AR-20130206	
<i>Sample Date:</i>	2/7/2013	2/1/2013	2/1/2013	2/6/2013	
<i>Parameters</i>	<i>Units</i>				
<i>Volatile Organic Compounds(VOC)</i>					
1,2-Dichloroethane	mg/L	<0.000140	<0.00280	<0.00140	<0.000140
Benzene	mg/L	<0.0000800	0.117	0.135	0.0230
Chlorobenzene	mg/L	<0.000120	<0.00240	<0.00120	<0.000120
Ethylbenzene	mg/L	<0.000110	0.119	0.171	0.00820
Methylene chloride	mg/L	<0.000150	0.0211	0.00971 J	<0.000150
Toluene	mg/L	<0.000150	0.443	0.346	0.00338
Vinyl chloride	mg/L	-	-	-	-
Xylenes (total)	mg/L	<0.000260	0.302	0.583	0.0176
<i>Semi-volatile Organic Compounds(SVOC)</i>					
1,2-Diphenylhydrazine	mg/L	<0.000101	<0.0524	<0.0550	<0.00529
2,4-Dimethylphenol	mg/L	<0.000284	2.94	4.45	0.0172 J
2,4-Dinitrotoluene	mg/L	<0.000119	<0.0619	<0.0650	<0.00625
2,6-Dinitrotoluene	mg/L	<0.0000734	<0.0381	<0.0400	<0.00385
2-Chloronaphthalene	mg/L	<0.0000734	<0.0381	<0.0400	<0.00385
2-Methylnaphthalene	mg/L	<0.0000642	1.01	1.17	0.0110 J
4,6-Dinitro-2-methylphenol	mg/L	<0.000761	<0.395	<0.415	<0.0399
4-Nitrophenol	mg/L	<0.000514	<0.267	<0.280	<0.0269
Acenaphthene	mg/L	<0.0000734	0.436	0.488	0.0232 J
Acenaphthylene	mg/L	<0.0000550	<0.0286	<0.0300	<0.00288
Anthracene	mg/L	<0.0000459	0.0391 J	0.0560 J	<0.00240
Benzo(a)anthracene	mg/L	<0.0000734	<0.0381	<0.0400	<0.00385
Benzo(a)pyrene	mg/L	<0.0000734	<0.0381	<0.0400	<0.00385
bis(2-Chloroethoxy)methane	mg/L	<0.000119	<0.0619	<0.0650	<0.00625

TABLE 3
ANALYTICAL RESULTS SUMMARY
SEMI-ANNUAL GROUNDWATER SAMPLING
UPRR - 1620 WOOD PRESERVING WORKS
HOUSTON, TEXAS
JANUARY & FEBRUARY 2013

<i>Sample Location:</i>	MW-28C	MW-30A	MW-31A	MW-32AR	
<i>Sample ID:</i>	WG-1620-MW28C-20130207	WG-1620-MW30A-20130201	WG-1620-MW31A-20130201	WG-1620-MW32AR-20130206	
<i>Sample Date:</i>	2/7/2013	2/1/2013	2/1/2013	2/6/2013	
<i>Parameters</i>	<i>Units</i>				
<i>Semi-volatile Organic Compounds(SVOC) (continued)</i>					
bis(2-Ethylhexyl)phthalate (DEHP)	mg/L	<0.000339	<0.176	<0.185	<0.0178
Chrysene	mg/L	<0.0000734	<0.0381	<0.0400	<0.00385
Dibenzofuran	mg/L	<0.0000734	0.308	0.367	0.00936 J
Di-n-butylphthalate (DBP)	mg/L	<0.000101	<0.0524	<0.0550	<0.00529
Fluoranthene	mg/L	<0.0000642	<0.0333	<0.0350	0.00508 J
Fluorene	mg/L	<0.0000642	0.247	0.273	0.00932 J
Naphthalene	mg/L	0.000163 J	16.8 J	19.3 J	0.406
Nitrobenzene	mg/L	<0.000101	<0.0524	<0.0550	<0.00529
N-Nitrosodiphenylamine	mg/L	<0.0000917	<0.0476	<0.0500	<0.00481
Pentachlorophenol	mg/L	<0.000560	<0.290	<0.305	<0.0293
Phenanthrene	mg/L	<0.0000550	0.162 J	0.268	0.00768 J
Phenol	mg/L	<0.0000367	0.0781 J	0.579	<0.00192
Pyrene	mg/L	<0.000101	<0.0524	<0.0550	<0.00529

TABLE 3
ANALYTICAL RESULTS SUMMARY
SEMI-ANNUAL GROUNDWATER SAMPLING
UPRR - 1620 WOOD PRESERVING WORKS
HOUSTON, TEXAS
JANUARY & FEBRUARY 2013

<i>Sample Location:</i>		<i>MW-32B</i>	<i>MW-33A</i>	<i>MW-33A</i>	<i>MW-33BR</i>
<i>Sample ID:</i>		<i>WG-1620-MW32B-20130206</i>	<i>WG-1620-MW33A-20120211</i>	<i>WG-1620-DUP3- 20120211</i>	<i>WG-1620-MW33BR-20130206</i>
<i>Sample Date:</i>		<i>2/6/2013</i>	<i>2/12/2013</i>	<i>2/12/2013</i> <i>Duplicate</i>	<i>2/6/2013</i>
<i>Parameters</i>	<i>Units</i>				
<i>Volatile Organic Compounds(VOC)</i>					
1,2-Dichloroethane	mg/L	<0.000140	<0.000140	<0.000140	<0.00700
Benzene	mg/L	0.00428	0.00782	0.00782	1.61
Chlorobenzene	mg/L	<0.000343	<0.000120	<0.000120	<0.00600
Ethylbenzene	mg/L	0.00561	0.00220	0.00216	0.471
Methylene chloride	mg/L	<0.000150	<0.000150	<0.000150	0.0110 J
Toluene	mg/L	0.00261	<0.000150	<0.000150	0.157
Vinyl chloride	mg/L	-	-	-	<0.00550
Xylenes (total)	mg/L	0.0203	0.00223 J	0.00229 J	0.924
<i>Semi-volatile Organic Compounds(SVOC)</i>					
1,2-Diphenylhydrazine	mg/L	<0.0262	<0.000105	<0.000105	<0.529
2,4-Dimethylphenol	mg/L	<0.0738	0.00623	0.0199	<1.49
2,4-Dinitrotoluene	mg/L	<0.0310	<0.000124	<0.000124	<0.625
2,6-Dinitrotoluene	mg/L	<0.0190	<0.0000762	<0.0000762	<0.385
2-Chloronaphthalene	mg/L	<0.0190	<0.0000762	<0.0000762	<0.385
2-Methylnaphthalene	mg/L	<0.0167	0.00345	0.0149	0.993 J
4,6-Dinitro-2-methylphenol	mg/L	<0.198	<0.000790	<0.000790	<3.99
4-Nitrophenol	mg/L	<0.133	<0.000533	<0.000533	<2.69
Acenaphthene	mg/L	0.0416 J	0.0279	0.0374 J	<0.385
Acenaphthylene	mg/L	<0.0143	<0.0000571	0.000358 J	<0.288
Anthracene	mg/L	<0.0119	0.000748	0.000801	<0.240
Benzo(a)anthracene	mg/L	<0.0190	0.000174 J	0.000211 J	<0.385
Benzo(a)pyrene	mg/L	<0.0190	<0.0000762	<0.0000762	<0.385
bis(2-Chloroethoxy)methane	mg/L	<0.0310	<0.000124	<0.000124	<0.625

TABLE 3
ANALYTICAL RESULTS SUMMARY
SEMI-ANNUAL GROUNDWATER SAMPLING
UPRR - 1620 WOOD PRESERVING WORKS
HOUSTON, TEXAS
JANUARY & FEBRUARY 2013

	<i>Sample Location:</i>	<i>MW-32B</i>	<i>MW-33A</i>	<i>MW-33A</i>	<i>MW-33BR</i>
	<i>Sample ID:</i>	<i>WG-1620-MW32B-20130206</i>	<i>WG-1620-MW33A-20120211</i>	<i>WG-1620-DUP3- 20120211</i>	<i>WG-1620-MW33BR-20130206</i>
	<i>Sample Date:</i>	<i>2/6/2013</i>	<i>2/12/2013</i>	<i>2/12/2013</i>	<i>2/6/2013</i>
				<i>Duplicate</i>	
<i>Parameters</i>	<i>Units</i>				
<i>Semi-volatile Organic Compounds(SVOC) (continued)</i>					
bis(2-Ethylhexyl)phthalate (DEHP)	mg/L	<0.0881	<0.000352	<0.000352	<1.78
Chrysene	mg/L	<0.0190	0.000114 J	0.000106 J	<0.385
Dibenzofuran	mg/L	<0.0190	0.00262	0.00699	<0.385
Di-n-butylphthalate (DBP)	mg/L	<0.0262	<0.000105	<0.000105	<0.529
Fluoranthene	mg/L	<0.0167	0.00212	0.00250	<0.337
Fluorene	mg/L	<0.0167	0.00641	0.00994	<0.337
Naphthalene	mg/L	<0.0190	0.112	0.382 J	14.9 J
Nitrobenzene	mg/L	<0.0262	<0.000105	<0.000105	<0.529
N-Nitrosodiphenylamine	mg/L	<0.0238	<0.0000952	<0.0000952	<0.481
Pentachlorophenol	mg/L	<0.145	<0.000581	<0.000581	<2.93
Phenanthrene	mg/L	<0.0143	0.000488	0.000987	<0.288
Phenol	mg/L	<0.00952	<0.0000381	<0.0000381	<0.192
Pyrene	mg/L	<0.0262	0.00283	0.00336	<0.529

TABLE 3
ANALYTICAL RESULTS SUMMARY
SEMI-ANNUAL GROUNDWATER SAMPLING
UPRR - 1620 WOOD PRESERVING WORKS
HOUSTON, TEXAS
JANUARY & FEBRUARY 2013

<i>Sample Location:</i>	MW-35A	MW-35B	MW-36A	MW-36B
<i>Sample ID:</i>	WG-1620-MW35A-20130207	WG-1620-MW35B-20130207	WG-1620-MW36A-20130131	WG-1620-MW36B-20130131
<i>Sample Date:</i>	2/7/2013	2/7/2013	1/31/2013	1/31/2013
<i>Parameters</i>	<i>Units</i>			
<i>Volatile Organic Compounds(VOC)</i>				
1,2-Dichloroethane	mg/L	<0.000140	<0.000700	<0.000140
Benzene	mg/L	<0.0000800	0.0662	<0.0000800
Chlorobenzene	mg/L	<0.000120	<0.000600	<0.000120
Ethylbenzene	mg/L	<0.000110	0.225	<0.000110
Methylene chloride	mg/L	<0.000150	<0.000750	<0.000150
Toluene	mg/L	<0.000150	0.00437 J	<0.000150
Vinyl chloride	mg/L	-	-	<0.000110
Xylenes (total)	mg/L	<0.000260	0.153	<0.000260
<i>Semi-volatile Organic Compounds(SVOC)</i>				
1,2-Diphenylhydrazine	mg/L	<0.000105	<0.105	<0.000104
2,4-Dimethylphenol	mg/L	<0.000295	<0.295	<0.000292
2,4-Dinitrotoluene	mg/L	<0.000124	<0.124	<0.000123
2,6-Dinitrotoluene	mg/L	<0.0000762	<0.0762	<0.0000755
2-Chloronaphthalene	mg/L	<0.0000762	<0.0762	<0.0000755
2-Methylnaphthalene	mg/L	0.000239 J	0.295 J	<0.0000660
4,6-Dinitro-2-methylphenol	mg/L	<0.000790	<0.790	<0.000783
4-Nitrophenol	mg/L	<0.000533	<0.533	<0.000528
Acenaphthene	mg/L	0.0196	0.173 J	<0.0000755
Acenaphthylene	mg/L	<0.0000571	<0.0571	<0.0000566
Anthracene	mg/L	0.000389 J	<0.0476	<0.0000472
Benzo(a)anthracene	mg/L	<0.0000762	<0.0762	<0.0000755
Benzo(a)pyrene	mg/L	<0.0000762	<0.0762	<0.0000755
bis(2-Chloroethoxy)methane	mg/L	<0.000124	<0.124	<0.000123

TABLE 3
ANALYTICAL RESULTS SUMMARY
SEMI-ANNUAL GROUNDWATER SAMPLING
UPRR - 1620 WOOD PRESERVING WORKS
HOUSTON, TEXAS
JANUARY & FEBRUARY 2013

	<i>Sample Location:</i>	<i>MW-35A</i>	<i>MW-35B</i>	<i>MW-36A</i>	<i>MW-36B</i>
	<i>Sample ID:</i>	<i>WG-1620-MW35A-20130207</i>	<i>WG-1620-MW35B-20130207</i>	<i>WG-1620-MW36A-20130131</i>	<i>WG-1620-MW36B-20130131</i>
	<i>Sample Date:</i>	<i>2/7/2013</i>	<i>2/7/2013</i>	<i>1/31/2013</i>	<i>1/31/2013</i>
<i>Parameters</i>	<i>Units</i>				
<i>Semi-volatile Organic Compounds(SVOC) (continued)</i>					
bis(2-Ethylhexyl)phthalate (DEHP)	mg/L	<0.000352	<0.352	<0.000349	<0.000349
Chrysene	mg/L	<0.0000762	<0.0762	<0.0000755	<0.0000755
Dibenzofuran	mg/L	0.000429 J	0.161 J	<0.0000755	<0.000118
Di-n-butylphthalate (DBP)	mg/L	<0.000105	<0.105	<0.000104	<0.000104
Fluoranthene	mg/L	0.000109 J	<0.0667	<0.0000660	<0.0000660
Fluorene	mg/L	<0.0000667	<0.0667	<0.0000660	<0.0000660
Naphthalene	mg/L	0.00286 J	8.83	<0.000211	<0.000943
Nitrobenzene	mg/L	<0.000105	<0.105	<0.000104	<0.000104
N-Nitrosodiphenylamine	mg/L	<0.0000952	<0.0952	<0.0000943	<0.0000943
Pentachlorophenol	mg/L	<0.000581	<0.581	<0.000575	<0.000575
Phenanthrene	mg/L	0.000104 J	0.0936 J	<0.0000566	<0.0000566
Phenol	mg/L	<0.0000381	<0.0381	<0.0000377	<0.0000377
Pyrene	mg/L	0.000305 J	<0.105	<0.000104	<0.000104

TABLE 3
ANALYTICAL RESULTS SUMMARY
SEMI-ANNUAL GROUNDWATER SAMPLING
UPRR - 1620 WOOD PRESERVING WORKS
HOUSTON, TEXAS
JANUARY & FEBRUARY 2013

<i>Sample Location:</i>		<i>MW-36D</i>	<i>MW-38A</i>	<i>MW-38B</i>	<i>MW-39B</i>
<i>Sample ID:</i>		<i>WG-1620-MW36D-20120211</i>	<i>WG-1620-MW38A-20130208</i>	<i>WG-1620-MW38B-20130208</i>	<i>WG-1620-MW39B-20130205</i>
<i>Sample Date:</i>		<i>2/11/2013</i>	<i>2/7/2013</i>	<i>2/7/2013</i>	<i>2/5/2013</i>
<i>Parameters</i>	<i>Units</i>				
<i>Volatile Organic Compounds(VOC)</i>					
1,2-Dichloroethane	mg/L	<0.000140	<0.000140	<0.000140	<0.000140
Benzene	mg/L	<0.0000800	<0.0000800	<0.0000800	<0.0000800
Chlorobenzene	mg/L	<0.000120	<0.000120	<0.000120	<0.000120
Ethylbenzene	mg/L	<0.000110	<0.000110	<0.000110	<0.000110
Methylene chloride	mg/L	<0.000150	<0.000150	<0.000150	<0.000150
Toluene	mg/L	<0.000150	<0.000150	<0.000150	<0.000150
Vinyl chloride	mg/L	-	-	-	<0.000110
Xylenes (total)	mg/L	<0.000260	<0.000260	<0.000260	<0.000260
<i>Semi-volatile Organic Compounds(SVOC)</i>					
1,2-Diphenylhydrazine	mg/L	<0.000105	<0.000105	<0.000105	<0.000104
2,4-Dimethylphenol	mg/L	<0.000295	<0.000295	<0.000295	<0.000292
2,4-Dinitrotoluene	mg/L	<0.000124	<0.000124	<0.000124	<0.000123
2,6-Dinitrotoluene	mg/L	<0.0000762	<0.0000762	<0.0000762	<0.0000755
2-Chloronaphthalene	mg/L	<0.0000762	<0.0000762	<0.0000762	<0.0000755
2-Methylnaphthalene	mg/L	<0.0000667	<0.0000667	<0.0000667	<0.0000660
4,6-Dinitro-2-methylphenol	mg/L	<0.000790	<0.000790	<0.000790	<0.000783
4-Nitrophenol	mg/L	<0.000533	<0.000533	<0.000533	<0.000528
Acenaphthene	mg/L	<0.0000762	<0.0000762	0.000226 J	0.000756
Acenaphthylene	mg/L	<0.0000571	<0.0000571	<0.0000571	0.000110 J
Anthracene	mg/L	<0.0000476	0.0000712 J	0.000313 J	0.000901
Benzo(a)anthracene	mg/L	<0.0000762	<0.0000762	<0.0000762	<0.0000755
Benzo(a)pyrene	mg/L	<0.0000762	<0.0000762	<0.0000762	<0.0000755
bis(2-Chloroethoxy)methane	mg/L	<0.000124	<0.000124	<0.000124	<0.000123

TABLE 3
ANALYTICAL RESULTS SUMMARY
SEMI-ANNUAL GROUNDWATER SAMPLING
UPRR - 1620 WOOD PRESERVING WORKS
HOUSTON, TEXAS
JANUARY & FEBRUARY 2013

	<i>Sample Location:</i>	<i>MW-36D</i>	<i>MW-38A</i>	<i>MW-38B</i>	<i>MW-39B</i>
	<i>Sample ID:</i>	<i>WG-1620-MW36D-20120211</i>	<i>WG-1620-MW38A-20130208</i>	<i>WG-1620-MW38B-20130208</i>	<i>WG-1620-MW39B-20130205</i>
	<i>Sample Date:</i>	<i>2/11/2013</i>	<i>2/7/2013</i>	<i>2/7/2013</i>	<i>2/5/2013</i>
<i>Parameters</i>	<i>Units</i>				
<i>Semi-volatile Organic Compounds(SVOC) (continued)</i>					
bis(2-Ethylhexyl)phthalate (DEHP)	mg/L	<0.000352	<0.000352	<0.000352	<0.000349
Chrysene	mg/L	<0.0000762	<0.0000762	<0.0000762	<0.0000755
Dibenzofuran	mg/L	<0.0000762	<0.0000762	<0.0000762	<0.0000755
Di-n-butylphthalate (DBP)	mg/L	<0.000105	<0.000105	<0.000105	<0.000104
Fluoranthene	mg/L	<0.0000667	<0.0000667	<0.0000667	0.000112 J
Fluorene	mg/L	<0.0000667	<0.0000667	<0.0000667	<0.0000660
Naphthalene	mg/L	<0.0000762	<0.0000762	<0.0000762	0.000428 J
Nitrobenzene	mg/L	<0.000105	<0.000105	<0.000105	<0.000104
N-Nitrosodiphenylamine	mg/L	<0.0000952	<0.0000952	<0.0000952	<0.0000943
Pentachlorophenol	mg/L	<0.000581	<0.000581	<0.000581	<0.000575
Phenanthrene	mg/L	<0.0000571	<0.0000571	<0.0000571	<0.0000566
Phenol	mg/L	<0.0000381	<0.0000381	<0.0000381	<0.0000377
Pyrene	mg/L	<0.000105	<0.000105	<0.000105	0.000131 J

TABLE 3

ANALYTICAL RESULTS SUMMARY
SEMI-ANNUAL GROUNDWATER SAMPLING
UPRR - 1620 WOOD PRESERVING WORKS
HOUSTON, TEXAS
JANUARY & FEBRUARY 2013

<i>Sample Location:</i>	<i>MW-40B</i>	<i>MW-42B</i>	<i>MW-44A</i>	<i>MW-44C</i>	
<i>Sample ID:</i>	<i>WG-1620-MW40B-20130205</i>	<i>WG-1620-MW42B-20130205</i>	<i>WG-1620-MW44A-20120211</i>	<i>WG-1620-MW44C-20130206</i>	
<i>Sample Date:</i>	<i>2/5/2013</i>	<i>2/5/2013</i>	<i>2/12/2013</i>	<i>2/6/2013</i>	
<i>Parameters</i>	<i>Units</i>				
<i>Volatile Organic Compounds(VOC)</i>					
1,2-Dichloroethane	mg/L	<0.000140	<0.000140	<0.000140	<0.00140
Benzene	mg/L	0.0108	<0.0000800	0.00206	0.000964 J
Chlorobenzene	mg/L	<0.000120	<0.000120	<0.000120	0.00293 J
Ethylbenzene	mg/L	0.0817	<0.000132	0.000624 J	0.233
Methylene chloride	mg/L	<0.000150	<0.000150	<0.000150	<0.00150
Toluene	mg/L	0.0118	<0.000150	0.000252 J	0.0895
Vinyl chloride	mg/L	<0.000110	<0.000110	-	-
Xylenes (total)	mg/L	0.116	<0.000260	0.00469	0.688
<i>Semi-volatile Organic Compounds(SVOC)</i>					
1,2-Diphenylhydrazine	mg/L	<0.0104	<0.000104	<0.00105	<0.529
2,4-Dimethylphenol	mg/L	<0.0292	<0.000292	<0.00295	<1.49
2,4-Dinitrotoluene	mg/L	<0.0123	<0.000123	<0.00124	<0.625
2,6-Dinitrotoluene	mg/L	<0.00755	<0.0000755	<0.000762	<0.385
2-Chloronaphthalene	mg/L	<0.00755	<0.0000755	<0.000762	<0.385
2-Methylnaphthalene	mg/L	0.302	0.000196 J	<0.000667	1.15 J
4,6-Dinitro-2-methylphenol	mg/L	<0.0783	<0.000783	<0.00790	<3.99
4-Nitrophenol	mg/L	<0.0528	<0.000528	<0.00533	<2.69
Acenaphthene	mg/L	0.315	0.000360 J	0.0700	0.632 J
Acenaphthylene	mg/L	<0.00566	<0.0000566	0.00276 J	<0.288
Anthracene	mg/L	0.0183 J	0.000194 J	<0.000476	<0.240
Benzo(a)anthracene	mg/L	<0.00755	<0.0000755	<0.000762	<0.385
Benzo(a)pyrene	mg/L	<0.00755	<0.0000755	<0.000762	<0.385
bis(2-Chloroethoxy)methane	mg/L	<0.0123	<0.000123	<0.00124	<0.625

TABLE 3
ANALYTICAL RESULTS SUMMARY
SEMI-ANNUAL GROUNDWATER SAMPLING
UPRR - 1620 WOOD PRESERVING WORKS
HOUSTON, TEXAS
JANUARY & FEBRUARY 2013

	<i>Sample Location:</i>	<i>MW-40B</i>	<i>MW-42B</i>	<i>MW-44A</i>	<i>MW-44C</i>
	<i>Sample ID:</i>	<i>WG-1620-MW40B-20130205</i>	<i>WG-1620-MW42B-20130205</i>	<i>WG-1620-MW44A-20120211</i>	<i>WG-1620-MW44C-20130206</i>
	<i>Sample Date:</i>	<i>2/5/2013</i>	<i>2/5/2013</i>	<i>2/12/2013</i>	<i>2/6/2013</i>
<i>Parameters</i>	<i>Units</i>				
<i>Semi-volatile Organic Compounds(SVOC) (continued)</i>					
bis(2-Ethylhexyl)phthalate (DEHP)	mg/L	<0.0349	<0.000349	<0.00352	<1.78
Chrysene	mg/L	<0.00755	<0.0000755	<0.000762	<0.385
Dibenzofuran	mg/L	0.206	0.000217 J	<0.000762	0.453 J
Di-n-butylphthalate (DBP)	mg/L	<0.0104	<0.000104	<0.00105	<0.529
Fluoranthene	mg/L	<0.00660	0.000641	0.00257 J	<0.337
Fluorene	mg/L	0.175	<0.0000660	0.00495	<0.337
Naphthalene	mg/L	6.78	0.000476	<0.000941	18.0 J
Nitrobenzene	mg/L	<0.0104	<0.000104	<0.00105	<0.529
N-Nitrosodiphenylamine	mg/L	<0.00943	<0.0000943	<0.000952	<0.481
Pentachlorophenol	mg/L	<0.0575	<0.000575	<0.00581	<2.93
Phenanthrene	mg/L	0.137	0.000356 J	<0.000571	0.498 J
Phenol	mg/L	<0.00377	<0.0000377	<0.000381	<0.192
Pyrene	mg/L	<0.0104	0.000369 J	0.00139 J	<0.529

TABLE 3
ANALYTICAL RESULTS SUMMARY
SEMI-ANNUAL GROUNDWATER SAMPLING
UPRR - 1620 WOOD PRESERVING WORKS
HOUSTON, TEXAS
JANUARY & FEBRUARY 2013

<i>Sample Location:</i>		<i>MW-47C</i>	<i>MW-48C</i>	<i>MW-49A</i>	<i>MW-49B</i>
<i>Sample ID:</i>		<i>WG-1620-MW47C-20130207</i>	<i>WG-1620-MW48C-20130131</i>	<i>WG-1620-MW49A-20130207</i>	<i>WG-1620-MW49B-20130207</i>
<i>Sample Date:</i>		<i>2/7/2013</i>	<i>1/31/2013</i>	<i>2/7/2013</i>	<i>2/7/2013</i>
<i>Parameters</i>	<i>Units</i>				
<i>Volatile Organic Compounds(VOC)</i>					
1,2-Dichloroethane	mg/L	<0.000140	<0.000140	<0.000140	<0.000140
Benzene	mg/L	<0.0000800	<0.0000800	0.114	0.0631
Chlorobenzene	mg/L	<0.000120	<0.000120	0.299	<0.000120
Ethylbenzene	mg/L	<0.000110	<0.000110	0.0321	0.0182
Methylene chloride	mg/L	<0.000150	<0.000150	<0.000150	<0.000150
Toluene	mg/L	<0.000150	<0.000150	0.0343	0.0633
Vinyl chloride	mg/L	-	-	<0.000110	<0.000110
Xylenes (total)	mg/L	<0.000260	<0.000260	0.0777	0.0527
<i>Semi-volatile Organic Compounds(SVOC)</i>					
1,2-Diphenylhydrazine	mg/L	<0.000105	<0.000104	<0.00524	<0.00524
2,4-Dimethylphenol	mg/L	R	<0.000292	1.42	1.09
2,4-Dinitrotoluene	mg/L	<0.000124	<0.000123	<0.00619	<0.00619
2,6-Dinitrotoluene	mg/L	<0.0000762	<0.0000755	<0.00381	<0.00381
2-Chloronaphthalene	mg/L	<0.0000762	<0.0000755	<0.00381	<0.00381
2-Methylnaphthalene	mg/L	0.0000980 J	<0.0000660	0.218	0.297
4,6-Dinitro-2-methylphenol	mg/L	R	<0.000783	<0.0395	<0.0395
4-Nitrophenol	mg/L	<0.000533	<0.000528	<0.0267	<0.0267
Acenaphthene	mg/L	<0.0000762	<0.0000755	0.134	0.248
Acenaphthylene	mg/L	<0.0000571	<0.0000566	<0.00286	<0.00286
Anthracene	mg/L	0.000107 J	<0.0000472	0.00824 J	0.0876
Benzo(a)anthracene	mg/L	0.000137 J	<0.0000755	<0.00381	0.0228 J
Benzo(a)pyrene	mg/L	0.000306 J	<0.0000755	<0.00381	<0.00381
bis(2-Chloroethoxy)methane	mg/L	<0.000124	<0.000123	<0.00619	<0.00619

TABLE 3
ANALYTICAL RESULTS SUMMARY
SEMI-ANNUAL GROUNDWATER SAMPLING
UPRR - 1620 WOOD PRESERVING WORKS
HOUSTON, TEXAS
JANUARY & FEBRUARY 2013

<i>Sample Location:</i>	MW-47C	MW-48C	MW-49A	MW-49B
<i>Sample ID:</i>	WG-1620-MW47C-20130207	WG-1620-MW48C-20130131	WG-1620-MW49A-20130207	WG-1620-MW49B-20130207
<i>Sample Date:</i>	2/7/2013	1/31/2013	2/7/2013	2/7/2013
<i>Parameters</i>	<i>Units</i>			
<i>Semi-volatile Organic Compounds(SVOC) (continued)</i>				
bis(2-Ethylhexyl)phthalate (DEHP)	mg/L	0.000594	<0.000349	<0.0176
Chrysene	mg/L	0.000127 J	<0.0000755	<0.00381
Dibenzofuran	mg/L	0.000104 J	<0.0000755	0.0851
Di-n-butylphthalate (DBP)	mg/L	<0.000105	<0.000104	<0.00524
Fluoranthene	mg/L	0.000289 J	<0.0000660	<0.00333
Fluorene	mg/L	0.000116 J	<0.0000660	0.167
Naphthalene	mg/L	<0.000401	<0.000495	0.217
Nitrobenzene	mg/L	<0.000105	<0.000104	2.88
N-Nitrosodiphenylamine	mg/L	<0.000105	<0.000104	<0.00524
Pentachlorophenol	mg/L	<0.0000952	<0.0000943	<0.00524
Phenanthrene	mg/L	R	<0.000575	<0.00476
Phenol	mg/L	0.000406 J	<0.000566	<0.0290
Pyrene	mg/L	R	<0.000377	<0.0290
	mg/L	0.000388 J	<0.000104	<0.00190
			<0.00524	0.101

TABLE 3
ANALYTICAL RESULTS SUMMARY
SEMI-ANNUAL GROUNDWATER SAMPLING
UPRR - 1620 WOOD PRESERVING WORKS
HOUSTON, TEXAS
JANUARY & FEBRUARY 2013

<i>Sample Location:</i>	MW-52A	MW-53C	MW-54C	MW-55A	
<i>Sample ID:</i>	WG-1620-MW52A-20130201	WG-1620-MW53C-20130206	WG-1620-MW54C-20120211	WG-1620-MW55A-20130130	
<i>Sample Date:</i>	2/1/2013	2/6/2013	2/12/2013	1/30/2013	
<i>Parameters</i>	<i>Units</i>				
<i>Volatile Organic Compounds(VOC)</i>					
1,2-Dichloroethane	mg/L	<0.000140	0.000644 J	<0.000140	<0.00280
Benzene	mg/L	0.00461	<0.0000800	<0.0000800	0.133
Chlorobenzene	mg/L	<0.000120	<0.000120	<0.000120	<0.00240
Ethylbenzene	mg/L	0.00677	<0.000110	0.000187 J	0.228
Methylene chloride	mg/L	<0.000150	<0.000150	<0.000150	<0.00300
Toluene	mg/L	0.00679	<0.000150	<0.000150	0.385
Vinyl chloride	mg/L	0.000661 J	-	-	-
Xylenes (total)	mg/L	0.0147	<0.000260	<0.000260	0.575
<i>Semi-volatile Organic Compounds(SVOC)</i>					
1,2-Diphenylhydrazine	mg/L	<0.00524	<0.000106	<0.000105	<0.000104
2,4-Dimethylphenol	mg/L	0.0479	<0.000298	<0.000295	<0.000292
2,4-Dinitrotoluene	mg/L	<0.00619	<0.000125	<0.000124	<0.000123
2,6-Dinitrotoluene	mg/L	<0.00381	<0.0000769	<0.0000762	<0.0000755
2-Chloronaphthalene	mg/L	<0.00381	<0.0000769	<0.0000762	<0.0000755
2-Methylnaphthalene	mg/L	0.165	<0.0000673	0.00392	<0.0000660
4,6-Dinitro-2-methylphenol	mg/L	<0.0395	<0.000798	<0.000790	<0.000783
4-Nitrophenol	mg/L	<0.0267	<0.000538	<0.000533	<0.000528
Acenaphthene	mg/L	0.271	<0.0000769	0.0219	0.0573
Acenaphthylene	mg/L	<0.00286	<0.0000577	<0.0000571	0.00210
Anthracene	mg/L	0.0231 J	<0.0000481	0.00183	0.000620
Benzo(a)anthracene	mg/L	<0.00381	<0.0000769	<0.0000762	<0.0000755
Benzo(a)pyrene	mg/L	<0.00381	<0.0000769	<0.0000762	<0.0000755
bis(2-Chloroethoxy)methane	mg/L	<0.00619	<0.000125	<0.000124	<0.000123

TABLE 3
ANALYTICAL RESULTS SUMMARY
SEMI-ANNUAL GROUNDWATER SAMPLING
UPRR - 1620 WOOD PRESERVING WORKS
HOUSTON, TEXAS
JANUARY & FEBRUARY 2013

	<i>Sample Location:</i>	MW-52A	MW-53C	MW-54C	MW-55A
	<i>Sample ID:</i>	WG-1620-MW52A-20130201	WG-1620-MW53C-20130206	WG-1620-MW54C-20120211	WG-1620-MW55A-20130130
	<i>Sample Date:</i>	2/1/2013	2/6/2013	2/12/2013	1/30/2013
<i>Parameters</i>	<i>Units</i>				
<i>Semi-volatile Organic Compounds(SVOC) (continued)</i>					
bis(2-Ethylhexyl)phthalate (DEHP)	mg/L	<0.0176	<0.000356	<0.000352	<0.000349
Chrysene	mg/L	<0.00381	<0.0000769	<0.0000762	<0.0000755
Dibenzofuran	mg/L	0.178	<0.0000769	0.0223	0.0265
Di-n-butylphthalate (DBP)	mg/L	<0.00524	<0.000106	<0.000105	<0.000104
Fluoranthene	mg/L	0.0245	<0.0000673	0.00246	0.000459 J
Fluorene	mg/L	0.167	<0.0000673	0.00920	0.00213
Naphthalene	mg/L	0.878	<0.000183	0.0681	<0.00227
Nitrobenzene	mg/L	<0.00524	<0.000106	<0.000105	<0.000104
N-Nitrosodiphenylamine	mg/L	<0.00476	<0.0000962	<0.0000952	<0.0000943
Pentachlorophenol	mg/L	<0.0290	<0.000587	<0.000581	<0.000575
Phenanthrene	mg/L	0.226	<0.0000577	0.0128	<0.0000566
Phenol	mg/L	<0.00190	<0.0000385	<0.0000381	<0.0000377
Pyrene	mg/L	0.0124 J	<0.000106	0.00138	0.000223 J

TABLE 3
ANALYTICAL RESULTS SUMMARY
SEMI-ANNUAL GROUNDWATER SAMPLING
UPRR - 1620 WOOD PRESERVING WORKS
HOUSTON, TEXAS
JANUARY & FEBRUARY 2013

<i>Sample Location:</i>		<i>MW-55B</i>	<i>MW-57A</i>	<i>MW-57B</i>	<i>MW-58A</i>
<i>Sample ID:</i>		<i>WG-1620-MW55B-20130130</i>	<i>WG-1620-MW57A-20130211</i>	<i>WG-1620-MW57B-20130131</i>	<i>WG-1620-MW58A-20130211</i>
<i>Sample Date:</i>		<i>1/30/2013</i>	<i>2/11/2013</i>	<i>1/31/2013</i>	<i>2/11/2013</i>
<i>Parameters</i>	<i>Units</i>				
<i>Volatile Organic Compounds(VOC)</i>					
1,2-Dichloroethane	mg/L	<0.00700	<0.00140	<0.00350	<0.000140
Benzene	mg/L	0.881	0.138	0.733	0.0943
Chlorobenzene	mg/L	<0.00600	<0.00120	<0.00300	0.00295
Ethylbenzene	mg/L	0.162	0.240	0.193	0.0648
Methylene chloride	mg/L	0.0213 J	0.00367 J	<0.00375	<0.000150
Toluene	mg/L	0.760	0.244	0.692	0.0176
Vinyl chloride	mg/L	-	<0.00110	-	0.00281
Xylenes (total)	mg/L	0.623	0.591	0.589	0.122
<i>Semi-volatile Organic Compounds(SVOC)</i>					
1,2-Diphenylhydrazine	mg/L	<0.0208	<0.0750	<0.0550	<0.0100
2,4-Dimethylphenol	mg/L	2.06	1.62	13.8	0.950
2,4-Dinitrotoluene	mg/L	<0.0245	<0.0886	<0.0650	<0.0118
2,6-Dinitrotoluene	mg/L	<0.0151	<0.0545	<0.0400	<0.00727
2-Chloronaphthalene	mg/L	<0.0151	<0.0545	<0.0400	<0.00727
2-Methylnaphthalene	mg/L	0.757	13.9	1.75	0.243
4,6-Dinitro-2-methylphenol	mg/L	<0.157	<0.566	<0.415	<0.0755
4-Nitrophenol	mg/L	<0.106	<0.382	<0.280	<0.0509
Acenaphthene	mg/L	0.347	8.56	0.930	0.205
Acenaphthylene	mg/L	<0.0113	<0.0409	<0.0300	<0.00545
Anthracene	mg/L	0.0492 J	3.09	0.292	0.0245 J
Benzo(a)anthracene	mg/L	<0.0151	0.605	0.0543 J	<0.00727
Benzo(a)pyrene	mg/L	<0.0151	0.165 J	<0.0400	<0.00727
bis(2-Chloroethoxy)methane	mg/L	<0.0245	<0.0886	<0.0650	0.0321 J

TABLE 3
ANALYTICAL RESULTS SUMMARY
SEMI-ANNUAL GROUNDWATER SAMPLING
UPRR - 1620 WOOD PRESERVING WORKS
HOUSTON, TEXAS
JANUARY & FEBRUARY 2013

<i>Sample Location:</i>	<i>MW-55B</i>	<i>MW-57A</i>	<i>MW-57B</i>	<i>MW-58A</i>	
<i>Sample ID:</i>	<i>WG-1620-MW55B-20130130</i>	<i>WG-1620-MW57A-20130211</i>	<i>WG-1620-MW57B-20130131</i>	<i>WG-1620-MW58A-20130211</i>	
<i>Sample Date:</i>	<i>1/30/2013</i>	<i>2/11/2013</i>	<i>1/31/2013</i>	<i>2/11/2013</i>	
<i>Parameters</i>	<i>Units</i>				
<i>Semi-volatile Organic Compounds(SVOC) (continued)</i>					
bis(2-Ethylhexyl)phthalate (DEHP)	mg/L	<0.0698	<0.252	<0.185	<0.0336
Chrysene	mg/L	<0.0151	0.602	0.0561 J	<0.00727
Dibenzofuran	mg/L	<0.0151	7.28	0.814	0.128
Di-n-butylphthalate (DBP)	mg/L	<0.0208	<0.0750	<0.0550	<0.0100
Fluoranthene	mg/L	0.0153 J	4.98	0.387	0.0102 J
Fluorene	mg/L	0.166	6.54	0.650	0.120
Naphthalene	mg/L	2.30	60.7	18.9 J	2.96 J
Nitrobenzene	mg/L	<0.0208	<0.0750	<0.0550	<0.0100
N-Nitrosodiphenylamine	mg/L	<0.0189	<0.0682	<0.0500	<0.00909
Pentachlorophenol	mg/L	<0.115	<0.416	<0.305	<0.0555
Phenanthrene	mg/L	0.130	17.0	1.39	0.0563
Phenol	mg/L	0.0999	<0.0273	1.00	<0.00364
Pyrene	mg/L	<0.0208	3.12	0.245 J	<0.0100

TABLE 3
ANALYTICAL RESULTS SUMMARY
SEMI-ANNUAL GROUNDWATER SAMPLING
UPRR - 1620 WOOD PRESERVING WORKS
HOUSTON, TEXAS
JANUARY & FEBRUARY 2013

<i>Sample Location:</i>	MW-59A	MW-59B	MW-59D	MW-59D
<i>Sample ID:</i>	WG-1620-MW59A-20130131	WG-1620-MW59B-20130131	WG-1620-MW59D-20120211	WG-1620-DUP 4-20120211
<i>Sample Date:</i>	1/31/2013	1/31/2013	2/11/2013	2/11/2013 Duplicate
<i>Parameters</i>	<i>Units</i>			
<i>Volatile Organic Compounds(VOC)</i>				
1,2-Dichloroethane	mg/L	<0.000140	<0.000140	<0.000140
Benzene	mg/L	<0.0000800	<0.0000800	<0.0000800
Chlorobenzene	mg/L	<0.000120	<0.000120	<0.000120
Ethylbenzene	mg/L	<0.000110	<0.000110	<0.000110
Methylene chloride	mg/L	<0.000150	<0.000150	<0.000150
Toluene	mg/L	<0.000150	<0.000150	<0.000150
Vinyl chloride	mg/L	<0.000110	<0.000110	-
Xylenes (total)	mg/L	<0.000260	<0.000260	<0.000260
<i>Semi-volatile Organic Compounds(SVOC)</i>				
1,2-Diphenylhydrazine	mg/L	<0.000104	<0.000104	<0.000105
2,4-Dimethylphenol	mg/L	<0.000292	<0.000292	<0.000295
2,4-Dinitrotoluene	mg/L	<0.000123	<0.000123	<0.000124
2,6-Dinitrotoluene	mg/L	<0.0000755	<0.0000755	<0.0000762
2-Chloronaphthalene	mg/L	<0.0000755	<0.0000755	<0.0000762
2-Methylnaphthalene	mg/L	<0.0000660	<0.0000660	<0.0000667
4,6-Dinitro-2-methylphenol	mg/L	<0.000783	<0.000783	<0.000790
4-Nitrophenol	mg/L	<0.000528	<0.000528	<0.000533
Acenaphthene	mg/L	<0.0000755	<0.0000755	<0.0000762
Acenaphthylene	mg/L	<0.0000566	<0.0000566	<0.0000571
Anthracene	mg/L	<0.0000472	<0.0000472	<0.0000476
Benzo(a)anthracene	mg/L	<0.0000755	<0.0000755	<0.0000762
Benzo(a)pyrene	mg/L	<0.0000755	<0.0000755	<0.0000762
bis(2-Chloroethoxy)methane	mg/L	<0.000123	<0.000123	<0.000124

TABLE 3
ANALYTICAL RESULTS SUMMARY
SEMI-ANNUAL GROUNDWATER SAMPLING
UPRR - 1620 WOOD PRESERVING WORKS
HOUSTON, TEXAS
JANUARY & FEBRUARY 2013

<i>Parameters</i>	<i>Units</i>	<i>MW-59A</i>	<i>MW-59B</i>	<i>MW-59D</i>	<i>MW-59D</i>
		<i>WG-1620-MW59A-20130131</i>	<i>WG-1620-MW59B-20130131</i>	<i>WG-1620-MW59D-20120211</i>	<i>WG-1620-DUP 4-20120211</i>
		<i>1/31/2013</i>	<i>1/31/2013</i>	<i>2/11/2013</i>	<i>2/11/2013</i>
					<i>Duplicate</i>
<i>Semi-volatile Organic Compounds(SVOC) (continued)</i>					
bis(2-Ethylhexyl)phthalate (DEHP)	mg/L	<0.000349	<0.000349	<0.000352	0.000538
Chrysene	mg/L	<0.0000755	<0.0000755	<0.0000762	<0.0000762
Dibenzofuran	mg/L	<0.0000755	<0.0000755	<0.0000762	<0.0000762
Di-n-butylphthalate (DBP)	mg/L	<0.000104	<0.000104	<0.000105	<0.000105
Fluoranthene	mg/L	<0.0000660	<0.0000660	<0.0000667	<0.0000667
Fluorene	mg/L	<0.0000660	<0.0000660	<0.0000667	<0.0000667
Naphthalene	mg/L	<0.0000755	<0.000269	<0.0000762	<0.0000762
Nitrobenzene	mg/L	<0.000104	<0.000104	<0.000105	<0.000105
N-Nitrosodiphenylamine	mg/L	<0.0000943	<0.0000943	<0.0000952	<0.0000952
Pentachlorophenol	mg/L	<0.000575	<0.000575	<0.000581	<0.000581
Phenanthrene	mg/L	<0.0000566	<0.0000566	<0.0000571	<0.0000571
Phenol	mg/L	<0.0000377	<0.0000377	<0.0000381	<0.0000381
Pyrene	mg/L	<0.000104	<0.000104	<0.000105	<0.000105

TABLE 3
ANALYTICAL RESULTS SUMMARY
SEMI-ANNUAL GROUNDWATER SAMPLING
UPRR - 1620 WOOD PRESERVING WORKS
HOUSTON, TEXAS
JANUARY & FEBRUARY 2013

<i>Sample Location:</i>	MW-62B	MW-63B	MW-63B	MW-65D
<i>Sample ID:</i>	WG-1620-MW62B-20130211	WG-1620-MW63B-20130207	WG-1620-DUP2-20130207	WG-1620-MW65D-20120211
<i>Sample Date:</i>	2/11/2013	2/7/2013	2/7/2013 <i>Duplicate</i>	2/11/2013
<i>Parameters</i>	<i>Units</i>			
<i>Volatile Organic Compounds(VOC)</i>				
1,2-Dichloroethane	mg/L	<0.000140	<0.000140	<0.000140
Benzene	mg/L	<0.0000800	0.00952	<0.0000800
Chlorobenzene	mg/L	<0.000120	<0.000120	<0.000120
Ethylbenzene	mg/L	<0.000110	0.0165	<0.000110
Methylene chloride	mg/L	<0.000150	<0.000150	<0.000150
Toluene	mg/L	<0.000150	0.00241	<0.000150
Vinyl chloride	mg/L	-	-	-
Xylenes (total)	mg/L	<0.000260	0.00629	<0.000260
<i>Semi-volatile Organic Compounds(SVOC)</i>				
1,2-Diphenylhydrazine	mg/L	<0.000100	<0.00524	<0.000105
2,4-Dimethylphenol	mg/L	<0.000282	<0.0148	<0.000295
2,4-Dinitrotoluene	mg/L	<0.000118	<0.00619	<0.000124
2,6-Dinitrotoluene	mg/L	<0.0000727	<0.00381	<0.0000762
2-Chloronaphthalene	mg/L	<0.0000727	<0.00381	<0.0000762
2-Methylnaphthalene	mg/L	<0.000174	0.0104 J	<0.0000667
4,6-Dinitro-2-methylphenol	mg/L	<0.000755	<0.0395	<0.000790
4-Nitrophenol	mg/L	<0.000509	<0.0267	<0.000533
Acenaphthene	mg/L	0.000242 J	0.00952 J	<0.0000762
Acenaphthylene	mg/L	0.000112 J	<0.00286	<0.0000571
Anthracene	mg/L	0.000723	<0.00238 J	<0.0000476
Benzo(a)anthracene	mg/L	<0.0000727	<0.00381	<0.0000762
Benzo(a)pyrene	mg/L	<0.0000727	<0.00381	<0.0000762
bis(2-Chloroethoxy)methane	mg/L	<0.000118	<0.00619	<0.000124

TABLE 3
ANALYTICAL RESULTS SUMMARY
SEMI-ANNUAL GROUNDWATER SAMPLING
UPRR - 1620 WOOD PRESERVING WORKS
HOUSTON, TEXAS
JANUARY & FEBRUARY 2013

<i>Sample Location:</i>	MW-62B	MW-63B	MW-63B	MW-65D	
<i>Sample ID:</i>	WG-1620-MW62B-20130211	WG-1620-MW63B-20130207	WG-1620-DUP2-20130207	WG-1620-MW65D-20120211	
<i>Sample Date:</i>	2/11/2013	2/7/2013	2/7/2013 <i>Duplicate</i>	2/11/2013	
<i>Parameters</i>	<i>Units</i>				
<i>Semi-volatile Organic Compounds(SVOC) (continued)</i>					
bis(2-Ethylhexyl)phthalate (DEHP)	mg/L	<0.000336	<0.0176	<0.000376	0.000593
Chrysene	mg/L	<0.0000727	<0.00381	<0.0000762	<0.0000762
Dibenzofuran	mg/L	0.000174 J	0.00576 J	0.00514	<0.0000762
Di-n-butylphthalate (DBP)	mg/L	<0.000100	<0.00524 J	0.000127 J	0.000135 J
Fluoranthene	mg/L	0.000330 J	<0.00333	<0.0000667	<0.0000667
Fluorene	mg/L	<0.0000636	<0.00333	0.00208	<0.0000667
Naphthalene	mg/L	<0.00129	0.251	0.162 J	<0.0000762
Nitrobenzene	mg/L	<0.000100	<0.00524	<0.000105	<0.000105
N-Nitrosodiphenylamine	mg/L	<0.0000909	<0.00476	<0.0000952	<0.0000952
Pentachlorophenol	mg/L	<0.000555	<0.0290	<0.000581	<0.000581
Phenanthrene	mg/L	<0.000472	<0.00286 J	0.000776 J	<0.0000571
Phenol	mg/L	<0.0000364	<0.00190	<0.0000381	<0.0000381
Pyrene	mg/L	0.000387 J	<0.00524	<0.000105	<0.000105

TABLE 3
ANALYTICAL RESULTS SUMMARY
SEMI-ANNUAL GROUNDWATER SAMPLING
UPRR - 1620 WOOD PRESERVING WORKS
HOUSTON, TEXAS
JANUARY & FEBRUARY 2013

<i>Sample Location:</i>		<i>MW-67B</i>	<i>MW-68B</i>	<i>MW-68C</i>	<i>MW-69A</i>
<i>Sample ID:</i>		<i>WG-1620-MW67B-20120211</i>	<i>WG-1620-MW68B-20130206</i>	<i>WG-1620-MW68C-20130206</i>	<i>WG-1620-MW69A-20130208</i>
<i>Sample Date:</i>		<i>2/12/2013</i>	<i>2/6/2013</i>	<i>2/6/2013</i>	<i>2/7/2013</i>
<i>Parameters</i>	<i>Units</i>				
<i>Volatile Organic Compounds(VOC)</i>					
1,2-Dichloroethane	mg/L	<0.000140	<0.0140	<0.000140	<0.000140
Benzene	mg/L	<0.0000800	2.35	0.00134	<0.0000800
Chlorobenzene	mg/L	<0.000120	0.0273 J	<0.000352	<0.000120
Ethylbenzene	mg/L	<0.000110	0.449	0.000363 J	<0.000110
Methylene chloride	mg/L	<0.000150	<0.0150	<0.000150	<0.000150
Toluene	mg/L	<0.000150	0.701	0.000632 J	<0.000150
Vinyl chloride	mg/L	-	-	-	<0.000110
Xylenes (total)	mg/L	<0.000260	1.04	0.000873 J	<0.000260
<i>Semi-volatile Organic Compounds(SVOC)</i>					
1,2-Diphenylhydrazine	mg/L	<0.000105	<0.00524	<0.000105	<0.000105
2,4-Dimethylphenol	mg/L	<0.000295	0.273	R	<0.000295
2,4-Dinitrotoluene	mg/L	<0.000124	<0.00619	<0.000124	<0.000124
2,6-Dinitrotoluene	mg/L	<0.0000762	<0.00381	<0.0000762	<0.0000762
2-Chloronaphthalene	mg/L	<0.0000762	<0.00381	<0.0000762	<0.0000762
2-Methylnaphthalene	mg/L	<0.0000667	0.952	0.00132	<0.0000667
4,6-Dinitro-2-methylphenol	mg/L	R	<0.0395	<0.000790	<0.000790
4-Nitrophenol	mg/L	<0.000533	<0.0267	R	<0.000533
Acenaphthene	mg/L	<0.0000762	0.261	0.000647	<0.0000762
Acenaphthylene	mg/L	<0.0000571	<0.00286	<0.0000571	<0.0000571
Anthracene	mg/L	<0.0000476	0.0194 J	<0.0000476	<0.0000476
Benzo(a)anthracene	mg/L	<0.0000762	<0.00381	<0.0000762	<0.0000762
Benzo(a)pyrene	mg/L	<0.0000762	<0.00381	<0.0000762	<0.0000762
bis(2-Chloroethoxy)methane	mg/L	<0.000124	<0.00619	<0.000124	<0.000124

TABLE 3
ANALYTICAL RESULTS SUMMARY
SEMI-ANNUAL GROUNDWATER SAMPLING
UPRR - 1620 WOOD PRESERVING WORKS
HOUSTON, TEXAS
JANUARY & FEBRUARY 2013

<i>Sample Location:</i>	<i>MW-67B</i>	<i>MW-68B</i>	<i>MW-68C</i>	<i>MW-69A</i>	
<i>Sample ID:</i>	<i>WG-1620-MW67B-20120211</i>	<i>WG-1620-MW68B-20130206</i>	<i>WG-1620-MW68C-20130206</i>	<i>WG-1620-MW69A-20130208</i>	
<i>Sample Date:</i>	<i>2/12/2013</i>	<i>2/6/2013</i>	<i>2/6/2013</i>	<i>2/7/2013</i>	
<i>Parameters</i>	<i>Units</i>				
<i>Semi-volatile Organic Compounds(SVOC) (continued)</i>					
bis(2-Ethylhexyl)phthalate (DEHP)	mg/L	<0.000352	<0.0176	0.000637	<0.000352
Chrysene	mg/L	<0.0000762	<0.00381	<0.0000762	<0.0000762
Dibenzofuran	mg/L	<0.0000762	0.260	0.000168 J	<0.0000762
Di-n-butylphthalate (DBP)	mg/L	<0.000105	<0.00524	<0.000105	<0.000105
Fluoranthene	mg/L	<0.0000667	<0.00333	<0.0000667	<0.0000667
Fluorene	mg/L	<0.0000667	0.118	0.000340 J	<0.0000667
Naphthalene	mg/L	<0.0000762	11.8	0.0129	<0.000142
Nitrobenzene	mg/L	<0.000105	<0.00524	<0.000105	<0.000105
N-Nitrosodiphenylamine	mg/L	<0.0000952	<0.00476	<0.0000952	<0.0000952
Pentachlorophenol	mg/L	<0.000581 J	<0.0290	R	<0.000581
Phenanthrene	mg/L	<0.0000571	0.120	0.000499	<0.0000571
Phenol	mg/L	<0.0000381	0.0421	R	<0.0000381
Pyrene	mg/L	<0.000105	<0.00524	<0.000105	<0.000105

TABLE 3
ANALYTICAL RESULTS SUMMARY
SEMI-ANNUAL GROUNDWATER SAMPLING
UPRR - 1620 WOOD PRESERVING WORKS
HOUSTON, TEXAS
JANUARY & FEBRUARY 2013

<i>Sample Location:</i>	<i>MW-70B</i>	<i>MW-71B</i>	<i>MW-72B</i>	<i>MW-73B</i>	
<i>Sample ID:</i>	<i>WG-1620-MW70B-20130207</i>	<i>WG-1620-MW71B-20130207</i>	<i>WG-1620-MW72B-20130201</i>	<i>WG-1620-MW73B-20130130</i>	
<i>Sample Date:</i>	<i>2/7/2013</i>	<i>2/7/2013</i>	<i>2/1/2013</i>	<i>1/30/2013</i>	
<i>Parameters</i>	<i>Units</i>				
<i>Volatile Organic Compounds(VOC)</i>					
1,2-Dichloroethane	mg/L	<0.00700	<0.000140	<0.00700	<0.000140
Benzene	mg/L	2.01	0.0124	1.45	0.000218 J
Chlorobenzene	mg/L	0.0317 J	<0.000120	<0.00600	<0.000120
Ethylbenzene	mg/L	0.524	0.00541	0.321	<0.000110
Methylene chloride	mg/L	<0.00750	<0.000150	<0.00750	<0.000150
Toluene	mg/L	1.65	0.0104	1.18	0.000336 J
Vinyl chloride	mg/L	-	-	-	-
Xylenes (total)	mg/L	1.51	0.0143	0.960	<0.000260
<i>Semi-volatile Organic Compounds(SVOC)</i>					
1,2-Diphenylhydrazine	mg/L	<0.0750	<0.000105	<0.0524	<0.000104
2,4-Dimethylphenol	mg/L	<2.11	<0.000295	98.1	<0.000292
2,4-Dinitrotoluene	mg/L	<0.0886	<0.000124	<0.0619	<0.000123
2,6-Dinitrotoluene	mg/L	<0.0545	<0.0000762	<0.0381	<0.0000755
2-Chloronaphthalene	mg/L	<0.0545	<0.0000762	<0.0381	<0.0000755
2-Methylnaphthalene	mg/L	1.21	0.000377 J	1.39	<0.0000660
4,6-Dinitro-2-methylphenol	mg/L	<0.566	<0.000790	<0.395	<0.000783
4-Nitrophenol	mg/L	<0.382	<0.000533	<0.267	<0.000528
Acenaphthene	mg/L	0.515	0.00440	0.584	<0.000185
Acenaphthylene	mg/L	0.0424 J	0.000135 J	<0.0286	0.0000696 J
Anthracene	mg/L	0.0510 J	0.000452 J	0.0646 J	0.000186 J
Benzo(a)anthracene	mg/L	<0.0545	<0.0000762	<0.0381	<0.0000755
Benzo(a)pyrene	mg/L	<0.0545	<0.0000762	<0.0381	<0.0000755
bis(2-Chloroethoxy)methane	mg/L	<0.0886	<0.000124	<0.0619	<0.000123

TABLE 3
ANALYTICAL RESULTS SUMMARY
SEMI-ANNUAL GROUNDWATER SAMPLING
UPRR - 1620 WOOD PRESERVING WORKS
HOUSTON, TEXAS
JANUARY & FEBRUARY 2013

<i>Sample Location:</i>	<i>MW-70B</i>	<i>MW-71B</i>	<i>MW-72B</i>	<i>MW-73B</i>	
<i>Sample ID:</i>	<i>WG-1620-MW70B-20130207</i>	<i>WG-1620-MW71B-20130207</i>	<i>WG-1620-MW72B-20130201</i>	<i>WG-1620-MW73B-20130130</i>	
<i>Sample Date:</i>	<i>2/7/2013</i>	<i>2/7/2013</i>	<i>2/1/2013</i>	<i>1/30/2013</i>	
<i>Parameters</i>	<i>Units</i>				
<i>Semi-volatile Organic Compounds(SVOC) (continued)</i>					
bis(2-Ethylhexyl)phthalate (DEHP)	mg/L	<0.252	<0.000352	<0.176	<0.000349
Chrysene	mg/L	<0.0545	<0.0000762	<0.0381	<0.0000755
Dibenzofuran	mg/L	0.345	0.00244	0.355	<0.0000755
Di-n-butylphthalate (DBP)	mg/L	<0.0750	<0.000105	<0.0524	<0.000104
Fluoranthene	mg/L	<0.0477	0.000387 J	<0.0333	0.000138 J
Fluorene	mg/L	0.211 J	0.00168	0.253	<0.0000660
Naphthalene	mg/L	17.3 J	0.0000937 J	88.5 J	<0.000436
Nitrobenzene	mg/L	<0.0750	<0.000105	<0.0524	<0.000104
N-Nitrosodiphenylamine	mg/L	<0.0682	<0.0000952	<0.0476	<0.0000943
Pentachlorophenol	mg/L	<0.416	<0.000581	<0.290	<0.000575
Phenanthrene	mg/L	0.227 J	0.00127	0.264	<0.0000566
Phenol	mg/L	2.87	<0.0000381	7.51	<0.0000377
Pyrene	mg/L	<0.0750	0.000253 J	<0.0524	<0.000104

TABLE 3
ANALYTICAL RESULTS SUMMARY
SEMI-ANNUAL GROUNDWATER SAMPLING
UPRR - 1620 WOOD PRESERVING WORKS
HOUSTON, TEXAS
JANUARY & FEBRUARY 2013

<i>Sample Location:</i>	<i>P-11</i>	<i>TW-41B</i>	<i>TW-56A</i>
<i>Sample ID:</i>	<i>WG-1620-P11-20130205</i>	<i>WG-1620-TW41B-20130205</i>	<i>WG-1620-TW56A-20130131</i>
<i>Sample Date:</i>	<i>2/5/2013</i>	<i>2/5/2013</i>	<i>1/31/2013</i>
<i>Parameters</i>	<i>Units</i>		
<i>Volatile Organic Compounds(VOC)</i>			
1,2-Dichloroethane	mg/L	<0.000140	<0.000140
Benzene	mg/L	<0.0000800	<0.0000800
Chlorobenzene	mg/L	<0.000120	<0.000120
Ethylbenzene	mg/L	<0.000110	<0.000110
Methylene chloride	mg/L	<0.000150	<0.000150
Toluene	mg/L	<0.000150	<0.000150
Vinyl chloride	mg/L	<0.000110	<0.000110
Xylenes (total)	mg/L	<0.000260	<0.000260
<i>Semi-volatile Organic Compounds(SVOC)</i>			
1,2-Diphenylhydrazine	mg/L	<0.000104	<0.000104
2,4-Dimethylphenol	mg/L	R	<0.000292
2,4-Dinitrotoluene	mg/L	<0.000123	<0.000123
2,6-Dinitrotoluene	mg/L	<0.0000755	<0.0000755
2-Chloronaphthalene	mg/L	<0.0000755	<0.0000755
2-Methylnaphthalene	mg/L	0.000127 J	<0.0000660
4,6-Dinitro-2-methylphenol	mg/L	R	<0.000783
4-Nitrophenol	mg/L	R	<0.000528
Acenaphthene	mg/L	<0.0000755	<0.0000755
Acenaphthylene	mg/L	<0.0000566	0.0000751 J
Anthracene	mg/L	0.000250 J	0.000979
Benzo(a)anthracene	mg/L	<0.0000755	<0.0000755
Benzo(a)pyrene	mg/L	<0.0000755	<0.0000755
bis(2-Chloroethoxy)methane	mg/L	<0.000123	<0.000123

TABLE 3
ANALYTICAL RESULTS SUMMARY
SEMI-ANNUAL GROUNDWATER SAMPLING
UPRR - 1620 WOOD PRESERVING WORKS
HOUSTON, TEXAS
JANUARY & FEBRUARY 2013

	<i>Sample Location:</i>	<i>P-11</i>	<i>TW-41B</i>	<i>TW-56A</i>
	<i>Sample ID:</i>	<i>WG-1620-P11-20130205</i>	<i>WG-1620-TW41B-20130205</i>	<i>WG-1620-TW56A-20130131</i>
	<i>Sample Date:</i>	<i>2/5/2013</i>	<i>2/5/2013</i>	<i>1/31/2013</i>
<i>Parameters</i>	<i>Units</i>			
<i>Semi-volatile Organic Compounds(SVOC) (continued)</i>				
bis(2-Ethylhexyl)phthalate (DEHP)	mg/L	0.000360 J	<0.000349	<0.185
Chrysene	mg/L	<0.0000755	<0.0000755	<0.0400
Dibenzofuran	mg/L	0.000135 J	<0.0000755	0.108 J
Di-n-butylphthalate (DBP)	mg/L	<0.000104	<0.000104	<0.0550
Fluoranthene	mg/L	<0.0000660	<0.0000660	<0.0350
Fluorene	mg/L	0.0000769 J	0.0000917 J	0.120 J
Naphthalene	mg/L	0.000662	0.000156 J	1.75 J
Nitrobenzene	mg/L	<0.000104	<0.000104	<0.0550
N-Nitrosodiphenylamine	mg/L	<0.0000943	<0.0000943	<0.0500
Pentachlorophenol	mg/L	R	<0.000575	<0.305
Phenanthrene	mg/L	0.0000854 J	<0.0000566	0.217 J
Phenol	mg/L	R	<0.0000377	<0.0200
Pyrene	mg/L	<0.000104	<0.000104	<0.0550

Notes:

J Estimated concentration.

R Rejected.

TABLE 4
QUALIFIED SAMPLE RESULTS DUE TO ANALYTE CONCENTRATIONS IN THE METHOD BLANKS
SEMI-ANNUAL GROUNDWATER SAMPLING
UPRR - 1620 WOOD PRESERVING WORKS
HOUSTON, TEXAS
JANUARY & FEBRUARY 2013

<i>Parameter</i>	<i>Analyte</i>	<i>Analysis Date</i>	<i>Blank Result *</i>	<i>Sample ID</i>	<i>Original Result</i>	<i>Qualified Result</i>	<i>Units</i>
VOC	Chlorobenzene	2/11/2013	0.0003753	WG-1620-MW32B-20130206	0.000343 J	<0.000343 J	mg/L
				WG-1620-MW68C-20130206	0.000352 J	<0.000352 J	mg/L
VOC	Ethylbenzene	2/7/2013	0.0002371	WG-1620-MW05-20130205	0.000137 J	<0.000137 J	mg/L
				WG-1620-MW21C-20130205	0.000144 J	<0.000144 J	mg/L
				WG-1620-MW42B-20130205	0.000132 J	<0.000132 J	mg/L
				WG-1620-MW12C-20130205	0.000145 J	<0.000145 J	mg/L
SVOC	2-Methylnaphthalene	2/15/2013	0.0006201	WG-1620-MW15B-20130130	0.000744 J	<0.000744 J	mg/L
				WG-1620-MW36B-20130131	0.000762 J	<0.000762 J	mg/L
SVOC	Acenaphthene	2/15/2013	0.0001370	WG-1620-MW73B-20130130	0.000185 J	<0.000185 J	mg/L
SVOC	bis(2-Ethylhexyl)phthalate (DEHP)	2/19/2013	0.002179	WG-1620-DUP2-20130207	0.000376 J	<0.000376 J	mg/L
SVOC	Dibenzofuran	2/15/2013	0.0004397	WG-1620-MW36B-20130131	0.000118 J	<0.000118 J	mg/L
SVOC	Naphthalene	2/15/2013	0.001776	WG-1620-MW36A-20130131	0.000211 J	<0.000211 J	mg/L
				WG-1620-MW36B-20130131	0.000943 J	<0.000943 J	mg/L
				WG-1620-MW48C-20130131	0.000495 J	<0.000495 J	mg/L
				WG-1620-MW55A-20130130	0.00227 J	<0.00227 J	mg/L
				WG-1620-MW59B-20130131	0.000269 J	<0.000269 J	mg/L
				WG-1620-MW73B-20130130	0.000436 J	<0.000436 J	mg/L
SVOC	Naphthalene	2/16/2013	0.0004249	WG-1620-MW47C-20130207	0.000401 J	<0.000401 J	mg/L
SVOC	Naphthalene	2/19/2013	0.0004249	WG-1620-FB7-20130208	0.000254 J	<0.000254 J	mg/L
				WG-1620-MW69A-20130208	0.000142 J	<0.000142 J	mg/L

Notes:

* Blank result adjusted for sample factors where applicable.

J Estimated concentration.

TABLE 5
QUALIFIED SAMPLE DATA DUE TO ANALYTE CONCENTRATIONS IN THE FIELD BLANKS
SEMI-ANNUAL GROUNDWATER SAMPLING
UPRR - 1620 WOOD PRESERVING WORKS
HOUSTON, TEXAS
JANUARY & FEBRUARY 2013

<i>Parameter</i>	<i>Blank Date</i>	<i>Analyte</i>	<i>Blank Result</i>	<i>Associated Sample ID</i>	<i>Original Result</i>	<i>Qualified Result</i>	<i>Units</i>
SVOC	1/30/2013	Naphthalene	0.000373	WG-1620-MW55A-20130130	0.00227 J	<0.00227	mg/L
				WG-1620-MW73B-20130130	0.000436 J	<0.000436	mg/L
				WG-1620-MW36A-20130131	0.000211 J	<0.000211	mg/L
				WG-1620-MW36B-20130131	0.000943 J	<0.000943	mg/L
				WG-1620-MW48C-20130131	0.000495 J	<0.000495	mg/L
				WG-1620-MW59B-20130131	0.000269 J	<0.000269	mg/L
SVOC	2/1/2013	Acenaphthene	0.0000888	WG-1620-MW19C-20130201	0.000608 J	<0.000608	mg/L
SVOC	2/6/2013	Naphthalene	0.000455	WG-1620-MW25A-20130206	0.000692 J	<0.000692	mg/L
				WG-1620-MW53C-20130206	0.000183 J	<0.000183	mg/L
SVOC	2/11/2013	Phenanthrene	0.000103	WG-1620-MW62B-20130211	0.000472 J	<0.000472	mg/L
		Naphthalene	0.000542	WG-1620-MW62B-20130211	0.00129 J	<0.00129	mg/L
		2-Methylnaphthalene	0.0000688	WG-1620-MW62B-20130211	0.000174 J	<0.000174	mg/L
SVOC	2/12/2013	Naphthalene	0.000844	WG-1620-MW24AR-20120211	0.000139 J	<0.000139	mg/L
				WG-1620-MW44A-20120211	0.000941 J	<0.000941	mg/L
		2-Methylnaphthalene	0.000162	WG-1620-MW27C-20120211	0.000777 J	<0.000777	mg/L

TABLE 6
QUALIFIED SAMPLE DATA DUE TO OUTLYING OF SURROGATE RECOVERIES
SEMI-ANNUAL GROUNDWATER SAMPLING
UPRR - 1620 WOOD PRESERVING WORKS
HOUSTON, TEXAS
JANUARY & FEBRUARY 2013

<i>Parameter</i>	<i>Sample ID</i>	<i>Surrogate</i>	<i>Surrogate Recovery (percent)</i>	<i>Control Limits (percent)</i>	<i>Analyte</i>	<i>Qualified Result</i>	<i>Units</i>
SVOC	WG-1620-DUP1-20130205	Phenol-d6	9	10-94	2,4-Dimethylphenol	R	
					4,6-Dinitro-2-methylphenol	R	
					4-Nitrophenol	R	
					Pentachlorophenol	R	
					Phenol	R	
SVOC	WG-1620-MW13-20130205	Phenol-d6	6	10-94	4-Nitrophenol	R	
					2,4-Dimethylphenol	R	
					Phenol	R	
					4,6-Dinitro-2-methylphenol	R	
					Pentachlorophenol	R	
SVOC	WG-1620-MW24AR-20120211	Phenol-d6	5	10-94	4-Nitrophenol	R	
		2,4,6-Tribromophenol	2	10-123	2,4-Dimethylphenol	R	
		2-Fluorophenol	8	10-100	Phenol	R	
					Pentachlorophenol	R	
SVOC	WG-1620-MW47C-20130207	Phenol-d6	8	10-94	2,4-Dimethylphenol	R	
					Phenol	R	
					4,6-Dinitro-2-methylphenol	R	
					Pentachlorophenol	R	

TABLE 6
QUALIFIED SAMPLE DATA DUE TO OUTLYING OF SURROGATE RECOVERIES
SEMI-ANNUAL GROUNDWATER SAMPLING
UPRR - 1620 WOOD PRESERVING WORKS
HOUSTON, TEXAS
JANUARY & FEBRUARY 2013

<i>Parameter</i>	<i>Sample ID</i>	<i>Surrogate</i>	<i>Surrogate Recovery (percent)</i>	<i>Control Limits (percent)</i>	<i>Analyte</i>	<i>Qualified Result</i>	<i>Units</i>
SVOC	WG-1620-MW68C-20130206	Phenol-d6	9	10-94	4-Nitrophenol	R	
					2,4-Dimethylphenol	R	
					Phenol	R	
					Pentachlorophenol	R	
SVOC	WG-1620-P11-20130205	Phenol-d6	8	10-94	4-Nitrophenol	R	
					2,4-Dimethylphenol	R	
					Phenol	R	
					4,6-Dinitro-2-methylphenol	R	
					Pentachlorophenol	R	

Notes:

SVOC Semi-volatile organic compounds.

R Rejected.

TABLE 7
QUALIFIED SAMPLE RESULTS DUE TO OUTLYING MATRIX SPIKE/MATRIX SPIKE DUPLICATE RESULTS
SEMI-ANNUAL GROUNDWATER SAMPLING
UPRR - 1620 WOOD PRESERVING WORKS
HOUSTON, TEXAS
JANUARY & FEBRUARY 2013

<i>Parameter</i>	<i>Sample ID</i>	<i>Analyte</i>	<i>MS</i>	<i>MSD</i>	<i>RPD</i>	<i>Control Limits</i>		<i>Qualified Result</i>	<i>Units</i>
			<i>% Recovery</i>	<i>% Recovery</i>	<i>(percent)</i>	<i>% Recovery</i>	<i>RPD</i>		
SVOC	WG-1620-MW13-20130205	2,4-Dimethylphenol	15	13	16	25-85	20	R	
	WG-1620-MW67B-20120211	4,6-Dinitro-2-methylphenol	0	0	0	28-128	20	R	
		Pentachlorophenol	43	35	20	45-155	20	<0.000581 J	mg/L

Notes:

- MS Matrix spike.
- MSD Matrix spike duplicate.
- RPD Relative percent difference.
- SVOC Semi-volatile organic compounds.
- R Rejected.
- J Estimated concentration.

TABLE 8
QUALIFIED SAMPLE DATA DUE TO VARIABILITY IN FIELD DUPLICATE RESULTS
SEMI-ANNUAL GROUNDWATER SAMPLING
UPRR - 1620 WOOD PRESERVING WORKS
HOUSTON, TEXAS
JANUARY & FEBRUARY 2013

<i>Parameter</i>	<i>Analyte</i>	<i>RPD/Diff</i>	<i>Sample ID</i>	<i>Qualified Result</i>	<i>Field Duplicate Sample ID</i>	<i>Qualified Result</i>	<i>Units</i>
SVOC	2-Methylnaphthalene	121	WG-1620-MW21C-20130205	0.000271 J	WG-1620-DUP1-20130205	<0.0000660	mg/L
	Acenaphthene	103		0.000237 J		<0.0000755	mg/L
	Naphthalene	104		0.000429 J		<0.0000755	mg/L
	Phenanthrene	105		0.000184 J		<0.0000566	mg/L
SVOC	Anthracene	180	WG-1620-MW63B-20130207	<0.00238 J	WG-1620-DUP2-20130207	0.000124 J	mg/L
	Di-n-butylphthalate (DBP)	190		<0.00524 J		0.000127 J	mg/L
	Phenanthrene	114		<0.00286 J		0.000776 J	mg/L
SVOC	2,4-Dimethylphenol	104	WG-1620-MW33A-20120211	0.00623 J	WG-1620-DUP3- 20120211	0.0199 J	mg/L
	2-Methylnaphthalene	124		0.00345 J		0.0149 J	mg/L
	Dibenzofuran	90.9		0.00262 J		0.00699 J	mg/L
	Naphthalene	109		0.112 J		0.382 J	mg/L
	Phenanthrene	67.6		0.000488 J		0.000987 J	mg/L

Notes:

- Diff Difference (>1XRL for waters).
- RPD Relative percent difference.
- J Estimated concentration.

APPENDIX B

LABORATORY DATA

[Not Included with Data Usability Study - CRA-Houston has copies in their office]

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Houston

6310 Rothway Street

Houston, TX 77040

Tel: (713)690-4444

TestAmerica Job ID: 600-67921-1

Client Project/Site: 1620 UPRR HWPW

Revision: 1

For:

Pastor, Behling & Wheeler LLC

2201 Double Creek Dr

Suite 4004

Round Rock, Texas 78664

Attn: Mr. Eric Matzner



Authorized for release by:

3/5/2013 5:20:33 PM

Cathy Upton

Data Delivery Analyst

cathy.upton@testamericainc.com

Designee for

Sachin Kudchadkar

Project Manager II

sachin.kudchadkar@testamericainc.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.



LINKS

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www.testamericainc.com

1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17



Table of Contents

Cover Page	1
Table of Contents	2
TRRP Cover Page	3
TRRP Checklists & DCSs	4
Case Narrative	14
Method Summary	15
Sample Summary	16
Client Sample Results	17
Definitions/Glossary	36
Surrogate Summary	37
QC Sample Results	39
Default Detection Limits	47
QC Association Summary	48
Lab Chronicle	51
Certification Summary	55
Chain of Custody	56
Receipt Checklists	58

Job Number: 600-67921-1
Project Name/Number: 1620 UPRR HWPW

This Data Package consists of:

This signature page, the laboratory review checklist, and the following Reportable Data:

- R1 Field Chain-of-Custody Form
- R2 Sample Identification Cross-reference;
- R3 Test Reports (Analytical Data Sheets) for each environmental sample that includes:
 - a) Items consistent with NELAC Chapter 5
 - b) dilution factors,
 - c) preparation methods,
 - d) cleanup methods, and
 - e) if required for the project, tentatively identified compounds (TICs).
- R4 Surrogate Recovery Data including:
 - a) Calculated recovery (%R), and
 - b) The laboratory's surrogate QC limits.
- R5 Test Reports/Summary Forms for Blank Samples;
- R6 Test Reports/Summary Forms for Laboratory Control Samples (LCSs) including:
 - a) LCS spiking amounts,
 - b) Calculated %R for each analyte, and
 - d) The laboratory's LCS QC limits
- R7 Test Reports for Matrix Spike/Matrix Spike Duplicates (MS/MSDs) including:
 - a) Samples associated with the MS/MSD clearly identified,
 - b) MS/MSD spiking amounts,
 - c) Concentration of each MS/MSD analyte measured in the parent and spiked sample,
 - d) Calculated %Rs and relative percent differences (RPDs), and
 - e) The laboratory's MS/MSD QC limits
- R8 Laboratory analytical duplicates (if applicable) recovery and precision, including:
 - a) the amount of analyte measured in the duplicate,
 - b) the calculated RPD, and
 - c) the laboratory's QC limits for analytical duplicates.
- R9 List of method quantitation limit (MQL) and detectability check sample results for each analyte for each method and matrix;
- R10 Other problems or anomalies

The exception report for each "No" or "Not Reviewed (NR)" item in the Laboratory Review Checklist and for each analyte, matrix, and method for which the laboratory does not hold NELAC accreditation under the Texas Laboratory Accreditation Program.

Release Statement: I am responsible for the release of this laboratory data package. This laboratory is NELAC accredited under Texas laboratory Accreditation Program for all the methods, analytes, and matrices reported in this data package except as noted in the Exception Reports. The data have been reviewed and are technically compliant with the requirements of the methods used, except where noted by the laboratory in the Exception Reports. By my signature below, I affirm, to the best of my knowledge, that all problems/anomalies observed by the laboratory have been identified in the Laboratory Review Checklist, and no information affecting the quality of the data has been knowingly withheld.

Cathy Upton
Name (printed)
Data Delivery Analyst
Official Title (printed)


Signature

02/21/2013
Date

Appendix A (cont'd): Laboratory Review Checklist: Reportable Data							
Laboratory Name: TestAmerica-Houston			LRC Date: 02/06/13				
Project Name: UPRR 1620--HWPW			Laboratory Job Number: 600-67921				
Reviewer Name: YX			Prep Batch Number: 600-98720, 98752, 98764 and 98838-VOA				
# ¹	A ²	Description	Yes	No	NA ³	NR ⁴	ER# ⁵
R1	OI	Chain-of-custody (C-O-C)					
		Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?	X				
		Were all departures from standard conditions described in an exception report?			X		
R2	OI	Sample and quality control (QC) identification					
		Are all field sample ID numbers cross-referenced to the laboratory ID numbers?	X				
		Are all laboratory ID numbers cross-referenced to the corresponding QC data?	X				
R3	OI	Test reports					
		Were all samples prepared and analyzed within holding times?	X				
		Other than those results < MQL, were all other raw values bracketed by calibration standards?	X				
		Were calculations checked by a peer or supervisor?	X				
		Were all analyte identifications checked by a peer or supervisor?	X				
		Were sample detection limits reported for all analytes not detected?	X				
		Were all results for soil and sediment samples reported on a dry weight basis?			X		
		Were % moisture (or solids) reported for all soil and sediment samples?			X		
		Were bulk soil/solid samples for volatile analysis extracted with methanol per SW846 Method 5035?			X		
		If required for the project, TICs reported?			X		
R4	O	Surrogate recovery data					
		Were surrogates added prior to extraction?	X				
		Were surrogate percent recoveries in all samples within the laboratory QC limits?	X				
R5	OI	Test reports/summary forms for blank samples					
		Were appropriate type(s) of blanks analyzed?	X				
		Were blanks analyzed at the appropriate frequency?	X				
		Were method blanks taken through the entire analytical process, including preparation and, if applicable, cleanup procedures?	X				
		Were blank concentrations < MQL?	X				
R6	OI	Laboratory control samples (LCS):					
		Were all COCs included in the LCS?	X				
		Was each LCS taken through the entire analytical procedure, including prep and cleanup steps?	X				
		Were LCSs analyzed at the required frequency?	X				
		Were LCS (and LCSD, if applicable) %Rs within the laboratory QC limits?	X				
		Does the detectability check sample data document the laboratory's capability to detect the COCs at the MDL used to calculate the SDLs?	X				
		Was the LCSD RPD within QC limits?			X		
R7	OI	Matrix spike (MS) and matrix spike duplicate (MSD) data					
		Were the project/method specified analytes included in the MS and MSD?	X				
		Were MS/MSD analyzed at the appropriate frequency?	X				
		Were MS (and MSD, if applicable) %Rs within the laboratory QC limits?	X				
		Were MS/MSD RPDs within laboratory QC limits?	X				
R8	OI	Analytical duplicate data					
		Were appropriate analytical duplicates analyzed for each matrix?			X		
		Were analytical duplicates analyzed at the appropriate frequency?			X		
		Were RPDs or relative standard deviations within the laboratory QC limits?			X		
R9	OI	Method quantitation limits (MQLs):					
		Are the MQLs for each method analyte included in the laboratory data package?	X				
		Do the MQLs correspond to the concentration of the lowest non-zero calibration standard?	X				
		Are unadjusted MQLs and DCSs included in the laboratory data package?	X				
R10	OI	Other problems/anomalies					
		Are all known problems/anomalies/special conditions noted in this LRC and ER?	X				
		Was applicable and available technology used to lower the SDL to minimize the matrix interference affects on the sample results?	X				1
		Is the laboratory NELAC-accredited under the Texas Laboratory Accreditation Program for the analytes, matrices and methods associated with this laboratory data package?	X				

- Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.
- O = organic analyses; I = inorganic analyses (and general chemistry, when applicable);
- NA = Not applicable;
- NR = Not reviewed;
- ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

Appendix A (cont'd): Laboratory Review Checklist: Reportable Data									
Laboratory Name: TestAmerica-Houston					LRC Date: 02/06/13				
Project Name: UPRR 1620--HWPW					Laboratory Job Number: 600-67921				
Reviewer Name: YX					Prep Batch Number: 600-98720, 98752, 98764 and 98838-VOA				
# ¹	A ²	Description	Yes	No	NA ³	NR ⁴	ER# ⁵		
S1	OI	Initial calibration (ICAL)							
		Were response factors and/or relative response factors for each analyte within QC limits?	X						
		Were percent RSDs or correlation coefficient criteria met?	X						
		Was the number of standards recommended in the method used for all analytes?	X						
		Were all points generated between the lowest and highest standard used to calculate the curve?	X						
		Are ICAL data available for all instruments used?	X						
		Has the initial calibration curve been verified using an appropriate second source standard?	X						
S2	OI	Initial and continuing calibration verification (ICCV and CCV) and continuing calibration							
		Was the CCV analyzed at the method-required frequency?	X						
		Were percent differences for each analyte within the method-required QC limits?	X						
		Was the ICAL curve verified for each analyte?	X						
		Was the absolute value of the analyte concentration in the inorganic CCB < MDL?			X				
S3	O	Mass spectral tuning:							
		Was the appropriate compound for the method used for tuning?	X						
		Were ion abundance data within the method-required QC limits?	X						
S4	O	Internal standards (IS):							
		Were IS area counts and retention times within the method-required QC limits?	X						
S5	OI	Raw data (NELAC section 5.5.10)							
		Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?	X						
		Were data associated with manual integrations flagged on the raw data?	X						
S6	O	Dual column confirmation							
		Did dual column confirmation results meet the method-required QC?			X				
S7	O	Tentatively identified compounds (TICs):							
		If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?			X				
S8	I	Interference Check Sample (ICS) results:							
		Were percent recoveries within method QC limits?			X				
S9	I	Serial dilutions, post digestion spikes, and method of standard additions							
		Were percent differences, recoveries, and the linearity within the QC limits specified in the method?			X				
S10	OI	Method detection limit (MDL) studies							
		Was a MDL study performed for each reported analyte?	X						
		Is the MDL either adjusted or supported by the analysis of DCSs?	X						
S11	OI	Proficiency test reports:							
		Was the laboratory's performance acceptable on the applicable proficiency tests or evaluation studies?	X						
S12	OI	Standards documentation							
		Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?	X						
S13	OI	Compound/analyte identification procedures							
		Are the procedures for compound/analyte identification documented?	X						
S14	OI	Demonstration of analyst competency (DOC)							
		Was DOC conducted consistent with NELAC Chapter 5?	X						
		Is documentation of the analyst's competency up-to-date and on file?	X						
S15	OI	Verification/validation documentation for methods (NELAC Chapter 5)							
		Are all the methods used to generate the data documented, verified, and validated, where applicable?	X						
S16	OI	Laboratory standard operating procedures (SOPs):							
		Are laboratory SOPs current and on file for each method performed?	X						

- 1 Items identified by the letter "R" should be included in the laboratory data package submitted to the TCEQ in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.
- 2 O = organic analyses; I = inorganic analyses (and general chemistry, when applicable).
- 3 NA = Not applicable.
- 4 NR = Not Reviewed.
- 5 ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

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Appendix A (cont'd): Laboratory Review Checklist: Exception Reports	
Laboratory Name: TestAmerica-Houston	LRC Date: 02/06/13
Project Name: UPRR 1620--HWPW	Laboratory Job Number: 600-67921
Reviewer Name: YX	Prep Batch Number: 600-98720, 98752, 98764 and 98838-VOA
ER #¹	DESCRIPTION
1	All of the SDLs in samples 600-67921-4 and 5 were elevated due to the high concentration of target analytes and the nature of the sample matrix. The Benzene and Ethylbenzene SDLs were elevated in sample 600-67921-1 due to the high concentration of these analytes.

ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked on the LRC)

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Appendix A (cont'd): Laboratory Review Checklist: Reportable Data							
Laboratory Name: TestAmerica-Houston			LRC Date: 02/19/13				
Project Name: 1620 UPRR HWPW			Laboratory Job Number 600-67921				
Reviewer Name: JOH			Prep Batch Number(s): 600-98988 - SV				
# ¹	A ²	Description	Yes	No	NA ³	NR ⁴	ER# ⁵
R1	OI	Chain-of-custody (C-O-C)					
		Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?	X				
		Were all departures from standard conditions described in an exception report?			X		
R2	OI	Sample and quality control (QC) identification					
		Are all field sample ID numbers cross-referenced to the laboratory ID numbers?	X				
		Are all laboratory ID numbers cross-referenced to the corresponding QC data?	X				
R3	OI	Test reports					
		Were all samples prepared and analyzed within holding times?	X				
		Other than those results < MQL, were all other raw values bracketed by calibration standards?	X				
		Were calculations checked by a peer or supervisor?	X				
		Were all analyte identifications checked by a peer or supervisor?	X				
		Were sample detection limits reported for all analytes not detected?	X				
		Were all results for soil and sediment samples reported on a dry weight basis?			X		
		Were % moisture (or solids) reported for all soil and sediment samples?			X		
		Were bulk soil/solid samples for volatile analysis extracted with methanol per SW846 Method 5035?			X		
		If required for the project, TICs reported?			X		
R4	O	Surrogate recovery data					
		Were surrogates added prior to extraction?	X				
		Were surrogate percent recoveries in all samples within the laboratory QC limits?		X			1
R5	OI	Test reports/summary forms for blank samples					
		Were appropriate type(s) of blanks analyzed?	X				
		Were blanks analyzed at the appropriate frequency?	X				
		Were method blanks taken through the entire analytical process, including preparation and, if applicable, cleanup procedures?	X				
		Were blank concentrations < MQL?		X			2
R6	OI	Laboratory control samples (LCS):					
		Were all COCs included in the LCS?	X				
		Was each LCS taken through the entire analytical procedure, including prep and cleanup steps?	X				
		Were LCSs analyzed at the required frequency?	X				
		Were LCS (and LCSD, if applicable) %Rs within the laboratory QC limits?	X				
		Does the detectability check sample data document the laboratory's capability to detect the COCs at the MDL used to calculate the SDLs?	X				
		Was the LCSD RPD within QC limits?			X		
R7	OI	Matrix spike (MS) and matrix spike duplicate (MSD) data					
		Were the project/method specified analytes included in the MS and MSD?	X				
		Were MS/MSD analyzed at the appropriate frequency?	X				
		Were MS (and MSD, if applicable) %Rs within the laboratory QC limits?		X			3
		Were MS/MSD RPDs within laboratory QC limits?		X			3
R8	OI	Analytical duplicate data					
		Were appropriate analytical duplicates analyzed for each matrix?			X		
		Were analytical duplicates analyzed at the appropriate frequency?			X		
		Were RPDs or relative standard deviations within the laboratory QC limits?			X		
R9	OI	Method quantitation limits (MQLs):					
		Are the MQLs for each method analyte included in the laboratory data package?	X				
		Do the MQLs correspond to the concentration of the lowest non-zero calibration standard?	X				
		Are unadjusted MQLs and DCSs included in the laboratory data package?	X				
R10	OI	Other problems/anomalies					
		Are all known problems/anomalies/special conditions noted in this LRC and ER?	X				
		Was applicable and available technology used to lower the SDL to minimize the matrix interference affects on the sample results?	X				4
		Is the laboratory NELAC-accredited under the Texas Laboratory Accreditation Program for the analytes, matrices and methods associated with this laboratory data package?	X				

- Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.
- O = organic analyses; I = inorganic analyses (and general chemistry, when applicable);
- NA = Not applicable;
- NR = Not reviewed;
- ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

Appendix A (cont'd): Laboratory Review Checklist: Reportable Data									
Laboratory Name: TestAmerica-Houston					LRC Date: 02/19/13				
Project Name: 1620 UPRR HWPW					Laboratory Job Number 600-67921				
Reviewer Name: JOH					Prep Batch Number(s): 600-98988 - SV				
# ¹	A ²	Description	Yes	No	NA ³	NR ⁴	ER# ⁵		
S1	OI	Initial calibration (ICAL)							
		Were response factors and/or relative response factors for each analyte within QC limits?	X						
		Were percent RSDs or correlation coefficient criteria met?	X						
		Was the number of standards recommended in the method used for all analytes?	X						
		Were all points generated between the lowest and highest standard used to calculate the curve?	X						
		Are ICAL data available for all instruments used?	X						
		Has the initial calibration curve been verified using an appropriate second source standard?	X						
S2	OI	Initial and continuing calibration verification (ICCV and CCV) and continuing calibration							
		Was the CCV analyzed at the method-required frequency?	X						
		Were percent differences for each analyte within the method-required QC limits?	X						
		Was the ICAL curve verified for each analyte?	X						
		Was the absolute value of the analyte concentration in the inorganic CCB < MDL?				X			
S3	O	Mass spectral tuning:							
		Was the appropriate compound for the method used for tuning?				X			
		Were ion abundance data within the method-required QC limits?				X			
S4	O	Internal standards (IS):							
		Were IS area counts and retention times within the method-required QC limits?				X			
S5	OI	Raw data (NELAC section 5.5.10)							
		Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?	X						
		Were data associated with manual integrations flagged on the raw data?	X						
S6	O	Dual column confirmation							
		Did dual column confirmation results meet the method-required QC?				X			
S7	O	Tentatively identified compounds (TICs):							
		If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?				X			
S8	I	Interference Check Sample (ICS) results:							
		Were percent recoveries within method QC limits?				X			
S9	I	Serial dilutions, post digestion spikes, and method of standard additions							
		Were percent differences, recoveries, and the linearity within the QC limits specified in the method?				X			
S10	OI	Method detection limit (MDL) studies							
		Was a MDL study performed for each reported analyte?	X						
		Is the MDL either adjusted or supported by the analysis of DCSs?	X						
S11	OI	Proficiency test reports:							
		Was the laboratory's performance acceptable on the applicable proficiency tests or evaluation studies?	X						
S12	OI	Standards documentation							
		Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?	X						
S13	OI	Compound/analyte identification procedures							
		Are the procedures for compound/analyte identification documented?	X						
S14	OI	Demonstration of analyst competency (DOC)							
		Was DOC conducted consistent with NELAC Chapter 5?	X						
		Is documentation of the analyst's competency up-to-date and on file?	X						
S15	OI	Verification/validation documentation for methods (NELAC Chapter 5)							
		Are all the methods used to generate the data documented, verified, and validated, where applicable?	X						
S16	OI	Laboratory standard operating procedures (SOPs):							
		Are laboratory SOPs current and on file for each method performed?	X						

- 1 Items identified by the letter "R" should be included in the laboratory data package submitted to the TCEQ in the TRRP-required report(s).
- 2 Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.
- 3 O = organic analyses; I = inorganic analyses (and general chemistry, when applicable).
- 4 NA = Not applicable.
- 5 NR = Not Reviewed.
- 6 ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

Appendix A (cont'd): Laboratory Review Checklist: Exception Reports	
Laboratory Name: TestAmerica-Houston	LRC Date: 02/19/13
Project Name: 1620 UPRR HWPW	Laboratory Job Number 600-67921
Reviewer Name: JOH	Prep Batch Number(s): 600-98988 - SV
ER #¹	DESCRIPTION
1	Due to the level of dilution required for samples 600-67921-1, 1MS/MSD, 1DL, 3DL, 4DL2, 5, 5DL, 6DL, 7DL, 8, 8DL, and 8DL2, surrogate recoveries are not reported.
2	Several analytes were detected above the MDL, but below the MQL in the method blank. The levels of detection are below the recommended reporting limits and the appropriate flags have been applied. 2-Methylnaphthalene was detected above the MQL in the method blank, indicating a potential high bias. The laboratory suspects that this is coming from contaminated glassware due to the high concentrations of Naphthalene compounds found in the samples. All samples except for 600-67921-10 were either 10X the amount found in the blank or non-detect for this analyte. Sample 10 was just slightly higher than that found in the blank. Due to this being more than likely a laboratory contamination and the holding times had already expired, the data have been qualified and reported. Bis(2-ethylhexyl)phthalate was detected above the MQL in the method blank. This analyte is a recognized potential laboratory contaminant and the appropriate flags have been applied.
3	The matrix spike / matrix spike duplicate (MS/MSD) could not be recovered due to sample matrix interferences which required sample dilution. The associated laboratory control sample (LCS) met acceptance criteria.
4	All of the SDLs in samples 600-67921-1, 5 and 8 were elevated due to the high concentrations of target analytes. Seven analyte SDLs in sample 600-67921-3, the Acenaphthene and Dibenzofuran SDLs in sample 600-67921-4, four analyte SDLs in sample 600-67921-6, and the Acenaphthene and Naphthalene SDLs in sample 600-67921-7 were elevated due to the high concentrations of these analytes.

ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked on the LRC)

Detection Check Standard

Matrix: Water
Method: 8260B_LL
Preparation: Wei Shen
Date Analyzed: 10/8/2012
Date Prepared: 10/8/2012
TALs Batches: A25003.D
Units: ug/L

Analyte	MDL	DCS Spike	Measured Result	MQL
Dichlorodifluoromethane	0.12	1	0.0281	5
Chloromethane	0.18	1	0.355	10
Vinyl Chloride	0.11	0.5	0.131	10
Bromomethane	0.25	1	0.882	10
Chloroethane	0.08	0.5	0.208	10
Allyl chloride	2	1	1.84	5
Acrolein	1.63	1	4.34	5
1,1-Dichloroethene	0.19	0.5	4.3	5
trans-1,2-Dichloroethene	0.09	0.5	4.68	5
Trichlorotrifluoroethane	1	1	0.534	5
Acetone	0.99	1	1.87	5
Methyl Iodide (Iodomethane)	2	1	2.29	5
Carbon Disulfide	0.24	1	2.6	5
2-Propanol (Isopropyl alcohol)	3.72	1	7.51	5
Acetonitrile	0.27	1	1.21	5
Methylene Chloride	0.15	0.5	1.79	10
Methyl tert-butyl ether	0.12	0.5	0.704	5
Vinyl Acetate	0.21	0.5	0.776	5
Acrylonitrile	0.52	1	2.71	5
Chloroprene (2-Chloro-1,3-butadiene)	0.33	1	1.16	5
Propionitrile	0.66	1	1.58	5
cis-1,2-Dichloroethene	0.06	0.5	0.659	5
1,2-Dichloroethene	0.3	1	1.45	5
2-Butanone (MEK)	0.76	1	1.64	5
Isobutyl alcohol	3.32	1	8.48	5
Bromochloromethane	0.18	0.5	0.436	5
Methacrylonitrile	0.41	1	1.62	5
Carbon Tetrachloride	0.15	0.5	0.318	5
Benzene	0.08	0.5	0.355	5
1,2-Dichloroethane	0.14	0.5	0.379	5
Trichloroethene	0.13	0.5	0.343	5
1,1,1-Trichloroethane	0.15	0.5	0.306	5
1,1-Dichloropropene	0.11	0.5	0.281	5
1,2-Dichloroethane	0.3	0.5	0.316	5
1,2-Dichloropropane	0.16	0.5	0.292	5
2,2-Dichloropropane	0.13	1	0.682	5
Methylene Bromide (Bromomethane)	0.25	0.5	0.328	5
1,4-Dioxane	30.79	1	34.08	250
Methyl methacrylate	0.33	1	1.55	5



Bromodichloromethane	0.16	0.5	0.715	5
2-Chloroethyl vinyl ether	0.5	1	2.04	5
1,1-Dichloropropane	0.21	0.5	0.774	5
cis-1,3-Dichloropropene	0.18	0.5	0.718	5
4-Methyl-2-pentanone	0.45	1	2.42	10
Toluene	0.15	0.5	0.431	5
trans-1,3-Dichloropropene	0.21	0.5	0.406	5
Ethyl Methacrylate	0.94	1	0.686	10
1,1,2-Trichloroethane	0.18	0.5	0.401	5
Tetrachloroethene	0.18	0.5	0.823	5
1,3-Dichloropropane	0.22	1	0.89	5
2-Hexanone	0.35	1	2.01	10
Dibromochloromethane	0.16	0.5	0.811	5
1,2-Dibromoethane (Ethylene bromide)	0.18	0.5	0.373	5
Chlorobenzene	0.12	0.5	0.424	5
1,1,1,2-Tetrachloroethane	0.18	0.5	0.401	5
Ethylbenzene	0.11	0.5	0.357	5
m,p-Xylene	0.17	0.5	0.741	10
o-Xylene	0.12	0.5	0.37	5
Xylenes (total)	0.26	0.5	1.11	5
Styrene	0.07	0.5	0.344	5
Bromoform	0.19	0.5	0.915	5
Isopropylbenzene	0.18	0.5	0.367	5
Bromobenzene	0.19	0.5	0.457	5
1,2,3-Trichloropropane	0.29	1	0.89	5
1,1,2,2-Tetrachloroethane	0.22	1	0.729	5
trans-1,4-Dichloro-2-butene	0.64	1	2.36	5
n-Propylbenzene	0.15	0.5	0.372	5
2-Chlorotoluene	0.13	0.5	0.424	5
4-Chlorotoluene	0.14	0.5	0.442	5
1,3,5-Trimethylbenzene	0.1	0.5	0.392	5
tert-Butylbenzene	0.08	0.5	0.359	5
p-Isopropyltoluene	0.1	0.5	0.329	5
1,2,4-Trimethylbenzene	0.14	0.5	0.388	5
sec-Butylbenzene	0.12	0.5	0.329	5
1,3-Dichlorobenzene	0.13	0.5	0.437	5
1,4-Dichlorobenzene	0.11	0.5	0.475	5
1,2-Dichlorobenzene	0.1	0.5	0.466	5
n-Butylbenzene	0.16	0.5	0.297	5
1,2-Dibromo-3-chloropropane	0.33	1	1.2	5
1,2,4-Trichlorobenzene	0.31	1	0.849	5
Hexachlorobutadiene	0.17	0.5	0.363	5
Naphthalene	0.32	1	1.09	5
1,2,3-Trichlorobenzene	0.57	1	0.867	5

**Quality Control Report
Detection Check Standard**

Matrix: Water
 Method: 8270C LL
 Preparation: 3510C
 Date Analyzed: 10/18/2012
 Date Prepared: 10/16/2012
 Lab Sample ID: 600-91246_18-a
 Units: ug/L

Analyte	MDL	DCS Spike	DCS Result	MLQ
Pyridine	0.04	0.25	0.067	0.5
N-Nitrosodimethylamine	0.26	0.25	0.121	0.5
Aniline	0.08	0.25	0.085	0.5
Phenol	0.04	0.25	0.054	0.5
bis(2-Chloroethyl)ether	0.15	0.25	0.149	0.5
2-Chlorophenol	0.13	0.25	0.097	0.5
1,3-Dichlorobenzene	0.17	0.25	0.152	0.5
1,4-Dichlorobenzene	0.13	0.25	0.166	0.5
1,2-Dichlorobenzene	0.17	0.25	0.167	0.5
Benzyl alcohol	0.17	0.25	0.075	0.5
2-Methylphenol	0.12	0.25	0.112	0.5
m&p-Cresols	0.2	0.25	0.053	1
bis (2-Chloroisopropyl) ether	0.4	0.25	0.143	0.5
N-Nitroso-di-n-propylamine	0.1	0.25	0.177	0.5
Hexachloroethane	0.1	0.25	0.185	0.5
Nitrobenzene	0.11	0.25	0.131	0.5
Isophorone	0.11	0.25	0.149	0.5
2-Nitrophenol	0.22	0.5	0.205	0.5
Benzoic acid	2.51	5	6.530	2.5
2,4-Dimethylphenol	0.31	0.5	0.130	0.5
bis(2-Chloroethoxy)methane	0.13	0.25	0.122	0.5
2,4-Dichlorophenol	0.15	0.25	0.068	0.5
1,2,4-Trichlorobenzene	0.12	0.25	0.125	0.5
Naphthalene	0.08	0.25	0.161	0.5
4-Chloroaniline	0.21	0.5	0.232	0.5
Hexachlorobutadiene	0.18	0.25	0.160	0.5
4-Chloro-3-methylphenol	0.17	0.25	0.075	0.5
2-Methylnaphthalene	0.07	0.25	0.128	0.5
1-Methylnaphthalene	0.09	0.25	0.147	0.5
Hexachlorocyclopentadiene	0.13	0.5	0.487	0.5
2,4,6-Trichlorophenol	0.18	0.5	0.062	0.5
2,4,5-Trichlorophenol	0.25	0.5	0.107	0.5
2-Chloronaphthalene	0.08	0.25	0.148	0.5
2-Nitroaniline	0.19	0.5	0.213	0.5
Dimethylphthalate	0.07	0.25	0.145	0.5
1,4 Dinitrobenzene	5	0.25	0.363	0.5
1,3-Dinitrobenzene	0.08	0.25	0.381	0.5
1,2-Dinitrobenzene	0.5	0.25	0.040	0.5
Acenaphthylene	0.06	0.25	0.137	0.5

2,6-Dinitrotoluene	0.08	0.25	0.178	0.5
3-Nitroaniline	0.16	0.5	0.240	0.5
Acenaphthene	0.08	0.25	0.151	0.5
Dibenzofuran	0.08	0.25	0.127	0.5
2,4-Dinitrotoluene	0.13	0.25	0.144	0.5
Diethylphthalate	1.5	0.5	0.431	0.5
4-Chlorophenyl-phenylether	0.1	0.25	0.102	0.5
Fluorene	0.07	0.25	0.107	0.5
4-Nitroaniline	0.25	0.5	0.124	0.5
4,6-Dinitro-2-Methylphenol	0.83	2.5	0.530	1
N-Nitrosodiphenylamine	0.1	0.25	0.176	0.5
Diphenylamine	0.1	0.25	0.099	0.5
1,2-Diphenylhydrazine	0.11	0.25	0.224	0.5
Azobenzene	0.07	0.25	0.117	0.5
4-Bromophenyl-phenylether	0.1	0.25	0.112	0.5
Hexachlorobenzene	0.11	0.25	0.130	0.5
Phenanthrene	0.06	0.25	0.169	0.5
Anthracene	0.05	0.25	0.144	0.5
Carbazole	0.17	0.25	0.140	0.5
Di-n-butylphthalate	0.11	0.25	0.238	0.5
Fluoranthene	0.07	0.25	0.196	0.5
Pyrene	0.11	0.25	0.153	0.5
Butylbenzylphthalate	0.12	0.25	0.238	0.5
3,3'-Dichlorobenzidene	0.5	0.25	0.066	0.5
Benzo(a)anthracene	0.08	0.25	0.175	0.5
bis(2-Ethylhexyl)phthalate	0.37	0.5	0.420	0.5
Chrysene	0.08	0.25	0.212	0.5
Di-n-octylphthalate	0.16	0.25	0.091	0.5
Benzo(b)fluoranthene	0.07	0.25	0.143	0.5
Benzo(k)fluoranthene	0.09	0.25	0.201	0.5
Benzo(a)pyrene	0.08	0.25	0.137	0.5
Indeno(1,2,3-cd)pyrene	0.07	0.25	0.454	0.5
Dibenz(a,h)anthracene	0.08	0.25	0.123	0.5
Benzo(g,h,i)perylene	0.08	0.25	0.112	0.5

Case Narrative

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-67921-1

Job ID: 600-67921-1

Laboratory: TestAmerica Houston

Narrative

Job Narrative
600-67921-1

Comments

The report was revised on 03/05/13 to remove the duplicate volatile results.

Receipt

The samples were received on 1/31/2013 2:16 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 3 coolers at receipt time were 2.9° C, 4.6° C and 4.8° C.

Organic Prep

Method(s) 3510C: Due to the matrix, the following sample(s) could not be concentrated to the final method required volume: WG-1620-MW15A-20130130 (600-67921-6). The reporting limits (RLs) are elevated proportionately.

Method(s) 3510C: Due to the matrix, the following sample could not be concentrated to the final method required volume: WG-1620-MW55B-20130130 (600-67921-5). The reporting limits (RLs) are elevated proportionately.



Method Summary

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-67921-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL HOU
8270C LL	Semivolatile Organic Compounds by GCMS - Low Levels	SW846	TAL HOU

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL HOU = TestAmerica Houston, 6310 Rothway Street, Houston, TX 77040, TEL (713)690-4444



Sample Summary

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-67921-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
600-67921-1	WG-1620-MW20A-20130130	Water	01/30/13 09:40	01/31/13 14:16
600-67921-2	WG-1620-MW73B-20130130	Water	01/30/13 10:30	01/31/13 14:16
600-67921-3	WG-1620-MW16-20130130	Water	01/30/13 11:20	01/31/13 14:16
600-67921-4	WG-1620-MW55A-20130130	Water	01/30/13 12:10	01/31/13 14:16
600-67921-5	WG-1620-MW55B-20130130	Water	01/30/13 14:00	01/31/13 14:16
600-67921-6	WG-1620-MW15A-20130130	Water	01/30/13 15:00	01/31/13 14:16
600-67921-7	WG-1620-MW15B-20130130	Water	01/30/13 15:45	01/31/13 14:16
600-67921-8	WG-1620-MW15C-20130130	Water	01/30/13 16:40	01/31/13 14:16
600-67921-9	WG-1620-FB1-20130130	Water	01/30/13 17:00	01/31/13 14:16
600-67921-10	WG-1620-MW36B-20130131	Water	01/31/13 07:45	01/31/13 14:16
600-67921-11	WG-1620-MW36A-20130131	Water	01/31/13 08:35	01/31/13 14:16
600-67921-12	WG-1620-MW48C-20130131	Water	01/31/13 09:40	01/31/13 14:16
600-67921-13	WG-1620-MW59A-20130131	Water	01/31/13 10:40	01/31/13 14:16
600-67921-14	WG-1620-MW59B-20130131	Water	01/31/13 11:25	01/31/13 14:16
600-67921-15	WG-1620-TB01-20130131	Water	01/31/13 00:00	01/31/13 14:16

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-67921-1

Client Sample ID: WG-1620-MW20A-20130130

Lab Sample ID: 600-67921-1

Date Collected: 01/30/13 09:40

Matrix: Water

Date Received: 01/31/13 14:16

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			02/04/13 14:21	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			02/04/13 14:21	1
Toluene	0.00280		0.00100	0.000150	mg/L			02/04/13 14:21	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			02/04/13 14:21	1
Xylenes, Total	0.0549		0.00300	0.000260	mg/L			02/04/13 14:21	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	93		67 - 139		02/04/13 14:21	1
Dibromofluoromethane	92		62 - 130		02/04/13 14:21	1
Toluene-d8 (Surr)	86		70 - 130		02/04/13 14:21	1
1,2-Dichloroethane-d4 (Surr)	107		50 - 134		02/04/13 14:21	1

Method: 8260B - Volatile Organic Compounds (GC/MS) - DL

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.0746		0.00500	0.000400	mg/L			02/04/13 14:49	5
Ethylbenzene	0.0619		0.00500	0.000550	mg/L			02/04/13 14:49	5

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	92		67 - 139		02/04/13 14:49	5
Dibromofluoromethane	100		62 - 130		02/04/13 14:49	5
Toluene-d8 (Surr)	91		70 - 130		02/04/13 14:49	5
1,2-Dichloroethane-d4 (Surr)	103		50 - 134		02/04/13 14:49	5

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.00189	U	0.0236	0.00189	mg/L		02/06/13 15:00	02/15/13 02:03	50
Nitrobenzene	0.00519	U	0.0236	0.00519	mg/L		02/06/13 15:00	02/15/13 02:03	50
2,4-Dimethylphenol	0.119		0.0236	0.0146	mg/L		02/06/13 15:00	02/15/13 02:03	50
Bis(2-chloroethoxy)methane	0.00613	U	0.0236	0.00613	mg/L		02/06/13 15:00	02/15/13 02:03	50
2-Methylnaphthalene	0.191	b	0.0236	0.00330	mg/L		02/06/13 15:00	02/15/13 02:03	50
2-Chloronaphthalene	0.00377	U	0.0236	0.00377	mg/L		02/06/13 15:00	02/15/13 02:03	50
Acenaphthylene	0.00283	U	0.0236	0.00283	mg/L		02/06/13 15:00	02/15/13 02:03	50
2,6-Dinitrotoluene	0.00377	U	0.0236	0.00377	mg/L		02/06/13 15:00	02/15/13 02:03	50
Acenaphthene	0.120	b	0.0236	0.00377	mg/L		02/06/13 15:00	02/15/13 02:03	50
4-Nitrophenol	0.0264	U	0.0472	0.0264	mg/L		02/06/13 15:00	02/15/13 02:03	50
Dibenzofuran	0.0799	b	0.0236	0.00377	mg/L		02/06/13 15:00	02/15/13 02:03	50
2,4-Dinitrotoluene	0.00613	U	0.0236	0.00613	mg/L		02/06/13 15:00	02/15/13 02:03	50
Fluorene	0.0661	b	0.0236	0.00330	mg/L		02/06/13 15:00	02/15/13 02:03	50
4,6-Dinitro-2-methylphenol	0.0392	U	0.0472	0.0392	mg/L		02/06/13 15:00	02/15/13 02:03	50
N-Nitrosodiphenylamine	0.00472	U	0.0236	0.00472	mg/L		02/06/13 15:00	02/15/13 02:03	50
1,2-Diphenylhydrazine	0.00519	U	0.0236	0.00519	mg/L		02/06/13 15:00	02/15/13 02:03	50
Pentachlorophenol	0.0288	U	0.0472	0.0288	mg/L		02/06/13 15:00	02/15/13 02:03	50
Phenanthrene	0.0217	J b	0.0236	0.00283	mg/L		02/06/13 15:00	02/15/13 02:03	50
Anthracene	0.00589	J	0.0236	0.00236	mg/L		02/06/13 15:00	02/15/13 02:03	50
Di-n-butyl phthalate	0.00519	U	0.0236	0.00519	mg/L		02/06/13 15:00	02/15/13 02:03	50
Fluoranthene	0.00330	U	0.0236	0.00330	mg/L		02/06/13 15:00	02/15/13 02:03	50
Pyrene	0.00519	U	0.0236	0.00519	mg/L		02/06/13 15:00	02/15/13 02:03	50
Benzo[a]anthracene	0.00377	U	0.0236	0.00377	mg/L		02/06/13 15:00	02/15/13 02:03	50
Bis(2-ethylhexyl) phthalate	0.0175	U	0.0236	0.0175	mg/L		02/06/13 15:00	02/15/13 02:03	50
Chrysene	0.00377	U	0.0236	0.00377	mg/L		02/06/13 15:00	02/15/13 02:03	50

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-67921-1

Client Sample ID: WG-1620-MW20A-20130130

Lab Sample ID: 600-67921-1

Date Collected: 01/30/13 09:40

Matrix: Water

Date Received: 01/31/13 14:16

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]pyrene	0.00377	U	0.0236	0.00377	mg/L		02/06/13 15:00	02/15/13 02:03	50
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Phenol-d6	0	X	10 - 94				02/06/13 15:00	02/15/13 02:03	50
2,4,6-Tribromophenol	0	X	10 - 123				02/06/13 15:00	02/15/13 02:03	50
2-Fluorobiphenyl	0	X	43 - 116				02/06/13 15:00	02/15/13 02:03	50
2-Fluorophenol	0	X	10 - 100				02/06/13 15:00	02/15/13 02:03	50
Nitrobenzene-d5	0	X	35 - 114				02/06/13 15:00	02/15/13 02:03	50
Terphenyl-d14	0	X	33 - 141				02/06/13 15:00	02/15/13 02:03	50

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels - DL

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	43.9	b	23.6	0.377	mg/L		02/06/13 15:00	02/16/13 16:28	5000
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Phenol-d6	0	X	10 - 94				02/06/13 15:00	02/16/13 16:28	5000
2,4,6-Tribromophenol	0	X	10 - 123				02/06/13 15:00	02/16/13 16:28	5000
2-Fluorobiphenyl	0	X	43 - 116				02/06/13 15:00	02/16/13 16:28	5000
2-Fluorophenol	0	X	10 - 100				02/06/13 15:00	02/16/13 16:28	5000
Nitrobenzene-d5	0	X	35 - 114				02/06/13 15:00	02/16/13 16:28	5000
Terphenyl-d14	0	X	33 - 141				02/06/13 15:00	02/16/13 16:28	5000

Client Sample ID: WG-1620-MW73B-20130130

Lab Sample ID: 600-67921-2

Date Collected: 01/30/13 10:30

Matrix: Water

Date Received: 01/31/13 14:16

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			02/04/13 12:59	1
Benzene	0.000218	J	0.00100	0.0000800	mg/L			02/04/13 12:59	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			02/04/13 12:59	1
Toluene	0.000336	J	0.00100	0.000150	mg/L			02/04/13 12:59	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			02/04/13 12:59	1
Ethylbenzene	0.000110	U	0.00100	0.000110	mg/L			02/04/13 12:59	1
Xylenes, Total	0.000260	U	0.00300	0.000260	mg/L			02/04/13 12:59	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	86		67 - 139					02/04/13 12:59	1
Dibromofluoromethane	100		62 - 130					02/04/13 12:59	1
Toluene-d8 (Surr)	93		70 - 130					02/04/13 12:59	1
1,2-Dichloroethane-d4 (Surr)	103		50 - 134					02/04/13 12:59	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.0000377	U	0.000472	0.0000377	mg/L		02/06/13 15:00	02/15/13 01:31	1
Nitrobenzene	0.000104	U	0.000472	0.000104	mg/L		02/06/13 15:00	02/15/13 01:31	1
2,4-Dimethylphenol	0.000292	U	0.000472	0.000292	mg/L		02/06/13 15:00	02/15/13 01:31	1
Bis(2-chloroethoxy)methane	0.000123	U	0.000472	0.000123	mg/L		02/06/13 15:00	02/15/13 01:31	1
Naphthalene	0.000436	J b	0.00472	0.0000755	mg/L		02/06/13 15:00	02/15/13 01:31	1
2-Methylnaphthalene	0.0000660	U	0.000472	0.0000660	mg/L		02/06/13 15:00	02/15/13 01:31	1
2-Chloronaphthalene	0.0000755	U	0.000472	0.0000755	mg/L		02/06/13 15:00	02/15/13 01:31	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-67921-1

Client Sample ID: WG-1620-MW73B-20130130

Lab Sample ID: 600-67921-2

Date Collected: 01/30/13 10:30

Matrix: Water

Date Received: 01/31/13 14:16

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthylene	0.0000696	J	0.000472	0.0000566	mg/L		02/06/13 15:00	02/15/13 01:31	1
2,6-Dinitrotoluene	0.0000755	U	0.000472	0.0000755	mg/L		02/06/13 15:00	02/15/13 01:31	1
Acenaphthene	0.000185	J b	0.000472	0.0000755	mg/L		02/06/13 15:00	02/15/13 01:31	1
4-Nitrophenol	0.000528	U	0.000943	0.000528	mg/L		02/06/13 15:00	02/15/13 01:31	1
Dibenzofuran	0.0000755	U	0.000472	0.0000755	mg/L		02/06/13 15:00	02/15/13 01:31	1
2,4-Dinitrotoluene	0.000123	U	0.000472	0.000123	mg/L		02/06/13 15:00	02/15/13 01:31	1
Fluorene	0.0000660	U	0.000472	0.0000660	mg/L		02/06/13 15:00	02/15/13 01:31	1
4,6-Dinitro-2-methylphenol	0.000783	U	0.000943	0.000783	mg/L		02/06/13 15:00	02/15/13 01:31	1
N-Nitrosodiphenylamine	0.0000943	U	0.000472	0.0000943	mg/L		02/06/13 15:00	02/15/13 01:31	1
1,2-Diphenylhydrazine	0.000104	U	0.000472	0.000104	mg/L		02/06/13 15:00	02/15/13 01:31	1
Pentachlorophenol	0.000575	U	0.000943	0.000575	mg/L		02/06/13 15:00	02/15/13 01:31	1
Phenanthrene	0.0000566	U	0.000472	0.0000566	mg/L		02/06/13 15:00	02/15/13 01:31	1
Anthracene	0.000186	J	0.000472	0.0000472	mg/L		02/06/13 15:00	02/15/13 01:31	1
Di-n-butyl phthalate	0.000104	U	0.000472	0.000104	mg/L		02/06/13 15:00	02/15/13 01:31	1
Fluoranthene	0.000138	J	0.000472	0.0000660	mg/L		02/06/13 15:00	02/15/13 01:31	1
Pyrene	0.000104	U	0.000472	0.000104	mg/L		02/06/13 15:00	02/15/13 01:31	1
Benzo[a]anthracene	0.0000755	U	0.000472	0.0000755	mg/L		02/06/13 15:00	02/15/13 01:31	1
Bis(2-ethylhexyl) phthalate	0.000349	U	0.000472	0.000349	mg/L		02/06/13 15:00	02/15/13 01:31	1
Chrysene	0.0000755	U	0.000472	0.0000755	mg/L		02/06/13 15:00	02/15/13 01:31	1
Benzo[a]pyrene	0.0000755	U	0.000472	0.0000755	mg/L		02/06/13 15:00	02/15/13 01:31	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Phenol-d6	18		10 - 94				02/06/13 15:00	02/15/13 01:31	1
2,4,6-Tribromophenol	59		10 - 123				02/06/13 15:00	02/15/13 01:31	1
2-Fluorobiphenyl	67		43 - 116				02/06/13 15:00	02/15/13 01:31	1
2-Fluorophenol	30		10 - 100				02/06/13 15:00	02/15/13 01:31	1
Nitrobenzene-d5	69		35 - 114				02/06/13 15:00	02/15/13 01:31	1
Terphenyl-d14	67		33 - 141				02/06/13 15:00	02/15/13 01:31	1

Client Sample ID: WG-1620-MW16-20130130

Lab Sample ID: 600-67921-3

Date Collected: 01/30/13 11:20

Matrix: Water

Date Received: 01/31/13 14:16

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			02/04/13 13:54	1
Benzene	0.0376		0.00100	0.0000800	mg/L			02/04/13 13:54	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			02/04/13 13:54	1
Toluene	0.000950	J	0.00100	0.000150	mg/L			02/04/13 13:54	1
Chlorobenzene	0.000510	J	0.00100	0.000120	mg/L			02/04/13 13:54	1
Ethylbenzene	0.0211		0.00100	0.000110	mg/L			02/04/13 13:54	1
Xylenes, Total	0.0348		0.00300	0.000260	mg/L			02/04/13 13:54	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	89		67 - 139					02/04/13 13:54	1
Dibromofluoromethane	101		62 - 130					02/04/13 13:54	1
Toluene-d8 (Surr)	87		70 - 130					02/04/13 13:54	1
1,2-Dichloroethane-d4 (Surr)	102		50 - 134					02/04/13 13:54	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-67921-1

Client Sample ID: WG-1620-MW16-20130130

Lab Sample ID: 600-67921-3

Date Collected: 01/30/13 11:20

Matrix: Water

Date Received: 01/31/13 14:16

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.0000377	U	0.000472	0.0000377	mg/L		02/06/13 15:00	02/15/13 01:58	1
Nitrobenzene	0.000104	U	0.000472	0.000104	mg/L		02/06/13 15:00	02/15/13 01:58	1
2,4-Dimethylphenol	0.000292	U	0.000472	0.000292	mg/L		02/06/13 15:00	02/15/13 01:58	1
Bis(2-chloroethoxy)methane	0.000123	U	0.000472	0.000123	mg/L		02/06/13 15:00	02/15/13 01:58	1
2-Chloronaphthalene	0.0000755	U	0.000472	0.0000755	mg/L		02/06/13 15:00	02/15/13 01:58	1
Acenaphthylene	0.0000566	U	0.000472	0.0000566	mg/L		02/06/13 15:00	02/15/13 01:58	1
2,6-Dinitrotoluene	0.0000755	U	0.000472	0.0000755	mg/L		02/06/13 15:00	02/15/13 01:58	1
4-Nitrophenol	0.000528	U	0.000943	0.000528	mg/L		02/06/13 15:00	02/15/13 01:58	1
2,4-Dinitrotoluene	0.000123	U	0.000472	0.000123	mg/L		02/06/13 15:00	02/15/13 01:58	1
4,6-Dinitro-2-methylphenol	0.000783	U	0.000943	0.000783	mg/L		02/06/13 15:00	02/15/13 01:58	1
N-Nitrosodiphenylamine	0.0000943	U	0.000472	0.0000943	mg/L		02/06/13 15:00	02/15/13 01:58	1
1,2-Diphenylhydrazine	0.000104	U	0.000472	0.000104	mg/L		02/06/13 15:00	02/15/13 01:58	1
Pentachlorophenol	0.000575	U	0.000943	0.000575	mg/L		02/06/13 15:00	02/15/13 01:58	1
Di-n-butyl phthalate	0.000104	U	0.000472	0.000104	mg/L		02/06/13 15:00	02/15/13 01:58	1
Fluoranthene	0.00836		0.000472	0.0000660	mg/L		02/06/13 15:00	02/15/13 01:58	1
Pyrene	0.00590		0.000472	0.000104	mg/L		02/06/13 15:00	02/15/13 01:58	1
Benzo[a]anthracene	0.000339	J	0.000472	0.0000755	mg/L		02/06/13 15:00	02/15/13 01:58	1
Bis(2-ethylhexyl) phthalate	0.000349	U	0.000472	0.000349	mg/L		02/06/13 15:00	02/15/13 01:58	1
Chrysene	0.000225	J	0.000472	0.0000755	mg/L		02/06/13 15:00	02/15/13 01:58	1
Benzo[a]pyrene	0.0000755	U	0.000472	0.0000755	mg/L		02/06/13 15:00	02/15/13 01:58	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Phenol-d6	13		10 - 94	02/06/13 15:00	02/15/13 01:58	1
2,4,6-Tribromophenol	70		10 - 123	02/06/13 15:00	02/15/13 01:58	1
2-Fluorobiphenyl	67		43 - 116	02/06/13 15:00	02/15/13 01:58	1
2-Fluorophenol	25		10 - 100	02/06/13 15:00	02/15/13 01:58	1
Nitrobenzene-d5	113		35 - 114	02/06/13 15:00	02/15/13 01:58	1
Terphenyl-d14	70		33 - 141	02/06/13 15:00	02/15/13 01:58	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels - DL

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	1.81	b	0.472	0.00755	mg/L		02/06/13 15:00	02/16/13 16:56	100
2-Methylnaphthalene	0.0467	J b	0.0472	0.00660	mg/L		02/06/13 15:00	02/16/13 16:56	100
Acenaphthene	0.281	b	0.0472	0.00755	mg/L		02/06/13 15:00	02/16/13 16:56	100
Dibenzofuran	0.158	b	0.0472	0.00755	mg/L		02/06/13 15:00	02/16/13 16:56	100
Fluorene	0.147	b	0.0472	0.00660	mg/L		02/06/13 15:00	02/16/13 16:56	100
Phenanthrene	0.0614	b	0.0472	0.00566	mg/L		02/06/13 15:00	02/16/13 16:56	100
Anthracene	0.0182	J	0.0472	0.00472	mg/L		02/06/13 15:00	02/16/13 16:56	100

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Phenol-d6	0	X	10 - 94	02/06/13 15:00	02/16/13 16:56	100
2,4,6-Tribromophenol	0	X	10 - 123	02/06/13 15:00	02/16/13 16:56	100
2-Fluorobiphenyl	0	X	43 - 116	02/06/13 15:00	02/16/13 16:56	100
2-Fluorophenol	0	X	10 - 100	02/06/13 15:00	02/16/13 16:56	100
Nitrobenzene-d5	0	X	35 - 114	02/06/13 15:00	02/16/13 16:56	100
Terphenyl-d14	0	X	33 - 141	02/06/13 15:00	02/16/13 16:56	100

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-67921-1

Client Sample ID: WG-1620-MW55A-20130130

Lab Sample ID: 600-67921-4

Date Collected: 01/30/13 12:10

Matrix: Water

Date Received: 01/31/13 14:16

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	0.00300	U	0.0200	0.00300	mg/L			02/04/13 12:32	20
Benzene	0.133		0.0200	0.00160	mg/L			02/04/13 12:32	20
1,2-Dichloroethane	0.00280	U	0.0200	0.00280	mg/L			02/04/13 12:32	20
Toluene	0.385		0.0200	0.00300	mg/L			02/04/13 12:32	20
Chlorobenzene	0.00240	U	0.0200	0.00240	mg/L			02/04/13 12:32	20
Ethylbenzene	0.228		0.0200	0.00220	mg/L			02/04/13 12:32	20
Xylenes, Total	0.575		0.0600	0.00520	mg/L			02/04/13 12:32	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	85		67 - 139		02/04/13 12:32	20
Dibromofluoromethane	98		62 - 130		02/04/13 12:32	20
Toluene-d8 (Surr)	91		70 - 130		02/04/13 12:32	20
1,2-Dichloroethane-d4 (Surr)	102		50 - 134		02/04/13 12:32	20

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.000377	U	0.000472	0.000377	mg/L		02/06/13 15:00	02/15/13 02:25	1
Nitrobenzene	0.000104	U	0.000472	0.000104	mg/L		02/06/13 15:00	02/15/13 02:25	1
2,4-Dimethylphenol	0.000292	U	0.000472	0.000292	mg/L		02/06/13 15:00	02/15/13 02:25	1
Bis(2-chloroethoxy)methane	0.000123	U	0.000472	0.000123	mg/L		02/06/13 15:00	02/15/13 02:25	1
Naphthalene	0.00227	J b	0.00472	0.0000755	mg/L		02/06/13 15:00	02/15/13 02:25	1
2-Methylnaphthalene	0.0000660	U	0.000472	0.0000660	mg/L		02/06/13 15:00	02/15/13 02:25	1
2-Chloronaphthalene	0.0000755	U	0.000472	0.0000755	mg/L		02/06/13 15:00	02/15/13 02:25	1
Acenaphthylene	0.00210		0.000472	0.0000566	mg/L		02/06/13 15:00	02/15/13 02:25	1
2,6-Dinitrotoluene	0.0000755	U	0.000472	0.0000755	mg/L		02/06/13 15:00	02/15/13 02:25	1
4-Nitrophenol	0.000528	U	0.000943	0.000528	mg/L		02/06/13 15:00	02/15/13 02:25	1
2,4-Dinitrotoluene	0.000123	U	0.000472	0.000123	mg/L		02/06/13 15:00	02/15/13 02:25	1
Fluorene	0.00213	b	0.000472	0.0000660	mg/L		02/06/13 15:00	02/15/13 02:25	1
4,6-Dinitro-2-methylphenol	0.000783	U	0.000943	0.000783	mg/L		02/06/13 15:00	02/15/13 02:25	1
N-Nitrosodiphenylamine	0.0000943	U	0.000472	0.0000943	mg/L		02/06/13 15:00	02/15/13 02:25	1
1,2-Diphenylhydrazine	0.000104	U	0.000472	0.000104	mg/L		02/06/13 15:00	02/15/13 02:25	1
Pentachlorophenol	0.000575	U	0.000943	0.000575	mg/L		02/06/13 15:00	02/15/13 02:25	1
Phenanthrene	0.0000566	U	0.000472	0.0000566	mg/L		02/06/13 15:00	02/15/13 02:25	1
Anthracene	0.000620		0.000472	0.0000472	mg/L		02/06/13 15:00	02/15/13 02:25	1
Di-n-butyl phthalate	0.000104	U	0.000472	0.000104	mg/L		02/06/13 15:00	02/15/13 02:25	1
Fluoranthene	0.000459	J	0.000472	0.0000660	mg/L		02/06/13 15:00	02/15/13 02:25	1
Pyrene	0.000223	J	0.000472	0.000104	mg/L		02/06/13 15:00	02/15/13 02:25	1
Benzo[a]anthracene	0.0000755	U	0.000472	0.0000755	mg/L		02/06/13 15:00	02/15/13 02:25	1
Bis(2-ethylhexyl) phthalate	0.000349	U	0.000472	0.000349	mg/L		02/06/13 15:00	02/15/13 02:25	1
Chrysene	0.0000755	U	0.000472	0.0000755	mg/L		02/06/13 15:00	02/15/13 02:25	1
Benzo[a]pyrene	0.0000755	U	0.000472	0.0000755	mg/L		02/06/13 15:00	02/15/13 02:25	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Phenol-d6	15		10 - 94	02/06/13 15:00	02/15/13 02:25	1
2,4,6-Tribromophenol	56		10 - 123	02/06/13 15:00	02/15/13 02:25	1
2-Fluorobiphenyl	57		43 - 116	02/06/13 15:00	02/15/13 02:25	1
2-Fluorophenol	24		10 - 100	02/06/13 15:00	02/15/13 02:25	1
Nitrobenzene-d5	56		35 - 114	02/06/13 15:00	02/15/13 02:25	1
Terphenyl-d14	65		33 - 141	02/06/13 15:00	02/15/13 02:25	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-67921-1

Client Sample ID: WG-1620-MW55A-20130130

Lab Sample ID: 600-67921-4

Date Collected: 01/30/13 12:10

Matrix: Water

Date Received: 01/31/13 14:16

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels - DL2

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	0.0573	b	0.00472	0.000755	mg/L		02/06/13 15:00	02/18/13 10:03	10
Dibenzofuran	0.0265	b	0.00472	0.000755	mg/L		02/06/13 15:00	02/18/13 10:03	10
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Phenol-d6	0	X	10 - 94				02/06/13 15:00	02/18/13 10:03	10
2,4,6-Tribromophenol	34		10 - 123				02/06/13 15:00	02/18/13 10:03	10
2-Fluorobiphenyl	60		43 - 116				02/06/13 15:00	02/18/13 10:03	10
2-Fluorophenol	0	X	10 - 100				02/06/13 15:00	02/18/13 10:03	10
Nitrobenzene-d5	74		35 - 114				02/06/13 15:00	02/18/13 10:03	10
Terphenyl-d14	75		33 - 141				02/06/13 15:00	02/18/13 10:03	10

Client Sample ID: WG-1620-MW55B-20130130

Lab Sample ID: 600-67921-5

Date Collected: 01/30/13 14:00

Matrix: Water

Date Received: 01/31/13 14:16

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	0.0213	J	0.0500	0.00750	mg/L			02/01/13 21:15	50
Benzene	0.881		0.0500	0.00400	mg/L			02/01/13 21:15	50
1,2-Dichloroethane	0.00700	U	0.0500	0.00700	mg/L			02/01/13 21:15	50
Toluene	0.760		0.0500	0.00750	mg/L			02/01/13 21:15	50
Chlorobenzene	0.00600	U	0.0500	0.00600	mg/L			02/01/13 21:15	50
Ethylbenzene	0.162		0.0500	0.00550	mg/L			02/01/13 21:15	50
Xylenes, Total	0.623		0.150	0.0130	mg/L			02/01/13 21:15	50
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	87		67 - 139					02/01/13 21:15	50
Dibromofluoromethane	97		62 - 130					02/01/13 21:15	50
Toluene-d8 (Surr)	90		70 - 130					02/01/13 21:15	50
1,2-Dichloroethane-d4 (Surr)	105		50 - 134					02/01/13 21:15	50

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.0999		0.0943	0.00755	mg/L		02/06/13 15:00	02/16/13 17:50	100
Nitrobenzene	0.0208	U	0.0943	0.0208	mg/L		02/06/13 15:00	02/16/13 17:50	100
2,4-Dimethylphenol	2.06		0.0943	0.0585	mg/L		02/06/13 15:00	02/16/13 17:50	100
Bis(2-chloroethoxy)methane	0.0245	U	0.0943	0.0245	mg/L		02/06/13 15:00	02/16/13 17:50	100
2-Methylnaphthalene	0.757	b	0.0943	0.0132	mg/L		02/06/13 15:00	02/16/13 17:50	100
2-Chloronaphthalene	0.0151	U	0.0943	0.0151	mg/L		02/06/13 15:00	02/16/13 17:50	100
Acenaphthylene	0.0113	U	0.0943	0.0113	mg/L		02/06/13 15:00	02/16/13 17:50	100
2,6-Dinitrotoluene	0.0151	U	0.0943	0.0151	mg/L		02/06/13 15:00	02/16/13 17:50	100
Acenaphthene	0.347	b	0.0943	0.0151	mg/L		02/06/13 15:00	02/16/13 17:50	100
4-Nitrophenol	0.106	U	0.189	0.106	mg/L		02/06/13 15:00	02/16/13 17:50	100
Dibenzofuran	0.0151	U	0.0943	0.0151	mg/L		02/06/13 15:00	02/16/13 17:50	100
2,4-Dinitrotoluene	0.0245	U	0.0943	0.0245	mg/L		02/06/13 15:00	02/16/13 17:50	100
Fluorene	0.166	b	0.0943	0.0132	mg/L		02/06/13 15:00	02/16/13 17:50	100
4,6-Dinitro-2-methylphenol	0.157	U	0.189	0.157	mg/L		02/06/13 15:00	02/16/13 17:50	100
N-Nitrosodiphenylamine	0.0189	U	0.0943	0.0189	mg/L		02/06/13 15:00	02/16/13 17:50	100
1,2-Diphenylhydrazine	0.0208	U	0.0943	0.0208	mg/L		02/06/13 15:00	02/16/13 17:50	100
Pentachlorophenol	0.115	U	0.189	0.115	mg/L		02/06/13 15:00	02/16/13 17:50	100

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-67921-1

Client Sample ID: WG-1620-MW55B-20130130

Lab Sample ID: 600-67921-5

Date Collected: 01/30/13 14:00

Matrix: Water

Date Received: 01/31/13 14:16

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenanthrene	0.130	b	0.0943	0.0113	mg/L		02/06/13 15:00	02/16/13 17:50	100
Anthracene	0.0492	J	0.0943	0.00943	mg/L		02/06/13 15:00	02/16/13 17:50	100
Di-n-butyl phthalate	0.0208	U	0.0943	0.0208	mg/L		02/06/13 15:00	02/16/13 17:50	100
Fluoranthene	0.0153	J	0.0943	0.0132	mg/L		02/06/13 15:00	02/16/13 17:50	100
Pyrene	0.0208	U	0.0943	0.0208	mg/L		02/06/13 15:00	02/16/13 17:50	100
Benzo[a]anthracene	0.0151	U	0.0943	0.0151	mg/L		02/06/13 15:00	02/16/13 17:50	100
Bis(2-ethylhexyl) phthalate	0.0698	U	0.0943	0.0698	mg/L		02/06/13 15:00	02/16/13 17:50	100
Chrysene	0.0151	U	0.0943	0.0151	mg/L		02/06/13 15:00	02/16/13 17:50	100
Benzo[a]pyrene	0.0151	U	0.0943	0.0151	mg/L		02/06/13 15:00	02/16/13 17:50	100
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Phenol-d6	0	X	10 - 94				02/06/13 15:00	02/16/13 17:50	100
2,4,6-Tribromophenol	0	X	10 - 123				02/06/13 15:00	02/16/13 17:50	100
2-Fluorobiphenyl	0	X	43 - 116				02/06/13 15:00	02/16/13 17:50	100
2-Fluorophenol	0	X	10 - 100				02/06/13 15:00	02/16/13 17:50	100
Nitrobenzene-d5	0	X	35 - 114				02/06/13 15:00	02/16/13 17:50	100
Terphenyl-d14	0	X	33 - 141				02/06/13 15:00	02/16/13 17:50	100

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels - DL

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	2.30	b	0.943	0.0151	mg/L		02/06/13 15:00	02/18/13 10:31	100
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Phenol-d6	0	X	10 - 94				02/06/13 15:00	02/18/13 10:31	100
2,4,6-Tribromophenol	0	X	10 - 123				02/06/13 15:00	02/18/13 10:31	100
2-Fluorobiphenyl	0	X	43 - 116				02/06/13 15:00	02/18/13 10:31	100
2-Fluorophenol	0	X	10 - 100				02/06/13 15:00	02/18/13 10:31	100
Nitrobenzene-d5	0	X	35 - 114				02/06/13 15:00	02/18/13 10:31	100
Terphenyl-d14	0	X	33 - 141				02/06/13 15:00	02/18/13 10:31	100

Client Sample ID: WG-1620-MW15A-20130130

Lab Sample ID: 600-67921-6

Date Collected: 01/30/13 15:00

Matrix: Water

Date Received: 01/31/13 14:16

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			02/04/13 13:27	1
Benzene	0.00160		0.00100	0.0000800	mg/L			02/04/13 13:27	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			02/04/13 13:27	1
Toluene	0.000221	J	0.00100	0.000150	mg/L			02/04/13 13:27	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			02/04/13 13:27	1
Ethylbenzene	0.000660	J	0.00100	0.000110	mg/L			02/04/13 13:27	1
Xylenes, Total	0.00417		0.00300	0.000260	mg/L			02/04/13 13:27	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	86		67 - 139					02/04/13 13:27	1
Dibromofluoromethane	99		62 - 130					02/04/13 13:27	1
Toluene-d8 (Surr)	91		70 - 130					02/04/13 13:27	1
1,2-Dichloroethane-d4 (Surr)	105		50 - 134					02/04/13 13:27	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-67921-1

Client Sample ID: WG-1620-MW15A-20130130

Lab Sample ID: 600-67921-6

Date Collected: 01/30/13 15:00

Matrix: Water

Date Received: 01/31/13 14:16

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.0000377	U	0.000472	0.0000377	mg/L		02/06/13 15:00	02/15/13 03:19	1
Nitrobenzene	0.000104	U	0.000472	0.000104	mg/L		02/06/13 15:00	02/15/13 03:19	1
2,4-Dimethylphenol	0.00200		0.000472	0.000292	mg/L		02/06/13 15:00	02/15/13 03:19	1
Bis(2-chloroethoxy)methane	0.000123	U	0.000472	0.000123	mg/L		02/06/13 15:00	02/15/13 03:19	1
2-Methylnaphthalene	0.00997 b		0.000472	0.0000660	mg/L		02/06/13 15:00	02/15/13 03:19	1
2-Chloronaphthalene	0.0000755	U	0.000472	0.0000755	mg/L		02/06/13 15:00	02/15/13 03:19	1
Acenaphthylene	0.0000566	U	0.000472	0.0000566	mg/L		02/06/13 15:00	02/15/13 03:19	1
2,6-Dinitrotoluene	0.0000755	U	0.000472	0.0000755	mg/L		02/06/13 15:00	02/15/13 03:19	1
4-Nitrophenol	0.000528	U	0.000943	0.000528	mg/L		02/06/13 15:00	02/15/13 03:19	1
2,4-Dinitrotoluene	0.000123	U	0.000472	0.000123	mg/L		02/06/13 15:00	02/15/13 03:19	1
4,6-Dinitro-2-methylphenol	0.000783	U	0.000943	0.000783	mg/L		02/06/13 15:00	02/15/13 03:19	1
N-Nitrosodiphenylamine	0.0000943	U	0.000472	0.0000943	mg/L		02/06/13 15:00	02/15/13 03:19	1
1,2-Diphenylhydrazine	0.000104	U	0.000472	0.000104	mg/L		02/06/13 15:00	02/15/13 03:19	1
Pentachlorophenol	0.000575	U	0.000943	0.000575	mg/L		02/06/13 15:00	02/15/13 03:19	1
Phenanthrene	0.00792 b		0.000472	0.0000566	mg/L		02/06/13 15:00	02/15/13 03:19	1
Anthracene	0.00313		0.000472	0.0000472	mg/L		02/06/13 15:00	02/15/13 03:19	1
Di-n-butyl phthalate	0.000104	U	0.000472	0.000104	mg/L		02/06/13 15:00	02/15/13 03:19	1
Fluoranthene	0.000885		0.000472	0.0000660	mg/L		02/06/13 15:00	02/15/13 03:19	1
Pyrene	0.000496		0.000472	0.000104	mg/L		02/06/13 15:00	02/15/13 03:19	1
Benzo[a]anthracene	0.0000755	U	0.000472	0.0000755	mg/L		02/06/13 15:00	02/15/13 03:19	1
Bis(2-ethylhexyl) phthalate	0.000349	U	0.000472	0.000349	mg/L		02/06/13 15:00	02/15/13 03:19	1
Chrysene	0.0000755	U	0.000472	0.0000755	mg/L		02/06/13 15:00	02/15/13 03:19	1
Benzo[a]pyrene	0.0000755	U	0.000472	0.0000755	mg/L		02/06/13 15:00	02/15/13 03:19	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Phenol-d6	13		10 - 94	02/06/13 15:00	02/15/13 03:19	1
2,4,6-Tribromophenol	48		10 - 123	02/06/13 15:00	02/15/13 03:19	1
2-Fluorobiphenyl	61		43 - 116	02/06/13 15:00	02/15/13 03:19	1
2-Fluorophenol	22		10 - 100	02/06/13 15:00	02/15/13 03:19	1
Nitrobenzene-d5	58		35 - 114	02/06/13 15:00	02/15/13 03:19	1
Terphenyl-d14	64		33 - 141	02/06/13 15:00	02/15/13 03:19	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels - DL

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	0.0501	J b	0.236	0.00377	mg/L		02/06/13 15:00	02/16/13 18:18	50
Acenaphthene	0.141	b	0.0236	0.00377	mg/L		02/06/13 15:00	02/16/13 18:18	50
Dibenzofuran	0.0416	b	0.0236	0.00377	mg/L		02/06/13 15:00	02/16/13 18:18	50
Fluorene	0.0560	b	0.0236	0.00330	mg/L		02/06/13 15:00	02/16/13 18:18	50

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Phenol-d6	0	X	10 - 94	02/06/13 15:00	02/16/13 18:18	50
2,4,6-Tribromophenol	0	X	10 - 123	02/06/13 15:00	02/16/13 18:18	50
2-Fluorobiphenyl	0	X	43 - 116	02/06/13 15:00	02/16/13 18:18	50
2-Fluorophenol	0	X	10 - 100	02/06/13 15:00	02/16/13 18:18	50
Nitrobenzene-d5	0	X	35 - 114	02/06/13 15:00	02/16/13 18:18	50
Terphenyl-d14	0	X	33 - 141	02/06/13 15:00	02/16/13 18:18	50

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-67921-1

Client Sample ID: WG-1620-MW15B-20130130

Lab Sample ID: 600-67921-7

Date Collected: 01/30/13 15:45

Matrix: Water

Date Received: 01/31/13 14:16

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			02/04/13 17:06	1
Benzene	0.00220		0.00100	0.0000800	mg/L			02/04/13 17:06	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			02/04/13 17:06	1
Toluene	0.000150	U	0.00100	0.000150	mg/L			02/04/13 17:06	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			02/04/13 17:06	1
Ethylbenzene	0.00159		0.00100	0.000110	mg/L			02/04/13 17:06	1
Xylenes, Total	0.000356	J	0.00300	0.000260	mg/L			02/04/13 17:06	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	84		67 - 139		02/04/13 17:06	1
Dibromofluoromethane	100		62 - 130		02/04/13 17:06	1
Toluene-d8 (Surr)	91		70 - 130		02/04/13 17:06	1
1,2-Dichloroethane-d4 (Surr)	100		50 - 134		02/04/13 17:06	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.0000377	U	0.000472	0.0000377	mg/L		02/06/13 15:00	02/15/13 03:46	1
Nitrobenzene	0.000104	U	0.000472	0.000104	mg/L		02/06/13 15:00	02/15/13 03:46	1
2,4-Dimethylphenol	0.000292	U	0.000472	0.000292	mg/L		02/06/13 15:00	02/15/13 03:46	1
Bis(2-chloroethoxy)methane	0.000123	U	0.000472	0.000123	mg/L		02/06/13 15:00	02/15/13 03:46	1
2-Methylnaphthalene	0.000744	b	0.000472	0.0000660	mg/L		02/06/13 15:00	02/15/13 03:46	1
2-Chloronaphthalene	0.0000755	U	0.000472	0.0000755	mg/L		02/06/13 15:00	02/15/13 03:46	1
Acenaphthylene	0.000987		0.000472	0.0000566	mg/L		02/06/13 15:00	02/15/13 03:46	1
2,6-Dinitrotoluene	0.0000755	U	0.000472	0.0000755	mg/L		02/06/13 15:00	02/15/13 03:46	1
4-Nitrophenol	0.000528	U	0.000943	0.000528	mg/L		02/06/13 15:00	02/15/13 03:46	1
Dibenzofuran	0.0127	b	0.000472	0.0000755	mg/L		02/06/13 15:00	02/15/13 03:46	1
2,4-Dinitrotoluene	0.000123	U	0.000472	0.000123	mg/L		02/06/13 15:00	02/15/13 03:46	1
Fluorene	0.0110	b	0.000472	0.0000660	mg/L		02/06/13 15:00	02/15/13 03:46	1
4,6-Dinitro-2-methylphenol	0.000783	U	0.000943	0.000783	mg/L		02/06/13 15:00	02/15/13 03:46	1
N-Nitrosodiphenylamine	0.0000943	U	0.000472	0.0000943	mg/L		02/06/13 15:00	02/15/13 03:46	1
1,2-Diphenylhydrazine	0.000104	U	0.000472	0.000104	mg/L		02/06/13 15:00	02/15/13 03:46	1
Pentachlorophenol	0.0000575	U	0.000943	0.0000575	mg/L		02/06/13 15:00	02/15/13 03:46	1
Phenanthrene	0.00199	b	0.000472	0.0000566	mg/L		02/06/13 15:00	02/15/13 03:46	1
Anthracene	0.00179		0.000472	0.0000472	mg/L		02/06/13 15:00	02/15/13 03:46	1
Di-n-butyl phthalate	0.000104	U	0.000472	0.000104	mg/L		02/06/13 15:00	02/15/13 03:46	1
Fluoranthene	0.00101		0.000472	0.0000660	mg/L		02/06/13 15:00	02/15/13 03:46	1
Pyrene	0.000513		0.000472	0.000104	mg/L		02/06/13 15:00	02/15/13 03:46	1
Benzo[a]anthracene	0.0000755	U	0.000472	0.0000755	mg/L		02/06/13 15:00	02/15/13 03:46	1
Bis(2-ethylhexyl) phthalate	0.000349	U	0.000472	0.000349	mg/L		02/06/13 15:00	02/15/13 03:46	1
Chrysene	0.0000755	U	0.000472	0.0000755	mg/L		02/06/13 15:00	02/15/13 03:46	1
Benzo[a]pyrene	0.0000755	U	0.000472	0.0000755	mg/L		02/06/13 15:00	02/15/13 03:46	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Phenol-d6	18		10 - 94	02/06/13 15:00	02/15/13 03:46	1
2,4,6-Tribromophenol	68		10 - 123	02/06/13 15:00	02/15/13 03:46	1
2-Fluorobiphenyl	76		43 - 116	02/06/13 15:00	02/15/13 03:46	1
2-Fluorophenol	33		10 - 100	02/06/13 15:00	02/15/13 03:46	1
Nitrobenzene-d5	72		35 - 114	02/06/13 15:00	02/15/13 03:46	1
Terphenyl-d14	76		33 - 141	02/06/13 15:00	02/15/13 03:46	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-67921-1

Client Sample ID: WG-1620-MW15B-20130130

Lab Sample ID: 600-67921-7

Date Collected: 01/30/13 15:45

Matrix: Water

Date Received: 01/31/13 14:16

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels - DL

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	0.0569	J b	0.236	0.00377	mg/L		02/06/13 15:00	02/16/13 18:45	50
Acenaphthene	0.0413	b	0.0236	0.00377	mg/L		02/06/13 15:00	02/16/13 18:45	50
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Phenol-d6	0	X	10 - 94				02/06/13 15:00	02/16/13 18:45	50
2,4,6-Tribromophenol	0	X	10 - 123				02/06/13 15:00	02/16/13 18:45	50
2-Fluorobiphenyl	0	X	43 - 116				02/06/13 15:00	02/16/13 18:45	50
2-Fluorophenol	0	X	10 - 100				02/06/13 15:00	02/16/13 18:45	50
Nitrobenzene-d5	0	X	35 - 114				02/06/13 15:00	02/16/13 18:45	50
Terphenyl-d14	0	X	33 - 141				02/06/13 15:00	02/16/13 18:45	50

Client Sample ID: WG-1620-MW15C-20130130

Lab Sample ID: 600-67921-8

Date Collected: 01/30/13 16:40

Matrix: Water

Date Received: 01/31/13 14:16

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			02/04/13 17:33	1
Benzene	0.000951	J	0.00100	0.0000800	mg/L			02/04/13 17:33	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			02/04/13 17:33	1
Toluene	0.000323	J	0.00100	0.000150	mg/L			02/04/13 17:33	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			02/04/13 17:33	1
Ethylbenzene	0.000408	J	0.00100	0.000110	mg/L			02/04/13 17:33	1
Xylenes, Total	0.000604	J	0.00300	0.000260	mg/L			02/04/13 17:33	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	90		67 - 139					02/04/13 17:33	1
Dibromofluoromethane	101		62 - 130					02/04/13 17:33	1
Toluene-d8 (Surr)	91		70 - 130					02/04/13 17:33	1
1,2-Dichloroethane-d4 (Surr)	97		50 - 134					02/04/13 17:33	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrobenzene	0.0104	U	0.0472	0.0104	mg/L		02/06/13 15:00	02/16/13 19:12	100
Bis(2-chloroethoxy)methane	0.0123	U	0.0472	0.0123	mg/L		02/06/13 15:00	02/16/13 19:12	100
2-Methylnaphthalene	0.350	b	0.0472	0.00660	mg/L		02/06/13 15:00	02/16/13 19:12	100
2-Chloronaphthalene	0.00755	U	0.0472	0.00755	mg/L		02/06/13 15:00	02/16/13 19:12	100
Acenaphthylene	0.00566	U	0.0472	0.00566	mg/L		02/06/13 15:00	02/16/13 19:12	100
2,6-Dinitrotoluene	0.00755	U	0.0472	0.00755	mg/L		02/06/13 15:00	02/16/13 19:12	100
Acenaphthene	0.130	b	0.0472	0.00755	mg/L		02/06/13 15:00	02/16/13 19:12	100
4-Nitrophenol	0.0528	U	0.0943	0.0528	mg/L		02/06/13 15:00	02/16/13 19:12	100
Dibenzofuran	0.116	b	0.0472	0.00755	mg/L		02/06/13 15:00	02/16/13 19:12	100
2,4-Dinitrotoluene	0.0123	U	0.0472	0.0123	mg/L		02/06/13 15:00	02/16/13 19:12	100
Fluorene	0.0769	b	0.0472	0.00660	mg/L		02/06/13 15:00	02/16/13 19:12	100
4,6-Dinitro-2-methylphenol	0.0783	U	0.0943	0.0783	mg/L		02/06/13 15:00	02/16/13 19:12	100
N-Nitrosodiphenylamine	0.00943	U	0.0472	0.00943	mg/L		02/06/13 15:00	02/16/13 19:12	100
1,2-Diphenylhydrazine	0.0104	U	0.0472	0.0104	mg/L		02/06/13 15:00	02/16/13 19:12	100
Pentachlorophenol	0.0575	U	0.0943	0.0575	mg/L		02/06/13 15:00	02/16/13 19:12	100
Phenanthrene	0.0868	b	0.0472	0.00566	mg/L		02/06/13 15:00	02/16/13 19:12	100
Anthracene	0.0191	J	0.0472	0.00472	mg/L		02/06/13 15:00	02/16/13 19:12	100

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-67921-1

Client Sample ID: WG-1620-MW15C-20130130

Lab Sample ID: 600-67921-8

Date Collected: 01/30/13 16:40

Matrix: Water

Date Received: 01/31/13 14:16

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Di-n-butyl phthalate	0.0104	U	0.0472	0.0104	mg/L		02/06/13 15:00	02/16/13 19:12	100
Fluoranthene	0.00660	U	0.0472	0.00660	mg/L		02/06/13 15:00	02/16/13 19:12	100
Pyrene	0.0104	U	0.0472	0.0104	mg/L		02/06/13 15:00	02/16/13 19:12	100
Benzo[a]anthracene	0.00755	U	0.0472	0.00755	mg/L		02/06/13 15:00	02/16/13 19:12	100
Bis(2-ethylhexyl) phthalate	0.0349	U	0.0472	0.0349	mg/L		02/06/13 15:00	02/16/13 19:12	100
Chrysene	0.00755	U	0.0472	0.00755	mg/L		02/06/13 15:00	02/16/13 19:12	100
Benzo[a]pyrene	0.00755	U	0.0472	0.00755	mg/L		02/06/13 15:00	02/16/13 19:12	100

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Phenol-d6	0	X	10 - 94	02/06/13 15:00	02/16/13 19:12	100
2,4,6-Tribromophenol	0	X	10 - 123	02/06/13 15:00	02/16/13 19:12	100
2-Fluorobiphenyl	0	X	43 - 116	02/06/13 15:00	02/16/13 19:12	100
2-Fluorophenol	0	X	10 - 100	02/06/13 15:00	02/16/13 19:12	100
Nitrobenzene-d5	0	X	35 - 114	02/06/13 15:00	02/16/13 19:12	100
Terphenyl-d14	0	X	33 - 141	02/06/13 15:00	02/16/13 19:12	100

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels - DL

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-Dimethylphenol	113		4.72	2.92	mg/L		02/06/13 15:00	02/18/13 10:58	10000
Naphthalene	89.7	b	47.2	0.755	mg/L		02/06/13 15:00	02/18/13 10:58	10000

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Phenol-d6	0	X	10 - 94	02/06/13 15:00	02/18/13 10:58	10000
2,4,6-Tribromophenol	0	X	10 - 123	02/06/13 15:00	02/18/13 10:58	10000
2-Fluorobiphenyl	0	X	43 - 116	02/06/13 15:00	02/18/13 10:58	10000
2-Fluorophenol	0	X	10 - 100	02/06/13 15:00	02/18/13 10:58	10000
Nitrobenzene-d5	0	X	35 - 114	02/06/13 15:00	02/18/13 10:58	10000
Terphenyl-d14	0	X	33 - 141	02/06/13 15:00	02/18/13 10:58	10000

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels - DL2

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	61.8		23.6	1.89	mg/L		02/06/13 15:00	02/18/13 23:50	50000

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Phenol-d6	0	X	10 - 94	02/06/13 15:00	02/18/13 23:50	50000
2,4,6-Tribromophenol	0	X	10 - 123	02/06/13 15:00	02/18/13 23:50	50000
2-Fluorobiphenyl	0	X	43 - 116	02/06/13 15:00	02/18/13 23:50	50000
2-Fluorophenol	0	X	10 - 100	02/06/13 15:00	02/18/13 23:50	50000
Nitrobenzene-d5	0	X	35 - 114	02/06/13 15:00	02/18/13 23:50	50000
Terphenyl-d14	0	X	33 - 141	02/06/13 15:00	02/18/13 23:50	50000

Client Sample ID: WG-1620-FB1-20130130

Lab Sample ID: 600-67921-9

Date Collected: 01/30/13 17:00

Matrix: Water

Date Received: 01/31/13 14:16

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			02/02/13 16:15	1
Benzene	0.0000800	U	0.00100	0.0000800	mg/L			02/02/13 16:15	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			02/02/13 16:15	1
Toluene	0.000150	U	0.00100	0.000150	mg/L			02/02/13 16:15	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-67921-1

Client Sample ID: WG-1620-FB1-20130130

Lab Sample ID: 600-67921-9

Date Collected: 01/30/13 17:00

Matrix: Water

Date Received: 01/31/13 14:16

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			02/02/13 16:15	1
Ethylbenzene	0.000110	U	0.00100	0.000110	mg/L			02/02/13 16:15	1
Xylenes, Total	0.000260	U	0.00300	0.000260	mg/L			02/02/13 16:15	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	99		67 - 139					02/02/13 16:15	1
Dibromofluoromethane	77		62 - 130					02/02/13 16:15	1
Toluene-d8 (Surr)	85		70 - 130					02/02/13 16:15	1
1,2-Dichloroethane-d4 (Surr)	85		50 - 134					02/02/13 16:15	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.0000377	U	0.000472	0.0000377	mg/L		02/06/13 15:00	02/15/13 04:40	1
Nitrobenzene	0.000104	U	0.000472	0.000104	mg/L		02/06/13 15:00	02/15/13 04:40	1
2,4-Dimethylphenol	0.000292	U	0.000472	0.000292	mg/L		02/06/13 15:00	02/15/13 04:40	1
Bis(2-chloroethoxy)methane	0.000123	U	0.000472	0.000123	mg/L		02/06/13 15:00	02/15/13 04:40	1
Naphthalene	0.000373	J b	0.00472	0.0000755	mg/L		02/06/13 15:00	02/15/13 04:40	1
2-Methylnaphthalene	0.0000660	U	0.000472	0.0000660	mg/L		02/06/13 15:00	02/15/13 04:40	1
2-Chloronaphthalene	0.0000755	U	0.000472	0.0000755	mg/L		02/06/13 15:00	02/15/13 04:40	1
Acenaphthylene	0.0000566	U	0.000472	0.0000566	mg/L		02/06/13 15:00	02/15/13 04:40	1
2,6-Dinitrotoluene	0.0000755	U	0.000472	0.0000755	mg/L		02/06/13 15:00	02/15/13 04:40	1
Acenaphthene	0.0000755	U	0.000472	0.0000755	mg/L		02/06/13 15:00	02/15/13 04:40	1
4-Nitrophenol	0.000528	U	0.000943	0.000528	mg/L		02/06/13 15:00	02/15/13 04:40	1
Dibenzofuran	0.0000755	U	0.000472	0.0000755	mg/L		02/06/13 15:00	02/15/13 04:40	1
2,4-Dinitrotoluene	0.000123	U	0.000472	0.000123	mg/L		02/06/13 15:00	02/15/13 04:40	1
Fluorene	0.0000660	U	0.000472	0.0000660	mg/L		02/06/13 15:00	02/15/13 04:40	1
4,6-Dinitro-2-methylphenol	0.000783	U	0.000943	0.000783	mg/L		02/06/13 15:00	02/15/13 04:40	1
N-Nitrosodiphenylamine	0.0000943	U	0.000472	0.0000943	mg/L		02/06/13 15:00	02/15/13 04:40	1
1,2-Diphenylhydrazine	0.000104	U	0.000472	0.000104	mg/L		02/06/13 15:00	02/15/13 04:40	1
Pentachlorophenol	0.000575	U	0.000943	0.000575	mg/L		02/06/13 15:00	02/15/13 04:40	1
Phenanthrene	0.0000566	U	0.000472	0.0000566	mg/L		02/06/13 15:00	02/15/13 04:40	1
Anthracene	0.0000472	U	0.000472	0.0000472	mg/L		02/06/13 15:00	02/15/13 04:40	1
Di-n-butyl phthalate	0.000104	U	0.000472	0.000104	mg/L		02/06/13 15:00	02/15/13 04:40	1
Fluoranthene	0.0000660	U	0.000472	0.0000660	mg/L		02/06/13 15:00	02/15/13 04:40	1
Pyrene	0.000104	U	0.000472	0.000104	mg/L		02/06/13 15:00	02/15/13 04:40	1
Benzo[a]anthracene	0.0000755	U	0.000472	0.0000755	mg/L		02/06/13 15:00	02/15/13 04:40	1
Bis(2-ethylhexyl) phthalate	0.000349	U	0.000472	0.000349	mg/L		02/06/13 15:00	02/15/13 04:40	1
Chrysene	0.0000755	U	0.000472	0.0000755	mg/L		02/06/13 15:00	02/15/13 04:40	1
Benzo[a]pyrene	0.0000755	U	0.000472	0.0000755	mg/L		02/06/13 15:00	02/15/13 04:40	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Phenol-d6	10		10 - 94				02/06/13 15:00	02/15/13 04:40	1
2,4,6-Tribromophenol	49		10 - 123				02/06/13 15:00	02/15/13 04:40	1
2-Fluorobiphenyl	63		43 - 116				02/06/13 15:00	02/15/13 04:40	1
2-Fluorophenol	26		10 - 100				02/06/13 15:00	02/15/13 04:40	1
Nitrobenzene-d5	59		35 - 114				02/06/13 15:00	02/15/13 04:40	1
Terphenyl-d14	67		33 - 141				02/06/13 15:00	02/15/13 04:40	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-67921-1

Client Sample ID: WG-1620-MW36B-20130131

Lab Sample ID: 600-67921-10

Date Collected: 01/31/13 07:45

Matrix: Water

Date Received: 01/31/13 14:16

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	0.000110	U	0.00200	0.000110	mg/L			02/02/13 16:43	1
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			02/02/13 16:43	1
Benzene	0.0000800	U	0.00100	0.0000800	mg/L			02/02/13 16:43	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			02/02/13 16:43	1
Toluene	0.000150	U	0.00100	0.000150	mg/L			02/02/13 16:43	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			02/02/13 16:43	1
Ethylbenzene	0.000110	U	0.00100	0.000110	mg/L			02/02/13 16:43	1
Xylenes, Total	0.000260	U	0.00300	0.000260	mg/L			02/02/13 16:43	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	96		67 - 139					02/02/13 16:43	1
Dibromofluoromethane	82		62 - 130					02/02/13 16:43	1
Toluene-d8 (Surr)	87		70 - 130					02/02/13 16:43	1
1,2-Dichloroethane-d4 (Surr)	86		50 - 134					02/02/13 16:43	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.0000377	U	0.000472	0.0000377	mg/L		02/06/13 15:00	02/15/13 05:07	1
Nitrobenzene	0.000104	U	0.000472	0.000104	mg/L		02/06/13 15:00	02/15/13 05:07	1
2,4-Dimethylphenol	0.000292	U	0.000472	0.000292	mg/L		02/06/13 15:00	02/15/13 05:07	1
Bis(2-chloroethoxy)methane	0.000123	U	0.000472	0.000123	mg/L		02/06/13 15:00	02/15/13 05:07	1
Naphthalene	0.000943	b	0.000472	0.0000755	mg/L		02/06/13 15:00	02/15/13 05:07	1
2-Methylnaphthalene	0.000762	b	0.000472	0.0000660	mg/L		02/06/13 15:00	02/15/13 05:07	1
2-Chloronaphthalene	0.0000755	U	0.000472	0.0000755	mg/L		02/06/13 15:00	02/15/13 05:07	1
Acenaphthylene	0.0000566	U	0.000472	0.0000566	mg/L		02/06/13 15:00	02/15/13 05:07	1
2,6-Dinitrotoluene	0.0000755	U	0.000472	0.0000755	mg/L		02/06/13 15:00	02/15/13 05:07	1
Acenaphthene	0.0000755	U	0.000472	0.0000755	mg/L		02/06/13 15:00	02/15/13 05:07	1
4-Nitrophenol	0.000528	U	0.000943	0.000528	mg/L		02/06/13 15:00	02/15/13 05:07	1
Dibenzofuran	0.000118	J b	0.000472	0.0000755	mg/L		02/06/13 15:00	02/15/13 05:07	1
2,4-Dinitrotoluene	0.000123	U	0.000472	0.000123	mg/L		02/06/13 15:00	02/15/13 05:07	1
Fluorene	0.0000660	U	0.000472	0.0000660	mg/L		02/06/13 15:00	02/15/13 05:07	1
4,6-Dinitro-2-methylphenol	0.000783	U	0.000943	0.000783	mg/L		02/06/13 15:00	02/15/13 05:07	1
N-Nitrosodiphenylamine	0.0000943	U	0.000472	0.0000943	mg/L		02/06/13 15:00	02/15/13 05:07	1
1,2-Diphenylhydrazine	0.000104	U	0.000472	0.000104	mg/L		02/06/13 15:00	02/15/13 05:07	1
Pentachlorophenol	0.000575	U	0.000943	0.000575	mg/L		02/06/13 15:00	02/15/13 05:07	1
Phenanthrene	0.0000566	U	0.000472	0.0000566	mg/L		02/06/13 15:00	02/15/13 05:07	1
Anthracene	0.0000472	U	0.000472	0.0000472	mg/L		02/06/13 15:00	02/15/13 05:07	1
Di-n-butyl phthalate	0.000104	U	0.000472	0.000104	mg/L		02/06/13 15:00	02/15/13 05:07	1
Fluoranthene	0.0000660	U	0.000472	0.0000660	mg/L		02/06/13 15:00	02/15/13 05:07	1
Pyrene	0.000104	U	0.000472	0.000104	mg/L		02/06/13 15:00	02/15/13 05:07	1
Benzo[a]anthracene	0.0000755	U	0.000472	0.0000755	mg/L		02/06/13 15:00	02/15/13 05:07	1
Bis(2-ethylhexyl) phthalate	0.000349	U	0.000472	0.000349	mg/L		02/06/13 15:00	02/15/13 05:07	1
Chrysene	0.0000755	U	0.000472	0.0000755	mg/L		02/06/13 15:00	02/15/13 05:07	1
Benzo[a]pyrene	0.0000755	U	0.000472	0.0000755	mg/L		02/06/13 15:00	02/15/13 05:07	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Phenol-d6	11		10 - 94				02/06/13 15:00	02/15/13 05:07	1
2,4,6-Tribromophenol	42		10 - 123				02/06/13 15:00	02/15/13 05:07	1
2-Fluorobiphenyl	52		43 - 116				02/06/13 15:00	02/15/13 05:07	1
2-Fluorophenol	19		10 - 100				02/06/13 15:00	02/15/13 05:07	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-67921-1

Client Sample ID: WG-1620-MW36B-20130131

Lab Sample ID: 600-67921-10

Date Collected: 01/31/13 07:45

Matrix: Water

Date Received: 01/31/13 14:16

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5	50		35 - 114	02/06/13 15:00	02/15/13 05:07	1
Terphenyl-d14	58		33 - 141	02/06/13 15:00	02/15/13 05:07	1

Client Sample ID: WG-1620-MW36A-20130131

Lab Sample ID: 600-67921-11

Date Collected: 01/31/13 08:35

Matrix: Water

Date Received: 01/31/13 14:16

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	0.000110	U	0.00200	0.000110	mg/L			02/02/13 17:12	1
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			02/02/13 17:12	1
Benzene	0.0000800	U	0.00100	0.0000800	mg/L			02/02/13 17:12	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			02/02/13 17:12	1
Toluene	0.000150	U	0.00100	0.000150	mg/L			02/02/13 17:12	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			02/02/13 17:12	1
Ethylbenzene	0.000110	U	0.00100	0.000110	mg/L			02/02/13 17:12	1
Xylenes, Total	0.000260	U	0.00300	0.000260	mg/L			02/02/13 17:12	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	98		67 - 139		02/02/13 17:12	1
Dibromofluoromethane	79		62 - 130		02/02/13 17:12	1
Toluene-d8 (Surr)	85		70 - 130		02/02/13 17:12	1
1,2-Dichloroethane-d4 (Surr)	87		50 - 134		02/02/13 17:12	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.0000377	U	0.000472	0.0000377	mg/L		02/06/13 15:00	02/15/13 05:33	1
Nitrobenzene	0.000104	U	0.000472	0.000104	mg/L		02/06/13 15:00	02/15/13 05:33	1
2,4-Dimethylphenol	0.000292	U	0.000472	0.000292	mg/L		02/06/13 15:00	02/15/13 05:33	1
Bis(2-chloroethoxy)methane	0.000123	U	0.000472	0.000123	mg/L		02/06/13 15:00	02/15/13 05:33	1
Naphthalene	0.000211	J b	0.00472	0.0000755	mg/L		02/06/13 15:00	02/15/13 05:33	1
2-Methylnaphthalene	0.0000660	U	0.000472	0.0000660	mg/L		02/06/13 15:00	02/15/13 05:33	1
2-Chloronaphthalene	0.0000755	U	0.000472	0.0000755	mg/L		02/06/13 15:00	02/15/13 05:33	1
Acenaphthylene	0.0000566	U	0.000472	0.0000566	mg/L		02/06/13 15:00	02/15/13 05:33	1
2,6-Dinitrotoluene	0.0000755	U	0.000472	0.0000755	mg/L		02/06/13 15:00	02/15/13 05:33	1
Acenaphthene	0.0000755	U	0.000472	0.0000755	mg/L		02/06/13 15:00	02/15/13 05:33	1
4-Nitrophenol	0.000528	U	0.000943	0.000528	mg/L		02/06/13 15:00	02/15/13 05:33	1
Dibenzofuran	0.0000755	U	0.000472	0.0000755	mg/L		02/06/13 15:00	02/15/13 05:33	1
2,4-Dinitrotoluene	0.000123	U	0.000472	0.000123	mg/L		02/06/13 15:00	02/15/13 05:33	1
Fluorene	0.0000660	U	0.000472	0.0000660	mg/L		02/06/13 15:00	02/15/13 05:33	1
4,6-Dinitro-2-methylphenol	0.000783	U	0.000943	0.000783	mg/L		02/06/13 15:00	02/15/13 05:33	1
N-Nitrosodiphenylamine	0.0000943	U	0.000472	0.0000943	mg/L		02/06/13 15:00	02/15/13 05:33	1
1,2-Diphenylhydrazine	0.000104	U	0.000472	0.000104	mg/L		02/06/13 15:00	02/15/13 05:33	1
Pentachlorophenol	0.000575	U	0.000943	0.000575	mg/L		02/06/13 15:00	02/15/13 05:33	1
Phenanthrene	0.0000566	U	0.000472	0.0000566	mg/L		02/06/13 15:00	02/15/13 05:33	1
Anthracene	0.0000472	U	0.000472	0.0000472	mg/L		02/06/13 15:00	02/15/13 05:33	1
Di-n-butyl phthalate	0.000104	U	0.000472	0.000104	mg/L		02/06/13 15:00	02/15/13 05:33	1
Fluoranthene	0.0000660	U	0.000472	0.0000660	mg/L		02/06/13 15:00	02/15/13 05:33	1
Pyrene	0.000104	U	0.000472	0.000104	mg/L		02/06/13 15:00	02/15/13 05:33	1
Benzo[a]anthracene	0.0000755	U	0.000472	0.0000755	mg/L		02/06/13 15:00	02/15/13 05:33	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-67921-1

Client Sample ID: WG-1620-MW36A-20130131

Lab Sample ID: 600-67921-11

Date Collected: 01/31/13 08:35

Matrix: Water

Date Received: 01/31/13 14:16

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	0.000349	U	0.000472	0.000349	mg/L		02/06/13 15:00	02/15/13 05:33	1
Chrysene	0.0000755	U	0.000472	0.0000755	mg/L		02/06/13 15:00	02/15/13 05:33	1
Benzo[a]pyrene	0.0000755	U	0.000472	0.0000755	mg/L		02/06/13 15:00	02/15/13 05:33	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Phenol-d6	11		10 - 94				02/06/13 15:00	02/15/13 05:33	1
2,4,6-Tribromophenol	31		10 - 123				02/06/13 15:00	02/15/13 05:33	1
2-Fluorobiphenyl	55		43 - 116				02/06/13 15:00	02/15/13 05:33	1
2-Fluorophenol	20		10 - 100				02/06/13 15:00	02/15/13 05:33	1
Nitrobenzene-d5	55		35 - 114				02/06/13 15:00	02/15/13 05:33	1
Terphenyl-d14	64		33 - 141				02/06/13 15:00	02/15/13 05:33	1

Client Sample ID: WG-1620-MW48C-20130131

Lab Sample ID: 600-67921-12

Date Collected: 01/31/13 09:40

Matrix: Water

Date Received: 01/31/13 14:16

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			02/02/13 17:40	1
Benzene	0.0000800	U	0.00100	0.0000800	mg/L			02/02/13 17:40	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			02/02/13 17:40	1
Toluene	0.000150	U	0.00100	0.000150	mg/L			02/02/13 17:40	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			02/02/13 17:40	1
Ethylbenzene	0.000110	U	0.00100	0.000110	mg/L			02/02/13 17:40	1
Xylenes, Total	0.000260	U	0.00300	0.000260	mg/L			02/02/13 17:40	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	98		67 - 139					02/02/13 17:40	1
Dibromofluoromethane	81		62 - 130					02/02/13 17:40	1
Toluene-d8 (Surr)	86		70 - 130					02/02/13 17:40	1
1,2-Dichloroethane-d4 (Surr)	87		50 - 134					02/02/13 17:40	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.0000377	U	0.000472	0.0000377	mg/L		02/06/13 15:00	02/15/13 06:00	1
Nitrobenzene	0.000104	U	0.000472	0.000104	mg/L		02/06/13 15:00	02/15/13 06:00	1
2,4-Dimethylphenol	0.000292	U	0.000472	0.000292	mg/L		02/06/13 15:00	02/15/13 06:00	1
Bis(2-chloroethoxy)methane	0.000123	U	0.000472	0.000123	mg/L		02/06/13 15:00	02/15/13 06:00	1
Naphthalene	0.000495	J b	0.00472	0.0000755	mg/L		02/06/13 15:00	02/15/13 06:00	1
2-Methylnaphthalene	0.0000660	U	0.000472	0.0000660	mg/L		02/06/13 15:00	02/15/13 06:00	1
2-Chloronaphthalene	0.0000755	U	0.000472	0.0000755	mg/L		02/06/13 15:00	02/15/13 06:00	1
Acenaphthylene	0.0000566	U	0.000472	0.0000566	mg/L		02/06/13 15:00	02/15/13 06:00	1
2,6-Dinitrotoluene	0.0000755	U	0.000472	0.0000755	mg/L		02/06/13 15:00	02/15/13 06:00	1
Acenaphthene	0.0000755	U	0.000472	0.0000755	mg/L		02/06/13 15:00	02/15/13 06:00	1
4-Nitrophenol	0.000528	U	0.000943	0.000528	mg/L		02/06/13 15:00	02/15/13 06:00	1
Dibenzofuran	0.0000755	U	0.000472	0.0000755	mg/L		02/06/13 15:00	02/15/13 06:00	1
2,4-Dinitrotoluene	0.000123	U	0.000472	0.000123	mg/L		02/06/13 15:00	02/15/13 06:00	1
Fluorene	0.0000660	U	0.000472	0.0000660	mg/L		02/06/13 15:00	02/15/13 06:00	1
4,6-Dinitro-2-methylphenol	0.000783	U	0.000943	0.000783	mg/L		02/06/13 15:00	02/15/13 06:00	1
N-Nitrosodiphenylamine	0.0000943	U	0.000472	0.0000943	mg/L		02/06/13 15:00	02/15/13 06:00	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-67921-1

Client Sample ID: WG-1620-MW48C-20130131

Lab Sample ID: 600-67921-12

Date Collected: 01/31/13 09:40

Matrix: Water

Date Received: 01/31/13 14:16

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Diphenylhydrazine	0.000104	U	0.000472	0.000104	mg/L		02/06/13 15:00	02/15/13 06:00	1
Pentachlorophenol	0.000575	U	0.000943	0.000575	mg/L		02/06/13 15:00	02/15/13 06:00	1
Phenanthrene	0.0000566	U	0.000472	0.0000566	mg/L		02/06/13 15:00	02/15/13 06:00	1
Anthracene	0.0000472	U	0.000472	0.0000472	mg/L		02/06/13 15:00	02/15/13 06:00	1
Di-n-butyl phthalate	0.000104	U	0.000472	0.000104	mg/L		02/06/13 15:00	02/15/13 06:00	1
Fluoranthene	0.0000660	U	0.000472	0.0000660	mg/L		02/06/13 15:00	02/15/13 06:00	1
Pyrene	0.000104	U	0.000472	0.000104	mg/L		02/06/13 15:00	02/15/13 06:00	1
Benzo[a]anthracene	0.0000755	U	0.000472	0.0000755	mg/L		02/06/13 15:00	02/15/13 06:00	1
Bis(2-ethylhexyl) phthalate	0.000349	U	0.000472	0.000349	mg/L		02/06/13 15:00	02/15/13 06:00	1
Chrysene	0.0000755	U	0.000472	0.0000755	mg/L		02/06/13 15:00	02/15/13 06:00	1
Benzo[a]pyrene	0.0000755	U	0.000472	0.0000755	mg/L		02/06/13 15:00	02/15/13 06:00	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Phenol-d6	13		10 - 94				02/06/13 15:00	02/15/13 06:00	1
2,4,6-Tribromophenol	41		10 - 123				02/06/13 15:00	02/15/13 06:00	1
2-Fluorobiphenyl	62		43 - 116				02/06/13 15:00	02/15/13 06:00	1
2-Fluorophenol	25		10 - 100				02/06/13 15:00	02/15/13 06:00	1
Nitrobenzene-d5	58		35 - 114				02/06/13 15:00	02/15/13 06:00	1
Terphenyl-d14	67		33 - 141				02/06/13 15:00	02/15/13 06:00	1

Client Sample ID: WG-1620-MW59A-20130131

Lab Sample ID: 600-67921-13

Date Collected: 01/31/13 10:40

Matrix: Water

Date Received: 01/31/13 14:16

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	0.000110	U	0.00200	0.000110	mg/L			02/02/13 18:08	1
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			02/02/13 18:08	1
Benzene	0.0000800	U	0.00100	0.0000800	mg/L			02/02/13 18:08	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			02/02/13 18:08	1
Toluene	0.000150	U	0.00100	0.000150	mg/L			02/02/13 18:08	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			02/02/13 18:08	1
Ethylbenzene	0.000110	U	0.00100	0.000110	mg/L			02/02/13 18:08	1
Xylenes, Total	0.000260	U	0.00300	0.000260	mg/L			02/02/13 18:08	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	105		67 - 139					02/02/13 18:08	1
Dibromofluoromethane	81		62 - 130					02/02/13 18:08	1
Toluene-d8 (Surr)	85		70 - 130					02/02/13 18:08	1
1,2-Dichloroethane-d4 (Surr)	88		50 - 134					02/02/13 18:08	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.0000377	U	0.000472	0.0000377	mg/L		02/06/13 15:00	02/15/13 06:27	1
Nitrobenzene	0.000104	U	0.000472	0.000104	mg/L		02/06/13 15:00	02/15/13 06:27	1
2,4-Dimethylphenol	0.000292	U	0.000472	0.000292	mg/L		02/06/13 15:00	02/15/13 06:27	1
Bis(2-chloroethoxy)methane	0.000123	U	0.000472	0.000123	mg/L		02/06/13 15:00	02/15/13 06:27	1
Naphthalene	0.0000755	U	0.00472	0.0000755	mg/L		02/06/13 15:00	02/15/13 06:27	1
2-Methylnaphthalene	0.0000660	U	0.000472	0.0000660	mg/L		02/06/13 15:00	02/15/13 06:27	1
2-Chloronaphthalene	0.0000755	U	0.000472	0.0000755	mg/L		02/06/13 15:00	02/15/13 06:27	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-67921-1

Client Sample ID: WG-1620-MW59A-20130131

Lab Sample ID: 600-67921-13

Date Collected: 01/31/13 10:40

Matrix: Water

Date Received: 01/31/13 14:16

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthylene	0.0000566	U	0.000472	0.0000566	mg/L		02/06/13 15:00	02/15/13 06:27	1
2,6-Dinitrotoluene	0.0000755	U	0.000472	0.0000755	mg/L		02/06/13 15:00	02/15/13 06:27	1
Acenaphthene	0.0000755	U	0.000472	0.0000755	mg/L		02/06/13 15:00	02/15/13 06:27	1
4-Nitrophenol	0.000528	U	0.000943	0.000528	mg/L		02/06/13 15:00	02/15/13 06:27	1
Dibenzofuran	0.0000755	U	0.000472	0.0000755	mg/L		02/06/13 15:00	02/15/13 06:27	1
2,4-Dinitrotoluene	0.000123	U	0.000472	0.000123	mg/L		02/06/13 15:00	02/15/13 06:27	1
Fluorene	0.0000660	U	0.000472	0.0000660	mg/L		02/06/13 15:00	02/15/13 06:27	1
4,6-Dinitro-2-methylphenol	0.000783	U	0.000943	0.000783	mg/L		02/06/13 15:00	02/15/13 06:27	1
N-Nitrosodiphenylamine	0.0000943	U	0.000472	0.0000943	mg/L		02/06/13 15:00	02/15/13 06:27	1
1,2-Diphenylhydrazine	0.000104	U	0.000472	0.000104	mg/L		02/06/13 15:00	02/15/13 06:27	1
Pentachlorophenol	0.000575	U	0.000943	0.000575	mg/L		02/06/13 15:00	02/15/13 06:27	1
Phenanthrene	0.0000566	U	0.000472	0.0000566	mg/L		02/06/13 15:00	02/15/13 06:27	1
Anthracene	0.0000472	U	0.000472	0.0000472	mg/L		02/06/13 15:00	02/15/13 06:27	1
Di-n-butyl phthalate	0.000104	U	0.000472	0.000104	mg/L		02/06/13 15:00	02/15/13 06:27	1
Fluoranthene	0.0000660	U	0.000472	0.0000660	mg/L		02/06/13 15:00	02/15/13 06:27	1
Pyrene	0.000104	U	0.000472	0.000104	mg/L		02/06/13 15:00	02/15/13 06:27	1
Benzo[a]anthracene	0.0000755	U	0.000472	0.0000755	mg/L		02/06/13 15:00	02/15/13 06:27	1
Bis(2-ethylhexyl) phthalate	0.000349	U	0.000472	0.000349	mg/L		02/06/13 15:00	02/15/13 06:27	1
Chrysene	0.0000755	U	0.000472	0.0000755	mg/L		02/06/13 15:00	02/15/13 06:27	1
Benzo[a]pyrene	0.0000755	U	0.000472	0.0000755	mg/L		02/06/13 15:00	02/15/13 06:27	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Phenol-d6	10		10 - 94	02/06/13 15:00	02/15/13 06:27	1
2,4,6-Tribromophenol	45		10 - 123	02/06/13 15:00	02/15/13 06:27	1
2-Fluorobiphenyl	54		43 - 116	02/06/13 15:00	02/15/13 06:27	1
2-Fluorophenol	20		10 - 100	02/06/13 15:00	02/15/13 06:27	1
Nitrobenzene-d5	48		35 - 114	02/06/13 15:00	02/15/13 06:27	1
Terphenyl-d14	55		33 - 141	02/06/13 15:00	02/15/13 06:27	1

Client Sample ID: WG-1620-MW59B-20130131

Lab Sample ID: 600-67921-14

Date Collected: 01/31/13 11:25

Matrix: Water

Date Received: 01/31/13 14:16

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	0.000110	U	0.00200	0.000110	mg/L			02/02/13 18:37	1
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			02/02/13 18:37	1
Benzene	0.0000800	U	0.00100	0.0000800	mg/L			02/02/13 18:37	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			02/02/13 18:37	1
Toluene	0.000150	U	0.00100	0.000150	mg/L			02/02/13 18:37	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			02/02/13 18:37	1
Ethylbenzene	0.000110	U	0.00100	0.000110	mg/L			02/02/13 18:37	1
Xylenes, Total	0.000260	U	0.00300	0.000260	mg/L			02/02/13 18:37	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	97		67 - 139		02/02/13 18:37	1
Dibromofluoromethane	77		62 - 130		02/02/13 18:37	1
Toluene-d8 (Surr)	85		70 - 130		02/02/13 18:37	1
1,2-Dichloroethane-d4 (Surr)	84		50 - 134		02/02/13 18:37	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-67921-1

Client Sample ID: WG-1620-MW59B-20130131

Lab Sample ID: 600-67921-14

Date Collected: 01/31/13 11:25

Matrix: Water

Date Received: 01/31/13 14:16

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.0000377	U	0.000472	0.0000377	mg/L		02/06/13 15:00	02/15/13 06:53	1
Nitrobenzene	0.000104	U	0.000472	0.000104	mg/L		02/06/13 15:00	02/15/13 06:53	1
2,4-Dimethylphenol	0.000292	U	0.000472	0.000292	mg/L		02/06/13 15:00	02/15/13 06:53	1
Bis(2-chloroethoxy)methane	0.000123	U	0.000472	0.000123	mg/L		02/06/13 15:00	02/15/13 06:53	1
Naphthalene	0.000269	J b	0.00472	0.0000755	mg/L		02/06/13 15:00	02/15/13 06:53	1
2-Methylnaphthalene	0.0000660	U	0.000472	0.0000660	mg/L		02/06/13 15:00	02/15/13 06:53	1
2-Chloronaphthalene	0.0000755	U	0.000472	0.0000755	mg/L		02/06/13 15:00	02/15/13 06:53	1
Acenaphthylene	0.0000566	U	0.000472	0.0000566	mg/L		02/06/13 15:00	02/15/13 06:53	1
2,6-Dinitrotoluene	0.0000755	U	0.000472	0.0000755	mg/L		02/06/13 15:00	02/15/13 06:53	1
Acenaphthene	0.0000755	U	0.000472	0.0000755	mg/L		02/06/13 15:00	02/15/13 06:53	1
4-Nitrophenol	0.000528	U	0.000943	0.000528	mg/L		02/06/13 15:00	02/15/13 06:53	1
Dibenzofuran	0.0000755	U	0.000472	0.0000755	mg/L		02/06/13 15:00	02/15/13 06:53	1
2,4-Dinitrotoluene	0.000123	U	0.000472	0.000123	mg/L		02/06/13 15:00	02/15/13 06:53	1
Fluorene	0.0000660	U	0.000472	0.0000660	mg/L		02/06/13 15:00	02/15/13 06:53	1
4,6-Dinitro-2-methylphenol	0.000783	U	0.000943	0.000783	mg/L		02/06/13 15:00	02/15/13 06:53	1
N-Nitrosodiphenylamine	0.0000943	U	0.000472	0.0000943	mg/L		02/06/13 15:00	02/15/13 06:53	1
1,2-Diphenylhydrazine	0.000104	U	0.000472	0.000104	mg/L		02/06/13 15:00	02/15/13 06:53	1
Pentachlorophenol	0.000575	U	0.000943	0.000575	mg/L		02/06/13 15:00	02/15/13 06:53	1
Phenanthrene	0.0000566	U	0.000472	0.0000566	mg/L		02/06/13 15:00	02/15/13 06:53	1
Anthracene	0.0000472	U	0.000472	0.0000472	mg/L		02/06/13 15:00	02/15/13 06:53	1
Di-n-butyl phthalate	0.000104	U	0.000472	0.000104	mg/L		02/06/13 15:00	02/15/13 06:53	1
Fluoranthene	0.0000660	U	0.000472	0.0000660	mg/L		02/06/13 15:00	02/15/13 06:53	1
Pyrene	0.000104	U	0.000472	0.000104	mg/L		02/06/13 15:00	02/15/13 06:53	1
Benzo[a]anthracene	0.0000755	U	0.000472	0.0000755	mg/L		02/06/13 15:00	02/15/13 06:53	1
Bis(2-ethylhexyl) phthalate	0.000349	U	0.000472	0.000349	mg/L		02/06/13 15:00	02/15/13 06:53	1
Chrysene	0.0000755	U	0.000472	0.0000755	mg/L		02/06/13 15:00	02/15/13 06:53	1
Benzo[a]pyrene	0.0000755	U	0.000472	0.0000755	mg/L		02/06/13 15:00	02/15/13 06:53	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Phenol-d6	10		10 - 94	02/06/13 15:00	02/15/13 06:53	1
2,4,6-Tribromophenol	44		10 - 123	02/06/13 15:00	02/15/13 06:53	1
2-Fluorobiphenyl	48		43 - 116	02/06/13 15:00	02/15/13 06:53	1
2-Fluorophenol	22		10 - 100	02/06/13 15:00	02/15/13 06:53	1
Nitrobenzene-d5	51		35 - 114	02/06/13 15:00	02/15/13 06:53	1
Terphenyl-d14	53		33 - 141	02/06/13 15:00	02/15/13 06:53	1

Client Sample ID: WG-1620-TB01-20130131

Lab Sample ID: 600-67921-15

Date Collected: 01/31/13 00:00

Matrix: Water

Date Received: 01/31/13 14:16

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			02/01/13 13:21	1
Benzene	0.0000800	U	0.00100	0.0000800	mg/L			02/01/13 13:21	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			02/01/13 13:21	1
Toluene	0.000150	U	0.00100	0.000150	mg/L			02/01/13 13:21	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			02/01/13 13:21	1
Ethylbenzene	0.000110	U	0.00100	0.000110	mg/L			02/01/13 13:21	1
Xylenes, Total	0.000260	U	0.00300	0.000260	mg/L			02/01/13 13:21	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-67921-1

Client Sample ID: WG-1620-TB01-20130131

Lab Sample ID: 600-67921-15

Date Collected: 01/31/13 00:00

Matrix: Water

Date Received: 01/31/13 14:16

<i>Surrogate</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
4-Bromofluorobenzene	95		67 - 139		02/01/13 13:21	1
Dibromofluoromethane	80		62 - 130		02/01/13 13:21	1
Toluene-d8 (Surr)	88		70 - 130		02/01/13 13:21	1
1,2-Dichloroethane-d4 (Surr)	82		50 - 134		02/01/13 13:21	1

Definitions/Glossary

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-67921-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
U	Analyte was not detected at or above the SDL.
J	Result is less than the MQL but greater than or equal to the SDL and the concentration is an estimated value.

GC/MS Semi VOA

Qualifier	Qualifier Description
U	Analyte was not detected at or above the SDL.
X	Surrogate is outside control limits
b	The compound was found in the blank and sample
J	Result is less than the MQL but greater than or equal to the SDL and the concentration is an estimated value.
N	MS, MSD: Spike recovery exceeds upper or lower control limits.
4	MS, MSD: The analyte present in the original sample is 4 times greater than the matrix spike concentration; therefore, control limits are not applicable.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Surrogate Summary

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-67921-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		BFB (67-139)	DBFM (62-130)	TOL (70-130)	12DCE (50-134)
600-67921-1	WG-1620-MW20A-20130130	93	92	86	107
600-67921-1 - DL	WG-1620-MW20A-20130130	92	100	91	103
600-67921-2	WG-1620-MW73B-20130130	86	100	93	103
600-67921-3	WG-1620-MW16-20130130	89	101	87	102
600-67921-4	WG-1620-MW55A-20130130	85	98	91	102
600-67921-4 MS	WG-1620-MW55A-20130130	93	102	92	107
600-67921-4 MSD	WG-1620-MW55A-20130130	92	100	89	110
600-67921-5	WG-1620-MW55B-20130130	87	97	90	105
600-67921-6	WG-1620-MW15A-20130130	86	99	91	105
600-67921-7	WG-1620-MW15B-20130130	84	100	91	100
600-67921-8	WG-1620-MW15C-20130130	90	101	91	97
600-67921-9	WG-1620-FB1-20130130	99	77	85	85
600-67921-10	WG-1620-MW36B-20130131	96	82	87	86
600-67921-11	WG-1620-MW36A-20130131	98	79	85	87
600-67921-12	WG-1620-MW48C-20130131	98	81	86	87
600-67921-13	WG-1620-MW59A-20130131	105	81	85	88
600-67921-14	WG-1620-MW59B-20130131	97	77	85	84
600-67921-15	WG-1620-TB01-20130131	95	80	88	82
LCS 600-98720/4	Lab Control Sample	94	103	96	107
LCS 600-98752/4	Lab Control Sample	93	84	84	83
LCS 600-98764/4	Lab Control Sample	98	85	89	88
LCS 600-98838/4	Lab Control Sample	95	102	96	107
MB 600-98720/6	Method Blank	92	101	96	100
MB 600-98752/6	Method Blank	98	78	88	80
MB 600-98764/6	Method Blank	98	80	86	84
MB 600-98838/3	Method Blank	90	98	96	100

Surrogate Legend

- BFB = 4-Bromofluorobenzene
- DBFM = Dibromofluoromethane
- TOL = Toluene-d8 (Surr)
- 12DCE = 1,2-Dichloroethane-d4 (Surr)

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)					
		PHL (10-94)	TBP (10-123)	FBP (43-116)	2FP (10-100)	NBZ (35-114)	TPH (33-141)
600-67921-1	WG-1620-MW20A-20130130	0 X	0 X	0 X	0 X	0 X	0 X
600-67921-1 - DL	WG-1620-MW20A-20130130	0 X	0 X	0 X	0 X	0 X	0 X
600-67921-1 MS	WG-1620-MW20A-20130130	0 X	0 X	0 X	0 X	0 X	0 X
600-67921-1 MSD	WG-1620-MW20A-20130130	0 X	0 X	0 X	0 X	0 X	0 X
600-67921-2	WG-1620-MW73B-20130130	18	59	67	30	69	67
600-67921-3	WG-1620-MW16-20130130	13	70	67	25	113	70
600-67921-3 - DL	WG-1620-MW16-20130130	0 X	0 X	0 X	0 X	0 X	0 X
600-67921-4	WG-1620-MW55A-20130130	15	56	57	24	56	65
600-67921-4 - DL2	WG-1620-MW55A-20130130	0 X	34	60	0 X	74	75
600-67921-5	WG-1620-MW55B-20130130	0 X	0 X	0 X	0 X	0 X	0 X

TestAmerica Houston

Surrogate Summary

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-67921-1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)					
		PHL (10-94)	TBP (10-123)	FBP (43-116)	2FP (10-100)	NBZ (35-114)	TPH (33-141)
600-67921-5 - DL	WG-1620-MW55B-20130130	0 X	0 X	0 X	0 X	0 X	0 X
600-67921-6	WG-1620-MW15A-20130130	13	48	61	22	58	64
600-67921-6 - DL	WG-1620-MW15A-20130130	0 X	0 X	0 X	0 X	0 X	0 X
600-67921-7	WG-1620-MW15B-20130130	18	68	76	33	72	76
600-67921-7 - DL	WG-1620-MW15B-20130130	0 X	0 X	0 X	0 X	0 X	0 X
600-67921-8	WG-1620-MW15C-20130130	0 X	0 X	0 X	0 X	0 X	0 X
600-67921-8 - DL	WG-1620-MW15C-20130130	0 X	0 X	0 X	0 X	0 X	0 X
600-67921-8 - DL2	WG-1620-MW15C-20130130	0 X	0 X	0 X	0 X	0 X	0 X
600-67921-9	WG-1620-FB1-20130130	10	49	63	26	59	67
600-67921-10	WG-1620-MW36B-20130131	11	42	52	19	50	58
600-67921-11	WG-1620-MW36A-20130131	11	31	55	20	55	64
600-67921-12	WG-1620-MW48C-20130131	13	41	62	25	58	67
600-67921-13	WG-1620-MW59A-20130131	10	45	54	20	48	55
600-67921-14	WG-1620-MW59B-20130131	10	44	48	22	51	53
LCS 600-98988/2-A	Lab Control Sample	18	72	72	31	64	71
MB 600-98988/1-A	Method Blank	11	43	63	21	52	59

Surrogate Legend

- PHL = Phenol-d6
- TBP = 2,4,6-Tribromophenol
- FBP = 2-Fluorobiphenyl
- 2FP = 2-Fluorophenol
- NBZ = Nitrobenzene-d5
- TPH = Terphenyl-d14

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-67921-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 600-98720/6

Matrix: Water

Analysis Batch: 98720

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB MB		MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			02/01/13 12:07	1
Benzene	0.0000800	U	0.00100	0.0000800	mg/L			02/01/13 12:07	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			02/01/13 12:07	1
Toluene	0.000150	U	0.00100	0.000150	mg/L			02/01/13 12:07	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			02/01/13 12:07	1
Ethylbenzene	0.000110	U	0.00100	0.000110	mg/L			02/01/13 12:07	1
Xylenes, Total	0.000260	U	0.00300	0.000260	mg/L			02/01/13 12:07	1

Surrogate	MB MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
4-Bromofluorobenzene	92		67 - 139		02/01/13 12:07	1
Dibromofluoromethane	101		62 - 130		02/01/13 12:07	1
Toluene-d8 (Surr)	96		70 - 130		02/01/13 12:07	1
1,2-Dichloroethane-d4 (Surr)	100		50 - 134		02/01/13 12:07	1

Lab Sample ID: LCS 600-98720/4

Matrix: Water

Analysis Batch: 98720

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS LCS		Unit	D	%Rec	%Rec. Limits
		Result	Qualifier				
Methylene Chloride	0.0100	0.009289		mg/L		93	62 - 134
Benzene	0.0100	0.01073		mg/L		107	69 - 131
1,2-Dichloroethane	0.0100	0.01063		mg/L		106	66 - 140
Toluene	0.0100	0.01068		mg/L		107	67 - 130
Chlorobenzene	0.0100	0.01094		mg/L		109	60 - 136
Ethylbenzene	0.0100	0.01021		mg/L		102	68 - 128
Xylenes, Total	0.0300	0.03230		mg/L		108	68 - 132

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene	94		67 - 139
Dibromofluoromethane	103		62 - 130
Toluene-d8 (Surr)	96		70 - 130
1,2-Dichloroethane-d4 (Surr)	107		50 - 134

Lab Sample ID: MB 600-98752/6

Matrix: Water

Analysis Batch: 98752

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB MB		MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			02/01/13 12:53	1
Benzene	0.0000800	U	0.00100	0.0000800	mg/L			02/01/13 12:53	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			02/01/13 12:53	1
Toluene	0.000150	U	0.00100	0.000150	mg/L			02/01/13 12:53	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			02/01/13 12:53	1
Ethylbenzene	0.000110	U	0.00100	0.000110	mg/L			02/01/13 12:53	1
Xylenes, Total	0.000260	U	0.00300	0.000260	mg/L			02/01/13 12:53	1

TestAmerica Houston

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-67921-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 600-98752/6

Matrix: Water

Analysis Batch: 98752

Client Sample ID: Method Blank

Prep Type: Total/NA

<i>Surrogate</i>	<i>MB</i> <i>%Recovery</i>	<i>MB</i> <i>Qualifier</i>	<i>Limits</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
4-Bromofluorobenzene	98		67 - 139		02/01/13 12:53	1
Dibromofluoromethane	78		62 - 130		02/01/13 12:53	1
Toluene-d8 (Surr)	88		70 - 130		02/01/13 12:53	1
1,2-Dichloroethane-d4 (Surr)	80		50 - 134		02/01/13 12:53	1

Lab Sample ID: LCS 600-98752/4

Matrix: Water

Analysis Batch: 98752

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

<i>Analyte</i>	<i>Spike</i> <i>Added</i>	<i>LCS</i> <i>Result</i>	<i>LCS</i> <i>Qualifier</i>	<i>Unit</i>	<i>D</i>	<i>%Rec</i>	<i>%Rec.</i> <i>Limits</i>
Methylene Chloride	0.0100	0.009245		mg/L		92	62 - 134
Benzene	0.0100	0.009626		mg/L		96	69 - 131
1,2-Dichloroethane	0.0100	0.01005		mg/L		100	66 - 140
Toluene	0.0100	0.009467		mg/L		95	67 - 130
Chlorobenzene	0.0100	0.01003		mg/L		100	60 - 136
Ethylbenzene	0.0100	0.009309		mg/L		93	68 - 128
Xylenes, Total	0.0300	0.02949		mg/L		98	68 - 132

<i>Surrogate</i>	<i>LCS</i> <i>%Recovery</i>	<i>LCS</i> <i>Qualifier</i>	<i>Limits</i>
4-Bromofluorobenzene	93		67 - 139
Dibromofluoromethane	84		62 - 130
Toluene-d8 (Surr)	84		70 - 130
1,2-Dichloroethane-d4 (Surr)	83		50 - 134

Lab Sample ID: MB 600-98764/6

Matrix: Water

Analysis Batch: 98764

Client Sample ID: Method Blank

Prep Type: Total/NA

<i>Analyte</i>	<i>MB</i> <i>Result</i>	<i>MB</i> <i>Qualifier</i>	<i>MQL (Adj)</i>	<i>SDL</i>	<i>Unit</i>	<i>D</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
Vinyl chloride	0.000110	U	0.00200	0.000110	mg/L			02/02/13 12:27	1
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			02/02/13 12:27	1
Benzene	0.0000800	U	0.00100	0.0000800	mg/L			02/02/13 12:27	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			02/02/13 12:27	1
Toluene	0.000150	U	0.00100	0.000150	mg/L			02/02/13 12:27	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			02/02/13 12:27	1
Ethylbenzene	0.000110	U	0.00100	0.000110	mg/L			02/02/13 12:27	1
Xylenes, Total	0.000260	U	0.00300	0.000260	mg/L			02/02/13 12:27	1

<i>Surrogate</i>	<i>MB</i> <i>%Recovery</i>	<i>MB</i> <i>Qualifier</i>	<i>Limits</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
4-Bromofluorobenzene	98		67 - 139		02/02/13 12:27	1
Dibromofluoromethane	80		62 - 130		02/02/13 12:27	1
Toluene-d8 (Surr)	86		70 - 130		02/02/13 12:27	1
1,2-Dichloroethane-d4 (Surr)	84		50 - 134		02/02/13 12:27	1

TestAmerica Houston

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-67921-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 600-98764/4

Matrix: Water

Analysis Batch: 98764

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Vinyl chloride	0.0100	0.006764		mg/L		68	47 - 146
Methylene Chloride	0.0100	0.01046		mg/L		105	62 - 134
Benzene	0.0100	0.01005		mg/L		101	69 - 131
1,2-Dichloroethane	0.0100	0.01059		mg/L		106	66 - 140
Toluene	0.0100	0.009684		mg/L		97	67 - 130
Chlorobenzene	0.0100	0.01004		mg/L		100	60 - 136
Ethylbenzene	0.0100	0.009623		mg/L		96	68 - 128
Xylenes, Total	0.0300	0.02960		mg/L		99	68 - 132

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene	98		67 - 139
Dibromofluoromethane	85		62 - 130
Toluene-d8 (Surr)	89		70 - 130
1,2-Dichloroethane-d4 (Surr)	88		50 - 134

Lab Sample ID: MB 600-98838/3

Matrix: Water

Analysis Batch: 98838

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			02/04/13 10:36	1
Benzene	0.0000800	U	0.00100	0.0000800	mg/L			02/04/13 10:36	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			02/04/13 10:36	1
Toluene	0.000150	U	0.00100	0.000150	mg/L			02/04/13 10:36	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			02/04/13 10:36	1
Ethylbenzene	0.000110	U	0.00100	0.000110	mg/L			02/04/13 10:36	1
Xylenes, Total	0.000260	U	0.00300	0.000260	mg/L			02/04/13 10:36	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	90		67 - 139		02/04/13 10:36	1
Dibromofluoromethane	98		62 - 130		02/04/13 10:36	1
Toluene-d8 (Surr)	96		70 - 130		02/04/13 10:36	1
1,2-Dichloroethane-d4 (Surr)	100		50 - 134		02/04/13 10:36	1

Lab Sample ID: LCS 600-98838/4

Matrix: Water

Analysis Batch: 98838

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Methylene Chloride	0.0100	0.006998		mg/L		70	62 - 134
Benzene	0.0100	0.01077		mg/L		108	69 - 131
1,2-Dichloroethane	0.0100	0.01085		mg/L		109	66 - 140
Toluene	0.0100	0.01059		mg/L		106	67 - 130
Chlorobenzene	0.0100	0.01073		mg/L		107	60 - 136
Ethylbenzene	0.0100	0.01004		mg/L		100	68 - 128
Xylenes, Total	0.0300	0.03150		mg/L		105	68 - 132

TestAmerica Houston

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-67921-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 600-98838/4

Matrix: Water

Analysis Batch: 98838

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

<i>Surrogate</i>	<i>LCS</i> %Recovery	<i>LCS</i> Qualifier	<i>Limits</i>
4-Bromofluorobenzene	95		67 - 139
Dibromofluoromethane	102		62 - 130
Toluene-d8 (Surr)	96		70 - 130
1,2-Dichloroethane-d4 (Surr)	107		50 - 134

Lab Sample ID: 600-67921-4 MS

Matrix: Water

Analysis Batch: 98838

Client Sample ID: WG-1620-MW55A-20130130

Prep Type: Total/NA

<i>Analyte</i>	<i>Sample</i> Result	<i>Sample</i> Qualifier	<i>Spike</i> Added	<i>MS</i> Result	<i>MS</i> Qualifier	<i>Unit</i>	<i>D</i>	<i>%Rec</i>	<i>%Rec.</i> Limits
Methylene Chloride	0.00300	U	0.200	0.1455		mg/L		73	60 - 140
Benzene	0.133		0.200	0.3538		mg/L		111	65 - 125
1,2-Dichloroethane	0.00280	U	0.200	0.2180		mg/L		109	60 - 140
Toluene	0.385		0.200	0.5883		mg/L		101	76 - 125
Chlorobenzene	0.00240	U	0.200	0.2156		mg/L		108	72 - 122
Ethylbenzene	0.228		0.200	0.4295		mg/L		101	60 - 140
Xylenes, Total	0.575		0.600	1.196		mg/L		103	60 - 140

<i>Surrogate</i>	<i>MS</i> %Recovery	<i>MS</i> Qualifier	<i>Limits</i>
4-Bromofluorobenzene	93		67 - 139
Dibromofluoromethane	102		62 - 130
Toluene-d8 (Surr)	92		70 - 130
1,2-Dichloroethane-d4 (Surr)	107		50 - 134

Lab Sample ID: 600-67921-4 MSD

Matrix: Water

Analysis Batch: 98838

Client Sample ID: WG-1620-MW55A-20130130

Prep Type: Total/NA

<i>Analyte</i>	<i>Sample</i> Result	<i>Sample</i> Qualifier	<i>Spike</i> Added	<i>MSD</i> Result	<i>MSD</i> Qualifier	<i>Unit</i>	<i>D</i>	<i>%Rec</i>	<i>%Rec.</i> Limits	<i>RPD</i>	<i>Limit</i>
Methylene Chloride	0.00300	U	0.200	0.1586		mg/L		79	60 - 140	9	30
Benzene	0.133		0.200	0.3516		mg/L		109	65 - 125	1	30
1,2-Dichloroethane	0.00280	U	0.200	0.2223		mg/L		111	60 - 140	2	30
Toluene	0.385		0.200	0.5950		mg/L		105	76 - 125	1	30
Chlorobenzene	0.00240	U	0.200	0.2213		mg/L		111	72 - 122	3	30
Ethylbenzene	0.228		0.200	0.4351		mg/L		104	60 - 140	1	30
Xylenes, Total	0.575		0.600	1.221		mg/L		108	60 - 140	2	30

<i>Surrogate</i>	<i>MSD</i> %Recovery	<i>MSD</i> Qualifier	<i>Limits</i>
4-Bromofluorobenzene	92		67 - 139
Dibromofluoromethane	100		62 - 130
Toluene-d8 (Surr)	89		70 - 130
1,2-Dichloroethane-d4 (Surr)	110		50 - 134

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-67921-1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Lab Sample ID: MB 600-98988/1-A

Matrix: Water

Analysis Batch: 99614

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 98988

Analyte	MB Result	MB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.0000400	U	0.000500	0.0000400	mg/L		02/06/13 15:00	02/14/13 14:46	1
Nitrobenzene	0.000110	U	0.000500	0.000110	mg/L		02/06/13 15:00	02/14/13 14:46	1
2,4-Dimethylphenol	0.000310	U	0.000500	0.000310	mg/L		02/06/13 15:00	02/14/13 14:46	1
Bis(2-chloroethoxy)methane	0.000130	U	0.000500	0.000130	mg/L		02/06/13 15:00	02/14/13 14:46	1
Naphthalene	0.001776	J	0.00500	0.0000800	mg/L		02/06/13 15:00	02/14/13 14:46	1
2-Methylnaphthalene	0.0006201		0.000500	0.0000700	mg/L		02/06/13 15:00	02/14/13 14:46	1
2-Chloronaphthalene	0.0000800	U	0.000500	0.0000800	mg/L		02/06/13 15:00	02/14/13 14:46	1
Acenaphthylene	0.0000600	U	0.000500	0.0000600	mg/L		02/06/13 15:00	02/14/13 14:46	1
2,6-Dinitrotoluene	0.0000800	U	0.000500	0.0000800	mg/L		02/06/13 15:00	02/14/13 14:46	1
Acenaphthene	0.0001370	J	0.000500	0.0000800	mg/L		02/06/13 15:00	02/14/13 14:46	1
4-Nitrophenol	0.000560	U	0.00100	0.000560	mg/L		02/06/13 15:00	02/14/13 14:46	1
Dibenzofuran	0.0004397	J	0.000500	0.0000800	mg/L		02/06/13 15:00	02/14/13 14:46	1
2,4-Dinitrotoluene	0.000130	U	0.000500	0.000130	mg/L		02/06/13 15:00	02/14/13 14:46	1
Fluorene	0.0001424	J	0.000500	0.0000700	mg/L		02/06/13 15:00	02/14/13 14:46	1
4,6-Dinitro-2-methylphenol	0.000830	U	0.00100	0.000830	mg/L		02/06/13 15:00	02/14/13 14:46	1
N-Nitrosodiphenylamine	0.000100	U	0.000500	0.000100	mg/L		02/06/13 15:00	02/14/13 14:46	1
1,2-Diphenylhydrazine	0.000110	U	0.000500	0.000110	mg/L		02/06/13 15:00	02/14/13 14:46	1
Pentachlorophenol	0.000610	U	0.00100	0.000610	mg/L		02/06/13 15:00	02/14/13 14:46	1
Phenanthrene	0.0002320	J	0.000500	0.0000600	mg/L		02/06/13 15:00	02/14/13 14:46	1
Anthracene	0.0000500	U	0.000500	0.0000500	mg/L		02/06/13 15:00	02/14/13 14:46	1
Di-n-butyl phthalate	0.000110	U	0.000500	0.000110	mg/L		02/06/13 15:00	02/14/13 14:46	1
Fluoranthene	0.0000700	U	0.000500	0.0000700	mg/L		02/06/13 15:00	02/14/13 14:46	1
Pyrene	0.000110	U	0.000500	0.000110	mg/L		02/06/13 15:00	02/14/13 14:46	1
Benzo[a]anthracene	0.0000800	U	0.000500	0.0000800	mg/L		02/06/13 15:00	02/14/13 14:46	1
Bis(2-ethylhexyl) phthalate	0.0007522		0.000500	0.000370	mg/L		02/06/13 15:00	02/14/13 14:46	1
Chrysene	0.0000800	U	0.000500	0.0000800	mg/L		02/06/13 15:00	02/14/13 14:46	1
Benzo[a]pyrene	0.0000800	U	0.000500	0.0000800	mg/L		02/06/13 15:00	02/14/13 14:46	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Phenol-d6	11		10 - 94	02/06/13 15:00	02/14/13 14:46	1
2,4,6-Tribromophenol	43		10 - 123	02/06/13 15:00	02/14/13 14:46	1
2-Fluorobiphenyl	63		43 - 116	02/06/13 15:00	02/14/13 14:46	1
2-Fluorophenol	21		10 - 100	02/06/13 15:00	02/14/13 14:46	1
Nitrobenzene-d5	52		35 - 114	02/06/13 15:00	02/14/13 14:46	1
Terphenyl-d14	59		33 - 141	02/06/13 15:00	02/14/13 14:46	1

Lab Sample ID: LCS 600-98988/2-A

Matrix: Water

Analysis Batch: 99614

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 98988

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Phenol	0.0100	0.002346		mg/L		23	11 - 112
Nitrobenzene	0.0100	0.006982		mg/L		70	42 - 119
2,4-Dimethylphenol	0.0100	0.005931		mg/L		59	36 - 109
Bis(2-chloroethoxy)methane	0.0100	0.005678		mg/L		57	42 - 119
Naphthalene	0.0100	0.007187		mg/L		72	39 - 120
2-Methylnaphthalene	0.0100	0.007276		mg/L		73	40 - 121
2-Chloronaphthalene	0.0100	0.006873		mg/L		69	43 - 120

TestAmerica Houston

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-67921-1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Lab Sample ID: LCS 600-98988/2-A

Matrix: Water

Analysis Batch: 99614

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 98988

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits	
Acenaphthylene	0.0100	0.007131		mg/L		71	35 - 135	
2,6-Dinitrotoluene	0.0100	0.007472		mg/L		75	45 - 122	
Acenaphthene	0.0100	0.007114		mg/L		71	47 - 145	
4-Nitrophenol	0.0100	0.002240		mg/L		22	14 - 132	
Dibenzofuran	0.0100	0.007313		mg/L		73	46 - 123	
2,4-Dinitrotoluene	0.0100	0.007798		mg/L		78	43 - 128	
Fluorene	0.0100	0.007677		mg/L		77	48 - 127	
4,6-Dinitro-2-methylphenol	0.0100	0.007424		mg/L		74	24 - 122	
N-Nitrosodiphenylamine	0.0100	0.007225		mg/L		72	43 - 107	
1,2-Diphenylhydrazine	0.0100	0.006260		mg/L		63	47 - 117	
Pentachlorophenol	0.0100	0.004816		mg/L		48	9 - 147	
Phenanthrene	0.0100	0.007481		mg/L		75	52 - 121	
Anthracene	0.0100	0.007024		mg/L		70	53 - 124	
Di-n-butyl phthalate	0.0100	0.007507		mg/L		75	54 - 138	
Fluoranthene	0.0100	0.007806		mg/L		78	53 - 127	
Pyrene	0.0100	0.007009		mg/L		70	49 - 121	
Benzo[a]anthracene	0.0100	0.007143		mg/L		71	53 - 122	
Bis(2-ethylhexyl) phthalate	0.0100	0.007116		mg/L		71	47 - 132	
Chrysene	0.0100	0.006907		mg/L		69	49 - 124	
Benzo[a]pyrene	0.0100	0.007419		mg/L		74	50 - 124	

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
Phenol-d6	18		10 - 94
2,4,6-Tribromophenol	72		10 - 123
2-Fluorobiphenyl	72		43 - 116
2-Fluorophenol	31		10 - 100
Nitrobenzene-d5	64		35 - 114
Terphenyl-d14	71		33 - 141

Lab Sample ID: 600-67921-1 MS

Matrix: Water

Analysis Batch: 99712

Client Sample ID: WG-1620-MW20A-20130130

Prep Type: Total/NA

Prep Batch: 98988

Analyte	Sample Result	Sample Qualifier	Spike Added	MS MS		Unit	D	%Rec	%Rec. Limits	
				Result	Qualifier					
Phenol	0.00189	U	0.0189	0.00189	U N	mg/L		0	10 - 62	
Nitrobenzene	0.00519	U	0.0189	0.00519	U N	mg/L		0	37 - 104	
2,4-Dimethylphenol	0.119		0.0189	0.1650	4	mg/L		242	25 - 85	
Bis(2-chloroethoxy)methane	0.00613	U	0.0189	0.00613	U N	mg/L		0	42 - 101	
Naphthalene	1.27		0.0189	1.475	4	mg/L		1078	34 - 99	
2-Methylnaphthalene	0.191	b	0.0189	0.2522	4	mg/L		325	36 - 111	
2-Chloronaphthalene	0.00377	U	0.0189	0.00377	U N	mg/L		0	42 - 100	
Acenaphthylene	0.00283	U	0.0189	0.01166	J	mg/L		62	38 - 115	
2,6-Dinitrotoluene	0.00377	U	0.0189	0.00377	U N	mg/L		0	47 - 118	
Acenaphthene	0.120	b	0.0189	0.1563	4	mg/L		192	46 - 118	
4-Nitrophenol	0.0264	U	0.0189	0.0264	U	mg/L		NC	10 - 100	
Dibenzofuran	0.0799	b	0.0189	0.1081	4	mg/L		149	46 - 110	
2,4-Dinitrotoluene	0.00613	U	0.0189	0.00613	U N	mg/L		0	41 - 125	
Fluorene	0.0661	b	0.0189	0.08790	N	mg/L		116	44 - 112	

TestAmerica Houston

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-67921-1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Lab Sample ID: 600-67921-1 MS

Matrix: Water

Analysis Batch: 99712

Client Sample ID: WG-1620-MW20A-20130130

Prep Type: Total/NA

Prep Batch: 98988

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec. Limits
	Result	Qualifier	Added	Result	Qualifier				
4,6-Dinitro-2-methylphenol	0.0392	U	0.0189	0.0392	U	mg/L		NC	28 - 128
N-Nitrosodiphenylamine	0.00472	U	0.0189	0.00472	U N	mg/L		0	58 - 142
1,2-Diphenylhydrazine	0.00519	U	0.0189	0.00519	U N	mg/L		0	10 - 130
Pentachlorophenol	0.0288	U	0.0189	0.0288	U	mg/L		NC	45 - 155
Phenanthrene	0.0217	J b	0.0189	0.03774		mg/L		85	41 - 117
Anthracene	0.00589	J	0.0189	0.01803	J	mg/L		64	35 - 116
Di-n-butyl phthalate	0.00519	U	0.0189	0.01042	J	mg/L		55	31 - 137
Fluoranthene	0.00330	U	0.0189	0.00330	U N	mg/L		0	14 - 145
Pyrene	0.00519	U	0.0189	0.00519	U N	mg/L		0	28 - 133
Benzo[a]anthracene	0.00377	U	0.0189	0.00377	U N	mg/L		0	24 - 126
Bis(2-ethylhexyl) phthalate	0.0175	U	0.0189	0.0175	U N	mg/L		0	14 - 123
Chrysene	0.00377	U	0.0189	0.00377	U N	mg/L		0	23 - 128
Benzo[a]pyrene	0.00377	U	0.0189	0.00377	U N	mg/L		0	60 - 140

Surrogate	MS %Recovery	MS Qualifier	MS Limits
Phenol-d6	0	X	10 - 94
2,4,6-Tribromophenol	0	X	10 - 123
2-Fluorobiphenyl	0	X	43 - 116
2-Fluorophenol	0	X	10 - 100
Nitrobenzene-d5	0	X	35 - 114
Terphenyl-d14	0	X	33 - 141

Lab Sample ID: 600-67921-1 MSD

Matrix: Water

Analysis Batch: 99712

Client Sample ID: WG-1620-MW20A-20130130

Prep Type: Total/NA

Prep Batch: 98988

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec. Limits	RPD	Limit
	Result	Qualifier	Added	Result	Qualifier						
Phenol	0.00189	U	0.0189	0.00189	U N	mg/L		0	10 - 62	NC	20
Nitrobenzene	0.00519	U	0.0189	0.00519	U N	mg/L		0	37 - 104	NC	20
2,4-Dimethylphenol	0.119		0.0189	0.1611	4	mg/L		221	25 - 85	2	20
Bis(2-chloroethoxy)methane	0.00613	U	0.0189	0.00613	U N	mg/L		0	42 - 101	NC	20
Naphthalene	1.27		0.0189	1.482	4	mg/L		1111	34 - 99	0	20
2-Methylnaphthalene	0.191	b	0.0189	0.2461	4	mg/L		292	36 - 111	2	20
2-Chloronaphthalene	0.00377	U	0.0189	0.00377	U N	mg/L		0	42 - 100	NC	20
Acenaphthylene	0.00283	U	0.0189	0.00283	U N	mg/L		0	38 - 115	NC	20
2,6-Dinitrotoluene	0.00377	U	0.0189	0.00377	U N	mg/L		0	47 - 118	NC	20
Acenaphthene	0.120	b	0.0189	0.1605	4	mg/L		214	46 - 118	3	20
4-Nitrophenol	0.0264	U	0.0189	0.0264	U	mg/L		NC	10 - 100	NC	20
Dibenzofuran	0.0799	b	0.0189	0.1067	4	mg/L		142	46 - 110	1	20
2,4-Dinitrotoluene	0.00613	U	0.0189	0.00613	U N	mg/L		0	41 - 125	NC	20
Fluorene	0.0661	b	0.0189	0.08765	N	mg/L		114	44 - 112	0	20
4,6-Dinitro-2-methylphenol	0.0392	U	0.0189	0.0392	U	mg/L		NC	28 - 128	NC	20
N-Nitrosodiphenylamine	0.00472	U	0.0189	0.00472	U N	mg/L		0	58 - 142	NC	20
1,2-Diphenylhydrazine	0.00519	U	0.0189	0.00519	U N	mg/L		0	10 - 130	NC	20
Pentachlorophenol	0.0288	U	0.0189	0.0288	U	mg/L		NC	45 - 155	NC	20
Phenanthrene	0.0217	J b	0.0189	0.03513		mg/L		71	41 - 117	7	20
Anthracene	0.00589	J	0.0189	0.01698	J	mg/L		59	35 - 116	6	20
Di-n-butyl phthalate	0.00519	U	0.0189	0.00519	U N	mg/L		0	31 - 137	NC	20

TestAmerica Houston

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-67921-1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Lab Sample ID: 600-67921-1 MSD

Matrix: Water

Analysis Batch: 99712

Client Sample ID: WG-1620-MW20A-20130130

Prep Type: Total/NA

Prep Batch: 98988

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.	RPD	Limit
	Result	Qualifier	Added	Result	Qualifier				Limits		
Fluoranthene	0.00330	U	0.0189	0.00330	U N	mg/L		0	14 - 145	NC	20
Pyrene	0.00519	U	0.0189	0.00519	U N	mg/L		0	28 - 133	NC	20
Benzo[a]anthracene	0.00377	U	0.0189	0.00377	U N	mg/L		0	24 - 126	NC	20
Bis(2-ethylhexyl) phthalate	0.0175	U	0.0189	0.0175	U N	mg/L		0	14 - 123	NC	20
Chrysene	0.00377	U	0.0189	0.00377	U N	mg/L		0	23 - 128	NC	20
Benzo[a]pyrene	0.00377	U	0.0189	0.00377	U N	mg/L		0	60 - 140	NC	20

Surrogate	MSD		Limits
	%Recovery	Qualifier	
Phenol-d6	0	X	10 - 94
2,4,6-Tribromophenol	0	X	10 - 123
2-Fluorobiphenyl	0	X	43 - 116
2-Fluorophenol	0	X	10 - 100
Nitrobenzene-d5	0	X	35 - 114
Terphenyl-d14	0	X	33 - 141

Unadjusted Detection Limits

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-67921-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	MQL	MDL	Units	Method
1,2-Dichloroethane	0.00100	0.000140	mg/L	8260B
Benzene	0.00100	0.0000800	mg/L	8260B
Chlorobenzene	0.00100	0.000120	mg/L	8260B
Ethylbenzene	0.00100	0.000110	mg/L	8260B
Methylene Chloride	0.00100	0.000150	mg/L	8260B
Toluene	0.00100	0.000150	mg/L	8260B
Vinyl chloride	0.00200	0.000110	mg/L	8260B
Xylenes, Total	0.00300	0.000260	mg/L	8260B

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	MQL	MDL	Units	Method
1,2-Diphenylhydrazine	0.000500	0.000110	mg/L	8270C LL
2,4-Dimethylphenol	0.000500	0.000310	mg/L	8270C LL
2,4-Dinitrotoluene	0.000500	0.000130	mg/L	8270C LL
2,6-Dinitrotoluene	0.000500	0.0000800	mg/L	8270C LL
2-Chloronaphthalene	0.000500	0.0000800	mg/L	8270C LL
2-Methylnaphthalene	0.000500	0.0000700	mg/L	8270C LL
4,6-Dinitro-2-methylphenol	0.00100	0.000830	mg/L	8270C LL
4-Nitrophenol	0.00100	0.000560	mg/L	8270C LL
Acenaphthene	0.000500	0.0000800	mg/L	8270C LL
Acenaphthylene	0.000500	0.0000600	mg/L	8270C LL
Anthracene	0.000500	0.0000500	mg/L	8270C LL
Benzo[a]anthracene	0.000500	0.0000800	mg/L	8270C LL
Benzo[a]pyrene	0.000500	0.0000800	mg/L	8270C LL
Bis(2-chloroethoxy)methane	0.000500	0.000130	mg/L	8270C LL
Bis(2-ethylhexyl) phthalate	0.000500	0.000370	mg/L	8270C LL
Chrysene	0.000500	0.0000800	mg/L	8270C LL
Dibenzofuran	0.000500	0.0000800	mg/L	8270C LL
Di-n-butyl phthalate	0.000500	0.000110	mg/L	8270C LL
Fluoranthene	0.000500	0.0000700	mg/L	8270C LL
Fluorene	0.000500	0.0000700	mg/L	8270C LL
Naphthalene	0.00500	0.0000800	mg/L	8270C LL
Naphthalene	0.000500	0.0000800	mg/L	8270C LL
Nitrobenzene	0.000500	0.000110	mg/L	8270C LL
N-Nitrosodiphenylamine	0.000500	0.000100	mg/L	8270C LL
Pentachlorophenol	0.00100	0.000610	mg/L	8270C LL
Phenanthrene	0.000500	0.0000600	mg/L	8270C LL
Phenol	0.000500	0.0000400	mg/L	8270C LL
Pyrene	0.000500	0.000110	mg/L	8270C LL

QC Association Summary

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-67921-1

GC/MS VOA

Analysis Batch: 98720

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-67921-5	WG-1620-MW55B-20130130	Total/NA	Water	8260B	
LCS 600-98720/4	Lab Control Sample	Total/NA	Water	8260B	
MB 600-98720/6	Method Blank	Total/NA	Water	8260B	

Analysis Batch: 98752

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-67921-15	WG-1620-TB01-20130131	Total/NA	Water	8260B	
LCS 600-98752/4	Lab Control Sample	Total/NA	Water	8260B	
MB 600-98752/6	Method Blank	Total/NA	Water	8260B	

Analysis Batch: 98764

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-67921-9	WG-1620-FB1-20130130	Total/NA	Water	8260B	
600-67921-10	WG-1620-MW36B-20130131	Total/NA	Water	8260B	
600-67921-11	WG-1620-MW36A-20130131	Total/NA	Water	8260B	
600-67921-12	WG-1620-MW48C-20130131	Total/NA	Water	8260B	
600-67921-13	WG-1620-MW59A-20130131	Total/NA	Water	8260B	
600-67921-14	WG-1620-MW59B-20130131	Total/NA	Water	8260B	
LCS 600-98764/4	Lab Control Sample	Total/NA	Water	8260B	
MB 600-98764/6	Method Blank	Total/NA	Water	8260B	

Analysis Batch: 98838

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-67921-1	WG-1620-MW20A-20130130	Total/NA	Water	8260B	
600-67921-1 - DL	WG-1620-MW20A-20130130	Total/NA	Water	8260B	
600-67921-2	WG-1620-MW73B-20130130	Total/NA	Water	8260B	
600-67921-3	WG-1620-MW16-20130130	Total/NA	Water	8260B	
600-67921-4	WG-1620-MW55A-20130130	Total/NA	Water	8260B	
600-67921-4 MS	WG-1620-MW55A-20130130	Total/NA	Water	8260B	
600-67921-4 MSD	WG-1620-MW55A-20130130	Total/NA	Water	8260B	
600-67921-6	WG-1620-MW15A-20130130	Total/NA	Water	8260B	
600-67921-7	WG-1620-MW15B-20130130	Total/NA	Water	8260B	
600-67921-8	WG-1620-MW15C-20130130	Total/NA	Water	8260B	
LCS 600-98838/4	Lab Control Sample	Total/NA	Water	8260B	
MB 600-98838/3	Method Blank	Total/NA	Water	8260B	

GC/MS Semi VOA

Prep Batch: 98988

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-67921-1	WG-1620-MW20A-20130130	Total/NA	Water	3510C	
600-67921-1 - DL	WG-1620-MW20A-20130130	Total/NA	Water	3510C	
600-67921-1 MS	WG-1620-MW20A-20130130	Total/NA	Water	3510C	
600-67921-1 MSD	WG-1620-MW20A-20130130	Total/NA	Water	3510C	
600-67921-2	WG-1620-MW73B-20130130	Total/NA	Water	3510C	
600-67921-3	WG-1620-MW16-20130130	Total/NA	Water	3510C	
600-67921-3 - DL	WG-1620-MW16-20130130	Total/NA	Water	3510C	
600-67921-4	WG-1620-MW55A-20130130	Total/NA	Water	3510C	
600-67921-4 - DL2	WG-1620-MW55A-20130130	Total/NA	Water	3510C	
600-67921-5	WG-1620-MW55B-20130130	Total/NA	Water	3510C	

TestAmerica Houston

QC Association Summary

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-67921-1

GC/MS Semi VOA (Continued)

Prep Batch: 98988 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-67921-5 - DL	WG-1620-MW55B-20130130	Total/NA	Water	3510C	
600-67921-6	WG-1620-MW15A-20130130	Total/NA	Water	3510C	
600-67921-6 - DL	WG-1620-MW15A-20130130	Total/NA	Water	3510C	
600-67921-7	WG-1620-MW15B-20130130	Total/NA	Water	3510C	
600-67921-7 - DL	WG-1620-MW15B-20130130	Total/NA	Water	3510C	
600-67921-8	WG-1620-MW15C-20130130	Total/NA	Water	3510C	
600-67921-8 - DL	WG-1620-MW15C-20130130	Total/NA	Water	3510C	
600-67921-8 - DL2	WG-1620-MW15C-20130130	Total/NA	Water	3510C	
600-67921-9	WG-1620-FB1-20130130	Total/NA	Water	3510C	
600-67921-10	WG-1620-MW36B-20130131	Total/NA	Water	3510C	
600-67921-11	WG-1620-MW36A-20130131	Total/NA	Water	3510C	
600-67921-12	WG-1620-MW48C-20130131	Total/NA	Water	3510C	
600-67921-13	WG-1620-MW59A-20130131	Total/NA	Water	3510C	
600-67921-14	WG-1620-MW59B-20130131	Total/NA	Water	3510C	
LCS 600-98988/2-A	Lab Control Sample	Total/NA	Water	3510C	
MB 600-98988/1-A	Method Blank	Total/NA	Water	3510C	

Analysis Batch: 99614

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 600-98988/2-A	Lab Control Sample	Total/NA	Water	8270C LL	98988
MB 600-98988/1-A	Method Blank	Total/NA	Water	8270C LL	98988

Analysis Batch: 99633

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-67921-2	WG-1620-MW73B-20130130	Total/NA	Water	8270C LL	98988
600-67921-3	WG-1620-MW16-20130130	Total/NA	Water	8270C LL	98988
600-67921-4	WG-1620-MW55A-20130130	Total/NA	Water	8270C LL	98988
600-67921-6	WG-1620-MW15A-20130130	Total/NA	Water	8270C LL	98988
600-67921-7	WG-1620-MW15B-20130130	Total/NA	Water	8270C LL	98988
600-67921-9	WG-1620-FB1-20130130	Total/NA	Water	8270C LL	98988
600-67921-10	WG-1620-MW36B-20130131	Total/NA	Water	8270C LL	98988
600-67921-11	WG-1620-MW36A-20130131	Total/NA	Water	8270C LL	98988
600-67921-12	WG-1620-MW48C-20130131	Total/NA	Water	8270C LL	98988
600-67921-13	WG-1620-MW59A-20130131	Total/NA	Water	8270C LL	98988
600-67921-14	WG-1620-MW59B-20130131	Total/NA	Water	8270C LL	98988

Analysis Batch: 99712

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-67921-1	WG-1620-MW20A-20130130	Total/NA	Water	8270C LL	98988
600-67921-1 MS	WG-1620-MW20A-20130130	Total/NA	Water	8270C LL	98988
600-67921-1 MSD	WG-1620-MW20A-20130130	Total/NA	Water	8270C LL	98988

Analysis Batch: 99755

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-67921-1 - DL	WG-1620-MW20A-20130130	Total/NA	Water	8270C LL	98988
600-67921-3 - DL	WG-1620-MW16-20130130	Total/NA	Water	8270C LL	98988
600-67921-5	WG-1620-MW55B-20130130	Total/NA	Water	8270C LL	98988
600-67921-6 - DL	WG-1620-MW15A-20130130	Total/NA	Water	8270C LL	98988
600-67921-7 - DL	WG-1620-MW15B-20130130	Total/NA	Water	8270C LL	98988
600-67921-8	WG-1620-MW15C-20130130	Total/NA	Water	8270C LL	98988

TestAmerica Houston

QC Association Summary

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-67921-1

GC/MS Semi VOA (Continued)

Analysis Batch: 99778

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-67921-4 - DL2	WG-1620-MW55A-20130130	Total/NA	Water	8270C LL	98988
600-67921-5 - DL	WG-1620-MW55B-20130130	Total/NA	Water	8270C LL	98988
600-67921-8 - DL	WG-1620-MW15C-20130130	Total/NA	Water	8270C LL	98988

Analysis Batch: 99877

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-67921-8 - DL2	WG-1620-MW15C-20130130	Total/NA	Water	8270C LL	98988

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15
- 16
- 17

Lab Chronicle

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-67921-1

Client Sample ID: WG-1620-MW20A-20130130

Lab Sample ID: 600-67921-1

Date Collected: 01/30/13 09:40

Matrix: Water

Date Received: 01/31/13 14:16

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	98838	02/04/13 14:21	DT	TAL HOU
Total/NA	Analysis	8260B	DL	5	98838	02/04/13 14:49	DT	TAL HOU
Total/NA	Prep	3510C			98988	02/06/13 15:00	RK	TAL HOU
Total/NA	Analysis	8270C LL		50	99712	02/15/13 02:03	JH	TAL HOU
Total/NA	Prep	3510C	DL		98988	02/06/13 15:00	RK	TAL HOU
Total/NA	Analysis	8270C LL	DL	5000	99755	02/16/13 16:28	TTD	TAL HOU

Client Sample ID: WG-1620-MW73B-20130130

Lab Sample ID: 600-67921-2

Date Collected: 01/30/13 10:30

Matrix: Water

Date Received: 01/31/13 14:16

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	98838	02/04/13 12:59	DT	TAL HOU
Total/NA	Prep	3510C			98988	02/06/13 15:00	RK	TAL HOU
Total/NA	Analysis	8270C LL		1	99633	02/15/13 01:31	TTD	TAL HOU

Client Sample ID: WG-1620-MW16-20130130

Lab Sample ID: 600-67921-3

Date Collected: 01/30/13 11:20

Matrix: Water

Date Received: 01/31/13 14:16

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	98838	02/04/13 13:54	DT	TAL HOU
Total/NA	Prep	3510C			98988	02/06/13 15:00	RK	TAL HOU
Total/NA	Analysis	8270C LL		1	99633	02/15/13 01:58	TTD	TAL HOU
Total/NA	Prep	3510C	DL		98988	02/06/13 15:00	RK	TAL HOU
Total/NA	Analysis	8270C LL	DL	100	99755	02/16/13 16:56	TTD	TAL HOU

Client Sample ID: WG-1620-MW55A-20130130

Lab Sample ID: 600-67921-4

Date Collected: 01/30/13 12:10

Matrix: Water

Date Received: 01/31/13 14:16

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		20	98838	02/04/13 12:32	DT	TAL HOU
Total/NA	Prep	3510C			98988	02/06/13 15:00	RK	TAL HOU
Total/NA	Analysis	8270C LL		1	99633	02/15/13 02:25	TTD	TAL HOU
Total/NA	Prep	3510C	DL2		98988	02/06/13 15:00	RK	TAL HOU
Total/NA	Analysis	8270C LL	DL2	10	99778	02/18/13 10:03	TTD	TAL HOU

Lab Chronicle

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-67921-1

Client Sample ID: WG-1620-MW55B-20130130

Lab Sample ID: 600-67921-5

Date Collected: 01/30/13 14:00

Matrix: Water

Date Received: 01/31/13 14:16

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		50	98720	02/01/13 21:15	DT	TAL HOU
Total/NA	Prep	3510C			98988	02/06/13 15:00	RK	TAL HOU
Total/NA	Analysis	8270C LL		100	99755	02/16/13 17:50	TTD	TAL HOU
Total/NA	Prep	3510C	DL		98988	02/06/13 15:00	RK	TAL HOU
Total/NA	Analysis	8270C LL	DL	100	99778	02/18/13 10:31	TTD	TAL HOU

Client Sample ID: WG-1620-MW15A-20130130

Lab Sample ID: 600-67921-6

Date Collected: 01/30/13 15:00

Matrix: Water

Date Received: 01/31/13 14:16

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	98838	02/04/13 13:27	DT	TAL HOU
Total/NA	Prep	3510C			98988	02/06/13 15:00	RK	TAL HOU
Total/NA	Analysis	8270C LL		1	99633	02/15/13 03:19	TTD	TAL HOU
Total/NA	Prep	3510C	DL		98988	02/06/13 15:00	RK	TAL HOU
Total/NA	Analysis	8270C LL	DL	50	99755	02/16/13 18:18	TTD	TAL HOU

Client Sample ID: WG-1620-MW15B-20130130

Lab Sample ID: 600-67921-7

Date Collected: 01/30/13 15:45

Matrix: Water

Date Received: 01/31/13 14:16

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	98838	02/04/13 17:06	DT	TAL HOU
Total/NA	Prep	3510C			98988	02/06/13 15:00	RK	TAL HOU
Total/NA	Analysis	8270C LL		1	99633	02/15/13 03:46	TTD	TAL HOU
Total/NA	Prep	3510C	DL		98988	02/06/13 15:00	RK	TAL HOU
Total/NA	Analysis	8270C LL	DL	50	99755	02/16/13 18:45	TTD	TAL HOU

Client Sample ID: WG-1620-MW15C-20130130

Lab Sample ID: 600-67921-8

Date Collected: 01/30/13 16:40

Matrix: Water

Date Received: 01/31/13 14:16

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	98838	02/04/13 17:33	DT	TAL HOU
Total/NA	Prep	3510C			98988	02/06/13 15:00	RK	TAL HOU
Total/NA	Analysis	8270C LL		100	99755	02/16/13 19:12	TTD	TAL HOU
Total/NA	Prep	3510C	DL		98988	02/06/13 15:00	RK	TAL HOU
Total/NA	Analysis	8270C LL	DL	10000	99778	02/18/13 10:58	TTD	TAL HOU
Total/NA	Prep	3510C	DL2		98988	02/06/13 15:00	RK	TAL HOU
Total/NA	Analysis	8270C LL	DL2	50000	99877	02/18/13 23:50	TTD	TAL HOU

Lab Chronicle

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-67921-1

Client Sample ID: WG-1620-FB1-20130130

Lab Sample ID: 600-67921-9

Date Collected: 01/30/13 17:00

Matrix: Water

Date Received: 01/31/13 14:16

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	98764	02/02/13 16:15	DT	TAL HOU
Total/NA	Prep	3510C			98988	02/06/13 15:00	RK	TAL HOU
Total/NA	Analysis	8270C LL		1	99633	02/15/13 04:40	TTD	TAL HOU

Client Sample ID: WG-1620-MW36B-20130131

Lab Sample ID: 600-67921-10

Date Collected: 01/31/13 07:45

Matrix: Water

Date Received: 01/31/13 14:16

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	98764	02/02/13 16:43	DT	TAL HOU
Total/NA	Prep	3510C			98988	02/06/13 15:00	RK	TAL HOU
Total/NA	Analysis	8270C LL		1	99633	02/15/13 05:07	TTD	TAL HOU

Client Sample ID: WG-1620-MW36A-20130131

Lab Sample ID: 600-67921-11

Date Collected: 01/31/13 08:35

Matrix: Water

Date Received: 01/31/13 14:16

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	98764	02/02/13 17:12	DT	TAL HOU
Total/NA	Prep	3510C			98988	02/06/13 15:00	RK	TAL HOU
Total/NA	Analysis	8270C LL		1	99633	02/15/13 05:33	TTD	TAL HOU

Client Sample ID: WG-1620-MW48C-20130131

Lab Sample ID: 600-67921-12

Date Collected: 01/31/13 09:40

Matrix: Water

Date Received: 01/31/13 14:16

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	98764	02/02/13 17:40	DT	TAL HOU
Total/NA	Prep	3510C			98988	02/06/13 15:00	RK	TAL HOU
Total/NA	Analysis	8270C LL		1	99633	02/15/13 06:00	TTD	TAL HOU

Client Sample ID: WG-1620-MW59A-20130131

Lab Sample ID: 600-67921-13

Date Collected: 01/31/13 10:40

Matrix: Water

Date Received: 01/31/13 14:16

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	98764	02/02/13 18:08	DT	TAL HOU
Total/NA	Prep	3510C			98988	02/06/13 15:00	RK	TAL HOU
Total/NA	Analysis	8270C LL		1	99633	02/15/13 06:27	TTD	TAL HOU

TestAmerica Houston

Lab Chronicle

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-67921-1

Client Sample ID: WG-1620-MW59B-20130131

Lab Sample ID: 600-67921-14

Date Collected: 01/31/13 11:25

Matrix: Water

Date Received: 01/31/13 14:16

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	98764	02/02/13 18:37	DT	TAL HOU
Total/NA	Prep	3510C			98988	02/06/13 15:00	RK	TAL HOU
Total/NA	Analysis	8270C LL		1	99633	02/15/13 06:53	TTD	TAL HOU

Client Sample ID: WG-1620-TB01-20130131

Lab Sample ID: 600-67921-15

Date Collected: 01/31/13 00:00

Matrix: Water

Date Received: 01/31/13 14:16

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	98752	02/01/13 13:21	DT	TAL HOU

Laboratory References:

TAL HOU = TestAmerica Houston, 6310 Rothway Street, Houston, TX 77040, TEL (713)690-4444

Certification Summary

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-67921-1

Laboratory: TestAmerica Houston

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Arkansas DEQ	State Program	6	88-0759	08-04-12
Louisiana	NELAP	6	01967	06-30-13
Oklahoma	State Program	6	9503	08-31-13
Texas	NELAP	6	T104704223-10-6-TX	10-31-13
USDA	Federal		P330-08-00217	04-01-14
Utah	NELAP	8	GULF	10-31-13

20140303

Chain of Custody Record

6570 Rodney Street
Houston, TX 77040
Phone (713) 690-4444 Fax (713) 690-5646

Client Information
 Client Contact: Mr. Eric Matzner
 Company: Pastor, Behling & Wheeler LLC
 Address: 2201 Double Creek Dr Suite 4004
 City: Round Rock
 State, Zip: TX, 78664
 Phone: 512-671-3434 (Tel) 512-671-3446 (Fax)
 Email: eric.matzner@dbwllc.com
 Project Name: UPRR Houston Wood Preserving Wks
 Site: SSOV#:

Sampler: **JOHN BRAYDON**
 Lab P/N: Kuchadkhar, Sachin G
 E-mail: sachin.kuchadkhar@vestamerica.com
 Carrier Tracking No(s):
 COC No: 600-18278-7081.1
 Page: 1 of 2
 Job #:

Due Date Requested:
 TAT Requested (days):
 Purchase Order not required
 WOC #:
 Project #:
 SSOV#:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=soil, A=air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	Analysis Requested	Total Number of containers	Special Instructions/Note:
WG-1620-MW20A-20130130	1-30-13	0940	G	W	X	X			
WG-1620-MW13B-20130130		1030	G	W	X	X			
WG-1620-MW16-20130130		1120	G	W	X	X			
WG-1620-MW55A-20130130		1210	G	W	X	X			
WG-1620-MW55B-20130130		1400	G	W	X	X			
WG-1620-MW15A-20130130		1500	G	W	X	X			
WG-1620-MW15B-20130130		1545	G	W	X	X			
WG-1620-MW15C-20130130		1640	G	W	X	X			
WG-1620-MW15D-20130130		1700	G	W	X	X			
WG-1620-MW36B-20130131	1-31-13	0745	G	W	X	X			
WG-1620-MW36A-20130131		0835	G	W	X	X			

Analysis Requested
 8260-VOCs
 8270-SVOCs
VINYL CHLORIDE

Preservation Codes:
 A - HCL
 B - NaOH
 C - Zn Acetate
 D - Nitric Acid
 E - NaHSO4
 F - MeOH
 G - Anchor
 H - Ascorbic Acid
 I - Ice
 J - DI Water
 K - EDTA
 L - EDA
 M - Hexane
 N - None
 O - AsH2O2
 P - Na2O4S
 Q - Na2SO3
 R - Na2S2O3
 S - H2SO4
 T - TSP Decahydrate
 U - Acetone
 V - MCAA
 W - pH 4-5
 Z - other (specify)

Special Instructions/Note:

Possible Hazard Identification
 Non-Hazard Flammable Skin Irritant Poison B Unknown Radiological

Deliverable Requested: I, II, III, IV, Other (specify):

Empty Kit Relinquished by: _____ Date: _____

Relinquished by: **John Braydon** Date/Time: 1-31-13 14:14 Company: **PBW**

Relinquished by: _____ Date/Time: _____ Company: _____

Relinquished by: _____ Date/Time: _____ Company: _____

Received by: _____ Date/Time: 01/31/13 14:14 Company: **PA**

Received by: _____ Date/Time: _____ Company: _____

Custody Seals Intact: Yes No
 Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks:

TestAmerica Houston
6310 Redway Street
Houston, TX 77040
Phone (713) 690-4444 Fax (713) 690-6646

Chain of Custody Record

Client Information
 Client Contact: Mr. Eric Matzner
 Company: Pastor, Behling & Wheeler LLC
 Address: 2201 Double Creek Dr Suite 4004
 City: Round Rock
 State Zip: TX, 78664
 Phone: 512-671-3434 (Tel) 512-671-3446 (Fax)
 Email: eric.matzner@pbwllc.com
 Project Name: UPRR Houston Wood Preserving Wks
 Site:
 SSOA#:
 Due Date Requested:
 TAT Requested (days):
 PO #:
 Purchase Order not required

Sampler: **JOHN BEAUFORT**
 Lab P/N:
 Kutchadkar Sachin G
 E-Mail: sachin.kutchadkar@testamericainc.com
 Carrier Tracking No(s):
 COC No: 600-18278-7081.1
 Page: 2 of 2
 Job #:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=soil, BT=transp, AA=air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	Analysis Requested	Total Number of containers	Special Instructions/Note:
WG-1120-MW48C-20130131	1-31-13	0940	G	W	X	X	VINYL CHLORIDE		
WG-1120-MW59A-20130131		1040	G	W	X	X			
WG-1120-MW59B-20130131		1125	G	W	X	X			
WG-1120-TB01-20130131			G	W	X	X			

Possible Hazard Identification
 Non-hazard Flammable Skin Irritant Poison B Unknown Radiological
 Deliverable Requested: I, II, III, IV, Other (specify)
 Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
 Return To Client Disposal By Lab Archive For _____ Months
 Special Instructions/QC Requirements:
 Empty Kit Returned by:
 Date:
 Time:
 Method of Shipment:
 Received by:
 Date/Time:
 Company:
 Received by:
 Date/Time:
 Company:
 Cooler Temperature(s) °C and Other Remarks:

Retained by: **Eric Matzner** Date/Time: **1-31-13 14:14** Company: **PRW**
 Retained by: **John Beaufort** Date/Time: **1-31-13 14:14** Company: **PRW**
 Retained by: **John Beaufort** Date/Time: **1-31-13 14:14** Company: **PRW**
 Custody Seals Intact: Yes No
 Custody Seal No.:

Login Sample Receipt Checklist

Client: Pastor, Behling & Wheeler LLC

Job Number: 600-67921-1

Login Number: 67921

List Source: TestAmerica Houston

List Number: 1

Creator: Pulumbarit, Josh

Question	Answer	Comment
Radioactivity wasn't checked or is <=/ background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	4.6 4.8 2.9
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	True	

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Houston
6310 Rothway Street
Houston, TX 77040
Tel: (713)690-4444

TestAmerica Job ID: 600-68161-1

Client Project/Site: 1620 UPRR HWPW

For:

Pastor, Behling & Wheeler LLC
2201 Double Creek Dr
Suite 4004
Round Rock, Texas 78664

Attn: Mr. Eric Matzner



Authorized for release by:
2/25/2013 11:28:44 AM

Cathy Upton
Data Delivery Analyst
cathy.upton@testamericainc.com

Designee for

Sachin Kudchadkar
Project Manager II
sachin.kudchadkar@testamericainc.com

LINKS

Review your project
results through
TotalAccess

Have a Question?



Visit us at:
www.testamericainc.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Table of Contents

Cover Page	1
Table of Contents	2
TRRP Cover Page	3
TRRP Checklists & DCSs	4
Case Narrative	14
Method Summary	15
Sample Summary	16
Client Sample Results	17
Definitions/Glossary	33
Surrogate Summary	34
QC Sample Results	36
Default Detection Limits	43
QC Association Summary	44
Lab Chronicle	46
Certification Summary	49
Chain of Custody	50
Receipt Checklists	52

Job Number: 600-68161-1
Project Name/Number: 1620 UPRR HWPW

This Data Package consists of:

This signature page, the laboratory review checklist, and the following Reportable Data:

- R1 Field Chain-of-Custody Form
- R2 Sample Identification Cross-reference;
- R3 Test Reports (Analytical Data Sheets) for each environmental sample that includes:
 - a) Items consistent with NELAC Chapter 5
 - b) dilution factors,
 - c) preparation methods,
 - d) cleanup methods, and
 - e) if required for the project, tentatively identified compounds (TICs).
- R4 Surrogate Recovery Data including:
 - a) Calculated recovery (%R), and
 - b) The laboratory's surrogate QC limits.
- R5 Test Reports/Summary Forms for Blank Samples;
- R6 Test Reports/Summary Forms for Laboratory Control Samples (LCSs) including:
 - a) LCS spiking amounts,
 - b) Calculated %R for each analyte, and
 - d) The laboratory's LCS QC limits
- R7 Test Reports for Matrix Spike/Matrix Spike Duplicates (MS/MSDs) including:
 - a) Samples associated with the MS/MSD clearly identified,
 - b) MS/MSD spiking amounts,
 - c) Concentration of each MS/MSD analyte measured in the parent and spiked sample,
 - d) Calculated %Rs and relative percent differences (RPDs), and
 - e) The laboratory's MS/MSD QC limits
- R8 Laboratory analytical duplicates (if applicable) recovery and precision, including:
 - a) the amount of analyte measured in the duplicate,
 - b) the calculated RPD, and
 - c) the laboratory's QC limits for analytical duplicates.
- R9 List of method quantitation limit (MQL) and detectability check sample results for each analyte for each method and matrix;
- R10 Other problems or anomalies

The exception report for each "No" or "Not Reviewed (NR)" item in the Laboratory Review Checklist and for each analyte, matrix, and method for which the laboratory does not hold NELAC accreditation under the Texas Laboratory Accreditation Program.

Release Statement: I am responsible for the release of this laboratory data package. This laboratory is NELAC accredited under Texas laboratory Accreditation Program for all the methods, analytes, and matrices reported in this data package except as noted in the Exception Reports. The data have been reviewed and are technically compliant with the requirements of the methods used, except where noted by the laboratory in the Exception Reports. By my signature below, I affirm, to the best of my knowledge, that all problems/anomalies observed by the laboratory have been identified in the Laboratory Review Checklist, and no information affecting the quality of the data has been knowingly withheld.

Cathy Upton
Name (printed)
Data Delivery Analyst
Official Title (printed)


Signature

02/25/2013
Date

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Appendix A (cont'd): Laboratory Review Checklist: Reportable Data							
Laboratory Name: TestAmerica-Houston			LRC Date: 02/14/13				
Project Name: 1620 UPRR HWPW			Laboratory Job Number: 600-68161				
Reviewer Name: YX			Prep Batch Number: 600-99115, 99159 and 99302-VOA				
# ¹	A ²	Description	Yes	No	NA ³	NR ⁴	ER# ⁵
R1	OI	Chain-of-custody (C-O-C)					
		Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?		X			1
		Were all departures from standard conditions described in an exception report?	X				
R2	OI	Sample and quality control (QC) identification					
		Are all field sample ID numbers cross-referenced to the laboratory ID numbers?	X				
		Are all laboratory ID numbers cross-referenced to the corresponding QC data?	X				
R3	OI	Test reports					
		Were all samples prepared and analyzed within holding times?	X				
		Other than those results < MQL, were all other raw values bracketed by calibration standards?	X				
		Were calculations checked by a peer or supervisor?	X				
		Were all analyte identifications checked by a peer or supervisor?	X				
		Were sample detection limits reported for all analytes not detected?	X				
		Were all results for soil and sediment samples reported on a dry weight basis?			X		
		Were % moisture (or solids) reported for all soil and sediment samples?			X		
		Were bulk soil/solid samples for volatile analysis extracted with methanol per SW846 Method 5035?			X		
		If required for the project, TICs reported?			X		
R4	O	Surrogate recovery data					
		Were surrogates added prior to extraction?	X				
		Were surrogate percent recoveries in all samples within the laboratory QC limits?	X				
R5	OI	Test reports/summary forms for blank samples					
		Were appropriate type(s) of blanks analyzed?	X				
		Were blanks analyzed at the appropriate frequency?	X				
		Were method blanks taken through the entire analytical process, including preparation and, if applicable, cleanup procedures?	X				
		Were blank concentrations < MQL?	X				2
R6	OI	Laboratory control samples (LCS):					
		Were all COCs included in the LCS?	X				
		Was each LCS taken through the entire analytical procedure, including prep and cleanup steps?	X				
		Were LCSs analyzed at the required frequency?	X				
		Were LCS (and LCSD, if applicable) %Rs within the laboratory QC limits?	X				
		Does the detectability check sample data document the laboratory's capability to detect the COCs at the MDL used to calculate the SDLs?	X				
		Was the LCSD RPD within QC limits?			X		
R7	OI	Matrix spike (MS) and matrix spike duplicate (MSD) data					
		Were the project/method specified analytes included in the MS and MSD?	X				
		Were MS/MSD analyzed at the appropriate frequency?	X				
		Were MS (and MSD, if applicable) %Rs within the laboratory QC limits?	X				
		Were MS/MSD RPDs within laboratory QC limits?	X				
R8	OI	Analytical duplicate data					
		Were appropriate analytical duplicates analyzed for each matrix?			X		
		Were analytical duplicates analyzed at the appropriate frequency?			X		
		Were RPDs or relative standard deviations within the laboratory QC limits?			X		
R9	OI	Method quantitation limits (MQLs):					
		Are the MQLs for each method analyte included in the laboratory data package?	X				
		Do the MQLs correspond to the concentration of the lowest non-zero calibration standard?	X				
		Are unadjusted MQLs and DCSs included in the laboratory data package?	X				
R10	OI	Other problems/anomalies					
		Are all known problems/anomalies/special conditions noted in this LRC and ER?	X				
		Was applicable and available technology used to lower the SDL to minimize the matrix interference affects on the sample results?	X				3
		Is the laboratory NELAC-accredited under the Texas Laboratory Accreditation Program for the analytes, matrices and methods associated with this laboratory data package?	X				

1. Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.
2. O = organic analyses; I = inorganic analyses (and general chemistry, when applicable);
3. NA = Not applicable;
4. NR = Not reviewed;
5. ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

Appendix A (cont'd): Laboratory Review Checklist: Reportable Data									
Laboratory Name: TestAmerica-Houston					LRC Date: 02/14/13				
Project Name: 1620 UPRR HWPW					Laboratory Job Number: 600-68161				
Reviewer Name: YX					Prep Batch Number: 600-99115, 99159 and 99302-VOA				
# ¹	A ²	Description	Yes	No	NA ³	NR ⁴	ER# ⁵		
S1	OI	Initial calibration (ICAL)							
		Were response factors and/or relative response factors for each analyte within QC limits?	X						
		Were percent RSDs or correlation coefficient criteria met?	X						
		Was the number of standards recommended in the method used for all analytes?	X						
		Were all points generated between the lowest and highest standard used to calculate the curve?	X						
		Are ICAL data available for all instruments used?	X						
		Has the initial calibration curve been verified using an appropriate second source standard?	X						
S2	OI	Initial and continuing calibration verification (ICCV and CCV) and continuing calibration							
		Was the CCV analyzed at the method-required frequency?	X						
		Were percent differences for each analyte within the method-required QC limits?	X						
		Was the ICAL curve verified for each analyte?	X						
		Was the absolute value of the analyte concentration in the inorganic CCB < MDL?			X				
S3	O	Mass spectral tuning:							
		Was the appropriate compound for the method used for tuning?	X						
		Were ion abundance data within the method-required QC limits?	X						
S4	O	Internal standards (IS):							
		Were IS area counts and retention times within the method-required QC limits?	X						
S5	OI	Raw data (NELAC section 5.5.10)							
		Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?	X						
		Were data associated with manual integrations flagged on the raw data?	X						
S6	O	Dual column confirmation							
		Did dual column confirmation results meet the method-required QC?			X				
S7	O	Tentatively identified compounds (TICs):							
		If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?			X				
S8	I	Interference Check Sample (ICS) results:							
		Were percent recoveries within method QC limits?			X				
S9	I	Serial dilutions, post digestion spikes, and method of standard additions							
		Were percent differences, recoveries, and the linearity within the QC limits specified in the method?			X				
S10	OI	Method detection limit (MDL) studies							
		Was a MDL study performed for each reported analyte?	X						
		Is the MDL either adjusted or supported by the analysis of DCSs?	X						
S11	OI	Proficiency test reports:							
		Was the laboratory's performance acceptable on the applicable proficiency tests or evaluation studies?	X						
S12	OI	Standards documentation							
		Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?	X						
S13	OI	Compound/analyte identification procedures							
		Are the procedures for compound/analyte identification documented?	X						
S14	OI	Demonstration of analyst competency (DOC)							
		Was DOC conducted consistent with NELAC Chapter 5?	X						
		Is documentation of the analyst's competency up-to-date and on file?	X						
S15	OI	Verification/validation documentation for methods (NELAC Chapter 5)							
		Are all the methods used to generate the data documented, verified, and validated, where applicable?	X						
S16	OI	Laboratory standard operating procedures (SOPs):							
		Are laboratory SOPs current and on file for each method performed?	X						

- 1 Items identified by the letter "R" should be included in the laboratory data package submitted to the TCEQ in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.
- 2 O = organic analyses; I = inorganic analyses (and general chemistry, when applicable).
- 3 NA = Not applicable.
- 4 NR = Not Reviewed.
- 5 ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

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Appendix A (cont'd): Laboratory Review Checklist: Exception Reports	
Laboratory Name: TestAmerica-Houston	LRC Date: 02/14/13
Project Name: 1620 UPRR HWPW	Laboratory Job Number: 600-68161
Reviewer Name: YX	Prep Batch Number: 600-99115, 99159 and 99302-VOA
ER #¹	DESCRIPTION
1	See Case Narrative.
2	Ethylbenzene was detected above the MDL, but below the MQL in the method blank for batch 600-99115. The level of detection is below the recommended reporting limit and the appropriate flags have been applied to the report.
3	The Ethylbenzene SDL was elevated in sample 600-68191-6 due to the high concentration of this analyte.

ER# = Exception Report identification number (an Exception Report should be completed for an item if “NR” or “No” is checked on the LRC)

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Appendix A (cont'd): Laboratory Review Checklist: Reportable Data							
Laboratory Name: TestAmerica-Houston			LRC Date: 02/19/13				
Project Name: 1620 UPRR HWPW			Laboratory Job Number 600-68161				
Reviewer Name: JOH			Prep Batch Number(s): 600-99141 - SV				
# ¹	A ²	Description	Yes	No	NA ³	NR ⁴	ER# ⁵
R1	OI	Chain-of-custody (C-O-C)					
		Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?		X			1
		Were all departures from standard conditions described in an exception report?	X				
R2	OI	Sample and quality control (QC) identification					
		Are all field sample ID numbers cross-referenced to the laboratory ID numbers?	X				
		Are all laboratory ID numbers cross-referenced to the corresponding QC data?	X				
R3	OI	Test reports					
		Were all samples prepared and analyzed within holding times?	X				
		Other than those results < MQL, were all other raw values bracketed by calibration standards?	X				
		Were calculations checked by a peer or supervisor?	X				
		Were all analyte identifications checked by a peer or supervisor?	X				
		Were sample detection limits reported for all analytes not detected?	X				
		Were all results for soil and sediment samples reported on a dry weight basis?			X		
		Were % moisture (or solids) reported for all soil and sediment samples?			X		
		Were bulk soil/solid samples for volatile analysis extracted with methanol per SW846 Method 5035?			X		
		If required for the project, TICs reported?			X		
R4	O	Surrogate recovery data					
		Were surrogates added prior to extraction?	X				
		Were surrogate percent recoveries in all samples within the laboratory QC limits?		X			2
R5	OI	Test reports/summary forms for blank samples					
		Were appropriate type(s) of blanks analyzed?	X				
		Were blanks analyzed at the appropriate frequency?	X				
		Were method blanks taken through the entire analytical process, including preparation and, if applicable, cleanup procedures?	X				
		Were blank concentrations < MQL?	X				
R6	OI	Laboratory control samples (LCS):					
		Were all COCs included in the LCS?	X				
		Was each LCS taken through the entire analytical procedure, including prep and cleanup steps?	X				
		Were LCSs analyzed at the required frequency?	X				
		Were LCS (and LCSD, if applicable) %Rs within the laboratory QC limits?	X				
		Does the detectability check sample data document the laboratory's capability to detect the COCs at the MDL used to calculate the SDLs?	X				
		Was the LCSD RPD within QC limits?			X		
R7	OI	Matrix spike (MS) and matrix spike duplicate (MSD) data					
		Were the project/method specified analytes included in the MS and MSD?	X				
		Were MS/MSD analyzed at the appropriate frequency?	X				
		Were MS (and MSD, if applicable) %Rs within the laboratory QC limits?		X			3
		Were MS/MSD RPDs within laboratory QC limits?		X			3
R8	OI	Analytical duplicate data					
		Were appropriate analytical duplicates analyzed for each matrix?			X		
		Were analytical duplicates analyzed at the appropriate frequency?			X		
		Were RPDs or relative standard deviations within the laboratory QC limits?			X		
R9	OI	Method quantitation limits (MQLs):					
		Are the MQLs for each method analyte included in the laboratory data package?	X				
		Do the MQLs correspond to the concentration of the lowest non-zero calibration standard?	X				
		Are unadjusted MQLs and DCSs included in the laboratory data package?	X				
R10	OI	Other problems/anomalies					
		Are all known problems/anomalies/special conditions noted in this LRC and ER?	X				
		Was applicable and available technology used to lower the SDL to minimize the matrix interference affects on the sample results?	X				4
		Is the laboratory NELAC-accredited under the Texas Laboratory Accreditation Program for the analytes, matrices and methods associated with this laboratory data package?	X				

- Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.
- O = organic analyses; I = inorganic analyses (and general chemistry, when applicable);
- NA = Not applicable;
- NR = Not reviewed;
- ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

Appendix A (cont'd): Laboratory Review Checklist: Reportable Data									
Laboratory Name: TestAmerica-Houston					LRC Date: 02/19/13				
Project Name: 1620 UPRR HWPW					Laboratory Job Number 600-68161				
Reviewer Name: JOH					Prep Batch Number(s): 600-99141 - SV				
# ¹	A ²	Description	Yes	No	NA ³	NR ⁴	ER# ⁵		
S1	OI	Initial calibration (ICAL)							
		Were response factors and/or relative response factors for each analyte within QC limits?	X						
		Were percent RSDs or correlation coefficient criteria met?	X						
		Was the number of standards recommended in the method used for all analytes?	X						
		Were all points generated between the lowest and highest standard used to calculate the curve?	X						
		Are ICAL data available for all instruments used?	X						
		Has the initial calibration curve been verified using an appropriate second source standard?	X						
S2	OI	Initial and continuing calibration verification (ICCV and CCV) and continuing calibration							
		Was the CCV analyzed at the method-required frequency?	X						
		Were percent differences for each analyte within the method-required QC limits?	X						
		Was the ICAL curve verified for each analyte?	X						
		Was the absolute value of the analyte concentration in the inorganic CCB < MDL?				X			
S3	O	Mass spectral tuning:							
		Was the appropriate compound for the method used for tuning?				X			
		Were ion abundance data within the method-required QC limits?				X			
S4	O	Internal standards (IS):							
		Were IS area counts and retention times within the method-required QC limits?				X			
S5	OI	Raw data (NELAC section 5.5.10)							
		Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?	X						
		Were data associated with manual integrations flagged on the raw data?	X						
S6	O	Dual column confirmation							
		Did dual column confirmation results meet the method-required QC?				X			
S7	O	Tentatively identified compounds (TICs):							
		If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?				X			
S8	I	Interference Check Sample (ICS) results:							
		Were percent recoveries within method QC limits?				X			
S9	I	Serial dilutions, post digestion spikes, and method of standard additions							
		Were percent differences, recoveries, and the linearity within the QC limits specified in the method?				X			
S10	OI	Method detection limit (MDL) studies							
		Was a MDL study performed for each reported analyte?	X						
		Is the MDL either adjusted or supported by the analysis of DCSs?	X						
S11	OI	Proficiency test reports:							
		Was the laboratory's performance acceptable on the applicable proficiency tests or evaluation studies?	X						
S12	OI	Standards documentation							
		Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?	X						
S13	OI	Compound/analyte identification procedures							
		Are the procedures for compound/analyte identification documented?	X						
S14	OI	Demonstration of analyst competency (DOC)							
		Was DOC conducted consistent with NELAC Chapter 5?	X						
		Is documentation of the analyst's competency up-to-date and on file?	X						
S15	OI	Verification/validation documentation for methods (NELAC Chapter 5)							
		Are all the methods used to generate the data documented, verified, and validated, where applicable?	X						
S16	OI	Laboratory standard operating procedures (SOPs):							
		Are laboratory SOPs current and on file for each method performed?	X						

- 1 Items identified by the letter "R" should be included in the laboratory data package submitted to the TCEQ in the TRRP-required report(s).
- 2 Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.
- 3 O = organic analyses; I = inorganic analyses (and general chemistry, when applicable).
- 4 NA = Not applicable.
- 5 NR = Not Reviewed.
- 6 ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

Appendix A (cont'd): Laboratory Review Checklist: Exception Reports	
Laboratory Name: TestAmerica-Houston	LRC Date: 02/19/13
Project Name: 1620 UPRR HWPW	Laboratory Job Number 600-68161
Reviewer Name: JOH	Prep Batch Number(s): 600-99141 - SV
ER #¹	DESCRIPTION
1	See Case Narrative.
2	Due to the level of dilution required for the following samples, surrogate recoveries are not reported: WG-1620-MW12A-20130205 (600-68161-10DL), WG-1620-MW40B-20130205 (600-68161-6, 6DL). Six surrogates are used for this analysis. The laboratory's SOP allows one base and one acid of these surrogates to be outside acceptance criteria without performing re-extraction/re-analysis. Samples 600-68161-1 and 3 contained an allowable number of surrogate compounds outside limits. These results have been reported and qualified.
3	The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision were outside control limits. Matrix interference is suspected. The associated laboratory control sample (LCS) met acceptance criteria
4	All of the SDLs in sample 600-68161-6 were elevated due to the high concentration of target analytes. Various SDLs in sample 600-68161-10 were elevated due to the high concentrations of these analytes.

ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked on the LRC)

Detection Check Standard

Matrix: Water
Method: 8260B_LL
Preparation: Wei Shen
Date Analyzed: 10/8/2012
Date Prepared: 10/8/2012
TALs Batches: A25003.D
Units: ug/L

Analyte	MDL	DCS Spike	Measured Result	MQL
Dichlorodifluoromethane	0.12	1	0.0281	5
Chloromethane	0.18	1	0.355	10
Vinyl Chloride	0.11	0.5	0.131	10
Bromomethane	0.25	1	0.882	10
Chloroethane	0.08	0.5	0.208	10
Allyl chloride	2	1	1.84	5
Acrolein	1.63	1	4.34	5
1,1-Dichloroethene	0.19	0.5	4.3	5
trans-1,2-Dichloroethene	0.09	0.5	4.68	5
Trichlorotrifluoroethane	1	1	0.534	5
Acetone	0.99	1	1.87	5
Methyl Iodide (Iodomethane)	2	1	2.29	5
Carbon Disulfide	0.24	1	2.6	5
2-Propanol (Isopropyl alcohol)	3.72	1	7.51	5
Acetonitrile	0.27	1	1.21	5
Methylene Chloride	0.15	0.5	1.79	10
Methyl tert-butyl ether	0.12	0.5	0.704	5
Vinyl Acetate	0.21	0.5	0.776	5
Acrylonitrile	0.52	1	2.71	5
Chloroprene (2-Chloro-1,3-butadiene)	0.33	1	1.16	5
Propionitrile	0.66	1	1.58	5
cis-1,2-Dichloroethene	0.06	0.5	0.659	5
1,2-Dichloroethene	0.3	1	1.45	5
2-Butanone (MEK)	0.76	1	1.64	5
Isobutyl alcohol	3.32	1	8.48	5
Bromochloromethane	0.18	0.5	0.436	5
Methacrylonitrile	0.41	1	1.62	5
Carbon Tetrachloride	0.15	0.5	0.318	5
Benzene	0.08	0.5	0.355	5
1,2-Dichloroethane	0.14	0.5	0.379	5
Trichloroethene	0.13	0.5	0.343	5
1,1,1-Trichloroethane	0.15	0.5	0.306	5
1,1-Dichloropropene	0.11	0.5	0.281	5
1,2-Dichloroethane	0.3	0.5	0.316	5
1,2-Dichloropropane	0.16	0.5	0.292	5
2,2-Dichloropropane	0.13	1	0.682	5
Methylene Bromide (Bromomethane)	0.25	0.5	0.328	5
1,4-Dioxane	30.79	1	34.08	250
Methyl methacrylate	0.33	1	1.55	5



Bromodichloromethane	0.16	0.5	0.715	5
2-Chloroethyl vinyl ether	0.5	1	2.04	5
1,1-Dichloropropane	0.21	0.5	0.774	5
cis-1,3-Dichloropropene	0.18	0.5	0.718	5
4-Methyl-2-pentanone	0.45	1	2.42	10
Toluene	0.15	0.5	0.431	5
trans-1,3-Dichloropropene	0.21	0.5	0.406	5
Ethyl Methacrylate	0.94	1	0.686	10
1,1,2-Trichloroethane	0.18	0.5	0.401	5
Tetrachloroethene	0.18	0.5	0.823	5
1,3-Dichloropropane	0.22	1	0.89	5
2-Hexanone	0.35	1	2.01	10
Dibromochloromethane	0.16	0.5	0.811	5
1,2-Dibromoethane (Ethylene bromide)	0.18	0.5	0.373	5
Chlorobenzene	0.12	0.5	0.424	5
1,1,1,2-Tetrachloroethane	0.18	0.5	0.401	5
Ethylbenzene	0.11	0.5	0.357	5
m,p-Xylene	0.17	0.5	0.741	10
o-Xylene	0.12	0.5	0.37	5
Xylenes (total)	0.26	0.5	1.11	5
Styrene	0.07	0.5	0.344	5
Bromoform	0.19	0.5	0.915	5
Isopropylbenzene	0.18	0.5	0.367	5
Bromobenzene	0.19	0.5	0.457	5
1,2,3-Trichloropropane	0.29	1	0.89	5
1,1,2,2-Tetrachloroethane	0.22	1	0.729	5
trans-1,4-Dichloro-2-butene	0.64	1	2.36	5
n-Propylbenzene	0.15	0.5	0.372	5
2-Chlorotoluene	0.13	0.5	0.424	5
4-Chlorotoluene	0.14	0.5	0.442	5
1,3,5-Trimethylbenzene	0.1	0.5	0.392	5
tert-Butylbenzene	0.08	0.5	0.359	5
p-Isopropyltoluene	0.1	0.5	0.329	5
1,2,4-Trimethylbenzene	0.14	0.5	0.388	5
sec-Butylbenzene	0.12	0.5	0.329	5
1,3-Dichlorobenzene	0.13	0.5	0.437	5
1,4-Dichlorobenzene	0.11	0.5	0.475	5
1,2-Dichlorobenzene	0.1	0.5	0.466	5
n-Butylbenzene	0.16	0.5	0.297	5
1,2-Dibromo-3-chloropropane	0.33	1	1.2	5
1,2,4-Trichlorobenzene	0.31	1	0.849	5
Hexachlorobutadiene	0.17	0.5	0.363	5
Naphthalene	0.32	1	1.09	5
1,2,3-Trichlorobenzene	0.57	1	0.867	5

**Quality Control Report
Detection Check Standard**

Matrix: Water
 Method: 8270C LL
 Preparation: 3510C
 Date Analyzed: 10/18/2012
 Date Prepared: 10/16/2012
 Lab Sample ID: 600-91246_18-a
 Units: ug/L

Analyte	MDL	DCS Spike	DCS Result	MLQ
Pyridine	0.04	0.25	0.067	0.5
N-Nitrosodimethylamine	0.26	0.25	0.121	0.5
Aniline	0.08	0.25	0.085	0.5
Phenol	0.04	0.25	0.054	0.5
bis(2-Chloroethyl)ether	0.15	0.25	0.149	0.5
2-Chlorophenol	0.13	0.25	0.097	0.5
1,3-Dichlorobenzene	0.17	0.25	0.152	0.5
1,4-Dichlorobenzene	0.13	0.25	0.166	0.5
1,2-Dichlorobenzene	0.17	0.25	0.167	0.5
Benzyl alcohol	0.17	0.25	0.075	0.5
2-Methylphenol	0.12	0.25	0.112	0.5
m&p-Cresols	0.2	0.25	0.053	1
bis (2-Chloroisopropyl) ether	0.4	0.25	0.143	0.5
N-Nitroso-di-n-propylamine	0.1	0.25	0.177	0.5
Hexachloroethane	0.1	0.25	0.185	0.5
Nitrobenzene	0.11	0.25	0.131	0.5
Isophorone	0.11	0.25	0.149	0.5
2-Nitrophenol	0.22	0.5	0.205	0.5
Benzoic acid	2.51	5	6.530	2.5
2,4-Dimethylphenol	0.31	0.5	0.130	0.5
bis(2-Chloroethoxy)methane	0.13	0.25	0.122	0.5
2,4-Dichlorophenol	0.15	0.25	0.068	0.5
1,2,4-Trichlorobenzene	0.12	0.25	0.125	0.5
Naphthalene	0.08	0.25	0.161	0.5
4-Chloroaniline	0.21	0.5	0.232	0.5
Hexachlorobutadiene	0.18	0.25	0.160	0.5
4-Chloro-3-methylphenol	0.17	0.25	0.075	0.5
2-Methylnaphthalene	0.07	0.25	0.128	0.5
1-Methylnaphthalene	0.09	0.25	0.147	0.5
Hexachlorocyclopentadiene	0.13	0.5	0.487	0.5
2,4,6-Trichlorophenol	0.18	0.5	0.062	0.5
2,4,5-Trichlorophenol	0.25	0.5	0.107	0.5
2-Chloronaphthalene	0.08	0.25	0.148	0.5
2-Nitroaniline	0.19	0.5	0.213	0.5
Dimethylphthalate	0.07	0.25	0.145	0.5
1,4 Dinitrobenzene	5	0.25	0.363	0.5
1,3-Dinitrobenzene	0.08	0.25	0.381	0.5
1,2-Dinitrobenzene	0.5	0.25	0.040	0.5
Acenaphthylene	0.06	0.25	0.137	0.5

2,6-Dinitrotoluene	0.08	0.25	0.178	0.5
3-Nitroaniline	0.16	0.5	0.240	0.5
Acenaphthene	0.08	0.25	0.151	0.5
Dibenzofuran	0.08	0.25	0.127	0.5
2,4-Dinitrotoluene	0.13	0.25	0.144	0.5
Diethylphthalate	1.5	0.5	0.431	0.5
4-Chlorophenyl-phenylether	0.1	0.25	0.102	0.5
Fluorene	0.07	0.25	0.107	0.5
4-Nitroaniline	0.25	0.5	0.124	0.5
4,6-Dinitro-2-Methylphenol	0.83	2.5	0.530	1
N-Nitrosodiphenylamine	0.1	0.25	0.176	0.5
Diphenylamine	0.1	0.25	0.099	0.5
1,2-Diphenylhydrazine	0.11	0.25	0.224	0.5
Azobenzene	0.07	0.25	0.117	0.5
4-Bromophenyl-phenylether	0.1	0.25	0.112	0.5
Hexachlorobenzene	0.11	0.25	0.130	0.5
Phenanthrene	0.06	0.25	0.169	0.5
Anthracene	0.05	0.25	0.144	0.5
Carbazole	0.17	0.25	0.140	0.5
Di-n-butylphthalate	0.11	0.25	0.238	0.5
Fluoranthene	0.07	0.25	0.196	0.5
Pyrene	0.11	0.25	0.153	0.5
Butylbenzylphthalate	0.12	0.25	0.238	0.5
3,3'-Dichlorobenzidene	0.5	0.25	0.066	0.5
Benzo(a)anthracene	0.08	0.25	0.175	0.5
bis(2-Ethylhexyl)phthalate	0.37	0.5	0.420	0.5
Chrysene	0.08	0.25	0.212	0.5
Di-n-octylphthalate	0.16	0.25	0.091	0.5
Benzo(b)fluoranthene	0.07	0.25	0.143	0.5
Benzo(k)fluoranthene	0.09	0.25	0.201	0.5
Benzo(a)pyrene	0.08	0.25	0.137	0.5
Indeno(1,2,3-cd)pyrene	0.07	0.25	0.454	0.5
Dibenz(a,h)anthracene	0.08	0.25	0.123	0.5
Benzo(g,h,i)perylene	0.08	0.25	0.112	0.5



Case Narrative

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68161-1

Job ID: 600-68161-1

Laboratory: TestAmerica Houston

Narrative

Job Narrative
600-68161-1

Comments

No additional comments.

Receipt

The samples were received on 2/6/2013 7:13 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 3 coolers at receipt time were 2.3° C, 3.3° C and 3.9° C.

Except:

One or more containers for the following sample(s) was received broken or leaking: WG-1620-MW12C-20130205 (600-68161-9), WG-1620-TW41B-20130205 (600-68161-11).

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Method Summary

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68161-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL HOU
8270C LL	Semivolatile Organic Compounds by GCMS - Low Levels	SW846	TAL HOU

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL HOU = TestAmerica Houston, 6310 Rothway Street, Houston, TX 77040, TEL (713)690-4444



Sample Summary

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68161-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
600-68161-1	WG-1620-MW13-20130205	Water	02/05/13 08:00	02/06/13 07:13
600-68161-2	WG-1620-MW21C-20130205	Water	02/05/13 09:00	02/06/13 07:13
600-68161-3	WG-1620-DUP1-20130205	Water	02/05/13 09:00	02/06/13 07:13
600-68161-4	WG-1620-MW05-20130205	Water	02/05/13 10:00	02/06/13 07:13
600-68161-5	WG-1620-P11-20130205	Water	02/05/13 10:45	02/06/13 07:13
600-68161-6	WG-1620-MW40B-20130205	Water	02/05/13 11:35	02/06/13 07:13
600-68161-7	WG-1620-MW42B-20130205	Water	02/05/13 12:30	02/06/13 07:13
600-68161-8	WG-1620-MW39B-20130205	Water	02/05/13 13:20	02/06/13 07:13
600-68161-9	WG-1620-MW12C-20130205	Water	02/05/13 15:05	02/06/13 07:13
600-68161-10	WG-1620-MW12A-20130205	Water	02/05/13 16:00	02/06/13 07:13
600-68161-11	WG-1620-TW41B-20130205	Water	02/05/13 16:50	02/06/13 07:13
600-68161-12	WG-1620-MW14-20130205	Water	02/05/13 17:50	02/06/13 07:13
600-68161-13	WG-1620-FB4-20130205	Water	02/05/13 18:10	02/06/13 07:13
600-68161-14	WG-1620-TB03-20130205	Water	02/05/13 00:00	02/06/13 07:13

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68161-1

Client Sample ID: WG-1620-MW13-20130205

Lab Sample ID: 600-68161-1

Date Collected: 02/05/13 08:00

Matrix: Water

Date Received: 02/06/13 07:13

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	0.000110	U	0.00200	0.000110	mg/L			02/08/13 11:18	1
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			02/08/13 11:18	1
Benzene	0.0000800	U	0.00100	0.0000800	mg/L			02/08/13 11:18	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			02/08/13 11:18	1
Toluene	0.000150	U	0.00100	0.000150	mg/L			02/08/13 11:18	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			02/08/13 11:18	1
Ethylbenzene	0.000110	U	0.00100	0.000110	mg/L			02/08/13 11:18	1
Xylenes, Total	0.000260	U	0.00300	0.000260	mg/L			02/08/13 11:18	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	86		67 - 139					02/08/13 11:18	1
Dibromofluoromethane	100		62 - 130					02/08/13 11:18	1
Toluene-d8 (Surr)	98		70 - 130					02/08/13 11:18	1
1,2-Dichloroethane-d4 (Surr)	93		50 - 134					02/08/13 11:18	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.0000377	U	0.000472	0.0000377	mg/L		02/08/13 08:51	02/14/13 01:20	1
Nitrobenzene	0.000104	U	0.000472	0.000104	mg/L		02/08/13 08:51	02/14/13 01:20	1
2,4-Dimethylphenol	0.000292	U	0.000472	0.000292	mg/L		02/08/13 08:51	02/14/13 01:20	1
Bis(2-chloroethoxy)methane	0.000123	U	0.000472	0.000123	mg/L		02/08/13 08:51	02/14/13 01:20	1
Naphthalene	0.0000755	U	0.000472	0.0000755	mg/L		02/08/13 08:51	02/14/13 01:20	1
2-Methylnaphthalene	0.0000660	U	0.000472	0.0000660	mg/L		02/08/13 08:51	02/14/13 01:20	1
2-Chloronaphthalene	0.0000755	U	0.000472	0.0000755	mg/L		02/08/13 08:51	02/14/13 01:20	1
Acenaphthylene	0.0000566	U	0.000472	0.0000566	mg/L		02/08/13 08:51	02/14/13 01:20	1
2,6-Dinitrotoluene	0.0000755	U	0.000472	0.0000755	mg/L		02/08/13 08:51	02/14/13 01:20	1
Acenaphthene	0.0000755	U	0.000472	0.0000755	mg/L		02/08/13 08:51	02/14/13 01:20	1
4-Nitrophenol	0.000528	U	0.000943	0.000528	mg/L		02/08/13 08:51	02/14/13 01:20	1
Dibenzofuran	0.0000755	U	0.000472	0.0000755	mg/L		02/08/13 08:51	02/14/13 01:20	1
2,4-Dinitrotoluene	0.000123	U	0.000472	0.000123	mg/L		02/08/13 08:51	02/14/13 01:20	1
Fluorene	0.0000660	U	0.000472	0.0000660	mg/L		02/08/13 08:51	02/14/13 01:20	1
4,6-Dinitro-2-methylphenol	0.000783	U	0.000943	0.000783	mg/L		02/08/13 08:51	02/14/13 01:20	1
N-Nitrosodiphenylamine	0.0000943	U	0.000472	0.0000943	mg/L		02/08/13 08:51	02/14/13 01:20	1
1,2-Diphenylhydrazine	0.000104	U	0.000472	0.000104	mg/L		02/08/13 08:51	02/14/13 01:20	1
Pentachlorophenol	0.000575	U	0.000943	0.000575	mg/L		02/08/13 08:51	02/14/13 01:20	1
Phenanthrene	0.0000566	U	0.000472	0.0000566	mg/L		02/08/13 08:51	02/14/13 01:20	1
Anthracene	0.00110		0.000472	0.0000472	mg/L		02/08/13 08:51	02/14/13 01:20	1
Di-n-butyl phthalate	0.000104	U	0.000472	0.000104	mg/L		02/08/13 08:51	02/14/13 01:20	1
Fluoranthene	0.0000660	U	0.000472	0.0000660	mg/L		02/08/13 08:51	02/14/13 01:20	1
Pyrene	0.000104	U	0.000472	0.000104	mg/L		02/08/13 08:51	02/14/13 01:20	1
Benzo[a]anthracene	0.0000755	U	0.000472	0.0000755	mg/L		02/08/13 08:51	02/14/13 01:20	1
Bis(2-ethylhexyl) phthalate	0.000349	U	0.000472	0.000349	mg/L		02/08/13 08:51	02/14/13 01:20	1
Chrysene	0.0000755	U	0.000472	0.0000755	mg/L		02/08/13 08:51	02/14/13 01:20	1
Benzo[a]pyrene	0.0000755	U	0.000472	0.0000755	mg/L		02/08/13 08:51	02/14/13 01:20	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Phenol-d6	6	X	10 - 94				02/08/13 08:51	02/14/13 01:20	1
2,4,6-Tribromophenol	10		10 - 123				02/08/13 08:51	02/14/13 01:20	1
2-Fluorobiphenyl	68		43 - 116				02/08/13 08:51	02/14/13 01:20	1
2-Fluorophenol	10		10 - 100				02/08/13 08:51	02/14/13 01:20	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68161-1

Client Sample ID: WG-1620-MW13-20130205

Lab Sample ID: 600-68161-1

Date Collected: 02/05/13 08:00

Matrix: Water

Date Received: 02/06/13 07:13

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5	60		35 - 114	02/08/13 08:51	02/14/13 01:20	1
Terphenyl-d14	68		33 - 141	02/08/13 08:51	02/14/13 01:20	1

Client Sample ID: WG-1620-MW21C-20130205

Lab Sample ID: 600-68161-2

Date Collected: 02/05/13 09:00

Matrix: Water

Date Received: 02/06/13 07:13

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	0.000110	U	0.00200	0.000110	mg/L			02/07/13 21:59	1
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			02/07/13 21:59	1
Benzene	0.0000800	U	0.00100	0.0000800	mg/L			02/07/13 21:59	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			02/07/13 21:59	1
Toluene	0.000150	U	0.00100	0.000150	mg/L			02/07/13 21:59	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			02/07/13 21:59	1
Ethylbenzene	0.000144	J b	0.00100	0.000110	mg/L			02/07/13 21:59	1
Xylenes, Total	0.000260	U	0.00300	0.000260	mg/L			02/07/13 21:59	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	93		67 - 139		02/07/13 21:59	1
Dibromofluoromethane	107		62 - 130		02/07/13 21:59	1
Toluene-d8 (Surr)	97		70 - 130		02/07/13 21:59	1
1,2-Dichloroethane-d4 (Surr)	97		50 - 134		02/07/13 21:59	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.0000377	U	0.000472	0.0000377	mg/L		02/08/13 08:51	02/14/13 02:40	1
Nitrobenzene	0.000104	U	0.000472	0.000104	mg/L		02/08/13 08:51	02/14/13 02:40	1
2,4-Dimethylphenol	0.000292	U	0.000472	0.000292	mg/L		02/08/13 08:51	02/14/13 02:40	1
Bis(2-chloroethoxy)methane	0.000123	U	0.000472	0.000123	mg/L		02/08/13 08:51	02/14/13 02:40	1
Naphthalene	0.000429	J	0.000472	0.0000755	mg/L		02/08/13 08:51	02/14/13 02:40	1
2-Methylnaphthalene	0.000271	J	0.000472	0.0000660	mg/L		02/08/13 08:51	02/14/13 02:40	1
2-Chloronaphthalene	0.000755	U	0.000472	0.0000755	mg/L		02/08/13 08:51	02/14/13 02:40	1
Acenaphthylene	0.0000566	U	0.000472	0.0000566	mg/L		02/08/13 08:51	02/14/13 02:40	1
2,6-Dinitrotoluene	0.0000755	U	0.000472	0.0000755	mg/L		02/08/13 08:51	02/14/13 02:40	1
Acenaphthene	0.000237	J	0.000472	0.0000755	mg/L		02/08/13 08:51	02/14/13 02:40	1
4-Nitrophenol	0.000528	U	0.000943	0.000528	mg/L		02/08/13 08:51	02/14/13 02:40	1
Dibenzofuran	0.000109	J	0.000472	0.0000755	mg/L		02/08/13 08:51	02/14/13 02:40	1
2,4-Dinitrotoluene	0.000123	U	0.000472	0.000123	mg/L		02/08/13 08:51	02/14/13 02:40	1
Fluorene	0.0000660	U	0.000472	0.0000660	mg/L		02/08/13 08:51	02/14/13 02:40	1
4,6-Dinitro-2-methylphenol	0.000783	U	0.000943	0.000783	mg/L		02/08/13 08:51	02/14/13 02:40	1
N-Nitrosodiphenylamine	0.0000943	U	0.000472	0.0000943	mg/L		02/08/13 08:51	02/14/13 02:40	1
1,2-Diphenylhydrazine	0.000104	U	0.000472	0.000104	mg/L		02/08/13 08:51	02/14/13 02:40	1
Pentachlorophenol	0.000575	U	0.000943	0.000575	mg/L		02/08/13 08:51	02/14/13 02:40	1
Phenanthrene	0.000184	J	0.000472	0.0000566	mg/L		02/08/13 08:51	02/14/13 02:40	1
Anthracene	0.0000527	J	0.000472	0.0000472	mg/L		02/08/13 08:51	02/14/13 02:40	1
Di-n-butyl phthalate	0.000104	U	0.000472	0.000104	mg/L		02/08/13 08:51	02/14/13 02:40	1
Fluoranthene	0.0000660	U	0.000472	0.0000660	mg/L		02/08/13 08:51	02/14/13 02:40	1
Pyrene	0.000104	U	0.000472	0.000104	mg/L		02/08/13 08:51	02/14/13 02:40	1
Benzo[a]anthracene	0.0000755	U	0.000472	0.0000755	mg/L		02/08/13 08:51	02/14/13 02:40	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68161-1

Client Sample ID: WG-1620-MW21C-20130205

Lab Sample ID: 600-68161-2

Date Collected: 02/05/13 09:00

Matrix: Water

Date Received: 02/06/13 07:13

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	0.000349	U	0.000472	0.000349	mg/L		02/08/13 08:51	02/14/13 02:40	1
Chrysene	0.0000755	U	0.000472	0.0000755	mg/L		02/08/13 08:51	02/14/13 02:40	1
Benzo[a]pyrene	0.0000755	U	0.000472	0.0000755	mg/L		02/08/13 08:51	02/14/13 02:40	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Phenol-d6	22		10 - 94				02/08/13 08:51	02/14/13 02:40	1
2,4,6-Tribromophenol	46		10 - 123				02/08/13 08:51	02/14/13 02:40	1
2-Fluorobiphenyl	71		43 - 116				02/08/13 08:51	02/14/13 02:40	1
2-Fluorophenol	32		10 - 100				02/08/13 08:51	02/14/13 02:40	1
Nitrobenzene-d5	67		35 - 114				02/08/13 08:51	02/14/13 02:40	1
Terphenyl-d14	66		33 - 141				02/08/13 08:51	02/14/13 02:40	1

Client Sample ID: WG-1620-DUP1-20130205

Lab Sample ID: 600-68161-3

Date Collected: 02/05/13 09:00

Matrix: Water

Date Received: 02/06/13 07:13

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	0.000110	U	0.00200	0.000110	mg/L			02/08/13 16:47	1
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			02/08/13 16:47	1
Benzene	0.0000800	U	0.00100	0.0000800	mg/L			02/08/13 16:47	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			02/08/13 16:47	1
Toluene	0.000150	U	0.00100	0.000150	mg/L			02/08/13 16:47	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			02/08/13 16:47	1
Ethylbenzene	0.000110	U	0.00100	0.000110	mg/L			02/08/13 16:47	1
Xylenes, Total	0.000260	U	0.00300	0.000260	mg/L			02/08/13 16:47	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	92		67 - 139					02/08/13 16:47	1
Dibromofluoromethane	105		62 - 130					02/08/13 16:47	1
Toluene-d8 (Surr)	97		70 - 130					02/08/13 16:47	1
1,2-Dichloroethane-d4 (Surr)	98		50 - 134					02/08/13 16:47	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.0000377	U	0.000472	0.0000377	mg/L		02/08/13 08:51	02/14/13 03:07	1
Nitrobenzene	0.000104	U	0.000472	0.000104	mg/L		02/08/13 08:51	02/14/13 03:07	1
2,4-Dimethylphenol	0.000292	U	0.000472	0.000292	mg/L		02/08/13 08:51	02/14/13 03:07	1
Bis(2-chloroethoxy)methane	0.000123	U	0.000472	0.000123	mg/L		02/08/13 08:51	02/14/13 03:07	1
Naphthalene	0.0000755	U	0.000472	0.0000755	mg/L		02/08/13 08:51	02/14/13 03:07	1
2-Methylnaphthalene	0.0000660	U	0.000472	0.0000660	mg/L		02/08/13 08:51	02/14/13 03:07	1
2-Chloronaphthalene	0.0000755	U	0.000472	0.0000755	mg/L		02/08/13 08:51	02/14/13 03:07	1
Acenaphthylene	0.0000566	U	0.000472	0.0000566	mg/L		02/08/13 08:51	02/14/13 03:07	1
2,6-Dinitrotoluene	0.0000755	U	0.000472	0.0000755	mg/L		02/08/13 08:51	02/14/13 03:07	1
Acenaphthene	0.0000755	U	0.000472	0.0000755	mg/L		02/08/13 08:51	02/14/13 03:07	1
4-Nitrophenol	0.000528	U	0.000943	0.000528	mg/L		02/08/13 08:51	02/14/13 03:07	1
Dibenzofuran	0.0000755	U	0.000472	0.0000755	mg/L		02/08/13 08:51	02/14/13 03:07	1
2,4-Dinitrotoluene	0.000123	U	0.000472	0.000123	mg/L		02/08/13 08:51	02/14/13 03:07	1
Fluorene	0.0000660	U	0.000472	0.0000660	mg/L		02/08/13 08:51	02/14/13 03:07	1
4,6-Dinitro-2-methylphenol	0.000783	U	0.000943	0.000783	mg/L		02/08/13 08:51	02/14/13 03:07	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68161-1

Client Sample ID: WG-1620-DUP1-20130205

Lab Sample ID: 600-68161-3

Date Collected: 02/05/13 09:00

Matrix: Water

Date Received: 02/06/13 07:13

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Nitrosodiphenylamine	0.0000943	U	0.000472	0.0000943	mg/L		02/08/13 08:51	02/14/13 03:07	1
1,2-Diphenylhydrazine	0.000104	U	0.000472	0.000104	mg/L		02/08/13 08:51	02/14/13 03:07	1
Pentachlorophenol	0.000575	U	0.000943	0.000575	mg/L		02/08/13 08:51	02/14/13 03:07	1
Phenanthrene	0.0000566	U	0.000472	0.0000566	mg/L		02/08/13 08:51	02/14/13 03:07	1
Anthracene	0.0000472	U	0.000472	0.0000472	mg/L		02/08/13 08:51	02/14/13 03:07	1
Di-n-butyl phthalate	0.000104	U	0.000472	0.000104	mg/L		02/08/13 08:51	02/14/13 03:07	1
Fluoranthene	0.0000660	U	0.000472	0.0000660	mg/L		02/08/13 08:51	02/14/13 03:07	1
Pyrene	0.000104	U	0.000472	0.000104	mg/L		02/08/13 08:51	02/14/13 03:07	1
Benzo[a]anthracene	0.0000755	U	0.000472	0.0000755	mg/L		02/08/13 08:51	02/14/13 03:07	1
Bis(2-ethylhexyl) phthalate	0.000349	U	0.000472	0.000349	mg/L		02/08/13 08:51	02/14/13 03:07	1
Chrysene	0.0000755	U	0.000472	0.0000755	mg/L		02/08/13 08:51	02/14/13 03:07	1
Benzo[a]pyrene	0.0000755	U	0.000472	0.0000755	mg/L		02/08/13 08:51	02/14/13 03:07	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Phenol-d6	9	X	10 - 94				02/08/13 08:51	02/14/13 03:07	1
2,4,6-Tribromophenol	48		10 - 123				02/08/13 08:51	02/14/13 03:07	1
2-Fluorobiphenyl	63		43 - 116				02/08/13 08:51	02/14/13 03:07	1
2-Fluorophenol	15		10 - 100				02/08/13 08:51	02/14/13 03:07	1
Nitrobenzene-d5	60		35 - 114				02/08/13 08:51	02/14/13 03:07	1
Terphenyl-d14	61		33 - 141				02/08/13 08:51	02/14/13 03:07	1

Client Sample ID: WG-1620-MW05-20130205

Lab Sample ID: 600-68161-4

Date Collected: 02/05/13 10:00

Matrix: Water

Date Received: 02/06/13 07:13

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	0.000110	U	0.00200	0.000110	mg/L			02/07/13 22:26	1
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			02/07/13 22:26	1
Benzene	0.0000800	U	0.00100	0.0000800	mg/L			02/07/13 22:26	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			02/07/13 22:26	1
Toluene	0.000150	U	0.00100	0.000150	mg/L			02/07/13 22:26	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			02/07/13 22:26	1
Ethylbenzene	0.000137	J b	0.00100	0.000110	mg/L			02/07/13 22:26	1
Xylenes, Total	0.000260	U	0.00300	0.000260	mg/L			02/07/13 22:26	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	88		67 - 139					02/07/13 22:26	1
Dibromofluoromethane	104		62 - 130					02/07/13 22:26	1
Toluene-d8 (Surr)	94		70 - 130					02/07/13 22:26	1
1,2-Dichloroethane-d4 (Surr)	96		50 - 134					02/07/13 22:26	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.000193	J	0.000472	0.0000377	mg/L		02/08/13 08:51	02/14/13 03:33	1
Nitrobenzene	0.000104	U	0.000472	0.000104	mg/L		02/08/13 08:51	02/14/13 03:33	1
2,4-Dimethylphenol	0.000292	U	0.000472	0.000292	mg/L		02/08/13 08:51	02/14/13 03:33	1
Bis(2-chloroethoxy)methane	0.000123	U	0.000472	0.000123	mg/L		02/08/13 08:51	02/14/13 03:33	1
Naphthalene	0.00133		0.000472	0.0000755	mg/L		02/08/13 08:51	02/14/13 03:33	1
2-Methylnaphthalene	0.000468	J	0.000472	0.0000660	mg/L		02/08/13 08:51	02/14/13 03:33	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68161-1

Client Sample ID: WG-1620-MW05-20130205

Lab Sample ID: 600-68161-4

Date Collected: 02/05/13 10:00

Matrix: Water

Date Received: 02/06/13 07:13

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Chloronaphthalene	0.0000755	U	0.000472	0.0000755	mg/L		02/08/13 08:51	02/14/13 03:33	1
Acenaphthylene	0.0000566	U	0.000472	0.0000566	mg/L		02/08/13 08:51	02/14/13 03:33	1
2,6-Dinitrotoluene	0.0000755	U	0.000472	0.0000755	mg/L		02/08/13 08:51	02/14/13 03:33	1
Acenaphthene	0.0000755	U	0.000472	0.0000755	mg/L		02/08/13 08:51	02/14/13 03:33	1
4-Nitrophenol	0.000528	U	0.000943	0.000528	mg/L		02/08/13 08:51	02/14/13 03:33	1
Dibenzofuran	0.0000755	U	0.000472	0.0000755	mg/L		02/08/13 08:51	02/14/13 03:33	1
2,4-Dinitrotoluene	0.000123	U	0.000472	0.000123	mg/L		02/08/13 08:51	02/14/13 03:33	1
Fluorene	0.0000660	U	0.000472	0.0000660	mg/L		02/08/13 08:51	02/14/13 03:33	1
4,6-Dinitro-2-methylphenol	0.000783	U	0.000943	0.000783	mg/L		02/08/13 08:51	02/14/13 03:33	1
N-Nitrosodiphenylamine	0.0000943	U	0.000472	0.0000943	mg/L		02/08/13 08:51	02/14/13 03:33	1
1,2-Diphenylhydrazine	0.000104	U	0.000472	0.000104	mg/L		02/08/13 08:51	02/14/13 03:33	1
Pentachlorophenol	0.000575	U	0.000943	0.000575	mg/L		02/08/13 08:51	02/14/13 03:33	1
Phenanthrene	0.000143	J	0.000472	0.0000566	mg/L		02/08/13 08:51	02/14/13 03:33	1
Anthracene	0.000621		0.000472	0.0000472	mg/L		02/08/13 08:51	02/14/13 03:33	1
Di-n-butyl phthalate	0.000104	U	0.000472	0.000104	mg/L		02/08/13 08:51	02/14/13 03:33	1
Fluoranthene	0.0000660	U	0.000472	0.0000660	mg/L		02/08/13 08:51	02/14/13 03:33	1
Pyrene	0.000104	U	0.000472	0.000104	mg/L		02/08/13 08:51	02/14/13 03:33	1
Benzo[a]anthracene	0.0000755	U	0.000472	0.0000755	mg/L		02/08/13 08:51	02/14/13 03:33	1
Bis(2-ethylhexyl) phthalate	0.000349	U	0.000472	0.000349	mg/L		02/08/13 08:51	02/14/13 03:33	1
Chrysene	0.0000755	U	0.000472	0.0000755	mg/L		02/08/13 08:51	02/14/13 03:33	1
Benzo[a]pyrene	0.0000755	U	0.000472	0.0000755	mg/L		02/08/13 08:51	02/14/13 03:33	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Phenol-d6	22		10 - 94				02/08/13 08:51	02/14/13 03:33	1
2,4,6-Tribromophenol	51		10 - 123				02/08/13 08:51	02/14/13 03:33	1
2-Fluorobiphenyl	83		43 - 116				02/08/13 08:51	02/14/13 03:33	1
2-Fluorophenol	40		10 - 100				02/08/13 08:51	02/14/13 03:33	1
Nitrobenzene-d5	82		35 - 114				02/08/13 08:51	02/14/13 03:33	1
Terphenyl-d14	76		33 - 141				02/08/13 08:51	02/14/13 03:33	1

Client Sample ID: WG-1620-P11-20130205

Lab Sample ID: 600-68161-5

Date Collected: 02/05/13 10:45

Matrix: Water

Date Received: 02/06/13 07:13

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	0.000110	U	0.00200	0.000110	mg/L			02/07/13 22:54	1
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			02/07/13 22:54	1
Benzene	0.0000800	U	0.00100	0.0000800	mg/L			02/07/13 22:54	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			02/07/13 22:54	1
Toluene	0.000150	U	0.00100	0.000150	mg/L			02/07/13 22:54	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			02/07/13 22:54	1
Ethylbenzene	0.000110	U	0.00100	0.000110	mg/L			02/07/13 22:54	1
Xylenes, Total	0.000260	U	0.00300	0.000260	mg/L			02/07/13 22:54	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	87		67 - 139					02/07/13 22:54	1
Dibromofluoromethane	104		62 - 130					02/07/13 22:54	1
Toluene-d8 (Surr)	99		70 - 130					02/07/13 22:54	1
1,2-Dichloroethane-d4 (Surr)	95		50 - 134					02/07/13 22:54	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68161-1

Client Sample ID: WG-1620-P11-20130205

Lab Sample ID: 600-68161-5

Date Collected: 02/05/13 10:45

Matrix: Water

Date Received: 02/06/13 07:13

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.0000377	U	0.000472	0.0000377	mg/L		02/08/13 08:51	02/14/13 04:00	1
Nitrobenzene	0.000104	U	0.000472	0.000104	mg/L		02/08/13 08:51	02/14/13 04:00	1
2,4-Dimethylphenol	0.000292	U	0.000472	0.000292	mg/L		02/08/13 08:51	02/14/13 04:00	1
Bis(2-chloroethoxy)methane	0.000123	U	0.000472	0.000123	mg/L		02/08/13 08:51	02/14/13 04:00	1
Naphthalene	0.000662		0.000472	0.0000755	mg/L		02/08/13 08:51	02/14/13 04:00	1
2-Methylnaphthalene	0.000127	J	0.000472	0.0000660	mg/L		02/08/13 08:51	02/14/13 04:00	1
2-Chloronaphthalene	0.0000755	U	0.000472	0.0000755	mg/L		02/08/13 08:51	02/14/13 04:00	1
Acenaphthylene	0.0000566	U	0.000472	0.0000566	mg/L		02/08/13 08:51	02/14/13 04:00	1
2,6-Dinitrotoluene	0.0000755	U	0.000472	0.0000755	mg/L		02/08/13 08:51	02/14/13 04:00	1
Acenaphthene	0.0000755	U	0.000472	0.0000755	mg/L		02/08/13 08:51	02/14/13 04:00	1
4-Nitrophenol	0.000528	U	0.000943	0.000528	mg/L		02/08/13 08:51	02/14/13 04:00	1
Dibenzofuran	0.000135	J	0.000472	0.0000755	mg/L		02/08/13 08:51	02/14/13 04:00	1
2,4-Dinitrotoluene	0.000123	U	0.000472	0.000123	mg/L		02/08/13 08:51	02/14/13 04:00	1
Fluorene	0.0000769	J	0.000472	0.0000660	mg/L		02/08/13 08:51	02/14/13 04:00	1
4,6-Dinitro-2-methylphenol	0.000783	U	0.000943	0.000783	mg/L		02/08/13 08:51	02/14/13 04:00	1
N-Nitrosodiphenylamine	0.0000943	U	0.000472	0.0000943	mg/L		02/08/13 08:51	02/14/13 04:00	1
1,2-Diphenylhydrazine	0.000104	U	0.000472	0.000104	mg/L		02/08/13 08:51	02/14/13 04:00	1
Pentachlorophenol	0.000575	U	0.000943	0.000575	mg/L		02/08/13 08:51	02/14/13 04:00	1
Phenanthrene	0.0000854	J	0.000472	0.0000566	mg/L		02/08/13 08:51	02/14/13 04:00	1
Anthracene	0.000250	J	0.000472	0.0000472	mg/L		02/08/13 08:51	02/14/13 04:00	1
Di-n-butyl phthalate	0.000104	U	0.000472	0.000104	mg/L		02/08/13 08:51	02/14/13 04:00	1
Fluoranthene	0.0000660	U	0.000472	0.0000660	mg/L		02/08/13 08:51	02/14/13 04:00	1
Pyrene	0.000104	U	0.000472	0.000104	mg/L		02/08/13 08:51	02/14/13 04:00	1
Benzo[a]anthracene	0.0000755	U	0.000472	0.0000755	mg/L		02/08/13 08:51	02/14/13 04:00	1
Bis(2-ethylhexyl) phthalate	0.000360	J	0.000472	0.000349	mg/L		02/08/13 08:51	02/14/13 04:00	1
Chrysene	0.0000755	U	0.000472	0.0000755	mg/L		02/08/13 08:51	02/14/13 04:00	1
Benzo[a]pyrene	0.0000755	U	0.000472	0.0000755	mg/L		02/08/13 08:51	02/14/13 04:00	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Phenol-d6	8	X	10 - 94	02/08/13 08:51	02/14/13 04:00	1
2,4,6-Tribromophenol	15		10 - 123	02/08/13 08:51	02/14/13 04:00	1
2-Fluorobiphenyl	82		43 - 116	02/08/13 08:51	02/14/13 04:00	1
2-Fluorophenol	13		10 - 100	02/08/13 08:51	02/14/13 04:00	1
Nitrobenzene-d5	74		35 - 114	02/08/13 08:51	02/14/13 04:00	1
Terphenyl-d14	77		33 - 141	02/08/13 08:51	02/14/13 04:00	1

Client Sample ID: WG-1620-MW40B-20130205

Lab Sample ID: 600-68161-6

Date Collected: 02/05/13 11:35

Matrix: Water

Date Received: 02/06/13 07:13

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	0.000110	U	0.00200	0.000110	mg/L			02/08/13 17:14	1
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			02/08/13 17:14	1
Benzene	0.0108		0.00100	0.0000800	mg/L			02/08/13 17:14	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			02/08/13 17:14	1
Toluene	0.0118		0.00100	0.000150	mg/L			02/08/13 17:14	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			02/08/13 17:14	1
Xylenes, Total	0.116		0.00300	0.000260	mg/L			02/08/13 17:14	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68161-1

Client Sample ID: WG-1620-MW40B-20130205

Lab Sample ID: 600-68161-6

Date Collected: 02/05/13 11:35

Matrix: Water

Date Received: 02/06/13 07:13

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	90		67 - 139		02/08/13 17:14	1
Dibromofluoromethane	101		62 - 130		02/08/13 17:14	1
Toluene-d8 (Surr)	86		70 - 130		02/08/13 17:14	1
1,2-Dichloroethane-d4 (Surr)	91		50 - 134		02/08/13 17:14	1

Method: 8260B - Volatile Organic Compounds (GC/MS) - DL

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	0.0817		0.00500	0.000550	mg/L			02/08/13 17:42	5

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	89		67 - 139		02/08/13 17:42	5
Dibromofluoromethane	100		62 - 130		02/08/13 17:42	5
Toluene-d8 (Surr)	91		70 - 130		02/08/13 17:42	5
1,2-Dichloroethane-d4 (Surr)	93		50 - 134		02/08/13 17:42	5

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.00377	U	0.0472	0.00377	mg/L		02/08/13 08:51	02/16/13 12:49	100
Nitrobenzene	0.0104	U	0.0472	0.0104	mg/L		02/08/13 08:51	02/16/13 12:49	100
2,4-Dimethylphenol	0.0292	U	0.0472	0.0292	mg/L		02/08/13 08:51	02/16/13 12:49	100
Bis(2-chloroethoxy)methane	0.0123	U	0.0472	0.0123	mg/L		02/08/13 08:51	02/16/13 12:49	100
2-Methylnaphthalene	0.302		0.0472	0.00660	mg/L		02/08/13 08:51	02/16/13 12:49	100
2-Chloronaphthalene	0.00755	U	0.0472	0.00755	mg/L		02/08/13 08:51	02/16/13 12:49	100
Acenaphthylene	0.00566	U	0.0472	0.00566	mg/L		02/08/13 08:51	02/16/13 12:49	100
2,6-Dinitrotoluene	0.00755	U	0.0472	0.00755	mg/L		02/08/13 08:51	02/16/13 12:49	100
Acenaphthene	0.315		0.0472	0.00755	mg/L		02/08/13 08:51	02/16/13 12:49	100
4-Nitrophenol	0.0528	U	0.0943	0.0528	mg/L		02/08/13 08:51	02/16/13 12:49	100
Dibenzofuran	0.206		0.0472	0.00755	mg/L		02/08/13 08:51	02/16/13 12:49	100
2,4-Dinitrotoluene	0.0123	U	0.0472	0.0123	mg/L		02/08/13 08:51	02/16/13 12:49	100
Fluorene	0.175		0.0472	0.00660	mg/L		02/08/13 08:51	02/16/13 12:49	100
4,6-Dinitro-2-methylphenol	0.0783	U	0.0943	0.0783	mg/L		02/08/13 08:51	02/16/13 12:49	100
N-Nitrosodiphenylamine	0.00943	U	0.0472	0.00943	mg/L		02/08/13 08:51	02/16/13 12:49	100
1,2-Diphenylhydrazine	0.0104	U	0.0472	0.0104	mg/L		02/08/13 08:51	02/16/13 12:49	100
Pentachlorophenol	0.0575	U	0.0943	0.0575	mg/L		02/08/13 08:51	02/16/13 12:49	100
Phenanthrene	0.137		0.0472	0.00566	mg/L		02/08/13 08:51	02/16/13 12:49	100
Anthracene	0.0183	J	0.0472	0.00472	mg/L		02/08/13 08:51	02/16/13 12:49	100
Di-n-butyl phthalate	0.0104	U	0.0472	0.0104	mg/L		02/08/13 08:51	02/16/13 12:49	100
Fluoranthene	0.00660	U	0.0472	0.00660	mg/L		02/08/13 08:51	02/16/13 12:49	100
Pyrene	0.0104	U	0.0472	0.0104	mg/L		02/08/13 08:51	02/16/13 12:49	100
Benzo[a]anthracene	0.00755	U	0.0472	0.00755	mg/L		02/08/13 08:51	02/16/13 12:49	100
Bis(2-ethylhexyl) phthalate	0.0349	U	0.0472	0.0349	mg/L		02/08/13 08:51	02/16/13 12:49	100
Chrysene	0.00755	U	0.0472	0.00755	mg/L		02/08/13 08:51	02/16/13 12:49	100
Benzo[a]pyrene	0.00755	U	0.0472	0.00755	mg/L		02/08/13 08:51	02/16/13 12:49	100

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Phenol-d6	0	X	10 - 94	02/08/13 08:51	02/16/13 12:49	100
2,4,6-Tribromophenol	0	X	10 - 123	02/08/13 08:51	02/16/13 12:49	100
2-Fluorobiphenyl	0	X	43 - 116	02/08/13 08:51	02/16/13 12:49	100
2-Fluorophenol	0	X	10 - 100	02/08/13 08:51	02/16/13 12:49	100
Nitrobenzene-d5	0	X	35 - 114	02/08/13 08:51	02/16/13 12:49	100
Terphenyl-d14	0	X	33 - 141	02/08/13 08:51	02/16/13 12:49	100

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68161-1

Client Sample ID: WG-1620-MW40B-20130205

Lab Sample ID: 600-68161-6

Date Collected: 02/05/13 11:35

Matrix: Water

Date Received: 02/06/13 07:13

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels - DL

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	6.78		4.72	0.0755	mg/L		02/08/13 08:51	02/16/13 13:17	1000
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Phenol-d6	0	X	10 - 94				02/08/13 08:51	02/16/13 13:17	1000
2,4,6-Tribromophenol	0	X	10 - 123				02/08/13 08:51	02/16/13 13:17	1000
2-Fluorobiphenyl	0	X	43 - 116				02/08/13 08:51	02/16/13 13:17	1000
2-Fluorophenol	0	X	10 - 100				02/08/13 08:51	02/16/13 13:17	1000
Nitrobenzene-d5	0	X	35 - 114				02/08/13 08:51	02/16/13 13:17	1000
Terphenyl-d14	0	X	33 - 141				02/08/13 08:51	02/16/13 13:17	1000

Client Sample ID: WG-1620-MW42B-20130205

Lab Sample ID: 600-68161-7

Date Collected: 02/05/13 12:30

Matrix: Water

Date Received: 02/06/13 07:13

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	0.000110	U	0.00200	0.000110	mg/L			02/07/13 23:21	1
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			02/07/13 23:21	1
Benzene	0.0000800	U	0.00100	0.0000800	mg/L			02/07/13 23:21	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			02/07/13 23:21	1
Toluene	0.000150	U	0.00100	0.000150	mg/L			02/07/13 23:21	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			02/07/13 23:21	1
Ethylbenzene	0.000132	J b	0.00100	0.000110	mg/L			02/07/13 23:21	1
Xylenes, Total	0.000260	U	0.00300	0.000260	mg/L			02/07/13 23:21	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	84		67 - 139					02/07/13 23:21	1
Dibromofluoromethane	106		62 - 130					02/07/13 23:21	1
Toluene-d8 (Surr)	97		70 - 130					02/07/13 23:21	1
1,2-Dichloroethane-d4 (Surr)	98		50 - 134					02/07/13 23:21	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.0000377	U	0.000472	0.0000377	mg/L		02/08/13 08:51	02/14/13 04:53	1
Nitrobenzene	0.000104	U	0.000472	0.000104	mg/L		02/08/13 08:51	02/14/13 04:53	1
2,4-Dimethylphenol	0.000292	U	0.000472	0.000292	mg/L		02/08/13 08:51	02/14/13 04:53	1
Bis(2-chloroethoxy)methane	0.000123	U	0.000472	0.000123	mg/L		02/08/13 08:51	02/14/13 04:53	1
Naphthalene	0.000476		0.000472	0.0000755	mg/L		02/08/13 08:51	02/14/13 04:53	1
2-Methylnaphthalene	0.000196	J	0.000472	0.0000660	mg/L		02/08/13 08:51	02/14/13 04:53	1
2-Chloronaphthalene	0.0000755	U	0.000472	0.0000755	mg/L		02/08/13 08:51	02/14/13 04:53	1
Acenaphthylene	0.0000566	U	0.000472	0.0000566	mg/L		02/08/13 08:51	02/14/13 04:53	1
2,6-Dinitrotoluene	0.0000755	U	0.000472	0.0000755	mg/L		02/08/13 08:51	02/14/13 04:53	1
Acenaphthene	0.000360	J	0.000472	0.0000755	mg/L		02/08/13 08:51	02/14/13 04:53	1
4-Nitrophenol	0.000528	U	0.000943	0.000528	mg/L		02/08/13 08:51	02/14/13 04:53	1
Dibenzofuran	0.000217	J	0.000472	0.0000755	mg/L		02/08/13 08:51	02/14/13 04:53	1
2,4-Dinitrotoluene	0.000123	U	0.000472	0.000123	mg/L		02/08/13 08:51	02/14/13 04:53	1
Fluorene	0.0000660	U	0.000472	0.0000660	mg/L		02/08/13 08:51	02/14/13 04:53	1
4,6-Dinitro-2-methylphenol	0.000783	U	0.000943	0.000783	mg/L		02/08/13 08:51	02/14/13 04:53	1
N-Nitrosodiphenylamine	0.0000943	U	0.000472	0.0000943	mg/L		02/08/13 08:51	02/14/13 04:53	1
1,2-Diphenylhydrazine	0.000104	U	0.000472	0.000104	mg/L		02/08/13 08:51	02/14/13 04:53	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68161-1

Client Sample ID: WG-1620-MW42B-20130205

Lab Sample ID: 600-68161-7

Date Collected: 02/05/13 12:30

Matrix: Water

Date Received: 02/06/13 07:13

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Pentachlorophenol	0.000575	U	0.000943	0.000575	mg/L		02/08/13 08:51	02/14/13 04:53	1
Phenanthrene	0.000356	J	0.000472	0.0000566	mg/L		02/08/13 08:51	02/14/13 04:53	1
Anthracene	0.000194	J	0.000472	0.0000472	mg/L		02/08/13 08:51	02/14/13 04:53	1
Di-n-butyl phthalate	0.000104	U	0.000472	0.000104	mg/L		02/08/13 08:51	02/14/13 04:53	1
Fluoranthene	0.000641		0.000472	0.0000660	mg/L		02/08/13 08:51	02/14/13 04:53	1
Pyrene	0.000369	J	0.000472	0.000104	mg/L		02/08/13 08:51	02/14/13 04:53	1
Benzo[a]anthracene	0.0000755	U	0.000472	0.0000755	mg/L		02/08/13 08:51	02/14/13 04:53	1
Bis(2-ethylhexyl) phthalate	0.000349	U	0.000472	0.000349	mg/L		02/08/13 08:51	02/14/13 04:53	1
Chrysene	0.0000755	U	0.000472	0.0000755	mg/L		02/08/13 08:51	02/14/13 04:53	1
Benzo[a]pyrene	0.0000755	U	0.000472	0.0000755	mg/L		02/08/13 08:51	02/14/13 04:53	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Phenol-d6	17		10 - 94				02/08/13 08:51	02/14/13 04:53	1
2,4,6-Tribromophenol	45		10 - 123				02/08/13 08:51	02/14/13 04:53	1
2-Fluorobiphenyl	67		43 - 116				02/08/13 08:51	02/14/13 04:53	1
2-Fluorophenol	31		10 - 100				02/08/13 08:51	02/14/13 04:53	1
Nitrobenzene-d5	67		35 - 114				02/08/13 08:51	02/14/13 04:53	1
Terphenyl-d14	68		33 - 141				02/08/13 08:51	02/14/13 04:53	1

Client Sample ID: WG-1620-MW39B-20130205

Lab Sample ID: 600-68161-8

Date Collected: 02/05/13 13:20

Matrix: Water

Date Received: 02/06/13 07:13

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	0.000110	U	0.00200	0.000110	mg/L			02/07/13 23:48	1
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			02/07/13 23:48	1
Benzene	0.0000800	U	0.00100	0.0000800	mg/L			02/07/13 23:48	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			02/07/13 23:48	1
Toluene	0.000150	U	0.00100	0.000150	mg/L			02/07/13 23:48	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			02/07/13 23:48	1
Ethylbenzene	0.000110	U	0.00100	0.000110	mg/L			02/07/13 23:48	1
Xylenes, Total	0.000260	U	0.00300	0.000260	mg/L			02/07/13 23:48	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	85		67 - 139					02/07/13 23:48	1
Dibromofluoromethane	105		62 - 130					02/07/13 23:48	1
Toluene-d8 (Surr)	93		70 - 130					02/07/13 23:48	1
1,2-Dichloroethane-d4 (Surr)	96		50 - 134					02/07/13 23:48	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.0000377	U	0.000472	0.0000377	mg/L		02/08/13 08:51	02/14/13 05:20	1
Nitrobenzene	0.000104	U	0.000472	0.000104	mg/L		02/08/13 08:51	02/14/13 05:20	1
2,4-Dimethylphenol	0.000292	U	0.000472	0.000292	mg/L		02/08/13 08:51	02/14/13 05:20	1
Bis(2-chloroethoxy)methane	0.000123	U	0.000472	0.000123	mg/L		02/08/13 08:51	02/14/13 05:20	1
Naphthalene	0.000428	J	0.000472	0.0000755	mg/L		02/08/13 08:51	02/14/13 05:20	1
2-Methylnaphthalene	0.0000660	U	0.000472	0.0000660	mg/L		02/08/13 08:51	02/14/13 05:20	1
2-Chloronaphthalene	0.0000755	U	0.000472	0.0000755	mg/L		02/08/13 08:51	02/14/13 05:20	1
Acenaphthylene	0.000110	J	0.000472	0.0000566	mg/L		02/08/13 08:51	02/14/13 05:20	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68161-1

Client Sample ID: WG-1620-MW39B-20130205

Lab Sample ID: 600-68161-8

Date Collected: 02/05/13 13:20

Matrix: Water

Date Received: 02/06/13 07:13

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
2,6-Dinitrotoluene	0.0000755	U	0.000472	0.0000755	mg/L		02/08/13 08:51	02/14/13 05:20	1
Acenaphthene	0.000756		0.000472	0.0000755	mg/L		02/08/13 08:51	02/14/13 05:20	1
4-Nitrophenol	0.000528	U	0.000943	0.000528	mg/L		02/08/13 08:51	02/14/13 05:20	1
Dibenzofuran	0.0000755	U	0.000472	0.0000755	mg/L		02/08/13 08:51	02/14/13 05:20	1
2,4-Dinitrotoluene	0.000123	U	0.000472	0.000123	mg/L		02/08/13 08:51	02/14/13 05:20	1
Fluorene	0.0000660	U	0.000472	0.0000660	mg/L		02/08/13 08:51	02/14/13 05:20	1
4,6-Dinitro-2-methylphenol	0.000783	U	0.000943	0.000783	mg/L		02/08/13 08:51	02/14/13 05:20	1
N-Nitrosodiphenylamine	0.0000943	U	0.000472	0.0000943	mg/L		02/08/13 08:51	02/14/13 05:20	1
1,2-Diphenylhydrazine	0.000104	U	0.000472	0.000104	mg/L		02/08/13 08:51	02/14/13 05:20	1
Pentachlorophenol	0.000575	U	0.000943	0.000575	mg/L		02/08/13 08:51	02/14/13 05:20	1
Phenanthrene	0.0000566	U	0.000472	0.0000566	mg/L		02/08/13 08:51	02/14/13 05:20	1
Anthracene	0.000901		0.000472	0.0000472	mg/L		02/08/13 08:51	02/14/13 05:20	1
Di-n-butyl phthalate	0.000104	U	0.000472	0.000104	mg/L		02/08/13 08:51	02/14/13 05:20	1
Fluoranthene	0.000112	J	0.000472	0.0000660	mg/L		02/08/13 08:51	02/14/13 05:20	1
Pyrene	0.000131	J	0.000472	0.000104	mg/L		02/08/13 08:51	02/14/13 05:20	1
Benzo[a]anthracene	0.0000755	U	0.000472	0.0000755	mg/L		02/08/13 08:51	02/14/13 05:20	1
Bis(2-ethylhexyl) phthalate	0.000349	U	0.000472	0.000349	mg/L		02/08/13 08:51	02/14/13 05:20	1
Chrysene	0.0000755	U	0.000472	0.0000755	mg/L		02/08/13 08:51	02/14/13 05:20	1
Benzo[a]pyrene	0.0000755	U	0.000472	0.0000755	mg/L		02/08/13 08:51	02/14/13 05:20	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>Phenol-d6</i>	18		10 - 94				02/08/13 08:51	02/14/13 05:20	1
<i>2,4,6-Tribromophenol</i>	70		10 - 123				02/08/13 08:51	02/14/13 05:20	1
<i>2-Fluorobiphenyl</i>	74		43 - 116				02/08/13 08:51	02/14/13 05:20	1
<i>2-Fluorophenol</i>	29		10 - 100				02/08/13 08:51	02/14/13 05:20	1
<i>Nitrobenzene-d5</i>	72		35 - 114				02/08/13 08:51	02/14/13 05:20	1
<i>Terphenyl-d14</i>	75		33 - 141				02/08/13 08:51	02/14/13 05:20	1

Client Sample ID: WG-1620-MW12C-20130205

Lab Sample ID: 600-68161-9

Date Collected: 02/05/13 15:05

Matrix: Water

Date Received: 02/06/13 07:13

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	0.000110	U	0.00200	0.000110	mg/L			02/08/13 00:16	1
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			02/08/13 00:16	1
Benzene	0.0000800	U	0.00100	0.0000800	mg/L			02/08/13 00:16	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			02/08/13 00:16	1
Toluene	0.000150	U	0.00100	0.000150	mg/L			02/08/13 00:16	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			02/08/13 00:16	1
Ethylbenzene	0.000145	J b	0.00100	0.000110	mg/L			02/08/13 00:16	1
Xylenes, Total	0.000260	U	0.00300	0.000260	mg/L			02/08/13 00:16	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>4-Bromofluorobenzene</i>	93		67 - 139					02/08/13 00:16	1
<i>Dibromofluoromethane</i>	106		62 - 130					02/08/13 00:16	1
<i>Toluene-d8 (Surr)</i>	98		70 - 130					02/08/13 00:16	1
<i>1,2-Dichloroethane-d4 (Surr)</i>	93		50 - 134					02/08/13 00:16	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68161-1

Client Sample ID: WG-1620-MW12C-20130205

Lab Sample ID: 600-68161-9

Date Collected: 02/05/13 15:05

Matrix: Water

Date Received: 02/06/13 07:13

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.0000377	U	0.000472	0.0000377	mg/L		02/08/13 08:51	02/14/13 05:46	1
Nitrobenzene	0.000104	U	0.000472	0.000104	mg/L		02/08/13 08:51	02/14/13 05:46	1
2,4-Dimethylphenol	0.000292	U	0.000472	0.000292	mg/L		02/08/13 08:51	02/14/13 05:46	1
Bis(2-chloroethoxy)methane	0.000123	U	0.000472	0.000123	mg/L		02/08/13 08:51	02/14/13 05:46	1
Naphthalene	0.000729		0.000472	0.0000755	mg/L		02/08/13 08:51	02/14/13 05:46	1
2-Methylnaphthalene	0.000146	J	0.000472	0.0000660	mg/L		02/08/13 08:51	02/14/13 05:46	1
2-Chloronaphthalene	0.0000755	U	0.000472	0.0000755	mg/L		02/08/13 08:51	02/14/13 05:46	1
Acenaphthylene	0.0000566	U	0.000472	0.0000566	mg/L		02/08/13 08:51	02/14/13 05:46	1
2,6-Dinitrotoluene	0.0000755	U	0.000472	0.0000755	mg/L		02/08/13 08:51	02/14/13 05:46	1
Acenaphthene	0.0000755	U	0.000472	0.0000755	mg/L		02/08/13 08:51	02/14/13 05:46	1
4-Nitrophenol	0.000528	U	0.000943	0.000528	mg/L		02/08/13 08:51	02/14/13 05:46	1
Dibenzofuran	0.0000865	J	0.000472	0.0000755	mg/L		02/08/13 08:51	02/14/13 05:46	1
2,4-Dinitrotoluene	0.000123	U	0.000472	0.000123	mg/L		02/08/13 08:51	02/14/13 05:46	1
Fluorene	0.000149	J	0.000472	0.0000660	mg/L		02/08/13 08:51	02/14/13 05:46	1
4,6-Dinitro-2-methylphenol	0.000783	U	0.000943	0.000783	mg/L		02/08/13 08:51	02/14/13 05:46	1
N-Nitrosodiphenylamine	0.0000943	U	0.000472	0.0000943	mg/L		02/08/13 08:51	02/14/13 05:46	1
1,2-Diphenylhydrazine	0.000104	U	0.000472	0.000104	mg/L		02/08/13 08:51	02/14/13 05:46	1
Pentachlorophenol	0.000575	U	0.000943	0.000575	mg/L		02/08/13 08:51	02/14/13 05:46	1
Phenanthrene	0.0000566	U	0.000472	0.0000566	mg/L		02/08/13 08:51	02/14/13 05:46	1
Anthracene	0.0000745	J	0.000472	0.0000472	mg/L		02/08/13 08:51	02/14/13 05:46	1
Di-n-butyl phthalate	0.000104	U	0.000472	0.000104	mg/L		02/08/13 08:51	02/14/13 05:46	1
Fluoranthene	0.0000660	U	0.000472	0.0000660	mg/L		02/08/13 08:51	02/14/13 05:46	1
Pyrene	0.000104	U	0.000472	0.000104	mg/L		02/08/13 08:51	02/14/13 05:46	1
Benzo[a]anthracene	0.0000755	U	0.000472	0.0000755	mg/L		02/08/13 08:51	02/14/13 05:46	1
Bis(2-ethylhexyl) phthalate	0.000349	U	0.000472	0.000349	mg/L		02/08/13 08:51	02/14/13 05:46	1
Chrysene	0.0000755	U	0.000472	0.0000755	mg/L		02/08/13 08:51	02/14/13 05:46	1
Benzo[a]pyrene	0.0000755	U	0.000472	0.0000755	mg/L		02/08/13 08:51	02/14/13 05:46	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Phenol-d6	18		10 - 94	02/08/13 08:51	02/14/13 05:46	1
2,4,6-Tribromophenol	65		10 - 123	02/08/13 08:51	02/14/13 05:46	1
2-Fluorobiphenyl	74		43 - 116	02/08/13 08:51	02/14/13 05:46	1
2-Fluorophenol	31		10 - 100	02/08/13 08:51	02/14/13 05:46	1
Nitrobenzene-d5	71		35 - 114	02/08/13 08:51	02/14/13 05:46	1
Terphenyl-d14	70		33 - 141	02/08/13 08:51	02/14/13 05:46	1

Client Sample ID: WG-1620-MW12A-20130205

Lab Sample ID: 600-68161-10

Date Collected: 02/05/13 16:00

Matrix: Water

Date Received: 02/06/13 07:13

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	0.000110	U	0.00200	0.000110	mg/L		02/08/13 18:09	02/08/13 18:09	1
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L		02/08/13 18:09	02/08/13 18:09	1
Benzene	0.000237	J	0.00100	0.0000800	mg/L		02/08/13 18:09	02/08/13 18:09	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L		02/08/13 18:09	02/08/13 18:09	1
Toluene	0.000150	U	0.00100	0.000150	mg/L		02/08/13 18:09	02/08/13 18:09	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L		02/08/13 18:09	02/08/13 18:09	1
Ethylbenzene	0.000521	J	0.00100	0.000110	mg/L		02/08/13 18:09	02/08/13 18:09	1
Xylenes, Total	0.00197	J	0.00300	0.000260	mg/L		02/08/13 18:09	02/08/13 18:09	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68161-1

Client Sample ID: WG-1620-MW12A-20130205

Lab Sample ID: 600-68161-10

Date Collected: 02/05/13 16:00

Matrix: Water

Date Received: 02/06/13 07:13

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	87		67 - 139		02/08/13 18:09	1
Dibromofluoromethane	104		62 - 130		02/08/13 18:09	1
Toluene-d8 (Surr)	94		70 - 130		02/08/13 18:09	1
1,2-Dichloroethane-d4 (Surr)	92		50 - 134		02/08/13 18:09	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.000101	J	0.000472	0.0000377	mg/L		02/08/13 08:51	02/14/13 06:13	1
Nitrobenzene	0.000104	U	0.000472	0.000104	mg/L		02/08/13 08:51	02/14/13 06:13	1
2,4-Dimethylphenol	0.000292	U	0.000472	0.000292	mg/L		02/08/13 08:51	02/14/13 06:13	1
Bis(2-chloroethoxy)methane	0.000123	U	0.000472	0.000123	mg/L		02/08/13 08:51	02/14/13 06:13	1
2-Chloronaphthalene	0.0000755	U	0.000472	0.0000755	mg/L		02/08/13 08:51	02/14/13 06:13	1
Acenaphthylene	0.0000566	U	0.000472	0.0000566	mg/L		02/08/13 08:51	02/14/13 06:13	1
2,6-Dinitrotoluene	0.0000755	U	0.000472	0.0000755	mg/L		02/08/13 08:51	02/14/13 06:13	1
4-Nitrophenol	0.000528	U	0.000943	0.000528	mg/L		02/08/13 08:51	02/14/13 06:13	1
2,4-Dinitrotoluene	0.000123	U	0.000472	0.000123	mg/L		02/08/13 08:51	02/14/13 06:13	1
4,6-Dinitro-2-methylphenol	0.000783	U	0.000943	0.000783	mg/L		02/08/13 08:51	02/14/13 06:13	1
N-Nitrosodiphenylamine	0.0000943	U	0.000472	0.0000943	mg/L		02/08/13 08:51	02/14/13 06:13	1
1,2-Diphenylhydrazine	0.000104	U	0.000472	0.000104	mg/L		02/08/13 08:51	02/14/13 06:13	1
Pentachlorophenol	0.000575	U	0.000943	0.000575	mg/L		02/08/13 08:51	02/14/13 06:13	1
Anthracene	0.0179		0.000472	0.0000472	mg/L		02/08/13 08:51	02/14/13 06:13	1
Di-n-butyl phthalate	0.000104	U	0.000472	0.000104	mg/L		02/08/13 08:51	02/14/13 06:13	1
Fluoranthene	0.0111		0.000472	0.0000660	mg/L		02/08/13 08:51	02/14/13 06:13	1
Pyrene	0.00515		0.000472	0.000104	mg/L		02/08/13 08:51	02/14/13 06:13	1
Benzo[a]anthracene	0.000221	J	0.000472	0.0000755	mg/L		02/08/13 08:51	02/14/13 06:13	1
Bis(2-ethylhexyl) phthalate	0.000349	U	0.000472	0.000349	mg/L		02/08/13 08:51	02/14/13 06:13	1
Chrysene	0.000186	J	0.000472	0.0000755	mg/L		02/08/13 08:51	02/14/13 06:13	1
Benzo[a]pyrene	0.0000755	U	0.000472	0.0000755	mg/L		02/08/13 08:51	02/14/13 06:13	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Phenol-d6	23		10 - 94	02/08/13 08:51	02/14/13 06:13	1
2,4,6-Tribromophenol	73		10 - 123	02/08/13 08:51	02/14/13 06:13	1
2-Fluorobiphenyl	79		43 - 116	02/08/13 08:51	02/14/13 06:13	1
2-Fluorophenol	32		10 - 100	02/08/13 08:51	02/14/13 06:13	1
Nitrobenzene-d5	81		35 - 114	02/08/13 08:51	02/14/13 06:13	1
Terphenyl-d14	81		33 - 141	02/08/13 08:51	02/14/13 06:13	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels - DL

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	0.0828	J	0.236	0.00377	mg/L		02/08/13 08:51	02/16/13 13:44	50
2-Methylnaphthalene	0.0477		0.0236	0.00330	mg/L		02/08/13 08:51	02/16/13 13:44	50
Acenaphthene	0.253		0.0236	0.00377	mg/L		02/08/13 08:51	02/16/13 13:44	50
Dibenzofuran	0.170		0.0236	0.00377	mg/L		02/08/13 08:51	02/16/13 13:44	50
Fluorene	0.170		0.0236	0.00330	mg/L		02/08/13 08:51	02/16/13 13:44	50
Phenanthrene	0.130		0.0236	0.00283	mg/L		02/08/13 08:51	02/16/13 13:44	50

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Phenol-d6	0	X	10 - 94	02/08/13 08:51	02/16/13 13:44	50
2,4,6-Tribromophenol	0	X	10 - 123	02/08/13 08:51	02/16/13 13:44	50
2-Fluorobiphenyl	0	X	43 - 116	02/08/13 08:51	02/16/13 13:44	50
2-Fluorophenol	0	X	10 - 100	02/08/13 08:51	02/16/13 13:44	50

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68161-1

Client Sample ID: WG-1620-MW12A-20130205

Lab Sample ID: 600-68161-10

Date Collected: 02/05/13 16:00

Matrix: Water

Date Received: 02/06/13 07:13

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels - DL (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5	0	X	35 - 114	02/08/13 08:51	02/16/13 13:44	50
Terphenyl-d14	0	X	33 - 141	02/08/13 08:51	02/16/13 13:44	50

Client Sample ID: WG-1620-TW41B-20130205

Lab Sample ID: 600-68161-11

Date Collected: 02/05/13 16:50

Matrix: Water

Date Received: 02/06/13 07:13

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	0.000110	U	0.00200	0.000110	mg/L			02/08/13 18:36	1
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			02/08/13 18:36	1
Benzene	0.0000800	U	0.00100	0.0000800	mg/L			02/08/13 18:36	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			02/08/13 18:36	1
Toluene	0.000150	U	0.00100	0.000150	mg/L			02/08/13 18:36	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			02/08/13 18:36	1
Ethylbenzene	0.000110	U	0.00100	0.000110	mg/L			02/08/13 18:36	1
Xylenes, Total	0.000260	U	0.00300	0.000260	mg/L			02/08/13 18:36	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	88		67 - 139		02/08/13 18:36	1
Dibromofluoromethane	103		62 - 130		02/08/13 18:36	1
Toluene-d8 (Surr)	93		70 - 130		02/08/13 18:36	1
1,2-Dichloroethane-d4 (Surr)	91		50 - 134		02/08/13 18:36	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.0000377	U	0.000472	0.0000377	mg/L		02/08/13 08:51	02/14/13 06:40	1
Nitrobenzene	0.000104	U	0.000472	0.000104	mg/L		02/08/13 08:51	02/14/13 06:40	1
2,4-Dimethylphenol	0.000292	U	0.000472	0.000292	mg/L		02/08/13 08:51	02/14/13 06:40	1
Bis(2-chloroethoxy)methane	0.000123	U	0.000472	0.000123	mg/L		02/08/13 08:51	02/14/13 06:40	1
Naphthalene	0.000156	J	0.000472	0.0000755	mg/L		02/08/13 08:51	02/14/13 06:40	1
2-Methylnaphthalene	0.0000660	U	0.000472	0.0000660	mg/L		02/08/13 08:51	02/14/13 06:40	1
2-Chloronaphthalene	0.0000755	U	0.000472	0.0000755	mg/L		02/08/13 08:51	02/14/13 06:40	1
Acenaphthylene	0.0000751	J	0.000472	0.0000566	mg/L		02/08/13 08:51	02/14/13 06:40	1
2,6-Dinitrotoluene	0.0000755	U	0.000472	0.0000755	mg/L		02/08/13 08:51	02/14/13 06:40	1
Acenaphthene	0.0000755	U	0.000472	0.0000755	mg/L		02/08/13 08:51	02/14/13 06:40	1
4-Nitrophenol	0.000528	U	0.000943	0.000528	mg/L		02/08/13 08:51	02/14/13 06:40	1
Dibenzofuran	0.0000755	U	0.000472	0.0000755	mg/L		02/08/13 08:51	02/14/13 06:40	1
2,4-Dinitrotoluene	0.000123	U	0.000472	0.000123	mg/L		02/08/13 08:51	02/14/13 06:40	1
Fluorene	0.0000917	J	0.000472	0.0000660	mg/L		02/08/13 08:51	02/14/13 06:40	1
4,6-Dinitro-2-methylphenol	0.000783	U	0.000943	0.000783	mg/L		02/08/13 08:51	02/14/13 06:40	1
N-Nitrosodiphenylamine	0.0000943	U	0.000472	0.0000943	mg/L		02/08/13 08:51	02/14/13 06:40	1
1,2-Diphenylhydrazine	0.000104	U	0.000472	0.000104	mg/L		02/08/13 08:51	02/14/13 06:40	1
Pentachlorophenol	0.000575	U	0.000943	0.000575	mg/L		02/08/13 08:51	02/14/13 06:40	1
Phenanthrene	0.0000566	U	0.000472	0.0000566	mg/L		02/08/13 08:51	02/14/13 06:40	1
Anthracene	0.0000979		0.000472	0.0000472	mg/L		02/08/13 08:51	02/14/13 06:40	1
Di-n-butyl phthalate	0.000104	U	0.000472	0.000104	mg/L		02/08/13 08:51	02/14/13 06:40	1
Fluoranthene	0.0000660	U	0.000472	0.0000660	mg/L		02/08/13 08:51	02/14/13 06:40	1
Pyrene	0.000104	U	0.000472	0.000104	mg/L		02/08/13 08:51	02/14/13 06:40	1
Benzo[a]anthracene	0.0000755	U	0.000472	0.0000755	mg/L		02/08/13 08:51	02/14/13 06:40	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68161-1

Client Sample ID: WG-1620-TW41B-20130205

Lab Sample ID: 600-68161-11

Date Collected: 02/05/13 16:50

Matrix: Water

Date Received: 02/06/13 07:13

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	0.000349	U	0.000472	0.000349	mg/L		02/08/13 08:51	02/14/13 06:40	1
Chrysene	0.0000755	U	0.000472	0.0000755	mg/L		02/08/13 08:51	02/14/13 06:40	1
Benzo[a]pyrene	0.0000755	U	0.000472	0.0000755	mg/L		02/08/13 08:51	02/14/13 06:40	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Phenol-d6	18		10 - 94				02/08/13 08:51	02/14/13 06:40	1
2,4,6-Tribromophenol	61		10 - 123				02/08/13 08:51	02/14/13 06:40	1
2-Fluorobiphenyl	70		43 - 116				02/08/13 08:51	02/14/13 06:40	1
2-Fluorophenol	29		10 - 100				02/08/13 08:51	02/14/13 06:40	1
Nitrobenzene-d5	61		35 - 114				02/08/13 08:51	02/14/13 06:40	1
Terphenyl-d14	69		33 - 141				02/08/13 08:51	02/14/13 06:40	1

Client Sample ID: WG-1620-MW14-20130205

Lab Sample ID: 600-68161-12

Date Collected: 02/05/13 17:50

Matrix: Water

Date Received: 02/06/13 07:13

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	0.000110	U	0.00200	0.000110	mg/L			02/11/13 13:43	1
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			02/11/13 13:43	1
Benzene	0.0000800	U	0.00100	0.0000800	mg/L			02/11/13 13:43	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			02/11/13 13:43	1
Toluene	0.000150	U	0.00100	0.000150	mg/L			02/11/13 13:43	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			02/11/13 13:43	1
Ethylbenzene	0.000110	U	0.00100	0.000110	mg/L			02/11/13 13:43	1
Xylenes, Total	0.000260	U	0.00300	0.000260	mg/L			02/11/13 13:43	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	81		67 - 139					02/11/13 13:43	1
Dibromofluoromethane	105		62 - 130					02/11/13 13:43	1
Toluene-d8 (Surr)	94		70 - 130					02/11/13 13:43	1
1,2-Dichloroethane-d4 (Surr)	94		50 - 134					02/11/13 13:43	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.0000377	U	0.000472	0.0000377	mg/L		02/08/13 08:51	02/14/13 07:06	1
Nitrobenzene	0.000104	U	0.000472	0.000104	mg/L		02/08/13 08:51	02/14/13 07:06	1
2,4-Dimethylphenol	0.000292	U	0.000472	0.000292	mg/L		02/08/13 08:51	02/14/13 07:06	1
Bis(2-chloroethoxy)methane	0.000123	U	0.000472	0.000123	mg/L		02/08/13 08:51	02/14/13 07:06	1
Naphthalene	0.00211		0.000472	0.0000755	mg/L		02/08/13 08:51	02/14/13 07:06	1
2-Methylnaphthalene	0.000402	J	0.000472	0.0000660	mg/L		02/08/13 08:51	02/14/13 07:06	1
2-Chloronaphthalene	0.0000755	U	0.000472	0.0000755	mg/L		02/08/13 08:51	02/14/13 07:06	1
Acenaphthylene	0.0000566	U	0.000472	0.0000566	mg/L		02/08/13 08:51	02/14/13 07:06	1
2,6-Dinitrotoluene	0.0000755	U	0.000472	0.0000755	mg/L		02/08/13 08:51	02/14/13 07:06	1
Acenaphthene	0.000600		0.000472	0.0000755	mg/L		02/08/13 08:51	02/14/13 07:06	1
4-Nitrophenol	0.000528	U	0.000943	0.000528	mg/L		02/08/13 08:51	02/14/13 07:06	1
Dibenzofuran	0.000467	J	0.000472	0.0000755	mg/L		02/08/13 08:51	02/14/13 07:06	1
2,4-Dinitrotoluene	0.000123	U	0.000472	0.000123	mg/L		02/08/13 08:51	02/14/13 07:06	1
Fluorene	0.0000660	U	0.000472	0.0000660	mg/L		02/08/13 08:51	02/14/13 07:06	1
4,6-Dinitro-2-methylphenol	0.000783	U	0.000943	0.000783	mg/L		02/08/13 08:51	02/14/13 07:06	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68161-1

Client Sample ID: WG-1620-MW14-20130205

Lab Sample ID: 600-68161-12

Date Collected: 02/05/13 17:50

Matrix: Water

Date Received: 02/06/13 07:13

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Nitrosodiphenylamine	0.0000943	U	0.000472	0.0000943	mg/L		02/08/13 08:51	02/14/13 07:06	1
1,2-Diphenylhydrazine	0.000104	U	0.000472	0.000104	mg/L		02/08/13 08:51	02/14/13 07:06	1
Pentachlorophenol	0.000575	U	0.000943	0.000575	mg/L		02/08/13 08:51	02/14/13 07:06	1
Phenanthrene	0.000484		0.000472	0.0000566	mg/L		02/08/13 08:51	02/14/13 07:06	1
Anthracene	0.000277	J	0.000472	0.0000472	mg/L		02/08/13 08:51	02/14/13 07:06	1
Di-n-butyl phthalate	0.000104	U	0.000472	0.000104	mg/L		02/08/13 08:51	02/14/13 07:06	1
Fluoranthene	0.0000794	J	0.000472	0.0000660	mg/L		02/08/13 08:51	02/14/13 07:06	1
Pyrene	0.000104	U	0.000472	0.000104	mg/L		02/08/13 08:51	02/14/13 07:06	1
Benzo[a]anthracene	0.0000755	U	0.000472	0.0000755	mg/L		02/08/13 08:51	02/14/13 07:06	1
Bis(2-ethylhexyl) phthalate	0.000349	U	0.000472	0.000349	mg/L		02/08/13 08:51	02/14/13 07:06	1
Chrysene	0.0000755	U	0.000472	0.0000755	mg/L		02/08/13 08:51	02/14/13 07:06	1
Benzo[a]pyrene	0.0000755	U	0.000472	0.0000755	mg/L		02/08/13 08:51	02/14/13 07:06	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Phenol-d6	22		10 - 94				02/08/13 08:51	02/14/13 07:06	1
2,4,6-Tribromophenol	81		10 - 123				02/08/13 08:51	02/14/13 07:06	1
2-Fluorobiphenyl	84		43 - 116				02/08/13 08:51	02/14/13 07:06	1
2-Fluorophenol	37		10 - 100				02/08/13 08:51	02/14/13 07:06	1
Nitrobenzene-d5	80		35 - 114				02/08/13 08:51	02/14/13 07:06	1
Terphenyl-d14	90		33 - 141				02/08/13 08:51	02/14/13 07:06	1

Client Sample ID: WG-1620-FB4-20130205

Lab Sample ID: 600-68161-13

Date Collected: 02/05/13 18:10

Matrix: Water

Date Received: 02/06/13 07:13

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	0.000110	U	0.00200	0.000110	mg/L			02/08/13 15:52	1
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			02/08/13 15:52	1
Benzene	0.0000800	U	0.00100	0.0000800	mg/L			02/08/13 15:52	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			02/08/13 15:52	1
Toluene	0.000150	U	0.00100	0.000150	mg/L			02/08/13 15:52	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			02/08/13 15:52	1
Ethylbenzene	0.000110	U	0.00100	0.000110	mg/L			02/08/13 15:52	1
Xylenes, Total	0.000260	U	0.00300	0.000260	mg/L			02/08/13 15:52	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	91		67 - 139					02/08/13 15:52	1
Dibromofluoromethane	103		62 - 130					02/08/13 15:52	1
Toluene-d8 (Surr)	97		70 - 130					02/08/13 15:52	1
1,2-Dichloroethane-d4 (Surr)	93		50 - 134					02/08/13 15:52	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.0000377	U	0.000472	0.0000377	mg/L		02/08/13 08:51	02/14/13 07:33	1
Nitrobenzene	0.000104	U	0.000472	0.000104	mg/L		02/08/13 08:51	02/14/13 07:33	1
2,4-Dimethylphenol	0.000292	U	0.000472	0.000292	mg/L		02/08/13 08:51	02/14/13 07:33	1
Bis(2-chloroethoxy)methane	0.000123	U	0.000472	0.000123	mg/L		02/08/13 08:51	02/14/13 07:33	1
Naphthalene	0.0000755	U	0.000472	0.0000755	mg/L		02/08/13 08:51	02/14/13 07:33	1
2-Methylnaphthalene	0.0000660	U	0.000472	0.0000660	mg/L		02/08/13 08:51	02/14/13 07:33	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68161-1

Client Sample ID: WG-1620-FB4-20130205

Lab Sample ID: 600-68161-13

Date Collected: 02/05/13 18:10

Matrix: Water

Date Received: 02/06/13 07:13

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Chloronaphthalene	0.0000755	U	0.000472	0.0000755	mg/L		02/08/13 08:51	02/14/13 07:33	1
Acenaphthylene	0.0000566	U	0.000472	0.0000566	mg/L		02/08/13 08:51	02/14/13 07:33	1
2,6-Dinitrotoluene	0.0000755	U	0.000472	0.0000755	mg/L		02/08/13 08:51	02/14/13 07:33	1
Acenaphthene	0.0000755	U	0.000472	0.0000755	mg/L		02/08/13 08:51	02/14/13 07:33	1
4-Nitrophenol	0.000528	U	0.000943	0.000528	mg/L		02/08/13 08:51	02/14/13 07:33	1
Dibenzofuran	0.0000755	U	0.000472	0.0000755	mg/L		02/08/13 08:51	02/14/13 07:33	1
2,4-Dinitrotoluene	0.000123	U	0.000472	0.000123	mg/L		02/08/13 08:51	02/14/13 07:33	1
Fluorene	0.0000660	U	0.000472	0.0000660	mg/L		02/08/13 08:51	02/14/13 07:33	1
4,6-Dinitro-2-methylphenol	0.000783	U	0.000943	0.000783	mg/L		02/08/13 08:51	02/14/13 07:33	1
N-Nitrosodiphenylamine	0.0000943	U	0.000472	0.0000943	mg/L		02/08/13 08:51	02/14/13 07:33	1
1,2-Diphenylhydrazine	0.000104	U	0.000472	0.000104	mg/L		02/08/13 08:51	02/14/13 07:33	1
Pentachlorophenol	0.000575	U	0.000943	0.000575	mg/L		02/08/13 08:51	02/14/13 07:33	1
Phenanthrene	0.0000566	U	0.000472	0.0000566	mg/L		02/08/13 08:51	02/14/13 07:33	1
Anthracene	0.0000472	U	0.000472	0.0000472	mg/L		02/08/13 08:51	02/14/13 07:33	1
Di-n-butyl phthalate	0.000104	U	0.000472	0.000104	mg/L		02/08/13 08:51	02/14/13 07:33	1
Fluoranthene	0.0000660	U	0.000472	0.0000660	mg/L		02/08/13 08:51	02/14/13 07:33	1
Pyrene	0.000104	U	0.000472	0.000104	mg/L		02/08/13 08:51	02/14/13 07:33	1
Benzo[a]anthracene	0.0000755	U	0.000472	0.0000755	mg/L		02/08/13 08:51	02/14/13 07:33	1
Bis(2-ethylhexyl) phthalate	0.000349	U	0.000472	0.000349	mg/L		02/08/13 08:51	02/14/13 07:33	1
Chrysene	0.0000755	U	0.000472	0.0000755	mg/L		02/08/13 08:51	02/14/13 07:33	1
Benzo[a]pyrene	0.0000755	U	0.000472	0.0000755	mg/L		02/08/13 08:51	02/14/13 07:33	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Phenol-d6	20		10 - 94				02/08/13 08:51	02/14/13 07:33	1
2,4,6-Tribromophenol	51		10 - 123				02/08/13 08:51	02/14/13 07:33	1
2-Fluorobiphenyl	88		43 - 116				02/08/13 08:51	02/14/13 07:33	1
2-Fluorophenol	35		10 - 100				02/08/13 08:51	02/14/13 07:33	1
Nitrobenzene-d5	87		35 - 114				02/08/13 08:51	02/14/13 07:33	1
Terphenyl-d14	84		33 - 141				02/08/13 08:51	02/14/13 07:33	1

Client Sample ID: WG-1620-TB03-20130205

Lab Sample ID: 600-68161-14

Date Collected: 02/05/13 00:00

Matrix: Water

Date Received: 02/06/13 07:13

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	0.000110	U	0.00200	0.000110	mg/L			02/08/13 16:19	1
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			02/08/13 16:19	1
Benzene	0.0000800	U	0.00100	0.0000800	mg/L			02/08/13 16:19	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			02/08/13 16:19	1
Toluene	0.000150	U	0.00100	0.000150	mg/L			02/08/13 16:19	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			02/08/13 16:19	1
Ethylbenzene	0.000110	U	0.00100	0.000110	mg/L			02/08/13 16:19	1
Xylenes, Total	0.000260	U	0.00300	0.000260	mg/L			02/08/13 16:19	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	91		67 - 139					02/08/13 16:19	1
Dibromofluoromethane	103		62 - 130					02/08/13 16:19	1
Toluene-d8 (Surr)	96		70 - 130					02/08/13 16:19	1
1,2-Dichloroethane-d4 (Surr)	88		50 - 134					02/08/13 16:19	1

TestAmerica Houston

Definitions/Glossary

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68161-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
U	Analyte was not detected at or above the SDL.
J	Result is less than the MQL but greater than or equal to the SDL and the concentration is an estimated value.
b	The compound was found in the blank and sample

GC/MS Semi VOA

Qualifier	Qualifier Description
U	Analyte was not detected at or above the SDL.
X	Surrogate is outside control limits
N	MS, MSD: Spike recovery exceeds upper or lower control limits.
N	RPD of the MS and MSD exceeds the control limits
J	Result is less than the MQL but greater than or equal to the SDL and the concentration is an estimated value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
DL, RA, RE, IN	Indicates a Dilution, Reanalysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
EDL	Estimated Detection Limit
EPA	United States Environmental Protection Agency
MDA	Minimum detectable activity
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Surrogate Summary

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68161-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		BFB (67-139)	DBFM (62-130)	TOL (70-130)	12DCE (50-134)
600-68161-1	WG-1620-MW13-20130205	86	100	98	93
600-68161-1 MS	WG-1620-MW13-20130205	91	106	94	99
600-68161-1 MSD	WG-1620-MW13-20130205	92	107	93	88
600-68161-2	WG-1620-MW21C-20130205	93	107	97	97
600-68161-3	WG-1620-DUP1-20130205	92	105	97	98
600-68161-4	WG-1620-MW05-20130205	88	104	94	96
600-68161-5	WG-1620-P11-20130205	87	104	99	95
600-68161-6	WG-1620-MW40B-20130205	90	101	86	91
600-68161-6 - DL	WG-1620-MW40B-20130205	89	100	91	93
600-68161-7	WG-1620-MW42B-20130205	84	106	97	98
600-68161-8	WG-1620-MW39B-20130205	85	105	93	96
600-68161-9	WG-1620-MW12C-20130205	93	106	98	93
600-68161-10	WG-1620-MW12A-20130205	87	104	94	92
600-68161-11	WG-1620-TW41B-20130205	88	103	93	91
600-68161-12	WG-1620-MW14-20130205	81	105	94	94
600-68161-13	WG-1620-FB4-20130205	91	103	97	93
600-68161-14	WG-1620-TB03-20130205	91	103	96	88
LCS 600-99115/3	Lab Control Sample	89	103	97	95
LCS 600-99159/3	Lab Control Sample	94	112	96	103
LCS 600-99302/3	Lab Control Sample	89	114	98	110
MB 600-99115/4	Method Blank	85	100	101	94
MB 600-99159/4	Method Blank	85	105	101	94
MB 600-99302/4	Method Blank	84	102	95	89

Surrogate Legend

- BFB = 4-Bromofluorobenzene
- DBFM = Dibromofluoromethane
- TOL = Toluene-d8 (Surr)
- 12DCE = 1,2-Dichloroethane-d4 (Surr)

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)					
		PHL (10-94)	TBP (10-123)	FBP (43-116)	2FP (10-100)	NBZ (35-114)	TPH (33-141)
600-68161-1	WG-1620-MW13-20130205	6 X	10	68	10	60	68
600-68161-1 MS	WG-1620-MW13-20130205	17	58	72	29	74	67
600-68161-1 MSD	WG-1620-MW13-20130205	15	50	61	22	68	57
600-68161-2	WG-1620-MW21C-20130205	22	46	71	32	67	66
600-68161-3	WG-1620-DUP1-20130205	9 X	48	63	15	60	61
600-68161-4	WG-1620-MW05-20130205	22	51	83	40	82	76
600-68161-5	WG-1620-P11-20130205	8 X	15	82	13	74	77
600-68161-6	WG-1620-MW40B-20130205	0 X	0 X	0 X	0 X	0 X	0 X
600-68161-6 - DL	WG-1620-MW40B-20130205	0 X	0 X	0 X	0 X	0 X	0 X
600-68161-7	WG-1620-MW42B-20130205	17	45	67	31	67	68
600-68161-8	WG-1620-MW39B-20130205	18	70	74	29	72	75
600-68161-9	WG-1620-MW12C-20130205	18	65	74	31	71	70
600-68161-10	WG-1620-MW12A-20130205	23	73	79	32	81	81

TestAmerica Houston

Surrogate Summary

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68161-1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)					
		PHL (10-94)	TBP (10-123)	FBP (43-116)	2FP (10-100)	NBZ (35-114)	TPH (33-141)
600-68161-10 - DL	WG-1620-MW12A-20130205	0 X	0 X	0 X	0 X	0 X	0 X
600-68161-11	WG-1620-TW41B-20130205	18	61	70	29	61	69
600-68161-12	WG-1620-MW14-20130205	22	81	84	37	80	90
600-68161-13	WG-1620-FB4-20130205	20	51	88	35	87	84
LCS 600-99141/2-A	Lab Control Sample	22	72	74	34	72	71
MB 600-99141/1-A	Method Blank	29	53	85	47	84	84

Surrogate Legend

PHL = Phenol-d6

TBP = 2,4,6-Tribromophenol

FBP = 2-Fluorobiphenyl

2FP = 2-Fluorophenol

NBZ = Nitrobenzene-d5

TPH = Terphenyl-d14

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68161-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 600-99115/4

Matrix: Water

Analysis Batch: 99115

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	0.000110	U	0.00200	0.000110	mg/L			02/07/13 14:41	1
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			02/07/13 14:41	1
Benzene	0.0000800	U	0.00100	0.0000800	mg/L			02/07/13 14:41	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			02/07/13 14:41	1
Toluene	0.000150	U	0.00100	0.000150	mg/L			02/07/13 14:41	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			02/07/13 14:41	1
Ethylbenzene	0.0002371	J	0.00100	0.000110	mg/L			02/07/13 14:41	1
Xylenes, Total	0.000260	U	0.00300	0.000260	mg/L			02/07/13 14:41	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	85		67 - 139		02/07/13 14:41	1
Dibromofluoromethane	100		62 - 130		02/07/13 14:41	1
Toluene-d8 (Surr)	101		70 - 130		02/07/13 14:41	1
1,2-Dichloroethane-d4 (Surr)	94		50 - 134		02/07/13 14:41	1

Lab Sample ID: LCS 600-99115/3

Matrix: Water

Analysis Batch: 99115

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Vinyl chloride	0.0100	0.007830		mg/L		78	47 - 146
Methylene Chloride	0.0100	0.008077		mg/L		81	62 - 134
Benzene	0.0100	0.009759		mg/L		98	69 - 131
1,2-Dichloroethane	0.0100	0.009198		mg/L		92	66 - 140
Toluene	0.0100	0.01095		mg/L		110	67 - 130
Chlorobenzene	0.0100	0.01148		mg/L		115	60 - 136
Ethylbenzene	0.0100	0.01092		mg/L		109	68 - 128
Xylenes, Total	0.0300	0.03298		mg/L		110	68 - 132

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene	89		67 - 139
Dibromofluoromethane	103		62 - 130
Toluene-d8 (Surr)	97		70 - 130
1,2-Dichloroethane-d4 (Surr)	95		50 - 134

Lab Sample ID: MB 600-99159/4

Matrix: Water

Analysis Batch: 99159

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	0.000110	U	0.00200	0.000110	mg/L			02/08/13 10:49	1
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			02/08/13 10:49	1
Benzene	0.0000800	U	0.00100	0.0000800	mg/L			02/08/13 10:49	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			02/08/13 10:49	1
Toluene	0.000150	U	0.00100	0.000150	mg/L			02/08/13 10:49	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			02/08/13 10:49	1
Ethylbenzene	0.000110	U	0.00100	0.000110	mg/L			02/08/13 10:49	1

TestAmerica Houston

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68161-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 600-99159/4

Matrix: Water

Analysis Batch: 99159

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Xylenes, Total	0.000260	U	0.00300	0.000260	mg/L			02/08/13 10:49	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	85		67 - 139		02/08/13 10:49	1
Dibromofluoromethane	105		62 - 130		02/08/13 10:49	1
Toluene-d8 (Surr)	101		70 - 130		02/08/13 10:49	1
1,2-Dichloroethane-d4 (Surr)	94		50 - 134		02/08/13 10:49	1

Lab Sample ID: LCS 600-99159/3

Matrix: Water

Analysis Batch: 99159

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Vinyl chloride	0.0100	0.008085		mg/L		81	47 - 146
Methylene Chloride	0.0100	0.007795		mg/L		78	62 - 134
Benzene	0.0100	0.009290		mg/L		93	69 - 131
1,2-Dichloroethane	0.0100	0.009400		mg/L		94	66 - 140
Toluene	0.0100	0.01080		mg/L		108	67 - 130
Chlorobenzene	0.0100	0.01184		mg/L		118	60 - 136
Ethylbenzene	0.0100	0.01055		mg/L		105	68 - 128
Xylenes, Total	0.0300	0.03267		mg/L		109	68 - 132

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene	94		67 - 139
Dibromofluoromethane	112		62 - 130
Toluene-d8 (Surr)	96		70 - 130
1,2-Dichloroethane-d4 (Surr)	103		50 - 134

Lab Sample ID: 600-68161-1 MS

Matrix: Water

Analysis Batch: 99159

Client Sample ID: WG-1620-MW13-20130205

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Vinyl chloride	0.000110	U	0.0100	0.008355		mg/L		84	60 - 140
Methylene Chloride	0.000150	U	0.0100	0.006591		mg/L		66	60 - 140
Benzene	0.0000800	U	0.0100	0.009753		mg/L		98	65 - 125
1,2-Dichloroethane	0.000140	U	0.0100	0.009099		mg/L		91	60 - 140
Toluene	0.000150	U	0.0100	0.01103		mg/L		110	76 - 125
Chlorobenzene	0.000120	U	0.0100	0.01169		mg/L		117	72 - 122
Ethylbenzene	0.000110	U	0.0100	0.01051		mg/L		105	60 - 140
Xylenes, Total	0.000260	U	0.0300	0.03285		mg/L		110	60 - 140

Surrogate	MS %Recovery	MS Qualifier	Limits
4-Bromofluorobenzene	91		67 - 139
Dibromofluoromethane	106		62 - 130
Toluene-d8 (Surr)	94		70 - 130
1,2-Dichloroethane-d4 (Surr)	99		50 - 134

TestAmerica Houston

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68161-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 600-68161-1 MSD

Matrix: Water

Analysis Batch: 99159

Client Sample ID: WG-1620-MW13-20130205

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Vinyl chloride	0.000110	U	0.0100	0.008277		mg/L		83	60 - 140	1	30
Methylene Chloride	0.000150	U	0.0100	0.006515		mg/L		65	60 - 140	1	30
Benzene	0.0000800	U	0.0100	0.009566		mg/L		96	65 - 125	2	30
1,2-Dichloroethane	0.000140	U	0.0100	0.009452		mg/L		95	60 - 140	4	30
Toluene	0.000150	U	0.0100	0.01104		mg/L		110	76 - 125	0	30
Chlorobenzene	0.000120	U	0.0100	0.01159		mg/L		116	72 - 122	1	30
Ethylbenzene	0.000110	U	0.0100	0.01054		mg/L		105	60 - 140	0	30
Xylenes, Total	0.000260	U	0.0300	0.03293		mg/L		110	60 - 140	0	30

Surrogate	MSD %Recovery	MSD Qualifier	Limits
4-Bromofluorobenzene	92		67 - 139
Dibromofluoromethane	107		62 - 130
Toluene-d8 (Surr)	93		70 - 130
1,2-Dichloroethane-d4 (Surr)	88		50 - 134

Lab Sample ID: MB 600-99302/4

Matrix: Water

Analysis Batch: 99302

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	0.000110	U	0.00200	0.000110	mg/L			02/11/13 11:26	1
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			02/11/13 11:26	1
Benzene	0.0000800	U	0.00100	0.0000800	mg/L			02/11/13 11:26	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			02/11/13 11:26	1
Toluene	0.000150	U	0.00100	0.000150	mg/L			02/11/13 11:26	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			02/11/13 11:26	1
Ethylbenzene	0.000110	U	0.00100	0.000110	mg/L			02/11/13 11:26	1
Xylenes, Total	0.000260	U	0.00300	0.000260	mg/L			02/11/13 11:26	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	84		67 - 139		02/11/13 11:26	1
Dibromofluoromethane	102		62 - 130		02/11/13 11:26	1
Toluene-d8 (Surr)	95		70 - 130		02/11/13 11:26	1
1,2-Dichloroethane-d4 (Surr)	89		50 - 134		02/11/13 11:26	1

Lab Sample ID: LCS 600-99302/3

Matrix: Water

Analysis Batch: 99302

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Vinyl chloride	0.0100	0.008163		mg/L		82	47 - 146
Methylene Chloride	0.0100	0.007881		mg/L		79	62 - 134
Benzene	0.0100	0.009846		mg/L		98	69 - 131
1,2-Dichloroethane	0.0100	0.01010		mg/L		101	66 - 140
Toluene	0.0100	0.01088		mg/L		109	67 - 130
Chlorobenzene	0.0100	0.01189		mg/L		119	60 - 136
Ethylbenzene	0.0100	0.01061		mg/L		106	68 - 128

TestAmerica Houston

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68161-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 600-99302/3

Matrix: Water

Analysis Batch: 99302

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Xylenes, Total	0.0300	0.03363		mg/L		112	68 - 132

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene	89		67 - 139
Dibromofluoromethane	114		62 - 130
Toluene-d8 (Surr)	98		70 - 130
1,2-Dichloroethane-d4 (Surr)	110		50 - 134

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Lab Sample ID: MB 600-99141/1-A

Matrix: Water

Analysis Batch: 99624

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 99141

Analyte	MB Result	MB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.000400	U	0.000500	0.000400	mg/L		02/08/13 08:51	02/14/13 00:26	1
Nitrobenzene	0.000110	U	0.000500	0.000110	mg/L		02/08/13 08:51	02/14/13 00:26	1
2,4-Dimethylphenol	0.000310	U	0.000500	0.000310	mg/L		02/08/13 08:51	02/14/13 00:26	1
Bis(2-chloroethoxy)methane	0.000130	U	0.000500	0.000130	mg/L		02/08/13 08:51	02/14/13 00:26	1
Naphthalene	0.0000800	U	0.00500	0.0000800	mg/L		02/08/13 08:51	02/14/13 00:26	1
2-Methylnaphthalene	0.0000700	U	0.000500	0.0000700	mg/L		02/08/13 08:51	02/14/13 00:26	1
2-Chloronaphthalene	0.0000800	U	0.000500	0.0000800	mg/L		02/08/13 08:51	02/14/13 00:26	1
Acenaphthylene	0.0000600	U	0.000500	0.0000600	mg/L		02/08/13 08:51	02/14/13 00:26	1
2,6-Dinitrotoluene	0.0000800	U	0.000500	0.0000800	mg/L		02/08/13 08:51	02/14/13 00:26	1
Acenaphthene	0.0000800	U	0.000500	0.0000800	mg/L		02/08/13 08:51	02/14/13 00:26	1
4-Nitrophenol	0.000560	U	0.00100	0.000560	mg/L		02/08/13 08:51	02/14/13 00:26	1
Dibenzofuran	0.0000800	U	0.000500	0.0000800	mg/L		02/08/13 08:51	02/14/13 00:26	1
2,4-Dinitrotoluene	0.000130	U	0.000500	0.000130	mg/L		02/08/13 08:51	02/14/13 00:26	1
Fluorene	0.0000700	U	0.000500	0.0000700	mg/L		02/08/13 08:51	02/14/13 00:26	1
4,6-Dinitro-2-methylphenol	0.000830	U	0.00100	0.000830	mg/L		02/08/13 08:51	02/14/13 00:26	1
N-Nitrosodiphenylamine	0.000100	U	0.000500	0.000100	mg/L		02/08/13 08:51	02/14/13 00:26	1
1,2-Diphenylhydrazine	0.000110	U	0.000500	0.000110	mg/L		02/08/13 08:51	02/14/13 00:26	1
Pentachlorophenol	0.000610	U	0.00100	0.000610	mg/L		02/08/13 08:51	02/14/13 00:26	1
Phenanthrene	0.0000600	U	0.000500	0.0000600	mg/L		02/08/13 08:51	02/14/13 00:26	1
Anthracene	0.0000500	U	0.000500	0.0000500	mg/L		02/08/13 08:51	02/14/13 00:26	1
Di-n-butyl phthalate	0.000110	U	0.000500	0.000110	mg/L		02/08/13 08:51	02/14/13 00:26	1
Fluoranthene	0.0000700	U	0.000500	0.0000700	mg/L		02/08/13 08:51	02/14/13 00:26	1
Pyrene	0.000110	U	0.000500	0.000110	mg/L		02/08/13 08:51	02/14/13 00:26	1
Benzo[a]anthracene	0.0000800	U	0.000500	0.0000800	mg/L		02/08/13 08:51	02/14/13 00:26	1
Bis(2-ethylhexyl) phthalate	0.000370	U	0.000500	0.000370	mg/L		02/08/13 08:51	02/14/13 00:26	1
Chrysene	0.0000800	U	0.000500	0.0000800	mg/L		02/08/13 08:51	02/14/13 00:26	1
Benzo[a]pyrene	0.0000800	U	0.000500	0.0000800	mg/L		02/08/13 08:51	02/14/13 00:26	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Phenol-d6	29		10 - 94	02/08/13 08:51	02/14/13 00:26	1
2,4,6-Tribromophenol	53		10 - 123	02/08/13 08:51	02/14/13 00:26	1
2-Fluorobiphenyl	85		43 - 116	02/08/13 08:51	02/14/13 00:26	1

TestAmerica Houston

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68161-1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Lab Sample ID: MB 600-99141/1-A
Matrix: Water
Analysis Batch: 99624

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 99141

<i>Surrogate</i>	<i>MB MB</i>	<i>Limits</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
<i>%Recovery</i>	<i>Qualifier</i>				
2-Fluorophenol	47	10 - 100	02/08/13 08:51	02/14/13 00:26	1
Nitrobenzene-d5	84	35 - 114	02/08/13 08:51	02/14/13 00:26	1
Terphenyl-d14	84	33 - 141	02/08/13 08:51	02/14/13 00:26	1

Lab Sample ID: LCS 600-99141/2-A
Matrix: Water
Analysis Batch: 99624

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 99141

<i>Analyte</i>	<i>Spike Added</i>	<i>LCS Result</i>	<i>LCS Qualifier</i>	<i>Unit</i>	<i>D</i>	<i>%Rec</i>	<i>%Rec. Limits</i>
Phenol	0.0100	0.002894		mg/L		29	11 - 112
Nitrobenzene	0.0100	0.007853		mg/L		79	42 - 119
2,4-Dimethylphenol	0.0100	0.006549		mg/L		65	36 - 109
Bis(2-chloroethoxy)methane	0.0100	0.007355		mg/L		74	42 - 119
Naphthalene	0.0100	0.007648		mg/L		76	39 - 120
2-Methylnaphthalene	0.0100	0.007125		mg/L		71	40 - 121
2-Chloronaphthalene	0.0100	0.007808		mg/L		78	43 - 120
Acenaphthylene	0.0100	0.007584		mg/L		76	35 - 135
2,6-Dinitrotoluene	0.0100	0.007870		mg/L		79	45 - 122
Acenaphthene	0.0100	0.007708		mg/L		77	47 - 145
4-Nitrophenol	0.0100	0.002337		mg/L		23	14 - 132
Dibenzofuran	0.0100	0.007645		mg/L		76	46 - 123
2,4-Dinitrotoluene	0.0100	0.007621		mg/L		76	43 - 128
Fluorene	0.0100	0.007571		mg/L		76	48 - 127
4,6-Dinitro-2-methylphenol	0.0100	0.005930		mg/L		59	24 - 122
N-Nitrosodiphenylamine	0.0100	0.008936		mg/L		89	43 - 107
1,2-Diphenylhydrazine	0.0100	0.007247		mg/L		72	47 - 117
Pentachlorophenol	0.0100	0.004679		mg/L		47	9 - 147
Phenanthrene	0.0100	0.007647		mg/L		76	52 - 121
Anthracene	0.0100	0.007102		mg/L		71	53 - 124
Di-n-butyl phthalate	0.0100	0.007453		mg/L		75	54 - 138
Fluoranthene	0.0100	0.007601		mg/L		76	53 - 127
Pyrene	0.0100	0.007378		mg/L		74	49 - 121
Benzo[a]anthracene	0.0100	0.007209		mg/L		72	53 - 122
Bis(2-ethylhexyl) phthalate	0.0100	0.007355		mg/L		74	47 - 132
Chrysene	0.0100	0.007653		mg/L		77	49 - 124
Benzo[a]pyrene	0.0100	0.007488		mg/L		75	50 - 124

<i>Surrogate</i>	<i>LCS LCS</i>	<i>Limits</i>
<i>%Recovery</i>	<i>Qualifier</i>	
Phenol-d6	22	10 - 94
2,4,6-Tribromophenol	72	10 - 123
2-Fluorobiphenyl	74	43 - 116
2-Fluorophenol	34	10 - 100
Nitrobenzene-d5	72	35 - 114
Terphenyl-d14	71	33 - 141

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68161-1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Lab Sample ID: 600-68161-1 MS

Matrix: Water

Analysis Batch: 99624

Client Sample ID: WG-1620-MW13-20130205

Prep Type: Total/NA

Prep Batch: 99141

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Phenol	0.0000377	U	0.00943	0.002231		mg/L		24	10 - 62
Nitrobenzene	0.000104	U	0.00943	0.006686		mg/L		71	37 - 104
2,4-Dimethylphenol	0.000292	U	0.00943	0.001458	N	mg/L		15	25 - 85
Bis(2-chloroethoxy)methane	0.000123	U	0.00943	0.006632		mg/L		70	42 - 101
Naphthalene	0.0000755	U	0.00943	0.006921		mg/L		73	34 - 99
2-Methylnaphthalene	0.0000660	U	0.00943	0.006500		mg/L		69	36 - 111
2-Chloronaphthalene	0.0000755	U	0.00943	0.006594		mg/L		70	42 - 100
Acenaphthylene	0.0000566	U	0.00943	0.006808		mg/L		72	38 - 115
2,6-Dinitrotoluene	0.0000755	U	0.00943	0.006359		mg/L		67	47 - 118
Acenaphthene	0.0000755	U	0.00943	0.006491		mg/L		69	46 - 118
4-Nitrophenol	0.000528	U	0.00943	0.002262		mg/L		24	10 - 100
Dibenzofuran	0.0000755	U	0.00943	0.006446		mg/L		68	46 - 110
2,4-Dinitrotoluene	0.000123	U	0.00943	0.006322		mg/L		67	41 - 125
Fluorene	0.0000660	U	0.00943	0.006352		mg/L		67	44 - 112
4,6-Dinitro-2-methylphenol	0.000783	U	0.00943	0.005119		mg/L		54	28 - 128
N-Nitrosodiphenylamine	0.0000943	U	0.00943	0.005732		mg/L		61	58 - 142
1,2-Diphenylhydrazine	0.000104	U	0.00943	0.006258		mg/L		66	10 - 130
Pentachlorophenol	0.000575	U	0.00943	0.004878		mg/L		52	45 - 155
Phenanthrene	0.0000566	U	0.00943	0.006368		mg/L		68	41 - 117
Anthracene	0.00110		0.00943	0.007047		mg/L		63	35 - 116
Di-n-butyl phthalate	0.000104	U	0.00943	0.006447		mg/L		68	31 - 137
Fluoranthene	0.0000660	U	0.00943	0.006695		mg/L		71	14 - 145
Pyrene	0.000104	U	0.00943	0.006917		mg/L		73	28 - 133
Benzo[a]anthracene	0.0000755	U	0.00943	0.006402		mg/L		68	24 - 126
Bis(2-ethylhexyl) phthalate	0.000349	U	0.00943	0.006756		mg/L		72	14 - 123
Chrysene	0.0000755	U	0.00943	0.006519		mg/L		69	23 - 128
Benzo[a]pyrene	0.0000755	U	0.00943	0.006274		mg/L		67	60 - 140

Surrogate	MS %Recovery	MS Qualifier	MS Limits
Phenol-d6	17		10 - 94
2,4,6-Tribromophenol	58		10 - 123
2-Fluorobiphenyl	72		43 - 116
2-Fluorophenol	29		10 - 100
Nitrobenzene-d5	74		35 - 114
Terphenyl-d14	67		33 - 141

Lab Sample ID: 600-68161-1 MSD

Matrix: Water

Analysis Batch: 99624

Client Sample ID: WG-1620-MW13-20130205

Prep Type: Total/NA

Prep Batch: 99141

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	RPD Limit
Phenol	0.0000377	U	0.00943	0.001592	N	mg/L		17	10 - 62	33	20
Nitrobenzene	0.000104	U	0.00943	0.006373		mg/L		68	37 - 104	5	20
2,4-Dimethylphenol	0.000292	U	0.00943	0.001245	N	mg/L		13	25 - 85	16	20
Bis(2-chloroethoxy)methane	0.000123	U	0.00943	0.006055		mg/L		64	42 - 101	9	20
Naphthalene	0.0000755	U	0.00943	0.006335		mg/L		67	34 - 99	9	20
2-Methylnaphthalene	0.0000660	U	0.00943	0.005937		mg/L		63	36 - 111	9	20
2-Chloronaphthalene	0.0000755	U	0.00943	0.005978		mg/L		63	42 - 100	10	20

TestAmerica Houston

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68161-1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Lab Sample ID: 600-68161-1 MSD

Matrix: Water

Analysis Batch: 99624

Client Sample ID: WG-1620-MW13-20130205

Prep Type: Total/NA

Prep Batch: 99141

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.	RPD	Limit
	Result	Qualifier	Added	Result	Qualifier				Limits		
Acenaphthylene	0.0000566	U	0.00943	0.006111		mg/L		65	38 - 115	11	20
2,6-Dinitrotoluene	0.0000755	U	0.00943	0.006295		mg/L		67	47 - 118	1	20
Acenaphthene	0.0000755	U	0.00943	0.005936		mg/L		63	46 - 118	9	20
4-Nitrophenol	0.000528	U	0.00943	0.002341		mg/L		25	10 - 100	3	20
Dibenzofuran	0.0000755	U	0.00943	0.005951		mg/L		63	46 - 110	8	20
2,4-Dinitrotoluene	0.000123	U	0.00943	0.005760		mg/L		61	41 - 125	9	20
Fluorene	0.0000660	U	0.00943	0.005963		mg/L		63	44 - 112	6	20
4,6-Dinitro-2-methylphenol	0.000783	U	0.00943	0.004767		mg/L		51	28 - 128	7	20
N-Nitrosodiphenylamine	0.0000943	U	0.00943	0.003455	N	mg/L		37	58 - 142	50	20
1,2-Diphenylhydrazine	0.000104	U	0.00943	0.005783		mg/L		61	10 - 130	8	20
Pentachlorophenol	0.000575	U	0.00943	0.004558		mg/L		48	45 - 155	7	20
Phenanthrene	0.0000566	U	0.00943	0.006005		mg/L		64	41 - 117	6	20
Anthracene	0.00110		0.00943	0.006446		mg/L		57	35 - 116	9	20
Di-n-butyl phthalate	0.000104	U	0.00943	0.005788		mg/L		61	31 - 137	11	20
Fluoranthene	0.0000660	U	0.00943	0.006000		mg/L		64	14 - 145	11	20
Pyrene	0.000104	U	0.00943	0.006270		mg/L		66	28 - 133	10	20
Benzo[a]anthracene	0.0000755	U	0.00943	0.005741		mg/L		61	24 - 126	11	20
Bis(2-ethylhexyl) phthalate	0.000349	U	0.00943	0.006238		mg/L		66	14 - 123	8	20
Chrysene	0.0000755	U	0.00943	0.006116		mg/L		65	23 - 128	6	20
Benzo[a]pyrene	0.0000755	U	0.00943	0.005348	N	mg/L		57	60 - 140	16	20

Surrogate	MSD	MSD	Limits
	%Recovery	Qualifier	
Phenol-d6	15		10 - 94
2,4,6-Tribromophenol	50		10 - 123
2-Fluorobiphenyl	61		43 - 116
2-Fluorophenol	22		10 - 100
Nitrobenzene-d5	68		35 - 114
Terphenyl-d14	57		33 - 141

Unadjusted Detection Limits

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68161-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	MQL	MDL	Units	Method
1,2-Dichloroethane	0.00100	0.000140	mg/L	8260B
Benzene	0.00100	0.0000800	mg/L	8260B
Chlorobenzene	0.00100	0.000120	mg/L	8260B
Ethylbenzene	0.00100	0.000110	mg/L	8260B
Methylene Chloride	0.00100	0.000150	mg/L	8260B
Toluene	0.00100	0.000150	mg/L	8260B
Vinyl chloride	0.00200	0.000110	mg/L	8260B
Xylenes, Total	0.00300	0.000260	mg/L	8260B

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	MQL	MDL	Units	Method
1,2-Diphenylhydrazine	0.000500	0.000110	mg/L	8270C LL
2,4-Dimethylphenol	0.000500	0.000310	mg/L	8270C LL
2,4-Dinitrotoluene	0.000500	0.000130	mg/L	8270C LL
2,6-Dinitrotoluene	0.000500	0.0000800	mg/L	8270C LL
2-Chloronaphthalene	0.000500	0.0000800	mg/L	8270C LL
2-Methylnaphthalene	0.000500	0.0000700	mg/L	8270C LL
4,6-Dinitro-2-methylphenol	0.00100	0.000830	mg/L	8270C LL
4-Nitrophenol	0.00100	0.000560	mg/L	8270C LL
Acenaphthene	0.000500	0.0000800	mg/L	8270C LL
Acenaphthylene	0.000500	0.0000600	mg/L	8270C LL
Anthracene	0.000500	0.0000500	mg/L	8270C LL
Benzo[a]anthracene	0.000500	0.0000800	mg/L	8270C LL
Benzo[a]pyrene	0.000500	0.0000800	mg/L	8270C LL
Bis(2-chloroethoxy)methane	0.000500	0.000130	mg/L	8270C LL
Bis(2-ethylhexyl) phthalate	0.000500	0.000370	mg/L	8270C LL
Chrysene	0.000500	0.0000800	mg/L	8270C LL
Dibenzofuran	0.000500	0.0000800	mg/L	8270C LL
Di-n-butyl phthalate	0.000500	0.000110	mg/L	8270C LL
Fluoranthene	0.000500	0.0000700	mg/L	8270C LL
Fluorene	0.000500	0.0000700	mg/L	8270C LL
Naphthalene	0.000500	0.0000800	mg/L	8270C LL
Naphthalene	0.00500	0.0000800	mg/L	8270C LL
Nitrobenzene	0.000500	0.000110	mg/L	8270C LL
N-Nitrosodiphenylamine	0.000500	0.000100	mg/L	8270C LL
Pentachlorophenol	0.00100	0.000610	mg/L	8270C LL
Phenanthrene	0.000500	0.0000600	mg/L	8270C LL
Phenol	0.000500	0.0000400	mg/L	8270C LL
Pyrene	0.000500	0.000110	mg/L	8270C LL

QC Association Summary

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68161-1

GC/MS VOA

Analysis Batch: 99115

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-68161-2	WG-1620-MW21C-20130205	Total/NA	Water	8260B	
600-68161-4	WG-1620-MW05-20130205	Total/NA	Water	8260B	
600-68161-5	WG-1620-P11-20130205	Total/NA	Water	8260B	
600-68161-7	WG-1620-MW42B-20130205	Total/NA	Water	8260B	
600-68161-8	WG-1620-MW39B-20130205	Total/NA	Water	8260B	
600-68161-9	WG-1620-MW12C-20130205	Total/NA	Water	8260B	
LCS 600-99115/3	Lab Control Sample	Total/NA	Water	8260B	
MB 600-99115/4	Method Blank	Total/NA	Water	8260B	

Analysis Batch: 99159

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-68161-1	WG-1620-MW13-20130205	Total/NA	Water	8260B	
600-68161-1 MS	WG-1620-MW13-20130205	Total/NA	Water	8260B	
600-68161-1 MSD	WG-1620-MW13-20130205	Total/NA	Water	8260B	
600-68161-3	WG-1620-DUP1-20130205	Total/NA	Water	8260B	
600-68161-6	WG-1620-MW40B-20130205	Total/NA	Water	8260B	
600-68161-6 - DL	WG-1620-MW40B-20130205	Total/NA	Water	8260B	
600-68161-10	WG-1620-MW12A-20130205	Total/NA	Water	8260B	
600-68161-11	WG-1620-TW41B-20130205	Total/NA	Water	8260B	
600-68161-13	WG-1620-FB4-20130205	Total/NA	Water	8260B	
600-68161-14	WG-1620-TB03-20130205	Total/NA	Water	8260B	
LCS 600-99159/3	Lab Control Sample	Total/NA	Water	8260B	
MB 600-99159/4	Method Blank	Total/NA	Water	8260B	

Analysis Batch: 99302

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-68161-12	WG-1620-MW14-20130205	Total/NA	Water	8260B	
LCS 600-99302/3	Lab Control Sample	Total/NA	Water	8260B	
MB 600-99302/4	Method Blank	Total/NA	Water	8260B	

GC/MS Semi VOA

Prep Batch: 99141

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-68161-1	WG-1620-MW13-20130205	Total/NA	Water	3510C	
600-68161-1 MS	WG-1620-MW13-20130205	Total/NA	Water	3510C	
600-68161-1 MSD	WG-1620-MW13-20130205	Total/NA	Water	3510C	
600-68161-2	WG-1620-MW21C-20130205	Total/NA	Water	3510C	
600-68161-3	WG-1620-DUP1-20130205	Total/NA	Water	3510C	
600-68161-4	WG-1620-MW05-20130205	Total/NA	Water	3510C	
600-68161-5	WG-1620-P11-20130205	Total/NA	Water	3510C	
600-68161-6	WG-1620-MW40B-20130205	Total/NA	Water	3510C	
600-68161-6 - DL	WG-1620-MW40B-20130205	Total/NA	Water	3510C	
600-68161-7	WG-1620-MW42B-20130205	Total/NA	Water	3510C	
600-68161-8	WG-1620-MW39B-20130205	Total/NA	Water	3510C	
600-68161-9	WG-1620-MW12C-20130205	Total/NA	Water	3510C	
600-68161-10	WG-1620-MW12A-20130205	Total/NA	Water	3510C	
600-68161-10 - DL	WG-1620-MW12A-20130205	Total/NA	Water	3510C	
600-68161-11	WG-1620-TW41B-20130205	Total/NA	Water	3510C	
600-68161-12	WG-1620-MW14-20130205	Total/NA	Water	3510C	

TestAmerica Houston

QC Association Summary

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68161-1

GC/MS Semi VOA (Continued)

Prep Batch: 99141 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-68161-13	WG-1620-FB4-20130205	Total/NA	Water	3510C	
LCS 600-99141/2-A	Lab Control Sample	Total/NA	Water	3510C	
MB 600-99141/1-A	Method Blank	Total/NA	Water	3510C	

Analysis Batch: 99624

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-68161-1	WG-1620-MW13-20130205	Total/NA	Water	8270C LL	99141
600-68161-1 MS	WG-1620-MW13-20130205	Total/NA	Water	8270C LL	99141
600-68161-1 MSD	WG-1620-MW13-20130205	Total/NA	Water	8270C LL	99141
600-68161-2	WG-1620-MW21C-20130205	Total/NA	Water	8270C LL	99141
600-68161-3	WG-1620-DUP1-20130205	Total/NA	Water	8270C LL	99141
600-68161-4	WG-1620-MW05-20130205	Total/NA	Water	8270C LL	99141
600-68161-5	WG-1620-P11-20130205	Total/NA	Water	8270C LL	99141
600-68161-7	WG-1620-MW42B-20130205	Total/NA	Water	8270C LL	99141
600-68161-8	WG-1620-MW39B-20130205	Total/NA	Water	8270C LL	99141
600-68161-9	WG-1620-MW12C-20130205	Total/NA	Water	8270C LL	99141
600-68161-10	WG-1620-MW12A-20130205	Total/NA	Water	8270C LL	99141
600-68161-11	WG-1620-TW41B-20130205	Total/NA	Water	8270C LL	99141
600-68161-12	WG-1620-MW14-20130205	Total/NA	Water	8270C LL	99141
600-68161-13	WG-1620-FB4-20130205	Total/NA	Water	8270C LL	99141
LCS 600-99141/2-A	Lab Control Sample	Total/NA	Water	8270C LL	99141
MB 600-99141/1-A	Method Blank	Total/NA	Water	8270C LL	99141

Analysis Batch: 99755

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-68161-6	WG-1620-MW40B-20130205	Total/NA	Water	8270C LL	99141
600-68161-6 - DL	WG-1620-MW40B-20130205	Total/NA	Water	8270C LL	99141
600-68161-10 - DL	WG-1620-MW12A-20130205	Total/NA	Water	8270C LL	99141

Lab Chronicle

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68161-1

Client Sample ID: WG-1620-MW13-20130205

Lab Sample ID: 600-68161-1

Date Collected: 02/05/13 08:00

Matrix: Water

Date Received: 02/06/13 07:13

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	99159	02/08/13 11:18	DT	TAL HOU
Total/NA	Prep	3510C			99141	02/08/13 08:51	LR	TAL HOU
Total/NA	Analysis	8270C LL		1	99624	02/14/13 01:20	TTD	TAL HOU

Client Sample ID: WG-1620-MW21C-20130205

Lab Sample ID: 600-68161-2

Date Collected: 02/05/13 09:00

Matrix: Water

Date Received: 02/06/13 07:13

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	99115	02/07/13 21:59	DT	TAL HOU
Total/NA	Prep	3510C			99141	02/08/13 08:51	LR	TAL HOU
Total/NA	Analysis	8270C LL		1	99624	02/14/13 02:40	TTD	TAL HOU

Client Sample ID: WG-1620-DUP1-20130205

Lab Sample ID: 600-68161-3

Date Collected: 02/05/13 09:00

Matrix: Water

Date Received: 02/06/13 07:13

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	99159	02/08/13 16:47	DT	TAL HOU
Total/NA	Prep	3510C			99141	02/08/13 08:51	LR	TAL HOU
Total/NA	Analysis	8270C LL		1	99624	02/14/13 03:07	TTD	TAL HOU

Client Sample ID: WG-1620-MW05-20130205

Lab Sample ID: 600-68161-4

Date Collected: 02/05/13 10:00

Matrix: Water

Date Received: 02/06/13 07:13

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	99115	02/07/13 22:26	DT	TAL HOU
Total/NA	Prep	3510C			99141	02/08/13 08:51	LR	TAL HOU
Total/NA	Analysis	8270C LL		1	99624	02/14/13 03:33	TTD	TAL HOU

Client Sample ID: WG-1620-P11-20130205

Lab Sample ID: 600-68161-5

Date Collected: 02/05/13 10:45

Matrix: Water

Date Received: 02/06/13 07:13

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	99115	02/07/13 22:54	DT	TAL HOU
Total/NA	Prep	3510C			99141	02/08/13 08:51	LR	TAL HOU
Total/NA	Analysis	8270C LL		1	99624	02/14/13 04:00	TTD	TAL HOU

Lab Chronicle

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68161-1

Client Sample ID: WG-1620-MW40B-20130205

Lab Sample ID: 600-68161-6

Date Collected: 02/05/13 11:35

Matrix: Water

Date Received: 02/06/13 07:13

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	99159	02/08/13 17:14	DT	TAL HOU
Total/NA	Analysis	8260B	DL	5	99159	02/08/13 17:42	DT	TAL HOU
Total/NA	Prep	3510C			99141	02/08/13 08:51	LR	TAL HOU
Total/NA	Analysis	8270C LL		100	99755	02/16/13 12:49	TTD	TAL HOU
Total/NA	Prep	3510C	DL		99141	02/08/13 08:51	LR	TAL HOU
Total/NA	Analysis	8270C LL	DL	1000	99755	02/16/13 13:17	TTD	TAL HOU

Client Sample ID: WG-1620-MW42B-20130205

Lab Sample ID: 600-68161-7

Date Collected: 02/05/13 12:30

Matrix: Water

Date Received: 02/06/13 07:13

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	99115	02/07/13 23:21	DT	TAL HOU
Total/NA	Prep	3510C			99141	02/08/13 08:51	LR	TAL HOU
Total/NA	Analysis	8270C LL		1	99624	02/14/13 04:53	TTD	TAL HOU

Client Sample ID: WG-1620-MW39B-20130205

Lab Sample ID: 600-68161-8

Date Collected: 02/05/13 13:20

Matrix: Water

Date Received: 02/06/13 07:13

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	99115	02/07/13 23:48	DT	TAL HOU
Total/NA	Prep	3510C			99141	02/08/13 08:51	LR	TAL HOU
Total/NA	Analysis	8270C LL		1	99624	02/14/13 05:20	TTD	TAL HOU

Client Sample ID: WG-1620-MW12C-20130205

Lab Sample ID: 600-68161-9

Date Collected: 02/05/13 15:05

Matrix: Water

Date Received: 02/06/13 07:13

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	99115	02/08/13 00:16	DT	TAL HOU
Total/NA	Prep	3510C			99141	02/08/13 08:51	LR	TAL HOU
Total/NA	Analysis	8270C LL		1	99624	02/14/13 05:46	TTD	TAL HOU

Client Sample ID: WG-1620-MW12A-20130205

Lab Sample ID: 600-68161-10

Date Collected: 02/05/13 16:00

Matrix: Water

Date Received: 02/06/13 07:13

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	99159	02/08/13 18:09	DT	TAL HOU
Total/NA	Prep	3510C			99141	02/08/13 08:51	LR	TAL HOU
Total/NA	Analysis	8270C LL		1	99624	02/14/13 06:13	TTD	TAL HOU

TestAmerica Houston

Lab Chronicle

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68161-1

Client Sample ID: WG-1620-MW12A-20130205

Lab Sample ID: 600-68161-10

Date Collected: 02/05/13 16:00

Matrix: Water

Date Received: 02/06/13 07:13

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C	DL		99141	02/08/13 08:51	LR	TAL HOU
Total/NA	Analysis	8270C LL	DL	50	99755	02/16/13 13:44	TTD	TAL HOU

Client Sample ID: WG-1620-TW41B-20130205

Lab Sample ID: 600-68161-11

Date Collected: 02/05/13 16:50

Matrix: Water

Date Received: 02/06/13 07:13

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	99159	02/08/13 18:36	DT	TAL HOU
Total/NA	Prep	3510C			99141	02/08/13 08:51	LR	TAL HOU
Total/NA	Analysis	8270C LL		1	99624	02/14/13 06:40	TTD	TAL HOU

Client Sample ID: WG-1620-MW14-20130205

Lab Sample ID: 600-68161-12

Date Collected: 02/05/13 17:50

Matrix: Water

Date Received: 02/06/13 07:13

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	99302	02/11/13 13:43	DT	TAL HOU
Total/NA	Prep	3510C			99141	02/08/13 08:51	LR	TAL HOU
Total/NA	Analysis	8270C LL		1	99624	02/14/13 07:06	TTD	TAL HOU

Client Sample ID: WG-1620-FB4-20130205

Lab Sample ID: 600-68161-13

Date Collected: 02/05/13 18:10

Matrix: Water

Date Received: 02/06/13 07:13

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	99159	02/08/13 15:52	DT	TAL HOU
Total/NA	Prep	3510C			99141	02/08/13 08:51	LR	TAL HOU
Total/NA	Analysis	8270C LL		1	99624	02/14/13 07:33	TTD	TAL HOU

Client Sample ID: WG-1620-TB03-20130205

Lab Sample ID: 600-68161-14

Date Collected: 02/05/13 00:00

Matrix: Water

Date Received: 02/06/13 07:13

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	99159	02/08/13 16:19	DT	TAL HOU

Laboratory References:

TAL HOU = TestAmerica Houston, 6310 Rothway Street, Houston, TX 77040, TEL (713)690-4444

Certification Summary

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68161-1

Laboratory: TestAmerica Houston

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Arkansas DEQ	State Program	6	88-0759	08-04-12
Louisiana	NELAP	6	01967	06-30-13
Oklahoma	State Program	6	9503	08-31-13
Texas	NELAP	6	T104704223-10-6-TX	10-31-13
USDA	Federal		P330-08-00217	04-01-14
Utah	NELAP	8	GULF	10-31-13

Client Information

Client Contact:
Mr. Eric Matzner

Company:
Pastor, Behling & Wheeler LLC

Address:
2201 Double Creek Dr Suite 4004

City:
Round Rock

State, Zip:
TX, 78664

Phone:
512-671-3434(Tel) 512-671-3446(Fax)

Email:
eric.matzner@pbwlc.com

Project Name:
UPRR HWPW

Site:

Sampler:
JOHN BEATON
Phone: 512-671-3434

Due Date Requested:

TAT Requested (days):

PO #:
Purchase Order not required

Project #:
60003722

SSOW#:

Lab P.M.:
Kudchadkar, Sachin G
E-Mail: sachin.kudchadkar@testamerica.com

Carrier Tracking No(s):

Analysis Requested

COC No:
600-18857-7207.2

Page 1 of 2

Job #:

Preservation Codes:

A - HCl	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2CO3
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Anioner	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4.5
L - EDA	Z - other (specify)
Other:	

Sample Identification	Sample Date	Sample Time	Sample Type (G=comp, G=grab)	Matrix (Water, Soil, Concrete, Asphalt, etc)	Field Filtered Sample (Yes or No)	Perform MSIMSD (Yes or No)	Analysis Requested	Total Number of containers	Special Instructions/Note:
WG-1620-MW13-20130205	2-5-13	0800	G	Water	X	X			
WG-1620-MW13MS-20130205		0800	G	Water	X	X			
WG-1620-MW13MSD-20130205		0800	G	Water	X	X			
WG-1620-MW21C-20130205		0900	G	Water	X	X			
WG-1620-DVP1-20130205		0900	G	Water	X	X			
WG-1620-MW05-20130205		1000	G	Water	X	X			
WG-1620-PI-20130205		1045	G	Water	X	X			
WG-1620-MW40B-20130205		1135	G	Water	X	X			
WG-1620-MW42B-20130205		1230	G	Water	X	X			
WG-1620-MW37B-20130205		1320	G	Water	X	X			
WG-1620-MW12C-20130205		1505	G	Water	X	X			

Possible Hazard Identification
 Non-Hazard Flammable Skin Irritant Poison B Unknown Radiological

Deliverable Requested: I, II, III, IV, Other (specify)

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
 Return To Client Disposal By Lab Archive For _____ Months

Special Instructions/OC Requirements:

Empty Kit Relinquished by: _____ Date: _____

Relinquished by: _____ Date/Time: 2-6-13 Company: PBD

Relinquished by: _____ Date/Time: _____ Company: _____

Relinquished by: _____ Date/Time: _____ Company: _____

Received by: _____ Date/Time: 2/13/13 Company: PBD

Received by: _____ Date/Time: _____ Company: _____

Received by: _____ Date/Time: _____ Company: _____

Custody Seals Intact: Yes No

Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks:

Client Information

Client Contact: Mr. Eric Matzner
Company: Pastor, Behling & Wheeler LLC
Address: 2201 Double Creek Dr Suite 4004
City: Round Rock
State, Zip: TX, 78664
Phone: 512-671-3434 (Tel) 512-671-3446 (Fax)
Email: eric.matzner@pbwllc.com
Project Name: UPRR HMPW
Site: SSO#

Sampler: JOHN BEATTON
Phone: 512-671-3434

Lab P/N: Kutchadkar, Sachin G
E-Mail: sachin.kutchadkar@testamericainc.com

Due Date Requested:

TAT Requested (days):

PO #:

Purchase Order not required

Project #:

SSOW#:

Analysis Requested

Sample Identification	Sample Date	Sample Time	Sample Type (G=grab, G=grab)	Matrix (Water, Soil, Sediment, etc.)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)
UG-1620-MW12A-20130205	2-5-13	1600	G	Water	X	8270C_LL - SVOC
UG-1620-TW41B-20130205		1650	G	Water	X	8260B - VOC
UG-1620-MW14-20130205		1750	G	Water	X	
UG-1620-FB4-20130205		1810	G	Water	X	
UG-1620-TB03-20130205			G	Water	X	

Carrier Tracking No(s):	COC No:
	600-18857-7207 2

Page:	Page #:
2 of 2	

Job #:	Special Instructions/Note:

Possible Hazard Identification
 Non-Hazard Flammable Skin Irritant Poison B Unknown Radiological

Deliverable Requested: I, II, III, IV, Other (Specify)

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
 Return To Client Disposal By Lab Archive For _____ Months

Special Instructions/QC Requirements:

Empty Kit Relinquished by:

Date:

Time:

Method of Shipment:

Received by:

Date/Time:

Company:

Received by:

Date/Time:

Company:

Received by:

Date/Time:

Company:

Received by:

Date/Time:

Company:

Relinquished by: [Signature]

Date/Time:

Company:

Received by: [Signature]

Date/Time:

Company:

Received by: [Signature]

Date/Time:

Company:

Received by: [Signature]

Date/Time:

Company:

Received by: [Signature]

Date/Time:

Company:

Relinquished by:

Date/Time:

Company:

Received by:

Date/Time:

Company:

Received by:

Date/Time:

Company:

Received by:

Date/Time:

Company:

Received by:

Date/Time:

Company:

Custody Seals Intact: Yes No

Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks:

Login Sample Receipt Checklist

Client: Pastor, Behling & Wheeler LLC

Job Number: 600-68161-1

Login Number: 68161

List Source: TestAmerica Houston

List Number: 1

Creator: Capps, Dana

Question	Answer	Comment
Radioactivity wasn't checked or is <=/ background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	3.9/2.3/3.3
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	False	Containers recd broken. Sufficient sample in remaining containers for analysis.
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	True	

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Houston

6310 Rothway Street

Houston, TX 77040

Tel: (713)690-4444

TestAmerica Job ID: 600-68241-1

Client Project/Site: 1620 UPRR HWPW

For:

Pastor, Behling & Wheeler LLC

2201 Double Creek Dr

Suite 4004

Round Rock, Texas 78664

Attn: Mr. Eric Matzner



Authorized for release by:

2/25/2013 12:53:30 PM

Cathy Upton

Data Delivery Analyst

cathy.upton@testamericainc.com

Designee for

Sachin Kudchadkar

Project Manager II

sachin.kudchadkar@testamericainc.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.



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Have a Question?



Visit us at:

www.testamericainc.com

1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17



Table of Contents

Cover Page	1
Table of Contents	2
TRRP Cover Page	3
TRRP Checklists & DCSs	4
Case Narrative	14
Method Summary	15
Sample Summary	16
Client Sample Results	17
Definitions/Glossary	29
Surrogate Summary	30
QC Sample Results	32
Default Detection Limits	39
QC Association Summary	40
Lab Chronicle	42
Certification Summary	45
Chain of Custody	46
Receipt Checklists	47

Job Number: 600-68241-1
Project Name/Number: 1620 UPRR HWPW

This Data Package consists of:

This signature page, the laboratory review checklist, and the following Reportable Data:

- R1 Field Chain-of-Custody Form
- R2 Sample Identification Cross-reference;
- R3 Test Reports (Analytical Data Sheets) for each environmental sample that includes:
 - a) Items consistent with NELAC Chapter 5
 - b) dilution factors,
 - c) preparation methods,
 - d) cleanup methods, and
 - e) if required for the project, tentatively identified compounds (TICs).
- R4 Surrogate Recovery Data including:
 - a) Calculated recovery (%R), and
 - b) The laboratory's surrogate QC limits.
- R5 Test Reports/Summary Forms for Blank Samples;
- R6 Test Reports/Summary Forms for Laboratory Control Samples (LCSs) including:
 - a) LCS spiking amounts,
 - b) Calculated %R for each analyte, and
 - d) The laboratory's LCS QC limits
- R7 Test Reports for Matrix Spike/Matrix Spike Duplicates (MS/MSDs) including:
 - a) Samples associated with the MS/MSD clearly identified,
 - b) MS/MSD spiking amounts,
 - c) Concentration of each MS/MSD analyte measured in the parent and spiked sample,
 - d) Calculated %Rs and relative percent differences (RPDs), and
 - e) The laboratory's MS/MSD QC limits
- R8 Laboratory analytical duplicates (if applicable) recovery and precision, including:
 - a) the amount of analyte measured in the duplicate,
 - b) the calculated RPD, and
 - c) the laboratory's QC limits for analytical duplicates.
- R9 List of method quantitation limit (MQL) and detectability check sample results for each analyte for each method and matrix;
- R10 Other problems or anomalies

The exception report for each "No" or "Not Reviewed (NR)" item in the Laboratory Review Checklist and for each analyte, matrix, and method for which the laboratory does not hold NELAC accreditation under the Texas Laboratory Accreditation Program.

Release Statement: I am responsible for the release of this laboratory data package. This laboratory is NELAC accredited under Texas laboratory Accreditation Program for all the methods, analytes, and matrices reported in this data package except as noted in the Exception Reports. The data have been reviewed and are technically compliant with the requirements of the methods used, except where noted by the laboratory in the Exception Reports. By my signature below, I affirm, to the best of my knowledge, that all problems/anomalies observed by the laboratory have been identified in the Laboratory Review Checklist, and no information affecting the quality of the data has been knowingly withheld.

Cathy Upton
Name (printed)
Data Delivery Analyst
Official Title (printed)


Signature

02/25/2013
Date

Appendix A (cont'd): Laboratory Review Checklist: Reportable Data							
Laboratory Name: TestAmerica-Houston			LRC Date: 02/15/13				
Project Name: 1620 UPRR HWPW			Laboratory Job Number: 600-68241				
Reviewer Name: YX			Prep Batch Number: 600-99159, 99165, 99274 and 99295-VOA				
# ¹	A ²	Description	Yes	No	NA ³	NR ⁴	ER# ⁵
R1	OI	Chain-of-custody (C-O-C)					
		Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?	X				
		Were all departures from standard conditions described in an exception report?			X		
R2	OI	Sample and quality control (QC) identification					
		Are all field sample ID numbers cross-referenced to the laboratory ID numbers?	X				
		Are all laboratory ID numbers cross-referenced to the corresponding QC data?	X				
R3	OI	Test reports					
		Were all samples prepared and analyzed within holding times?	X				
		Other than those results < MQL, were all other raw values bracketed by calibration standards?	X				
		Were calculations checked by a peer or supervisor?	X				
		Were all analyte identifications checked by a peer or supervisor?	X				
		Were sample detection limits reported for all analytes not detected?	X				
		Were all results for soil and sediment samples reported on a dry weight basis?			X		
		Were % moisture (or solids) reported for all soil and sediment samples?			X		
		Were bulk soil/solid samples for volatile analysis extracted with methanol per SW846 Method 5035?			X		
		If required for the project, TICs reported?			X		
R4	O	Surrogate recovery data					
		Were surrogates added prior to extraction?	X				
		Were surrogate percent recoveries in all samples within the laboratory QC limits?	X				
R5	OI	Test reports/summary forms for blank samples					
		Were appropriate type(s) of blanks analyzed?	X				
		Were blanks analyzed at the appropriate frequency?	X				
		Were method blanks taken through the entire analytical process, including preparation and, if applicable, cleanup procedures?	X				
		Were blank concentrations < MQL?	X				1
R6	OI	Laboratory control samples (LCS):					
		Were all COCs included in the LCS?	X				
		Was each LCS taken through the entire analytical procedure, including prep and cleanup steps?	X				
		Were LCSs analyzed at the required frequency?	X				
		Were LCS (and LCSD, if applicable) %Rs within the laboratory QC limits?	X				
		Does the detectability check sample data document the laboratory's capability to detect the COCs at the MDL used to calculate the SDLs?	X				
		Was the LCSD RPD within QC limits?			X		
R7	OI	Matrix spike (MS) and matrix spike duplicate (MSD) data					
		Were the project/method specified analytes included in the MS and MSD?	X				
		Were MS/MSD analyzed at the appropriate frequency?	X				
		Were MS (and MSD, if applicable) %Rs within the laboratory QC limits?			X		2
		Were MS/MSD RPDs within laboratory QC limits?			X		2
R8	OI	Analytical duplicate data					
		Were appropriate analytical duplicates analyzed for each matrix?			X		
		Were analytical duplicates analyzed at the appropriate frequency?			X		
		Were RPDs or relative standard deviations within the laboratory QC limits?			X		
R9	OI	Method quantitation limits (MQLs):					
		Are the MQLs for each method analyte included in the laboratory data package?	X				
		Do the MQLs correspond to the concentration of the lowest non-zero calibration standard?	X				
		Are unadjusted MQLs and DCSs included in the laboratory data package?	X				
R10	OI	Other problems/anomalies					
		Are all known problems/anomalies/special conditions noted in this LRC and ER?	X				
		Was applicable and available technology used to lower the SDL to minimize the matrix interference affects on the sample results?	X				3
		Is the laboratory NELAC-accredited under the Texas Laboratory Accreditation Program for the analytes, matrices and methods associated with this laboratory data package?	X				

- Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.
- O = organic analyses; I = inorganic analyses (and general chemistry, when applicable);
- NA = Not applicable;
- NR = Not reviewed;
- ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

Appendix A (cont'd): Laboratory Review Checklist: Reportable Data							
Laboratory Name: TestAmerica-Houston				LRC Date: 02/15/13			
Project Name: 1620 UPRR HWPW				Laboratory Job Number: 600-68241			
Reviewer Name: YX				Prep Batch Number: 600-99159, 99165, 99274 and 99295-VOA			
# ¹	A ²	Description	Yes	No	NA ³	NR ⁴	ER# ⁵
S1	OI	Initial calibration (ICAL)					
		Were response factors and/or relative response factors for each analyte within QC limits?	X				
		Were percent RSDs or correlation coefficient criteria met?	X				
		Was the number of standards recommended in the method used for all analytes?	X				
		Were all points generated between the lowest and highest standard used to calculate the curve?	X				
		Are ICAL data available for all instruments used?	X				
		Has the initial calibration curve been verified using an appropriate second source standard?	X				
S2	OI	Initial and continuing calibration verification (ICCV and CCV) and continuing calibration					
		Was the CCV analyzed at the method-required frequency?	X				
		Were percent differences for each analyte within the method-required QC limits?	X				
		Was the ICAL curve verified for each analyte?	X				
		Was the absolute value of the analyte concentration in the inorganic CCB < MDL?			X		
S3	O	Mass spectral tuning:					
		Was the appropriate compound for the method used for tuning?	X				
		Were ion abundance data within the method-required QC limits?	X				
S4	O	Internal standards (IS):					
		Were IS area counts and retention times within the method-required QC limits?	X				
S5	OI	Raw data (NELAC section 5.5.10)					
		Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?	X				
		Were data associated with manual integrations flagged on the raw data?	X				
S6	O	Dual column confirmation					
		Did dual column confirmation results meet the method-required QC?			X		
S7	O	Tentatively identified compounds (TICs):					
		If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?			X		
S8	I	Interference Check Sample (ICS) results:					
		Were percent recoveries within method QC limits?			X		
S9	I	Serial dilutions, post digestion spikes, and method of standard additions					
		Were percent differences, recoveries, and the linearity within the QC limits specified in the method?			X		
S10	OI	Method detection limit (MDL) studies					
		Was a MDL study performed for each reported analyte?	X				
		Is the MDL either adjusted or supported by the analysis of DCSs?	X				
S11	OI	Proficiency test reports:					
		Was the laboratory's performance acceptable on the applicable proficiency tests or evaluation studies?	X				
S12	OI	Standards documentation					
		Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?	X				
S13	OI	Compound/analyte identification procedures					
		Are the procedures for compound/analyte identification documented?	X				
S14	OI	Demonstration of analyst competency (DOC)					
		Was DOC conducted consistent with NELAC Chapter 5?	X				
		Is documentation of the analyst's competency up-to-date and on file?	X				
S15	OI	Verification/validation documentation for methods (NELAC Chapter 5)					
		Are all the methods used to generate the data documented, verified, and validated, where applicable?	X				
S16	OI	Laboratory standard operating procedures (SOPs):					
		Are laboratory SOPs current and on file for each method performed?	X				

- 1 Items identified by the letter "R" should be included in the laboratory data package submitted to the TCEQ in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.
- 2 O = organic analyses; I = inorganic analyses (and general chemistry, when applicable).
- 3 NA = Not applicable.
- 4 NR = Not Reviewed.
- 5 ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

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Appendix A (cont'd): Laboratory Review Checklist: Exception Reports	
Laboratory Name: TestAmerica-Houston	LRC Date: 02/15/13
Project Name: 1620 UPRR HWPW	Laboratory Job Number: 600-68241
Reviewer Name: YX	Prep Batch Number: 600-99159, 99165, 99274 and 99295-VOA
ER #¹	DESCRIPTION
1	Chlorobenzene was detected above the MDL, but below the MQL in the method blanks for batches 600-99165 and 99295. Methylene chloride was detected above the MDL, but below the MQL in the method blank for batch 600-99274. The levels of detection are below the recommended reporting limits and the appropriate flags have been applied to the report.
2	The laboratory selected samples from other groups to perform as the MS/MSDs.
3	All of the SDLs in samples 600-68241-3, 4, 5 and 10 were elevated due to the high concentration of target analytes and the nature of the sample matrix.

ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked on the LRC)

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Appendix A (cont'd): Laboratory Review Checklist: Reportable Data							
Laboratory Name: TestAmerica-Houston			LRC Date: 02/22/13				
Project Name: 1620 UPRR HWPW			Laboratory Job Number 600-68241				
Reviewer Name: JOH			Prep Batch Number(s): 600-99141, 99298 - SV				
# ¹	A ²	Description	Yes	No	NA ³	NR ⁴	ER# ⁵
R1	OI	Chain-of-custody (C-O-C)					
		Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?	X				
		Were all departures from standard conditions described in an exception report?			X		
R2	OI	Sample and quality control (QC) identification					
		Are all field sample ID numbers cross-referenced to the laboratory ID numbers?	X				
		Are all laboratory ID numbers cross-referenced to the corresponding QC data?	X				
R3	OI	Test reports					
		Were all samples prepared and analyzed within holding times?	X				
		Other than those results < MQL, were all other raw values bracketed by calibration standards?	X				
		Were calculations checked by a peer or supervisor?	X				
		Were all analyte identifications checked by a peer or supervisor?	X				
		Were sample detection limits reported for all analytes not detected?	X				
		Were all results for soil and sediment samples reported on a dry weight basis?			X		
		Were % moisture (or solids) reported for all soil and sediment samples?			X		
		Were bulk soil/solid samples for volatile analysis extracted with methanol per SW846 Method 5035?			X		
		If required for the project, TICs reported?			X		
R4	O	Surrogate recovery data					
		Were surrogates added prior to extraction?	X				
		Were surrogate percent recoveries in all samples within the laboratory QC limits?		X			1
R5	OI	Test reports/summary forms for blank samples					
		Were appropriate type(s) of blanks analyzed?	X				
		Were blanks analyzed at the appropriate frequency?	X				
		Were method blanks taken through the entire analytical process, including preparation and, if applicable, cleanup procedures?	X				
		Were blank concentrations < MQL?	X				2
R6	OI	Laboratory control samples (LCS):					
		Were all COCs included in the LCS?	X				
		Was each LCS taken through the entire analytical procedure, including prep and cleanup steps?	X				
		Were LCSs analyzed at the required frequency?	X				
		Were LCS (and LCSD, if applicable) %Rs within the laboratory QC limits?	X				
		Does the detectability check sample data document the laboratory's capability to detect the COCs at the MDL used to calculate the SDLs?	X				
		Was the LCSD RPD within QC limits?			X		
R7	OI	Matrix spike (MS) and matrix spike duplicate (MSD) data					
		Were the project/method specified analytes included in the MS and MSD?	X				
		Were MS/MSD analyzed at the appropriate frequency?	X				
		Were MS (and MSD, if applicable) %Rs within the laboratory QC limits?			X		3
		Were MS/MSD RPDs within laboratory QC limits?			X		3
R8	OI	Analytical duplicate data					
		Were appropriate analytical duplicates analyzed for each matrix?			X		
		Were analytical duplicates analyzed at the appropriate frequency?			X		
		Were RPDs or relative standard deviations within the laboratory QC limits?			X		
R9	OI	Method quantitation limits (MQLs):					
		Are the MQLs for each method analyte included in the laboratory data package?	X				
		Do the MQLs correspond to the concentration of the lowest non-zero calibration standard?	X				
		Are unadjusted MQLs and DCSs included in the laboratory data package?	X				
R10	OI	Other problems/anomalies					
		Are all known problems/anomalies/special conditions noted in this LRC and ER?	X				
		Was applicable and available technology used to lower the SDL to minimize the matrix interference affects on the sample results?	X				4
		Is the laboratory NELAC-accredited under the Texas Laboratory Accreditation Program for the analytes, matrices and methods associated with this laboratory data package?	X				

- Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.
- O = organic analyses; I = inorganic analyses (and general chemistry, when applicable);
- NA = Not applicable;
- NR = Not reviewed;
- ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

Appendix A (cont'd): Laboratory Review Checklist: Reportable Data									
Laboratory Name: TestAmerica-Houston					LRC Date: 02/22/13				
Project Name: 1620 UPRR HWPW					Laboratory Job Number 600-68241				
Reviewer Name: JOH					Prep Batch Number(s): 600-99141, 99298 - SV				
# ¹	A ²	Description	Yes	No	NA ³	NR ⁴	ER# ⁵		
S1	OI	Initial calibration (ICAL)							
		Were response factors and/or relative response factors for each analyte within QC limits?	X						
		Were percent RSDs or correlation coefficient criteria met?	X						
		Was the number of standards recommended in the method used for all analytes?	X						
		Were all points generated between the lowest and highest standard used to calculate the curve?	X						
		Are ICAL data available for all instruments used?	X						
		Has the initial calibration curve been verified using an appropriate second source standard?	X						
S2	OI	Initial and continuing calibration verification (ICCV and CCV) and continuing calibration							
		Was the CCV analyzed at the method-required frequency?	X						
		Were percent differences for each analyte within the method-required QC limits?	X						
		Was the ICAL curve verified for each analyte?	X						
		Was the absolute value of the analyte concentration in the inorganic CCB < MDL?			X				
S3	O	Mass spectral tuning:							
		Was the appropriate compound for the method used for tuning?			X				
		Were ion abundance data within the method-required QC limits?			X				
S4	O	Internal standards (IS):							
		Were IS area counts and retention times within the method-required QC limits?			X				
S5	OI	Raw data (NELAC section 5.5.10)							
		Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?	X						
		Were data associated with manual integrations flagged on the raw data?	X						
S6	O	Dual column confirmation							
		Did dual column confirmation results meet the method-required QC?			X				
S7	O	Tentatively identified compounds (TICs):							
		If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?			X				
S8	I	Interference Check Sample (ICS) results:							
		Were percent recoveries within method QC limits?			X				
S9	I	Serial dilutions, post digestion spikes, and method of standard additions							
		Were percent differences, recoveries, and the linearity within the QC limits specified in the method?			X				
S10	OI	Method detection limit (MDL) studies							
		Was a MDL study performed for each reported analyte?	X						
		Is the MDL either adjusted or supported by the analysis of DCSs?	X						
S11	OI	Proficiency test reports:							
		Was the laboratory's performance acceptable on the applicable proficiency tests or evaluation studies?	X						
S12	OI	Standards documentation							
		Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?	X						
S13	OI	Compound/analyte identification procedures							
		Are the procedures for compound/analyte identification documented?	X						
S14	OI	Demonstration of analyst competency (DOC)							
		Was DOC conducted consistent with NELAC Chapter 5?	X						
		Is documentation of the analyst's competency up-to-date and on file?	X						
S15	OI	Verification/validation documentation for methods (NELAC Chapter 5)							
		Are all the methods used to generate the data documented, verified, and validated, where applicable?	X						
S16	OI	Laboratory standard operating procedures (SOPs):							
		Are laboratory SOPs current and on file for each method performed?	X						

- 1 Items identified by the letter "R" should be included in the laboratory data package submitted to the TCEQ in the TRRP-required report(s).
- 2 Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.
- 3 O = organic analyses; I = inorganic analyses (and general chemistry, when applicable).
- 4 NA = Not applicable.
- 5 NR = Not Reviewed.
- 6 ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

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Appendix A (cont'd): Laboratory Review Checklist: Exception Reports	
Laboratory Name: TestAmerica-Houston	LRC Date: 02/22/13
Project Name: 1620 UPRR HWPW	Laboratory Job Number 600-68241
Reviewer Name: JOH	Prep Batch Number(s): 600-99141, 99298 - SV
ER #¹	DESCRIPTION
1	Due to the level of dilution required for samples 600-68241-3, 4, 5, 6, 7, 8, 10 and 10DL; surrogate recoveries are not reported. Six surrogates are used for this analysis. The laboratory's SOP allows one base and one acid of these surrogates to be outside acceptance criteria without performing re-extraction/re-analysis. Sample 600-68241-9 contained an allowable number of surrogate compounds outside limits. These results have been reported and qualified.
2	Naphthalene was detected above the MDL, but below the MQL in the method blank associated with batch 99298. The level of detection is below the recommended reporting limit and the appropriate flags have been applied.
3	The laboratory selected samples from other groups to perform as the MS/MSDs.
4	All of the SDLs in samples 600-68241-3, 4, 5, 6, 7, 8, and 10 were elevated due to the high concentrations of target analytes and/or the nature of the sample matrix.

ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked on the LRC)

Detection Check Standard

Matrix: Water
Method: 8260B_LL
Preparation: Wei Shen
Date Analyzed: 10/8/2012
Date Prepared: 10/8/2012
TALs Batches: A25003.D
Units: ug/L

Analyte	MDL	DCS Spike	Measured Result	MQL
Dichlorodifluoromethane	0.12	1	0.0281	5
Chloromethane	0.18	1	0.355	10
Vinyl Chloride	0.11	0.5	0.131	10
Bromomethane	0.25	1	0.882	10
Chloroethane	0.08	0.5	0.208	10
Allyl chloride	2	1	1.84	5
Acrolein	1.63	1	4.34	5
1,1-Dichloroethene	0.19	0.5	4.3	5
trans-1,2-Dichloroethene	0.09	0.5	4.68	5
Trichlorotrifluoroethane	1	1	0.534	5
Acetone	0.99	1	1.87	5
Methyl Iodide (Iodomethane)	2	1	2.29	5
Carbon Disulfide	0.24	1	2.6	5
2-Propanol (Isopropyl alcohol)	3.72	1	7.51	5
Acetonitrile	0.27	1	1.21	5
Methylene Chloride	0.15	0.5	1.79	10
Methyl tert-butyl ether	0.12	0.5	0.704	5
Vinyl Acetate	0.21	0.5	0.776	5
Acrylonitrile	0.52	1	2.71	5
Chloroprene (2-Chloro-1,3-butadiene)	0.33	1	1.16	5
Propionitrile	0.66	1	1.58	5
cis-1,2-Dichloroethene	0.06	0.5	0.659	5
1,2-Dichloroethene	0.3	1	1.45	5
2-Butanone (MEK)	0.76	1	1.64	5
Isobutyl alcohol	3.32	1	8.48	5
Bromochloromethane	0.18	0.5	0.436	5
Methacrylonitrile	0.41	1	1.62	5
Carbon Tetrachloride	0.15	0.5	0.318	5
Benzene	0.08	0.5	0.355	5
1,2-Dichloroethane	0.14	0.5	0.379	5
Trichloroethene	0.13	0.5	0.343	5
1,1,1-Trichloroethane	0.15	0.5	0.306	5
1,1-Dichloropropene	0.11	0.5	0.281	5
1,2-Dichloroethane	0.3	0.5	0.316	5
1,2-Dichloropropane	0.16	0.5	0.292	5
2,2-Dichloropropane	0.13	1	0.682	5
Methylene Bromide (Bromomethane)	0.25	0.5	0.328	5
1,4-Dioxane	30.79	1	34.08	250
Methyl methacrylate	0.33	1	1.55	5

Bromodichloromethane	0.16	0.5	0.715	5
2-Chloroethyl vinyl ether	0.5	1	2.04	5
1,1-Dichloropropane	0.21	0.5	0.774	5
cis-1,3-Dichloropropene	0.18	0.5	0.718	5
4-Methyl-2-pentanone	0.45	1	2.42	10
Toluene	0.15	0.5	0.431	5
trans-1,3-Dichloropropene	0.21	0.5	0.406	5
Ethyl Methacrylate	0.94	1	0.686	10
1,1,2-Trichloroethane	0.18	0.5	0.401	5
Tetrachloroethene	0.18	0.5	0.823	5
1,3-Dichloropropane	0.22	1	0.89	5
2-Hexanone	0.35	1	2.01	10
Dibromochloromethane	0.16	0.5	0.811	5
1,2-Dibromoethane (Ethylene bromide)	0.18	0.5	0.373	5
Chlorobenzene	0.12	0.5	0.424	5
1,1,1,2-Tetrachloroethane	0.18	0.5	0.401	5
Ethylbenzene	0.11	0.5	0.357	5
m,p-Xylene	0.17	0.5	0.741	10
o-Xylene	0.12	0.5	0.37	5
Xylenes (total)	0.26	0.5	1.11	5
Styrene	0.07	0.5	0.344	5
Bromoform	0.19	0.5	0.915	5
Isopropylbenzene	0.18	0.5	0.367	5
Bromobenzene	0.19	0.5	0.457	5
1,2,3-Trichloropropane	0.29	1	0.89	5
1,1,2,2-Tetrachloroethane	0.22	1	0.729	5
trans-1,4-Dichloro-2-butene	0.64	1	2.36	5
n-Propylbenzene	0.15	0.5	0.372	5
2-Chlorotoluene	0.13	0.5	0.424	5
4-Chlorotoluene	0.14	0.5	0.442	5
1,3,5-Trimethylbenzene	0.1	0.5	0.392	5
tert-Butylbenzene	0.08	0.5	0.359	5
p-Isopropyltoluene	0.1	0.5	0.329	5
1,2,4-Trimethylbenzene	0.14	0.5	0.388	5
sec-Butylbenzene	0.12	0.5	0.329	5
1,3-Dichlorobenzene	0.13	0.5	0.437	5
1,4-Dichlorobenzene	0.11	0.5	0.475	5
1,2-Dichlorobenzene	0.1	0.5	0.466	5
n-Butylbenzene	0.16	0.5	0.297	5
1,2-Dibromo-3-chloropropane	0.33	1	1.2	5
1,2,4-Trichlorobenzene	0.31	1	0.849	5
Hexachlorobutadiene	0.17	0.5	0.363	5
Naphthalene	0.32	1	1.09	5
1,2,3-Trichlorobenzene	0.57	1	0.867	5

**Quality Control Report
Detection Check Standard**

Matrix: Water
 Method: 8270C LL
 Preparation: 3510C
 Date Analyzed: 10/18/2012
 Date Prepared: 10/16/2012
 Lab Sample ID: 600-91246_18-a
 Units: ug/L

Analyte	MDL	DCS Spike	DCS Result	MLQ
Pyridine	0.04	0.25	0.067	0.5
N-Nitrosodimethylamine	0.26	0.25	0.121	0.5
Aniline	0.08	0.25	0.085	0.5
Phenol	0.04	0.25	0.054	0.5
bis(2-Chloroethyl)ether	0.15	0.25	0.149	0.5
2-Chlorophenol	0.13	0.25	0.097	0.5
1,3-Dichlorobenzene	0.17	0.25	0.152	0.5
1,4-Dichlorobenzene	0.13	0.25	0.166	0.5
1,2-Dichlorobenzene	0.17	0.25	0.167	0.5
Benzyl alcohol	0.17	0.25	0.075	0.5
2-Methylphenol	0.12	0.25	0.112	0.5
m&p-Cresols	0.2	0.25	0.053	1
bis (2-Chloroisopropyl) ether	0.4	0.25	0.143	0.5
N-Nitroso-di-n-propylamine	0.1	0.25	0.177	0.5
Hexachloroethane	0.1	0.25	0.185	0.5
Nitrobenzene	0.11	0.25	0.131	0.5
Isophorone	0.11	0.25	0.149	0.5
2-Nitrophenol	0.22	0.5	0.205	0.5
Benzoic acid	2.51	5	6.530	2.5
2,4-Dimethylphenol	0.31	0.5	0.130	0.5
bis(2-Chloroethoxy)methane	0.13	0.25	0.122	0.5
2,4-Dichlorophenol	0.15	0.25	0.068	0.5
1,2,4-Trichlorobenzene	0.12	0.25	0.125	0.5
Naphthalene	0.08	0.25	0.161	0.5
4-Chloroaniline	0.21	0.5	0.232	0.5
Hexachlorobutadiene	0.18	0.25	0.160	0.5
4-Chloro-3-methylphenol	0.17	0.25	0.075	0.5
2-Methylnaphthalene	0.07	0.25	0.128	0.5
1-Methylnaphthalene	0.09	0.25	0.147	0.5
Hexachlorocyclopentadiene	0.13	0.5	0.487	0.5
2,4,6-Trichlorophenol	0.18	0.5	0.062	0.5
2,4,5-Trichlorophenol	0.25	0.5	0.107	0.5
2-Chloronaphthalene	0.08	0.25	0.148	0.5
2-Nitroaniline	0.19	0.5	0.213	0.5
Dimethylphthalate	0.07	0.25	0.145	0.5
1,4 Dinitrobenzene	5	0.25	0.363	0.5
1,3-Dinitrobenzene	0.08	0.25	0.381	0.5
1,2-Dinitrobenzene	0.5	0.25	0.040	0.5
Acenaphthylene	0.06	0.25	0.137	0.5

2,6-Dinitrotoluene	0.08	0.25	0.178	0.5
3-Nitroaniline	0.16	0.5	0.240	0.5
Acenaphthene	0.08	0.25	0.151	0.5
Dibenzofuran	0.08	0.25	0.127	0.5
2,4-Dinitrotoluene	0.13	0.25	0.144	0.5
Diethylphthalate	1.5	0.5	0.431	0.5
4-Chlorophenyl-phenylether	0.1	0.25	0.102	0.5
Fluorene	0.07	0.25	0.107	0.5
4-Nitroaniline	0.25	0.5	0.124	0.5
4,6-Dinitro-2-Methylphenol	0.83	2.5	0.530	1
N-Nitrosodiphenylamine	0.1	0.25	0.176	0.5
Diphenylamine	0.1	0.25	0.099	0.5
1,2-Diphenylhydrazine	0.11	0.25	0.224	0.5
Azobenzene	0.07	0.25	0.117	0.5
4-Bromophenyl-phenylether	0.1	0.25	0.112	0.5
Hexachlorobenzene	0.11	0.25	0.130	0.5
Phenanthrene	0.06	0.25	0.169	0.5
Anthracene	0.05	0.25	0.144	0.5
Carbazole	0.17	0.25	0.140	0.5
Di-n-butylphthalate	0.11	0.25	0.238	0.5
Fluoranthene	0.07	0.25	0.196	0.5
Pyrene	0.11	0.25	0.153	0.5
Butylbenzylphthalate	0.12	0.25	0.238	0.5
3,3'-Dichlorobenzidene	0.5	0.25	0.066	0.5
Benzo(a)anthracene	0.08	0.25	0.175	0.5
bis(2-Ethylhexyl)phthalate	0.37	0.5	0.420	0.5
Chrysene	0.08	0.25	0.212	0.5
Di-n-octylphthalate	0.16	0.25	0.091	0.5
Benzo(b)fluoranthene	0.07	0.25	0.143	0.5
Benzo(k)fluoranthene	0.09	0.25	0.201	0.5
Benzo(a)pyrene	0.08	0.25	0.137	0.5
Indeno(1,2,3-cd)pyrene	0.07	0.25	0.454	0.5
Dibenz(a,h)anthracene	0.08	0.25	0.123	0.5
Benzo(g,h,i)perylene	0.08	0.25	0.112	0.5



Case Narrative

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68241-1

Job ID: 600-68241-1

Laboratory: TestAmerica Houston

Narrative

Job Narrative
600-68241-1

Comments

No additional comments.

Receipt

The samples were received on 2/7/2013 7:15 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 2 coolers at receipt time were 2.0° C and 2.4° C.

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Method Summary

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68241-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL HOU
8270C LL	Semivolatile Organic Compounds by GCMS - Low Levels	SW846	TAL HOU

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL HOU = TestAmerica Houston, 6310 Rothway Street, Houston, TX 77040, TEL (713)690-4444



Sample Summary

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68241-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
600-68241-1	WG-1620-MW53C-20130206	Water	02/06/13 08:30	02/07/13 07:15
600-68241-2	WG-1620-MW25A-20130206	Water	02/06/13 09:20	02/07/13 07:15
600-68241-3	WG-1620-MW25C-20130206	Water	02/06/13 10:05	02/07/13 07:15
600-68241-4	WG-1620-MW44C-20130206	Water	02/06/13 10:55	02/07/13 07:15
600-68241-5	WG-1620-MW33BR-20130206	Water	02/06/13 12:00	02/07/13 07:15
600-68241-6	WG-1620-MW26A-20130206	Water	02/06/13 13:45	02/07/13 07:15
600-68241-7	WG-1620-MW32AR-20130206	Water	02/06/13 14:35	02/07/13 07:15
600-68241-8	WG-1620-MW32B-20130206	Water	02/06/13 15:20	02/07/13 07:15
600-68241-9	WG-1620-MW68C-20130206	Water	02/06/13 16:20	02/07/13 07:15
600-68241-10	WG-1620-MW68B-20130206	Water	02/06/13 17:15	02/07/13 07:15
600-68241-11	WG-1620-TB04-20130206	Water	02/06/13 00:00	02/07/13 07:15

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68241-1

Client Sample ID: WG-1620-MW53C-20130206

Lab Sample ID: 600-68241-1

Date Collected: 02/06/13 08:30

Matrix: Water

Date Received: 02/07/13 07:15

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			02/08/13 19:31	1
Benzene	0.0000800	U	0.00100	0.0000800	mg/L			02/08/13 19:31	1
1,2-Dichloroethane	0.000644	J	0.00100	0.000140	mg/L			02/08/13 19:31	1
Toluene	0.000150	U	0.00100	0.000150	mg/L			02/08/13 19:31	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			02/08/13 19:31	1
Ethylbenzene	0.000110	U	0.00100	0.000110	mg/L			02/08/13 19:31	1
Xylenes, Total	0.000260	U	0.00300	0.000260	mg/L			02/08/13 19:31	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	90		67 - 139		02/08/13 19:31	1
Dibromofluoromethane	103		62 - 130		02/08/13 19:31	1
Toluene-d8 (Surr)	102		70 - 130		02/08/13 19:31	1
1,2-Dichloroethane-d4 (Surr)	90		50 - 134		02/08/13 19:31	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.0000385	U	0.000481	0.0000385	mg/L		02/08/13 08:51	02/14/13 08:00	1
Nitrobenzene	0.000106	U	0.000481	0.000106	mg/L		02/08/13 08:51	02/14/13 08:00	1
2,4-Dimethylphenol	0.000298	U	0.000481	0.000298	mg/L		02/08/13 08:51	02/14/13 08:00	1
Bis(2-chloroethoxy)methane	0.000125	U	0.000481	0.000125	mg/L		02/08/13 08:51	02/14/13 08:00	1
Naphthalene	0.000183	J	0.000481	0.0000769	mg/L		02/08/13 08:51	02/14/13 08:00	1
2-Methylnaphthalene	0.0000673	U	0.000481	0.0000673	mg/L		02/08/13 08:51	02/14/13 08:00	1
2-Chloronaphthalene	0.0000769	U	0.000481	0.0000769	mg/L		02/08/13 08:51	02/14/13 08:00	1
Acenaphthylene	0.0000577	U	0.000481	0.0000577	mg/L		02/08/13 08:51	02/14/13 08:00	1
2,6-Dinitrotoluene	0.0000769	U	0.000481	0.0000769	mg/L		02/08/13 08:51	02/14/13 08:00	1
Acenaphthene	0.0000769	U	0.000481	0.0000769	mg/L		02/08/13 08:51	02/14/13 08:00	1
4-Nitrophenol	0.000538	U	0.000962	0.000538	mg/L		02/08/13 08:51	02/14/13 08:00	1
Dibenzofuran	0.0000769	U	0.000481	0.0000769	mg/L		02/08/13 08:51	02/14/13 08:00	1
2,4-Dinitrotoluene	0.000125	U	0.000481	0.000125	mg/L		02/08/13 08:51	02/14/13 08:00	1
Fluorene	0.0000673	U	0.000481	0.0000673	mg/L		02/08/13 08:51	02/14/13 08:00	1
4,6-Dinitro-2-methylphenol	0.000798	U	0.000962	0.000798	mg/L		02/08/13 08:51	02/14/13 08:00	1
N-Nitrosodiphenylamine	0.0000962	U	0.000481	0.0000962	mg/L		02/08/13 08:51	02/14/13 08:00	1
1,2-Diphenylhydrazine	0.000106	U	0.000481	0.000106	mg/L		02/08/13 08:51	02/14/13 08:00	1
Pentachlorophenol	0.000587	U	0.000962	0.000587	mg/L		02/08/13 08:51	02/14/13 08:00	1
Phenanthrene	0.0000577	U	0.000481	0.0000577	mg/L		02/08/13 08:51	02/14/13 08:00	1
Anthracene	0.0000481	U	0.000481	0.0000481	mg/L		02/08/13 08:51	02/14/13 08:00	1
Di-n-butyl phthalate	0.000106	U	0.000481	0.000106	mg/L		02/08/13 08:51	02/14/13 08:00	1
Fluoranthene	0.0000673	U	0.000481	0.0000673	mg/L		02/08/13 08:51	02/14/13 08:00	1
Pyrene	0.000106	U	0.000481	0.000106	mg/L		02/08/13 08:51	02/14/13 08:00	1
Benzo[a]anthracene	0.0000769	U	0.000481	0.0000769	mg/L		02/08/13 08:51	02/14/13 08:00	1
Bis(2-ethylhexyl) phthalate	0.000356	U	0.000481	0.000356	mg/L		02/08/13 08:51	02/14/13 08:00	1
Chrysene	0.0000769	U	0.000481	0.0000769	mg/L		02/08/13 08:51	02/14/13 08:00	1
Benzo[a]pyrene	0.0000769	U	0.000481	0.0000769	mg/L		02/08/13 08:51	02/14/13 08:00	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Phenol-d6	17		10 - 94	02/08/13 08:51	02/14/13 08:00	1
2,4,6-Tribromophenol	60		10 - 123	02/08/13 08:51	02/14/13 08:00	1
2-Fluorobiphenyl	67		43 - 116	02/08/13 08:51	02/14/13 08:00	1
2-Fluorophenol	27		10 - 100	02/08/13 08:51	02/14/13 08:00	1
Nitrobenzene-d5	62		35 - 114	02/08/13 08:51	02/14/13 08:00	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68241-1

Client Sample ID: WG-1620-MW53C-20130206

Lab Sample ID: 600-68241-1

Date Collected: 02/06/13 08:30

Matrix: Water

Date Received: 02/07/13 07:15

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Terphenyl-d14	66		33 - 141	02/08/13 08:51	02/14/13 08:00	1

Client Sample ID: WG-1620-MW25A-20130206

Lab Sample ID: 600-68241-2

Date Collected: 02/06/13 09:20

Matrix: Water

Date Received: 02/07/13 07:15

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	0.000110	U	0.00200	0.000110	mg/L			02/08/13 20:47	1
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			02/08/13 20:47	1
Benzene	0.0000800	U	0.00100	0.0000800	mg/L			02/08/13 20:47	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			02/08/13 20:47	1
Toluene	0.000150	U	0.00100	0.000150	mg/L			02/08/13 20:47	1
Chlorobenzene	0.000497	J b	0.00100	0.000120	mg/L			02/08/13 20:47	1
Ethylbenzene	0.000110	U	0.00100	0.000110	mg/L			02/08/13 20:47	1
Xylenes, Total	0.000260	U	0.00300	0.000260	mg/L			02/08/13 20:47	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	100		67 - 139		02/08/13 20:47	1
Dibromofluoromethane	80		62 - 130		02/08/13 20:47	1
Toluene-d8 (Surr)	86		70 - 130		02/08/13 20:47	1
1,2-Dichloroethane-d4 (Surr)	85		50 - 134		02/08/13 20:47	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.0000385	U	0.000481	0.0000385	mg/L		02/08/13 08:51	02/18/13 15:09	1
Nitrobenzene	0.000106	U	0.000481	0.000106	mg/L		02/08/13 08:51	02/18/13 15:09	1
2,4-Dimethylphenol	0.000298	U	0.000481	0.000298	mg/L		02/08/13 08:51	02/18/13 15:09	1
Bis(2-chloroethoxy)methane	0.000125	U	0.000481	0.000125	mg/L		02/08/13 08:51	02/18/13 15:09	1
Naphthalene	0.000692	J	0.00481	0.0000769	mg/L		02/08/13 08:51	02/18/13 15:09	1
2-Methylnaphthalene	0.0000673	U	0.000481	0.0000673	mg/L		02/08/13 08:51	02/18/13 15:09	1
2-Chloronaphthalene	0.0000769	U	0.000481	0.0000769	mg/L		02/08/13 08:51	02/18/13 15:09	1
Acenaphthylene	0.0000577	U	0.000481	0.0000577	mg/L		02/08/13 08:51	02/18/13 15:09	1
2,6-Dinitrotoluene	0.0000769	U	0.000481	0.0000769	mg/L		02/08/13 08:51	02/18/13 15:09	1
Acenaphthene	0.000171	J	0.000481	0.0000769	mg/L		02/08/13 08:51	02/18/13 15:09	1
4-Nitrophenol	0.000538	U	0.000962	0.000538	mg/L		02/08/13 08:51	02/18/13 15:09	1
Dibenzofuran	0.0000769	U	0.000481	0.0000769	mg/L		02/08/13 08:51	02/18/13 15:09	1
2,4-Dinitrotoluene	0.000125	U	0.000481	0.000125	mg/L		02/08/13 08:51	02/18/13 15:09	1
Fluorene	0.0000673	U	0.000481	0.0000673	mg/L		02/08/13 08:51	02/18/13 15:09	1
4,6-Dinitro-2-methylphenol	0.000798	U	0.000962	0.000798	mg/L		02/08/13 08:51	02/18/13 15:09	1
N-Nitrosodiphenylamine	0.0000962	U	0.000481	0.0000962	mg/L		02/08/13 08:51	02/18/13 15:09	1
1,2-Diphenylhydrazine	0.000106	U	0.000481	0.000106	mg/L		02/08/13 08:51	02/18/13 15:09	1
Pentachlorophenol	0.000587	U	0.000962	0.000587	mg/L		02/08/13 08:51	02/18/13 15:09	1
Phenanthrene	0.0000577	U	0.000481	0.0000577	mg/L		02/08/13 08:51	02/18/13 15:09	1
Anthracene	0.0000481	U	0.000481	0.0000481	mg/L		02/08/13 08:51	02/18/13 15:09	1
Di-n-butyl phthalate	0.000106	U	0.000481	0.000106	mg/L		02/08/13 08:51	02/18/13 15:09	1
Fluoranthene	0.0000673	U	0.000481	0.0000673	mg/L		02/08/13 08:51	02/18/13 15:09	1
Pyrene	0.000106	U	0.000481	0.000106	mg/L		02/08/13 08:51	02/18/13 15:09	1
Benzo[a]anthracene	0.0000769	U	0.000481	0.0000769	mg/L		02/08/13 08:51	02/18/13 15:09	1
Bis(2-ethylhexyl) phthalate	0.000356	U	0.000481	0.000356	mg/L		02/08/13 08:51	02/18/13 15:09	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68241-1

Client Sample ID: WG-1620-MW25A-20130206

Lab Sample ID: 600-68241-2

Date Collected: 02/06/13 09:20

Matrix: Water

Date Received: 02/07/13 07:15

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	0.0000769	U	0.000481	0.0000769	mg/L		02/08/13 08:51	02/18/13 15:09	1
Benzo[a]pyrene	0.0000769	U	0.000481	0.0000769	mg/L		02/08/13 08:51	02/18/13 15:09	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Phenol-d6	10		10 - 94				02/08/13 08:51	02/18/13 15:09	1
2,4,6-Tribromophenol	38		10 - 123				02/08/13 08:51	02/18/13 15:09	1
2-Fluorobiphenyl	55		43 - 116				02/08/13 08:51	02/18/13 15:09	1
2-Fluorophenol	19		10 - 100				02/08/13 08:51	02/18/13 15:09	1
Nitrobenzene-d5	55		35 - 114				02/08/13 08:51	02/18/13 15:09	1
Terphenyl-d14	57		33 - 141				02/08/13 08:51	02/18/13 15:09	1

Client Sample ID: WG-1620-MW25C-20130206

Lab Sample ID: 600-68241-3

Date Collected: 02/06/13 10:05

Matrix: Water

Date Received: 02/07/13 07:15

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	0.00220	U	0.0400	0.00220	mg/L			02/11/13 12:25	20
Methylene Chloride	0.00300	U	0.0200	0.00300	mg/L			02/11/13 12:25	20
Benzene	0.0304		0.0200	0.00160	mg/L			02/11/13 12:25	20
1,2-Dichloroethane	0.00280	U	0.0200	0.00280	mg/L			02/11/13 12:25	20
Toluene	0.291		0.0200	0.00300	mg/L			02/11/13 12:25	20
Chlorobenzene	0.00653	J b	0.0200	0.00240	mg/L			02/11/13 12:25	20
Ethylbenzene	0.324		0.0200	0.00220	mg/L			02/11/13 12:25	20
Xylenes, Total	1.03		0.0600	0.00520	mg/L			02/11/13 12:25	20
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	98		67 - 139					02/11/13 12:25	20
Dibromofluoromethane	83		62 - 130					02/11/13 12:25	20
Toluene-d8 (Surr)	80		70 - 130					02/11/13 12:25	20
1,2-Dichloroethane-d4 (Surr)	89		50 - 134					02/11/13 12:25	20

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.0385	U	0.481	0.0385	mg/L		02/08/13 08:51	02/18/13 15:36	1000
Nitrobenzene	0.106	U	0.481	0.106	mg/L		02/08/13 08:51	02/18/13 15:36	1000
2,4-Dimethylphenol	0.298	U	0.481	0.298	mg/L		02/08/13 08:51	02/18/13 15:36	1000
Bis(2-chloroethoxy)methane	0.125	U	0.481	0.125	mg/L		02/08/13 08:51	02/18/13 15:36	1000
Naphthalene	10.7		4.81	0.0769	mg/L		02/08/13 08:51	02/18/13 15:36	1000
2-Methylnaphthalene	0.800		0.481	0.0673	mg/L		02/08/13 08:51	02/18/13 15:36	1000
2-Chloronaphthalene	0.0769	U	0.481	0.0769	mg/L		02/08/13 08:51	02/18/13 15:36	1000
Acenaphthylene	0.0577	U	0.481	0.0577	mg/L		02/08/13 08:51	02/18/13 15:36	1000
2,6-Dinitrotoluene	0.0769	U	0.481	0.0769	mg/L		02/08/13 08:51	02/18/13 15:36	1000
Acenaphthene	0.261	J	0.481	0.0769	mg/L		02/08/13 08:51	02/18/13 15:36	1000
4-Nitrophenol	0.538	U	0.962	0.538	mg/L		02/08/13 08:51	02/18/13 15:36	1000
Dibenzofuran	0.174	J	0.481	0.0769	mg/L		02/08/13 08:51	02/18/13 15:36	1000
2,4-Dinitrotoluene	0.125	U	0.481	0.125	mg/L		02/08/13 08:51	02/18/13 15:36	1000
Fluorene	0.102	J	0.481	0.0673	mg/L		02/08/13 08:51	02/18/13 15:36	1000
4,6-Dinitro-2-methylphenol	0.798	U	0.962	0.798	mg/L		02/08/13 08:51	02/18/13 15:36	1000
N-Nitrosodiphenylamine	0.0962	U	0.481	0.0962	mg/L		02/08/13 08:51	02/18/13 15:36	1000

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68241-1

Client Sample ID: WG-1620-MW25C-20130206

Lab Sample ID: 600-68241-3

Date Collected: 02/06/13 10:05

Matrix: Water

Date Received: 02/07/13 07:15

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Diphenylhydrazine	0.106	U	0.481	0.106	mg/L		02/08/13 08:51	02/18/13 15:36	1000
Pentachlorophenol	0.587	U	0.962	0.587	mg/L		02/08/13 08:51	02/18/13 15:36	1000
Phenanthrene	0.147	J	0.481	0.0577	mg/L		02/08/13 08:51	02/18/13 15:36	1000
Anthracene	0.0481	U	0.481	0.0481	mg/L		02/08/13 08:51	02/18/13 15:36	1000
Di-n-butyl phthalate	0.106	U	0.481	0.106	mg/L		02/08/13 08:51	02/18/13 15:36	1000
Fluoranthene	0.0673	U	0.481	0.0673	mg/L		02/08/13 08:51	02/18/13 15:36	1000
Pyrene	0.106	U	0.481	0.106	mg/L		02/08/13 08:51	02/18/13 15:36	1000
Benzo[a]anthracene	0.0769	U	0.481	0.0769	mg/L		02/08/13 08:51	02/18/13 15:36	1000
Bis(2-ethylhexyl) phthalate	0.356	U	0.481	0.356	mg/L		02/08/13 08:51	02/18/13 15:36	1000
Chrysene	0.0769	U	0.481	0.0769	mg/L		02/08/13 08:51	02/18/13 15:36	1000
Benzo[a]pyrene	0.0769	U	0.481	0.0769	mg/L		02/08/13 08:51	02/18/13 15:36	1000
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Phenol-d6	0	X	10 - 94				02/08/13 08:51	02/18/13 15:36	1000
2,4,6-Tribromophenol	0	X	10 - 123				02/08/13 08:51	02/18/13 15:36	1000
2-Fluorobiphenyl	0	X	43 - 116				02/08/13 08:51	02/18/13 15:36	1000
2-Fluorophenol	0	X	10 - 100				02/08/13 08:51	02/18/13 15:36	1000
Nitrobenzene-d5	0	X	35 - 114				02/08/13 08:51	02/18/13 15:36	1000
Terphenyl-d14	0	X	33 - 141				02/08/13 08:51	02/18/13 15:36	1000

Client Sample ID: WG-1620-MW44C-20130206

Lab Sample ID: 600-68241-4

Date Collected: 02/06/13 10:55

Matrix: Water

Date Received: 02/07/13 07:15

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	0.00150	U	0.0100	0.00150	mg/L			02/11/13 12:54	10
Benzene	0.000964	J	0.0100	0.000800	mg/L			02/11/13 12:54	10
1,2-Dichloroethane	0.00140	U	0.0100	0.00140	mg/L			02/11/13 12:54	10
Toluene	0.0895		0.0100	0.00150	mg/L			02/11/13 12:54	10
Chlorobenzene	0.00293	J b	0.0100	0.00120	mg/L			02/11/13 12:54	10
Ethylbenzene	0.233		0.0100	0.00110	mg/L			02/11/13 12:54	10
Xylenes, Total	0.688		0.0300	0.00260	mg/L			02/11/13 12:54	10
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	99		67 - 139					02/11/13 12:54	10
Dibromofluoromethane	82		62 - 130					02/11/13 12:54	10
Toluene-d8 (Surr)	80		70 - 130					02/11/13 12:54	10
1,2-Dichloroethane-d4 (Surr)	88		50 - 134					02/11/13 12:54	10

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.192	U	2.40	0.192	mg/L		02/08/13 08:51	02/18/13 16:03	5000
Nitrobenzene	0.529	U	2.40	0.529	mg/L		02/08/13 08:51	02/18/13 16:03	5000
2,4-Dimethylphenol	1.49	U	2.40	1.49	mg/L		02/08/13 08:51	02/18/13 16:03	5000
Bis(2-chloroethoxy)methane	0.625	U	2.40	0.625	mg/L		02/08/13 08:51	02/18/13 16:03	5000
Naphthalene	18.0	J	24.0	0.385	mg/L		02/08/13 08:51	02/18/13 16:03	5000
2-Methylnaphthalene	1.15	J	2.40	0.337	mg/L		02/08/13 08:51	02/18/13 16:03	5000
2-Chloronaphthalene	0.385	U	2.40	0.385	mg/L		02/08/13 08:51	02/18/13 16:03	5000
Acenaphthylene	0.288	U	2.40	0.288	mg/L		02/08/13 08:51	02/18/13 16:03	5000

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68241-1

Client Sample ID: WG-1620-MW44C-20130206

Lab Sample ID: 600-68241-4

Date Collected: 02/06/13 10:55

Matrix: Water

Date Received: 02/07/13 07:15

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
2,6-Dinitrotoluene	0.385	U	2.40	0.385	mg/L		02/08/13 08:51	02/18/13 16:03	5000
Acenaphthene	0.632	J	2.40	0.385	mg/L		02/08/13 08:51	02/18/13 16:03	5000
4-Nitrophenol	2.69	U	4.81	2.69	mg/L		02/08/13 08:51	02/18/13 16:03	5000
Dibenzofuran	0.453	J	2.40	0.385	mg/L		02/08/13 08:51	02/18/13 16:03	5000
2,4-Dinitrotoluene	0.625	U	2.40	0.625	mg/L		02/08/13 08:51	02/18/13 16:03	5000
Fluorene	0.337	U	2.40	0.337	mg/L		02/08/13 08:51	02/18/13 16:03	5000
4,6-Dinitro-2-methylphenol	3.99	U	4.81	3.99	mg/L		02/08/13 08:51	02/18/13 16:03	5000
N-Nitrosodiphenylamine	0.481	U	2.40	0.481	mg/L		02/08/13 08:51	02/18/13 16:03	5000
1,2-Diphenylhydrazine	0.529	U	2.40	0.529	mg/L		02/08/13 08:51	02/18/13 16:03	5000
Pentachlorophenol	2.93	U	4.81	2.93	mg/L		02/08/13 08:51	02/18/13 16:03	5000
Phenanthrene	0.498	J	2.40	0.288	mg/L		02/08/13 08:51	02/18/13 16:03	5000
Anthracene	0.240	U	2.40	0.240	mg/L		02/08/13 08:51	02/18/13 16:03	5000
Di-n-butyl phthalate	0.529	U	2.40	0.529	mg/L		02/08/13 08:51	02/18/13 16:03	5000
Fluoranthene	0.337	U	2.40	0.337	mg/L		02/08/13 08:51	02/18/13 16:03	5000
Pyrene	0.529	U	2.40	0.529	mg/L		02/08/13 08:51	02/18/13 16:03	5000
Benzo[a]anthracene	0.385	U	2.40	0.385	mg/L		02/08/13 08:51	02/18/13 16:03	5000
Bis(2-ethylhexyl) phthalate	1.78	U	2.40	1.78	mg/L		02/08/13 08:51	02/18/13 16:03	5000
Chrysene	0.385	U	2.40	0.385	mg/L		02/08/13 08:51	02/18/13 16:03	5000
Benzo[a]pyrene	0.385	U	2.40	0.385	mg/L		02/08/13 08:51	02/18/13 16:03	5000

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Phenol-d6	0	X	10 - 94	02/08/13 08:51	02/18/13 16:03	5000
2,4,6-Tribromophenol	0	X	10 - 123	02/08/13 08:51	02/18/13 16:03	5000
2-Fluorobiphenyl	0	X	43 - 116	02/08/13 08:51	02/18/13 16:03	5000
2-Fluorophenol	0	X	10 - 100	02/08/13 08:51	02/18/13 16:03	5000
Nitrobenzene-d5	0	X	35 - 114	02/08/13 08:51	02/18/13 16:03	5000
Terphenyl-d14	0	X	33 - 141	02/08/13 08:51	02/18/13 16:03	5000

Client Sample ID: WG-1620-MW33BR-20130206

Lab Sample ID: 600-68241-5

Date Collected: 02/06/13 12:00

Matrix: Water

Date Received: 02/07/13 07:15

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	0.00550	U	0.100	0.00550	mg/L			02/08/13 20:53	50
Methylene Chloride	0.0110	J	0.0500	0.00750	mg/L			02/08/13 20:53	50
Benzene	1.61		0.0500	0.00400	mg/L			02/08/13 20:53	50
1,2-Dichloroethane	0.00700	U	0.0500	0.00700	mg/L			02/08/13 20:53	50
Toluene	0.157		0.0500	0.00750	mg/L			02/08/13 20:53	50
Chlorobenzene	0.00600	U	0.0500	0.00600	mg/L			02/08/13 20:53	50
Ethylbenzene	0.471		0.0500	0.00550	mg/L			02/08/13 20:53	50
Xylenes, Total	0.924		0.150	0.0130	mg/L			02/08/13 20:53	50

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	89		67 - 139		02/08/13 20:53	50
Dibromofluoromethane	105		62 - 130		02/08/13 20:53	50
Toluene-d8 (Surr)	96		70 - 130		02/08/13 20:53	50
1,2-Dichloroethane-d4 (Surr)	96		50 - 134		02/08/13 20:53	50

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68241-1

Client Sample ID: WG-1620-MW33BR-20130206

Lab Sample ID: 600-68241-5

Date Collected: 02/06/13 12:00

Matrix: Water

Date Received: 02/07/13 07:15

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.192	U	2.40	0.192	mg/L		02/08/13 08:51	02/18/13 16:30	5000
Nitrobenzene	0.529	U	2.40	0.529	mg/L		02/08/13 08:51	02/18/13 16:30	5000
2,4-Dimethylphenol	1.49	U	2.40	1.49	mg/L		02/08/13 08:51	02/18/13 16:30	5000
Bis(2-chloroethoxy)methane	0.625	U	2.40	0.625	mg/L		02/08/13 08:51	02/18/13 16:30	5000
Naphthalene	14.9	J	24.0	0.385	mg/L		02/08/13 08:51	02/18/13 16:30	5000
2-Methylnaphthalene	0.993	J	2.40	0.337	mg/L		02/08/13 08:51	02/18/13 16:30	5000
2-Chloronaphthalene	0.385	U	2.40	0.385	mg/L		02/08/13 08:51	02/18/13 16:30	5000
Acenaphthylene	0.288	U	2.40	0.288	mg/L		02/08/13 08:51	02/18/13 16:30	5000
2,6-Dinitrotoluene	0.385	U	2.40	0.385	mg/L		02/08/13 08:51	02/18/13 16:30	5000
Acenaphthene	0.385	U	2.40	0.385	mg/L		02/08/13 08:51	02/18/13 16:30	5000
4-Nitrophenol	2.69	U	4.81	2.69	mg/L		02/08/13 08:51	02/18/13 16:30	5000
Dibenzofuran	0.385	U	2.40	0.385	mg/L		02/08/13 08:51	02/18/13 16:30	5000
2,4-Dinitrotoluene	0.625	U	2.40	0.625	mg/L		02/08/13 08:51	02/18/13 16:30	5000
Fluorene	0.337	U	2.40	0.337	mg/L		02/08/13 08:51	02/18/13 16:30	5000
4,6-Dinitro-2-methylphenol	3.99	U	4.81	3.99	mg/L		02/08/13 08:51	02/18/13 16:30	5000
N-Nitrosodiphenylamine	0.481	U	2.40	0.481	mg/L		02/08/13 08:51	02/18/13 16:30	5000
1,2-Diphenylhydrazine	0.529	U	2.40	0.529	mg/L		02/08/13 08:51	02/18/13 16:30	5000
Pentachlorophenol	2.93	U	4.81	2.93	mg/L		02/08/13 08:51	02/18/13 16:30	5000
Phenanthrene	0.288	U	2.40	0.288	mg/L		02/08/13 08:51	02/18/13 16:30	5000
Anthracene	0.240	U	2.40	0.240	mg/L		02/08/13 08:51	02/18/13 16:30	5000
Di-n-butyl phthalate	0.529	U	2.40	0.529	mg/L		02/08/13 08:51	02/18/13 16:30	5000
Fluoranthene	0.337	U	2.40	0.337	mg/L		02/08/13 08:51	02/18/13 16:30	5000
Pyrene	0.529	U	2.40	0.529	mg/L		02/08/13 08:51	02/18/13 16:30	5000
Benzo[a]anthracene	0.385	U	2.40	0.385	mg/L		02/08/13 08:51	02/18/13 16:30	5000
Bis(2-ethylhexyl) phthalate	1.78	U	2.40	1.78	mg/L		02/08/13 08:51	02/18/13 16:30	5000
Chrysene	0.385	U	2.40	0.385	mg/L		02/08/13 08:51	02/18/13 16:30	5000
Benzo[a]pyrene	0.385	U	2.40	0.385	mg/L		02/08/13 08:51	02/18/13 16:30	5000

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Phenol-d6	0	X	10 - 94	02/08/13 08:51	02/18/13 16:30	5000
2,4,6-Tribromophenol	0	X	10 - 123	02/08/13 08:51	02/18/13 16:30	5000
2-Fluorobiphenyl	0	X	43 - 116	02/08/13 08:51	02/18/13 16:30	5000
2-Fluorophenol	0	X	10 - 100	02/08/13 08:51	02/18/13 16:30	5000
Nitrobenzene-d5	0	X	35 - 114	02/08/13 08:51	02/18/13 16:30	5000
Terphenyl-d14	0	X	33 - 141	02/08/13 08:51	02/18/13 16:30	5000

Client Sample ID: WG-1620-MW26A-20130206

Lab Sample ID: 600-68241-6

Date Collected: 02/06/13 13:45

Matrix: Water

Date Received: 02/07/13 07:15

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L		02/08/13 19:58	02/08/13 19:58	1
Benzene	0.00118		0.00100	0.000800	mg/L		02/08/13 19:58	02/08/13 19:58	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L		02/08/13 19:58	02/08/13 19:58	1
Toluene	0.000150	U	0.00100	0.000150	mg/L		02/08/13 19:58	02/08/13 19:58	1
Chlorobenzene	0.000176	J	0.00100	0.000120	mg/L		02/08/13 19:58	02/08/13 19:58	1
Ethylbenzene	0.000110	U	0.00100	0.000110	mg/L		02/08/13 19:58	02/08/13 19:58	1
Xylenes, Total	0.000260	U	0.00300	0.000260	mg/L		02/08/13 19:58	02/08/13 19:58	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68241-1

Client Sample ID: WG-1620-MW26A-20130206

Lab Sample ID: 600-68241-6

Date Collected: 02/06/13 13:45

Matrix: Water

Date Received: 02/07/13 07:15

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	91		67 - 139		02/08/13 19:58	1
Dibromofluoromethane	105		62 - 130		02/08/13 19:58	1
Toluene-d8 (Surr)	95		70 - 130		02/08/13 19:58	1
1,2-Dichloroethane-d4 (Surr)	96		50 - 134		02/08/13 19:58	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.00192	U	0.0240	0.00192	mg/L		02/08/13 08:51	02/18/13 16:58	50
Nitrobenzene	0.00529	U	0.0240	0.00529	mg/L		02/08/13 08:51	02/18/13 16:58	50
2,4-Dimethylphenol	0.0149	U	0.0240	0.0149	mg/L		02/08/13 08:51	02/18/13 16:58	50
Bis(2-chloroethoxy)methane	0.00625	U	0.0240	0.00625	mg/L		02/08/13 08:51	02/18/13 16:58	50
Naphthalene	0.00385	U	0.240	0.00385	mg/L		02/08/13 08:51	02/18/13 16:58	50
2-Methylnaphthalene	0.00337	U	0.0240	0.00337	mg/L		02/08/13 08:51	02/18/13 16:58	50
2-Chloronaphthalene	0.00385	U	0.0240	0.00385	mg/L		02/08/13 08:51	02/18/13 16:58	50
Acenaphthylene	0.00288	U	0.0240	0.00288	mg/L		02/08/13 08:51	02/18/13 16:58	50
2,6-Dinitrotoluene	0.00385	U	0.0240	0.00385	mg/L		02/08/13 08:51	02/18/13 16:58	50
Acenaphthene	0.0481		0.0240	0.00385	mg/L		02/08/13 08:51	02/18/13 16:58	50
4-Nitrophenol	0.0269	U	0.0481	0.0269	mg/L		02/08/13 08:51	02/18/13 16:58	50
Dibenzofuran	0.00416	J	0.0240	0.00385	mg/L		02/08/13 08:51	02/18/13 16:58	50
2,4-Dinitrotoluene	0.00625	U	0.0240	0.00625	mg/L		02/08/13 08:51	02/18/13 16:58	50
Fluorene	0.00337	U	0.0240	0.00337	mg/L		02/08/13 08:51	02/18/13 16:58	50
4,6-Dinitro-2-methylphenol	0.0399	U	0.0481	0.0399	mg/L		02/08/13 08:51	02/18/13 16:58	50
N-Nitrosodiphenylamine	0.00481	U	0.0240	0.00481	mg/L		02/08/13 08:51	02/18/13 16:58	50
1,2-Diphenylhydrazine	0.00529	U	0.0240	0.00529	mg/L		02/08/13 08:51	02/18/13 16:58	50
Pentachlorophenol	0.0293	U	0.0481	0.0293	mg/L		02/08/13 08:51	02/18/13 16:58	50
Phenanthrene	0.00288	U	0.0240	0.00288	mg/L		02/08/13 08:51	02/18/13 16:58	50
Anthracene	0.00240	U	0.0240	0.00240	mg/L		02/08/13 08:51	02/18/13 16:58	50
Di-n-butyl phthalate	0.00529	U	0.0240	0.00529	mg/L		02/08/13 08:51	02/18/13 16:58	50
Fluoranthene	0.00337	U	0.0240	0.00337	mg/L		02/08/13 08:51	02/18/13 16:58	50
Pyrene	0.00529	U	0.0240	0.00529	mg/L		02/08/13 08:51	02/18/13 16:58	50
Benzo[a]anthracene	0.00385	U	0.0240	0.00385	mg/L		02/08/13 08:51	02/18/13 16:58	50
Bis(2-ethylhexyl) phthalate	0.0178	U	0.0240	0.0178	mg/L		02/08/13 08:51	02/18/13 16:58	50
Chrysene	0.00385	U	0.0240	0.00385	mg/L		02/08/13 08:51	02/18/13 16:58	50
Benzo[a]pyrene	0.00385	U	0.0240	0.00385	mg/L		02/08/13 08:51	02/18/13 16:58	50

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Phenol-d6	0	X	10 - 94	02/08/13 08:51	02/18/13 16:58	50
2,4,6-Tribromophenol	0	X	10 - 123	02/08/13 08:51	02/18/13 16:58	50
2-Fluorobiphenyl	0	X	43 - 116	02/08/13 08:51	02/18/13 16:58	50
2-Fluorophenol	0	X	10 - 100	02/08/13 08:51	02/18/13 16:58	50
Nitrobenzene-d5	0	X	35 - 114	02/08/13 08:51	02/18/13 16:58	50
Terphenyl-d14	0	X	33 - 141	02/08/13 08:51	02/18/13 16:58	50

Client Sample ID: WG-1620-MW32AR-20130206

Lab Sample ID: 600-68241-7

Date Collected: 02/06/13 14:35

Matrix: Water

Date Received: 02/07/13 07:15

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			02/08/13 20:26	1
Benzene	0.0230		0.00100	0.0000800	mg/L			02/08/13 20:26	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68241-1

Client Sample ID: WG-1620-MW32AR-20130206

Lab Sample ID: 600-68241-7

Date Collected: 02/06/13 14:35

Matrix: Water

Date Received: 02/07/13 07:15

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			02/08/13 20:26	1
Toluene	0.00338		0.00100	0.000150	mg/L			02/08/13 20:26	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			02/08/13 20:26	1
Ethylbenzene	0.00820		0.00100	0.000110	mg/L			02/08/13 20:26	1
Xylenes, Total	0.0176		0.00300	0.000260	mg/L			02/08/13 20:26	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	93		67 - 139		02/08/13 20:26	1
Dibromofluoromethane	102		62 - 130		02/08/13 20:26	1
Toluene-d8 (Surr)	92		70 - 130		02/08/13 20:26	1
1,2-Dichloroethane-d4 (Surr)	87		50 - 134		02/08/13 20:26	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.00192	U	0.0240	0.00192	mg/L		02/08/13 08:51	02/18/13 17:26	50
Nitrobenzene	0.00529	U	0.0240	0.00529	mg/L		02/08/13 08:51	02/18/13 17:26	50
2,4-Dimethylphenol	0.0172	J	0.0240	0.0149	mg/L		02/08/13 08:51	02/18/13 17:26	50
Bis(2-chloroethoxy)methane	0.00625	U	0.0240	0.00625	mg/L		02/08/13 08:51	02/18/13 17:26	50
Naphthalene	0.406		0.240	0.00385	mg/L		02/08/13 08:51	02/18/13 17:26	50
2-Methylnaphthalene	0.0110	J	0.0240	0.00337	mg/L		02/08/13 08:51	02/18/13 17:26	50
2-Chloronaphthalene	0.00385	U	0.0240	0.00385	mg/L		02/08/13 08:51	02/18/13 17:26	50
Acenaphthylene	0.00288	U	0.0240	0.00288	mg/L		02/08/13 08:51	02/18/13 17:26	50
2,6-Dinitrotoluene	0.00385	U	0.0240	0.00385	mg/L		02/08/13 08:51	02/18/13 17:26	50
Acenaphthene	0.0232	J	0.0240	0.00385	mg/L		02/08/13 08:51	02/18/13 17:26	50
4-Nitrophenol	0.0269	U	0.0481	0.0269	mg/L		02/08/13 08:51	02/18/13 17:26	50
Dibenzofuran	0.00936	J	0.0240	0.00385	mg/L		02/08/13 08:51	02/18/13 17:26	50
2,4-Dinitrotoluene	0.00625	U	0.0240	0.00625	mg/L		02/08/13 08:51	02/18/13 17:26	50
Fluorene	0.00932	J	0.0240	0.00337	mg/L		02/08/13 08:51	02/18/13 17:26	50
4,6-Dinitro-2-methylphenol	0.0399	U	0.0481	0.0399	mg/L		02/08/13 08:51	02/18/13 17:26	50
N-Nitrosodiphenylamine	0.00481	U	0.0240	0.00481	mg/L		02/08/13 08:51	02/18/13 17:26	50
1,2-Diphenylhydrazine	0.00529	U	0.0240	0.00529	mg/L		02/08/13 08:51	02/18/13 17:26	50
Pentachlorophenol	0.0293	U	0.0481	0.0293	mg/L		02/08/13 08:51	02/18/13 17:26	50
Phenanthrene	0.00768	J	0.0240	0.00288	mg/L		02/08/13 08:51	02/18/13 17:26	50
Anthracene	0.00240	U	0.0240	0.00240	mg/L		02/08/13 08:51	02/18/13 17:26	50
Di-n-butyl phthalate	0.00529	U	0.0240	0.00529	mg/L		02/08/13 08:51	02/18/13 17:26	50
Fluoranthene	0.00508	J	0.0240	0.00337	mg/L		02/08/13 08:51	02/18/13 17:26	50
Pyrene	0.00529	U	0.0240	0.00529	mg/L		02/08/13 08:51	02/18/13 17:26	50
Benzo[a]anthracene	0.00385	U	0.0240	0.00385	mg/L		02/08/13 08:51	02/18/13 17:26	50
Bis(2-ethylhexyl) phthalate	0.0178	U	0.0240	0.0178	mg/L		02/08/13 08:51	02/18/13 17:26	50
Chrysene	0.00385	U	0.0240	0.00385	mg/L		02/08/13 08:51	02/18/13 17:26	50
Benzo[a]pyrene	0.00385	U	0.0240	0.00385	mg/L		02/08/13 08:51	02/18/13 17:26	50

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Phenol-d6	0	X	10 - 94	02/08/13 08:51	02/18/13 17:26	50
2,4,6-Tribromophenol	0	X	10 - 123	02/08/13 08:51	02/18/13 17:26	50
2-Fluorobiphenyl	0	X	43 - 116	02/08/13 08:51	02/18/13 17:26	50
2-Fluorophenol	0	X	10 - 100	02/08/13 08:51	02/18/13 17:26	50
Nitrobenzene-d5	0	X	35 - 114	02/08/13 08:51	02/18/13 17:26	50
Terphenyl-d14	0	X	33 - 141	02/08/13 08:51	02/18/13 17:26	50

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68241-1

Client Sample ID: WG-1620-MW32B-20130206

Lab Sample ID: 600-68241-8

Date Collected: 02/06/13 15:20

Matrix: Water

Date Received: 02/07/13 07:15

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			02/11/13 11:57	1
Benzene	0.00428		0.00100	0.0000800	mg/L			02/11/13 11:57	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			02/11/13 11:57	1
Toluene	0.00261		0.00100	0.000150	mg/L			02/11/13 11:57	1
Chlorobenzene	0.000343	J b	0.00100	0.000120	mg/L			02/11/13 11:57	1
Ethylbenzene	0.00561		0.00100	0.000110	mg/L			02/11/13 11:57	1
Xylenes, Total	0.0203		0.00300	0.000260	mg/L			02/11/13 11:57	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	97		67 - 139					02/11/13 11:57	1
Dibromofluoromethane	80		62 - 130					02/11/13 11:57	1
Toluene-d8 (Surr)	83		70 - 130					02/11/13 11:57	1
1,2-Dichloroethane-d4 (Surr)	87		50 - 134					02/11/13 11:57	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.00952	U	0.119	0.00952	mg/L		02/11/13 14:15	02/19/13 00:45	250
Nitrobenzene	0.0262	U	0.119	0.0262	mg/L		02/11/13 14:15	02/19/13 00:45	250
2,4-Dimethylphenol	0.0738	U	0.119	0.0738	mg/L		02/11/13 14:15	02/19/13 00:45	250
Bis(2-chloroethoxy)methane	0.0310	U	0.119	0.0310	mg/L		02/11/13 14:15	02/19/13 00:45	250
Naphthalene	0.0190	U	1.19	0.0190	mg/L		02/11/13 14:15	02/19/13 00:45	250
2-Methylnaphthalene	0.0167	U	0.119	0.0167	mg/L		02/11/13 14:15	02/19/13 00:45	250
2-Chloronaphthalene	0.0190	U	0.119	0.0190	mg/L		02/11/13 14:15	02/19/13 00:45	250
Acenaphthylene	0.0143	U	0.119	0.0143	mg/L		02/11/13 14:15	02/19/13 00:45	250
2,6-Dinitrotoluene	0.0190	U	0.119	0.0190	mg/L		02/11/13 14:15	02/19/13 00:45	250
Acenaphthene	0.0416	J	0.119	0.0190	mg/L		02/11/13 14:15	02/19/13 00:45	250
4-Nitrophenol	0.133	U	0.238	0.133	mg/L		02/11/13 14:15	02/19/13 00:45	250
Dibenzofuran	0.0190	U	0.119	0.0190	mg/L		02/11/13 14:15	02/19/13 00:45	250
2,4-Dinitrotoluene	0.0310	U	0.119	0.0310	mg/L		02/11/13 14:15	02/19/13 00:45	250
Fluorene	0.0167	U	0.119	0.0167	mg/L		02/11/13 14:15	02/19/13 00:45	250
4,6-Dinitro-2-methylphenol	0.198	U	0.238	0.198	mg/L		02/11/13 14:15	02/19/13 00:45	250
N-Nitrosodiphenylamine	0.0238	U	0.119	0.0238	mg/L		02/11/13 14:15	02/19/13 00:45	250
1,2-Diphenylhydrazine	0.0262	U	0.119	0.0262	mg/L		02/11/13 14:15	02/19/13 00:45	250
Pentachlorophenol	0.145	U	0.238	0.145	mg/L		02/11/13 14:15	02/19/13 00:45	250
Phenanthrene	0.0143	U	0.119	0.0143	mg/L		02/11/13 14:15	02/19/13 00:45	250
Anthracene	0.0119	U	0.119	0.0119	mg/L		02/11/13 14:15	02/19/13 00:45	250
Di-n-butyl phthalate	0.0262	U	0.119	0.0262	mg/L		02/11/13 14:15	02/19/13 00:45	250
Fluoranthene	0.0167	U	0.119	0.0167	mg/L		02/11/13 14:15	02/19/13 00:45	250
Pyrene	0.0262	U	0.119	0.0262	mg/L		02/11/13 14:15	02/19/13 00:45	250
Benzo[a]anthracene	0.0190	U	0.119	0.0190	mg/L		02/11/13 14:15	02/19/13 00:45	250
Bis(2-ethylhexyl) phthalate	0.0881	U	0.119	0.0881	mg/L		02/11/13 14:15	02/19/13 00:45	250
Chrysene	0.0190	U	0.119	0.0190	mg/L		02/11/13 14:15	02/19/13 00:45	250
Benzo[a]pyrene	0.0190	U	0.119	0.0190	mg/L		02/11/13 14:15	02/19/13 00:45	250
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Phenol-d6	0	X	10 - 94				02/11/13 14:15	02/19/13 00:45	250
2,4,6-Tribromophenol	0	X	10 - 123				02/11/13 14:15	02/19/13 00:45	250
2-Fluorobiphenyl	0	X	43 - 116				02/11/13 14:15	02/19/13 00:45	250
2-Fluorophenol	0	X	10 - 100				02/11/13 14:15	02/19/13 00:45	250
Nitrobenzene-d5	0	X	35 - 114				02/11/13 14:15	02/19/13 00:45	250

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68241-1

Client Sample ID: WG-1620-MW32B-20130206

Lab Sample ID: 600-68241-8

Date Collected: 02/06/13 15:20

Matrix: Water

Date Received: 02/07/13 07:15

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Terphenyl-d14	0	X	33 - 141	02/11/13 14:15	02/19/13 00:45	250

Client Sample ID: WG-1620-MW68C-20130206

Lab Sample ID: 600-68241-9

Date Collected: 02/06/13 16:20

Matrix: Water

Date Received: 02/07/13 07:15

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			02/11/13 11:28	1
Benzene	0.00134		0.00100	0.0000800	mg/L			02/11/13 11:28	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			02/11/13 11:28	1
Toluene	0.000632	J	0.00100	0.000150	mg/L			02/11/13 11:28	1
Chlorobenzene	0.000352	J b	0.00100	0.000120	mg/L			02/11/13 11:28	1
Ethylbenzene	0.000363	J	0.00100	0.000110	mg/L			02/11/13 11:28	1
Xylenes, Total	0.000873	J	0.00300	0.000260	mg/L			02/11/13 11:28	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	100		67 - 139		02/11/13 11:28	1
Dibromofluoromethane	81		62 - 130		02/11/13 11:28	1
Toluene-d8 (Surr)	82		70 - 130		02/11/13 11:28	1
1,2-Dichloroethane-d4 (Surr)	84		50 - 134		02/11/13 11:28	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.0000381	U	0.000476	0.0000381	mg/L		02/11/13 14:15	02/16/13 20:31	1
Nitrobenzene	0.000105	U	0.000476	0.000105	mg/L		02/11/13 14:15	02/16/13 20:31	1
2,4-Dimethylphenol	0.000295	U	0.000476	0.000295	mg/L		02/11/13 14:15	02/16/13 20:31	1
Bis(2-chloroethoxy)methane	0.000124	U	0.000476	0.000124	mg/L		02/11/13 14:15	02/16/13 20:31	1
Naphthalene	0.0129	b	0.00476	0.0000762	mg/L		02/11/13 14:15	02/16/13 20:31	1
2-Methylnaphthalene	0.00132		0.000476	0.0000667	mg/L		02/11/13 14:15	02/16/13 20:31	1
2-Chloronaphthalene	0.0000762	U	0.000476	0.0000762	mg/L		02/11/13 14:15	02/16/13 20:31	1
Acenaphthylene	0.0000571	U	0.000476	0.0000571	mg/L		02/11/13 14:15	02/16/13 20:31	1
2,6-Dinitrotoluene	0.0000762	U	0.000476	0.0000762	mg/L		02/11/13 14:15	02/16/13 20:31	1
Acenaphthene	0.000647		0.000476	0.0000762	mg/L		02/11/13 14:15	02/16/13 20:31	1
4-Nitrophenol	0.000533	U	0.000952	0.000533	mg/L		02/11/13 14:15	02/16/13 20:31	1
Dibenzofuran	0.000168	J	0.000476	0.0000762	mg/L		02/11/13 14:15	02/16/13 20:31	1
2,4-Dinitrotoluene	0.000124	U	0.000476	0.000124	mg/L		02/11/13 14:15	02/16/13 20:31	1
Fluorene	0.000340	J	0.000476	0.0000667	mg/L		02/11/13 14:15	02/16/13 20:31	1
4,6-Dinitro-2-methylphenol	0.000790	U	0.000952	0.000790	mg/L		02/11/13 14:15	02/16/13 20:31	1
N-Nitrosodiphenylamine	0.0000952	U	0.000476	0.0000952	mg/L		02/11/13 14:15	02/16/13 20:31	1
1,2-Diphenylhydrazine	0.000105	U	0.000476	0.000105	mg/L		02/11/13 14:15	02/16/13 20:31	1
Pentachlorophenol	0.000581	U	0.000952	0.000581	mg/L		02/11/13 14:15	02/16/13 20:31	1
Phenanthrene	0.000499		0.000476	0.0000571	mg/L		02/11/13 14:15	02/16/13 20:31	1
Anthracene	0.0000476	U	0.000476	0.0000476	mg/L		02/11/13 14:15	02/16/13 20:31	1
Di-n-butyl phthalate	0.000105	U	0.000476	0.000105	mg/L		02/11/13 14:15	02/16/13 20:31	1
Fluoranthene	0.0000667	U	0.000476	0.0000667	mg/L		02/11/13 14:15	02/16/13 20:31	1
Pyrene	0.000105	U	0.000476	0.000105	mg/L		02/11/13 14:15	02/16/13 20:31	1
Benzo[a]anthracene	0.0000762	U	0.000476	0.0000762	mg/L		02/11/13 14:15	02/16/13 20:31	1
Bis(2-ethylhexyl) phthalate	0.000637		0.000476	0.000352	mg/L		02/11/13 14:15	02/16/13 20:31	1
Chrysene	0.0000762	U	0.000476	0.0000762	mg/L		02/11/13 14:15	02/16/13 20:31	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68241-1

Client Sample ID: WG-1620-MW68C-20130206

Lab Sample ID: 600-68241-9

Date Collected: 02/06/13 16:20

Matrix: Water

Date Received: 02/07/13 07:15

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]pyrene	0.0000762	U	0.000476	0.0000762	mg/L		02/11/13 14:15	02/16/13 20:31	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Phenol-d6	9	X	10 - 94				02/11/13 14:15	02/16/13 20:31	1
2,4,6-Tribromophenol	81		10 - 123				02/11/13 14:15	02/16/13 20:31	1
2-Fluorobiphenyl	68		43 - 116				02/11/13 14:15	02/16/13 20:31	1
2-Fluorophenol	17		10 - 100				02/11/13 14:15	02/16/13 20:31	1
Nitrobenzene-d5	52		35 - 114				02/11/13 14:15	02/16/13 20:31	1
Terphenyl-d14	82		33 - 141				02/11/13 14:15	02/16/13 20:31	1

Client Sample ID: WG-1620-MW68B-20130206

Lab Sample ID: 600-68241-10

Date Collected: 02/06/13 17:15

Matrix: Water

Date Received: 02/07/13 07:15

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	0.0150	U	0.100	0.0150	mg/L			02/11/13 13:22	100
Benzene	2.35		0.100	0.00800	mg/L			02/11/13 13:22	100
1,2-Dichloroethane	0.0140	U	0.100	0.0140	mg/L			02/11/13 13:22	100
Toluene	0.701		0.100	0.0150	mg/L			02/11/13 13:22	100
Chlorobenzene	0.0273	J b	0.100	0.0120	mg/L			02/11/13 13:22	100
Ethylbenzene	0.449		0.100	0.0110	mg/L			02/11/13 13:22	100
Xylenes, Total	1.04		0.300	0.0260	mg/L			02/11/13 13:22	100
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	98		67 - 139					02/11/13 13:22	100
Dibromofluoromethane	81		62 - 130					02/11/13 13:22	100
Toluene-d8 (Surr)	83		70 - 130					02/11/13 13:22	100
1,2-Dichloroethane-d4 (Surr)	87		50 - 134					02/11/13 13:22	100

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.0421		0.0238	0.00190	mg/L		02/11/13 14:15	02/16/13 20:58	50
Nitrobenzene	0.00524	U	0.0238	0.00524	mg/L		02/11/13 14:15	02/16/13 20:58	50
2,4-Dimethylphenol	0.273		0.0238	0.0148	mg/L		02/11/13 14:15	02/16/13 20:58	50
Bis(2-chloroethoxy)methane	0.00619	U	0.0238	0.00619	mg/L		02/11/13 14:15	02/16/13 20:58	50
2-Methylnaphthalene	0.952		0.0238	0.00333	mg/L		02/11/13 14:15	02/16/13 20:58	50
2-Chloronaphthalene	0.00381	U	0.0238	0.00381	mg/L		02/11/13 14:15	02/16/13 20:58	50
Acenaphthylene	0.00286	U	0.0238	0.00286	mg/L		02/11/13 14:15	02/16/13 20:58	50
2,6-Dinitrotoluene	0.00381	U	0.0238	0.00381	mg/L		02/11/13 14:15	02/16/13 20:58	50
Acenaphthene	0.261		0.0238	0.00381	mg/L		02/11/13 14:15	02/16/13 20:58	50
4-Nitrophenol	0.0267	U	0.0476	0.0267	mg/L		02/11/13 14:15	02/16/13 20:58	50
Dibenzofuran	0.260		0.0238	0.00381	mg/L		02/11/13 14:15	02/16/13 20:58	50
2,4-Dinitrotoluene	0.00619	U	0.0238	0.00619	mg/L		02/11/13 14:15	02/16/13 20:58	50
Fluorene	0.118		0.0238	0.00333	mg/L		02/11/13 14:15	02/16/13 20:58	50
4,6-Dinitro-2-methylphenol	0.0395	U	0.0476	0.0395	mg/L		02/11/13 14:15	02/16/13 20:58	50
N-Nitrosodiphenylamine	0.00476	U	0.0238	0.00476	mg/L		02/11/13 14:15	02/16/13 20:58	50
1,2-Diphenylhydrazine	0.00524	U	0.0238	0.00524	mg/L		02/11/13 14:15	02/16/13 20:58	50
Pentachlorophenol	0.0290	U	0.0476	0.0290	mg/L		02/11/13 14:15	02/16/13 20:58	50
Phenanthrene	0.120		0.0238	0.00286	mg/L		02/11/13 14:15	02/16/13 20:58	50

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68241-1

Client Sample ID: WG-1620-MW68B-20130206

Lab Sample ID: 600-68241-10

Date Collected: 02/06/13 17:15

Matrix: Water

Date Received: 02/07/13 07:15

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	0.0194	J	0.0238	0.00238	mg/L		02/11/13 14:15	02/16/13 20:58	50
Di-n-butyl phthalate	0.00524	U	0.0238	0.00524	mg/L		02/11/13 14:15	02/16/13 20:58	50
Fluoranthene	0.00333	U	0.0238	0.00333	mg/L		02/11/13 14:15	02/16/13 20:58	50
Pyrene	0.00524	U	0.0238	0.00524	mg/L		02/11/13 14:15	02/16/13 20:58	50
Benzo[a]anthracene	0.00381	U	0.0238	0.00381	mg/L		02/11/13 14:15	02/16/13 20:58	50
Bis(2-ethylhexyl) phthalate	0.0176	U	0.0238	0.0176	mg/L		02/11/13 14:15	02/16/13 20:58	50
Chrysene	0.00381	U	0.0238	0.00381	mg/L		02/11/13 14:15	02/16/13 20:58	50
Benzo[a]pyrene	0.00381	U	0.0238	0.00381	mg/L		02/11/13 14:15	02/16/13 20:58	50
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Phenol-d6	0	X	10 - 94				02/11/13 14:15	02/16/13 20:58	50
2,4,6-Tribromophenol	0	X	10 - 123				02/11/13 14:15	02/16/13 20:58	50
2-Fluorobiphenyl	0	X	43 - 116				02/11/13 14:15	02/16/13 20:58	50
2-Fluorophenol	0	X	10 - 100				02/11/13 14:15	02/16/13 20:58	50
Nitrobenzene-d5	0	X	35 - 114				02/11/13 14:15	02/16/13 20:58	50
Terphenyl-d14	0	X	33 - 141				02/11/13 14:15	02/16/13 20:58	50

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels - DL

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	11.8	b	4.76	0.0762	mg/L		02/11/13 14:15	02/19/13 01:12	1000
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Phenol-d6	0	X	10 - 94				02/11/13 14:15	02/19/13 01:12	1000
2,4,6-Tribromophenol	0	X	10 - 123				02/11/13 14:15	02/19/13 01:12	1000
2-Fluorobiphenyl	0	X	43 - 116				02/11/13 14:15	02/19/13 01:12	1000
2-Fluorophenol	0	X	10 - 100				02/11/13 14:15	02/19/13 01:12	1000
Nitrobenzene-d5	0	X	35 - 114				02/11/13 14:15	02/19/13 01:12	1000
Terphenyl-d14	0	X	33 - 141				02/11/13 14:15	02/19/13 01:12	1000

Client Sample ID: WG-1620-TB04-20130206

Lab Sample ID: 600-68241-11

Date Collected: 02/06/13 00:00

Matrix: Water

Date Received: 02/07/13 07:15

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	0.000110	U	0.00200	0.000110	mg/L			02/09/13 14:58	1
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			02/09/13 14:58	1
Benzene	0.0000800	U	0.00100	0.0000800	mg/L			02/09/13 14:58	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			02/09/13 14:58	1
Toluene	0.000150	U	0.00100	0.000150	mg/L			02/09/13 14:58	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			02/09/13 14:58	1
Ethylbenzene	0.000110	U	0.00100	0.000110	mg/L			02/09/13 14:58	1
Xylenes, Total	0.000260	U	0.00300	0.000260	mg/L			02/09/13 14:58	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	100		67 - 139					02/09/13 14:58	1
Dibromofluoromethane	81		62 - 130					02/09/13 14:58	1
Toluene-d8 (Surr)	83		70 - 130					02/09/13 14:58	1
1,2-Dichloroethane-d4 (Surr)	86		50 - 134					02/09/13 14:58	1

TestAmerica Houston

Definitions/Glossary

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68241-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
J	Result is less than the MQL but greater than or equal to the SDL and the concentration is an estimated value.
U	Analyte was not detected at or above the SDL.
b	The compound was found in the blank and sample

GC/MS Semi VOA

Qualifier	Qualifier Description
U	Analyte was not detected at or above the SDL.
J	Result is less than the MQL but greater than or equal to the SDL and the concentration is an estimated value.
X	Surrogate is outside control limits
b	The compound was found in the blank and sample

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
DL, RA, RE, IN	Indicates a Dilution, Reanalysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
EDL	Estimated Detection Limit
EPA	United States Environmental Protection Agency
MDA	Minimum detectable activity
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Surrogate Summary

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68241-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		BFB (67-139)	DBFM (62-130)	TOL (70-130)	12DCE (50-134)
600-68241-1	WG-1620-MW53C-20130206	90	103	102	90
600-68241-2	WG-1620-MW25A-20130206	100	80	86	85
600-68241-3	WG-1620-MW25C-20130206	98	83	80	89
600-68241-4	WG-1620-MW44C-20130206	99	82	80	88
600-68241-5	WG-1620-MW33BR-20130206	89	105	96	96
600-68241-6	WG-1620-MW26A-20130206	91	105	95	96
600-68241-7	WG-1620-MW32AR-20130206	93	102	92	87
600-68241-8	WG-1620-MW32B-20130206	97	80	83	87
600-68241-9	WG-1620-MW68C-20130206	100	81	82	84
600-68241-10	WG-1620-MW68B-20130206	98	81	83	87
600-68241-11	WG-1620-TB04-20130206	100	81	83	86
LCS 600-99159/3	Lab Control Sample	94	112	96	103
LCS 600-99165/3	Lab Control Sample	102	87	84	86
LCS 600-99274/3	Lab Control Sample	110	95	89	96
LCS 600-99295/3	Lab Control Sample	101	87	83	85
MB 600-99159/4	Method Blank	85	105	101	94
MB 600-99165/4	Method Blank	98	80	83	85
MB 600-99274/5	Method Blank	102	82	85	88
MB 600-99295/4	Method Blank	101	79	85	85

Surrogate Legend

BFB = 4-Bromofluorobenzene
 DBFM = Dibromofluoromethane
 TOL = Toluene-d8 (Surr)
 12DCE = 1,2-Dichloroethane-d4 (Surr)

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)					
		PHL (10-94)	TBP (10-123)	FBP (43-116)	2FP (10-100)	NBZ (35-114)	TPH (33-141)
600-68241-1	WG-1620-MW53C-20130206	17	60	67	27	62	66
600-68241-2	WG-1620-MW25A-20130206	10	38	55	19	55	57
600-68241-3	WG-1620-MW25C-20130206	0 X	0 X	0 X	0 X	0 X	0 X
600-68241-4	WG-1620-MW44C-20130206	0 X	0 X	0 X	0 X	0 X	0 X
600-68241-5	WG-1620-MW33BR-20130206	0 X	0 X	0 X	0 X	0 X	0 X
600-68241-6	WG-1620-MW26A-20130206	0 X	0 X	0 X	0 X	0 X	0 X
600-68241-7	WG-1620-MW32AR-20130206	0 X	0 X	0 X	0 X	0 X	0 X
600-68241-8	WG-1620-MW32B-20130206	0 X	0 X	0 X	0 X	0 X	0 X
600-68241-9	WG-1620-MW68C-20130206	9 X	81	68	17	52	82
600-68241-10	WG-1620-MW68B-20130206	0 X	0 X	0 X	0 X	0 X	0 X
600-68241-10 - DL	WG-1620-MW68B-20130206	0 X	0 X	0 X	0 X	0 X	0 X
LCS 600-99141/2-A	Lab Control Sample	22	72	74	34	72	71
LCS 600-99298/2-A	Lab Control Sample	28	88	92	51	84	97
MB 600-99141/1-A	Method Blank	29	53	85	47	84	84
MB 600-99298/1-A	Method Blank	15	40	58	25	50	53

Surrogate Legend

PHL = Phenol-d6

TestAmerica Houston

Surrogate Summary

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68241-1

TBP = 2,4,6-Tribromophenol
FBP = 2-Fluorobiphenyl
2FP = 2-Fluorophenol
NBZ = Nitrobenzene-d5
TPH = Terphenyl-d14

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QC Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68241-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 600-99159/4

Matrix: Water

Analysis Batch: 99159

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	0.000110	U	0.00200	0.000110	mg/L			02/08/13 10:49	1
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			02/08/13 10:49	1
Benzene	0.0000800	U	0.00100	0.0000800	mg/L			02/08/13 10:49	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			02/08/13 10:49	1
Toluene	0.000150	U	0.00100	0.000150	mg/L			02/08/13 10:49	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			02/08/13 10:49	1
Ethylbenzene	0.000110	U	0.00100	0.000110	mg/L			02/08/13 10:49	1
Xylenes, Total	0.000260	U	0.00300	0.000260	mg/L			02/08/13 10:49	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	85		67 - 139		02/08/13 10:49	1
Dibromofluoromethane	105		62 - 130		02/08/13 10:49	1
Toluene-d8 (Surr)	101		70 - 130		02/08/13 10:49	1
1,2-Dichloroethane-d4 (Surr)	94		50 - 134		02/08/13 10:49	1

Lab Sample ID: LCS 600-99159/3

Matrix: Water

Analysis Batch: 99159

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Vinyl chloride	0.0100	0.008085		mg/L		81	47 - 146
Methylene Chloride	0.0100	0.007795		mg/L		78	62 - 134
Benzene	0.0100	0.009290		mg/L		93	69 - 131
1,2-Dichloroethane	0.0100	0.009400		mg/L		94	66 - 140
Toluene	0.0100	0.01080		mg/L		108	67 - 130
Chlorobenzene	0.0100	0.01184		mg/L		118	60 - 136
Ethylbenzene	0.0100	0.01055		mg/L		105	68 - 128
Xylenes, Total	0.0300	0.03267		mg/L		109	68 - 132

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene	94		67 - 139
Dibromofluoromethane	112		62 - 130
Toluene-d8 (Surr)	96		70 - 130
1,2-Dichloroethane-d4 (Surr)	103		50 - 134

Lab Sample ID: MB 600-99165/4

Matrix: Water

Analysis Batch: 99165

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	0.000110	U	0.00200	0.000110	mg/L			02/08/13 11:14	1
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			02/08/13 11:14	1
Benzene	0.0000800	U	0.00100	0.0000800	mg/L			02/08/13 11:14	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			02/08/13 11:14	1
Toluene	0.000150	U	0.00100	0.000150	mg/L			02/08/13 11:14	1
Chlorobenzene	0.0002110	J	0.00100	0.000120	mg/L			02/08/13 11:14	1
Ethylbenzene	0.000110	U	0.00100	0.000110	mg/L			02/08/13 11:14	1

TestAmerica Houston

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68241-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 600-99165/4

Matrix: Water

Analysis Batch: 99165

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Xylenes, Total	0.000260	U	0.00300	0.000260	mg/L			02/08/13 11:14	1
Surrogate	MB %Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	98		67 - 139					02/08/13 11:14	1
Dibromofluoromethane	80		62 - 130					02/08/13 11:14	1
Toluene-d8 (Surr)	83		70 - 130					02/08/13 11:14	1
1,2-Dichloroethane-d4 (Surr)	85		50 - 134					02/08/13 11:14	1

Lab Sample ID: LCS 600-99165/3

Matrix: Water

Analysis Batch: 99165

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Vinyl chloride	0.0100	0.006826		mg/L		68	47 - 146
Methylene Chloride	0.0100	0.008931		mg/L		89	62 - 134
Benzene	0.0100	0.01026		mg/L		103	69 - 131
1,2-Dichloroethane	0.0100	0.01088		mg/L		109	66 - 140
Toluene	0.0100	0.009773		mg/L		98	67 - 130
Chlorobenzene	0.0100	0.01050		mg/L		105	60 - 136
Ethylbenzene	0.0100	0.009524		mg/L		95	68 - 128
Xylenes, Total	0.0300	0.02957		mg/L		99	68 - 132
Surrogate	LCS %Recovery	LCS Qualifier	Limits				
4-Bromofluorobenzene	102		67 - 139				
Dibromofluoromethane	87		62 - 130				
Toluene-d8 (Surr)	84		70 - 130				
1,2-Dichloroethane-d4 (Surr)	86		50 - 134				

Lab Sample ID: MB 600-99274/5

Matrix: Water

Analysis Batch: 99274

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	0.000110	U	0.00200	0.000110	mg/L			02/09/13 12:09	1
Methylene Chloride	0.0004215	J	0.00100	0.000150	mg/L			02/09/13 12:09	1
Benzene	0.0000800	U	0.00100	0.0000800	mg/L			02/09/13 12:09	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			02/09/13 12:09	1
Toluene	0.000150	U	0.00100	0.000150	mg/L			02/09/13 12:09	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			02/09/13 12:09	1
Ethylbenzene	0.000110	U	0.00100	0.000110	mg/L			02/09/13 12:09	1
Xylenes, Total	0.000260	U	0.00300	0.000260	mg/L			02/09/13 12:09	1
Surrogate	MB %Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	102		67 - 139					02/09/13 12:09	1
Dibromofluoromethane	82		62 - 130					02/09/13 12:09	1
Toluene-d8 (Surr)	85		70 - 130					02/09/13 12:09	1
1,2-Dichloroethane-d4 (Surr)	88		50 - 134					02/09/13 12:09	1

TestAmerica Houston

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68241-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 600-99274/3

Matrix: Water

Analysis Batch: 99274

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Vinyl chloride	0.0100	0.007221		mg/L		72	47 - 146
Methylene Chloride	0.0100	0.009687		mg/L		97	62 - 134
Benzene	0.0100	0.009937		mg/L		99	69 - 131
1,2-Dichloroethane	0.0100	0.01046		mg/L		105	66 - 140
Toluene	0.0100	0.009236		mg/L		92	67 - 130
Chlorobenzene	0.0100	0.009698		mg/L		97	60 - 136
Ethylbenzene	0.0100	0.008932		mg/L		89	68 - 128
Xylenes, Total	0.0300	0.02780		mg/L		93	68 - 132

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene	110		67 - 139
Dibromofluoromethane	95		62 - 130
Toluene-d8 (Surr)	89		70 - 130
1,2-Dichloroethane-d4 (Surr)	96		50 - 134

Lab Sample ID: MB 600-99295/4

Matrix: Water

Analysis Batch: 99295

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	0.000110	U	0.00200	0.000110	mg/L			02/11/13 11:00	1
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			02/11/13 11:00	1
Benzene	0.0000800	U	0.00100	0.0000800	mg/L			02/11/13 11:00	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			02/11/13 11:00	1
Toluene	0.000150	U	0.00100	0.000150	mg/L			02/11/13 11:00	1
Chlorobenzene	0.0003753	J	0.00100	0.000120	mg/L			02/11/13 11:00	1
Ethylbenzene	0.000110	U	0.00100	0.000110	mg/L			02/11/13 11:00	1
Xylenes, Total	0.000260	U	0.00300	0.000260	mg/L			02/11/13 11:00	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	101		67 - 139		02/11/13 11:00	1
Dibromofluoromethane	79		62 - 130		02/11/13 11:00	1
Toluene-d8 (Surr)	85		70 - 130		02/11/13 11:00	1
1,2-Dichloroethane-d4 (Surr)	85		50 - 134		02/11/13 11:00	1

Lab Sample ID: LCS 600-99295/3

Matrix: Water

Analysis Batch: 99295

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Vinyl chloride	0.0100	0.006729		mg/L		67	47 - 146
Methylene Chloride	0.0100	0.008568		mg/L		86	62 - 134
Benzene	0.0100	0.01068		mg/L		107	69 - 131
1,2-Dichloroethane	0.0100	0.01108		mg/L		111	66 - 140
Toluene	0.0100	0.01001		mg/L		100	67 - 130
Chlorobenzene	0.0100	0.01077		mg/L		108	60 - 136
Ethylbenzene	0.0100	0.009660		mg/L		97	68 - 128

TestAmerica Houston

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68241-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 600-99295/3

Matrix: Water

Analysis Batch: 99295

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Xylenes, Total	0.0300	0.02990		mg/L		100	68 - 132

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene	101		67 - 139
Dibromofluoromethane	87		62 - 130
Toluene-d8 (Surr)	83		70 - 130
1,2-Dichloroethane-d4 (Surr)	85		50 - 134

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Lab Sample ID: MB 600-99141/1-A

Matrix: Water

Analysis Batch: 99624

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 99141

Analyte	MB Result	MB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.000400	U	0.000500	0.000400	mg/L		02/08/13 08:51	02/14/13 00:26	1
Nitrobenzene	0.000110	U	0.000500	0.000110	mg/L		02/08/13 08:51	02/14/13 00:26	1
2,4-Dimethylphenol	0.000310	U	0.000500	0.000310	mg/L		02/08/13 08:51	02/14/13 00:26	1
Bis(2-chloroethoxy)methane	0.000130	U	0.000500	0.000130	mg/L		02/08/13 08:51	02/14/13 00:26	1
Naphthalene	0.0000800	U	0.00500	0.0000800	mg/L		02/08/13 08:51	02/14/13 00:26	1
2-Methylnaphthalene	0.0000700	U	0.000500	0.0000700	mg/L		02/08/13 08:51	02/14/13 00:26	1
2-Chloronaphthalene	0.0000800	U	0.000500	0.0000800	mg/L		02/08/13 08:51	02/14/13 00:26	1
Acenaphthylene	0.0000600	U	0.000500	0.0000600	mg/L		02/08/13 08:51	02/14/13 00:26	1
2,6-Dinitrotoluene	0.0000800	U	0.000500	0.0000800	mg/L		02/08/13 08:51	02/14/13 00:26	1
Acenaphthene	0.0000800	U	0.000500	0.0000800	mg/L		02/08/13 08:51	02/14/13 00:26	1
4-Nitrophenol	0.000560	U	0.00100	0.000560	mg/L		02/08/13 08:51	02/14/13 00:26	1
Dibenzofuran	0.0000800	U	0.000500	0.0000800	mg/L		02/08/13 08:51	02/14/13 00:26	1
2,4-Dinitrotoluene	0.000130	U	0.000500	0.000130	mg/L		02/08/13 08:51	02/14/13 00:26	1
Fluorene	0.0000700	U	0.000500	0.0000700	mg/L		02/08/13 08:51	02/14/13 00:26	1
4,6-Dinitro-2-methylphenol	0.000830	U	0.00100	0.000830	mg/L		02/08/13 08:51	02/14/13 00:26	1
N-Nitrosodiphenylamine	0.000100	U	0.000500	0.000100	mg/L		02/08/13 08:51	02/14/13 00:26	1
1,2-Diphenylhydrazine	0.000110	U	0.000500	0.000110	mg/L		02/08/13 08:51	02/14/13 00:26	1
Pentachlorophenol	0.000610	U	0.00100	0.000610	mg/L		02/08/13 08:51	02/14/13 00:26	1
Phenanthrene	0.0000600	U	0.000500	0.0000600	mg/L		02/08/13 08:51	02/14/13 00:26	1
Anthracene	0.0000500	U	0.000500	0.0000500	mg/L		02/08/13 08:51	02/14/13 00:26	1
Di-n-butyl phthalate	0.000110	U	0.000500	0.000110	mg/L		02/08/13 08:51	02/14/13 00:26	1
Fluoranthene	0.0000700	U	0.000500	0.0000700	mg/L		02/08/13 08:51	02/14/13 00:26	1
Pyrene	0.000110	U	0.000500	0.000110	mg/L		02/08/13 08:51	02/14/13 00:26	1
Benzo[a]anthracene	0.0000800	U	0.000500	0.0000800	mg/L		02/08/13 08:51	02/14/13 00:26	1
Bis(2-ethylhexyl) phthalate	0.000370	U	0.000500	0.000370	mg/L		02/08/13 08:51	02/14/13 00:26	1
Chrysene	0.0000800	U	0.000500	0.0000800	mg/L		02/08/13 08:51	02/14/13 00:26	1
Benzo[a]pyrene	0.0000800	U	0.000500	0.0000800	mg/L		02/08/13 08:51	02/14/13 00:26	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Phenol-d6	29		10 - 94	02/08/13 08:51	02/14/13 00:26	1
2,4,6-Tribromophenol	53		10 - 123	02/08/13 08:51	02/14/13 00:26	1
2-Fluorobiphenyl	85		43 - 116	02/08/13 08:51	02/14/13 00:26	1

TestAmerica Houston

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68241-1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Lab Sample ID: MB 600-99141/1-A

Matrix: Water

Analysis Batch: 99624

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 99141

Surrogate	MB MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
2-Fluorophenol	47		10 - 100	02/08/13 08:51	02/14/13 00:26	1
Nitrobenzene-d5	84		35 - 114	02/08/13 08:51	02/14/13 00:26	1
Terphenyl-d14	84		33 - 141	02/08/13 08:51	02/14/13 00:26	1

Lab Sample ID: LCS 600-99141/2-A

Matrix: Water

Analysis Batch: 99624

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 99141

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec.
							Limits
Phenol	0.0100	0.002894		mg/L		29	11 - 112
Nitrobenzene	0.0100	0.007853		mg/L		79	42 - 119
2,4-Dimethylphenol	0.0100	0.006549		mg/L		65	36 - 109
Bis(2-chloroethoxy)methane	0.0100	0.007355		mg/L		74	42 - 119
Naphthalene	0.0100	0.007648		mg/L		76	39 - 120
2-Methylnaphthalene	0.0100	0.007125		mg/L		71	40 - 121
2-Chloronaphthalene	0.0100	0.007808		mg/L		78	43 - 120
Acenaphthylene	0.0100	0.007584		mg/L		76	35 - 135
2,6-Dinitrotoluene	0.0100	0.007870		mg/L		79	45 - 122
Acenaphthene	0.0100	0.007708		mg/L		77	47 - 145
4-Nitrophenol	0.0100	0.002337		mg/L		23	14 - 132
Dibenzofuran	0.0100	0.007645		mg/L		76	46 - 123
2,4-Dinitrotoluene	0.0100	0.007621		mg/L		76	43 - 128
Fluorene	0.0100	0.007571		mg/L		76	48 - 127
4,6-Dinitro-2-methylphenol	0.0100	0.005930		mg/L		59	24 - 122
N-Nitrosodiphenylamine	0.0100	0.008936		mg/L		89	43 - 107
1,2-Diphenylhydrazine	0.0100	0.007247		mg/L		72	47 - 117
Pentachlorophenol	0.0100	0.004679		mg/L		47	9 - 147
Phenanthrene	0.0100	0.007647		mg/L		76	52 - 121
Anthracene	0.0100	0.007102		mg/L		71	53 - 124
Di-n-butyl phthalate	0.0100	0.007453		mg/L		75	54 - 138
Fluoranthene	0.0100	0.007601		mg/L		76	53 - 127
Pyrene	0.0100	0.007378		mg/L		74	49 - 121
Benzo[a]anthracene	0.0100	0.007209		mg/L		72	53 - 122
Bis(2-ethylhexyl) phthalate	0.0100	0.007355		mg/L		74	47 - 132
Chrysene	0.0100	0.007653		mg/L		77	49 - 124
Benzo[a]pyrene	0.0100	0.007488		mg/L		75	50 - 124

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
Phenol-d6	22		10 - 94
2,4,6-Tribromophenol	72		10 - 123
2-Fluorobiphenyl	74		43 - 116
2-Fluorophenol	34		10 - 100
Nitrobenzene-d5	72		35 - 114
Terphenyl-d14	71		33 - 141

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68241-1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Lab Sample ID: MB 600-99298/1-A

Matrix: Water

Analysis Batch: 99842

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 99298

Analyte	MB Result	MB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.000400	U	0.000500	0.000400	mg/L		02/11/13 14:15	02/18/13 19:51	1
Nitrobenzene	0.000110	U	0.000500	0.000110	mg/L		02/11/13 14:15	02/18/13 19:51	1
2,4-Dimethylphenol	0.000310	U	0.000500	0.000310	mg/L		02/11/13 14:15	02/18/13 19:51	1
Bis(2-chloroethoxy)methane	0.000130	U	0.000500	0.000130	mg/L		02/11/13 14:15	02/18/13 19:51	1
Naphthalene	0.0004249	J	0.00500	0.000800	mg/L		02/11/13 14:15	02/18/13 19:51	1
2-Methylnaphthalene	0.0000700	U	0.000500	0.0000700	mg/L		02/11/13 14:15	02/18/13 19:51	1
2-Chloronaphthalene	0.0000800	U	0.000500	0.000800	mg/L		02/11/13 14:15	02/18/13 19:51	1
Acenaphthylene	0.0000600	U	0.000500	0.000600	mg/L		02/11/13 14:15	02/18/13 19:51	1
2,6-Dinitrotoluene	0.0000800	U	0.000500	0.000800	mg/L		02/11/13 14:15	02/18/13 19:51	1
Acenaphthene	0.0000800	U	0.000500	0.000800	mg/L		02/11/13 14:15	02/18/13 19:51	1
4-Nitrophenol	0.000560	U	0.00100	0.000560	mg/L		02/11/13 14:15	02/18/13 19:51	1
Dibenzofuran	0.0000800	U	0.000500	0.000800	mg/L		02/11/13 14:15	02/18/13 19:51	1
2,4-Dinitrotoluene	0.000130	U	0.000500	0.000130	mg/L		02/11/13 14:15	02/18/13 19:51	1
Fluorene	0.0000700	U	0.000500	0.0000700	mg/L		02/11/13 14:15	02/18/13 19:51	1
4,6-Dinitro-2-methylphenol	0.000830	U	0.00100	0.000830	mg/L		02/11/13 14:15	02/18/13 19:51	1
N-Nitrosodiphenylamine	0.000100	U	0.000500	0.000100	mg/L		02/11/13 14:15	02/18/13 19:51	1
1,2-Diphenylhydrazine	0.000110	U	0.000500	0.000110	mg/L		02/11/13 14:15	02/18/13 19:51	1
Pentachlorophenol	0.000610	U	0.00100	0.000610	mg/L		02/11/13 14:15	02/18/13 19:51	1
Phenanthrene	0.0000600	U	0.000500	0.000600	mg/L		02/11/13 14:15	02/18/13 19:51	1
Anthracene	0.0000500	U	0.000500	0.000500	mg/L		02/11/13 14:15	02/18/13 19:51	1
Di-n-butyl phthalate	0.000110	U	0.000500	0.000110	mg/L		02/11/13 14:15	02/18/13 19:51	1
Fluoranthene	0.0000700	U	0.000500	0.0000700	mg/L		02/11/13 14:15	02/18/13 19:51	1
Pyrene	0.000110	U	0.000500	0.000110	mg/L		02/11/13 14:15	02/18/13 19:51	1
Benzo[a]anthracene	0.0000800	U	0.000500	0.000800	mg/L		02/11/13 14:15	02/18/13 19:51	1
Bis(2-ethylhexyl) phthalate	0.000370	U	0.000500	0.000370	mg/L		02/11/13 14:15	02/18/13 19:51	1
Chrysene	0.0000800	U	0.000500	0.000800	mg/L		02/11/13 14:15	02/18/13 19:51	1
Benzo[a]pyrene	0.0000800	U	0.000500	0.000800	mg/L		02/11/13 14:15	02/18/13 19:51	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Phenol-d6	15		10 - 94	02/11/13 14:15	02/18/13 19:51	1
2,4,6-Tribromophenol	40		10 - 123	02/11/13 14:15	02/18/13 19:51	1
2-Fluorobiphenyl	58		43 - 116	02/11/13 14:15	02/18/13 19:51	1
2-Fluorophenol	25		10 - 100	02/11/13 14:15	02/18/13 19:51	1
Nitrobenzene-d5	50		35 - 114	02/11/13 14:15	02/18/13 19:51	1
Terphenyl-d14	53		33 - 141	02/11/13 14:15	02/18/13 19:51	1

Lab Sample ID: LCS 600-99298/2-A

Matrix: Water

Analysis Batch: 99771

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 99298

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Phenol	0.0100	0.003674		mg/L		37	11 - 112
Nitrobenzene	0.0100	0.008858		mg/L		89	42 - 119
2,4-Dimethylphenol	0.0100	0.007805		mg/L		78	36 - 109
Bis(2-chloroethoxy)methane	0.0100	0.008395		mg/L		84	42 - 119
Naphthalene	0.0100	0.009680		mg/L		97	39 - 120
2-Methylnaphthalene	0.0100	0.008939		mg/L		89	40 - 121
2-Chloronaphthalene	0.0100	0.009026		mg/L		90	43 - 120

TestAmerica Houston

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68241-1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Lab Sample ID: LCS 600-99298/2-A

Matrix: Water

Analysis Batch: 99771

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 99298

Analyte	Spike	LCS	LCS	Unit	D	%Rec	%Rec. Limits
	Added	Result	Qualifier				
Acenaphthylene	0.0100	0.009356		mg/L		94	35 - 135
2,6-Dinitrotoluene	0.0100	0.01003		mg/L		100	45 - 122
Acenaphthene	0.0100	0.009342		mg/L		93	47 - 145
4-Nitrophenol	0.0100	0.002090		mg/L		21	14 - 132
Dibenzofuran	0.0100	0.009815		mg/L		98	46 - 123
2,4-Dinitrotoluene	0.0100	0.01033		mg/L		103	43 - 128
Fluorene	0.0100	0.01029		mg/L		103	48 - 127
4,6-Dinitro-2-methylphenol	0.0100	0.004299		mg/L		43	24 - 122
N-Nitrosodiphenylamine	0.0100	0.009356		mg/L		94	43 - 107
1,2-Diphenylhydrazine	0.0100	0.007603		mg/L		76	47 - 117
Pentachlorophenol	0.0100	0.004725		mg/L		47	9 - 147
Phenanthrene	0.0100	0.009559		mg/L		96	52 - 121
Anthracene	0.0100	0.009229		mg/L		92	53 - 124
Di-n-butyl phthalate	0.0100	0.009866		mg/L		99	54 - 138
Fluoranthene	0.0100	0.01043		mg/L		104	53 - 127
Pyrene	0.0100	0.009633		mg/L		96	49 - 121
Benzo[a]anthracene	0.0100	0.009200		mg/L		92	53 - 122
Bis(2-ethylhexyl) phthalate	0.0100	0.008785		mg/L		88	47 - 132
Chrysene	0.0100	0.009220		mg/L		92	49 - 124
Benzo[a]pyrene	0.0100	0.009552		mg/L		96	50 - 124

Surrogate	LCS		Limits
	%Recovery	Qualifier	
Phenol-d6	28		10 - 94
2,4,6-Tribromophenol	88		10 - 123
2-Fluorobiphenyl	92		43 - 116
2-Fluorophenol	51		10 - 100
Nitrobenzene-d5	84		35 - 114
Terphenyl-d14	97		33 - 141

Unadjusted Detection Limits

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68241-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	MQL	MDL	Units	Method
1,2-Dichloroethane	0.00100	0.000140	mg/L	8260B
Benzene	0.00100	0.0000800	mg/L	8260B
Chlorobenzene	0.00100	0.000120	mg/L	8260B
Ethylbenzene	0.00100	0.000110	mg/L	8260B
Methylene Chloride	0.00100	0.000150	mg/L	8260B
Toluene	0.00100	0.000150	mg/L	8260B
Vinyl chloride	0.00200	0.000110	mg/L	8260B
Xylenes, Total	0.00300	0.000260	mg/L	8260B

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	MQL	MDL	Units	Method
1,2-Diphenylhydrazine	0.000500	0.000110	mg/L	8270C LL
2,4-Dimethylphenol	0.000500	0.000310	mg/L	8270C LL
2,4-Dinitrotoluene	0.000500	0.000130	mg/L	8270C LL
2,6-Dinitrotoluene	0.000500	0.0000800	mg/L	8270C LL
2-Chloronaphthalene	0.000500	0.0000800	mg/L	8270C LL
2-Methylnaphthalene	0.000500	0.0000700	mg/L	8270C LL
4,6-Dinitro-2-methylphenol	0.00100	0.000830	mg/L	8270C LL
4-Nitrophenol	0.00100	0.000560	mg/L	8270C LL
Acenaphthene	0.000500	0.0000800	mg/L	8270C LL
Acenaphthylene	0.000500	0.0000600	mg/L	8270C LL
Anthracene	0.000500	0.0000500	mg/L	8270C LL
Benzo[a]anthracene	0.000500	0.0000800	mg/L	8270C LL
Benzo[a]pyrene	0.000500	0.0000800	mg/L	8270C LL
Bis(2-chloroethoxy)methane	0.000500	0.000130	mg/L	8270C LL
Bis(2-ethylhexyl) phthalate	0.000500	0.000370	mg/L	8270C LL
Chrysene	0.000500	0.0000800	mg/L	8270C LL
Dibenzofuran	0.000500	0.0000800	mg/L	8270C LL
Di-n-butyl phthalate	0.000500	0.000110	mg/L	8270C LL
Fluoranthene	0.000500	0.0000700	mg/L	8270C LL
Fluorene	0.000500	0.0000700	mg/L	8270C LL
Naphthalene	0.000500	0.0000800	mg/L	8270C LL
Naphthalene	0.00500	0.0000800	mg/L	8270C LL
Nitrobenzene	0.000500	0.000110	mg/L	8270C LL
N-Nitrosodiphenylamine	0.000500	0.000100	mg/L	8270C LL
Pentachlorophenol	0.00100	0.000610	mg/L	8270C LL
Phenanthrene	0.000500	0.0000600	mg/L	8270C LL
Phenol	0.000500	0.0000400	mg/L	8270C LL
Pyrene	0.000500	0.000110	mg/L	8270C LL

QC Association Summary

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68241-1

GC/MS VOA

Analysis Batch: 99159

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-68241-1	WG-1620-MW53C-20130206	Total/NA	Water	8260B	
600-68241-5	WG-1620-MW33BR-20130206	Total/NA	Water	8260B	
600-68241-6	WG-1620-MW26A-20130206	Total/NA	Water	8260B	
600-68241-7	WG-1620-MW32AR-20130206	Total/NA	Water	8260B	
LCS 600-99159/3	Lab Control Sample	Total/NA	Water	8260B	
MB 600-99159/4	Method Blank	Total/NA	Water	8260B	

Analysis Batch: 99165

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-68241-2	WG-1620-MW25A-20130206	Total/NA	Water	8260B	
LCS 600-99165/3	Lab Control Sample	Total/NA	Water	8260B	
MB 600-99165/4	Method Blank	Total/NA	Water	8260B	

Analysis Batch: 99274

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-68241-11	WG-1620-TB04-20130206	Total/NA	Water	8260B	
LCS 600-99274/3	Lab Control Sample	Total/NA	Water	8260B	
MB 600-99274/5	Method Blank	Total/NA	Water	8260B	

Analysis Batch: 99295

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-68241-3	WG-1620-MW25C-20130206	Total/NA	Water	8260B	
600-68241-4	WG-1620-MW44C-20130206	Total/NA	Water	8260B	
600-68241-8	WG-1620-MW32B-20130206	Total/NA	Water	8260B	
600-68241-9	WG-1620-MW68C-20130206	Total/NA	Water	8260B	
600-68241-10	WG-1620-MW68B-20130206	Total/NA	Water	8260B	
LCS 600-99295/3	Lab Control Sample	Total/NA	Water	8260B	
MB 600-99295/4	Method Blank	Total/NA	Water	8260B	

GC/MS Semi VOA

Prep Batch: 99141

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-68241-1	WG-1620-MW53C-20130206	Total/NA	Water	3510C	
600-68241-2	WG-1620-MW25A-20130206	Total/NA	Water	3510C	
600-68241-3	WG-1620-MW25C-20130206	Total/NA	Water	3510C	
600-68241-4	WG-1620-MW44C-20130206	Total/NA	Water	3510C	
600-68241-5	WG-1620-MW33BR-20130206	Total/NA	Water	3510C	
600-68241-6	WG-1620-MW26A-20130206	Total/NA	Water	3510C	
600-68241-7	WG-1620-MW32AR-20130206	Total/NA	Water	3510C	
LCS 600-99141/2-A	Lab Control Sample	Total/NA	Water	3510C	
MB 600-99141/1-A	Method Blank	Total/NA	Water	3510C	

Prep Batch: 99298

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-68241-8	WG-1620-MW32B-20130206	Total/NA	Water	3510C	
600-68241-9	WG-1620-MW68C-20130206	Total/NA	Water	3510C	
600-68241-10	WG-1620-MW68B-20130206	Total/NA	Water	3510C	
600-68241-10 - DL	WG-1620-MW68B-20130206	Total/NA	Water	3510C	
LCS 600-99298/2-A	Lab Control Sample	Total/NA	Water	3510C	

TestAmerica Houston

QC Association Summary

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68241-1

GC/MS Semi VOA (Continued)

Prep Batch: 99298 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 600-99298/1-A	Method Blank	Total/NA	Water	3510C	

Analysis Batch: 99624

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-68241-1	WG-1620-MW53C-20130206	Total/NA	Water	8270C LL	99141
LCS 600-99141/2-A	Lab Control Sample	Total/NA	Water	8270C LL	99141
MB 600-99141/1-A	Method Blank	Total/NA	Water	8270C LL	99141

Analysis Batch: 99771

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-68241-9	WG-1620-MW68C-20130206	Total/NA	Water	8270C LL	99298
600-68241-10	WG-1620-MW68B-20130206	Total/NA	Water	8270C LL	99298
LCS 600-99298/2-A	Lab Control Sample	Total/NA	Water	8270C LL	99298

Analysis Batch: 99778

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-68241-2	WG-1620-MW25A-20130206	Total/NA	Water	8270C LL	99141
600-68241-3	WG-1620-MW25C-20130206	Total/NA	Water	8270C LL	99141
600-68241-4	WG-1620-MW44C-20130206	Total/NA	Water	8270C LL	99141
600-68241-5	WG-1620-MW33BR-20130206	Total/NA	Water	8270C LL	99141
600-68241-6	WG-1620-MW26A-20130206	Total/NA	Water	8270C LL	99141
600-68241-7	WG-1620-MW32AR-20130206	Total/NA	Water	8270C LL	99141

Analysis Batch: 99842

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 600-99298/1-A	Method Blank	Total/NA	Water	8270C LL	99298

Analysis Batch: 99877

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-68241-8	WG-1620-MW32B-20130206	Total/NA	Water	8270C LL	99298
600-68241-10 - DL	WG-1620-MW68B-20130206	Total/NA	Water	8270C LL	99298

Lab Chronicle

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68241-1

Client Sample ID: WG-1620-MW53C-20130206

Lab Sample ID: 600-68241-1

Date Collected: 02/06/13 08:30

Matrix: Water

Date Received: 02/07/13 07:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	99159	02/08/13 19:31	DT	TAL HOU
Total/NA	Prep	3510C			99141	02/08/13 08:51	LR	TAL HOU
Total/NA	Analysis	8270C LL		1	99624	02/14/13 08:00	TTD	TAL HOU

Client Sample ID: WG-1620-MW25A-20130206

Lab Sample ID: 600-68241-2

Date Collected: 02/06/13 09:20

Matrix: Water

Date Received: 02/07/13 07:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	99165	02/08/13 20:47	DT	TAL HOU
Total/NA	Prep	3510C			99141	02/08/13 08:51	LR	TAL HOU
Total/NA	Analysis	8270C LL		1	99778	02/18/13 15:09	TTD	TAL HOU

Client Sample ID: WG-1620-MW25C-20130206

Lab Sample ID: 600-68241-3

Date Collected: 02/06/13 10:05

Matrix: Water

Date Received: 02/07/13 07:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		20	99295	02/11/13 12:25	DT	TAL HOU
Total/NA	Prep	3510C			99141	02/08/13 08:51	LR	TAL HOU
Total/NA	Analysis	8270C LL		1000	99778	02/18/13 15:36	TTD	TAL HOU

Client Sample ID: WG-1620-MW44C-20130206

Lab Sample ID: 600-68241-4

Date Collected: 02/06/13 10:55

Matrix: Water

Date Received: 02/07/13 07:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		10	99295	02/11/13 12:54	DT	TAL HOU
Total/NA	Prep	3510C			99141	02/08/13 08:51	LR	TAL HOU
Total/NA	Analysis	8270C LL		5000	99778	02/18/13 16:03	TTD	TAL HOU

Client Sample ID: WG-1620-MW33BR-20130206

Lab Sample ID: 600-68241-5

Date Collected: 02/06/13 12:00

Matrix: Water

Date Received: 02/07/13 07:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		50	99159	02/08/13 20:53	DT	TAL HOU
Total/NA	Prep	3510C			99141	02/08/13 08:51	LR	TAL HOU
Total/NA	Analysis	8270C LL		5000	99778	02/18/13 16:30	TTD	TAL HOU

Lab Chronicle

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68241-1

Client Sample ID: WG-1620-MW26A-20130206

Lab Sample ID: 600-68241-6

Date Collected: 02/06/13 13:45

Matrix: Water

Date Received: 02/07/13 07:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	99159	02/08/13 19:58	DT	TAL HOU
Total/NA	Prep	3510C			99141	02/08/13 08:51	LR	TAL HOU
Total/NA	Analysis	8270C LL		50	99778	02/18/13 16:58	TTD	TAL HOU

Client Sample ID: WG-1620-MW32AR-20130206

Lab Sample ID: 600-68241-7

Date Collected: 02/06/13 14:35

Matrix: Water

Date Received: 02/07/13 07:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	99159	02/08/13 20:26	DT	TAL HOU
Total/NA	Prep	3510C			99141	02/08/13 08:51	LR	TAL HOU
Total/NA	Analysis	8270C LL		50	99778	02/18/13 17:26	TTD	TAL HOU

Client Sample ID: WG-1620-MW32B-20130206

Lab Sample ID: 600-68241-8

Date Collected: 02/06/13 15:20

Matrix: Water

Date Received: 02/07/13 07:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	99295	02/11/13 11:57	DT	TAL HOU
Total/NA	Prep	3510C			99298	02/11/13 14:15	RK	TAL HOU
Total/NA	Analysis	8270C LL		250	99877	02/19/13 00:45	TTD	TAL HOU

Client Sample ID: WG-1620-MW68C-20130206

Lab Sample ID: 600-68241-9

Date Collected: 02/06/13 16:20

Matrix: Water

Date Received: 02/07/13 07:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	99295	02/11/13 11:28	DT	TAL HOU
Total/NA	Prep	3510C			99298	02/11/13 14:15	RK	TAL HOU
Total/NA	Analysis	8270C LL		1	99771	02/16/13 20:31	JH	TAL HOU

Client Sample ID: WG-1620-MW68B-20130206

Lab Sample ID: 600-68241-10

Date Collected: 02/06/13 17:15

Matrix: Water

Date Received: 02/07/13 07:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		100	99295	02/11/13 13:22	DT	TAL HOU
Total/NA	Prep	3510C			99298	02/11/13 14:15	RK	TAL HOU
Total/NA	Analysis	8270C LL		50	99771	02/16/13 20:58	JH	TAL HOU
Total/NA	Prep	3510C	DL		99298	02/11/13 14:15	RK	TAL HOU
Total/NA	Analysis	8270C LL	DL	1000	99877	02/19/13 01:12	TTD	TAL HOU

TestAmerica Houston

Lab Chronicle

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68241-1

Client Sample ID: WG-1620-TB04-20130206

Lab Sample ID: 600-68241-11

Date Collected: 02/06/13 00:00

Matrix: Water

Date Received: 02/07/13 07:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	99274	02/09/13 14:58	DT	TAL HOU

Laboratory References:

TAL HOU = TestAmerica Houston, 6310 Rothway Street, Houston, TX 77040, TEL (713)690-4444

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Certification Summary

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68241-1

Laboratory: TestAmerica Houston

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Arkansas DEQ	State Program	6	88-0759	08-04-12
Louisiana	NELAP	6	01967	06-30-13
Oklahoma	State Program	6	9503	08-31-13
Texas	NELAP	6	T104704223-10-6-TX	10-31-13
USDA	Federal		P330-08-00217	04-01-14
Utah	NELAP	8	GULF	10-31-13

TestAmerica Houston
 631 Rothway Street
 Houston, TX 77040
 Phone (713) 690-4444 Fax (713) 690-5646

Chain of Custody Record

TestAmerica
 THE LEADER IN ENVIRONMENTAL TESTING

Client Information
 Client Contact: Mr. Eric Matzner
 Company: Pastor, Behling & Wheeler LLC
 Address: 2201 Double Creek Dr Suite 4004
 City: Round Rock
 State, Zip: TX, 79864
 Phone: 512-671-3434(Tel) 512-671-3446(Fax)
 Email: eric.matzner@pbwllc.com
 Project Name: 1620-UPRR HWPW
 Site: S80W#:

Sampler: **JOHN BEATON**
 Lab P.M.: Kutchadkar, Sachin G
 E-Mail: sachin.kutchadkar@testamericainc.com
 Carrier: **682241**
 COC No: 600-18866-7218.1
 Page 1 of 1
 Job #:

Due Date Requested: TAT Requested (days):
 Analysis Reques

Sample Identification	Sample Date	Sample Time	Sample Type (G=Comp, G=Grab)	Matrix (Water, Seawater, Other)	Preservation Code	Field Filtered Sample (Yes or No)	Perform: MS/MSD (Yes or No)	Total Number of containers	Special Instructions/Note
WG-1620-MW53C-20130206	2-6-13	0830	G	Water			8270C_LL - SVOC		
WG-1620-MW25A-20130206		0920	G	Water			8260B - VOC		
WG-1620-MW25C-20130206		1005	G	Water					
WG-1620-MW44C-20130206		1055	G	Water					
WG-1620-MW33BR-20130206		1200	G	Water					
WG-1620-MW26A-20130206		1345	G	Water					
WG-1620-MW32AR-20130206		1435	G	Water					
WG-1620-MW32B-20130206		1520	G	Water					
WG-1620-MW18C-20130206		1620	G	Water					
WG-1620-MW18B-20130206		1715	G	Water					
WG-1620-TB04-20130206				Water					

Possible Hazard Identification
 Non-Hazard Flammable Skin Irritant Poison B Unknown Radiological
 Deliverable Requested: I, II, III, IV, Other (specify):
 Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
 Return To Client Disposal By Lab Archive For _____ Months
 Special Instructions/Note:

Relinquished by:	Date/Time:	Company:	Received by:	Date/Time:	Company:	Relinquished by:	Date/Time:	Company:
<i>[Signature]</i>	2-6-13 715	PBW	<i>[Signature]</i>	2/7/13 715	PBW			

Custody Seals Intact: Yes No
 Custody Seal No.:
 Cooler Temperature(s) °C and Other Remarks:

Login Sample Receipt Checklist

Client: Pastor, Behling & Wheeler LLC

Job Number: 600-68241-1

Login Number: 68241

List Number: 1

Creator: Capps, Dana

List Source: TestAmerica Houston

Question	Answer	Comment
Radioactivity wasn't checked or is <=/ background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	2.0/2.4
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	True	

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Houston
6310 Rothway Street
Houston, TX 77040
Tel: (713)690-4444

TestAmerica Job ID: 600-68350-1

Client Project/Site: 1620 UPRR HWPW
Revision: 1

For:

Pastor, Behling & Wheeler LLC
2201 Double Creek Dr
Suite 4004
Round Rock, Texas 78664

Attn: Mr. Eric Matzner



Authorized for release by:
3/5/2013 5:27:54 PM

Cathy Upton
Data Delivery Analyst
cathy.upton@testamericainc.com

Designee for

Sachin Kudchadkar
Project Manager II
sachin.kudchadkar@testamericainc.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.



LINKS

Review your project
results through
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Have a Question?



Visit us at:
www.testamericainc.com

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15
- 16
- 17



Table of Contents

Cover Page	1
Table of Contents	2
TRRP Cover Page	3
TRRP Checklists & DCSs	4
Case Narrative	14
Method Summary	15
Sample Summary	16
Client Sample Results	17
Definitions/Glossary	39
Surrogate Summary	40
QC Sample Results	42
Default Detection Limits	51
QC Association Summary	52
Lab Chronicle	55
Certification Summary	59
Chain of Custody	60
Receipt Checklists	62

Job Number: 600-68350-1
Project Name/Number: 1620 UPRR HWPW

This Data Package consists of:

This signature page, the laboratory review checklist, and the following Reportable Data:

- R1 Field Chain-of-Custody Form
- R2 Sample Identification Cross-reference;
- R3 Test Reports (Analytical Data Sheets) for each environmental sample that includes:
 - a) Items consistent with NELAC Chapter 5
 - b) dilution factors,
 - c) preparation methods,
 - d) cleanup methods, and
 - e) if required for the project, tentatively identified compounds (TICs).
- R4 Surrogate Recovery Data including:
 - a) Calculated recovery (%R), and
 - b) The laboratory's surrogate QC limits.
- R5 Test Reports/Summary Forms for Blank Samples;
- R6 Test Reports/Summary Forms for Laboratory Control Samples (LCSs) including:
 - a) LCS spiking amounts,
 - b) Calculated %R for each analyte, and
 - d) The laboratory's LCS QC limits
- R7 Test Reports for Matrix Spike/Matrix Spike Duplicates (MS/MSDs) including:
 - a) Samples associated with the MS/MSD clearly identified,
 - b) MS/MSD spiking amounts,
 - c) Concentration of each MS/MSD analyte measured in the parent and spiked sample,
 - d) Calculated %Rs and relative percent differences (RPDs), and
 - e) The laboratory's MS/MSD QC limits
- R8 Laboratory analytical duplicates (if applicable) recovery and precision, including:
 - a) the amount of analyte measured in the duplicate,
 - b) the calculated RPD, and
 - c) the laboratory's QC limits for analytical duplicates.
- R9 List of method quantitation limit (MQL) and detectability check sample results for each analyte for each method and matrix;
- R10 Other problems or anomalies

The exception report for each "No" or "Not Reviewed (NR)" item in the Laboratory Review Checklist and for each analyte, matrix, and method for which the laboratory does not hold NELAC accreditation under the Texas Laboratory Accreditation Program.

Release Statement: I am responsible for the release of this laboratory data package. This laboratory is NELAC accredited under Texas laboratory Accreditation Program for all the methods, analytes, and matrices reported in this data package except as noted in the Exception Reports. The data have been reviewed and are technically compliant with the requirements of the methods used, except where noted by the laboratory in the Exception Reports. By my signature below, I affirm, to the best of my knowledge, that all problems/anomalies observed by the laboratory have been identified in the Laboratory Review Checklist, and no information affecting the quality of the data has been knowingly withheld.

Cathy Upton
Name (printed)
Data Delivery Analyst
Official Title (printed)


Signature

02/25/2013
Date

Appendix A (cont'd): Laboratory Review Checklist: Reportable Data							
Laboratory Name: TestAmerica-Houston			LRC Date: 02/18/13				
Project Name: 1620 UPRR HWPW			Laboratory Job Number: 600-68350				
Reviewer Name: YX			Prep Batch Number: 600-99302, 99494, 99563 and 99606-VOA				
# ¹	A ²	Description	Yes	No	NA ³	NR ⁴	ER# ⁵
R1	OI	Chain-of-custody (C-O-C)					
		Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?	X				
		Were all departures from standard conditions described in an exception report?			X		
R2	OI	Sample and quality control (QC) identification					
		Are all field sample ID numbers cross-referenced to the laboratory ID numbers?	X				
		Are all laboratory ID numbers cross-referenced to the corresponding QC data?	X				
R3	OI	Test reports					
		Were all samples prepared and analyzed within holding times?	X				
		Other than those results < MQL, were all other raw values bracketed by calibration standards?	X				
		Were calculations checked by a peer or supervisor?	X				
		Were all analyte identifications checked by a peer or supervisor?	X				
		Were sample detection limits reported for all analytes not detected?	X				
		Were all results for soil and sediment samples reported on a dry weight basis?			X		
		Were % moisture (or solids) reported for all soil and sediment samples?			X		
		Were bulk soil/solid samples for volatile analysis extracted with methanol per SW846 Method 5035?			X		
		If required for the project, TICs reported?			X		
R4	O	Surrogate recovery data					
		Were surrogates added prior to extraction?	X				
		Were surrogate percent recoveries in all samples within the laboratory QC limits?	X				
R5	OI	Test reports/summary forms for blank samples					
		Were appropriate type(s) of blanks analyzed?	X				
		Were blanks analyzed at the appropriate frequency?	X				
		Were method blanks taken through the entire analytical process, including preparation and, if applicable, cleanup procedures?	X				
		Were blank concentrations < MQL?	X				
R6	OI	Laboratory control samples (LCS):					
		Were all COCs included in the LCS?	X				
		Was each LCS taken through the entire analytical procedure, including prep and cleanup steps?	X				
		Were LCSs analyzed at the required frequency?	X				
		Were LCS (and LCSD, if applicable) %Rs within the laboratory QC limits?	X				
		Does the detectability check sample data document the laboratory's capability to detect the COCs at the MDL used to calculate the SDLs?	X				
		Was the LCSD RPD within QC limits?			X		
R7	OI	Matrix spike (MS) and matrix spike duplicate (MSD) data					
		Were the project/method specified analytes included in the MS and MSD?	X				
		Were MS/MSD analyzed at the appropriate frequency?	X				
		Were MS (and MSD, if applicable) %Rs within the laboratory QC limits?	X				
		Were MS/MSD RPDs within laboratory QC limits?	X				
R8	OI	Analytical duplicate data					
		Were appropriate analytical duplicates analyzed for each matrix?			X		
		Were analytical duplicates analyzed at the appropriate frequency?			X		
		Were RPDs or relative standard deviations within the laboratory QC limits?			X		
R9	OI	Method quantitation limits (MQLs):					
		Are the MQLs for each method analyte included in the laboratory data package?	X				
		Do the MQLs correspond to the concentration of the lowest non-zero calibration standard?	X				
		Are unadjusted MQLs and DCSs included in the laboratory data package?	X				
R10	OI	Other problems/anomalies					
		Are all known problems/anomalies/special conditions noted in this LRC and ER?	X				
		Was applicable and available technology used to lower the SDL to minimize the matrix interference affects on the sample results?	X				1
		Is the laboratory NELAC-accredited under the Texas Laboratory Accreditation Program for the analytes, matrices and methods associated with this laboratory data package?	X				

- Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.
- O = organic analyses; I = inorganic analyses (and general chemistry, when applicable);
- NA = Not applicable;
- NR = Not reviewed;
- ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

Appendix A (cont'd): Laboratory Review Checklist: Reportable Data							
Laboratory Name: TestAmerica-Houston				LRC Date: 02/18/13			
Project Name: 1620 UPRR HWPW				Laboratory Job Number: 600-68350			
Reviewer Name: YX				Prep Batch Number: 600-99302, 99494, 99563 and 99606-VOA			
# ¹	A ²	Description	Yes	No	NA ³	NR ⁴	ER# ⁵
S1	OI	Initial calibration (ICAL)					
		Were response factors and/or relative response factors for each analyte within QC limits?	X				
		Were percent RSDs or correlation coefficient criteria met?	X				
		Was the number of standards recommended in the method used for all analytes?	X				
		Were all points generated between the lowest and highest standard used to calculate the curve?	X				
		Are ICAL data available for all instruments used?	X				
		Has the initial calibration curve been verified using an appropriate second source standard?	X				
S2	OI	Initial and continuing calibration verification (ICCV and CCV) and continuing calibration					
		Was the CCV analyzed at the method-required frequency?	X				
		Were percent differences for each analyte within the method-required QC limits?	X				
		Was the ICAL curve verified for each analyte?	X				
		Was the absolute value of the analyte concentration in the inorganic CCB < MDL?			X		
S3	O	Mass spectral tuning:					
		Was the appropriate compound for the method used for tuning?	X				
		Were ion abundance data within the method-required QC limits?	X				
S4	O	Internal standards (IS):					
		Were IS area counts and retention times within the method-required QC limits?	X				
S5	OI	Raw data (NELAC section 5.5.10)					
		Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?	X				
		Were data associated with manual integrations flagged on the raw data?	X				
S6	O	Dual column confirmation					
		Did dual column confirmation results meet the method-required QC?			X		
S7	O	Tentatively identified compounds (TICs):					
		If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?			X		
S8	I	Interference Check Sample (ICS) results:					
		Were percent recoveries within method QC limits?			X		
S9	I	Serial dilutions, post digestion spikes, and method of standard additions					
		Were percent differences, recoveries, and the linearity within the QC limits specified in the method?			X		
S10	OI	Method detection limit (MDL) studies					
		Was a MDL study performed for each reported analyte?	X				
		Is the MDL either adjusted or supported by the analysis of DCSs?	X				
S11	OI	Proficiency test reports:					
		Was the laboratory's performance acceptable on the applicable proficiency tests or evaluation studies?	X				
S12	OI	Standards documentation					
		Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?	X				
S13	OI	Compound/analyte identification procedures					
		Are the procedures for compound/analyte identification documented?	X				
S14	OI	Demonstration of analyst competency (DOC)					
		Was DOC conducted consistent with NELAC Chapter 5?	X				
		Is documentation of the analyst's competency up-to-date and on file?	X				
S15	OI	Verification/validation documentation for methods (NELAC Chapter 5)					
		Are all the methods used to generate the data documented, verified, and validated, where applicable?	X				
S16	OI	Laboratory standard operating procedures (SOPs):					
		Are laboratory SOPs current and on file for each method performed?	X				

- 1 Items identified by the letter "R" should be included in the laboratory data package submitted to the TCEQ in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.
- 2 O = organic analyses; I = inorganic analyses (and general chemistry, when applicable).
- 3 NA = Not applicable.
- 4 NR = Not Reviewed.
- 5 ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

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16
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Appendix A (cont'd): Laboratory Review Checklist: Exception Reports	
Laboratory Name: TestAmerica-Houston	LRC Date: 02/18/13
Project Name: 1620 UPRR HWPW	Laboratory Job Number: 600-68350
Reviewer Name: YX	Prep Batch Number: 600-99302, 99494, 99563 and 99606-VOA
ER #¹	DESCRIPTION
1	<p>All of the SDLs in samples 600-68350-7 and 9 were elevated due to the high concentration of target analytes and the nature of the sample matrix.</p> <p>The Benzene and Toluene SDLs were elevated in sample 600-68350-10 due to the high concentration of these analytes.</p> <p>The Benzene and Chlorobenzene SDLs were elevated in sample 600-68350-11 due to the high concentration of these analytes.</p>

ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked on the LRC)

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15
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Appendix A (cont'd): Laboratory Review Checklist: Reportable Data							
Laboratory Name: TestAmerica-Houston			LRC Date: 02/25/13				
Project Name: 1620 UPRR HWPW			Laboratory Job Number 600-68350				
Reviewer Name: JOH			Prep Batch Number(s): 600-99298, 99370 - SV				
# ¹	A ²	Description	Yes	No	NA ³	NR ⁴	ER# ⁵
R1	OI	Chain-of-custody (C-O-C)					
		Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?	X				
		Were all departures from standard conditions described in an exception report?			X		
R2	OI	Sample and quality control (QC) identification					
		Are all field sample ID numbers cross-referenced to the laboratory ID numbers?	X				
		Are all laboratory ID numbers cross-referenced to the corresponding QC data?	X				
R3	OI	Test reports					
		Were all samples prepared and analyzed within holding times?	X				
		Other than those results < MQL, were all other raw values bracketed by calibration standards?	X				
		Were calculations checked by a peer or supervisor?	X				
		Were all analyte identifications checked by a peer or supervisor?	X				
		Were sample detection limits reported for all analytes not detected?	X				
		Were all results for soil and sediment samples reported on a dry weight basis?			X		
		Were % moisture (or solids) reported for all soil and sediment samples?			X		
		Were bulk soil/solid samples for volatile analysis extracted with methanol per SW846 Method 5035?			X		
		If required for the project, TICs reported?			X		
R4	O	Surrogate recovery data					
		Were surrogates added prior to extraction?	X				
		Were surrogate percent recoveries in all samples within the laboratory QC limits?		X			1
R5	OI	Test reports/summary forms for blank samples					
		Were appropriate type(s) of blanks analyzed?	X				
		Were blanks analyzed at the appropriate frequency?	X				
		Were method blanks taken through the entire analytical process, including preparation and, if applicable, cleanup procedures?	X				
		Were blank concentrations < MQL?	X				2
R6	OI	Laboratory control samples (LCS):					
		Were all COCs included in the LCS?	X				
		Was each LCS taken through the entire analytical procedure, including prep and cleanup steps?	X				
		Were LCSs analyzed at the required frequency?	X				
		Were LCS (and LCSD, if applicable) %Rs within the laboratory QC limits?	X				
		Does the detectability check sample data document the laboratory's capability to detect the COCs at the MDL used to calculate the SDLs?	X				
		Was the LCSD RPD within QC limits?			X		
R7	OI	Matrix spike (MS) and matrix spike duplicate (MSD) data					
		Were the project/method specified analytes included in the MS and MSD?	X				
		Were MS/MSD analyzed at the appropriate frequency?	X				
		Were MS (and MSD, if applicable) %Rs within the laboratory QC limits?		X			3
		Were MS/MSD RPDs within laboratory QC limits?		X			3
R8	OI	Analytical duplicate data					
		Were appropriate analytical duplicates analyzed for each matrix?			X		
		Were analytical duplicates analyzed at the appropriate frequency?			X		
		Were RPDs or relative standard deviations within the laboratory QC limits?			X		
R9	OI	Method quantitation limits (MQLs):					
		Are the MQLs for each method analyte included in the laboratory data package?	X				
		Do the MQLs correspond to the concentration of the lowest non-zero calibration standard?	X				
		Are unadjusted MQLs and DCSs included in the laboratory data package?	X				
R10	OI	Other problems/anomalies					
		Are all known problems/anomalies/special conditions noted in this LRC and ER?	X				
		Was applicable and available technology used to lower the SDL to minimize the matrix interference affects on the sample results?	X				4
		Is the laboratory NELAC-accredited under the Texas Laboratory Accreditation Program for the analytes, matrices and methods associated with this laboratory data package?	X				

- Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.
- O = organic analyses; I = inorganic analyses (and general chemistry, when applicable);
- NA = Not applicable;
- NR = Not reviewed;
- ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

Appendix A (cont'd): Laboratory Review Checklist: Reportable Data									
Laboratory Name: TestAmerica-Houston					LRC Date: 02/25/13				
Project Name: 1620 UPRR HWPW					Laboratory Job Number 600-68350				
Reviewer Name: JOH					Prep Batch Number(s): 600-99298, 99370 - SV				
# ¹	A ²	Description	Yes	No	NA ³	NR ⁴	ER# ⁵		
S1	OI	Initial calibration (ICAL)							
		Were response factors and/or relative response factors for each analyte within QC limits?	X						
		Were percent RSDs or correlation coefficient criteria met?	X						
		Was the number of standards recommended in the method used for all analytes?	X						
		Were all points generated between the lowest and highest standard used to calculate the curve?	X						
		Are ICAL data available for all instruments used?	X						
		Has the initial calibration curve been verified using an appropriate second source standard?	X						
S2	OI	Initial and continuing calibration verification (ICCV and CCV) and continuing calibration							
		Was the CCV analyzed at the method-required frequency?	X						
		Were percent differences for each analyte within the method-required QC limits?	X						
		Was the ICAL curve verified for each analyte?	X						
		Was the absolute value of the analyte concentration in the inorganic CCB < MDL?				X			
S3	O	Mass spectral tuning:							
		Was the appropriate compound for the method used for tuning?				X			
		Were ion abundance data within the method-required QC limits?				X			
S4	O	Internal standards (IS):							
		Were IS area counts and retention times within the method-required QC limits?				X			
S5	OI	Raw data (NELAC section 5.5.10)							
		Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?	X						
		Were data associated with manual integrations flagged on the raw data?	X						
S6	O	Dual column confirmation							
		Did dual column confirmation results meet the method-required QC?				X			
S7	O	Tentatively identified compounds (TICs):							
		If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?				X			
S8	I	Interference Check Sample (ICS) results:							
		Were percent recoveries within method QC limits?				X			
S9	I	Serial dilutions, post digestion spikes, and method of standard additions							
		Were percent differences, recoveries, and the linearity within the QC limits specified in the method?				X			
S10	OI	Method detection limit (MDL) studies							
		Was a MDL study performed for each reported analyte?	X						
		Is the MDL either adjusted or supported by the analysis of DCSs?	X						
S11	OI	Proficiency test reports:							
		Was the laboratory's performance acceptable on the applicable proficiency tests or evaluation studies?	X						
S12	OI	Standards documentation							
		Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?	X						
S13	OI	Compound/analyte identification procedures							
		Are the procedures for compound/analyte identification documented?	X						
S14	OI	Demonstration of analyst competency (DOC)							
		Was DOC conducted consistent with NELAC Chapter 5?	X						
		Is documentation of the analyst's competency up-to-date and on file?	X						
S15	OI	Verification/validation documentation for methods (NELAC Chapter 5)							
		Are all the methods used to generate the data documented, verified, and validated, where applicable?	X						
S16	OI	Laboratory standard operating procedures (SOPs):							
		Are laboratory SOPs current and on file for each method performed?	X						

- 1 Items identified by the letter "R" should be included in the laboratory data package submitted to the TCEQ in the TRRP-required report(s).
- 2 Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.
- 3 O = organic analyses; I = inorganic analyses (and general chemistry, when applicable).
- 4 NA = Not applicable.
- 5 NR = Not Reviewed.
- 6 ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

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Appendix A (cont'd): Laboratory Review Checklist: Exception Reports	
Laboratory Name: TestAmerica-Houston	LRC Date: 02/25/13
Project Name: 1620 UPRR HWPW	Laboratory Job Number 600-68350
Reviewer Name: JOH	Prep Batch Number(s): 600-99298, 99370 - SV
ER #¹	DESCRIPTION
1	<p>Due to the dilution required to get Acenaphthene within the calibration range of the instrument, the acid surrogates (PHL, 2FP) for sample 600-68350-8DL recovered below acceptance limits. Since these surrogates are not representative of this analyte and the other surrogate recoveries were within acceptance limits, the results have been reported and qualified.</p> <p>Due to the level of dilution required for samples 600-68350-5, 6DL, 7, 7DL, 9, 10, 10DL, 11 and 11DL; surrogate recoveries are not reported.</p> <p>Six surrogates are used for this analysis. The laboratory's SOP allows one acid and one base of these surrogates to be outside acceptance criteria without performing re-extraction/re-analysis. Samples 600-68350-3, 4MS, 12, 13, 14, 15, 16 and 17 contained an allowable number of surrogate compounds outside limits. These results have been reported and qualified.</p>
2	Naphthalene was detected above the MDL, but below the MQL in the method blank for batch 99298. The level of detection is below the recommended reporting limit and the appropriate flags have been applied.
3	The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision were outside control limits. Matrix interference is suspected. The associated laboratory control sample (LCS) met acceptance criteria.
4	<p>All of the SDLs in samples 600-68350-3, 5, 7, 9, 10, 11 and 13 were elevated due to the nature of the sample matrix and/or the high concentration of target analytes.</p> <p>The Naphthalene SDL in sample 600-68350-6 was elevated due to the high concentration of this analyte.</p> <p>The Acenaphthene SDL in sample 600-68350-8 was elevated due to the high concentration of this analyte.</p>

ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked on the LRC)

Detection Check Standard

Matrix: Water
Method: 8260B_LL
Preparation: Wei Shen
Date Analyzed: 10/8/2012
Date Prepared: 10/8/2012
TALs Batches: A25003.D
Units: ug/L

Analyte	MDL	DCS Spike	Measured Result	MQL
Dichlorodifluoromethane	0.12	1	0.0281	5
Chloromethane	0.18	1	0.355	10
Vinyl Chloride	0.11	0.5	0.131	10
Bromomethane	0.25	1	0.882	10
Chloroethane	0.08	0.5	0.208	10
Allyl chloride	2	1	1.84	5
Acrolein	1.63	1	4.34	5
1,1-Dichloroethene	0.19	0.5	4.3	5
trans-1,2-Dichloroethene	0.09	0.5	4.68	5
Trichlorotrifluoroethane	1	1	0.534	5
Acetone	0.99	1	1.87	5
Methyl Iodide (Iodomethane)	2	1	2.29	5
Carbon Disulfide	0.24	1	2.6	5
2-Propanol (Isopropyl alcohol)	3.72	1	7.51	5
Acetonitrile	0.27	1	1.21	5
Methylene Chloride	0.15	0.5	1.79	10
Methyl tert-butyl ether	0.12	0.5	0.704	5
Vinyl Acetate	0.21	0.5	0.776	5
Acrylonitrile	0.52	1	2.71	5
Chloroprene (2-Chloro-1,3-butadiene)	0.33	1	1.16	5
Propionitrile	0.66	1	1.58	5
cis-1,2-Dichloroethene	0.06	0.5	0.659	5
1,2-Dichloroethene	0.3	1	1.45	5
2-Butanone (MEK)	0.76	1	1.64	5
Isobutyl alcohol	3.32	1	8.48	5
Bromochloromethane	0.18	0.5	0.436	5
Methacrylonitrile	0.41	1	1.62	5
Carbon Tetrachloride	0.15	0.5	0.318	5
Benzene	0.08	0.5	0.355	5
1,2-Dichloroethane	0.14	0.5	0.379	5
Trichloroethene	0.13	0.5	0.343	5
1,1,1-Trichloroethane	0.15	0.5	0.306	5
1,1-Dichloropropene	0.11	0.5	0.281	5
1,2-Dichloroethane	0.3	0.5	0.316	5
1,2-Dichloropropane	0.16	0.5	0.292	5
2,2-Dichloropropane	0.13	1	0.682	5
Methylene Bromide (Bromomethane)	0.25	0.5	0.328	5
1,4-Dioxane	30.79	1	34.08	250
Methyl methacrylate	0.33	1	1.55	5

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Bromodichloromethane	0.16	0.5	0.715	5
2-Chloroethyl vinyl ether	0.5	1	2.04	5
1,1-Dichloropropane	0.21	0.5	0.774	5
cis-1,3-Dichloropropene	0.18	0.5	0.718	5
4-Methyl-2-pentanone	0.45	1	2.42	10
Toluene	0.15	0.5	0.431	5
trans-1,3-Dichloropropene	0.21	0.5	0.406	5
Ethyl Methacrylate	0.94	1	0.686	10
1,1,2-Trichloroethane	0.18	0.5	0.401	5
Tetrachloroethene	0.18	0.5	0.823	5
1,3-Dichloropropane	0.22	1	0.89	5
2-Hexanone	0.35	1	2.01	10
Dibromochloromethane	0.16	0.5	0.811	5
1,2-Dibromoethane (Ethylene bromide)	0.18	0.5	0.373	5
Chlorobenzene	0.12	0.5	0.424	5
1,1,1,2-Tetrachloroethane	0.18	0.5	0.401	5
Ethylbenzene	0.11	0.5	0.357	5
m,p-Xylene	0.17	0.5	0.741	10
o-Xylene	0.12	0.5	0.37	5
Xylenes (total)	0.26	0.5	1.11	5
Styrene	0.07	0.5	0.344	5
Bromoform	0.19	0.5	0.915	5
Isopropylbenzene	0.18	0.5	0.367	5
Bromobenzene	0.19	0.5	0.457	5
1,2,3-Trichloropropane	0.29	1	0.89	5
1,1,2,2-Tetrachloroethane	0.22	1	0.729	5
trans-1,4-Dichloro-2-butene	0.64	1	2.36	5
n-Propylbenzene	0.15	0.5	0.372	5
2-Chlorotoluene	0.13	0.5	0.424	5
4-Chlorotoluene	0.14	0.5	0.442	5
1,3,5-Trimethylbenzene	0.1	0.5	0.392	5
tert-Butylbenzene	0.08	0.5	0.359	5
p-Isopropyltoluene	0.1	0.5	0.329	5
1,2,4-Trimethylbenzene	0.14	0.5	0.388	5
sec-Butylbenzene	0.12	0.5	0.329	5
1,3-Dichlorobenzene	0.13	0.5	0.437	5
1,4-Dichlorobenzene	0.11	0.5	0.475	5
1,2-Dichlorobenzene	0.1	0.5	0.466	5
n-Butylbenzene	0.16	0.5	0.297	5
1,2-Dibromo-3-chloropropane	0.33	1	1.2	5
1,2,4-Trichlorobenzene	0.31	1	0.849	5
Hexachlorobutadiene	0.17	0.5	0.363	5
Naphthalene	0.32	1	1.09	5
1,2,3-Trichlorobenzene	0.57	1	0.867	5

**Quality Control Report
Detection Check Standard**

Matrix: Water
 Method: 8270C LL
 Preparation: 3510C
 Date Analyzed: 10/18/2012
 Date Prepared: 10/16/2012
 Lab Sample ID: 600-91246_18-a
 Units: ug/L

Analyte	MDL	DCS Spike	DCS Result	MLQ
Pyridine	0.04	0.25	0.067	0.5
N-Nitrosodimethylamine	0.26	0.25	0.121	0.5
Aniline	0.08	0.25	0.085	0.5
Phenol	0.04	0.25	0.054	0.5
bis(2-Chloroethyl)ether	0.15	0.25	0.149	0.5
2-Chlorophenol	0.13	0.25	0.097	0.5
1,3-Dichlorobenzene	0.17	0.25	0.152	0.5
1,4-Dichlorobenzene	0.13	0.25	0.166	0.5
1,2-Dichlorobenzene	0.17	0.25	0.167	0.5
Benzyl alcohol	0.17	0.25	0.075	0.5
2-Methylphenol	0.12	0.25	0.112	0.5
m&p-Cresols	0.2	0.25	0.053	1
bis (2-Chloroisopropyl) ether	0.4	0.25	0.143	0.5
N-Nitroso-di-n-propylamine	0.1	0.25	0.177	0.5
Hexachloroethane	0.1	0.25	0.185	0.5
Nitrobenzene	0.11	0.25	0.131	0.5
Isophorone	0.11	0.25	0.149	0.5
2-Nitrophenol	0.22	0.5	0.205	0.5
Benzoic acid	2.51	5	6.530	2.5
2,4-Dimethylphenol	0.31	0.5	0.130	0.5
bis(2-Chloroethoxy)methane	0.13	0.25	0.122	0.5
2,4-Dichlorophenol	0.15	0.25	0.068	0.5
1,2,4-Trichlorobenzene	0.12	0.25	0.125	0.5
Naphthalene	0.08	0.25	0.161	0.5
4-Chloroaniline	0.21	0.5	0.232	0.5
Hexachlorobutadiene	0.18	0.25	0.160	0.5
4-Chloro-3-methylphenol	0.17	0.25	0.075	0.5
2-Methylnaphthalene	0.07	0.25	0.128	0.5
1-Methylnaphthalene	0.09	0.25	0.147	0.5
Hexachlorocyclopentadiene	0.13	0.5	0.487	0.5
2,4,6-Trichlorophenol	0.18	0.5	0.062	0.5
2,4,5-Trichlorophenol	0.25	0.5	0.107	0.5
2-Chloronaphthalene	0.08	0.25	0.148	0.5
2-Nitroaniline	0.19	0.5	0.213	0.5
Dimethylphthalate	0.07	0.25	0.145	0.5
1,4 Dinitrobenzene	5	0.25	0.363	0.5
1,3-Dinitrobenzene	0.08	0.25	0.381	0.5
1,2-Dinitrobenzene	0.5	0.25	0.040	0.5
Acenaphthylene	0.06	0.25	0.137	0.5

2,6-Dinitrotoluene	0.08	0.25	0.178	0.5
3-Nitroaniline	0.16	0.5	0.240	0.5
Acenaphthene	0.08	0.25	0.151	0.5
Dibenzofuran	0.08	0.25	0.127	0.5
2,4-Dinitrotoluene	0.13	0.25	0.144	0.5
Diethylphthalate	1.5	0.5	0.431	0.5
4-Chlorophenyl-phenylether	0.1	0.25	0.102	0.5
Fluorene	0.07	0.25	0.107	0.5
4-Nitroaniline	0.25	0.5	0.124	0.5
4,6-Dinitro-2-Methylphenol	0.83	2.5	0.530	1
N-Nitrosodiphenylamine	0.1	0.25	0.176	0.5
Diphenylamine	0.1	0.25	0.099	0.5
1,2-Diphenylhydrazine	0.11	0.25	0.224	0.5
Azobenzene	0.07	0.25	0.117	0.5
4-Bromophenyl-phenylether	0.1	0.25	0.112	0.5
Hexachlorobenzene	0.11	0.25	0.130	0.5
Phenanthrene	0.06	0.25	0.169	0.5
Anthracene	0.05	0.25	0.144	0.5
Carbazole	0.17	0.25	0.140	0.5
Di-n-butylphthalate	0.11	0.25	0.238	0.5
Fluoranthene	0.07	0.25	0.196	0.5
Pyrene	0.11	0.25	0.153	0.5
Butylbenzylphthalate	0.12	0.25	0.238	0.5
3,3'-Dichlorobenzidene	0.5	0.25	0.066	0.5
Benzo(a)anthracene	0.08	0.25	0.175	0.5
bis(2-Ethylhexyl)phthalate	0.37	0.5	0.420	0.5
Chrysene	0.08	0.25	0.212	0.5
Di-n-octylphthalate	0.16	0.25	0.091	0.5
Benzo(b)fluoranthene	0.07	0.25	0.143	0.5
Benzo(k)fluoranthene	0.09	0.25	0.201	0.5
Benzo(a)pyrene	0.08	0.25	0.137	0.5
Indeno(1,2,3-cd)pyrene	0.07	0.25	0.454	0.5
Dibenz(a,h)anthracene	0.08	0.25	0.123	0.5
Benzo(g,h,i)perylene	0.08	0.25	0.112	0.5



Case Narrative

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68350-1

Job ID: 600-68350-1

Laboratory: TestAmerica Houston

Narrative

Job Narrative
600-68350-1

Comments

The report was revised on 03/05/13 to remove the duplicate volatile results.

Receipt

The samples were received on 2/8/2013 12:38 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 4 coolers at receipt time were 1.3° C, 1.7° C, 2.3° C and 2.7° C.

Organic Prep

Method(s) 3510C: Due to the matrix, the following sample(s) could not be concentrated to the final method required volume: WG-1620-MW70B-20130207 (600-68350-7). The SDLs are elevated proportionately.



Method Summary

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68350-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL HOU
8270C LL	Semivolatile Organic Compounds by GCMS - Low Levels	SW846	TAL HOU

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL HOU = TestAmerica Houston, 6310 Rothway Street, Houston, TX 77040, TEL (713)690-4444



Sample Summary

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68350-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
600-68350-1	WG-1620-FB5-20130206	Water	02/06/13 17:30	02/08/13 12:38
600-68350-2	WG-1620-MW71B-20130207	Water	02/07/13 08:45	02/08/13 12:38
600-68350-3	WG-1620-MW28A-20130207	Water	02/07/13 09:40	02/08/13 12:38
600-68350-4	WG-1620-MW28C-20130207	Water	02/07/13 10:30	02/08/13 12:38
600-68350-5	WG-1620-MW63B-20130207	Water	02/07/13 12:15	02/08/13 12:38
600-68350-6	WG-1620-DUP2-20130207	Water	02/07/13 12:15	02/08/13 12:38
600-68350-7	WG-1620-MW70B-20130207	Water	02/07/13 13:20	02/08/13 12:38
600-68350-8	WG-1620-MW35A-20130207	Water	02/07/13 14:20	02/08/13 12:38
600-68350-9	WG-1620-MW35B-20130207	Water	02/07/13 15:15	02/08/13 12:38
600-68350-10	WG-1620-MW49B-20130207	Water	02/07/13 16:15	02/08/13 12:38
600-68350-11	WG-1620-MW49A-20130207	Water	02/07/13 17:05	02/08/13 12:38
600-68350-12	WG-1620-MW47C-20130207	Water	02/07/13 18:00	02/08/13 12:38
600-68350-13	WG-1620-FB6-20130207	Water	02/07/13 18:15	02/08/13 12:38
600-68350-14	WG-1620-MW69A-20130208	Water	02/07/13 08:20	02/08/13 12:38
600-68350-15	WG-1620-MW38A-20130208	Water	02/07/13 09:30	02/08/13 12:38
600-68350-16	WG-1620-MW38B-20130208	Water	02/07/13 10:30	02/08/13 12:38
600-68350-17	WG-1620-FB7-20130208	Water	02/07/13 11:00	02/08/13 12:38
600-68350-18	WG-1620-TB05-20130208	Water	02/07/13 00:00	02/08/13 12:38

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68350-1

Client Sample ID: WG-1620-FB5-20130206

Lab Sample ID: 600-68350-1

Date Collected: 02/06/13 17:30

Matrix: Water

Date Received: 02/08/13 12:38

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			02/11/13 12:21	1
Benzene	0.0000800	U	0.00100	0.0000800	mg/L			02/11/13 12:21	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			02/11/13 12:21	1
Toluene	0.000150	U	0.00100	0.000150	mg/L			02/11/13 12:21	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			02/11/13 12:21	1
Ethylbenzene	0.000110	U	0.00100	0.000110	mg/L			02/11/13 12:21	1
Xylenes, Total	0.000260	U	0.00300	0.000260	mg/L			02/11/13 12:21	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	82		67 - 139		02/11/13 12:21	1
Dibromofluoromethane	103		62 - 130		02/11/13 12:21	1
Toluene-d8 (Surr)	93		70 - 130		02/11/13 12:21	1
1,2-Dichloroethane-d4 (Surr)	98		50 - 134		02/11/13 12:21	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.0000367	U	0.000459	0.0000367	mg/L		02/12/13 10:50	02/19/13 10:37	1
Nitrobenzene	0.000101	U	0.000459	0.000101	mg/L		02/12/13 10:50	02/19/13 10:37	1
2,4-Dimethylphenol	0.000284	U	0.000459	0.000284	mg/L		02/12/13 10:50	02/19/13 10:37	1
Bis(2-chloroethoxy)methane	0.000119	U	0.000459	0.000119	mg/L		02/12/13 10:50	02/19/13 10:37	1
Naphthalene	0.000455	J	0.00459	0.0000734	mg/L		02/12/13 10:50	02/19/13 10:37	1
2-Methylnaphthalene	0.0000642	U	0.000459	0.0000642	mg/L		02/12/13 10:50	02/19/13 10:37	1
2-Chloronaphthalene	0.0000734	U	0.000459	0.0000734	mg/L		02/12/13 10:50	02/19/13 10:37	1
Acenaphthylene	0.0000550	U	0.000459	0.0000550	mg/L		02/12/13 10:50	02/19/13 10:37	1
2,6-Dinitrotoluene	0.0000734	U	0.000459	0.0000734	mg/L		02/12/13 10:50	02/19/13 10:37	1
Acenaphthene	0.0000734	U	0.000459	0.0000734	mg/L		02/12/13 10:50	02/19/13 10:37	1
4-Nitrophenol	0.000514	U	0.000917	0.000514	mg/L		02/12/13 10:50	02/19/13 10:37	1
Dibenzofuran	0.0000734	U	0.000459	0.0000734	mg/L		02/12/13 10:50	02/19/13 10:37	1
2,4-Dinitrotoluene	0.000119	U	0.000459	0.000119	mg/L		02/12/13 10:50	02/19/13 10:37	1
Fluorene	0.0000642	U	0.000459	0.0000642	mg/L		02/12/13 10:50	02/19/13 10:37	1
4,6-Dinitro-2-methylphenol	0.000761	U	0.000917	0.000761	mg/L		02/12/13 10:50	02/19/13 10:37	1
N-Nitrosodiphenylamine	0.0000917	U	0.000459	0.0000917	mg/L		02/12/13 10:50	02/19/13 10:37	1
1,2-Diphenylhydrazine	0.000101	U	0.000459	0.000101	mg/L		02/12/13 10:50	02/19/13 10:37	1
Pentachlorophenol	0.000560	U	0.000917	0.000560	mg/L		02/12/13 10:50	02/19/13 10:37	1
Phenanthrene	0.0000550	U	0.000459	0.0000550	mg/L		02/12/13 10:50	02/19/13 10:37	1
Anthracene	0.0000459	U	0.000459	0.0000459	mg/L		02/12/13 10:50	02/19/13 10:37	1
Di-n-butyl phthalate	0.000101	U	0.000459	0.000101	mg/L		02/12/13 10:50	02/19/13 10:37	1
Fluoranthene	0.0000642	U	0.000459	0.0000642	mg/L		02/12/13 10:50	02/19/13 10:37	1
Pyrene	0.000101	U	0.000459	0.000101	mg/L		02/12/13 10:50	02/19/13 10:37	1
Benzo[a]anthracene	0.0000734	U	0.000459	0.0000734	mg/L		02/12/13 10:50	02/19/13 10:37	1
Bis(2-ethylhexyl) phthalate	0.000339	U	0.000459	0.000339	mg/L		02/12/13 10:50	02/19/13 10:37	1
Chrysene	0.0000734	U	0.000459	0.0000734	mg/L		02/12/13 10:50	02/19/13 10:37	1
Benzo[a]pyrene	0.0000734	U	0.000459	0.0000734	mg/L		02/12/13 10:50	02/19/13 10:37	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Phenol-d6	23		10 - 94	02/12/13 10:50	02/19/13 10:37	1
2,4,6-Tribromophenol	40		10 - 123	02/12/13 10:50	02/19/13 10:37	1
2-Fluorobiphenyl	70		43 - 116	02/12/13 10:50	02/19/13 10:37	1
2-Fluorophenol	33		10 - 100	02/12/13 10:50	02/19/13 10:37	1
Nitrobenzene-d5	71		35 - 114	02/12/13 10:50	02/19/13 10:37	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68350-1

Client Sample ID: WG-1620-FB5-20130206

Lab Sample ID: 600-68350-1

Date Collected: 02/06/13 17:30

Matrix: Water

Date Received: 02/08/13 12:38

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Terphenyl-d14	89		33 - 141	02/12/13 10:50	02/19/13 10:37	1

Client Sample ID: WG-1620-MW71B-20130207

Lab Sample ID: 600-68350-2

Date Collected: 02/07/13 08:45

Matrix: Water

Date Received: 02/08/13 12:38

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			02/11/13 15:32	1
Benzene	0.0124		0.00100	0.0000800	mg/L			02/11/13 15:32	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			02/11/13 15:32	1
Toluene	0.0104		0.00100	0.000150	mg/L			02/11/13 15:32	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			02/11/13 15:32	1
Ethylbenzene	0.00541		0.00100	0.000110	mg/L			02/11/13 15:32	1
Xylenes, Total	0.0143		0.00300	0.000260	mg/L			02/11/13 15:32	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	83		67 - 139		02/11/13 15:32	1
Dibromofluoromethane	104		62 - 130		02/11/13 15:32	1
Toluene-d8 (Surr)	93		70 - 130		02/11/13 15:32	1
1,2-Dichloroethane-d4 (Surr)	93		50 - 134		02/11/13 15:32	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.0000381	U	0.000476	0.0000381	mg/L		02/12/13 10:50	02/19/13 11:04	1
Nitrobenzene	0.000105	U	0.000476	0.000105	mg/L		02/12/13 10:50	02/19/13 11:04	1
2,4-Dimethylphenol	0.000295	U	0.000476	0.000295	mg/L		02/12/13 10:50	02/19/13 11:04	1
Bis(2-chloroethoxy)methane	0.000124	U	0.000476	0.000124	mg/L		02/12/13 10:50	02/19/13 11:04	1
Naphthalene	0.0000937	J	0.00476	0.0000762	mg/L		02/12/13 10:50	02/19/13 11:04	1
2-Methylnaphthalene	0.000377	J	0.000476	0.0000667	mg/L		02/12/13 10:50	02/19/13 11:04	1
2-Chloronaphthalene	0.0000762	U	0.000476	0.0000762	mg/L		02/12/13 10:50	02/19/13 11:04	1
Acenaphthylene	0.000135	J	0.000476	0.0000571	mg/L		02/12/13 10:50	02/19/13 11:04	1
2,6-Dinitrotoluene	0.0000762	U	0.000476	0.0000762	mg/L		02/12/13 10:50	02/19/13 11:04	1
Acenaphthene	0.00440		0.000476	0.0000762	mg/L		02/12/13 10:50	02/19/13 11:04	1
4-Nitrophenol	0.000533	U	0.000952	0.000533	mg/L		02/12/13 10:50	02/19/13 11:04	1
Dibenzofuran	0.00244		0.000476	0.0000762	mg/L		02/12/13 10:50	02/19/13 11:04	1
2,4-Dinitrotoluene	0.000124	U	0.000476	0.000124	mg/L		02/12/13 10:50	02/19/13 11:04	1
Fluorene	0.00168		0.000476	0.0000667	mg/L		02/12/13 10:50	02/19/13 11:04	1
4,6-Dinitro-2-methylphenol	0.000790	U	0.000952	0.000790	mg/L		02/12/13 10:50	02/19/13 11:04	1
N-Nitrosodiphenylamine	0.0000952	U	0.000476	0.0000952	mg/L		02/12/13 10:50	02/19/13 11:04	1
1,2-Diphenylhydrazine	0.000105	U	0.000476	0.000105	mg/L		02/12/13 10:50	02/19/13 11:04	1
Pentachlorophenol	0.000581	U	0.000952	0.000581	mg/L		02/12/13 10:50	02/19/13 11:04	1
Phenanthrene	0.00127		0.000476	0.0000571	mg/L		02/12/13 10:50	02/19/13 11:04	1
Anthracene	0.000452	J	0.000476	0.0000476	mg/L		02/12/13 10:50	02/19/13 11:04	1
Di-n-butyl phthalate	0.000105	U	0.000476	0.000105	mg/L		02/12/13 10:50	02/19/13 11:04	1
Fluoranthene	0.000387	J	0.000476	0.0000667	mg/L		02/12/13 10:50	02/19/13 11:04	1
Pyrene	0.000253	J	0.000476	0.000105	mg/L		02/12/13 10:50	02/19/13 11:04	1
Benzo[a]anthracene	0.0000762	U	0.000476	0.0000762	mg/L		02/12/13 10:50	02/19/13 11:04	1
Bis(2-ethylhexyl) phthalate	0.000352	U	0.000476	0.000352	mg/L		02/12/13 10:50	02/19/13 11:04	1
Chrysene	0.0000762	U	0.000476	0.0000762	mg/L		02/12/13 10:50	02/19/13 11:04	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68350-1

Client Sample ID: WG-1620-MW71B-20130207

Lab Sample ID: 600-68350-2

Date Collected: 02/07/13 08:45

Matrix: Water

Date Received: 02/08/13 12:38

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]pyrene	0.0000762	U	0.000476	0.0000762	mg/L		02/12/13 10:50	02/19/13 11:04	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Phenol-d6	17		10 - 94				02/12/13 10:50	02/19/13 11:04	1
2,4,6-Tribromophenol	85		10 - 123				02/12/13 10:50	02/19/13 11:04	1
2-Fluorobiphenyl	72		43 - 116				02/12/13 10:50	02/19/13 11:04	1
2-Fluorophenol	29		10 - 100				02/12/13 10:50	02/19/13 11:04	1
Nitrobenzene-d5	63		35 - 114				02/12/13 10:50	02/19/13 11:04	1
Terphenyl-d14	87		33 - 141				02/12/13 10:50	02/19/13 11:04	1

Client Sample ID: WG-1620-MW28A-20130207

Lab Sample ID: 600-68350-3

Date Collected: 02/07/13 09:40

Matrix: Water

Date Received: 02/08/13 12:38

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			02/11/13 14:37	1
Benzene	0.0000800	U	0.00100	0.0000800	mg/L			02/11/13 14:37	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			02/11/13 14:37	1
Toluene	0.000150	U	0.00100	0.000150	mg/L			02/11/13 14:37	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			02/11/13 14:37	1
Ethylbenzene	0.000110	U	0.00100	0.000110	mg/L			02/11/13 14:37	1
Xylenes, Total	0.000260	U	0.00300	0.000260	mg/L			02/11/13 14:37	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	88		67 - 139					02/11/13 14:37	1
Dibromofluoromethane	109		62 - 130					02/11/13 14:37	1
Toluene-d8 (Surr)	97		70 - 130					02/11/13 14:37	1
1,2-Dichloroethane-d4 (Surr)	97		50 - 134					02/11/13 14:37	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.000381	U	0.00476	0.000381	mg/L		02/12/13 10:50	02/19/13 11:31	10
Nitrobenzene	0.00105	U	0.00476	0.00105	mg/L		02/12/13 10:50	02/19/13 11:31	10
2,4-Dimethylphenol	0.00295	U	0.00476	0.00295	mg/L		02/12/13 10:50	02/19/13 11:31	10
Bis(2-chloroethoxy)methane	0.00124	U	0.00476	0.00124	mg/L		02/12/13 10:50	02/19/13 11:31	10
Naphthalene	0.000762	U	0.0476	0.000762	mg/L		02/12/13 10:50	02/19/13 11:31	10
2-Methylnaphthalene	0.000667	U	0.00476	0.000667	mg/L		02/12/13 10:50	02/19/13 11:31	10
2-Chloronaphthalene	0.000762	U	0.00476	0.000762	mg/L		02/12/13 10:50	02/19/13 11:31	10
Acenaphthylene	0.000571	U	0.00476	0.000571	mg/L		02/12/13 10:50	02/19/13 11:31	10
2,6-Dinitrotoluene	0.000762	U	0.00476	0.000762	mg/L		02/12/13 10:50	02/19/13 11:31	10
Acenaphthene	0.000762	U	0.00476	0.000762	mg/L		02/12/13 10:50	02/19/13 11:31	10
4-Nitrophenol	0.00533	U	0.00952	0.00533	mg/L		02/12/13 10:50	02/19/13 11:31	10
Dibenzofuran	0.000762	U	0.00476	0.000762	mg/L		02/12/13 10:50	02/19/13 11:31	10
2,4-Dinitrotoluene	0.00124	U	0.00476	0.00124	mg/L		02/12/13 10:50	02/19/13 11:31	10
Fluorene	0.000667	U	0.00476	0.000667	mg/L		02/12/13 10:50	02/19/13 11:31	10
4,6-Dinitro-2-methylphenol	0.00790	U	0.00952	0.00790	mg/L		02/12/13 10:50	02/19/13 11:31	10
N-Nitrosodiphenylamine	0.000952	U	0.00476	0.000952	mg/L		02/12/13 10:50	02/19/13 11:31	10
1,2-Diphenylhydrazine	0.00105	U	0.00476	0.00105	mg/L		02/12/13 10:50	02/19/13 11:31	10
Pentachlorophenol	0.00581	U	0.00952	0.00581	mg/L		02/12/13 10:50	02/19/13 11:31	10

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68350-1

Client Sample ID: WG-1620-MW28A-20130207

Lab Sample ID: 600-68350-3

Date Collected: 02/07/13 09:40

Matrix: Water

Date Received: 02/08/13 12:38

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenanthrene	0.000571	U	0.00476	0.000571	mg/L		02/12/13 10:50	02/19/13 11:31	10
Anthracene	0.000476	U	0.00476	0.000476	mg/L		02/12/13 10:50	02/19/13 11:31	10
Di-n-butyl phthalate	0.00105	U	0.00476	0.00105	mg/L		02/12/13 10:50	02/19/13 11:31	10
Fluoranthene	0.000667	U	0.00476	0.000667	mg/L		02/12/13 10:50	02/19/13 11:31	10
Pyrene	0.00105	U	0.00476	0.00105	mg/L		02/12/13 10:50	02/19/13 11:31	10
Benzo[a]anthracene	0.000762	U	0.00476	0.000762	mg/L		02/12/13 10:50	02/19/13 11:31	10
Bis(2-ethylhexyl) phthalate	0.00352	U	0.00476	0.00352	mg/L		02/12/13 10:50	02/19/13 11:31	10
Chrysene	0.000762	U	0.00476	0.000762	mg/L		02/12/13 10:50	02/19/13 11:31	10
Benzo[a]pyrene	0.000762	U	0.00476	0.000762	mg/L		02/12/13 10:50	02/19/13 11:31	10
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Phenol-d6	9	X	10 - 94				02/12/13 10:50	02/19/13 11:31	10
2,4,6-Tribromophenol	40		10 - 123				02/12/13 10:50	02/19/13 11:31	10
2-Fluorobiphenyl	61		43 - 116				02/12/13 10:50	02/19/13 11:31	10
2-Fluorophenol	30		10 - 100				02/12/13 10:50	02/19/13 11:31	10
Nitrobenzene-d5	56		35 - 114				02/12/13 10:50	02/19/13 11:31	10
Terphenyl-d14	69		33 - 141				02/12/13 10:50	02/19/13 11:31	10

Client Sample ID: WG-1620-MW28C-20130207

Lab Sample ID: 600-68350-4

Date Collected: 02/07/13 10:30

Matrix: Water

Date Received: 02/08/13 12:38

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			02/11/13 14:10	1
Benzene	0.0000800	U	0.00100	0.0000800	mg/L			02/11/13 14:10	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			02/11/13 14:10	1
Toluene	0.000150	U	0.00100	0.000150	mg/L			02/11/13 14:10	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			02/11/13 14:10	1
Ethylbenzene	0.000110	U	0.00100	0.000110	mg/L			02/11/13 14:10	1
Xylenes, Total	0.000260	U	0.00300	0.000260	mg/L			02/11/13 14:10	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	87		67 - 139					02/11/13 14:10	1
Dibromofluoromethane	106		62 - 130					02/11/13 14:10	1
Toluene-d8 (Surr)	95		70 - 130					02/11/13 14:10	1
1,2-Dichloroethane-d4 (Surr)	90		50 - 134					02/11/13 14:10	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.0000367	U	0.000459	0.0000367	mg/L		02/12/13 10:50	02/19/13 11:58	1
Nitrobenzene	0.000101	U	0.000459	0.000101	mg/L		02/12/13 10:50	02/19/13 11:58	1
2,4-Dimethylphenol	0.000284	U	0.000459	0.000284	mg/L		02/12/13 10:50	02/19/13 11:58	1
Bis(2-chloroethoxy)methane	0.000119	U	0.000459	0.000119	mg/L		02/12/13 10:50	02/19/13 11:58	1
Naphthalene	0.000163	J	0.00459	0.0000734	mg/L		02/12/13 10:50	02/19/13 11:58	1
2-Methylnaphthalene	0.0000642	U	0.000459	0.0000642	mg/L		02/12/13 10:50	02/19/13 11:58	1
2-Chloronaphthalene	0.0000734	U	0.000459	0.0000734	mg/L		02/12/13 10:50	02/19/13 11:58	1
Acenaphthylene	0.0000550	U	0.000459	0.0000550	mg/L		02/12/13 10:50	02/19/13 11:58	1
2,6-Dinitrotoluene	0.0000734	U	0.000459	0.0000734	mg/L		02/12/13 10:50	02/19/13 11:58	1
Acenaphthene	0.0000734	U	0.000459	0.0000734	mg/L		02/12/13 10:50	02/19/13 11:58	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68350-1

Client Sample ID: WG-1620-MW28C-20130207

Lab Sample ID: 600-68350-4

Date Collected: 02/07/13 10:30

Matrix: Water

Date Received: 02/08/13 12:38

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Nitrophenol	0.000514	U	0.000917	0.000514	mg/L		02/12/13 10:50	02/19/13 11:58	1
Dibenzofuran	0.0000734	U	0.000459	0.0000734	mg/L		02/12/13 10:50	02/19/13 11:58	1
2,4-Dinitrotoluene	0.000119	U	0.000459	0.000119	mg/L		02/12/13 10:50	02/19/13 11:58	1
Fluorene	0.0000642	U	0.000459	0.0000642	mg/L		02/12/13 10:50	02/19/13 11:58	1
4,6-Dinitro-2-methylphenol	0.000761	U	0.000917	0.000761	mg/L		02/12/13 10:50	02/19/13 11:58	1
N-Nitrosodiphenylamine	0.0000917	U	0.000459	0.0000917	mg/L		02/12/13 10:50	02/19/13 11:58	1
1,2-Diphenylhydrazine	0.000101	U	0.000459	0.000101	mg/L		02/12/13 10:50	02/19/13 11:58	1
Pentachlorophenol	0.000560	U	0.000917	0.000560	mg/L		02/12/13 10:50	02/19/13 11:58	1
Phenanthrene	0.0000550	U	0.000459	0.0000550	mg/L		02/12/13 10:50	02/19/13 11:58	1
Anthracene	0.0000459	U	0.000459	0.0000459	mg/L		02/12/13 10:50	02/19/13 11:58	1
Di-n-butyl phthalate	0.000101	U	0.000459	0.000101	mg/L		02/12/13 10:50	02/19/13 11:58	1
Fluoranthene	0.0000642	U	0.000459	0.0000642	mg/L		02/12/13 10:50	02/19/13 11:58	1
Pyrene	0.000101	U	0.000459	0.000101	mg/L		02/12/13 10:50	02/19/13 11:58	1
Benzo[a]anthracene	0.0000734	U	0.000459	0.0000734	mg/L		02/12/13 10:50	02/19/13 11:58	1
Bis(2-ethylhexyl) phthalate	0.000339	U	0.000459	0.000339	mg/L		02/12/13 10:50	02/19/13 11:58	1
Chrysene	0.0000734	U	0.000459	0.0000734	mg/L		02/12/13 10:50	02/19/13 11:58	1
Benzo[a]pyrene	0.0000734	U	0.000459	0.0000734	mg/L		02/12/13 10:50	02/19/13 11:58	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Phenol-d6	16		10 - 94	02/12/13 10:50	02/19/13 11:58	1
2,4,6-Tribromophenol	76		10 - 123	02/12/13 10:50	02/19/13 11:58	1
2-Fluorobiphenyl	67		43 - 116	02/12/13 10:50	02/19/13 11:58	1
2-Fluorophenol	32		10 - 100	02/12/13 10:50	02/19/13 11:58	1
Nitrobenzene-d5	67		35 - 114	02/12/13 10:50	02/19/13 11:58	1
Terphenyl-d14	87		33 - 141	02/12/13 10:50	02/19/13 11:58	1

Client Sample ID: WG-1620-MW63B-20130207

Lab Sample ID: 600-68350-5

Date Collected: 02/07/13 12:15

Matrix: Water

Date Received: 02/08/13 12:38

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			02/13/13 12:08	1
Benzene	0.00952		0.00100	0.0000800	mg/L			02/13/13 12:08	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			02/13/13 12:08	1
Toluene	0.00241		0.00100	0.000150	mg/L			02/13/13 12:08	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			02/13/13 12:08	1
Ethylbenzene	0.0165		0.00100	0.000110	mg/L			02/13/13 12:08	1
Xylenes, Total	0.00629		0.00300	0.000260	mg/L			02/13/13 12:08	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	108		67 - 139		02/13/13 12:08	1
Dibromofluoromethane	78		62 - 130		02/13/13 12:08	1
Toluene-d8 (Surr)	81		70 - 130		02/13/13 12:08	1
1,2-Dichloroethane-d4 (Surr)	86		50 - 134		02/13/13 12:08	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.00190	U	0.0238	0.00190	mg/L		02/12/13 10:50	02/20/13 13:27	50
Nitrobenzene	0.00524	U	0.0238	0.00524	mg/L		02/12/13 10:50	02/20/13 13:27	50

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68350-1

Client Sample ID: WG-1620-MW63B-20130207

Lab Sample ID: 600-68350-5

Date Collected: 02/07/13 12:15

Matrix: Water

Date Received: 02/08/13 12:38

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-Dimethylphenol	0.0148	U	0.0238	0.0148	mg/L		02/12/13 10:50	02/20/13 13:27	50
Bis(2-chloroethoxy)methane	0.00619	U	0.0238	0.00619	mg/L		02/12/13 10:50	02/20/13 13:27	50
Naphthalene	0.251		0.238	0.00381	mg/L		02/12/13 10:50	02/20/13 13:27	50
2-Methylnaphthalene	0.0104	J	0.0238	0.00333	mg/L		02/12/13 10:50	02/20/13 13:27	50
2-Chloronaphthalene	0.00381	U	0.0238	0.00381	mg/L		02/12/13 10:50	02/20/13 13:27	50
Acenaphthylene	0.00286	U	0.0238	0.00286	mg/L		02/12/13 10:50	02/20/13 13:27	50
2,6-Dinitrotoluene	0.00381	U	0.0238	0.00381	mg/L		02/12/13 10:50	02/20/13 13:27	50
Acenaphthene	0.00952	J	0.0238	0.00381	mg/L		02/12/13 10:50	02/20/13 13:27	50
4-Nitrophenol	0.0267	U	0.0476	0.0267	mg/L		02/12/13 10:50	02/20/13 13:27	50
Dibenzofuran	0.00576	J	0.0238	0.00381	mg/L		02/12/13 10:50	02/20/13 13:27	50
2,4-Dinitrotoluene	0.00619	U	0.0238	0.00619	mg/L		02/12/13 10:50	02/20/13 13:27	50
Fluorene	0.00333	U	0.0238	0.00333	mg/L		02/12/13 10:50	02/20/13 13:27	50
4,6-Dinitro-2-methylphenol	0.0395	U	0.0476	0.0395	mg/L		02/12/13 10:50	02/20/13 13:27	50
N-Nitrosodiphenylamine	0.00476	U	0.0238	0.00476	mg/L		02/12/13 10:50	02/20/13 13:27	50
1,2-Diphenylhydrazine	0.00524	U	0.0238	0.00524	mg/L		02/12/13 10:50	02/20/13 13:27	50
Pentachlorophenol	0.0290	U	0.0476	0.0290	mg/L		02/12/13 10:50	02/20/13 13:27	50
Phenanthrene	0.00286	U	0.0238	0.00286	mg/L		02/12/13 10:50	02/20/13 13:27	50
Anthracene	0.00238	U	0.0238	0.00238	mg/L		02/12/13 10:50	02/20/13 13:27	50
Di-n-butyl phthalate	0.00524	U	0.0238	0.00524	mg/L		02/12/13 10:50	02/20/13 13:27	50
Fluoranthene	0.00333	U	0.0238	0.00333	mg/L		02/12/13 10:50	02/20/13 13:27	50
Pyrene	0.00524	U	0.0238	0.00524	mg/L		02/12/13 10:50	02/20/13 13:27	50
Benzo[a]anthracene	0.00381	U	0.0238	0.00381	mg/L		02/12/13 10:50	02/20/13 13:27	50
Bis(2-ethylhexyl) phthalate	0.0176	U	0.0238	0.0176	mg/L		02/12/13 10:50	02/20/13 13:27	50
Chrysene	0.00381	U	0.0238	0.00381	mg/L		02/12/13 10:50	02/20/13 13:27	50
Benzo[a]pyrene	0.00381	U	0.0238	0.00381	mg/L		02/12/13 10:50	02/20/13 13:27	50

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Phenol-d6	0	X	10 - 94	02/12/13 10:50	02/20/13 13:27	50
2,4,6-Tribromophenol	0	X	10 - 123	02/12/13 10:50	02/20/13 13:27	50
2-Fluorobiphenyl	0	X	43 - 116	02/12/13 10:50	02/20/13 13:27	50
2-Fluorophenol	0	X	10 - 100	02/12/13 10:50	02/20/13 13:27	50
Nitrobenzene-d5	0	X	35 - 114	02/12/13 10:50	02/20/13 13:27	50
Terphenyl-d14	0	X	33 - 141	02/12/13 10:50	02/20/13 13:27	50

Client Sample ID: WG-1620-DUP2-20130207

Lab Sample ID: 600-68350-6

Date Collected: 02/07/13 12:15

Matrix: Water

Date Received: 02/08/13 12:38

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			02/13/13 12:36	1
Benzene	0.00919		0.00100	0.0000800	mg/L			02/13/13 12:36	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			02/13/13 12:36	1
Toluene	0.00231		0.00100	0.000150	mg/L			02/13/13 12:36	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			02/13/13 12:36	1
Ethylbenzene	0.0163		0.00100	0.000110	mg/L			02/13/13 12:36	1
Xylenes, Total	0.00635		0.00300	0.000260	mg/L			02/13/13 12:36	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	109		67 - 139		02/13/13 12:36	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68350-1

Client Sample ID: WG-1620-DUP2-20130207

Lab Sample ID: 600-68350-6

Date Collected: 02/07/13 12:15

Matrix: Water

Date Received: 02/08/13 12:38

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Dibromofluoromethane	81		62 - 130		02/13/13 12:36	1
Toluene-d8 (Surr)	83		70 - 130		02/13/13 12:36	1
1,2-Dichloroethane-d4 (Surr)	90		50 - 134		02/13/13 12:36	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.000381	U	0.000476	0.000381	mg/L		02/12/13 10:50	02/19/13 13:47	1
Nitrobenzene	0.000105	U	0.000476	0.000105	mg/L		02/12/13 10:50	02/19/13 13:47	1
2,4-Dimethylphenol	0.000295	U	0.000476	0.000295	mg/L		02/12/13 10:50	02/19/13 13:47	1
Bis(2-chloroethoxy)methane	0.000124	U	0.000476	0.000124	mg/L		02/12/13 10:50	02/19/13 13:47	1
2-Methylnaphthalene	0.00865		0.000476	0.0000667	mg/L		02/12/13 10:50	02/19/13 13:47	1
2-Chloronaphthalene	0.0000762	U	0.000476	0.0000762	mg/L		02/12/13 10:50	02/19/13 13:47	1
Acenaphthylene	0.0000571	U	0.000476	0.0000571	mg/L		02/12/13 10:50	02/19/13 13:47	1
2,6-Dinitrotoluene	0.0000762	U	0.000476	0.0000762	mg/L		02/12/13 10:50	02/19/13 13:47	1
Acenaphthene	0.00650		0.000476	0.0000762	mg/L		02/12/13 10:50	02/19/13 13:47	1
4-Nitrophenol	0.000533	U	0.000952	0.000533	mg/L		02/12/13 10:50	02/19/13 13:47	1
Dibenzofuran	0.00514		0.000476	0.0000762	mg/L		02/12/13 10:50	02/19/13 13:47	1
2,4-Dinitrotoluene	0.000124	U	0.000476	0.000124	mg/L		02/12/13 10:50	02/19/13 13:47	1
Fluorene	0.00208		0.000476	0.0000667	mg/L		02/12/13 10:50	02/19/13 13:47	1
4,6-Dinitro-2-methylphenol	0.000790	U	0.000952	0.000790	mg/L		02/12/13 10:50	02/19/13 13:47	1
N-Nitrosodiphenylamine	0.0000952	U	0.000476	0.0000952	mg/L		02/12/13 10:50	02/19/13 13:47	1
1,2-Diphenylhydrazine	0.000105	U	0.000476	0.000105	mg/L		02/12/13 10:50	02/19/13 13:47	1
Pentachlorophenol	0.000581	U	0.000952	0.000581	mg/L		02/12/13 10:50	02/19/13 13:47	1
Phenanthrene	0.000776		0.000476	0.0000571	mg/L		02/12/13 10:50	02/19/13 13:47	1
Anthracene	0.000124	J	0.000476	0.0000476	mg/L		02/12/13 10:50	02/19/13 13:47	1
Di-n-butyl phthalate	0.000127	J	0.000476	0.000105	mg/L		02/12/13 10:50	02/19/13 13:47	1
Fluoranthene	0.0000667	U	0.000476	0.0000667	mg/L		02/12/13 10:50	02/19/13 13:47	1
Pyrene	0.000105	U	0.000476	0.000105	mg/L		02/12/13 10:50	02/19/13 13:47	1
Benzo[a]anthracene	0.0000762	U	0.000476	0.0000762	mg/L		02/12/13 10:50	02/19/13 13:47	1
Bis(2-ethylhexyl) phthalate	0.000376	J b	0.000476	0.000352	mg/L		02/12/13 10:50	02/19/13 13:47	1
Chrysene	0.0000762	U	0.000476	0.0000762	mg/L		02/12/13 10:50	02/19/13 13:47	1
Benzo[a]pyrene	0.0000762	U	0.000476	0.0000762	mg/L		02/12/13 10:50	02/19/13 13:47	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Phenol-d6	17		10 - 94	02/12/13 10:50	02/19/13 13:47	1
2,4,6-Tribromophenol	80		10 - 123	02/12/13 10:50	02/19/13 13:47	1
2-Fluorobiphenyl	75		43 - 116	02/12/13 10:50	02/19/13 13:47	1
2-Fluorophenol	30		10 - 100	02/12/13 10:50	02/19/13 13:47	1
Nitrobenzene-d5	66		35 - 114	02/12/13 10:50	02/19/13 13:47	1
Terphenyl-d14	83		33 - 141	02/12/13 10:50	02/19/13 13:47	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels - DL

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	0.162	J	0.238	0.00381	mg/L		02/12/13 10:50	02/20/13 13:54	50

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Phenol-d6	0	X	10 - 94	02/12/13 10:50	02/20/13 13:54	50
2,4,6-Tribromophenol	0	X	10 - 123	02/12/13 10:50	02/20/13 13:54	50
2-Fluorobiphenyl	0	X	43 - 116	02/12/13 10:50	02/20/13 13:54	50
2-Fluorophenol	0	X	10 - 100	02/12/13 10:50	02/20/13 13:54	50

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68350-1

Client Sample ID: WG-1620-DUP2-20130207

Lab Sample ID: 600-68350-6

Date Collected: 02/07/13 12:15

Matrix: Water

Date Received: 02/08/13 12:38

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels - DL (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5	0	X	35 - 114	02/12/13 10:50	02/20/13 13:54	50
Terphenyl-d14	0	X	33 - 141	02/12/13 10:50	02/20/13 13:54	50

Client Sample ID: WG-1620-MW70B-20130207

Lab Sample ID: 600-68350-7

Date Collected: 02/07/13 13:20

Matrix: Water

Date Received: 02/08/13 12:38

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	0.00750	U	0.0500	0.00750	mg/L			02/13/13 21:06	50
1,2-Dichloroethane	0.00700	U	0.0500	0.00700	mg/L			02/13/13 21:06	50
Chlorobenzene	0.0317	J	0.0500	0.00600	mg/L			02/13/13 21:06	50
Ethylbenzene	0.524		0.0500	0.00550	mg/L			02/13/13 21:06	50
Xylenes, Total	1.51		0.150	0.0130	mg/L			02/13/13 21:06	50

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	99		67 - 139		02/13/13 21:06	50
Dibromofluoromethane	73		62 - 130		02/13/13 21:06	50
Toluene-d8 (Surr)	83		70 - 130		02/13/13 21:06	50
1,2-Dichloroethane-d4 (Surr)	82		50 - 134		02/13/13 21:06	50

Method: 8260B - Volatile Organic Compounds (GC/MS) - DL

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	2.01		0.200	0.0160	mg/L			02/14/13 17:06	200
Toluene	1.65		0.200	0.0300	mg/L			02/14/13 17:06	200

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	102		67 - 139		02/14/13 17:06	200
Dibromofluoromethane	75		62 - 130		02/14/13 17:06	200
Toluene-d8 (Surr)	85		70 - 130		02/14/13 17:06	200
1,2-Dichloroethane-d4 (Surr)	81		50 - 134		02/14/13 17:06	200

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	2.87		0.341	0.0273	mg/L		02/12/13 10:50	02/20/13 14:22	500
Nitrobenzene	0.0750	U	0.341	0.0750	mg/L		02/12/13 10:50	02/20/13 14:22	500
Bis(2-chloroethoxy)methane	0.0886	U	0.341	0.0886	mg/L		02/12/13 10:50	02/20/13 14:22	500
2-Methylnaphthalene	1.21		0.341	0.0477	mg/L		02/12/13 10:50	02/20/13 14:22	500
2-Chloronaphthalene	0.0545	U	0.341	0.0545	mg/L		02/12/13 10:50	02/20/13 14:22	500
Acenaphthylene	0.0424	J	0.341	0.0409	mg/L		02/12/13 10:50	02/20/13 14:22	500
2,6-Dinitrotoluene	0.0545	U	0.341	0.0545	mg/L		02/12/13 10:50	02/20/13 14:22	500
Acenaphthene	0.515		0.341	0.0545	mg/L		02/12/13 10:50	02/20/13 14:22	500
4-Nitrophenol	0.382	U	0.682	0.382	mg/L		02/12/13 10:50	02/20/13 14:22	500
Dibenzofuran	0.345		0.341	0.0545	mg/L		02/12/13 10:50	02/20/13 14:22	500
2,4-Dinitrotoluene	0.0886	U	0.341	0.0886	mg/L		02/12/13 10:50	02/20/13 14:22	500
Fluorene	0.211	J	0.341	0.0477	mg/L		02/12/13 10:50	02/20/13 14:22	500
4,6-Dinitro-2-methylphenol	0.566	U	0.682	0.566	mg/L		02/12/13 10:50	02/20/13 14:22	500
N-Nitrosodiphenylamine	0.0682	U	0.341	0.0682	mg/L		02/12/13 10:50	02/20/13 14:22	500
1,2-Diphenylhydrazine	0.0750	U	0.341	0.0750	mg/L		02/12/13 10:50	02/20/13 14:22	500
Pentachlorophenol	0.416	U	0.682	0.416	mg/L		02/12/13 10:50	02/20/13 14:22	500

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68350-1

Client Sample ID: WG-1620-MW70B-20130207

Lab Sample ID: 600-68350-7

Date Collected: 02/07/13 13:20

Matrix: Water

Date Received: 02/08/13 12:38

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenanthrene	0.227	J	0.341	0.0409	mg/L		02/12/13 10:50	02/20/13 14:22	500
Anthracene	0.0510	J	0.341	0.0341	mg/L		02/12/13 10:50	02/20/13 14:22	500
Di-n-butyl phthalate	0.0750	U	0.341	0.0750	mg/L		02/12/13 10:50	02/20/13 14:22	500
Fluoranthene	0.0477	U	0.341	0.0477	mg/L		02/12/13 10:50	02/20/13 14:22	500
Pyrene	0.0750	U	0.341	0.0750	mg/L		02/12/13 10:50	02/20/13 14:22	500
Benzo[a]anthracene	0.0545	U	0.341	0.0545	mg/L		02/12/13 10:50	02/20/13 14:22	500
Bis(2-ethylhexyl) phthalate	0.252	U	0.341	0.252	mg/L		02/12/13 10:50	02/20/13 14:22	500
Chrysene	0.0545	U	0.341	0.0545	mg/L		02/12/13 10:50	02/20/13 14:22	500
Benzo[a]pyrene	0.0545	U	0.341	0.0545	mg/L		02/12/13 10:50	02/20/13 14:22	500

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Phenol-d6	0	X	10 - 94	02/12/13 10:50	02/20/13 14:22	500
2,4,6-Tribromophenol	0	X	10 - 123	02/12/13 10:50	02/20/13 14:22	500
2-Fluorobiphenyl	0	X	43 - 116	02/12/13 10:50	02/20/13 14:22	500
2-Fluorophenol	0	X	10 - 100	02/12/13 10:50	02/20/13 14:22	500
Nitrobenzene-d5	0	X	35 - 114	02/12/13 10:50	02/20/13 14:22	500
Terphenyl-d14	0	X	33 - 141	02/12/13 10:50	02/20/13 14:22	500

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels - DL

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-Dimethylphenol	2.11	U	3.41	2.11	mg/L		02/12/13 10:50	02/21/13 15:40	5000
Naphthalene	17.3	J	34.1	0.545	mg/L		02/12/13 10:50	02/21/13 15:40	5000

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Phenol-d6	0	X	10 - 94	02/12/13 10:50	02/21/13 15:40	5000
2,4,6-Tribromophenol	0	X	10 - 123	02/12/13 10:50	02/21/13 15:40	5000
2-Fluorobiphenyl	0	X	43 - 116	02/12/13 10:50	02/21/13 15:40	5000
2-Fluorophenol	0	X	10 - 100	02/12/13 10:50	02/21/13 15:40	5000
Nitrobenzene-d5	0	X	35 - 114	02/12/13 10:50	02/21/13 15:40	5000
Terphenyl-d14	0	X	33 - 141	02/12/13 10:50	02/21/13 15:40	5000

Client Sample ID: WG-1620-MW35A-20130207

Lab Sample ID: 600-68350-8

Date Collected: 02/07/13 14:20

Matrix: Water

Date Received: 02/08/13 12:38

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			02/11/13 15:05	1
Benzene	0.0000800	U	0.00100	0.0000800	mg/L			02/11/13 15:05	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			02/11/13 15:05	1
Toluene	0.000150	U	0.00100	0.000150	mg/L			02/11/13 15:05	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			02/11/13 15:05	1
Ethylbenzene	0.000110	U	0.00100	0.000110	mg/L			02/11/13 15:05	1
Xylenes, Total	0.000260	U	0.00300	0.000260	mg/L			02/11/13 15:05	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	82		67 - 139		02/11/13 15:05	1
Dibromofluoromethane	105		62 - 130		02/11/13 15:05	1
Toluene-d8 (Surr)	95		70 - 130		02/11/13 15:05	1
1,2-Dichloroethane-d4 (Surr)	92		50 - 134		02/11/13 15:05	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68350-1

Client Sample ID: WG-1620-MW35A-20130207

Lab Sample ID: 600-68350-8

Date Collected: 02/07/13 14:20

Matrix: Water

Date Received: 02/08/13 12:38

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.0000381	U	0.000476	0.0000381	mg/L		02/11/13 14:15	02/16/13 21:24	1
Nitrobenzene	0.000105	U	0.000476	0.000105	mg/L		02/11/13 14:15	02/16/13 21:24	1
2,4-Dimethylphenol	0.000295	U	0.000476	0.000295	mg/L		02/11/13 14:15	02/16/13 21:24	1
Bis(2-chloroethoxy)methane	0.000124	U	0.000476	0.000124	mg/L		02/11/13 14:15	02/16/13 21:24	1
Naphthalene	0.00286	J b	0.00476	0.0000762	mg/L		02/11/13 14:15	02/16/13 21:24	1
2-Methylnaphthalene	0.000239	J	0.000476	0.0000667	mg/L		02/11/13 14:15	02/16/13 21:24	1
2-Chloronaphthalene	0.0000762	U	0.000476	0.0000762	mg/L		02/11/13 14:15	02/16/13 21:24	1
Acenaphthylene	0.0000571	U	0.000476	0.0000571	mg/L		02/11/13 14:15	02/16/13 21:24	1
2,6-Dinitrotoluene	0.0000762	U	0.000476	0.0000762	mg/L		02/11/13 14:15	02/16/13 21:24	1
4-Nitrophenol	0.000533	U	0.000952	0.000533	mg/L		02/11/13 14:15	02/16/13 21:24	1
Dibenzofuran	0.000429	J	0.000476	0.0000762	mg/L		02/11/13 14:15	02/16/13 21:24	1
2,4-Dinitrotoluene	0.000124	U	0.000476	0.000124	mg/L		02/11/13 14:15	02/16/13 21:24	1
Fluorene	0.0000667	U	0.000476	0.0000667	mg/L		02/11/13 14:15	02/16/13 21:24	1
4,6-Dinitro-2-methylphenol	0.000790	U	0.000952	0.000790	mg/L		02/11/13 14:15	02/16/13 21:24	1
N-Nitrosodiphenylamine	0.0000952	U	0.000476	0.0000952	mg/L		02/11/13 14:15	02/16/13 21:24	1
1,2-Diphenylhydrazine	0.000105	U	0.000476	0.000105	mg/L		02/11/13 14:15	02/16/13 21:24	1
Pentachlorophenol	0.000581	U	0.000952	0.000581	mg/L		02/11/13 14:15	02/16/13 21:24	1
Phenanthrene	0.000104	J	0.000476	0.0000571	mg/L		02/11/13 14:15	02/16/13 21:24	1
Anthracene	0.000389	J	0.000476	0.0000476	mg/L		02/11/13 14:15	02/16/13 21:24	1
Di-n-butyl phthalate	0.000105	U	0.000476	0.000105	mg/L		02/11/13 14:15	02/16/13 21:24	1
Fluoranthene	0.000109	J	0.000476	0.0000667	mg/L		02/11/13 14:15	02/16/13 21:24	1
Pyrene	0.000305	J	0.000476	0.000105	mg/L		02/11/13 14:15	02/16/13 21:24	1
Benzo[a]anthracene	0.0000762	U	0.000476	0.0000762	mg/L		02/11/13 14:15	02/16/13 21:24	1
Bis(2-ethylhexyl) phthalate	0.000352	U	0.000476	0.000352	mg/L		02/11/13 14:15	02/16/13 21:24	1
Chrysene	0.0000762	U	0.000476	0.0000762	mg/L		02/11/13 14:15	02/16/13 21:24	1
Benzo[a]pyrene	0.0000762	U	0.000476	0.0000762	mg/L		02/11/13 14:15	02/16/13 21:24	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Phenol-d6	10		10 - 94	02/11/13 14:15	02/16/13 21:24	1
2,4,6-Tribromophenol	102		10 - 123	02/11/13 14:15	02/16/13 21:24	1
2-Fluorobiphenyl	82		43 - 116	02/11/13 14:15	02/16/13 21:24	1
2-Fluorophenol	22		10 - 100	02/11/13 14:15	02/16/13 21:24	1
Nitrobenzene-d5	72		35 - 114	02/11/13 14:15	02/16/13 21:24	1
Terphenyl-d14	89		33 - 141	02/11/13 14:15	02/16/13 21:24	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels - DL

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	0.0196		0.00476	0.000762	mg/L		02/11/13 14:15	02/19/13 01:39	10

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Phenol-d6	4	X	10 - 94	02/11/13 14:15	02/19/13 01:39	10
2,4,6-Tribromophenol	31		10 - 123	02/11/13 14:15	02/19/13 01:39	10
2-Fluorobiphenyl	47		43 - 116	02/11/13 14:15	02/19/13 01:39	10
2-Fluorophenol	9	X	10 - 100	02/11/13 14:15	02/19/13 01:39	10
Nitrobenzene-d5	44		35 - 114	02/11/13 14:15	02/19/13 01:39	10
Terphenyl-d14	63		33 - 141	02/11/13 14:15	02/19/13 01:39	10

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68350-1

Client Sample ID: WG-1620-MW35B-20130207

Lab Sample ID: 600-68350-9

Date Collected: 02/07/13 15:15

Matrix: Water

Date Received: 02/08/13 12:38

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	0.000750	U	0.00500	0.000750	mg/L			02/14/13 08:13	5
Benzene	0.0662		0.00500	0.000400	mg/L			02/14/13 08:13	5
1,2-Dichloroethane	0.000700	U	0.00500	0.000700	mg/L			02/14/13 08:13	5
Toluene	0.00437	J	0.00500	0.000750	mg/L			02/14/13 08:13	5
Chlorobenzene	0.000600	U	0.00500	0.000600	mg/L			02/14/13 08:13	5
Ethylbenzene	0.225		0.00500	0.000550	mg/L			02/14/13 08:13	5
Xylenes, Total	0.153		0.0150	0.00130	mg/L			02/14/13 08:13	5
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	100		67 - 139					02/14/13 08:13	5
Dibromofluoromethane	78		62 - 130					02/14/13 08:13	5
Toluene-d8 (Surr)	80		70 - 130					02/14/13 08:13	5
1,2-Dichloroethane-d4 (Surr)	88		50 - 134					02/14/13 08:13	5

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.0381	U	0.476	0.0381	mg/L		02/11/13 14:15	02/19/13 02:07	1000
Nitrobenzene	0.105	U	0.476	0.105	mg/L		02/11/13 14:15	02/19/13 02:07	1000
2,4-Dimethylphenol	0.295	U	0.476	0.295	mg/L		02/11/13 14:15	02/19/13 02:07	1000
Bis(2-chloroethoxy)methane	0.124	U	0.476	0.124	mg/L		02/11/13 14:15	02/19/13 02:07	1000
Naphthalene	8.83	b	4.76	0.0762	mg/L		02/11/13 14:15	02/19/13 02:07	1000
2-Methylnaphthalene	0.295	J	0.476	0.0667	mg/L		02/11/13 14:15	02/19/13 02:07	1000
2-Chloronaphthalene	0.0762	U	0.476	0.0762	mg/L		02/11/13 14:15	02/19/13 02:07	1000
Acenaphthylene	0.0571	U	0.476	0.0571	mg/L		02/11/13 14:15	02/19/13 02:07	1000
2,6-Dinitrotoluene	0.0762	U	0.476	0.0762	mg/L		02/11/13 14:15	02/19/13 02:07	1000
Acenaphthene	0.173	J	0.476	0.0762	mg/L		02/11/13 14:15	02/19/13 02:07	1000
4-Nitrophenol	0.533	U	0.952	0.533	mg/L		02/11/13 14:15	02/19/13 02:07	1000
Dibenzofuran	0.161	J	0.476	0.0762	mg/L		02/11/13 14:15	02/19/13 02:07	1000
2,4-Dinitrotoluene	0.124	U	0.476	0.124	mg/L		02/11/13 14:15	02/19/13 02:07	1000
Fluorene	0.0667	U	0.476	0.0667	mg/L		02/11/13 14:15	02/19/13 02:07	1000
4,6-Dinitro-2-methylphenol	0.790	U	0.952	0.790	mg/L		02/11/13 14:15	02/19/13 02:07	1000
N-Nitrosodiphenylamine	0.0952	U	0.476	0.0952	mg/L		02/11/13 14:15	02/19/13 02:07	1000
1,2-Diphenylhydrazine	0.105	U	0.476	0.105	mg/L		02/11/13 14:15	02/19/13 02:07	1000
Pentachlorophenol	0.581	U	0.952	0.581	mg/L		02/11/13 14:15	02/19/13 02:07	1000
Phenanthrene	0.0936	J	0.476	0.0571	mg/L		02/11/13 14:15	02/19/13 02:07	1000
Anthracene	0.0476	U	0.476	0.0476	mg/L		02/11/13 14:15	02/19/13 02:07	1000
Di-n-butyl phthalate	0.105	U	0.476	0.105	mg/L		02/11/13 14:15	02/19/13 02:07	1000
Fluoranthene	0.0667	U	0.476	0.0667	mg/L		02/11/13 14:15	02/19/13 02:07	1000
Pyrene	0.105	U	0.476	0.105	mg/L		02/11/13 14:15	02/19/13 02:07	1000
Benzo[a]anthracene	0.0762	U	0.476	0.0762	mg/L		02/11/13 14:15	02/19/13 02:07	1000
Bis(2-ethylhexyl) phthalate	0.352	U	0.476	0.352	mg/L		02/11/13 14:15	02/19/13 02:07	1000
Chrysene	0.0762	U	0.476	0.0762	mg/L		02/11/13 14:15	02/19/13 02:07	1000
Benzo[a]pyrene	0.0762	U	0.476	0.0762	mg/L		02/11/13 14:15	02/19/13 02:07	1000
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Phenol-d6	0	X	10 - 94				02/11/13 14:15	02/19/13 02:07	1000
2,4,6-Tribromophenol	0	X	10 - 123				02/11/13 14:15	02/19/13 02:07	1000
2-Fluorobiphenyl	0	X	43 - 116				02/11/13 14:15	02/19/13 02:07	1000
2-Fluorophenol	0	X	10 - 100				02/11/13 14:15	02/19/13 02:07	1000
Nitrobenzene-d5	0	X	35 - 114				02/11/13 14:15	02/19/13 02:07	1000

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68350-1

Client Sample ID: WG-1620-MW35B-20130207

Lab Sample ID: 600-68350-9

Date Collected: 02/07/13 15:15

Matrix: Water

Date Received: 02/08/13 12:38

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Terphenyl-d14	0	X	33 - 141	02/11/13 14:15	02/19/13 02:07	1000

Client Sample ID: WG-1620-MW49B-20130207

Lab Sample ID: 600-68350-10

Date Collected: 02/07/13 16:15

Matrix: Water

Date Received: 02/08/13 12:38

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	0.000110	U	0.00200	0.000110	mg/L			02/14/13 07:16	1
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			02/14/13 07:16	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			02/14/13 07:16	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			02/14/13 07:16	1
Ethylbenzene	0.0182		0.00100	0.000110	mg/L			02/14/13 07:16	1
Xylenes, Total	0.0527		0.00300	0.000260	mg/L			02/14/13 07:16	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	98		67 - 139		02/14/13 07:16	1
Dibromofluoromethane	81		62 - 130		02/14/13 07:16	1
Toluene-d8 (Surr)	80		70 - 130		02/14/13 07:16	1
1,2-Dichloroethane-d4 (Surr)	90		50 - 134		02/14/13 07:16	1

Method: 8260B - Volatile Organic Compounds (GC/MS) - DL

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.0631		0.00500	0.000400	mg/L			02/14/13 07:44	5
Toluene	0.0633		0.00500	0.000750	mg/L			02/14/13 07:44	5

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	100		67 - 139		02/14/13 07:44	5
Dibromofluoromethane	77		62 - 130		02/14/13 07:44	5
Toluene-d8 (Surr)	83		70 - 130		02/14/13 07:44	5
1,2-Dichloroethane-d4 (Surr)	87		50 - 134		02/14/13 07:44	5

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.00190	U	0.0238	0.00190	mg/L		02/11/13 14:15	02/16/13 22:17	50
Nitrobenzene	0.00524	U	0.0238	0.00524	mg/L		02/11/13 14:15	02/16/13 22:17	50
Bis(2-chloroethoxy)methane	0.00619	U	0.0238	0.00619	mg/L		02/11/13 14:15	02/16/13 22:17	50
2-Methylnaphthalene	0.297		0.0238	0.00333	mg/L		02/11/13 14:15	02/16/13 22:17	50
2-Chloronaphthalene	0.00381	U	0.0238	0.00381	mg/L		02/11/13 14:15	02/16/13 22:17	50
Acenaphthylene	0.00286	U	0.0238	0.00286	mg/L		02/11/13 14:15	02/16/13 22:17	50
2,6-Dinitrotoluene	0.00381	U	0.0238	0.00381	mg/L		02/11/13 14:15	02/16/13 22:17	50
Acenaphthene	0.248		0.0238	0.00381	mg/L		02/11/13 14:15	02/16/13 22:17	50
4-Nitrophenol	0.0267	U	0.0476	0.0267	mg/L		02/11/13 14:15	02/16/13 22:17	50
Dibenzofuran	0.200		0.0238	0.00381	mg/L		02/11/13 14:15	02/16/13 22:17	50
2,4-Dinitrotoluene	0.00619	U	0.0238	0.00619	mg/L		02/11/13 14:15	02/16/13 22:17	50
Fluorene	0.217		0.0238	0.00333	mg/L		02/11/13 14:15	02/16/13 22:17	50
4,6-Dinitro-2-methylphenol	0.0395	U	0.0476	0.0395	mg/L		02/11/13 14:15	02/16/13 22:17	50
N-Nitrosodiphenylamine	0.00476	U	0.0238	0.00476	mg/L		02/11/13 14:15	02/16/13 22:17	50
1,2-Diphenylhydrazine	0.00524	U	0.0238	0.00524	mg/L		02/11/13 14:15	02/16/13 22:17	50
Pentachlorophenol	0.0290	U	0.0476	0.0290	mg/L		02/11/13 14:15	02/16/13 22:17	50

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68350-1

Client Sample ID: WG-1620-MW49B-20130207

Lab Sample ID: 600-68350-10

Date Collected: 02/07/13 16:15

Matrix: Water

Date Received: 02/08/13 12:38

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenanthrene	0.466		0.0238	0.00286	mg/L		02/11/13 14:15	02/16/13 22:17	50
Anthracene	0.0876		0.0238	0.00238	mg/L		02/11/13 14:15	02/16/13 22:17	50
Di-n-butyl phthalate	0.00524	U	0.0238	0.00524	mg/L		02/11/13 14:15	02/16/13 22:17	50
Fluoranthene	0.167		0.0238	0.00333	mg/L		02/11/13 14:15	02/16/13 22:17	50
Pyrene	0.101		0.0238	0.00524	mg/L		02/11/13 14:15	02/16/13 22:17	50
Benzo[a]anthracene	0.0228	J	0.0238	0.00381	mg/L		02/11/13 14:15	02/16/13 22:17	50
Bis(2-ethylhexyl) phthalate	0.0176	U	0.0238	0.0176	mg/L		02/11/13 14:15	02/16/13 22:17	50
Chrysene	0.0207	J	0.0238	0.00381	mg/L		02/11/13 14:15	02/16/13 22:17	50
Benzo[a]pyrene	0.00381	U	0.0238	0.00381	mg/L		02/11/13 14:15	02/16/13 22:17	50
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Phenol-d6	0	X	10 - 94				02/11/13 14:15	02/16/13 22:17	50
2,4,6-Tribromophenol	0	X	10 - 123				02/11/13 14:15	02/16/13 22:17	50
2-Fluorobiphenyl	0	X	43 - 116				02/11/13 14:15	02/16/13 22:17	50
2-Fluorophenol	0	X	10 - 100				02/11/13 14:15	02/16/13 22:17	50
Nitrobenzene-d5	0	X	35 - 114				02/11/13 14:15	02/16/13 22:17	50
Terphenyl-d14	0	X	33 - 141				02/11/13 14:15	02/16/13 22:17	50

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels - DL

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-Dimethylphenol	1.09		0.238	0.148	mg/L		02/11/13 14:15	02/19/13 02:34	500
Naphthalene	1.58	J b	2.38	0.0381	mg/L		02/11/13 14:15	02/19/13 02:34	500
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Phenol-d6	0	X	10 - 94				02/11/13 14:15	02/19/13 02:34	500
2,4,6-Tribromophenol	0	X	10 - 123				02/11/13 14:15	02/19/13 02:34	500
2-Fluorobiphenyl	0	X	43 - 116				02/11/13 14:15	02/19/13 02:34	500
2-Fluorophenol	0	X	10 - 100				02/11/13 14:15	02/19/13 02:34	500
Nitrobenzene-d5	0	X	35 - 114				02/11/13 14:15	02/19/13 02:34	500
Terphenyl-d14	0	X	33 - 141				02/11/13 14:15	02/19/13 02:34	500

Client Sample ID: WG-1620-MW49A-20130207

Lab Sample ID: 600-68350-11

Date Collected: 02/07/13 17:05

Matrix: Water

Date Received: 02/08/13 12:38

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	0.000110	U	0.00200	0.000110	mg/L			02/13/13 20:10	1
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			02/13/13 20:10	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			02/13/13 20:10	1
Toluene	0.0343		0.00100	0.000150	mg/L			02/13/13 20:10	1
Ethylbenzene	0.0321		0.00100	0.000110	mg/L			02/13/13 20:10	1
Xylenes, Total	0.0777		0.00300	0.000260	mg/L			02/13/13 20:10	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	98		67 - 139					02/13/13 20:10	1
Dibromofluoromethane	76		62 - 130					02/13/13 20:10	1
Toluene-d8 (Surr)	74		70 - 130					02/13/13 20:10	1
1,2-Dichloroethane-d4 (Surr)	84		50 - 134					02/13/13 20:10	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68350-1

Client Sample ID: WG-1620-MW49A-20130207

Lab Sample ID: 600-68350-11

Date Collected: 02/07/13 17:05

Matrix: Water

Date Received: 02/08/13 12:38

Method: 8260B - Volatile Organic Compounds (GC/MS) - DL

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.114		0.00500	0.000400	mg/L			02/13/13 20:38	5
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	103		67 - 139				02/13/13 20:38	02/13/13 20:38	5
Dibromofluoromethane	74		62 - 130				02/13/13 20:38	02/13/13 20:38	5
Toluene-d8 (Surr)	79		70 - 130				02/13/13 20:38	02/13/13 20:38	5
1,2-Dichloroethane-d4 (Surr)	83		50 - 134				02/13/13 20:38	02/13/13 20:38	5

Method: 8260B - Volatile Organic Compounds (GC/MS) - DL2

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Chlorobenzene	0.299		0.0200	0.00240	mg/L			02/14/13 17:34	20
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	102		67 - 139				02/14/13 17:34	02/14/13 17:34	20
Dibromofluoromethane	74		62 - 130				02/14/13 17:34	02/14/13 17:34	20
Toluene-d8 (Surr)	83		70 - 130				02/14/13 17:34	02/14/13 17:34	20
1,2-Dichloroethane-d4 (Surr)	78		50 - 134				02/14/13 17:34	02/14/13 17:34	20

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.00190	U	0.0238	0.00190	mg/L		02/11/13 14:15	02/16/13 22:44	50
Nitrobenzene	0.00524	U	0.0238	0.00524	mg/L		02/11/13 14:15	02/16/13 22:44	50
Bis(2-chloroethoxy)methane	0.00619	U	0.0238	0.00619	mg/L		02/11/13 14:15	02/16/13 22:44	50
2-Methylnaphthalene	0.218		0.0238	0.00333	mg/L		02/11/13 14:15	02/16/13 22:44	50
2-Chloronaphthalene	0.00381	U	0.0238	0.00381	mg/L		02/11/13 14:15	02/16/13 22:44	50
Acenaphthylene	0.00286	U	0.0238	0.00286	mg/L		02/11/13 14:15	02/16/13 22:44	50
2,6-Dinitrotoluene	0.00381	U	0.0238	0.00381	mg/L		02/11/13 14:15	02/16/13 22:44	50
Acenaphthene	0.134		0.0238	0.00381	mg/L		02/11/13 14:15	02/16/13 22:44	50
4-Nitrophenol	0.0267	U	0.0476	0.0267	mg/L		02/11/13 14:15	02/16/13 22:44	50
Dibenzofuran	0.0851		0.0238	0.00381	mg/L		02/11/13 14:15	02/16/13 22:44	50
2,4-Dinitrotoluene	0.00619	U	0.0238	0.00619	mg/L		02/11/13 14:15	02/16/13 22:44	50
Fluorene	0.0717		0.0238	0.00333	mg/L		02/11/13 14:15	02/16/13 22:44	50
4,6-Dinitro-2-methylphenol	0.0395	U	0.0476	0.0395	mg/L		02/11/13 14:15	02/16/13 22:44	50
N-Nitrosodiphenylamine	0.00476	U	0.0238	0.00476	mg/L		02/11/13 14:15	02/16/13 22:44	50
1,2-Diphenylhydrazine	0.00524	U	0.0238	0.00524	mg/L		02/11/13 14:15	02/16/13 22:44	50
Pentachlorophenol	0.0290	U	0.0476	0.0290	mg/L		02/11/13 14:15	02/16/13 22:44	50
Phenanthrene	0.0455		0.0238	0.00286	mg/L		02/11/13 14:15	02/16/13 22:44	50
Anthracene	0.00824	J	0.0238	0.00238	mg/L		02/11/13 14:15	02/16/13 22:44	50
Di-n-butyl phthalate	0.00524	U	0.0238	0.00524	mg/L		02/11/13 14:15	02/16/13 22:44	50
Fluoranthene	0.00333	U	0.0238	0.00333	mg/L		02/11/13 14:15	02/16/13 22:44	50
Pyrene	0.00524	U	0.0238	0.00524	mg/L		02/11/13 14:15	02/16/13 22:44	50
Benzo[a]anthracene	0.00381	U	0.0238	0.00381	mg/L		02/11/13 14:15	02/16/13 22:44	50
Bis(2-ethylhexyl) phthalate	0.0176	U	0.0238	0.0176	mg/L		02/11/13 14:15	02/16/13 22:44	50
Chrysene	0.00381	U	0.0238	0.00381	mg/L		02/11/13 14:15	02/16/13 22:44	50
Benzo[a]pyrene	0.00381	U	0.0238	0.00381	mg/L		02/11/13 14:15	02/16/13 22:44	50
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Phenol-d6	0	X	10 - 94				02/11/13 14:15	02/16/13 22:44	50
2,4,6-Tribromophenol	0	X	10 - 123				02/11/13 14:15	02/16/13 22:44	50
2-Fluorobiphenyl	0	X	43 - 116				02/11/13 14:15	02/16/13 22:44	50
2-Fluorophenol	0	X	10 - 100				02/11/13 14:15	02/16/13 22:44	50

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68350-1

Client Sample ID: WG-1620-MW49A-20130207

Lab Sample ID: 600-68350-11

Date Collected: 02/07/13 17:05

Matrix: Water

Date Received: 02/08/13 12:38

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5	0	X	35 - 114	02/11/13 14:15	02/16/13 22:44	50
Terphenyl-d14	0	X	33 - 141	02/11/13 14:15	02/16/13 22:44	50

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels - DL

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-Dimethylphenol	1.42		0.238	0.148	mg/L		02/11/13 14:15	02/19/13 03:02	500
Naphthalene	2.88	b	2.38	0.0381	mg/L		02/11/13 14:15	02/19/13 03:02	500

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Phenol-d6	0	X	10 - 94	02/11/13 14:15	02/19/13 03:02	500
2,4,6-Tribromophenol	0	X	10 - 123	02/11/13 14:15	02/19/13 03:02	500
2-Fluorobiphenyl	0	X	43 - 116	02/11/13 14:15	02/19/13 03:02	500
2-Fluorophenol	0	X	10 - 100	02/11/13 14:15	02/19/13 03:02	500
Nitrobenzene-d5	0	X	35 - 114	02/11/13 14:15	02/19/13 03:02	500
Terphenyl-d14	0	X	33 - 141	02/11/13 14:15	02/19/13 03:02	500

Client Sample ID: WG-1620-MW47C-20130207

Lab Sample ID: 600-68350-12

Date Collected: 02/07/13 18:00

Matrix: Water

Date Received: 02/08/13 12:38

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			02/11/13 16:53	1
Benzene	0.0000800	U	0.00100	0.0000800	mg/L			02/11/13 16:53	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			02/11/13 16:53	1
Toluene	0.000150	U	0.00100	0.000150	mg/L			02/11/13 16:53	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			02/11/13 16:53	1
Ethylbenzene	0.000110	U	0.00100	0.000110	mg/L			02/11/13 16:53	1
Xylenes, Total	0.000260	U	0.00300	0.000260	mg/L			02/11/13 16:53	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	86		67 - 139		02/11/13 16:53	1
Dibromofluoromethane	109		62 - 130		02/11/13 16:53	1
Toluene-d8 (Surr)	101		70 - 130		02/11/13 16:53	1
1,2-Dichloroethane-d4 (Surr)	93		50 - 134		02/11/13 16:53	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.0000381	U	0.000476	0.0000381	mg/L		02/11/13 14:15	02/16/13 23:10	1
Nitrobenzene	0.000105	U	0.000476	0.000105	mg/L		02/11/13 14:15	02/16/13 23:10	1
2,4-Dimethylphenol	0.000295	U	0.000476	0.000295	mg/L		02/11/13 14:15	02/16/13 23:10	1
Bis(2-chloroethoxy)methane	0.000124	U	0.000476	0.000124	mg/L		02/11/13 14:15	02/16/13 23:10	1
Naphthalene	0.000401	J b	0.00476	0.0000762	mg/L		02/11/13 14:15	02/16/13 23:10	1
2-Methylnaphthalene	0.0000980	J	0.000476	0.0000667	mg/L		02/11/13 14:15	02/16/13 23:10	1
2-Chloronaphthalene	0.0000762	U	0.000476	0.0000762	mg/L		02/11/13 14:15	02/16/13 23:10	1
Acenaphthylene	0.0000571	U	0.000476	0.0000571	mg/L		02/11/13 14:15	02/16/13 23:10	1
2,6-Dinitrotoluene	0.0000762	U	0.000476	0.0000762	mg/L		02/11/13 14:15	02/16/13 23:10	1
Acenaphthene	0.0000762	U	0.000476	0.0000762	mg/L		02/11/13 14:15	02/16/13 23:10	1
4-Nitrophenol	0.000533	U	0.000952	0.000533	mg/L		02/11/13 14:15	02/16/13 23:10	1
Dibenzofuran	0.000104	J	0.000476	0.0000762	mg/L		02/11/13 14:15	02/16/13 23:10	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68350-1

Client Sample ID: WG-1620-MW47C-20130207

Lab Sample ID: 600-68350-12

Date Collected: 02/07/13 18:00

Matrix: Water

Date Received: 02/08/13 12:38

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-Dinitrotoluene	0.000124	U	0.000476	0.000124	mg/L		02/11/13 14:15	02/16/13 23:10	1
Fluorene	0.000116	J	0.000476	0.0000667	mg/L		02/11/13 14:15	02/16/13 23:10	1
4,6-Dinitro-2-methylphenol	0.000790	U	0.000952	0.000790	mg/L		02/11/13 14:15	02/16/13 23:10	1
N-Nitrosodiphenylamine	0.0000952	U	0.000476	0.0000952	mg/L		02/11/13 14:15	02/16/13 23:10	1
1,2-Diphenylhydrazine	0.000105	U	0.000476	0.000105	mg/L		02/11/13 14:15	02/16/13 23:10	1
Pentachlorophenol	0.000581	U	0.000952	0.000581	mg/L		02/11/13 14:15	02/16/13 23:10	1
Phenanthrene	0.000406	J	0.000476	0.0000571	mg/L		02/11/13 14:15	02/16/13 23:10	1
Anthracene	0.000107	J	0.000476	0.0000476	mg/L		02/11/13 14:15	02/16/13 23:10	1
Di-n-butyl phthalate	0.000105	U	0.000476	0.000105	mg/L		02/11/13 14:15	02/16/13 23:10	1
Fluoranthene	0.000289	J	0.000476	0.0000667	mg/L		02/11/13 14:15	02/16/13 23:10	1
Pyrene	0.000388	J	0.000476	0.000105	mg/L		02/11/13 14:15	02/16/13 23:10	1
Benzo[a]anthracene	0.000137	J	0.000476	0.0000762	mg/L		02/11/13 14:15	02/16/13 23:10	1
Bis(2-ethylhexyl) phthalate	0.000594		0.000476	0.000352	mg/L		02/11/13 14:15	02/16/13 23:10	1
Chrysene	0.000127	J	0.000476	0.0000762	mg/L		02/11/13 14:15	02/16/13 23:10	1
Benzo[a]pyrene	0.000306	J	0.000476	0.0000762	mg/L		02/11/13 14:15	02/16/13 23:10	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Phenol-d6	8	X	10 - 94				02/11/13 14:15	02/16/13 23:10	1
2,4,6-Tribromophenol	72		10 - 123				02/11/13 14:15	02/16/13 23:10	1
2-Fluorobiphenyl	83		43 - 116				02/11/13 14:15	02/16/13 23:10	1
2-Fluorophenol	15		10 - 100				02/11/13 14:15	02/16/13 23:10	1
Nitrobenzene-d5	64		35 - 114				02/11/13 14:15	02/16/13 23:10	1
Terphenyl-d14	71		33 - 141				02/11/13 14:15	02/16/13 23:10	1

Client Sample ID: WG-1620-FB6-20130207

Lab Sample ID: 600-68350-13

Date Collected: 02/07/13 18:15

Matrix: Water

Date Received: 02/08/13 12:38

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			02/11/13 12:48	1
Benzene	0.0000800	U	0.00100	0.0000800	mg/L			02/11/13 12:48	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			02/11/13 12:48	1
Toluene	0.000150	U	0.00100	0.000150	mg/L			02/11/13 12:48	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			02/11/13 12:48	1
Ethylbenzene	0.000110	U	0.00100	0.000110	mg/L			02/11/13 12:48	1
Xylenes, Total	0.000260	U	0.00300	0.000260	mg/L			02/11/13 12:48	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	88		67 - 139					02/11/13 12:48	1
Dibromofluoromethane	105		62 - 130					02/11/13 12:48	1
Toluene-d8 (Surr)	97		70 - 130					02/11/13 12:48	1
1,2-Dichloroethane-d4 (Surr)	94		50 - 134					02/11/13 12:48	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.000190	U	0.00238	0.000190	mg/L		02/11/13 14:15	02/19/13 03:29	5
Nitrobenzene	0.000524	U	0.00238	0.000524	mg/L		02/11/13 14:15	02/19/13 03:29	5
2,4-Dimethylphenol	0.00148	U	0.00238	0.00148	mg/L		02/11/13 14:15	02/19/13 03:29	5
Bis(2-chloroethoxy)methane	0.000619	U	0.00238	0.000619	mg/L		02/11/13 14:15	02/19/13 03:29	5

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68350-1

Client Sample ID: WG-1620-FB6-20130207

Lab Sample ID: 600-68350-13

Date Collected: 02/07/13 18:15

Matrix: Water

Date Received: 02/08/13 12:38

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	0.000381	U	0.0238	0.000381	mg/L		02/11/13 14:15	02/19/13 03:29	5
2-Methylnaphthalene	0.000333	U	0.00238	0.000333	mg/L		02/11/13 14:15	02/19/13 03:29	5
2-Chloronaphthalene	0.000381	U	0.00238	0.000381	mg/L		02/11/13 14:15	02/19/13 03:29	5
Acenaphthylene	0.000286	U	0.00238	0.000286	mg/L		02/11/13 14:15	02/19/13 03:29	5
2,6-Dinitrotoluene	0.000381	U	0.00238	0.000381	mg/L		02/11/13 14:15	02/19/13 03:29	5
Acenaphthene	0.000381	U	0.00238	0.000381	mg/L		02/11/13 14:15	02/19/13 03:29	5
4-Nitrophenol	0.00267	U	0.00476	0.00267	mg/L		02/11/13 14:15	02/19/13 03:29	5
Dibenzofuran	0.000381	U	0.00238	0.000381	mg/L		02/11/13 14:15	02/19/13 03:29	5
2,4-Dinitrotoluene	0.000619	U	0.00238	0.000619	mg/L		02/11/13 14:15	02/19/13 03:29	5
Fluorene	0.000333	U	0.00238	0.000333	mg/L		02/11/13 14:15	02/19/13 03:29	5
4,6-Dinitro-2-methylphenol	0.00395	U	0.00476	0.00395	mg/L		02/11/13 14:15	02/19/13 03:29	5
N-Nitrosodiphenylamine	0.000476	U	0.00238	0.000476	mg/L		02/11/13 14:15	02/19/13 03:29	5
1,2-Diphenylhydrazine	0.000524	U	0.00238	0.000524	mg/L		02/11/13 14:15	02/19/13 03:29	5
Pentachlorophenol	0.00290	U	0.00476	0.00290	mg/L		02/11/13 14:15	02/19/13 03:29	5
Phenanthrene	0.000286	U	0.00238	0.000286	mg/L		02/11/13 14:15	02/19/13 03:29	5
Anthracene	0.000238	U	0.00238	0.000238	mg/L		02/11/13 14:15	02/19/13 03:29	5
Di-n-butyl phthalate	0.000524	U	0.00238	0.000524	mg/L		02/11/13 14:15	02/19/13 03:29	5
Fluoranthene	0.000333	U	0.00238	0.000333	mg/L		02/11/13 14:15	02/19/13 03:29	5
Pyrene	0.000524	U	0.00238	0.000524	mg/L		02/11/13 14:15	02/19/13 03:29	5
Benzo[a]anthracene	0.000381	U	0.00238	0.000381	mg/L		02/11/13 14:15	02/19/13 03:29	5
Bis(2-ethylhexyl) phthalate	0.00176	U	0.00238	0.00176	mg/L		02/11/13 14:15	02/19/13 03:29	5
Chrysene	0.000381	U	0.00238	0.000381	mg/L		02/11/13 14:15	02/19/13 03:29	5
Benzo[a]pyrene	0.000381	U	0.00238	0.000381	mg/L		02/11/13 14:15	02/19/13 03:29	5
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Phenol-d6	6	X	10 - 94				02/11/13 14:15	02/19/13 03:29	5
2,4,6-Tribromophenol	25		10 - 123				02/11/13 14:15	02/19/13 03:29	5
2-Fluorobiphenyl	46		43 - 116				02/11/13 14:15	02/19/13 03:29	5
2-Fluorophenol	13		10 - 100				02/11/13 14:15	02/19/13 03:29	5
Nitrobenzene-d5	46		35 - 114				02/11/13 14:15	02/19/13 03:29	5
Terphenyl-d14	53		33 - 141				02/11/13 14:15	02/19/13 03:29	5

Client Sample ID: WG-1620-MW69A-20130208

Lab Sample ID: 600-68350-14

Date Collected: 02/07/13 08:20

Matrix: Water

Date Received: 02/08/13 12:38

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	0.000110	U	0.00200	0.000110	mg/L			02/11/13 17:20	1
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			02/11/13 17:20	1
Benzene	0.0000800	U	0.00100	0.0000800	mg/L			02/11/13 17:20	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			02/11/13 17:20	1
Toluene	0.000150	U	0.00100	0.000150	mg/L			02/11/13 17:20	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			02/11/13 17:20	1
Ethylbenzene	0.000110	U	0.00100	0.000110	mg/L			02/11/13 17:20	1
Xylenes, Total	0.000260	U	0.00300	0.000260	mg/L			02/11/13 17:20	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	87		67 - 139					02/11/13 17:20	1
Dibromofluoromethane	107		62 - 130					02/11/13 17:20	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68350-1

Client Sample ID: WG-1620-MW69A-20130208

Lab Sample ID: 600-68350-14

Date Collected: 02/07/13 08:20

Matrix: Water

Date Received: 02/08/13 12:38

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	95		70 - 130		02/11/13 17:20	1
1,2-Dichloroethane-d4 (Surr)	96		50 - 134		02/11/13 17:20	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.000381	U	0.000476	0.000381	mg/L		02/11/13 14:15	02/19/13 03:56	1
Nitrobenzene	0.000105	U	0.000476	0.000105	mg/L		02/11/13 14:15	02/19/13 03:56	1
2,4-Dimethylphenol	0.000295	U	0.000476	0.000295	mg/L		02/11/13 14:15	02/19/13 03:56	1
Bis(2-chloroethoxy)methane	0.000124	U	0.000476	0.000124	mg/L		02/11/13 14:15	02/19/13 03:56	1
Naphthalene	0.000142	J b	0.00476	0.0000762	mg/L		02/11/13 14:15	02/19/13 03:56	1
2-Methylnaphthalene	0.0000667	U	0.000476	0.0000667	mg/L		02/11/13 14:15	02/19/13 03:56	1
2-Chloronaphthalene	0.0000762	U	0.000476	0.0000762	mg/L		02/11/13 14:15	02/19/13 03:56	1
Acenaphthylene	0.0000571	U	0.000476	0.0000571	mg/L		02/11/13 14:15	02/19/13 03:56	1
2,6-Dinitrotoluene	0.0000762	U	0.000476	0.0000762	mg/L		02/11/13 14:15	02/19/13 03:56	1
Acenaphthene	0.0000762	U	0.000476	0.0000762	mg/L		02/11/13 14:15	02/19/13 03:56	1
4-Nitrophenol	0.000533	U	0.000952	0.000533	mg/L		02/11/13 14:15	02/19/13 03:56	1
Dibenzofuran	0.0000762	U	0.000476	0.0000762	mg/L		02/11/13 14:15	02/19/13 03:56	1
2,4-Dinitrotoluene	0.000124	U	0.000476	0.000124	mg/L		02/11/13 14:15	02/19/13 03:56	1
Fluorene	0.0000667	U	0.000476	0.0000667	mg/L		02/11/13 14:15	02/19/13 03:56	1
4,6-Dinitro-2-methylphenol	0.000790	U	0.000952	0.000790	mg/L		02/11/13 14:15	02/19/13 03:56	1
N-Nitrosodiphenylamine	0.0000952	U	0.000476	0.0000952	mg/L		02/11/13 14:15	02/19/13 03:56	1
1,2-Diphenylhydrazine	0.000105	U	0.000476	0.000105	mg/L		02/11/13 14:15	02/19/13 03:56	1
Pentachlorophenol	0.000581	U	0.000952	0.000581	mg/L		02/11/13 14:15	02/19/13 03:56	1
Phenanthrene	0.0000571	U	0.000476	0.0000571	mg/L		02/11/13 14:15	02/19/13 03:56	1
Anthracene	0.0000476	U	0.000476	0.0000476	mg/L		02/11/13 14:15	02/19/13 03:56	1
Di-n-butyl phthalate	0.000105	U	0.000476	0.000105	mg/L		02/11/13 14:15	02/19/13 03:56	1
Fluoranthene	0.0000667	U	0.000476	0.0000667	mg/L		02/11/13 14:15	02/19/13 03:56	1
Pyrene	0.000105	U	0.000476	0.000105	mg/L		02/11/13 14:15	02/19/13 03:56	1
Benzo[a]anthracene	0.0000762	U	0.000476	0.0000762	mg/L		02/11/13 14:15	02/19/13 03:56	1
Bis(2-ethylhexyl) phthalate	0.000352	U	0.000476	0.000352	mg/L		02/11/13 14:15	02/19/13 03:56	1
Chrysene	0.0000762	U	0.000476	0.0000762	mg/L		02/11/13 14:15	02/19/13 03:56	1
Benzo[a]pyrene	0.0000762	U	0.000476	0.0000762	mg/L		02/11/13 14:15	02/19/13 03:56	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Phenol-d6	5	X	10 - 94	02/11/13 14:15	02/19/13 03:56	1
2,4,6-Tribromophenol	48		10 - 123	02/11/13 14:15	02/19/13 03:56	1
2-Fluorobiphenyl	50		43 - 116	02/11/13 14:15	02/19/13 03:56	1
2-Fluorophenol	13		10 - 100	02/11/13 14:15	02/19/13 03:56	1
Nitrobenzene-d5	47		35 - 114	02/11/13 14:15	02/19/13 03:56	1
Terphenyl-d14	65		33 - 141	02/11/13 14:15	02/19/13 03:56	1

Client Sample ID: WG-1620-MW38A-20130208

Lab Sample ID: 600-68350-15

Date Collected: 02/07/13 09:30

Matrix: Water

Date Received: 02/08/13 12:38

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			02/11/13 18:15	1
Benzene	0.0000800	U	0.00100	0.0000800	mg/L			02/11/13 18:15	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			02/11/13 18:15	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68350-1

Client Sample ID: WG-1620-MW38A-20130208

Lab Sample ID: 600-68350-15

Date Collected: 02/07/13 09:30

Matrix: Water

Date Received: 02/08/13 12:38

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Toluene	0.000150	U	0.00100	0.000150	mg/L			02/11/13 18:15	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			02/11/13 18:15	1
Ethylbenzene	0.000110	U	0.00100	0.000110	mg/L			02/11/13 18:15	1
Xylenes, Total	0.000260	U	0.00300	0.000260	mg/L			02/11/13 18:15	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	85		67 - 139					02/11/13 18:15	1
Dibromofluoromethane	108		62 - 130					02/11/13 18:15	1
Toluene-d8 (Surr)	93		70 - 130					02/11/13 18:15	1
1,2-Dichloroethane-d4 (Surr)	98		50 - 134					02/11/13 18:15	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.0000381	U	0.000476	0.0000381	mg/L		02/11/13 14:15	02/19/13 04:23	1
Nitrobenzene	0.000105	U	0.000476	0.000105	mg/L		02/11/13 14:15	02/19/13 04:23	1
2,4-Dimethylphenol	0.000295	U	0.000476	0.000295	mg/L		02/11/13 14:15	02/19/13 04:23	1
Bis(2-chloroethoxy)methane	0.000124	U	0.000476	0.000124	mg/L		02/11/13 14:15	02/19/13 04:23	1
Naphthalene	0.0000762	U	0.000476	0.0000762	mg/L		02/11/13 14:15	02/19/13 04:23	1
2-Methylnaphthalene	0.0000667	U	0.000476	0.0000667	mg/L		02/11/13 14:15	02/19/13 04:23	1
2-Chloronaphthalene	0.0000762	U	0.000476	0.0000762	mg/L		02/11/13 14:15	02/19/13 04:23	1
Acenaphthylene	0.0000571	U	0.000476	0.0000571	mg/L		02/11/13 14:15	02/19/13 04:23	1
2,6-Dinitrotoluene	0.0000762	U	0.000476	0.0000762	mg/L		02/11/13 14:15	02/19/13 04:23	1
Acenaphthene	0.0000762	U	0.000476	0.0000762	mg/L		02/11/13 14:15	02/19/13 04:23	1
4-Nitrophenol	0.000533	U	0.000952	0.000533	mg/L		02/11/13 14:15	02/19/13 04:23	1
Dibenzofuran	0.0000762	U	0.000476	0.0000762	mg/L		02/11/13 14:15	02/19/13 04:23	1
2,4-Dinitrotoluene	0.000124	U	0.000476	0.000124	mg/L		02/11/13 14:15	02/19/13 04:23	1
Fluorene	0.0000667	U	0.000476	0.0000667	mg/L		02/11/13 14:15	02/19/13 04:23	1
4,6-Dinitro-2-methylphenol	0.000790	U	0.000952	0.000790	mg/L		02/11/13 14:15	02/19/13 04:23	1
N-Nitrosodiphenylamine	0.0000952	U	0.000476	0.0000952	mg/L		02/11/13 14:15	02/19/13 04:23	1
1,2-Diphenylhydrazine	0.000105	U	0.000476	0.000105	mg/L		02/11/13 14:15	02/19/13 04:23	1
Pentachlorophenol	0.000581	U	0.000952	0.000581	mg/L		02/11/13 14:15	02/19/13 04:23	1
Phenanthrene	0.0000571	U	0.000476	0.0000571	mg/L		02/11/13 14:15	02/19/13 04:23	1
Anthracene	0.0000712	J	0.000476	0.0000476	mg/L		02/11/13 14:15	02/19/13 04:23	1
Di-n-butyl phthalate	0.000105	U	0.000476	0.000105	mg/L		02/11/13 14:15	02/19/13 04:23	1
Fluoranthene	0.0000667	U	0.000476	0.0000667	mg/L		02/11/13 14:15	02/19/13 04:23	1
Pyrene	0.000105	U	0.000476	0.000105	mg/L		02/11/13 14:15	02/19/13 04:23	1
Benzo[a]anthracene	0.0000762	U	0.000476	0.0000762	mg/L		02/11/13 14:15	02/19/13 04:23	1
Bis(2-ethylhexyl) phthalate	0.000352	U	0.000476	0.000352	mg/L		02/11/13 14:15	02/19/13 04:23	1
Chrysene	0.0000762	U	0.000476	0.0000762	mg/L		02/11/13 14:15	02/19/13 04:23	1
Benzo[a]pyrene	0.0000762	U	0.000476	0.0000762	mg/L		02/11/13 14:15	02/19/13 04:23	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Phenol-d6	6	X	10 - 94				02/11/13 14:15	02/19/13 04:23	1
2,4,6-Tribromophenol	33		10 - 123				02/11/13 14:15	02/19/13 04:23	1
2-Fluorobiphenyl	44		43 - 116				02/11/13 14:15	02/19/13 04:23	1
2-Fluorophenol	11		10 - 100				02/11/13 14:15	02/19/13 04:23	1
Nitrobenzene-d5	48		35 - 114				02/11/13 14:15	02/19/13 04:23	1
Terphenyl-d14	61		33 - 141				02/11/13 14:15	02/19/13 04:23	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68350-1

Client Sample ID: WG-1620-MW38B-20130208

Lab Sample ID: 600-68350-16

Date Collected: 02/07/13 10:30

Matrix: Water

Date Received: 02/08/13 12:38

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			02/11/13 18:42	1
Benzene	0.0000800	U	0.00100	0.0000800	mg/L			02/11/13 18:42	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			02/11/13 18:42	1
Toluene	0.000150	U	0.00100	0.000150	mg/L			02/11/13 18:42	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			02/11/13 18:42	1
Ethylbenzene	0.000110	U	0.00100	0.000110	mg/L			02/11/13 18:42	1
Xylenes, Total	0.000260	U	0.00300	0.000260	mg/L			02/11/13 18:42	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	83		67 - 139		02/11/13 18:42	1
Dibromofluoromethane	109		62 - 130		02/11/13 18:42	1
Toluene-d8 (Surr)	98		70 - 130		02/11/13 18:42	1
1,2-Dichloroethane-d4 (Surr)	101		50 - 134		02/11/13 18:42	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.0000381	U	0.000476	0.0000381	mg/L		02/11/13 14:15	02/19/13 04:50	1
Nitrobenzene	0.000105	U	0.000476	0.000105	mg/L		02/11/13 14:15	02/19/13 04:50	1
2,4-Dimethylphenol	0.000295	U	0.000476	0.000295	mg/L		02/11/13 14:15	02/19/13 04:50	1
Bis(2-chloroethoxy)methane	0.000124	U	0.000476	0.000124	mg/L		02/11/13 14:15	02/19/13 04:50	1
Naphthalene	0.0000762	U	0.00476	0.0000762	mg/L		02/11/13 14:15	02/19/13 04:50	1
2-Methylnaphthalene	0.0000667	U	0.000476	0.0000667	mg/L		02/11/13 14:15	02/19/13 04:50	1
2-Chloronaphthalene	0.0000762	U	0.000476	0.0000762	mg/L		02/11/13 14:15	02/19/13 04:50	1
Acenaphthylene	0.0000571	U	0.000476	0.0000571	mg/L		02/11/13 14:15	02/19/13 04:50	1
2,6-Dinitrotoluene	0.0000762	U	0.000476	0.0000762	mg/L		02/11/13 14:15	02/19/13 04:50	1
Acenaphthene	0.000226	J	0.000476	0.0000762	mg/L		02/11/13 14:15	02/19/13 04:50	1
4-Nitrophenol	0.000533	U	0.000952	0.000533	mg/L		02/11/13 14:15	02/19/13 04:50	1
Dibenzofuran	0.0000762	U	0.000476	0.0000762	mg/L		02/11/13 14:15	02/19/13 04:50	1
2,4-Dinitrotoluene	0.000124	U	0.000476	0.000124	mg/L		02/11/13 14:15	02/19/13 04:50	1
Fluorene	0.0000667	U	0.000476	0.0000667	mg/L		02/11/13 14:15	02/19/13 04:50	1
4,6-Dinitro-2-methylphenol	0.000790	U	0.000952	0.000790	mg/L		02/11/13 14:15	02/19/13 04:50	1
N-Nitrosodiphenylamine	0.0000952	U	0.000476	0.0000952	mg/L		02/11/13 14:15	02/19/13 04:50	1
1,2-Diphenylhydrazine	0.000105	U	0.000476	0.000105	mg/L		02/11/13 14:15	02/19/13 04:50	1
Pentachlorophenol	0.000581	U	0.000952	0.000581	mg/L		02/11/13 14:15	02/19/13 04:50	1
Phenanthrene	0.0000571	U	0.000476	0.0000571	mg/L		02/11/13 14:15	02/19/13 04:50	1
Anthracene	0.000313	J	0.000476	0.0000476	mg/L		02/11/13 14:15	02/19/13 04:50	1
Di-n-butyl phthalate	0.000105	U	0.000476	0.000105	mg/L		02/11/13 14:15	02/19/13 04:50	1
Fluoranthene	0.0000667	U	0.000476	0.0000667	mg/L		02/11/13 14:15	02/19/13 04:50	1
Pyrene	0.000105	U	0.000476	0.000105	mg/L		02/11/13 14:15	02/19/13 04:50	1
Benzo[a]anthracene	0.0000762	U	0.000476	0.0000762	mg/L		02/11/13 14:15	02/19/13 04:50	1
Bis(2-ethylhexyl) phthalate	0.000352	U	0.000476	0.000352	mg/L		02/11/13 14:15	02/19/13 04:50	1
Chrysene	0.0000762	U	0.000476	0.0000762	mg/L		02/11/13 14:15	02/19/13 04:50	1
Benzo[a]pyrene	0.0000762	U	0.000476	0.0000762	mg/L		02/11/13 14:15	02/19/13 04:50	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Phenol-d6	5	X	10 - 94	02/11/13 14:15	02/19/13 04:50	1
2,4,6-Tribromophenol	45		10 - 123	02/11/13 14:15	02/19/13 04:50	1
2-Fluorobiphenyl	49		43 - 116	02/11/13 14:15	02/19/13 04:50	1
2-Fluorophenol	11		10 - 100	02/11/13 14:15	02/19/13 04:50	1
Nitrobenzene-d5	52		35 - 114	02/11/13 14:15	02/19/13 04:50	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68350-1

Client Sample ID: WG-1620-MW38B-20130208

Lab Sample ID: 600-68350-16

Date Collected: 02/07/13 10:30

Matrix: Water

Date Received: 02/08/13 12:38

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Terphenyl-d14	61		33 - 141	02/11/13 14:15	02/19/13 04:50	1

Client Sample ID: WG-1620-FB7-20130208

Lab Sample ID: 600-68350-17

Date Collected: 02/07/13 11:00

Matrix: Water

Date Received: 02/08/13 12:38

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			02/11/13 13:15	1
Benzene	0.0000800	U	0.00100	0.0000800	mg/L			02/11/13 13:15	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			02/11/13 13:15	1
Toluene	0.000150	U	0.00100	0.000150	mg/L			02/11/13 13:15	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			02/11/13 13:15	1
Ethylbenzene	0.000110	U	0.00100	0.000110	mg/L			02/11/13 13:15	1
Xylenes, Total	0.000260	U	0.00300	0.000260	mg/L			02/11/13 13:15	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	85		67 - 139		02/11/13 13:15	1
Dibromofluoromethane	104		62 - 130		02/11/13 13:15	1
Toluene-d8 (Surr)	94		70 - 130		02/11/13 13:15	1
1,2-Dichloroethane-d4 (Surr)	95		50 - 134		02/11/13 13:15	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.0000381	U	0.000476	0.0000381	mg/L		02/11/13 14:15	02/19/13 05:18	1
Nitrobenzene	0.000105	U	0.000476	0.000105	mg/L		02/11/13 14:15	02/19/13 05:18	1
2,4-Dimethylphenol	0.000295	U	0.000476	0.000295	mg/L		02/11/13 14:15	02/19/13 05:18	1
Bis(2-chloroethoxy)methane	0.000124	U	0.000476	0.000124	mg/L		02/11/13 14:15	02/19/13 05:18	1
Naphthalene	0.000254	J b	0.00476	0.0000762	mg/L		02/11/13 14:15	02/19/13 05:18	1
2-Methylnaphthalene	0.0000667	U	0.000476	0.0000667	mg/L		02/11/13 14:15	02/19/13 05:18	1
2-Chloronaphthalene	0.0000762	U	0.000476	0.0000762	mg/L		02/11/13 14:15	02/19/13 05:18	1
Acenaphthylene	0.0000571	U	0.000476	0.0000571	mg/L		02/11/13 14:15	02/19/13 05:18	1
2,6-Dinitrotoluene	0.0000762	U	0.000476	0.0000762	mg/L		02/11/13 14:15	02/19/13 05:18	1
Acenaphthene	0.0000762	U	0.000476	0.0000762	mg/L		02/11/13 14:15	02/19/13 05:18	1
4-Nitrophenol	0.000533	U	0.000952	0.000533	mg/L		02/11/13 14:15	02/19/13 05:18	1
Dibenzofuran	0.0000762	U	0.000476	0.0000762	mg/L		02/11/13 14:15	02/19/13 05:18	1
2,4-Dinitrotoluene	0.000124	U	0.000476	0.000124	mg/L		02/11/13 14:15	02/19/13 05:18	1
Fluorene	0.0000667	U	0.000476	0.0000667	mg/L		02/11/13 14:15	02/19/13 05:18	1
4,6-Dinitro-2-methylphenol	0.000790	U	0.000952	0.000790	mg/L		02/11/13 14:15	02/19/13 05:18	1
N-Nitrosodiphenylamine	0.0000952	U	0.000476	0.0000952	mg/L		02/11/13 14:15	02/19/13 05:18	1
1,2-Diphenylhydrazine	0.000105	U	0.000476	0.000105	mg/L		02/11/13 14:15	02/19/13 05:18	1
Pentachlorophenol	0.000581	U	0.000952	0.000581	mg/L		02/11/13 14:15	02/19/13 05:18	1
Phenanthrene	0.0000571	U	0.000476	0.0000571	mg/L		02/11/13 14:15	02/19/13 05:18	1
Anthracene	0.0000476	U	0.000476	0.0000476	mg/L		02/11/13 14:15	02/19/13 05:18	1
Di-n-butyl phthalate	0.000105	U	0.000476	0.000105	mg/L		02/11/13 14:15	02/19/13 05:18	1
Fluoranthene	0.0000667	U	0.000476	0.0000667	mg/L		02/11/13 14:15	02/19/13 05:18	1
Pyrene	0.000105	U	0.000476	0.000105	mg/L		02/11/13 14:15	02/19/13 05:18	1
Benzo[a]anthracene	0.0000762	U	0.000476	0.0000762	mg/L		02/11/13 14:15	02/19/13 05:18	1
Bis(2-ethylhexyl) phthalate	0.000352	U	0.000476	0.000352	mg/L		02/11/13 14:15	02/19/13 05:18	1
Chrysene	0.0000762	U	0.000476	0.0000762	mg/L		02/11/13 14:15	02/19/13 05:18	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68350-1

Client Sample ID: WG-1620-FB7-20130208

Lab Sample ID: 600-68350-17

Date Collected: 02/07/13 11:00

Matrix: Water

Date Received: 02/08/13 12:38

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]pyrene	0.0000762	U	0.000476	0.0000762	mg/L		02/11/13 14:15	02/19/13 05:18	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Phenol-d6	6	X	10 - 94				02/11/13 14:15	02/19/13 05:18	1
2,4,6-Tribromophenol	52		10 - 123				02/11/13 14:15	02/19/13 05:18	1
2-Fluorobiphenyl	56		43 - 116				02/11/13 14:15	02/19/13 05:18	1
2-Fluorophenol	14		10 - 100				02/11/13 14:15	02/19/13 05:18	1
Nitrobenzene-d5	58		35 - 114				02/11/13 14:15	02/19/13 05:18	1
Terphenyl-d14	65		33 - 141				02/11/13 14:15	02/19/13 05:18	1

Client Sample ID: WG-1620-TB05-20130208

Lab Sample ID: 600-68350-18

Date Collected: 02/07/13 00:00

Matrix: Water

Date Received: 02/08/13 12:38

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			02/11/13 11:53	1
Benzene	0.0000800	U	0.00100	0.0000800	mg/L			02/11/13 11:53	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			02/11/13 11:53	1
Toluene	0.000150	U	0.00100	0.000150	mg/L			02/11/13 11:53	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			02/11/13 11:53	1
Ethylbenzene	0.000110	U	0.00100	0.000110	mg/L			02/11/13 11:53	1
Xylenes, Total	0.000260	U	0.00300	0.000260	mg/L			02/11/13 11:53	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	89		67 - 139					02/11/13 11:53	1
Dibromofluoromethane	108		62 - 130					02/11/13 11:53	1
Toluene-d8 (Surr)	95		70 - 130					02/11/13 11:53	1
1,2-Dichloroethane-d4 (Surr)	99		50 - 134					02/11/13 11:53	1

Definitions/Glossary

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68350-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
U	Analyte was not detected at or above the SDL.
J	Result is less than the MQL but greater than or equal to the SDL and the concentration is an estimated value.

GC/MS Semi VOA

Qualifier	Qualifier Description
U	Analyte was not detected at or above the SDL.
J	Result is less than the MQL but greater than or equal to the SDL and the concentration is an estimated value.
X	Surrogate is outside control limits
b	The compound was found in the blank and sample
N	MS, MSD: Spike recovery exceeds upper or lower control limits.
N	RPD of the MS and MSD exceeds the control limits

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Surrogate Summary

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68350-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		BFB (67-139)	DBFM (62-130)	TOL (70-130)	12DCE (50-134)
600-68350-1	WG-1620-FB5-20130206	82	103	93	98
600-68350-2	WG-1620-MW71B-20130207	83	104	93	93
600-68350-3	WG-1620-MW28A-20130207	88	109	97	97
600-68350-4	WG-1620-MW28C-20130207	87	106	95	90
600-68350-4 MS	WG-1620-MW28C-20130207	87	109	91	101
600-68350-4 MSD	WG-1620-MW28C-20130207	91	114	94	102
600-68350-5	WG-1620-MW63B-20130207	108	78	81	86
600-68350-6	WG-1620-DUP2-20130207	109	81	83	90
600-68350-7	WG-1620-MW70B-20130207	99	73	83	82
600-68350-7 - DL	WG-1620-MW70B-20130207	102	75	85	81
600-68350-8	WG-1620-MW35A-20130207	82	105	95	92
600-68350-9	WG-1620-MW35B-20130207	100	78	80	88
600-68350-10	WG-1620-MW49B-20130207	98	81	80	90
600-68350-10 - DL	WG-1620-MW49B-20130207	100	77	83	87
600-68350-11	WG-1620-MW49A-20130207	98	76	74	84
600-68350-11 - DL	WG-1620-MW49A-20130207	103	74	79	83
600-68350-11 - DL2	WG-1620-MW49A-20130207	102	74	83	78
600-68350-12	WG-1620-MW47C-20130207	86	109	101	93
600-68350-13	WG-1620-FB6-20130207	88	105	97	94
600-68350-14	WG-1620-MW69A-20130208	87	107	95	96
600-68350-15	WG-1620-MW38A-20130208	85	108	93	98
600-68350-16	WG-1620-MW38B-20130208	83	109	98	101
600-68350-17	WG-1620-FB7-20130208	85	104	94	95
600-68350-18	WG-1620-TB05-20130208	89	108	95	99
LCS 600-99302/3	Lab Control Sample	89	114	98	110
LCS 600-99494/3	Lab Control Sample	112	86	82	88
LCS 600-99563/3	Lab Control Sample	103	82	81	84
LCS 600-99606/3	Lab Control Sample	105	83	88	83
MB 600-99302/4	Method Blank	84	102	95	89
MB 600-99494/4	Method Blank	108	79	84	87
MB 600-99563/4	Method Blank	108	75	83	84
MB 600-99606/4	Method Blank	104	76	84	80

Surrogate Legend

- BFB = 4-Bromofluorobenzene
- DBFM = Dibromofluoromethane
- TOL = Toluene-d8 (Surr)
- 12DCE = 1,2-Dichloroethane-d4 (Surr)

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)					
		PHL (10-94)	TBP (10-123)	FBP (43-116)	2FP (10-100)	NBZ (35-114)	TPH (33-141)
600-68350-1	WG-1620-FB5-20130206	23	40	70	33	71	89
600-68350-2	WG-1620-MW71B-20130207	17	85	72	29	63	87
600-68350-3	WG-1620-MW28A-20130207	9 X	40	61	30	56	69
600-68350-4	WG-1620-MW28C-20130207	16	76	67	32	67	87

TestAmerica Houston

Surrogate Summary

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68350-1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)					
		PHL (10-94)	TBP (10-123)	FBP (43-116)	2FP (10-100)	NBZ (35-114)	TPH (33-141)
600-68350-4 MS	WG-1620-MW28C-20130207	9 X	57	61	17	51	73
600-68350-4 MSD	WG-1620-MW28C-20130207	19	86	72	32	72	88
600-68350-5	WG-1620-MW63B-20130207	0 X	0 X	0 X	0 X	0 X	0 X
600-68350-6 - DL	WG-1620-DUP2-20130207	0 X	0 X	0 X	0 X	0 X	0 X
600-68350-6	WG-1620-DUP2-20130207	17	80	75	30	66	83
600-68350-7	WG-1620-MW70B-20130207	0 X	0 X	0 X	0 X	0 X	0 X
600-68350-7 - DL	WG-1620-MW70B-20130207	0 X	0 X	0 X	0 X	0 X	0 X
600-68350-8	WG-1620-MW35A-20130207	10	102	82	22	72	89
600-68350-8 - DL	WG-1620-MW35A-20130207	4 X	31	47	9 X	44	63
600-68350-9	WG-1620-MW35B-20130207	0 X	0 X	0 X	0 X	0 X	0 X
600-68350-10	WG-1620-MW49B-20130207	0 X	0 X	0 X	0 X	0 X	0 X
600-68350-10 - DL	WG-1620-MW49B-20130207	0 X	0 X	0 X	0 X	0 X	0 X
600-68350-11	WG-1620-MW49A-20130207	0 X	0 X	0 X	0 X	0 X	0 X
600-68350-11 - DL	WG-1620-MW49A-20130207	0 X	0 X	0 X	0 X	0 X	0 X
600-68350-12	WG-1620-MW47C-20130207	8 X	72	83	15	64	71
600-68350-13	WG-1620-FB6-20130207	6 X	25	46	13	46	53
600-68350-14	WG-1620-MW69A-20130208	5 X	48	50	13	47	65
600-68350-15	WG-1620-MW38A-20130208	6 X	33	44	11	48	61
600-68350-16	WG-1620-MW38B-20130208	5 X	45	49	11	52	61
600-68350-17	WG-1620-FB7-20130208	6 X	52	56	14	58	65
LCS 600-99298/2-A	Lab Control Sample	28	88	92	51	84	97
LCS 600-99370/2-A	Lab Control Sample	75	68	76	77	72	83
MB 600-99298/1-A	Method Blank	15	40	58	25	50	53
MB 600-99370/1-A	Method Blank	78	61	74	71	76	86

Surrogate Legend

- PHL = Phenol-d6
- TBP = 2,4,6-Tribromophenol
- FBP = 2-Fluorobiphenyl
- 2FP = 2-Fluorophenol
- NBZ = Nitrobenzene-d5
- TPH = Terphenyl-d14

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68350-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 600-99302/4

Matrix: Water

Analysis Batch: 99302

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	0.000110	U	0.00200	0.000110	mg/L			02/11/13 11:26	1
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			02/11/13 11:26	1
Benzene	0.0000800	U	0.00100	0.0000800	mg/L			02/11/13 11:26	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			02/11/13 11:26	1
Toluene	0.000150	U	0.00100	0.000150	mg/L			02/11/13 11:26	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			02/11/13 11:26	1
Ethylbenzene	0.000110	U	0.00100	0.000110	mg/L			02/11/13 11:26	1
Xylenes, Total	0.000260	U	0.00300	0.000260	mg/L			02/11/13 11:26	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	84		67 - 139		02/11/13 11:26	1
Dibromofluoromethane	102		62 - 130		02/11/13 11:26	1
Toluene-d8 (Surr)	95		70 - 130		02/11/13 11:26	1
1,2-Dichloroethane-d4 (Surr)	89		50 - 134		02/11/13 11:26	1

Lab Sample ID: LCS 600-99302/3

Matrix: Water

Analysis Batch: 99302

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Vinyl chloride	0.0100	0.008163		mg/L		82	47 - 146
Methylene Chloride	0.0100	0.007881		mg/L		79	62 - 134
Benzene	0.0100	0.009846		mg/L		98	69 - 131
1,2-Dichloroethane	0.0100	0.01010		mg/L		101	66 - 140
Toluene	0.0100	0.01088		mg/L		109	67 - 130
Chlorobenzene	0.0100	0.01189		mg/L		119	60 - 136
Ethylbenzene	0.0100	0.01061		mg/L		106	68 - 128
Xylenes, Total	0.0300	0.03363		mg/L		112	68 - 132

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene	89		67 - 139
Dibromofluoromethane	114		62 - 130
Toluene-d8 (Surr)	98		70 - 130
1,2-Dichloroethane-d4 (Surr)	110		50 - 134

Lab Sample ID: 600-68350-4 MS

Matrix: Water

Analysis Batch: 99302

Client Sample ID: WG-1620-MW28C-20130207

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Methylene Chloride	0.000150	U	0.0100	0.006463		mg/L		65	60 - 140
Benzene	0.0000800	U	0.0100	0.009646		mg/L		96	65 - 125
1,2-Dichloroethane	0.000140	U	0.0100	0.009381		mg/L		94	60 - 140
Toluene	0.000150	U	0.0100	0.01065		mg/L		106	76 - 125
Chlorobenzene	0.000120	U	0.0100	0.01166		mg/L		117	72 - 122
Ethylbenzene	0.000110	U	0.0100	0.01033		mg/L		103	60 - 140
Xylenes, Total	0.000260	U	0.0300	0.03224		mg/L		107	60 - 140

TestAmerica Houston

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68350-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 600-68350-4 MS

Matrix: Water

Analysis Batch: 99302

Client Sample ID: WG-1620-MW28C-20130207

Prep Type: Total/NA

Surrogate	MS MS		Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene	87		67 - 139
Dibromofluoromethane	109		62 - 130
Toluene-d8 (Surr)	91		70 - 130
1,2-Dichloroethane-d4 (Surr)	101		50 - 134

Lab Sample ID: 600-68350-4 MSD

Matrix: Water

Analysis Batch: 99302

Client Sample ID: WG-1620-MW28C-20130207

Prep Type: Total/NA

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.	RPD	Limit
	Result	Qualifier		Result	Qualifier				Limits		
Methylene Chloride	0.000150	U	0.0100	0.007020		mg/L		70	60 - 140	8	30
Benzene	0.0000800	U	0.0100	0.01021		mg/L		102	65 - 125	6	30
1,2-Dichloroethane	0.000140	U	0.0100	0.009662		mg/L		97	60 - 140	3	30
Toluene	0.000150	U	0.0100	0.01106		mg/L		111	76 - 125	4	30
Chlorobenzene	0.000120	U	0.0100	0.01196		mg/L		120	72 - 122	3	30
Ethylbenzene	0.000110	U	0.0100	0.01085		mg/L		109	60 - 140	5	30
Xylenes, Total	0.000260	U	0.0300	0.03405		mg/L		114	60 - 140	5	30

Surrogate	MSD MSD		Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene	91		67 - 139
Dibromofluoromethane	114		62 - 130
Toluene-d8 (Surr)	94		70 - 130
1,2-Dichloroethane-d4 (Surr)	102		50 - 134

Lab Sample ID: MB 600-99494/4

Matrix: Water

Analysis Batch: 99494

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB MB		MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Vinyl chloride	0.000110	U	0.00200	0.000110	mg/L			02/13/13 11:39	1
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			02/13/13 11:39	1
Benzene	0.0000800	U	0.00100	0.0000800	mg/L			02/13/13 11:39	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			02/13/13 11:39	1
Toluene	0.000150	U	0.00100	0.000150	mg/L			02/13/13 11:39	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			02/13/13 11:39	1
Ethylbenzene	0.000110	U	0.00100	0.000110	mg/L			02/13/13 11:39	1
Xylenes, Total	0.000260	U	0.00300	0.000260	mg/L			02/13/13 11:39	1

Surrogate	MB MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
4-Bromofluorobenzene	108		67 - 139		02/13/13 11:39	1
Dibromofluoromethane	79		62 - 130		02/13/13 11:39	1
Toluene-d8 (Surr)	84		70 - 130		02/13/13 11:39	1
1,2-Dichloroethane-d4 (Surr)	87		50 - 134		02/13/13 11:39	1

TestAmerica Houston

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68350-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 600-99494/3

Matrix: Water

Analysis Batch: 99494

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Vinyl chloride	0.0100	0.006923		mg/L		69	47 - 146
Methylene Chloride	0.0100	0.009646		mg/L		96	62 - 134
Benzene	0.0100	0.01027		mg/L		103	69 - 131
1,2-Dichloroethane	0.0100	0.01108		mg/L		111	66 - 140
Toluene	0.0100	0.009583		mg/L		96	67 - 130
Chlorobenzene	0.0100	0.009793		mg/L		98	60 - 136
Ethylbenzene	0.0100	0.009160		mg/L		92	68 - 128
Xylenes, Total	0.0300	0.02866		mg/L		96	68 - 132

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene	112		67 - 139
Dibromofluoromethane	86		62 - 130
Toluene-d8 (Surr)	82		70 - 130
1,2-Dichloroethane-d4 (Surr)	88		50 - 134

Lab Sample ID: MB 600-99563/4

Matrix: Water

Analysis Batch: 99563

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	0.000110	U	0.00200	0.000110	mg/L			02/14/13 00:15	1
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			02/14/13 00:15	1
Benzene	0.0000800	U	0.00100	0.0000800	mg/L			02/14/13 00:15	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			02/14/13 00:15	1
Toluene	0.000150	U	0.00100	0.000150	mg/L			02/14/13 00:15	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			02/14/13 00:15	1
Ethylbenzene	0.000110	U	0.00100	0.000110	mg/L			02/14/13 00:15	1
Xylenes, Total	0.000260	U	0.00300	0.000260	mg/L			02/14/13 00:15	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	108		67 - 139		02/14/13 00:15	1
Dibromofluoromethane	75		62 - 130		02/14/13 00:15	1
Toluene-d8 (Surr)	83		70 - 130		02/14/13 00:15	1
1,2-Dichloroethane-d4 (Surr)	84		50 - 134		02/14/13 00:15	1

Lab Sample ID: LCS 600-99563/3

Matrix: Water

Analysis Batch: 99563

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Vinyl chloride	0.0100	0.006433		mg/L		64	47 - 146
Methylene Chloride	0.0100	0.008442		mg/L		84	62 - 134
Benzene	0.0100	0.01034		mg/L		103	69 - 131
1,2-Dichloroethane	0.0100	0.01113		mg/L		111	66 - 140
Toluene	0.0100	0.009930		mg/L		99	67 - 130
Chlorobenzene	0.0100	0.01053		mg/L		105	60 - 136
Ethylbenzene	0.0100	0.009836		mg/L		98	68 - 128

TestAmerica Houston

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68350-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 600-99563/3

Matrix: Water

Analysis Batch: 99563

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Xylenes, Total	0.0300	0.03124		mg/L		104	68 - 132

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene	103		67 - 139
Dibromofluoromethane	82		62 - 130
Toluene-d8 (Surr)	81		70 - 130
1,2-Dichloroethane-d4 (Surr)	84		50 - 134

Lab Sample ID: MB 600-99606/4

Matrix: Water

Analysis Batch: 99606

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	0.000110	U	0.00200	0.000110	mg/L			02/14/13 13:46	1
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			02/14/13 13:46	1
Benzene	0.0000800	U	0.00100	0.0000800	mg/L			02/14/13 13:46	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			02/14/13 13:46	1
Toluene	0.000150	U	0.00100	0.000150	mg/L			02/14/13 13:46	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			02/14/13 13:46	1
Ethylbenzene	0.000110	U	0.00100	0.000110	mg/L			02/14/13 13:46	1
Xylenes, Total	0.000260	U	0.00300	0.000260	mg/L			02/14/13 13:46	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	104		67 - 139		02/14/13 13:46	1
Dibromofluoromethane	76		62 - 130		02/14/13 13:46	1
Toluene-d8 (Surr)	84		70 - 130		02/14/13 13:46	1
1,2-Dichloroethane-d4 (Surr)	80		50 - 134		02/14/13 13:46	1

Lab Sample ID: LCS 600-99606/3

Matrix: Water

Analysis Batch: 99606

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Vinyl chloride	0.0100	0.005853		mg/L		59	47 - 146
Methylene Chloride	0.0100	0.008787		mg/L		88	62 - 134
Benzene	0.0100	0.01038		mg/L		104	69 - 131
1,2-Dichloroethane	0.0100	0.01108		mg/L		111	66 - 140
Toluene	0.0100	0.01023		mg/L		102	67 - 130
Chlorobenzene	0.0100	0.01044		mg/L		104	60 - 136
Ethylbenzene	0.0100	0.009980		mg/L		100	68 - 128
Xylenes, Total	0.0300	0.03057		mg/L		102	68 - 132

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene	105		67 - 139
Dibromofluoromethane	83		62 - 130
Toluene-d8 (Surr)	88		70 - 130
1,2-Dichloroethane-d4 (Surr)	83		50 - 134

TestAmerica Houston

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68350-1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Lab Sample ID: MB 600-99298/1-A

Matrix: Water

Analysis Batch: 99842

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 99298

Analyte	MB Result	MB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.0000400	U	0.000500	0.0000400	mg/L		02/11/13 14:15	02/18/13 19:51	1
Nitrobenzene	0.000110	U	0.000500	0.000110	mg/L		02/11/13 14:15	02/18/13 19:51	1
2,4-Dimethylphenol	0.000310	U	0.000500	0.000310	mg/L		02/11/13 14:15	02/18/13 19:51	1
Bis(2-chloroethoxy)methane	0.000130	U	0.000500	0.000130	mg/L		02/11/13 14:15	02/18/13 19:51	1
Naphthalene	0.0004249	J	0.00500	0.0000800	mg/L		02/11/13 14:15	02/18/13 19:51	1
2-Methylnaphthalene	0.0000700	U	0.000500	0.0000700	mg/L		02/11/13 14:15	02/18/13 19:51	1
2-Chloronaphthalene	0.0000800	U	0.000500	0.0000800	mg/L		02/11/13 14:15	02/18/13 19:51	1
Acenaphthylene	0.0000600	U	0.000500	0.0000600	mg/L		02/11/13 14:15	02/18/13 19:51	1
2,6-Dinitrotoluene	0.0000800	U	0.000500	0.0000800	mg/L		02/11/13 14:15	02/18/13 19:51	1
Acenaphthene	0.0000800	U	0.000500	0.0000800	mg/L		02/11/13 14:15	02/18/13 19:51	1
4-Nitrophenol	0.000560	U	0.00100	0.000560	mg/L		02/11/13 14:15	02/18/13 19:51	1
Dibenzofuran	0.0000800	U	0.000500	0.0000800	mg/L		02/11/13 14:15	02/18/13 19:51	1
2,4-Dinitrotoluene	0.000130	U	0.000500	0.000130	mg/L		02/11/13 14:15	02/18/13 19:51	1
Fluorene	0.0000700	U	0.000500	0.0000700	mg/L		02/11/13 14:15	02/18/13 19:51	1
4,6-Dinitro-2-methylphenol	0.000830	U	0.00100	0.000830	mg/L		02/11/13 14:15	02/18/13 19:51	1
N-Nitrosodiphenylamine	0.000100	U	0.000500	0.000100	mg/L		02/11/13 14:15	02/18/13 19:51	1
1,2-Diphenylhydrazine	0.000110	U	0.000500	0.000110	mg/L		02/11/13 14:15	02/18/13 19:51	1
Pentachlorophenol	0.000610	U	0.00100	0.000610	mg/L		02/11/13 14:15	02/18/13 19:51	1
Phenanthrene	0.0000600	U	0.000500	0.0000600	mg/L		02/11/13 14:15	02/18/13 19:51	1
Anthracene	0.0000500	U	0.000500	0.0000500	mg/L		02/11/13 14:15	02/18/13 19:51	1
Di-n-butyl phthalate	0.000110	U	0.000500	0.000110	mg/L		02/11/13 14:15	02/18/13 19:51	1
Fluoranthene	0.0000700	U	0.000500	0.0000700	mg/L		02/11/13 14:15	02/18/13 19:51	1
Pyrene	0.000110	U	0.000500	0.000110	mg/L		02/11/13 14:15	02/18/13 19:51	1
Benzo[a]anthracene	0.0000800	U	0.000500	0.0000800	mg/L		02/11/13 14:15	02/18/13 19:51	1
Bis(2-ethylhexyl) phthalate	0.000370	U	0.000500	0.000370	mg/L		02/11/13 14:15	02/18/13 19:51	1
Chrysene	0.0000800	U	0.000500	0.0000800	mg/L		02/11/13 14:15	02/18/13 19:51	1
Benzo[a]pyrene	0.0000800	U	0.000500	0.0000800	mg/L		02/11/13 14:15	02/18/13 19:51	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Phenol-d6	15		10 - 94	02/11/13 14:15	02/18/13 19:51	1
2,4,6-Tribromophenol	40		10 - 123	02/11/13 14:15	02/18/13 19:51	1
2-Fluorobiphenyl	58		43 - 116	02/11/13 14:15	02/18/13 19:51	1
2-Fluorophenol	25		10 - 100	02/11/13 14:15	02/18/13 19:51	1
Nitrobenzene-d5	50		35 - 114	02/11/13 14:15	02/18/13 19:51	1
Terphenyl-d14	53		33 - 141	02/11/13 14:15	02/18/13 19:51	1

Lab Sample ID: LCS 600-99298/2-A

Matrix: Water

Analysis Batch: 99771

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 99298

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Phenol	0.0100	0.003674		mg/L		37	11 - 112
Nitrobenzene	0.0100	0.008858		mg/L		89	42 - 119
2,4-Dimethylphenol	0.0100	0.007805		mg/L		78	36 - 109
Bis(2-chloroethoxy)methane	0.0100	0.008395		mg/L		84	42 - 119
Naphthalene	0.0100	0.009680		mg/L		97	39 - 120
2-Methylnaphthalene	0.0100	0.008939		mg/L		89	40 - 121
2-Chloronaphthalene	0.0100	0.009026		mg/L		90	43 - 120

TestAmerica Houston

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68350-1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Lab Sample ID: LCS 600-99298/2-A

Matrix: Water

Analysis Batch: 99771

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 99298

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acenaphthylene	0.0100	0.009356		mg/L		94	35 - 135
2,6-Dinitrotoluene	0.0100	0.01003		mg/L		100	45 - 122
Acenaphthene	0.0100	0.009342		mg/L		93	47 - 145
4-Nitrophenol	0.0100	0.002090		mg/L		21	14 - 132
Dibenzofuran	0.0100	0.009815		mg/L		98	46 - 123
2,4-Dinitrotoluene	0.0100	0.01033		mg/L		103	43 - 128
Fluorene	0.0100	0.01029		mg/L		103	48 - 127
4,6-Dinitro-2-methylphenol	0.0100	0.004299		mg/L		43	24 - 122
N-Nitrosodiphenylamine	0.0100	0.009356		mg/L		94	43 - 107
1,2-Diphenylhydrazine	0.0100	0.007603		mg/L		76	47 - 117
Pentachlorophenol	0.0100	0.004725		mg/L		47	9 - 147
Phenanthrene	0.0100	0.009559		mg/L		96	52 - 121
Anthracene	0.0100	0.009229		mg/L		92	53 - 124
Di-n-butyl phthalate	0.0100	0.009866		mg/L		99	54 - 138
Fluoranthene	0.0100	0.01043		mg/L		104	53 - 127
Pyrene	0.0100	0.009633		mg/L		96	49 - 121
Benzo[a]anthracene	0.0100	0.009200		mg/L		92	53 - 122
Bis(2-ethylhexyl) phthalate	0.0100	0.008785		mg/L		88	47 - 132
Chrysene	0.0100	0.009220		mg/L		92	49 - 124
Benzo[a]pyrene	0.0100	0.009552		mg/L		96	50 - 124

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
Phenol-d6	28		10 - 94
2,4,6-Tribromophenol	88		10 - 123
2-Fluorobiphenyl	92		43 - 116
2-Fluorophenol	51		10 - 100
Nitrobenzene-d5	84		35 - 114
Terphenyl-d14	97		33 - 141

Lab Sample ID: MB 600-99370/1-A

Matrix: Water

Analysis Batch: 99914

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 99370

Analyte	MB MB		MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Phenol	0.0000400	U	0.000500	0.0000400	mg/L		02/12/13 10:50	02/19/13 09:42	1
Nitrobenzene	0.000110	U	0.000500	0.000110	mg/L		02/12/13 10:50	02/19/13 09:42	1
2,4-Dimethylphenol	0.000310	U	0.000500	0.000310	mg/L		02/12/13 10:50	02/19/13 09:42	1
Bis(2-chloroethoxy)methane	0.000130	U	0.000500	0.000130	mg/L		02/12/13 10:50	02/19/13 09:42	1
Naphthalene	0.0000800	U	0.000500	0.0000800	mg/L		02/12/13 10:50	02/19/13 09:42	1
2-Methylnaphthalene	0.0000700	U	0.000500	0.0000700	mg/L		02/12/13 10:50	02/19/13 09:42	1
2-Chloronaphthalene	0.0000800	U	0.000500	0.0000800	mg/L		02/12/13 10:50	02/19/13 09:42	1
Acenaphthylene	0.0000600	U	0.000500	0.0000600	mg/L		02/12/13 10:50	02/19/13 09:42	1
2,6-Dinitrotoluene	0.0000800	U	0.000500	0.0000800	mg/L		02/12/13 10:50	02/19/13 09:42	1
Acenaphthene	0.0000800	U	0.000500	0.0000800	mg/L		02/12/13 10:50	02/19/13 09:42	1
4-Nitrophenol	0.000560	U	0.00100	0.000560	mg/L		02/12/13 10:50	02/19/13 09:42	1
Dibenzofuran	0.0000800	U	0.000500	0.0000800	mg/L		02/12/13 10:50	02/19/13 09:42	1
2,4-Dinitrotoluene	0.000130	U	0.000500	0.000130	mg/L		02/12/13 10:50	02/19/13 09:42	1
Fluorene	0.0000700	U	0.000500	0.0000700	mg/L		02/12/13 10:50	02/19/13 09:42	1

TestAmerica Houston

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68350-1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Lab Sample ID: MB 600-99370/1-A

Matrix: Water

Analysis Batch: 99914

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 99370

Analyte	MB Result	MB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
4,6-Dinitro-2-methylphenol	0.000830	U	0.00100	0.000830	mg/L		02/12/13 10:50	02/19/13 09:42	1
N-Nitrosodiphenylamine	0.000100	U	0.000500	0.000100	mg/L		02/12/13 10:50	02/19/13 09:42	1
1,2-Diphenylhydrazine	0.000110	U	0.000500	0.000110	mg/L		02/12/13 10:50	02/19/13 09:42	1
Pentachlorophenol	0.000610	U	0.00100	0.000610	mg/L		02/12/13 10:50	02/19/13 09:42	1
Phenanthrene	0.000600	U	0.000500	0.000600	mg/L		02/12/13 10:50	02/19/13 09:42	1
Anthracene	0.000500	U	0.000500	0.000500	mg/L		02/12/13 10:50	02/19/13 09:42	1
Di-n-butyl phthalate	0.000110	U	0.000500	0.000110	mg/L		02/12/13 10:50	02/19/13 09:42	1
Fluoranthene	0.000700	U	0.000500	0.000700	mg/L		02/12/13 10:50	02/19/13 09:42	1
Pyrene	0.000110	U	0.000500	0.000110	mg/L		02/12/13 10:50	02/19/13 09:42	1
Benzo[a]anthracene	0.0000800	U	0.000500	0.0000800	mg/L		02/12/13 10:50	02/19/13 09:42	1
Bis(2-ethylhexyl) phthalate	0.002179		0.000500	0.000370	mg/L		02/12/13 10:50	02/19/13 09:42	1
Chrysene	0.0000800	U	0.000500	0.0000800	mg/L		02/12/13 10:50	02/19/13 09:42	1
Benzo[a]pyrene	0.0000800	U	0.000500	0.0000800	mg/L		02/12/13 10:50	02/19/13 09:42	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Phenol-d6	78		10 - 94	02/12/13 10:50	02/19/13 09:42	1
2,4,6-Tribromophenol	61		10 - 123	02/12/13 10:50	02/19/13 09:42	1
2-Fluorobiphenyl	74		43 - 116	02/12/13 10:50	02/19/13 09:42	1
2-Fluorophenol	71		10 - 100	02/12/13 10:50	02/19/13 09:42	1
Nitrobenzene-d5	76		35 - 114	02/12/13 10:50	02/19/13 09:42	1
Terphenyl-d14	86		33 - 141	02/12/13 10:50	02/19/13 09:42	1

Lab Sample ID: LCS 600-99370/2-A

Matrix: Water

Analysis Batch: 99914

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 99370

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Phenol	0.0100	0.008077		mg/L		81	11 - 112
Nitrobenzene	0.0100	0.007443		mg/L		74	42 - 119
2,4-Dimethylphenol	0.0100	0.007451		mg/L		75	36 - 109
Bis(2-chloroethoxy)methane	0.0100	0.006809		mg/L		68	42 - 119
Naphthalene	0.0100	0.007445		mg/L		74	39 - 120
2-Methylnaphthalene	0.0100	0.007420		mg/L		74	40 - 121
2-Chloronaphthalene	0.0100	0.007215		mg/L		72	43 - 120
Acenaphthylene	0.0100	0.007632		mg/L		76	35 - 135
2,6-Dinitrotoluene	0.0100	0.007588		mg/L		76	45 - 122
Acenaphthene	0.0100	0.007599		mg/L		76	47 - 145
4-Nitrophenol	0.0100	0.006515		mg/L		65	14 - 132
Dibenzofuran	0.0100	0.007617		mg/L		76	46 - 123
2,4-Dinitrotoluene	0.0100	0.007413		mg/L		74	43 - 128
Fluorene	0.0100	0.007800		mg/L		78	48 - 127
4,6-Dinitro-2-methylphenol	0.0100	0.005946		mg/L		59	24 - 122
N-Nitrosodiphenylamine	0.0100	0.009002		mg/L		90	43 - 107
1,2-Diphenylhydrazine	0.0100	0.007470		mg/L		75	47 - 117
Pentachlorophenol	0.0100	0.003784		mg/L		38	9 - 147
Phenanthrene	0.0100	0.007548		mg/L		75	52 - 121
Anthracene	0.0100	0.007684		mg/L		77	53 - 124
Di-n-butyl phthalate	0.0100	0.008024		mg/L		80	54 - 138

TestAmerica Houston

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68350-1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Lab Sample ID: LCS 600-99370/2-A

Matrix: Water

Analysis Batch: 99914

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 99370

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Fluoranthene	0.0100	0.007854		mg/L		79	53 - 127
Pyrene	0.0100	0.008763		mg/L		88	49 - 121
Benzo[a]anthracene	0.0100	0.008056		mg/L		81	53 - 122
Bis(2-ethylhexyl) phthalate	0.0100	0.008382		mg/L		84	47 - 132
Chrysene	0.0100	0.008450		mg/L		84	49 - 124
Benzo[a]pyrene	0.0100	0.007800		mg/L		78	50 - 124

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Phenol-d6	75		10 - 94
2,4,6-Tribromophenol	68		10 - 123
2-Fluorobiphenyl	76		43 - 116
2-Fluorophenol	77		10 - 100
Nitrobenzene-d5	72		35 - 114
Terphenyl-d14	83		33 - 141

Lab Sample ID: 600-68350-4 MS

Matrix: Water

Analysis Batch: 99914

Client Sample ID: WG-1620-MW28C-20130207

Prep Type: Total/NA

Prep Batch: 99370

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Phenol	0.0000367	U	0.00917	0.001723		mg/L		19	10 - 62
Nitrobenzene	0.000101	U	0.00917	0.005099		mg/L		56	37 - 104
2,4-Dimethylphenol	0.000284	U	0.00917	0.005136		mg/L		56	25 - 85
Bis(2-chloroethoxy)methane	0.000119	U	0.00917	0.004967		mg/L		54	42 - 101
Naphthalene	0.000163	J	0.00917	0.008279		mg/L		88	34 - 99
2-Methylnaphthalene	0.0000642	U	0.00917	0.005605		mg/L		61	36 - 111
2-Chloronaphthalene	0.0000734	U	0.00917	0.005556		mg/L		61	42 - 100
Acenaphthylene	0.0000550	U	0.00917	0.005889		mg/L		64	38 - 115
2,6-Dinitrotoluene	0.0000734	U	0.00917	0.006854		mg/L		75	47 - 118
Acenaphthene	0.0000734	U	0.00917	0.006116		mg/L		67	46 - 118
4-Nitrophenol	0.000514	U	0.00917	0.001204		mg/L		13	10 - 100
Dibenzofuran	0.0000734	U	0.00917	0.006174		mg/L		67	46 - 110
2,4-Dinitrotoluene	0.000119	U	0.00917	0.006259		mg/L		68	41 - 125
Fluorene	0.0000642	U	0.00917	0.006218		mg/L		68	44 - 112
4,6-Dinitro-2-methylphenol	0.000761	U	0.00917	0.005260		mg/L		57	28 - 128
N-Nitrosodiphenylamine	0.0000917	U	0.00917	0.007470		mg/L		81	58 - 142
1,2-Diphenylhydrazine	0.000101	U	0.00917	0.006127		mg/L		67	10 - 130
Pentachlorophenol	0.000560	U	0.00917	0.003657	N	mg/L		40	45 - 155
Phenanthrene	0.0000550	U	0.00917	0.006226		mg/L		68	41 - 117
Anthracene	0.0000459	U	0.00917	0.006030		mg/L		66	35 - 116
Di-n-butyl phthalate	0.000101	U	0.00917	0.006667		mg/L		73	31 - 137
Fluoranthene	0.0000642	U	0.00917	0.006294		mg/L		69	14 - 145
Pyrene	0.000101	U	0.00917	0.006855		mg/L		75	28 - 133
Benzo[a]anthracene	0.0000734	U	0.00917	0.006773		mg/L		74	24 - 126
Bis(2-ethylhexyl) phthalate	0.000339	U	0.00917	0.007231		mg/L		79	14 - 123
Chrysene	0.0000734	U	0.00917	0.007122		mg/L		78	23 - 128
Benzo[a]pyrene	0.0000734	U	0.00917	0.006395		mg/L		70	60 - 140

TestAmerica Houston

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68350-1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Lab Sample ID: 600-68350-4 MS

Matrix: Water

Analysis Batch: 99914

Client Sample ID: WG-1620-MW28C-20130207

Prep Type: Total/NA

Prep Batch: 99370

Surrogate	MS MS		Limits
	%Recovery	Qualifier	
Phenol-d6	9	X	10 - 94
2,4,6-Tribromophenol	57		10 - 123
2-Fluorobiphenyl	61		43 - 116
2-Fluorophenol	17		10 - 100
Nitrobenzene-d5	51		35 - 114
Terphenyl-d14	73		33 - 141

Lab Sample ID: 600-68350-4 MSD

Matrix: Water

Analysis Batch: 99914

Client Sample ID: WG-1620-MW28C-20130207

Prep Type: Total/NA

Prep Batch: 99370

Analyte	Sample	Sample	Spike	MSD MSD		Unit	D	%Rec	%Rec.		RPD	
	Result	Qualifier		Result	Qualifier				Limits	RPD	Limit	
Phenol	0.0000367	U	0.00917	0.002537	N	mg/L		28	10 - 62	38	20	
Nitrobenzene	0.000101	U	0.00917	0.006471	N	mg/L		71	37 - 104	24	20	
2,4-Dimethylphenol	0.000284	U	0.00917	0.006932	N	mg/L		76	25 - 85	30	20	
Bis(2-chloroethoxy)methane	0.000119	U	0.00917	0.006048		mg/L		66	42 - 101	20	20	
Naphthalene	0.000163	J	0.00917	0.007063		mg/L		75	34 - 99	16	20	
2-Methylnaphthalene	0.0000642	U	0.00917	0.006799		mg/L		74	36 - 111	19	20	
2-Chloronaphthalene	0.0000734	U	0.00917	0.007046	N	mg/L		77	42 - 100	24	20	
Acenaphthylene	0.0000550	U	0.00917	0.007104		mg/L		77	38 - 115	19	20	
2,6-Dinitrotoluene	0.0000734	U	0.00917	0.008138		mg/L		89	47 - 118	17	20	
Acenaphthene	0.0000734	U	0.00917	0.007634	N	mg/L		83	46 - 118	22	20	
4-Nitrophenol	0.000514	U	0.00917	0.002036	N	mg/L		22	10 - 100	51	20	
Dibenzofuran	0.0000734	U	0.00917	0.007417		mg/L		81	46 - 110	18	20	
2,4-Dinitrotoluene	0.000119	U	0.00917	0.007947	N	mg/L		87	41 - 125	24	20	
Fluorene	0.0000642	U	0.00917	0.008025	N	mg/L		87	44 - 112	25	20	
4,6-Dinitro-2-methylphenol	0.000761	U	0.00917	0.007800	N	mg/L		85	28 - 128	39	20	
N-Nitrosodiphenylamine	0.0000917	U	0.00917	0.009807	N	mg/L		107	58 - 142	27	20	
1,2-Diphenylhydrazine	0.000101	U	0.00917	0.007606	N	mg/L		83	10 - 130	22	20	
Pentachlorophenol	0.000560	U	0.00917	0.004489		mg/L		49	45 - 155	20	20	
Phenanthrene	0.0000550	U	0.00917	0.008062	N	mg/L		88	41 - 117	26	20	
Anthracene	0.0000459	U	0.00917	0.007683	N	mg/L		84	35 - 116	24	20	
Di-n-butyl phthalate	0.000101	U	0.00917	0.008401	N	mg/L		92	31 - 137	23	20	
Fluoranthene	0.0000642	U	0.00917	0.008426	N	mg/L		92	14 - 145	29	20	
Pyrene	0.000101	U	0.00917	0.008669	N	mg/L		94	28 - 133	23	20	
Benzo[a]anthracene	0.0000734	U	0.00917	0.007952		mg/L		87	24 - 126	16	20	
Bis(2-ethylhexyl) phthalate	0.000339	U	0.00917	0.008492		mg/L		93	14 - 123	16	20	
Chrysene	0.0000734	U	0.00917	0.008407		mg/L		92	23 - 128	17	20	
Benzo[a]pyrene	0.0000734	U	0.00917	0.007884	N	mg/L		86	60 - 140	21	20	

Surrogate	MSD MSD		Limits
	%Recovery	Qualifier	
Phenol-d6	19		10 - 94
2,4,6-Tribromophenol	86		10 - 123
2-Fluorobiphenyl	72		43 - 116
2-Fluorophenol	32		10 - 100
Nitrobenzene-d5	72		35 - 114
Terphenyl-d14	88		33 - 141

TestAmerica Houston

Unadjusted Detection Limits

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68350-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	MQL	MDL	Units	Method
1,2-Dichloroethane	0.00100	0.000140	mg/L	8260B
Benzene	0.00100	0.0000800	mg/L	8260B
Chlorobenzene	0.00100	0.000120	mg/L	8260B
Ethylbenzene	0.00100	0.000110	mg/L	8260B
Methylene Chloride	0.00100	0.000150	mg/L	8260B
Toluene	0.00100	0.000150	mg/L	8260B
Vinyl chloride	0.00200	0.000110	mg/L	8260B
Xylenes, Total	0.00300	0.000260	mg/L	8260B

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	MQL	MDL	Units	Method
1,2-Diphenylhydrazine	0.000500	0.000110	mg/L	8270C LL
2,4-Dimethylphenol	0.000500	0.000310	mg/L	8270C LL
2,4-Dinitrotoluene	0.000500	0.000130	mg/L	8270C LL
2,6-Dinitrotoluene	0.000500	0.0000800	mg/L	8270C LL
2-Chloronaphthalene	0.000500	0.0000800	mg/L	8270C LL
2-Methylnaphthalene	0.000500	0.0000700	mg/L	8270C LL
4,6-Dinitro-2-methylphenol	0.00100	0.000830	mg/L	8270C LL
4-Nitrophenol	0.00100	0.000560	mg/L	8270C LL
Acenaphthene	0.000500	0.0000800	mg/L	8270C LL
Acenaphthylene	0.000500	0.0000600	mg/L	8270C LL
Anthracene	0.000500	0.0000500	mg/L	8270C LL
Benzo[a]anthracene	0.000500	0.0000800	mg/L	8270C LL
Benzo[a]pyrene	0.000500	0.0000800	mg/L	8270C LL
Bis(2-chloroethoxy)methane	0.000500	0.000130	mg/L	8270C LL
Bis(2-ethylhexyl) phthalate	0.000500	0.000370	mg/L	8270C LL
Chrysene	0.000500	0.0000800	mg/L	8270C LL
Dibenzofuran	0.000500	0.0000800	mg/L	8270C LL
Di-n-butyl phthalate	0.000500	0.000110	mg/L	8270C LL
Fluoranthene	0.000500	0.0000700	mg/L	8270C LL
Fluorene	0.000500	0.0000700	mg/L	8270C LL
Naphthalene	0.00500	0.0000800	mg/L	8270C LL
Nitrobenzene	0.000500	0.000110	mg/L	8270C LL
N-Nitrosodiphenylamine	0.000500	0.000100	mg/L	8270C LL
Pentachlorophenol	0.00100	0.000610	mg/L	8270C LL
Phenanthrene	0.000500	0.0000600	mg/L	8270C LL
Phenol	0.000500	0.0000400	mg/L	8270C LL
Pyrene	0.000500	0.000110	mg/L	8270C LL

QC Association Summary

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68350-1

GC/MS VOA

Analysis Batch: 99302

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-68350-1	WG-1620-FB5-20130206	Total/NA	Water	8260B	
600-68350-2	WG-1620-MW71B-20130207	Total/NA	Water	8260B	
600-68350-3	WG-1620-MW28A-20130207	Total/NA	Water	8260B	
600-68350-4	WG-1620-MW28C-20130207	Total/NA	Water	8260B	
600-68350-4 MS	WG-1620-MW28C-20130207	Total/NA	Water	8260B	
600-68350-4 MSD	WG-1620-MW28C-20130207	Total/NA	Water	8260B	
600-68350-8	WG-1620-MW35A-20130207	Total/NA	Water	8260B	
600-68350-12	WG-1620-MW47C-20130207	Total/NA	Water	8260B	
600-68350-13	WG-1620-FB6-20130207	Total/NA	Water	8260B	
600-68350-14	WG-1620-MW69A-20130208	Total/NA	Water	8260B	
600-68350-15	WG-1620-MW38A-20130208	Total/NA	Water	8260B	
600-68350-16	WG-1620-MW38B-20130208	Total/NA	Water	8260B	
600-68350-17	WG-1620-FB7-20130208	Total/NA	Water	8260B	
600-68350-18	WG-1620-TB05-20130208	Total/NA	Water	8260B	
LCS 600-99302/3	Lab Control Sample	Total/NA	Water	8260B	
MB 600-99302/4	Method Blank	Total/NA	Water	8260B	

Analysis Batch: 99494

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-68350-5	WG-1620-MW63B-20130207	Total/NA	Water	8260B	
600-68350-6	WG-1620-DUP2-20130207	Total/NA	Water	8260B	
600-68350-7	WG-1620-MW70B-20130207	Total/NA	Water	8260B	
600-68350-11	WG-1620-MW49A-20130207	Total/NA	Water	8260B	
600-68350-11 - DL	WG-1620-MW49A-20130207	Total/NA	Water	8260B	
LCS 600-99494/3	Lab Control Sample	Total/NA	Water	8260B	
MB 600-99494/4	Method Blank	Total/NA	Water	8260B	

Analysis Batch: 99563

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-68350-9	WG-1620-MW35B-20130207	Total/NA	Water	8260B	
600-68350-10	WG-1620-MW49B-20130207	Total/NA	Water	8260B	
600-68350-10 - DL	WG-1620-MW49B-20130207	Total/NA	Water	8260B	
LCS 600-99563/3	Lab Control Sample	Total/NA	Water	8260B	
MB 600-99563/4	Method Blank	Total/NA	Water	8260B	

Analysis Batch: 99606

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-68350-7 - DL	WG-1620-MW70B-20130207	Total/NA	Water	8260B	
600-68350-11 - DL2	WG-1620-MW49A-20130207	Total/NA	Water	8260B	
LCS 600-99606/3	Lab Control Sample	Total/NA	Water	8260B	
MB 600-99606/4	Method Blank	Total/NA	Water	8260B	

GC/MS Semi VOA

Prep Batch: 99298

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-68350-8	WG-1620-MW35A-20130207	Total/NA	Water	3510C	
600-68350-8 - DL	WG-1620-MW35A-20130207	Total/NA	Water	3510C	
600-68350-9	WG-1620-MW35B-20130207	Total/NA	Water	3510C	
600-68350-10	WG-1620-MW49B-20130207	Total/NA	Water	3510C	

TestAmerica Houston

QC Association Summary

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68350-1

GC/MS Semi VOA (Continued)

Prep Batch: 99298 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-68350-10 - DL	WG-1620-MW49B-20130207	Total/NA	Water	3510C	
600-68350-11	WG-1620-MW49A-20130207	Total/NA	Water	3510C	
600-68350-11 - DL	WG-1620-MW49A-20130207	Total/NA	Water	3510C	
600-68350-12	WG-1620-MW47C-20130207	Total/NA	Water	3510C	
600-68350-13	WG-1620-FB6-20130207	Total/NA	Water	3510C	
600-68350-14	WG-1620-MW69A-20130208	Total/NA	Water	3510C	
600-68350-15	WG-1620-MW38A-20130208	Total/NA	Water	3510C	
600-68350-16	WG-1620-MW38B-20130208	Total/NA	Water	3510C	
600-68350-17	WG-1620-FB7-20130208	Total/NA	Water	3510C	
LCS 600-99298/2-A	Lab Control Sample	Total/NA	Water	3510C	
MB 600-99298/1-A	Method Blank	Total/NA	Water	3510C	

Prep Batch: 99370

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-68350-1	WG-1620-FB5-20130206	Total/NA	Water	3510C	
600-68350-2	WG-1620-MW71B-20130207	Total/NA	Water	3510C	
600-68350-3	WG-1620-MW28A-20130207	Total/NA	Water	3510C	
600-68350-4	WG-1620-MW28C-20130207	Total/NA	Water	3510C	
600-68350-4 MS	WG-1620-MW28C-20130207	Total/NA	Water	3510C	
600-68350-4 MSD	WG-1620-MW28C-20130207	Total/NA	Water	3510C	
600-68350-5	WG-1620-MW63B-20130207	Total/NA	Water	3510C	
600-68350-6 - DL	WG-1620-DUP2-20130207	Total/NA	Water	3510C	
600-68350-6	WG-1620-DUP2-20130207	Total/NA	Water	3510C	
600-68350-7	WG-1620-MW70B-20130207	Total/NA	Water	3510C	
600-68350-7 - DL	WG-1620-MW70B-20130207	Total/NA	Water	3510C	
LCS 600-99370/2-A	Lab Control Sample	Total/NA	Water	3510C	
MB 600-99370/1-A	Method Blank	Total/NA	Water	3510C	

Analysis Batch: 99771

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-68350-8	WG-1620-MW35A-20130207	Total/NA	Water	8270C LL	99298
600-68350-10	WG-1620-MW49B-20130207	Total/NA	Water	8270C LL	99298
600-68350-11	WG-1620-MW49A-20130207	Total/NA	Water	8270C LL	99298
600-68350-12	WG-1620-MW47C-20130207	Total/NA	Water	8270C LL	99298
LCS 600-99298/2-A	Lab Control Sample	Total/NA	Water	8270C LL	99298

Analysis Batch: 99842

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 600-99298/1-A	Method Blank	Total/NA	Water	8270C LL	99298

Analysis Batch: 99877

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-68350-8 - DL	WG-1620-MW35A-20130207	Total/NA	Water	8270C LL	99298
600-68350-9	WG-1620-MW35B-20130207	Total/NA	Water	8270C LL	99298
600-68350-10 - DL	WG-1620-MW49B-20130207	Total/NA	Water	8270C LL	99298
600-68350-11 - DL	WG-1620-MW49A-20130207	Total/NA	Water	8270C LL	99298
600-68350-13	WG-1620-FB6-20130207	Total/NA	Water	8270C LL	99298
600-68350-14	WG-1620-MW69A-20130208	Total/NA	Water	8270C LL	99298
600-68350-15	WG-1620-MW38A-20130208	Total/NA	Water	8270C LL	99298
600-68350-16	WG-1620-MW38B-20130208	Total/NA	Water	8270C LL	99298
600-68350-17	WG-1620-FB7-20130208	Total/NA	Water	8270C LL	99298

TestAmerica Houston

QC Association Summary

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68350-1

GC/MS Semi VOA (Continued)

Analysis Batch: 99914

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-68350-1	WG-1620-FB5-20130206	Total/NA	Water	8270C LL	99370
600-68350-2	WG-1620-MW71B-20130207	Total/NA	Water	8270C LL	99370
600-68350-3	WG-1620-MW28A-20130207	Total/NA	Water	8270C LL	99370
600-68350-4	WG-1620-MW28C-20130207	Total/NA	Water	8270C LL	99370
600-68350-4 MS	WG-1620-MW28C-20130207	Total/NA	Water	8270C LL	99370
600-68350-4 MSD	WG-1620-MW28C-20130207	Total/NA	Water	8270C LL	99370
600-68350-6	WG-1620-DUP2-20130207	Total/NA	Water	8270C LL	99370
LCS 600-99370/2-A	Lab Control Sample	Total/NA	Water	8270C LL	99370
MB 600-99370/1-A	Method Blank	Total/NA	Water	8270C LL	99370

Analysis Batch: 100102

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-68350-5	WG-1620-MW63B-20130207	Total/NA	Water	8270C LL	99370
600-68350-6 - DL	WG-1620-DUP2-20130207	Total/NA	Water	8270C LL	99370
600-68350-7	WG-1620-MW70B-20130207	Total/NA	Water	8270C LL	99370

Analysis Batch: 100168

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-68350-7 - DL	WG-1620-MW70B-20130207	Total/NA	Water	8270C LL	99370

Lab Chronicle

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68350-1

Client Sample ID: WG-1620-FB5-20130206

Lab Sample ID: 600-68350-1

Date Collected: 02/06/13 17:30

Matrix: Water

Date Received: 02/08/13 12:38

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	99302	02/11/13 12:21	DT	TAL HOU
Total/NA	Prep	3510C			99370	02/12/13 10:50	SMB	TAL HOU
Total/NA	Analysis	8270C LL		1	99914	02/19/13 10:37	TTD	TAL HOU

Client Sample ID: WG-1620-MW71B-20130207

Lab Sample ID: 600-68350-2

Date Collected: 02/07/13 08:45

Matrix: Water

Date Received: 02/08/13 12:38

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	99302	02/11/13 15:32	DT	TAL HOU
Total/NA	Prep	3510C			99370	02/12/13 10:50	SMB	TAL HOU
Total/NA	Analysis	8270C LL		1	99914	02/19/13 11:04	TTD	TAL HOU

Client Sample ID: WG-1620-MW28A-20130207

Lab Sample ID: 600-68350-3

Date Collected: 02/07/13 09:40

Matrix: Water

Date Received: 02/08/13 12:38

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	99302	02/11/13 14:37	DT	TAL HOU
Total/NA	Prep	3510C			99370	02/12/13 10:50	SMB	TAL HOU
Total/NA	Analysis	8270C LL		10	99914	02/19/13 11:31	TTD	TAL HOU

Client Sample ID: WG-1620-MW28C-20130207

Lab Sample ID: 600-68350-4

Date Collected: 02/07/13 10:30

Matrix: Water

Date Received: 02/08/13 12:38

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	99302	02/11/13 14:10	DT	TAL HOU
Total/NA	Prep	3510C			99370	02/12/13 10:50	SMB	TAL HOU
Total/NA	Analysis	8270C LL		1	99914	02/19/13 11:58	TTD	TAL HOU

Client Sample ID: WG-1620-MW63B-20130207

Lab Sample ID: 600-68350-5

Date Collected: 02/07/13 12:15

Matrix: Water

Date Received: 02/08/13 12:38

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	99494	02/13/13 12:08	DT	TAL HOU
Total/NA	Prep	3510C			99370	02/12/13 10:50	SMB	TAL HOU
Total/NA	Analysis	8270C LL		50	100102	02/20/13 13:27	TTD	TAL HOU

TestAmerica Houston

Lab Chronicle

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68350-1

Client Sample ID: WG-1620-DUP2-20130207

Lab Sample ID: 600-68350-6

Date Collected: 02/07/13 12:15

Matrix: Water

Date Received: 02/08/13 12:38

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	99494	02/13/13 12:36	DT	TAL HOU
Total/NA	Prep	3510C	DL		99370	02/12/13 10:50	SMB	TAL HOU
Total/NA	Analysis	8270C LL	DL	50	100102	02/20/13 13:54	TTD	TAL HOU
Total/NA	Prep	3510C			99370	02/12/13 10:50	SMB	TAL HOU
Total/NA	Analysis	8270C LL		1	99914	02/19/13 13:47	TTD	TAL HOU

Client Sample ID: WG-1620-MW70B-20130207

Lab Sample ID: 600-68350-7

Date Collected: 02/07/13 13:20

Matrix: Water

Date Received: 02/08/13 12:38

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		50	99494	02/13/13 21:06	DT	TAL HOU
Total/NA	Analysis	8260B	DL	200	99606	02/14/13 17:06	DT	TAL HOU
Total/NA	Prep	3510C			99370	02/12/13 10:50	SMB	TAL HOU
Total/NA	Analysis	8270C LL		500	100102	02/20/13 14:22	TTD	TAL HOU
Total/NA	Prep	3510C	DL		99370	02/12/13 10:50	SMB	TAL HOU
Total/NA	Analysis	8270C LL	DL	5000	100168	02/21/13 15:40	TTD	TAL HOU

Client Sample ID: WG-1620-MW35A-20130207

Lab Sample ID: 600-68350-8

Date Collected: 02/07/13 14:20

Matrix: Water

Date Received: 02/08/13 12:38

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	99302	02/11/13 15:05	DT	TAL HOU
Total/NA	Prep	3510C			99298	02/11/13 14:15	RK	TAL HOU
Total/NA	Analysis	8270C LL		1	99771	02/16/13 21:24	JH	TAL HOU
Total/NA	Prep	3510C	DL		99298	02/11/13 14:15	RK	TAL HOU
Total/NA	Analysis	8270C LL	DL	10	99877	02/19/13 01:39	TTD	TAL HOU

Client Sample ID: WG-1620-MW35B-20130207

Lab Sample ID: 600-68350-9

Date Collected: 02/07/13 15:15

Matrix: Water

Date Received: 02/08/13 12:38

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		5	99563	02/14/13 08:13	DT	TAL HOU
Total/NA	Prep	3510C			99298	02/11/13 14:15	RK	TAL HOU
Total/NA	Analysis	8270C LL		1000	99877	02/19/13 02:07	TTD	TAL HOU

Lab Chronicle

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68350-1

Client Sample ID: WG-1620-MW49B-20130207

Lab Sample ID: 600-68350-10

Date Collected: 02/07/13 16:15

Matrix: Water

Date Received: 02/08/13 12:38

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	99563	02/14/13 07:16	DT	TAL HOU
Total/NA	Analysis	8260B	DL	5	99563	02/14/13 07:44	DT	TAL HOU
Total/NA	Prep	3510C			99298	02/11/13 14:15	RK	TAL HOU
Total/NA	Analysis	8270C LL		50	99771	02/16/13 22:17	JH	TAL HOU
Total/NA	Prep	3510C	DL		99298	02/11/13 14:15	RK	TAL HOU
Total/NA	Analysis	8270C LL	DL	500	99877	02/19/13 02:34	TTD	TAL HOU

Client Sample ID: WG-1620-MW49A-20130207

Lab Sample ID: 600-68350-11

Date Collected: 02/07/13 17:05

Matrix: Water

Date Received: 02/08/13 12:38

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	99494	02/13/13 20:10	DT	TAL HOU
Total/NA	Analysis	8260B	DL	5	99494	02/13/13 20:38	DT	TAL HOU
Total/NA	Analysis	8260B	DL2	20	99606	02/14/13 17:34	DT	TAL HOU
Total/NA	Prep	3510C			99298	02/11/13 14:15	RK	TAL HOU
Total/NA	Analysis	8270C LL		50	99771	02/16/13 22:44	JH	TAL HOU
Total/NA	Prep	3510C	DL		99298	02/11/13 14:15	RK	TAL HOU
Total/NA	Analysis	8270C LL	DL	500	99877	02/19/13 03:02	TTD	TAL HOU

Client Sample ID: WG-1620-MW47C-20130207

Lab Sample ID: 600-68350-12

Date Collected: 02/07/13 18:00

Matrix: Water

Date Received: 02/08/13 12:38

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	99302	02/11/13 16:53	DT	TAL HOU
Total/NA	Prep	3510C			99298	02/11/13 14:15	RK	TAL HOU
Total/NA	Analysis	8270C LL		1	99771	02/16/13 23:10	JH	TAL HOU

Client Sample ID: WG-1620-FB6-20130207

Lab Sample ID: 600-68350-13

Date Collected: 02/07/13 18:15

Matrix: Water

Date Received: 02/08/13 12:38

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	99302	02/11/13 12:48	DT	TAL HOU
Total/NA	Prep	3510C			99298	02/11/13 14:15	RK	TAL HOU
Total/NA	Analysis	8270C LL		5	99877	02/19/13 03:29	TTD	TAL HOU

Lab Chronicle

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68350-1

Client Sample ID: WG-1620-MW69A-20130208

Lab Sample ID: 600-68350-14

Date Collected: 02/07/13 08:20

Matrix: Water

Date Received: 02/08/13 12:38

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	99302	02/11/13 17:20	DT	TAL HOU
Total/NA	Prep	3510C			99298	02/11/13 14:15	RK	TAL HOU
Total/NA	Analysis	8270C LL		1	99877	02/19/13 03:56	TTD	TAL HOU

Client Sample ID: WG-1620-MW38A-20130208

Lab Sample ID: 600-68350-15

Date Collected: 02/07/13 09:30

Matrix: Water

Date Received: 02/08/13 12:38

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	99302	02/11/13 18:15	DT	TAL HOU
Total/NA	Prep	3510C			99298	02/11/13 14:15	RK	TAL HOU
Total/NA	Analysis	8270C LL		1	99877	02/19/13 04:23	TTD	TAL HOU

Client Sample ID: WG-1620-MW38B-20130208

Lab Sample ID: 600-68350-16

Date Collected: 02/07/13 10:30

Matrix: Water

Date Received: 02/08/13 12:38

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	99302	02/11/13 18:42	DT	TAL HOU
Total/NA	Prep	3510C			99298	02/11/13 14:15	RK	TAL HOU
Total/NA	Analysis	8270C LL		1	99877	02/19/13 04:50	TTD	TAL HOU

Client Sample ID: WG-1620-FB7-20130208

Lab Sample ID: 600-68350-17

Date Collected: 02/07/13 11:00

Matrix: Water

Date Received: 02/08/13 12:38

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	99302	02/11/13 13:15	DT	TAL HOU
Total/NA	Prep	3510C			99298	02/11/13 14:15	RK	TAL HOU
Total/NA	Analysis	8270C LL		1	99877	02/19/13 05:18	TTD	TAL HOU

Client Sample ID: WG-1620-TB05-20130208

Lab Sample ID: 600-68350-18

Date Collected: 02/07/13 00:00

Matrix: Water

Date Received: 02/08/13 12:38

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	99302	02/11/13 11:53	DT	TAL HOU

Laboratory References:

TAL HOU = TestAmerica Houston, 6310 Rothway Street, Houston, TX 77040, TEL (713)690-4444

Certification Summary

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68350-1

Laboratory: TestAmerica Houston

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Arkansas DEQ	State Program	6	88-0759	08-04-12
Louisiana	NELAP	6	01967	06-30-13
Oklahoma	State Program	6	9503	08-31-13
Texas	NELAP	6	T104704223-10-6-TX	10-31-13
USDA	Federal		P330-08-00217	04-01-14
Utah	NELAP	8	GULF	10-31-13

6310 Redwood Street
Houston, TX 77040

Chain of Custody Record

THE LEADER IN ENVIRONMENTAL TESTING

Phone (713) 690-4444 Fax (713) 690-5646

Client Information

Client Contact: Mr. Eric Matzner
Company: Pastor, Behling & Wheeler LLC

Sampler: **JOHN BEAYNON**
Phone: **512-671-3434**

Lab Pin: **Kudchadkar, Sachin G**
E-Mail: **sachin.kudchadkar@testamericainc.com**

Carrier Tracking No(s):

COG No: **600-18986-7218.1**
Page **1** of **2**
Job #:

Address: 2201 Double Creek Dr Suite 4004
City: Round Rock
State, Zip: TX, 78664

Due Date Requested:

TAT Requested (days):

PO #: **Purchase Order not required**
W/O #:

Project #:
SSOIN#:

Project Name: **1620-UPRR HW/PW**

Site:

Analysis Requested

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (Water, Soil, Oil, etc.)	Preservation Code	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)
WG-1620-FBS-20130206	2-6-13	1730	G	Water		X	
WG-1620-MW1718-20130207	2-7-13	0845	G	Water		X	
WG-1620-MW28A-20130207		0940	G	Water		X	
WG-1620-MW28C-20130207		1030	G	Water		X	
WG-1620-MW28CMS-20130207		1030	G	Water		X	
WG-1620-MW28CMB-20130207		1215	G	Water		X	
WG-1620-MW28CMB-20130207		1215	G	Water		X	
WG-1620-MW28CMB-20130207		1300	G	Water		X	
WG-1620-MW35A-20130207		1400	G	Water		X	
WG-1620-MW35B-20130207		1515	G	Water		X	

Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8270C_LL - SVOC	8260B - VOC
X			
X			
X			
X			
X			
X			
X			
X			
X			
X			

Total Number of containers	Special Instructions/Note:

Possible Hazard Identification: Non-Hazard Flammable Skin Irritant Poison B Unknown Radiological

Deliverable Requested: I, II, III, IV, Other (specify):

Special Instructions/CC Requirements: Return To Client Disposal By Lab Archive For _____ Months

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month):

Empty Kit Relinquished by: _____ Date: _____

Relinquished by: **John Beaynon** Date/Time: **2-8-13 1237** Company: **UPRR**

Relinquished by: _____ Date/Time: _____ Company: _____

Relinquished by: _____ Date/Time: _____ Company: _____

Custody Seals Intact: Yes No Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks:

10000 Katy Street
Houston, TX 77040
Phone (713) 690-4444 Fax (713) 690-6646

Chain of Custody Record

Client Information
 Client Contact: Mr. Eric Matzner
 Company: Pastor, Benling & Wheeler LLC
 Address: 2201 Double Creek Dr. Suite 4004
 City: Round Rock
 State, Zip: TX, 78664
 Phone: 512-671-3434(Tel) 512-671-3446(Fax)
 Email: eric.matzner@pbwllc.com
 Project Name: 1620-UPRR-HWPW
 Site: SSOVW#

Sampler: **John Beatty**
 Lab P/N: Kuchchadkar, Sachin G
 E-Mail: sachin.kuchchadkar@testamerica.com
 Phone: 512-671-3434

Due Date Requested:
 TAT Requested (days):
 Purchase Order not required
 W/O #:
 Project #: 60003722
 SSOVW#:

Analysis Requested
 Field Filtered Sample (Yes or No)
 Perform MS/MSD (Yes or No)
 8270C_LL - SVOC
 8260B - VOC
VINYL CHLORIDE

Carrier Tracking No(s):
 COC No: 600-18986-7218.1
 Page: 22
 Job #:

Preservation Codes:
 A - HCL
 B - NaOH
 C - Zn Acetate
 D - Nitric Acid
 E - NaHSO4
 F - MeOH
 G - Ammonia
 H - Acetic Acid
 I - Ice Water
 J - DI Water
 K - EDTA
 L - EDA
 M - Hexane
 N - None
 O - AsH2O2
 P - Na2O4S
 Q - Na2SO3
 R - Na2S2O3
 S - H2SO4
 T - TSP Dodecahydrate
 U - Acetone
 V - MeCA
 W - pH 4.5
 Z - Other (Specify)

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=Water, S=Soil, O=Other, A=Air)	Preservation Code	Total Number of containers	Special Instructions/Note:
WG-1620-MW49B-20130207	2-7-13	1415	G	Water			
WG-1620-MW49A-20130207		1705	G	Water			
WG-1620-MW49C-20130207		1800	G	Water			
WG-1620-FB6-20130207		1845	G	Water			
WG-1620-MW69A-20130208		0820	G	Water			
WG-1620-MW38A-20130208		0930	G	Water			
WG-1620-MW38B-20130208		1030	C	Water			
WG-1620-FB7-20130208		1100	C	Water			
WG-1620-TB05-20130208		-	C	Water			

Possible Hazard Identification
 Non-Hazard Flammable Skin Irritant Poison B Unknown Radiological

Deliverable Requested: I, II, III, IV, Other (specify):

Empty Kit Relinquished by: _____ Date: _____

Relinquished by: **John Beatty** Date/Time: 2-8-13 1237 Company: PBW

Relinquished by: _____ Date/Time: _____ Company: _____

Relinquished by: _____ Date/Time: _____ Company: _____

Custody Seals Intact: _____ Custody Seal No.: _____

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
 Return To Client Disposal By Lab Archive For _____ Months

Special Instructions/QC Requirements:

Received by: **John Beatty** Date/Time: 2/8/13 1237 Company: PBW

Received by: **John Beatty** Date/Time: 2/8/13 1238 Company: PBW

Received by: _____ Date/Time: _____ Company: _____

Cooler Temperature(s) °C and Other Remarks:

Login Sample Receipt Checklist

Client: Pastor, Behling & Wheeler LLC

Job Number: 600-68350-1

Login Number: 68350

List Source: TestAmerica Houston

List Number: 1

Creator: Pulumbarit, Josh

Question	Answer	Comment
Radioactivity wasn't checked or is <=/ background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	1.3 2.3 2.7 1.7
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	True	

TestAmerica

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ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Houston
6310 Rothway Street
Houston, TX 77040
Tel: (713)690-4444

TestAmerica Job ID: 600-68442-1

Client Project/Site: 1620 UPRR HWPW

For:

Pastor, Behling & Wheeler LLC
2201 Double Creek Dr
Suite 4004
Round Rock, Texas 78664

Attn: Mr. Eric Matzner



Authorized for release by:

2/27/2013 4:48:04 PM

Cathy Upton

Data Delivery Analyst

cathy.upton@testamericainc.com

Designee for

Sachin Kudchadkar

Project Manager II

sachin.kudchadkar@testamericainc.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.



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Have a Question?



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1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17



Table of Contents

Cover Page	1
Table of Contents	2
TRRP Cover Page	3
TRRP Checklists & DCSs	4
Case Narrative	14
Method Summary	15
Sample Summary	16
Client Sample Results	17
Definitions/Glossary	25
Surrogate Summary	26
QC Sample Results	27
Default Detection Limits	32
QC Association Summary	33
Lab Chronicle	35
Certification Summary	37
Chain of Custody	38
Receipt Checklists	39

Job Number: 600-68442-1
Project Name/Number: 1620 UPRR HWPW

This Data Package consists of:

This signature page, the laboratory review checklist, and the following Reportable Data:

- R1 Field Chain-of-Custody Form
- R2 Sample Identification Cross-reference;
- R3 Test Reports (Analytical Data Sheets) for each environmental sample that includes:
 - a) Items consistent with NELAC Chapter 5
 - b) dilution factors,
 - c) preparation methods,
 - d) cleanup methods, and
 - e) if required for the project, tentatively identified compounds (TICs).
- R4 Surrogate Recovery Data including:
 - a) Calculated recovery (%R), and
 - b) The laboratory's surrogate QC limits.
- R5 Test Reports/Summary Forms for Blank Samples;
- R6 Test Reports/Summary Forms for Laboratory Control Samples (LCSs) including:
 - a) LCS spiking amounts,
 - b) Calculated %R for each analyte, and
 - d) The laboratory's LCS QC limits
- R7 Test Reports for Matrix Spike/Matrix Spike Duplicates (MS/MSDs) including:
 - a) Samples associated with the MS/MSD clearly identified,
 - b) MS/MSD spiking amounts,
 - c) Concentration of each MS/MSD analyte measured in the parent and spiked sample,
 - d) Calculated %Rs and relative percent differences (RPDs), and
 - e) The laboratory's MS/MSD QC limits
- R8 Laboratory analytical duplicates (if applicable) recovery and precision, including:
 - a) the amount of analyte measured in the duplicate,
 - b) the calculated RPD, and
 - c) the laboratory's QC limits for analytical duplicates.
- R9 List of method quantitation limit (MQL) and detectability check sample results for each analyte for each method and matrix;
- R10 Other problems or anomalies

The exception report for each "No" or "Not Reviewed (NR)" item in the Laboratory Review Checklist and for each analyte, matrix, and method for which the laboratory does not hold NELAC accreditation under the Texas Laboratory Accreditation Program.

Release Statement: I am responsible for the release of this laboratory data package. This laboratory is NELAC accredited under Texas laboratory Accreditation Program for all the methods, analytes, and matrices reported in this data package except as noted in the Exception Reports. The data have been reviewed and are technically compliant with the requirements of the methods used, except where noted by the laboratory in the Exception Reports. By my signature below, I affirm, to the best of my knowledge, that all problems/anomalies observed by the laboratory have been identified in the Laboratory Review Checklist, and no information affecting the quality of the data has been knowingly withheld.

Cathy Upton
Name (printed)
Data Delivery Analyst
Official Title (printed)


Signature

02/27/2013
Date

Appendix A (cont'd): Laboratory Review Checklist: Reportable Data							
Laboratory Name: TestAmerica-Houston			LRC Date: 02/18/13				
Project Name: 1620 UPRR HWPW			Laboratory Job Number: 600-68442				
Reviewer Name: YX			Prep Batch Number: 600-99494, 99563, 99606 and 99671-VOA				
# ¹	A ²	Description	Yes	No	NA ³	NR ⁴	ER# ⁵
R1	OI	Chain-of-custody (C-O-C)					
		Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?	X				
		Were all departures from standard conditions described in an exception report?			X		
R2	OI	Sample and quality control (QC) identification					
		Are all field sample ID numbers cross-referenced to the laboratory ID numbers?	X				
		Are all laboratory ID numbers cross-referenced to the corresponding QC data?	X				
		R3 OI Test reports					
		Were all samples prepared and analyzed within holding times?	X				
		Other than those results < MQL, were all other raw values bracketed by calibration standards?	X				
		Were calculations checked by a peer or supervisor?	X				
		Were all analyte identifications checked by a peer or supervisor?	X				
		Were sample detection limits reported for all analytes not detected?	X				
		Were all results for soil and sediment samples reported on a dry weight basis?			X		
		Were % moisture (or solids) reported for all soil and sediment samples?			X		
		Were bulk soil/solid samples for volatile analysis extracted with methanol per SW846 Method 5035? If required for the project, TICs reported?			X		
R4	O	Surrogate recovery data					
		Were surrogates added prior to extraction?	X				
		Were surrogate percent recoveries in all samples within the laboratory QC limits?	X				
R5	OI	Test reports/summary forms for blank samples					
		Were appropriate type(s) of blanks analyzed?	X				
		Were blanks analyzed at the appropriate frequency?	X				
		Were method blanks taken through the entire analytical process, including preparation and, if applicable, cleanup procedures?	X				
		Were blank concentrations < MQL?	X				
R6	OI	Laboratory control samples (LCS):					
		Were all COCs included in the LCS?	X				
		Was each LCS taken through the entire analytical procedure, including prep and cleanup steps?	X				
		Were LCSs analyzed at the required frequency?	X				
		Were LCS (and LCSD, if applicable) %Rs within the laboratory QC limits?	X				
		Does the detectability check sample data document the laboratory's capability to detect the COCs at the MDL used to calculate the SDLs?	X				
		Was the LCSD RPD within QC limits?			X		
R7	OI	Matrix spike (MS) and matrix spike duplicate (MSD) data					
		Were the project/method specified analytes included in the MS and MSD?	X				
		Were MS/MSD analyzed at the appropriate frequency?	X				
		Were MS (and MSD, if applicable) %Rs within the laboratory QC limits?			X		1
		Were MS/MSD RPDs within laboratory QC limits?			X		1
R8	OI	Analytical duplicate data					
		Were appropriate analytical duplicates analyzed for each matrix?			X		
		Were analytical duplicates analyzed at the appropriate frequency?			X		
		Were RPDs or relative standard deviations within the laboratory QC limits?			X		
R9	OI	Method quantitation limits (MQLs):					
		Are the MQLs for each method analyte included in the laboratory data package?	X				
		Do the MQLs correspond to the concentration of the lowest non-zero calibration standard?	X				
		Are unadjusted MQLs and DCSs included in the laboratory data package?	X				
R10	OI	Other problems/anomalies					
		Are all known problems/anomalies/special conditions noted in this LRC and ER?	X				
		Was applicable and available technology used to lower the SDL to minimize the matrix interference affects on the sample results?	X				2
		Is the laboratory NELAC-accredited under the Texas Laboratory Accreditation Program for the analytes, matrices and methods associated with this laboratory data package?	X				

- Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.
- O = organic analyses; I = inorganic analyses (and general chemistry, when applicable);
- NA = Not applicable;
- NR = Not reviewed;
- ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

Appendix A (cont'd): Laboratory Review Checklist: Reportable Data									
Laboratory Name: TestAmerica-Houston					LRC Date: 02/18/13				
Project Name: 1620 UPRR HWPW					Laboratory Job Number: 600-68442				
Reviewer Name: YX					Prep Batch Number: 600-99494, 99563, 99606 and 99671-VOA				
# ¹	A ²	Description	Yes	No	NA ³	NR ⁴	ER# ⁵		
S1	OI	Initial calibration (ICAL)							
		Were response factors and/or relative response factors for each analyte within QC limits?	X						
		Were percent RSDs or correlation coefficient criteria met?	X						
		Was the number of standards recommended in the method used for all analytes?	X						
		Were all points generated between the lowest and highest standard used to calculate the curve?	X						
		Are ICAL data available for all instruments used?	X						
		Has the initial calibration curve been verified using an appropriate second source standard?	X						
S2	OI	Initial and continuing calibration verification (ICCV and CCV) and continuing calibration							
		Was the CCV analyzed at the method-required frequency?	X						
		Were percent differences for each analyte within the method-required QC limits?	X						
		Was the ICAL curve verified for each analyte?	X						
		Was the absolute value of the analyte concentration in the inorganic CCB < MDL?				X			
S3	O	Mass spectral tuning:							
		Was the appropriate compound for the method used for tuning?	X						
		Were ion abundance data within the method-required QC limits?	X						
S4	O	Internal standards (IS):							
		Were IS area counts and retention times within the method-required QC limits?	X						
S5	OI	Raw data (NELAC section 5.5.10)							
		Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?	X						
		Were data associated with manual integrations flagged on the raw data?	X						
S6	O	Dual column confirmation							
		Did dual column confirmation results meet the method-required QC?				X			
S7	O	Tentatively identified compounds (TICs):							
		If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?				X			
S8	I	Interference Check Sample (ICS) results:							
		Were percent recoveries within method QC limits?				X			
S9	I	Serial dilutions, post digestion spikes, and method of standard additions							
		Were percent differences, recoveries, and the linearity within the QC limits specified in the method?				X			
S10	OI	Method detection limit (MDL) studies							
		Was a MDL study performed for each reported analyte?	X						
		Is the MDL either adjusted or supported by the analysis of DCSs?	X						
S11	OI	Proficiency test reports:							
		Was the laboratory's performance acceptable on the applicable proficiency tests or evaluation studies?	X						
S12	OI	Standards documentation							
		Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?	X						
S13	OI	Compound/analyte identification procedures							
		Are the procedures for compound/analyte identification documented?	X						
S14	OI	Demonstration of analyst competency (DOC)							
		Was DOC conducted consistent with NELAC Chapter 5?	X						
		Is documentation of the analyst's competency up-to-date and on file?	X						
S15	OI	Verification/validation documentation for methods (NELAC Chapter 5)							
		Are all the methods used to generate the data documented, verified, and validated, where applicable?	X						
S16	OI	Laboratory standard operating procedures (SOPs):							
		Are laboratory SOPs current and on file for each method performed?	X						

- 1 Items identified by the letter "R" should be included in the laboratory data package submitted to the TCEQ in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.
- 2 O = organic analyses; I = inorganic analyses (and general chemistry, when applicable).
- 3 NA = Not applicable.
- 4 NR = Not Reviewed.
- 5 ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17

Appendix A (cont'd): Laboratory Review Checklist: Exception Reports	
Laboratory Name: TestAmerica-Houston	LRC Date: 02/18/13
Project Name: 1620 UPRR HWPW	Laboratory Job Number: 600-68442
Reviewer Name: YX	Prep Batch Number: 600-99494, 99563, 99606 and 99671-VOA
ER #¹	DESCRIPTION
1	The laboratory selected samples from other groups to perform as the MS/MSDs.
2	All of the SDLs in sample 600-68442-1 were elevated due to the high concentration of target analytes and the nature of the sample matrix. The Benzene, Ethylbenzene and Total Xylenes SDLs were elevated in sample 600-68442-2 due to the high concentration of these analytes. The Ethylbenzene SDL was elevated in sample 600-68442-3 due to the high concentration of this analyte.

ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked on the LRC)

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Appendix A (cont'd): Laboratory Review Checklist: Reportable Data							
Laboratory Name: TestAmerica-Houston			LRC Date: 02/25/13				
Project Name: 1620 UPRR HWPW			Laboratory Job Number 600-68442				
Reviewer Name: JOH			Prep Batch Number(s): 600-99370 - SV				
# ¹	A ²	Description	Yes	No	NA ³	NR ⁴	ER# ⁵
R1	OI	Chain-of-custody (C-O-C)					
		Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?	X				
		Were all departures from standard conditions described in an exception report?			X		
R2	OI	Sample and quality control (QC) identification					
		Are all field sample ID numbers cross-referenced to the laboratory ID numbers?	X				
		Are all laboratory ID numbers cross-referenced to the corresponding QC data?	X				
R3	OI	Test reports					
		Were all samples prepared and analyzed within holding times?	X				
		Other than those results < MQL, were all other raw values bracketed by calibration standards?	X				
		Were calculations checked by a peer or supervisor?	X				
		Were all analyte identifications checked by a peer or supervisor?	X				
		Were sample detection limits reported for all analytes not detected?	X				
		Were all results for soil and sediment samples reported on a dry weight basis?			X		
		Were % moisture (or solids) reported for all soil and sediment samples?			X		
		Were bulk soil/solid samples for volatile analysis extracted with methanol per SW846 Method 5035?			X		
		If required for the project, TICs reported?			X		
R4	O	Surrogate recovery data					
		Were surrogates added prior to extraction?	X				
		Were surrogate percent recoveries in all samples within the laboratory QC limits?		X			1
R5	OI	Test reports/summary forms for blank samples					
		Were appropriate type(s) of blanks analyzed?	X				
		Were blanks analyzed at the appropriate frequency?	X				
		Were method blanks taken through the entire analytical process, including preparation and, if applicable, cleanup procedures?	X				
		Were blank concentrations < MQL?	X				
R6	OI	Laboratory control samples (LCS):					
		Were all COCs included in the LCS?	X				
		Was each LCS taken through the entire analytical procedure, including prep and cleanup steps?	X				
		Were LCSs analyzed at the required frequency?	X				
		Were LCS (and LCSD, if applicable) %Rs within the laboratory QC limits?	X				
		Does the detectability check sample data document the laboratory's capability to detect the COCs at the MDL used to calculate the SDLs?	X				
		Was the LCSD RPD within QC limits?			X		
R7	OI	Matrix spike (MS) and matrix spike duplicate (MSD) data					
		Were the project/method specified analytes included in the MS and MSD?	X				
		Were MS/MSD analyzed at the appropriate frequency?	X				
		Were MS (and MSD, if applicable) %Rs within the laboratory QC limits?			X		2
		Were MS/MSD RPDs within laboratory QC limits?			X		2
R8	OI	Analytical duplicate data					
		Were appropriate analytical duplicates analyzed for each matrix?			X		
		Were analytical duplicates analyzed at the appropriate frequency?			X		
		Were RPDs or relative standard deviations within the laboratory QC limits?			X		
R9	OI	Method quantitation limits (MQLs):					
		Are the MQLs for each method analyte included in the laboratory data package?	X				
		Do the MQLs correspond to the concentration of the lowest non-zero calibration standard?	X				
		Are unadjusted MQLs and DCSs included in the laboratory data package?	X				
R10	OI	Other problems/anomalies					
		Are all known problems/anomalies/special conditions noted in this LRC and ER?	X				
		Was applicable and available technology used to lower the SDL to minimize the matrix interference affects on the sample results?	X				3
		Is the laboratory NELAC-accredited under the Texas Laboratory Accreditation Program for the analytes, matrices and methods associated with this laboratory data package?	X				

- Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.
- O = organic analyses; I = inorganic analyses (and general chemistry, when applicable);
- NA = Not applicable;
- NR = Not reviewed;
- ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

Appendix A (cont'd): Laboratory Review Checklist: Reportable Data									
Laboratory Name: TestAmerica-Houston					LRC Date: 02/25/13				
Project Name: 1620 UPRR HWPW					Laboratory Job Number 600-68442				
Reviewer Name: JOH					Prep Batch Number(s): 600-99370 - SV				
# ¹	A ²	Description	Yes	No	NA ³	NR ⁴	ER# ⁵		
S1	OI	Initial calibration (ICAL)							
		Were response factors and/or relative response factors for each analyte within QC limits?	X						
		Were percent RSDs or correlation coefficient criteria met?	X						
		Was the number of standards recommended in the method used for all analytes?	X						
		Were all points generated between the lowest and highest standard used to calculate the curve?	X						
		Are ICAL data available for all instruments used?	X						
		Has the initial calibration curve been verified using an appropriate second source standard?	X						
S2	OI	Initial and continuing calibration verification (ICCV and CCV) and continuing calibration							
		Was the CCV analyzed at the method-required frequency?	X						
		Were percent differences for each analyte within the method-required QC limits?	X						
		Was the ICAL curve verified for each analyte?	X						
		Was the absolute value of the analyte concentration in the inorganic CCB < MDL?				X			
S3	O	Mass spectral tuning:							
		Was the appropriate compound for the method used for tuning?				X			
		Were ion abundance data within the method-required QC limits?				X			
S4	O	Internal standards (IS):							
		Were IS area counts and retention times within the method-required QC limits?				X			
S5	OI	Raw data (NELAC section 5.5.10)							
		Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?	X						
		Were data associated with manual integrations flagged on the raw data?	X						
S6	O	Dual column confirmation							
		Did dual column confirmation results meet the method-required QC?				X			
S7	O	Tentatively identified compounds (TICs):							
		If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?				X			
S8	I	Interference Check Sample (ICS) results:							
		Were percent recoveries within method QC limits?				X			
S9	I	Serial dilutions, post digestion spikes, and method of standard additions							
		Were percent differences, recoveries, and the linearity within the QC limits specified in the method?				X			
S10	OI	Method detection limit (MDL) studies							
		Was a MDL study performed for each reported analyte?	X						
		Is the MDL either adjusted or supported by the analysis of DCSs?	X						
S11	OI	Proficiency test reports:							
		Was the laboratory's performance acceptable on the applicable proficiency tests or evaluation studies?	X						
S12	OI	Standards documentation							
		Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?	X						
S13	OI	Compound/analyte identification procedures							
		Are the procedures for compound/analyte identification documented?	X						
S14	OI	Demonstration of analyst competency (DOC)							
		Was DOC conducted consistent with NELAC Chapter 5?	X						
		Is documentation of the analyst's competency up-to-date and on file?	X						
S15	OI	Verification/validation documentation for methods (NELAC Chapter 5)							
		Are all the methods used to generate the data documented, verified, and validated, where applicable?	X						
S16	OI	Laboratory standard operating procedures (SOPs):							
		Are laboratory SOPs current and on file for each method performed?	X						

- 1 Items identified by the letter "R" should be included in the laboratory data package submitted to the TCEQ in the TRRP-required report(s).
- 2 Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.
- 3 O = organic analyses; I = inorganic analyses (and general chemistry, when applicable).
- 4 NA = Not applicable.
- 5 NR = Not Reviewed.
- 6 ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

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Appendix A (cont'd): Laboratory Review Checklist: Exception Reports	
Laboratory Name: TestAmerica-Houston	LRC Date: 02/25/13
Project Name: 1620 UPRR HWPW	Laboratory Job Number 600-68442
Reviewer Name: JOH	Prep Batch Number(s): 600-99370 - SV
ER #¹	DESCRIPTION
1	Due to the level of dilution required for samples 600-68442-1, 1DL, 2, 2DL and 3DL; surrogate recoveries are not reported.
2	The laboratory selected a sample from another group to perform as the MS/MSD.
3	All of the SDLs in samples 600-68442-1, 2 and 3 were elevated due to the high concentrations of target analytes.

ER# = Exception Report identification number (an Exception Report should be completed for an item if “NR” or “No” is checked on the LRC)

Detection Check Standard

Matrix: Water
Method: 8260B_LL
Preparation: Wei Shen
Date Analyzed: 10/8/2012
Date Prepared: 10/8/2012
TALs Batches: A25003.D
Units: ug/L

Analyte	MDL	DCS Spike	Measured Result	MQL
Dichlorodifluoromethane	0.12	1	0.0281	5
Chloromethane	0.18	1	0.355	10
Vinyl Chloride	0.11	0.5	0.131	10
Bromomethane	0.25	1	0.882	10
Chloroethane	0.08	0.5	0.208	10
Allyl chloride	2	1	1.84	5
Acrolein	1.63	1	4.34	5
1,1-Dichloroethene	0.19	0.5	4.3	5
trans-1,2-Dichloroethene	0.09	0.5	4.68	5
Trichlorotrifluoroethane	1	1	0.534	5
Acetone	0.99	1	1.87	5
Methyl Iodide (Iodomethane)	2	1	2.29	5
Carbon Disulfide	0.24	1	2.6	5
2-Propanol (Isopropyl alcohol)	3.72	1	7.51	5
Acetonitrile	0.27	1	1.21	5
Methylene Chloride	0.15	0.5	1.79	10
Methyl tert-butyl ether	0.12	0.5	0.704	5
Vinyl Acetate	0.21	0.5	0.776	5
Acrylonitrile	0.52	1	2.71	5
Chloroprene (2-Chloro-1,3-butadiene)	0.33	1	1.16	5
Propionitrile	0.66	1	1.58	5
cis-1,2-Dichloroethene	0.06	0.5	0.659	5
1,2-Dichloroethene	0.3	1	1.45	5
2-Butanone (MEK)	0.76	1	1.64	5
Isobutyl alcohol	3.32	1	8.48	5
Bromochloromethane	0.18	0.5	0.436	5
Methacrylonitrile	0.41	1	1.62	5
Carbon Tetrachloride	0.15	0.5	0.318	5
Benzene	0.08	0.5	0.355	5
1,2-Dichloroethane	0.14	0.5	0.379	5
Trichloroethene	0.13	0.5	0.343	5
1,1,1-Trichloroethane	0.15	0.5	0.306	5
1,1-Dichloropropene	0.11	0.5	0.281	5
1,2-Dichloroethane	0.3	0.5	0.316	5
1,2-Dichloropropane	0.16	0.5	0.292	5
2,2-Dichloropropane	0.13	1	0.682	5
Methylene Bromide (Bromomethane)	0.25	0.5	0.328	5
1,4-Dioxane	30.79	1	34.08	250
Methyl methacrylate	0.33	1	1.55	5



Bromodichloromethane	0.16	0.5	0.715	5
2-Chloroethyl vinyl ether	0.5	1	2.04	5
1,1-Dichloropropane	0.21	0.5	0.774	5
cis-1,3-Dichloropropene	0.18	0.5	0.718	5
4-Methyl-2-pentanone	0.45	1	2.42	10
Toluene	0.15	0.5	0.431	5
trans-1,3-Dichloropropene	0.21	0.5	0.406	5
Ethyl Methacrylate	0.94	1	0.686	10
1,1,2-Trichloroethane	0.18	0.5	0.401	5
Tetrachloroethene	0.18	0.5	0.823	5
1,3-Dichloropropane	0.22	1	0.89	5
2-Hexanone	0.35	1	2.01	10
Dibromochloromethane	0.16	0.5	0.811	5
1,2-Dibromoethane (Ethylene bromide)	0.18	0.5	0.373	5
Chlorobenzene	0.12	0.5	0.424	5
1,1,1,2-Tetrachloroethane	0.18	0.5	0.401	5
Ethylbenzene	0.11	0.5	0.357	5
m,p-Xylene	0.17	0.5	0.741	10
o-Xylene	0.12	0.5	0.37	5
Xylenes (total)	0.26	0.5	1.11	5
Styrene	0.07	0.5	0.344	5
Bromoform	0.19	0.5	0.915	5
Isopropylbenzene	0.18	0.5	0.367	5
Bromobenzene	0.19	0.5	0.457	5
1,2,3-Trichloropropane	0.29	1	0.89	5
1,1,2,2-Tetrachloroethane	0.22	1	0.729	5
trans-1,4-Dichloro-2-butene	0.64	1	2.36	5
n-Propylbenzene	0.15	0.5	0.372	5
2-Chlorotoluene	0.13	0.5	0.424	5
4-Chlorotoluene	0.14	0.5	0.442	5
1,3,5-Trimethylbenzene	0.1	0.5	0.392	5
tert-Butylbenzene	0.08	0.5	0.359	5
p-Isopropyltoluene	0.1	0.5	0.329	5
1,2,4-Trimethylbenzene	0.14	0.5	0.388	5
sec-Butylbenzene	0.12	0.5	0.329	5
1,3-Dichlorobenzene	0.13	0.5	0.437	5
1,4-Dichlorobenzene	0.11	0.5	0.475	5
1,2-Dichlorobenzene	0.1	0.5	0.466	5
n-Butylbenzene	0.16	0.5	0.297	5
1,2-Dibromo-3-chloropropane	0.33	1	1.2	5
1,2,4-Trichlorobenzene	0.31	1	0.849	5
Hexachlorobutadiene	0.17	0.5	0.363	5
Naphthalene	0.32	1	1.09	5
1,2,3-Trichlorobenzene	0.57	1	0.867	5

**Quality Control Report
Detection Check Standard**

Matrix: Water
 Method: 8270C LL
 Preparation: 3510C
 Date Analyzed: 10/18/2012
 Date Prepared: 10/16/2012
 Lab Sample ID: 600-91246_18-a
 Units: ug/L

Analyte	MDL	DCS Spike	DCS Result	MLQ
Pyridine	0.04	0.25	0.067	0.5
N-Nitrosodimethylamine	0.26	0.25	0.121	0.5
Aniline	0.08	0.25	0.085	0.5
Phenol	0.04	0.25	0.054	0.5
bis(2-Chloroethyl)ether	0.15	0.25	0.149	0.5
2-Chlorophenol	0.13	0.25	0.097	0.5
1,3-Dichlorobenzene	0.17	0.25	0.152	0.5
1,4-Dichlorobenzene	0.13	0.25	0.166	0.5
1,2-Dichlorobenzene	0.17	0.25	0.167	0.5
Benzyl alcohol	0.17	0.25	0.075	0.5
2-Methylphenol	0.12	0.25	0.112	0.5
m&p-Cresols	0.2	0.25	0.053	1
bis (2-Chloroisopropyl) ether	0.4	0.25	0.143	0.5
N-Nitroso-di-n-propylamine	0.1	0.25	0.177	0.5
Hexachloroethane	0.1	0.25	0.185	0.5
Nitrobenzene	0.11	0.25	0.131	0.5
Isophorone	0.11	0.25	0.149	0.5
2-Nitrophenol	0.22	0.5	0.205	0.5
Benzoic acid	2.51	5	6.530	2.5
2,4-Dimethylphenol	0.31	0.5	0.130	0.5
bis(2-Chloroethoxy)methane	0.13	0.25	0.122	0.5
2,4-Dichlorophenol	0.15	0.25	0.068	0.5
1,2,4-Trichlorobenzene	0.12	0.25	0.125	0.5
Naphthalene	0.08	0.25	0.161	0.5
4-Chloroaniline	0.21	0.5	0.232	0.5
Hexachlorobutadiene	0.18	0.25	0.160	0.5
4-Chloro-3-methylphenol	0.17	0.25	0.075	0.5
2-Methylnaphthalene	0.07	0.25	0.128	0.5
1-Methylnaphthalene	0.09	0.25	0.147	0.5
Hexachlorocyclopentadiene	0.13	0.5	0.487	0.5
2,4,6-Trichlorophenol	0.18	0.5	0.062	0.5
2,4,5-Trichlorophenol	0.25	0.5	0.107	0.5
2-Chloronaphthalene	0.08	0.25	0.148	0.5
2-Nitroaniline	0.19	0.5	0.213	0.5
Dimethylphthalate	0.07	0.25	0.145	0.5
1,4 Dinitrobenzene	5	0.25	0.363	0.5
1,3-Dinitrobenzene	0.08	0.25	0.381	0.5
1,2-Dinitrobenzene	0.5	0.25	0.040	0.5
Acenaphthylene	0.06	0.25	0.137	0.5

2,6-Dinitrotoluene	0.08	0.25	0.178	0.5
3-Nitroaniline	0.16	0.5	0.240	0.5
Acenaphthene	0.08	0.25	0.151	0.5
Dibenzofuran	0.08	0.25	0.127	0.5
2,4-Dinitrotoluene	0.13	0.25	0.144	0.5
Diethylphthalate	1.5	0.5	0.431	0.5
4-Chlorophenyl-phenylether	0.1	0.25	0.102	0.5
Fluorene	0.07	0.25	0.107	0.5
4-Nitroaniline	0.25	0.5	0.124	0.5
4,6-Dinitro-2-Methylphenol	0.83	2.5	0.530	1
N-Nitrosodiphenylamine	0.1	0.25	0.176	0.5
Diphenylamine	0.1	0.25	0.099	0.5
1,2-Diphenylhydrazine	0.11	0.25	0.224	0.5
Azobenzene	0.07	0.25	0.117	0.5
4-Bromophenyl-phenylether	0.1	0.25	0.112	0.5
Hexachlorobenzene	0.11	0.25	0.130	0.5
Phenanthrene	0.06	0.25	0.169	0.5
Anthracene	0.05	0.25	0.144	0.5
Carbazole	0.17	0.25	0.140	0.5
Di-n-butylphthalate	0.11	0.25	0.238	0.5
Fluoranthene	0.07	0.25	0.196	0.5
Pyrene	0.11	0.25	0.153	0.5
Butylbenzylphthalate	0.12	0.25	0.238	0.5
3,3'-Dichlorobenzidene	0.5	0.25	0.066	0.5
Benzo(a)anthracene	0.08	0.25	0.175	0.5
bis(2-Ethylhexyl)phthalate	0.37	0.5	0.420	0.5
Chrysene	0.08	0.25	0.212	0.5
Di-n-octylphthalate	0.16	0.25	0.091	0.5
Benzo(b)fluoranthene	0.07	0.25	0.143	0.5
Benzo(k)fluoranthene	0.09	0.25	0.201	0.5
Benzo(a)pyrene	0.08	0.25	0.137	0.5
Indeno(1,2,3-cd)pyrene	0.07	0.25	0.454	0.5
Dibenz(a,h)anthracene	0.08	0.25	0.123	0.5
Benzo(g,h,i)perylene	0.08	0.25	0.112	0.5



Case Narrative

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68442-1

Job ID: 600-68442-1

Laboratory: TestAmerica Houston

Narrative

Job Narrative
600-68442-1

Comments

No additional comments.

Receipt

The samples were received on 2/12/2013 7:26 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 4.5° C.

Organic Prep

Method(s) 3510C: Due to the matrix, the following sample(s) could not be concentrated to the final method required volume: WG-1620-MW57A-20130211 (600-68442-1). The reporting limits (RLs) are elevated proportionately.

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Method Summary

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68442-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL HOU
8270C LL	Semivolatile Organic Compounds by GCMS - Low Levels	SW846	TAL HOU

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL HOU = TestAmerica Houston, 6310 Rothway Street, Houston, TX 77040, TEL (713)690-4444



Sample Summary

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68442-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
600-68442-1	WG-1620-MW57A-20130211	Water	02/11/13 10:30	02/12/13 07:26
600-68442-2	WG-1620-MW58A-20130211	Water	02/11/13 11:20	02/12/13 07:26
600-68442-3	WG-1620-MW23C-20130211	Water	02/11/13 12:20	02/12/13 07:26
600-68442-4	WG-1620-MW62B-20130211	Water	02/11/13 14:00	02/12/13 07:26
600-68442-5	WG-1620-FB8-20130211	Water	02/11/13 14:15	02/12/13 07:26
600-68442-6	WG-1620-TB06-20130211	Water	02/11/13 00:00	02/12/13 07:26



Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68442-1

Client Sample ID: WG-1620-MW57A-20130211

Lab Sample ID: 600-68442-1

Date Collected: 02/11/13 10:30

Matrix: Water

Date Received: 02/12/13 07:26

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	0.00110	U	0.0200	0.00110	mg/L			02/14/13 20:53	10
Methylene Chloride	0.00367	J	0.0100	0.00150	mg/L			02/14/13 20:53	10
Benzene	0.138		0.0100	0.000800	mg/L			02/14/13 20:53	10
1,2-Dichloroethane	0.00140	U	0.0100	0.00140	mg/L			02/14/13 20:53	10
Toluene	0.244		0.0100	0.00150	mg/L			02/14/13 20:53	10
Chlorobenzene	0.00120	U	0.0100	0.00120	mg/L			02/14/13 20:53	10
Ethylbenzene	0.240		0.0100	0.00110	mg/L			02/14/13 20:53	10
Xylenes, Total	0.591		0.0300	0.00260	mg/L			02/14/13 20:53	10
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	96		67 - 139					02/14/13 20:53	10
Dibromofluoromethane	74		62 - 130					02/14/13 20:53	10
Toluene-d8 (Surr)	81		70 - 130					02/14/13 20:53	10
1,2-Dichloroethane-d4 (Surr)	82		50 - 134					02/14/13 20:53	10

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.0273	U	0.341	0.0273	mg/L		02/12/13 10:50	02/20/13 14:49	500
Nitrobenzene	0.0750	U	0.341	0.0750	mg/L		02/12/13 10:50	02/20/13 14:49	500
2,4-Dimethylphenol	1.62		0.341	0.211	mg/L		02/12/13 10:50	02/20/13 14:49	500
Bis(2-chloroethoxy)methane	0.0886	U	0.341	0.0886	mg/L		02/12/13 10:50	02/20/13 14:49	500
2-Methylnaphthalene	13.9		0.341	0.0477	mg/L		02/12/13 10:50	02/20/13 14:49	500
2-Chloronaphthalene	0.0545	U	0.341	0.0545	mg/L		02/12/13 10:50	02/20/13 14:49	500
Acenaphthylene	0.0409	U	0.341	0.0409	mg/L		02/12/13 10:50	02/20/13 14:49	500
2,6-Dinitrotoluene	0.0545	U	0.341	0.0545	mg/L		02/12/13 10:50	02/20/13 14:49	500
Acenaphthene	8.56		0.341	0.0545	mg/L		02/12/13 10:50	02/20/13 14:49	500
4-Nitrophenol	0.382	U	0.682	0.382	mg/L		02/12/13 10:50	02/20/13 14:49	500
Dibenzofuran	7.28		0.341	0.0545	mg/L		02/12/13 10:50	02/20/13 14:49	500
2,4-Dinitrotoluene	0.0886	U	0.341	0.0886	mg/L		02/12/13 10:50	02/20/13 14:49	500
Fluorene	6.54		0.341	0.0477	mg/L		02/12/13 10:50	02/20/13 14:49	500
4,6-Dinitro-2-methylphenol	0.566	U	0.682	0.566	mg/L		02/12/13 10:50	02/20/13 14:49	500
N-Nitrosodiphenylamine	0.0682	U	0.341	0.0682	mg/L		02/12/13 10:50	02/20/13 14:49	500
1,2-Diphenylhydrazine	0.0750	U	0.341	0.0750	mg/L		02/12/13 10:50	02/20/13 14:49	500
Pentachlorophenol	0.416	U	0.682	0.416	mg/L		02/12/13 10:50	02/20/13 14:49	500
Phenanthrene	17.0		0.341	0.0409	mg/L		02/12/13 10:50	02/20/13 14:49	500
Anthracene	3.09		0.341	0.0341	mg/L		02/12/13 10:50	02/20/13 14:49	500
Di-n-butyl phthalate	0.0750	U	0.341	0.0750	mg/L		02/12/13 10:50	02/20/13 14:49	500
Fluoranthene	4.98		0.341	0.0477	mg/L		02/12/13 10:50	02/20/13 14:49	500
Pyrene	3.12		0.341	0.0750	mg/L		02/12/13 10:50	02/20/13 14:49	500
Benzo[a]anthracene	0.605		0.341	0.0545	mg/L		02/12/13 10:50	02/20/13 14:49	500
Bis(2-ethylhexyl) phthalate	0.252	U	0.341	0.252	mg/L		02/12/13 10:50	02/20/13 14:49	500
Chrysene	0.602		0.341	0.0545	mg/L		02/12/13 10:50	02/20/13 14:49	500
Benzo[a]pyrene	0.165	J	0.341	0.0545	mg/L		02/12/13 10:50	02/20/13 14:49	500
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Phenol-d6	0	X	10 - 94				02/12/13 10:50	02/20/13 14:49	500
2,4,6-Tribromophenol	0	X	10 - 123				02/12/13 10:50	02/20/13 14:49	500
2-Fluorobiphenyl	0	X	43 - 116				02/12/13 10:50	02/20/13 14:49	500
2-Fluorophenol	0	X	10 - 100				02/12/13 10:50	02/20/13 14:49	500
Nitrobenzene-d5	0	X	35 - 114				02/12/13 10:50	02/20/13 14:49	500

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68442-1

Client Sample ID: WG-1620-MW57A-20130211

Lab Sample ID: 600-68442-1

Date Collected: 02/11/13 10:30

Matrix: Water

Date Received: 02/12/13 07:26

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Terphenyl-d14	0	X	33 - 141	02/12/13 10:50	02/20/13 14:49	500

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels - DL

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	60.7		34.1	0.545	mg/L		02/12/13 10:50	02/21/13 16:07	5000

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Phenol-d6	0	X	10 - 94	02/12/13 10:50	02/21/13 16:07	5000
2,4,6-Tribromophenol	0	X	10 - 123	02/12/13 10:50	02/21/13 16:07	5000
2-Fluorobiphenyl	0	X	43 - 116	02/12/13 10:50	02/21/13 16:07	5000
2-Fluorophenol	0	X	10 - 100	02/12/13 10:50	02/21/13 16:07	5000
Nitrobenzene-d5	0	X	35 - 114	02/12/13 10:50	02/21/13 16:07	5000
Terphenyl-d14	0	X	33 - 141	02/12/13 10:50	02/21/13 16:07	5000

Client Sample ID: WG-1620-MW58A-20130211

Lab Sample ID: 600-68442-2

Date Collected: 02/11/13 11:20

Matrix: Water

Date Received: 02/12/13 07:26

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	0.00281		0.00200	0.000110	mg/L			02/14/13 19:56	1
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			02/14/13 19:56	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			02/14/13 19:56	1
Toluene	0.0176		0.00100	0.000150	mg/L			02/14/13 19:56	1
Chlorobenzene	0.00295		0.00100	0.000120	mg/L			02/14/13 19:56	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	96		67 - 139		02/14/13 19:56	1
Dibromofluoromethane	76		62 - 130		02/14/13 19:56	1
Toluene-d8 (Surr)	87		70 - 130		02/14/13 19:56	1
1,2-Dichloroethane-d4 (Surr)	83		50 - 134		02/14/13 19:56	1

Method: 8260B - Volatile Organic Compounds (GC/MS) - DL

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.0943		0.0100	0.000800	mg/L			02/15/13 16:30	10
Ethylbenzene	0.0648		0.0100	0.00110	mg/L			02/15/13 16:30	10
Xylenes, Total	0.122		0.0300	0.00260	mg/L			02/15/13 16:30	10

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	103		67 - 139		02/15/13 16:30	10
Dibromofluoromethane	73		62 - 130		02/15/13 16:30	10
Toluene-d8 (Surr)	81		70 - 130		02/15/13 16:30	10
1,2-Dichloroethane-d4 (Surr)	79		50 - 134		02/15/13 16:30	10

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.00364	U	0.0455	0.00364	mg/L		02/12/13 10:50	02/20/13 15:16	100
Nitrobenzene	0.0100	U	0.0455	0.0100	mg/L		02/12/13 10:50	02/20/13 15:16	100
2,4-Dimethylphenol	0.950		0.0455	0.0282	mg/L		02/12/13 10:50	02/20/13 15:16	100
Bis(2-chloroethoxy)methane	0.0321	J	0.0455	0.0118	mg/L		02/12/13 10:50	02/20/13 15:16	100
2-Methylnaphthalene	0.243		0.0455	0.00636	mg/L		02/12/13 10:50	02/20/13 15:16	100

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68442-1

Client Sample ID: WG-1620-MW58A-20130211

Lab Sample ID: 600-68442-2

Date Collected: 02/11/13 11:20

Matrix: Water

Date Received: 02/12/13 07:26

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Chloronaphthalene	0.00727	U	0.0455	0.00727	mg/L		02/12/13 10:50	02/20/13 15:16	100
Acenaphthylene	0.00545	U	0.0455	0.00545	mg/L		02/12/13 10:50	02/20/13 15:16	100
2,6-Dinitrotoluene	0.00727	U	0.0455	0.00727	mg/L		02/12/13 10:50	02/20/13 15:16	100
Acenaphthene	0.205		0.0455	0.00727	mg/L		02/12/13 10:50	02/20/13 15:16	100
4-Nitrophenol	0.0509	U	0.0909	0.0509	mg/L		02/12/13 10:50	02/20/13 15:16	100
Dibenzofuran	0.128		0.0455	0.00727	mg/L		02/12/13 10:50	02/20/13 15:16	100
2,4-Dinitrotoluene	0.0118	U	0.0455	0.0118	mg/L		02/12/13 10:50	02/20/13 15:16	100
Fluorene	0.120		0.0455	0.00636	mg/L		02/12/13 10:50	02/20/13 15:16	100
4,6-Dinitro-2-methylphenol	0.0755	U	0.0909	0.0755	mg/L		02/12/13 10:50	02/20/13 15:16	100
N-Nitrosodiphenylamine	0.00909	U	0.0455	0.00909	mg/L		02/12/13 10:50	02/20/13 15:16	100
1,2-Diphenylhydrazine	0.0100	U	0.0455	0.0100	mg/L		02/12/13 10:50	02/20/13 15:16	100
Pentachlorophenol	0.0555	U	0.0909	0.0555	mg/L		02/12/13 10:50	02/20/13 15:16	100
Phenanthrene	0.0563		0.0455	0.00545	mg/L		02/12/13 10:50	02/20/13 15:16	100
Anthracene	0.0245	J	0.0455	0.00455	mg/L		02/12/13 10:50	02/20/13 15:16	100
Di-n-butyl phthalate	0.0100	U	0.0455	0.0100	mg/L		02/12/13 10:50	02/20/13 15:16	100
Fluoranthene	0.0102	J	0.0455	0.00636	mg/L		02/12/13 10:50	02/20/13 15:16	100
Pyrene	0.0100	U	0.0455	0.0100	mg/L		02/12/13 10:50	02/20/13 15:16	100
Benzo[a]anthracene	0.00727	U	0.0455	0.00727	mg/L		02/12/13 10:50	02/20/13 15:16	100
Bis(2-ethylhexyl) phthalate	0.0336	U	0.0455	0.0336	mg/L		02/12/13 10:50	02/20/13 15:16	100
Chrysene	0.00727	U	0.0455	0.00727	mg/L		02/12/13 10:50	02/20/13 15:16	100
Benzo[a]pyrene	0.00727	U	0.0455	0.00727	mg/L		02/12/13 10:50	02/20/13 15:16	100

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Phenol-d6	0	X	10 - 94	02/12/13 10:50	02/20/13 15:16	100
2,4,6-Tribromophenol	0	X	10 - 123	02/12/13 10:50	02/20/13 15:16	100
2-Fluorobiphenyl	0	X	43 - 116	02/12/13 10:50	02/20/13 15:16	100
2-Fluorophenol	0	X	10 - 100	02/12/13 10:50	02/20/13 15:16	100
Nitrobenzene-d5	0	X	35 - 114	02/12/13 10:50	02/20/13 15:16	100
Terphenyl-d14	0	X	33 - 141	02/12/13 10:50	02/20/13 15:16	100

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels - DL

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	2.96	J	4.55	0.0727	mg/L		02/12/13 10:50	02/21/13 16:35	1000

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Phenol-d6	0	X	10 - 94	02/12/13 10:50	02/21/13 16:35	1000
2,4,6-Tribromophenol	0	X	10 - 123	02/12/13 10:50	02/21/13 16:35	1000
2-Fluorobiphenyl	0	X	43 - 116	02/12/13 10:50	02/21/13 16:35	1000
2-Fluorophenol	0	X	10 - 100	02/12/13 10:50	02/21/13 16:35	1000
Nitrobenzene-d5	0	X	35 - 114	02/12/13 10:50	02/21/13 16:35	1000
Terphenyl-d14	0	X	33 - 141	02/12/13 10:50	02/21/13 16:35	1000

Client Sample ID: WG-1620-MW23C-20130211

Lab Sample ID: 600-68442-3

Date Collected: 02/11/13 12:20

Matrix: Water

Date Received: 02/12/13 07:26

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	0.000110	U	0.00200	0.000110	mg/L			02/14/13 20:24	1
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			02/14/13 20:24	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68442-1

Client Sample ID: WG-1620-MW23C-20130211

Lab Sample ID: 600-68442-3

Date Collected: 02/11/13 12:20

Matrix: Water

Date Received: 02/12/13 07:26

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.0111		0.00100	0.0000800	mg/L			02/14/13 20:24	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			02/14/13 20:24	1
Toluene	0.00433		0.00100	0.000150	mg/L			02/14/13 20:24	1
Chlorobenzene	0.000279	J	0.00100	0.000120	mg/L			02/14/13 20:24	1
Xylenes, Total	0.0884		0.00300	0.000260	mg/L			02/14/13 20:24	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	96		67 - 139					02/14/13 20:24	1
Dibromofluoromethane	77		62 - 130					02/14/13 20:24	1
Toluene-d8 (Surr)	82		70 - 130					02/14/13 20:24	1
1,2-Dichloroethane-d4 (Surr)	84		50 - 134					02/14/13 20:24	1

Method: 8260B - Volatile Organic Compounds (GC/MS) - DL

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	0.151		0.0100	0.00110	mg/L			02/15/13 16:58	10
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	96		67 - 139					02/15/13 16:58	10
Dibromofluoromethane	74		62 - 130					02/15/13 16:58	10
Toluene-d8 (Surr)	81		70 - 130					02/15/13 16:58	10
1,2-Dichloroethane-d4 (Surr)	79		50 - 134					02/15/13 16:58	10

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.000364	U	0.00455	0.000364	mg/L		02/12/13 10:50	02/19/13 15:34	10
Nitrobenzene	0.00100	U	0.00455	0.00100	mg/L		02/12/13 10:50	02/19/13 15:34	10
2,4-Dimethylphenol	0.00282	U	0.00455	0.00282	mg/L		02/12/13 10:50	02/19/13 15:34	10
Bis(2-chloroethoxy)methane	0.00118	U	0.00455	0.00118	mg/L		02/12/13 10:50	02/19/13 15:34	10
2-Chloronaphthalene	0.000727	U	0.00455	0.000727	mg/L		02/12/13 10:50	02/19/13 15:34	10
Acenaphthylene	0.000545	U	0.00455	0.000545	mg/L		02/12/13 10:50	02/19/13 15:34	10
2,6-Dinitrotoluene	0.000727	U	0.00455	0.000727	mg/L		02/12/13 10:50	02/19/13 15:34	10
4-Nitrophenol	0.00509	U	0.00909	0.00509	mg/L		02/12/13 10:50	02/19/13 15:34	10
2,4-Dinitrotoluene	0.00118	U	0.00455	0.00118	mg/L		02/12/13 10:50	02/19/13 15:34	10
4,6-Dinitro-2-methylphenol	0.00755	U	0.00909	0.00755	mg/L		02/12/13 10:50	02/19/13 15:34	10
N-Nitrosodiphenylamine	0.000909	U	0.00455	0.000909	mg/L		02/12/13 10:50	02/19/13 15:34	10
1,2-Diphenylhydrazine	0.00100	U	0.00455	0.00100	mg/L		02/12/13 10:50	02/19/13 15:34	10
Pentachlorophenol	0.00555	U	0.00909	0.00555	mg/L		02/12/13 10:50	02/19/13 15:34	10
Di-n-butyl phthalate	0.00100	U	0.00455	0.00100	mg/L		02/12/13 10:50	02/19/13 15:34	10
Benzo[a]anthracene	0.104		0.00455	0.000727	mg/L		02/12/13 10:50	02/19/13 15:34	10
Bis(2-ethylhexyl) phthalate	0.00336	U	0.00455	0.00336	mg/L		02/12/13 10:50	02/19/13 15:34	10
Chrysene	0.103		0.00455	0.000727	mg/L		02/12/13 10:50	02/19/13 15:34	10
Benzo[a]pyrene	0.0283		0.00455	0.000727	mg/L		02/12/13 10:50	02/19/13 15:34	10
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Phenol-d6	21		10 - 94				02/12/13 10:50	02/19/13 15:34	10
2,4,6-Tribromophenol	43		10 - 123				02/12/13 10:50	02/19/13 15:34	10
2-Fluorobiphenyl	79		43 - 116				02/12/13 10:50	02/19/13 15:34	10
2-Fluorophenol	14		10 - 100				02/12/13 10:50	02/19/13 15:34	10
Nitrobenzene-d5	90		35 - 114				02/12/13 10:50	02/19/13 15:34	10
Terphenyl-d14	106		33 - 141				02/12/13 10:50	02/19/13 15:34	10

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68442-1

Client Sample ID: WG-1620-MW23C-20130211

Lab Sample ID: 600-68442-3

Date Collected: 02/11/13 12:20

Matrix: Water

Date Received: 02/12/13 07:26

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels - DL

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	12.2		4.55	0.0727	mg/L		02/12/13 10:50	02/26/13 12:16	1000
2-Methylnaphthalene	1.38		0.455	0.0636	mg/L		02/12/13 10:50	02/26/13 12:16	1000
Acenaphthene	1.78		0.455	0.0727	mg/L		02/12/13 10:50	02/26/13 12:16	1000
Dibenzofuran	1.82		0.455	0.0727	mg/L		02/12/13 10:50	02/26/13 12:16	1000
Fluorene	1.19		0.455	0.0636	mg/L		02/12/13 10:50	02/26/13 12:16	1000
Phenanthrene	3.48		0.455	0.0545	mg/L		02/12/13 10:50	02/26/13 12:16	1000
Anthracene	0.641		0.455	0.0455	mg/L		02/12/13 10:50	02/26/13 12:16	1000
Fluoranthene	1.09		0.455	0.0636	mg/L		02/12/13 10:50	02/26/13 12:16	1000
Pyrene	0.754		0.455	0.100	mg/L		02/12/13 10:50	02/26/13 12:16	1000
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Phenol-d6	0	X	10 - 94				02/12/13 10:50	02/26/13 12:16	1000
2,4,6-Tribromophenol	0	X	10 - 123				02/12/13 10:50	02/26/13 12:16	1000
2-Fluorobiphenyl	0	X	43 - 116				02/12/13 10:50	02/26/13 12:16	1000
2-Fluorophenol	0	X	10 - 100				02/12/13 10:50	02/26/13 12:16	1000
Nitrobenzene-d5	0	X	35 - 114				02/12/13 10:50	02/26/13 12:16	1000
Terphenyl-d14	0	X	33 - 141				02/12/13 10:50	02/26/13 12:16	1000

Client Sample ID: WG-1620-MW62B-20130211

Lab Sample ID: 600-68442-4

Date Collected: 02/11/13 14:00

Matrix: Water

Date Received: 02/12/13 07:26

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			02/14/13 06:47	1
Benzene	0.0000800	U	0.00100	0.0000800	mg/L			02/14/13 06:47	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			02/14/13 06:47	1
Toluene	0.000150	U	0.00100	0.000150	mg/L			02/14/13 06:47	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			02/14/13 06:47	1
Ethylbenzene	0.000110	U	0.00100	0.000110	mg/L			02/14/13 06:47	1
Xylenes, Total	0.000260	U	0.00300	0.000260	mg/L			02/14/13 06:47	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	106		67 - 139					02/14/13 06:47	1
Dibromofluoromethane	78		62 - 130					02/14/13 06:47	1
Toluene-d8 (Surr)	82		70 - 130					02/14/13 06:47	1
1,2-Dichloroethane-d4 (Surr)	83		50 - 134					02/14/13 06:47	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.0000364	U	0.000455	0.0000364	mg/L		02/12/13 10:50	02/19/13 16:02	1
Nitrobenzene	0.000100	U	0.000455	0.000100	mg/L		02/12/13 10:50	02/19/13 16:02	1
2,4-Dimethylphenol	0.000282	U	0.000455	0.000282	mg/L		02/12/13 10:50	02/19/13 16:02	1
Bis(2-chloroethoxy)methane	0.000118	U	0.000455	0.000118	mg/L		02/12/13 10:50	02/19/13 16:02	1
Naphthalene	0.00129	J	0.00455	0.0000727	mg/L		02/12/13 10:50	02/19/13 16:02	1
2-Methylnaphthalene	0.000174	J	0.000455	0.0000636	mg/L		02/12/13 10:50	02/19/13 16:02	1
2-Chloronaphthalene	0.0000727	U	0.000455	0.0000727	mg/L		02/12/13 10:50	02/19/13 16:02	1
Acenaphthylene	0.000112	J	0.000455	0.0000545	mg/L		02/12/13 10:50	02/19/13 16:02	1
2,6-Dinitrotoluene	0.0000727	U	0.000455	0.0000727	mg/L		02/12/13 10:50	02/19/13 16:02	1
Acenaphthene	0.000242	J	0.000455	0.0000727	mg/L		02/12/13 10:50	02/19/13 16:02	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68442-1

Client Sample ID: WG-1620-MW62B-20130211

Lab Sample ID: 600-68442-4

Date Collected: 02/11/13 14:00

Matrix: Water

Date Received: 02/12/13 07:26

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Nitrophenol	0.000509	U	0.000909	0.000509	mg/L		02/12/13 10:50	02/19/13 16:02	1
Dibenzofuran	0.000174	J	0.000455	0.0000727	mg/L		02/12/13 10:50	02/19/13 16:02	1
2,4-Dinitrotoluene	0.000118	U	0.000455	0.000118	mg/L		02/12/13 10:50	02/19/13 16:02	1
Fluorene	0.0000636	U	0.000455	0.0000636	mg/L		02/12/13 10:50	02/19/13 16:02	1
4,6-Dinitro-2-methylphenol	0.000755	U	0.000909	0.000755	mg/L		02/12/13 10:50	02/19/13 16:02	1
N-Nitrosodiphenylamine	0.0000909	U	0.000455	0.0000909	mg/L		02/12/13 10:50	02/19/13 16:02	1
1,2-Diphenylhydrazine	0.000100	U	0.000455	0.000100	mg/L		02/12/13 10:50	02/19/13 16:02	1
Pentachlorophenol	0.000555	U	0.000909	0.000555	mg/L		02/12/13 10:50	02/19/13 16:02	1
Phenanthrene	0.000472		0.000455	0.0000545	mg/L		02/12/13 10:50	02/19/13 16:02	1
Anthracene	0.000723		0.000455	0.0000455	mg/L		02/12/13 10:50	02/19/13 16:02	1
Di-n-butyl phthalate	0.000100	U	0.000455	0.000100	mg/L		02/12/13 10:50	02/19/13 16:02	1
Fluoranthene	0.000330	J	0.000455	0.0000636	mg/L		02/12/13 10:50	02/19/13 16:02	1
Pyrene	0.000387	J	0.000455	0.000100	mg/L		02/12/13 10:50	02/19/13 16:02	1
Benzo[a]anthracene	0.0000727	U	0.000455	0.0000727	mg/L		02/12/13 10:50	02/19/13 16:02	1
Bis(2-ethylhexyl) phthalate	0.000336	U	0.000455	0.000336	mg/L		02/12/13 10:50	02/19/13 16:02	1
Chrysene	0.0000727	U	0.000455	0.0000727	mg/L		02/12/13 10:50	02/19/13 16:02	1
Benzo[a]pyrene	0.0000727	U	0.000455	0.0000727	mg/L		02/12/13 10:50	02/19/13 16:02	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Phenol-d6	18		10 - 94	02/12/13 10:50	02/19/13 16:02	1
2,4,6-Tribromophenol	83		10 - 123	02/12/13 10:50	02/19/13 16:02	1
2-Fluorobiphenyl	76		43 - 116	02/12/13 10:50	02/19/13 16:02	1
2-Fluorophenol	34		10 - 100	02/12/13 10:50	02/19/13 16:02	1
Nitrobenzene-d5	69		35 - 114	02/12/13 10:50	02/19/13 16:02	1
Terphenyl-d14	90		33 - 141	02/12/13 10:50	02/19/13 16:02	1

Client Sample ID: WG-1620-FB8-20130211

Lab Sample ID: 600-68442-5

Date Collected: 02/11/13 14:15

Matrix: Water

Date Received: 02/12/13 07:26

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	0.000110	U	0.00200	0.000110	mg/L			02/13/13 13:05	1
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			02/13/13 13:05	1
Benzene	0.0000800	U	0.00100	0.0000800	mg/L			02/13/13 13:05	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			02/13/13 13:05	1
Toluene	0.000150	U	0.00100	0.000150	mg/L			02/13/13 13:05	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			02/13/13 13:05	1
Ethylbenzene	0.000110	U	0.00100	0.000110	mg/L			02/13/13 13:05	1
Xylenes, Total	0.000260	U	0.00300	0.000260	mg/L			02/13/13 13:05	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	106		67 - 139		02/13/13 13:05	1
Dibromofluoromethane	78		62 - 130		02/13/13 13:05	1
Toluene-d8 (Surr)	84		70 - 130		02/13/13 13:05	1
1,2-Dichloroethane-d4 (Surr)	87		50 - 134		02/13/13 13:05	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.0000364	U	0.000455	0.0000364	mg/L		02/12/13 14:45	02/19/13 16:28	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68442-1

Client Sample ID: WG-1620-FB8-20130211

Lab Sample ID: 600-68442-5

Date Collected: 02/11/13 14:15

Matrix: Water

Date Received: 02/12/13 07:26

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrobenzene	0.000100	U	0.000455	0.000100	mg/L		02/12/13 14:45	02/19/13 16:28	1
2,4-Dimethylphenol	0.000282	U	0.000455	0.000282	mg/L		02/12/13 14:45	02/19/13 16:28	1
Bis(2-chloroethoxy)methane	0.000118	U	0.000455	0.000118	mg/L		02/12/13 14:45	02/19/13 16:28	1
Naphthalene	0.000542	J	0.00455	0.0000727	mg/L		02/12/13 14:45	02/19/13 16:28	1
2-Methylnaphthalene	0.000688	J	0.000455	0.0000636	mg/L		02/12/13 14:45	02/19/13 16:28	1
2-Chloronaphthalene	0.0000727	U	0.000455	0.0000727	mg/L		02/12/13 14:45	02/19/13 16:28	1
Acenaphthylene	0.0000545	U	0.000455	0.0000545	mg/L		02/12/13 14:45	02/19/13 16:28	1
2,6-Dinitrotoluene	0.0000727	U	0.000455	0.0000727	mg/L		02/12/13 14:45	02/19/13 16:28	1
Acenaphthene	0.0000727	U	0.000455	0.0000727	mg/L		02/12/13 14:45	02/19/13 16:28	1
4-Nitrophenol	0.000509	U	0.000909	0.000509	mg/L		02/12/13 14:45	02/19/13 16:28	1
Dibenzofuran	0.0000727	U	0.000455	0.0000727	mg/L		02/12/13 14:45	02/19/13 16:28	1
2,4-Dinitrotoluene	0.000118	U	0.000455	0.000118	mg/L		02/12/13 14:45	02/19/13 16:28	1
Fluorene	0.0000636	U	0.000455	0.0000636	mg/L		02/12/13 14:45	02/19/13 16:28	1
4,6-Dinitro-2-methylphenol	0.000755	U	0.000909	0.000755	mg/L		02/12/13 14:45	02/19/13 16:28	1
N-Nitrosodiphenylamine	0.000909	U	0.000455	0.000909	mg/L		02/12/13 14:45	02/19/13 16:28	1
1,2-Diphenylhydrazine	0.000100	U	0.000455	0.000100	mg/L		02/12/13 14:45	02/19/13 16:28	1
Pentachlorophenol	0.000555	U	0.000909	0.000555	mg/L		02/12/13 14:45	02/19/13 16:28	1
Phenanthrene	0.000103	J	0.000455	0.0000545	mg/L		02/12/13 14:45	02/19/13 16:28	1
Anthracene	0.000455	U	0.000455	0.0000455	mg/L		02/12/13 14:45	02/19/13 16:28	1
Di-n-butyl phthalate	0.000100	U	0.000455	0.000100	mg/L		02/12/13 14:45	02/19/13 16:28	1
Fluoranthene	0.0000636	U	0.000455	0.0000636	mg/L		02/12/13 14:45	02/19/13 16:28	1
Pyrene	0.000100	U	0.000455	0.000100	mg/L		02/12/13 14:45	02/19/13 16:28	1
Benzo[a]anthracene	0.0000727	U	0.000455	0.0000727	mg/L		02/12/13 14:45	02/19/13 16:28	1
Bis(2-ethylhexyl) phthalate	0.000336	U	0.000455	0.000336	mg/L		02/12/13 14:45	02/19/13 16:28	1
Chrysene	0.0000727	U	0.000455	0.0000727	mg/L		02/12/13 14:45	02/19/13 16:28	1
Benzo[a]pyrene	0.0000727	U	0.000455	0.0000727	mg/L		02/12/13 14:45	02/19/13 16:28	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Phenol-d6	19		10 - 94				02/12/13 14:45	02/19/13 16:28	1
2,4,6-Tribromophenol	58		10 - 123				02/12/13 14:45	02/19/13 16:28	1
2-Fluorobiphenyl	73		43 - 116				02/12/13 14:45	02/19/13 16:28	1
2-Fluorophenol	38		10 - 100				02/12/13 14:45	02/19/13 16:28	1
Nitrobenzene-d5	66		35 - 114				02/12/13 14:45	02/19/13 16:28	1
Terphenyl-d14	88		33 - 141				02/12/13 14:45	02/19/13 16:28	1

Client Sample ID: WG-1620-TB06-20130211

Lab Sample ID: 600-68442-6

Date Collected: 02/11/13 00:00

Matrix: Water

Date Received: 02/12/13 07:26

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	0.000110	U	0.00200	0.000110	mg/L			02/13/13 13:33	1
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			02/13/13 13:33	1
Benzene	0.0000800	U	0.00100	0.0000800	mg/L			02/13/13 13:33	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			02/13/13 13:33	1
Toluene	0.000150	U	0.00100	0.000150	mg/L			02/13/13 13:33	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			02/13/13 13:33	1
Ethylbenzene	0.000110	U	0.00100	0.000110	mg/L			02/13/13 13:33	1
Xylenes, Total	0.000260	U	0.00300	0.000260	mg/L			02/13/13 13:33	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68442-1

Client Sample ID: WG-1620-TB06-20130211

Lab Sample ID: 600-68442-6

Date Collected: 02/11/13 00:00

Matrix: Water

Date Received: 02/12/13 07:26

<i>Surrogate</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
4-Bromofluorobenzene	111		67 - 139		02/13/13 13:33	1
Dibromofluoromethane	78		62 - 130		02/13/13 13:33	1
Toluene-d8 (Surr)	82		70 - 130		02/13/13 13:33	1
1,2-Dichloroethane-d4 (Surr)	88		50 - 134		02/13/13 13:33	1

Definitions/Glossary

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68442-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
U	Analyte was not detected at or above the SDL.
J	Result is less than the MQL but greater than or equal to the SDL and the concentration is an estimated value.

GC/MS Semi VOA

Qualifier	Qualifier Description
U	Analyte was not detected at or above the SDL.
X	Surrogate is outside control limits
J	Result is less than the MQL but greater than or equal to the SDL and the concentration is an estimated value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
DL, RA, RE, IN	Indicates a Dilution, Reanalysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
EDL	Estimated Detection Limit
EPA	United States Environmental Protection Agency
MDA	Minimum detectable activity
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Surrogate Summary

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68442-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		BFB (67-139)	DBFM (62-130)	TOL (70-130)	12DCE (50-134)
600-68442-1	WG-1620-MW57A-20130211	96	74	81	82
600-68442-2	WG-1620-MW58A-20130211	96	76	87	83
600-68442-2 - DL	WG-1620-MW58A-20130211	103	73	81	79
600-68442-3	WG-1620-MW23C-20130211	96	77	82	84
600-68442-3 - DL	WG-1620-MW23C-20130211	96	74	81	79
600-68442-4	WG-1620-MW62B-20130211	106	78	82	83
600-68442-5	WG-1620-FB8-20130211	106	78	84	87
600-68442-6	WG-1620-TB06-20130211	111	78	82	88
LCS 600-99494/3	Lab Control Sample	112	86	82	88
LCS 600-99563/3	Lab Control Sample	103	82	81	84
LCS 600-99606/3	Lab Control Sample	105	83	88	83
LCS 600-99671/4	Lab Control Sample	101	82	87	82
MB 600-99494/4	Method Blank	108	79	84	87
MB 600-99563/4	Method Blank	108	75	83	84
MB 600-99606/4	Method Blank	104	76	84	80
MB 600-99671/6	Method Blank	106	73	82	81

Surrogate Legend

BFB = 4-Bromofluorobenzene
 DBFM = Dibromofluoromethane
 TOL = Toluene-d8 (Surr)
 12DCE = 1,2-Dichloroethane-d4 (Surr)

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)					
		PHL (10-94)	TBP (10-123)	FBP (43-116)	2FP (10-100)	NBZ (35-114)	TPH (33-141)
600-68442-1	WG-1620-MW57A-20130211	0 X	0 X	0 X	0 X	0 X	0 X
600-68442-1 - DL	WG-1620-MW57A-20130211	0 X	0 X	0 X	0 X	0 X	0 X
600-68442-2	WG-1620-MW58A-20130211	0 X	0 X	0 X	0 X	0 X	0 X
600-68442-2 - DL	WG-1620-MW58A-20130211	0 X	0 X	0 X	0 X	0 X	0 X
600-68442-3 - DL	WG-1620-MW23C-20130211	0 X	0 X	0 X	0 X	0 X	0 X
600-68442-3	WG-1620-MW23C-20130211	21	43	79	14	90	106
600-68442-4	WG-1620-MW62B-20130211	18	83	76	34	69	90
600-68442-5	WG-1620-FB8-20130211	19	58	73	38	66	88
LCS 600-99370/2-A	Lab Control Sample	75	68	76	77	72	83
MB 600-99370/1-A	Method Blank	78	61	74	71	76	86

Surrogate Legend

PHL = Phenol-d6
 TBP = 2,4,6-Tribromophenol
 FBP = 2-Fluorobiphenyl
 2FP = 2-Fluorophenol
 NBZ = Nitrobenzene-d5
 TPH = Terphenyl-d14

TestAmerica Houston

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68442-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 600-99494/4

Matrix: Water

Analysis Batch: 99494

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	0.000110	U	0.00200	0.000110	mg/L			02/13/13 11:39	1
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			02/13/13 11:39	1
Benzene	0.0000800	U	0.00100	0.0000800	mg/L			02/13/13 11:39	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			02/13/13 11:39	1
Toluene	0.000150	U	0.00100	0.000150	mg/L			02/13/13 11:39	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			02/13/13 11:39	1
Ethylbenzene	0.000110	U	0.00100	0.000110	mg/L			02/13/13 11:39	1
Xylenes, Total	0.000260	U	0.00300	0.000260	mg/L			02/13/13 11:39	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	108		67 - 139		02/13/13 11:39	1
Dibromofluoromethane	79		62 - 130		02/13/13 11:39	1
Toluene-d8 (Surr)	84		70 - 130		02/13/13 11:39	1
1,2-Dichloroethane-d4 (Surr)	87		50 - 134		02/13/13 11:39	1

Lab Sample ID: LCS 600-99494/3

Matrix: Water

Analysis Batch: 99494

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Vinyl chloride	0.0100	0.006923		mg/L		69	47 - 146
Methylene Chloride	0.0100	0.009646		mg/L		96	62 - 134
Benzene	0.0100	0.01027		mg/L		103	69 - 131
1,2-Dichloroethane	0.0100	0.01108		mg/L		111	66 - 140
Toluene	0.0100	0.009583		mg/L		96	67 - 130
Chlorobenzene	0.0100	0.009793		mg/L		98	60 - 136
Ethylbenzene	0.0100	0.009160		mg/L		92	68 - 128
Xylenes, Total	0.0300	0.02866		mg/L		96	68 - 132

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene	112		67 - 139
Dibromofluoromethane	86		62 - 130
Toluene-d8 (Surr)	82		70 - 130
1,2-Dichloroethane-d4 (Surr)	88		50 - 134

Lab Sample ID: MB 600-99563/4

Matrix: Water

Analysis Batch: 99563

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	0.000110	U	0.00200	0.000110	mg/L			02/14/13 00:15	1
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			02/14/13 00:15	1
Benzene	0.0000800	U	0.00100	0.0000800	mg/L			02/14/13 00:15	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			02/14/13 00:15	1
Toluene	0.000150	U	0.00100	0.000150	mg/L			02/14/13 00:15	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			02/14/13 00:15	1
Ethylbenzene	0.000110	U	0.00100	0.000110	mg/L			02/14/13 00:15	1

TestAmerica Houston

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68442-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 600-99563/4

Matrix: Water

Analysis Batch: 99563

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Xylenes, Total	0.000260	U	0.00300	0.000260	mg/L			02/14/13 00:15	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	108		67 - 139		02/14/13 00:15	1
Dibromofluoromethane	75		62 - 130		02/14/13 00:15	1
Toluene-d8 (Surr)	83		70 - 130		02/14/13 00:15	1
1,2-Dichloroethane-d4 (Surr)	84		50 - 134		02/14/13 00:15	1

Lab Sample ID: LCS 600-99563/3

Matrix: Water

Analysis Batch: 99563

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Vinyl chloride	0.0100	0.006433		mg/L		64	47 - 146
Methylene Chloride	0.0100	0.008442		mg/L		84	62 - 134
Benzene	0.0100	0.01034		mg/L		103	69 - 131
1,2-Dichloroethane	0.0100	0.01113		mg/L		111	66 - 140
Toluene	0.0100	0.009930		mg/L		99	67 - 130
Chlorobenzene	0.0100	0.01053		mg/L		105	60 - 136
Ethylbenzene	0.0100	0.009836		mg/L		98	68 - 128
Xylenes, Total	0.0300	0.03124		mg/L		104	68 - 132

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene	103		67 - 139
Dibromofluoromethane	82		62 - 130
Toluene-d8 (Surr)	81		70 - 130
1,2-Dichloroethane-d4 (Surr)	84		50 - 134

Lab Sample ID: MB 600-99606/4

Matrix: Water

Analysis Batch: 99606

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	0.000110	U	0.00200	0.000110	mg/L			02/14/13 13:46	1
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			02/14/13 13:46	1
Benzene	0.0000800	U	0.00100	0.0000800	mg/L			02/14/13 13:46	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			02/14/13 13:46	1
Toluene	0.000150	U	0.00100	0.000150	mg/L			02/14/13 13:46	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			02/14/13 13:46	1
Ethylbenzene	0.000110	U	0.00100	0.000110	mg/L			02/14/13 13:46	1
Xylenes, Total	0.000260	U	0.00300	0.000260	mg/L			02/14/13 13:46	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	104		67 - 139		02/14/13 13:46	1
Dibromofluoromethane	76		62 - 130		02/14/13 13:46	1
Toluene-d8 (Surr)	84		70 - 130		02/14/13 13:46	1
1,2-Dichloroethane-d4 (Surr)	80		50 - 134		02/14/13 13:46	1

TestAmerica Houston

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68442-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 600-99606/3

Matrix: Water

Analysis Batch: 99606

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Vinyl chloride	0.0100	0.005853		mg/L		59	47 - 146
Methylene Chloride	0.0100	0.008787		mg/L		88	62 - 134
Benzene	0.0100	0.01038		mg/L		104	69 - 131
1,2-Dichloroethane	0.0100	0.01108		mg/L		111	66 - 140
Toluene	0.0100	0.01023		mg/L		102	67 - 130
Chlorobenzene	0.0100	0.01044		mg/L		104	60 - 136
Ethylbenzene	0.0100	0.009980		mg/L		100	68 - 128
Xylenes, Total	0.0300	0.03057		mg/L		102	68 - 132

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene	105		67 - 139
Dibromofluoromethane	83		62 - 130
Toluene-d8 (Surr)	88		70 - 130
1,2-Dichloroethane-d4 (Surr)	83		50 - 134

Lab Sample ID: MB 600-99671/6

Matrix: Water

Analysis Batch: 99671

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	0.000110	U	0.00200	0.000110	mg/L			02/15/13 12:14	1
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			02/15/13 12:14	1
Benzene	0.0000800	U	0.00100	0.0000800	mg/L			02/15/13 12:14	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			02/15/13 12:14	1
Toluene	0.000150	U	0.00100	0.000150	mg/L			02/15/13 12:14	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			02/15/13 12:14	1
Ethylbenzene	0.000110	U	0.00100	0.000110	mg/L			02/15/13 12:14	1
Xylenes, Total	0.000260	U	0.00300	0.000260	mg/L			02/15/13 12:14	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	106		67 - 139		02/15/13 12:14	1
Dibromofluoromethane	73		62 - 130		02/15/13 12:14	1
Toluene-d8 (Surr)	82		70 - 130		02/15/13 12:14	1
1,2-Dichloroethane-d4 (Surr)	81		50 - 134		02/15/13 12:14	1

Lab Sample ID: LCS 600-99671/4

Matrix: Water

Analysis Batch: 99671

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Vinyl chloride	0.0100	0.005728		mg/L		57	47 - 146
Methylene Chloride	0.0100	0.008400		mg/L		84	62 - 134
Benzene	0.0100	0.01036		mg/L		104	69 - 131
1,2-Dichloroethane	0.0100	0.01090		mg/L		109	66 - 140
Toluene	0.0100	0.01035		mg/L		104	67 - 130
Chlorobenzene	0.0100	0.01057		mg/L		106	60 - 136
Ethylbenzene	0.0100	0.01014		mg/L		101	68 - 128

TestAmerica Houston

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68442-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 600-99671/4
Matrix: Water
Analysis Batch: 99671

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Xylenes, Total	0.0300	0.03159		mg/L		105	68 - 132

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene	101		67 - 139
Dibromofluoromethane	82		62 - 130
Toluene-d8 (Surr)	87		70 - 130
1,2-Dichloroethane-d4 (Surr)	82		50 - 134

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Lab Sample ID: MB 600-99370/1-A
Matrix: Water
Analysis Batch: 99914

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 99370

Analyte	MB Result	MB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.000400	U	0.000500	0.000400	mg/L		02/12/13 10:50	02/19/13 09:42	1
Nitrobenzene	0.000110	U	0.000500	0.000110	mg/L		02/12/13 10:50	02/19/13 09:42	1
2,4-Dimethylphenol	0.000310	U	0.000500	0.000310	mg/L		02/12/13 10:50	02/19/13 09:42	1
Bis(2-chloroethoxy)methane	0.000130	U	0.000500	0.000130	mg/L		02/12/13 10:50	02/19/13 09:42	1
Naphthalene	0.0000800	U	0.00500	0.0000800	mg/L		02/12/13 10:50	02/19/13 09:42	1
2-Methylnaphthalene	0.0000700	U	0.000500	0.0000700	mg/L		02/12/13 10:50	02/19/13 09:42	1
2-Chloronaphthalene	0.0000800	U	0.000500	0.0000800	mg/L		02/12/13 10:50	02/19/13 09:42	1
Acenaphthylene	0.0000600	U	0.000500	0.0000600	mg/L		02/12/13 10:50	02/19/13 09:42	1
2,6-Dinitrotoluene	0.0000800	U	0.000500	0.0000800	mg/L		02/12/13 10:50	02/19/13 09:42	1
Acenaphthene	0.0000800	U	0.000500	0.0000800	mg/L		02/12/13 10:50	02/19/13 09:42	1
4-Nitrophenol	0.000560	U	0.00100	0.000560	mg/L		02/12/13 10:50	02/19/13 09:42	1
Dibenzofuran	0.0000800	U	0.000500	0.0000800	mg/L		02/12/13 10:50	02/19/13 09:42	1
2,4-Dinitrotoluene	0.000130	U	0.000500	0.000130	mg/L		02/12/13 10:50	02/19/13 09:42	1
Fluorene	0.0000700	U	0.000500	0.0000700	mg/L		02/12/13 10:50	02/19/13 09:42	1
4,6-Dinitro-2-methylphenol	0.000830	U	0.00100	0.000830	mg/L		02/12/13 10:50	02/19/13 09:42	1
N-Nitrosodiphenylamine	0.000100	U	0.000500	0.000100	mg/L		02/12/13 10:50	02/19/13 09:42	1
1,2-Diphenylhydrazine	0.000110	U	0.000500	0.000110	mg/L		02/12/13 10:50	02/19/13 09:42	1
Pentachlorophenol	0.000610	U	0.00100	0.000610	mg/L		02/12/13 10:50	02/19/13 09:42	1
Phenanthrene	0.0000600	U	0.000500	0.0000600	mg/L		02/12/13 10:50	02/19/13 09:42	1
Anthracene	0.0000500	U	0.000500	0.0000500	mg/L		02/12/13 10:50	02/19/13 09:42	1
Di-n-butyl phthalate	0.000110	U	0.000500	0.000110	mg/L		02/12/13 10:50	02/19/13 09:42	1
Fluoranthene	0.0000700	U	0.000500	0.0000700	mg/L		02/12/13 10:50	02/19/13 09:42	1
Pyrene	0.000110	U	0.000500	0.000110	mg/L		02/12/13 10:50	02/19/13 09:42	1
Benzo[a]anthracene	0.0000800	U	0.000500	0.0000800	mg/L		02/12/13 10:50	02/19/13 09:42	1
Bis(2-ethylhexyl) phthalate	0.002179		0.000500	0.000370	mg/L		02/12/13 10:50	02/19/13 09:42	1
Chrysene	0.0000800	U	0.000500	0.0000800	mg/L		02/12/13 10:50	02/19/13 09:42	1
Benzo[a]pyrene	0.0000800	U	0.000500	0.0000800	mg/L		02/12/13 10:50	02/19/13 09:42	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Phenol-d6	78		10 - 94	02/12/13 10:50	02/19/13 09:42	1
2,4,6-Tribromophenol	61		10 - 123	02/12/13 10:50	02/19/13 09:42	1
2-Fluorobiphenyl	74		43 - 116	02/12/13 10:50	02/19/13 09:42	1

TestAmerica Houston

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68442-1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Lab Sample ID: MB 600-99370/1-A

Matrix: Water

Analysis Batch: 99914

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 99370

<i>Surrogate</i>	<i>MB</i>	<i>MB</i>	<i>Limits</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
	<i>%Recovery</i>	<i>Qualifier</i>				
2-Fluorophenol	71		10 - 100	02/12/13 10:50	02/19/13 09:42	1
Nitrobenzene-d5	76		35 - 114	02/12/13 10:50	02/19/13 09:42	1
Terphenyl-d14	86		33 - 141	02/12/13 10:50	02/19/13 09:42	1

Lab Sample ID: LCS 600-99370/2-A

Matrix: Water

Analysis Batch: 99914

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 99370

<i>Analyte</i>	<i>Spike</i>	<i>LCS</i>	<i>LCS</i>	<i>Unit</i>	<i>D</i>	<i>%Rec</i>	<i>%Rec.</i>	<i>Limits</i>
	<i>Added</i>	<i>Result</i>	<i>Qualifier</i>					
Phenol	0.0100	0.008077		mg/L		81		11 - 112
Nitrobenzene	0.0100	0.007443		mg/L		74		42 - 119
2,4-Dimethylphenol	0.0100	0.007451		mg/L		75		36 - 109
Bis(2-chloroethoxy)methane	0.0100	0.006809		mg/L		68		42 - 119
Naphthalene	0.0100	0.007445		mg/L		74		39 - 120
2-Methylnaphthalene	0.0100	0.007420		mg/L		74		40 - 121
2-Chloronaphthalene	0.0100	0.007215		mg/L		72		43 - 120
Acenaphthylene	0.0100	0.007632		mg/L		76		35 - 135
2,6-Dinitrotoluene	0.0100	0.007588		mg/L		76		45 - 122
Acenaphthene	0.0100	0.007599		mg/L		76		47 - 145
4-Nitrophenol	0.0100	0.006515		mg/L		65		14 - 132
Dibenzofuran	0.0100	0.007617		mg/L		76		46 - 123
2,4-Dinitrotoluene	0.0100	0.007413		mg/L		74		43 - 128
Fluorene	0.0100	0.007800		mg/L		78		48 - 127
4,6-Dinitro-2-methylphenol	0.0100	0.005946		mg/L		59		24 - 122
N-Nitrosodiphenylamine	0.0100	0.009002		mg/L		90		43 - 107
1,2-Diphenylhydrazine	0.0100	0.007470		mg/L		75		47 - 117
Pentachlorophenol	0.0100	0.003784		mg/L		38		9 - 147
Phenanthrene	0.0100	0.007548		mg/L		75		52 - 121
Anthracene	0.0100	0.007684		mg/L		77		53 - 124
Di-n-butyl phthalate	0.0100	0.008024		mg/L		80		54 - 138
Fluoranthene	0.0100	0.007854		mg/L		79		53 - 127
Pyrene	0.0100	0.008763		mg/L		88		49 - 121
Benzo[a]anthracene	0.0100	0.008056		mg/L		81		53 - 122
Bis(2-ethylhexyl) phthalate	0.0100	0.008382		mg/L		84		47 - 132
Chrysene	0.0100	0.008450		mg/L		84		49 - 124
Benzo[a]pyrene	0.0100	0.007800		mg/L		78		50 - 124

<i>Surrogate</i>	<i>LCS</i>	<i>LCS</i>	<i>Limits</i>
	<i>%Recovery</i>	<i>Qualifier</i>	
Phenol-d6	75		10 - 94
2,4,6-Tribromophenol	68		10 - 123
2-Fluorobiphenyl	76		43 - 116
2-Fluorophenol	77		10 - 100
Nitrobenzene-d5	72		35 - 114
Terphenyl-d14	83		33 - 141

TestAmerica Houston

Unadjusted Detection Limits

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68442-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	MQL	MDL	Units	Method
1,2-Dichloroethane	0.00100	0.000140	mg/L	8260B
Benzene	0.00100	0.0000800	mg/L	8260B
Chlorobenzene	0.00100	0.000120	mg/L	8260B
Ethylbenzene	0.00100	0.000110	mg/L	8260B
Methylene Chloride	0.00100	0.000150	mg/L	8260B
Toluene	0.00100	0.000150	mg/L	8260B
Vinyl chloride	0.00200	0.000110	mg/L	8260B
Xylenes, Total	0.00300	0.000260	mg/L	8260B

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	MQL	MDL	Units	Method
1,2-Diphenylhydrazine	0.000500	0.000110	mg/L	8270C LL
2,4-Dimethylphenol	0.000500	0.000310	mg/L	8270C LL
2,4-Dinitrotoluene	0.000500	0.000130	mg/L	8270C LL
2,6-Dinitrotoluene	0.000500	0.0000800	mg/L	8270C LL
2-Chloronaphthalene	0.000500	0.0000800	mg/L	8270C LL
2-Methylnaphthalene	0.000500	0.0000700	mg/L	8270C LL
4,6-Dinitro-2-methylphenol	0.00100	0.000830	mg/L	8270C LL
4-Nitrophenol	0.00100	0.000560	mg/L	8270C LL
Acenaphthene	0.000500	0.0000800	mg/L	8270C LL
Acenaphthylene	0.000500	0.0000600	mg/L	8270C LL
Anthracene	0.000500	0.0000500	mg/L	8270C LL
Benzo[a]anthracene	0.000500	0.0000800	mg/L	8270C LL
Benzo[a]pyrene	0.000500	0.0000800	mg/L	8270C LL
Bis(2-chloroethoxy)methane	0.000500	0.000130	mg/L	8270C LL
Bis(2-ethylhexyl) phthalate	0.000500	0.000370	mg/L	8270C LL
Chrysene	0.000500	0.0000800	mg/L	8270C LL
Dibenzofuran	0.000500	0.0000800	mg/L	8270C LL
Di-n-butyl phthalate	0.000500	0.000110	mg/L	8270C LL
Fluoranthene	0.000500	0.0000700	mg/L	8270C LL
Fluorene	0.000500	0.0000700	mg/L	8270C LL
Naphthalene	0.00500	0.0000800	mg/L	8270C LL
Nitrobenzene	0.000500	0.000110	mg/L	8270C LL
N-Nitrosodiphenylamine	0.000500	0.000100	mg/L	8270C LL
Pentachlorophenol	0.00100	0.000610	mg/L	8270C LL
Phenanthrene	0.000500	0.0000600	mg/L	8270C LL
Phenol	0.000500	0.0000400	mg/L	8270C LL
Pyrene	0.000500	0.000110	mg/L	8270C LL

QC Association Summary

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68442-1

GC/MS VOA

Analysis Batch: 99494

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-68442-5	WG-1620-FB8-20130211	Total/NA	Water	8260B	
600-68442-6	WG-1620-TB06-20130211	Total/NA	Water	8260B	
LCS 600-99494/3	Lab Control Sample	Total/NA	Water	8260B	
MB 600-99494/4	Method Blank	Total/NA	Water	8260B	

Analysis Batch: 99563

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-68442-4	WG-1620-MW62B-20130211	Total/NA	Water	8260B	
LCS 600-99563/3	Lab Control Sample	Total/NA	Water	8260B	
MB 600-99563/4	Method Blank	Total/NA	Water	8260B	

Analysis Batch: 99606

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-68442-1	WG-1620-MW57A-20130211	Total/NA	Water	8260B	
600-68442-2	WG-1620-MW58A-20130211	Total/NA	Water	8260B	
600-68442-3	WG-1620-MW23C-20130211	Total/NA	Water	8260B	
LCS 600-99606/3	Lab Control Sample	Total/NA	Water	8260B	
MB 600-99606/4	Method Blank	Total/NA	Water	8260B	

Analysis Batch: 99671

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-68442-2 - DL	WG-1620-MW58A-20130211	Total/NA	Water	8260B	
600-68442-3 - DL	WG-1620-MW23C-20130211	Total/NA	Water	8260B	
LCS 600-99671/4	Lab Control Sample	Total/NA	Water	8260B	
MB 600-99671/6	Method Blank	Total/NA	Water	8260B	

GC/MS Semi VOA

Prep Batch: 99370

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-68442-1	WG-1620-MW57A-20130211	Total/NA	Water	3510C	
600-68442-1 - DL	WG-1620-MW57A-20130211	Total/NA	Water	3510C	
600-68442-2	WG-1620-MW58A-20130211	Total/NA	Water	3510C	
600-68442-2 - DL	WG-1620-MW58A-20130211	Total/NA	Water	3510C	
600-68442-3 - DL	WG-1620-MW23C-20130211	Total/NA	Water	3510C	
600-68442-3	WG-1620-MW23C-20130211	Total/NA	Water	3510C	
600-68442-4	WG-1620-MW62B-20130211	Total/NA	Water	3510C	
600-68442-5	WG-1620-FB8-20130211	Total/NA	Water	3510C	
LCS 600-99370/2-A	Lab Control Sample	Total/NA	Water	3510C	
MB 600-99370/1-A	Method Blank	Total/NA	Water	3510C	

Analysis Batch: 99914

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-68442-3	WG-1620-MW23C-20130211	Total/NA	Water	8270C LL	99370
600-68442-4	WG-1620-MW62B-20130211	Total/NA	Water	8270C LL	99370
600-68442-5	WG-1620-FB8-20130211	Total/NA	Water	8270C LL	99370
LCS 600-99370/2-A	Lab Control Sample	Total/NA	Water	8270C LL	99370
MB 600-99370/1-A	Method Blank	Total/NA	Water	8270C LL	99370

TestAmerica Houston

QC Association Summary

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68442-1

GC/MS Semi VOA (Continued)

Analysis Batch: 100102

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-68442-1	WG-1620-MW57A-20130211	Total/NA	Water	8270C LL	99370
600-68442-2	WG-1620-MW58A-20130211	Total/NA	Water	8270C LL	99370

Analysis Batch: 100168

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-68442-1 - DL	WG-1620-MW57A-20130211	Total/NA	Water	8270C LL	99370
600-68442-2 - DL	WG-1620-MW58A-20130211	Total/NA	Water	8270C LL	99370

Analysis Batch: 100424

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-68442-3 - DL	WG-1620-MW23C-20130211	Total/NA	Water	8270C LL	99370

Lab Chronicle

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68442-1

Client Sample ID: WG-1620-MW57A-20130211

Lab Sample ID: 600-68442-1

Date Collected: 02/11/13 10:30

Matrix: Water

Date Received: 02/12/13 07:26

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		10	99606	02/14/13 20:53	DT	TAL HOU
Total/NA	Prep	3510C			99370	02/12/13 10:50	SMB	TAL HOU
Total/NA	Analysis	8270C LL		500	100102	02/20/13 14:49	TTD	TAL HOU
Total/NA	Prep	3510C	DL		99370	02/12/13 10:50	SMB	TAL HOU
Total/NA	Analysis	8270C LL	DL	5000	100168	02/21/13 16:07	TTD	TAL HOU

Client Sample ID: WG-1620-MW58A-20130211

Lab Sample ID: 600-68442-2

Date Collected: 02/11/13 11:20

Matrix: Water

Date Received: 02/12/13 07:26

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	99606	02/14/13 19:56	DT	TAL HOU
Total/NA	Analysis	8260B	DL	10	99671	02/15/13 16:30	DT	TAL HOU
Total/NA	Prep	3510C			99370	02/12/13 10:50	SMB	TAL HOU
Total/NA	Analysis	8270C LL		100	100102	02/20/13 15:16	TTD	TAL HOU
Total/NA	Prep	3510C	DL		99370	02/12/13 10:50	SMB	TAL HOU
Total/NA	Analysis	8270C LL	DL	1000	100168	02/21/13 16:35	TTD	TAL HOU

Client Sample ID: WG-1620-MW23C-20130211

Lab Sample ID: 600-68442-3

Date Collected: 02/11/13 12:20

Matrix: Water

Date Received: 02/12/13 07:26

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	99606	02/14/13 20:24	DT	TAL HOU
Total/NA	Analysis	8260B	DL	10	99671	02/15/13 16:58	DT	TAL HOU
Total/NA	Prep	3510C	DL		99370	02/12/13 10:50	SMB	TAL HOU
Total/NA	Analysis	8270C LL	DL	1000	100424	02/26/13 12:16	TTD	TAL HOU
Total/NA	Prep	3510C			99370	02/12/13 10:50	SMB	TAL HOU
Total/NA	Analysis	8270C LL		10	99914	02/19/13 15:34	TTD	TAL HOU

Client Sample ID: WG-1620-MW62B-20130211

Lab Sample ID: 600-68442-4

Date Collected: 02/11/13 14:00

Matrix: Water

Date Received: 02/12/13 07:26

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	99563	02/14/13 06:47	DT	TAL HOU
Total/NA	Prep	3510C			99370	02/12/13 10:50	SMB	TAL HOU
Total/NA	Analysis	8270C LL		1	99914	02/19/13 16:02	TTD	TAL HOU

Lab Chronicle

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68442-1

Client Sample ID: WG-1620-FB8-20130211

Lab Sample ID: 600-68442-5

Date Collected: 02/11/13 14:15

Matrix: Water

Date Received: 02/12/13 07:26

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	99494	02/13/13 13:05	DT	TAL HOU
Total/NA	Prep	3510C			99370	02/12/13 14:45	SMB	TAL HOU
Total/NA	Analysis	8270C LL		1	99914	02/19/13 16:28	TTD	TAL HOU

Client Sample ID: WG-1620-TB06-20130211

Lab Sample ID: 600-68442-6

Date Collected: 02/11/13 00:00

Matrix: Water

Date Received: 02/12/13 07:26

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	99494	02/13/13 13:33	DT	TAL HOU

Laboratory References:

TAL HOU = TestAmerica Houston, 6310 Rothway Street, Houston, TX 77040, TEL (713)690-4444

Certification Summary

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68442-1

Laboratory: TestAmerica Houston

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Arkansas DEQ	State Program	6	88-0759	08-04-12
Louisiana	NELAP	6	01967	06-30-13
Oklahoma	State Program	6	9503	08-31-13
Texas	NELAP	6	T104704223-10-6-TX	10-31-13
USDA	Federal		P330-08-00217	04-01-14
Utah	NELAP	8	GULF	10-31-13

Chain of Custody Record



Client Information
 Client Contact: Mr. Eric Matzner
 Company: Pastor, Bahling & Wheeler LLC
 Address: 2201 Double Creek Dr Suite 4004
 City: Round Rock
 State Zip: TX, 78664
 Phone: 512-671-3434(Tel) 512-671-3446(Fax)
 Email: eric.matzner@pbwilc.com
 Project Name: UPRR HWPW
 Site: SSOV#:

Sampler: JOHN BEARDEN
 Lab PM: Kuchhadkar, Sachin G
 E-Mail: sachin.kuchhadkar@testamericainc.com
 CCOE No: 600-18857-7207.2
 Page: 1 of 1
 Job #:

Due Date Requested:
 TAT Requested (days):
 PO #:
 Purchase Order not required
 Project #:
 60003722
 SSOV#:

Analysis Requested
 Carner Tracking No(s):

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (Water, Soil, Overstall, BT-Tissue, AAAL)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	Special Instructions/Note:
WG-1620-MW57A-20130211	2-11-13	1030	G	Water	X		
WG-1620-MW58A-20130211		1120	G	Water	X		
WG-1620-MW33C-20130211		1220	G	Water	X		
WG-1620-MW628-20130211		1400	G	Water	X		
WG-1620-FB8-20130211		1415	G	Water	X		
WG-1620-TB06-20130211		-		Water	X		

Possible Hazard Identification
 Non-Hazard Flammable Skin Irritant Poison B Unknown Radiological
 Deliverable Requested: I, II, III, IV, Other (specify):
 Empty Kit Relinquished by: _____ Date: _____
 Relinquished by: _____ Date/Time: 2-12-13 1200 Company: PBW
 Relinquished by: _____ Date/Time: _____ Company: _____
 Relinquished by: _____ Date/Time: _____ Company: _____
 Custody Seals Intact: Yes No
 Custody Seal No.: _____
 Cooler Temperature(s) °C and Other Remarks: 4.5

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
 Return To Client Disposal By Lab Archive For _____ Months
 Special Instructions/QC Requirements:
 Method of Shipment: _____ Date/Time: 2-12-13 1200 Company: TA
 Received by: _____ Date/Time: _____ Company: _____
 Received by: _____ Date/Time: _____ Company: _____

Login Sample Receipt Checklist

Client: Pastor, Behling & Wheeler LLC

Job Number: 600-68442-1

Login Number: 68442

List Source: TestAmerica Houston

List Number: 1

Creator: Pulumbarit, Josh

Question	Answer	Comment
Radioactivity wasn't checked or is <=/ background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	4.5
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	True	



TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Houston
6310 Rothway Street
Houston, TX 77040
Tel: (713)690-4444

TestAmerica Job ID: 600-68500-1

Client Project/Site: 1620 UPRR HWPW

For:

Pastor, Behling & Wheeler LLC
2201 Double Creek Dr
Suite 4004
Round Rock, Texas 78664

Attn: Mr. Eric Matzner



Authorized for release by:

2/27/2013 5:45:31 PM

Cathy Upton

Data Delivery Analyst

cathy.upton@testamericainc.com

Designee for

Sachin Kudchadkar

Project Manager II

sachin.kudchadkar@testamericainc.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.



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Have a Question?



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1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17



Table of Contents

Cover Page	1
Table of Contents	2
TRRP Cover Page	3
TRRP Checklists & DCSs	4
Case Narrative	14
Method Summary	15
Sample Summary	16
Client Sample Results	17
Definitions/Glossary	34
Surrogate Summary	35
QC Sample Results	37
Default Detection Limits	46
QC Association Summary	47
Lab Chronicle	49
Certification Summary	53
Chain of Custody	54
Receipt Checklists	56

Job Number: 600-68500-1
Project Name/Number: 1620 UPRR HWPW

This Data Package consists of:

This signature page, the laboratory review checklist, and the following Reportable Data:

- R1 Field Chain-of-Custody Form
- R2 Sample Identification Cross-reference;
- R3 Test Reports (Analytical Data Sheets) for each environmental sample that includes:
 - a) Items consistent with NELAC Chapter 5
 - b) dilution factors,
 - c) preparation methods,
 - d) cleanup methods, and
 - e) if required for the project, tentatively identified compounds (TICs).
- R4 Surrogate Recovery Data including:
 - a) Calculated recovery (%R), and
 - b) The laboratory's surrogate QC limits.
- R5 Test Reports/Summary Forms for Blank Samples;
- R6 Test Reports/Summary Forms for Laboratory Control Samples (LCSs) including:
 - a) LCS spiking amounts,
 - b) Calculated %R for each analyte, and
 - d) The laboratory's LCS QC limits
- R7 Test Reports for Matrix Spike/Matrix Spike Duplicates (MS/MSDs) including:
 - a) Samples associated with the MS/MSD clearly identified,
 - b) MS/MSD spiking amounts,
 - c) Concentration of each MS/MSD analyte measured in the parent and spiked sample,
 - d) Calculated %Rs and relative percent differences (RPDs), and
 - e) The laboratory's MS/MSD QC limits
- R8 Laboratory analytical duplicates (if applicable) recovery and precision, including:
 - a) the amount of analyte measured in the duplicate,
 - b) the calculated RPD, and
 - c) the laboratory's QC limits for analytical duplicates.
- R9 List of method quantitation limit (MQL) and detectability check sample results for each analyte for each method and matrix;
- R10 Other problems or anomalies

The exception report for each "No" or "Not Reviewed (NR)" item in the Laboratory Review Checklist and for each analyte, matrix, and method for which the laboratory does not hold NELAC accreditation under the Texas Laboratory Accreditation Program.

Release Statement: I am responsible for the release of this laboratory data package. This laboratory is NELAC accredited under Texas laboratory Accreditation Program for all the methods, analytes, and matrices reported in this data package except as noted in the Exception Reports. The data have been reviewed and are technically compliant with the requirements of the methods used, except where noted by the laboratory in the Exception Reports. By my signature below, I affirm, to the best of my knowledge, that all problems/anomalies observed by the laboratory have been identified in the Laboratory Review Checklist, and no information affecting the quality of the data has been knowingly withheld.

Cathy Upton
Name (printed)
Data Delivery Analyst
Official Title (printed)


Signature

02/27/2013
Date

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Appendix A (cont'd): Laboratory Review Checklist: Reportable Data							
Laboratory Name: TestAmerica-Houston			LRC Date: 02/22/13				
Project Name: 1620 UPRR HWPW			Laboratory Job Number: 600-68500				
Reviewer Name: YX			Prep Batch Number: 600-99563, 99606 and 99904-VOA				
# ¹	A ²	Description	Yes	No	NA ³	NR ⁴	ER# ⁵
R1	OI	Chain-of-custody (C-O-C)					
		Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?	X				
		Were all departures from standard conditions described in an exception report?			X		
R2	OI	Sample and quality control (QC) identification					
		Are all field sample ID numbers cross-referenced to the laboratory ID numbers?	X				
		Are all laboratory ID numbers cross-referenced to the corresponding QC data?	X				
R3	OI	Test reports					
		Were all samples prepared and analyzed within holding times?	X				
		Other than those results < MQL, were all other raw values bracketed by calibration standards?	X				
		Were calculations checked by a peer or supervisor?	X				
		Were all analyte identifications checked by a peer or supervisor?	X				
		Were sample detection limits reported for all analytes not detected?	X				
		Were all results for soil and sediment samples reported on a dry weight basis?			X		
		Were % moisture (or solids) reported for all soil and sediment samples?			X		
		Were bulk soil/solid samples for volatile analysis extracted with methanol per SW846 Method 5035?			X		
		If required for the project, TICs reported?			X		
R4	O	Surrogate recovery data					
		Were surrogates added prior to extraction?	X				
		Were surrogate percent recoveries in all samples within the laboratory QC limits?	X				
R5	OI	Test reports/summary forms for blank samples					
		Were appropriate type(s) of blanks analyzed?	X				
		Were blanks analyzed at the appropriate frequency?	X				
		Were method blanks taken through the entire analytical process, including preparation and, if applicable, cleanup procedures?	X				
		Were blank concentrations < MQL?	X				
R6	OI	Laboratory control samples (LCS):					
		Were all COCs included in the LCS?	X				
		Was each LCS taken through the entire analytical procedure, including prep and cleanup steps?	X				
		Were LCSs analyzed at the required frequency?	X				
		Were LCS (and LCSD, if applicable) %Rs within the laboratory QC limits?	X				
		Does the detectability check sample data document the laboratory's capability to detect the COCs at the MDL used to calculate the SDLs?	X				
		Was the LCSD RPD within QC limits?			X		
R7	OI	Matrix spike (MS) and matrix spike duplicate (MSD) data					
		Were the project/method specified analytes included in the MS and MSD?	X				
		Were MS/MSD analyzed at the appropriate frequency?	X				
		Were MS (and MSD, if applicable) %Rs within the laboratory QC limits?	X				
		Were MS/MSD RPDs within laboratory QC limits?	X				
R8	OI	Analytical duplicate data					
		Were appropriate analytical duplicates analyzed for each matrix?			X		
		Were analytical duplicates analyzed at the appropriate frequency?			X		
		Were RPDs or relative standard deviations within the laboratory QC limits?			X		
R9	OI	Method quantitation limits (MQLs):					
		Are the MQLs for each method analyte included in the laboratory data package?	X				
		Do the MQLs correspond to the concentration of the lowest non-zero calibration standard?	X				
		Are unadjusted MQLs and DCSs included in the laboratory data package?	X				
R10	OI	Other problems/anomalies					
		Are all known problems/anomalies/special conditions noted in this LRC and ER?	X				
		Was applicable and available technology used to lower the SDL to minimize the matrix interference affects on the sample results?	X				
		Is the laboratory NELAC-accredited under the Texas Laboratory Accreditation Program for the analytes, matrices and methods associated with this laboratory data package?	X				

- Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.
- O = organic analyses; I = inorganic analyses (and general chemistry, when applicable);
- NA = Not applicable;
- NR = Not reviewed;
- ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

Appendix A (cont'd): Laboratory Review Checklist: Reportable Data									
Laboratory Name: TestAmerica-Houston					LRC Date: 02/22/13				
Project Name: 1620 UPRR HWPW					Laboratory Job Number: 600-68500				
Reviewer Name: YX					Prep Batch Number: 600-99563, 99606 and 99904-VOA				
# ¹	A ²	Description	Yes	No	NA ³	NR ⁴	ER# ⁵		
S1	OI	Initial calibration (ICAL)							
		Were response factors and/or relative response factors for each analyte within QC limits?	X						
		Were percent RSDs or correlation coefficient criteria met?	X						
		Was the number of standards recommended in the method used for all analytes?	X						
		Were all points generated between the lowest and highest standard used to calculate the curve?	X						
		Are ICAL data available for all instruments used?	X						
		Has the initial calibration curve been verified using an appropriate second source standard?	X						
S2	OI	Initial and continuing calibration verification (ICCV and CCV) and continuing calibration							
		Was the CCV analyzed at the method-required frequency?	X						
		Were percent differences for each analyte within the method-required QC limits?	X						
		Was the ICAL curve verified for each analyte?	X						
		Was the absolute value of the analyte concentration in the inorganic CCB < MDL?				X			
S3	O	Mass spectral tuning:							
		Was the appropriate compound for the method used for tuning?	X						
		Were ion abundance data within the method-required QC limits?	X						
S4	O	Internal standards (IS):							
		Were IS area counts and retention times within the method-required QC limits?	X						
S5	OI	Raw data (NELAC section 5.5.10)							
		Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?	X						
		Were data associated with manual integrations flagged on the raw data?	X						
S6	O	Dual column confirmation							
		Did dual column confirmation results meet the method-required QC?				X			
S7	O	Tentatively identified compounds (TICs):							
		If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?				X			
S8	I	Interference Check Sample (ICS) results:							
		Were percent recoveries within method QC limits?				X			
S9	I	Serial dilutions, post digestion spikes, and method of standard additions							
		Were percent differences, recoveries, and the linearity within the QC limits specified in the method?				X			
S10	OI	Method detection limit (MDL) studies							
		Was a MDL study performed for each reported analyte?	X						
		Is the MDL either adjusted or supported by the analysis of DCSs?	X						
S11	OI	Proficiency test reports:							
		Was the laboratory's performance acceptable on the applicable proficiency tests or evaluation studies?	X						
S12	OI	Standards documentation							
		Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?	X						
S13	OI	Compound/analyte identification procedures							
		Are the procedures for compound/analyte identification documented?	X						
S14	OI	Demonstration of analyst competency (DOC)							
		Was DOC conducted consistent with NELAC Chapter 5?	X						
		Is documentation of the analyst's competency up-to-date and on file?	X						
S15	OI	Verification/validation documentation for methods (NELAC Chapter 5)							
		Are all the methods used to generate the data documented, verified, and validated, where applicable?	X						
S16	OI	Laboratory standard operating procedures (SOPs):							
		Are laboratory SOPs current and on file for each method performed?	X						

- 1 Items identified by the letter "R" should be included in the laboratory data package submitted to the TCEQ in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.
- 2 O = organic analyses; I = inorganic analyses (and general chemistry, when applicable).
- 3 NA = Not applicable.
- 4 NR = Not Reviewed.
- 5 ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

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- 10
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- 12
- 13
- 14
- 15
- 16
- 17

Appendix A (cont'd): Laboratory Review Checklist: Exception Reports	
Laboratory Name: TestAmerica-Houston	LRC Date: 02/22/13
Project Name: 1620 UPRR HWPW	Laboratory Job Number: 600-68500
Reviewer Name: YX	Prep Batch Number: 600-99563, 99606 and 99904-VOA
ER #¹	DESCRIPTION

ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked on the LRC)

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Appendix A (cont'd): Laboratory Review Checklist: Reportable Data							
Laboratory Name: TestAmerica-Houston			LRC Date: 02/26/13				
Project Name: 1620 UPRR HWPW			Laboratory Job Number 600-68500				
Reviewer Name: JOH			Prep Batch Number(s): 600-99537 - SV				
# ¹	A ²	Description	Yes	No	NA ³	NR ⁴	ER# ⁵
R1	OI	Chain-of-custody (C-O-C)					
		Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?	X				
		Were all departures from standard conditions described in an exception report?			X		
R2	OI	Sample and quality control (QC) identification					
		Are all field sample ID numbers cross-referenced to the laboratory ID numbers?	X				
		Are all laboratory ID numbers cross-referenced to the corresponding QC data?	X				
R3	OI	Test reports					
		Were all samples prepared and analyzed within holding times?	X				
		Other than those results < MQL, were all other raw values bracketed by calibration standards?	X				
		Were calculations checked by a peer or supervisor?	X				
		Were all analyte identifications checked by a peer or supervisor?	X				
		Were sample detection limits reported for all analytes not detected?	X				
		Were all results for soil and sediment samples reported on a dry weight basis?			X		
		Were % moisture (or solids) reported for all soil and sediment samples?			X		
		Were bulk soil/solid samples for volatile analysis extracted with methanol per SW846 Method 5035?			X		
		If required for the project, TICs reported?			X		
R4	O	Surrogate recovery data					
		Were surrogates added prior to extraction?	X				
		Were surrogate percent recoveries in all samples within the laboratory QC limits?		X			1
R5	OI	Test reports/summary forms for blank samples					
		Were appropriate type(s) of blanks analyzed?	X				
		Were blanks analyzed at the appropriate frequency?	X				
		Were method blanks taken through the entire analytical process, including preparation and, if applicable, cleanup procedures?	X				
		Were blank concentrations < MQL?	X				
R6	OI	Laboratory control samples (LCS):					
		Were all COCs included in the LCS?	X				
		Was each LCS taken through the entire analytical procedure, including prep and cleanup steps?	X				
		Were LCSs analyzed at the required frequency?	X				
		Were LCS (and LCSD, if applicable) %Rs within the laboratory QC limits?	X				
		Does the detectability check sample data document the laboratory's capability to detect the COCs at the MDL used to calculate the SDLs?	X				
		Was the LCSD RPD within QC limits?			X		
R7	OI	Matrix spike (MS) and matrix spike duplicate (MSD) data					
		Were the project/method specified analytes included in the MS and MSD?	X				
		Were MS/MSD analyzed at the appropriate frequency?	X				
		Were MS (and MSD, if applicable) %Rs within the laboratory QC limits?		X			2
		Were MS/MSD RPDs within laboratory QC limits?		X			2
R8	OI	Analytical duplicate data					
		Were appropriate analytical duplicates analyzed for each matrix?			X		
		Were analytical duplicates analyzed at the appropriate frequency?			X		
		Were RPDs or relative standard deviations within the laboratory QC limits?			X		
R9	OI	Method quantitation limits (MQLs):					
		Are the MQLs for each method analyte included in the laboratory data package?	X				
		Do the MQLs correspond to the concentration of the lowest non-zero calibration standard?	X				
		Are unadjusted MQLs and DCSs included in the laboratory data package?	X				
R10	OI	Other problems/anomalies					
		Are all known problems/anomalies/special conditions noted in this LRC and ER?	X				
		Was applicable and available technology used to lower the SDL to minimize the matrix interference affects on the sample results?	X				3
		Is the laboratory NELAC-accredited under the Texas Laboratory Accreditation Program for the analytes, matrices and methods associated with this laboratory data package?	X				

- Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.
- O = organic analyses; I = inorganic analyses (and general chemistry, when applicable);
- NA = Not applicable;
- NR = Not reviewed;
- ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

Appendix A (cont'd): Laboratory Review Checklist: Reportable Data									
Laboratory Name: TestAmerica-Houston					LRC Date: 02/26/13				
Project Name: 1620 UPRR HWPW					Laboratory Job Number 600-68500				
Reviewer Name: JOH					Prep Batch Number(s): 600-99537 - SV				
# ¹	A ²	Description	Yes	No	NA ³	NR ⁴	ER# ⁵		
S1	OI	Initial calibration (ICAL)							
		Were response factors and/or relative response factors for each analyte within QC limits?	X						
		Were percent RSDs or correlation coefficient criteria met?	X						
		Was the number of standards recommended in the method used for all analytes?	X						
		Were all points generated between the lowest and highest standard used to calculate the curve?	X						
		Are ICAL data available for all instruments used?	X						
		Has the initial calibration curve been verified using an appropriate second source standard?	X						
S2	OI	Initial and continuing calibration verification (ICCV and CCV) and continuing calibration							
		Was the CCV analyzed at the method-required frequency?	X						
		Were percent differences for each analyte within the method-required QC limits?	X						
		Was the ICAL curve verified for each analyte?	X						
		Was the absolute value of the analyte concentration in the inorganic CCB < MDL?			X				
S3	O	Mass spectral tuning:							
		Was the appropriate compound for the method used for tuning?			X				
		Were ion abundance data within the method-required QC limits?			X				
S4	O	Internal standards (IS):							
		Were IS area counts and retention times within the method-required QC limits?			X				
S5	OI	Raw data (NELAC section 5.5.10)							
		Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?	X						
		Were data associated with manual integrations flagged on the raw data?	X						
S6	O	Dual column confirmation							
		Did dual column confirmation results meet the method-required QC?			X				
S7	O	Tentatively identified compounds (TICs):							
		If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?			X				
S8	I	Interference Check Sample (ICS) results:							
		Were percent recoveries within method QC limits?			X				
S9	I	Serial dilutions, post digestion spikes, and method of standard additions							
		Were percent differences, recoveries, and the linearity within the QC limits specified in the method?			X				
S10	OI	Method detection limit (MDL) studies							
		Was a MDL study performed for each reported analyte?	X						
		Is the MDL either adjusted or supported by the analysis of DCSs?	X						
S11	OI	Proficiency test reports:							
		Was the laboratory's performance acceptable on the applicable proficiency tests or evaluation studies?	X						
S12	OI	Standards documentation							
		Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?	X						
S13	OI	Compound/analyte identification procedures							
		Are the procedures for compound/analyte identification documented?	X						
S14	OI	Demonstration of analyst competency (DOC)							
		Was DOC conducted consistent with NELAC Chapter 5?	X						
		Is documentation of the analyst's competency up-to-date and on file?	X						
S15	OI	Verification/validation documentation for methods (NELAC Chapter 5)							
		Are all the methods used to generate the data documented, verified, and validated, where applicable?	X						
S16	OI	Laboratory standard operating procedures (SOPs):							
		Are laboratory SOPs current and on file for each method performed?	X						

- 1 Items identified by the letter "R" should be included in the laboratory data package submitted to the TCEQ in the TRRP-required report(s).
- 2 Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.
- 3 O = organic analyses; I = inorganic analyses (and general chemistry, when applicable).
- 4 NA = Not applicable.
- 5 NR = Not Reviewed.
- 6 ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

Appendix A (cont'd): Laboratory Review Checklist: Exception Reports	
Laboratory Name: TestAmerica-Houston	LRC Date: 02/26/13
Project Name: 1620 UPRR HWPW	Laboratory Job Number 600-68500
Reviewer Name: JOH	Prep Batch Number(s): 600-99537 - SV
ER #¹	DESCRIPTION
1	Surrogate recoveries for sample 600-68500-8 were outside control limits. Re-extraction and/or re-analysis was performed outside of holding time with acceptable results. The original analysis has been reported and qualified. Due to the level of dilution required for sample 600-68500-7DL, surrogate recoveries are not reported.
2	The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for sample 600-68500-5 were outside control limits. Matrix interference is suspected. The associated laboratory control sample (LCS) met acceptance criteria.
3	The Naphthalene and Acenaphthene SDLs in samples 68500-6, 7 and 12 were elevated due to the high concentrations of these analytes. All of the SDLs in sample 68500-13 were elevated due to the high concentration of target analytes and the nature of the sample matrix.

ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked on the LRC)

Detection Check Standard

Matrix: Water
Method: 8260B_LL
Preparation: Wei Shen
Date Analyzed: 10/8/2012
Date Prepared: 10/8/2012
TALs Batches: A25003.D
Units: ug/L

Analyte	MDL	DCS Spike	Measured Result	MQL
Dichlorodifluoromethane	0.12	1	0.0281	5
Chloromethane	0.18	1	0.355	10
Vinyl Chloride	0.11	0.5	0.131	10
Bromomethane	0.25	1	0.882	10
Chloroethane	0.08	0.5	0.208	10
Allyl chloride	2	1	1.84	5
Acrolein	1.63	1	4.34	5
1,1-Dichloroethene	0.19	0.5	4.3	5
trans-1,2-Dichloroethene	0.09	0.5	4.68	5
Trichlorotrifluoroethane	1	1	0.534	5
Acetone	0.99	1	1.87	5
Methyl Iodide (Iodomethane)	2	1	2.29	5
Carbon Disulfide	0.24	1	2.6	5
2-Propanol (Isopropyl alcohol)	3.72	1	7.51	5
Acetonitrile	0.27	1	1.21	5
Methylene Chloride	0.15	0.5	1.79	10
Methyl tert-butyl ether	0.12	0.5	0.704	5
Vinyl Acetate	0.21	0.5	0.776	5
Acrylonitrile	0.52	1	2.71	5
Chloroprene (2-Chloro-1,3-butadiene)	0.33	1	1.16	5
Propionitrile	0.66	1	1.58	5
cis-1,2-Dichloroethene	0.06	0.5	0.659	5
1,2-Dichloroethene	0.3	1	1.45	5
2-Butanone (MEK)	0.76	1	1.64	5
Isobutyl alcohol	3.32	1	8.48	5
Bromochloromethane	0.18	0.5	0.436	5
Methacrylonitrile	0.41	1	1.62	5
Carbon Tetrachloride	0.15	0.5	0.318	5
Benzene	0.08	0.5	0.355	5
1,2-Dichloroethane	0.14	0.5	0.379	5
Trichloroethene	0.13	0.5	0.343	5
1,1,1-Trichloroethane	0.15	0.5	0.306	5
1,1-Dichloropropene	0.11	0.5	0.281	5
1,2-Dichloroethane	0.3	0.5	0.316	5
1,2-Dichloropropane	0.16	0.5	0.292	5
2,2-Dichloropropane	0.13	1	0.682	5
Methylene Bromide (Bromomethane)	0.25	0.5	0.328	5
1,4-Dioxane	30.79	1	34.08	250
Methyl methacrylate	0.33	1	1.55	5

Bromodichloromethane	0.16	0.5	0.715	5
2-Chloroethyl vinyl ether	0.5	1	2.04	5
1,1-Dichloropropane	0.21	0.5	0.774	5
cis-1,3-Dichloropropene	0.18	0.5	0.718	5
4-Methyl-2-pentanone	0.45	1	2.42	10
Toluene	0.15	0.5	0.431	5
trans-1,3-Dichloropropene	0.21	0.5	0.406	5
Ethyl Methacrylate	0.94	1	0.686	10
1,1,2-Trichloroethane	0.18	0.5	0.401	5
Tetrachloroethene	0.18	0.5	0.823	5
1,3-Dichloropropane	0.22	1	0.89	5
2-Hexanone	0.35	1	2.01	10
Dibromochloromethane	0.16	0.5	0.811	5
1,2-Dibromoethane (Ethylene bromide)	0.18	0.5	0.373	5
Chlorobenzene	0.12	0.5	0.424	5
1,1,1,2-Tetrachloroethane	0.18	0.5	0.401	5
Ethylbenzene	0.11	0.5	0.357	5
m,p-Xylene	0.17	0.5	0.741	10
o-Xylene	0.12	0.5	0.37	5
Xylenes (total)	0.26	0.5	1.11	5
Styrene	0.07	0.5	0.344	5
Bromoform	0.19	0.5	0.915	5
Isopropylbenzene	0.18	0.5	0.367	5
Bromobenzene	0.19	0.5	0.457	5
1,2,3-Trichloropropane	0.29	1	0.89	5
1,1,2,2-Tetrachloroethane	0.22	1	0.729	5
trans-1,4-Dichloro-2-butene	0.64	1	2.36	5
n-Propylbenzene	0.15	0.5	0.372	5
2-Chlorotoluene	0.13	0.5	0.424	5
4-Chlorotoluene	0.14	0.5	0.442	5
1,3,5-Trimethylbenzene	0.1	0.5	0.392	5
tert-Butylbenzene	0.08	0.5	0.359	5
p-Isopropyltoluene	0.1	0.5	0.329	5
1,2,4-Trimethylbenzene	0.14	0.5	0.388	5
sec-Butylbenzene	0.12	0.5	0.329	5
1,3-Dichlorobenzene	0.13	0.5	0.437	5
1,4-Dichlorobenzene	0.11	0.5	0.475	5
1,2-Dichlorobenzene	0.1	0.5	0.466	5
n-Butylbenzene	0.16	0.5	0.297	5
1,2-Dibromo-3-chloropropane	0.33	1	1.2	5
1,2,4-Trichlorobenzene	0.31	1	0.849	5
Hexachlorobutadiene	0.17	0.5	0.363	5
Naphthalene	0.32	1	1.09	5
1,2,3-Trichlorobenzene	0.57	1	0.867	5

**Quality Control Report
Detection Check Standard**

Matrix: Water
 Method: 8270C LL
 Preparation: 3510C
 Date Analyzed: 10/18/2012
 Date Prepared: 10/16/2012
 Lab Sample ID: 600-91246_18-a
 Units: ug/L

Analyte	MDL	DCS Spike	DCS Result	MLQ
Pyridine	0.04	0.25	0.067	0.5
N-Nitrosodimethylamine	0.26	0.25	0.121	0.5
Aniline	0.08	0.25	0.085	0.5
Phenol	0.04	0.25	0.054	0.5
bis(2-Chloroethyl)ether	0.15	0.25	0.149	0.5
2-Chlorophenol	0.13	0.25	0.097	0.5
1,3-Dichlorobenzene	0.17	0.25	0.152	0.5
1,4-Dichlorobenzene	0.13	0.25	0.166	0.5
1,2-Dichlorobenzene	0.17	0.25	0.167	0.5
Benzyl alcohol	0.17	0.25	0.075	0.5
2-Methylphenol	0.12	0.25	0.112	0.5
m&p-Cresols	0.2	0.25	0.053	1
bis (2-Chloroisopropyl) ether	0.4	0.25	0.143	0.5
N-Nitroso-di-n-propylamine	0.1	0.25	0.177	0.5
Hexachloroethane	0.1	0.25	0.185	0.5
Nitrobenzene	0.11	0.25	0.131	0.5
Isophorone	0.11	0.25	0.149	0.5
2-Nitrophenol	0.22	0.5	0.205	0.5
Benzoic acid	2.51	5	6.530	2.5
2,4-Dimethylphenol	0.31	0.5	0.130	0.5
bis(2-Chloroethoxy)methane	0.13	0.25	0.122	0.5
2,4-Dichlorophenol	0.15	0.25	0.068	0.5
1,2,4-Trichlorobenzene	0.12	0.25	0.125	0.5
Naphthalene	0.08	0.25	0.161	0.5
4-Chloroaniline	0.21	0.5	0.232	0.5
Hexachlorobutadiene	0.18	0.25	0.160	0.5
4-Chloro-3-methylphenol	0.17	0.25	0.075	0.5
2-Methylnaphthalene	0.07	0.25	0.128	0.5
1-Methylnaphthalene	0.09	0.25	0.147	0.5
Hexachlorocyclopentadiene	0.13	0.5	0.487	0.5
2,4,6-Trichlorophenol	0.18	0.5	0.062	0.5
2,4,5-Trichlorophenol	0.25	0.5	0.107	0.5
2-Chloronaphthalene	0.08	0.25	0.148	0.5
2-Nitroaniline	0.19	0.5	0.213	0.5
Dimethylphthalate	0.07	0.25	0.145	0.5
1,4 Dinitrobenzene	5	0.25	0.363	0.5
1,3-Dinitrobenzene	0.08	0.25	0.381	0.5
1,2-Dinitrobenzene	0.5	0.25	0.040	0.5
Acenaphthylene	0.06	0.25	0.137	0.5

2,6-Dinitrotoluene	0.08	0.25	0.178	0.5
3-Nitroaniline	0.16	0.5	0.240	0.5
Acenaphthene	0.08	0.25	0.151	0.5
Dibenzofuran	0.08	0.25	0.127	0.5
2,4-Dinitrotoluene	0.13	0.25	0.144	0.5
Diethylphthalate	1.5	0.5	0.431	0.5
4-Chlorophenyl-phenylether	0.1	0.25	0.102	0.5
Fluorene	0.07	0.25	0.107	0.5
4-Nitroaniline	0.25	0.5	0.124	0.5
4,6-Dinitro-2-Methylphenol	0.83	2.5	0.530	1
N-Nitrosodiphenylamine	0.1	0.25	0.176	0.5
Diphenylamine	0.1	0.25	0.099	0.5
1,2-Diphenylhydrazine	0.11	0.25	0.224	0.5
Azobenzene	0.07	0.25	0.117	0.5
4-Bromophenyl-phenylether	0.1	0.25	0.112	0.5
Hexachlorobenzene	0.11	0.25	0.130	0.5
Phenanthrene	0.06	0.25	0.169	0.5
Anthracene	0.05	0.25	0.144	0.5
Carbazole	0.17	0.25	0.140	0.5
Di-n-butylphthalate	0.11	0.25	0.238	0.5
Fluoranthene	0.07	0.25	0.196	0.5
Pyrene	0.11	0.25	0.153	0.5
Butylbenzylphthalate	0.12	0.25	0.238	0.5
3,3'-Dichlorobenzidene	0.5	0.25	0.066	0.5
Benzo(a)anthracene	0.08	0.25	0.175	0.5
bis(2-Ethylhexyl)phthalate	0.37	0.5	0.420	0.5
Chrysene	0.08	0.25	0.212	0.5
Di-n-octylphthalate	0.16	0.25	0.091	0.5
Benzo(b)fluoranthene	0.07	0.25	0.143	0.5
Benzo(k)fluoranthene	0.09	0.25	0.201	0.5
Benzo(a)pyrene	0.08	0.25	0.137	0.5
Indeno(1,2,3-cd)pyrene	0.07	0.25	0.454	0.5
Dibenz(a,h)anthracene	0.08	0.25	0.123	0.5
Benzo(g,h,i)perylene	0.08	0.25	0.112	0.5



Case Narrative

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68500-1

Job ID: 600-68500-1

Laboratory: TestAmerica Houston

Narrative

Job Narrative
600-68500-1

Comments

No additional comments.

Receipt

The samples were received on 2/13/2013 7:50 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 4 coolers at receipt time were 1.0° C, 1.3° C, 1.7° C and 2.8° C.

Organic Prep

Method(s) 3510C: Re-extraction of the following sample was performed outside of the analytical holding time:
WG-1620-MW24AR-20120211 (600-68500-8).

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Method Summary

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68500-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL HOU
8270C LL	Semivolatile Organic Compounds by GCMS - Low Levels	SW846	TAL HOU

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL HOU = TestAmerica Houston, 6310 Rothway Street, Houston, TX 77040, TEL (713)690-4444



Sample Summary

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68500-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
600-68500-1	WG-1620-MW36D-20120211	Water	02/11/13 15:45	02/13/13 07:50
600-68500-2	WG-1620-MW65D-20120211	Water	02/11/13 17:00	02/13/13 07:50
600-68500-3	WG-1620-MW59D-20120211	Water	02/11/13 18:15	02/13/13 07:50
600-68500-4	WG-1620-DUP 4-20120211	Water	02/11/13 18:15	02/13/13 07:50
600-68500-5	WG-1620-MW67B-20120211	Water	02/12/13 08:45	02/13/13 07:50
600-68500-6	WG-1620-MW33A-20120211	Water	02/12/13 10:00	02/13/13 07:50
600-68500-7	WG-1620-DUP3- 20120211	Water	02/12/13 10:00	02/13/13 07:50
600-68500-8	WG-1620-MW24AR-20120211	Water	02/12/13 11:00	02/13/13 07:50
600-68500-9	WG-1620-MW24B-20120211	Water	02/12/13 12:00	02/13/13 07:50
600-68500-10	WG-1620-MW24C-20120211	Water	02/12/13 14:00	02/13/13 07:50
600-68500-11	WG-1620-MW27C-20120211	Water	02/12/13 15:00	02/13/13 07:50
600-68500-12	WG-1620-MW54C-20120211	Water	02/12/13 16:00	02/13/13 07:50
600-68500-13	WG-1620-MW44A-20120211	Water	02/12/13 17:05	02/13/13 07:50
600-68500-14	WG-1620-FB9-20120211	Water	02/12/13 17:30	02/13/13 07:50
600-68500-15	WG-1620-TB07-20120211	Water	02/12/13 00:00	02/13/13 07:50

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68500-1

Client Sample ID: WG-1620-MW36D-20120211

Lab Sample ID: 600-68500-1

Date Collected: 02/11/13 15:45

Matrix: Water

Date Received: 02/13/13 07:50

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			02/14/13 02:07	1
Benzene	0.0000800	U	0.00100	0.0000800	mg/L			02/14/13 02:07	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			02/14/13 02:07	1
Toluene	0.000150	U	0.00100	0.000150	mg/L			02/14/13 02:07	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			02/14/13 02:07	1
Ethylbenzene	0.000110	U	0.00100	0.000110	mg/L			02/14/13 02:07	1
Xylenes, Total	0.000260	U	0.00300	0.000260	mg/L			02/14/13 02:07	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	107		67 - 139					02/14/13 02:07	1
Dibromofluoromethane	75		62 - 130					02/14/13 02:07	1
Toluene-d8 (Surr)	82		70 - 130					02/14/13 02:07	1
1,2-Dichloroethane-d4 (Surr)	82		50 - 134					02/14/13 02:07	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.0000381	U	0.000476	0.0000381	mg/L		02/14/13 08:30	02/20/13 03:34	1
Nitrobenzene	0.000105	U	0.000476	0.000105	mg/L		02/14/13 08:30	02/20/13 03:34	1
2,4-Dimethylphenol	0.000295	U	0.000476	0.000295	mg/L		02/14/13 08:30	02/20/13 03:34	1
Bis(2-chloroethoxy)methane	0.000124	U	0.000476	0.000124	mg/L		02/14/13 08:30	02/20/13 03:34	1
Naphthalene	0.0000762	U	0.00476	0.0000762	mg/L		02/14/13 08:30	02/20/13 03:34	1
2-Methylnaphthalene	0.0000667	U	0.000476	0.0000667	mg/L		02/14/13 08:30	02/20/13 03:34	1
2-Chloronaphthalene	0.0000762	U	0.000476	0.0000762	mg/L		02/14/13 08:30	02/20/13 03:34	1
Acenaphthylene	0.0000571	U	0.000476	0.0000571	mg/L		02/14/13 08:30	02/20/13 03:34	1
2,6-Dinitrotoluene	0.0000762	U	0.000476	0.0000762	mg/L		02/14/13 08:30	02/20/13 03:34	1
Acenaphthene	0.0000762	U	0.000476	0.0000762	mg/L		02/14/13 08:30	02/20/13 03:34	1
4-Nitrophenol	0.000533	U	0.000952	0.000533	mg/L		02/14/13 08:30	02/20/13 03:34	1
Dibenzofuran	0.0000762	U	0.000476	0.0000762	mg/L		02/14/13 08:30	02/20/13 03:34	1
2,4-Dinitrotoluene	0.000124	U	0.000476	0.000124	mg/L		02/14/13 08:30	02/20/13 03:34	1
Fluorene	0.0000667	U	0.000476	0.0000667	mg/L		02/14/13 08:30	02/20/13 03:34	1
4,6-Dinitro-2-methylphenol	0.000790	U	0.000952	0.000790	mg/L		02/14/13 08:30	02/20/13 03:34	1
N-Nitrosodiphenylamine	0.0000952	U	0.000476	0.0000952	mg/L		02/14/13 08:30	02/20/13 03:34	1
1,2-Diphenylhydrazine	0.000105	U	0.000476	0.000105	mg/L		02/14/13 08:30	02/20/13 03:34	1
Pentachlorophenol	0.000581	U	0.000952	0.000581	mg/L		02/14/13 08:30	02/20/13 03:34	1
Phenanthrene	0.0000571	U	0.000476	0.0000571	mg/L		02/14/13 08:30	02/20/13 03:34	1
Anthracene	0.0000476	U	0.000476	0.0000476	mg/L		02/14/13 08:30	02/20/13 03:34	1
Di-n-butyl phthalate	0.000105	U	0.000476	0.000105	mg/L		02/14/13 08:30	02/20/13 03:34	1
Fluoranthene	0.0000667	U	0.000476	0.0000667	mg/L		02/14/13 08:30	02/20/13 03:34	1
Pyrene	0.000105	U	0.000476	0.000105	mg/L		02/14/13 08:30	02/20/13 03:34	1
Benzo[a]anthracene	0.0000762	U	0.000476	0.0000762	mg/L		02/14/13 08:30	02/20/13 03:34	1
Bis(2-ethylhexyl) phthalate	0.000352	U	0.000476	0.000352	mg/L		02/14/13 08:30	02/20/13 03:34	1
Chrysene	0.0000762	U	0.000476	0.0000762	mg/L		02/14/13 08:30	02/20/13 03:34	1
Benzo[a]pyrene	0.0000762	U	0.000476	0.0000762	mg/L		02/14/13 08:30	02/20/13 03:34	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Phenol-d6	16		10 - 94				02/14/13 08:30	02/20/13 03:34	1
2,4,6-Tribromophenol	69		10 - 123				02/14/13 08:30	02/20/13 03:34	1
2-Fluorobiphenyl	64		43 - 116				02/14/13 08:30	02/20/13 03:34	1
2-Fluorophenol	33		10 - 100				02/14/13 08:30	02/20/13 03:34	1
Nitrobenzene-d5	62		35 - 114				02/14/13 08:30	02/20/13 03:34	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68500-1

Client Sample ID: WG-1620-MW36D-20120211

Lab Sample ID: 600-68500-1

Date Collected: 02/11/13 15:45

Matrix: Water

Date Received: 02/13/13 07:50

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Terphenyl-d14	82		33 - 141	02/14/13 08:30	02/20/13 03:34	1

Client Sample ID: WG-1620-MW65D-20120211

Lab Sample ID: 600-68500-2

Date Collected: 02/11/13 17:00

Matrix: Water

Date Received: 02/13/13 07:50

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			02/14/13 00:43	1
Benzene	0.0000800	U	0.00100	0.0000800	mg/L			02/14/13 00:43	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			02/14/13 00:43	1
Toluene	0.000150	U	0.00100	0.000150	mg/L			02/14/13 00:43	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			02/14/13 00:43	1
Ethylbenzene	0.000110	U	0.00100	0.000110	mg/L			02/14/13 00:43	1
Xylenes, Total	0.000260	U	0.00300	0.000260	mg/L			02/14/13 00:43	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	107		67 - 139		02/14/13 00:43	1
Dibromofluoromethane	75		62 - 130		02/14/13 00:43	1
Toluene-d8 (Surr)	83		70 - 130		02/14/13 00:43	1
1,2-Dichloroethane-d4 (Surr)	84		50 - 134		02/14/13 00:43	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.0000381	U	0.000476	0.0000381	mg/L		02/14/13 08:30	02/19/13 15:00	1
Nitrobenzene	0.000105	U	0.000476	0.000105	mg/L		02/14/13 08:30	02/19/13 15:00	1
2,4-Dimethylphenol	0.000295	U	0.000476	0.000295	mg/L		02/14/13 08:30	02/19/13 15:00	1
Bis(2-chloroethoxy)methane	0.000124	U	0.000476	0.000124	mg/L		02/14/13 08:30	02/19/13 15:00	1
Naphthalene	0.0000762	U	0.000476	0.0000762	mg/L		02/14/13 08:30	02/19/13 15:00	1
2-Methylnaphthalene	0.0000667	U	0.000476	0.0000667	mg/L		02/14/13 08:30	02/19/13 15:00	1
2-Chloronaphthalene	0.0000762	U	0.000476	0.0000762	mg/L		02/14/13 08:30	02/19/13 15:00	1
Acenaphthylene	0.0000571	U	0.000476	0.0000571	mg/L		02/14/13 08:30	02/19/13 15:00	1
2,6-Dinitrotoluene	0.0000762	U	0.000476	0.0000762	mg/L		02/14/13 08:30	02/19/13 15:00	1
Acenaphthene	0.0000762	U	0.000476	0.0000762	mg/L		02/14/13 08:30	02/19/13 15:00	1
4-Nitrophenol	0.000533	U	0.000952	0.000533	mg/L		02/14/13 08:30	02/19/13 15:00	1
Dibenzofuran	0.0000762	U	0.000476	0.0000762	mg/L		02/14/13 08:30	02/19/13 15:00	1
2,4-Dinitrotoluene	0.000124	U	0.000476	0.000124	mg/L		02/14/13 08:30	02/19/13 15:00	1
Fluorene	0.0000667	U	0.000476	0.0000667	mg/L		02/14/13 08:30	02/19/13 15:00	1
4,6-Dinitro-2-methylphenol	0.000790	U	0.000952	0.000790	mg/L		02/14/13 08:30	02/19/13 15:00	1
N-Nitrosodiphenylamine	0.0000952	U	0.000476	0.0000952	mg/L		02/14/13 08:30	02/19/13 15:00	1
1,2-Diphenylhydrazine	0.000105	U	0.000476	0.000105	mg/L		02/14/13 08:30	02/19/13 15:00	1
Pentachlorophenol	0.000581	U	0.000952	0.000581	mg/L		02/14/13 08:30	02/19/13 15:00	1
Phenanthrene	0.0000571	U	0.000476	0.0000571	mg/L		02/14/13 08:30	02/19/13 15:00	1
Anthracene	0.0000476	U	0.000476	0.0000476	mg/L		02/14/13 08:30	02/19/13 15:00	1
Di-n-butyl phthalate	0.000135	J	0.000476	0.000105	mg/L		02/14/13 08:30	02/19/13 15:00	1
Fluoranthene	0.0000667	U	0.000476	0.0000667	mg/L		02/14/13 08:30	02/19/13 15:00	1
Pyrene	0.000105	U	0.000476	0.000105	mg/L		02/14/13 08:30	02/19/13 15:00	1
Benzo[a]anthracene	0.0000762	U	0.000476	0.0000762	mg/L		02/14/13 08:30	02/19/13 15:00	1
Bis(2-ethylhexyl) phthalate	0.000593		0.000476	0.000352	mg/L		02/14/13 08:30	02/19/13 15:00	1
Chrysene	0.0000762	U	0.000476	0.0000762	mg/L		02/14/13 08:30	02/19/13 15:00	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68500-1

Client Sample ID: WG-1620-MW65D-20120211

Lab Sample ID: 600-68500-2

Date Collected: 02/11/13 17:00

Matrix: Water

Date Received: 02/13/13 07:50

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]pyrene	0.0000762	U	0.000476	0.0000762	mg/L		02/14/13 08:30	02/19/13 15:00	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Phenol-d6	21		10 - 94				02/14/13 08:30	02/19/13 15:00	1
2,4,6-Tribromophenol	90		10 - 123				02/14/13 08:30	02/19/13 15:00	1
2-Fluorobiphenyl	87		43 - 116				02/14/13 08:30	02/19/13 15:00	1
2-Fluorophenol	34		10 - 100				02/14/13 08:30	02/19/13 15:00	1
Nitrobenzene-d5	67		35 - 114				02/14/13 08:30	02/19/13 15:00	1
Terphenyl-d14	93		33 - 141				02/14/13 08:30	02/19/13 15:00	1

Client Sample ID: WG-1620-MW59D-20120211

Lab Sample ID: 600-68500-3

Date Collected: 02/11/13 18:15

Matrix: Water

Date Received: 02/13/13 07:50

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			02/14/13 02:36	1
Benzene	0.0000800	U	0.00100	0.0000800	mg/L			02/14/13 02:36	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			02/14/13 02:36	1
Toluene	0.000150	U	0.00100	0.000150	mg/L			02/14/13 02:36	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			02/14/13 02:36	1
Ethylbenzene	0.000110	U	0.00100	0.000110	mg/L			02/14/13 02:36	1
Xylenes, Total	0.000260	U	0.00300	0.000260	mg/L			02/14/13 02:36	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	110		67 - 139					02/14/13 02:36	1
Dibromofluoromethane	74		62 - 130					02/14/13 02:36	1
Toluene-d8 (Surr)	84		70 - 130					02/14/13 02:36	1
1,2-Dichloroethane-d4 (Surr)	83		50 - 134					02/14/13 02:36	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.0000381	U	0.000476	0.0000381	mg/L		02/14/13 08:30	02/20/13 04:01	1
Nitrobenzene	0.000105	U	0.000476	0.000105	mg/L		02/14/13 08:30	02/20/13 04:01	1
2,4-Dimethylphenol	0.000295	U	0.000476	0.000295	mg/L		02/14/13 08:30	02/20/13 04:01	1
Bis(2-chloroethoxy)methane	0.000124	U	0.000476	0.000124	mg/L		02/14/13 08:30	02/20/13 04:01	1
Naphthalene	0.0000762	U	0.00476	0.0000762	mg/L		02/14/13 08:30	02/20/13 04:01	1
2-Methylnaphthalene	0.0000667	U	0.000476	0.0000667	mg/L		02/14/13 08:30	02/20/13 04:01	1
2-Chloronaphthalene	0.0000762	U	0.000476	0.0000762	mg/L		02/14/13 08:30	02/20/13 04:01	1
Acenaphthylene	0.0000571	U	0.000476	0.0000571	mg/L		02/14/13 08:30	02/20/13 04:01	1
2,6-Dinitrotoluene	0.0000762	U	0.000476	0.0000762	mg/L		02/14/13 08:30	02/20/13 04:01	1
Acenaphthene	0.0000762	U	0.000476	0.0000762	mg/L		02/14/13 08:30	02/20/13 04:01	1
4-Nitrophenol	0.000533	U	0.000952	0.000533	mg/L		02/14/13 08:30	02/20/13 04:01	1
Dibenzofuran	0.0000762	U	0.000476	0.0000762	mg/L		02/14/13 08:30	02/20/13 04:01	1
2,4-Dinitrotoluene	0.000124	U	0.000476	0.000124	mg/L		02/14/13 08:30	02/20/13 04:01	1
Fluorene	0.0000667	U	0.000476	0.0000667	mg/L		02/14/13 08:30	02/20/13 04:01	1
4,6-Dinitro-2-methylphenol	0.000790	U	0.000952	0.000790	mg/L		02/14/13 08:30	02/20/13 04:01	1
N-Nitrosodiphenylamine	0.0000952	U	0.000476	0.0000952	mg/L		02/14/13 08:30	02/20/13 04:01	1
1,2-Diphenylhydrazine	0.000105	U	0.000476	0.000105	mg/L		02/14/13 08:30	02/20/13 04:01	1
Pentachlorophenol	0.000581	U	0.000952	0.000581	mg/L		02/14/13 08:30	02/20/13 04:01	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68500-1

Client Sample ID: WG-1620-MW59D-20120211

Lab Sample ID: 600-68500-3

Date Collected: 02/11/13 18:15

Matrix: Water

Date Received: 02/13/13 07:50

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenanthrene	0.0000571	U	0.000476	0.0000571	mg/L		02/14/13 08:30	02/20/13 04:01	1
Anthracene	0.0000476	U	0.000476	0.0000476	mg/L		02/14/13 08:30	02/20/13 04:01	1
Di-n-butyl phthalate	0.000105	U	0.000476	0.000105	mg/L		02/14/13 08:30	02/20/13 04:01	1
Fluoranthene	0.0000667	U	0.000476	0.0000667	mg/L		02/14/13 08:30	02/20/13 04:01	1
Pyrene	0.000105	U	0.000476	0.000105	mg/L		02/14/13 08:30	02/20/13 04:01	1
Benzo[a]anthracene	0.0000762	U	0.000476	0.0000762	mg/L		02/14/13 08:30	02/20/13 04:01	1
Bis(2-ethylhexyl) phthalate	0.000352	U	0.000476	0.000352	mg/L		02/14/13 08:30	02/20/13 04:01	1
Chrysene	0.0000762	U	0.000476	0.0000762	mg/L		02/14/13 08:30	02/20/13 04:01	1
Benzo[a]pyrene	0.0000762	U	0.000476	0.0000762	mg/L		02/14/13 08:30	02/20/13 04:01	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Phenol-d6	24		10 - 94				02/14/13 08:30	02/20/13 04:01	1
2,4,6-Tribromophenol	62		10 - 123				02/14/13 08:30	02/20/13 04:01	1
2-Fluorobiphenyl	61		43 - 116				02/14/13 08:30	02/20/13 04:01	1
2-Fluorophenol	41		10 - 100				02/14/13 08:30	02/20/13 04:01	1
Nitrobenzene-d5	59		35 - 114				02/14/13 08:30	02/20/13 04:01	1
Terphenyl-d14	75		33 - 141				02/14/13 08:30	02/20/13 04:01	1

Client Sample ID: WG-1620-DUP 4-20120211

Lab Sample ID: 600-68500-4

Date Collected: 02/11/13 18:15

Matrix: Water

Date Received: 02/13/13 07:50

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			02/14/13 03:04	1
Benzene	0.0000800	U	0.00100	0.0000800	mg/L			02/14/13 03:04	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			02/14/13 03:04	1
Toluene	0.000150	U	0.00100	0.000150	mg/L			02/14/13 03:04	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			02/14/13 03:04	1
Ethylbenzene	0.000110	U	0.00100	0.000110	mg/L			02/14/13 03:04	1
Xylenes, Total	0.000260	U	0.00300	0.000260	mg/L			02/14/13 03:04	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	106		67 - 139					02/14/13 03:04	1
Dibromofluoromethane	74		62 - 130					02/14/13 03:04	1
Toluene-d8 (Surr)	84		70 - 130					02/14/13 03:04	1
1,2-Dichloroethane-d4 (Surr)	81		50 - 134					02/14/13 03:04	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.0000381	U	0.000476	0.0000381	mg/L		02/14/13 08:30	02/20/13 04:28	1
Nitrobenzene	0.000105	U	0.000476	0.000105	mg/L		02/14/13 08:30	02/20/13 04:28	1
2,4-Dimethylphenol	0.000295	U	0.000476	0.000295	mg/L		02/14/13 08:30	02/20/13 04:28	1
Bis(2-chloroethoxy)methane	0.000124	U	0.000476	0.000124	mg/L		02/14/13 08:30	02/20/13 04:28	1
Naphthalene	0.0000762	U	0.00476	0.0000762	mg/L		02/14/13 08:30	02/20/13 04:28	1
2-Methylnaphthalene	0.0000667	U	0.000476	0.0000667	mg/L		02/14/13 08:30	02/20/13 04:28	1
2-Chloronaphthalene	0.0000762	U	0.000476	0.0000762	mg/L		02/14/13 08:30	02/20/13 04:28	1
Acenaphthylene	0.0000571	U	0.000476	0.0000571	mg/L		02/14/13 08:30	02/20/13 04:28	1
2,6-Dinitrotoluene	0.0000762	U	0.000476	0.0000762	mg/L		02/14/13 08:30	02/20/13 04:28	1
Acenaphthene	0.0000762	U	0.000476	0.0000762	mg/L		02/14/13 08:30	02/20/13 04:28	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68500-1

Client Sample ID: WG-1620-DUP 4-20120211

Lab Sample ID: 600-68500-4

Date Collected: 02/11/13 18:15

Matrix: Water

Date Received: 02/13/13 07:50

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Nitrophenol	0.000533	U	0.000952	0.000533	mg/L		02/14/13 08:30	02/20/13 04:28	1
Dibenzofuran	0.0000762	U	0.000476	0.0000762	mg/L		02/14/13 08:30	02/20/13 04:28	1
2,4-Dinitrotoluene	0.000124	U	0.000476	0.000124	mg/L		02/14/13 08:30	02/20/13 04:28	1
Fluorene	0.0000667	U	0.000476	0.0000667	mg/L		02/14/13 08:30	02/20/13 04:28	1
4,6-Dinitro-2-methylphenol	0.000790	U	0.000952	0.000790	mg/L		02/14/13 08:30	02/20/13 04:28	1
N-Nitrosodiphenylamine	0.0000952	U	0.000476	0.0000952	mg/L		02/14/13 08:30	02/20/13 04:28	1
1,2-Diphenylhydrazine	0.000105	U	0.000476	0.000105	mg/L		02/14/13 08:30	02/20/13 04:28	1
Pentachlorophenol	0.000581	U	0.000952	0.000581	mg/L		02/14/13 08:30	02/20/13 04:28	1
Phenanthrene	0.0000571	U	0.000476	0.0000571	mg/L		02/14/13 08:30	02/20/13 04:28	1
Anthracene	0.0000476	U	0.000476	0.0000476	mg/L		02/14/13 08:30	02/20/13 04:28	1
Di-n-butyl phthalate	0.000105	U	0.000476	0.000105	mg/L		02/14/13 08:30	02/20/13 04:28	1
Fluoranthene	0.0000667	U	0.000476	0.0000667	mg/L		02/14/13 08:30	02/20/13 04:28	1
Pyrene	0.000105	U	0.000476	0.000105	mg/L		02/14/13 08:30	02/20/13 04:28	1
Benzo[a]anthracene	0.0000762	U	0.000476	0.0000762	mg/L		02/14/13 08:30	02/20/13 04:28	1
Bis(2-ethylhexyl) phthalate	0.000538		0.000476	0.000352	mg/L		02/14/13 08:30	02/20/13 04:28	1
Chrysene	0.0000762	U	0.000476	0.0000762	mg/L		02/14/13 08:30	02/20/13 04:28	1
Benzo[a]pyrene	0.0000762	U	0.000476	0.0000762	mg/L		02/14/13 08:30	02/20/13 04:28	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Phenol-d6	19		10 - 94	02/14/13 08:30	02/20/13 04:28	1
2,4,6-Tribromophenol	53		10 - 123	02/14/13 08:30	02/20/13 04:28	1
2-Fluorobiphenyl	57		43 - 116	02/14/13 08:30	02/20/13 04:28	1
2-Fluorophenol	26		10 - 100	02/14/13 08:30	02/20/13 04:28	1
Nitrobenzene-d5	53		35 - 114	02/14/13 08:30	02/20/13 04:28	1
Terphenyl-d14	69		33 - 141	02/14/13 08:30	02/20/13 04:28	1

Client Sample ID: WG-1620-MW67B-20120211

Lab Sample ID: 600-68500-5

Date Collected: 02/12/13 08:45

Matrix: Water

Date Received: 02/13/13 07:50

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			02/14/13 14:43	1
Benzene	0.0000800	U	0.00100	0.0000800	mg/L			02/14/13 14:43	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			02/14/13 14:43	1
Toluene	0.000150	U	0.00100	0.000150	mg/L			02/14/13 14:43	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			02/14/13 14:43	1
Ethylbenzene	0.000110	U	0.00100	0.000110	mg/L			02/14/13 14:43	1
Xylenes, Total	0.000260	U	0.00300	0.000260	mg/L			02/14/13 14:43	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	106		67 - 139		02/14/13 14:43	1
Dibromofluoromethane	76		62 - 130		02/14/13 14:43	1
Toluene-d8 (Surr)	85		70 - 130		02/14/13 14:43	1
1,2-Dichloroethane-d4 (Surr)	80		50 - 134		02/14/13 14:43	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.0000381	U	0.000476	0.0000381	mg/L		02/14/13 08:30	02/20/13 04:56	1
Nitrobenzene	0.000105	U	0.000476	0.000105	mg/L		02/14/13 08:30	02/20/13 04:56	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68500-1

Client Sample ID: WG-1620-MW67B-20120211

Lab Sample ID: 600-68500-5

Date Collected: 02/12/13 08:45

Matrix: Water

Date Received: 02/13/13 07:50

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-Dimethylphenol	0.000295	U	0.000476	0.000295	mg/L		02/14/13 08:30	02/20/13 04:56	1
Bis(2-chloroethoxy)methane	0.000124	U	0.000476	0.000124	mg/L		02/14/13 08:30	02/20/13 04:56	1
Naphthalene	0.0000762	U	0.00476	0.0000762	mg/L		02/14/13 08:30	02/20/13 04:56	1
2-Methylnaphthalene	0.0000667	U	0.000476	0.0000667	mg/L		02/14/13 08:30	02/20/13 04:56	1
2-Chloronaphthalene	0.0000762	U	0.000476	0.0000762	mg/L		02/14/13 08:30	02/20/13 04:56	1
Acenaphthylene	0.0000571	U	0.000476	0.0000571	mg/L		02/14/13 08:30	02/20/13 04:56	1
2,6-Dinitrotoluene	0.0000762	U	0.000476	0.0000762	mg/L		02/14/13 08:30	02/20/13 04:56	1
Acenaphthene	0.0000762	U	0.000476	0.0000762	mg/L		02/14/13 08:30	02/20/13 04:56	1
4-Nitrophenol	0.000533	U	0.000952	0.000533	mg/L		02/14/13 08:30	02/20/13 04:56	1
Dibenzofuran	0.0000762	U	0.000476	0.0000762	mg/L		02/14/13 08:30	02/20/13 04:56	1
2,4-Dinitrotoluene	0.000124	U	0.000476	0.000124	mg/L		02/14/13 08:30	02/20/13 04:56	1
Fluorene	0.0000667	U	0.000476	0.0000667	mg/L		02/14/13 08:30	02/20/13 04:56	1
4,6-Dinitro-2-methylphenol	0.000790	U	0.000952	0.000790	mg/L		02/14/13 08:30	02/20/13 04:56	1
N-Nitrosodiphenylamine	0.0000952	U	0.000476	0.0000952	mg/L		02/14/13 08:30	02/20/13 04:56	1
1,2-Diphenylhydrazine	0.000105	U	0.000476	0.000105	mg/L		02/14/13 08:30	02/20/13 04:56	1
Pentachlorophenol	0.000581	U	0.000952	0.000581	mg/L		02/14/13 08:30	02/20/13 04:56	1
Phenanthrene	0.0000571	U	0.000476	0.0000571	mg/L		02/14/13 08:30	02/20/13 04:56	1
Anthracene	0.0000476	U	0.000476	0.0000476	mg/L		02/14/13 08:30	02/20/13 04:56	1
Di-n-butyl phthalate	0.000105	U	0.000476	0.000105	mg/L		02/14/13 08:30	02/20/13 04:56	1
Fluoranthene	0.0000667	U	0.000476	0.0000667	mg/L		02/14/13 08:30	02/20/13 04:56	1
Pyrene	0.000105	U	0.000476	0.000105	mg/L		02/14/13 08:30	02/20/13 04:56	1
Benzo[a]anthracene	0.0000762	U	0.000476	0.0000762	mg/L		02/14/13 08:30	02/20/13 04:56	1
Bis(2-ethylhexyl) phthalate	0.000352	U	0.000476	0.000352	mg/L		02/14/13 08:30	02/20/13 04:56	1
Chrysene	0.0000762	U	0.000476	0.0000762	mg/L		02/14/13 08:30	02/20/13 04:56	1
Benzo[a]pyrene	0.0000762	U	0.000476	0.0000762	mg/L		02/14/13 08:30	02/20/13 04:56	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Phenol-d6	11		10 - 94				02/14/13 08:30	02/20/13 04:56	1
2,4,6-Tribromophenol	62		10 - 123				02/14/13 08:30	02/20/13 04:56	1
2-Fluorobiphenyl	57		43 - 116				02/14/13 08:30	02/20/13 04:56	1
2-Fluorophenol	26		10 - 100				02/14/13 08:30	02/20/13 04:56	1
Nitrobenzene-d5	53		35 - 114				02/14/13 08:30	02/20/13 04:56	1
Terphenyl-d14	73		33 - 141				02/14/13 08:30	02/20/13 04:56	1

Client Sample ID: WG-1620-MW33A-20120211

Lab Sample ID: 600-68500-6

Date Collected: 02/12/13 10:00

Matrix: Water

Date Received: 02/13/13 07:50

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			02/14/13 03:32	1
Benzene	0.00782		0.00100	0.0000800	mg/L			02/14/13 03:32	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			02/14/13 03:32	1
Toluene	0.000150	U	0.00100	0.000150	mg/L			02/14/13 03:32	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			02/14/13 03:32	1
Ethylbenzene	0.00220		0.00100	0.000110	mg/L			02/14/13 03:32	1
Xylenes, Total	0.00223	J	0.00300	0.000260	mg/L			02/14/13 03:32	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	106		67 - 139					02/14/13 03:32	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68500-1

Client Sample ID: WG-1620-MW33A-20120211

Lab Sample ID: 600-68500-6

Date Collected: 02/12/13 10:00

Matrix: Water

Date Received: 02/13/13 07:50

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Dibromofluoromethane	74		62 - 130		02/14/13 03:32	1
Toluene-d8 (Surr)	84		70 - 130		02/14/13 03:32	1
1,2-Dichloroethane-d4 (Surr)	82		50 - 134		02/14/13 03:32	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.000381	U	0.000476	0.000381	mg/L		02/14/13 08:30	02/20/13 16:39	1
Nitrobenzene	0.000105	U	0.000476	0.000105	mg/L		02/14/13 08:30	02/20/13 16:39	1
2,4-Dimethylphenol	0.00623		0.000476	0.000295	mg/L		02/14/13 08:30	02/20/13 16:39	1
Bis(2-chloroethoxy)methane	0.000124	U	0.000476	0.000124	mg/L		02/14/13 08:30	02/20/13 16:39	1
2-Methylnaphthalene	0.00345		0.000476	0.0000667	mg/L		02/14/13 08:30	02/20/13 16:39	1
2-Chloronaphthalene	0.0000762	U	0.000476	0.0000762	mg/L		02/14/13 08:30	02/20/13 16:39	1
Acenaphthylene	0.0000571	U	0.000476	0.0000571	mg/L		02/14/13 08:30	02/20/13 16:39	1
2,6-Dinitrotoluene	0.0000762	U	0.000476	0.0000762	mg/L		02/14/13 08:30	02/20/13 16:39	1
4-Nitrophenol	0.000533	U	0.000952	0.000533	mg/L		02/14/13 08:30	02/20/13 16:39	1
Dibenzofuran	0.00262		0.000476	0.0000762	mg/L		02/14/13 08:30	02/20/13 16:39	1
2,4-Dinitrotoluene	0.000124	U	0.000476	0.000124	mg/L		02/14/13 08:30	02/20/13 16:39	1
Fluorene	0.00641		0.000476	0.0000667	mg/L		02/14/13 08:30	02/20/13 16:39	1
4,6-Dinitro-2-methylphenol	0.000790	U	0.000952	0.000790	mg/L		02/14/13 08:30	02/20/13 16:39	1
N-Nitrosodiphenylamine	0.0000952	U	0.000476	0.0000952	mg/L		02/14/13 08:30	02/20/13 16:39	1
1,2-Diphenylhydrazine	0.000105	U	0.000476	0.000105	mg/L		02/14/13 08:30	02/20/13 16:39	1
Pentachlorophenol	0.000581	U	0.000952	0.000581	mg/L		02/14/13 08:30	02/20/13 16:39	1
Phenanthrene	0.000488		0.000476	0.0000571	mg/L		02/14/13 08:30	02/20/13 16:39	1
Anthracene	0.000748		0.000476	0.0000476	mg/L		02/14/13 08:30	02/20/13 16:39	1
Di-n-butyl phthalate	0.000105	U	0.000476	0.000105	mg/L		02/14/13 08:30	02/20/13 16:39	1
Fluoranthene	0.00212		0.000476	0.0000667	mg/L		02/14/13 08:30	02/20/13 16:39	1
Pyrene	0.00283		0.000476	0.000105	mg/L		02/14/13 08:30	02/20/13 16:39	1
Benzo[a]anthracene	0.000174	J	0.000476	0.0000762	mg/L		02/14/13 08:30	02/20/13 16:39	1
Bis(2-ethylhexyl) phthalate	0.000352	U	0.000476	0.000352	mg/L		02/14/13 08:30	02/20/13 16:39	1
Chrysene	0.000114	J	0.000476	0.0000762	mg/L		02/14/13 08:30	02/20/13 16:39	1
Benzo[a]pyrene	0.0000762	U	0.000476	0.0000762	mg/L		02/14/13 08:30	02/20/13 16:39	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Phenol-d6	15		10 - 94	02/14/13 08:30	02/20/13 16:39	1
2,4,6-Tribromophenol	48		10 - 123	02/14/13 08:30	02/20/13 16:39	1
2-Fluorobiphenyl	64		43 - 116	02/14/13 08:30	02/20/13 16:39	1
2-Fluorophenol	28		10 - 100	02/14/13 08:30	02/20/13 16:39	1
Nitrobenzene-d5	55		35 - 114	02/14/13 08:30	02/20/13 16:39	1
Terphenyl-d14	63		33 - 141	02/14/13 08:30	02/20/13 16:39	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels - DL

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	0.112		0.0476	0.000762	mg/L		02/14/13 08:30	02/21/13 17:02	10
Acenaphthene	0.0279		0.00476	0.000762	mg/L		02/14/13 08:30	02/21/13 17:02	10

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Phenol-d6	12		10 - 94	02/14/13 08:30	02/21/13 17:02	10
2,4,6-Tribromophenol	35		10 - 123	02/14/13 08:30	02/21/13 17:02	10
2-Fluorobiphenyl	63		43 - 116	02/14/13 08:30	02/21/13 17:02	10
2-Fluorophenol	32		10 - 100	02/14/13 08:30	02/21/13 17:02	10

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68500-1

Client Sample ID: WG-1620-MW33A-20120211

Lab Sample ID: 600-68500-6

Date Collected: 02/12/13 10:00

Matrix: Water

Date Received: 02/13/13 07:50

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels - DL (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5	42		35 - 114	02/14/13 08:30	02/21/13 17:02	10
Terphenyl-d14	72		33 - 141	02/14/13 08:30	02/21/13 17:02	10

Client Sample ID: WG-1620-DUP3- 20120211

Lab Sample ID: 600-68500-7

Date Collected: 02/12/13 10:00

Matrix: Water

Date Received: 02/13/13 07:50

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			02/14/13 04:00	1
Benzene	0.00782		0.00100	0.0000800	mg/L			02/14/13 04:00	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			02/14/13 04:00	1
Toluene	0.000150	U	0.00100	0.000150	mg/L			02/14/13 04:00	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			02/14/13 04:00	1
Ethylbenzene	0.00216		0.00100	0.000110	mg/L			02/14/13 04:00	1
Xylenes, Total	0.00229	J	0.00300	0.000260	mg/L			02/14/13 04:00	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	103		67 - 139		02/14/13 04:00	1
Dibromofluoromethane	77		62 - 130		02/14/13 04:00	1
Toluene-d8 (Surr)	84		70 - 130		02/14/13 04:00	1
1,2-Dichloroethane-d4 (Surr)	83		50 - 134		02/14/13 04:00	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.0000381	U	0.000476	0.0000381	mg/L		02/14/13 08:30	02/20/13 17:06	1
Nitrobenzene	0.000105	U	0.000476	0.000105	mg/L		02/14/13 08:30	02/20/13 17:06	1
2,4-Dimethylphenol	0.0199		0.000476	0.000295	mg/L		02/14/13 08:30	02/20/13 17:06	1
Bis(2-chloroethoxy)methane	0.000124	U	0.000476	0.000124	mg/L		02/14/13 08:30	02/20/13 17:06	1
2-Methylnaphthalene	0.0149		0.000476	0.0000667	mg/L		02/14/13 08:30	02/20/13 17:06	1
2-Chloronaphthalene	0.0000762	U	0.000476	0.0000762	mg/L		02/14/13 08:30	02/20/13 17:06	1
Acenaphthylene	0.000358	J	0.000476	0.0000571	mg/L		02/14/13 08:30	02/20/13 17:06	1
2,6-Dinitrotoluene	0.0000762	U	0.000476	0.0000762	mg/L		02/14/13 08:30	02/20/13 17:06	1
4-Nitrophenol	0.000533	U	0.000952	0.000533	mg/L		02/14/13 08:30	02/20/13 17:06	1
Dibenzofuran	0.00699		0.000476	0.0000762	mg/L		02/14/13 08:30	02/20/13 17:06	1
2,4-Dinitrotoluene	0.000124	U	0.000476	0.000124	mg/L		02/14/13 08:30	02/20/13 17:06	1
Fluorene	0.00994		0.000476	0.0000667	mg/L		02/14/13 08:30	02/20/13 17:06	1
4,6-Dinitro-2-methylphenol	0.000790	U	0.000952	0.000790	mg/L		02/14/13 08:30	02/20/13 17:06	1
N-Nitrosodiphenylamine	0.0000952	U	0.000476	0.0000952	mg/L		02/14/13 08:30	02/20/13 17:06	1
1,2-Diphenylhydrazine	0.000105	U	0.000476	0.000105	mg/L		02/14/13 08:30	02/20/13 17:06	1
Pentachlorophenol	0.000581	U	0.000952	0.000581	mg/L		02/14/13 08:30	02/20/13 17:06	1
Phenanthrene	0.000987		0.000476	0.0000571	mg/L		02/14/13 08:30	02/20/13 17:06	1
Anthracene	0.000801		0.000476	0.0000476	mg/L		02/14/13 08:30	02/20/13 17:06	1
Di-n-butyl phthalate	0.000105	U	0.000476	0.000105	mg/L		02/14/13 08:30	02/20/13 17:06	1
Fluoranthene	0.00250		0.000476	0.0000667	mg/L		02/14/13 08:30	02/20/13 17:06	1
Pyrene	0.00336		0.000476	0.000105	mg/L		02/14/13 08:30	02/20/13 17:06	1
Benzo[a]anthracene	0.000211	J	0.000476	0.0000762	mg/L		02/14/13 08:30	02/20/13 17:06	1
Bis(2-ethylhexyl) phthalate	0.000352	U	0.000476	0.000352	mg/L		02/14/13 08:30	02/20/13 17:06	1
Chrysene	0.000106	J	0.000476	0.0000762	mg/L		02/14/13 08:30	02/20/13 17:06	1
Benzo[a]pyrene	0.0000762	U	0.000476	0.0000762	mg/L		02/14/13 08:30	02/20/13 17:06	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68500-1

Client Sample ID: WG-1620-DUP3- 20120211

Lab Sample ID: 600-68500-7

Date Collected: 02/12/13 10:00

Matrix: Water

Date Received: 02/13/13 07:50

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Phenol-d6	17		10 - 94	02/14/13 08:30	02/20/13 17:06	1
2,4,6-Tribromophenol	76		10 - 123	02/14/13 08:30	02/20/13 17:06	1
2-Fluorobiphenyl	67		43 - 116	02/14/13 08:30	02/20/13 17:06	1
2-Fluorophenol	22		10 - 100	02/14/13 08:30	02/20/13 17:06	1
Nitrobenzene-d5	58		35 - 114	02/14/13 08:30	02/20/13 17:06	1
Terphenyl-d14	69		33 - 141	02/14/13 08:30	02/20/13 17:06	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels - DL

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	0.382	J	0.476	0.00762	mg/L		02/14/13 08:30	02/21/13 17:30	100
Acenaphthene	0.0374	J	0.0476	0.00762	mg/L		02/14/13 08:30	02/21/13 17:30	100

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Phenol-d6	0	X	10 - 94	02/14/13 08:30	02/21/13 17:30	100
2,4,6-Tribromophenol	0	X	10 - 123	02/14/13 08:30	02/21/13 17:30	100
2-Fluorobiphenyl	0	X	43 - 116	02/14/13 08:30	02/21/13 17:30	100
2-Fluorophenol	0	X	10 - 100	02/14/13 08:30	02/21/13 17:30	100
Nitrobenzene-d5	0	X	35 - 114	02/14/13 08:30	02/21/13 17:30	100
Terphenyl-d14	0	X	33 - 141	02/14/13 08:30	02/21/13 17:30	100

Client Sample ID: WG-1620-MW24AR-20120211

Lab Sample ID: 600-68500-8

Date Collected: 02/12/13 11:00

Matrix: Water

Date Received: 02/13/13 07:50

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			02/14/13 04:28	1
Benzene	0.0000800	U	0.00100	0.0000800	mg/L			02/14/13 04:28	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			02/14/13 04:28	1
Toluene	0.000150	U	0.00100	0.000150	mg/L			02/14/13 04:28	1
Chlorobenzene	0.000201	J	0.00100	0.000120	mg/L			02/14/13 04:28	1
Ethylbenzene	0.000110	U	0.00100	0.000110	mg/L			02/14/13 04:28	1
Xylenes, Total	0.000260	U	0.00300	0.000260	mg/L			02/14/13 04:28	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	109		67 - 139		02/14/13 04:28	1
Dibromofluoromethane	77		62 - 130		02/14/13 04:28	1
Toluene-d8 (Surr)	82		70 - 130		02/14/13 04:28	1
1,2-Dichloroethane-d4 (Surr)	85		50 - 134		02/14/13 04:28	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.0000381	U	0.000476	0.0000381	mg/L		02/14/13 08:30	02/20/13 17:33	1
Nitrobenzene	0.000105	U	0.000476	0.000105	mg/L		02/14/13 08:30	02/20/13 17:33	1
2,4-Dimethylphenol	0.000295	U	0.000476	0.000295	mg/L		02/14/13 08:30	02/20/13 17:33	1
Bis(2-chloroethoxy)methane	0.000124	U	0.000476	0.000124	mg/L		02/14/13 08:30	02/20/13 17:33	1
Naphthalene	0.000139	J	0.00476	0.0000762	mg/L		02/14/13 08:30	02/20/13 17:33	1
2-Methylnaphthalene	0.0000667	U	0.000476	0.0000667	mg/L		02/14/13 08:30	02/20/13 17:33	1
2-Chloronaphthalene	0.0000762	U	0.000476	0.0000762	mg/L		02/14/13 08:30	02/20/13 17:33	1
Acenaphthylene	0.0000571	U	0.000476	0.0000571	mg/L		02/14/13 08:30	02/20/13 17:33	1
2,6-Dinitrotoluene	0.0000762	U	0.000476	0.0000762	mg/L		02/14/13 08:30	02/20/13 17:33	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68500-1

Client Sample ID: WG-1620-MW24AR-20120211

Lab Sample ID: 600-68500-8

Date Collected: 02/12/13 11:00

Matrix: Water

Date Received: 02/13/13 07:50

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	0.0000762	U	0.000476	0.0000762	mg/L		02/14/13 08:30	02/20/13 17:33	1
4-Nitrophenol	0.000533	U	0.000952	0.000533	mg/L		02/14/13 08:30	02/20/13 17:33	1
Dibenzofuran	0.0000762	U	0.000476	0.0000762	mg/L		02/14/13 08:30	02/20/13 17:33	1
2,4-Dinitrotoluene	0.000124	U	0.000476	0.000124	mg/L		02/14/13 08:30	02/20/13 17:33	1
Fluorene	0.0000667	U	0.000476	0.0000667	mg/L		02/14/13 08:30	02/20/13 17:33	1
4,6-Dinitro-2-methylphenol	0.000790	U	0.000952	0.000790	mg/L		02/14/13 08:30	02/20/13 17:33	1
N-Nitrosodiphenylamine	0.0000952	U	0.000476	0.0000952	mg/L		02/14/13 08:30	02/20/13 17:33	1
1,2-Diphenylhydrazine	0.000105	U	0.000476	0.000105	mg/L		02/14/13 08:30	02/20/13 17:33	1
Pentachlorophenol	0.000581	U	0.000952	0.000581	mg/L		02/14/13 08:30	02/20/13 17:33	1
Phenanthrene	0.0000890	J	0.000476	0.0000571	mg/L		02/14/13 08:30	02/20/13 17:33	1
Anthracene	0.0000476	U	0.000476	0.0000476	mg/L		02/14/13 08:30	02/20/13 17:33	1
Di-n-butyl phthalate	0.000105	U	0.000476	0.000105	mg/L		02/14/13 08:30	02/20/13 17:33	1
Fluoranthene	0.0000667	U	0.000476	0.0000667	mg/L		02/14/13 08:30	02/20/13 17:33	1
Pyrene	0.000105	U	0.000476	0.000105	mg/L		02/14/13 08:30	02/20/13 17:33	1
Benzo[a]anthracene	0.0000762	U	0.000476	0.0000762	mg/L		02/14/13 08:30	02/20/13 17:33	1
Bis(2-ethylhexyl) phthalate	0.000352	U	0.000476	0.000352	mg/L		02/14/13 08:30	02/20/13 17:33	1
Chrysene	0.0000762	U	0.000476	0.0000762	mg/L		02/14/13 08:30	02/20/13 17:33	1
Benzo[a]pyrene	0.0000762	U	0.000476	0.0000762	mg/L		02/14/13 08:30	02/20/13 17:33	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Phenol-d6	5	X	10 - 94				02/14/13 08:30	02/20/13 17:33	1
2,4,6-Tribromophenol	2	X	10 - 123				02/14/13 08:30	02/20/13 17:33	1
2-Fluorobiphenyl	66		43 - 116				02/14/13 08:30	02/20/13 17:33	1
2-Fluorophenol	8	X	10 - 100				02/14/13 08:30	02/20/13 17:33	1
Nitrobenzene-d5	61		35 - 114				02/14/13 08:30	02/20/13 17:33	1
Terphenyl-d14	77		33 - 141				02/14/13 08:30	02/20/13 17:33	1

Client Sample ID: WG-1620-MW24B-20120211

Lab Sample ID: 600-68500-9

Date Collected: 02/12/13 12:00

Matrix: Water

Date Received: 02/13/13 07:50

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			02/14/13 04:56	1
Benzene	0.0000800	U	0.00100	0.0000800	mg/L			02/14/13 04:56	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			02/14/13 04:56	1
Toluene	0.000150	U	0.00100	0.000150	mg/L			02/14/13 04:56	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			02/14/13 04:56	1
Ethylbenzene	0.000110	U	0.00100	0.000110	mg/L			02/14/13 04:56	1
Xylenes, Total	0.000260	U	0.00300	0.000260	mg/L			02/14/13 04:56	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	106		67 - 139					02/14/13 04:56	1
Dibromofluoromethane	75		62 - 130					02/14/13 04:56	1
Toluene-d8 (Surr)	84		70 - 130					02/14/13 04:56	1
1,2-Dichloroethane-d4 (Surr)	85		50 - 134					02/14/13 04:56	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.0000381	U	0.000476	0.0000381	mg/L		02/14/13 08:30	02/20/13 18:01	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68500-1

Client Sample ID: WG-1620-MW24B-20120211

Lab Sample ID: 600-68500-9

Date Collected: 02/12/13 12:00

Matrix: Water

Date Received: 02/13/13 07:50

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrobenzene	0.000105	U	0.000476	0.000105	mg/L		02/14/13 08:30	02/20/13 18:01	1
2,4-Dimethylphenol	0.000295	U	0.000476	0.000295	mg/L		02/14/13 08:30	02/20/13 18:01	1
Bis(2-chloroethoxy)methane	0.000124	U	0.000476	0.000124	mg/L		02/14/13 08:30	02/20/13 18:01	1
Naphthalene	0.0000762	U	0.00476	0.0000762	mg/L		02/14/13 08:30	02/20/13 18:01	1
2-Methylnaphthalene	0.0000667	U	0.000476	0.0000667	mg/L		02/14/13 08:30	02/20/13 18:01	1
2-Chloronaphthalene	0.0000762	U	0.000476	0.0000762	mg/L		02/14/13 08:30	02/20/13 18:01	1
Acenaphthylene	0.0000571	U	0.000476	0.0000571	mg/L		02/14/13 08:30	02/20/13 18:01	1
2,6-Dinitrotoluene	0.0000762	U	0.000476	0.0000762	mg/L		02/14/13 08:30	02/20/13 18:01	1
Acenaphthene	0.0000762	U	0.000476	0.0000762	mg/L		02/14/13 08:30	02/20/13 18:01	1
4-Nitrophenol	0.000533	U	0.000952	0.000533	mg/L		02/14/13 08:30	02/20/13 18:01	1
Dibenzofuran	0.0000762	U	0.000476	0.0000762	mg/L		02/14/13 08:30	02/20/13 18:01	1
2,4-Dinitrotoluene	0.000124	U	0.000476	0.000124	mg/L		02/14/13 08:30	02/20/13 18:01	1
Fluorene	0.0000667	U	0.000476	0.0000667	mg/L		02/14/13 08:30	02/20/13 18:01	1
4,6-Dinitro-2-methylphenol	0.000790	U	0.000952	0.000790	mg/L		02/14/13 08:30	02/20/13 18:01	1
N-Nitrosodiphenylamine	0.0000952	U	0.000476	0.0000952	mg/L		02/14/13 08:30	02/20/13 18:01	1
1,2-Diphenylhydrazine	0.000105	U	0.000476	0.000105	mg/L		02/14/13 08:30	02/20/13 18:01	1
Pentachlorophenol	0.000581	U	0.000952	0.000581	mg/L		02/14/13 08:30	02/20/13 18:01	1
Phenanthrene	0.0000571	U	0.000476	0.0000571	mg/L		02/14/13 08:30	02/20/13 18:01	1
Anthracene	0.0000476	U	0.000476	0.0000476	mg/L		02/14/13 08:30	02/20/13 18:01	1
Di-n-butyl phthalate	0.000105	U	0.000476	0.000105	mg/L		02/14/13 08:30	02/20/13 18:01	1
Fluoranthene	0.0000667	U	0.000476	0.0000667	mg/L		02/14/13 08:30	02/20/13 18:01	1
Pyrene	0.000105	U	0.000476	0.000105	mg/L		02/14/13 08:30	02/20/13 18:01	1
Benzo[a]anthracene	0.0000762	U	0.000476	0.0000762	mg/L		02/14/13 08:30	02/20/13 18:01	1
Bis(2-ethylhexyl) phthalate	0.000352	U	0.000476	0.000352	mg/L		02/14/13 08:30	02/20/13 18:01	1
Chrysene	0.0000762	U	0.000476	0.0000762	mg/L		02/14/13 08:30	02/20/13 18:01	1
Benzo[a]pyrene	0.0000762	U	0.000476	0.0000762	mg/L		02/14/13 08:30	02/20/13 18:01	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Phenol-d6	13		10 - 94				02/14/13 08:30	02/20/13 18:01	1
2,4,6-Tribromophenol	42		10 - 123				02/14/13 08:30	02/20/13 18:01	1
2-Fluorobiphenyl	60		43 - 116				02/14/13 08:30	02/20/13 18:01	1
2-Fluorophenol	29		10 - 100				02/14/13 08:30	02/20/13 18:01	1
Nitrobenzene-d5	53		35 - 114				02/14/13 08:30	02/20/13 18:01	1
Terphenyl-d14	74		33 - 141				02/14/13 08:30	02/20/13 18:01	1

Client Sample ID: WG-1620-MW24C-20120211

Lab Sample ID: 600-68500-10

Date Collected: 02/12/13 14:00

Matrix: Water

Date Received: 02/13/13 07:50

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			02/14/13 05:24	1
Benzene	0.0000800	U	0.00100	0.0000800	mg/L			02/14/13 05:24	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			02/14/13 05:24	1
Toluene	0.000218	J	0.00100	0.000150	mg/L			02/14/13 05:24	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			02/14/13 05:24	1
Ethylbenzene	0.000110	U	0.00100	0.000110	mg/L			02/14/13 05:24	1
Xylenes, Total	0.000260	U	0.00300	0.000260	mg/L			02/14/13 05:24	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68500-1

Client Sample ID: WG-1620-MW24C-20120211

Lab Sample ID: 600-68500-10

Date Collected: 02/12/13 14:00

Matrix: Water

Date Received: 02/13/13 07:50

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	106		67 - 139		02/14/13 05:24	1
Dibromofluoromethane	75		62 - 130		02/14/13 05:24	1
Toluene-d8 (Surr)	82		70 - 130		02/14/13 05:24	1
1,2-Dichloroethane-d4 (Surr)	82		50 - 134		02/14/13 05:24	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.000381	U	0.000476	0.000381	mg/L		02/14/13 08:30	02/20/13 18:28	1
Nitrobenzene	0.000105	U	0.000476	0.000105	mg/L		02/14/13 08:30	02/20/13 18:28	1
2,4-Dimethylphenol	0.000295	U	0.000476	0.000295	mg/L		02/14/13 08:30	02/20/13 18:28	1
Bis(2-chloroethoxy)methane	0.000124	U	0.000476	0.000124	mg/L		02/14/13 08:30	02/20/13 18:28	1
Naphthalene	0.0000762	U	0.000476	0.0000762	mg/L		02/14/13 08:30	02/20/13 18:28	1
2-Methylnaphthalene	0.0000667	U	0.000476	0.0000667	mg/L		02/14/13 08:30	02/20/13 18:28	1
2-Chloronaphthalene	0.0000762	U	0.000476	0.0000762	mg/L		02/14/13 08:30	02/20/13 18:28	1
Acenaphthylene	0.0000571	U	0.000476	0.0000571	mg/L		02/14/13 08:30	02/20/13 18:28	1
2,6-Dinitrotoluene	0.0000762	U	0.000476	0.0000762	mg/L		02/14/13 08:30	02/20/13 18:28	1
Acenaphthene	0.0000762	U	0.000476	0.0000762	mg/L		02/14/13 08:30	02/20/13 18:28	1
4-Nitrophenol	0.000533	U	0.000952	0.000533	mg/L		02/14/13 08:30	02/20/13 18:28	1
Dibenzofuran	0.0000762	U	0.000476	0.0000762	mg/L		02/14/13 08:30	02/20/13 18:28	1
2,4-Dinitrotoluene	0.000124	U	0.000476	0.000124	mg/L		02/14/13 08:30	02/20/13 18:28	1
Fluorene	0.0000667	U	0.000476	0.0000667	mg/L		02/14/13 08:30	02/20/13 18:28	1
4,6-Dinitro-2-methylphenol	0.000790	U	0.000952	0.000790	mg/L		02/14/13 08:30	02/20/13 18:28	1
N-Nitrosodiphenylamine	0.0000952	U	0.000476	0.0000952	mg/L		02/14/13 08:30	02/20/13 18:28	1
1,2-Diphenylhydrazine	0.000105	U	0.000476	0.000105	mg/L		02/14/13 08:30	02/20/13 18:28	1
Pentachlorophenol	0.000581	U	0.000952	0.000581	mg/L		02/14/13 08:30	02/20/13 18:28	1
Phenanthrene	0.0000571	U	0.000476	0.0000571	mg/L		02/14/13 08:30	02/20/13 18:28	1
Anthracene	0.0000476	U	0.000476	0.0000476	mg/L		02/14/13 08:30	02/20/13 18:28	1
Di-n-butyl phthalate	0.000105	U	0.000476	0.000105	mg/L		02/14/13 08:30	02/20/13 18:28	1
Fluoranthene	0.0000667	U	0.000476	0.0000667	mg/L		02/14/13 08:30	02/20/13 18:28	1
Pyrene	0.000105	U	0.000476	0.000105	mg/L		02/14/13 08:30	02/20/13 18:28	1
Benzo[a]anthracene	0.0000762	U	0.000476	0.0000762	mg/L		02/14/13 08:30	02/20/13 18:28	1
Bis(2-ethylhexyl) phthalate	0.000352	U	0.000476	0.000352	mg/L		02/14/13 08:30	02/20/13 18:28	1
Chrysene	0.0000762	U	0.000476	0.0000762	mg/L		02/14/13 08:30	02/20/13 18:28	1
Benzo[a]pyrene	0.0000762	U	0.000476	0.0000762	mg/L		02/14/13 08:30	02/20/13 18:28	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Phenol-d6	15		10 - 94	02/14/13 08:30	02/20/13 18:28	1
2,4,6-Tribromophenol	64		10 - 123	02/14/13 08:30	02/20/13 18:28	1
2-Fluorobiphenyl	59		43 - 116	02/14/13 08:30	02/20/13 18:28	1
2-Fluorophenol	20		10 - 100	02/14/13 08:30	02/20/13 18:28	1
Nitrobenzene-d5	55		35 - 114	02/14/13 08:30	02/20/13 18:28	1
Terphenyl-d14	79		33 - 141	02/14/13 08:30	02/20/13 18:28	1

Client Sample ID: WG-1620-MW27C-20120211

Lab Sample ID: 600-68500-11

Date Collected: 02/12/13 15:00

Matrix: Water

Date Received: 02/13/13 07:50

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			02/14/13 05:52	1
Benzene	0.0000800	U	0.00100	0.0000800	mg/L			02/14/13 05:52	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68500-1

Client Sample ID: WG-1620-MW27C-20120211

Lab Sample ID: 600-68500-11

Date Collected: 02/12/13 15:00

Matrix: Water

Date Received: 02/13/13 07:50

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			02/14/13 05:52	1
Toluene	0.000150	U	0.00100	0.000150	mg/L			02/14/13 05:52	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			02/14/13 05:52	1
Ethylbenzene	0.000110	U	0.00100	0.000110	mg/L			02/14/13 05:52	1
Xylenes, Total	0.000260	U	0.00300	0.000260	mg/L			02/14/13 05:52	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	108		67 - 139		02/14/13 05:52	1
Dibromofluoromethane	77		62 - 130		02/14/13 05:52	1
Toluene-d8 (Surr)	84		70 - 130		02/14/13 05:52	1
1,2-Dichloroethane-d4 (Surr)	83		50 - 134		02/14/13 05:52	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.0000381	U	0.000476	0.0000381	mg/L		02/14/13 08:30	02/20/13 18:55	1
Nitrobenzene	0.000105	U	0.000476	0.000105	mg/L		02/14/13 08:30	02/20/13 18:55	1
2,4-Dimethylphenol	0.000295	U	0.000476	0.000295	mg/L		02/14/13 08:30	02/20/13 18:55	1
Bis(2-chloroethoxy)methane	0.000124	U	0.000476	0.000124	mg/L		02/14/13 08:30	02/20/13 18:55	1
Naphthalene	0.0000762	U	0.00476	0.0000762	mg/L		02/14/13 08:30	02/20/13 18:55	1
2-Methylnaphthalene	0.000777		0.000476	0.0000667	mg/L		02/14/13 08:30	02/20/13 18:55	1
2-Chloronaphthalene	0.0000762	U	0.000476	0.0000762	mg/L		02/14/13 08:30	02/20/13 18:55	1
Acenaphthylene	0.0000571	U	0.000476	0.0000571	mg/L		02/14/13 08:30	02/20/13 18:55	1
2,6-Dinitrotoluene	0.0000762	U	0.000476	0.0000762	mg/L		02/14/13 08:30	02/20/13 18:55	1
Acenaphthene	0.0000762	U	0.000476	0.0000762	mg/L		02/14/13 08:30	02/20/13 18:55	1
4-Nitrophenol	0.000533	U	0.000952	0.000533	mg/L		02/14/13 08:30	02/20/13 18:55	1
Dibenzofuran	0.0000762	U	0.000476	0.0000762	mg/L		02/14/13 08:30	02/20/13 18:55	1
2,4-Dinitrotoluene	0.000124	U	0.000476	0.000124	mg/L		02/14/13 08:30	02/20/13 18:55	1
Fluorene	0.0000667	U	0.000476	0.0000667	mg/L		02/14/13 08:30	02/20/13 18:55	1
4,6-Dinitro-2-methylphenol	0.000790	U	0.000952	0.000790	mg/L		02/14/13 08:30	02/20/13 18:55	1
N-Nitrosodiphenylamine	0.0000952	U	0.000476	0.0000952	mg/L		02/14/13 08:30	02/20/13 18:55	1
1,2-Diphenylhydrazine	0.000105	U	0.000476	0.000105	mg/L		02/14/13 08:30	02/20/13 18:55	1
Pentachlorophenol	0.000581	U	0.000952	0.000581	mg/L		02/14/13 08:30	02/20/13 18:55	1
Phenanthrene	0.0000571	U	0.000476	0.0000571	mg/L		02/14/13 08:30	02/20/13 18:55	1
Anthracene	0.0000476	U	0.000476	0.0000476	mg/L		02/14/13 08:30	02/20/13 18:55	1
Di-n-butyl phthalate	0.000105	U	0.000476	0.000105	mg/L		02/14/13 08:30	02/20/13 18:55	1
Fluoranthene	0.0000667	U	0.000476	0.0000667	mg/L		02/14/13 08:30	02/20/13 18:55	1
Pyrene	0.000105	U	0.000476	0.000105	mg/L		02/14/13 08:30	02/20/13 18:55	1
Benzo[a]anthracene	0.0000762	U	0.000476	0.0000762	mg/L		02/14/13 08:30	02/20/13 18:55	1
Bis(2-ethylhexyl) phthalate	0.000652		0.000476	0.000352	mg/L		02/14/13 08:30	02/20/13 18:55	1
Chrysene	0.0000762	U	0.000476	0.0000762	mg/L		02/14/13 08:30	02/20/13 18:55	1
Benzo[a]pyrene	0.0000762	U	0.000476	0.0000762	mg/L		02/14/13 08:30	02/20/13 18:55	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Phenol-d6	21		10 - 94	02/14/13 08:30	02/20/13 18:55	1
2,4,6-Tribromophenol	55		10 - 123	02/14/13 08:30	02/20/13 18:55	1
2-Fluorobiphenyl	62		43 - 116	02/14/13 08:30	02/20/13 18:55	1
2-Fluorophenol	28		10 - 100	02/14/13 08:30	02/20/13 18:55	1
Nitrobenzene-d5	61		35 - 114	02/14/13 08:30	02/20/13 18:55	1
Terphenyl-d14	70		33 - 141	02/14/13 08:30	02/20/13 18:55	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68500-1

Client Sample ID: WG-1620-MW54C-20120211

Lab Sample ID: 600-68500-12

Date Collected: 02/12/13 16:00

Matrix: Water

Date Received: 02/13/13 07:50

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			02/14/13 06:19	1
Benzene	0.0000800	U	0.00100	0.0000800	mg/L			02/14/13 06:19	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			02/14/13 06:19	1
Toluene	0.000150	U	0.00100	0.000150	mg/L			02/14/13 06:19	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			02/14/13 06:19	1
Ethylbenzene	0.000187	J	0.00100	0.000110	mg/L			02/14/13 06:19	1
Xylenes, Total	0.000260	U	0.00300	0.000260	mg/L			02/14/13 06:19	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	105		67 - 139		02/14/13 06:19	1
Dibromofluoromethane	77		62 - 130		02/14/13 06:19	1
Toluene-d8 (Surr)	83		70 - 130		02/14/13 06:19	1
1,2-Dichloroethane-d4 (Surr)	84		50 - 134		02/14/13 06:19	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.0000381	U	0.000476	0.0000381	mg/L		02/14/13 08:30	02/20/13 19:22	1
Nitrobenzene	0.000105	U	0.000476	0.000105	mg/L		02/14/13 08:30	02/20/13 19:22	1
2,4-Dimethylphenol	0.000295	U	0.000476	0.000295	mg/L		02/14/13 08:30	02/20/13 19:22	1
Bis(2-chloroethoxy)methane	0.000124	U	0.000476	0.000124	mg/L		02/14/13 08:30	02/20/13 19:22	1
2-Methylnaphthalene	0.00392		0.000476	0.0000667	mg/L		02/14/13 08:30	02/20/13 19:22	1
2-Chloronaphthalene	0.0000762	U	0.000476	0.0000762	mg/L		02/14/13 08:30	02/20/13 19:22	1
Acenaphthylene	0.0000571	U	0.000476	0.0000571	mg/L		02/14/13 08:30	02/20/13 19:22	1
2,6-Dinitrotoluene	0.0000762	U	0.000476	0.0000762	mg/L		02/14/13 08:30	02/20/13 19:22	1
4-Nitrophenol	0.000533	U	0.000952	0.000533	mg/L		02/14/13 08:30	02/20/13 19:22	1
Dibenzofuran	0.0223		0.000476	0.0000762	mg/L		02/14/13 08:30	02/20/13 19:22	1
2,4-Dinitrotoluene	0.000124	U	0.000476	0.000124	mg/L		02/14/13 08:30	02/20/13 19:22	1
Fluorene	0.00920		0.000476	0.0000667	mg/L		02/14/13 08:30	02/20/13 19:22	1
4,6-Dinitro-2-methylphenol	0.000790	U	0.000952	0.000790	mg/L		02/14/13 08:30	02/20/13 19:22	1
N-Nitrosodiphenylamine	0.0000952	U	0.000476	0.0000952	mg/L		02/14/13 08:30	02/20/13 19:22	1
1,2-Diphenylhydrazine	0.000105	U	0.000476	0.000105	mg/L		02/14/13 08:30	02/20/13 19:22	1
Pentachlorophenol	0.000581	U	0.000952	0.000581	mg/L		02/14/13 08:30	02/20/13 19:22	1
Phenanthrene	0.0128		0.000476	0.0000571	mg/L		02/14/13 08:30	02/20/13 19:22	1
Anthracene	0.00183		0.000476	0.0000476	mg/L		02/14/13 08:30	02/20/13 19:22	1
Di-n-butyl phthalate	0.000105	U	0.000476	0.000105	mg/L		02/14/13 08:30	02/20/13 19:22	1
Fluoranthene	0.00246		0.000476	0.0000667	mg/L		02/14/13 08:30	02/20/13 19:22	1
Pyrene	0.00138		0.000476	0.000105	mg/L		02/14/13 08:30	02/20/13 19:22	1
Benzo[a]anthracene	0.0000762	U	0.000476	0.0000762	mg/L		02/14/13 08:30	02/20/13 19:22	1
Bis(2-ethylhexyl) phthalate	0.000352	U	0.000476	0.000352	mg/L		02/14/13 08:30	02/20/13 19:22	1
Chrysene	0.0000762	U	0.000476	0.0000762	mg/L		02/14/13 08:30	02/20/13 19:22	1
Benzo[a]pyrene	0.0000762	U	0.000476	0.0000762	mg/L		02/14/13 08:30	02/20/13 19:22	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Phenol-d6	22		10 - 94	02/14/13 08:30	02/20/13 19:22	1
2,4,6-Tribromophenol	66		10 - 123	02/14/13 08:30	02/20/13 19:22	1
2-Fluorobiphenyl	59		43 - 116	02/14/13 08:30	02/20/13 19:22	1
2-Fluorophenol	44		10 - 100	02/14/13 08:30	02/20/13 19:22	1
Nitrobenzene-d5	53		35 - 114	02/14/13 08:30	02/20/13 19:22	1
Terphenyl-d14	76		33 - 141	02/14/13 08:30	02/20/13 19:22	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68500-1

Client Sample ID: WG-1620-MW54C-20120211

Lab Sample ID: 600-68500-12

Date Collected: 02/12/13 16:00

Matrix: Water

Date Received: 02/13/13 07:50

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels - DL

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	0.0681		0.0476	0.000762	mg/L		02/14/13 08:30	02/21/13 17:57	10
Acenaphthene	0.0219		0.00476	0.000762	mg/L		02/14/13 08:30	02/21/13 17:57	10
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Phenol-d6	15		10 - 94				02/14/13 08:30	02/21/13 17:57	10
2,4,6-Tribromophenol	20		10 - 123				02/14/13 08:30	02/21/13 17:57	10
2-Fluorobiphenyl	54		43 - 116				02/14/13 08:30	02/21/13 17:57	10
2-Fluorophenol	27		10 - 100				02/14/13 08:30	02/21/13 17:57	10
Nitrobenzene-d5	45		35 - 114				02/14/13 08:30	02/21/13 17:57	10
Terphenyl-d14	68		33 - 141				02/14/13 08:30	02/21/13 17:57	10

Client Sample ID: WG-1620-MW44A-20120211

Lab Sample ID: 600-68500-13

Date Collected: 02/12/13 17:05

Matrix: Water

Date Received: 02/13/13 07:50

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			02/19/13 20:54	1
Benzene	0.00206		0.00100	0.0000800	mg/L			02/19/13 20:54	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			02/19/13 20:54	1
Toluene	0.000252	J	0.00100	0.000150	mg/L			02/19/13 20:54	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			02/19/13 20:54	1
Ethylbenzene	0.000624	J	0.00100	0.000110	mg/L			02/19/13 20:54	1
Xylenes, Total	0.00469		0.00300	0.000260	mg/L			02/19/13 20:54	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	99		67 - 139					02/19/13 20:54	1
Dibromofluoromethane	80		62 - 130					02/19/13 20:54	1
Toluene-d8 (Surr)	79		70 - 130					02/19/13 20:54	1
1,2-Dichloroethane-d4 (Surr)	85		50 - 134					02/19/13 20:54	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.000381	U	0.00476	0.000381	mg/L		02/14/13 08:30	02/21/13 18:24	10
Nitrobenzene	0.00105	U	0.00476	0.00105	mg/L		02/14/13 08:30	02/21/13 18:24	10
2,4-Dimethylphenol	0.00295	U	0.00476	0.00295	mg/L		02/14/13 08:30	02/21/13 18:24	10
Bis(2-chloroethoxy)methane	0.00124	U	0.00476	0.00124	mg/L		02/14/13 08:30	02/21/13 18:24	10
Naphthalene	0.000941	J	0.0476	0.000762	mg/L		02/14/13 08:30	02/21/13 18:24	10
2-Methylnaphthalene	0.000667	U	0.00476	0.000667	mg/L		02/14/13 08:30	02/21/13 18:24	10
2-Chloronaphthalene	0.000762	U	0.00476	0.000762	mg/L		02/14/13 08:30	02/21/13 18:24	10
Acenaphthylene	0.00276	J	0.00476	0.000571	mg/L		02/14/13 08:30	02/21/13 18:24	10
2,6-Dinitrotoluene	0.000762	U	0.00476	0.000762	mg/L		02/14/13 08:30	02/21/13 18:24	10
Acenaphthene	0.0700		0.00476	0.000762	mg/L		02/14/13 08:30	02/21/13 18:24	10
4-Nitrophenol	0.00533	U	0.00952	0.00533	mg/L		02/14/13 08:30	02/21/13 18:24	10
Dibenzofuran	0.000762	U	0.00476	0.000762	mg/L		02/14/13 08:30	02/21/13 18:24	10
2,4-Dinitrotoluene	0.00124	U	0.00476	0.00124	mg/L		02/14/13 08:30	02/21/13 18:24	10
Fluorene	0.00495		0.00476	0.000667	mg/L		02/14/13 08:30	02/21/13 18:24	10
4,6-Dinitro-2-methylphenol	0.00790	U	0.00952	0.00790	mg/L		02/14/13 08:30	02/21/13 18:24	10
N-Nitrosodiphenylamine	0.000952	U	0.00476	0.000952	mg/L		02/14/13 08:30	02/21/13 18:24	10
1,2-Diphenylhydrazine	0.00105	U	0.00476	0.00105	mg/L		02/14/13 08:30	02/21/13 18:24	10

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68500-1

Client Sample ID: WG-1620-MW44A-20120211

Lab Sample ID: 600-68500-13

Date Collected: 02/12/13 17:05

Matrix: Water

Date Received: 02/13/13 07:50

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Pentachlorophenol	0.00581	U	0.00952	0.00581	mg/L		02/14/13 08:30	02/21/13 18:24	10
Phenanthrene	0.000571	U	0.00476	0.000571	mg/L		02/14/13 08:30	02/21/13 18:24	10
Anthracene	0.000476	U	0.00476	0.000476	mg/L		02/14/13 08:30	02/21/13 18:24	10
Di-n-butyl phthalate	0.00105	U	0.00476	0.00105	mg/L		02/14/13 08:30	02/21/13 18:24	10
Fluoranthene	0.00257	J	0.00476	0.000667	mg/L		02/14/13 08:30	02/21/13 18:24	10
Pyrene	0.00139	J	0.00476	0.00105	mg/L		02/14/13 08:30	02/21/13 18:24	10
Benzo[a]anthracene	0.000762	U	0.00476	0.000762	mg/L		02/14/13 08:30	02/21/13 18:24	10
Bis(2-ethylhexyl) phthalate	0.00352	U	0.00476	0.00352	mg/L		02/14/13 08:30	02/21/13 18:24	10
Chrysene	0.000762	U	0.00476	0.000762	mg/L		02/14/13 08:30	02/21/13 18:24	10
Benzo[a]pyrene	0.000762	U	0.00476	0.000762	mg/L		02/14/13 08:30	02/21/13 18:24	10
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>Phenol-d6</i>	22		10 - 94				02/14/13 08:30	02/21/13 18:24	10
<i>2,4,6-Tribromophenol</i>	63		10 - 123				02/14/13 08:30	02/21/13 18:24	10
<i>2-Fluorobiphenyl</i>	67		43 - 116				02/14/13 08:30	02/21/13 18:24	10
<i>2-Fluorophenol</i>	41		10 - 100				02/14/13 08:30	02/21/13 18:24	10
<i>Nitrobenzene-d5</i>	54		35 - 114				02/14/13 08:30	02/21/13 18:24	10
<i>Terphenyl-d14</i>	78		33 - 141				02/14/13 08:30	02/21/13 18:24	10

Client Sample ID: WG-1620-FB9-20120211

Lab Sample ID: 600-68500-14

Date Collected: 02/12/13 17:30

Matrix: Water

Date Received: 02/13/13 07:50

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			02/19/13 12:51	1
Benzene	0.0000800	U	0.00100	0.0000800	mg/L			02/19/13 12:51	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			02/19/13 12:51	1
Toluene	0.000150	U	0.00100	0.000150	mg/L			02/19/13 12:51	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			02/19/13 12:51	1
Ethylbenzene	0.000110	U	0.00100	0.000110	mg/L			02/19/13 12:51	1
Xylenes, Total	0.000260	U	0.00300	0.000260	mg/L			02/19/13 12:51	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>4-Bromofluorobenzene</i>	98		67 - 139					02/19/13 12:51	1
<i>Dibromofluoromethane</i>	75		62 - 130					02/19/13 12:51	1
<i>Toluene-d8 (Surr)</i>	78		70 - 130					02/19/13 12:51	1
<i>1,2-Dichloroethane-d4 (Surr)</i>	82		50 - 134					02/19/13 12:51	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.0000381	U	0.000476	0.0000381	mg/L		02/14/13 08:30	02/21/13 09:14	1
Nitrobenzene	0.000105	U	0.000476	0.000105	mg/L		02/14/13 08:30	02/21/13 09:14	1
2,4-Dimethylphenol	0.000295	U	0.000476	0.000295	mg/L		02/14/13 08:30	02/21/13 09:14	1
Bis(2-chloroethoxy)methane	0.000124	U	0.000476	0.000124	mg/L		02/14/13 08:30	02/21/13 09:14	1
Naphthalene	0.000844	J	0.00476	0.0000762	mg/L		02/14/13 08:30	02/21/13 09:14	1
2-Methylnaphthalene	0.000162	J	0.000476	0.0000667	mg/L		02/14/13 08:30	02/21/13 09:14	1
2-Chloronaphthalene	0.0000762	U	0.000476	0.0000762	mg/L		02/14/13 08:30	02/21/13 09:14	1
Acenaphthylene	0.0000571	U	0.000476	0.0000571	mg/L		02/14/13 08:30	02/21/13 09:14	1
2,6-Dinitrotoluene	0.0000762	U	0.000476	0.0000762	mg/L		02/14/13 08:30	02/21/13 09:14	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68500-1

Client Sample ID: WG-1620-FB9-20120211

Lab Sample ID: 600-68500-14

Date Collected: 02/12/13 17:30

Matrix: Water

Date Received: 02/13/13 07:50

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	0.0000885	J	0.000476	0.0000762	mg/L		02/14/13 08:30	02/21/13 09:14	1
4-Nitrophenol	0.000533	U	0.000952	0.000533	mg/L		02/14/13 08:30	02/21/13 09:14	1
Dibenzofuran	0.0000762	U	0.000476	0.0000762	mg/L		02/14/13 08:30	02/21/13 09:14	1
2,4-Dinitrotoluene	0.000124	U	0.000476	0.000124	mg/L		02/14/13 08:30	02/21/13 09:14	1
Fluorene	0.0000667	U	0.000476	0.0000667	mg/L		02/14/13 08:30	02/21/13 09:14	1
4,6-Dinitro-2-methylphenol	0.000790	U	0.000952	0.000790	mg/L		02/14/13 08:30	02/21/13 09:14	1
N-Nitrosodiphenylamine	0.0000952	U	0.000476	0.0000952	mg/L		02/14/13 08:30	02/21/13 09:14	1
1,2-Diphenylhydrazine	0.000105	U	0.000476	0.000105	mg/L		02/14/13 08:30	02/21/13 09:14	1
Pentachlorophenol	0.000581	U	0.000952	0.000581	mg/L		02/14/13 08:30	02/21/13 09:14	1
Phenanthrene	0.0000571	U	0.000476	0.0000571	mg/L		02/14/13 08:30	02/21/13 09:14	1
Anthracene	0.0000476	U	0.000476	0.0000476	mg/L		02/14/13 08:30	02/21/13 09:14	1
Di-n-butyl phthalate	0.000105	U	0.000476	0.000105	mg/L		02/14/13 08:30	02/21/13 09:14	1
Fluoranthene	0.0000667	U	0.000476	0.0000667	mg/L		02/14/13 08:30	02/21/13 09:14	1
Pyrene	0.000105	U	0.000476	0.000105	mg/L		02/14/13 08:30	02/21/13 09:14	1
Benzo[a]anthracene	0.0000762	U	0.000476	0.0000762	mg/L		02/14/13 08:30	02/21/13 09:14	1
Bis(2-ethylhexyl) phthalate	0.000352	U	0.000476	0.000352	mg/L		02/14/13 08:30	02/21/13 09:14	1
Chrysene	0.0000762	U	0.000476	0.0000762	mg/L		02/14/13 08:30	02/21/13 09:14	1
Benzo[a]pyrene	0.0000762	U	0.000476	0.0000762	mg/L		02/14/13 08:30	02/21/13 09:14	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Phenol-d6	14		10 - 94				02/14/13 08:30	02/21/13 09:14	1
2,4,6-Tribromophenol	53		10 - 123				02/14/13 08:30	02/21/13 09:14	1
2-Fluorobiphenyl	60		43 - 116				02/14/13 08:30	02/21/13 09:14	1
2-Fluorophenol	22		10 - 100				02/14/13 08:30	02/21/13 09:14	1
Nitrobenzene-d5	56		35 - 114				02/14/13 08:30	02/21/13 09:14	1
Terphenyl-d14	73		33 - 141				02/14/13 08:30	02/21/13 09:14	1

Client Sample ID: WG-1620-TB07-20120211

Lab Sample ID: 600-68500-15

Date Collected: 02/12/13 00:00

Matrix: Water

Date Received: 02/13/13 07:50

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			02/19/13 12:22	1
Benzene	0.0000800	U	0.00100	0.0000800	mg/L			02/19/13 12:22	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			02/19/13 12:22	1
Toluene	0.000150	U	0.00100	0.000150	mg/L			02/19/13 12:22	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			02/19/13 12:22	1
Ethylbenzene	0.000110	U	0.00100	0.000110	mg/L			02/19/13 12:22	1
Xylenes, Total	0.000260	U	0.00300	0.000260	mg/L			02/19/13 12:22	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	100		67 - 139					02/19/13 12:22	1
Dibromofluoromethane	76		62 - 130					02/19/13 12:22	1
Toluene-d8 (Surr)	76		70 - 130					02/19/13 12:22	1
1,2-Dichloroethane-d4 (Surr)	80		50 - 134					02/19/13 12:22	1

TestAmerica Houston

Definitions/Glossary

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68500-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
U	Analyte was not detected at or above the SDL.
J	Result is less than the MQL but greater than or equal to the SDL and the concentration is an estimated value.

GC/MS Semi VOA

Qualifier	Qualifier Description
U	Analyte was not detected at or above the SDL.
J	Result is less than the MQL but greater than or equal to the SDL and the concentration is an estimated value.
N	MS, MSD: Spike recovery exceeds upper or lower control limits.
N	RPD of the MS and MSD exceeds the control limits
X	Surrogate is outside control limits

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
DL, RA, RE, IN	Indicates a Dilution, Reanalysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
EDL	Estimated Detection Limit
EPA	United States Environmental Protection Agency
MDA	Minimum detectable activity
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Surrogate Summary

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68500-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		BFB (67-139)	DBFM (62-130)	TOL (70-130)	12DCE (50-134)
600-68500-1	WG-1620-MW36D-20120211	107	75	82	82
600-68500-2	WG-1620-MW65D-20120211	107	75	83	84
600-68500-2 MS	WG-1620-MW65D-20120211	104	84	83	84
600-68500-2 MSD	WG-1620-MW65D-20120211	104	83	84	85
600-68500-3	WG-1620-MW59D-20120211	110	74	84	83
600-68500-4	WG-1620-DUP 4-20120211	106	74	84	81
600-68500-5	WG-1620-MW67B-20120211	106	76	85	80
600-68500-5 MS	WG-1620-MW67B-20120211	99	80	82	81
600-68500-5 MSD	WG-1620-MW67B-20120211	102	80	83	80
600-68500-6	WG-1620-MW33A-20120211	106	74	84	82
600-68500-7	WG-1620-DUP3- 20120211	103	77	84	83
600-68500-8	WG-1620-MW24AR-20120211	109	77	82	85
600-68500-9	WG-1620-MW24B-20120211	106	75	84	85
600-68500-10	WG-1620-MW24C-20120211	106	75	82	82
600-68500-11	WG-1620-MW27C-20120211	108	77	84	83
600-68500-12	WG-1620-MW54C-20120211	105	77	83	84
600-68500-13	WG-1620-MW44A-20120211	99	80	79	85
600-68500-14	WG-1620-FB9-20120211	98	75	78	82
600-68500-15	WG-1620-TB07-20120211	100	76	76	80
LCS 600-99563/3	Lab Control Sample	103	82	81	84
LCS 600-99606/3	Lab Control Sample	105	83	88	83
LCS 600-99904/4	Lab Control Sample	94	82	77	83
MB 600-99563/4	Method Blank	108	75	83	84
MB 600-99606/4	Method Blank	104	76	84	80
MB 600-99904/6	Method Blank	101	74	76	83

Surrogate Legend

- BFB = 4-Bromofluorobenzene
- DBFM = Dibromofluoromethane
- TOL = Toluene-d8 (Surr)
- 12DCE = 1,2-Dichloroethane-d4 (Surr)

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)					
		PHL (10-94)	TBP (10-123)	FBP (43-116)	2FP (10-100)	NBZ (35-114)	TPH (33-141)
600-68500-1	WG-1620-MW36D-20120211	16	69	64	33	62	82
600-68500-2	WG-1620-MW65D-20120211	21	90	87	34	67	93
600-68500-2 MS	WG-1620-MW65D-20120211	24	91	91	37	74	94
600-68500-2 MSD	WG-1620-MW65D-20120211	21	97	87	35	65	98
600-68500-3	WG-1620-MW59D-20120211	24	62	61	41	59	75
600-68500-4	WG-1620-DUP 4-20120211	19	53	57	26	53	69
600-68500-5	WG-1620-MW67B-20120211	11	62	57	26	53	73
600-68500-5 MS	WG-1620-MW67B-20120211	16	64	58	26	55	66
600-68500-5 MSD	WG-1620-MW67B-20120211	16	57	58	23	56	59
600-68500-6	WG-1620-MW33A-20120211	15	48	64	28	55	63
600-68500-6 - DL	WG-1620-MW33A-20120211	12	35	63	32	42	72

TestAmerica Houston

Surrogate Summary

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68500-1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)					
		PHL (10-94)	TBP (10-123)	FBP (43-116)	2FP (10-100)	NBZ (35-114)	TPH (33-141)
600-68500-7	WG-1620-DUP3- 20120211	17	76	67	22	58	69
600-68500-7 - DL	WG-1620-DUP3- 20120211	0 X	0 X	0 X	0 X	0 X	0 X
600-68500-8	WG-1620-MW24AR-20120211	5 X	2 X	66	8 X	61	77
600-68500-9	WG-1620-MW24B-20120211	13	42	60	29	53	74
600-68500-10	WG-1620-MW24C-20120211	15	64	59	20	55	79
600-68500-11	WG-1620-MW27C-20120211	21	55	62	28	61	70
600-68500-12	WG-1620-MW54C-20120211	22	66	59	44	53	76
600-68500-12 - DL	WG-1620-MW54C-20120211	15	20	54	27	45	68
600-68500-13	WG-1620-MW44A-20120211	22	63	67	41	54	78
600-68500-14	WG-1620-FB9-20120211	14	53	60	22	56	73
LCS 600-99537/2-A	Lab Control Sample	81	82	97	77	78	89
MB 600-99537/1-A	Method Blank	79	53	103	79	77	85

Surrogate Legend

PHL = Phenol-d6
 TBP = 2,4,6-Tribromophenol
 FBP = 2-Fluorobiphenyl
 2FP = 2-Fluorophenol
 NBZ = Nitrobenzene-d5
 TPH = Terphenyl-d14

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68500-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 600-99563/4

Matrix: Water

Analysis Batch: 99563

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			02/14/13 00:15	1
Benzene	0.0000800	U	0.00100	0.0000800	mg/L			02/14/13 00:15	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			02/14/13 00:15	1
Toluene	0.000150	U	0.00100	0.000150	mg/L			02/14/13 00:15	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			02/14/13 00:15	1
Ethylbenzene	0.000110	U	0.00100	0.000110	mg/L			02/14/13 00:15	1
Xylenes, Total	0.000260	U	0.00300	0.000260	mg/L			02/14/13 00:15	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	108		67 - 139		02/14/13 00:15	1
Dibromofluoromethane	75		62 - 130		02/14/13 00:15	1
Toluene-d8 (Surr)	83		70 - 130		02/14/13 00:15	1
1,2-Dichloroethane-d4 (Surr)	84		50 - 134		02/14/13 00:15	1

Lab Sample ID: LCS 600-99563/3

Matrix: Water

Analysis Batch: 99563

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Methylene Chloride	0.0100	0.008442		mg/L		84	62 - 134
Benzene	0.0100	0.01034		mg/L		103	69 - 131
1,2-Dichloroethane	0.0100	0.01113		mg/L		111	66 - 140
Toluene	0.0100	0.009930		mg/L		99	67 - 130
Chlorobenzene	0.0100	0.01053		mg/L		105	60 - 136
Ethylbenzene	0.0100	0.009836		mg/L		98	68 - 128
Xylenes, Total	0.0300	0.03124		mg/L		104	68 - 132

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene	103		67 - 139
Dibromofluoromethane	82		62 - 130
Toluene-d8 (Surr)	81		70 - 130
1,2-Dichloroethane-d4 (Surr)	84		50 - 134

Lab Sample ID: 600-68500-2 MS

Matrix: Water

Analysis Batch: 99563

Client Sample ID: WG-1620-MW65D-20120211

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Methylene Chloride	0.000150	U	0.0100	0.007297		mg/L		73	60 - 140
Benzene	0.0000800	U	0.0100	0.01023		mg/L		102	65 - 125
1,2-Dichloroethane	0.000140	U	0.0100	0.01126		mg/L		113	60 - 140
Toluene	0.000150	U	0.0100	0.01001		mg/L		100	76 - 125
Chlorobenzene	0.000120	U	0.0100	0.01053		mg/L		105	72 - 122
Ethylbenzene	0.000110	U	0.0100	0.009898		mg/L		99	60 - 140
Xylenes, Total	0.000260	U	0.0300	0.03066		mg/L		102	60 - 140

TestAmerica Houston

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68500-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 600-68500-2 MS

Matrix: Water

Analysis Batch: 99563

Client Sample ID: WG-1620-MW65D-20120211

Prep Type: Total/NA

Surrogate	MS MS		Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene	104		67 - 139
Dibromofluoromethane	84		62 - 130
Toluene-d8 (Surr)	83		70 - 130
1,2-Dichloroethane-d4 (Surr)	84		50 - 134

Lab Sample ID: 600-68500-2 MSD

Matrix: Water

Analysis Batch: 99563

Client Sample ID: WG-1620-MW65D-20120211

Prep Type: Total/NA

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.	RPD	Limit
	Result	Qualifier		Result	Qualifier				Limits		
Methylene Chloride	0.000150	U	0.0100	0.007342		mg/L		73	60 - 140	1	30
Benzene	0.0000800	U	0.0100	0.01052		mg/L		105	65 - 125	3	30
1,2-Dichloroethane	0.000140	U	0.0100	0.01161		mg/L		116	60 - 140	3	30
Toluene	0.000150	U	0.0100	0.01022		mg/L		102	76 - 125	2	30
Chlorobenzene	0.000120	U	0.0100	0.01063		mg/L		106	72 - 122	1	30
Ethylbenzene	0.000110	U	0.0100	0.01005		mg/L		101	60 - 140	2	30
Xylenes, Total	0.000260	U	0.0300	0.03115		mg/L		104	60 - 140	2	30

Surrogate	MSD MSD		Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene	104		67 - 139
Dibromofluoromethane	83		62 - 130
Toluene-d8 (Surr)	84		70 - 130
1,2-Dichloroethane-d4 (Surr)	85		50 - 134

Lab Sample ID: MB 600-99606/4

Matrix: Water

Analysis Batch: 99606

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB	MB	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			02/14/13 13:46	1
Benzene	0.0000800	U	0.00100	0.0000800	mg/L			02/14/13 13:46	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			02/14/13 13:46	1
Toluene	0.000150	U	0.00100	0.000150	mg/L			02/14/13 13:46	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			02/14/13 13:46	1
Ethylbenzene	0.000110	U	0.00100	0.000110	mg/L			02/14/13 13:46	1
Xylenes, Total	0.000260	U	0.00300	0.000260	mg/L			02/14/13 13:46	1

Surrogate	MB MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
4-Bromofluorobenzene	104		67 - 139		02/14/13 13:46	1
Dibromofluoromethane	76		62 - 130		02/14/13 13:46	1
Toluene-d8 (Surr)	84		70 - 130		02/14/13 13:46	1
1,2-Dichloroethane-d4 (Surr)	80		50 - 134		02/14/13 13:46	1

TestAmerica Houston

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68500-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 600-99606/3

Matrix: Water

Analysis Batch: 99606

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Methylene Chloride	0.0100	0.008787		mg/L		88	62 - 134
Benzene	0.0100	0.01038		mg/L		104	69 - 131
1,2-Dichloroethane	0.0100	0.01108		mg/L		111	66 - 140
Toluene	0.0100	0.01023		mg/L		102	67 - 130
Chlorobenzene	0.0100	0.01044		mg/L		104	60 - 136
Ethylbenzene	0.0100	0.009980		mg/L		100	68 - 128
Xylenes, Total	0.0300	0.03057		mg/L		102	68 - 132

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene	105		67 - 139
Dibromofluoromethane	83		62 - 130
Toluene-d8 (Surr)	88		70 - 130
1,2-Dichloroethane-d4 (Surr)	83		50 - 134

Lab Sample ID: 600-68500-5 MS

Matrix: Water

Analysis Batch: 99606

Client Sample ID: WG-1620-MW67B-20120211

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Methylene Chloride	0.000150	U	0.0100	0.006824		mg/L		68	60 - 140
Benzene	0.0000800	U	0.0100	0.009863		mg/L		99	65 - 125
1,2-Dichloroethane	0.000140	U	0.0100	0.01088		mg/L		109	60 - 140
Toluene	0.000150	U	0.0100	0.009444		mg/L		94	76 - 125
Chlorobenzene	0.000120	U	0.0100	0.009834		mg/L		98	72 - 122
Ethylbenzene	0.000110	U	0.0100	0.009247		mg/L		92	60 - 140
Xylenes, Total	0.000260	U	0.0300	0.02896		mg/L		97	60 - 140

Surrogate	MS %Recovery	MS Qualifier	Limits
4-Bromofluorobenzene	99		67 - 139
Dibromofluoromethane	80		62 - 130
Toluene-d8 (Surr)	82		70 - 130
1,2-Dichloroethane-d4 (Surr)	81		50 - 134

Lab Sample ID: 600-68500-5 MSD

Matrix: Water

Analysis Batch: 99606

Client Sample ID: WG-1620-MW67B-20120211

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Methylene Chloride	0.000150	U	0.0100	0.007053		mg/L		71	60 - 140	3	30
Benzene	0.0000800	U	0.0100	0.01027		mg/L		103	65 - 125	4	30
1,2-Dichloroethane	0.000140	U	0.0100	0.01083		mg/L		108	60 - 140	0	30
Toluene	0.000150	U	0.0100	0.01003		mg/L		100	76 - 125	6	30
Chlorobenzene	0.000120	U	0.0100	0.01028		mg/L		103	72 - 122	4	30
Ethylbenzene	0.000110	U	0.0100	0.009840		mg/L		98	60 - 140	6	30
Xylenes, Total	0.000260	U	0.0300	0.03071		mg/L		102	60 - 140	6	30

TestAmerica Houston

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68500-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 600-68500-5 MSD

Matrix: Water

Analysis Batch: 99606

Client Sample ID: WG-1620-MW67B-20120211

Prep Type: Total/NA

Surrogate	MSD MSD		Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene	102		67 - 139
Dibromofluoromethane	80		62 - 130
Toluene-d8 (Surr)	83		70 - 130
1,2-Dichloroethane-d4 (Surr)	80		50 - 134

Lab Sample ID: MB 600-99904/6

Matrix: Water

Analysis Batch: 99904

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB MB		MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			02/19/13 11:53	1
Benzene	0.0000800	U	0.00100	0.0000800	mg/L			02/19/13 11:53	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			02/19/13 11:53	1
Toluene	0.000150	U	0.00100	0.000150	mg/L			02/19/13 11:53	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			02/19/13 11:53	1
Ethylbenzene	0.000110	U	0.00100	0.000110	mg/L			02/19/13 11:53	1
Xylenes, Total	0.000260	U	0.00300	0.000260	mg/L			02/19/13 11:53	1

Surrogate	MB MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
4-Bromofluorobenzene	101		67 - 139		02/19/13 11:53	1
Dibromofluoromethane	74		62 - 130		02/19/13 11:53	1
Toluene-d8 (Surr)	76		70 - 130		02/19/13 11:53	1
1,2-Dichloroethane-d4 (Surr)	83		50 - 134		02/19/13 11:53	1

Lab Sample ID: LCS 600-99904/4

Matrix: Water

Analysis Batch: 99904

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	0.0100	0.01010		mg/L		101	69 - 131
1,2-Dichloroethane	0.0100	0.01065		mg/L		107	66 - 140
Toluene	0.0100	0.009290		mg/L		93	67 - 130
Chlorobenzene	0.0100	0.01014		mg/L		101	60 - 136
Ethylbenzene	0.0100	0.009555		mg/L		96	68 - 128
Xylenes, Total	0.0300	0.03049		mg/L		102	68 - 132

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene	94		67 - 139
Dibromofluoromethane	82		62 - 130
Toluene-d8 (Surr)	77		70 - 130
1,2-Dichloroethane-d4 (Surr)	83		50 - 134

TestAmerica Houston

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68500-1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Lab Sample ID: MB 600-99537/1-A

Matrix: Water

Analysis Batch: 99980

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 99537

Analyte	MB Result	MB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.000400	U	0.000500	0.000400	mg/L		02/14/13 08:30	02/19/13 12:22	1
Nitrobenzene	0.000110	U	0.000500	0.000110	mg/L		02/14/13 08:30	02/19/13 12:22	1
2,4-Dimethylphenol	0.000310	U	0.000500	0.000310	mg/L		02/14/13 08:30	02/19/13 12:22	1
Bis(2-chloroethoxy)methane	0.000130	U	0.000500	0.000130	mg/L		02/14/13 08:30	02/19/13 12:22	1
Naphthalene	0.000800	U	0.00500	0.000800	mg/L		02/14/13 08:30	02/19/13 12:22	1
2-Methylnaphthalene	0.0000700	U	0.000500	0.0000700	mg/L		02/14/13 08:30	02/19/13 12:22	1
2-Chloronaphthalene	0.0000800	U	0.000500	0.0000800	mg/L		02/14/13 08:30	02/19/13 12:22	1
Acenaphthylene	0.0000600	U	0.000500	0.0000600	mg/L		02/14/13 08:30	02/19/13 12:22	1
2,6-Dinitrotoluene	0.0000800	U	0.000500	0.0000800	mg/L		02/14/13 08:30	02/19/13 12:22	1
Acenaphthene	0.0000800	U	0.000500	0.0000800	mg/L		02/14/13 08:30	02/19/13 12:22	1
4-Nitrophenol	0.000560	U	0.00100	0.000560	mg/L		02/14/13 08:30	02/19/13 12:22	1
Dibenzofuran	0.0000800	U	0.000500	0.0000800	mg/L		02/14/13 08:30	02/19/13 12:22	1
2,4-Dinitrotoluene	0.000130	U	0.000500	0.000130	mg/L		02/14/13 08:30	02/19/13 12:22	1
Fluorene	0.0000700	U	0.000500	0.0000700	mg/L		02/14/13 08:30	02/19/13 12:22	1
4,6-Dinitro-2-methylphenol	0.000830	U	0.00100	0.000830	mg/L		02/14/13 08:30	02/19/13 12:22	1
N-Nitrosodiphenylamine	0.000100	U	0.000500	0.000100	mg/L		02/14/13 08:30	02/19/13 12:22	1
1,2-Diphenylhydrazine	0.000110	U	0.000500	0.000110	mg/L		02/14/13 08:30	02/19/13 12:22	1
Pentachlorophenol	0.000610	U	0.00100	0.000610	mg/L		02/14/13 08:30	02/19/13 12:22	1
Phenanthrene	0.0000600	U	0.000500	0.0000600	mg/L		02/14/13 08:30	02/19/13 12:22	1
Anthracene	0.0000500	U	0.000500	0.0000500	mg/L		02/14/13 08:30	02/19/13 12:22	1
Di-n-butyl phthalate	0.000110	U	0.000500	0.000110	mg/L		02/14/13 08:30	02/19/13 12:22	1
Fluoranthene	0.0000700	U	0.000500	0.0000700	mg/L		02/14/13 08:30	02/19/13 12:22	1
Pyrene	0.000110	U	0.000500	0.000110	mg/L		02/14/13 08:30	02/19/13 12:22	1
Benzo[a]anthracene	0.0000800	U	0.000500	0.0000800	mg/L		02/14/13 08:30	02/19/13 12:22	1
Bis(2-ethylhexyl) phthalate	0.000370	U	0.000500	0.000370	mg/L		02/14/13 08:30	02/19/13 12:22	1
Chrysene	0.0000800	U	0.000500	0.0000800	mg/L		02/14/13 08:30	02/19/13 12:22	1
Benzo[a]pyrene	0.0000800	U	0.000500	0.0000800	mg/L		02/14/13 08:30	02/19/13 12:22	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Phenol-d6	79		10 - 94	02/14/13 08:30	02/19/13 12:22	1
2,4,6-Tribromophenol	53		10 - 123	02/14/13 08:30	02/19/13 12:22	1
2-Fluorobiphenyl	103		43 - 116	02/14/13 08:30	02/19/13 12:22	1
2-Fluorophenol	79		10 - 100	02/14/13 08:30	02/19/13 12:22	1
Nitrobenzene-d5	77		35 - 114	02/14/13 08:30	02/19/13 12:22	1
Terphenyl-d14	85		33 - 141	02/14/13 08:30	02/19/13 12:22	1

Lab Sample ID: LCS 600-99537/2-A

Matrix: Water

Analysis Batch: 99980

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 99537

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Phenol	0.0100	0.008555		mg/L		86	11 - 112
Nitrobenzene	0.0100	0.007544		mg/L		75	42 - 119
2,4-Dimethylphenol	0.0100	0.008078		mg/L		81	36 - 109
Bis(2-chloroethoxy)methane	0.0100	0.005972		mg/L		60	42 - 119
Naphthalene	0.0100	0.007962		mg/L		80	39 - 120
2-Methylnaphthalene	0.0100	0.008338		mg/L		83	40 - 121
2-Chloronaphthalene	0.0100	0.008039		mg/L		80	43 - 120

TestAmerica Houston

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68500-1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Lab Sample ID: LCS 600-99537/2-A

Matrix: Water

Analysis Batch: 99980

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 99537

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits	
Acenaphthylene	0.0100	0.008209		mg/L		82	35 - 135	
2,6-Dinitrotoluene	0.0100	0.007812		mg/L		78	45 - 122	
Acenaphthene	0.0100	0.007938		mg/L		79	47 - 145	
4-Nitrophenol	0.0100	0.006185		mg/L		62	14 - 132	
Dibenzofuran	0.0100	0.007986		mg/L		80	46 - 123	
2,4-Dinitrotoluene	0.0100	0.007646		mg/L		76	43 - 128	
Fluorene	0.0100	0.007984		mg/L		80	48 - 127	
4,6-Dinitro-2-methylphenol	0.0100	0.008694		mg/L		87	24 - 122	
N-Nitrosodiphenylamine	0.0100	0.008430		mg/L		84	43 - 107	
1,2-Diphenylhydrazine	0.0100	0.007043		mg/L		70	47 - 117	
Pentachlorophenol	0.0100	0.007116		mg/L		71	9 - 147	
Phenanthrene	0.0100	0.008092		mg/L		81	52 - 121	
Anthracene	0.0100	0.008070		mg/L		81	53 - 124	
Di-n-butyl phthalate	0.0100	0.008018		mg/L		80	54 - 138	
Fluoranthene	0.0100	0.008675		mg/L		87	53 - 127	
Pyrene	0.0100	0.008564		mg/L		86	49 - 121	
Benzo[a]anthracene	0.0100	0.008407		mg/L		84	53 - 122	
Bis(2-ethylhexyl) phthalate	0.0100	0.008017		mg/L		80	47 - 132	
Chrysene	0.0100	0.007666		mg/L		77	49 - 124	
Benzo[a]pyrene	0.0100	0.008262		mg/L		83	50 - 124	

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
Phenol-d6	81		10 - 94
2,4,6-Tribromophenol	82		10 - 123
2-Fluorobiphenyl	97		43 - 116
2-Fluorophenol	77		10 - 100
Nitrobenzene-d5	78		35 - 114
Terphenyl-d14	89		33 - 141

Lab Sample ID: 600-68500-2 MS

Matrix: Water

Analysis Batch: 99980

Client Sample ID: WG-1620-MW65D-20120211

Prep Type: Total/NA

Prep Batch: 99537

Analyte	Sample Result	Sample Qualifier	Spike Added	MS MS		Unit	D	%Rec	%Rec. Limits	
				Result	Qualifier					
Phenol	0.0000381	U	0.00952	0.002673		mg/L		28	10 - 62	
Nitrobenzene	0.000105	U	0.00952	0.006877		mg/L		72	37 - 104	
2,4-Dimethylphenol	0.000295	U	0.00952	0.006924		mg/L		73	25 - 85	
Bis(2-chloroethoxy)methane	0.000124	U	0.00952	0.005412		mg/L		57	42 - 101	
Naphthalene	0.0000762	U	0.00952	0.007229		mg/L		76	34 - 99	
2-Methylnaphthalene	0.0000667	U	0.00952	0.007772		mg/L		82	36 - 111	
2-Chloronaphthalene	0.0000762	U	0.00952	0.007267		mg/L		76	42 - 100	
Acenaphthylene	0.0000571	U	0.00952	0.007623		mg/L		80	38 - 115	
2,6-Dinitrotoluene	0.0000762	U	0.00952	0.008224		mg/L		86	47 - 118	
Acenaphthene	0.0000762	U	0.00952	0.007656		mg/L		80	46 - 118	
4-Nitrophenol	0.000533	U	0.00952	0.002389		mg/L		25	10 - 100	
Dibenzofuran	0.0000762	U	0.00952	0.007762		mg/L		82	46 - 110	
2,4-Dinitrotoluene	0.000124	U	0.00952	0.007601		mg/L		80	41 - 125	
Fluorene	0.0000667	U	0.00952	0.007923		mg/L		83	44 - 112	

TestAmerica Houston

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68500-1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Lab Sample ID: 600-68500-2 MS

Matrix: Water

Analysis Batch: 99980

Client Sample ID: WG-1620-MW65D-20120211

Prep Type: Total/NA

Prep Batch: 99537

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec. Limits
	Result	Qualifier	Added	Result	Qualifier				
4,6-Dinitro-2-methylphenol	0.000790	U	0.00952	0.007784		mg/L		82	28 - 128
N-Nitrosodiphenylamine	0.0000952	U	0.00952	0.008743		mg/L		92	58 - 142
1,2-Diphenylhydrazine	0.000105	U	0.00952	0.007325		mg/L		77	10 - 130
Pentachlorophenol	0.000581	U	0.00952	0.007546		mg/L		79	45 - 155
Phenanthrene	0.0000571	U	0.00952	0.008432		mg/L		89	41 - 117
Anthracene	0.0000476	U	0.00952	0.008011		mg/L		84	35 - 116
Di-n-butyl phthalate	0.000135	J	0.00952	0.007789		mg/L		80	31 - 137
Fluoranthene	0.0000667	U	0.00952	0.008201		mg/L		86	14 - 145
Pyrene	0.000105	U	0.00952	0.008529		mg/L		90	28 - 133
Benzo[a]anthracene	0.0000762	U	0.00952	0.008555		mg/L		90	24 - 126
Bis(2-ethylhexyl) phthalate	0.000593		0.00952	0.008284		mg/L		81	14 - 123
Chrysene	0.0000762	U	0.00952	0.007837		mg/L		82	23 - 128
Benzo[a]pyrene	0.0000762	U	0.00952	0.008327		mg/L		87	60 - 140

Surrogate	MS %Recovery	MS Qualifier	MS Limits
Phenol-d6	24		10 - 94
2,4,6-Tribromophenol	91		10 - 123
2-Fluorobiphenyl	91		43 - 116
2-Fluorophenol	37		10 - 100
Nitrobenzene-d5	74		35 - 114
Terphenyl-d14	94		33 - 141

Lab Sample ID: 600-68500-2 MSD

Matrix: Water

Analysis Batch: 99980

Client Sample ID: WG-1620-MW65D-20120211

Prep Type: Total/NA

Prep Batch: 99537

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec. Limits	RPD	Limit
	Result	Qualifier	Added	Result	Qualifier						
Phenol	0.0000381	U	0.00952	0.002562		mg/L		27	10 - 62	4	20
Nitrobenzene	0.000105	U	0.00952	0.006532		mg/L		69	37 - 104	5	20
2,4-Dimethylphenol	0.000295	U	0.00952	0.007492		mg/L		79	25 - 85	8	20
Bis(2-chloroethoxy)methane	0.000124	U	0.00952	0.004778		mg/L		50	42 - 101	12	20
Naphthalene	0.0000762	U	0.00952	0.006742		mg/L		71	34 - 99	7	20
2-Methylnaphthalene	0.0000667	U	0.00952	0.007348		mg/L		77	36 - 111	6	20
2-Chloronaphthalene	0.0000762	U	0.00952	0.007157		mg/L		75	42 - 100	2	20
Acenaphthylene	0.0000571	U	0.00952	0.007827		mg/L		82	38 - 115	3	20
2,6-Dinitrotoluene	0.0000762	U	0.00952	0.008673		mg/L		91	47 - 118	5	20
Acenaphthene	0.0000762	U	0.00952	0.007951		mg/L		83	46 - 118	4	20
4-Nitrophenol	0.000533	U	0.00952	0.002797		mg/L		29	10 - 100	16	20
Dibenzofuran	0.0000762	U	0.00952	0.008069		mg/L		85	46 - 110	4	20
2,4-Dinitrotoluene	0.000124	U	0.00952	0.008629		mg/L		91	41 - 125	13	20
Fluorene	0.0000667	U	0.00952	0.008532		mg/L		90	44 - 112	7	20
4,6-Dinitro-2-methylphenol	0.000790	U	0.00952	0.008083		mg/L		85	28 - 128	4	20
N-Nitrosodiphenylamine	0.0000952	U	0.00952	0.009720		mg/L		102	58 - 142	11	20
1,2-Diphenylhydrazine	0.000105	U	0.00952	0.007991		mg/L		84	10 - 130	9	20
Pentachlorophenol	0.000581	U	0.00952	0.008553		mg/L		90	45 - 155	13	20
Phenanthrene	0.0000571	U	0.00952	0.009245		mg/L		97	41 - 117	9	20
Anthracene	0.0000476	U	0.00952	0.008999		mg/L		94	35 - 116	12	20
Di-n-butyl phthalate	0.000135	J	0.00952	0.008655		mg/L		89	31 - 137	11	20

TestAmerica Houston

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68500-1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Lab Sample ID: 600-68500-2 MSD

Matrix: Water

Analysis Batch: 99980

Client Sample ID: WG-1620-MW65D-20120211

Prep Type: Total/NA

Prep Batch: 99537

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Fluoranthene	0.0000667	U	0.00952	0.009057		mg/L		95	14 - 145	10	20
Pyrene	0.000105	U	0.00952	0.009318		mg/L		98	28 - 133	9	20
Benzo[a]anthracene	0.0000762	U	0.00952	0.009115		mg/L		96	24 - 126	6	20
Bis(2-ethylhexyl) phthalate	0.000593		0.00952	0.008459		mg/L		83	14 - 123	2	20
Chrysene	0.0000762	U	0.00952	0.008684		mg/L		91	23 - 128	10	20
Benzo[a]pyrene	0.0000762	U	0.00952	0.009017		mg/L		95	60 - 140	8	20

Surrogate	MSD %Recovery	MSD Qualifier	MSD Limits
Phenol-d6	21		10 - 94
2,4,6-Tribromophenol	97		10 - 123
2-Fluorobiphenyl	87		43 - 116
2-Fluorophenol	35		10 - 100
Nitrobenzene-d5	65		35 - 114
Terphenyl-d14	98		33 - 141

Lab Sample ID: 600-68500-5 MS

Matrix: Water

Analysis Batch: 100102

Client Sample ID: WG-1620-MW67B-20120211

Prep Type: Total/NA

Prep Batch: 99537

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Phenol	0.0000381	U	0.00952	0.002094		mg/L		22	10 - 62
Nitrobenzene	0.000105	U	0.00952	0.005325		mg/L		56	37 - 104
2,4-Dimethylphenol	0.000295	U	0.00952	0.005696		mg/L		60	25 - 85
Bis(2-chloroethoxy)methane	0.000124	U	0.00952	0.004988		mg/L		52	42 - 101
Naphthalene	0.0000762	U	0.00952	0.005626		mg/L		59	34 - 99
2-Methylnaphthalene	0.0000667	U	0.00952	0.005622		mg/L		59	36 - 111
2-Chloronaphthalene	0.0000762	U	0.00952	0.005632		mg/L		59	42 - 100
Acenaphthylene	0.0000571	U	0.00952	0.005980		mg/L		63	38 - 115
2,6-Dinitrotoluene	0.0000762	U	0.00952	0.007828		mg/L		82	47 - 118
Acenaphthene	0.0000762	U	0.00952	0.006010		mg/L		63	46 - 118
4-Nitrophenol	0.000533	U	0.00952	0.001629		mg/L		17	10 - 100
Dibenzofuran	0.0000762	U	0.00952	0.006020		mg/L		63	46 - 110
2,4-Dinitrotoluene	0.000124	U	0.00952	0.005620		mg/L		59	41 - 125
Fluorene	0.0000667	U	0.00952	0.006347		mg/L		67	44 - 112
4,6-Dinitro-2-methylphenol	0.000790	U	0.00952	0.000790	U N	mg/L		0	28 - 128
N-Nitrosodiphenylamine	0.0000952	U	0.00952	0.007950		mg/L		83	58 - 142
1,2-Diphenylhydrazine	0.000105	U	0.00952	0.006131		mg/L		64	10 - 130
Pentachlorophenol	0.000581	U	0.00952	0.004109	N	mg/L		43	45 - 155
Phenanthrene	0.0000571	U	0.00952	0.006724		mg/L		71	41 - 117
Anthracene	0.0000476	U	0.00952	0.006720		mg/L		71	35 - 116
Di-n-butyl phthalate	0.000105	U	0.00952	0.007194		mg/L		76	31 - 137
Fluoranthene	0.0000667	U	0.00952	0.007161		mg/L		75	14 - 145
Pyrene	0.000105	U	0.00952	0.006781		mg/L		71	28 - 133
Benzo[a]anthracene	0.0000762	U	0.00952	0.006748		mg/L		71	24 - 126
Bis(2-ethylhexyl) phthalate	0.000352	U	0.00952	0.005521		mg/L		58	14 - 123
Chrysene	0.0000762	U	0.00952	0.006812		mg/L		72	23 - 128
Benzo[a]pyrene	0.0000762	U	0.00952	0.006269		mg/L		66	60 - 140

TestAmerica Houston

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68500-1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Lab Sample ID: 600-68500-5 MS

Matrix: Water

Analysis Batch: 100102

Client Sample ID: WG-1620-MW67B-20120211

Prep Type: Total/NA

Prep Batch: 99537

Surrogate	MS MS		Limits
	%Recovery	Qualifier	
Phenol-d6	16		10 - 94
2,4,6-Tribromophenol	64		10 - 123
2-Fluorobiphenyl	58		43 - 116
2-Fluorophenol	26		10 - 100
Nitrobenzene-d5	55		35 - 114
Terphenyl-d14	66		33 - 141

Lab Sample ID: 600-68500-5 MSD

Matrix: Water

Analysis Batch: 100102

Client Sample ID: WG-1620-MW67B-20120211

Prep Type: Total/NA

Prep Batch: 99537

Analyte	Sample	Sample	Spike	MSD MSD		Unit	D	%Rec	%Rec.		RPD	
	Result	Qualifier		Result	Qualifier				Limits	RPD	Limit	
Phenol	0.0000381	U	0.00952	0.001824		mg/L		19	10 - 62	14	20	
Nitrobenzene	0.000105	U	0.00952	0.005103		mg/L		54	37 - 104	4	20	
2,4-Dimethylphenol	0.000295	U	0.00952	0.005480		mg/L		58	25 - 85	4	20	
Bis(2-chloroethoxy)methane	0.000124	U	0.00952	0.005048		mg/L		53	42 - 101	1	20	
Naphthalene	0.0000762	U	0.00952	0.005529		mg/L		58	34 - 99	2	20	
2-Methylnaphthalene	0.0000667	U	0.00952	0.005425		mg/L		57	36 - 111	4	20	
2-Chloronaphthalene	0.0000762	U	0.00952	0.005444		mg/L		57	42 - 100	3	20	
Acenaphthylene	0.0000571	U	0.00952	0.005710		mg/L		60	38 - 115	5	20	
2,6-Dinitrotoluene	0.0000762	U	0.00952	0.007187		mg/L		75	47 - 118	9	20	
Acenaphthene	0.0000762	U	0.00952	0.005750		mg/L		60	46 - 118	4	20	
4-Nitrophenol	0.000533	U	0.00952	0.001009	N	mg/L		11	10 - 100	47	20	
Dibenzofuran	0.0000762	U	0.00952	0.005865		mg/L		62	46 - 110	3	20	
2,4-Dinitrotoluene	0.000124	U	0.00952	0.004902		mg/L		51	41 - 125	14	20	
Fluorene	0.0000667	U	0.00952	0.005981		mg/L		63	44 - 112	6	20	
4,6-Dinitro-2-methylphenol	0.000790	U	0.00952	0.000790	U N	mg/L		0	28 - 128	NC	20	
N-Nitrosodiphenylamine	0.0000952	U	0.00952	0.006734		mg/L		71	58 - 142	17	20	
1,2-Diphenylhydrazine	0.000105	U	0.00952	0.005363		mg/L		56	10 - 130	13	20	
Pentachlorophenol	0.000581	U	0.00952	0.003349	N	mg/L		35	45 - 155	20	20	
Phenanthrene	0.0000571	U	0.00952	0.005772		mg/L		61	41 - 117	15	20	
Anthracene	0.0000476	U	0.00952	0.005649		mg/L		59	35 - 116	17	20	
Di-n-butyl phthalate	0.000105	U	0.00952	0.006122		mg/L		64	31 - 137	16	20	
Fluoranthene	0.0000667	U	0.00952	0.005908		mg/L		62	14 - 145	19	20	
Pyrene	0.000105	U	0.00952	0.005982		mg/L		63	28 - 133	13	20	
Benzo[a]anthracene	0.0000762	U	0.00952	0.005758		mg/L		60	24 - 126	16	20	
Bis(2-ethylhexyl) phthalate	0.000352	U	0.00952	0.004942		mg/L		52	14 - 123	11	20	
Chrysene	0.0000762	U	0.00952	0.006140		mg/L		64	23 - 128	10	20	
Benzo[a]pyrene	0.0000762	U	0.00952	0.005499	N	mg/L		58	60 - 140	13	20	

Surrogate	MSD MSD		Limits
	%Recovery	Qualifier	
Phenol-d6	16		10 - 94
2,4,6-Tribromophenol	57		10 - 123
2-Fluorobiphenyl	58		43 - 116
2-Fluorophenol	23		10 - 100
Nitrobenzene-d5	56		35 - 114
Terphenyl-d14	59		33 - 141

TestAmerica Houston

Unadjusted Detection Limits

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68500-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	MQL	MDL	Units	Method
1,2-Dichloroethane	0.00100	0.000140	mg/L	8260B
Benzene	0.00100	0.0000800	mg/L	8260B
Chlorobenzene	0.00100	0.000120	mg/L	8260B
Ethylbenzene	0.00100	0.000110	mg/L	8260B
Methylene Chloride	0.00100	0.000150	mg/L	8260B
Toluene	0.00100	0.000150	mg/L	8260B
Xylenes, Total	0.00300	0.000260	mg/L	8260B

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	MQL	MDL	Units	Method
1,2-Diphenylhydrazine	0.000500	0.000110	mg/L	8270C LL
2,4-Dimethylphenol	0.000500	0.000310	mg/L	8270C LL
2,4-Dinitrotoluene	0.000500	0.000130	mg/L	8270C LL
2,6-Dinitrotoluene	0.000500	0.0000800	mg/L	8270C LL
2-Chloronaphthalene	0.000500	0.0000800	mg/L	8270C LL
2-Methylnaphthalene	0.000500	0.0000700	mg/L	8270C LL
4,6-Dinitro-2-methylphenol	0.00100	0.000830	mg/L	8270C LL
4-Nitrophenol	0.00100	0.000560	mg/L	8270C LL
Acenaphthene	0.000500	0.0000800	mg/L	8270C LL
Acenaphthylene	0.000500	0.0000600	mg/L	8270C LL
Anthracene	0.000500	0.0000500	mg/L	8270C LL
Benzo[a]anthracene	0.000500	0.0000800	mg/L	8270C LL
Benzo[a]pyrene	0.000500	0.0000800	mg/L	8270C LL
Bis(2-chloroethoxy)methane	0.000500	0.000130	mg/L	8270C LL
Bis(2-ethylhexyl) phthalate	0.000500	0.000370	mg/L	8270C LL
Chrysene	0.000500	0.0000800	mg/L	8270C LL
Dibenzofuran	0.000500	0.0000800	mg/L	8270C LL
Di-n-butyl phthalate	0.000500	0.000110	mg/L	8270C LL
Fluoranthene	0.000500	0.0000700	mg/L	8270C LL
Fluorene	0.000500	0.0000700	mg/L	8270C LL
Naphthalene	0.00500	0.0000800	mg/L	8270C LL
Nitrobenzene	0.000500	0.000110	mg/L	8270C LL
N-Nitrosodiphenylamine	0.000500	0.000100	mg/L	8270C LL
Pentachlorophenol	0.00100	0.000610	mg/L	8270C LL
Phenanthrene	0.000500	0.0000600	mg/L	8270C LL
Phenol	0.000500	0.0000400	mg/L	8270C LL
Pyrene	0.000500	0.000110	mg/L	8270C LL

QC Association Summary

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68500-1

GC/MS VOA

Analysis Batch: 99563

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-68500-1	WG-1620-MW36D-20120211	Total/NA	Water	8260B	
600-68500-2	WG-1620-MW65D-20120211	Total/NA	Water	8260B	
600-68500-2 MS	WG-1620-MW65D-20120211	Total/NA	Water	8260B	
600-68500-2 MSD	WG-1620-MW65D-20120211	Total/NA	Water	8260B	
600-68500-3	WG-1620-MW59D-20120211	Total/NA	Water	8260B	
600-68500-4	WG-1620-DUP 4-20120211	Total/NA	Water	8260B	
600-68500-6	WG-1620-MW33A-20120211	Total/NA	Water	8260B	
600-68500-7	WG-1620-DUP3- 20120211	Total/NA	Water	8260B	
600-68500-8	WG-1620-MW24AR-20120211	Total/NA	Water	8260B	
600-68500-9	WG-1620-MW24B-20120211	Total/NA	Water	8260B	
600-68500-10	WG-1620-MW24C-20120211	Total/NA	Water	8260B	
600-68500-11	WG-1620-MW27C-20120211	Total/NA	Water	8260B	
600-68500-12	WG-1620-MW54C-20120211	Total/NA	Water	8260B	
LCS 600-99563/3	Lab Control Sample	Total/NA	Water	8260B	
MB 600-99563/4	Method Blank	Total/NA	Water	8260B	

Analysis Batch: 99606

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-68500-5	WG-1620-MW67B-20120211	Total/NA	Water	8260B	
600-68500-5 MS	WG-1620-MW67B-20120211	Total/NA	Water	8260B	
600-68500-5 MSD	WG-1620-MW67B-20120211	Total/NA	Water	8260B	
LCS 600-99606/3	Lab Control Sample	Total/NA	Water	8260B	
MB 600-99606/4	Method Blank	Total/NA	Water	8260B	

Analysis Batch: 99904

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-68500-13	WG-1620-MW44A-20120211	Total/NA	Water	8260B	
600-68500-14	WG-1620-FB9-20120211	Total/NA	Water	8260B	
600-68500-15	WG-1620-TB07-20120211	Total/NA	Water	8260B	
LCS 600-99904/4	Lab Control Sample	Total/NA	Water	8260B	
MB 600-99904/6	Method Blank	Total/NA	Water	8260B	

GC/MS Semi VOA

Prep Batch: 99537

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-68500-1	WG-1620-MW36D-20120211	Total/NA	Water	3510C	
600-68500-2	WG-1620-MW65D-20120211	Total/NA	Water	3510C	
600-68500-2 MS	WG-1620-MW65D-20120211	Total/NA	Water	3510C	
600-68500-2 MSD	WG-1620-MW65D-20120211	Total/NA	Water	3510C	
600-68500-3	WG-1620-MW59D-20120211	Total/NA	Water	3510C	
600-68500-4	WG-1620-DUP 4-20120211	Total/NA	Water	3510C	
600-68500-5	WG-1620-MW67B-20120211	Total/NA	Water	3510C	
600-68500-5 MS	WG-1620-MW67B-20120211	Total/NA	Water	3510C	
600-68500-5 MSD	WG-1620-MW67B-20120211	Total/NA	Water	3510C	
600-68500-6	WG-1620-MW33A-20120211	Total/NA	Water	3510C	
600-68500-6 - DL	WG-1620-MW33A-20120211	Total/NA	Water	3510C	
600-68500-7	WG-1620-DUP3- 20120211	Total/NA	Water	3510C	
600-68500-7 - DL	WG-1620-DUP3- 20120211	Total/NA	Water	3510C	
600-68500-8	WG-1620-MW24AR-20120211	Total/NA	Water	3510C	

TestAmerica Houston

QC Association Summary

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68500-1

GC/MS Semi VOA (Continued)

Prep Batch: 99537 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-68500-9	WG-1620-MW24B-20120211	Total/NA	Water	3510C	
600-68500-10	WG-1620-MW24C-20120211	Total/NA	Water	3510C	
600-68500-11	WG-1620-MW27C-20120211	Total/NA	Water	3510C	
600-68500-12	WG-1620-MW54C-20120211	Total/NA	Water	3510C	
600-68500-12 - DL	WG-1620-MW54C-20120211	Total/NA	Water	3510C	
600-68500-13	WG-1620-MW44A-20120211	Total/NA	Water	3510C	
600-68500-14	WG-1620-FB9-20120211	Total/NA	Water	3510C	
LCS 600-99537/2-A	Lab Control Sample	Total/NA	Water	3510C	
MB 600-99537/1-A	Method Blank	Total/NA	Water	3510C	

Analysis Batch: 99979

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-68500-1	WG-1620-MW36D-20120211	Total/NA	Water	8270C LL	99537
600-68500-3	WG-1620-MW59D-20120211	Total/NA	Water	8270C LL	99537
600-68500-4	WG-1620-DUP 4-20120211	Total/NA	Water	8270C LL	99537
600-68500-5	WG-1620-MW67B-20120211	Total/NA	Water	8270C LL	99537

Analysis Batch: 99980

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-68500-2	WG-1620-MW65D-20120211	Total/NA	Water	8270C LL	99537
600-68500-2 MS	WG-1620-MW65D-20120211	Total/NA	Water	8270C LL	99537
600-68500-2 MSD	WG-1620-MW65D-20120211	Total/NA	Water	8270C LL	99537
LCS 600-99537/2-A	Lab Control Sample	Total/NA	Water	8270C LL	99537
MB 600-99537/1-A	Method Blank	Total/NA	Water	8270C LL	99537

Analysis Batch: 100102

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-68500-5 MS	WG-1620-MW67B-20120211	Total/NA	Water	8270C LL	99537
600-68500-5 MSD	WG-1620-MW67B-20120211	Total/NA	Water	8270C LL	99537
600-68500-6	WG-1620-MW33A-20120211	Total/NA	Water	8270C LL	99537
600-68500-7	WG-1620-DUP3- 20120211	Total/NA	Water	8270C LL	99537
600-68500-8	WG-1620-MW24AR-20120211	Total/NA	Water	8270C LL	99537
600-68500-9	WG-1620-MW24B-20120211	Total/NA	Water	8270C LL	99537
600-68500-10	WG-1620-MW24C-20120211	Total/NA	Water	8270C LL	99537
600-68500-11	WG-1620-MW27C-20120211	Total/NA	Water	8270C LL	99537
600-68500-12	WG-1620-MW54C-20120211	Total/NA	Water	8270C LL	99537

Analysis Batch: 100168

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-68500-6 - DL	WG-1620-MW33A-20120211	Total/NA	Water	8270C LL	99537
600-68500-7 - DL	WG-1620-DUP3- 20120211	Total/NA	Water	8270C LL	99537
600-68500-12 - DL	WG-1620-MW54C-20120211	Total/NA	Water	8270C LL	99537
600-68500-13	WG-1620-MW44A-20120211	Total/NA	Water	8270C LL	99537
600-68500-14	WG-1620-FB9-20120211	Total/NA	Water	8270C LL	99537

Lab Chronicle

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68500-1

Client Sample ID: WG-1620-MW36D-20120211

Lab Sample ID: 600-68500-1

Date Collected: 02/11/13 15:45

Matrix: Water

Date Received: 02/13/13 07:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	99563	02/14/13 02:07	DT	TAL HOU
Total/NA	Prep	3510C			99537	02/14/13 08:30	SMB	TAL HOU
Total/NA	Analysis	8270C LL		1	99979	02/20/13 03:34	TTD	TAL HOU

Client Sample ID: WG-1620-MW65D-20120211

Lab Sample ID: 600-68500-2

Date Collected: 02/11/13 17:00

Matrix: Water

Date Received: 02/13/13 07:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	99563	02/14/13 00:43	DT	TAL HOU
Total/NA	Prep	3510C			99537	02/14/13 08:30	SMB	TAL HOU
Total/NA	Analysis	8270C LL		1	99980	02/19/13 15:00	JH	TAL HOU

Client Sample ID: WG-1620-MW59D-20120211

Lab Sample ID: 600-68500-3

Date Collected: 02/11/13 18:15

Matrix: Water

Date Received: 02/13/13 07:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	99563	02/14/13 02:36	DT	TAL HOU
Total/NA	Prep	3510C			99537	02/14/13 08:30	SMB	TAL HOU
Total/NA	Analysis	8270C LL		1	99979	02/20/13 04:01	TTD	TAL HOU

Client Sample ID: WG-1620-DUP 4-20120211

Lab Sample ID: 600-68500-4

Date Collected: 02/11/13 18:15

Matrix: Water

Date Received: 02/13/13 07:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	99563	02/14/13 03:04	DT	TAL HOU
Total/NA	Prep	3510C			99537	02/14/13 08:30	SMB	TAL HOU
Total/NA	Analysis	8270C LL		1	99979	02/20/13 04:28	TTD	TAL HOU

Client Sample ID: WG-1620-MW67B-20120211

Lab Sample ID: 600-68500-5

Date Collected: 02/12/13 08:45

Matrix: Water

Date Received: 02/13/13 07:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	99606	02/14/13 14:43	DT	TAL HOU
Total/NA	Prep	3510C			99537	02/14/13 08:30	SMB	TAL HOU
Total/NA	Analysis	8270C LL		1	99979	02/20/13 04:56	TTD	TAL HOU

Lab Chronicle

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68500-1

Client Sample ID: WG-1620-MW33A-20120211

Lab Sample ID: 600-68500-6

Date Collected: 02/12/13 10:00

Matrix: Water

Date Received: 02/13/13 07:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	99563	02/14/13 03:32	DT	TAL HOU
Total/NA	Prep	3510C			99537	02/14/13 08:30	SMB	TAL HOU
Total/NA	Analysis	8270C LL		1	100102	02/20/13 16:39	TTD	TAL HOU
Total/NA	Prep	3510C	DL		99537	02/14/13 08:30	SMB	TAL HOU
Total/NA	Analysis	8270C LL	DL	10	100168	02/21/13 17:02	TTD	TAL HOU

Client Sample ID: WG-1620-DUP3- 20120211

Lab Sample ID: 600-68500-7

Date Collected: 02/12/13 10:00

Matrix: Water

Date Received: 02/13/13 07:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	99563	02/14/13 04:00	DT	TAL HOU
Total/NA	Prep	3510C			99537	02/14/13 08:30	SMB	TAL HOU
Total/NA	Analysis	8270C LL		1	100102	02/20/13 17:06	TTD	TAL HOU
Total/NA	Prep	3510C	DL		99537	02/14/13 08:30	SMB	TAL HOU
Total/NA	Analysis	8270C LL	DL	100	100168	02/21/13 17:30	TTD	TAL HOU

Client Sample ID: WG-1620-MW24AR-20120211

Lab Sample ID: 600-68500-8

Date Collected: 02/12/13 11:00

Matrix: Water

Date Received: 02/13/13 07:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	99563	02/14/13 04:28	DT	TAL HOU
Total/NA	Prep	3510C			99537	02/14/13 08:30	SMB	TAL HOU
Total/NA	Analysis	8270C LL		1	100102	02/20/13 17:33	TTD	TAL HOU

Client Sample ID: WG-1620-MW24B-20120211

Lab Sample ID: 600-68500-9

Date Collected: 02/12/13 12:00

Matrix: Water

Date Received: 02/13/13 07:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	99563	02/14/13 04:56	DT	TAL HOU
Total/NA	Prep	3510C			99537	02/14/13 08:30	SMB	TAL HOU
Total/NA	Analysis	8270C LL		1	100102	02/20/13 18:01	TTD	TAL HOU

Client Sample ID: WG-1620-MW24C-20120211

Lab Sample ID: 600-68500-10

Date Collected: 02/12/13 14:00

Matrix: Water

Date Received: 02/13/13 07:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	99563	02/14/13 05:24	DT	TAL HOU
Total/NA	Prep	3510C			99537	02/14/13 08:30	SMB	TAL HOU

TestAmerica Houston

Lab Chronicle

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68500-1

Client Sample ID: WG-1620-MW24C-20120211

Lab Sample ID: 600-68500-10

Date Collected: 02/12/13 14:00

Matrix: Water

Date Received: 02/13/13 07:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8270C LL		1	100102	02/20/13 18:28	TTD	TAL HOU

Client Sample ID: WG-1620-MW27C-20120211

Lab Sample ID: 600-68500-11

Date Collected: 02/12/13 15:00

Matrix: Water

Date Received: 02/13/13 07:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	99563	02/14/13 05:52	DT	TAL HOU
Total/NA	Prep	3510C			99537	02/14/13 08:30	SMB	TAL HOU
Total/NA	Analysis	8270C LL		1	100102	02/20/13 18:55	TTD	TAL HOU

Client Sample ID: WG-1620-MW54C-20120211

Lab Sample ID: 600-68500-12

Date Collected: 02/12/13 16:00

Matrix: Water

Date Received: 02/13/13 07:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	99563	02/14/13 06:19	DT	TAL HOU
Total/NA	Prep	3510C			99537	02/14/13 08:30	SMB	TAL HOU
Total/NA	Analysis	8270C LL		1	100102	02/20/13 19:22	TTD	TAL HOU
Total/NA	Prep	3510C	DL		99537	02/14/13 08:30	SMB	TAL HOU
Total/NA	Analysis	8270C LL	DL	10	100168	02/21/13 17:57	TTD	TAL HOU

Client Sample ID: WG-1620-MW44A-20120211

Lab Sample ID: 600-68500-13

Date Collected: 02/12/13 17:05

Matrix: Water

Date Received: 02/13/13 07:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	99904	02/19/13 20:54	DT	TAL HOU
Total/NA	Prep	3510C			99537	02/14/13 08:30	SMB	TAL HOU
Total/NA	Analysis	8270C LL		10	100168	02/21/13 18:24	TTD	TAL HOU

Client Sample ID: WG-1620-FB9-20120211

Lab Sample ID: 600-68500-14

Date Collected: 02/12/13 17:30

Matrix: Water

Date Received: 02/13/13 07:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	99904	02/19/13 12:51	DT	TAL HOU
Total/NA	Prep	3510C			99537	02/14/13 08:30	SMB	TAL HOU
Total/NA	Analysis	8270C LL		1	100168	02/21/13 09:14	TTD	TAL HOU

Lab Chronicle

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68500-1

Client Sample ID: WG-1620-TB07-20120211

Lab Sample ID: 600-68500-15

Date Collected: 02/12/13 00:00

Matrix: Water

Date Received: 02/13/13 07:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	99904	02/19/13 12:22	DT	TAL HOU

Laboratory References:

TAL HOU = TestAmerica Houston, 6310 Rothway Street, Houston, TX 77040, TEL (713)690-4444

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Certification Summary

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68500-1

Laboratory: TestAmerica Houston

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Arkansas DEQ	State Program	6	88-0759	08-04-12
Louisiana	NELAP	6	01967	06-30-13
Oklahoma	State Program	6	9503	08-31-13
Texas	NELAP	6	T104704223-10-6-TX	10-31-13
USDA	Federal		P330-08-00217	04-01-14
Utah	NELAP	8	GULF	10-31-13

6310 Rockaway Street
Houston, TX 77040
Phone (713) 690-4444 Fax (713) 690-5646

Chain of Custody Record

TestAmerica
1415 LORAIN DRIVE HOUSTON, TEXAS 77050

Client Information
 Client Contact: Mr. Eric Matzner
 Company: Pastor, Belling & Wheeler LLC
 Address: 2201 Double Creek Dr. Suite 4004
 City: Round Rock
 State, Zip: TX, 78664
 Phone: 512-671-3434(Tel) 512-671-3446(Fax)
 Email: eric.matzner@pbwllc.com
 Project Name: 1620-UPRR HWPW
 Site:
 Project #: 60003722
 SSO#W#:
 Sample #:
 Lab PM: Kuchackar, Sachin G
 E-Mail: sachin.kuchackar@testamericainc.com
 Carrier Tracking No(s):
 COC No: 600-19886-7218.1
 Page 1 of 2
 Job #:

Analysis Requested
 Due Date Requested:
 TAT Requested (days):
 Purchase Order not required
 W/O #:
 Field Filtered Sample (Yes or No)
 Perform MS/MSD (Yes or No)
 8270C_LL - SVOC
 8260B - VOC
 Presentation Codes:
 A - HCL
 B - NaOH
 C - Zn Acetate
 D - Nitric Acid
 E - NaHSO4
 F - MeOH
 G - Ammonia
 H - Ascorbic Acid
 I - Ice
 J - DI Water
 K - EDTA
 L - EDA
 M - Hexane
 N - None
 O - AsH2O2
 P - Na2O4S
 Q - Na2SO3
 R - Na2S2O3
 S - H2SO4
 T - TSP Dodecahydrate
 U - Acetone
 V - MCA
 W - ph 4-5
 Z - other (specify)
 Other:
 Special Instructions/Note:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Preservation Code: (E=Ethanol, A=Air)	Matrix (W=Water, S=Soil, O=Other)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	Total Number of containers
WG-1620-MW36D-20130211	2-11-13	1545	G		Water	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
WG-1620-MW65D-20130211		1700	G		Water	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
WG-1620-MW65DM5-20130211		1700	G		Water	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
WG-1620-MW65DM5D-20130211		1700	G		Water	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
WG-1620-MW59D-20130211		1815	G		Water	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
WG-1620-DUP 4-20130211		1815	G		Water	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
WG-1620-MW67B-20130212	2-12-13	0845	G		Water	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
WG-1620-MW67BM5-20130212		0845	G		Water	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
WG-1620-MW67BM5D-20130212		0845	G		Water	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
WG-1620-MW33A-20130212		1000	G		Water	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
WG-1620-DUP 3-20130212		1000	G		Water	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	

Possible Hazard Identification
 Non-Hazard Flammable Skin Irritant Poison B Unknown Radiological
 Deliverable Requested: I, II, III, IV, Other (specify):
 Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
 Return To Client Disposal By Lab Archive For _____ Months

Empty Kit Relinquished by: P
 Date:
 Time:
 Method of Spill:
 Relinquished by: John Doe
 Date/Time: 2-13-13 150
 Company: PBW
 Received by:
 Date/Time: 2/13/13 150
 Company:
 Relinquished by:
 Date/Time:
 Company:
 Relinquished by:
 Date/Time:
 Company:

Custody Seal Intact: Yes No
 Custody Seal No.:
 Cooler Temperature(s) °C and Other Remarks:

Chain of Custody Record

Client Information

Client Contact: Mr. Eric Matzner
Company: Pastor, Behling & Wheeler LLC
Address: 2201 Double Creek Dr. Suite 4004
City: Round Rock
State, Zip: TX 78664
Phone: 512-671-3434(Tel) 512-671-3446(Fax)
Email: eric.matzner@pbwllc.com
Project Name: 1620-UPRR HWPW
Site: SSOV#:

Sampler: JOHN BEADYBN
Phone: 512-671-3434
Lab P/N: Kuchchadkar, Sachin G
E-Mail: sachin.kuchchadkar@testamericainc.com

Carrier Tracking No(s):
COC No: 600-18886-7218.1
Page: 2 of 2

Analysis Requested

Due Date Requested:	TAI Requested (days):
Round Rock	
State, Zip: TX 78664	
Phone: 512-671-3434(Tel) 512-671-3446(Fax)	PC #:
Email: eric.matzner@pbwllc.com	Purchase Order not required
Project Name: 1620-UPRR HWPW	WO #:
Site: SSOV#:	Project #: 60003722

Field Filtered Sample (Yes or No)	N
Perform MS/MSD (Yes or No)	A
8270C_LL - SVOC	
8260B - VOC	
VINYL CHLORIDE	
Total Number of containers	

Preservation Codes:
A - HCL
B - NaOH
C - Zn Acetate
D - Nitric Acid
E - NaHSO4
F - NaOH
G - Amorph
H - Ascorbic Acid
I - Ice
J - DI Water
K - EDTA
L - EDA
M - Hexane
N - None
O - AsnO2
P - Na2O4S
Q - Na2SO3
R - Na2S2O3
S - H2SO4
T - TSP Decahydrate
U - Acetone
V - MCAA
W - pH 4.5
Z - other (specify)

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=Water, S=soil, O=water/oil, G=Grass, Ash)	Preservation Code:	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	Analysis Requested	Carrier Tracking No(s)	Preservation Codes:
WG-1620-MW24AR-20130212	2-12-13	1100	G	Water		X				
WG-1620-MW24B-20130212		1200	G	Water		X				
WG-1620-MW24C-20130212		1400	G	Water		X				
WG-1620-MW27C-20130212		1500	G	Water		X				
WG-1620-MW54C-20130212		1600	G	Water		X				
WG-1620-MW44A-20130212		1705	G	Water		X				
WG-1620-FB9-20130212		1730	G	Water		X				
WG-1620-TB07-20130212			G	Water		X				

Possible Hazard Identification
 Non-Hazard Flammable Skin Irritant Poison B Unknown Radiological
 Deliverable Requested: I, II, III, IV, Other (specify):
 Special Instructions/OC Requirements:
 Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
 Return To Client Disposal By Lab Archive For _____ Months

Empty Kit Relinquished by: _____ Date: _____ Time: _____ Method of Shipment: _____

Relinquished by: John Beadybn Date Time: 2-13-13 750 Company: PBW
 Received by: _____ Date Time: 2/13/13 750 Company: _____

Relinquished by: _____ Date Time: _____ Company: _____
 Received by: _____ Date Time: _____ Company: _____

Custody Seal Intact: _____ Custody Seal No.: _____ Cooler Temperature(s) °C and Other Remarks: _____

Login Sample Receipt Checklist

Client: Pastor, Behling & Wheeler LLC

Job Number: 600-68500-1

Login Number: 68500

List Source: TestAmerica Houston

List Number: 1

Creator: Capps, Dana

Question	Answer	Comment
Radioactivity wasn't checked or is <=/ background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	2.8/1.0/1.3/1.7
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	True	



**CONESTOGA-ROVERS
& ASSOCIATES**

E-Mail Date: March 22, 2013
E-Mail To: Eric Matzner/ Pastor, Behling & Wheeler, LLC
c.c.: Angela Bown
Jesse Orth

E-Mail and Hard Copy if Requested

**DATA USABILITY SUMMARY
UNION PACIFIC RAILROAD (UPRR)
HOUSTON WOOD PRESERVING WORKS
CPT/ROST AND GEOPROBE STUDY
HOUSTON, TEXAS
FEBRUARY 2013**

**PREPARED BY:
CONESTOGA-ROVERS & ASSOCIATES
9033 Meridian Way
West Chester, Ohio 45069
Telephone: 513-942-4750
Fax: 513-942-8585
Contact: Angela Bown [eew]
Date: March 22, 2013
www.CRAworld.com**

Data Usability Summary

Reviewer:	Angela Bown – Conestoga-Rovers & Associates, Inc.
Contract Laboratory:	TestAmerica, Inc. – Houston, Texas
Project/Area of Interest:	UPRR Houston Wood Preserving Works – Houston, Texas
Description of Data Packages Reviewed:	Soil and Groundwater sample results in data packages: 600-68443, 600-68489, 600-68567, 600-68626, 600-68719, 600-68753, 600-68812
Sample Collection Date(s):	February 11-15, 18-19, 2013
Intended Use of Data:	To monitor the Chemicals of Concern (COCs) in soil and groundwater at the site and to evaluate whether migration of COC could result in risk to human or ecological health.

1.0 Scope of Data Usability Summary

Data were reviewed and validated in accordance with Title 30 of the Texas Administrative Code Section 350.54 (30 TAC 350.54) as described in *Review and Reporting of COC Concentration Data*, (RG-366/TRRP-13) and the results of the review/validation are discussed in this Data Usability Summary (DUS). The review included examination of the reported data, the laboratory review checklist (LRC), and field/laboratory quality assurance/quality control (QA/QC) samples collected at the Site. Tables summarizing data qualifications discussed in this DUS can be found in Appendix A.

A sampling and analysis summary is presented in Table 1. This summary includes a cross-reference of field sample identification numbers and location codes. Each sample was assigned a unique field identification number.

Soil and groundwater samples including quality control samples were analyzed for the parameters outlined in Table 2. The validated sample results are presented in Tables 3A and 3B.

2.0 Laboratory Qualifications

Analytical services were provided by TestAmerica, Inc. (TA) located in Houston, Texas. The laboratory's quality assurance program is consistent with the quality standards outlined in the National Environmental Laboratory Accreditation Program (NELAP). The laboratory was accredited under Texas Certification Number T104704223-10-6-TX at the time the analyses were performed.

3.0 Project Objectives

3.1 Levels of Required Performance (LORP)

Prior to sampling, the LORP for each COC was established for the investigation. Standard available analytical methods were selected and minimal detection limits were sought.

3.2 Sampling/ Analytical QA/QC Objectives

Pastor, Behling & Wheeler, LLC designed the QA/QC program to identify contamination resulting from sample collection, sample transport and the analytical process.

- The trip blank is a zero headspace sample container filled by the laboratory with analyte-free water. Trip blanks were submitted and analyzed with the samples requiring volatile organic analyses. The trip blank samples were kept in the same environment in which the other field samples were collected.
- Field and equipment blanks are sample containers filled in the field with analyte-free water, which has been used to rinse sampling equipment to check effectiveness of the decontamination procedures.
- Method blanks of a similar matrix to that of the associated samples are prepared by the laboratory and analyzed to determine if laboratory contaminants are affecting the analytical results. Method blanks are prepared and analyzed with each batch.

Similarly, the QA/QC program was designed to evaluate the quality of the resulting data with respect to bias and precision. First, a laboratory control sample (LCS) or laboratory control sample duplicate (LCSD) was prepared and analyzed with each batch. The recovery ranges established by the laboratory are adopted as the acceptance criteria for the project. Second, a matrix spike/matrix spike duplicate (MS/MSD) was prepared and analyzed with each batch. The recovery ranges and relative percent differences (RPDs) established by the laboratory are adopted as the acceptance criteria for the project. Third, field duplicates were collected and submitted for analysis. The RPD acceptance criterion for the soil and water field duplicates is 50 and 30 percent, respectively. This RPD criterion is only used when sample concentrations are above the estimated regions of detection.

4.0 Data Review/Validation Results

4.1 Analytical Results

Analytes with concentrations above the Sample Detection Limits (SDLs) but below the Method Quantitation Limits (MQL) have been qualified as estimated on the analytical tables per the TRRP-13 document.

4.2 LORP

All SDLs and unadjusted MQLs met the LORP for this investigation.

Some Detectability Check Standard (DCS) results supported the laboratory Method Detection Limits (MDL).

4.3 Preservation and Holding Times

Samples were properly preserved in the field and cooled to 4°C ($\pm 2^\circ\text{C}$). Samples were shipped with chains of custody, and the paperwork was filled out properly. All samples were shipped on ice. All samples were prepared and analyzed within the applicable holding times.

4.4 Sample Containers

Sample containers were certified pre-cleaned glass provided by the laboratory. These containers meet or exceed analyte specifications established in the USEPA *Specifications and Guidance for Contaminant-free Sample Containers*.

4.5 Calibrations

According to the LRCs, instrument tuning and initial calibration and continuing calibration data met the criteria for the selected methods.

4.6 Blanks

Method Blanks: As these were not discrete samples handled in the field, the method blanks are not listed on the sample identification cross-reference list found in Table 1. Results are reported in the data packages on a laboratory batch basis. Most of the laboratory blank results were reported as ND (not detected). Table 4 presents the sample results that were qualified due to laboratory contamination as reflected in the method blanks.

4.7 Internal Standard and Surrogate Recoveries

Recoveries of internal standards and surrogates are addressed in the LRCs of the laboratory data packages. Most surrogate recoveries and internal standard areas and retention limits were within the acceptance limits. Each individual surrogate compound is expected to meet the laboratory control limits with the exception of semi-volatile organic compound (SVOC) analyses. According to TRRP-13 for SVOC analyses, up to one outlying surrogate in the base/neutral or acid fractions is acceptable as long as the recovery is at least 10 percent. Table 5 presents the sample results that were qualified due to outlying surrogate recoveries. Table 6 presents the sample results that were qualified due to outlying internal standard recoveries.

4.8 Laboratory Control Samples (LCS)

LCS data for all COCs were reported for each batch. LCS spike recoveries for all COCs were within the project objectives.

4.9 Matrix Spikes and Laboratory Duplicates

Matrix spike/matrix spike duplicates (MS/MSD) were prepared and analyzed with all batches for all requested parameters. The results are reported in the data package on a laboratory batch basis.

Most MS/MSD recoveries and RPDs met acceptance criteria. Table 7 presents the sample results that were qualified or rejected due to outlying MS/MSD recoveries and RPDs.

For metals analyses, analytical precision is evaluated based on the analysis of laboratory duplicate samples. Duplicate samples were prepared and analyzed by the laboratory as specified in Table 1.

Most duplicate analyses performed were acceptable. Table 8 presents the sample results that were qualified due to outlying duplicate results.

4.10 Field Duplicate

Field duplicate samples were collected and analyzed for the target analytes as outlined in Table 1.

Most RPDs were < 50% for soil or < 30% for water sample results greater than 5 times the MQL indicating acceptable precision above the estimated regions of detection. Table 9 presents the sample results that were qualified due to variability in the field duplicate results.

4.11 Field Procedures

Pastor, Behling & Wheeler, LLC collected groundwater samples in accordance with their Standard Operating Procedures (SOP) for sample collection.

4.12 Summary

Based on this assessment of the information provided, the data produced by TestAmerica were found to exhibit acceptable levels of accuracy and precision and may be used with the qualifications noted with the exception of the following:

- Semi-volatile non-detect data were rejected in sample SO-1620-IM-CPT-12-13 (5-7.5)-20130213 due to MS/MSD recovery failures.

APPENDIX A

TABLES

TABLE 1
SAMPLE COLLECTION AND ANALYSIS SUMMARY
CPT/ROST AND GEOPROBE STUDY
UNION PACIFIC RAILROAD (UPRR)
HOUSTON WOOD PRESERVING WORKS
HOUSTON, TEXAS
FEBRUARY 2013

Sample Identification	Location	Matrix	Initial Sample Depth (ft. bgs)	Final Sample Depth (ft. bgs)	Collection Date (mm/dd/yyyy)	Collection Time (hr:min)	Analysis/Parameters			Comments
							Select VOCs	Select SVOCs	Select Metals	
<i>TestAmerica SDG#: 600-68443-1</i>										
SO-1620-IM-CPT-01-13(2-5)-20130211	CPT-01	Soil	2	5	02/11/2013	10:00	X	X	X	
SO-1620-IM-CPT-01-13(10-12.5)-20130211	CPT-01	Soil	10	12.5	02/11/2013	10:10	X	X	X	
SO-1620-IM-CPT-01-13(17.5-20)-20130211	CPT-01	Soil	17.5	20	02/11/2013	10:20	X	X	X	MS/MSD
SO-1620-IM-CPT-02-13(2.5-5.0)-20130211	CPT-02	Soil	2.5	5	02/11/2013	11:25	X	X	X	
SO-1620-IM-CPT-02-13(12.5-15)-20130211	CPT-02	Soil	12.5	15	02/11/2013	11:30	X	X	X	
SO-1620-IM-CPT-03-13(2.5-5)-20130211	CPT-03	Soil	2.5	5	02/11/2013	14:30	X	X	X	
SO-1620-IM-CPT-03-13-(12.5-13.5)-20130211	CPT-03	Soil	12.5	13.5	02/11/2013	14:35	X	X	X	
SO-1620-IM-CPT-04-13(2.5-5)-20130211	CPT-04	Soil	2.5	5	02/11/2013	15:30	X	X	X	
SO-1620-IM-CPT-04-13(10-12.5)-20130211	CPT-04	Soil	10	12.5	02/11/2013	15:40	X	X	X	
<i>TestAmerica SDG#: 600-68489-1</i>										
SO-1620-IM-CPT-06-13 (3-5)-20130212	CPT-06	Soil	3	5	02/12/2013	08:50	X	X	X	MS/MSD
SO-1620-IM-CPT-07-13 (7.5-10)-20130212	CPT-07	Soil	7.5	10	02/12/2013	13:40	X	X	X	
SO-1620-IM-CPT-11-13 (1.4-2.5)-20130212	CPT-11	Soil	1.4	2.5	02/12/2013	15:20	X	X	X	
SO-1620-IM-CPT-05-13 (4-5)-20130212	CPT-05	Soil	4	5	02/11/2013	2/11/2013	X	X	X	
SO-1620-IM-CPT-05-13 (7.5-10)-20130212	CPT-05	Soil	7.5	10	02/11/2013	2/11/2013	X	X	X	
SO-1620-IM-CPT-06-13 (13-15)-20130212	CPT-06	Soil	13	15	02/12/2013	09:10	X	X	X	MS/MSD
SO-1620-IM-CPT-08-13 (2.5-5)-20130212	CPT-08	Soil	2.5	5	02/12/2013	09:50	X	X	X	
SO-1620-IM-CPT-08-13 (5-7.5)-20130212	CPT-08	Soil	5	7.5	02/12/2013	10:10	X	X	X	
SO-1620-IM-CPT-08-13 (15-16)-20130212	CPT-08	Soil	15	16	02/12/2013	10:50	X	X	X	MS/MSD
SO-1620-IM-CPT-09-13 (2.5-5)-20130212	CPT-09	Soil	2.5	5	02/12/2013	12:15	X	X	X	
SO-1620-IM-CPT-09-13 (5-7.5)-20130212	CPT-09	Soil	5	7.5	02/12/2013	12:30	X	X	X	

TABLE 1
SAMPLE COLLECTION AND ANALYSIS SUMMARY
CPT/ROST AND GEOPROBE STUDY
UNION PACIFIC RAILROAD (UPRR)
HOUSTON WOOD PRESERVING WORKS
HOUSTON, TEXAS
FEBRUARY 2013

Sample Identification	Location	Matrix	Initial Sample Depth (ft. bgs)	Final Sample Depth (ft. bgs)	Collection Date (mm/dd/yyyy)	Collection Time (hr:min)	Analysis/Parameters			Comments
							Select VOCs	Select SVOCs	Select Metals	
<i>TestAmerica SDG#: 600-68489-1</i>										
SO-1620-IM-CPT-09-13 (15-15.7)-20130212	CPT-09	Soil	15	15.7	02/12/2013	12:35	X	X	X	
SO-1620-IM-CPT-07-13 (2.5-5)-20130212	CPT-07	Soil	2.5	5	02/12/2013	13:30	X	X	X	
<i>TestAmerica SDG#: 600-68567-1</i>										
SO-1620-IM-CPT-11-13 (10-12.5)-20130212	CPT-11	Soil	10	12.5	02/12/2013	15:10	X	X	X	MS/MSD
SO-1620-IM-CPT-16-13 (1.9-5)-20130213	CPT-16	Soil	1.9	5	02/13/2013	15:00	X	X	X	
SO-1620-IM-CPT-16-13 (10-12.5)-20130213	CPT-16	Soil	10	12.5	02/13/2013	15:20	X	X	X	
SO-1620-IM-CPT-16-13 (15-17.5)-20130213	CPT-16	Soil	15	17.5	02/13/2013	15:35	X	X	X	
SO-1620-IM-CPT-DUP1-13-20130212	CPT-11	Soil	10	12.5	02/12/2013	15:20	X	X	X	SO-1620-IM-CPT-11-13 (10-12.5)-20130212
WG-1620-IM-CPT-09-13A-20130213	CPT-09	WG	-	-	02/13/2013	09:00	X	X		MS/MSD
SO-1620-IM-CPT-13-13 (1.5-2.5)-20130213	CPT-13	Soil	1.5	2.5	02/13/2013	12:45	X	X	X	
SO-1620-IM-CPT-13-13 (5-7.5)-20130213	CPT-13	Soil	5	7.5	02/13/2013	12:55	X	X	X	
SO-1620-IM-CPT-13-13 (15-17.2)-20130213	CPT-13	Soil	15	17.2	02/13/2013	13:05	X	X	X	
SO-1620-IM-CPT-12-13 (2.5-5)-20130213	CPT-12	Soil	2.5	5	02/13/2013	13:55	X	X	X	
SO-1620-IM-CPT-12-13 (5-7.5)-20130213	CPT-12	Soil	5	7.5	02/13/2013	14:10	X	X	X	MS/MSD
SO-1620-IM-CPT-12-13 (15-15.9)-20130213	CPT-12	Soil	15	15.9	02/13/2013	14:20	X	X	X	
<i>TestAmerica SDG#: 600-68626-1</i>										
SO-1620-IM-CPT-19-13 (1.9-5.0)-0120214	CPT-19	Soil	1.9	5	02/14/2013	08:45	X	X	X	
SO-1620-IM-CPT-20-13 (0-2.5)-0120214	CPT-20	Soil	0	2.5	02/14/2013	13:50	X	X	X	
SO-1620-IM-CPT-20-13 (5-7.5)-20120214	CPT-20	Soil	5	7.5	02/14/2013	14:50	X	X	X	
SO-1620-IM-CPT-DUP2-20120214	CPT-19	Soil	1.9	5	02/14/2013	09:00	X	X	X	SO-1620-IM-CPT-19-13 (1.9-5.0)-0120214
SO-1620-IM-CPT-19-13 (7.5-10)-20120214	CPT-19	Soil	7.5	10	02/14/2013	09:15	X	X	X	

TABLE 1
SAMPLE COLLECTION AND ANALYSIS SUMMARY
CPT/ROST AND GEOPROBE STUDY
UNION PACIFIC RAILROAD (UPRR)
HOUSTON WOOD PRESERVING WORKS
HOUSTON, TEXAS
FEBRUARY 2013

Sample Identification	Location	Matrix	Initial Sample Depth (ft. bgs)	Final Sample Depth (ft. bgs)	Collection Date (mm/dd/yyyy)	Collection Time (hr:min)	Analysis/Parameters			Comments
							Select VOCs	Select SVOCs	Select Metals	
TestAmerica SDG#: 600-68626-1										
SO-1620-IM-CPT-14-13 (1.4-2.5)-20120214	CPT-14	Soil	1.4	2.5	02/14/2013	10:05	X	X	X	
SO-1620-IM-CPT-14-13 (12.5-15)-20120214	CPT-14	Soil	12.5	15	02/14/2013	10:35	X	X	X	MS/MSD
SO-1620-IM-CPT-14-13 (15-16.4)-20120214	CPT-14	Soil	15	16.4	02/14/2013	10:45	X	X	X	
SO-1620-IM-CPT-15-13 (2-5)-20120214	CPT-15	Soil	2	5	02/14/2013	11:30	X	X	X	
SO-1620-IM-CPT-15-13 (5.0-7.5)-20120214	CPT-15	Soil	5	7.5	02/14/2013	11:50	X	X	X	
SO-1620-IM-CPT-15-13 (15-16.2)-20120214	CPT-15	Soil	15	16.2	02/14/2013	12:00	X	X	X	
TestAmerica SDG#: 600-68719-1										
SO-1620-IM-CPT-22-13 (2.5-5) - 20120215	CPT-22	Soil	2.5	5	02/15/2013	10:20	X	X	X	MS/MSD
SO-1620-IM-CPT-21-13 (7.5-10) - 20120215	CPT-21	Soil	7.5	10	02/15/2013	11:35	X	X	X	
SO-1620-IM-CPT-22-13 (7.5-10) - 20120215	CPT-22	Soil	7.5	10	02/15/2013	10:30	X	X	X	
SO-1620-IM-CPT-17-13 (2.3-5) - 20120215	CPT-17	Soil	2.3	5	02/15/2013	13:50	X	X	X	
SO-1620-IM-CPT-17-13 (13-15) - 20120215	CPT-17	Soil	13	15	02/15/2013	14:30	X	X	X	MS/MSD/DUP
SO-1620-IM-CPT-10-13 (2-5) - 20120215	CPT-10	Soil	2	5	02/15/2013	12:55	X	X	X	
SO-1620-IM-CPT-10-13 (5-7.5) - 20120215	CPT-10	Soil	5	7.5	02/15/2013	13:25	X	X	X	MS/MSD
SO-1620-IM-CPT-18-13 (1.7-5) - 20120214	CPT-18	Soil	1.7	5	02/14/2013	15:05	X	X	X	
SO-1620-IM-CPT-18-13 (12.5-14.3) - 20120	CPT-18	Soil	12.5	14.3	02/14/2013	15:20	X	X	X	MS/MSD
SO-1620-IM-CPT-21-13 (2.5-5) - 20120215	CPT-21	Soil	2.5	5	02/15/2013	11:25	X	X	X	
TestAmerica SDG#: 600-68753-1										
WG-1620-IM-CPT-06-13-A-20120218	CPT-06	WG	-	-	02/18/2013	10:30	X	X		MS/MSD
WG-1620-IM-CPT-05-13-A-20120218	CPT-05	WG	-	-	02/18/2013	12:46	X	X		
WG-1620-IM-CPT-04-13-A-20120218	CPT-04	WG	-	-	02/18/2013	15:20	X	X		
Trip Blank	Trip Blank	WG	-	-	02/18/2013	2/18/2013	X			

TABLE 1
SAMPLE COLLECTION AND ANALYSIS SUMMARY
CPT/ROST AND GEOPROBE STUDY
UNION PACIFIC RAILROAD (UPRR)
HOUSTON WOOD PRESERVING WORKS
HOUSTON, TEXAS
FEBRUARY 2013

<i>Sample Identification</i>	<i>Location</i>	<i>Matrix</i>	<i>Initial Sample Depth (ft. bgs)</i>	<i>Final Sample Depth (ft. bgs)</i>	<i>Collection Date (mm/dd/yyyy)</i>	<i>Collection Time (hr:min)</i>	<i>Analysis/Parameters</i>			<i>Comments</i>
							<i>Select VOCs</i>	<i>Select SVOCs</i>	<i>Select Metals</i>	
<i>TestAmerica SDG#: 600-68812-1</i>										
WG-1620-IM-CPT-03-13-A-20120219	CPT-03	WG	-	-	02/19/2013	09:00	X	X		
WG-1620-IM-CPT-01-13-A-20120219	CPT-01	WG	-	-	02/19/2013	12:30	X	X		MS/MSD
WG-1620-IM-CPT-01-13-B-20120219	CPT-01	WG	-	-	02/19/2013	13:20	X	X		
WG-1620-IM-CPT-08-13-A-20120219	CPT-08	WG	-	-	02/19/2013	14:20	X	X		
WG-1620-IM-CPT-DUP1-20120219	CPT-08	WG	-	-	02/19/2013	14:30	X	X		WG-1620-IM-CPT-08-13-A-20120219

Notes:

- DUP Laboratory duplicate.
- ft. bgs Feet below ground surface.
- MS Matrix spike.
- MSD Matrix spike duplicate.
- SDG Sample delivery group.
- SVOCs Semi-volatile organic compounds.
- VOCs Volatile organic compounds.
- WG Groundwater.

TABLE 2
SUMMARY OF ANALYTICAL METHODOLOGIES
CPT/ROST AND GEOPROBE STUDY
UNION PACIFIC RAILROAD (UPRR)
HOUSTON WOOD PRESERVING WORKS
HOUSTON, TEXAS
FEBRUARY 2013

<i>Parameter</i>	<i>Method</i>
Select VOCs	SW-846 8260 ¹
Select SVOCs	SW-846 8270 ¹
Select Metals	SW-846 6010 ¹

Notes:

- ¹ "Test Methods for Solid Waste/Physical Chemical Methods," SW-846, 3rd Edition, September 1986 (with all subsequent revisions).
- SVOCs Semi volatile organic compounds.
- VOCs Volatile organic compounds.

TABLE 3A

ANALYTICAL RESULTS SUMMARY
CPT/ROST AND GEOPROBE STUDY
UNION PACIFIC RAILROAD (UPRR)
HOUSTON WOOD PRESERVING WORKS
HOUSTON, TEXAS
FEBRUARY 2013

<i>Sample Location:</i>	<i>CPT-01</i>	<i>CPT-01</i>	<i>CPT-01</i>	<i>CPT-02</i>	<i>CPT-02</i>	<i>CPT-03</i>	
<i>Sample ID:</i>	SO-1620-IM-CPT-01-13(2-5)-20130211	SO-1620-IM-CPT-01-13(10-12.5)-20130211	SO-1620-IM-CPT-01-13(17.5-20)-20130211	SO-1620-IM-CPT-02-13(2.5-5.0)-20130211	SO-1620-IM-CPT-02-13(12.5-15)-20130211	SO-1620-IM-CPT-03-13(2.5-5)-20130211	
<i>Sample Date:</i>	2/11/2013	2/11/2013	2/11/2013	2/11/2013	2/11/2013	2/11/2013	
<i>Sample Depth:</i>	2-5 ft BGS	10-12.5 ft BGS	17.5-20 ft BGS	2.5-5 ft BGS	12.5-15 ft BGS	2.5-5 ft BGS	
<i>Parameters</i>	<i>Units</i>						
<i>Volatile Organic Compounds</i>							
1,2-Dichloroethane	mg/kg	<0.00105	<0.00107	<0.00105	<0.00105	<0.00112	<0.00108
Benzene	mg/kg	<0.000738	<0.000747	<0.000733	<0.000736	<0.000782	<0.000755
Chlorobenzene	mg/kg	<0.00112	<0.00114	<0.00112	<0.00112	<0.00119	<0.00115
Ethylbenzene	mg/kg	<0.00119	<0.00121	<0.00119	<0.00119	<0.00127	<0.00122
Methylene chloride	mg/kg	<0.0127	<0.0137	<0.0146	<0.0202	<0.0250	<0.0184
Toluene	mg/kg	<0.00162	<0.00164	<0.00160	<0.00161	<0.00171	<0.00165
Xylenes (total)	mg/kg	<0.00132	<0.00134	<0.00131	<0.00132	<0.00140	<0.00135
<i>Semi-volatile Organic Compounds</i>							
1,2-Diphenylhydrazine	mg/kg	<0.0190	<0.00192	<0.00188	<0.00189	<0.00201	<0.0194
2,4-Dimethylphenol	mg/kg	<0.100	<0.0102	<0.00997	<0.0100	<0.0106	<0.103
2,4-Dinitrotoluene	mg/kg	<0.0422	<0.00427	<0.00419	<0.00421	<0.00448	<0.0432
2,6-Dinitrotoluene	mg/kg	<0.0345	<0.00349	<0.00343	<0.00344	<0.00366	<0.0353
2-Chloronaphthalene	mg/kg	<0.0142	<0.00143	<0.00141	<0.00141	<0.00150	<0.0145
2-Methylnaphthalene	mg/kg	0.0479 J	<0.00324	<0.00318	<0.00320	<0.00340	0.0700 J
4,6-Dinitro-2-methylphenol	mg/kg	<0.0583	<0.00590	<0.00578	<0.00581	<0.00618	<0.0596
4-Nitrophenol	mg/kg	<0.0594	<0.00601	<0.00590	<0.00593	<0.00630	<0.0608
Acenaphthene	mg/kg	0.0227 J	<0.00170	<0.00167	<0.00168	<0.00179	0.0620 J
Acenaphthylene	mg/kg	<0.0117	<0.00118	<0.00116	<0.00117	<0.00124	<0.0120
Anthracene	mg/kg	0.105 J	<0.00152	<0.00149	<0.00149	<0.00159	0.181 J
Benzo(a)anthracene	mg/kg	0.0345 J	<0.00163	<0.00160	<0.00161	<0.00171	0.0733 J

TABLE 3A

ANALYTICAL RESULTS SUMMARY
CPT/ROST AND GEOPROBE STUDY
UNION PACIFIC RAILROAD (UPRR)
HOUSTON WOOD PRESERVING WORKS
HOUSTON, TEXAS
FEBRUARY 2013

<i>Sample Location:</i>	<i>CPT-01</i>	<i>CPT-01</i>	<i>CPT-01</i>	<i>CPT-02</i>	<i>CPT-02</i>	<i>CPT-03</i>	
<i>Sample ID:</i>	SO-1620-IM-CPT-01-13(2-5)-20130211	SO-1620-IM-CPT-01-13(10-12.5)-20130211	SO-1620-IM-CPT-01-13(17.5-20)-20130211	SO-1620-IM-CPT-02-13(2.5-5.0)-20130211	SO-1620-IM-CPT-02-13(12.5-15)-20130211	SO-1620-IM-CPT-03-13(2.5-5)-20130211	
<i>Sample Date:</i>	2/11/2013	2/11/2013	2/11/2013	2/11/2013	2/11/2013	2/11/2013	
<i>Sample Depth:</i>	2-5 ft BGS	10-12.5 ft BGS	17.5-20 ft BGS	2.5-5 ft BGS	12.5-15 ft BGS	2.5-5 ft BGS	
<i>Parameters</i>	<i>Units</i>						
<i>Semi-volatile Organic Compounds (continued)</i>							
Benzo(a)pyrene	mg/kg	0.0261 J	<0.00191	<0.00187	<0.00188	<0.00200	0.0632 J
bis(2-Chloroethoxy)methane	mg/kg	<0.0166	<0.00168	<0.00165	<0.00166	<0.00176	<0.0170
bis(2-Ethylhexyl)phthalate (DEHP)	mg/kg	<0.0628	<0.00636	<0.00624	<0.00626	<0.00666	<0.0643
Chrysene	mg/kg	0.0453 J	<0.00121	<0.00118	<0.00119	<0.00127	0.0939 J
Dibenzofuran	mg/kg	<0.0208	<0.00211	<0.00207	<0.00208	<0.00221	0.0381 J
Di-n-butylphthalate (DBP)	mg/kg	<0.0303	<0.00307	<0.00301	<0.00302	<0.00321	<0.0310
Fluoranthene	mg/kg	0.0885 J	<0.00368	<0.00361	<0.00363	<0.00386	0.227
Fluorene	mg/kg	<0.0276	<0.00279	<0.00274	<0.00275	<0.00293	0.0431 J
Naphthalene	mg/kg	<0.0158	<0.00160	<0.00157	<0.00157	<0.00167	0.0406 J
Nitrobenzene	mg/kg	<0.0346	<0.00350	<0.00344	<0.00345	<0.00367	<0.0355
N-Nitrosodiphenylamine	mg/kg	<0.0221	<0.00224	<0.00220	<0.00220	<0.00234	<0.0226
Pentachlorophenol	mg/kg	<0.0468	<0.00474	<0.00465	<0.00467	<0.00496	<0.0479
Phenanthrene	mg/kg	0.0613 J	<0.00586	<0.00575	<0.00577	<0.00614	0.182 J
Phenol	mg/kg	<0.0496	<0.00502	<0.00493	<0.00495	<0.00526	<0.0508
Pyrene	mg/kg	0.0940 J	<0.00217	<0.00213	<0.00213	<0.00227	0.235

TABLE 3A

ANALYTICAL RESULTS SUMMARY
CPT/ROST AND GEOPROBE STUDY
UNION PACIFIC RAILROAD (UPRR)
HOUSTON WOOD PRESERVING WORKS
HOUSTON, TEXAS
FEBRUARY 2013

<i>Sample Location:</i>		<i>CPT-01</i>	<i>CPT-01</i>	<i>CPT-01</i>	<i>CPT-02</i>	<i>CPT-02</i>	<i>CPT-03</i>
<i>Sample ID:</i>		SO-1620-IM-CPT-01-13(2-5)-20130211	SO-1620-IM-CPT-01-13(10-12.5)-20130211	SO-1620-IM-CPT-01-13(17.5-20)-20130211	SO-1620-IM-CPT-02-13(2.5-5.0)-20130211	SO-1620-IM-CPT-02-13(12.5-15)-20130211	SO-1620-IM-CPT-03-13(2.5-5)-20130211
<i>Sample Date:</i>		2/11/2013	2/11/2013	2/11/2013	2/11/2013	2/11/2013	2/11/2013
<i>Sample Depth:</i>		2-5 ft BGS	10-12.5 ft BGS	17.5-20 ft BGS	2.5-5 ft BGS	12.5-15 ft BGS	2.5-5 ft BGS
<i>Parameters</i>	<i>Units</i>						
<i>Metals</i>							
Arsenic	mg/kg	3.95 J	2.12 J	6.72 J	1.17 J	2.22 J	1.38 J
Lead	mg/kg	8.03 J	8.24 J	12.1 J	7.22 J	4.92 J	15.2 J

TABLE 3A
ANALYTICAL RESULTS SUMMARY
CPT/ROST AND GEOPROBE STUDY
UNION PACIFIC RAILROAD (UPRR)
HOUSTON WOOD PRESERVING WORKS
HOUSTON, TEXAS
FEBRUARY 2013

<i>Sample Location:</i>	CPT-03	CPT-04	CPT-04	CPT-05	CPT-05	
<i>Sample ID:</i>	SO-1620-IM-CPT-03-13- (12.5-13.5)-2013021	SO-1620-IM-CPT-04- 13(2.5-5)-20130211	SO-1620-IM-CPT-04- 13(10-12.5)-20130211	SO-1620-IM-CPT-05-13 (4-5)-20130212	SO-1620-IM-CPT-05-13 (7.5-10)-20130212	
<i>Sample Date:</i>	2/11/2013	2/11/2013	2/11/2013	2/11/2013	2/11/2013	
<i>Sample Depth:</i>	12.5-13.5 ft BGS	2.5-5 ft BGS	10-12.5 ft BGS	4-5 ft BGS	7.5-10 ft BGS	
Parameters	Units					
<i>Volatile Organic Compounds</i>						
1,2-Dichloroethane	mg/kg	<0.00106	<0.00108	<0.00102	<0.00221	<0.000651
Benzene	mg/kg	<0.000745	<0.000759	<0.000714	<0.00155	<0.000456
Chlorobenzene	mg/kg	<0.00113	<0.00116	<0.00109	<0.00236	<0.000695
Ethylbenzene	mg/kg	<0.00121	<0.00123	<0.00116	<0.00251	<0.000738
Methylene chloride	mg/kg	<0.0202	<0.0182	<0.0217	<0.00539	<0.00158
Toluene	mg/kg	<0.00163	<0.00166	<0.00157	<0.00340	<0.000999
Xylenes (total)	mg/kg	<0.00134	<0.00136	<0.00128	<0.00278	<0.000818
<i>Semi-volatile Organic Compounds</i>						
1,2-Diphenylhydrazine	mg/kg	<0.00191	<0.00195	<0.0183	<0.00190	<0.00190
2,4-Dimethylphenol	mg/kg	<0.0101	<0.0103	<0.0971	<0.0100	<0.0100
2,4-Dinitrotoluene	mg/kg	<0.00426	<0.00434	<0.0408	<0.00423	<0.00422
2,6-Dinitrotoluene	mg/kg	<0.00348	<0.00355	<0.0334	<0.00346	<0.00345
2-Chloronaphthalene	mg/kg	<0.00143	<0.00146	<0.0137	<0.00142	<0.00142
2-Methylnaphthalene	mg/kg	<0.00323	<0.00330	<0.0310	<0.00321	<0.00321
4,6-Dinitro-2-methylphenol	mg/kg	<0.00588	<0.00599	<0.0563	<0.00583	<0.00583
4-Nitrophenol	mg/kg	<0.00599	<0.00611	<0.0575	<0.00595	<0.00594
Acenaphthene	mg/kg	<0.00170	<0.00173	0.345	<0.00169	<0.00168
Acenaphthylene	mg/kg	<0.00118	0.00393 J	<0.0113	<0.00117	<0.00117
Anthracene	mg/kg	<0.00151	0.00565 J	0.0276 J	<0.00150	<0.00150
Benzo(a)anthracene	mg/kg	<0.00163	0.0336	0.0405 J	<0.00162	<0.00161

TABLE 3A

ANALYTICAL RESULTS SUMMARY
CPT/ROST AND GEOPROBE STUDY
UNION PACIFIC RAILROAD (UPRR)
HOUSTON WOOD PRESERVING WORKS
HOUSTON, TEXAS
FEBRUARY 2013

<i>Sample Location:</i>	CPT-03	CPT-04	CPT-04	CPT-05	CPT-05	
<i>Sample ID:</i>	SO-1620-IM-CPT-03-13- (12.5-13.5)-2013021	SO-1620-IM-CPT-04- 13(2.5-5)-20130211	SO-1620-IM-CPT-04- 13(10-12.5)-20130211	SO-1620-IM-CPT-05-13 (4-5)-20130212	SO-1620-IM-CPT-05-13 (7.5-10)-20130212	
<i>Sample Date:</i>	2/11/2013	2/11/2013	2/11/2013	2/11/2013	2/11/2013	
<i>Sample Depth:</i>	12.5-13.5 ft BGS	2.5-5 ft BGS	10-12.5 ft BGS	4-5 ft BGS	7.5-10 ft BGS	
<i>Parameters</i>	<i>Units</i>					
<i>Semi-volatile Organic Compounds (continued)</i>						
Benzo(a)pyrene	mg/kg	<0.00190	0.0332	<0.0182	<0.00189	<0.00188
bis(2-Chloroethoxy)methane	mg/kg	<0.00168	<0.00171	<0.0161	<0.00166	<0.00166
bis(2-Ethylhexyl)phthalate (DEHP)	mg/kg	<0.00634	0.0143 J	<0.0608	<0.00629	<0.00628
Chrysene	mg/kg	<0.00120	0.0457	0.0387 J	<0.00119	<0.00119
Dibenzofuran	mg/kg	<0.00210	<0.00214	<0.0201	<0.00208	<0.00208
Di-n-butylphthalate (DBP)	mg/kg	<0.00306	<0.00312	<0.0293	<0.00303	<0.00303
Fluoranthene	mg/kg	<0.00367	0.0661	0.112 J	<0.00364	<0.00364
Fluorene	mg/kg	<0.00278	<0.00284	0.0497 J	<0.00276	<0.00276
Naphthalene	mg/kg	<0.00159	0.00423 J	<0.0153	<0.00158	<0.00158
Nitrobenzene	mg/kg	<0.00349	<0.00356	<0.0335	<0.00347	<0.00346
N-Nitrosodiphenylamine	mg/kg	<0.00223	<0.00227	<0.0214	<0.00221	<0.00221
Pentachlorophenol	mg/kg	<0.00472	<0.00481	<0.0453	<0.00468	<0.00468
Phenanthrene	mg/kg	<0.00584	0.0197 J	<0.0560	<0.00580	<0.00579
Phenol	mg/kg	<0.00500	<0.00510	<0.0480	<0.00497	<0.00496
Pyrene	mg/kg	<0.00216	0.0706	0.129 J	<0.00214	<0.00214

TABLE 3A

ANALYTICAL RESULTS SUMMARY
CPT/ROST AND GEOPROBE STUDY
UNION PACIFIC RAILROAD (UPRR)
HOUSTON WOOD PRESERVING WORKS
HOUSTON, TEXAS
FEBRUARY 2013

	<i>Sample Location:</i>	<i>CPT-03</i>	<i>CPT-04</i>	<i>CPT-04</i>	<i>CPT-05</i>	<i>CPT-05</i>
	<i>Sample ID:</i>	SO-1620-IM-CPT-03-13- (12.5-13.5)-2013021	SO-1620-IM-CPT-04- 13(2.5-5)-20130211	SO-1620-IM-CPT-04- 13(10-12.5)-20130211	SO-1620-IM-CPT-05-13 (4-5)-20130212	SO-1620-IM-CPT-05-13 (7.5-10)-20130212
	<i>Sample Date:</i>	2/11/2013	2/11/2013	2/11/2013	2/11/2013	2/11/2013
	<i>Sample Depth:</i>	12.5-13.5 ft BGS	2.5-5 ft BGS	10-12.5 ft BGS	4-5 ft BGS	7.5-10 ft BGS
<i>Parameters</i>	<i>Units</i>					
<i>Metals</i>						
Arsenic	mg/kg	4.28 J	2.13 J	3.72 J	3.18 J	1.08 J
Lead	mg/kg	8.12 J	9.15 J	5.87 J	15.3 J	1.96 J

TABLE 3A
ANALYTICAL RESULTS SUMMARY
CPT/ROST AND GEOPROBE STUDY
UNION PACIFIC RAILROAD (UPRR)
HOUSTON WOOD PRESERVING WORKS
HOUSTON, TEXAS
FEBRUARY 2013

<i>Sample Location:</i>		<i>CPT-06</i>	<i>CPT-06</i>	<i>CPT-07</i>	<i>CPT-07</i>	<i>CPT-08</i>
<i>Sample ID:</i>		<i>SO-1620-IM-CPT-06-13</i>	<i>SO-1620-IM-CPT-06-13</i>	<i>SO-1620-IM-CPT-07-13</i>	<i>SO-1620-IM-CPT-07-13</i>	<i>SO-1620-IM-CPT-08-13</i>
<i>Sample Date:</i>		<i>(3-5)-20130212</i>	<i>(13-15)-20130212</i>	<i>(2.5-5)-20130212</i>	<i>(7.5-10)-20130212</i>	<i>(2.5-5)-20130212</i>
<i>Sample Depth:</i>		<i>2/12/2013</i>	<i>2/12/2013</i>	<i>2/12/2013</i>	<i>2/12/2013</i>	<i>2/12/2013</i>
<i>Sample Depth:</i>		<i>3-5 ft BGS</i>	<i>13-15 ft BGS</i>	<i>2.5-5 ft BGS</i>	<i>7.5-10 ft BGS</i>	<i>2.5-5 ft BGS</i>
<i>Parameters</i>	<i>Units</i>					
<i>Volatile Organic Compounds</i>						
1,2-Dichloroethane	mg/kg	<0.00105	<0.00104	<0.00107	<0.000952	<0.00102
Benzene	mg/kg	<0.000732	<0.000730	<0.000749	<0.000667	<0.000717
Chlorobenzene	mg/kg	<0.00112	<0.00111	<0.00114	<0.00102	<0.00109
Ethylbenzene	mg/kg	<0.00119	<0.00118	<0.00121	<0.00108	<0.00116
Methylene chloride	mg/kg	<0.00255	<0.0126	<0.00260	<0.00232	<0.00258
Toluene	mg/kg	<0.00160	<0.00160	<0.00164	<0.00146	<0.00157
Xylenes (total)	mg/kg	<0.00131	<0.00131	<0.00134	<0.00120	<0.00129
<i>Semi-volatile Organic Compounds</i>						
1,2-Diphenylhydrazine	mg/kg	<0.188	<0.00187	<0.193	<0.00187	<0.0921
2,4-Dimethylphenol	mg/kg	<0.996	<0.00992	<1.02	<0.00989	<0.488
2,4-Dinitrotoluene	mg/kg	<0.419	0.0234	<0.429	<0.00416	<0.205
2,6-Dinitrotoluene	mg/kg	<0.342	0.0234	<0.351	<0.00340	<0.168
2-Chloronaphthalene	mg/kg	<0.140	<0.00140	<0.144	<0.00139	<0.0688
2-Methylnaphthalene	mg/kg	<0.318	<0.00317	0.477 J	<0.00316	<0.156
4,6-Dinitro-2-methylphenol	mg/kg	<0.578	<0.00576	<0.592	<0.00574	<0.283
4-Nitrophenol	mg/kg	<0.590	<0.00588	<0.604	<0.00586	<0.289
Acenaphthene	mg/kg	0.508 J	<0.00167	0.951 J	<0.00166	<0.0819
Acenaphthylene	mg/kg	<0.116	<0.00116	<0.119	<0.00115	<0.0568
Anthracene	mg/kg	1.34 J	<0.00148	5.06	<0.00148	<0.0728
Benzo(a)anthracene	mg/kg	1.06 J	<0.00160	1.56 J	<0.00159	<0.0784

TABLE 3A
ANALYTICAL RESULTS SUMMARY
CPT/ROST AND GEOPROBE STUDY
UNION PACIFIC RAILROAD (UPRR)
HOUSTON WOOD PRESERVING WORKS
HOUSTON, TEXAS
FEBRUARY 2013

<i>Sample Location:</i>	CPT-06	CPT-06	CPT-07	CPT-07	CPT-08	
<i>Sample ID:</i>	SO-1620-IM-CPT-06-13 (3-5)-20130212	SO-1620-IM-CPT-06-13 (13-15)-20130212	SO-1620-IM-CPT-07-13 (2.5-5)-20130212	SO-1620-IM-CPT-07-13 (7.5-10)-20130212	SO-1620-IM-CPT-08-13 (2.5-5)-20130212	
<i>Sample Date:</i>	2/12/2013	2/12/2013	2/12/2013	2/12/2013	2/12/2013	
<i>Sample Depth:</i>	3-5 ft BGS	13-15 ft BGS	2.5-5 ft BGS	7.5-10 ft BGS	2.5-5 ft BGS	
<i>Parameters</i>	<i>Units</i>					
<i>Semi-volatile Organic Compounds (continued)</i>						
Benzo(a)pyrene	mg/kg	0.707 J	<0.00186	2.26	0.0117 J	<0.0915
bis(2-Chloroethoxy)methane	mg/kg	<0.165	<0.00164	<0.169	<0.00164	<0.0807
bis(2-Ethylhexyl)phthalate (DEHP)	mg/kg	<0.623	<0.00621	3.03 J	<0.00619	<0.305
Chrysene	mg/kg	0.967 J	<0.00118	1.79 J	<0.00118	<0.0580
Dibenzofuran	mg/kg	<0.207	<0.00206	0.399 J	<0.00205	<0.101
Di-n-butylphthalate (DBP)	mg/kg	<0.301	<0.00300	<0.308	<0.00299	<0.147
Fluoranthene	mg/kg	2.49	<0.00360	4.90	<0.00358	<0.177
Fluorene	mg/kg	0.487 J	<0.00273	1.07 J	<0.00272	<0.134
Naphthalene	mg/kg	<0.157	<0.00156	<0.160	<0.00156	<0.0767
Nitrobenzene	mg/kg	<0.344	<0.00342	<0.352	<0.00341	<0.168
N-Nitrosodiphenylamine	mg/kg	<0.219	<0.00219	<0.225	<0.00218	<0.107
Pentachlorophenol	mg/kg	<0.464	<0.00463	<0.475	<0.00461	<0.227
Phenanthrene	mg/kg	1.69 J	<0.00573	4.58	0.00837 J	<0.281
Phenol	mg/kg	<0.492	<0.00490	<0.504	<0.00489	<0.241
Pyrene	mg/kg	2.67	<0.00212	5.47	0.00585 J	<0.104

TABLE 3A

ANALYTICAL RESULTS SUMMARY
CPT/ROST AND GEOPROBE STUDY
UNION PACIFIC RAILROAD (UPRR)
HOUSTON WOOD PRESERVING WORKS
HOUSTON, TEXAS
FEBRUARY 2013

	<i>Sample Location:</i>	CPT-06	CPT-06	CPT-07	CPT-07	CPT-08
	<i>Sample ID:</i>	SO-1620-IM-CPT-06-13 (3-5)-20130212	SO-1620-IM-CPT-06-13 (13-15)-20130212	SO-1620-IM-CPT-07-13 (2.5-5)-20130212	SO-1620-IM-CPT-07-13 (7.5-10)-20130212	SO-1620-IM-CPT-08-13 (2.5-5)-20130212
	<i>Sample Date:</i>	2/12/2013	2/12/2013	2/12/2013	2/12/2013	2/12/2013
	<i>Sample Depth:</i>	3-5 ft BGS	13-15 ft BGS	2.5-5 ft BGS	7.5-10 ft BGS	2.5-5 ft BGS
Parameters	Units					
Metals						
Arsenic	mg/kg	17.5 J	1.07 J	1.90 J	2.77 J	1.00 J
Lead	mg/kg	1490 J	4.17 J	8.78 J	2.44 J	10.4 J

TABLE 3A
ANALYTICAL RESULTS SUMMARY
CPT/ROST AND GEOPROBE STUDY
UNION PACIFIC RAILROAD (UPRR)
HOUSTON WOOD PRESERVING WORKS
HOUSTON, TEXAS
FEBRUARY 2013

<i>Sample Location:</i>		<i>CPT-08</i>	<i>CPT-08</i>	<i>CPT-09</i>	<i>CPT-09</i>	<i>CPT-09</i>
<i>Sample ID:</i>		<i>SO-1620-IM-CPT-08-13</i>	<i>SO-1620-IM-CPT-08-13</i>	<i>SO-1620-IM-CPT-09-13</i>	<i>SO-1620-IM-CPT-09-13</i>	<i>SO-1620-IM-CPT-09-13</i>
<i>Sample Date:</i>		<i>(5-7.5)-20130212</i>	<i>(15-16)-20130212</i>	<i>(2.5-5)-20130212</i>	<i>(5-7.5)-20130212</i>	<i>(15-15.7)-20130212</i>
<i>Sample Depth:</i>		<i>2/12/2013</i>	<i>2/12/2013</i>	<i>2/12/2013</i>	<i>2/12/2013</i>	<i>2/12/2013</i>
<i>Sample Depth:</i>		<i>5-7.5 ft BGS</i>	<i>15-16 ft BGS</i>	<i>2.5-5 ft BGS</i>	<i>5-7.5 ft BGS</i>	<i>15-15.7 ft BGS</i>
<i>Parameters</i>	<i>Units</i>					
<i>Volatile Organic Compounds</i>						
1,2-Dichloroethane	mg/kg	<0.00109	<0.00107	<0.00111	<0.00105	<0.00104
Benzene	mg/kg	<0.000764	<0.000752	0.000833 J	<0.000732	<0.000728
Chlorobenzene	mg/kg	<0.00116	<0.00115	<0.00118	<0.00112	<0.00111
Ethylbenzene	mg/kg	<0.00124	<0.00122	0.00303 J	0.00119 J	<0.00118
Methylene chloride	mg/kg	<0.00266	<0.00261	<0.00269	<0.00254	<0.00253
Toluene	mg/kg	<0.00167	<0.00165	<0.00170	<0.00160	<0.00160
Xylenes (total)	mg/kg	0.00159 J	<0.00135	0.0199	<0.00131	<0.00131
<i>Semi-volatile Organic Compounds</i>						
1,2-Diphenylhydrazine	mg/kg	<0.0981	<0.00193	<0.199	<0.188	<0.00187
2,4-Dimethylphenol	mg/kg	<0.520	<0.0102	<1.05	<0.995	<0.00989
2,4-Dinitrotoluene	mg/kg	<0.219	<0.00431	<0.443	<0.419	<0.00416
2,6-Dinitrotoluene	mg/kg	<0.179	<0.00352	<0.362	<0.342	<0.00340
2-Chloronaphthalene	mg/kg	<0.0733	<0.00144	<0.148	<0.140	<0.00139
2-Methylnaphthalene	mg/kg	<0.166	<0.00327	4.91	18.6	<0.00316
4,6-Dinitro-2-methylphenol	mg/kg	<0.302	<0.00594	<0.611	<0.577	<0.00574
4-Nitrophenol	mg/kg	<0.308	<0.00606	<0.623	<0.589	<0.00586
Acenaphthene	mg/kg	<0.0872	<0.00172	12.3	30.0	0.00463 J
Acenaphthylene	mg/kg	<0.0606	<0.00119	<0.123	0.806 J	<0.00115
Anthracene	mg/kg	<0.0775	<0.00153	11.4	20.6	0.00515 J
Benzo(a)anthracene	mg/kg	<0.0836	<0.00165	6.92	9.07	<0.00159

TABLE 3A
ANALYTICAL RESULTS SUMMARY
CPT/ROST AND GEOPROBE STUDY
UNION PACIFIC RAILROAD (UPRR)
HOUSTON WOOD PRESERVING WORKS
HOUSTON, TEXAS
FEBRUARY 2013

<i>Sample Location:</i>	CPT-08	CPT-08	CPT-09	CPT-09	CPT-09	
<i>Sample ID:</i>	SO-1620-IM-CPT-08-13 (5-7.5)-20130212	SO-1620-IM-CPT-08-13 (15-16)-20130212	SO-1620-IM-CPT-09-13 (2.5-5)-20130212	SO-1620-IM-CPT-09-13 (5-7.5)-20130212	SO-1620-IM-CPT-09-13 (15-15.7)-20130212	
<i>Sample Date:</i>	2/12/2013	2/12/2013	2/12/2013	2/12/2013	2/12/2013	
<i>Sample Depth:</i>	5-7.5 ft BGS	15-16 ft BGS	2.5-5 ft BGS	5-7.5 ft BGS	15-15.7 ft BGS	
<i>Parameters</i>	<i>Units</i>					
<i>Semi-volatile Organic Compounds (continued)</i>						
Benzo(a)pyrene	mg/kg	<0.0975	<0.00192	3.69	4.77	0.0118 J
bis(2-Chloroethoxy)methane	mg/kg	<0.0860	<0.00169	<0.174	<0.165	<0.00164
bis(2-Ethylhexyl)phthalate (DEHP)	mg/kg	1.08 J	<0.00641	2.90 J	<0.623	<0.00619
Chrysene	mg/kg	<0.0618	<0.00122	7.35	9.17	<0.00118
Dibenzofuran	mg/kg	<0.108	<0.00212	8.00	24.8	<0.00205
Di-n-butylphthalate (DBP)	mg/kg	<0.157	<0.00309	<0.318	<0.300	<0.00299
Fluoranthene	mg/kg	<0.188	<0.00371	40.7	49.2	0.00849 J
Fluorene	mg/kg	<0.143	<0.00282	17.1	36.4	0.00564 J
Naphthalene	mg/kg	<0.0818	<0.00161	7.07	15.9	<0.00156
Nitrobenzene	mg/kg	<0.179	<0.00353	<0.363	<0.343	<0.00341
N-Nitrosodiphenylamine	mg/kg	<0.114	<0.00226	<0.232	<0.219	<0.00218
Pentachlorophenol	mg/kg	<0.242	<0.00477	<0.491	<0.464	<0.00461
Phenanthrene	mg/kg	<0.300	<0.00591	59.9	103	0.0171 J
Phenol	mg/kg	<0.257	<0.00506	<0.520	<0.492	<0.00489
Pyrene	mg/kg	<0.111	<0.00218	27.0	32.9	0.0127 J

TABLE 3A
ANALYTICAL RESULTS SUMMARY
CPT/ROST AND GEOPROBE STUDY
UNION PACIFIC RAILROAD (UPRR)
HOUSTON WOOD PRESERVING WORKS
HOUSTON, TEXAS
FEBRUARY 2013

	<i>Sample Location:</i>	<i>CPT-08</i>	<i>CPT-08</i>	<i>CPT-09</i>	<i>CPT-09</i>	<i>CPT-09</i>
	<i>Sample ID:</i>	SO-1620-IM-CPT-08-13 (5-7.5)-20130212	SO-1620-IM-CPT-08-13 (15-16)-20130212	SO-1620-IM-CPT-09-13 (2.5-5)-20130212	SO-1620-IM-CPT-09-13 (5-7.5)-20130212	SO-1620-IM-CPT-09-13 (15-15.7)-20130212
	<i>Sample Date:</i>	2/12/2013	2/12/2013	2/12/2013	2/12/2013	2/12/2013
	<i>Sample Depth:</i>	5-7.5 ft BGS	15-16 ft BGS	2.5-5 ft BGS	5-7.5 ft BGS	15-15.7 ft BGS
Parameters	Units					
Metals						
Arsenic	mg/kg	1.66 J	7.88 J	12.4 J	1.35 J	1.04 J
Lead	mg/kg	23.5 J	21.5 J	1240 J	27.6 J	4.31 J

TABLE 3A
ANALYTICAL RESULTS SUMMARY
CPT/ROST AND GEOPROBE STUDY
UNION PACIFIC RAILROAD (UPRR)
HOUSTON WOOD PRESERVING WORKS
HOUSTON, TEXAS
FEBRUARY 2013

<i>Sample Location:</i>		<i>CPT-10</i>	<i>CPT-10</i>	<i>CPT-11</i>	<i>CPT-11</i>	<i>CPT-11</i>
<i>Sample ID:</i>		<i>SO-1620-IM-CPT-10-13</i>	<i>SO-1620-IM-CPT-10-13</i>	<i>SO-1620-IM-CPT-11-13</i>	<i>SO-1620-IM-CPT-11-13</i>	<i>SO-1620-IM-CPT-DUP1-</i>
<i>Sample Date:</i>		<i>(2-5) - 20120215</i>	<i>(5-7.5) - 20120215</i>	<i>(1.4-2.5)-20130212</i>	<i>(10-12.5)-20130212</i>	<i>13-20130212</i>
<i>Sample Depth:</i>		<i>2/15/2013</i>	<i>2/15/2013</i>	<i>2/12/2013</i>	<i>2/12/2013</i>	<i>2/12/2013</i>
		<i>2-5 ft BGS</i>	<i>5-7.5 ft BGS</i>	<i>1.4-2.5 ft BGS</i>	<i>10-12.5 ft BGS</i>	<i>10-12.5 ft BGS</i>
						<i>Duplicate</i>
<i>Parameters</i>	<i>Units</i>					
<i>Volatile Organic Compounds</i>						
1,2-Dichloroethane	mg/kg	<0.00104	<0.000999	<0.000926	<0.00107	0.00413 J
Benzene	mg/kg	0.000950 JH	<0.000699	<0.000648	<0.000746	<0.000729
Chlorobenzene	mg/kg	<0.00111	<0.00107	<0.000988	<0.00114	<0.00111
Ethylbenzene	mg/kg	0.00289 JH	<0.00113	<0.00105	<0.00121	<0.00118
Methylene chloride	mg/kg	<0.00254	<0.00243	<0.00225	<0.00290	<0.00253
Toluene	mg/kg	0.00261 JH	<0.00153	<0.00142	<0.00163	<0.00160
Xylenes (total)	mg/kg	0.0180 JH	<0.00125	<0.00116	<0.00134	<0.00131
<i>Semi-volatile Organic Compounds</i>						
1,2-Diphenylhydrazine	mg/kg	<0.939	<0.0897	<0.182	<0.00192	<0.00187
2,4-Dimethylphenol	mg/kg	<4.97	<0.475	<0.965	<0.0102	<0.00992
2,4-Dinitrotoluene	mg/kg	<2.09	<0.200	<0.406	0.0261	0.0391
2,6-Dinitrotoluene	mg/kg	<1.71	<0.163	<0.332	0.0219	0.0299
2-Chloronaphthalene	mg/kg	<0.701	<0.0670	<0.136	<0.00143	<0.00140
2-Methylnaphthalene	mg/kg	<1.59	<0.152	1.77 J	<0.00324	<0.00317
4,6-Dinitro-2-methylphenol	mg/kg	<2.89	<0.276	<0.560	<0.00590	<0.00576
4-Nitrophenol	mg/kg	<2.94	<0.281	<0.571	<0.00601	<0.00588
Acenaphthene	mg/kg	<0.834	<0.0798	2.32	<0.00170	<0.00167
Acenaphthylene	mg/kg	<0.579	<0.0554	<0.112	<0.00118	<0.00116
Anthracene	mg/kg	3.57 J	<0.0709	26.0	0.0143 J	<0.00148
Benzo(a)anthracene	mg/kg	<0.800	<0.0764	0.601 J	0.00403 J	<0.00160

TABLE 3A
ANALYTICAL RESULTS SUMMARY
CPT/ROST AND GEOPROBE STUDY
UNION PACIFIC RAILROAD (UPRR)
HOUSTON WOOD PRESERVING WORKS
HOUSTON, TEXAS
FEBRUARY 2013

<i>Sample Location:</i>	CPT-10	CPT-10	CPT-11	CPT-11	CPT-11
<i>Sample ID:</i>	SO-1620-IM-CPT-10-13 (2-5) - 20120215	SO-1620-IM-CPT-10-13 (5-7.5) - 20120215	SO-1620-IM-CPT-11-13 (1.4-2.5)-20130212	SO-1620-IM-CPT-11-13 (10-12.5)-20130212	SO-1620-IM-CPT-DUP1- 13-20130212
<i>Sample Date:</i>	2/15/2013	2/15/2013	2/12/2013	2/12/2013	2/12/2013
<i>Sample Depth:</i>	2-5 ft BGS	5-7.5 ft BGS	1.4-2.5 ft BGS	10-12.5 ft BGS	10-12.5 ft BGS <i>Duplicate</i>
Parameters	Units				
<i>Semi-volatile Organic Compounds (continued)</i>					
Benzo(a)pyrene	mg/kg	6.12 J	<0.0892	<0.181	<0.00191
bis(2-Chloroethoxy)methane	mg/kg	<0.823	<0.0786	<0.160	<0.00168
bis(2-Ethylhexyl)phthalate (DEHP)	mg/kg	<3.11	<0.297	<0.604	0.0227 J
Chrysene	mg/kg	<0.591	<0.0565	1.14 J	0.00383 J
Dibenzofuran	mg/kg	<1.03	<0.0986	1.50 J	<0.00211
Di-n-butylphthalate (DBP)	mg/kg	<1.50	<0.143	<0.291	<0.00307
Fluoranthene	mg/kg	<1.80	<0.172	1.79 J	<0.00368
Fluorene	mg/kg	<1.37	<0.131	3.87	0.00462 J
Naphthalene	mg/kg	<0.782	<0.0748	1.52 J	<0.00160
Nitrobenzene	mg/kg	<1.72	<0.164	<0.333	<0.00350
N-Nitrosodiphenylamine	mg/kg	<1.10	<0.105	<0.212	<0.00224
Pentachlorophenol	mg/kg	<2.32	<0.222	<0.450	<0.00474
Phenanthrene	mg/kg	3.49 J	<0.274	4.48	0.0198
Phenol	mg/kg	<2.46	<0.235	<0.477	<0.00502
Pyrene	mg/kg	3.30 J	<0.101	1.82 J	0.0114 J

TABLE 3A

ANALYTICAL RESULTS SUMMARY
CPT/ROST AND GEOPROBE STUDY
UNION PACIFIC RAILROAD (UPRR)
HOUSTON WOOD PRESERVING WORKS
HOUSTON, TEXAS
FEBRUARY 2013

	<i>Sample Location:</i>	<i>CPT-10</i>	<i>CPT-10</i>	<i>CPT-11</i>	<i>CPT-11</i>	<i>CPT-11</i>
	<i>Sample ID:</i>	SO-1620-IM-CPT-10-13 (2-5) - 20120215	SO-1620-IM-CPT-10-13 (5-7.5) - 20120215	SO-1620-IM-CPT-11-13 (1.4-2.5)-20130212	SO-1620-IM-CPT-11-13 (10-12.5)-20130212	SO-1620-IM-CPT-DUP1- 13-20130212
	<i>Sample Date:</i>	2/15/2013	2/15/2013	2/12/2013	2/12/2013	2/12/2013
	<i>Sample Depth:</i>	2-5 ft BGS	5-7.5 ft BGS	1.4-2.5 ft BGS	10-12.5 ft BGS	10-12.5 ft BGS <i>Duplicate</i>
<i>Parameters</i>	<i>Units</i>					
<i>Metals</i>						
Arsenic	mg/kg	9.73 J	7.24 J	28.2 J	7.66	8.78
Lead	mg/kg	420	43.8	1360 J	9.28	9.40

TABLE 3A
ANALYTICAL RESULTS SUMMARY
CPT/ROST AND GEOPROBE STUDY
UNION PACIFIC RAILROAD (UPRR)
HOUSTON WOOD PRESERVING WORKS
HOUSTON, TEXAS
FEBRUARY 2013

<i>Sample Location:</i>	<i>CPT-12</i>	<i>CPT-12</i>	<i>CPT-12</i>	<i>CPT-13</i>	<i>CPT-13</i>	
<i>Sample ID:</i>	SO-1620-IM-CPT-12-13 (2.5-5)-20130213	SO-1620-IM-CPT-12-13 (5-7.5)-20130213	SO-1620-IM-CPT-12-13 (15-15.9)-20130213	SO-1620-IM-CPT-13-13 (1.5-2.5)-20130213	SO-1620-IM-CPT-13-13 (5-7.5)-20130213	
<i>Sample Date:</i>	2/13/2013	2/13/2013	2/13/2013	2/13/2013	2/13/2013	
<i>Sample Depth:</i>	2.5-5 ft BGS	5-7.5 ft BGS	15-15.9 ft BGS	1.5-2.5 ft BGS	5-7.5 ft BGS	
<i>Parameters</i>	<i>Units</i>					
<i>Volatile Organic Compounds</i>						
1,2-Dichloroethane	mg/kg	<0.00132	<0.00109	0.00496 J	0.00461 J	<0.00107
Benzene	mg/kg	0.00127 J	<0.000761	<0.000792	<0.000811	<0.000751
Chlorobenzene	mg/kg	<0.00141	<0.00116	<0.00121	<0.00124	<0.00114
Ethylbenzene	mg/kg	0.00190 J	<0.00123	<0.00128	<0.00131	<0.00122
Methylene chloride	mg/kg	<0.00557	<0.00599	<0.00740	<0.00282	<0.00474
Toluene	mg/kg	<0.00202	<0.00167	<0.00174	<0.00178	<0.00164
Xylenes (total)	mg/kg	0.00595 J	<0.00137	<0.00142	<0.00146	<0.00135
<i>Semi-volatile Organic Compounds</i>						
1,2-Diphenylhydrazine	mg/kg	<2.37	<0.00195	<0.00203	<0.209	<0.0963
2,4-Dimethylphenol	mg/kg	<12.6	<0.0103	<0.0108	<1.10	<0.510
2,4-Dinitrotoluene	mg/kg	<5.29	R	<0.00453	<0.465	<0.215
2,6-Dinitrotoluene	mg/kg	<4.32	<0.00356	<0.00370	<0.380	<0.175
2-Chloronaphthalene	mg/kg	<1.77	<0.00146	<0.00152	<0.156	<0.0719
2-Methylnaphthalene	mg/kg	32.3	<0.0033	0.00903 J	<0.353	<0.163
4,6-Dinitro-2-methylphenol	mg/kg	<7.29	R	<0.00625	<0.641	<0.296
4-Nitrophenol	mg/kg	<7.44	R	<0.00637	<0.654	<0.302
Acenaphthene	mg/kg	77.9	0.00901 JH	0.0297	<0.185	<0.0856
Acenaphthylene	mg/kg	<1.46	<0.00121	<0.00125	<0.129	<0.0594
Anthracene	mg/kg	51.9	0.0124 JL	0.0244	0.368 J	<0.0761
Benzo(a)anthracene	mg/kg	36.5	0.00890 JL	0.0196 J	1.08 J	<0.0820

TABLE 3A
ANALYTICAL RESULTS SUMMARY
CPT/ROST AND GEOPROBE STUDY
UNION PACIFIC RAILROAD (UPRR)
HOUSTON WOOD PRESERVING WORKS
HOUSTON, TEXAS
FEBRUARY 2013

<i>Sample Location:</i>	CPT-12	CPT-12	CPT-12	CPT-13	CPT-13	
<i>Sample ID:</i>	SO-1620-IM-CPT-12-13 (2.5-5)-20130213	SO-1620-IM-CPT-12-13 (5-7.5)-20130213	SO-1620-IM-CPT-12-13 (15-15.9)-20130213	SO-1620-IM-CPT-13-13 (1.5-2.5)-20130213	SO-1620-IM-CPT-13-13 (5-7.5)-20130213	
<i>Sample Date:</i>	2/13/2013	2/13/2013	2/13/2013	2/13/2013	2/13/2013	
<i>Sample Depth:</i>	2.5-5 ft BGS	5-7.5 ft BGS	15-15.9 ft BGS	1.5-2.5 ft BGS	5-7.5 ft BGS	
<i>Parameters</i>	<i>Units</i>					
<i>Semi-volatile Organic Compounds (continued)</i>						
Benzo(a)pyrene	mg/kg	14.4 J	<0.00194	<0.00202	1.88 J	<0.0957
bis(2-Chloroethoxy)methane	mg/kg	<2.08	<0.00171	<0.00178	<0.183	<0.0844
bis(2-Ethylhexyl)phthalate (DEHP)	mg/kg	<7.87	R	0.0123 J	12.7	<0.319
Chrysene	mg/kg	37.7	0.0117 JL	0.0225	1.35 J	<0.0606
Dibenzofuran	mg/kg	46.5	0.00247 JH	0.0168 J	<0.229	<0.106
Di-n-butylphthalate (DBP)	mg/kg	<3.79	<0.00312	0.00422 J	<0.333	<0.154
Fluoranthene	mg/kg	171	0.0472 JH	0.0940	2.11 J	<0.185
Fluorene	mg/kg	85.7	0.0106 JH	0.0328	<0.304	<0.140
Naphthalene	mg/kg	86.8	<0.00163	0.0208 J	<0.174	<0.0802
Nitrobenzene	mg/kg	<4.34	<0.00357	<0.00371	<0.381	<0.176
N-Nitrosodiphenylamine	mg/kg	<2.77	R	<0.00237	<0.243	<0.112
Pentachlorophenol	mg/kg	<5.86	R	<0.00502	<0.515	<0.238
Phenanthrene	mg/kg	283	0.0585 JL	0.133	0.674 J	<0.294
Phenol	mg/kg	<6.21	<0.00511	<0.00532	<0.546	<0.252
Pyrene	mg/kg	122	0.0330 JH	0.0746	3.13	<0.109

TABLE 3A

**ANALYTICAL RESULTS SUMMARY
CPT/ROST AND GEOPROBE STUDY
UNION PACIFIC RAILROAD (UPRR)
HOUSTON WOOD PRESERVING WORKS
HOUSTON, TEXAS
FEBRUARY 2013**

	<i>Sample Location:</i>	<i>CPT-12</i>	<i>CPT-12</i>	<i>CPT-12</i>	<i>CPT-13</i>	<i>CPT-13</i>
	<i>Sample ID:</i>	SO-1620-IM-CPT-12-13 (2.5-5)-20130213	SO-1620-IM-CPT-12-13 (5-7.5)-20130213	SO-1620-IM-CPT-12-13 (15-15.9)-20130213	SO-1620-IM-CPT-13-13 (1.5-2.5)-20130213	SO-1620-IM-CPT-13-13 (5-7.5)-20130213
	<i>Sample Date:</i>	2/13/2013	2/13/2013	2/13/2013	2/13/2013	2/13/2013
	<i>Sample Depth:</i>	2.5-5 ft BGS	5-7.5 ft BGS	15-15.9 ft BGS	1.5-2.5 ft BGS	5-7.5 ft BGS
<i>Parameters</i>	<i>Units</i>					
<i>Metals</i>						
Arsenic	mg/kg	37.1	1.09 J	10.7	27.0	1.57
Lead	mg/kg	2430	7.27	18.3	2360	21.6

TABLE 3A
ANALYTICAL RESULTS SUMMARY
CPT/ROST AND GEOPROBE STUDY
UNION PACIFIC RAILROAD (UPRR)
HOUSTON WOOD PRESERVING WORKS
HOUSTON, TEXAS
FEBRUARY 2013

<i>Sample Location:</i>	CPT-13	CPT-14	CPT-14	CPT-14	CPT-15	
<i>Sample ID:</i>	SO-1620-IM-CPT-13-13 (15-17.2)-20130213	SO-1620-IM-CPT-14-13 (1.4-2.5)-20120214	SO-1620-IM-CPT-14-13 (12.5-15)-20120214	SO-1620-IM-CPT-14-13 (15-16.4)-20120214	SO-1620-IM-CPT-15-13 (2-5)-20120214	
<i>Sample Date:</i>	2/13/2013	2/14/2013	2/14/2013	2/14/2013	2/14/2013	
<i>Sample Depth:</i>	15-17.2 ft BGS	1.4-2.5 ft BGS	12.5-15 ft BGS	15-16.4 ft BGS	2-5 ft BGS	
<i>Parameters</i>	<i>Units</i>					
<i>Volatile Organic Compounds</i>						
1,2-Dichloroethane	mg/kg	<0.00112	<0.00561	<0.00529	<0.00528	<0.00138
Benzene	mg/kg	<0.000783	<0.00393	0.00766 J	0.0230 J	0.00164 J
Chlorobenzene	mg/kg	<0.00119	<0.00599	<0.00565	<0.00563	<0.00148
Ethylbenzene	mg/kg	<0.00127	<0.00636	0.0505	0.159	<0.00157
Methylene chloride	mg/kg	<0.00272	<0.0137	<0.0129	<0.0128	<0.00337
Toluene	mg/kg	<0.00172	<0.00861	0.0418	0.136	<0.00212
Xylenes (total)	mg/kg	<0.00140	<0.00705	0.154	0.478	<0.00174
<i>Semi-volatile Organic Compounds</i>						
1,2-Diphenylhydrazine	mg/kg	<0.00201	<0.202	<0.190	<1.90	<2.48
2,4-Dimethylphenol	mg/kg	<0.0107	<1.07	4.94	<10.1	<13.2
2,4-Dinitrotoluene	mg/kg	<0.00448	<0.450	<0.424	<4.23	<5.54
2,6-Dinitrotoluene	mg/kg	<0.00366	<0.368	<0.347	<3.46	<4.52
2-Chloronaphthalene	mg/kg	<0.00150	<0.151	<0.142	<1.42	<1.86
2-Methylnaphthalene	mg/kg	<0.0034	2.3	22.6	39.1	11.1 J
4,6-Dinitro-2-methylphenol	mg/kg	<0.00619	<0.621	<0.586	<5.84	<7.64
4-Nitrophenol	mg/kg	<0.00631	<0.634	<0.597	<5.95	<7.79
Acenaphthene	mg/kg	<0.00179	1.43 J	16.8	31.4	19.5 J
Acenaphthylene	mg/kg	<0.00124	<0.125	0.910 J	<1.17	<1.53
Anthracene	mg/kg	<0.00159	160	8.88	25.7	20.3 J
Benzo(a)anthracene	mg/kg	0.00554 J	0.995 J	3.58	8.34 J	13.2 J

TABLE 3A
ANALYTICAL RESULTS SUMMARY
CPT/ROST AND GEOPROBE STUDY
UNION PACIFIC RAILROAD (UPRR)
HOUSTON WOOD PRESERVING WORKS
HOUSTON, TEXAS
FEBRUARY 2013

<i>Sample Location:</i>	CPT-13	CPT-14	CPT-14	CPT-14	CPT-15	
<i>Sample ID:</i>	SO-1620-IM-CPT-13-13 (15-17.2)-20130213	SO-1620-IM-CPT-14-13 (1.4-2.5)-20120214	SO-1620-IM-CPT-14-13 (12.5-15)-20120214	SO-1620-IM-CPT-14-13 (15-16.4)-20120214	SO-1620-IM-CPT-15-13 (2-5)-20120214	
<i>Sample Date:</i>	2/13/2013	2/14/2013	2/14/2013	2/14/2013	2/14/2013	
<i>Sample Depth:</i>	15-17.2 ft BGS	1.4-2.5 ft BGS	12.5-15 ft BGS	15-16.4 ft BGS	2-5 ft BGS	
<i>Parameters</i>	<i>Units</i>					
<i>Semi-volatile Organic Compounds (continued)</i>						
Benzo(a)pyrene	mg/kg	0.0134 J	<0.201	1.24 J	<1.89	7.21 J
bis(2-Chloroethoxy)methane	mg/kg	<0.00176	<0.177	<0.167	<1.66	<2.18
bis(2-Ethylhexyl)phthalate (DEHP)	mg/kg	0.0247 J	<0.670	<0.631	<6.29	<8.23
Chrysene	mg/kg	0.00587 J	2.43	3.94	11.0 J	20.5 J
Dibenzofuran	mg/kg	<0.00221	2.53	19.2	37.0	15.8 J
Di-n-butylphthalate (DBP)	mg/kg	<0.00322	<0.323	<0.305	<3.04	<3.97
Fluoranthene	mg/kg	<0.00386	4.21	22.8	46.4	80.6
Fluorene	mg/kg	<0.00293	8.77	17.5	44.5	30.3
Naphthalene	mg/kg	<0.00168	1.71 J	92.8	168	28.4
Nitrobenzene	mg/kg	<0.00368	<0.369	<0.348	<3.47	<4.54
N-Nitrosodiphenylamine	mg/kg	<0.00235	<0.236	<0.222	<2.21	<2.90
Pentachlorophenol	mg/kg	<0.00497	<0.499	<0.470	<4.69	<6.13
Phenanthrene	mg/kg	<0.00615	16.1	65.5	133	109
Phenol	mg/kg	<0.00527	<0.529	2.18	<4.97	<6.50
Pyrene	mg/kg	0.0136 J	3.53	15.3	30.8	65.9

TABLE 3A

ANALYTICAL RESULTS SUMMARY
CPT/ROST AND GEOPROBE STUDY
UNION PACIFIC RAILROAD (UPRR)
HOUSTON WOOD PRESERVING WORKS
HOUSTON, TEXAS
FEBRUARY 2013

	<i>Sample Location:</i>	CPT-13	CPT-14	CPT-14	CPT-14	CPT-15
	<i>Sample ID:</i>	SO-1620-IM-CPT-13-13 (15-17.2)-20130213	SO-1620-IM-CPT-14-13 (1.4-2.5)-20120214	SO-1620-IM-CPT-14-13 (12.5-15)-20120214	SO-1620-IM-CPT-14-13 (15-16.4)-20120214	SO-1620-IM-CPT-15-13 (2-5)-20120214
	<i>Sample Date:</i>	2/13/2013	2/14/2013	2/14/2013	2/14/2013	2/14/2013
	<i>Sample Depth:</i>	15-17.2 ft BGS	1.4-2.5 ft BGS	12.5-15 ft BGS	15-16.4 ft BGS	2-5 ft BGS
<i>Parameters</i>	<i>Units</i>					
<i>Metals</i>						
Arsenic	mg/kg	4.02	31.9 J	4.80 J	2.68 J	1.68 J
Lead	mg/kg	6.96	1330 JH	6.81 JH	11.5 JH	63.0 JH

TABLE 3A
ANALYTICAL RESULTS SUMMARY
CPT/ROST AND GEOPROBE STUDY
UNION PACIFIC RAILROAD (UPRR)
HOUSTON WOOD PRESERVING WORKS
HOUSTON, TEXAS
FEBRUARY 2013

<i>Sample Location:</i>	CPT-15	CPT-15	CPT-16	CPT-16	CPT-16	
<i>Sample ID:</i>	SO-1620-IM-CPT-15-13 (5.0-7.5)-20120214	SO-1620-IM-CPT-15-13 (15-16.2)-20120214	SO-1620-IM-CPT-16-13 (1.9-5)-20130213	SO-1620-IM-CPT-16-13 (10-12.5)-20130213	SO-1620-IM-CPT-16-13 (15-17.5)-20130213	
<i>Sample Date:</i>	2/14/2013	2/14/2013	2/13/2013	2/13/2013	2/13/2013	
<i>Sample Depth:</i>	5-7.5 ft BGS	15-16.2 ft BGS	1.9-5 ft BGS	10-12.5 ft BGS	15-17.5 ft BGS	
<i>Parameters</i>	<i>Units</i>					
<i>Volatile Organic Compounds</i>						
1,2-Dichloroethane	mg/kg	<0.00108	<0.00107	0.00486 J	0.00396 J	0.00451 JH
Benzene	mg/kg	<0.000757	0.00561 J	<0.000811	0.00303 J	0.105 JH
Chlorobenzene	mg/kg	<0.00115	<0.00114	<0.00124	<0.00113	0.0214 JH
Ethylbenzene	mg/kg	<0.00123	0.0464	<0.00131	0.599	5.92 JH
Methylene chloride	mg/kg	<0.00263	<0.00259	<0.00282	<0.00688	<0.0102 J
Toluene	mg/kg	<0.00166	0.0177	<0.00178	0.0454	0.178 JH
Xylenes (total)	mg/kg	<0.00136	0.0876	<0.00145	1.53	16.9 JH
<i>Semi-volatile Organic Compounds</i>						
1,2-Diphenylhydrazine	mg/kg	<0.194	<1.92	<0.0208	<0.0190	<0.209
2,4-Dimethylphenol	mg/kg	<1.03	<10.2	<0.110	<0.100	<1.11
2,4-Dinitrotoluene	mg/kg	<0.432	<4.27	<0.0464	<0.0423	<0.466
2,6-Dinitrotoluene	mg/kg	<0.353	<3.49	<0.0379	<0.0346	<0.381
2-Chloronaphthalene	mg/kg	<0.145	<1.43	<0.0156	<0.0142	<0.156
2-Methylnaphthalene	mg/kg	<0.328	17.3 J	<0.0352	2.52	25.2
4,6-Dinitro-2-methylphenol	mg/kg	<0.597	<5.89	<0.0640	<0.0583	<0.643
4-Nitrophenol	mg/kg	<0.609	<6.01	<0.0653	<0.0595	<0.656
Acenaphthene	mg/kg	<0.173	21.6	0.0426 J	2.44	18.1
Acenaphthylene	mg/kg	<0.120	<1.18	<0.0129	<0.0117	0.761 J
Anthracene	mg/kg	<0.153	8.11 J	0.0477 J	0.919	12.4
Benzo(a)anthracene	mg/kg	<0.165	4.00 J	0.0746 J	0.215	1.85 J

TABLE 3A
ANALYTICAL RESULTS SUMMARY
CPT/ROST AND GEOPROBE STUDY
UNION PACIFIC RAILROAD (UPRR)
HOUSTON WOOD PRESERVING WORKS
HOUSTON, TEXAS
FEBRUARY 2013

<i>Sample Location:</i>	CPT-15	CPT-15	CPT-16	CPT-16	CPT-16	
<i>Sample ID:</i>	SO-1620-IM-CPT-15-13 (5.0-7.5)-20120214	SO-1620-IM-CPT-15-13 (15-16.2)-20120214	SO-1620-IM-CPT-16-13 (1.9-5)-20130213	SO-1620-IM-CPT-16-13 (10-12.5)-20130213	SO-1620-IM-CPT-16-13 (15-17.5)-20130213	
<i>Sample Date:</i>	2/14/2013	2/14/2013	2/13/2013	2/13/2013	2/13/2013	
<i>Sample Depth:</i>	5-7.5 ft BGS	15-16.2 ft BGS	1.9-5 ft BGS	10-12.5 ft BGS	15-17.5 ft BGS	
<i>Parameters</i>	<i>Units</i>					
<i>Semi-volatile Organic Compounds (continued)</i>						
Benzo(a)pyrene	mg/kg	<0.193	<1.90	<0.0207	0.0797 J	<0.208
bis(2-Chloroethoxy)methane	mg/kg	<0.170	<1.68	<0.0183	<0.0166	<0.183
bis(2-Ethylhexyl)phthalate (DEHP)	mg/kg	<0.643	<6.35	0.0868 J	<0.0629	<0.693
Chrysene	mg/kg	<0.122	3.70 J	0.0466 J	0.229	1.57 J
Dibenzofuran	mg/kg	<0.213	18.0 J	<0.0229	1.99	22.5
Di-n-butylphthalate (DBP)	mg/kg	<0.310	<3.06	<0.0333	<0.0303	<0.334
Fluoranthene	mg/kg	<0.373	19.6 J	0.133 J	1.78	15.9
Fluorene	mg/kg	<0.283	22.0	<0.0303	2.10	18.7
Naphthalene	mg/kg	<0.162	56.5	<0.0174	9.40	118
Nitrobenzene	mg/kg	<0.355	<3.50	<0.0381	<0.0347	<0.382
N-Nitrosodiphenylamine	mg/kg	<0.226	<2.24	<0.0243	<0.0221	<0.244
Pentachlorophenol	mg/kg	<0.479	<4.73	<0.0514	<0.0469	<0.516
Phenanthrene	mg/kg	0.688 J	55.4	0.103 J	6.13	64.3
Phenol	mg/kg	<0.508	<5.02	<0.0545	<0.0497	<0.547
Pyrene	mg/kg	<0.219	13.8 J	0.130 J	1.26	10.8

TABLE 3A

ANALYTICAL RESULTS SUMMARY
CPT/ROST AND GEOPROBE STUDY
UNION PACIFIC RAILROAD (UPRR)
HOUSTON WOOD PRESERVING WORKS
HOUSTON, TEXAS
FEBRUARY 2013

	<i>Sample Location:</i>	CPT-15	CPT-15	CPT-16	CPT-16	CPT-16
	<i>Sample ID:</i>	SO-1620-IM-CPT-15-13 (5.0-7.5)-20120214	SO-1620-IM-CPT-15-13 (15-16.2)-20120214	SO-1620-IM-CPT-16-13 (1.9-5)-20130213	SO-1620-IM-CPT-16-13 (10-12.5)-20130213	SO-1620-IM-CPT-16-13 (15-17.5)-20130213
	<i>Sample Date:</i>	2/14/2013	2/14/2013	2/13/2013	2/13/2013	2/13/2013
	<i>Sample Depth:</i>	5-7.5 ft BGS	15-16.2 ft BGS	1.9-5 ft BGS	10-12.5 ft BGS	15-17.5 ft BGS
Parameters	Units					
Metals						
Arsenic	mg/kg	1.74 J	3.03 J	32.5	1.43	1.39
Lead	mg/kg	7.31 JH	9.77 JH	5460	7.83	4.64

TABLE 3A
ANALYTICAL RESULTS SUMMARY
CPT/ROST AND GEOPROBE STUDY
UNION PACIFIC RAILROAD (UPRR)
HOUSTON WOOD PRESERVING WORKS
HOUSTON, TEXAS
FEBRUARY 2013

<i>Sample Location:</i>		<i>CPT-17</i>	<i>CPT-17</i>	<i>CPT-18</i>	<i>CPT-18</i>	<i>CPT-19</i>
<i>Sample ID:</i>		<i>SO-1620-IM-CPT-17-13</i>	<i>SO-1620-IM-CPT-17-13</i>	<i>SO-1620-IM-CPT-18-13</i>	<i>SO-1620-IM-CPT-18-13</i>	<i>SO-1620-IM-CPT-19-13</i>
<i>Sample Date:</i>		<i>(2.3-5) - 20120215</i>	<i>(13-15) - 20120215</i>	<i>(1.7-5) - 20120214</i>	<i>(12.5-14.3) - 20120</i>	<i>(1.9-5.0)-0120214</i>
<i>Sample Depth:</i>		<i>2/15/2013</i>	<i>2/15/2013</i>	<i>2/14/2013</i>	<i>2/14/2013</i>	<i>2/14/2013</i>
		<i>2.3-5 ft BGS</i>	<i>13-15 ft BGS</i>	<i>1.7-5 ft BGS</i>	<i>12.5-14.3 ft BGS</i>	<i>1.9-5 ft BGS</i>
<i>Parameters</i>	<i>Units</i>					
<i>Volatile Organic Compounds</i>						
1,2-Dichloroethane	mg/kg	<0.00208	<0.00147	<0.00101	<0.00107	<0.00102
Benzene	mg/kg	0.00841 J	0.00117 J	<0.000708	<0.000751	0.00118 J
Chlorobenzene	mg/kg	<0.00222	<0.00157	<0.00108	<0.00114	<0.00109
Ethylbenzene	mg/kg	0.0197	0.0876	<0.00115	<0.00122	0.0247 J
Methylene chloride	mg/kg	0.0142 J	<0.00358	<0.00246	<0.00261	<0.00248
Toluene	mg/kg	0.0111 J	0.0406	<0.00155	<0.00164	0.00479 J
Xylenes (total)	mg/kg	0.0646	0.328	0.00192 J	<0.00135	0.0830 J
<i>Semi-volatile Organic Compounds</i>						
1,2-Diphenylhydrazine	mg/kg	<1.87	<0.132	<0.909	<0.00192	<1.83
2,4-Dimethylphenol	mg/kg	<9.90	<0.700	<4.82	<0.0102	<9.71
2,4-Dinitrotoluene	mg/kg	<4.16	<0.295	<2.03	<0.00429	<4.09
2,6-Dinitrotoluene	mg/kg	<3.40	1.47	<1.66	<0.00350	<3.34
2-Chloronaphthalene	mg/kg	<1.40	<0.0988	<0.679	<0.00144	<1.37
2-Methylnaphthalene	mg/kg	55.6	13.4	2.27 J	<0.00326	<3.1 J
4,6-Dinitro-2-methylphenol	mg/kg	<5.74	<0.407	<2.79	<0.00592	<5.64
4-Nitrophenol	mg/kg	<5.86	<0.415	<2.85	<0.00604	<5.75
Acenaphthene	mg/kg	6.54 J	12.4	2.66 J	<0.00171	4.07 J
Acenaphthylene	mg/kg	<1.15	0.358 J	<0.561	<0.00119	<1.13
Anthracene	mg/kg	41.3	6.01	70.9	0.0133 J	7.13 J
Benzo(a)anthracene	mg/kg	8.50 J	1.46	2.37 J	<0.00164	6.73 J

TABLE 3A
ANALYTICAL RESULTS SUMMARY
CPT/ROST AND GEOPROBE STUDY
UNION PACIFIC RAILROAD (UPRR)
HOUSTON WOOD PRESERVING WORKS
HOUSTON, TEXAS
FEBRUARY 2013

<i>Sample Location:</i>	CPT-17	CPT-17	CPT-18	CPT-18	CPT-19	
<i>Sample ID:</i>	SO-1620-IM-CPT-17-13 (2.3-5) - 20120215	SO-1620-IM-CPT-17-13 (13-15) - 20120215	SO-1620-IM-CPT-18-13 (1.7-5) - 20120214	SO-1620-IM-CPT-18-13 (12.5-14.3) - 20120	SO-1620-IM-CPT-19-13 (1.9-5.0)-0120214	
<i>Sample Date:</i>	2/15/2013	2/15/2013	2/14/2013	2/14/2013	2/14/2013	
<i>Sample Depth:</i>	2.3-5 ft BGS	13-15 ft BGS	1.7-5 ft BGS	12.5-14.3 ft BGS	1.9-5 ft BGS	
<i>Parameters</i>	<i>Units</i>					
<i>Semi-volatile Organic Compounds (continued)</i>						
Benzo(a)pyrene	mg/kg	14.5 J	1.13 J	6.50 J	<0.00191	2.50 J
bis(2-Chloroethoxy)methane	mg/kg	<1.64	<0.116	<0.797	<0.00169	<1.61
bis(2-Ethylhexyl)phthalate (DEHP)	mg/kg	<6.19	<0.438	<3.01	<0.00638	38.6 J
Chrysene	mg/kg	15.5 J	1.25 J	3.29 J	<0.00121	8.00 J
Dibenzofuran	mg/kg	<2.05	<0.145	3.01 J	<0.00211	<2.01 J
Di-n-butylphthalate (DBP)	mg/kg	<2.99	<0.211	<1.45	<0.00308	<2.93
Fluoranthene	mg/kg	<3.59	11.0	<1.75	<0.00369	19.3 J
Fluorene	mg/kg	11.3 J	12.0	7.79 J	<0.00280	5.24 J
Naphthalene	mg/kg	7.60 J	52.2	1.93 J	<0.00160	<1.53 J
Nitrobenzene	mg/kg	<3.41	<0.242	<1.66	<0.00352	<3.35
N-Nitrosodiphenylamine	mg/kg	<2.18	<0.154	<1.06	<0.00225	<2.14
Pentachlorophenol	mg/kg	<4.61	<0.327	<2.24	<0.00475	<4.53
Phenanthrene	mg/kg	27.1	31.5	12.4	<0.00588	34.3 J
Phenol	mg/kg	<4.89	<0.346	<2.38	<0.00504	<4.80
Pyrene	mg/kg	47.4	6.73	5.33 J	<0.00217	21.9 J

TABLE 3A

ANALYTICAL RESULTS SUMMARY
CPT/ROST AND GEOPROBE STUDY
UNION PACIFIC RAILROAD (UPRR)
HOUSTON WOOD PRESERVING WORKS
HOUSTON, TEXAS
FEBRUARY 2013

	<i>Sample Location:</i>	CPT-17	CPT-17	CPT-18	CPT-18	CPT-19
	<i>Sample ID:</i>	SO-1620-IM-CPT-17-13 (2.3-5) - 20120215	SO-1620-IM-CPT-17-13 (13-15) - 20120215	SO-1620-IM-CPT-18-13 (1.7-5) - 20120214	SO-1620-IM-CPT-18-13 (12.5-14.3) - 20120	SO-1620-IM-CPT-19-13 (1.9-5.0)-0120214
	<i>Sample Date:</i>	2/15/2013	2/15/2013	2/14/2013	2/14/2013	2/14/2013
	<i>Sample Depth:</i>	2.3-5 ft BGS	13-15 ft BGS	1.7-5 ft BGS	12.5-14.3 ft BGS	1.9-5 ft BGS
Parameters	Units					
Metals						
Arsenic	mg/kg	3.01 J	2.82 J	16.9 J	1.03 J	12.6 J
Lead	mg/kg	151	6.46	751	3.97	1170 JH

TABLE 3A

**ANALYTICAL RESULTS SUMMARY
CPT/ROST AND GEOPROBE STUDY
UNION PACIFIC RAILROAD (UPRR)
HOUSTON WOOD PRESERVING WORKS
HOUSTON, TEXAS
FEBRUARY 2013**

	<i>Sample Location:</i>	<i>CPT-19</i>	<i>CPT-19</i>	<i>CPT-20</i>	<i>CPT-20</i>
	<i>Sample ID:</i>	SO-1620-IM-CPT-DUP2- 20120214	SO-1620-IM-CPT-19-13 (7.5-10)-20120214	SO-1620-IM-CPT-20-13 (0-2.5)-0120214	SO-1620-IM-CPT-20-13 (5-7.5)-20120214
	<i>Sample Date:</i>	2/14/2013	2/14/2013	2/14/2013	2/14/2013
	<i>Sample Depth:</i>	1.9-5 ft BGS <i>Duplicate</i>	7.5-10 ft BGS	0-2.5 ft BGS	5-7.5 ft BGS
<i>Parameters</i>	<i>Units</i>				
<i>Volatile Organic Compounds</i>					
1,2-Dichloroethane	mg/kg	<0.00107	<0.00109	<0.00102	<0.00107
Benzene	mg/kg	0.00599 J	<0.000761	<0.000714	<0.000746
Chlorobenzene	mg/kg	<0.00114	<0.00116	<0.00109	<0.00114
Ethylbenzene	mg/kg	0.116 J	<0.00123	<0.00116	<0.00121
Methylene chloride	mg/kg	<0.00797	<0.00264	<0.00248	<0.00259
Toluene	mg/kg	0.0257 J	<0.00167	<0.00156	<0.00163
Xylenes (total)	mg/kg	0.391 J	<0.00136	<0.00128	<0.00134
<i>Semi-volatile Organic Compounds</i>					
1,2-Diphenylhydrazine	mg/kg	<1.93	<0.00196	<0.0183	<0.00192
2,4-Dimethylphenol	mg/kg	<10.2	<0.0104	<0.0971	<0.0102
2,4-Dinitrotoluene	mg/kg	<4.30	<0.00436	<0.0409	<0.00427
2,6-Dinitrotoluene	mg/kg	<3.51	<0.00356	<0.0334	<0.00349
2-Chloronaphthalene	mg/kg	<1.44	<0.00146	<0.0137	<0.00143
2-Methylnaphthalene	mg/kg	31.1 J	<0.00331	<0.031	<0.00324
4,6-Dinitro-2-methylphenol	mg/kg	<5.93	<0.00601	<0.0564	<0.00589
4-Nitrophenol	mg/kg	<6.05	<0.00613	<0.0575	<0.00601
Acenaphthene	mg/kg	46.2 J	0.0128 J	<0.0163	<0.00170
Acenaphthylene	mg/kg	<1.19	<0.00121	<0.0113	<0.00118
Anthracene	mg/kg	72.1 J	0.0230	0.0630 J	0.00220 J
Benzo(a)anthracene	mg/kg	51.1 J	0.0147 J	0.145 J	<0.00163

TABLE 3A

**ANALYTICAL RESULTS SUMMARY
CPT/ROST AND GEOPROBE STUDY
UNION PACIFIC RAILROAD (UPRR)
HOUSTON WOOD PRESERVING WORKS
HOUSTON, TEXAS
FEBRUARY 2013**

	<i>Sample Location:</i>	<i>CPT-19</i>	<i>CPT-19</i>	<i>CPT-20</i>	<i>CPT-20</i>
	<i>Sample ID:</i>	SO-1620-IM-CPT-DUP2- 20120214	SO-1620-IM-CPT-19-13 (7.5-10)-20120214	SO-1620-IM-CPT-20-13 (0-2.5)-0120214	SO-1620-IM-CPT-20-13 (5-7.5)-20120214
	<i>Sample Date:</i>	2/14/2013	2/14/2013	2/14/2013	2/14/2013
	<i>Sample Depth:</i>	1.9-5 ft BGS <i>Duplicate</i>	7.5-10 ft BGS	0-2.5 ft BGS	5-7.5 ft BGS
<i>Parameters</i>	<i>Units</i>				
<i>Semi-volatile Organic Compounds (continued)</i>					
Benzo(a)pyrene	mg/kg	21.1 J	0.00704 J	0.212	<0.00191
bis(2-Chloroethoxy)methane	mg/kg	<1.69	<0.00171	<0.0161	<0.00168
bis(2-Ethylhexyl)phthalate (DEHP)	mg/kg	185 J	0.0278 J	0.242 J	<0.00636
Chrysene	mg/kg	65.9 J	0.0201	0.158 J	<0.00121
Dibenzofuran	mg/kg	32.1 J	0.0124 J	<0.0201	<0.00211
Di-n-butylphthalate (DBP)	mg/kg	<3.08	<0.00313	<0.0293	<0.00307
Fluoranthene	mg/kg	208 J	0.0727	0.279	<0.00368
Fluorene	mg/kg	76.0 J	0.0247	<0.0267	<0.00279
Naphthalene	mg/kg	14.0 J	<0.00163	<0.0153	<0.00160
Nitrobenzene	mg/kg	<3.52	<0.00357	<0.0335	<0.00350
N-Nitrosodiphenylamine	mg/kg	<2.25	<0.00228	<0.0214	<0.00224
Pentachlorophenol	mg/kg	<4.76	<0.00483	<0.0453	<0.00473
Phenanthrene	mg/kg	378 J	0.117	0.242	0.00853 J
Phenol	mg/kg	<5.05	<0.00512	<0.0480	<0.00502
Pyrene	mg/kg	207 J	0.0596	0.299	<0.00217

TABLE 3A

ANALYTICAL RESULTS SUMMARY
CPT/ROST AND GEOPROBE STUDY
UNION PACIFIC RAILROAD (UPRR)
HOUSTON WOOD PRESERVING WORKS
HOUSTON, TEXAS
FEBRUARY 2013

	<i>Sample Location:</i>	<i>CPT-19</i>	<i>CPT-19</i>	<i>CPT-20</i>	<i>CPT-20</i>
	<i>Sample ID:</i>	SO-1620-IM-CPT-DUP2- 20120214	SO-1620-IM-CPT-19-13 (7.5-10)-20120214	SO-1620-IM-CPT-20-13 (0-2.5)-0120214	SO-1620-IM-CPT-20-13 (5-7.5)-20120214
	<i>Sample Date:</i>	2/14/2013	2/14/2013	2/14/2013	2/14/2013
	<i>Sample Depth:</i>	1.9-5 ft BGS Duplicate	7.5-10 ft BGS	0-2.5 ft BGS	5-7.5 ft BGS
<i>Parameters</i>	<i>Units</i>				
<i>Metals</i>					
Arsenic	mg/kg	12.3 J	1.99 J	2.49 J	1.16 J
Lead	mg/kg	952 JH	9.59 JH	118 JH	7.05 JH

TABLE 3A
ANALYTICAL RESULTS SUMMARY
CPT/ROST AND GEOPROBE STUDY
UNION PACIFIC RAILROAD (UPRR)
HOUSTON WOOD PRESERVING WORKS
HOUSTON, TEXAS
FEBRUARY 2013

<i>Sample Location:</i>	<i>CPT-21</i>	<i>CPT-21</i>	<i>CPT-22</i>	<i>CPT-22</i>	
<i>Sample ID:</i>	<i>SO-1620-IM-CPT-21-13</i> <i>(2.5-5) - 20120215</i>	<i>SO-1620-IM-CPT-21-13</i> <i>(7.5-10) - 20120215</i>	<i>SO-1620-IM-CPT-22-13</i> <i>(2.5-5) - 20120215</i>	<i>SO-1620-IM-CPT-22-13</i> <i>(7.5-10) - 20120215</i>	
<i>Sample Date:</i>	<i>2/15/2013</i>	<i>2/15/2013</i>	<i>2/15/2013</i>	<i>2/15/2013</i>	
<i>Sample Depth:</i>	<i>2.5-5 ft BGS</i>	<i>7.5-10 ft BGS</i>	<i>2.5-5 ft BGS</i>	<i>7.5-10 ft BGS</i>	
<i>Parameters</i>	<i>Units</i>				
<i>Volatile Organic Compounds</i>					
1,2-Dichloroethane	mg/kg	<0.00104	<0.00108	<0.000953	<0.00110
Benzene	mg/kg	0.00428 J	0.00150 J	<0.000667	<0.000773
Chlorobenzene	mg/kg	<0.00110	<0.00115	<0.00102	<0.00118
Ethylbenzene	mg/kg	0.106	0.118	<0.00108	<0.00125
Methylene chloride	mg/kg	<0.00252	<0.00262	<0.00232	0.00345 JH
Toluene	mg/kg	0.0159	0.00211 J	<0.00146	<0.00169
Xylenes (total)	mg/kg	0.259	0.259	<0.00120	<0.00139
<i>Semi-volatile Organic Compounds</i>					
1,2-Diphenylhydrazine	mg/kg	<0.931	<0.967	<0.0856	<0.0991
2,4-Dimethylphenol	mg/kg	<4.93	<5.12	<0.454	<0.525
2,4-Dinitrotoluene	mg/kg	<2.07	<2.15	<0.191	<0.221
2,6-Dinitrotoluene	mg/kg	<1.70	<1.76	<0.156	<0.180
2-Chloronaphthalene	mg/kg	<0.695	<0.722	<0.0640	<0.0740
2-Methylnaphthalene	mg/kg	83.5	40.2	<0.145	<0.168
4,6-Dinitro-2-methylphenol	mg/kg	<2.86	<2.97	<0.263	<0.305
4-Nitrophenol	mg/kg	<2.92	<3.03	<0.269	<0.311
Acenaphthene	mg/kg	66.2	34.6	<0.0761	<0.0881
Acenaphthylene	mg/kg	2.09 J	<0.597	<0.0529	<0.0612
Anthracene	mg/kg	50.2	22.8	0.251 J	0.195 J
Benzo(a)anthracene	mg/kg	11.5	6.10 J	<0.0730	<0.0844

TABLE 3A

**ANALYTICAL RESULTS SUMMARY
CPT/ROST AND GEOPROBE STUDY
UNION PACIFIC RAILROAD (UPRR)
HOUSTON WOOD PRESERVING WORKS
HOUSTON, TEXAS
FEBRUARY 2013**

<i>Sample Location:</i>	<i>CPT-21</i>	<i>CPT-21</i>	<i>CPT-22</i>	<i>CPT-22</i>	
<i>Sample ID:</i>	<i>SO-1620-IM-CPT-21-13 (2.5-5) - 20120215</i>	<i>SO-1620-IM-CPT-21-13 (7.5-10) - 20120215</i>	<i>SO-1620-IM-CPT-22-13 (2.5-5) - 20120215</i>	<i>SO-1620-IM-CPT-22-13 (7.5-10) - 20120215</i>	
<i>Sample Date:</i>	<i>2/15/2013</i>	<i>2/15/2013</i>	<i>2/15/2013</i>	<i>2/15/2013</i>	
<i>Sample Depth:</i>	<i>2.5-5 ft BGS</i>	<i>7.5-10 ft BGS</i>	<i>2.5-5 ft BGS</i>	<i>7.5-10 ft BGS</i>	
<i>Parameters</i>	<i>Units</i>				
<i>Semi-volatile Organic Compounds (continued)</i>					
Benzo(a)pyrene	mg/kg	8.36 J	6.74 J	<0.0851	<0.0985
bis(2-Chloroethoxy)methane	mg/kg	<0.816	<0.848	<0.0751	<0.0869
bis(2-Ethylhexyl)phthalate (DEHP)	mg/kg	<3.09	<3.21	<0.284	<0.329
Chrysene	mg/kg	10.4	4.21 J	<0.0539	<0.0624
Dibenzofuran	mg/kg	48.1	23.5	<0.0941	<0.109
Di-n-butylphthalate (DBP)	mg/kg	<1.49	<1.55	<0.137	<0.158
Fluoranthene	mg/kg	67.4	27.5	<0.164	<0.190
Fluorene	mg/kg	61.6	30.8	<0.125	0.760 J
Naphthalene	mg/kg	226	143	<0.0714	<0.0826
Nitrobenzene	mg/kg	<1.70	<1.77	<0.156	<0.181
N-Nitrosodiphenylamine	mg/kg	<1.09	<1.13	<0.0999	<0.116
Pentachlorophenol	mg/kg	<2.30	<2.39	<0.211	<0.245
Phenanthrene	mg/kg	157	67.7	<0.262	1.11
Phenol	mg/kg	<2.44	<2.53	<0.224	<0.259
Pyrene	mg/kg	41.4	20.9	0.179 J	<0.112

TABLE 3A

ANALYTICAL RESULTS SUMMARY
CPT/ROST AND GEOPROBE STUDY
UNION PACIFIC RAILROAD (UPRR)
HOUSTON WOOD PRESERVING WORKS
HOUSTON, TEXAS
FEBRUARY 2013

<i>Sample Location:</i>	<i>CPT-21</i>	<i>CPT-21</i>	<i>CPT-22</i>	<i>CPT-22</i>
<i>Sample ID:</i>	<i>SO-1620-IM-CPT-21-13</i>	<i>SO-1620-IM-CPT-21-13</i>	<i>SO-1620-IM-CPT-22-13</i>	<i>SO-1620-IM-CPT-22-13</i>
	<i>(2.5-5) - 20120215</i>	<i>(7.5-10) - 20120215</i>	<i>(2.5-5) - 20120215</i>	<i>(7.5-10) - 20120215</i>
<i>Sample Date:</i>	<i>2/15/2013</i>	<i>2/15/2013</i>	<i>2/15/2013</i>	<i>2/15/2013</i>
<i>Sample Depth:</i>	<i>2.5-5 ft BGS</i>	<i>7.5-10 ft BGS</i>	<i>2.5-5 ft BGS</i>	<i>7.5-10 ft BGS</i>

<i>Parameters</i>	<i>Units</i>				
<i>Metals</i>					
Arsenic	mg/kg	0.815 J	1.31	2.19 J	1.41 J
Lead	mg/kg	8.08	6.85	10.2	5.39

Notes:

ft BGS Feet below ground surface.

J Estimated concentration.

JH Estimated. Reported value may be biased hi

TABLE 3B

**ANALYTICAL RESULTS SUMMARY
CPT/ROST AND GEOPROBE STUDY
UNION PACIFIC RAILROAD (UPRR)
HOUSTON WOOD PRESERVING WORKS
HOUSTON, TEXAS
FEBRUARY 2013**

<i>Sample Location:</i>		<i>CPT-01</i>	<i>CPT-01</i>	<i>CPT-03</i>	<i>CPT-04</i>	<i>CPT-05</i>
<i>Sample ID:</i>		<i>WG-1620-IM-CPT-01- 13-A-20120219</i>	<i>WG-1620-IM-CPT-01- 13-B-20120219</i>	<i>WG-1620-IM-CPT-03- 13-A-20120219</i>	<i>WG-1620-IM-CPT-04- 13-A-20120218</i>	<i>WG-1620-IM-CPT-05- 13-A-20120218</i>
<i>Sample Date:</i>		<i>2/19/2013</i>	<i>2/19/2013</i>	<i>2/19/2013</i>	<i>2/18/2013</i>	<i>2/18/2013</i>
<i>Parameters</i>	<i>Units</i>					
<i>Volatile Organic Compounds</i>						
1,2-Dichloroethane	mg/L	<0.000140	<0.000140	<0.000140	<0.000140	<0.000140
Benzene	mg/L	<0.0000800	<0.0000800	<0.0000800	<0.0000800	<0.0000800
Chlorobenzene	mg/L	<0.000120	<0.000120	<0.000120	<0.000120	<0.000120
Ethylbenzene	mg/L	<0.000110	<0.000110	<0.000110	<0.000110	<0.000110
Methylene chloride	mg/L	<0.000150	<0.000150	<0.000150	<0.000150	<0.000150
Toluene	mg/L	<0.000150	<0.000150	<0.000150	<0.000150	<0.000150
Xylenes (total)	mg/L	<0.000260	<0.000260	<0.000260	0.000561 J	<0.000260
<i>Semi-volatile Organic Compounds</i>						
1,2-Diphenylhydrazine	mg/L	<0.000100	<0.000100	<0.000100	<0.000105	<0.000105
2,4-Dimethylphenol	mg/L	<0.000282	<0.000282	<0.000282	<0.000295	<0.000295
2,4-Dinitrotoluene	mg/L	<0.000118	<0.000118	<0.000118	<0.000124	<0.000124
2,6-Dinitrotoluene	mg/L	0.000489	<0.0000727	<0.0000727	<0.0000762	<0.0000762
2-Chloronaphthalene	mg/L	<0.0000727	<0.0000727	<0.0000727	<0.0000762	<0.0000762
2-Methylnaphthalene	mg/L	<0.0000636	<0.0000636	0.000110 J	<0.0000667	<0.0000667
4,6-Dinitro-2-methylphenol	mg/L	<0.000755	<0.000755	<0.000755	<0.000790	<0.000790
4-Nitrophenol	mg/L	<0.000509	<0.000509	<0.000509	<0.000533	<0.000533
Acenaphthene	mg/L	<0.0000727	<0.0000727	<0.0000727	<0.0000762	<0.0000762
Acenaphthylene	mg/L	<0.0000545	<0.0000545	<0.0000545	<0.0000571	<0.0000571
Anthracene	mg/L	0.000123 J	0.0000891 J	0.000326 J	<0.0000476	<0.0000476
Benzo(a)anthracene	mg/L	<0.0000727	<0.0000727	0.0000727 J	<0.0000762	<0.0000762
Benzo(a)pyrene	mg/L	<0.0000727	<0.0000727	<0.0000727	<0.0000762	<0.0000762
bis(2-Chloroethoxy)methane	mg/L	<0.000118	<0.000118	<0.000118	<0.000124	<0.000124

TABLE 3B

**ANALYTICAL RESULTS SUMMARY
CPT/ROST AND GEOPROBE STUDY
UNION PACIFIC RAILROAD (UPRR)
HOUSTON WOOD PRESERVING WORKS
HOUSTON, TEXAS
FEBRUARY 2013**

<i>Sample Location:</i>		<i>CPT-01</i>	<i>CPT-01</i>	<i>CPT-03</i>	<i>CPT-04</i>	<i>CPT-05</i>
<i>Sample ID:</i>		<i>WG-1620-IM-CPT-01-13-A-20120219</i>	<i>WG-1620-IM-CPT-01-13-B-20120219</i>	<i>WG-1620-IM-CPT-03-13-A-20120219</i>	<i>WG-1620-IM-CPT-04-13-A-20120218</i>	<i>WG-1620-IM-CPT-05-13-A-20120218</i>
<i>Sample Date:</i>		<i>2/19/2013</i>	<i>2/19/2013</i>	<i>2/19/2013</i>	<i>2/18/2013</i>	<i>2/18/2013</i>
<i>Parameters</i>	<i>Units</i>					
<i>Semi-volatile Organic Compounds (continued)</i>						
bis(2-Ethylhexyl)phthalate (DEHP)	mg/L	0.00157	0.000632	0.000848	0.00104	0.000664
Chrysene	mg/L	<0.0000727	<0.0000727	<0.0000727	<0.0000762	<0.0000762
Dibenzofuran	mg/L	<0.0000727	<0.0000727	<0.0000727	<0.0000762	<0.0000762
Di-n-butylphthalate (DBP)	mg/L	0.00129	0.000769	0.00130	0.000780	0.000717
Fluoranthene	mg/L	<0.0000636	<0.0000636	<0.0000636	<0.0000667	<0.0000667
Fluorene	mg/L	<0.0000636	<0.0000636	<0.0000636	<0.0000667	<0.0000667
Naphthalene	mg/L	<0.0000727	<0.0000727	0.000142 J	<0.0000762	<0.0000762
Nitrobenzene	mg/L	<0.000100	<0.000100	<0.000100	<0.000105	<0.000105
N-Nitrosodiphenylamine	mg/L	<0.0000909	<0.0000909	<0.0000909	<0.0000952	<0.0000952
Pentachlorophenol	mg/L	<0.000555	<0.000555	<0.000555	<0.000581	<0.000581
Phenanthrene	mg/L	0.0000599 J	<0.0000545	0.000237 J	0.000114 J	<0.0000571
Phenol	mg/L	<0.0000364	<0.0000364	<0.0000364	<0.0000381	<0.0000381
Pyrene	mg/L	<0.000100	<0.000100	0.000122 J	<0.000105	<0.000105

TABLE 3B

**ANALYTICAL RESULTS SUMMARY
CPT/ROST AND GEOPROBE STUDY
UNION PACIFIC RAILROAD (UPRR)
HOUSTON WOOD PRESERVING WORKS
HOUSTON, TEXAS
FEBRUARY 2013**

<i>Sample Location:</i>		<i>CPT-06</i>	<i>CPT-08</i>	<i>CPT-08</i>	<i>CPT-09</i>
<i>Sample ID:</i>		<i>WG-1620-IM-CPT-06- 13-A-20120218</i>	<i>WG-1620-IM-CPT-08- 13-A-20120219</i>	<i>WG-1620-IM-CPT- DUP1-20120219</i>	<i>WG-1620-IM-CPT-09- 13A-20130213</i>
<i>Sample Date:</i>		<i>2/18/2013</i>	<i>2/19/2013</i>	<i>2/19/2013</i> <i>Duplicate</i>	<i>2/13/2013</i>
<i>Parameters</i>	<i>Units</i>				
<i>Volatile Organic Compounds</i>					
1,2-Dichloroethane	mg/L	<0.000140	<0.000140	<0.000140	<0.000140
Benzene	mg/L	0.000110 J	0.117	0.111	0.0399
Chlorobenzene	mg/L	<0.000120	<0.000120	<0.000120	<0.000120
Ethylbenzene	mg/L	<0.000110	0.0733	0.0684	0.00646
Methylene chloride	mg/L	<0.000150	<0.000150	<0.000150	<0.000150
Toluene	mg/L	<0.000150	0.00296	0.00305	0.000888 J
Xylenes (total)	mg/L	0.000879 J	0.0807	0.0788	0.0146
<i>Semi-volatile Organic Compounds</i>					
1,2-Diphenylhydrazine	mg/L	<0.000105	<0.00500	<0.00500	<0.00519
2,4-Dimethylphenol	mg/L	<0.000295	0.636	0.632	<0.0146
2,4-Dinitrotoluene	mg/L	<0.000124	<0.00591	<0.00591	<0.00613
2,6-Dinitrotoluene	mg/L	<0.0000762	<0.00364	<0.00364	<0.00377
2-Chloronaphthalene	mg/L	<0.0000762	<0.00364	<0.00364	<0.00377
2-Methylnaphthalene	mg/L	0.000234 J	0.456	0.465	0.338
4,6-Dinitro-2-methylphenol	mg/L	<0.000790	<0.0377	<0.0377	<0.0392
4-Nitrophenol	mg/L	<0.000533	<0.0255	<0.0255	<0.0264
Acenaphthene	mg/L	0.0551	0.247	0.252	0.224
Acenaphthylene	mg/L	<0.0000571	<0.00273	<0.00273	<0.00283
Anthracene	mg/L	0.00270	0.0111 J	0.0107 J	0.0184 J
Benzo(a)anthracene	mg/L	0.000186 J	<0.00364	<0.00364	<0.00377
Benzo(a)pyrene	mg/L	<0.0000762	<0.00364	<0.00364	<0.00377
bis(2-Chloroethoxy)methane	mg/L	<0.000124	<0.00591	<0.00591	<0.00613

TABLE 3B

**ANALYTICAL RESULTS SUMMARY
CPT/ROST AND GEOPROBE STUDY
UNION PACIFIC RAILROAD (UPRR)
HOUSTON WOOD PRESERVING WORKS
HOUSTON, TEXAS
FEBRUARY 2013**

<i>Sample Location:</i>		<i>CPT-06</i>	<i>CPT-08</i>	<i>CPT-08</i>	<i>CPT-09</i>
<i>Sample ID:</i>		<i>WG-1620-IM-CPT-06- 13-A-20120218</i>	<i>WG-1620-IM-CPT-08- 13-A-20120219</i>	<i>WG-1620-IM-CPT- DUP1-20120219</i>	<i>WG-1620-IM-CPT-09- 13A-20130213</i>
<i>Sample Date:</i>		<i>2/18/2013</i>	<i>2/19/2013</i>	<i>2/19/2013</i>	<i>2/13/2013</i>
<i>Parameters</i>	<i>Units</i>			<i>Duplicate</i>	
<i>Semi-volatile Organic Compounds (continued)</i>					
bis(2-Ethylhexyl)phthalate (DEHP)	mg/L	0.000922	<0.0168	<0.0168	<0.0175
Chrysene	mg/L	0.000169 J	<0.00364	<0.00364	<0.00377
Dibenzofuran	mg/L	<0.0000762	0.0834	0.0866	0.0720
Di-n-butylphthalate (DBP)	mg/L	<0.000105	<0.00500	<0.00500	<0.00519
Fluoranthene	mg/L	0.000973	<0.00318	<0.00318	<0.00330
Fluorene	mg/L	0.0170	0.134	0.141	0.121
Naphthalene	mg/L	0.000283 J	3.56	3.41	0.0609 J
Nitrobenzene	mg/L	<0.000105	<0.00500	<0.00500	<0.00519
N-Nitrosodiphenylamine	mg/L	<0.0000952	<0.00455	<0.00455	<0.00472
Pentachlorophenol	mg/L	<0.000581	<0.0277	<0.0277	<0.0288
Phenanthrene	mg/L	0.00143	0.0615	0.0608	0.101
Phenol	mg/L	<0.0000381	<0.00182	<0.00182	<0.00189
Pyrene	mg/L	0.000784	<0.00500	<0.00500	0.0102 J

Notes:

J Estimated concentration.

TABLE 4
QUALIFIED SAMPLE RESULTS DUE TO ANALYTE CONCENTRATIONS IN THE METHOD BLANKS
CPT/ROST AND GEOPROBE STUDY
UNION PACIFIC RAILROAD (UPRR)
HOUSTON WOOD PRESERVING WORKS
HOUSTON, TEXAS
FEBRUARY 2013

<i>Parameter</i>	<i>Analyte</i>	<i>Analysis Date</i>	<i>Blank Result *</i>	<i>Sample ID</i>	<i>Original Result</i>	<i>Qualified Result</i>	<i>Units</i>
VOCs	Methylene chloride	02/12/13	0.002448	SO-1620-IM-CPT-01-13(10-12.5)-20130211	0.0137	0.0137 U	mg/Kg
				SO-1620-IM-CPT-01-13(17.5-20)-20130211	0.0146	0.0146 U	mg/Kg
				SO-1620-IM-CPT-01-13(2-5)-20130211	0.0127	0.0127 U	mg/Kg
				SO-1620-IM-CPT-02-13(12.5-15)-20130211	0.0250	0.0250 U	mg/Kg
				SO-1620-IM-CPT-02-13(2.5-5.0)-20130211	0.0202	0.0202 U	mg/Kg
				SO-1620-IM-CPT-03-13(12.5-13.5)-20130211	0.0202	0.0202 U	mg/Kg
				SO-1620-IM-CPT-03-13(2.5-5)-20130211	0.0184	0.0184 U	mg/Kg
				SO-1620-IM-CPT-04-13(10-12.5)-20130211	0.0217	0.0217 U	mg/Kg
				SO-1620-IM-CPT-04-13(2.5-5)-20130211	0.0182	0.0182 U	mg/Kg
VOCs	Methylene chloride	02/13/13	0.00596	SO-1620-IM-CPT-06-13 (13-15)-20130212	0.0126	0.0126 U	mg/Kg
				SO-1620-IM-CPT-08-13 (2.5-5)-20130212	0.00258 J	0.00258 U	mg/Kg
VOCs	Methylene chloride	02/14/13	0.00228	SO-1620-IM-CPT-11-13 (10-12.5)-20130212	0.00290 J	0.00290 U	mg/Kg
				SO-1620-IM-CPT-12-13 (15-15.9)-20130213	0.00740 J	0.00740 U	mg/Kg
				SO-1620-IM-CPT-12-13 (2.5-5)-20130213	0.00557 J	0.00557 U	mg/Kg
				SO-1620-IM-CPT-12-13 (5-7.5)-20130213	0.00599 J	0.00599 U	mg/Kg
				SO-1620-IM-CPT-13-13 (5-7.5)-20130213	0.00474 J	0.00474 U	mg/Kg
				SO-1620-IM-CPT-16-13 (10-12.5)-20130213	0.00688 J	0.00688 U	mg/Kg
				SO-1620-IM-CPT-16-13 (15-17.5)-20130213	0.0102 J	0.0102 U	mg/Kg
VOCs	Methylene chloride	02/15/13	0.008241	SO-1620-IM-CPT-DUP2-20120214	0.00797 J	0.00797 U	mg/Kg

Notes:

* Blank result adjusted for sample factors where applicable.

J Estimated.

U Not detected at the associated reporting limit.

VOCs Volatile organic compounds.

TABLE 5
QUALIFIED SAMPLE DATA DUE TO OUTLYING OF SURROGATE RECOVERIES
CPT/ROST AND GEOPROBE STUDY
UNION PACIFIC RAILROAD (UPRR)
HOUSTON WOOD PRESERVING WORKS
HOUSTON, TEXAS
FEBRUARY 2013

<i>Parameter</i>	<i>Sample ID</i>	<i>Surrogate</i>	<i>Surrogate Recovery (percent)</i>	<i>Control Limits (percent)</i>	<i>Analyte</i>	<i>Qualified Result</i>	<i>Units</i>
VOCs	SO-1620-IM-CPT-16-13 (15-17.5)-20130213	4-Bromofluorobenzene 1,2-Dichloroethane-d4	155 133	57-140 61-130	1,2-Dichloroethane	0.00451 JH	mg/kg
					Benzene	0.105 JH	mg/kg
					Chlorobenzene	0.0214 JH	mg/kg
					Toluene	0.178 JH	mg/kg
					Ethylbenzene	5920 JH	mg/kg
Xylenes (total)	16900 JH	mg/kg					
VOCs	SO-1620-IM-CPT-22-13 (7.5-10) - 20120215	4-Bromofluorobenzene	159	57-140	Methylene chloride	0.00345 JH	mg/kg
VOCs	SO-1620-IM-CPT-10-13 (2-5) - 20120215 SO-1620-IM-CPT-10-13 (2-5) - 20120215 SO-1620-IM-CPT-10-13 (2-5) - 20120215 SO-1620-IM-CPT-10-13 (2-5) - 20120215	4-Bromofluorobenzene	151	57-140	Benzene	0.000950 JH	mg/kg
					Ethylbenzene	0.00289 JH	mg/kg
					Toluene	0.00261 JH	mg/kg
					Xylenes (total)	0.0180 JH	mg/kg

Notes:

- JH Estimated. Reported value may be biased high.
VOCs Volatile organic compounds.

TABLE 6
QUALIFIED SAMPLE RESULTS DUE TO OUTLYING INTERNAL STANDARD (IS) RECOVERIES
CPT/ROST AND GEOPROBE STUDY
UNION PACIFIC RAILROAD (UPRR)
HOUSTON WOOD PRESERVING WORKS
HOUSTON, TEXAS
FEBRUARY 2013

<i>Parameter</i>	<i>Sample ID</i>	<i>Internal Standard</i>	<i>IS Area Count (percent)</i>	<i>Control Limits (percent)</i>	<i>Analytes</i>	<i>Qualified Result</i>	<i>Units</i>
VOCs	SO-1620-IM-CPT-16-13 (15-17.5)-20130213	Pentafluorobenzene	36	50-200	1,2-Dichloroethane	0.00451 JH	mg/kg
		1,4-Difluorobenzene	37		Benzene	0.105 JH	mg/kg
		Chlorobenzene-d5	44		Chlorobenzene	0.0214 JH	mg/kg
		1,4-Dichlorobenzene-d4	39		Methylene chloride	0.0102 UJ	mg/kg
						Toluene	0.178 JH

Notes:

JH Estimated. Reported value may be biased high.

UJ The analyte was not detected above the sample quantitation limit. The reported quantitation limit is an estimated quantity.

VOCs Volatile organic compounds.

TABLE 7

**QUALIFIED SAMPLE RESULTS DUE TO OUTLYING MATRIX SPIKE/MATRIX SPIKE DUPLICATE RESULTS
CPT/ROST AND GEOPROBE STUDY
UNION PACIFIC RAILROAD (UPRR)
HOUSTON WOOD PRESERVING WORKS
HOUSTON, TEXAS
FEBRUARY 2013**

<i>Parameter</i>	<i>Sample ID</i>	<i>Analyte</i>	<i>MS</i>	<i>MSD</i>	<i>RPD</i>	<i>Control Limits</i>		<i>Qualified</i>	<i>Units</i>
			<i>% Recovery</i>	<i>% Recovery</i>	<i>(percent)</i>	<i>% Recovery</i>	<i>RPD</i>	<i>Result</i>	
SVOCs	SO-1620-IM-CPT-12-13 (5-7.5)-20130213	2,4-Dinitrotoluene	80	0	NC	10-129	0-30	R	mg/Kg
		4,6-Dinitro-2-methylphenol	58	0	NC	10-104	0-30	R	mg/Kg
		4-Nitrophenol	70	0	NC	25-122	0-30	R	mg/Kg
		Acenaphthene	93	3452	189	25-134	0-30	0.00901 JH	mg/Kg
		Anthracene	84	0	NC	35-115	0-30	0.0124 JL	mg/Kg
		Benzo(a)anthracene	85	0	NC	38-128	0-30	0.00890 JL	mg/Kg
		bis(2-Ethylhexyl)phthalate (DEHP)	90	0	NC	44-139	0-30	R	mg/Kg
		Chrysene	86	0	NC	36-130	0-30	0.0117 JL	mg/Kg
		Dibenzofuran	87	1769	181	35-125	0-30	0.00247 JH	mg/Kg
		Fluoranthene	95	7463	194	37-132	0-30	0.0472 JH	mg/Kg
		Fluorene	96	4689	192	36-122	0-30	0.0106 JH	mg/Kg
		N-Nitrosodiphenylamine	97	0	NC	28-106	0-30	R	mg/Kg
		Pentachlorophenol	44	0	NC	25-124	0-30	R	mg/Kg
		Phenanthrene	105	0	NC	26-126	0-30	0.0585 JL	mg/Kg
Pyrene	104	4951	191	28-138	0-30	0.0330 JH	mg/Kg		
Metals	SO-1620-IM-CPT-14-13 (1.4-2.5)-20120214	Lead	104	157	36	75-125	0-20	1330 JH	mg/Kg
	SO-1620-IM-CPT-14-13 (12.5-15)-20120214							6.81 JH	mg/Kg
	SO-1620-IM-CPT-14-13 (15-16.4)-20120214							11.5 JH	mg/Kg
	SO-1620-IM-CPT-15-13 (15-16.2)-20120214							9.77 JH	mg/Kg
	SO-1620-IM-CPT-15-13 (2-5)-20120214							63.0 JH	mg/Kg

TABLE 7

**QUALIFIED SAMPLE RESULTS DUE TO OUTLYING MATRIX SPIKE/MATRIX SPIKE DUPLICATE RESULTS
CPT/ROST AND GEOPROBE STUDY
UNION PACIFIC RAILROAD (UPRR)
HOUSTON WOOD PRESERVING WORKS
HOUSTON, TEXAS
FEBRUARY 2013**

<i>Parameter</i>	<i>Sample ID</i>	<i>Analyte</i>	<i>MS</i>	<i>MSD</i>	<i>RPD</i>	<i>Control Limits</i>		<i>Qualified Result</i>	<i>Units</i>
			<i>% Recovery</i>	<i>% Recovery</i>	<i>(percent)</i>	<i>% Recovery</i>	<i>RPD</i>		
Metals	SO-1620-IM-CPT-15-13 (5.0-7.5)-20120214	Lead	104	157	36	75-125	0-20	7.31 JH	mg/Kg
	SO-1620-IM-CPT-19-13 (7.5-10)-20120214							9.59 JH	mg/Kg
	SO-1620-IM-CPT-20-13 (0-2.5)-0120214							118 JH	mg/Kg
	SO-1620-IM-CPT-20-13 (5-7.5)-20120214							7.05 JH	mg/Kg
	SO-1620-IM-CPT-19-13 (1.9-5.0)-0120214							1170 JH	mg/Kg
	SO-1620-IM-CPT-DUP2-20120214							952 JH	mg/Kg

Notes:

- JH Estimated. Reported value may be biased high.
- JL Estimated. Reported value may be biased low.
- MS Matrix spike.
- MSD Matrix spike duplicate.
- R Rejected.
- RPD Relative percent difference.
- SVOCs Semi volatile organic compounds.

TABLE 8

**QUALIFIED SAMPLE DATA DUE TO OUTLYING LABORATORY DUPLICATE RESULTS
CPT/ROST AND GEOPROBE STUDY
UNION PACIFIC RAILROAD (UPRR)
HOUSTON WOOD PRESERVING WORKS
HOUSTON, TEXAS
FEBRUARY 2013**

<i>Parameter</i>	<i>Sample ID</i>	<i>Analyte</i>	<i>RPD</i>		<i>Associated Sample IDs</i>	<i>Qualified Result</i>	<i>Units</i>
			<i>RPD (percent)</i>	<i>Control Limit (percent)</i>			
Metals	SO-1620-IM-CPT-01-13(17.5-20)-20130211	Arsenic	126	0-20	SO-1620-IM-CPT-01-13(10-12.5)-20130211	2.12 J	mg/kg
					SO-1620-IM-CPT-01-13(17.5-20)-20130211	6.72 J	mg/kg
					SO-1620-IM-CPT-01-13(2-5)-20130211	3.95 J	mg/kg
					SO-1620-IM-CPT-02-13(12.5-15)-20130211	2.22 J	mg/kg
					SO-1620-IM-CPT-02-13(2.5-5.0)-20130211	1.17 J	mg/kg
					SO-1620-IM-CPT-03-13-(12.5-13.5)-20130211	4.28 J	mg/kg
					SO-1620-IM-CPT-03-13(2.5-5)-20130211	1.38 J	mg/kg
					SO-1620-IM-CPT-04-13(10-12.5)-20130211	3.72 J	mg/kg
					SO-1620-IM-CPT-04-13(2.5-5)-20130211	2.13 J	mg/kg
Metals	SO-1620-IM-CPT-01-13(17.5-20)-20130211	Lead	76	0-20	SO-1620-IM-CPT-01-13(10-12.5)-20130211	8.24 J	mg/kg
					SO-1620-IM-CPT-01-13(17.5-20)-20130211	12.1 J	mg/kg
					SO-1620-IM-CPT-01-13(2-5)-20130211	8.03 J	mg/kg
					SO-1620-IM-CPT-02-13(12.5-15)-20130211	4.92 J	mg/kg
					SO-1620-IM-CPT-02-13(2.5-5.0)-20130211	7.22 J	mg/kg
					SO-1620-IM-CPT-03-13-(12.5-13.5)-20130211	8.12 J	mg/kg
					SO-1620-IM-CPT-03-13(2.5-5)-20130211	15.2 J	mg/kg
					SO-1620-IM-CPT-04-13(10-12.5)-20130211	5.87 J	mg/kg
					SO-1620-IM-CPT-04-13(2.5-5)-20130211	9.15 J	mg/kg

TABLE 8
QUALIFIED SAMPLE DATA DUE TO OUTLYING LABORATORY DUPLICATE RESULTS
CPT/ROST AND GEOPROBE STUDY
UNION PACIFIC RAILROAD (UPRR)
HOUSTON WOOD PRESERVING WORKS
HOUSTON, TEXAS
FEBRUARY 2013

<i>Parameter</i>	<i>Sample ID</i>	<i>Analyte</i>	<i>RPD</i>		<i>Associated Sample IDs</i>	<i>Qualified Result</i>	<i>Units</i>
			<i>RPD (percent)</i>	<i>Control Limit (percent)</i>			
Metals	SO-1620-IM-CPT-08-13 (15-16)-20130212	Arsenic	83	0-20	SO-1620-IM-CPT-05-13 (4-5)-20130212	3.18 J	mg/kg
					SO-1620-IM-CPT-05-13 (7.5-10)-20130212	1.08 J	mg/kg
					SO-1620-IM-CPT-06-13 (13-15)-20130212	1.07 J	mg/kg
					SO-1620-IM-CPT-06-13 (3-5)-20130212	17.5 J	mg/kg
					SO-1620-IM-CPT-07-13 (2.5-5)-20130212	1.90 J	mg/kg
					SO-1620-IM-CPT-07-13 (7.5-10)-20130212	2.77 J	mg/kg
					SO-1620-IM-CPT-08-13 (15-16)-20130212	7.88 J	mg/kg
					SO-1620-IM-CPT-08-13 (2.5-5)-20130212	1.00 J	mg/kg
					SO-1620-IM-CPT-08-13 (5-7.5)-20130212	1.66 J	mg/kg
					SO-1620-IM-CPT-09-13 (15-15.7)-20130212	1.04 J	mg/kg
					SO-1620-IM-CPT-09-13 (2.5-5)-20130212	12.4 J	mg/kg
					SO-1620-IM-CPT-09-13 (5-7.5)-20130212	1.35 J	mg/kg
SO-1620-IM-CPT-11-13 (1.4-2.5)-20130212	28.2 J	mg/kg					
Metals	SO-1620-IM-CPT-06-13 (13-15)-20130212	Lead	27	0-20	SO-1620-IM-CPT-05-13 (4-5)-20130212	15.3 J	mg/kg
					SO-1620-IM-CPT-05-13 (7.5-10)-20130212	1.96 J	mg/kg
					SO-1620-IM-CPT-06-13 (13-15)-20130212	4.17 J	mg/kg
					SO-1620-IM-CPT-06-13 (3-5)-20130212	1490 J	mg/kg
					SO-1620-IM-CPT-07-13 (2.5-5)-20130212	8.78 J	mg/kg
					SO-1620-IM-CPT-07-13 (7.5-10)-20130212	2.44 J	mg/kg
					SO-1620-IM-CPT-08-13 (15-16)-20130212	21.5 J	mg/kg
					SO-1620-IM-CPT-08-13 (2.5-5)-20130212	10.4 J	mg/kg
					SO-1620-IM-CPT-08-13 (5-7.5)-20130212	23.5 J	mg/kg
					SO-1620-IM-CPT-09-13 (15-15.7)-20130212	4.31 J	mg/kg
					SO-1620-IM-CPT-09-13 (2.5-5)-20130212	1240 J	mg/kg
					SO-1620-IM-CPT-09-13 (5-7.5)-20130212	27.6 J	mg/kg
SO-1620-IM-CPT-11-13 (1.4-2.5)-20130212	1360 J	mg/kg					

TABLE 8

**QUALIFIED SAMPLE DATA DUE TO OUTLYING LABORATORY DUPLICATE RESULTS
CPT/ROST AND GEOPROBE STUDY
UNION PACIFIC RAILROAD (UPRR)
HOUSTON WOOD PRESERVING WORKS
HOUSTON, TEXAS
FEBRUARY 2013**

<i>Parameter</i>	<i>Sample ID</i>	<i>Analyte</i>	<i>RPD</i>		<i>Associated Sample IDs</i>	<i>Qualified Result</i>	<i>Units</i>
			<i>RPD (percent)</i>	<i>Control Limit (percent)</i>			
Metals	SO-1620-IM-CPT-14-13 (12.5-15)-20120214	Arsenic	68	0-20	SO-1620-IM-CPT-14-13 (1.4-2.5)-20120214	31.9 J	mg/kg
					SO-1620-IM-CPT-14-13 (12.5-15)-20120214	4.80 J	mg/kg
					SO-1620-IM-CPT-14-13 (15-16.4)-20120214	2.68 J	mg/kg
					SO-1620-IM-CPT-15-13 (15-16.2)-20120214	3.03 J	mg/kg
					SO-1620-IM-CPT-15-13 (2-5)-20120214	1.68 J	mg/kg
					SO-1620-IM-CPT-15-13 (5.0-7.5)-20120214	1.74 J	mg/kg
					SO-1620-IM-CPT-19-13 (1.9-5.0)-0120214	12.6 J	mg/kg
					SO-1620-IM-CPT-DUP2-20120214	12.3 J	mg/kg
					SO-1620-IM-CPT-19-13 (7.5-10)-20120214	1.99 J	mg/kg
					SO-1620-IM-CPT-20-13 (0-2.5)-0120214	2.49 J	mg/kg
					SO-1620-IM-CPT-20-13 (5-7.5)-20120214	1.16 J	mg/kg
Metals	SO-1620-IM-CPT-14-13 (12.5-15)-20120214	Lead	31	0-20	SO-1620-IM-CPT-14-13 (1.4-2.5)-20120214	1330 J	mg/kg
					SO-1620-IM-CPT-14-13 (12.5-15)-20120214	6.81 J	mg/kg
					SO-1620-IM-CPT-14-13 (15-16.4)-20120214	11.5 J	mg/kg
					SO-1620-IM-CPT-15-13 (15-16.2)-20120214	9.77 J	mg/kg
					SO-1620-IM-CPT-15-13 (2-5)-20120214	63.0 J	mg/kg
					SO-1620-IM-CPT-15-13 (5.0-7.5)-20120214	7.31 J	mg/kg
					SO-1620-IM-CPT-19-13 (7.5-10)-20120214	9.59 J	mg/kg
					SO-1620-IM-CPT-20-13 (0-2.5)-0120214	118 J	mg/kg
					SO-1620-IM-CPT-20-13 (5-7.5)-20120214	7.05 J	mg/kg
					SO-1620-IM-CPT-19-13 (1.9-5.0)-0120214	1170 J	mg/kg
					SO-1620-IM-CPT-DUP2-20120214	952 J	mg/kg

TABLE 8

**QUALIFIED SAMPLE DATA DUE TO OUTLYING LABORATORY DUPLICATE RESULTS
CPT/ROST AND GEOPROBE STUDY
UNION PACIFIC RAILROAD (UPRR)
HOUSTON WOOD PRESERVING WORKS
HOUSTON, TEXAS
FEBRUARY 2013**

<i>Parameter</i>	<i>Sample ID</i>	<i>Analyte</i>	<i>RPD</i>		<i>Associated Sample IDs</i>	<i>Qualified Result</i>	<i>Units</i>
			<i>RPD</i> (percent)	<i>Control Limit</i> (percent)			
Metals	SO-1620-IM-CPT-17-13 (13-15) - 20120215	Arsenic	62	0-20	SO-1620-IM-CPT-10-13 (2-5) - 20120215	9.73 J	mg/kg
					SO-1620-IM-CPT-10-13 (5-7.5) - 20120215	7.24 J	mg/kg
					SO-1620-IM-CPT-17-13 (13-15) - 20120215	2.82 J	mg/kg
					SO-1620-IM-CPT-17-13 (2.3-5) - 20120215	3.01 J	mg/kg
					SO-1620-IM-CPT-18-13 (1.7-5) - 20120214	16.9 J	mg/kg
					SO-1620-IM-CPT-18-13 (12.5-14.3) - 20120	1.03 J	mg/kg
					SO-1620-IM-CPT-21-13 (2.5-5) - 20120215	0.815 J	mg/kg
					SO-1620-IM-CPT-22-13 (2.5-5) - 20120215	2.19 J	mg/kg
					SO-1620-IM-CPT-22-13 (7.5-10) - 20120215	1.41 J	mg/kg

Notes:

- J Estimated.
- RPD Relative percent difference.

TABLE 9
QUALIFIED SAMPLE DATA DUE TO VARIABILITY IN FIELD DUPLICATE RESULTS
CPT/ROST AND GEOPROBE STUDY
UNION PACIFIC RAILROAD (UPRR)
HOUSTON WOOD PRESERVING WORKS
HOUSTON, TEXAS
FEBRUARY 2013

<i>Parameter</i>	<i>Analyte</i>	<i>RPD</i>	<i>Sample ID</i>	<i>Qualified Result</i>	<i>Field Duplicate Sample ID</i>	<i>Qualified Result</i>	<i>Units</i>
VOCs	Benzene	134	SO-1620-IM-CPT-19-13 (1.9-5.0)-0120214	0.00118 J	SO-1620-IM-CPT-DUP2-20120214	0.00599 J	mg/kg
	Ethylbenzene	130		0.0247 J		0.116 J	mg/kg
	Toluene	137		0.00479 J		0.0257 J	mg/kg
	Xylenes (total)	130		0.0830 J		0.391 J	mg/kg
SVOCs	2-Methylnaphthalene	164	SO-1620-IM-CPT-19-13 (1.9-5.0)-0120214	3100 UJ	SO-1620-IM-CPT-DUP2-20120214	31100 J	mg/kg
	Acenaphthene	168		4.07 J		46.2 J	mg/kg
	Anthracene	164		7.13 J		72.1 J	mg/kg
	Benzo(a)anthracene	153		6.73 J		51.1 J	mg/kg
	Benzo(a)pyrene	158		2.50 J		21.1 J	mg/kg
	bis(2-Ethylhexyl)phthalate	131		38.6 J		185 J	mg/kg
	Chrysene	157		8.00 J		65.9 J	mg/kg
	Dibenzofuran	176		2.01 UJ		32.1 J	mg/kg
	Fluoranthene	166		19.3 J		208 J	mg/kg
	Fluorene	174		5.24 J		76.0 J	mg/kg
	Naphthalene	161		1.53 UJ		14.0 J	mg/kg
	Phenanthrene	167		34.3 J		378 J	mg/kg
	Pyrene	162		21.9 J		207 J	mg/kg

Notes:

- J Estimated.
- RPD Relative percent difference.
- UJ The analyte was not detected above the sample quantitation limit. The reported quantitation limit is an estimated quantity.

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Houston
6310 Rothway Street
Houston, TX 77040
Tel: (713)690-4444

TestAmerica Job ID: 600-68443-1

Client Project/Site: 1620 UPRR HWPW

For:

Pastor, Behling & Wheeler LLC
2201 Double Creek Dr
Suite 4004
Round Rock, Texas 78664

Attn: Mr. Eric Matzner



Authorized for release by:

2/27/2013 5:06:48 PM

Cathy Upton

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Designee for

Sachin Kudchadkar

Project Manager II

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LINKS

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The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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2

3

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5

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9

10

11

12

13

14

15

16

17



Table of Contents

Cover Page	1
Table of Contents	2
TRRP Cover Page	3
TRRP Checklists & DCSs	4
Case Narrative	18
Method Summary	19
Sample Summary	20
Client Sample Results	21
Definitions/Glossary	33
Surrogate Summary	34
QC Sample Results	35
Default Detection Limits	41
QC Association Summary	42
Lab Chronicle	45
Certification Summary	48
Chain of Custody	49
Receipt Checklists	50

Job Number: 600-68443-1
Project Name/Number: 1620 UPRR HWPW

This Data Package consists of:

This signature page, the laboratory review checklist, and the following Reportable Data:

- R1 Field Chain-of-Custody Form
- R2 Sample Identification Cross-reference;
- R3 Test Reports (Analytical Data Sheets) for each environmental sample that includes:
 - a) Items consistent with NELAC Chapter 5
 - b) dilution factors,
 - c) preparation methods,
 - d) cleanup methods, and
 - e) if required for the project, tentatively identified compounds (TICs).
- R4 Surrogate Recovery Data including:
 - a) Calculated recovery (%R), and
 - b) The laboratory's surrogate QC limits.
- R5 Test Reports/Summary Forms for Blank Samples;
- R6 Test Reports/Summary Forms for Laboratory Control Samples (LCSs) including:
 - a) LCS spiking amounts,
 - b) Calculated %R for each analyte, and
 - d) The laboratory's LCS QC limits
- R7 Test Reports for Matrix Spike/Matrix Spike Duplicates (MS/MSDs) including:
 - a) Samples associated with the MS/MSD clearly identified,
 - b) MS/MSD spiking amounts,
 - c) Concentration of each MS/MSD analyte measured in the parent and spiked sample,
 - d) Calculated %Rs and relative percent differences (RPDs), and
 - e) The laboratory's MS/MSD QC limits
- R8 Laboratory analytical duplicates (if applicable) recovery and precision, including:
 - a) the amount of analyte measured in the duplicate,
 - b) the calculated RPD, and
 - c) the laboratory's QC limits for analytical duplicates.
- R9 List of method quantitation limit (MQL) and detectability check sample results for each analyte for each method and matrix;
- R10 Other problems or anomalies

The exception report for each "No" or "Not Reviewed (NR)" item in the Laboratory Review Checklist and for each analyte, matrix, and method for which the laboratory does not hold NELAC accreditation under the Texas Laboratory Accreditation Program.

Release Statement: I am responsible for the release of this laboratory data package. This laboratory is NELAC accredited under Texas laboratory Accreditation Program for all the methods, analytes, and matrices reported in this data package except as noted in the Exception Reports. The data have been reviewed and are technically compliant with the requirements of the methods used, except where noted by the laboratory in the Exception Reports. By my signature below, I affirm, to the best of my knowledge, that all problems/anomalies observed by the laboratory have been identified in the Laboratory Review Checklist, and no information affecting the quality of the data has been knowingly withheld.

Cathy Upton
Name (printed)
Data Delivery Analyst
Official Title (printed)


Signature

02/27/2013
Date

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Appendix A (cont'd): Laboratory Review Checklist: Reportable Data							
Laboratory Name: TestAmerica-Houston			LRC Date: 02/25/13				
Project Name: 1620 UPRR HWPW			Laboratory Job Number: 600-68443				
Reviewer Name: TWR			Prep Batch Number(s): 600-99453- ICP				
# ¹	A ²	Description	Yes	No	NA ³	NR ⁴	ER# ⁵
R1	OI	Chain-of-custody (C-O-C)					
		Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?	X				
		Were all departures from standard conditions described in an exception report?			X		
R2	OI	Sample and quality control (QC) identification					
		Are all field sample ID numbers cross-referenced to the laboratory ID numbers?	X				
		Are all laboratory ID numbers cross-referenced to the corresponding QC data?	X				
R3	OI	Test reports					
		Were all samples prepared and analyzed within holding times?	X				
		Other than those results < MQL, were all other raw values bracketed by calibration standards?	X				
		Were calculations checked by a peer or supervisor?	X				
		Were all analyte identifications checked by a peer or supervisor?	X				
		Were sample detection limits reported for all analytes not detected?	X				
		Were all results for soil and sediment samples reported on a dry weight basis?	X				
		Were % moisture (or solids) reported for all soil and sediment samples?	X				
		Were bulk soil/solid samples for volatile analysis extracted with methanol per SW846 Method 5035?			X		
		If required for the project, TICs reported?			X		
R4	O	Surrogate recovery data					
		Were surrogates added prior to extraction?			X		
		Were surrogate percent recoveries in all samples within the laboratory QC limits?			X		
R5	OI	Test reports/summary forms for blank samples					
		Were appropriate type(s) of blanks analyzed?	X				
		Were blanks analyzed at the appropriate frequency?	X				
		Were method blanks taken through the entire analytical process, including preparation and, if applicable, cleanup procedures?	X				
		Were blank concentrations < MQL?	X				
R6	OI	Laboratory control samples (LCS):					
		Were all COCs included in the LCS?	X				
		Was each LCS taken through the entire analytical procedure, including prep and cleanup steps?	X				
		Were LCSs analyzed at the required frequency?	X				
		Were LCS (and LCSD, if applicable) %Rs within the laboratory QC limits?	X				
		Does the detectability check sample data document the laboratory's capability to detect the COCs at the MDL used to calculate the SDLs?	X				
		Was the LCSD RPD within QC limits?			X		
R7	OI	Matrix spike (MS) and matrix spike duplicate (MSD) data					
		Were the project/method specified analytes included in the MS and MSD?	X				
		Were MS/MSD analyzed at the appropriate frequency?	X				
		Were MS (and MSD, if applicable) %Rs within the laboratory QC limits?	X				
		Were MS/MSD RPDs within laboratory QC limits?	X				
R8	OI	Analytical duplicate data					
		Were appropriate analytical duplicates analyzed for each matrix?	X				
		Were analytical duplicates analyzed at the appropriate frequency?	X				
		Were RPDs or relative standard deviations within the laboratory QC limits?		X			1
R9	OI	Method quantitation limits (MQLs):					
		Are the MQLs for each method analyte included in the laboratory data package?	X				
		Do the MQLs correspond to the concentration of the lowest non-zero calibration standard?	X				
		Are unadjusted MQLs and DCSs included in the laboratory data package?	X				
R10	OI	Other problems/anomalies					
		Are all known problems/anomalies/special conditions noted in this LRC and ER?	X				
		Was applicable and available technology used to lower the SDL to minimize the matrix interference affects on the sample results?	X				
		Is the laboratory NELAC-accredited under the Texas Laboratory Accreditation Program for the analytes, matrices and methods associated with this laboratory data package?	X				

- Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.
- O = organic analyses; I = inorganic analyses (and general chemistry, when applicable);
- NA = Not applicable;
- NR = Not reviewed;
- ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

Appendix A (cont'd): Laboratory Review Checklist: Reportable Data									
Laboratory Name: TestAmerica-Houston					LRC Date: 02/25/13				
Project Name: 1620 UPRR HWPW					Laboratory Job Number: 600-68443				
Reviewer Name: TWR					Prep Batch Number(s): 600-99453- ICP				
# ¹	A ²	Description	Yes	No	NA ³	NR ⁴	ER# ⁵		
S1	OI	Initial calibration (ICAL)							
		Were response factors and/or relative response factors for each analyte within QC limits?			X				
		Were percent RSDs or correlation coefficient criteria met?			X				
		Was the number of standards recommended in the method used for all analytes?	X						
		Were all points generated between the lowest and highest standard used to calculate the curve?			X				
		Are ICAL data available for all instruments used?	X						
		Has the initial calibration curve been verified using an appropriate second source standard?	X						
S2	OI	Initial and continuing calibration verification (ICCV and CCV) and continuing calibration							
		Was the CCV analyzed at the method-required frequency?	X						
		Were percent differences for each analyte within the method-required QC limits?	X						
		Was the ICAL curve verified for each analyte?	X						
		Was the absolute value of the analyte concentration in the inorganic CCB < MDL?	X						
S3	O	Mass spectral tuning:							
		Was the appropriate compound for the method used for tuning?			X				
		Were ion abundance data within the method-required QC limits?			X				
S4	O	Internal standards (IS):							
		Were IS area counts and retention times within the method-required QC limits?			X				
S5	OI	Raw data (NELAC section 5.5.10)							
		Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?	X						
		Were data associated with manual integrations flagged on the raw data?			X				
S6	O	Dual column confirmation							
		Did dual column confirmation results meet the method-required QC?			X				
S7	O	Tentatively identified compounds (TICs):							
		If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?			X				
S8	I	Interference Check Sample (ICS) results:							
		Were percent recoveries within method QC limits?	X						
S9	I	Serial dilutions, post digestion spikes, and method of standard additions							
		Were percent differences, recoveries, and the linearity within the QC limits specified in the method?				X	2		
S10	OI	Method detection limit (MDL) studies							
		Was a MDL study performed for each reported analyte?	X						
		Is the MDL either adjusted or supported by the analysis of DCSs?	X						
S11	OI	Proficiency test reports:							
		Was the laboratory's performance acceptable on the applicable proficiency tests or evaluation studies?	X						
S12	OI	Standards documentation							
		Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?	X						
S13	OI	Compound/analyte identification procedures							
		Are the procedures for compound/analyte identification documented?	X						
S14	OI	Demonstration of analyst competency (DOC)							
		Was DOC conducted consistent with NELAC Chapter 5?	X						
		Is documentation of the analyst's competency up-to-date and on file?	X						
S15	OI	Verification/validation documentation for methods (NELAC Chapter 5)							
		Are all the methods used to generate the data documented, verified, and validated, where applicable?	X						
S16	OI	Laboratory standard operating procedures (SOPs):							
		Are laboratory SOPs current and on file for each method performed?	X						

- 1 Items identified by the letter "R" should be included in the laboratory data package submitted to the TCEQ in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.
- 2 O = organic analyses; I = inorganic analyses (and general chemistry, when applicable).
- 3 NA = Not applicable.
- 4 NR = Not Reviewed.
- 5 ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

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Appendix A (cont'd): Laboratory Review Checklist: Exception Reports	
Laboratory Name: TestAmerica-Houston	LRC Date: 02/25/13
Project Name: 1620 UPRR HWPW	Laboratory Job Number: 600-68443
Reviewer Name: TWR	Prep Batch Number(s): 600-99453- ICP
ER #¹	DESCRIPTION
1	The arsenic and lead RPDs between samples 68443-3 and 68443-3 MD were above acceptance limits due to the non-homogenous nature of the samples.
2	The laboratory selected a sample from another group to perform as the PDS and SD.

ER# = Exception Report identification number (an Exception Report should be completed for an item if “NR” or “No” is checked on the LRC)

Appendix A (cont'd): Laboratory Review Checklist: Reportable Data							
Laboratory Name: TestAmerica-Houston			LRC Date: 02/18/13				
Project Name: 1620 UPRR HWPW			Laboratory Job Number: 600-68443				
Reviewer Name: YX			Prep Batch Number: 600-99418-VOA				
# ¹	A ²	Description	Yes	No	NA ³	NR ⁴	ER# ⁵
R1	OI	Chain-of-custody (C-O-C)					
		Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?	X				
		Were all departures from standard conditions described in an exception report?			X		
R2	OI	Sample and quality control (QC) identification					
		Are all field sample ID numbers cross-referenced to the laboratory ID numbers?	X				
		Are all laboratory ID numbers cross-referenced to the corresponding QC data?	X				
R3	OI	Test reports					
		Were all samples prepared and analyzed within holding times?	X				
		Other than those results < MQL, were all other raw values bracketed by calibration standards?	X				
		Were calculations checked by a peer or supervisor?	X				
		Were all analyte identifications checked by a peer or supervisor?	X				
		Were sample detection limits reported for all analytes not detected?	X				
		Were all results for soil and sediment samples reported on a dry weight basis?	X				
		Were % moisture (or solids) reported for all soil and sediment samples?	X				
		Were bulk soil/solid samples for volatile analysis extracted with methanol per SW846 Method 5035?			X		
		If required for the project, TICs reported?			X		
R4	O	Surrogate recovery data					
		Were surrogates added prior to extraction?	X				
		Were surrogate percent recoveries in all samples within the laboratory QC limits?	X				
R5	OI	Test reports/summary forms for blank samples					
		Were appropriate type(s) of blanks analyzed?	X				
		Were blanks analyzed at the appropriate frequency?	X				
		Were method blanks taken through the entire analytical process, including preparation and, if applicable, cleanup procedures?	X				
		Were blank concentrations < MQL?	X				1
R6	OI	Laboratory control samples (LCS):					
		Were all COCs included in the LCS?	X				
		Was each LCS taken through the entire analytical procedure, including prep and cleanup steps?	X				
		Were LCSs analyzed at the required frequency?	X				
		Were LCS (and LCSD, if applicable) %Rs within the laboratory QC limits?	X				
		Does the detectability check sample data document the laboratory's capability to detect the COCs at the MDL used to calculate the SDLs?	X				
		Was the LCSD RPD within QC limits?			X		
R7	OI	Matrix spike (MS) and matrix spike duplicate (MSD) data					
		Were the project/method specified analytes included in the MS and MSD?	X				
		Were MS/MSD analyzed at the appropriate frequency?	X				
		Were MS (and MSD, if applicable) %Rs within the laboratory QC limits?			X		2
		Were MS/MSD RPDs within laboratory QC limits?			X		2
R8	OI	Analytical duplicate data					
		Were appropriate analytical duplicates analyzed for each matrix?			X		
		Were analytical duplicates analyzed at the appropriate frequency?			X		
		Were RPDs or relative standard deviations within the laboratory QC limits?			X		
R9	OI	Method quantitation limits (MQLs):					
		Are the MQLs for each method analyte included in the laboratory data package?	X				
		Do the MQLs correspond to the concentration of the lowest non-zero calibration standard?	X				
		Are unadjusted MQLs and DCSs included in the laboratory data package?	X				
R10	OI	Other problems/anomalies					
		Are all known problems/anomalies/special conditions noted in this LRC and ER?	X				
		Was applicable and available technology used to lower the SDL to minimize the matrix interference affects on the sample results?	X				
		Is the laboratory NELAC-accredited under the Texas Laboratory Accreditation Program for the analytes, matrices and methods associated with this laboratory data package?	X				

- Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.
- O = organic analyses; I = inorganic analyses (and general chemistry, when applicable);
- NA = Not applicable;
- NR = Not reviewed;
- ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

Appendix A (cont'd): Laboratory Review Checklist: Reportable Data									
Laboratory Name: TestAmerica-Houston					LRC Date: 02/18/13				
Project Name: 1620 UPRR HWPW					Laboratory Job Number: 600-68443				
Reviewer Name: YX					Prep Batch Number: 600-99418-VOA				
# ¹	A ²	Description	Yes	No	NA ³	NR ⁴	ER# ⁵		
S1	OI	Initial calibration (ICAL)							
		Were response factors and/or relative response factors for each analyte within QC limits?	X						
		Were percent RSDs or correlation coefficient criteria met?	X						
		Was the number of standards recommended in the method used for all analytes?	X						
		Were all points generated between the lowest and highest standard used to calculate the curve?	X						
		Are ICAL data available for all instruments used?	X						
		Has the initial calibration curve been verified using an appropriate second source standard?	X						
S2	OI	Initial and continuing calibration verification (ICCV and CCV) and continuing calibration							
		Was the CCV analyzed at the method-required frequency?	X						
		Were percent differences for each analyte within the method-required QC limits?	X						
		Was the ICAL curve verified for each analyte?	X						
		Was the absolute value of the analyte concentration in the inorganic CCB < MDL?				X			
S3	O	Mass spectral tuning:							
		Was the appropriate compound for the method used for tuning?	X						
		Were ion abundance data within the method-required QC limits?	X						
S4	O	Internal standards (IS):							
		Were IS area counts and retention times within the method-required QC limits?	X						
S5	OI	Raw data (NELAC section 5.5.10)							
		Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?	X						
		Were data associated with manual integrations flagged on the raw data?	X						
S6	O	Dual column confirmation							
		Did dual column confirmation results meet the method-required QC?				X			
S7	O	Tentatively identified compounds (TICs):							
		If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?				X			
S8	I	Interference Check Sample (ICS) results:							
		Were percent recoveries within method QC limits?				X			
S9	I	Serial dilutions, post digestion spikes, and method of standard additions							
		Were percent differences, recoveries, and the linearity within the QC limits specified in the method?				X			
S10	OI	Method detection limit (MDL) studies							
		Was a MDL study performed for each reported analyte?	X						
		Is the MDL either adjusted or supported by the analysis of DCSs?	X						
S11	OI	Proficiency test reports:							
		Was the laboratory's performance acceptable on the applicable proficiency tests or evaluation studies?	X						
S12	OI	Standards documentation							
		Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?	X						
S13	OI	Compound/analyte identification procedures							
		Are the procedures for compound/analyte identification documented?	X						
S14	OI	Demonstration of analyst competency (DOC)							
		Was DOC conducted consistent with NELAC Chapter 5?	X						
		Is documentation of the analyst's competency up-to-date and on file?	X						
S15	OI	Verification/validation documentation for methods (NELAC Chapter 5)							
		Are all the methods used to generate the data documented, verified, and validated, where applicable?	X						
S16	OI	Laboratory standard operating procedures (SOPs):							
		Are laboratory SOPs current and on file for each method performed?	X						

- 1 Items identified by the letter "R" should be included in the laboratory data package submitted to the TCEQ in the TRRP-required report(s).
- 2 Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.
- 3 O = organic analyses; I = inorganic analyses (and general chemistry, when applicable).
- 4 NA = Not applicable.
- 5 NR = Not Reviewed.
- 6 ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

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Appendix A (cont'd): Laboratory Review Checklist: Exception Reports	
Laboratory Name: TestAmerica-Houston	LRC Date: 02/18/13
Project Name: 1620 UPRR HWPW	Laboratory Job Number: 600-68443
Reviewer Name: YX	Prep Batch Number: 600-99418-VOA
ER #¹	DESCRIPTION
1	Methylene chloride was detected above the MDL, but below the MQL in the method blank. This analyte is a recognized potential laboratory contaminant. The level of detection is below the recommended reporting limit and the appropriate flags have been applied to the report.
2	The laboratory selected a sample from another group to perform as the MS/MSD.

ER# = Exception Report identification number (an Exception Report should be completed for an item if “NR” or “No” is checked on the LRC)

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Appendix A (cont'd): Laboratory Review Checklist: Reportable Data							
Laboratory Name: TestAmerica-Houston			LRC Date: 02/26/13				
Project Name: 1620 UPRR HWPW			Laboratory Job Number 600-68443				
Reviewer Name: JOH			Prep Batch Number(s): 600-99481 - SV				
# ¹	A ²	Description	Yes	No	NA ³	NR ⁴	ER# ⁵
R1	OI	Chain-of-custody (C-O-C)					
		Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?	X				
		Were all departures from standard conditions described in an exception report?			X		
R2	OI	Sample and quality control (QC) identification					
		Are all field sample ID numbers cross-referenced to the laboratory ID numbers?	X				
		Are all laboratory ID numbers cross-referenced to the corresponding QC data?	X				
R3	OI	Test reports					
		Were all samples prepared and analyzed within holding times?	X				
		Other than those results < MQL, were all other raw values bracketed by calibration standards?	X				
		Were calculations checked by a peer or supervisor?	X				
		Were all analyte identifications checked by a peer or supervisor?	X				
		Were sample detection limits reported for all analytes not detected?	X				
		Were all results for soil and sediment samples reported on a dry weight basis?	X				
		Were % moisture (or solids) reported for all soil and sediment samples?	X				
		Were bulk soil/solid samples for volatile analysis extracted with methanol per SW846 Method 5035?			X		
		If required for the project, TICs reported?			X		
R4	O	Surrogate recovery data					
		Were surrogates added prior to extraction?	X				
		Were surrogate percent recoveries in all samples within the laboratory QC limits?		X			1
R5	OI	Test reports/summary forms for blank samples					
		Were appropriate type(s) of blanks analyzed?	X				
		Were blanks analyzed at the appropriate frequency?	X				
		Were method blanks taken through the entire analytical process, including preparation and, if applicable, cleanup procedures?	X				
		Were blank concentrations < MQL?	X				
R6	OI	Laboratory control samples (LCS):					
		Were all COCs included in the LCS?	X				
		Was each LCS taken through the entire analytical procedure, including prep and cleanup steps?	X				
		Were LCSs analyzed at the required frequency?	X				
		Were LCS (and LCSD, if applicable) %Rs within the laboratory QC limits?	X				
		Does the detectability check sample data document the laboratory's capability to detect the COCs at the MDL used to calculate the SDLs?	X				
		Was the LCSD RPD within QC limits?			X		
R7	OI	Matrix spike (MS) and matrix spike duplicate (MSD) data					
		Were the project/method specified analytes included in the MS and MSD?	X				
		Were MS/MSD analyzed at the appropriate frequency?	X				
		Were MS (and MSD, if applicable) %Rs within the laboratory QC limits?	X				
		Were MS/MSD RPDs within laboratory QC limits?	X				
R8	OI	Analytical duplicate data					
		Were appropriate analytical duplicates analyzed for each matrix?			X		
		Were analytical duplicates analyzed at the appropriate frequency?			X		
		Were RPDs or relative standard deviations within the laboratory QC limits?			X		
R9	OI	Method quantitation limits (MQLs):					
		Are the MQLs for each method analyte included in the laboratory data package?	X				
		Do the MQLs correspond to the concentration of the lowest non-zero calibration standard?	X				
		Are unadjusted MQLs and DCSs included in the laboratory data package?	X				
R10	OI	Other problems/anomalies					
		Are all known problems/anomalies/special conditions noted in this LRC and ER?	X				
		Was applicable and available technology used to lower the SDL to minimize the matrix interference affects on the sample results?	X				2
		Is the laboratory NELAC-accredited under the Texas Laboratory Accreditation Program for the analytes, matrices and methods associated with this laboratory data package?	X				

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- NA = Not applicable;
- NR = Not reviewed;
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Appendix A (cont'd): Laboratory Review Checklist: Reportable Data									
Laboratory Name: TestAmerica-Houston					LRC Date: 02/26/13				
Project Name: 1620 UPRR HWPW					Laboratory Job Number 600-68443				
Reviewer Name: JOH					Prep Batch Number(s): 600-99481 - SV				
# ¹	A ²	Description	Yes	No	NA ³	NR ⁴	ER# ⁵		
S1	OI	Initial calibration (ICAL)							
		Were response factors and/or relative response factors for each analyte within QC limits?	X						
		Were percent RSDs or correlation coefficient criteria met?	X						
		Was the number of standards recommended in the method used for all analytes?	X						
		Were all points generated between the lowest and highest standard used to calculate the curve?	X						
		Are ICAL data available for all instruments used?	X						
		Has the initial calibration curve been verified using an appropriate second source standard?	X						
S2	OI	Initial and continuing calibration verification (ICCV and CCV) and continuing calibration							
		Was the CCV analyzed at the method-required frequency?	X						
		Were percent differences for each analyte within the method-required QC limits?	X						
		Was the ICAL curve verified for each analyte?	X						
		Was the absolute value of the analyte concentration in the inorganic CCB < MDL?				X			
S3	O	Mass spectral tuning:							
		Was the appropriate compound for the method used for tuning?				X			
		Were ion abundance data within the method-required QC limits?				X			
S4	O	Internal standards (IS):							
		Were IS area counts and retention times within the method-required QC limits?				X			
S5	OI	Raw data (NELAC section 5.5.10)							
		Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?	X						
		Were data associated with manual integrations flagged on the raw data?	X						
S6	O	Dual column confirmation							
		Did dual column confirmation results meet the method-required QC?				X			
S7	O	Tentatively identified compounds (TICs):							
		If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?				X			
S8	I	Interference Check Sample (ICS) results:							
		Were percent recoveries within method QC limits?				X			
S9	I	Serial dilutions, post digestion spikes, and method of standard additions							
		Were percent differences, recoveries, and the linearity within the QC limits specified in the method?				X			
S10	OI	Method detection limit (MDL) studies							
		Was a MDL study performed for each reported analyte?	X						
		Is the MDL either adjusted or supported by the analysis of DCSs?	X						
S11	OI	Proficiency test reports:							
		Was the laboratory's performance acceptable on the applicable proficiency tests or evaluation studies?	X						
S12	OI	Standards documentation							
		Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?	X						
S13	OI	Compound/analyte identification procedures							
		Are the procedures for compound/analyte identification documented?	X						
S14	OI	Demonstration of analyst competency (DOC)							
		Was DOC conducted consistent with NELAC Chapter 5?	X						
		Is documentation of the analyst's competency up-to-date and on file?	X						
S15	OI	Verification/validation documentation for methods (NELAC Chapter 5)							
		Are all the methods used to generate the data documented, verified, and validated, where applicable?	X						
S16	OI	Laboratory standard operating procedures (SOPs):							
		Are laboratory SOPs current and on file for each method performed?	X						

- 1 Items identified by the letter "R" should be included in the laboratory data package submitted to the TCEQ in the TRRP-required report(s).
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Appendix A (cont'd): Laboratory Review Checklist: Exception Reports	
Laboratory Name: TestAmerica-Houston	LRC Date: 02/26/13
Project Name: 1620 UPRR HWPW	Laboratory Job Number 600-68443
Reviewer Name: JOH	Prep Batch Number(s): 600-99481 - SV
ER #¹	DESCRIPTION
1	Surrogate (TBP) recoveries for samples 600-68443-1, 6 and 9 were outside control limits. Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.
2	All of the SDLs in samples 600-68443-1, 6 and 9 were elevated due to the nature of the sample matrix.

ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked on the LRC)

Detection Check Standard

Matrix: Solid
Method: 8260B
Preparation: Wei Shen
Date Analyzed: 10/9/2012
Date Prepared: 10/9/2012
TALs Batches: K28205.D
Units: ug/Kg

Analyte	MDL	DCS Spike	Measured Result	MQL
Dichlorodifluoromethane	1.54	2.5	1.57	5
Chloromethane	1.66	2.5	2.85	10
Vinyl Chloride	0.9	2.5	2.86	10
Bromomethane	0.83	2.5	2.54	10
Chloroethane	1.4	2.5	3.11	10
Trichlorofluoromethane	0.66	2.5	2.92	10
Acrolein	1.39	2.5	17.79	5
1,1-Dichloroethene	1.22	2.5	3.06	5
Trichlorotrifluoromethane	0.66	2.5	3.02	10
Acetone	1.66	2.5	0.026	5
Methyl Iodide	2.5	5	8.55	5
2-Propanol	27.47	2.5	85.83	5
Carbon Disulfide	0.55	2.5	6.35	10
Acetonitrile	1.39	2.5	6.05	10
Allyl chloride	1.39	2.5	5.73	5
Methylene Chloride	2.19	5	2.38	10
Acrylonitrile	5.82	5	21.17	25
trans-1,2-Dichloroethene	1.14	2.5	3.05	5
Methyl tert-butyl ether	1.83	2.5	2.92	5
1,1-Dichloroethane	0.87	2.5	3.11	5
Vinyl Acetate	0.93	2.5	5.79	5
Chloroprene	2.71	5	7.68	5
cis-1,2-Dichloroethene	0.83	2.5	3.22	5
1,2-Dichloroethene (total)	1.9	2.5	6.27	10
2,2-Dichloropropane	1.82	2.5	2.95	5
2-Butanone	1.9	2.5	6.25	5
Propionitrile	2.36	5	9.5	5
Methacrylonitrile	5	5	8.06	5
Bromochloromethane	1.78	2.5	3.03	5
Chloroform	0.66	2.5	3.48	5
1,1,1-Trichloroethane	0.74	2.5	3.13	5
1,1-Dichloropropene	0.65	2.5	3.25	5
Carbon Tetrachloride	1.13	2.5	3.19	5
Isobutyl alcohol	17.16	5	21.72	5
Benzene	0.63	2.5	3.18	5
1,2-Dichloroethane	0.9	2.5	3.35	5
Trichloroethene	1.4	2.5	3.24	5
1,2-Dichloropropane	0.71	2.5	3.01	5
Methyl methacrylate	2.86	5	4.06	10



Methylene Bromide	0.75	2.5	3.02	5
1,4-Dioxane	62.07	250	133.4	500
Bromodichloromethane	0.66	2.5	2.98	5
2-Chloroethyl vinyl ether	0.98	2.5	5.97	10
cis-1,3-Dichloropropene	0.54	2.5	3.02	5
Toluene	1.38	2.5	3.32	5
trans-1,3-Dichloropropene	0.58	2.5	2.96	5
Ethyl methacrylate	1.66	2.5	5.65	5
1,1,2-Trichloroethane	0.73	2.5	2.97	5
1,3-Dichloropropane	0.63	2.5	3.23	5
Tetrachloroethene	1.4	2.5	3.03	5
2-Hexanone	1.01	2.5	5.68	10
Dibromochloromethane	0.94	2.5	2.86	5
1,2-Dibromoethane	6.54	5	4.2	10
Chlorobenzene	0.96	2.5	3.1	5
1,1,1,2-Tetrachloroethane	1.4	2.5	2.99	5
Ethylbenzene	1.02	2.5	3	5
m,p-Xylene	1.52	2.5	6.04	10
o-Xylene	1.13	2.5	3	5
Xylenes (total)	1.13	2.5	9.05	5
Styrene	0.71	2.5	2.97	5
Bromoform	1.37	2.5	2.56	5
Isopropylbenzene	0.92	2.5	2.9	5
trans-1,4-Dichloro-2-butene	1.9	2.5	5.17	5
Bromobenzene	0.99	2.5	3.05	5
n-Propylbenzene	0.95	2.5	2.96	5
2-Chlorotoluene	0.68	2.5	3.07	5
4-Chlorotoluene	0.83	2.5	2.99	5
1,3,5-Trimethylbenzene	1.6	2.5	2.85	5
tert-Butylbenzene	0.95	2.5	2.88	5
1,2,4-Trimethylbenzene	0.92	2.5	2.93	5
sec-Butylbenzene	0.7	2.5	2.94	5
1,3-Dichlorobenzene	0.71	2.5	3.04	5
1,4-Dichlorobenzene	0.66	2.5	3.03	5
1,2-Dichlorobenzene	0.8	2.5	2.97	5
p-Isopropyltoluene	0.63	2.5	2.77	5
n-Butylbenzene	0.58	2.5	2.84	5
1,2,3-Trichloropropane	1.31	2.5	2.82	5
1,2,4-Trichlorobenzene	1.97	2.5	4.09	5
Hexachlorobutadiene	1.13	2.5	5.72	5
1,2,3-Trichlorobenzene	0.62	2.5	3.3	5
Naphthalene	2.37	5	4.44	10

**Quality Control Report
Detection Check Standard**

Matrix: Soil
 Method: 8270C LL
 Preparation: 3550B
 Date Analyzed: 10/18/2012
 Date Prepared: 10/11/2012
 Lab Sample ID: 600-90857_18-a
 Units: ug/Kg

Analyte	MDL	DCS Spike	DCS Result	MQL
Pyridine	3.52	8.35	1.08	16.67
N-Nitrosodimethylamine	30.71	16.7	11.97	16.67
Aniline	2.98	8.35	2.33	16.67
Phenol	4.24	8.35	7.91	16.67
bis(2-Chloroethyl)ether	1.65	8.35	7.29	16.67
2-Chlorophenol	1.97	8.35	7.54	16.67
1,3-Dichlorobenzene	1.54	8.35	7.19	16.67
1,4-Dichlorobenzene	2.25	8.35	6.84	16.67
1,2-Dichlorobenzene	3.02	8.35	7.29	16.67
Benzyl alcohol	5.83	16.7	9.50	16.67
2-Methylphenol	3.23	8.35	6.07	16.67
m&p-Cresols	2.79	8.35	4.59	33.33
bis (2-Chloroisopropyl) ether	8.84	16.7	13.41	16.67
N-Nitroso-di-n-propylamine	2.22	8.35	6.29	16.67
Hexachloroethane	2.31	8.35	8.47	16.67
Nitrobenzene	2.96	8.35	7.35	16.67
Isophorone	5	8.35	6.03	16.67
2-Nitrophenol	3.89	8.35	3.94	16.67
Benzoic acid	32.76	33.4	220.80	83.33
2,4-Dimethylphenol	8.58	16.7	9.79	16.67
bis(2-Chloroethoxy)methane	1.42	8.35	5.19	16.67
2,4-Dichlorophenol	8.58	16.7	9.48	16.67
1,2,4-Trichlorobenzene	2.1	8.35	7.92	16.67
Naphthalene	1.35	8.35	6.35	16.67
4-Chloroaniline	5.82	8.35	3.69	16.67
Hexachlorobutadiene	1.92	8.35	5.91	16.67
4-Chloro-3-methylphenol	15.58	16.7	8.00	16.67
2-Methylnaphthalene	2.74	8.35	5.53	16.67
1-Methylnaphthalene	1.57	8.35	6.53	16.67
Hexachlorocyclopentadiene	4.61	8.35	14.08	16.67
2,4,6-Trichlorophenol	2.68	8.35	5.54	16.67
2,4,5-Trichlorophenol	10.01	16.7	8.68	16.67
2-Chloronaphthalene	1.21	8.35	6.26	16.67
2-Nitroaniline	4.89	8.35	4.10	16.67
Dimethylphthalate	4.89	8.35	5.80	16.67
1,4 Dinitrobenzene	16.67	8.35	14.23	16.67
1,3- Dinitrobenzene	2.96	8.35	13.00	16.67
1,2-Dinitrobenzene	16.67	8.35	4.73	16.67
Acenaphthylene	5	8.35	6.86	16.67

2,6-Dinitrotoluene	2.95	8.35	8.78	16.67
3-Nitroaniline	7.15	8.35	3.09	16.67
Acenaphthene	1.44	8.35	6.03	16.67
Dibenzofuran	1.78	8.35	6.15	16.67
2,4-Dinitrotoluene	3.61	8.35	6.10	16.67
2,3,4,6-Tetrachlorophenol	16.67	16.7	15.95	16.67
Diethylphthalate	8.43	16.7	11.50	16.67
4-Chlorophenyl-phenylether	1.8	8.35	6.79	16.67
Fluorene	2.36	8.35	5.57	16.67
4-Nitroaniline	11.15	16.7	5.63	16.67
4,6-Dinitro-2-Methylphenol	4.98	16.7	15.38	16.67
N-Nitrosodiphenylamine	1.89	8.35	5.94	16.67
Diphenylamine	1.94	8.35	4.69	16.67
1,2-Diphenylhydrazine	1.62	8.35	5.61	16.67
Azobenzene	1.85	8.35	5.14	16.67
4-Bromophenyl-phenylether	2.84	8.35	6.26	16.67
Hexachlorobenzene	1.52	8.35	6.89	16.67
Phenanthrene	4.95	8.35	6.76	16.67
Anthracene	1.28	8.35	6.66	16.67
Carbazole	3.12	8.35	6.16	16.67
Di-n-butylphthalate	2.59	8.35	6.08	16.67
Fluoranthene	3.11	8.35	6.58	16.67
Pyrene	1.83	8.35	7.09	16.67
Butylbenzylphthalate	6.19	16.7	9.35	66.68
3,3'-Dichlorobenzidene	10.16	16.7	6.12	16.67
Benzo(a)anthracene	1.38	8.35	6.93	16.67
bis(2-Ethylhexyl)phthalate	5.37	16.7	10.49	66.68
Chrysene	1.02	8.35	10.06	16.67
Di-n-octylphthalate	1.9	8.35	3.61	66.68
Benzo(b)fluoranthene	1.72	8.35	3.95	16.67
Benzo(k)fluoranthene	1.49	8.35	8.45	16.67
Benzo(a)pyrene	1.61	8.35	5.20	16.67
Indeno(1,2,3-cd)pyrene	3.5	8.35	14.82	16.67
Dibenz(a,h)anthracene	3.63	8.35	2.38	16.67
Benzo(g,h,i)perylene	5.07	16.7	12.37	16.67



Detection Check Standard

Matrix: Soil
Method: 6010B
Preparation: 3050
Date Analyzed: 11/29/2012
Date Prepared: 11/28/2012
Instrument: Thermo 6500
TALS Batches: 94304,94171(prepare)
Prep/Reagent Factor = 50
Units: mg/kg

Analyte	MDL	DCS Spike	Measured Result	MQL
Aluminum	0.299654	0.5	0.44	25
Antimony	0.231553	0.45	0.475	2.5
Arsenic	0.217923	0.5	0.58	1
Barium	0.011322	0.03	0.03	1
Beryllium	0.014513	0.02	0.02	0.25
Boron	0.385535	0.6	0.885	20
Cadmium	0.025642	0.05	0.055	0.25
Calcium	0.86399	1.5	2.205	100
Chromium	0.050606	0.1	0.11	0.5
Cobalt	0.067622	0.1	0.1	0.5
Copper	0.173703	0.5	0.385	0.5
Iron	2.534007	4	4.285	20
Lead	0.104832	0.2	0.23	0.5
Selenium	0.258884	0.5	0.56	2
Manganese	0.038111	0.05	0.045	1.5
Molybdenum	0.136448	0.35	0.38	0.5
Nickel	0.116599	0.15	0.14	1
Silver	0.118848	0.2	0.21	0.5
Sodium	0.885548	2.4	3.225	100
Strontium	0.00252	0.005	0.985	0.25
Thallium	0.276988	0.7	0.71	1.5
Tin	0.08729	0.15	0.16	1
Titanium	0.014529	0.03	0.02	0.5
Vanadium	0.079068	0.15	0.17	0.5
Zinc	0.108432	0.2	0.315	1.5

Case Narrative

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68443-1

Job ID: 600-68443-1

Laboratory: TestAmerica Houston

Narrative

**Job Narrative
600-68443-1**

Comments

No additional comments.

Receipt

The samples were received on 2/11/2013 4:48 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 4.9° C.

Metals

Method(s) 6010B: The following sample(s) required filtration to reduce matrix interferences: (600-68443-3 DU), (600-68443-3 MS), (600-68443-3 MSD), (600-68487-1 DU), (600-68487-1 MS), (600-68487-1 MSD), Randy #1 (600-68487-1), SO-1620-IM-CPT-01-13(10-12.5)-20130211 (600-68443-2), SO-1620-IM-CPT-01-13(17.5-20)-20130211 (600-68443-3), SO-1620-IM-CPT-01-13(2-5)-20130211 (600-68443-1), SO-1620-IM-CPT-02-13(12.5-15)-20130211 (600-68443-5), SO-1620-IM-CPT-02-13(2.5-5.0)-20130211 (600-68443-4), SO-1620-IM-CPT-03-13-(12.5-13.5)-20130211 (600-68443-7), SO-1620-IM-CPT-03-13(2.5-5)-20130211 (600-68443-6), SO-1620-IM-CPT-04-13(10-12.5)-20130211 (600-68443-9), SO-1620-IM-CPT-04-13(2.5-5)-20130211 (600-68443-8).

Method Summary

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68443-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL HOU
8270C LL	Semivolatile Organic Compounds by GCMS - Low Levels	SW846	TAL HOU
6010B	Metals (ICP)	SW846	TAL HOU
Moisture	Percent Moisture	EPA	TAL HOU

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL HOU = TestAmerica Houston, 6310 Rothway Street, Houston, TX 77040, TEL (713)690-4444



Sample Summary

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68443-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
600-68443-1	SO-1620-IM-CPT-01-13(2-5)-20130211	Solid	02/11/13 10:00	02/12/13 16:48
600-68443-2	SO-1620-IM-CPT-01-13(10-12.5)-20130211	Solid	02/11/13 10:10	02/12/13 16:48
600-68443-3	SO-1620-IM-CPT-01-13(17.5-20)-20130211	Solid	02/11/13 10:20	02/12/13 16:48
600-68443-4	SO-1620-IM-CPT-02-13(2.5-5.0)-20130211	Solid	02/11/13 11:25	02/12/13 16:48
600-68443-5	SO-1620-IM-CPT-02-13(12.5-15)-20130211	Solid	02/11/13 11:30	02/12/13 16:48
600-68443-6	SO-1620-IM-CPT-03-13(2.5-5)-20130211	Solid	02/11/13 14:30	02/12/13 16:48
600-68443-7	SO-1620-IM-CPT-03-13(12.5-13.5)-20130211	Solid	02/11/13 14:35	02/12/13 16:48
600-68443-8	SO-1620-IM-CPT-04-13(2.5-5)-20130211	Solid	02/11/13 15:30	02/12/13 16:48
600-68443-9	SO-1620-IM-CPT-04-13(10-12.5)-20130211	Solid	02/11/13 15:40	02/12/13 16:48



Client Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68443-1

Client Sample ID: SO-1620-IM-CPT-01-13(2-5)-20130211

Lab Sample ID: 600-68443-1

Date Collected: 02/11/13 10:00

Matrix: Solid

Date Received: 02/12/13 16:48

Percent Solids: 85.4

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	0.0127	b	0.0117	0.00256	mg/Kg	☼		02/12/13 18:34	1
Benzene	0.000738	U	0.00586	0.000738	mg/Kg	☼		02/12/13 18:34	1
1,2-Dichloroethane	0.00105	U	0.00586	0.00105	mg/Kg	☼		02/12/13 18:34	1
Toluene	0.00162	U	0.00586	0.00162	mg/Kg	☼		02/12/13 18:34	1
Chlorobenzene	0.00112	U	0.00586	0.00112	mg/Kg	☼		02/12/13 18:34	1
Ethylbenzene	0.00119	U	0.00586	0.00119	mg/Kg	☼		02/12/13 18:34	1
Xylenes, Total	0.00132	U	0.00586	0.00132	mg/Kg	☼		02/12/13 18:34	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>1,2-Dichloroethane-d4 (Surr)</i>	62		61 - 130					02/12/13 18:34	1
<i>Dibromofluoromethane</i>	90		68 - 140					02/12/13 18:34	1
<i>Toluene-d8 (Surr)</i>	67		50 - 130					02/12/13 18:34	1
<i>4-Bromofluorobenzene</i>	132		57 - 140					02/12/13 18:34	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.0496	U	0.195	0.0496	mg/Kg	☼	02/13/13 12:20	02/21/13 08:19	10
Nitrobenzene	0.0346	U	0.195	0.0346	mg/Kg	☼	02/13/13 12:20	02/21/13 08:19	10
2,4-Dimethylphenol	0.100	U	0.195	0.100	mg/Kg	☼	02/13/13 12:20	02/21/13 08:19	10
Bis(2-chloroethoxy)methane	0.0166	U	0.195	0.0166	mg/Kg	☼	02/13/13 12:20	02/21/13 08:19	10
Naphthalene	0.0158	U	0.195	0.0158	mg/Kg	☼	02/13/13 12:20	02/21/13 08:19	10
2-Methylnaphthalene	0.0479	J	0.195	0.0321	mg/Kg	☼	02/13/13 12:20	02/21/13 08:19	10
2-Chloronaphthalene	0.0142	U	0.195	0.0142	mg/Kg	☼	02/13/13 12:20	02/21/13 08:19	10
Acenaphthylene	0.0117	U	0.195	0.0117	mg/Kg	☼	02/13/13 12:20	02/21/13 08:19	10
2,6-Dinitrotoluene	0.0345	U	0.195	0.0345	mg/Kg	☼	02/13/13 12:20	02/21/13 08:19	10
Acenaphthene	0.0227	J	0.195	0.0168	mg/Kg	☼	02/13/13 12:20	02/21/13 08:19	10
4-Nitrophenol	0.0594	U	0.195	0.0594	mg/Kg	☼	02/13/13 12:20	02/21/13 08:19	10
Dibenzofuran	0.0208	U	0.195	0.0208	mg/Kg	☼	02/13/13 12:20	02/21/13 08:19	10
2,4-Dinitrotoluene	0.0422	U	0.195	0.0422	mg/Kg	☼	02/13/13 12:20	02/21/13 08:19	10
Fluorene	0.0276	U	0.195	0.0276	mg/Kg	☼	02/13/13 12:20	02/21/13 08:19	10
4,6-Dinitro-2-methylphenol	0.0583	U	0.195	0.0583	mg/Kg	☼	02/13/13 12:20	02/21/13 08:19	10
N-Nitrosodiphenylamine	0.0221	U	0.195	0.0221	mg/Kg	☼	02/13/13 12:20	02/21/13 08:19	10
1,2-Diphenylhydrazine	0.0190	U	0.195	0.0190	mg/Kg	☼	02/13/13 12:20	02/21/13 08:19	10
Pentachlorophenol	0.0468	U	1.95	0.0468	mg/Kg	☼	02/13/13 12:20	02/21/13 08:19	10
Phenanthrene	0.0613	J	0.195	0.0579	mg/Kg	☼	02/13/13 12:20	02/21/13 08:19	10
Anthracene	0.105	J	0.195	0.0150	mg/Kg	☼	02/13/13 12:20	02/21/13 08:19	10
Di-n-butyl phthalate	0.0303	U	0.780	0.0303	mg/Kg	☼	02/13/13 12:20	02/21/13 08:19	10
Fluoranthene	0.0885	J	0.195	0.0364	mg/Kg	☼	02/13/13 12:20	02/21/13 08:19	10
Pyrene	0.0940	J	0.195	0.0214	mg/Kg	☼	02/13/13 12:20	02/21/13 08:19	10
Benzo[a]anthracene	0.0345	J	0.195	0.0161	mg/Kg	☼	02/13/13 12:20	02/21/13 08:19	10
Bis(2-ethylhexyl) phthalate	0.0628	U	0.780	0.0628	mg/Kg	☼	02/13/13 12:20	02/21/13 08:19	10
Chrysene	0.0453	J	0.195	0.0119	mg/Kg	☼	02/13/13 12:20	02/21/13 08:19	10
Benzo[a]pyrene	0.0261	J	0.195	0.0188	mg/Kg	☼	02/13/13 12:20	02/21/13 08:19	10
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>2-Fluorophenol</i>	43		23 - 108				02/13/13 12:20	02/21/13 08:19	10
<i>Phenol-d6</i>	30		26 - 108				02/13/13 12:20	02/21/13 08:19	10
<i>Nitrobenzene-d5</i>	50		34 - 118				02/13/13 12:20	02/21/13 08:19	10
<i>2-Fluorobiphenyl</i>	65		51 - 109				02/13/13 12:20	02/21/13 08:19	10
<i>2,4,6-Tribromophenol</i>	0	X	34 - 122				02/13/13 12:20	02/21/13 08:19	10

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68443-1

Client Sample ID: SO-1620-IM-CPT-01-13(2-5)-20130211

Lab Sample ID: 600-68443-1

Date Collected: 02/11/13 10:00

Matrix: Solid

Date Received: 02/12/13 16:48

Percent Solids: 85.4

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Terphenyl-d14	83		56 - 123	02/13/13 12:20	02/21/13 08:19	10

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	3.95		1.08	0.236	mg/Kg	☼	02/13/13 09:49	02/13/13 14:20	1
Lead	8.03		0.542	0.114	mg/Kg	☼	02/13/13 09:49	02/13/13 14:20	1

General Chemistry

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	15		1.0	1.0	%			02/12/13 15:52	1
Percent Solids	85		1.0	1.0	%			02/12/13 15:52	1

Client Sample ID: SO-1620-IM-CPT-01-13(10-12.5)-20130211

Lab Sample ID: 600-68443-2

Date Collected: 02/11/13 10:10

Matrix: Solid

Date Received: 02/12/13 16:48

Percent Solids: 84.3

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	0.0137	b	0.0119	0.00260	mg/Kg	☼		02/12/13 18:57	1
Benzene	0.000747	U	0.00593	0.000747	mg/Kg	☼		02/12/13 18:57	1
1,2-Dichloroethane	0.00107	U	0.00593	0.00107	mg/Kg	☼		02/12/13 18:57	1
Toluene	0.00164	U	0.00593	0.00164	mg/Kg	☼		02/12/13 18:57	1
Chlorobenzene	0.00114	U	0.00593	0.00114	mg/Kg	☼		02/12/13 18:57	1
Ethylbenzene	0.00121	U	0.00593	0.00121	mg/Kg	☼		02/12/13 18:57	1
Xylenes, Total	0.00134	U	0.00593	0.00134	mg/Kg	☼		02/12/13 18:57	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	62		61 - 130		02/12/13 18:57	1
Dibromofluoromethane	86		68 - 140		02/12/13 18:57	1
Toluene-d8 (Surr)	66		50 - 130		02/12/13 18:57	1
4-Bromofluorobenzene	130		57 - 140		02/12/13 18:57	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.00502	U	0.0197	0.00502	mg/Kg	☼	02/13/13 12:20	02/18/13 19:42	1
Nitrobenzene	0.00350	U	0.0197	0.00350	mg/Kg	☼	02/13/13 12:20	02/18/13 19:42	1
2,4-Dimethylphenol	0.0102	U	0.0197	0.0102	mg/Kg	☼	02/13/13 12:20	02/18/13 19:42	1
Bis(2-chloroethoxy)methane	0.00168	U	0.0197	0.00168	mg/Kg	☼	02/13/13 12:20	02/18/13 19:42	1
Naphthalene	0.00160	U	0.0197	0.00160	mg/Kg	☼	02/13/13 12:20	02/18/13 19:42	1
2-Methylnaphthalene	0.00324	U	0.0197	0.00324	mg/Kg	☼	02/13/13 12:20	02/18/13 19:42	1
2-Chloronaphthalene	0.00143	U	0.0197	0.00143	mg/Kg	☼	02/13/13 12:20	02/18/13 19:42	1
Acenaphthylene	0.00118	U	0.0197	0.00118	mg/Kg	☼	02/13/13 12:20	02/18/13 19:42	1
2,6-Dinitrotoluene	0.00349	U	0.0197	0.00349	mg/Kg	☼	02/13/13 12:20	02/18/13 19:42	1
Acenaphthene	0.00170	U	0.0197	0.00170	mg/Kg	☼	02/13/13 12:20	02/18/13 19:42	1
4-Nitrophenol	0.00601	U	0.0197	0.00601	mg/Kg	☼	02/13/13 12:20	02/18/13 19:42	1
Dibenzofuran	0.00211	U	0.0197	0.00211	mg/Kg	☼	02/13/13 12:20	02/18/13 19:42	1
2,4-Dinitrotoluene	0.00427	U	0.0197	0.00427	mg/Kg	☼	02/13/13 12:20	02/18/13 19:42	1
Fluorene	0.00279	U	0.0197	0.00279	mg/Kg	☼	02/13/13 12:20	02/18/13 19:42	1
4,6-Dinitro-2-methylphenol	0.00590	U	0.0197	0.00590	mg/Kg	☼	02/13/13 12:20	02/18/13 19:42	1
N-Nitrosodiphenylamine	0.00224	U	0.0197	0.00224	mg/Kg	☼	02/13/13 12:20	02/18/13 19:42	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68443-1

Client Sample ID: SO-1620-IM-CPT-01-13(10-12.5)-20130211

Lab Sample ID: 600-68443-2

Date Collected: 02/11/13 10:10

Matrix: Solid

Date Received: 02/12/13 16:48

Percent Solids: 84.3

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Diphenylhydrazine	0.00192	U	0.0197	0.00192	mg/Kg	☼	02/13/13 12:20	02/18/13 19:42	1
Pentachlorophenol	0.00474	U	0.198	0.00474	mg/Kg	☼	02/13/13 12:20	02/18/13 19:42	1
Phenanthrene	0.00586	U	0.0197	0.00586	mg/Kg	☼	02/13/13 12:20	02/18/13 19:42	1
Anthracene	0.00152	U	0.0197	0.00152	mg/Kg	☼	02/13/13 12:20	02/18/13 19:42	1
Di-n-butyl phthalate	0.00307	U	0.0789	0.00307	mg/Kg	☼	02/13/13 12:20	02/18/13 19:42	1
Fluoranthene	0.00368	U	0.0197	0.00368	mg/Kg	☼	02/13/13 12:20	02/18/13 19:42	1
Pyrene	0.00217	U	0.0197	0.00217	mg/Kg	☼	02/13/13 12:20	02/18/13 19:42	1
Benzo[a]anthracene	0.00163	U	0.0197	0.00163	mg/Kg	☼	02/13/13 12:20	02/18/13 19:42	1
Bis(2-ethylhexyl) phthalate	0.00636	U	0.0789	0.00636	mg/Kg	☼	02/13/13 12:20	02/18/13 19:42	1
Chrysene	0.00121	U	0.0197	0.00121	mg/Kg	☼	02/13/13 12:20	02/18/13 19:42	1
Benzo[a]pyrene	0.00191	U	0.0197	0.00191	mg/Kg	☼	02/13/13 12:20	02/18/13 19:42	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	57		23 - 108	02/13/13 12:20	02/18/13 19:42	1
Phenol-d6	54		26 - 108	02/13/13 12:20	02/18/13 19:42	1
Nitrobenzene-d5	60		34 - 118	02/13/13 12:20	02/18/13 19:42	1
2-Fluorobiphenyl	60		51 - 109	02/13/13 12:20	02/18/13 19:42	1
2,4,6-Tribromophenol	61		34 - 122	02/13/13 12:20	02/18/13 19:42	1
Terphenyl-d14	78		56 - 123	02/13/13 12:20	02/18/13 19:42	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	2.12		1.11	0.242	mg/Kg	☼	02/13/13 09:49	02/13/13 14:32	1
Lead	8.24		0.554	0.116	mg/Kg	☼	02/13/13 09:49	02/13/13 14:32	1

General Chemistry

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	16		1.0	1.0	%			02/12/13 15:52	1
Percent Solids	84		1.0	1.0	%			02/12/13 15:52	1

Client Sample ID: SO-1620-IM-CPT-01-13(17.5-20)-20130211

Lab Sample ID: 600-68443-3

Date Collected: 02/11/13 10:20

Matrix: Solid

Date Received: 02/12/13 16:48

Percent Solids: 86.0

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	0.0146	b	0.0116	0.00255	mg/Kg	☼		02/12/13 19:21	1
Benzene	0.000733	U	0.00581	0.000733	mg/Kg	☼		02/12/13 19:21	1
1,2-Dichloroethane	0.00105	U	0.00581	0.00105	mg/Kg	☼		02/12/13 19:21	1
Toluene	0.00160	U	0.00581	0.00160	mg/Kg	☼		02/12/13 19:21	1
Chlorobenzene	0.00112	U	0.00581	0.00112	mg/Kg	☼		02/12/13 19:21	1
Ethylbenzene	0.00119	U	0.00581	0.00119	mg/Kg	☼		02/12/13 19:21	1
Xylenes, Total	0.00131	U	0.00581	0.00131	mg/Kg	☼		02/12/13 19:21	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	68		61 - 130		02/12/13 19:21	1
Dibromofluoromethane	93		68 - 140		02/12/13 19:21	1
Toluene-d8 (Surr)	67		50 - 130		02/12/13 19:21	1
4-Bromofluorobenzene	131		57 - 140		02/12/13 19:21	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68443-1

Client Sample ID: SO-1620-IM-CPT-01-13(17.5-20)-20130211

Lab Sample ID: 600-68443-3

Date Collected: 02/11/13 10:20

Matrix: Solid

Date Received: 02/12/13 16:48

Percent Solids: 86.0

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.00493	U	0.0194	0.00493	mg/Kg	☼	02/13/13 12:20	02/18/13 20:10	1
Nitrobenzene	0.00344	U	0.0194	0.00344	mg/Kg	☼	02/13/13 12:20	02/18/13 20:10	1
2,4-Dimethylphenol	0.00997	U	0.0194	0.00997	mg/Kg	☼	02/13/13 12:20	02/18/13 20:10	1
Bis(2-chloroethoxy)methane	0.00165	U	0.0194	0.00165	mg/Kg	☼	02/13/13 12:20	02/18/13 20:10	1
Naphthalene	0.00157	U	0.0194	0.00157	mg/Kg	☼	02/13/13 12:20	02/18/13 20:10	1
2-Methylnaphthalene	0.00318	U	0.0194	0.00318	mg/Kg	☼	02/13/13 12:20	02/18/13 20:10	1
2-Chloronaphthalene	0.00141	U	0.0194	0.00141	mg/Kg	☼	02/13/13 12:20	02/18/13 20:10	1
Acenaphthylene	0.00116	U	0.0194	0.00116	mg/Kg	☼	02/13/13 12:20	02/18/13 20:10	1
2,6-Dinitrotoluene	0.00343	U	0.0194	0.00343	mg/Kg	☼	02/13/13 12:20	02/18/13 20:10	1
Acenaphthene	0.00167	U	0.0194	0.00167	mg/Kg	☼	02/13/13 12:20	02/18/13 20:10	1
4-Nitrophenol	0.00590	U	0.0194	0.00590	mg/Kg	☼	02/13/13 12:20	02/18/13 20:10	1
Dibenzofuran	0.00207	U	0.0194	0.00207	mg/Kg	☼	02/13/13 12:20	02/18/13 20:10	1
2,4-Dinitrotoluene	0.00419	U	0.0194	0.00419	mg/Kg	☼	02/13/13 12:20	02/18/13 20:10	1
Fluorene	0.00274	U	0.0194	0.00274	mg/Kg	☼	02/13/13 12:20	02/18/13 20:10	1
4,6-Dinitro-2-methylphenol	0.00578	U	0.0194	0.00578	mg/Kg	☼	02/13/13 12:20	02/18/13 20:10	1
N-Nitrosodiphenylamine	0.00220	U	0.0194	0.00220	mg/Kg	☼	02/13/13 12:20	02/18/13 20:10	1
1,2-Diphenylhydrazine	0.00188	U	0.0194	0.00188	mg/Kg	☼	02/13/13 12:20	02/18/13 20:10	1
Pentachlorophenol	0.00465	U	0.194	0.00465	mg/Kg	☼	02/13/13 12:20	02/18/13 20:10	1
Phenanthrene	0.00575	U	0.0194	0.00575	mg/Kg	☼	02/13/13 12:20	02/18/13 20:10	1
Anthracene	0.00149	U	0.0194	0.00149	mg/Kg	☼	02/13/13 12:20	02/18/13 20:10	1
Di-n-butyl phthalate	0.00301	U	0.0775	0.00301	mg/Kg	☼	02/13/13 12:20	02/18/13 20:10	1
Fluoranthene	0.00361	U	0.0194	0.00361	mg/Kg	☼	02/13/13 12:20	02/18/13 20:10	1
Pyrene	0.00213	U	0.0194	0.00213	mg/Kg	☼	02/13/13 12:20	02/18/13 20:10	1
Benzo[a]anthracene	0.00160	U	0.0194	0.00160	mg/Kg	☼	02/13/13 12:20	02/18/13 20:10	1
Bis(2-ethylhexyl) phthalate	0.00624	U	0.0775	0.00624	mg/Kg	☼	02/13/13 12:20	02/18/13 20:10	1
Chrysene	0.00118	U	0.0194	0.00118	mg/Kg	☼	02/13/13 12:20	02/18/13 20:10	1
Benzo[a]pyrene	0.00187	U	0.0194	0.00187	mg/Kg	☼	02/13/13 12:20	02/18/13 20:10	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	59		23 - 108	02/13/13 12:20	02/18/13 20:10	1
Phenol-d6	60		26 - 108	02/13/13 12:20	02/18/13 20:10	1
Nitrobenzene-d5	59		34 - 118	02/13/13 12:20	02/18/13 20:10	1
2-Fluorobiphenyl	55		51 - 109	02/13/13 12:20	02/18/13 20:10	1
2,4,6-Tribromophenol	48		34 - 122	02/13/13 12:20	02/18/13 20:10	1
Terphenyl-d14	72		56 - 123	02/13/13 12:20	02/18/13 20:10	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	6.72		1.08	0.235	mg/Kg	☼	02/13/13 09:49	02/13/13 14:36	1
Lead	12.1		0.538	0.113	mg/Kg	☼	02/13/13 09:49	02/13/13 14:36	1

General Chemistry

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	14		1.0	1.0	%			02/12/13 15:52	1
Percent Solids	86		1.0	1.0	%			02/12/13 15:52	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68443-1

Client Sample ID: SO-1620-IM-CPT-02-13(2.5-5.0)-20130211

Lab Sample ID: 600-68443-4

Date Collected: 02/11/13 11:25

Matrix: Solid

Date Received: 02/12/13 16:48

Percent Solids: 85.6

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	0.0202	b	0.0117	0.00256	mg/Kg	☼		02/12/13 19:44	1
Benzene	0.000736	U	0.00584	0.000736	mg/Kg	☼		02/12/13 19:44	1
1,2-Dichloroethane	0.00105	U	0.00584	0.00105	mg/Kg	☼		02/12/13 19:44	1
Toluene	0.00161	U	0.00584	0.00161	mg/Kg	☼		02/12/13 19:44	1
Chlorobenzene	0.00112	U	0.00584	0.00112	mg/Kg	☼		02/12/13 19:44	1
Ethylbenzene	0.00119	U	0.00584	0.00119	mg/Kg	☼		02/12/13 19:44	1
Xylenes, Total	0.00132	U	0.00584	0.00132	mg/Kg	☼		02/12/13 19:44	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	67		61 - 130		02/12/13 19:44	1
Dibromofluoromethane	89		68 - 140		02/12/13 19:44	1
Toluene-d8 (Surr)	67		50 - 130		02/12/13 19:44	1
4-Bromofluorobenzene	132		57 - 140		02/12/13 19:44	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.00495	U	0.0194	0.00495	mg/Kg	☼	02/13/13 12:20	02/18/13 21:33	1
Nitrobenzene	0.00345	U	0.0194	0.00345	mg/Kg	☼	02/13/13 12:20	02/18/13 21:33	1
2,4-Dimethylphenol	0.0100	U	0.0194	0.0100	mg/Kg	☼	02/13/13 12:20	02/18/13 21:33	1
Bis(2-chloroethoxy)methane	0.00166	U	0.0194	0.00166	mg/Kg	☼	02/13/13 12:20	02/18/13 21:33	1
Naphthalene	0.00157	U	0.0194	0.00157	mg/Kg	☼	02/13/13 12:20	02/18/13 21:33	1
2-Methylnaphthalene	0.00320	U	0.0194	0.00320	mg/Kg	☼	02/13/13 12:20	02/18/13 21:33	1
2-Chloronaphthalene	0.00141	U	0.0194	0.00141	mg/Kg	☼	02/13/13 12:20	02/18/13 21:33	1
Acenaphthylene	0.00117	U	0.0194	0.00117	mg/Kg	☼	02/13/13 12:20	02/18/13 21:33	1
2,6-Dinitrotoluene	0.00344	U	0.0194	0.00344	mg/Kg	☼	02/13/13 12:20	02/18/13 21:33	1
Acenaphthene	0.00168	U	0.0194	0.00168	mg/Kg	☼	02/13/13 12:20	02/18/13 21:33	1
4-Nitrophenol	0.00593	U	0.0194	0.00593	mg/Kg	☼	02/13/13 12:20	02/18/13 21:33	1
Dibenzofuran	0.00208	U	0.0194	0.00208	mg/Kg	☼	02/13/13 12:20	02/18/13 21:33	1
2,4-Dinitrotoluene	0.00421	U	0.0194	0.00421	mg/Kg	☼	02/13/13 12:20	02/18/13 21:33	1
Fluorene	0.00275	U	0.0194	0.00275	mg/Kg	☼	02/13/13 12:20	02/18/13 21:33	1
4,6-Dinitro-2-methylphenol	0.00581	U	0.0194	0.00581	mg/Kg	☼	02/13/13 12:20	02/18/13 21:33	1
N-Nitrosodiphenylamine	0.00220	U	0.0194	0.00220	mg/Kg	☼	02/13/13 12:20	02/18/13 21:33	1
1,2-Diphenylhydrazine	0.00189	U	0.0194	0.00189	mg/Kg	☼	02/13/13 12:20	02/18/13 21:33	1
Pentachlorophenol	0.00467	U	0.195	0.00467	mg/Kg	☼	02/13/13 12:20	02/18/13 21:33	1
Phenanthrene	0.00577	U	0.0194	0.00577	mg/Kg	☼	02/13/13 12:20	02/18/13 21:33	1
Anthracene	0.00149	U	0.0194	0.00149	mg/Kg	☼	02/13/13 12:20	02/18/13 21:33	1
Di-n-butyl phthalate	0.00302	U	0.0778	0.00302	mg/Kg	☼	02/13/13 12:20	02/18/13 21:33	1
Fluoranthene	0.00363	U	0.0194	0.00363	mg/Kg	☼	02/13/13 12:20	02/18/13 21:33	1
Pyrene	0.00213	U	0.0194	0.00213	mg/Kg	☼	02/13/13 12:20	02/18/13 21:33	1
Benzo[a]anthracene	0.00161	U	0.0194	0.00161	mg/Kg	☼	02/13/13 12:20	02/18/13 21:33	1
Bis(2-ethylhexyl) phthalate	0.00626	U	0.0778	0.00626	mg/Kg	☼	02/13/13 12:20	02/18/13 21:33	1
Chrysene	0.00119	U	0.0194	0.00119	mg/Kg	☼	02/13/13 12:20	02/18/13 21:33	1
Benzo[a]pyrene	0.00188	U	0.0194	0.00188	mg/Kg	☼	02/13/13 12:20	02/18/13 21:33	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	62		23 - 108	02/13/13 12:20	02/18/13 21:33	1
Phenol-d6	57		26 - 108	02/13/13 12:20	02/18/13 21:33	1
Nitrobenzene-d5	69		34 - 118	02/13/13 12:20	02/18/13 21:33	1
2-Fluorobiphenyl	61		51 - 109	02/13/13 12:20	02/18/13 21:33	1
2,4,6-Tribromophenol	54		34 - 122	02/13/13 12:20	02/18/13 21:33	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68443-1

Client Sample ID: SO-1620-IM-CPT-02-13(2.5-5.0)-20130211

Lab Sample ID: 600-68443-4

Date Collected: 02/11/13 11:25

Matrix: Solid

Date Received: 02/12/13 16:48

Percent Solids: 85.6

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Terphenyl-d14	80		56 - 123	02/13/13 12:20	02/18/13 21:33	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	1.17		1.09	0.238	mg/Kg	☼	02/13/13 09:49	02/13/13 14:51	1
Lead	7.22		0.546	0.114	mg/Kg	☼	02/13/13 09:49	02/13/13 14:51	1

General Chemistry

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	14		1.0	1.0	%			02/12/13 15:52	1
Percent Solids	86		1.0	1.0	%			02/12/13 15:52	1

Client Sample ID: SO-1620-IM-CPT-02-13(12.5-15)-20130211

Lab Sample ID: 600-68443-5

Date Collected: 02/11/13 11:30

Matrix: Solid

Date Received: 02/12/13 16:48

Percent Solids: 80.6

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	0.0250	b	0.0124	0.00272	mg/Kg	☼		02/12/13 20:08	1
Benzene	0.000782	U	0.00620	0.000782	mg/Kg	☼		02/12/13 20:08	1
1,2-Dichloroethane	0.00112	U	0.00620	0.00112	mg/Kg	☼		02/12/13 20:08	1
Toluene	0.00171	U	0.00620	0.00171	mg/Kg	☼		02/12/13 20:08	1
Chlorobenzene	0.00119	U	0.00620	0.00119	mg/Kg	☼		02/12/13 20:08	1
Ethylbenzene	0.00127	U	0.00620	0.00127	mg/Kg	☼		02/12/13 20:08	1
Xylenes, Total	0.00140	U	0.00620	0.00140	mg/Kg	☼		02/12/13 20:08	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	66		61 - 130		02/12/13 20:08	1
Dibromofluoromethane	91		68 - 140		02/12/13 20:08	1
Toluene-d8 (Surr)	67		50 - 130		02/12/13 20:08	1
4-Bromofluorobenzene	136		57 - 140		02/12/13 20:08	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.00526	U	0.0207	0.00526	mg/Kg	☼	02/13/13 12:20	02/18/13 22:00	1
Nitrobenzene	0.00367	U	0.0207	0.00367	mg/Kg	☼	02/13/13 12:20	02/18/13 22:00	1
2,4-Dimethylphenol	0.0106	U	0.0207	0.0106	mg/Kg	☼	02/13/13 12:20	02/18/13 22:00	1
Bis(2-chloroethoxy)methane	0.00176	U	0.0207	0.00176	mg/Kg	☼	02/13/13 12:20	02/18/13 22:00	1
Naphthalene	0.00167	U	0.0207	0.00167	mg/Kg	☼	02/13/13 12:20	02/18/13 22:00	1
2-Methylnaphthalene	0.00340	U	0.0207	0.00340	mg/Kg	☼	02/13/13 12:20	02/18/13 22:00	1
2-Chloronaphthalene	0.00150	U	0.0207	0.00150	mg/Kg	☼	02/13/13 12:20	02/18/13 22:00	1
Acenaphthylene	0.00124	U	0.0207	0.00124	mg/Kg	☼	02/13/13 12:20	02/18/13 22:00	1
2,6-Dinitrotoluene	0.00366	U	0.0207	0.00366	mg/Kg	☼	02/13/13 12:20	02/18/13 22:00	1
Acenaphthene	0.00179	U	0.0207	0.00179	mg/Kg	☼	02/13/13 12:20	02/18/13 22:00	1
4-Nitrophenol	0.00630	U	0.0207	0.00630	mg/Kg	☼	02/13/13 12:20	02/18/13 22:00	1
Dibenzofuran	0.00221	U	0.0207	0.00221	mg/Kg	☼	02/13/13 12:20	02/18/13 22:00	1
2,4-Dinitrotoluene	0.00448	U	0.0207	0.00448	mg/Kg	☼	02/13/13 12:20	02/18/13 22:00	1
Fluorene	0.00293	U	0.0207	0.00293	mg/Kg	☼	02/13/13 12:20	02/18/13 22:00	1
4,6-Dinitro-2-methylphenol	0.00618	U	0.0207	0.00618	mg/Kg	☼	02/13/13 12:20	02/18/13 22:00	1
N-Nitrosodiphenylamine	0.00234	U	0.0207	0.00234	mg/Kg	☼	02/13/13 12:20	02/18/13 22:00	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68443-1

Client Sample ID: SO-1620-IM-CPT-02-13(12.5-15)-20130211

Lab Sample ID: 600-68443-5

Date Collected: 02/11/13 11:30

Matrix: Solid

Date Received: 02/12/13 16:48

Percent Solids: 80.6

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Diphenylhydrazine	0.00201	U	0.0207	0.00201	mg/Kg	☼	02/13/13 12:20	02/18/13 22:00	1
Pentachlorophenol	0.00496	U	0.207	0.00496	mg/Kg	☼	02/13/13 12:20	02/18/13 22:00	1
Phenanthrene	0.00614	U	0.0207	0.00614	mg/Kg	☼	02/13/13 12:20	02/18/13 22:00	1
Anthracene	0.00159	U	0.0207	0.00159	mg/Kg	☼	02/13/13 12:20	02/18/13 22:00	1
Di-n-butyl phthalate	0.00321	U	0.0827	0.00321	mg/Kg	☼	02/13/13 12:20	02/18/13 22:00	1
Fluoranthene	0.00386	U	0.0207	0.00386	mg/Kg	☼	02/13/13 12:20	02/18/13 22:00	1
Pyrene	0.00227	U	0.0207	0.00227	mg/Kg	☼	02/13/13 12:20	02/18/13 22:00	1
Benzo[a]anthracene	0.00171	U	0.0207	0.00171	mg/Kg	☼	02/13/13 12:20	02/18/13 22:00	1
Bis(2-ethylhexyl) phthalate	0.00666	U	0.0827	0.00666	mg/Kg	☼	02/13/13 12:20	02/18/13 22:00	1
Chrysene	0.00127	U	0.0207	0.00127	mg/Kg	☼	02/13/13 12:20	02/18/13 22:00	1
Benzo[a]pyrene	0.00200	U	0.0207	0.00200	mg/Kg	☼	02/13/13 12:20	02/18/13 22:00	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	56		23 - 108	02/13/13 12:20	02/18/13 22:00	1
Phenol-d6	54		26 - 108	02/13/13 12:20	02/18/13 22:00	1
Nitrobenzene-d5	62		34 - 118	02/13/13 12:20	02/18/13 22:00	1
2-Fluorobiphenyl	62		51 - 109	02/13/13 12:20	02/18/13 22:00	1
2,4,6-Tribromophenol	57		34 - 122	02/13/13 12:20	02/18/13 22:00	1
Terphenyl-d14	79		56 - 123	02/13/13 12:20	02/18/13 22:00	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	2.22		1.18	0.257	mg/Kg	☼	02/13/13 09:49	02/13/13 14:55	1
Lead	4.92		0.591	0.124	mg/Kg	☼	02/13/13 09:49	02/13/13 14:55	1

General Chemistry

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	19		1.0	1.0	%			02/12/13 15:52	1
Percent Solids	81		1.0	1.0	%			02/12/13 15:52	1

Client Sample ID: SO-1620-IM-CPT-03-13(2.5-5)-20130211

Lab Sample ID: 600-68443-6

Date Collected: 02/11/13 14:30

Matrix: Solid

Date Received: 02/12/13 16:48

Percent Solids: 83.4

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	0.0184	b	0.0120	0.00263	mg/Kg	☼		02/12/13 20:32	1
Benzene	0.000755	U	0.00599	0.000755	mg/Kg	☼		02/12/13 20:32	1
1,2-Dichloroethane	0.00108	U	0.00599	0.00108	mg/Kg	☼		02/12/13 20:32	1
Toluene	0.00165	U	0.00599	0.00165	mg/Kg	☼		02/12/13 20:32	1
Chlorobenzene	0.00115	U	0.00599	0.00115	mg/Kg	☼		02/12/13 20:32	1
Ethylbenzene	0.00122	U	0.00599	0.00122	mg/Kg	☼		02/12/13 20:32	1
Xylenes, Total	0.00135	U	0.00599	0.00135	mg/Kg	☼		02/12/13 20:32	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	64		61 - 130		02/12/13 20:32	1
Dibromofluoromethane	86		68 - 140		02/12/13 20:32	1
Toluene-d8 (Surr)	67		50 - 130		02/12/13 20:32	1
4-Bromofluorobenzene	130		57 - 140		02/12/13 20:32	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68443-1

Client Sample ID: SO-1620-IM-CPT-03-13(2.5-5)-20130211

Lab Sample ID: 600-68443-6

Date Collected: 02/11/13 14:30

Matrix: Solid

Date Received: 02/12/13 16:48

Percent Solids: 83.4

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.0508	U	0.200	0.0508	mg/Kg	☼	02/13/13 12:20	02/21/13 08:47	10
Nitrobenzene	0.0355	U	0.200	0.0355	mg/Kg	☼	02/13/13 12:20	02/21/13 08:47	10
2,4-Dimethylphenol	0.103	U	0.200	0.103	mg/Kg	☼	02/13/13 12:20	02/21/13 08:47	10
Bis(2-chloroethoxy)methane	0.0170	U	0.200	0.0170	mg/Kg	☼	02/13/13 12:20	02/21/13 08:47	10
Naphthalene	0.0406	J	0.200	0.0162	mg/Kg	☼	02/13/13 12:20	02/21/13 08:47	10
2-Methylnaphthalene	0.0700	J	0.200	0.0328	mg/Kg	☼	02/13/13 12:20	02/21/13 08:47	10
2-Chloronaphthalene	0.0145	U	0.200	0.0145	mg/Kg	☼	02/13/13 12:20	02/21/13 08:47	10
Acenaphthylene	0.0120	U	0.200	0.0120	mg/Kg	☼	02/13/13 12:20	02/21/13 08:47	10
2,6-Dinitrotoluene	0.0353	U	0.200	0.0353	mg/Kg	☼	02/13/13 12:20	02/21/13 08:47	10
Acenaphthene	0.0620	J	0.200	0.0172	mg/Kg	☼	02/13/13 12:20	02/21/13 08:47	10
4-Nitrophenol	0.0608	U	0.200	0.0608	mg/Kg	☼	02/13/13 12:20	02/21/13 08:47	10
Dibenzofuran	0.0381	J	0.200	0.0213	mg/Kg	☼	02/13/13 12:20	02/21/13 08:47	10
2,4-Dinitrotoluene	0.0432	U	0.200	0.0432	mg/Kg	☼	02/13/13 12:20	02/21/13 08:47	10
Fluorene	0.0431	J	0.200	0.0283	mg/Kg	☼	02/13/13 12:20	02/21/13 08:47	10
4,6-Dinitro-2-methylphenol	0.0596	U	0.200	0.0596	mg/Kg	☼	02/13/13 12:20	02/21/13 08:47	10
N-Nitrosodiphenylamine	0.0226	U	0.200	0.0226	mg/Kg	☼	02/13/13 12:20	02/21/13 08:47	10
1,2-Diphenylhydrazine	0.0194	U	0.200	0.0194	mg/Kg	☼	02/13/13 12:20	02/21/13 08:47	10
Pentachlorophenol	0.0479	U	2.00	0.0479	mg/Kg	☼	02/13/13 12:20	02/21/13 08:47	10
Phenanthrene	0.182	J	0.200	0.0593	mg/Kg	☼	02/13/13 12:20	02/21/13 08:47	10
Anthracene	0.181	J	0.200	0.0153	mg/Kg	☼	02/13/13 12:20	02/21/13 08:47	10
Di-n-butyl phthalate	0.0310	U	0.799	0.0310	mg/Kg	☼	02/13/13 12:20	02/21/13 08:47	10
Fluoranthene	0.227		0.200	0.0372	mg/Kg	☼	02/13/13 12:20	02/21/13 08:47	10
Pyrene	0.235		0.200	0.0219	mg/Kg	☼	02/13/13 12:20	02/21/13 08:47	10
Benzo[a]anthracene	0.0733	J	0.200	0.0165	mg/Kg	☼	02/13/13 12:20	02/21/13 08:47	10
Bis(2-ethylhexyl) phthalate	0.0643	U	0.799	0.0643	mg/Kg	☼	02/13/13 12:20	02/21/13 08:47	10
Chrysene	0.0939	J	0.200	0.0122	mg/Kg	☼	02/13/13 12:20	02/21/13 08:47	10
Benzo[a]pyrene	0.0632	J	0.200	0.0193	mg/Kg	☼	02/13/13 12:20	02/21/13 08:47	10

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	37		23 - 108	02/13/13 12:20	02/21/13 08:47	10
Phenol-d6	32		26 - 108	02/13/13 12:20	02/21/13 08:47	10
Nitrobenzene-d5	45		34 - 118	02/13/13 12:20	02/21/13 08:47	10
2-Fluorobiphenyl	70		51 - 109	02/13/13 12:20	02/21/13 08:47	10
2,4,6-Tribromophenol	0	X	34 - 122	02/13/13 12:20	02/21/13 08:47	10
Terphenyl-d14	84		56 - 123	02/13/13 12:20	02/21/13 08:47	10

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	1.38		1.15	0.251	mg/Kg	☼	02/13/13 09:49	02/13/13 14:59	1
Lead	15.2		0.576	0.121	mg/Kg	☼	02/13/13 09:49	02/13/13 14:59	1

General Chemistry

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	17		1.0	1.0	%			02/12/13 15:52	1
Percent Solids	83		1.0	1.0	%			02/12/13 15:52	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68443-1

Client Sample ID: SO-1620-IM-CPT-03-13-(12.5-13.5)-20130211

Lab Sample ID: 600-68443-7

Date Collected: 02/11/13 14:35

Matrix: Solid

Date Received: 02/12/13 16:48

Percent Solids: 84.6

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	0.0202	b	0.0118	0.00259	mg/Kg	☼		02/12/13 20:56	1
Benzene	0.000745	U	0.00591	0.000745	mg/Kg	☼		02/12/13 20:56	1
1,2-Dichloroethane	0.00106	U	0.00591	0.00106	mg/Kg	☼		02/12/13 20:56	1
Toluene	0.00163	U	0.00591	0.00163	mg/Kg	☼		02/12/13 20:56	1
Chlorobenzene	0.00113	U	0.00591	0.00113	mg/Kg	☼		02/12/13 20:56	1
Ethylbenzene	0.00121	U	0.00591	0.00121	mg/Kg	☼		02/12/13 20:56	1
Xylenes, Total	0.00134	U	0.00591	0.00134	mg/Kg	☼		02/12/13 20:56	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	61		61 - 130					02/12/13 20:56	1
Dibromofluoromethane	88		68 - 140					02/12/13 20:56	1
Toluene-d8 (Surr)	67		50 - 130					02/12/13 20:56	1
4-Bromofluorobenzene	131		57 - 140					02/12/13 20:56	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.00500	U	0.0197	0.00500	mg/Kg	☼	02/13/13 12:20	02/19/13 05:45	1
Nitrobenzene	0.00349	U	0.0197	0.00349	mg/Kg	☼	02/13/13 12:20	02/19/13 05:45	1
2,4-Dimethylphenol	0.0101	U	0.0197	0.0101	mg/Kg	☼	02/13/13 12:20	02/19/13 05:45	1
Bis(2-chloroethoxy)methane	0.00168	U	0.0197	0.00168	mg/Kg	☼	02/13/13 12:20	02/19/13 05:45	1
Naphthalene	0.00159	U	0.0197	0.00159	mg/Kg	☼	02/13/13 12:20	02/19/13 05:45	1
2-Methylnaphthalene	0.00323	U	0.0197	0.00323	mg/Kg	☼	02/13/13 12:20	02/19/13 05:45	1
2-Chloronaphthalene	0.00143	U	0.0197	0.00143	mg/Kg	☼	02/13/13 12:20	02/19/13 05:45	1
Acenaphthylene	0.00118	U	0.0197	0.00118	mg/Kg	☼	02/13/13 12:20	02/19/13 05:45	1
2,6-Dinitrotoluene	0.00348	U	0.0197	0.00348	mg/Kg	☼	02/13/13 12:20	02/19/13 05:45	1
Acenaphthene	0.00170	U	0.0197	0.00170	mg/Kg	☼	02/13/13 12:20	02/19/13 05:45	1
4-Nitrophenol	0.00599	U	0.0197	0.00599	mg/Kg	☼	02/13/13 12:20	02/19/13 05:45	1
Dibenzofuran	0.00210	U	0.0197	0.00210	mg/Kg	☼	02/13/13 12:20	02/19/13 05:45	1
2,4-Dinitrotoluene	0.00426	U	0.0197	0.00426	mg/Kg	☼	02/13/13 12:20	02/19/13 05:45	1
Fluorene	0.00278	U	0.0197	0.00278	mg/Kg	☼	02/13/13 12:20	02/19/13 05:45	1
4,6-Dinitro-2-methylphenol	0.00588	U	0.0197	0.00588	mg/Kg	☼	02/13/13 12:20	02/19/13 05:45	1
N-Nitrosodiphenylamine	0.00223	U	0.0197	0.00223	mg/Kg	☼	02/13/13 12:20	02/19/13 05:45	1
1,2-Diphenylhydrazine	0.00191	U	0.0197	0.00191	mg/Kg	☼	02/13/13 12:20	02/19/13 05:45	1
Pentachlorophenol	0.00472	U	0.197	0.00472	mg/Kg	☼	02/13/13 12:20	02/19/13 05:45	1
Phenanthrene	0.00584	U	0.0197	0.00584	mg/Kg	☼	02/13/13 12:20	02/19/13 05:45	1
Anthracene	0.00151	U	0.0197	0.00151	mg/Kg	☼	02/13/13 12:20	02/19/13 05:45	1
Di-n-butyl phthalate	0.00306	U	0.0787	0.00306	mg/Kg	☼	02/13/13 12:20	02/19/13 05:45	1
Fluoranthene	0.00367	U	0.0197	0.00367	mg/Kg	☼	02/13/13 12:20	02/19/13 05:45	1
Pyrene	0.00216	U	0.0197	0.00216	mg/Kg	☼	02/13/13 12:20	02/19/13 05:45	1
Benzo[a]anthracene	0.00163	U	0.0197	0.00163	mg/Kg	☼	02/13/13 12:20	02/19/13 05:45	1
Bis(2-ethylhexyl) phthalate	0.00634	U	0.0787	0.00634	mg/Kg	☼	02/13/13 12:20	02/19/13 05:45	1
Chrysene	0.00120	U	0.0197	0.00120	mg/Kg	☼	02/13/13 12:20	02/19/13 05:45	1
Benzo[a]pyrene	0.00190	U	0.0197	0.00190	mg/Kg	☼	02/13/13 12:20	02/19/13 05:45	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorophenol	57		23 - 108				02/13/13 12:20	02/19/13 05:45	1
Phenol-d6	53		26 - 108				02/13/13 12:20	02/19/13 05:45	1
Nitrobenzene-d5	60		34 - 118				02/13/13 12:20	02/19/13 05:45	1
2-Fluorobiphenyl	57		51 - 109				02/13/13 12:20	02/19/13 05:45	1
2,4,6-Tribromophenol	57		34 - 122				02/13/13 12:20	02/19/13 05:45	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68443-1

Client Sample ID: SO-1620-IM-CPT-03-13-(12.5-13.5)-20130211

Lab Sample ID: 600-68443-7

Date Collected: 02/11/13 14:35

Matrix: Solid

Date Received: 02/12/13 16:48

Percent Solids: 84.6

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Terphenyl-d14	72		56 - 123	02/13/13 12:20	02/19/13 05:45	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	4.28		1.18	0.258	mg/Kg	☼	02/13/13 09:49	02/13/13 15:03	1
Lead	8.12		0.591	0.124	mg/Kg	☼	02/13/13 09:49	02/13/13 15:03	1

General Chemistry

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	15		1.0	1.0	%			02/12/13 15:52	1
Percent Solids	85		1.0	1.0	%			02/12/13 15:52	1

Client Sample ID: SO-1620-IM-CPT-04-13(2.5-5)-20130211

Lab Sample ID: 600-68443-8

Date Collected: 02/11/13 15:30

Matrix: Solid

Date Received: 02/12/13 16:48

Percent Solids: 83.0

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	0.0182	b	0.0120	0.00264	mg/Kg	☼		02/12/13 21:19	1
Benzene	0.000759	U	0.00602	0.000759	mg/Kg	☼		02/12/13 21:19	1
1,2-Dichloroethane	0.00108	U	0.00602	0.00108	mg/Kg	☼		02/12/13 21:19	1
Toluene	0.00166	U	0.00602	0.00166	mg/Kg	☼		02/12/13 21:19	1
Chlorobenzene	0.00116	U	0.00602	0.00116	mg/Kg	☼		02/12/13 21:19	1
Ethylbenzene	0.00123	U	0.00602	0.00123	mg/Kg	☼		02/12/13 21:19	1
Xylenes, Total	0.00136	U	0.00602	0.00136	mg/Kg	☼		02/12/13 21:19	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	61		61 - 130		02/12/13 21:19	1
Dibromofluoromethane	88		68 - 140		02/12/13 21:19	1
Toluene-d8 (Surr)	66		50 - 130		02/12/13 21:19	1
4-Bromofluorobenzene	128		57 - 140		02/12/13 21:19	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.00510	U	0.0200	0.00510	mg/Kg	☼	02/13/13 12:20	02/19/13 06:12	1
Nitrobenzene	0.00356	U	0.0200	0.00356	mg/Kg	☼	02/13/13 12:20	02/19/13 06:12	1
2,4-Dimethylphenol	0.0103	U	0.0200	0.0103	mg/Kg	☼	02/13/13 12:20	02/19/13 06:12	1
Bis(2-chloroethoxy)methane	0.00171	U	0.0200	0.00171	mg/Kg	☼	02/13/13 12:20	02/19/13 06:12	1
Naphthalene	0.00423	J	0.0200	0.00162	mg/Kg	☼	02/13/13 12:20	02/19/13 06:12	1
2-Methylnaphthalene	0.00330	U	0.0200	0.00330	mg/Kg	☼	02/13/13 12:20	02/19/13 06:12	1
2-Chloronaphthalene	0.00146	U	0.0200	0.00146	mg/Kg	☼	02/13/13 12:20	02/19/13 06:12	1
Acenaphthylene	0.00393	J	0.0200	0.00120	mg/Kg	☼	02/13/13 12:20	02/19/13 06:12	1
2,6-Dinitrotoluene	0.00355	U	0.0200	0.00355	mg/Kg	☼	02/13/13 12:20	02/19/13 06:12	1
Acenaphthene	0.00173	U	0.0200	0.00173	mg/Kg	☼	02/13/13 12:20	02/19/13 06:12	1
4-Nitrophenol	0.00611	U	0.0200	0.00611	mg/Kg	☼	02/13/13 12:20	02/19/13 06:12	1
Dibenzofuran	0.00214	U	0.0200	0.00214	mg/Kg	☼	02/13/13 12:20	02/19/13 06:12	1
2,4-Dinitrotoluene	0.00434	U	0.0200	0.00434	mg/Kg	☼	02/13/13 12:20	02/19/13 06:12	1
Fluorene	0.00284	U	0.0200	0.00284	mg/Kg	☼	02/13/13 12:20	02/19/13 06:12	1
4,6-Dinitro-2-methylphenol	0.00599	U	0.0200	0.00599	mg/Kg	☼	02/13/13 12:20	02/19/13 06:12	1
N-Nitrosodiphenylamine	0.00227	U	0.0200	0.00227	mg/Kg	☼	02/13/13 12:20	02/19/13 06:12	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68443-1

Client Sample ID: SO-1620-IM-CPT-04-13(2.5-5)-20130211

Lab Sample ID: 600-68443-8

Date Collected: 02/11/13 15:30

Matrix: Solid

Date Received: 02/12/13 16:48

Percent Solids: 83.0

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Diphenylhydrazine	0.00195	U	0.0200	0.00195	mg/Kg	☼	02/13/13 12:20	02/19/13 06:12	1
Pentachlorophenol	0.00481	U	0.201	0.00481	mg/Kg	☼	02/13/13 12:20	02/19/13 06:12	1
Phenanthrene	0.0197	J	0.0200	0.00595	mg/Kg	☼	02/13/13 12:20	02/19/13 06:12	1
Anthracene	0.00565	J	0.0200	0.00154	mg/Kg	☼	02/13/13 12:20	02/19/13 06:12	1
Di-n-butyl phthalate	0.00312	U	0.0802	0.00312	mg/Kg	☼	02/13/13 12:20	02/19/13 06:12	1
Fluoranthene	0.0661		0.0200	0.00374	mg/Kg	☼	02/13/13 12:20	02/19/13 06:12	1
Pyrene	0.0706		0.0200	0.00220	mg/Kg	☼	02/13/13 12:20	02/19/13 06:12	1
Benzo[a]anthracene	0.0336		0.0200	0.00166	mg/Kg	☼	02/13/13 12:20	02/19/13 06:12	1
Bis(2-ethylhexyl) phthalate	0.0143	J	0.0802	0.00646	mg/Kg	☼	02/13/13 12:20	02/19/13 06:12	1
Chrysene	0.0457		0.0200	0.00123	mg/Kg	☼	02/13/13 12:20	02/19/13 06:12	1
Benzo[a]pyrene	0.0332		0.0200	0.00194	mg/Kg	☼	02/13/13 12:20	02/19/13 06:12	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	50		23 - 108	02/13/13 12:20	02/19/13 06:12	1
Phenol-d6	44		26 - 108	02/13/13 12:20	02/19/13 06:12	1
Nitrobenzene-d5	57		34 - 118	02/13/13 12:20	02/19/13 06:12	1
2-Fluorobiphenyl	54		51 - 109	02/13/13 12:20	02/19/13 06:12	1
2,4,6-Tribromophenol	52		34 - 122	02/13/13 12:20	02/19/13 06:12	1
Terphenyl-d14	72		56 - 123	02/13/13 12:20	02/19/13 06:12	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	2.13		1.13	0.245	mg/Kg	☼	02/13/13 09:49	02/13/13 15:07	1
Lead	9.15		0.563	0.118	mg/Kg	☼	02/13/13 09:49	02/13/13 15:07	1

General Chemistry

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	17		1.0	1.0	%			02/12/13 15:52	1
Percent Solids	83		1.0	1.0	%			02/12/13 15:52	1

Client Sample ID: SO-1620-IM-CPT-04-13(10-12.5)-20130211

Lab Sample ID: 600-68443-9

Date Collected: 02/11/13 15:40

Matrix: Solid

Date Received: 02/12/13 16:48

Percent Solids: 88.2

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	0.0217	b	0.0113	0.00248	mg/Kg	☼		02/12/13 21:43	1
Benzene	0.000714	U	0.00567	0.000714	mg/Kg	☼		02/12/13 21:43	1
1,2-Dichloroethane	0.00102	U	0.00567	0.00102	mg/Kg	☼		02/12/13 21:43	1
Toluene	0.00157	U	0.00567	0.00157	mg/Kg	☼		02/12/13 21:43	1
Chlorobenzene	0.00109	U	0.00567	0.00109	mg/Kg	☼		02/12/13 21:43	1
Ethylbenzene	0.00116	U	0.00567	0.00116	mg/Kg	☼		02/12/13 21:43	1
Xylenes, Total	0.00128	U	0.00567	0.00128	mg/Kg	☼		02/12/13 21:43	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	64		61 - 130		02/12/13 21:43	1
Dibromofluoromethane	89		68 - 140		02/12/13 21:43	1
Toluene-d8 (Surr)	68		50 - 130		02/12/13 21:43	1
4-Bromofluorobenzene	126		57 - 140		02/12/13 21:43	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68443-1

Client Sample ID: SO-1620-IM-CPT-04-13(10-12.5)-20130211

Lab Sample ID: 600-68443-9

Date Collected: 02/11/13 15:40

Matrix: Solid

Date Received: 02/12/13 16:48

Percent Solids: 88.2

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.0480	U	0.189	0.0480	mg/Kg	☼	02/13/13 12:20	02/19/13 06:39	10
Nitrobenzene	0.0335	U	0.189	0.0335	mg/Kg	☼	02/13/13 12:20	02/19/13 06:39	10
2,4-Dimethylphenol	0.0971	U	0.189	0.0971	mg/Kg	☼	02/13/13 12:20	02/19/13 06:39	10
Bis(2-chloroethoxy)methane	0.0161	U	0.189	0.0161	mg/Kg	☼	02/13/13 12:20	02/19/13 06:39	10
Naphthalene	0.0153	U	0.189	0.0153	mg/Kg	☼	02/13/13 12:20	02/19/13 06:39	10
2-Methylnaphthalene	0.0310	U	0.189	0.0310	mg/Kg	☼	02/13/13 12:20	02/19/13 06:39	10
2-Chloronaphthalene	0.0137	U	0.189	0.0137	mg/Kg	☼	02/13/13 12:20	02/19/13 06:39	10
Acenaphthylene	0.0113	U	0.189	0.0113	mg/Kg	☼	02/13/13 12:20	02/19/13 06:39	10
2,6-Dinitrotoluene	0.0334	U	0.189	0.0334	mg/Kg	☼	02/13/13 12:20	02/19/13 06:39	10
Acenaphthene	0.345		0.189	0.0163	mg/Kg	☼	02/13/13 12:20	02/19/13 06:39	10
4-Nitrophenol	0.0575	U	0.189	0.0575	mg/Kg	☼	02/13/13 12:20	02/19/13 06:39	10
Dibenzofuran	0.0201	U	0.189	0.0201	mg/Kg	☼	02/13/13 12:20	02/19/13 06:39	10
2,4-Dinitrotoluene	0.0408	U	0.189	0.0408	mg/Kg	☼	02/13/13 12:20	02/19/13 06:39	10
Fluorene	0.0497 J		0.189	0.0267	mg/Kg	☼	02/13/13 12:20	02/19/13 06:39	10
4,6-Dinitro-2-methylphenol	0.0563	U	0.189	0.0563	mg/Kg	☼	02/13/13 12:20	02/19/13 06:39	10
N-Nitrosodiphenylamine	0.0214	U	0.189	0.0214	mg/Kg	☼	02/13/13 12:20	02/19/13 06:39	10
1,2-Diphenylhydrazine	0.0183	U	0.189	0.0183	mg/Kg	☼	02/13/13 12:20	02/19/13 06:39	10
Pentachlorophenol	0.0453	U	1.89	0.0453	mg/Kg	☼	02/13/13 12:20	02/19/13 06:39	10
Phenanthrene	0.0560	U	0.189	0.0560	mg/Kg	☼	02/13/13 12:20	02/19/13 06:39	10
Anthracene	0.0276 J		0.189	0.0145	mg/Kg	☼	02/13/13 12:20	02/19/13 06:39	10
Di-n-butyl phthalate	0.0293	U	0.754	0.0293	mg/Kg	☼	02/13/13 12:20	02/19/13 06:39	10
Fluoranthene	0.112 J		0.189	0.0352	mg/Kg	☼	02/13/13 12:20	02/19/13 06:39	10
Pyrene	0.129 J		0.189	0.0207	mg/Kg	☼	02/13/13 12:20	02/19/13 06:39	10
Benzo[a]anthracene	0.0405 J		0.189	0.0156	mg/Kg	☼	02/13/13 12:20	02/19/13 06:39	10
Bis(2-ethylhexyl) phthalate	0.0608	U	0.754	0.0608	mg/Kg	☼	02/13/13 12:20	02/19/13 06:39	10
Chrysene	0.0387 J		0.189	0.0115	mg/Kg	☼	02/13/13 12:20	02/19/13 06:39	10
Benzo[a]pyrene	0.0182	U	0.189	0.0182	mg/Kg	☼	02/13/13 12:20	02/19/13 06:39	10

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	37		23 - 108	02/13/13 12:20	02/19/13 06:39	10
Phenol-d6	33		26 - 108	02/13/13 12:20	02/19/13 06:39	10
Nitrobenzene-d5	54		34 - 118	02/13/13 12:20	02/19/13 06:39	10
2-Fluorobiphenyl	52		51 - 109	02/13/13 12:20	02/19/13 06:39	10
2,4,6-Tribromophenol	0 X		34 - 122	02/13/13 12:20	02/19/13 06:39	10
Terphenyl-d14	78		56 - 123	02/13/13 12:20	02/19/13 06:39	10

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	3.72		1.06	0.231	mg/Kg	☼	02/13/13 09:49	02/13/13 15:18	1
Lead	5.87		0.530	0.111	mg/Kg	☼	02/13/13 09:49	02/13/13 15:18	1

General Chemistry

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	12		1.0	1.0	%			02/12/13 15:52	1
Percent Solids	88		1.0	1.0	%			02/12/13 15:52	1

TestAmerica Houston

Definitions/Glossary

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68443-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
U	Analyte was not detected at or above the SDL.
b	The compound was found in the blank and sample
J	Result is less than the MQL but greater than or equal to the SDL and the concentration is an estimated value.

GC/MS Semi VOA

Qualifier	Qualifier Description
U	Analyte was not detected at or above the SDL.
X	Surrogate is outside control limits
J	Result is less than the MQL but greater than or equal to the SDL and the concentration is an estimated value.

Metals

Qualifier	Qualifier Description
F	Duplicate RPD exceeds the control limit
U	Analyte was not detected at or above the SDL.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Surrogate Summary

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68443-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		12DCE (61-130)	DBFM (68-140)	TOL (50-130)	BFB (57-140)
600-68443-1	SO-1620-IM-CPT-01-13(2-5)-20130:	62	90	67	132
600-68443-2	SO-1620-IM-CPT-01-13(10-12.5)-2C	62	86	66	130
600-68443-3	SO-1620-IM-CPT-01-13(17.5-20)-2C	68	93	67	131
600-68443-4	SO-1620-IM-CPT-02-13(2.5-5.0)-20	67	89	67	132
600-68443-5	SO-1620-IM-CPT-02-13(12.5-15)-2C	66	91	67	136
600-68443-6	SO-1620-IM-CPT-03-13(2.5-5)-2013	64	86	67	130
600-68443-7	SO-1620-IM-CPT-03-13-(12.5-13.5)-	61	88	67	131
600-68443-8	SO-1620-IM-CPT-04-13(2.5-5)-2013	61	88	66	128
600-68443-9	SO-1620-IM-CPT-04-13(10-12.5)-2C	64	89	68	126
LCS 600-99418/3	Lab Control Sample	73	97	74	137
MB 600-99418/4	Method Blank	73	98	73	140

Surrogate Legend

12DCE = 1,2-Dichloroethane-d4 (Surr)

DBFM = Dibromofluoromethane

TOL = Toluene-d8 (Surr)

BFB = 4-Bromofluorobenzene

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)					
		2FP (23-108)	PHL (26-108)	NBZ (34-118)	FBP (51-109)	TBP (34-122)	TPH (56-123)
600-68443-1	SO-1620-IM-CPT-01-13(2-5)-20130:	43	30	50	65	0 X	83
600-68443-2	SO-1620-IM-CPT-01-13(10-12.5)-2C	57	54	60	60	61	78
600-68443-3	SO-1620-IM-CPT-01-13(17.5-20)-2C	59	60	59	55	48	72
600-68443-3 MS	SO-1620-IM-CPT-01-13(17.5-20)-2C	59	58	62	63	64	73
600-68443-3 MSD	SO-1620-IM-CPT-01-13(17.5-20)-2C	65	63	64	62	53	70
600-68443-4	SO-1620-IM-CPT-02-13(2.5-5.0)-20	62	57	69	61	54	80
600-68443-5	SO-1620-IM-CPT-02-13(12.5-15)-2C	56	54	62	62	57	79
600-68443-6	SO-1620-IM-CPT-03-13(2.5-5)-2013	37	32	45	70	0 X	84
600-68443-7	SO-1620-IM-CPT-03-13-(12.5-13.5)-	57	53	60	57	57	72
600-68443-8	SO-1620-IM-CPT-04-13(2.5-5)-2013	50	44	57	54	52	72
600-68443-9	SO-1620-IM-CPT-04-13(10-12.5)-2C	37	33	54	52	0 X	78
LCS 600-99481/3-A	Lab Control Sample	66	71	75	69	71	76
MB 600-99481/1-A	Method Blank	59	58	76	66	41	83

Surrogate Legend

2FP = 2-Fluorophenol

PHL = Phenol-d6

NBZ = Nitrobenzene-d5

FBP = 2-Fluorobiphenyl

TBP = 2,4,6-Tribromophenol

TPH = Terphenyl-d14

TestAmerica Houston

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68443-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 600-99418/4

Matrix: Solid

Analysis Batch: 99418

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	0.002448	J	0.0100	0.00219	mg/Kg			02/12/13 15:49	1
Benzene	0.000630	U	0.00500	0.000630	mg/Kg			02/12/13 15:49	1
1,2-Dichloroethane	0.000900	U	0.00500	0.000900	mg/Kg			02/12/13 15:49	1
Toluene	0.00138	U	0.00500	0.00138	mg/Kg			02/12/13 15:49	1
Chlorobenzene	0.000960	U	0.00500	0.000960	mg/Kg			02/12/13 15:49	1
Ethylbenzene	0.00102	U	0.00500	0.00102	mg/Kg			02/12/13 15:49	1
Xylenes, Total	0.00113	U	0.00500	0.00113	mg/Kg			02/12/13 15:49	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	73		61 - 130		02/12/13 15:49	1
Dibromofluoromethane	98		68 - 140		02/12/13 15:49	1
Toluene-d8 (Surr)	73		50 - 130		02/12/13 15:49	1
4-Bromofluorobenzene	140		57 - 140		02/12/13 15:49	1

Lab Sample ID: LCS 600-99418/3

Matrix: Solid

Analysis Batch: 99418

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Methylene Chloride	0.0500	0.06918		mg/Kg		138	48 - 144
Benzene	0.0500	0.05604		mg/Kg		112	66 - 128
1,2-Dichloroethane	0.0500	0.04716		mg/Kg		94	61 - 135
Toluene	0.0500	0.05080		mg/Kg		102	69 - 125
Chlorobenzene	0.0500	0.05121		mg/Kg		102	67 - 126
Ethylbenzene	0.0500	0.04790		mg/Kg		96	64 - 127
Xylenes, Total	0.150	0.1532		mg/Kg		102	65 - 129

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	73		61 - 130
Dibromofluoromethane	97		68 - 140
Toluene-d8 (Surr)	74		50 - 130
4-Bromofluorobenzene	137		57 - 140

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Lab Sample ID: MB 600-99481/1-A

Matrix: Solid

Analysis Batch: 99778

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 99481

Analyte	MB Result	MB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.00424	U	0.0167	0.00424	mg/Kg		02/13/13 12:20	02/18/13 08:13	1
Nitrobenzene	0.00296	U	0.0167	0.00296	mg/Kg		02/13/13 12:20	02/18/13 08:13	1
2,4-Dimethylphenol	0.00858	U	0.0167	0.00858	mg/Kg		02/13/13 12:20	02/18/13 08:13	1
Bis(2-chloroethoxy)methane	0.00142	U	0.0167	0.00142	mg/Kg		02/13/13 12:20	02/18/13 08:13	1
Naphthalene	0.00135	U	0.0167	0.00135	mg/Kg		02/13/13 12:20	02/18/13 08:13	1
2-Methylnaphthalene	0.00274	U	0.0167	0.00274	mg/Kg		02/13/13 12:20	02/18/13 08:13	1
2-Chloronaphthalene	0.00121	U	0.0167	0.00121	mg/Kg		02/13/13 12:20	02/18/13 08:13	1

TestAmerica Houston

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68443-1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Lab Sample ID: MB 600-99481/1-A

Matrix: Solid

Analysis Batch: 99778

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 99481

Analyte	MB	MB	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Acenaphthylene	0.00100	U	0.0167	0.00100	mg/Kg		02/13/13 12:20	02/18/13 08:13	1
2,6-Dinitrotoluene	0.00295	U	0.0167	0.00295	mg/Kg		02/13/13 12:20	02/18/13 08:13	1
Acenaphthene	0.00144	U	0.0167	0.00144	mg/Kg		02/13/13 12:20	02/18/13 08:13	1
4-Nitrophenol	0.00508	U	0.0167	0.00508	mg/Kg		02/13/13 12:20	02/18/13 08:13	1
Dibenzofuran	0.00178	U	0.0167	0.00178	mg/Kg		02/13/13 12:20	02/18/13 08:13	1
2,4-Dinitrotoluene	0.00361	U	0.0167	0.00361	mg/Kg		02/13/13 12:20	02/18/13 08:13	1
Fluorene	0.00236	U	0.0167	0.00236	mg/Kg		02/13/13 12:20	02/18/13 08:13	1
4,6-Dinitro-2-methylphenol	0.00498	U	0.0167	0.00498	mg/Kg		02/13/13 12:20	02/18/13 08:13	1
N-Nitrosodiphenylamine	0.00189	U	0.0167	0.00189	mg/Kg		02/13/13 12:20	02/18/13 08:13	1
1,2-Diphenylhydrazine	0.00162	U	0.0167	0.00162	mg/Kg		02/13/13 12:20	02/18/13 08:13	1
Pentachlorophenol	0.00400	U	0.167	0.00400	mg/Kg		02/13/13 12:20	02/18/13 08:13	1
Phenanthrene	0.00495	U	0.0167	0.00495	mg/Kg		02/13/13 12:20	02/18/13 08:13	1
Anthracene	0.00128	U	0.0167	0.00128	mg/Kg		02/13/13 12:20	02/18/13 08:13	1
Di-n-butyl phthalate	0.00259	U	0.0667	0.00259	mg/Kg		02/13/13 12:20	02/18/13 08:13	1
Fluoranthene	0.00311	U	0.0167	0.00311	mg/Kg		02/13/13 12:20	02/18/13 08:13	1
Pyrene	0.00183	U	0.0167	0.00183	mg/Kg		02/13/13 12:20	02/18/13 08:13	1
Benzo[a]anthracene	0.00138	U	0.0167	0.00138	mg/Kg		02/13/13 12:20	02/18/13 08:13	1
Bis(2-ethylhexyl) phthalate	0.00537	U	0.0667	0.00537	mg/Kg		02/13/13 12:20	02/18/13 08:13	1
Chrysene	0.00102	U	0.0167	0.00102	mg/Kg		02/13/13 12:20	02/18/13 08:13	1
Benzo[a]pyrene	0.00161	U	0.0167	0.00161	mg/Kg		02/13/13 12:20	02/18/13 08:13	1

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
2-Fluorophenol	59		23 - 108	02/13/13 12:20	02/18/13 08:13	1
Phenol-d6	58		26 - 108	02/13/13 12:20	02/18/13 08:13	1
Nitrobenzene-d5	76		34 - 118	02/13/13 12:20	02/18/13 08:13	1
2-Fluorobiphenyl	66		51 - 109	02/13/13 12:20	02/18/13 08:13	1
2,4,6-Tribromophenol	41		34 - 122	02/13/13 12:20	02/18/13 08:13	1
Terphenyl-d14	83		56 - 123	02/13/13 12:20	02/18/13 08:13	1

Lab Sample ID: LCS 600-99481/3-A

Matrix: Solid

Analysis Batch: 99778

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 99481

Analyte	Spike Added	LCS	LCS	Unit	D	%Rec	%Rec. Limits
		Result	Qualifier				
Phenol	0.333	0.2587		mg/Kg		78	33 - 122
Nitrobenzene	0.333	0.2713		mg/Kg		81	53 - 123
2,4-Dimethylphenol	0.333	0.2559		mg/Kg		77	36 - 124
Bis(2-chloroethoxy)methane	0.333	0.2476		mg/Kg		74	54 - 114
Naphthalene	0.333	0.2640		mg/Kg		79	52 - 117
2-Methylnaphthalene	0.333	0.2526		mg/Kg		76	54 - 130
2-Chloronaphthalene	0.333	0.2450		mg/Kg		73	50 - 123
Acenaphthylene	0.333	0.2618		mg/Kg		79	51 - 122
2,6-Dinitrotoluene	0.333	0.2749		mg/Kg		82	53 - 116
Acenaphthene	0.333	0.2556		mg/Kg		77	58 - 125
4-Nitrophenol	0.333	0.2185		mg/Kg		66	20 - 132
Dibenzofuran	0.333	0.2532		mg/Kg		76	54 - 119
2,4-Dinitrotoluene	0.333	0.2488		mg/Kg		75	53 - 123
Fluorene	0.333	0.2556		mg/Kg		77	52 - 147

TestAmerica Houston

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68443-1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Lab Sample ID: LCS 600-99481/3-A

Matrix: Solid

Analysis Batch: 99778

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 99481

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
4,6-Dinitro-2-methylphenol	0.333	0.1745		mg/Kg		52	34 - 124
N-Nitrosodiphenylamine	0.333	0.3012		mg/Kg		90	47 - 127
1,2-Diphenylhydrazine	0.333	0.2563		mg/Kg		77	49 - 131
Pentachlorophenol	0.333	0.1298	J	mg/Kg		39	17 - 124
Phenanthrene	0.333	0.2623		mg/Kg		79	55 - 120
Anthracene	0.333	0.2551		mg/Kg		77	52 - 120
Di-n-butyl phthalate	0.333	0.2698		mg/Kg		81	61 - 124
Fluoranthene	0.333	0.2673		mg/Kg		80	56 - 123
Pyrene	0.333	0.2808		mg/Kg		84	48 - 131
Benzo[a]anthracene	0.333	0.2667		mg/Kg		80	49 - 124
Bis(2-ethylhexyl) phthalate	0.333	0.2788		mg/Kg		84	55 - 136
Chrysene	0.333	0.2819		mg/Kg		85	50 - 123
Benzo[a]pyrene	0.333	0.2593		mg/Kg		78	58 - 123

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2-Fluorophenol	66		23 - 108
Phenol-d6	71		26 - 108
Nitrobenzene-d5	75		34 - 118
2-Fluorobiphenyl	69		51 - 109
2,4,6-Tribromophenol	71		34 - 122
Terphenyl-d14	76		56 - 123

Lab Sample ID: 600-68443-3 MS

Matrix: Solid

Analysis Batch: 99877

Client Sample ID: SO-1620-IM-CPT-01-13(17.5-20)-20130211

Prep Type: Total/NA

Prep Batch: 99481

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Phenol	0.00493	U	0.387	0.2530		mg/Kg	☼	65	31 - 121
Nitrobenzene	0.00344	U	0.387	0.2452		mg/Kg	☼	63	29 - 118
2,4-Dimethylphenol	0.00997	U	0.387	0.2358		mg/Kg	☼	61	29 - 122
Bis(2-chloroethoxy)methane	0.00165	U	0.387	0.2324		mg/Kg	☼	60	33 - 119
Naphthalene	0.00157	U	0.387	0.2542		mg/Kg	☼	66	30 - 112
2-Methylnaphthalene	0.00318	U	0.387	0.2442		mg/Kg	☼	63	32 - 136
2-Chloronaphthalene	0.00141	U	0.387	0.2421		mg/Kg	☼	63	34 - 126
Acenaphthylene	0.00116	U	0.387	0.2575		mg/Kg	☼	66	32 - 137
2,6-Dinitrotoluene	0.00343	U	0.387	0.2753		mg/Kg	☼	71	30 - 124
Acenaphthene	0.00167	U	0.387	0.2503		mg/Kg	☼	65	25 - 134
4-Nitrophenol	0.00590	U	0.387	0.2674		mg/Kg	☼	69	25 - 122
Dibenzofuran	0.00207	U	0.387	0.2562		mg/Kg	☼	66	35 - 125
2,4-Dinitrotoluene	0.00419	U	0.387	0.2710		mg/Kg	☼	70	10 - 129
Fluorene	0.00274	U	0.387	0.2665		mg/Kg	☼	69	36 - 122
4,6-Dinitro-2-methylphenol	0.00578	U	0.387	0.2249		mg/Kg	☼	58	10 - 104
N-Nitrosodiphenylamine	0.00220	U	0.387	0.3252		mg/Kg	☼	84	28 - 106
1,2-Diphenylhydrazine	0.00188	U	0.387	0.2602		mg/Kg	☼	67	30 - 130
Pentachlorophenol	0.00465	U	0.387	0.1240	J	mg/Kg	☼	32	25 - 124
Phenanthrene	0.00575	U	0.387	0.2871		mg/Kg	☼	74	26 - 126
Anthracene	0.00149	U	0.387	0.2778		mg/Kg	☼	72	35 - 115
Di-n-butyl phthalate	0.00301	U	0.387	0.2993		mg/Kg	☼	77	41 - 126

TestAmerica Houston

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68443-1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Lab Sample ID: 600-68443-3 MS

Matrix: Solid

Analysis Batch: 99877

Client Sample ID: SO-1620-IM-CPT-01-13(17.5-20)-20130211

Prep Type: Total/NA

Prep Batch: 99481

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec. Limits
	Result	Qualifier	Added	Result	Qualifier				
Fluoranthene	0.00361	U	0.387	0.2864		mg/Kg	☼	74	37 - 132
Pyrene	0.00213	U	0.387	0.3094		mg/Kg	☼	80	28 - 138
Benzo[a]anthracene	0.00160	U	0.387	0.2901		mg/Kg	☼	75	38 - 128
Bis(2-ethylhexyl) phthalate	0.00624	U	0.387	0.3144		mg/Kg	☼	81	44 - 139
Chrysene	0.00118	U	0.387	0.3040		mg/Kg	☼	78	36 - 130
Benzo[a]pyrene	0.00187	U	0.387	0.2972		mg/Kg	☼	77	30 - 130

Surrogate	MS	MS	Limits
	%Recovery	Qualifier	
2-Fluorophenol	59		23 - 108
Phenol-d6	58		26 - 108
Nitrobenzene-d5	62		34 - 118
2-Fluorobiphenyl	63		51 - 109
2,4,6-Tribromophenol	64		34 - 122
Terphenyl-d14	73		56 - 123

Lab Sample ID: 600-68443-3 MSD

Matrix: Solid

Analysis Batch: 99877

Client Sample ID: SO-1620-IM-CPT-01-13(17.5-20)-20130211

Prep Type: Total/NA

Prep Batch: 99481

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
	Result	Qualifier	Added	Result	Qualifier						
Phenol	0.00493	U	0.387	0.2739		mg/Kg	☼	71	31 - 121	8	30
Nitrobenzene	0.00344	U	0.387	0.2569		mg/Kg	☼	66	29 - 118	5	30
2,4-Dimethylphenol	0.00997	U	0.387	0.2556		mg/Kg	☼	66	29 - 122	8	30
Bis(2-chloroethoxy)methane	0.00165	U	0.387	0.2314		mg/Kg	☼	60	33 - 119	0	30
Naphthalene	0.00157	U	0.387	0.2571		mg/Kg	☼	66	30 - 112	1	30
2-Methylnaphthalene	0.00318	U	0.387	0.2557		mg/Kg	☼	66	32 - 136	5	30
2-Chloronaphthalene	0.00141	U	0.387	0.2489		mg/Kg	☼	64	34 - 126	3	30
Acenaphthylene	0.00116	U	0.387	0.2636		mg/Kg	☼	68	32 - 137	2	30
2,6-Dinitrotoluene	0.00343	U	0.387	0.2653		mg/Kg	☼	68	30 - 124	4	30
Acenaphthene	0.00167	U	0.387	0.2651		mg/Kg	☼	68	25 - 134	6	30
4-Nitrophenol	0.00590	U	0.387	0.2330		mg/Kg	☼	60	25 - 122	14	30
Dibenzofuran	0.00207	U	0.387	0.2608		mg/Kg	☼	67	35 - 125	2	30
2,4-Dinitrotoluene	0.00419	U	0.387	0.2668		mg/Kg	☼	69	10 - 129	2	30
Fluorene	0.00274	U	0.387	0.2623		mg/Kg	☼	68	36 - 122	2	30
4,6-Dinitro-2-methylphenol	0.00578	U	0.387	0.1825		mg/Kg	☼	47	10 - 104	21	30
N-Nitrosodiphenylamine	0.00220	U	0.387	0.2984		mg/Kg	☼	77	28 - 106	9	30
1,2-Diphenylhydrazine	0.00188	U	0.387	0.2436		mg/Kg	☼	63	30 - 130	7	30
Pentachlorophenol	0.00465	U	0.387	0.1101	J	mg/Kg	☼	28	25 - 124	12	30
Phenanthrene	0.00575	U	0.387	0.2530		mg/Kg	☼	65	26 - 126	13	30
Anthracene	0.00149	U	0.387	0.2539		mg/Kg	☼	66	35 - 115	9	30
Di-n-butyl phthalate	0.00301	U	0.387	0.2747		mg/Kg	☼	71	41 - 126	9	30
Fluoranthene	0.00361	U	0.387	0.2681		mg/Kg	☼	69	37 - 132	7	30
Pyrene	0.00213	U	0.387	0.2956		mg/Kg	☼	76	28 - 138	5	30
Benzo[a]anthracene	0.00160	U	0.387	0.2792		mg/Kg	☼	72	38 - 128	4	30
Bis(2-ethylhexyl) phthalate	0.00624	U	0.387	0.2986		mg/Kg	☼	77	44 - 139	5	30
Chrysene	0.00118	U	0.387	0.2814		mg/Kg	☼	73	36 - 130	8	30
Benzo[a]pyrene	0.00187	U	0.387	0.2805		mg/Kg	☼	72	30 - 130	6	30

TestAmerica Houston

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68443-1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Lab Sample ID: 600-68443-3 MSD
Matrix: Solid
Analysis Batch: 99877

Client Sample ID: SO-1620-IM-CPT-01-13(17.5-20)-20130211
Prep Type: Total/NA
Prep Batch: 99481

Surrogate	MSD MSD		Limits
	%Recovery	Qualifier	
2-Fluorophenol	65		23 - 108
Phenol-d6	63		26 - 108
Nitrobenzene-d5	64		34 - 118
2-Fluorobiphenyl	62		51 - 109
2,4,6-Tribromophenol	53		34 - 122
Terphenyl-d14	70		56 - 123

Method: 6010B - Metals (ICP)

Lab Sample ID: MB 600-99453/1-A
Matrix: Solid
Analysis Batch: 99488

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 99453

Analyte	MB MB		MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Arsenic	0.218	U	1.00	0.218	mg/Kg		02/13/13 09:49	02/13/13 13:46	1
Lead	0.105	U	0.500	0.105	mg/Kg		02/13/13 09:49	02/13/13 13:46	1

Lab Sample ID: LCSSRM 600-99453/2-A
Matrix: Solid
Analysis Batch: 99488

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 99453

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec. Limits	
Arsenic	168	156.4		mg/Kg		93.1	83.3 - 117.3	
Lead	76.9	67.04		mg/Kg		87.2	81.3 - 118.7	

Lab Sample ID: 600-68443-3 MS
Matrix: Solid
Analysis Batch: 99488

Client Sample ID: SO-1620-IM-CPT-01-13(17.5-20)-20130211
Prep Type: Total/NA
Prep Batch: 99453

Analyte	Sample Result	Sample Qualifier	Spike Added	MS MS		Unit	D	%Rec	%Rec. Limits	
				Result	Qualifier					
Arsenic	6.72		54.3	50.29		mg/Kg	☼	80	75 - 125	
Lead	12.1		54.3	52.94		mg/Kg	☼	75	75 - 125	

Lab Sample ID: 600-68443-3 MSD
Matrix: Solid
Analysis Batch: 99488

Client Sample ID: SO-1620-IM-CPT-01-13(17.5-20)-20130211
Prep Type: Total/NA
Prep Batch: 99453

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD MSD		Unit	D	%Rec	%Rec. Limits		RPD	
				Result	Qualifier				Limits	RPD	Limit	
Arsenic	6.72		53.8	47.62		mg/Kg	☼	76	75 - 125	5	20	
Lead	12.1		53.8	52.81		mg/Kg	☼	76	75 - 125	0	20	

Lab Sample ID: 600-68443-3 DU
Matrix: Solid
Analysis Batch: 99488

Client Sample ID: SO-1620-IM-CPT-01-13(17.5-20)-20130211
Prep Type: Total/NA
Prep Batch: 99453

Analyte	Sample Result	Sample Qualifier	DU DU		Unit	D	RPD	Limit
			Result	Qualifier				
Arsenic	6.72		1.538	F	mg/Kg	☼	126	20

TestAmerica Houston

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68443-1

Method: 6010B - Metals (ICP) (Continued)

Lab Sample ID: 600-68443-3 DU

Client Sample ID: SO-1620-IM-CPT-01-13(17.5-20)-20130211

Matrix: Solid

Prep Type: Total/NA

Analysis Batch: 99488

Prep Batch: 99453

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Lead	12.1		5.433	F	mg/Kg	✖	76	20

Method: Moisture - Percent Moisture

Lab Sample ID: 600-68443-1 DU

Client Sample ID: SO-1620-IM-CPT-01-13(2-5)-20130211

Matrix: Solid

Prep Type: Total/NA

Analysis Batch: 99408

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Percent Moisture	15		16		%		9	
Percent Solids	85		84		%		2	

Unadjusted Detection Limits

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68443-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	MQL	MDL	Units	Method
1,2-Dichloroethane	0.00500	0.000900	mg/Kg	8260B
Benzene	0.00500	0.000630	mg/Kg	8260B
Chlorobenzene	0.00500	0.000960	mg/Kg	8260B
Ethylbenzene	0.00500	0.00102	mg/Kg	8260B
Methylene Chloride	0.0100	0.00219	mg/Kg	8260B
Toluene	0.00500	0.00138	mg/Kg	8260B
Xylenes, Total	0.00500	0.00113	mg/Kg	8260B

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	MQL	MDL	Units	Method
1,2-Diphenylhydrazine	0.0167	0.00162	mg/Kg	8270C LL
2,4-Dimethylphenol	0.0167	0.00858	mg/Kg	8270C LL
2,4-Dinitrotoluene	0.0167	0.00361	mg/Kg	8270C LL
2,6-Dinitrotoluene	0.0167	0.00295	mg/Kg	8270C LL
2-Chloronaphthalene	0.0167	0.00121	mg/Kg	8270C LL
2-Methylnaphthalene	0.0167	0.00274	mg/Kg	8270C LL
4,6-Dinitro-2-methylphenol	0.0167	0.00498	mg/Kg	8270C LL
4-Nitrophenol	0.0167	0.00508	mg/Kg	8270C LL
Acenaphthene	0.0167	0.00144	mg/Kg	8270C LL
Acenaphthylene	0.0167	0.00100	mg/Kg	8270C LL
Anthracene	0.0167	0.00128	mg/Kg	8270C LL
Benzo[a]anthracene	0.0167	0.00138	mg/Kg	8270C LL
Benzo[a]pyrene	0.0167	0.00161	mg/Kg	8270C LL
Bis(2-chloroethoxy)methane	0.0167	0.00142	mg/Kg	8270C LL
Bis(2-ethylhexyl) phthalate	0.0667	0.00537	mg/Kg	8270C LL
Chrysene	0.0167	0.00102	mg/Kg	8270C LL
Dibenzofuran	0.0167	0.00178	mg/Kg	8270C LL
Di-n-butyl phthalate	0.0667	0.00259	mg/Kg	8270C LL
Fluoranthene	0.0167	0.00311	mg/Kg	8270C LL
Fluorene	0.0167	0.00236	mg/Kg	8270C LL
Naphthalene	0.0167	0.00135	mg/Kg	8270C LL
Nitrobenzene	0.0167	0.00296	mg/Kg	8270C LL
N-Nitrosodiphenylamine	0.0167	0.00189	mg/Kg	8270C LL
Pentachlorophenol	0.167	0.00400	mg/Kg	8270C LL
Phenanthrene	0.0167	0.00495	mg/Kg	8270C LL
Phenol	0.0167	0.00424	mg/Kg	8270C LL
Pyrene	0.0167	0.00183	mg/Kg	8270C LL

Method: 6010B - Metals (ICP)

Analyte	MQL	MDL	Units	Method
Arsenic	1.00	0.218	mg/Kg	6010B
Lead	0.500	0.105	mg/Kg	6010B

General Chemistry

Analyte	MQL	MDL	Units	Method
Percent Moisture	1.0	1.0	%	Moisture
Percent Solids	1.0	1.0	%	Moisture

QC Association Summary

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68443-1

GC/MS VOA

Analysis Batch: 99418

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-68443-1	SO-1620-IM-CPT-01-13(2-5)-20130211	Total/NA	Solid	8260B	
600-68443-2	SO-1620-IM-CPT-01-13(10-12.5)-20130211	Total/NA	Solid	8260B	
600-68443-3	SO-1620-IM-CPT-01-13(17.5-20)-20130211	Total/NA	Solid	8260B	
600-68443-4	SO-1620-IM-CPT-02-13(2.5-5.0)-20130211	Total/NA	Solid	8260B	
600-68443-5	SO-1620-IM-CPT-02-13(12.5-15)-20130211	Total/NA	Solid	8260B	
600-68443-6	SO-1620-IM-CPT-03-13(2.5-5)-20130211	Total/NA	Solid	8260B	
600-68443-7	SO-1620-IM-CPT-03-13-(12.5-13.5)-20130211	Total/NA	Solid	8260B	
600-68443-8	SO-1620-IM-CPT-04-13(2.5-5)-20130211	Total/NA	Solid	8260B	
600-68443-9	SO-1620-IM-CPT-04-13(10-12.5)-20130211	Total/NA	Solid	8260B	
LCS 600-99418/3	Lab Control Sample	Total/NA	Solid	8260B	
MB 600-99418/4	Method Blank	Total/NA	Solid	8260B	

GC/MS Semi VOA

Prep Batch: 99481

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-68443-1	SO-1620-IM-CPT-01-13(2-5)-20130211	Total/NA	Solid	3550B	
600-68443-2	SO-1620-IM-CPT-01-13(10-12.5)-20130211	Total/NA	Solid	3550B	
600-68443-3	SO-1620-IM-CPT-01-13(17.5-20)-20130211	Total/NA	Solid	3550B	
600-68443-3 MS	SO-1620-IM-CPT-01-13(17.5-20)-20130211	Total/NA	Solid	3550B	
600-68443-3 MSD	SO-1620-IM-CPT-01-13(17.5-20)-20130211	Total/NA	Solid	3550B	
600-68443-4	SO-1620-IM-CPT-02-13(2.5-5.0)-20130211	Total/NA	Solid	3550B	
600-68443-5	SO-1620-IM-CPT-02-13(12.5-15)-20130211	Total/NA	Solid	3550B	
600-68443-6	SO-1620-IM-CPT-03-13(2.5-5)-20130211	Total/NA	Solid	3550B	
600-68443-7	SO-1620-IM-CPT-03-13-(12.5-13.5)-20130211	Total/NA	Solid	3550B	
600-68443-8	SO-1620-IM-CPT-04-13(2.5-5)-20130211	Total/NA	Solid	3550B	
600-68443-9	SO-1620-IM-CPT-04-13(10-12.5)-20130211	Total/NA	Solid	3550B	
LCS 600-99481/3-A	Lab Control Sample	Total/NA	Solid	3550B	
MB 600-99481/1-A	Method Blank	Total/NA	Solid	3550B	

Analysis Batch: 99778

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 600-99481/3-A	Lab Control Sample	Total/NA	Solid	8270C LL	99481
MB 600-99481/1-A	Method Blank	Total/NA	Solid	8270C LL	99481

Analysis Batch: 99877

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-68443-2	SO-1620-IM-CPT-01-13(10-12.5)-20130211	Total/NA	Solid	8270C LL	99481
600-68443-3	SO-1620-IM-CPT-01-13(17.5-20)-20130211	Total/NA	Solid	8270C LL	99481
600-68443-3 MS	SO-1620-IM-CPT-01-13(17.5-20)-20130211	Total/NA	Solid	8270C LL	99481
600-68443-3 MSD	SO-1620-IM-CPT-01-13(17.5-20)-20130211	Total/NA	Solid	8270C LL	99481
600-68443-4	SO-1620-IM-CPT-02-13(2.5-5.0)-20130211	Total/NA	Solid	8270C LL	99481
600-68443-5	SO-1620-IM-CPT-02-13(12.5-15)-20130211	Total/NA	Solid	8270C LL	99481
600-68443-7	SO-1620-IM-CPT-03-13-(12.5-13.5)-20130211	Total/NA	Solid	8270C LL	99481
600-68443-8	SO-1620-IM-CPT-04-13(2.5-5)-20130211	Total/NA	Solid	8270C LL	99481
600-68443-9	SO-1620-IM-CPT-04-13(10-12.5)-20130211	Total/NA	Solid	8270C LL	99481

Analysis Batch: 100168

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-68443-1	SO-1620-IM-CPT-01-13(2-5)-20130211	Total/NA	Solid	8270C LL	99481

TestAmerica Houston

QC Association Summary

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68443-1

GC/MS Semi VOA (Continued)

Analysis Batch: 100168 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-68443-6	SO-1620-IM-CPT-03-13(2.5-5)-20130211	Total/NA	Solid	8270C LL	99481

Metals

Prep Batch: 99453

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-68443-1	SO-1620-IM-CPT-01-13(2-5)-20130211	Total/NA	Solid	3050B	
600-68443-2	SO-1620-IM-CPT-01-13(10-12.5)-20130211	Total/NA	Solid	3050B	
600-68443-3	SO-1620-IM-CPT-01-13(17.5-20)-20130211	Total/NA	Solid	3050B	
600-68443-3 DU	SO-1620-IM-CPT-01-13(17.5-20)-20130211	Total/NA	Solid	3050B	
600-68443-3 MS	SO-1620-IM-CPT-01-13(17.5-20)-20130211	Total/NA	Solid	3050B	
600-68443-3 MSD	SO-1620-IM-CPT-01-13(17.5-20)-20130211	Total/NA	Solid	3050B	
600-68443-4	SO-1620-IM-CPT-02-13(2.5-5.0)-20130211	Total/NA	Solid	3050B	
600-68443-5	SO-1620-IM-CPT-02-13(12.5-15)-20130211	Total/NA	Solid	3050B	
600-68443-6	SO-1620-IM-CPT-03-13(2.5-5)-20130211	Total/NA	Solid	3050B	
600-68443-7	SO-1620-IM-CPT-03-13-(12.5-13.5)-20130211	Total/NA	Solid	3050B	
600-68443-8	SO-1620-IM-CPT-04-13(2.5-5)-20130211	Total/NA	Solid	3050B	
600-68443-9	SO-1620-IM-CPT-04-13(10-12.5)-20130211	Total/NA	Solid	3050B	
LCSSRM 600-99453/2-A	Lab Control Sample	Total/NA	Solid	3050B	
MB 600-99453/1-A	Method Blank	Total/NA	Solid	3050B	

Analysis Batch: 99488

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-68443-1	SO-1620-IM-CPT-01-13(2-5)-20130211	Total/NA	Solid	6010B	99453
600-68443-2	SO-1620-IM-CPT-01-13(10-12.5)-20130211	Total/NA	Solid	6010B	99453
600-68443-3	SO-1620-IM-CPT-01-13(17.5-20)-20130211	Total/NA	Solid	6010B	99453
600-68443-3 DU	SO-1620-IM-CPT-01-13(17.5-20)-20130211	Total/NA	Solid	6010B	99453
600-68443-3 MS	SO-1620-IM-CPT-01-13(17.5-20)-20130211	Total/NA	Solid	6010B	99453
600-68443-3 MSD	SO-1620-IM-CPT-01-13(17.5-20)-20130211	Total/NA	Solid	6010B	99453
600-68443-4	SO-1620-IM-CPT-02-13(2.5-5.0)-20130211	Total/NA	Solid	6010B	99453
600-68443-5	SO-1620-IM-CPT-02-13(12.5-15)-20130211	Total/NA	Solid	6010B	99453
600-68443-6	SO-1620-IM-CPT-03-13(2.5-5)-20130211	Total/NA	Solid	6010B	99453
600-68443-7	SO-1620-IM-CPT-03-13-(12.5-13.5)-20130211	Total/NA	Solid	6010B	99453
600-68443-8	SO-1620-IM-CPT-04-13(2.5-5)-20130211	Total/NA	Solid	6010B	99453
600-68443-9	SO-1620-IM-CPT-04-13(10-12.5)-20130211	Total/NA	Solid	6010B	99453
LCSSRM 600-99453/2-A	Lab Control Sample	Total/NA	Solid	6010B	99453
MB 600-99453/1-A	Method Blank	Total/NA	Solid	6010B	99453

General Chemistry

Analysis Batch: 99408

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-68443-1	SO-1620-IM-CPT-01-13(2-5)-20130211	Total/NA	Solid	Moisture	
600-68443-1 DU	SO-1620-IM-CPT-01-13(2-5)-20130211	Total/NA	Solid	Moisture	
600-68443-2	SO-1620-IM-CPT-01-13(10-12.5)-20130211	Total/NA	Solid	Moisture	
600-68443-3	SO-1620-IM-CPT-01-13(17.5-20)-20130211	Total/NA	Solid	Moisture	
600-68443-4	SO-1620-IM-CPT-02-13(2.5-5.0)-20130211	Total/NA	Solid	Moisture	
600-68443-5	SO-1620-IM-CPT-02-13(12.5-15)-20130211	Total/NA	Solid	Moisture	
600-68443-6	SO-1620-IM-CPT-03-13(2.5-5)-20130211	Total/NA	Solid	Moisture	
600-68443-7	SO-1620-IM-CPT-03-13-(12.5-13.5)-20130211	Total/NA	Solid	Moisture	

TestAmerica Houston

QC Association Summary

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68443-1

General Chemistry (Continued)

Analysis Batch: 99408 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-68443-8	SO-1620-IM-CPT-04-13(2.5-5)-20130211	Total/NA	Solid	Moisture	
600-68443-9	SO-1620-IM-CPT-04-13(10-12.5)-20130211	Total/NA	Solid	Moisture	

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15
- 16
- 17

Lab Chronicle

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68443-1

Client Sample ID: SO-1620-IM-CPT-01-13(2-5)-20130211

Lab Sample ID: 600-68443-1

Date Collected: 02/11/13 10:00

Matrix: Solid

Date Received: 02/12/13 16:48

Percent Solids: 85.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	99418	02/12/13 18:34	YX	TAL HOU
Total/NA	Prep	3550B			99481	02/13/13 12:20	RK	TAL HOU
Total/NA	Analysis	8270C LL		10	100168	02/21/13 08:19	TTD	TAL HOU
Total/NA	Prep	3050B			99453	02/13/13 09:49	NER	TAL HOU
Total/NA	Analysis	6010B		1	99488	02/13/13 14:20	DCL	TAL HOU
Total/NA	Analysis	Moisture		1	99408	02/12/13 15:52	AS	TAL HOU

Client Sample ID: SO-1620-IM-CPT-01-13(10-12.5)-20130211

Lab Sample ID: 600-68443-2

Date Collected: 02/11/13 10:10

Matrix: Solid

Date Received: 02/12/13 16:48

Percent Solids: 84.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	99418	02/12/13 18:57	YX	TAL HOU
Total/NA	Prep	3550B			99481	02/13/13 12:20	RK	TAL HOU
Total/NA	Analysis	8270C LL		1	99877	02/18/13 19:42	TTD	TAL HOU
Total/NA	Prep	3050B			99453	02/13/13 09:49	NER	TAL HOU
Total/NA	Analysis	6010B		1	99488	02/13/13 14:32	DCL	TAL HOU
Total/NA	Analysis	Moisture		1	99408	02/12/13 15:52	AS	TAL HOU

Client Sample ID: SO-1620-IM-CPT-01-13(17.5-20)-20130211

Lab Sample ID: 600-68443-3

Date Collected: 02/11/13 10:20

Matrix: Solid

Date Received: 02/12/13 16:48

Percent Solids: 86.0

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	99418	02/12/13 19:21	YX	TAL HOU
Total/NA	Prep	3550B			99481	02/13/13 12:20	RK	TAL HOU
Total/NA	Analysis	8270C LL		1	99877	02/18/13 20:10	TTD	TAL HOU
Total/NA	Prep	3050B			99453	02/13/13 09:49	NER	TAL HOU
Total/NA	Analysis	6010B		1	99488	02/13/13 14:36	DCL	TAL HOU
Total/NA	Analysis	Moisture		1	99408	02/12/13 15:52	AS	TAL HOU

Client Sample ID: SO-1620-IM-CPT-02-13(2.5-5.0)-20130211

Lab Sample ID: 600-68443-4

Date Collected: 02/11/13 11:25

Matrix: Solid

Date Received: 02/12/13 16:48

Percent Solids: 85.6

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	99418	02/12/13 19:44	YX	TAL HOU
Total/NA	Prep	3550B			99481	02/13/13 12:20	RK	TAL HOU
Total/NA	Analysis	8270C LL		1	99877	02/18/13 21:33	TTD	TAL HOU
Total/NA	Prep	3050B			99453	02/13/13 09:49	NER	TAL HOU
Total/NA	Analysis	6010B		1	99488	02/13/13 14:51	DCL	TAL HOU
Total/NA	Analysis	Moisture		1	99408	02/12/13 15:52	AS	TAL HOU

TestAmerica Houston

Lab Chronicle

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68443-1

Client Sample ID: SO-1620-IM-CPT-02-13(12.5-15)-20130211

Lab Sample ID: 600-68443-5

Date Collected: 02/11/13 11:30

Matrix: Solid

Date Received: 02/12/13 16:48

Percent Solids: 80.6

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	99418	02/12/13 20:08	YX	TAL HOU
Total/NA	Prep	3550B			99481	02/13/13 12:20	RK	TAL HOU
Total/NA	Analysis	8270C LL		1	99877	02/18/13 22:00	TTD	TAL HOU
Total/NA	Prep	3050B			99453	02/13/13 09:49	NER	TAL HOU
Total/NA	Analysis	6010B		1	99488	02/13/13 14:55	DCL	TAL HOU
Total/NA	Analysis	Moisture		1	99408	02/12/13 15:52	AS	TAL HOU

Client Sample ID: SO-1620-IM-CPT-03-13(2.5-5)-20130211

Lab Sample ID: 600-68443-6

Date Collected: 02/11/13 14:30

Matrix: Solid

Date Received: 02/12/13 16:48

Percent Solids: 83.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	99418	02/12/13 20:32	YX	TAL HOU
Total/NA	Prep	3550B			99481	02/13/13 12:20	RK	TAL HOU
Total/NA	Analysis	8270C LL		10	100168	02/21/13 08:47	TTD	TAL HOU
Total/NA	Prep	3050B			99453	02/13/13 09:49	NER	TAL HOU
Total/NA	Analysis	6010B		1	99488	02/13/13 14:59	DCL	TAL HOU
Total/NA	Analysis	Moisture		1	99408	02/12/13 15:52	AS	TAL HOU

Client Sample ID: SO-1620-IM-CPT-03-13-(12.5-13.5)-20130211

Lab Sample ID: 600-68443-7

Date Collected: 02/11/13 14:35

Matrix: Solid

Date Received: 02/12/13 16:48

Percent Solids: 84.6

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	99418	02/12/13 20:56	YX	TAL HOU
Total/NA	Prep	3550B			99481	02/13/13 12:20	RK	TAL HOU
Total/NA	Analysis	8270C LL		1	99877	02/19/13 05:45	TTD	TAL HOU
Total/NA	Prep	3050B			99453	02/13/13 09:49	NER	TAL HOU
Total/NA	Analysis	6010B		1	99488	02/13/13 15:03	DCL	TAL HOU
Total/NA	Analysis	Moisture		1	99408	02/12/13 15:52	AS	TAL HOU

Client Sample ID: SO-1620-IM-CPT-04-13(2.5-5)-20130211

Lab Sample ID: 600-68443-8

Date Collected: 02/11/13 15:30

Matrix: Solid

Date Received: 02/12/13 16:48

Percent Solids: 83.0

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	99418	02/12/13 21:19	YX	TAL HOU
Total/NA	Prep	3550B			99481	02/13/13 12:20	RK	TAL HOU
Total/NA	Analysis	8270C LL		1	99877	02/19/13 06:12	TTD	TAL HOU
Total/NA	Prep	3050B			99453	02/13/13 09:49	NER	TAL HOU
Total/NA	Analysis	6010B		1	99488	02/13/13 15:07	DCL	TAL HOU
Total/NA	Analysis	Moisture		1	99408	02/12/13 15:52	AS	TAL HOU

TestAmerica Houston

Lab Chronicle

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68443-1

Client Sample ID: SO-1620-IM-CPT-04-13(10-12.5)-20130211

Lab Sample ID: 600-68443-9

Date Collected: 02/11/13 15:40

Matrix: Solid

Date Received: 02/12/13 16:48

Percent Solids: 88.2

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	99418	02/12/13 21:43	YX	TAL HOU
Total/NA	Prep	3550B			99481	02/13/13 12:20	RK	TAL HOU
Total/NA	Analysis	8270C LL		10	99877	02/19/13 06:39	TTD	TAL HOU
Total/NA	Prep	3050B			99453	02/13/13 09:49	NER	TAL HOU
Total/NA	Analysis	6010B		1	99488	02/13/13 15:18	DCL	TAL HOU
Total/NA	Analysis	Moisture		1	99408	02/12/13 15:52	AS	TAL HOU

Laboratory References:

TAL HOU = TestAmerica Houston, 6310 Rothway Street, Houston, TX 77040, TEL (713)690-4444



Certification Summary

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68443-1

Laboratory: TestAmerica Houston

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Arkansas DEQ	State Program	6	88-0759	08-04-12
Louisiana	NELAP	6	01967	06-30-13
Oklahoma	State Program	6	9503	08-31-13
Texas	NELAP	6	T104704223-10-6-TX	10-31-13
USDA	Federal		P330-08-00217	04-01-14
Utah	NELAP	8	GULF	10-31-13

TestAmerica Houston
 6310 Eastway Street
 Houston, TX 77040
 Phone (713) 690-4444 Fax (713) 690-5646

Chain of Custody Record

Loc: 600
68443

TestAmerica
 THE LEADER IN LABORATORY SERVICES

Client Information

Client Contact:
 Mr. Eric Matzner

Company:
 Pastor, Behling & Wheeler LLC

Address:
 2201 Double Creek Dr-Suite 4004

City:
 Round Rock

State, Zip:
 TX, 78664

Phone:
 512-671-3434(Tel) 512-671-3446(Fax)

Email:
 eric.matzner@pbwllc.com

Project Name:
 1620-UPRR HWPW

Site:
 SSOA#:

Sampler:
 Carolyn Sexton
 Phone:
 512-671-3434

Due Date Requested:

TAT Requested (days):
 Standard

PO #:
 Purchase Order not required

WC #:

Project #:
 60003722

SSOA#:

Lab PM:
 Kutchadkar, Sachin G

E-Mail:
 sachin.kutchadkar@testamericainc.com

Car:

Analysis Requested

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix (Weaver, Solid, Overhead)	Preservation Code:
S0-1620-1M-CPT-01-13(2-5)2013021	02/11/13	10:00		Solid	
S0-1620-1M-CPT-01-13(10-12.5)2013021		10:10		Solid	
S0-1620-1M-CPT-01-13(17.5-20)2013021		10:20		Solid	
S0-1620-1M-CPT-02-13(2.5-5.0)2013021		11:25		Solid	
S0-1620-1M-CPT-02-13(9.5-12.5)2013021		11:30		Solid	
S0-1620-1M-CPT-03-13(2.5-5.0)2013021		14:30		Solid	
S0-1620-1M-CPT-03-13(9.5-12.5)2013021		14:35		Solid	
S0-1620-1M-CPT-04-13(2.5-5.0)2013021		15:30		Solid	
S0-1620-1M-CPT-04-13(9.5-12.5)2013021		15:40		Solid	

Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)
8270C_LL- Semivolatiles	N N N N
8260B - Volatiles	
6010B- As, Pb	

Preservation Codes:	Total Number of containers	Special Instructions/Note:
A - HCl B - NaOH C - Zn Acetate D - Nitric Acid E - NH4SC4 F - MeOH G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA Other:		

Possible Hazard Identification
 Non-Hazard Flammable Skin Irritant Poison B Unknown Radiological
 Deliverable Requested: I, II, III, IV, Other (specify):

Empty Kit Relinquished by:

Relinquished by:
 WLV

Relinquished by:
 #1818300

Relinquished by:

Custody Seals Intact:
 Δ Yes Δ No

Date:
 2-11-13 / 3:50 pm

Date/Time:
 2/11/13 16:48

Date/Time:
 2/11/13 16:48

Date/Time:

Company:
 PRL

Company:

Company:

Company:

Received by:
 #1818306

Received by:
 #1818306

Received by:
 #1818306

Received by:

Method of Shipment:

Date/Time:
 2-11-13 3:50 pm

Date/Time:
 02/11/13 1448

Date/Time:

Company:
 Apple

Special Instructions/Note:

Special Instructions/Note:

Special Instructions/Note:

Special Instructions/Note:

Special Instructions/Note:

Login Sample Receipt Checklist

Client: Pastor, Behling & Wheeler LLC

Job Number: 600-68443-1

Login Number: 68443

List Source: TestAmerica Houston

List Number: 1

Creator: Pulumbarit, Josh

Question	Answer	Comment
Radioactivity wasn't checked or is <=/ background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	4.9
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	True	

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Houston
6310 Rothway Street
Houston, TX 77040
Tel: (713)690-4444

TestAmerica Job ID: 600-68489-1

Client Project/Site: 1620 UPRR HWPW

For:

Pastor, Behling & Wheeler LLC
2201 Double Creek Dr
Suite 4004
Round Rock, Texas 78664

Attn: Mr. Eric Matzner



Authorized for release by:
2/28/2013 12:44:33 PM

Cathy Upton
Data Delivery Analyst
cathy.upton@testamericainc.com

Designee for

Sachin Kudchadkar
Project Manager II
sachin.kudchadkar@testamericainc.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.



LINKS

Review your project
results through
TotalAccess

Have a Question?



Visit us at:
www.testamericainc.com

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15
- 16
- 17



Table of Contents

Cover Page	1
Table of Contents	2
TRRP Cover Page	3
TRRP Checklists & DCSs	4
Case Narrative	18
Method Summary	19
Sample Summary	20
Client Sample Results	21
Definitions/Glossary	39
Surrogate Summary	40
QC Sample Results	42
Default Detection Limits	50
QC Association Summary	51
Lab Chronicle	55
Certification Summary	59
Chain of Custody	60
Receipt Checklists	61

Job Number: 600-68489-1
Project Name/Number: 1620 UPRR HWPW

This Data Package consists of:

This signature page, the laboratory review checklist, and the following Reportable Data:

- R1 Field Chain-of-Custody Form
- R2 Sample Identification Cross-reference;
- R3 Test Reports (Analytical Data Sheets) for each environmental sample that includes:
 - a) Items consistent with NELAC Chapter 5
 - b) dilution factors,
 - c) preparation methods,
 - d) cleanup methods, and
 - e) if required for the project, tentatively identified compounds (TICs).
- R4 Surrogate Recovery Data including:
 - a) Calculated recovery (%R), and
 - b) The laboratory's surrogate QC limits.
- R5 Test Reports/Summary Forms for Blank Samples;
- R6 Test Reports/Summary Forms for Laboratory Control Samples (LCSs) including:
 - a) LCS spiking amounts,
 - b) Calculated %R for each analyte, and
 - d) The laboratory's LCS QC limits
- R7 Test Reports for Matrix Spike/Matrix Spike Duplicates (MS/MSDs) including:
 - a) Samples associated with the MS/MSD clearly identified,
 - b) MS/MSD spiking amounts,
 - c) Concentration of each MS/MSD analyte measured in the parent and spiked sample,
 - d) Calculated %Rs and relative percent differences (RPDs), and
 - e) The laboratory's MS/MSD QC limits
- R8 Laboratory analytical duplicates (if applicable) recovery and precision, including:
 - a) the amount of analyte measured in the duplicate,
 - b) the calculated RPD, and
 - c) the laboratory's QC limits for analytical duplicates.
- R9 List of method quantitation limit (MQL) and detectability check sample results for each analyte for each method and matrix;
- R10 Other problems or anomalies

The exception report for each "No" or "Not Reviewed (NR)" item in the Laboratory Review Checklist and for each analyte, matrix, and method for which the laboratory does not hold NELAC accreditation under the Texas Laboratory Accreditation Program.

Release Statement: I am responsible for the release of this laboratory data package. This laboratory is NELAC accredited under Texas laboratory Accreditation Program for all the methods, analytes, and matrices reported in this data package except as noted in the Exception Reports. The data have been reviewed and are technically compliant with the requirements of the methods used, except where noted by the laboratory in the Exception Reports. By my signature below, I affirm, to the best of my knowledge, that all problems/anomalies observed by the laboratory have been identified in the Laboratory Review Checklist, and no information affecting the quality of the data has been knowingly withheld.

Cathy Upton
Name (printed)
Data Delivery Analyst
Official Title (printed)


Signature

02/28/2013
Date

Appendix A (cont'd): Laboratory Review Checklist: Reportable Data							
Laboratory Name: TestAmerica-Houston			LRC Date: 02/25/13				
Project Name: 1620 UPRR HWPW			Laboratory Job Number: 600-68489				
Reviewer Name: TWR			Prep Batch Number(s): 600-99555- ICP				
# ¹	A ²	Description	Yes	No	NA ³	NR ⁴	ER# ⁵
R1	OI	Chain-of-custody (C-O-C)					
		Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?		X			1
		Were all departures from standard conditions described in an exception report?	X				
R2	OI	Sample and quality control (QC) identification					
		Are all field sample ID numbers cross-referenced to the laboratory ID numbers?	X				
		Are all laboratory ID numbers cross-referenced to the corresponding QC data?	X				
R3	OI	Test reports					
		Were all samples prepared and analyzed within holding times?	X				
		Other than those results < MQL, were all other raw values bracketed by calibration standards?	X				
		Were calculations checked by a peer or supervisor?	X				
		Were all analyte identifications checked by a peer or supervisor?	X				
		Were sample detection limits reported for all analytes not detected?	X				
		Were all results for soil and sediment samples reported on a dry weight basis?	X				
		Were % moisture (or solids) reported for all soil and sediment samples?	X				
		Were bulk soil/solid samples for volatile analysis extracted with methanol per SW846 Method 5035?				X	
		If required for the project, TICs reported?				X	
R4	O	Surrogate recovery data					
		Were surrogates added prior to extraction?				X	
		Were surrogate percent recoveries in all samples within the laboratory QC limits?				X	
R5	OI	Test reports/summary forms for blank samples					
		Were appropriate type(s) of blanks analyzed?	X				
		Were blanks analyzed at the appropriate frequency?	X				
		Were method blanks taken through the entire analytical process, including preparation and, if applicable, cleanup procedures?	X				
		Were blank concentrations < MQL?	X				
R6	OI	Laboratory control samples (LCS):					
		Were all COCs included in the LCS?	X				
		Was each LCS taken through the entire analytical procedure, including prep and cleanup steps?	X				
		Were LCSs analyzed at the required frequency?	X				
		Were LCS (and LCSD, if applicable) %Rs within the laboratory QC limits?	X				
		Does the detectability check sample data document the laboratory's capability to detect the COCs at the MDL used to calculate the SDLs?	X				
		Was the LCSD RPD within QC limits?				X	
R7	OI	Matrix spike (MS) and matrix spike duplicate (MSD) data					
		Were the project/method specified analytes included in the MS and MSD?	X				
		Were MS/MSD analyzed at the appropriate frequency?	X				
		Were MS (and MSD, if applicable) %Rs within the laboratory QC limits?		X			2
		Were MS/MSD RPDs within laboratory QC limits?	X				
R8	OI	Analytical duplicate data					
		Were appropriate analytical duplicates analyzed for each matrix?	X				
		Were analytical duplicates analyzed at the appropriate frequency?	X				
		Were RPDs or relative standard deviations within the laboratory QC limits?		X			3
R9	OI	Method quantitation limits (MQLs):					
		Are the MQLs for each method analyte included in the laboratory data package?	X				
		Do the MQLs correspond to the concentration of the lowest non-zero calibration standard?	X				
		Are unadjusted MQLs and DCSs included in the laboratory data package?	X				
R10	OI	Other problems/anomalies					
		Are all known problems/anomalies/special conditions noted in this LRC and ER?	X				
		Was applicable and available technology used to lower the SDL to minimize the matrix interference affects on the sample results?	X				
		Is the laboratory NELAC-accredited under the Texas Laboratory Accreditation Program for the analytes, matrices and methods associated with this laboratory data package?	X				

- Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.
- O = organic analyses; I = inorganic analyses (and general chemistry, when applicable);
- NA = Not applicable;
- NR = Not reviewed;
- ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

Appendix A (cont'd): Laboratory Review Checklist: Reportable Data									
Laboratory Name: TestAmerica-Houston					LRC Date: 02/25/13				
Project Name: 1620 UPRR HWPW					Laboratory Job Number: 600-68489				
Reviewer Name: TWR					Prep Batch Number(s): 600-99555- ICP				
# ¹	A ²	Description	Yes	No	NA ³	NR ⁴	ER# ⁵		
S1	OI	Initial calibration (ICAL)							
		Were response factors and/or relative response factors for each analyte within QC limits?			X				
		Were percent RSDs or correlation coefficient criteria met?			X				
		Was the number of standards recommended in the method used for all analytes?	X						
		Were all points generated between the lowest and highest standard used to calculate the curve?			X				
		Are ICAL data available for all instruments used?	X						
		Has the initial calibration curve been verified using an appropriate second source standard?	X						
S2	OI	Initial and continuing calibration verification (ICCV and CCV) and continuing calibration							
		Was the CCV analyzed at the method-required frequency?	X						
		Were percent differences for each analyte within the method-required QC limits?	X						
		Was the ICAL curve verified for each analyte?	X						
		Was the absolute value of the analyte concentration in the inorganic CCB < MDL?	X						
S3	O	Mass spectral tuning:							
		Was the appropriate compound for the method used for tuning?			X				
		Were ion abundance data within the method-required QC limits?			X				
S4	O	Internal standards (IS):							
		Were IS area counts and retention times within the method-required QC limits?			X				
S5	OI	Raw data (NELAC section 5.5.10)							
		Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?	X						
		Were data associated with manual integrations flagged on the raw data?			X				
S6	O	Dual column confirmation							
		Did dual column confirmation results meet the method-required QC?			X				
S7	O	Tentatively identified compounds (TICs):							
		If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?			X				
S8	I	Interference Check Sample (ICS) results:							
		Were percent recoveries within method QC limits?	X						
S9	I	Serial dilutions, post digestion spikes, and method of standard additions							
		Were percent differences, recoveries, and the linearity within the QC limits specified in the method?	X						
S10	OI	Method detection limit (MDL) studies							
		Was a MDL study performed for each reported analyte?	X						
		Is the MDL either adjusted or supported by the analysis of DCSs?	X						
S11	OI	Proficiency test reports:							
		Was the laboratory's performance acceptable on the applicable proficiency tests or evaluation studies?	X						
S12	OI	Standards documentation							
		Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?	X						
S13	OI	Compound/analyte identification procedures							
		Are the procedures for compound/analyte identification documented?	X						
S14	OI	Demonstration of analyst competency (DOC)							
		Was DOC conducted consistent with NELAC Chapter 5?	X						
		Is documentation of the analyst's competency up-to-date and on file?	X						
S15	OI	Verification/validation documentation for methods (NELAC Chapter 5)							
		Are all the methods used to generate the data documented, verified, and validated, where applicable?	X						
S16	OI	Laboratory standard operating procedures (SOPs):							
		Are laboratory SOPs current and on file for each method performed?	X						

- 1 Items identified by the letter "R" should be included in the laboratory data package submitted to the TCEQ in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.
- 2 O = organic analyses; I = inorganic analyses (and general chemistry, when applicable).
- 3 NA = Not applicable.
- 4 NR = Not Reviewed.
- 5 ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

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Appendix A (cont'd): Laboratory Review Checklist: Exception Reports	
Laboratory Name: TestAmerica-Houston	LRC Date: 02/25/13
Project Name: 1620 UPRR HWPW	Laboratory Job Number: 600-68489
Reviewer Name: TWR	Prep Batch Number(s): 600-99555- ICP
ER #¹	DESCRIPTION
1	See Case Narrative.
2	The lead recovery in sample 68489-5 MSD was below acceptance limits due to matrix interference. Method performance is demonstrated by an acceptable LCS recovery.
3	The lead RPD between samples 68489-2 and 68489-2 MD and the arsenic and lead RPDs between samples 68489-5 and 68489-5 MD were above acceptance limits due to the non-homogenous nature of the samples.

ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked on the LRC)

Appendix A (cont'd): Laboratory Review Checklist: Reportable Data							
Laboratory Name: TestAmerica-Houston			LRC Date: 02/21/13				
Project Name: 1620 UPRR HWPW			Laboratory Job Number: 600-68489				
Reviewer Name: YX			Prep Batch Number: 600-99523-VOA				
# ¹	A ²	Description	Yes	No	NA ³	NR ⁴	ER# ⁵
R1	OI	Chain-of-custody (C-O-C)					
		Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?		X			1
		Were all departures from standard conditions described in an exception report?	X				
R2	OI	Sample and quality control (QC) identification					
		Are all field sample ID numbers cross-referenced to the laboratory ID numbers?	X				
		Are all laboratory ID numbers cross-referenced to the corresponding QC data?	X				
R3	OI	Test reports					
		Were all samples prepared and analyzed within holding times?	X				
		Other than those results < MQL, were all other raw values bracketed by calibration standards?	X				
		Were calculations checked by a peer or supervisor?	X				
		Were all analyte identifications checked by a peer or supervisor?	X				
		Were sample detection limits reported for all analytes not detected?	X				
		Were all results for soil and sediment samples reported on a dry weight basis?	X				
		Were % moisture (or solids) reported for all soil and sediment samples?	X				
		Were bulk soil/solid samples for volatile analysis extracted with methanol per SW846 Method 5035?			X		
		If required for the project, TICs reported?			X		
R4	O	Surrogate recovery data					
		Were surrogates added prior to extraction?	X				
		Were surrogate percent recoveries in all samples within the laboratory QC limits?	X				
R5	OI	Test reports/summary forms for blank samples					
		Were appropriate type(s) of blanks analyzed?	X				
		Were blanks analyzed at the appropriate frequency?	X				
		Were method blanks taken through the entire analytical process, including preparation and, if applicable, cleanup procedures?	X				
		Were blank concentrations < MQL?	X				2
R6	OI	Laboratory control samples (LCS):					
		Were all COCs included in the LCS?	X				
		Was each LCS taken through the entire analytical procedure, including prep and cleanup steps?	X				
		Were LCSs analyzed at the required frequency?	X				
		Were LCS (and LCSD, if applicable) %Rs within the laboratory QC limits?	X				
		Does the detectability check sample data document the laboratory's capability to detect the COCs at the MDL used to calculate the SDLs?	X				
		Was the LCSD RPD within QC limits?			X		
R7	OI	Matrix spike (MS) and matrix spike duplicate (MSD) data					
		Were the project/method specified analytes included in the MS and MSD?	X				
		Were MS/MSD analyzed at the appropriate frequency?	X				
		Were MS (and MSD, if applicable) %Rs within the laboratory QC limits?	X				
		Were MS/MSD RPDs within laboratory QC limits?	X				
R8	OI	Analytical duplicate data					
		Were appropriate analytical duplicates analyzed for each matrix?			X		
		Were analytical duplicates analyzed at the appropriate frequency?			X		
		Were RPDs or relative standard deviations within the laboratory QC limits?			X		
R9	OI	Method quantitation limits (MQLs):					
		Are the MQLs for each method analyte included in the laboratory data package?	X				
		Do the MQLs correspond to the concentration of the lowest non-zero calibration standard?	X				
		Are unadjusted MQLs and DCSs included in the laboratory data package?	X				
R10	OI	Other problems/anomalies					
		Are all known problems/anomalies/special conditions noted in this LRC and ER?	X				
		Was applicable and available technology used to lower the SDL to minimize the matrix interference affects on the sample results?	X				
		Is the laboratory NELAC-accredited under the Texas Laboratory Accreditation Program for the analytes, matrices and methods associated with this laboratory data package?	X				

- Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.
- O = organic analyses; I = inorganic analyses (and general chemistry, when applicable);
- NA = Not applicable;
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- ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

Appendix A (cont'd): Laboratory Review Checklist: Reportable Data									
Laboratory Name: TestAmerica-Houston					LRC Date: 02/21/13				
Project Name: 1620 UPRR HWPW					Laboratory Job Number: 600-68489				
Reviewer Name: YX					Prep Batch Number: 600-99523-VOA				
# ¹	A ²	Description	Yes	No	NA ³	NR ⁴	ER# ⁵		
S1	OI	Initial calibration (ICAL)							
		Were response factors and/or relative response factors for each analyte within QC limits?	X						
		Were percent RSDs or correlation coefficient criteria met?	X						
		Was the number of standards recommended in the method used for all analytes?	X						
		Were all points generated between the lowest and highest standard used to calculate the curve?	X						
		Are ICAL data available for all instruments used?	X						
		Has the initial calibration curve been verified using an appropriate second source standard?	X						
S2	OI	Initial and continuing calibration verification (ICCV and CCV) and continuing calibration							
		Was the CCV analyzed at the method-required frequency?	X						
		Were percent differences for each analyte within the method-required QC limits?	X						
		Was the ICAL curve verified for each analyte?	X						
		Was the absolute value of the analyte concentration in the inorganic CCB < MDL?				X			
S3	O	Mass spectral tuning:							
		Was the appropriate compound for the method used for tuning?	X						
		Were ion abundance data within the method-required QC limits?	X						
S4	O	Internal standards (IS):							
		Were IS area counts and retention times within the method-required QC limits?	X						
S5	OI	Raw data (NELAC section 5.5.10)							
		Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?	X						
		Were data associated with manual integrations flagged on the raw data?	X						
S6	O	Dual column confirmation							
		Did dual column confirmation results meet the method-required QC?				X			
S7	O	Tentatively identified compounds (TICs):							
		If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?				X			
S8	I	Interference Check Sample (ICS) results:							
		Were percent recoveries within method QC limits?				X			
S9	I	Serial dilutions, post digestion spikes, and method of standard additions							
		Were percent differences, recoveries, and the linearity within the QC limits specified in the method?				X			
S10	OI	Method detection limit (MDL) studies							
		Was a MDL study performed for each reported analyte?	X						
		Is the MDL either adjusted or supported by the analysis of DCSs?	X						
S11	OI	Proficiency test reports:							
		Was the laboratory's performance acceptable on the applicable proficiency tests or evaluation studies?	X						
S12	OI	Standards documentation							
		Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?	X						
S13	OI	Compound/analyte identification procedures							
		Are the procedures for compound/analyte identification documented?	X						
S14	OI	Demonstration of analyst competency (DOC)							
		Was DOC conducted consistent with NELAC Chapter 5?	X						
		Is documentation of the analyst's competency up-to-date and on file?	X						
S15	OI	Verification/validation documentation for methods (NELAC Chapter 5)							
		Are all the methods used to generate the data documented, verified, and validated, where applicable?	X						
S16	OI	Laboratory standard operating procedures (SOPs):							
		Are laboratory SOPs current and on file for each method performed?	X						

- 1 Items identified by the letter "R" should be included in the laboratory data package submitted to the TCEQ in the TRRP-required report(s).
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Appendix A (cont'd): Laboratory Review Checklist: Exception Reports	
Laboratory Name: TestAmerica-Houston	LRC Date: 02/21/13
Project Name: 1620 UPRR HWPW	Laboratory Job Number: 600-68489
Reviewer Name: YX	Prep Batch Number: 600-99523-VOA
ER #¹	DESCRIPTION
1	See Case Narrative.
2	Methylene chloride was detected above the MDL, but below the MQL in the method blank. This analyte is a recognized potential laboratory contaminant. The level of detection is below the recommended reporting limit and the appropriate flags have been applied to the report.

ER# = Exception Report identification number (an Exception Report should be completed for an item if “NR” or “No” is checked on the LRC)

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Appendix A (cont'd): Laboratory Review Checklist: Reportable Data							
Laboratory Name: TestAmerica-Houston			LRC Date: 02/20/2013				
Project Name: 1620 UPRR HWPW			Laboratory Job Number 600-68489				
Reviewer Name: TTD			Prep Batch Number(s): 600-99571-SV				
# ¹	A ²	Description	Yes	No	NA ³	NR ⁴	ER# ⁵
R1	OI	Chain-of-custody (C-O-C)					
		Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?		X			1
		Were all departures from standard conditions described in an exception report?	X				
R2	OI	Sample and quality control (QC) identification					
		Are all field sample ID numbers cross-referenced to the laboratory ID numbers?	X				
		Are all laboratory ID numbers cross-referenced to the corresponding QC data?	X				
R3	OI	Test reports					
		Were all samples prepared and analyzed within holding times?	X				
		Other than those results < MQL, were all other raw values bracketed by calibration standards?	X				
		Were calculations checked by a peer or supervisor?	X				
		Were all analyte identifications checked by a peer or supervisor?	X				
		Were sample detection limits reported for all analytes not detected?	X				
		Were all results for soil and sediment samples reported on a dry weight basis?	X				
		Were % moisture (or solids) reported for all soil and sediment samples?	X				
		Were bulk soil/solid samples for volatile analysis extracted with methanol per SW846 Method 5035?			X		
		If required for the project, TICs reported?			X		
R4	O	Surrogate recovery data					
		Were surrogates added prior to extraction?	X				
		Were surrogate percent recoveries in all samples within the laboratory QC limits?		X			2
R5	OI	Test reports/summary forms for blank samples					
		Were appropriate type(s) of blanks analyzed?	X				
		Were blanks analyzed at the appropriate frequency?	X				
		Were method blanks taken through the entire analytical process, including preparation and, if applicable, cleanup procedures?	X				
		Were blank concentrations < MQL?	X				
R6	OI	Laboratory control samples (LCS):					
		Were all COCs included in the LCS?	X				
		Was each LCS taken through the entire analytical procedure, including prep and cleanup steps?	X				
		Were LCSs analyzed at the required frequency?	X				
		Were LCS (and LCSD, if applicable) %Rs within the laboratory QC limits?	X				
		Does the detectability check sample data document the laboratory's capability to detect the COCs at the MDL used to calculate the SDLs?	X				
		Was the LCSD RPD within QC limits?			X		
R7	OI	Matrix spike (MS) and matrix spike duplicate (MSD) data					
		Were the project/method specified analytes included in the MS and MSD?	X				
		Were MS/MSD analyzed at the appropriate frequency?	X				
		Were MS (and MSD, if applicable) %Rs within the laboratory QC limits?	X				
		Were MS/MSD RPDs within laboratory QC limits?		X			3
R8	OI	Analytical duplicate data					
		Were appropriate analytical duplicates analyzed for each matrix?			X		
		Were analytical duplicates analyzed at the appropriate frequency?			X		
		Were RPDs or relative standard deviations within the laboratory QC limits?			X		
R9	OI	Method quantitation limits (MQLs):					
		Are the MQLs for each method analyte included in the laboratory data package?	X				
		Do the MQLs correspond to the concentration of the lowest non-zero calibration standard?	X				
		Are unadjusted MQLs and DCSs included in the laboratory data package?	X				
R10	OI	Other problems/anomalies					
		Are all known problems/anomalies/special conditions noted in this LRC and ER?	X				
		Was applicable and available technology used to lower the SDL to minimize the matrix interference affects on the sample results?	X				4
		Is the laboratory NELAC-accredited under the Texas Laboratory Accreditation Program for the analytes, matrices and methods associated with this laboratory data package?	X				

- Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.
- O = organic analyses; I = inorganic analyses (and general chemistry, when applicable);
- NA = Not applicable;
- NR = Not reviewed;
- ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

Appendix A (cont'd): Laboratory Review Checklist: Reportable Data									
Laboratory Name: TestAmerica-Houston					LRC Date: 02/20/2013				
Project Name: 1620 UPRR HWPW					Laboratory Job Number 600-68489				
Reviewer Name: TTD					Prep Batch Number(s): 600-99571-SV				
# ¹	A ²	Description	Yes	No	NA ³	NR ⁴	ER# ⁵		
S1	OI	Initial calibration (ICAL)							
		Were response factors and/or relative response factors for each analyte within QC limits?	X						
		Were percent RSDs or correlation coefficient criteria met?	X						
		Was the number of standards recommended in the method used for all analytes?	X						
		Were all points generated between the lowest and highest standard used to calculate the curve?	X						
		Are ICAL data available for all instruments used?	X						
		Has the initial calibration curve been verified using an appropriate second source standard?	X						
S2	OI	Initial and continuing calibration verification (ICCV and CCV) and continuing calibration							
		Was the CCV analyzed at the method-required frequency?	X						
		Were percent differences for each analyte within the method-required QC limits?	X						
		Was the ICAL curve verified for each analyte?	X						
		Was the absolute value of the analyte concentration in the inorganic CCB < MDL?			X				
S3	O	Mass spectral tuning:							
		Was the appropriate compound for the method used for tuning?			X				
		Were ion abundance data within the method-required QC limits?			X				
S4	O	Internal standards (IS):							
		Were IS area counts and retention times within the method-required QC limits?			X				
S5	OI	Raw data (NELAC section 5.5.10)							
		Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?	X						
		Were data associated with manual integrations flagged on the raw data?	X						
S6	O	Dual column confirmation							
		Did dual column confirmation results meet the method-required QC?			X				
S7	O	Tentatively identified compounds (TICs):							
		If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?			X				
S8	I	Interference Check Sample (ICS) results:							
		Were percent recoveries within method QC limits?			X				
S9	I	Serial dilutions, post digestion spikes, and method of standard additions							
		Were percent differences, recoveries, and the linearity within the QC limits specified in the method?			X				
S10	OI	Method detection limit (MDL) studies							
		Was a MDL study performed for each reported analyte?	X						
		Is the MDL either adjusted or supported by the analysis of DCSs?	X						
S11	OI	Proficiency test reports:							
		Was the laboratory's performance acceptable on the applicable proficiency tests or evaluation studies?	X						
S12	OI	Standards documentation							
		Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?	X						
S13	OI	Compound/analyte identification procedures							
		Are the procedures for compound/analyte identification documented?	X						
S14	OI	Demonstration of analyst competency (DOC)							
		Was DOC conducted consistent with NELAC Chapter 5?	X						
		Is documentation of the analyst's competency up-to-date and on file?	X						
S15	OI	Verification/validation documentation for methods (NELAC Chapter 5)							
		Are all the methods used to generate the data documented, verified, and validated, where applicable?	X						
S16	OI	Laboratory standard operating procedures (SOPs):							
		Are laboratory SOPs current and on file for each method performed?	X						

- 1 Items identified by the letter "R" should be included in the laboratory data package submitted to the TCEQ in the TRRP-required report(s).
- 2 Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.
- 3 O = organic analyses; I = inorganic analyses (and general chemistry, when applicable).
- 4 NA = Not applicable.
- 5 NR = Not Reviewed.
- 6 ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

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Appendix A (cont'd): Laboratory Review Checklist: Exception Reports	
Laboratory Name: TestAmerica-Houston	LRC Date: 02/20/2013
Project Name: 1620 UPRR HWPW	Laboratory Job Number 600-68489
Reviewer Name: TTD	Prep Batch Number(s): 600-99571-SV
ER #¹	DESCRIPTION
1	See Case Narrative.
2	Due to the level of dilution required for samples 600-68489-1, 3, 4, 6, 7, 7DL, 9 and 11; surrogate recoveries are not reported. Six surrogates are used for this analysis. The laboratory's SOP allows one acid and one base of these surrogates to be outside acceptance criteria without performing re-extraction/re-analysis. Sample 600-68489-12 contained an allowable number of surrogate compounds outside limits. These results have been reported and qualified.
3	The 4-Nitrophenol %RPD between samples 600-68489-2 MS and MSD was outside control limits. Non-homogeneity of the sample matrix is suspected.
4	All of the SDLs in samples 600-68489-1, 3, 4, 6, 7, 9 and 11 were elevated due to the nature of the sample matrix and/or the high concentration of target analytes.

ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked on the LRC)

Detection Check Standard

Matrix: Solid
Method: 8260B
Preparation: Wei Shen
Date Analyzed: 10/9/2012
Date Prepared: 10/9/2012
TALs Batches: K28205.D
Units: ug/Kg

Analyte	MDL	DCS Spike	Measured Result	MQL
Dichlorodifluoromethane	1.54	2.5	1.57	5
Chloromethane	1.66	2.5	2.85	10
Vinyl Chloride	0.9	2.5	2.86	10
Bromomethane	0.83	2.5	2.54	10
Chloroethane	1.4	2.5	3.11	10
Trichlorofluoromethane	0.66	2.5	2.92	10
Acrolein	1.39	2.5	17.79	5
1,1-Dichloroethene	1.22	2.5	3.06	5
Trichlorotrifluoromethane	0.66	2.5	3.02	10
Acetone	1.66	2.5	0.026	5
Methyl Iodide	2.5	5	8.55	5
2-Propanol	27.47	2.5	85.83	5
Carbon Disulfide	0.55	2.5	6.35	10
Acetonitrile	1.39	2.5	6.05	10
Allyl chloride	1.39	2.5	5.73	5
Methylene Chloride	2.19	5	2.38	10
Acrylonitrile	5.82	5	21.17	25
trans-1,2-Dichloroethene	1.14	2.5	3.05	5
Methyl tert-butyl ether	1.83	2.5	2.92	5
1,1-Dichloroethane	0.87	2.5	3.11	5
Vinyl Acetate	0.93	2.5	5.79	5
Chloroprene	2.71	5	7.68	5
cis-1,2-Dichloroethene	0.83	2.5	3.22	5
1,2-Dichloroethene (total)	1.9	2.5	6.27	10
2,2-Dichloropropane	1.82	2.5	2.95	5
2-Butanone	1.9	2.5	6.25	5
Propionitrile	2.36	5	9.5	5
Methacrylonitrile	5	5	8.06	5
Bromochloromethane	1.78	2.5	3.03	5
Chloroform	0.66	2.5	3.48	5
1,1,1-Trichloroethane	0.74	2.5	3.13	5
1,1-Dichloropropene	0.65	2.5	3.25	5
Carbon Tetrachloride	1.13	2.5	3.19	5
Isobutyl alcohol	17.16	5	21.72	5
Benzene	0.63	2.5	3.18	5
1,2-Dichloroethane	0.9	2.5	3.35	5
Trichloroethene	1.4	2.5	3.24	5
1,2-Dichloropropane	0.71	2.5	3.01	5
Methyl methacrylate	2.86	5	4.06	10



Methylene Bromide	0.75	2.5	3.02	5
1,4-Dioxane	62.07	250	133.4	500
Bromodichloromethane	0.66	2.5	2.98	5
2-Chloroethyl vinyl ether	0.98	2.5	5.97	10
cis-1,3-Dichloropropene	0.54	2.5	3.02	5
Toluene	1.38	2.5	3.32	5
trans-1,3-Dichloropropene	0.58	2.5	2.96	5
Ethyl methacrylate	1.66	2.5	5.65	5
1,1,2-Trichloroethane	0.73	2.5	2.97	5
1,3-Dichloropropane	0.63	2.5	3.23	5
Tetrachloroethene	1.4	2.5	3.03	5
2-Hexanone	1.01	2.5	5.68	10
Dibromochloromethane	0.94	2.5	2.86	5
1,2-Dibromoethane	6.54	5	4.2	10
Chlorobenzene	0.96	2.5	3.1	5
1,1,1,2-Tetrachloroethane	1.4	2.5	2.99	5
Ethylbenzene	1.02	2.5	3	5
m,p-Xylene	1.52	2.5	6.04	10
o-Xylene	1.13	2.5	3	5
Xylenes (total)	1.13	2.5	9.05	5
Styrene	0.71	2.5	2.97	5
Bromoform	1.37	2.5	2.56	5
Isopropylbenzene	0.92	2.5	2.9	5
trans-1,4-Dichloro-2-butene	1.9	2.5	5.17	5
Bromobenzene	0.99	2.5	3.05	5
n-Propylbenzene	0.95	2.5	2.96	5
2-Chlorotoluene	0.68	2.5	3.07	5
4-Chlorotoluene	0.83	2.5	2.99	5
1,3,5-Trimethylbenzene	1.6	2.5	2.85	5
tert-Butylbenzene	0.95	2.5	2.88	5
1,2,4-Trimethylbenzene	0.92	2.5	2.93	5
sec-Butylbenzene	0.7	2.5	2.94	5
1,3-Dichlorobenzene	0.71	2.5	3.04	5
1,4-Dichlorobenzene	0.66	2.5	3.03	5
1,2-Dichlorobenzene	0.8	2.5	2.97	5
p-Isopropyltoluene	0.63	2.5	2.77	5
n-Butylbenzene	0.58	2.5	2.84	5
1,2,3-Trichloropropane	1.31	2.5	2.82	5
1,2,4-Trichlorobenzene	1.97	2.5	4.09	5
Hexachlorobutadiene	1.13	2.5	5.72	5
1,2,3-Trichlorobenzene	0.62	2.5	3.3	5
Naphthalene	2.37	5	4.44	10

**Quality Control Report
Detection Check Standard**

Matrix: Soil
 Method: 8270C LL
 Preparation: 3550B
 Date Analyzed: 10/18/2012
 Date Prepared: 10/11/2012
 Lab Sample ID: 600-90857_18-a
 Units: ug/Kg

Analyte	MDL	DCS Spike	DCS Result	MQL
Pyridine	3.52	8.35	1.08	16.67
N-Nitrosodimethylamine	30.71	16.7	11.97	16.67
Aniline	2.98	8.35	2.33	16.67
Phenol	4.24	8.35	7.91	16.67
bis(2-Chloroethyl)ether	1.65	8.35	7.29	16.67
2-Chlorophenol	1.97	8.35	7.54	16.67
1,3-Dichlorobenzene	1.54	8.35	7.19	16.67
1,4-Dichlorobenzene	2.25	8.35	6.84	16.67
1,2-Dichlorobenzene	3.02	8.35	7.29	16.67
Benzyl alcohol	5.83	16.7	9.50	16.67
2-Methylphenol	3.23	8.35	6.07	16.67
m&p-Cresols	2.79	8.35	4.59	33.33
bis (2-Chloroisopropyl) ether	8.84	16.7	13.41	16.67
N-Nitroso-di-n-propylamine	2.22	8.35	6.29	16.67
Hexachloroethane	2.31	8.35	8.47	16.67
Nitrobenzene	2.96	8.35	7.35	16.67
Isophorone	5	8.35	6.03	16.67
2-Nitrophenol	3.89	8.35	3.94	16.67
Benzoic acid	32.76	33.4	220.80	83.33
2,4-Dimethylphenol	8.58	16.7	9.79	16.67
bis(2-Chloroethoxy)methane	1.42	8.35	5.19	16.67
2,4-Dichlorophenol	8.58	16.7	9.48	16.67
1,2,4-Trichlorobenzene	2.1	8.35	7.92	16.67
Naphthalene	1.35	8.35	6.35	16.67
4-Chloroaniline	5.82	8.35	3.69	16.67
Hexachlorobutadiene	1.92	8.35	5.91	16.67
4-Chloro-3-methylphenol	15.58	16.7	8.00	16.67
2-Methylnaphthalene	2.74	8.35	5.53	16.67
1-Methylnaphthalene	1.57	8.35	6.53	16.67
Hexachlorocyclopentadiene	4.61	8.35	14.08	16.67
2,4,6-Trichlorophenol	2.68	8.35	5.54	16.67
2,4,5-Trichlorophenol	10.01	16.7	8.68	16.67
2-Chloronaphthalene	1.21	8.35	6.26	16.67
2-Nitroaniline	4.89	8.35	4.10	16.67
Dimethylphthalate	4.89	8.35	5.80	16.67
1,4 Dinitrobenzene	16.67	8.35	14.23	16.67
1,3- Dinitrobenzene	2.96	8.35	13.00	16.67
1,2-Dinitrobenzene	16.67	8.35	4.73	16.67
Acenaphthylene	5	8.35	6.86	16.67

2,6-Dinitrotoluene	2.95	8.35	8.78	16.67
3-Nitroaniline	7.15	8.35	3.09	16.67
Acenaphthene	1.44	8.35	6.03	16.67
Dibenzofuran	1.78	8.35	6.15	16.67
2,4-Dinitrotoluene	3.61	8.35	6.10	16.67
2,3,4,6-Tetrachlorophenol	16.67	16.7	15.95	16.67
Diethylphthalate	8.43	16.7	11.50	16.67
4-Chlorophenyl-phenylether	1.8	8.35	6.79	16.67
Fluorene	2.36	8.35	5.57	16.67
4-Nitroaniline	11.15	16.7	5.63	16.67
4,6-Dinitro-2-Methylphenol	4.98	16.7	15.38	16.67
N-Nitrosodiphenylamine	1.89	8.35	5.94	16.67
Diphenylamine	1.94	8.35	4.69	16.67
1,2-Diphenylhydrazine	1.62	8.35	5.61	16.67
Azobenzene	1.85	8.35	5.14	16.67
4-Bromophenyl-phenylether	2.84	8.35	6.26	16.67
Hexachlorobenzene	1.52	8.35	6.89	16.67
Phenanthrene	4.95	8.35	6.76	16.67
Anthracene	1.28	8.35	6.66	16.67
Carbazole	3.12	8.35	6.16	16.67
Di-n-butylphthalate	2.59	8.35	6.08	16.67
Fluoranthene	3.11	8.35	6.58	16.67
Pyrene	1.83	8.35	7.09	16.67
Butylbenzylphthalate	6.19	16.7	9.35	66.68
3,3'-Dichlorobenzidene	10.16	16.7	6.12	16.67
Benzo(a)anthracene	1.38	8.35	6.93	16.67
bis(2-Ethylhexyl)phthalate	5.37	16.7	10.49	66.68
Chrysene	1.02	8.35	10.06	16.67
Di-n-octylphthalate	1.9	8.35	3.61	66.68
Benzo(b)fluoranthene	1.72	8.35	3.95	16.67
Benzo(k)fluoranthene	1.49	8.35	8.45	16.67
Benzo(a)pyrene	1.61	8.35	5.20	16.67
Indeno(1,2,3-cd)pyrene	3.5	8.35	14.82	16.67
Dibenz(a,h)anthracene	3.63	8.35	2.38	16.67
Benzo(g,h,i)perylene	5.07	16.7	12.37	16.67



Detection Check Standard

Matrix: Soil
Method: 6010B
Preparation: 3050
Date Analyzed: 11/29/2012
Date Prepared: 11/28/2012
Instrument: Thermo 6500
TALS Batches: 94304,94171(prepare)
Prep/Reagent Factor = 50
Units: mg/kg

Analyte	MDL	DCS Spike	Measured Result	ML
Aluminum	0.299654	0.5	0.44	25
Antimony	0.231553	0.45	0.475	2.5
Arsenic	0.217923	0.5	0.58	1
Barium	0.011322	0.03	0.03	1
Beryllium	0.014513	0.02	0.02	0.25
Boron	0.385535	0.6	0.885	20
Cadmium	0.025642	0.05	0.055	0.25
Calcium	0.86399	1.5	2.205	100
Chromium	0.050606	0.1	0.11	0.5
Cobalt	0.067622	0.1	0.1	0.5
Copper	0.173703	0.5	0.385	0.5
Iron	2.534007	4	4.285	20
Lead	0.104832	0.2	0.23	0.5
Selenium	0.258884	0.5	0.56	2
Manganese	0.038111	0.05	0.045	1.5
Molybdenum	0.136448	0.35	0.38	0.5
Nickel	0.116599	0.15	0.14	1
Silver	0.118848	0.2	0.21	0.5
Sodium	0.885548	2.4	3.225	100
Strontium	0.00252	0.005	0.985	0.25
Thallium	0.276988	0.7	0.71	1.5
Tin	0.08729	0.15	0.16	1
Titanium	0.014529	0.03	0.02	0.5
Vanadium	0.079068	0.15	0.17	0.5
Zinc	0.108432	0.2	0.315	1.5

Case Narrative

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68489-1

Job ID: 600-68489-1

Laboratory: TestAmerica Houston

Narrative

Job Narrative
600-68489-1

Comments

No additional comments.

Receipt

The samples were received on 2/12/2013 5:12 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 1.3° C.

Except:

The following sample(s) was submitted for analysis; however, it was not listed on the Chain-of-Custody (COC): IM-CPT-05-13 (4-5) and IM-CPT-05-13 (7.5-10).

Organic Prep

Method(s) 3550B: Due to the matrix, the following sample(s) could not be concentrated to the final method required volume: SO-1620-IM-CPT-06-13 (3-5)-20130212 (600-68489-1) and SO-1620-IM-CPT-11-13 (1.4-2.5)-20130212 (600-68489-11). The reporting limits SDLs are elevated proportionately.



Method Summary

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68489-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL HOU
8270C LL	Semivolatile Organic Compounds by GCMS - Low Levels	SW846	TAL HOU
6010B	Metals (ICP)	SW846	TAL HOU
Moisture	Percent Moisture	EPA	TAL HOU

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL HOU = TestAmerica Houston, 6310 Rothway Street, Houston, TX 77040, TEL (713)690-4444



Sample Summary

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68489-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
600-68489-1	SO-1620-IM-CPT-06-13 (3-5)-20130212	Solid	02/12/13 08:50	02/12/13 16:37
600-68489-2	SO-1620-IM-CPT-06-13 (13-15)-20130212	Solid	02/12/13 09:10	02/12/13 16:37
600-68489-3	SO-1620-IM-CPT-08-13 (2.5-5)-20130212	Solid	02/12/13 09:50	02/12/13 16:37
600-68489-4	SO-1620-IM-CPT-08-13 (5-7.5)-20130212	Solid	02/12/13 10:10	02/12/13 16:37
600-68489-5	SO-1620-IM-CPT-08-13 (15-16)-20130212	Solid	02/12/13 10:50	02/12/13 16:37
600-68489-6	SO-1620-IM-CPT-09-13 (2.5-5)-20130212	Solid	02/12/13 12:15	02/12/13 16:37
600-68489-7	SO-1620-IM-CPT-09-13 (5-7.5)-20130212	Solid	02/12/13 12:30	02/12/13 16:37
600-68489-8	SO-1620-IM-CPT-09-13 (15-15.7)-20130212	Solid	02/12/13 12:35	02/12/13 16:37
600-68489-9	SO-1620-IM-CPT-07-13 (2.5-5)-20130212	Solid	02/12/13 13:30	02/12/13 16:37
600-68489-10	SO-1620-IM-CPT-07-13 (7.5-10)-20130212	Solid	02/12/13 13:40	02/12/13 16:37
600-68489-11	SO-1620-IM-CPT-11-13 (1.4-2.5)-20130212	Solid	02/12/13 15:20	02/12/13 16:37
600-68489-12	SO-1620-IM-CPT-05-13 (4-5)-20130212	Solid	02/11/13 00:00	02/12/13 16:37
600-68489-13	SO-1620-IM-CPT-05-13 (7.5-10)-20130212	Solid	02/11/13 00:00	02/12/13 16:37

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68489-1

Client Sample ID: SO-1620-IM-CPT-06-13 (3-5)-20130212

Lab Sample ID: 600-68489-1

Date Collected: 02/12/13 08:50

Matrix: Solid

Date Received: 02/12/13 16:37

Percent Solids: 86.0

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	0.00255	U	0.0116	0.00255	mg/Kg	☼		02/13/13 15:13	1
Benzene	0.000732	U	0.00581	0.000732	mg/Kg	☼		02/13/13 15:13	1
1,2-Dichloroethane	0.00105	U	0.00581	0.00105	mg/Kg	☼		02/13/13 15:13	1
Toluene	0.00160	U	0.00581	0.00160	mg/Kg	☼		02/13/13 15:13	1
Chlorobenzene	0.00112	U	0.00581	0.00112	mg/Kg	☼		02/13/13 15:13	1
Ethylbenzene	0.00119	U	0.00581	0.00119	mg/Kg	☼		02/13/13 15:13	1
Xylenes, Total	0.00131	U	0.00581	0.00131	mg/Kg	☼		02/13/13 15:13	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	87		61 - 130					02/13/13 15:13	1
Dibromofluoromethane	81		68 - 140					02/13/13 15:13	1
Toluene-d8 (Surr)	105		50 - 130					02/13/13 15:13	1
4-Bromofluorobenzene	130		57 - 140					02/13/13 15:13	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.492	U	1.93	0.492	mg/Kg	☼	02/14/13 13:04	02/26/13 17:46	10
Nitrobenzene	0.344	U	1.93	0.344	mg/Kg	☼	02/14/13 13:04	02/26/13 17:46	10
2,4-Dimethylphenol	0.996	U	1.93	0.996	mg/Kg	☼	02/14/13 13:04	02/26/13 17:46	10
Bis(2-chloroethoxy)methane	0.165	U	1.93	0.165	mg/Kg	☼	02/14/13 13:04	02/26/13 17:46	10
Naphthalene	0.157	U	1.93	0.157	mg/Kg	☼	02/14/13 13:04	02/26/13 17:46	10
2-Methylnaphthalene	0.318	U	1.93	0.318	mg/Kg	☼	02/14/13 13:04	02/26/13 17:46	10
2-Chloronaphthalene	0.140	U	1.93	0.140	mg/Kg	☼	02/14/13 13:04	02/26/13 17:46	10
Acenaphthylene	0.116	U	1.93	0.116	mg/Kg	☼	02/14/13 13:04	02/26/13 17:46	10
2,6-Dinitrotoluene	0.342	U	1.93	0.342	mg/Kg	☼	02/14/13 13:04	02/26/13 17:46	10
Acenaphthene	0.508	J	1.93	0.167	mg/Kg	☼	02/14/13 13:04	02/26/13 17:46	10
4-Nitrophenol	0.590	U	1.93	0.590	mg/Kg	☼	02/14/13 13:04	02/26/13 17:46	10
Dibenzofuran	0.207	U	1.93	0.207	mg/Kg	☼	02/14/13 13:04	02/26/13 17:46	10
2,4-Dinitrotoluene	0.419	U	1.93	0.419	mg/Kg	☼	02/14/13 13:04	02/26/13 17:46	10
Fluorene	0.487	J	1.93	0.274	mg/Kg	☼	02/14/13 13:04	02/26/13 17:46	10
4,6-Dinitro-2-methylphenol	0.578	U	1.93	0.578	mg/Kg	☼	02/14/13 13:04	02/26/13 17:46	10
N-Nitrosodiphenylamine	0.219	U	1.93	0.219	mg/Kg	☼	02/14/13 13:04	02/26/13 17:46	10
1,2-Diphenylhydrazine	0.188	U	1.93	0.188	mg/Kg	☼	02/14/13 13:04	02/26/13 17:46	10
Pentachlorophenol	0.464	U	19.4	0.464	mg/Kg	☼	02/14/13 13:04	02/26/13 17:46	10
Phenanthrene	1.69	J	1.93	0.575	mg/Kg	☼	02/14/13 13:04	02/26/13 17:46	10
Anthracene	1.34	J	1.93	0.149	mg/Kg	☼	02/14/13 13:04	02/26/13 17:46	10
Di-n-butyl phthalate	0.301	U	7.74	0.301	mg/Kg	☼	02/14/13 13:04	02/26/13 17:46	10
Fluoranthene	2.49		1.93	0.361	mg/Kg	☼	02/14/13 13:04	02/26/13 17:46	10
Pyrene	2.67		1.93	0.212	mg/Kg	☼	02/14/13 13:04	02/26/13 17:46	10
Benzo[a]anthracene	1.06	J	1.93	0.160	mg/Kg	☼	02/14/13 13:04	02/26/13 17:46	10
Bis(2-ethylhexyl) phthalate	0.623	U	7.74	0.623	mg/Kg	☼	02/14/13 13:04	02/26/13 17:46	10
Chrysene	0.967	J	1.93	0.118	mg/Kg	☼	02/14/13 13:04	02/26/13 17:46	10
Benzo[a]pyrene	0.707	J	1.93	0.187	mg/Kg	☼	02/14/13 13:04	02/26/13 17:46	10
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorophenol	0	X	23 - 108				02/14/13 13:04	02/26/13 17:46	10
Phenol-d6	0	X	26 - 108				02/14/13 13:04	02/26/13 17:46	10
Nitrobenzene-d5	0	X	34 - 118				02/14/13 13:04	02/26/13 17:46	10
2-Fluorobiphenyl	0	X	51 - 109				02/14/13 13:04	02/26/13 17:46	10
2,4,6-Tribromophenol	0	X	34 - 122				02/14/13 13:04	02/26/13 17:46	10

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68489-1

Client Sample ID: SO-1620-IM-CPT-06-13 (3-5)-20130212

Lab Sample ID: 600-68489-1

Date Collected: 02/12/13 08:50

Matrix: Solid

Date Received: 02/12/13 16:37

Percent Solids: 86.0

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Terphenyl-d14	0	X	56 - 123	02/14/13 13:04	02/26/13 17:46	10

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	17.5		1.13	0.246	mg/Kg	☼	02/14/13 11:38	02/15/13 11:40	1
Lead	1490		0.564	0.118	mg/Kg	☼	02/14/13 11:38	02/18/13 09:49	1

General Chemistry

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	14		1.0	1.0	%			02/13/13 11:05	1
Percent Solids	86		1.0	1.0	%			02/13/13 11:05	1

Client Sample ID: SO-1620-IM-CPT-06-13 (13-15)-20130212

Lab Sample ID: 600-68489-2

Date Collected: 02/12/13 09:10

Matrix: Solid

Date Received: 02/12/13 16:37

Percent Solids: 86.2

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	0.0126	b	0.0116	0.00254	mg/Kg	☼		02/13/13 14:49	1
Benzene	0.000730	U	0.00580	0.000730	mg/Kg	☼		02/13/13 14:49	1
1,2-Dichloroethane	0.00104	U	0.00580	0.00104	mg/Kg	☼		02/13/13 14:49	1
Toluene	0.00160	U	0.00580	0.00160	mg/Kg	☼		02/13/13 14:49	1
Chlorobenzene	0.00111	U	0.00580	0.00111	mg/Kg	☼		02/13/13 14:49	1
Ethylbenzene	0.00118	U	0.00580	0.00118	mg/Kg	☼		02/13/13 14:49	1
Xylenes, Total	0.00131	U	0.00580	0.00131	mg/Kg	☼		02/13/13 14:49	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	92		61 - 130		02/13/13 14:49	1
Dibromofluoromethane	99		68 - 140		02/13/13 14:49	1
Toluene-d8 (Surr)	109		50 - 130		02/13/13 14:49	1
4-Bromofluorobenzene	138		57 - 140		02/13/13 14:49	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.00490	U	0.0193	0.00490	mg/Kg	☼	02/14/13 13:04	02/20/13 23:27	1
Nitrobenzene	0.00342	U	0.0193	0.00342	mg/Kg	☼	02/14/13 13:04	02/20/13 23:27	1
2,4-Dimethylphenol	0.00992	U	0.0193	0.00992	mg/Kg	☼	02/14/13 13:04	02/20/13 23:27	1
Bis(2-chloroethoxy)methane	0.00164	U	0.0193	0.00164	mg/Kg	☼	02/14/13 13:04	02/20/13 23:27	1
Naphthalene	0.00156	U	0.0193	0.00156	mg/Kg	☼	02/14/13 13:04	02/20/13 23:27	1
2-Methylnaphthalene	0.00317	U	0.0193	0.00317	mg/Kg	☼	02/14/13 13:04	02/20/13 23:27	1
2-Chloronaphthalene	0.00140	U	0.0193	0.00140	mg/Kg	☼	02/14/13 13:04	02/20/13 23:27	1
Acenaphthylene	0.00116	U	0.0193	0.00116	mg/Kg	☼	02/14/13 13:04	02/20/13 23:27	1
2,6-Dinitrotoluene	0.0234		0.0193	0.00341	mg/Kg	☼	02/14/13 13:04	02/20/13 23:27	1
Acenaphthene	0.00167	U	0.0193	0.00167	mg/Kg	☼	02/14/13 13:04	02/20/13 23:27	1
4-Nitrophenol	0.00588	U	0.0193	0.00588	mg/Kg	☼	02/14/13 13:04	02/20/13 23:27	1
Dibenzofuran	0.00206	U	0.0193	0.00206	mg/Kg	☼	02/14/13 13:04	02/20/13 23:27	1
2,4-Dinitrotoluene	0.0234		0.0193	0.00418	mg/Kg	☼	02/14/13 13:04	02/20/13 23:27	1
Fluorene	0.00273	U	0.0193	0.00273	mg/Kg	☼	02/14/13 13:04	02/20/13 23:27	1
4,6-Dinitro-2-methylphenol	0.00576	U	0.0193	0.00576	mg/Kg	☼	02/14/13 13:04	02/20/13 23:27	1
N-Nitrosodiphenylamine	0.00219	U	0.0193	0.00219	mg/Kg	☼	02/14/13 13:04	02/20/13 23:27	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68489-1

Client Sample ID: SO-1620-IM-CPT-06-13 (13-15)-20130212

Lab Sample ID: 600-68489-2

Date Collected: 02/12/13 09:10

Matrix: Solid

Date Received: 02/12/13 16:37

Percent Solids: 86.2

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Diphenylhydrazine	0.00187	U	0.0193	0.00187	mg/Kg	☼	02/14/13 13:04	02/20/13 23:27	1
Pentachlorophenol	0.00463	U	0.193	0.00463	mg/Kg	☼	02/14/13 13:04	02/20/13 23:27	1
Phenanthrene	0.00573	U	0.0193	0.00573	mg/Kg	☼	02/14/13 13:04	02/20/13 23:27	1
Anthracene	0.00148	U	0.0193	0.00148	mg/Kg	☼	02/14/13 13:04	02/20/13 23:27	1
Di-n-butyl phthalate	0.00300	U	0.0771	0.00300	mg/Kg	☼	02/14/13 13:04	02/20/13 23:27	1
Fluoranthene	0.00360	U	0.0193	0.00360	mg/Kg	☼	02/14/13 13:04	02/20/13 23:27	1
Pyrene	0.00212	U	0.0193	0.00212	mg/Kg	☼	02/14/13 13:04	02/20/13 23:27	1
Benzo[a]anthracene	0.00160	U	0.0193	0.00160	mg/Kg	☼	02/14/13 13:04	02/20/13 23:27	1
Bis(2-ethylhexyl) phthalate	0.00621	U	0.0771	0.00621	mg/Kg	☼	02/14/13 13:04	02/20/13 23:27	1
Chrysene	0.00118	U	0.0193	0.00118	mg/Kg	☼	02/14/13 13:04	02/20/13 23:27	1
Benzo[a]pyrene	0.00186	U	0.0193	0.00186	mg/Kg	☼	02/14/13 13:04	02/20/13 23:27	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	83		23 - 108	02/14/13 13:04	02/20/13 23:27	1
Phenol-d6	81		26 - 108	02/14/13 13:04	02/20/13 23:27	1
Nitrobenzene-d5	82		34 - 118	02/14/13 13:04	02/20/13 23:27	1
2-Fluorobiphenyl	107		51 - 109	02/14/13 13:04	02/20/13 23:27	1
2,4,6-Tribromophenol	71		34 - 122	02/14/13 13:04	02/20/13 23:27	1
Terphenyl-d14	95		56 - 123	02/14/13 13:04	02/20/13 23:27	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	1.07	J	1.09	0.238	mg/Kg	☼	02/14/13 11:38	02/15/13 11:43	1
Lead	4.17		0.547	0.115	mg/Kg	☼	02/14/13 11:38	02/18/13 09:52	1

General Chemistry

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	14		1.0	1.0	%			02/13/13 11:05	1
Percent Solids	86		1.0	1.0	%			02/13/13 11:05	1

Client Sample ID: SO-1620-IM-CPT-08-13 (2.5-5)-20130212

Lab Sample ID: 600-68489-3

Date Collected: 02/12/13 09:50

Matrix: Solid

Date Received: 02/12/13 16:37

Percent Solids: 87.9

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	0.00258	J b	0.0114	0.00249	mg/Kg	☼		02/13/13 17:34	1
Benzene	0.000717	U	0.00569	0.000717	mg/Kg	☼		02/13/13 17:34	1
1,2-Dichloroethane	0.00102	U	0.00569	0.00102	mg/Kg	☼		02/13/13 17:34	1
Toluene	0.00157	U	0.00569	0.00157	mg/Kg	☼		02/13/13 17:34	1
Chlorobenzene	0.00109	U	0.00569	0.00109	mg/Kg	☼		02/13/13 17:34	1
Ethylbenzene	0.00116	U	0.00569	0.00116	mg/Kg	☼		02/13/13 17:34	1
Xylenes, Total	0.00129	U	0.00569	0.00129	mg/Kg	☼		02/13/13 17:34	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	89		61 - 130		02/13/13 17:34	1
Dibromofluoromethane	96		68 - 140		02/13/13 17:34	1
Toluene-d8 (Surr)	107		50 - 130		02/13/13 17:34	1
4-Bromofluorobenzene	139		57 - 140		02/13/13 17:34	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68489-1

Client Sample ID: SO-1620-IM-CPT-08-13 (2.5-5)-20130212

Lab Sample ID: 600-68489-3

Date Collected: 02/12/13 09:50

Matrix: Solid

Date Received: 02/12/13 16:37

Percent Solids: 87.9

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.241	U	0.948	0.241	mg/Kg	☼	02/14/13 13:04	02/21/13 00:48	50
Nitrobenzene	0.168	U	0.948	0.168	mg/Kg	☼	02/14/13 13:04	02/21/13 00:48	50
2,4-Dimethylphenol	0.488	U	0.948	0.488	mg/Kg	☼	02/14/13 13:04	02/21/13 00:48	50
Bis(2-chloroethoxy)methane	0.0807	U	0.948	0.0807	mg/Kg	☼	02/14/13 13:04	02/21/13 00:48	50
Naphthalene	0.0767	U	0.948	0.0767	mg/Kg	☼	02/14/13 13:04	02/21/13 00:48	50
2-Methylnaphthalene	0.156	U	0.948	0.156	mg/Kg	☼	02/14/13 13:04	02/21/13 00:48	50
2-Chloronaphthalene	0.0688	U	0.948	0.0688	mg/Kg	☼	02/14/13 13:04	02/21/13 00:48	50
Acenaphthylene	0.0568	U	0.948	0.0568	mg/Kg	☼	02/14/13 13:04	02/21/13 00:48	50
2,6-Dinitrotoluene	0.168	U	0.948	0.168	mg/Kg	☼	02/14/13 13:04	02/21/13 00:48	50
Acenaphthene	0.0819	U	0.948	0.0819	mg/Kg	☼	02/14/13 13:04	02/21/13 00:48	50
4-Nitrophenol	0.289	U	0.948	0.289	mg/Kg	☼	02/14/13 13:04	02/21/13 00:48	50
Dibenzofuran	0.101	U	0.948	0.101	mg/Kg	☼	02/14/13 13:04	02/21/13 00:48	50
2,4-Dinitrotoluene	0.205	U	0.948	0.205	mg/Kg	☼	02/14/13 13:04	02/21/13 00:48	50
Fluorene	0.134	U	0.948	0.134	mg/Kg	☼	02/14/13 13:04	02/21/13 00:48	50
4,6-Dinitro-2-methylphenol	0.283	U	0.948	0.283	mg/Kg	☼	02/14/13 13:04	02/21/13 00:48	50
N-Nitrosodiphenylamine	0.107	U	0.948	0.107	mg/Kg	☼	02/14/13 13:04	02/21/13 00:48	50
1,2-Diphenylhydrazine	0.0921	U	0.948	0.0921	mg/Kg	☼	02/14/13 13:04	02/21/13 00:48	50
Pentachlorophenol	0.227	U	9.49	0.227	mg/Kg	☼	02/14/13 13:04	02/21/13 00:48	50
Phenanthrene	0.281	U	0.948	0.281	mg/Kg	☼	02/14/13 13:04	02/21/13 00:48	50
Anthracene	0.0728	U	0.948	0.0728	mg/Kg	☼	02/14/13 13:04	02/21/13 00:48	50
Di-n-butyl phthalate	0.147	U	3.79	0.147	mg/Kg	☼	02/14/13 13:04	02/21/13 00:48	50
Fluoranthene	0.177	U	0.948	0.177	mg/Kg	☼	02/14/13 13:04	02/21/13 00:48	50
Pyrene	0.104	U	0.948	0.104	mg/Kg	☼	02/14/13 13:04	02/21/13 00:48	50
Benzo[a]anthracene	0.0784	U	0.948	0.0784	mg/Kg	☼	02/14/13 13:04	02/21/13 00:48	50
Bis(2-ethylhexyl) phthalate	0.305	U	3.79	0.305	mg/Kg	☼	02/14/13 13:04	02/21/13 00:48	50
Chrysene	0.0580	U	0.948	0.0580	mg/Kg	☼	02/14/13 13:04	02/21/13 00:48	50
Benzo[a]pyrene	0.0915	U	0.948	0.0915	mg/Kg	☼	02/14/13 13:04	02/21/13 00:48	50

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	0	X	23 - 108	02/14/13 13:04	02/21/13 00:48	50
Phenol-d6	0	X	26 - 108	02/14/13 13:04	02/21/13 00:48	50
Nitrobenzene-d5	0	X	34 - 118	02/14/13 13:04	02/21/13 00:48	50
2-Fluorobiphenyl	0	X	51 - 109	02/14/13 13:04	02/21/13 00:48	50
2,4,6-Tribromophenol	0	X	34 - 122	02/14/13 13:04	02/21/13 00:48	50
Terphenyl-d14	0	X	56 - 123	02/14/13 13:04	02/21/13 00:48	50

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	1.00	J	1.06	0.232	mg/Kg	☼	02/14/13 11:38	02/15/13 11:59	1
Lead	10.4		0.532	0.111	mg/Kg	☼	02/14/13 11:38	02/18/13 10:16	1

General Chemistry

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	12		1.0	1.0	%			02/13/13 11:05	1
Percent Solids	88		1.0	1.0	%			02/13/13 11:05	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68489-1

Client Sample ID: SO-1620-IM-CPT-08-13 (5-7.5)-20130212

Lab Sample ID: 600-68489-4

Date Collected: 02/12/13 10:10

Matrix: Solid

Date Received: 02/12/13 16:37

Percent Solids: 82.4

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	0.00266	U	0.0121	0.00266	mg/Kg	☼		02/13/13 17:58	1
Benzene	0.000764	U	0.00607	0.000764	mg/Kg	☼		02/13/13 17:58	1
1,2-Dichloroethane	0.00109	U	0.00607	0.00109	mg/Kg	☼		02/13/13 17:58	1
Toluene	0.00167	U	0.00607	0.00167	mg/Kg	☼		02/13/13 17:58	1
Chlorobenzene	0.00116	U	0.00607	0.00116	mg/Kg	☼		02/13/13 17:58	1
Ethylbenzene	0.00124	U	0.00607	0.00124	mg/Kg	☼		02/13/13 17:58	1
Xylenes, Total	0.00159	J	0.00607	0.00137	mg/Kg	☼		02/13/13 17:58	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	87		61 - 130		02/13/13 17:58	1
Dibromofluoromethane	93		68 - 140		02/13/13 17:58	1
Toluene-d8 (Surr)	106		50 - 130		02/13/13 17:58	1
4-Bromofluorobenzene	136		57 - 140		02/13/13 17:58	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.257	U	1.01	0.257	mg/Kg	☼	02/14/13 13:04	02/21/13 01:14	50
Nitrobenzene	0.179	U	1.01	0.179	mg/Kg	☼	02/14/13 13:04	02/21/13 01:14	50
2,4-Dimethylphenol	0.520	U	1.01	0.520	mg/Kg	☼	02/14/13 13:04	02/21/13 01:14	50
Bis(2-chloroethoxy)methane	0.0860	U	1.01	0.0860	mg/Kg	☼	02/14/13 13:04	02/21/13 01:14	50
Naphthalene	0.0818	U	1.01	0.0818	mg/Kg	☼	02/14/13 13:04	02/21/13 01:14	50
2-Methylnaphthalene	0.166	U	1.01	0.166	mg/Kg	☼	02/14/13 13:04	02/21/13 01:14	50
2-Chloronaphthalene	0.0733	U	1.01	0.0733	mg/Kg	☼	02/14/13 13:04	02/21/13 01:14	50
Acenaphthylene	0.0606	U	1.01	0.0606	mg/Kg	☼	02/14/13 13:04	02/21/13 01:14	50
2,6-Dinitrotoluene	0.179	U	1.01	0.179	mg/Kg	☼	02/14/13 13:04	02/21/13 01:14	50
Acenaphthene	0.0872	U	1.01	0.0872	mg/Kg	☼	02/14/13 13:04	02/21/13 01:14	50
4-Nitrophenol	0.308	U	1.01	0.308	mg/Kg	☼	02/14/13 13:04	02/21/13 01:14	50
Dibenzofuran	0.108	U	1.01	0.108	mg/Kg	☼	02/14/13 13:04	02/21/13 01:14	50
2,4-Dinitrotoluene	0.219	U	1.01	0.219	mg/Kg	☼	02/14/13 13:04	02/21/13 01:14	50
Fluorene	0.143	U	1.01	0.143	mg/Kg	☼	02/14/13 13:04	02/21/13 01:14	50
4,6-Dinitro-2-methylphenol	0.302	U	1.01	0.302	mg/Kg	☼	02/14/13 13:04	02/21/13 01:14	50
N-Nitrosodiphenylamine	0.114	U	1.01	0.114	mg/Kg	☼	02/14/13 13:04	02/21/13 01:14	50
1,2-Diphenylhydrazine	0.0981	U	1.01	0.0981	mg/Kg	☼	02/14/13 13:04	02/21/13 01:14	50
Pentachlorophenol	0.242	U	10.1	0.242	mg/Kg	☼	02/14/13 13:04	02/21/13 01:14	50
Phenanthrene	0.300	U	1.01	0.300	mg/Kg	☼	02/14/13 13:04	02/21/13 01:14	50
Anthracene	0.0775	U	1.01	0.0775	mg/Kg	☼	02/14/13 13:04	02/21/13 01:14	50
Di-n-butyl phthalate	0.157	U	4.04	0.157	mg/Kg	☼	02/14/13 13:04	02/21/13 01:14	50
Fluoranthene	0.188	U	1.01	0.188	mg/Kg	☼	02/14/13 13:04	02/21/13 01:14	50
Pyrene	0.111	U	1.01	0.111	mg/Kg	☼	02/14/13 13:04	02/21/13 01:14	50
Benzo[a]anthracene	0.0836	U	1.01	0.0836	mg/Kg	☼	02/14/13 13:04	02/21/13 01:14	50
Bis(2-ethylhexyl) phthalate	1.08	J	4.04	0.325	mg/Kg	☼	02/14/13 13:04	02/21/13 01:14	50
Chrysene	0.0618	U	1.01	0.0618	mg/Kg	☼	02/14/13 13:04	02/21/13 01:14	50
Benzo[a]pyrene	0.0975	U	1.01	0.0975	mg/Kg	☼	02/14/13 13:04	02/21/13 01:14	50

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	0	X	23 - 108	02/14/13 13:04	02/21/13 01:14	50
Phenol-d6	0	X	26 - 108	02/14/13 13:04	02/21/13 01:14	50
Nitrobenzene-d5	0	X	34 - 118	02/14/13 13:04	02/21/13 01:14	50
2-Fluorobiphenyl	0	X	51 - 109	02/14/13 13:04	02/21/13 01:14	50
2,4,6-Tribromophenol	0	X	34 - 122	02/14/13 13:04	02/21/13 01:14	50

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68489-1

Client Sample ID: SO-1620-IM-CPT-08-13 (5-7.5)-20130212

Lab Sample ID: 600-68489-4

Date Collected: 02/12/13 10:10

Matrix: Solid

Date Received: 02/12/13 16:37

Percent Solids: 82.4

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Terphenyl-d14	0	X	56 - 123	02/14/13 13:04	02/21/13 01:14	50

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	1.66		1.19	0.259	mg/Kg	☼	02/14/13 11:38	02/15/13 12:01	1
Lead	23.5		0.595	0.125	mg/Kg	☼	02/14/13 11:38	02/18/13 10:19	1

General Chemistry

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	18		1.0	1.0	%			02/13/13 11:05	1
Percent Solids	82		1.0	1.0	%			02/13/13 11:05	1

Client Sample ID: SO-1620-IM-CPT-08-13 (15-16)-20130212

Lab Sample ID: 600-68489-5

Date Collected: 02/12/13 10:50

Matrix: Solid

Date Received: 02/12/13 16:37

Percent Solids: 83.7

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	0.00261	U	0.0119	0.00261	mg/Kg	☼		02/13/13 18:21	1
Benzene	0.000752	U	0.00597	0.000752	mg/Kg	☼		02/13/13 18:21	1
1,2-Dichloroethane	0.00107	U	0.00597	0.00107	mg/Kg	☼		02/13/13 18:21	1
Toluene	0.00165	U	0.00597	0.00165	mg/Kg	☼		02/13/13 18:21	1
Chlorobenzene	0.00115	U	0.00597	0.00115	mg/Kg	☼		02/13/13 18:21	1
Ethylbenzene	0.00122	U	0.00597	0.00122	mg/Kg	☼		02/13/13 18:21	1
Xylenes, Total	0.00135	U	0.00597	0.00135	mg/Kg	☼		02/13/13 18:21	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	87		61 - 130		02/13/13 18:21	1
Dibromofluoromethane	97		68 - 140		02/13/13 18:21	1
Toluene-d8 (Surr)	106		50 - 130		02/13/13 18:21	1
4-Bromofluorobenzene	134		57 - 140		02/13/13 18:21	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.00506	U	0.0199	0.00506	mg/Kg	☼	02/14/13 13:04	02/21/13 01:41	1
Nitrobenzene	0.00353	U	0.0199	0.00353	mg/Kg	☼	02/14/13 13:04	02/21/13 01:41	1
2,4-Dimethylphenol	0.0102	U	0.0199	0.0102	mg/Kg	☼	02/14/13 13:04	02/21/13 01:41	1
Bis(2-chloroethoxy)methane	0.00169	U	0.0199	0.00169	mg/Kg	☼	02/14/13 13:04	02/21/13 01:41	1
Naphthalene	0.00161	U	0.0199	0.00161	mg/Kg	☼	02/14/13 13:04	02/21/13 01:41	1
2-Methylnaphthalene	0.00327	U	0.0199	0.00327	mg/Kg	☼	02/14/13 13:04	02/21/13 01:41	1
2-Chloronaphthalene	0.00144	U	0.0199	0.00144	mg/Kg	☼	02/14/13 13:04	02/21/13 01:41	1
Acenaphthylene	0.00119	U	0.0199	0.00119	mg/Kg	☼	02/14/13 13:04	02/21/13 01:41	1
2,6-Dinitrotoluene	0.00352	U	0.0199	0.00352	mg/Kg	☼	02/14/13 13:04	02/21/13 01:41	1
Acenaphthene	0.00172	U	0.0199	0.00172	mg/Kg	☼	02/14/13 13:04	02/21/13 01:41	1
4-Nitrophenol	0.00606	U	0.0199	0.00606	mg/Kg	☼	02/14/13 13:04	02/21/13 01:41	1
Dibenzofuran	0.00212	U	0.0199	0.00212	mg/Kg	☼	02/14/13 13:04	02/21/13 01:41	1
2,4-Dinitrotoluene	0.00431	U	0.0199	0.00431	mg/Kg	☼	02/14/13 13:04	02/21/13 01:41	1
Fluorene	0.00282	U	0.0199	0.00282	mg/Kg	☼	02/14/13 13:04	02/21/13 01:41	1
4,6-Dinitro-2-methylphenol	0.00594	U	0.0199	0.00594	mg/Kg	☼	02/14/13 13:04	02/21/13 01:41	1
N-Nitrosodiphenylamine	0.00226	U	0.0199	0.00226	mg/Kg	☼	02/14/13 13:04	02/21/13 01:41	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68489-1

Client Sample ID: SO-1620-IM-CPT-08-13 (15-16)-20130212

Lab Sample ID: 600-68489-5

Date Collected: 02/12/13 10:50

Matrix: Solid

Date Received: 02/12/13 16:37

Percent Solids: 83.7

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Diphenylhydrazine	0.00193	U	0.0199	0.00193	mg/Kg	☼	02/14/13 13:04	02/21/13 01:41	1
Pentachlorophenol	0.00477	U	0.199	0.00477	mg/Kg	☼	02/14/13 13:04	02/21/13 01:41	1
Phenanthrene	0.00591	U	0.0199	0.00591	mg/Kg	☼	02/14/13 13:04	02/21/13 01:41	1
Anthracene	0.00153	U	0.0199	0.00153	mg/Kg	☼	02/14/13 13:04	02/21/13 01:41	1
Di-n-butyl phthalate	0.00309	U	0.0796	0.00309	mg/Kg	☼	02/14/13 13:04	02/21/13 01:41	1
Fluoranthene	0.00371	U	0.0199	0.00371	mg/Kg	☼	02/14/13 13:04	02/21/13 01:41	1
Pyrene	0.00218	U	0.0199	0.00218	mg/Kg	☼	02/14/13 13:04	02/21/13 01:41	1
Benzo[a]anthracene	0.00165	U	0.0199	0.00165	mg/Kg	☼	02/14/13 13:04	02/21/13 01:41	1
Bis(2-ethylhexyl) phthalate	0.00641	U	0.0796	0.00641	mg/Kg	☼	02/14/13 13:04	02/21/13 01:41	1
Chrysene	0.00122	U	0.0199	0.00122	mg/Kg	☼	02/14/13 13:04	02/21/13 01:41	1
Benzo[a]pyrene	0.00192	U	0.0199	0.00192	mg/Kg	☼	02/14/13 13:04	02/21/13 01:41	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	83		23 - 108	02/14/13 13:04	02/21/13 01:41	1
Phenol-d6	78		26 - 108	02/14/13 13:04	02/21/13 01:41	1
Nitrobenzene-d5	81		34 - 118	02/14/13 13:04	02/21/13 01:41	1
2-Fluorobiphenyl	106		51 - 109	02/14/13 13:04	02/21/13 01:41	1
2,4,6-Tribromophenol	69		34 - 122	02/14/13 13:04	02/21/13 01:41	1
Terphenyl-d14	92		56 - 123	02/14/13 13:04	02/21/13 01:41	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	7.88		1.15	0.250	mg/Kg	☼	02/14/13 11:38	02/15/13 12:03	1
Lead	21.5		0.574	0.120	mg/Kg	☼	02/14/13 11:38	02/18/13 10:23	1

General Chemistry

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	16		1.0	1.0	%			02/13/13 11:05	1
Percent Solids	84		1.0	1.0	%			02/13/13 11:05	1

Client Sample ID: SO-1620-IM-CPT-09-13 (2.5-5)-20130212

Lab Sample ID: 600-68489-6

Date Collected: 02/12/13 12:15

Matrix: Solid

Date Received: 02/12/13 16:37

Percent Solids: 81.3

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	0.00269	U	0.0123	0.00269	mg/Kg	☼		02/13/13 18:45	1
Benzene	0.000833	J	0.00615	0.000775	mg/Kg	☼		02/13/13 18:45	1
1,2-Dichloroethane	0.00111	U	0.00615	0.00111	mg/Kg	☼		02/13/13 18:45	1
Toluene	0.00170	U	0.00615	0.00170	mg/Kg	☼		02/13/13 18:45	1
Chlorobenzene	0.00118	U	0.00615	0.00118	mg/Kg	☼		02/13/13 18:45	1
Ethylbenzene	0.00303	J	0.00615	0.00125	mg/Kg	☼		02/13/13 18:45	1
Xylenes, Total	0.0199		0.00615	0.00139	mg/Kg	☼		02/13/13 18:45	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	88		61 - 130		02/13/13 18:45	1
Dibromofluoromethane	89		68 - 140		02/13/13 18:45	1
Toluene-d8 (Surr)	113		50 - 130		02/13/13 18:45	1
4-Bromofluorobenzene	138		57 - 140		02/13/13 18:45	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68489-1

Client Sample ID: SO-1620-IM-CPT-09-13 (2.5-5)-20130212

Lab Sample ID: 600-68489-6

Date Collected: 02/12/13 12:15

Matrix: Solid

Date Received: 02/12/13 16:37

Percent Solids: 81.3

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.520	U	2.05	0.520	mg/Kg	☼	02/14/13 13:04	02/21/13 02:08	100
Nitrobenzene	0.363	U	2.05	0.363	mg/Kg	☼	02/14/13 13:04	02/21/13 02:08	100
2,4-Dimethylphenol	1.05	U	2.05	1.05	mg/Kg	☼	02/14/13 13:04	02/21/13 02:08	100
Bis(2-chloroethoxy)methane	0.174	U	2.05	0.174	mg/Kg	☼	02/14/13 13:04	02/21/13 02:08	100
Naphthalene	7.07		2.05	0.166	mg/Kg	☼	02/14/13 13:04	02/21/13 02:08	100
2-Methylnaphthalene	4.91		2.05	0.336	mg/Kg	☼	02/14/13 13:04	02/21/13 02:08	100
2-Chloronaphthalene	0.148	U	2.05	0.148	mg/Kg	☼	02/14/13 13:04	02/21/13 02:08	100
Acenaphthylene	0.123	U	2.05	0.123	mg/Kg	☼	02/14/13 13:04	02/21/13 02:08	100
2,6-Dinitrotoluene	0.362	U	2.05	0.362	mg/Kg	☼	02/14/13 13:04	02/21/13 02:08	100
Acenaphthene	12.3		2.05	0.177	mg/Kg	☼	02/14/13 13:04	02/21/13 02:08	100
4-Nitrophenol	0.623	U	2.05	0.623	mg/Kg	☼	02/14/13 13:04	02/21/13 02:08	100
Dibenzofuran	8.00		2.05	0.218	mg/Kg	☼	02/14/13 13:04	02/21/13 02:08	100
2,4-Dinitrotoluene	0.443	U	2.05	0.443	mg/Kg	☼	02/14/13 13:04	02/21/13 02:08	100
Fluorene	17.1		2.05	0.290	mg/Kg	☼	02/14/13 13:04	02/21/13 02:08	100
4,6-Dinitro-2-methylphenol	0.611	U	2.05	0.611	mg/Kg	☼	02/14/13 13:04	02/21/13 02:08	100
N-Nitrosodiphenylamine	0.232	U	2.05	0.232	mg/Kg	☼	02/14/13 13:04	02/21/13 02:08	100
1,2-Diphenylhydrazine	0.199	U	2.05	0.199	mg/Kg	☼	02/14/13 13:04	02/21/13 02:08	100
Pentachlorophenol	0.491	U	20.5	0.491	mg/Kg	☼	02/14/13 13:04	02/21/13 02:08	100
Phenanthrene	59.9		2.05	0.607	mg/Kg	☼	02/14/13 13:04	02/21/13 02:08	100
Anthracene	11.4		2.05	0.157	mg/Kg	☼	02/14/13 13:04	02/21/13 02:08	100
Di-n-butyl phthalate	0.318	U	8.18	0.318	mg/Kg	☼	02/14/13 13:04	02/21/13 02:08	100
Fluoranthene	40.7		2.05	0.382	mg/Kg	☼	02/14/13 13:04	02/21/13 02:08	100
Pyrene	27.0		2.05	0.225	mg/Kg	☼	02/14/13 13:04	02/21/13 02:08	100
Benzo[a]anthracene	6.92		2.05	0.169	mg/Kg	☼	02/14/13 13:04	02/21/13 02:08	100
Bis(2-ethylhexyl) phthalate	2.90	J	8.18	0.659	mg/Kg	☼	02/14/13 13:04	02/21/13 02:08	100
Chrysene	7.35		2.05	0.125	mg/Kg	☼	02/14/13 13:04	02/21/13 02:08	100
Benzo[a]pyrene	3.69		2.05	0.198	mg/Kg	☼	02/14/13 13:04	02/21/13 02:08	100

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	0	X	23 - 108	02/14/13 13:04	02/21/13 02:08	100
Phenol-d6	0	X	26 - 108	02/14/13 13:04	02/21/13 02:08	100
Nitrobenzene-d5	0	X	34 - 118	02/14/13 13:04	02/21/13 02:08	100
2-Fluorobiphenyl	0	X	51 - 109	02/14/13 13:04	02/21/13 02:08	100
2,4,6-Tribromophenol	0	X	34 - 122	02/14/13 13:04	02/21/13 02:08	100
Terphenyl-d14	0	X	56 - 123	02/14/13 13:04	02/21/13 02:08	100

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	12.4		1.13	0.246	mg/Kg	☼	02/14/13 11:38	02/15/13 12:12	1
Lead	1240		0.564	0.118	mg/Kg	☼	02/14/13 11:38	02/18/13 10:39	1

General Chemistry

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	19		1.0	1.0	%			02/13/13 11:05	1
Percent Solids	81		1.0	1.0	%			02/13/13 11:05	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68489-1

Client Sample ID: SO-1620-IM-CPT-09-13 (5-7.5)-20130212

Lab Sample ID: 600-68489-7

Date Collected: 02/12/13 12:30

Matrix: Solid

Date Received: 02/12/13 16:37

Percent Solids: 86.1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	0.00254	U	0.0116	0.00254	mg/Kg	☼		02/13/13 19:08	1
Benzene	0.000732	U	0.00581	0.000732	mg/Kg	☼		02/13/13 19:08	1
1,2-Dichloroethane	0.00105	U	0.00581	0.00105	mg/Kg	☼		02/13/13 19:08	1
Toluene	0.00160	U	0.00581	0.00160	mg/Kg	☼		02/13/13 19:08	1
Chlorobenzene	0.00112	U	0.00581	0.00112	mg/Kg	☼		02/13/13 19:08	1
Ethylbenzene	0.00119	J	0.00581	0.00118	mg/Kg	☼		02/13/13 19:08	1
Xylenes, Total	0.00131	U	0.00581	0.00131	mg/Kg	☼		02/13/13 19:08	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	92		61 - 130		02/13/13 19:08	1
Dibromofluoromethane	99		68 - 140		02/13/13 19:08	1
Toluene-d8 (Surr)	107		50 - 130		02/13/13 19:08	1
4-Bromofluorobenzene	139		57 - 140		02/13/13 19:08	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.492	U	1.93	0.492	mg/Kg	☼	02/14/13 13:04	02/21/13 02:35	100
Nitrobenzene	0.343	U	1.93	0.343	mg/Kg	☼	02/14/13 13:04	02/21/13 02:35	100
2,4-Dimethylphenol	0.995	U	1.93	0.995	mg/Kg	☼	02/14/13 13:04	02/21/13 02:35	100
Bis(2-chloroethoxy)methane	0.165	U	1.93	0.165	mg/Kg	☼	02/14/13 13:04	02/21/13 02:35	100
Naphthalene	15.9		1.93	0.157	mg/Kg	☼	02/14/13 13:04	02/21/13 02:35	100
2-Methylnaphthalene	18.6		1.93	0.318	mg/Kg	☼	02/14/13 13:04	02/21/13 02:35	100
2-Chloronaphthalene	0.140	U	1.93	0.140	mg/Kg	☼	02/14/13 13:04	02/21/13 02:35	100
Acenaphthylene	0.806	J	1.93	0.116	mg/Kg	☼	02/14/13 13:04	02/21/13 02:35	100
2,6-Dinitrotoluene	0.342	U	1.93	0.342	mg/Kg	☼	02/14/13 13:04	02/21/13 02:35	100
Acenaphthene	30.0		1.93	0.167	mg/Kg	☼	02/14/13 13:04	02/21/13 02:35	100
4-Nitrophenol	0.589	U	1.93	0.589	mg/Kg	☼	02/14/13 13:04	02/21/13 02:35	100
Dibenzofuran	24.8		1.93	0.206	mg/Kg	☼	02/14/13 13:04	02/21/13 02:35	100
2,4-Dinitrotoluene	0.419	U	1.93	0.419	mg/Kg	☼	02/14/13 13:04	02/21/13 02:35	100
Fluorene	36.4		1.93	0.274	mg/Kg	☼	02/14/13 13:04	02/21/13 02:35	100
4,6-Dinitro-2-methylphenol	0.577	U	1.93	0.577	mg/Kg	☼	02/14/13 13:04	02/21/13 02:35	100
N-Nitrosodiphenylamine	0.219	U	1.93	0.219	mg/Kg	☼	02/14/13 13:04	02/21/13 02:35	100
1,2-Diphenylhydrazine	0.188	U	1.93	0.188	mg/Kg	☼	02/14/13 13:04	02/21/13 02:35	100
Pentachlorophenol	0.464	U	19.4	0.464	mg/Kg	☼	02/14/13 13:04	02/21/13 02:35	100
Anthracene	20.6		1.93	0.148	mg/Kg	☼	02/14/13 13:04	02/21/13 02:35	100
Di-n-butyl phthalate	0.300	U	7.73	0.300	mg/Kg	☼	02/14/13 13:04	02/21/13 02:35	100
Fluoranthene	49.2		1.93	0.361	mg/Kg	☼	02/14/13 13:04	02/21/13 02:35	100
Pyrene	32.9		1.93	0.212	mg/Kg	☼	02/14/13 13:04	02/21/13 02:35	100
Benzo[a]anthracene	9.07		1.93	0.160	mg/Kg	☼	02/14/13 13:04	02/21/13 02:35	100
Bis(2-ethylhexyl) phthalate	0.623	U	7.73	0.623	mg/Kg	☼	02/14/13 13:04	02/21/13 02:35	100
Chrysene	9.17		1.93	0.118	mg/Kg	☼	02/14/13 13:04	02/21/13 02:35	100
Benzo[a]pyrene	4.77		1.93	0.187	mg/Kg	☼	02/14/13 13:04	02/21/13 02:35	100

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	0	X	23 - 108	02/14/13 13:04	02/21/13 02:35	100
Phenol-d6	0	X	26 - 108	02/14/13 13:04	02/21/13 02:35	100
Nitrobenzene-d5	0	X	34 - 118	02/14/13 13:04	02/21/13 02:35	100
2-Fluorobiphenyl	0	X	51 - 109	02/14/13 13:04	02/21/13 02:35	100
2,4,6-Tribromophenol	0	X	34 - 122	02/14/13 13:04	02/21/13 02:35	100
Terphenyl-d14	0	X	56 - 123	02/14/13 13:04	02/21/13 02:35	100

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68489-1

Client Sample ID: SO-1620-IM-CPT-09-13 (5-7.5)-20130212

Lab Sample ID: 600-68489-7

Date Collected: 02/12/13 12:30

Matrix: Solid

Date Received: 02/12/13 16:37

Percent Solids: 86.1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels - DL

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenanthrene	103		19.3	5.74	mg/Kg	☼	02/14/13 13:04	02/22/13 12:09	1000
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorophenol	0	X	23 - 108				02/14/13 13:04	02/22/13 12:09	1000
Phenol-d6	0	X	26 - 108				02/14/13 13:04	02/22/13 12:09	1000
Nitrobenzene-d5	0	X	34 - 118				02/14/13 13:04	02/22/13 12:09	1000
2-Fluorobiphenyl	0	X	51 - 109				02/14/13 13:04	02/22/13 12:09	1000
2,4,6-Tribromophenol	0	X	34 - 122				02/14/13 13:04	02/22/13 12:09	1000
Terphenyl-d14	0	X	56 - 123				02/14/13 13:04	02/22/13 12:09	1000

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	1.35		1.09	0.237	mg/Kg	☼	02/14/13 11:38	02/15/13 12:15	1
Lead	27.6		0.543	0.114	mg/Kg	☼	02/14/13 11:38	02/18/13 10:42	1

General Chemistry

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	14		1.0	1.0	%			02/13/13 11:05	1
Percent Solids	86		1.0	1.0	%			02/13/13 11:05	1

Client Sample ID: SO-1620-IM-CPT-09-13 (15-15.7)-20130212

Lab Sample ID: 600-68489-8

Date Collected: 02/12/13 12:35

Matrix: Solid

Date Received: 02/12/13 16:37

Percent Solids: 86.5

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	0.00253	U	0.0116	0.00253	mg/Kg	☼		02/13/13 19:32	1
Benzene	0.000728	U	0.00578	0.000728	mg/Kg	☼		02/13/13 19:32	1
1,2-Dichloroethane	0.00104	U	0.00578	0.00104	mg/Kg	☼		02/13/13 19:32	1
Toluene	0.00160	U	0.00578	0.00160	mg/Kg	☼		02/13/13 19:32	1
Chlorobenzene	0.00111	U	0.00578	0.00111	mg/Kg	☼		02/13/13 19:32	1
Ethylbenzene	0.00118	U	0.00578	0.00118	mg/Kg	☼		02/13/13 19:32	1
Xylenes, Total	0.00131	U	0.00578	0.00131	mg/Kg	☼		02/13/13 19:32	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	86		61 - 130					02/13/13 19:32	1
Dibromofluoromethane	93		68 - 140					02/13/13 19:32	1
Toluene-d8 (Surr)	103		50 - 130					02/13/13 19:32	1
4-Bromofluorobenzene	131		57 - 140					02/13/13 19:32	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.00489	U	0.0192	0.00489	mg/Kg	☼	02/14/13 13:04	02/21/13 03:02	1
Nitrobenzene	0.00341	U	0.0192	0.00341	mg/Kg	☼	02/14/13 13:04	02/21/13 03:02	1
2,4-Dimethylphenol	0.00989	U	0.0192	0.00989	mg/Kg	☼	02/14/13 13:04	02/21/13 03:02	1
Bis(2-chloroethoxy)methane	0.00164	U	0.0192	0.00164	mg/Kg	☼	02/14/13 13:04	02/21/13 03:02	1
Naphthalene	0.00156	U	0.0192	0.00156	mg/Kg	☼	02/14/13 13:04	02/21/13 03:02	1
2-Methylnaphthalene	0.00316	U	0.0192	0.00316	mg/Kg	☼	02/14/13 13:04	02/21/13 03:02	1
2-Chloronaphthalene	0.00139	U	0.0192	0.00139	mg/Kg	☼	02/14/13 13:04	02/21/13 03:02	1
Acenaphthylene	0.00115	U	0.0192	0.00115	mg/Kg	☼	02/14/13 13:04	02/21/13 03:02	1
2,6-Dinitrotoluene	0.00340	U	0.0192	0.00340	mg/Kg	☼	02/14/13 13:04	02/21/13 03:02	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68489-1

Client Sample ID: SO-1620-IM-CPT-09-13 (15-15.7)-20130212

Lab Sample ID: 600-68489-8

Date Collected: 02/12/13 12:35

Matrix: Solid

Date Received: 02/12/13 16:37

Percent Solids: 86.5

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	0.00463	J	0.0192	0.00166	mg/Kg	☼	02/14/13 13:04	02/21/13 03:02	1
4-Nitrophenol	0.00586	U	0.0192	0.00586	mg/Kg	☼	02/14/13 13:04	02/21/13 03:02	1
Dibenzofuran	0.00205	U	0.0192	0.00205	mg/Kg	☼	02/14/13 13:04	02/21/13 03:02	1
2,4-Dinitrotoluene	0.00416	U	0.0192	0.00416	mg/Kg	☼	02/14/13 13:04	02/21/13 03:02	1
Fluorene	0.00564	J	0.0192	0.00272	mg/Kg	☼	02/14/13 13:04	02/21/13 03:02	1
4,6-Dinitro-2-methylphenol	0.00574	U	0.0192	0.00574	mg/Kg	☼	02/14/13 13:04	02/21/13 03:02	1
N-Nitrosodiphenylamine	0.00218	U	0.0192	0.00218	mg/Kg	☼	02/14/13 13:04	02/21/13 03:02	1
1,2-Diphenylhydrazine	0.00187	U	0.0192	0.00187	mg/Kg	☼	02/14/13 13:04	02/21/13 03:02	1
Pentachlorophenol	0.00461	U	0.193	0.00461	mg/Kg	☼	02/14/13 13:04	02/21/13 03:02	1
Phenanthrene	0.0171	J	0.0192	0.00571	mg/Kg	☼	02/14/13 13:04	02/21/13 03:02	1
Anthracene	0.00515	J	0.0192	0.00148	mg/Kg	☼	02/14/13 13:04	02/21/13 03:02	1
Di-n-butyl phthalate	0.00299	U	0.0769	0.00299	mg/Kg	☼	02/14/13 13:04	02/21/13 03:02	1
Fluoranthene	0.00849	J	0.0192	0.00359	mg/Kg	☼	02/14/13 13:04	02/21/13 03:02	1
Pyrene	0.0127	J	0.0192	0.00211	mg/Kg	☼	02/14/13 13:04	02/21/13 03:02	1
Benzo[a]anthracene	0.00159	U	0.0192	0.00159	mg/Kg	☼	02/14/13 13:04	02/21/13 03:02	1
Bis(2-ethylhexyl) phthalate	0.00619	U	0.0769	0.00619	mg/Kg	☼	02/14/13 13:04	02/21/13 03:02	1
Chrysene	0.00118	U	0.0192	0.00118	mg/Kg	☼	02/14/13 13:04	02/21/13 03:02	1
Benzo[a]pyrene	0.0118	J	0.0192	0.00186	mg/Kg	☼	02/14/13 13:04	02/21/13 03:02	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorophenol	83		23 - 108				02/14/13 13:04	02/21/13 03:02	1
Phenol-d6	82		26 - 108				02/14/13 13:04	02/21/13 03:02	1
Nitrobenzene-d5	80		34 - 118				02/14/13 13:04	02/21/13 03:02	1
2-Fluorobiphenyl	109		51 - 109				02/14/13 13:04	02/21/13 03:02	1
2,4,6-Tribromophenol	73		34 - 122				02/14/13 13:04	02/21/13 03:02	1
Terphenyl-d14	98		56 - 123				02/14/13 13:04	02/21/13 03:02	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	1.04	J	1.11	0.242	mg/Kg	☼	02/14/13 11:38	02/15/13 12:17	1
Lead	4.31		0.556	0.117	mg/Kg	☼	02/14/13 11:38	02/18/13 10:46	1

General Chemistry

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	13		1.0	1.0	%			02/13/13 11:05	1
Percent Solids	87		1.0	1.0	%			02/13/13 11:05	1

Client Sample ID: SO-1620-IM-CPT-07-13 (2.5-5)-20130212

Lab Sample ID: 600-68489-9

Date Collected: 02/12/13 13:30

Matrix: Solid

Date Received: 02/12/13 16:37

Percent Solids: 84.1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	0.00260	U	0.0119	0.00260	mg/Kg	☼		02/13/13 19:56	1
Benzene	0.000749	U	0.00594	0.000749	mg/Kg	☼		02/13/13 19:56	1
1,2-Dichloroethane	0.00107	U	0.00594	0.00107	mg/Kg	☼		02/13/13 19:56	1
Toluene	0.00164	U	0.00594	0.00164	mg/Kg	☼		02/13/13 19:56	1
Chlorobenzene	0.00114	U	0.00594	0.00114	mg/Kg	☼		02/13/13 19:56	1
Ethylbenzene	0.00121	U	0.00594	0.00121	mg/Kg	☼		02/13/13 19:56	1
Xylenes, Total	0.00134	U	0.00594	0.00134	mg/Kg	☼		02/13/13 19:56	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68489-1

Client Sample ID: SO-1620-IM-CPT-07-13 (2.5-5)-20130212

Lab Sample ID: 600-68489-9

Date Collected: 02/12/13 13:30

Matrix: Solid

Date Received: 02/12/13 16:37

Percent Solids: 84.1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	90		61 - 130		02/13/13 19:56	1
Dibromofluoromethane	95		68 - 140		02/13/13 19:56	1
Toluene-d8 (Surr)	108		50 - 130		02/13/13 19:56	1
4-Bromofluorobenzene	135		57 - 140		02/13/13 19:56	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.504	U	1.98	0.504	mg/Kg	☼	02/14/13 13:04	02/21/13 03:29	100
Nitrobenzene	0.352	U	1.98	0.352	mg/Kg	☼	02/14/13 13:04	02/21/13 03:29	100
2,4-Dimethylphenol	1.02	U	1.98	1.02	mg/Kg	☼	02/14/13 13:04	02/21/13 03:29	100
Bis(2-chloroethoxy)methane	0.169	U	1.98	0.169	mg/Kg	☼	02/14/13 13:04	02/21/13 03:29	100
Naphthalene	0.160	U	1.98	0.160	mg/Kg	☼	02/14/13 13:04	02/21/13 03:29	100
2-Methylnaphthalene	0.477	J	1.98	0.326	mg/Kg	☼	02/14/13 13:04	02/21/13 03:29	100
2-Chloronaphthalene	0.144	U	1.98	0.144	mg/Kg	☼	02/14/13 13:04	02/21/13 03:29	100
Acenaphthylene	0.119	U	1.98	0.119	mg/Kg	☼	02/14/13 13:04	02/21/13 03:29	100
2,6-Dinitrotoluene	0.351	U	1.98	0.351	mg/Kg	☼	02/14/13 13:04	02/21/13 03:29	100
Acenaphthene	0.951	J	1.98	0.171	mg/Kg	☼	02/14/13 13:04	02/21/13 03:29	100
4-Nitrophenol	0.604	U	1.98	0.604	mg/Kg	☼	02/14/13 13:04	02/21/13 03:29	100
Dibenzofuran	0.399	J	1.98	0.212	mg/Kg	☼	02/14/13 13:04	02/21/13 03:29	100
2,4-Dinitrotoluene	0.429	U	1.98	0.429	mg/Kg	☼	02/14/13 13:04	02/21/13 03:29	100
Fluorene	1.07	J	1.98	0.280	mg/Kg	☼	02/14/13 13:04	02/21/13 03:29	100
4,6-Dinitro-2-methylphenol	0.592	U	1.98	0.592	mg/Kg	☼	02/14/13 13:04	02/21/13 03:29	100
N-Nitrosodiphenylamine	0.225	U	1.98	0.225	mg/Kg	☼	02/14/13 13:04	02/21/13 03:29	100
1,2-Diphenylhydrazine	0.193	U	1.98	0.193	mg/Kg	☼	02/14/13 13:04	02/21/13 03:29	100
Pentachlorophenol	0.475	U	19.8	0.475	mg/Kg	☼	02/14/13 13:04	02/21/13 03:29	100
Phenanthrene	4.58		1.98	0.588	mg/Kg	☼	02/14/13 13:04	02/21/13 03:29	100
Anthracene	5.06		1.98	0.152	mg/Kg	☼	02/14/13 13:04	02/21/13 03:29	100
Di-n-butyl phthalate	0.308	U	7.92	0.308	mg/Kg	☼	02/14/13 13:04	02/21/13 03:29	100
Fluoranthene	4.90		1.98	0.370	mg/Kg	☼	02/14/13 13:04	02/21/13 03:29	100
Pyrene	5.47		1.98	0.217	mg/Kg	☼	02/14/13 13:04	02/21/13 03:29	100
Benzo[a]anthracene	1.56	J	1.98	0.164	mg/Kg	☼	02/14/13 13:04	02/21/13 03:29	100
Bis(2-ethylhexyl) phthalate	3.03	J	7.92	0.638	mg/Kg	☼	02/14/13 13:04	02/21/13 03:29	100
Chrysene	1.79	J	1.98	0.121	mg/Kg	☼	02/14/13 13:04	02/21/13 03:29	100
Benzo[a]pyrene	2.26		1.98	0.191	mg/Kg	☼	02/14/13 13:04	02/21/13 03:29	100

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	0	X	23 - 108	02/14/13 13:04	02/21/13 03:29	100
Phenol-d6	0	X	26 - 108	02/14/13 13:04	02/21/13 03:29	100
Nitrobenzene-d5	0	X	34 - 118	02/14/13 13:04	02/21/13 03:29	100
2-Fluorobiphenyl	0	X	51 - 109	02/14/13 13:04	02/21/13 03:29	100
2,4,6-Tribromophenol	0	X	34 - 122	02/14/13 13:04	02/21/13 03:29	100
Terphenyl-d14	0	X	56 - 123	02/14/13 13:04	02/21/13 03:29	100

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	1.90		1.13	0.247	mg/Kg	☼	02/14/13 11:38	02/15/13 12:26	1
Lead	8.78		0.566	0.119	mg/Kg	☼	02/14/13 11:38	02/18/13 10:50	1

General Chemistry

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	16		1.0	1.0	%			02/13/13 11:05	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68489-1

Client Sample ID: SO-1620-IM-CPT-07-13 (2.5-5)-20130212

Lab Sample ID: 600-68489-9

Date Collected: 02/12/13 13:30

Matrix: Solid

Date Received: 02/12/13 16:37

General Chemistry (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	84		1.0	1.0	%			02/13/13 11:05	1

Client Sample ID: SO-1620-IM-CPT-07-13 (7.5-10)-20130212

Lab Sample ID: 600-68489-10

Date Collected: 02/12/13 13:40

Matrix: Solid

Date Received: 02/12/13 16:37

Percent Solids: 94.5

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	0.00232	U	0.0106	0.00232	mg/Kg	☼		02/13/13 20:19	1
Benzene	0.000667	U	0.00529	0.000667	mg/Kg	☼		02/13/13 20:19	1
1,2-Dichloroethane	0.000952	U	0.00529	0.000952	mg/Kg	☼		02/13/13 20:19	1
Toluene	0.00146	U	0.00529	0.00146	mg/Kg	☼		02/13/13 20:19	1
Chlorobenzene	0.00102	U	0.00529	0.00102	mg/Kg	☼		02/13/13 20:19	1
Ethylbenzene	0.00108	U	0.00529	0.00108	mg/Kg	☼		02/13/13 20:19	1
Xylenes, Total	0.00120	U	0.00529	0.00120	mg/Kg	☼		02/13/13 20:19	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	85		61 - 130					02/13/13 20:19	1
Dibromofluoromethane	91		68 - 140					02/13/13 20:19	1
Toluene-d8 (Surr)	104		50 - 130					02/13/13 20:19	1
4-Bromofluorobenzene	133		57 - 140					02/13/13 20:19	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.00489	U	0.0192	0.00489	mg/Kg	☼	02/14/13 13:04	02/21/13 03:55	1
Nitrobenzene	0.00341	U	0.0192	0.00341	mg/Kg	☼	02/14/13 13:04	02/21/13 03:55	1
2,4-Dimethylphenol	0.00989	U	0.0192	0.00989	mg/Kg	☼	02/14/13 13:04	02/21/13 03:55	1
Bis(2-chloroethoxy)methane	0.00164	U	0.0192	0.00164	mg/Kg	☼	02/14/13 13:04	02/21/13 03:55	1
Naphthalene	0.00156	U	0.0192	0.00156	mg/Kg	☼	02/14/13 13:04	02/21/13 03:55	1
2-Methylnaphthalene	0.00316	U	0.0192	0.00316	mg/Kg	☼	02/14/13 13:04	02/21/13 03:55	1
2-Chloronaphthalene	0.00139	U	0.0192	0.00139	mg/Kg	☼	02/14/13 13:04	02/21/13 03:55	1
Acenaphthylene	0.00115	U	0.0192	0.00115	mg/Kg	☼	02/14/13 13:04	02/21/13 03:55	1
2,6-Dinitrotoluene	0.00340	U	0.0192	0.00340	mg/Kg	☼	02/14/13 13:04	02/21/13 03:55	1
Acenaphthene	0.00166	U	0.0192	0.00166	mg/Kg	☼	02/14/13 13:04	02/21/13 03:55	1
4-Nitrophenol	0.00586	U	0.0192	0.00586	mg/Kg	☼	02/14/13 13:04	02/21/13 03:55	1
Dibenzofuran	0.00205	U	0.0192	0.00205	mg/Kg	☼	02/14/13 13:04	02/21/13 03:55	1
2,4-Dinitrotoluene	0.00416	U	0.0192	0.00416	mg/Kg	☼	02/14/13 13:04	02/21/13 03:55	1
Fluorene	0.00272	U	0.0192	0.00272	mg/Kg	☼	02/14/13 13:04	02/21/13 03:55	1
4,6-Dinitro-2-methylphenol	0.00574	U	0.0192	0.00574	mg/Kg	☼	02/14/13 13:04	02/21/13 03:55	1
N-Nitrosodiphenylamine	0.00218	U	0.0192	0.00218	mg/Kg	☼	02/14/13 13:04	02/21/13 03:55	1
1,2-Diphenylhydrazine	0.00187	U	0.0192	0.00187	mg/Kg	☼	02/14/13 13:04	02/21/13 03:55	1
Pentachlorophenol	0.00461	U	0.192	0.00461	mg/Kg	☼	02/14/13 13:04	02/21/13 03:55	1
Phenanthrene	0.00837	J	0.0192	0.00571	mg/Kg	☼	02/14/13 13:04	02/21/13 03:55	1
Anthracene	0.00148	U	0.0192	0.00148	mg/Kg	☼	02/14/13 13:04	02/21/13 03:55	1
Di-n-butyl phthalate	0.00299	U	0.0769	0.00299	mg/Kg	☼	02/14/13 13:04	02/21/13 03:55	1
Fluoranthene	0.00358	U	0.0192	0.00358	mg/Kg	☼	02/14/13 13:04	02/21/13 03:55	1
Pyrene	0.00585	J	0.0192	0.00211	mg/Kg	☼	02/14/13 13:04	02/21/13 03:55	1
Benzo[a]anthracene	0.00159	U	0.0192	0.00159	mg/Kg	☼	02/14/13 13:04	02/21/13 03:55	1
Bis(2-ethylhexyl) phthalate	0.00619	U	0.0769	0.00619	mg/Kg	☼	02/14/13 13:04	02/21/13 03:55	1
Chrysene	0.00118	U	0.0192	0.00118	mg/Kg	☼	02/14/13 13:04	02/21/13 03:55	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68489-1

Client Sample ID: SO-1620-IM-CPT-07-13 (7.5-10)-20130212

Lab Sample ID: 600-68489-10

Date Collected: 02/12/13 13:40

Matrix: Solid

Date Received: 02/12/13 16:37

Percent Solids: 86.7

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]pyrene	0.0117	J	0.0192	0.00186	mg/Kg	☼	02/14/13 13:04	02/21/13 03:55	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorophenol	76		23 - 108				02/14/13 13:04	02/21/13 03:55	1
Phenol-d6	76		26 - 108				02/14/13 13:04	02/21/13 03:55	1
Nitrobenzene-d5	76		34 - 118				02/14/13 13:04	02/21/13 03:55	1
2-Fluorobiphenyl	101		51 - 109				02/14/13 13:04	02/21/13 03:55	1
2,4,6-Tribromophenol	62		34 - 122				02/14/13 13:04	02/21/13 03:55	1
Terphenyl-d14	87		56 - 123				02/14/13 13:04	02/21/13 03:55	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	2.77		0.971	0.212	mg/Kg	☼	02/14/13 11:38	02/15/13 12:28	1
Lead	2.44		0.485	0.102	mg/Kg	☼	02/14/13 11:38	02/18/13 11:02	1

General Chemistry

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	13		1.0	1.0	%			02/20/13 12:46	1
Percent Solids	87		1.0	1.0	%			02/20/13 12:46	1

Client Sample ID: SO-1620-IM-CPT-11-13 (1.4-2.5)-20130212

Lab Sample ID: 600-68489-11

Date Collected: 02/12/13 15:20

Matrix: Solid

Date Received: 02/12/13 16:37

Percent Solids: 97.2

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	0.00225	U	0.0103	0.00225	mg/Kg	☼		02/13/13 20:42	1
Benzene	0.000648	U	0.00514	0.000648	mg/Kg	☼		02/13/13 20:42	1
1,2-Dichloroethane	0.000926	U	0.00514	0.000926	mg/Kg	☼		02/13/13 20:42	1
Toluene	0.00142	U	0.00514	0.00142	mg/Kg	☼		02/13/13 20:42	1
Chlorobenzene	0.000988	U	0.00514	0.000988	mg/Kg	☼		02/13/13 20:42	1
Ethylbenzene	0.00105	U	0.00514	0.00105	mg/Kg	☼		02/13/13 20:42	1
Xylenes, Total	0.00116	U	0.00514	0.00116	mg/Kg	☼		02/13/13 20:42	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	86		61 - 130					02/13/13 20:42	1
Dibromofluoromethane	83		68 - 140					02/13/13 20:42	1
Toluene-d8 (Surr)	111		50 - 130					02/13/13 20:42	1
4-Bromofluorobenzene	137		57 - 140					02/13/13 20:42	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.477	U	1.87	0.477	mg/Kg	☼	02/14/13 13:04	02/26/13 18:13	10
Nitrobenzene	0.333	U	1.87	0.333	mg/Kg	☼	02/14/13 13:04	02/26/13 18:13	10
2,4-Dimethylphenol	0.965	U	1.87	0.965	mg/Kg	☼	02/14/13 13:04	02/26/13 18:13	10
Bis(2-chloroethoxy)methane	0.160	U	1.87	0.160	mg/Kg	☼	02/14/13 13:04	02/26/13 18:13	10
Naphthalene	1.52	J	1.87	0.152	mg/Kg	☼	02/14/13 13:04	02/26/13 18:13	10
2-Methylnaphthalene	1.77	J	1.87	0.308	mg/Kg	☼	02/14/13 13:04	02/26/13 18:13	10
2-Chloronaphthalene	0.136	U	1.87	0.136	mg/Kg	☼	02/14/13 13:04	02/26/13 18:13	10
Acenaphthylene	0.112	U	1.87	0.112	mg/Kg	☼	02/14/13 13:04	02/26/13 18:13	10
2,6-Dinitrotoluene	0.332	U	1.87	0.332	mg/Kg	☼	02/14/13 13:04	02/26/13 18:13	10

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68489-1

Client Sample ID: SO-1620-IM-CPT-11-13 (1.4-2.5)-20130212

Lab Sample ID: 600-68489-11

Date Collected: 02/12/13 15:20

Matrix: Solid

Date Received: 02/12/13 16:37

Percent Solids: 88.7

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	2.32		1.87	0.162	mg/Kg	☼	02/14/13 13:04	02/26/13 18:13	10
4-Nitrophenol	0.571	U	1.87	0.571	mg/Kg	☼	02/14/13 13:04	02/26/13 18:13	10
Dibenzofuran	1.50	J	1.87	0.200	mg/Kg	☼	02/14/13 13:04	02/26/13 18:13	10
2,4-Dinitrotoluene	0.406	U	1.87	0.406	mg/Kg	☼	02/14/13 13:04	02/26/13 18:13	10
Fluorene	3.87		1.87	0.265	mg/Kg	☼	02/14/13 13:04	02/26/13 18:13	10
4,6-Dinitro-2-methylphenol	0.560	U	1.87	0.560	mg/Kg	☼	02/14/13 13:04	02/26/13 18:13	10
N-Nitrosodiphenylamine	0.212	U	1.87	0.212	mg/Kg	☼	02/14/13 13:04	02/26/13 18:13	10
1,2-Diphenylhydrazine	0.182	U	1.87	0.182	mg/Kg	☼	02/14/13 13:04	02/26/13 18:13	10
Pentachlorophenol	0.450	U	18.8	0.450	mg/Kg	☼	02/14/13 13:04	02/26/13 18:13	10
Phenanthrene	4.48		1.87	0.556	mg/Kg	☼	02/14/13 13:04	02/26/13 18:13	10
Anthracene	26.0		1.87	0.144	mg/Kg	☼	02/14/13 13:04	02/26/13 18:13	10
Di-n-butyl phthalate	0.291	U	7.50	0.291	mg/Kg	☼	02/14/13 13:04	02/26/13 18:13	10
Fluoranthene	1.79	J	1.87	0.350	mg/Kg	☼	02/14/13 13:04	02/26/13 18:13	10
Pyrene	1.82	J	1.87	0.206	mg/Kg	☼	02/14/13 13:04	02/26/13 18:13	10
Benzo[a]anthracene	0.601	J	1.87	0.155	mg/Kg	☼	02/14/13 13:04	02/26/13 18:13	10
Bis(2-ethylhexyl) phthalate	0.604	U	7.50	0.604	mg/Kg	☼	02/14/13 13:04	02/26/13 18:13	10
Chrysene	1.14	J	1.87	0.115	mg/Kg	☼	02/14/13 13:04	02/26/13 18:13	10
Benzo[a]pyrene	0.181	U	1.87	0.181	mg/Kg	☼	02/14/13 13:04	02/26/13 18:13	10

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	0	X	23 - 108	02/14/13 13:04	02/26/13 18:13	10
Phenol-d6	0	X	26 - 108	02/14/13 13:04	02/26/13 18:13	10
Nitrobenzene-d5	0	X	34 - 118	02/14/13 13:04	02/26/13 18:13	10
2-Fluorobiphenyl	0	X	51 - 109	02/14/13 13:04	02/26/13 18:13	10
2,4,6-Tribromophenol	0	X	34 - 122	02/14/13 13:04	02/26/13 18:13	10
Terphenyl-d14	0	X	56 - 123	02/14/13 13:04	02/26/13 18:13	10

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	28.2		0.980	0.214	mg/Kg	☼	02/14/13 11:38	02/15/13 12:31	1
Lead	1360		0.490	0.103	mg/Kg	☼	02/14/13 11:38	02/18/13 11:06	1

General Chemistry

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	11		1.0	1.0	%			02/20/13 12:46	1
Percent Solids	89		1.0	1.0	%			02/20/13 12:46	1

Client Sample ID: SO-1620-IM-CPT-05-13 (4-5)-20130212

Lab Sample ID: 600-68489-12

Date Collected: 02/11/13 00:00

Matrix: Solid

Date Received: 02/12/13 16:37

Percent Solids: 40.6

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	0.00539	U	0.0246	0.00539	mg/Kg	☼		02/13/13 21:06	1
Benzene	0.00155	U	0.0123	0.00155	mg/Kg	☼		02/13/13 21:06	1
1,2-Dichloroethane	0.00221	U	0.0123	0.00221	mg/Kg	☼		02/13/13 21:06	1
Toluene	0.00340	U	0.0123	0.00340	mg/Kg	☼		02/13/13 21:06	1
Chlorobenzene	0.00236	U	0.0123	0.00236	mg/Kg	☼		02/13/13 21:06	1
Ethylbenzene	0.00251	U	0.0123	0.00251	mg/Kg	☼		02/13/13 21:06	1
Xylenes, Total	0.00278	U	0.0123	0.00278	mg/Kg	☼		02/13/13 21:06	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68489-1

Client Sample ID: SO-1620-IM-CPT-05-13 (4-5)-20130212

Lab Sample ID: 600-68489-12

Date Collected: 02/11/13 00:00

Matrix: Solid

Date Received: 02/12/13 16:37

Percent Solids: 40.6

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	86		61 - 130		02/13/13 21:06	1
Dibromofluoromethane	93		68 - 140		02/13/13 21:06	1
Toluene-d8 (Surr)	106		50 - 130		02/13/13 21:06	1
4-Bromofluorobenzene	133		57 - 140		02/13/13 21:06	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.00497	U	0.0195	0.00497	mg/Kg	☼	02/14/13 13:04	02/21/13 04:22	1
Nitrobenzene	0.00347	U	0.0195	0.00347	mg/Kg	☼	02/14/13 13:04	02/21/13 04:22	1
2,4-Dimethylphenol	0.0100	U	0.0195	0.0100	mg/Kg	☼	02/14/13 13:04	02/21/13 04:22	1
Bis(2-chloroethoxy)methane	0.00166	U	0.0195	0.00166	mg/Kg	☼	02/14/13 13:04	02/21/13 04:22	1
Naphthalene	0.00158	U	0.0195	0.00158	mg/Kg	☼	02/14/13 13:04	02/21/13 04:22	1
2-Methylnaphthalene	0.00321	U	0.0195	0.00321	mg/Kg	☼	02/14/13 13:04	02/21/13 04:22	1
2-Chloronaphthalene	0.00142	U	0.0195	0.00142	mg/Kg	☼	02/14/13 13:04	02/21/13 04:22	1
Acenaphthylene	0.00117	U	0.0195	0.00117	mg/Kg	☼	02/14/13 13:04	02/21/13 04:22	1
2,6-Dinitrotoluene	0.00346	U	0.0195	0.00346	mg/Kg	☼	02/14/13 13:04	02/21/13 04:22	1
Acenaphthene	0.00169	U	0.0195	0.00169	mg/Kg	☼	02/14/13 13:04	02/21/13 04:22	1
4-Nitrophenol	0.00595	U	0.0195	0.00595	mg/Kg	☼	02/14/13 13:04	02/21/13 04:22	1
Dibenzofuran	0.00208	U	0.0195	0.00208	mg/Kg	☼	02/14/13 13:04	02/21/13 04:22	1
2,4-Dinitrotoluene	0.00423	U	0.0195	0.00423	mg/Kg	☼	02/14/13 13:04	02/21/13 04:22	1
Fluorene	0.00276	U	0.0195	0.00276	mg/Kg	☼	02/14/13 13:04	02/21/13 04:22	1
4,6-Dinitro-2-methylphenol	0.00583	U	0.0195	0.00583	mg/Kg	☼	02/14/13 13:04	02/21/13 04:22	1
N-Nitrosodiphenylamine	0.00221	U	0.0195	0.00221	mg/Kg	☼	02/14/13 13:04	02/21/13 04:22	1
1,2-Diphenylhydrazine	0.00190	U	0.0195	0.00190	mg/Kg	☼	02/14/13 13:04	02/21/13 04:22	1
Pentachlorophenol	0.00468	U	0.196	0.00468	mg/Kg	☼	02/14/13 13:04	02/21/13 04:22	1
Phenanthrene	0.00580	U	0.0195	0.00580	mg/Kg	☼	02/14/13 13:04	02/21/13 04:22	1
Anthracene	0.00150	U	0.0195	0.00150	mg/Kg	☼	02/14/13 13:04	02/21/13 04:22	1
Di-n-butyl phthalate	0.00303	U	0.0781	0.00303	mg/Kg	☼	02/14/13 13:04	02/21/13 04:22	1
Fluoranthene	0.00364	U	0.0195	0.00364	mg/Kg	☼	02/14/13 13:04	02/21/13 04:22	1
Pyrene	0.00214	U	0.0195	0.00214	mg/Kg	☼	02/14/13 13:04	02/21/13 04:22	1
Benzo[a]anthracene	0.00162	U	0.0195	0.00162	mg/Kg	☼	02/14/13 13:04	02/21/13 04:22	1
Bis(2-ethylhexyl) phthalate	0.00629	U	0.0781	0.00629	mg/Kg	☼	02/14/13 13:04	02/21/13 04:22	1
Chrysene	0.00119	U	0.0195	0.00119	mg/Kg	☼	02/14/13 13:04	02/21/13 04:22	1
Benzo[a]pyrene	0.00189	U	0.0195	0.00189	mg/Kg	☼	02/14/13 13:04	02/21/13 04:22	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	88		23 - 108	02/14/13 13:04	02/21/13 04:22	1
Phenol-d6	87		26 - 108	02/14/13 13:04	02/21/13 04:22	1
Nitrobenzene-d5	89		34 - 118	02/14/13 13:04	02/21/13 04:22	1
2-Fluorobiphenyl	121	X	51 - 109	02/14/13 13:04	02/21/13 04:22	1
2,4,6-Tribromophenol	81		34 - 122	02/14/13 13:04	02/21/13 04:22	1
Terphenyl-d14	103		56 - 123	02/14/13 13:04	02/21/13 04:22	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	3.18		2.32	0.506	mg/Kg	☼	02/14/13 11:38	02/15/13 12:34	1
Lead	15.3		1.16	0.243	mg/Kg	☼	02/14/13 11:38	02/18/13 11:09	1

General Chemistry

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	15		1.0	1.0	%			02/20/13 12:46	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68489-1

Client Sample ID: SO-1620-IM-CPT-05-13 (4-5)-20130212

Lab Sample ID: 600-68489-12

Date Collected: 02/11/13 00:00

Matrix: Solid

Date Received: 02/12/13 16:37

General Chemistry (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	85		1.0	1.0	%			02/20/13 12:46	1

Client Sample ID: SO-1620-IM-CPT-05-13 (7.5-10)-20130212

Lab Sample ID: 600-68489-13

Date Collected: 02/11/13 00:00

Matrix: Solid

Date Received: 02/12/13 16:37

Percent Solids: 138.2

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	0.00158	U	0.00724	0.00158	mg/Kg	☼		02/13/13 21:30	1
Benzene	0.000456	U	0.00362	0.000456	mg/Kg	☼		02/13/13 21:30	1
1,2-Dichloroethane	0.000651	U	0.00362	0.000651	mg/Kg	☼		02/13/13 21:30	1
Toluene	0.000999	U	0.00362	0.000999	mg/Kg	☼		02/13/13 21:30	1
Chlorobenzene	0.000695	U	0.00362	0.000695	mg/Kg	☼		02/13/13 21:30	1
Ethylbenzene	0.000738	U	0.00362	0.000738	mg/Kg	☼		02/13/13 21:30	1
Xylenes, Total	0.000818	U	0.00362	0.000818	mg/Kg	☼		02/13/13 21:30	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	91		61 - 130					02/13/13 21:30	1
Dibromofluoromethane	91		68 - 140					02/13/13 21:30	1
Toluene-d8 (Surr)	106		50 - 130					02/13/13 21:30	1
4-Bromofluorobenzene	133		57 - 140					02/13/13 21:30	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.00496	U	0.0195	0.00496	mg/Kg	☼	02/14/13 13:04	02/21/13 17:47	1
Nitrobenzene	0.00346	U	0.0195	0.00346	mg/Kg	☼	02/14/13 13:04	02/21/13 17:47	1
2,4-Dimethylphenol	0.0100	U	0.0195	0.0100	mg/Kg	☼	02/14/13 13:04	02/21/13 17:47	1
Bis(2-chloroethoxy)methane	0.00166	U	0.0195	0.00166	mg/Kg	☼	02/14/13 13:04	02/21/13 17:47	1
Naphthalene	0.00158	U	0.0195	0.00158	mg/Kg	☼	02/14/13 13:04	02/21/13 17:47	1
2-Methylnaphthalene	0.00321	U	0.0195	0.00321	mg/Kg	☼	02/14/13 13:04	02/21/13 17:47	1
2-Chloronaphthalene	0.00142	U	0.0195	0.00142	mg/Kg	☼	02/14/13 13:04	02/21/13 17:47	1
Acenaphthylene	0.00117	U	0.0195	0.00117	mg/Kg	☼	02/14/13 13:04	02/21/13 17:47	1
2,6-Dinitrotoluene	0.00345	U	0.0195	0.00345	mg/Kg	☼	02/14/13 13:04	02/21/13 17:47	1
Acenaphthene	0.00168	U	0.0195	0.00168	mg/Kg	☼	02/14/13 13:04	02/21/13 17:47	1
4-Nitrophenol	0.00594	U	0.0195	0.00594	mg/Kg	☼	02/14/13 13:04	02/21/13 17:47	1
Dibenzofuran	0.00208	U	0.0195	0.00208	mg/Kg	☼	02/14/13 13:04	02/21/13 17:47	1
2,4-Dinitrotoluene	0.00422	U	0.0195	0.00422	mg/Kg	☼	02/14/13 13:04	02/21/13 17:47	1
Fluorene	0.00276	U	0.0195	0.00276	mg/Kg	☼	02/14/13 13:04	02/21/13 17:47	1
4,6-Dinitro-2-methylphenol	0.00583	U	0.0195	0.00583	mg/Kg	☼	02/14/13 13:04	02/21/13 17:47	1
N-Nitrosodiphenylamine	0.00221	U	0.0195	0.00221	mg/Kg	☼	02/14/13 13:04	02/21/13 17:47	1
1,2-Diphenylhydrazine	0.00190	U	0.0195	0.00190	mg/Kg	☼	02/14/13 13:04	02/21/13 17:47	1
Pentachlorophenol	0.00468	U	0.195	0.00468	mg/Kg	☼	02/14/13 13:04	02/21/13 17:47	1
Phenanthrene	0.00579	U	0.0195	0.00579	mg/Kg	☼	02/14/13 13:04	02/21/13 17:47	1
Anthracene	0.00150	U	0.0195	0.00150	mg/Kg	☼	02/14/13 13:04	02/21/13 17:47	1
Di-n-butyl phthalate	0.00303	U	0.0780	0.00303	mg/Kg	☼	02/14/13 13:04	02/21/13 17:47	1
Fluoranthene	0.00364	U	0.0195	0.00364	mg/Kg	☼	02/14/13 13:04	02/21/13 17:47	1
Pyrene	0.00214	U	0.0195	0.00214	mg/Kg	☼	02/14/13 13:04	02/21/13 17:47	1
Benzo[a]anthracene	0.00161	U	0.0195	0.00161	mg/Kg	☼	02/14/13 13:04	02/21/13 17:47	1
Bis(2-ethylhexyl) phthalate	0.00628	U	0.0780	0.00628	mg/Kg	☼	02/14/13 13:04	02/21/13 17:47	1
Chrysene	0.00119	U	0.0195	0.00119	mg/Kg	☼	02/14/13 13:04	02/21/13 17:47	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68489-1

Client Sample ID: SO-1620-IM-CPT-05-13 (7.5-10)-20130212

Lab Sample ID: 600-68489-13

Date Collected: 02/11/13 00:00

Matrix: Solid

Date Received: 02/12/13 16:37

Percent Solids: 85.4

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]pyrene	0.00188	U	0.0195	0.00188	mg/Kg	☼	02/14/13 13:04	02/21/13 17:47	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorophenol	80		23 - 108				02/14/13 13:04	02/21/13 17:47	1
Phenol-d6	76		26 - 108				02/14/13 13:04	02/21/13 17:47	1
Nitrobenzene-d5	81		34 - 118				02/14/13 13:04	02/21/13 17:47	1
2-Fluorobiphenyl	103		51 - 109				02/14/13 13:04	02/21/13 17:47	1
2,4,6-Tribromophenol	56		34 - 122				02/14/13 13:04	02/21/13 17:47	1
Terphenyl-d14	92		56 - 123				02/14/13 13:04	02/21/13 17:47	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	1.08		0.676	0.147	mg/Kg	☼	02/14/13 11:38	02/15/13 12:36	1
Lead	1.96		0.338	0.0709	mg/Kg	☼	02/14/13 11:38	02/18/13 11:13	1

General Chemistry

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	15		1.0	1.0	%			02/20/13 12:46	1
Percent Solids	85		1.0	1.0	%			02/20/13 12:46	1

Definitions/Glossary

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68489-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
U	Analyte was not detected at or above the SDL.
b	The compound was found in the blank and sample
J	Result is less than the MQL but greater than or equal to the SDL and the concentration is an estimated value.

GC/MS Semi VOA

Qualifier	Qualifier Description
U	Analyte was not detected at or above the SDL.
X	Surrogate is outside control limits
J	Result is less than the MQL but greater than or equal to the SDL and the concentration is an estimated value.
N	RPD of the MS and MSD exceeds the control limits

Metals

Qualifier	Qualifier Description
J	Result is less than the MQL but greater than or equal to the SDL and the concentration is an estimated value.
F	Duplicate RPD exceeds the control limit
N	MS, MSD: Spike recovery exceeds upper or lower control limits.
U	Analyte was not detected at or above the SDL.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Surrogate Summary

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68489-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		12DCE (61-130)	DBFM (68-140)	TOL (50-130)	BFB (57-140)
600-68489-1	SO-1620-IM-CPT-06-13 (3-5)-2013C	87	81	105	130
600-68489-1 MS	SO-1620-IM-CPT-06-13 (3-5)-2013C	86	92	110	132
600-68489-1 MSD	SO-1620-IM-CPT-06-13 (3-5)-2013C	86	85	108	130
600-68489-2	SO-1620-IM-CPT-06-13 (13-15)-201	92	99	109	138
600-68489-3	SO-1620-IM-CPT-08-13 (2.5-5)-201:	89	96	107	139
600-68489-4	SO-1620-IM-CPT-08-13 (5-7.5)-201:	87	93	106	136
600-68489-5	SO-1620-IM-CPT-08-13 (15-16)-201	87	97	106	134
600-68489-6	SO-1620-IM-CPT-09-13 (2.5-5)-201:	88	89	113	138
600-68489-7	SO-1620-IM-CPT-09-13 (5-7.5)-201:	92	99	107	139
600-68489-8	SO-1620-IM-CPT-09-13 (15-15.7)-20	86	93	103	131
600-68489-9	SO-1620-IM-CPT-07-13 (2.5-5)-201:	90	95	108	135
600-68489-10	SO-1620-IM-CPT-07-13 (7.5-10)-20	85	91	104	133
600-68489-11	SO-1620-IM-CPT-11-13 (1.4-2.5)-20	86	83	111	137
600-68489-12	SO-1620-IM-CPT-05-13 (4-5)-2013C	86	93	106	133
600-68489-13	SO-1620-IM-CPT-05-13 (7.5-10)-20	91	91	106	133
LCS 600-99523/3	Lab Control Sample	97	102	96	124
MB 600-99523/4	Method Blank	89	100	97	122

Surrogate Legend

12DCE = 1,2-Dichloroethane-d4 (Surr)

DBFM = Dibromofluoromethane

TOL = Toluene-d8 (Surr)

BFB = 4-Bromofluorobenzene

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)					
		2FP (23-108)	PHL (26-108)	NBZ (34-118)	FBP (51-109)	TBP (34-122)	TPH (56-123)
600-68489-1	SO-1620-IM-CPT-06-13 (3-5)-2013C	0 X	0 X	0 X	0 X	0 X	0 X
600-68489-2	SO-1620-IM-CPT-06-13 (13-15)-201	83	81	82	107	71	95
600-68489-2 MS	SO-1620-IM-CPT-06-13 (13-15)-201	81	85	82	101	85	90
600-68489-2 MSD	SO-1620-IM-CPT-06-13 (13-15)-201	81	83	80	102	83	93
600-68489-3	SO-1620-IM-CPT-08-13 (2.5-5)-201:	0 X	0 X	0 X	0 X	0 X	0 X
600-68489-4	SO-1620-IM-CPT-08-13 (5-7.5)-201:	0 X	0 X	0 X	0 X	0 X	0 X
600-68489-5	SO-1620-IM-CPT-08-13 (15-16)-201	83	78	81	106	69	92
600-68489-6	SO-1620-IM-CPT-09-13 (2.5-5)-201:	0 X	0 X	0 X	0 X	0 X	0 X
600-68489-7	SO-1620-IM-CPT-09-13 (5-7.5)-201:	0 X	0 X	0 X	0 X	0 X	0 X
600-68489-7 - DL	SO-1620-IM-CPT-09-13 (5-7.5)-201:	0 X	0 X	0 X	0 X	0 X	0 X
600-68489-8	SO-1620-IM-CPT-09-13 (15-15.7)-20	83	82	80	109	73	98
600-68489-9	SO-1620-IM-CPT-07-13 (2.5-5)-201:	0 X	0 X	0 X	0 X	0 X	0 X
600-68489-10	SO-1620-IM-CPT-07-13 (7.5-10)-20	76	76	76	101	62	87
600-68489-11	SO-1620-IM-CPT-11-13 (1.4-2.5)-20	0 X	0 X	0 X	0 X	0 X	0 X
600-68489-12	SO-1620-IM-CPT-05-13 (4-5)-2013C	88	87	89	121 X	81	103
600-68489-13	SO-1620-IM-CPT-05-13 (7.5-10)-20	80	76	81	103	56	92
LCS 600-99571/2-A	Lab Control Sample	77	83	76	101	86	85
MB 600-99571/1-A	Method Blank	67	70	68	89	49	77

Surrogate Legend

TestAmerica Houston

Surrogate Summary

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68489-1

2FP = 2-Fluorophenol
PHL = Phenol-d6
NBZ = Nitrobenzene-d5
FBP = 2-Fluorobiphenyl
TBP = 2,4,6-Tribromophenol
TPH = Terphenyl-d14

- 1
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- 11
- 12
- 13
- 14
- 15
- 16
- 17

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68489-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 600-99523/4

Matrix: Solid

Analysis Batch: 99523

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	0.005960	J	0.0100	0.00219	mg/Kg			02/13/13 13:39	1
Benzene	0.000630	U	0.00500	0.000630	mg/Kg			02/13/13 13:39	1
1,2-Dichloroethane	0.000900	U	0.00500	0.000900	mg/Kg			02/13/13 13:39	1
Toluene	0.00138	U	0.00500	0.00138	mg/Kg			02/13/13 13:39	1
Chlorobenzene	0.000960	U	0.00500	0.000960	mg/Kg			02/13/13 13:39	1
Ethylbenzene	0.00102	U	0.00500	0.00102	mg/Kg			02/13/13 13:39	1
Xylenes, Total	0.00113	U	0.00500	0.00113	mg/Kg			02/13/13 13:39	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	89		61 - 130		02/13/13 13:39	1
Dibromofluoromethane	100		68 - 140		02/13/13 13:39	1
Toluene-d8 (Surr)	97		50 - 130		02/13/13 13:39	1
4-Bromofluorobenzene	122		57 - 140		02/13/13 13:39	1

Lab Sample ID: LCS 600-99523/3

Matrix: Solid

Analysis Batch: 99523

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Methylene Chloride	0.0500	0.06049		mg/Kg		121	48 - 144
Benzene	0.0500	0.05440		mg/Kg		109	66 - 128
1,2-Dichloroethane	0.0500	0.04707		mg/Kg		94	61 - 135
Toluene	0.0500	0.04799		mg/Kg		96	69 - 125
Chlorobenzene	0.0500	0.04916		mg/Kg		98	67 - 126
Ethylbenzene	0.0500	0.05166		mg/Kg		103	64 - 127
Xylenes, Total	0.150	0.1632		mg/Kg		109	65 - 129

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	97		61 - 130
Dibromofluoromethane	102		68 - 140
Toluene-d8 (Surr)	96		50 - 130
4-Bromofluorobenzene	124		57 - 140

Lab Sample ID: 600-68489-1 MS

Matrix: Solid

Analysis Batch: 99523

Client Sample ID: SO-1620-IM-CPT-06-13 (3-5)-20130212

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Methylene Chloride	0.00255	U	0.0581	0.06329		mg/Kg	☼	109	60 - 140
Benzene	0.000732	U	0.0581	0.06365		mg/Kg	☼	110	65 - 135
1,2-Dichloroethane	0.00105	U	0.0581	0.04724		mg/Kg	☼	81	60 - 140
Toluene	0.00160	U	0.0581	0.05968		mg/Kg	☼	103	64 - 135
Chlorobenzene	0.00112	U	0.0581	0.05519		mg/Kg	☼	95	65 - 135
Ethylbenzene	0.00119	U	0.0581	0.05851		mg/Kg	☼	101	60 - 140
Xylenes, Total	0.00131	U	0.174	0.1781		mg/Kg	☼	102	60 - 140

TestAmerica Houston

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68489-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 600-68489-1 MS

Matrix: Solid

Analysis Batch: 99523

Client Sample ID: SO-1620-IM-CPT-06-13 (3-5)-20130212

Prep Type: Total/NA

Surrogate	MS MS		Limits
	%Recovery	Qualifier	
1,2-Dichloroethane-d4 (Surr)	86		61 - 130
Dibromofluoromethane	92		68 - 140
Toluene-d8 (Surr)	110		50 - 130
4-Bromofluorobenzene	132		57 - 140

Lab Sample ID: 600-68489-1 MSD

Matrix: Solid

Analysis Batch: 99523

Client Sample ID: SO-1620-IM-CPT-06-13 (3-5)-20130212

Prep Type: Total/NA

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.	RPD	Limit
	Result	Qualifier		Result	Qualifier				Limits		
Methylene Chloride	0.00255	U	0.0581	0.05529		mg/Kg	*	95	60 - 140	14	30
Benzene	0.000732	U	0.0581	0.05503		mg/Kg	*	95	65 - 135	15	30
1,2-Dichloroethane	0.00105	U	0.0581	0.04276		mg/Kg	*	74	60 - 140	10	30
Toluene	0.00160	U	0.0581	0.05114		mg/Kg	*	88	64 - 135	15	30
Chlorobenzene	0.00112	U	0.0581	0.04737		mg/Kg	*	82	65 - 135	15	30
Ethylbenzene	0.00119	U	0.0581	0.04874		mg/Kg	*	84	60 - 140	18	30
Xylenes, Total	0.00131	U	0.174	0.1528		mg/Kg	*	88	60 - 140	15	30

Surrogate	MSD MSD		Limits
	%Recovery	Qualifier	
1,2-Dichloroethane-d4 (Surr)	86		61 - 130
Dibromofluoromethane	85		68 - 140
Toluene-d8 (Surr)	108		50 - 130
4-Bromofluorobenzene	130		57 - 140

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Lab Sample ID: MB 600-99571/1-A

Matrix: Solid

Analysis Batch: 100037

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 99571

Analyte	MB MB		MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Phenol	0.00424	U	0.0167	0.00424	mg/Kg		02/14/13 13:04	02/20/13 10:45	1
Nitrobenzene	0.00296	U	0.0167	0.00296	mg/Kg		02/14/13 13:04	02/20/13 10:45	1
2,4-Dimethylphenol	0.00857	U	0.0167	0.00857	mg/Kg		02/14/13 13:04	02/20/13 10:45	1
Bis(2-chloroethoxy)methane	0.00142	U	0.0167	0.00142	mg/Kg		02/14/13 13:04	02/20/13 10:45	1
Naphthalene	0.00135	U	0.0167	0.00135	mg/Kg		02/14/13 13:04	02/20/13 10:45	1
2-Methylnaphthalene	0.00274	U	0.0167	0.00274	mg/Kg		02/14/13 13:04	02/20/13 10:45	1
2-Chloronaphthalene	0.00121	U	0.0167	0.00121	mg/Kg		02/14/13 13:04	02/20/13 10:45	1
Acenaphthylene	0.000999	U	0.0167	0.000999	mg/Kg		02/14/13 13:04	02/20/13 10:45	1
2,6-Dinitrotoluene	0.00295	U	0.0167	0.00295	mg/Kg		02/14/13 13:04	02/20/13 10:45	1
Acenaphthene	0.00144	U	0.0167	0.00144	mg/Kg		02/14/13 13:04	02/20/13 10:45	1
4-Nitrophenol	0.00508	U	0.0167	0.00508	mg/Kg		02/14/13 13:04	02/20/13 10:45	1
Dibenzofuran	0.00178	U	0.0167	0.00178	mg/Kg		02/14/13 13:04	02/20/13 10:45	1
2,4-Dinitrotoluene	0.00361	U	0.0167	0.00361	mg/Kg		02/14/13 13:04	02/20/13 10:45	1
Fluorene	0.00236	U	0.0167	0.00236	mg/Kg		02/14/13 13:04	02/20/13 10:45	1
4,6-Dinitro-2-methylphenol	0.00498	U	0.0167	0.00498	mg/Kg		02/14/13 13:04	02/20/13 10:45	1
N-Nitrosodiphenylamine	0.00189	U	0.0167	0.00189	mg/Kg		02/14/13 13:04	02/20/13 10:45	1

TestAmerica Houston

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68489-1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Lab Sample ID: MB 600-99571/1-A

Matrix: Solid

Analysis Batch: 100037

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 99571

Analyte	MB Result	MB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Diphenylhydrazine	0.00162	U	0.0167	0.00162	mg/Kg		02/14/13 13:04	02/20/13 10:45	1
Pentachlorophenol	0.00400	U	0.167	0.00400	mg/Kg		02/14/13 13:04	02/20/13 10:45	1
Phenanthrene	0.00495	U	0.0167	0.00495	mg/Kg		02/14/13 13:04	02/20/13 10:45	1
Anthracene	0.00128	U	0.0167	0.00128	mg/Kg		02/14/13 13:04	02/20/13 10:45	1
Di-n-butyl phthalate	0.00259	U	0.0666	0.00259	mg/Kg		02/14/13 13:04	02/20/13 10:45	1
Fluoranthene	0.00311	U	0.0167	0.00311	mg/Kg		02/14/13 13:04	02/20/13 10:45	1
Pyrene	0.00183	U	0.0167	0.00183	mg/Kg		02/14/13 13:04	02/20/13 10:45	1
Benzo[a]anthracene	0.00138	U	0.0167	0.00138	mg/Kg		02/14/13 13:04	02/20/13 10:45	1
Bis(2-ethylhexyl) phthalate	0.00537	U	0.0666	0.00537	mg/Kg		02/14/13 13:04	02/20/13 10:45	1
Chrysene	0.00102	U	0.0167	0.00102	mg/Kg		02/14/13 13:04	02/20/13 10:45	1
Benzo[a]pyrene	0.00161	U	0.0167	0.00161	mg/Kg		02/14/13 13:04	02/20/13 10:45	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	67		23 - 108	02/14/13 13:04	02/20/13 10:45	1
Phenol-d6	70		26 - 108	02/14/13 13:04	02/20/13 10:45	1
Nitrobenzene-d5	68		34 - 118	02/14/13 13:04	02/20/13 10:45	1
2-Fluorobiphenyl	89		51 - 109	02/14/13 13:04	02/20/13 10:45	1
2,4,6-Tribromophenol	49		34 - 122	02/14/13 13:04	02/20/13 10:45	1
Terphenyl-d14	77		56 - 123	02/14/13 13:04	02/20/13 10:45	1

Lab Sample ID: LCS 600-99571/2-A

Matrix: Solid

Analysis Batch: 100037

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 99571

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Phenol	0.333	0.2749		mg/Kg		83	33 - 122
Nitrobenzene	0.333	0.2612		mg/Kg		78	53 - 123
2,4-Dimethylphenol	0.333	0.2737		mg/Kg		82	36 - 124
Bis(2-chloroethoxy)methane	0.333	0.1994		mg/Kg		60	54 - 114
Naphthalene	0.333	0.2664		mg/Kg		80	52 - 117
2-Methylnaphthalene	0.333	0.2853		mg/Kg		86	54 - 130
2-Chloronaphthalene	0.333	0.2747		mg/Kg		82	50 - 123
Acenaphthylene	0.333	0.2771		mg/Kg		83	51 - 122
2,6-Dinitrotoluene	0.333	0.2660		mg/Kg		80	53 - 116
Acenaphthene	0.333	0.2693		mg/Kg		81	58 - 125
4-Nitrophenol	0.333	0.1966		mg/Kg		59	20 - 132
Dibenzofuran	0.333	0.2714		mg/Kg		82	54 - 119
2,4-Dinitrotoluene	0.333	0.2641		mg/Kg		79	53 - 123
Fluorene	0.333	0.2690		mg/Kg		81	52 - 147
4,6-Dinitro-2-methylphenol	0.333	0.2523		mg/Kg		76	34 - 124
N-Nitrosodiphenylamine	0.333	0.2838		mg/Kg		85	47 - 127
1,2-Diphenylhydrazine	0.333	0.2393		mg/Kg		72	49 - 131
Pentachlorophenol	0.333	0.2312		mg/Kg		69	17 - 124
Phenanthrene	0.333	0.2748		mg/Kg		83	55 - 120
Anthracene	0.333	0.2729		mg/Kg		82	52 - 120
Di-n-butyl phthalate	0.333	0.2594		mg/Kg		78	61 - 124
Fluoranthene	0.333	0.2810		mg/Kg		84	56 - 123
Pyrene	0.333	0.2752		mg/Kg		83	48 - 131

TestAmerica Houston

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68489-1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Lab Sample ID: LCS 600-99571/2-A

Matrix: Solid

Analysis Batch: 100037

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 99571

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzo[a]anthracene	0.333	0.2725		mg/Kg		82	49 - 124
Bis(2-ethylhexyl) phthalate	0.333	0.2662		mg/Kg		80	55 - 136
Chrysene	0.333	0.2448		mg/Kg		74	50 - 123
Benzo[a]pyrene	0.333	0.2754		mg/Kg		83	58 - 123

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2-Fluorophenol	77		23 - 108
Phenol-d6	83		26 - 108
Nitrobenzene-d5	76		34 - 118
2-Fluorobiphenyl	101		51 - 109
2,4,6-Tribromophenol	86		34 - 122
Terphenyl-d14	85		56 - 123

Lab Sample ID: 600-68489-2 MS

Matrix: Solid

Analysis Batch: 100121

Client Sample ID: SO-1620-IM-CPT-06-13 (13-15)-20130212

Prep Type: Total/NA

Prep Batch: 99571

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Phenol	0.00490	U	0.386	0.3576		mg/Kg	☼	93	31 - 121
Nitrobenzene	0.00342	U	0.386	0.3253		mg/Kg	☼	84	29 - 118
2,4-Dimethylphenol	0.00992	U	0.386	0.3269		mg/Kg	☼	85	29 - 122
Bis(2-chloroethoxy)methane	0.00164	U	0.386	0.2670		mg/Kg	☼	69	33 - 119
Naphthalene	0.00156	U	0.386	0.3311		mg/Kg	☼	86	30 - 112
2-Methylnaphthalene	0.00317	U	0.386	0.3499		mg/Kg	☼	91	32 - 136
2-Chloronaphthalene	0.00140	U	0.386	0.3352		mg/Kg	☼	87	34 - 126
Acenaphthylene	0.00116	U	0.386	0.3291		mg/Kg	☼	85	32 - 137
2,6-Dinitrotoluene	0.0234		0.386	0.3183		mg/Kg	☼	76	30 - 124
Acenaphthene	0.00167	U	0.386	0.3316		mg/Kg	☼	86	25 - 134
4-Nitrophenol	0.00588	U	0.386	0.1959		mg/Kg	☼	51	25 - 122
Dibenzofuran	0.00206	U	0.386	0.3294		mg/Kg	☼	85	35 - 125
2,4-Dinitrotoluene	0.0234		0.386	0.3123		mg/Kg	☼	75	10 - 129
Fluorene	0.00273	U	0.386	0.3263		mg/Kg	☼	85	36 - 122
4,6-Dinitro-2-methylphenol	0.00576	U	0.386	0.2944		mg/Kg	☼	76	10 - 104
N-Nitrosodiphenylamine	0.00219	U	0.386	0.3460		mg/Kg	☼	90	28 - 106
1,2-Diphenylhydrazine	0.00187	U	0.386	0.2897		mg/Kg	☼	75	30 - 130
Pentachlorophenol	0.00463	U	0.386	0.2661		mg/Kg	☼	69	25 - 124
Phenanthrene	0.00573	U	0.386	0.3258		mg/Kg	☼	84	26 - 126
Anthracene	0.00148	U	0.386	0.3207		mg/Kg	☼	83	35 - 115
Di-n-butyl phthalate	0.00300	U	0.386	0.3179		mg/Kg	☼	82	41 - 126
Fluoranthene	0.00360	U	0.386	0.3337		mg/Kg	☼	86	37 - 132
Pyrene	0.00212	U	0.386	0.3356		mg/Kg	☼	87	28 - 138
Benzo[a]anthracene	0.00160	U	0.386	0.3275		mg/Kg	☼	85	38 - 128
Bis(2-ethylhexyl) phthalate	0.00621	U	0.386	0.3216		mg/Kg	☼	83	44 - 139
Chrysene	0.00118	U	0.386	0.3026		mg/Kg	☼	78	36 - 130
Benzo[a]pyrene	0.00186	U	0.386	0.3385		mg/Kg	☼	88	30 - 130

TestAmerica Houston

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68489-1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Lab Sample ID: 600-68489-2 MS

Client Sample ID: SO-1620-IM-CPT-06-13 (13-15)-20130212

Matrix: Solid

Prep Type: Total/NA

Analysis Batch: 100121

Prep Batch: 99571

Surrogate	MS MS		Limits
	%Recovery	Qualifier	
2-Fluorophenol	81		23 - 108
Phenol-d6	85		26 - 108
Nitrobenzene-d5	82		34 - 118
2-Fluorobiphenyl	101		51 - 109
2,4,6-Tribromophenol	85		34 - 122
Terphenyl-d14	90		56 - 123

Lab Sample ID: 600-68489-2 MSD

Client Sample ID: SO-1620-IM-CPT-06-13 (13-15)-20130212

Matrix: Solid

Prep Type: Total/NA

Analysis Batch: 100121

Prep Batch: 99571

Analyte	Sample	Sample	Spike	MSD MSD		Unit	D	%Rec	%Rec.		RPD	
	Result	Qualifier		Result	Qualifier				Limits	RPD	Limit	
Phenol	0.00490	U	0.386	0.3482		mg/Kg	*	90	31 - 121	3	30	
Nitrobenzene	0.00342	U	0.386	0.3225		mg/Kg	*	84	29 - 118	1	30	
2,4-Dimethylphenol	0.00992	U	0.386	0.3297		mg/Kg	*	85	29 - 122	1	30	
Bis(2-chloroethoxy)methane	0.00164	U	0.386	0.2658		mg/Kg	*	69	33 - 119	0	30	
Naphthalene	0.00156	U	0.386	0.3306		mg/Kg	*	86	30 - 112	0	30	
2-Methylnaphthalene	0.00317	U	0.386	0.3567		mg/Kg	*	92	32 - 136	2	30	
2-Chloronaphthalene	0.00140	U	0.386	0.3452		mg/Kg	*	89	34 - 126	3	30	
Acenaphthylene	0.00116	U	0.386	0.3464		mg/Kg	*	90	32 - 137	5	30	
2,6-Dinitrotoluene	0.0234		0.386	0.3391		mg/Kg	*	82	30 - 124	6	30	
Acenaphthene	0.00167	U	0.386	0.3427		mg/Kg	*	89	25 - 134	3	30	
4-Nitrophenol	0.00588	U	0.386	0.3790	N	mg/Kg	*	98	25 - 122	64	30	
Dibenzofuran	0.00206	U	0.386	0.3422		mg/Kg	*	89	35 - 125	4	30	
2,4-Dinitrotoluene	0.0234		0.386	0.3357		mg/Kg	*	81	10 - 129	7	30	
Fluorene	0.00273	U	0.386	0.3447		mg/Kg	*	89	36 - 122	5	30	
4,6-Dinitro-2-methylphenol	0.00576	U	0.386	0.2949		mg/Kg	*	76	10 - 104	0	30	
N-Nitrosodiphenylamine	0.00219	U	0.386	0.3558		mg/Kg	*	92	28 - 106	3	30	
1,2-Diphenylhydrazine	0.00187	U	0.386	0.3034		mg/Kg	*	79	30 - 130	5	30	
Pentachlorophenol	0.00463	U	0.386	0.2498		mg/Kg	*	65	25 - 124	6	30	
Phenanthrene	0.00573	U	0.386	0.3399		mg/Kg	*	88	26 - 126	4	30	
Anthracene	0.00148	U	0.386	0.3376		mg/Kg	*	87	35 - 115	5	30	
Di-n-butyl phthalate	0.00300	U	0.386	0.3366		mg/Kg	*	87	41 - 126	6	30	
Fluoranthene	0.00360	U	0.386	0.3541		mg/Kg	*	92	37 - 132	6	30	
Pyrene	0.00212	U	0.386	0.3595		mg/Kg	*	93	28 - 138	7	30	
Benzo[a]anthracene	0.00160	U	0.386	0.3409		mg/Kg	*	88	38 - 128	4	30	
Bis(2-ethylhexyl) phthalate	0.00621	U	0.386	0.3458		mg/Kg	*	90	44 - 139	7	30	
Chrysene	0.00118	U	0.386	0.3224		mg/Kg	*	84	36 - 130	6	30	
Benzo[a]pyrene	0.00186	U	0.386	0.3516		mg/Kg	*	91	30 - 130	4	30	

Surrogate	MSD MSD		Limits
	%Recovery	Qualifier	
2-Fluorophenol	81		23 - 108
Phenol-d6	83		26 - 108
Nitrobenzene-d5	80		34 - 118
2-Fluorobiphenyl	102		51 - 109
2,4,6-Tribromophenol	83		34 - 122
Terphenyl-d14	93		56 - 123

TestAmerica Houston

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68489-1

Method: 6010B - Metals (ICP)

Lab Sample ID: MB 600-99555/1-A
Matrix: Solid
Analysis Batch: 99636

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 99555

Analyte	MB Result	MB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.218	U	1.00	0.218	mg/Kg		02/14/13 11:38	02/15/13 11:26	1

Lab Sample ID: MB 600-99555/1-A
Matrix: Solid
Analysis Batch: 99779

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 99555

Analyte	MB Result	MB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	0.105	U	0.500	0.105	mg/Kg		02/14/13 11:38	02/18/13 09:29	1

Lab Sample ID: LCSSRM 600-99555/2-A
Matrix: Solid
Analysis Batch: 99636

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 99555

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	168	170.9		mg/Kg		101.7	83.3 - 117.3

Lab Sample ID: LCSSRM 600-99555/2-A
Matrix: Solid
Analysis Batch: 99779

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 99555

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec. Limits
Lead	76.9	69.46		mg/Kg		90.3	81.3 - 118.7

Lab Sample ID: 600-68489-2 MS
Matrix: Solid
Analysis Batch: 99636

Client Sample ID: SO-1620-IM-CPT-06-13 (13-15)-20130212
Prep Type: Total/NA
Prep Batch: 99555

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	1.07	J	57.4	59.86		mg/Kg	☼	102	75 - 125

Lab Sample ID: 600-68489-2 MS
Matrix: Solid
Analysis Batch: 99779

Client Sample ID: SO-1620-IM-CPT-06-13 (13-15)-20130212
Prep Type: Total/NA
Prep Batch: 99555

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Lead	4.17		57.4	58.09		mg/Kg	☼	94	75 - 125

Lab Sample ID: 600-68489-2 MSD
Matrix: Solid
Analysis Batch: 99636

Client Sample ID: SO-1620-IM-CPT-06-13 (13-15)-20130212
Prep Type: Total/NA
Prep Batch: 99555

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Arsenic	1.07	J	56.3	59.88		mg/Kg	☼	104	75 - 125	0	20

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68489-1

Method: 6010B - Metals (ICP) (Continued)

Lab Sample ID: 600-68489-2 MSD

Matrix: Solid

Analysis Batch: 99779

Client Sample ID: SO-1620-IM-CPT-06-13 (13-15)-20130212

Prep Type: Total/NA

Prep Batch: 99555

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Lead	4.17		56.3	57.26		mg/Kg	☼	94	75 - 125	1	20

Lab Sample ID: 600-68489-5 MS

Matrix: Solid

Analysis Batch: 99636

Client Sample ID: SO-1620-IM-CPT-08-13 (15-16)-20130212

Prep Type: Total/NA

Prep Batch: 99555

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Arsenic	7.88		59.7	67.88		mg/Kg	☼	100	75 - 125		

Lab Sample ID: 600-68489-5 MS

Matrix: Solid

Analysis Batch: 99779

Client Sample ID: SO-1620-IM-CPT-08-13 (15-16)-20130212

Prep Type: Total/NA

Prep Batch: 99555

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Lead	21.5		59.7	69.15		mg/Kg	☼	80	75 - 125		

Lab Sample ID: 600-68489-5 MSD

Matrix: Solid

Analysis Batch: 99636

Client Sample ID: SO-1620-IM-CPT-08-13 (15-16)-20130212

Prep Type: Total/NA

Prep Batch: 99555

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Arsenic	7.88		58.0	62.60		mg/Kg	☼	94	75 - 125	8	20

Lab Sample ID: 600-68489-5 MSD

Matrix: Solid

Analysis Batch: 99779

Client Sample ID: SO-1620-IM-CPT-08-13 (15-16)-20130212

Prep Type: Total/NA

Prep Batch: 99555

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Lead	21.5		58.0	64.61	N	mg/Kg	☼	74	75 - 125	7	20

Lab Sample ID: 600-68489-2 DU

Matrix: Solid

Analysis Batch: 99636

Client Sample ID: SO-1620-IM-CPT-06-13 (13-15)-20130212

Prep Type: Total/NA

Prep Batch: 99555

Analyte	Sample Result	Sample Qualifier	Spike Added	DU Result	DU Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Arsenic	1.07	J		0.7233	J	mg/Kg	☼			39	20

Lab Sample ID: 600-68489-2 DU

Matrix: Solid

Analysis Batch: 99779

Client Sample ID: SO-1620-IM-CPT-06-13 (13-15)-20130212

Prep Type: Total/NA

Prep Batch: 99555

Analyte	Sample Result	Sample Qualifier	Spike Added	DU Result	DU Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Lead	4.17			3.185	F	mg/Kg	☼			27	20

Lab Sample ID: 600-68489-5 DU

Matrix: Solid

Analysis Batch: 99636

Client Sample ID: SO-1620-IM-CPT-08-13 (15-16)-20130212

Prep Type: Total/NA

Prep Batch: 99555

Analyte	Sample Result	Sample Qualifier	Spike Added	DU Result	DU Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Arsenic	7.88			3.258	F	mg/Kg	☼			83	20

TestAmerica Houston

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68489-1

Lab Sample ID: 600-68489-5 DU
 Matrix: Solid
 Analysis Batch: 99779

Client Sample ID: SO-1620-IM-CPT-08-13 (15-16)-20130212
 Prep Type: Total/NA
 Prep Batch: 99555

Analyte	Sample	Sample	DU	DU	Unit	D	RPD	RPD
	Result	Qualifier	Result	Qualifier				Limit
Lead	21.5		8.561	F	mg/Kg	*	86	20

Method: Moisture - Percent Moisture

Lab Sample ID: 600-68489-7 DU
 Matrix: Solid
 Analysis Batch: 99466

Client Sample ID: SO-1620-IM-CPT-09-13 (5-7.5)-20130212
 Prep Type: Total/NA

Analyte	Sample	Sample	DU	DU	Unit	D	RPD	RPD
	Result	Qualifier	Result	Qualifier				Limit
Percent Moisture	14		13		%		6	20
Percent Solids	86		87		%		1	20

Lab Sample ID: 600-68489-10 DU
 Matrix: Solid
 Analysis Batch: 99985

Client Sample ID: SO-1620-IM-CPT-07-13 (7.5-10)-20130212
 Prep Type: Total/NA

Analyte	Sample	Sample	DU	DU	Unit	D	RPD	RPD
	Result	Qualifier	Result	Qualifier				Limit
Percent Moisture	13		13		%		3	20
Percent Solids	87		87		%		0.4	20

Unadjusted Detection Limits

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68489-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	MQL	MDL	Units	Method
1,2-Dichloroethane	0.00500	0.000900	mg/Kg	8260B
Benzene	0.00500	0.000630	mg/Kg	8260B
Chlorobenzene	0.00500	0.000960	mg/Kg	8260B
Ethylbenzene	0.00500	0.00102	mg/Kg	8260B
Methylene Chloride	0.0100	0.00219	mg/Kg	8260B
Toluene	0.00500	0.00138	mg/Kg	8260B
Xylenes, Total	0.00500	0.00113	mg/Kg	8260B

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	MQL	MDL	Units	Method
1,2-Diphenylhydrazine	0.0167	0.00162	mg/Kg	8270C LL
2,4-Dimethylphenol	0.0167	0.00858	mg/Kg	8270C LL
2,4-Dinitrotoluene	0.0167	0.00361	mg/Kg	8270C LL
2,6-Dinitrotoluene	0.0167	0.00295	mg/Kg	8270C LL
2-Chloronaphthalene	0.0167	0.00121	mg/Kg	8270C LL
2-Methylnaphthalene	0.0167	0.00274	mg/Kg	8270C LL
4,6-Dinitro-2-methylphenol	0.0167	0.00498	mg/Kg	8270C LL
4-Nitrophenol	0.0167	0.00508	mg/Kg	8270C LL
Acenaphthene	0.0167	0.00144	mg/Kg	8270C LL
Acenaphthylene	0.0167	0.00100	mg/Kg	8270C LL
Anthracene	0.0167	0.00128	mg/Kg	8270C LL
Benzo[a]anthracene	0.0167	0.00138	mg/Kg	8270C LL
Benzo[a]pyrene	0.0167	0.00161	mg/Kg	8270C LL
Bis(2-chloroethoxy)methane	0.0167	0.00142	mg/Kg	8270C LL
Bis(2-ethylhexyl) phthalate	0.0667	0.00537	mg/Kg	8270C LL
Chrysene	0.0167	0.00102	mg/Kg	8270C LL
Dibenzofuran	0.0167	0.00178	mg/Kg	8270C LL
Di-n-butyl phthalate	0.0667	0.00259	mg/Kg	8270C LL
Fluoranthene	0.0167	0.00311	mg/Kg	8270C LL
Fluorene	0.0167	0.00236	mg/Kg	8270C LL
Naphthalene	0.0167	0.00135	mg/Kg	8270C LL
Nitrobenzene	0.0167	0.00296	mg/Kg	8270C LL
N-Nitrosodiphenylamine	0.0167	0.00189	mg/Kg	8270C LL
Pentachlorophenol	0.167	0.00400	mg/Kg	8270C LL
Phenanthrene	0.0167	0.00495	mg/Kg	8270C LL
Phenol	0.0167	0.00424	mg/Kg	8270C LL
Pyrene	0.0167	0.00183	mg/Kg	8270C LL

Method: 6010B - Metals (ICP)

Analyte	MQL	MDL	Units	Method
Arsenic	1.00	0.218	mg/Kg	6010B
Lead	0.500	0.105	mg/Kg	6010B

General Chemistry

Analyte	MQL	MDL	Units	Method
Percent Moisture	1.0	1.0	%	Moisture
Percent Solids	1.0	1.0	%	Moisture

QC Association Summary

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68489-1

GC/MS VOA

Analysis Batch: 99523

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-68489-1	SO-1620-IM-CPT-06-13 (3-5)-20130212	Total/NA	Solid	8260B	
600-68489-1 MS	SO-1620-IM-CPT-06-13 (3-5)-20130212	Total/NA	Solid	8260B	
600-68489-1 MSD	SO-1620-IM-CPT-06-13 (3-5)-20130212	Total/NA	Solid	8260B	
600-68489-2	SO-1620-IM-CPT-06-13 (13-15)-20130212	Total/NA	Solid	8260B	
600-68489-3	SO-1620-IM-CPT-08-13 (2.5-5)-20130212	Total/NA	Solid	8260B	
600-68489-4	SO-1620-IM-CPT-08-13 (5-7.5)-20130212	Total/NA	Solid	8260B	
600-68489-5	SO-1620-IM-CPT-08-13 (15-16)-20130212	Total/NA	Solid	8260B	
600-68489-6	SO-1620-IM-CPT-09-13 (2.5-5)-20130212	Total/NA	Solid	8260B	
600-68489-7	SO-1620-IM-CPT-09-13 (5-7.5)-20130212	Total/NA	Solid	8260B	
600-68489-8	SO-1620-IM-CPT-09-13 (15-15.7)-20130212	Total/NA	Solid	8260B	
600-68489-9	SO-1620-IM-CPT-09-13 (2.5-5)-20130212	Total/NA	Solid	8260B	
600-68489-10	SO-1620-IM-CPT-07-13 (7.5-10)-20130212	Total/NA	Solid	8260B	
600-68489-11	SO-1620-IM-CPT-11-13 (1.4-2.5)-20130212	Total/NA	Solid	8260B	
600-68489-12	SO-1620-IM-CPT-05-13 (4-5)-20130212	Total/NA	Solid	8260B	
600-68489-13	SO-1620-IM-CPT-05-13 (7.5-10)-20130212	Total/NA	Solid	8260B	
LCS 600-99523/3	Lab Control Sample	Total/NA	Solid	8260B	
MB 600-99523/4	Method Blank	Total/NA	Solid	8260B	

GC/MS Semi VOA

Prep Batch: 99571

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-68489-1	SO-1620-IM-CPT-06-13 (3-5)-20130212	Total/NA	Solid	3550B	
600-68489-2	SO-1620-IM-CPT-06-13 (13-15)-20130212	Total/NA	Solid	3550B	
600-68489-2 MS	SO-1620-IM-CPT-06-13 (13-15)-20130212	Total/NA	Solid	3550B	
600-68489-2 MSD	SO-1620-IM-CPT-06-13 (13-15)-20130212	Total/NA	Solid	3550B	
600-68489-3	SO-1620-IM-CPT-08-13 (2.5-5)-20130212	Total/NA	Solid	3550B	
600-68489-4	SO-1620-IM-CPT-08-13 (5-7.5)-20130212	Total/NA	Solid	3550B	
600-68489-5	SO-1620-IM-CPT-08-13 (15-16)-20130212	Total/NA	Solid	3550B	
600-68489-6	SO-1620-IM-CPT-09-13 (2.5-5)-20130212	Total/NA	Solid	3550B	
600-68489-7	SO-1620-IM-CPT-09-13 (5-7.5)-20130212	Total/NA	Solid	3550B	
600-68489-7 - DL	SO-1620-IM-CPT-09-13 (5-7.5)-20130212	Total/NA	Solid	3550B	
600-68489-8	SO-1620-IM-CPT-09-13 (15-15.7)-20130212	Total/NA	Solid	3550B	
600-68489-9	SO-1620-IM-CPT-07-13 (2.5-5)-20130212	Total/NA	Solid	3550B	
600-68489-10	SO-1620-IM-CPT-07-13 (7.5-10)-20130212	Total/NA	Solid	3550B	
600-68489-11	SO-1620-IM-CPT-11-13 (1.4-2.5)-20130212	Total/NA	Solid	3550B	
600-68489-12	SO-1620-IM-CPT-05-13 (4-5)-20130212	Total/NA	Solid	3550B	
600-68489-13	SO-1620-IM-CPT-05-13 (7.5-10)-20130212	Total/NA	Solid	3550B	
LCS 600-99571/2-A	Lab Control Sample	Total/NA	Solid	3550B	
MB 600-99571/1-A	Method Blank	Total/NA	Solid	3550B	

Analysis Batch: 100037

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 600-99571/2-A	Lab Control Sample	Total/NA	Solid	8270C LL	99571
MB 600-99571/1-A	Method Blank	Total/NA	Solid	8270C LL	99571

Analysis Batch: 100121

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-68489-2	SO-1620-IM-CPT-06-13 (13-15)-20130212	Total/NA	Solid	8270C LL	99571
600-68489-2 MS	SO-1620-IM-CPT-06-13 (13-15)-20130212	Total/NA	Solid	8270C LL	99571

TestAmerica Houston

QC Association Summary

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68489-1

GC/MS Semi VOA (Continued)

Analysis Batch: 100121 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-68489-2 MSD	SO-1620-IM-CPT-06-13 (13-15)-20130212	Total/NA	Solid	8270C LL	99571
600-68489-3	SO-1620-IM-CPT-08-13 (2.5-5)-20130212	Total/NA	Solid	8270C LL	99571
600-68489-4	SO-1620-IM-CPT-08-13 (5-7.5)-20130212	Total/NA	Solid	8270C LL	99571
600-68489-5	SO-1620-IM-CPT-08-13 (15-16)-20130212	Total/NA	Solid	8270C LL	99571
600-68489-6	SO-1620-IM-CPT-09-13 (2.5-5)-20130212	Total/NA	Solid	8270C LL	99571
600-68489-7	SO-1620-IM-CPT-09-13 (5-7.5)-20130212	Total/NA	Solid	8270C LL	99571
600-68489-8	SO-1620-IM-CPT-09-13 (15-15.7)-20130212	Total/NA	Solid	8270C LL	99571
600-68489-9	SO-1620-IM-CPT-07-13 (2.5-5)-20130212	Total/NA	Solid	8270C LL	99571
600-68489-10	SO-1620-IM-CPT-07-13 (7.5-10)-20130212	Total/NA	Solid	8270C LL	99571
600-68489-12	SO-1620-IM-CPT-05-13 (4-5)-20130212	Total/NA	Solid	8270C LL	99571

Analysis Batch: 100183

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-68489-13	SO-1620-IM-CPT-05-13 (7.5-10)-20130212	Total/NA	Solid	8270C LL	99571

Analysis Batch: 100320

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-68489-7 - DL	SO-1620-IM-CPT-09-13 (5-7.5)-20130212	Total/NA	Solid	8270C LL	99571

Analysis Batch: 100424

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-68489-1	SO-1620-IM-CPT-06-13 (3-5)-20130212	Total/NA	Solid	8270C LL	99571
600-68489-11	SO-1620-IM-CPT-11-13 (1.4-2.5)-20130212	Total/NA	Solid	8270C LL	99571

Metals

Prep Batch: 99555

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-68489-1	SO-1620-IM-CPT-06-13 (3-5)-20130212	Total/NA	Solid	3050B	
600-68489-2	SO-1620-IM-CPT-06-13 (13-15)-20130212	Total/NA	Solid	3050B	
600-68489-2 DU	SO-1620-IM-CPT-06-13 (13-15)-20130212	Total/NA	Solid	3050B	
600-68489-2 MS	SO-1620-IM-CPT-06-13 (13-15)-20130212	Total/NA	Solid	3050B	
600-68489-2 MSD	SO-1620-IM-CPT-06-13 (13-15)-20130212	Total/NA	Solid	3050B	
600-68489-3	SO-1620-IM-CPT-08-13 (2.5-5)-20130212	Total/NA	Solid	3050B	
600-68489-4	SO-1620-IM-CPT-08-13 (5-7.5)-20130212	Total/NA	Solid	3050B	
600-68489-5	SO-1620-IM-CPT-08-13 (15-16)-20130212	Total/NA	Solid	3050B	
600-68489-5 DU	SO-1620-IM-CPT-08-13 (15-16)-20130212	Total/NA	Solid	3050B	
600-68489-5 MS	SO-1620-IM-CPT-08-13 (15-16)-20130212	Total/NA	Solid	3050B	
600-68489-5 MSD	SO-1620-IM-CPT-08-13 (15-16)-20130212	Total/NA	Solid	3050B	
600-68489-6	SO-1620-IM-CPT-09-13 (2.5-5)-20130212	Total/NA	Solid	3050B	
600-68489-7	SO-1620-IM-CPT-09-13 (5-7.5)-20130212	Total/NA	Solid	3050B	
600-68489-8	SO-1620-IM-CPT-09-13 (15-15.7)-20130212	Total/NA	Solid	3050B	
600-68489-9	SO-1620-IM-CPT-07-13 (2.5-5)-20130212	Total/NA	Solid	3050B	
600-68489-10	SO-1620-IM-CPT-07-13 (7.5-10)-20130212	Total/NA	Solid	3050B	
600-68489-11	SO-1620-IM-CPT-11-13 (1.4-2.5)-20130212	Total/NA	Solid	3050B	
600-68489-12	SO-1620-IM-CPT-05-13 (4-5)-20130212	Total/NA	Solid	3050B	
600-68489-13	SO-1620-IM-CPT-05-13 (7.5-10)-20130212	Total/NA	Solid	3050B	
LCSSRM 600-99555/2-A	Lab Control Sample	Total/NA	Solid	3050B	
MB 600-99555/1-A	Method Blank	Total/NA	Solid	3050B	

TestAmerica Houston

QC Association Summary

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68489-1

Metals (Continued)

Analysis Batch: 99636

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-68489-1	SO-1620-IM-CPT-06-13 (3-5)-20130212	Total/NA	Solid	6010B	99555
600-68489-2	SO-1620-IM-CPT-06-13 (13-15)-20130212	Total/NA	Solid	6010B	99555
600-68489-2 DU	SO-1620-IM-CPT-06-13 (13-15)-20130212	Total/NA	Solid	6010B	99555
600-68489-2 MS	SO-1620-IM-CPT-06-13 (13-15)-20130212	Total/NA	Solid	6010B	99555
600-68489-2 MSD	SO-1620-IM-CPT-06-13 (13-15)-20130212	Total/NA	Solid	6010B	99555
600-68489-3	SO-1620-IM-CPT-08-13 (2.5-5)-20130212	Total/NA	Solid	6010B	99555
600-68489-4	SO-1620-IM-CPT-08-13 (5-7.5)-20130212	Total/NA	Solid	6010B	99555
600-68489-5	SO-1620-IM-CPT-08-13 (15-16)-20130212	Total/NA	Solid	6010B	99555
600-68489-5 DU	SO-1620-IM-CPT-08-13 (15-16)-20130212	Total/NA	Solid	6010B	99555
600-68489-5 MS	SO-1620-IM-CPT-08-13 (15-16)-20130212	Total/NA	Solid	6010B	99555
600-68489-5 MSD	SO-1620-IM-CPT-08-13 (15-16)-20130212	Total/NA	Solid	6010B	99555
600-68489-6	SO-1620-IM-CPT-09-13 (2.5-5)-20130212	Total/NA	Solid	6010B	99555
600-68489-7	SO-1620-IM-CPT-09-13 (5-7.5)-20130212	Total/NA	Solid	6010B	99555
600-68489-8	SO-1620-IM-CPT-09-13 (15-15.7)-20130212	Total/NA	Solid	6010B	99555
600-68489-9	SO-1620-IM-CPT-07-13 (2.5-5)-20130212	Total/NA	Solid	6010B	99555
600-68489-10	SO-1620-IM-CPT-07-13 (7.5-10)-20130212	Total/NA	Solid	6010B	99555
600-68489-11	SO-1620-IM-CPT-11-13 (1.4-2.5)-20130212	Total/NA	Solid	6010B	99555
600-68489-12	SO-1620-IM-CPT-05-13 (4-5)-20130212	Total/NA	Solid	6010B	99555
600-68489-13	SO-1620-IM-CPT-05-13 (7.5-10)-20130212	Total/NA	Solid	6010B	99555
LCSSRM 600-99555/2-A	Lab Control Sample	Total/NA	Solid	6010B	99555
MB 600-99555/1-A	Method Blank	Total/NA	Solid	6010B	99555

Analysis Batch: 99779

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-68489-1	SO-1620-IM-CPT-06-13 (3-5)-20130212	Total/NA	Solid	6010B	99555
600-68489-2	SO-1620-IM-CPT-06-13 (13-15)-20130212	Total/NA	Solid	6010B	99555
600-68489-2 DU	SO-1620-IM-CPT-06-13 (13-15)-20130212	Total/NA	Solid	6010B	99555
600-68489-2 MS	SO-1620-IM-CPT-06-13 (13-15)-20130212	Total/NA	Solid	6010B	99555
600-68489-2 MSD	SO-1620-IM-CPT-06-13 (13-15)-20130212	Total/NA	Solid	6010B	99555
600-68489-3	SO-1620-IM-CPT-08-13 (2.5-5)-20130212	Total/NA	Solid	6010B	99555
600-68489-4	SO-1620-IM-CPT-08-13 (5-7.5)-20130212	Total/NA	Solid	6010B	99555
600-68489-5	SO-1620-IM-CPT-08-13 (15-16)-20130212	Total/NA	Solid	6010B	99555
600-68489-5 DU	SO-1620-IM-CPT-08-13 (15-16)-20130212	Total/NA	Solid	6010B	99555
600-68489-5 MS	SO-1620-IM-CPT-08-13 (15-16)-20130212	Total/NA	Solid	6010B	99555
600-68489-5 MSD	SO-1620-IM-CPT-08-13 (15-16)-20130212	Total/NA	Solid	6010B	99555
600-68489-6	SO-1620-IM-CPT-09-13 (2.5-5)-20130212	Total/NA	Solid	6010B	99555
600-68489-7	SO-1620-IM-CPT-09-13 (5-7.5)-20130212	Total/NA	Solid	6010B	99555
600-68489-8	SO-1620-IM-CPT-09-13 (15-15.7)-20130212	Total/NA	Solid	6010B	99555
600-68489-9	SO-1620-IM-CPT-07-13 (2.5-5)-20130212	Total/NA	Solid	6010B	99555
600-68489-10	SO-1620-IM-CPT-07-13 (7.5-10)-20130212	Total/NA	Solid	6010B	99555
600-68489-11	SO-1620-IM-CPT-11-13 (1.4-2.5)-20130212	Total/NA	Solid	6010B	99555
600-68489-12	SO-1620-IM-CPT-05-13 (4-5)-20130212	Total/NA	Solid	6010B	99555
600-68489-13	SO-1620-IM-CPT-05-13 (7.5-10)-20130212	Total/NA	Solid	6010B	99555
LCSSRM 600-99555/2-A	Lab Control Sample	Total/NA	Solid	6010B	99555
MB 600-99555/1-A	Method Blank	Total/NA	Solid	6010B	99555

QC Association Summary

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68489-1

General Chemistry

Analysis Batch: 99466

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-68489-1	SO-1620-IM-CPT-06-13 (3-5)-20130212	Total/NA	Solid	Moisture	
600-68489-2	SO-1620-IM-CPT-06-13 (13-15)-20130212	Total/NA	Solid	Moisture	
600-68489-3	SO-1620-IM-CPT-08-13 (2.5-5)-20130212	Total/NA	Solid	Moisture	
600-68489-4	SO-1620-IM-CPT-08-13 (5-7.5)-20130212	Total/NA	Solid	Moisture	
600-68489-5	SO-1620-IM-CPT-08-13 (15-16)-20130212	Total/NA	Solid	Moisture	
600-68489-6	SO-1620-IM-CPT-09-13 (2.5-5)-20130212	Total/NA	Solid	Moisture	
600-68489-7	SO-1620-IM-CPT-09-13 (5-7.5)-20130212	Total/NA	Solid	Moisture	
600-68489-7 DU	SO-1620-IM-CPT-09-13 (5-7.5)-20130212	Total/NA	Solid	Moisture	
600-68489-8	SO-1620-IM-CPT-09-13 (15-15.7)-20130212	Total/NA	Solid	Moisture	
600-68489-9	SO-1620-IM-CPT-07-13 (2.5-5)-20130212	Total/NA	Solid	Moisture	

Analysis Batch: 99985

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-68489-10	SO-1620-IM-CPT-07-13 (7.5-10)-20130212	Total/NA	Solid	Moisture	
600-68489-10 DU	SO-1620-IM-CPT-07-13 (7.5-10)-20130212	Total/NA	Solid	Moisture	
600-68489-11	SO-1620-IM-CPT-11-13 (1.4-2.5)-20130212	Total/NA	Solid	Moisture	
600-68489-12	SO-1620-IM-CPT-05-13 (4-5)-20130212	Total/NA	Solid	Moisture	
600-68489-13	SO-1620-IM-CPT-05-13 (7.5-10)-20130212	Total/NA	Solid	Moisture	

Lab Chronicle

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68489-1

Client Sample ID: SO-1620-IM-CPT-06-13 (3-5)-20130212

Lab Sample ID: 600-68489-1

Date Collected: 02/12/13 08:50

Matrix: Solid

Date Received: 02/12/13 16:37

Percent Solids: 86.0

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	99523	02/13/13 15:13	YX	TAL HOU
Total/NA	Prep	3550B			99571	02/14/13 13:04	LB	TAL HOU
Total/NA	Analysis	8270C LL		10	100424	02/26/13 17:46	TTD	TAL HOU
Total/NA	Prep	3050B			99555	02/14/13 11:38	NER	TAL HOU
Total/NA	Analysis	6010B		1	99636	02/15/13 11:40	DCL	TAL HOU
Total/NA	Analysis	6010B		1	99779	02/18/13 09:49	DCL	TAL HOU
Total/NA	Analysis	Moisture		1	99466	02/13/13 11:05	AS	TAL HOU

Client Sample ID: SO-1620-IM-CPT-06-13 (13-15)-20130212

Lab Sample ID: 600-68489-2

Date Collected: 02/12/13 09:10

Matrix: Solid

Date Received: 02/12/13 16:37

Percent Solids: 86.2

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	99523	02/13/13 14:49	YX	TAL HOU
Total/NA	Prep	3550B			99571	02/14/13 13:04	LB	TAL HOU
Total/NA	Analysis	8270C LL		1	100121	02/20/13 23:27	JH	TAL HOU
Total/NA	Prep	3050B			99555	02/14/13 11:38	NER	TAL HOU
Total/NA	Analysis	6010B		1	99636	02/15/13 11:43	DCL	TAL HOU
Total/NA	Analysis	6010B		1	99779	02/18/13 09:52	DCL	TAL HOU
Total/NA	Analysis	Moisture		1	99466	02/13/13 11:05	AS	TAL HOU

Client Sample ID: SO-1620-IM-CPT-08-13 (2.5-5)-20130212

Lab Sample ID: 600-68489-3

Date Collected: 02/12/13 09:50

Matrix: Solid

Date Received: 02/12/13 16:37

Percent Solids: 87.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	99523	02/13/13 17:34	YX	TAL HOU
Total/NA	Prep	3550B			99571	02/14/13 13:04	LB	TAL HOU
Total/NA	Analysis	8270C LL		50	100121	02/21/13 00:48	JH	TAL HOU
Total/NA	Prep	3050B			99555	02/14/13 11:38	NER	TAL HOU
Total/NA	Analysis	6010B		1	99636	02/15/13 11:59	DCL	TAL HOU
Total/NA	Analysis	6010B		1	99779	02/18/13 10:16	DCL	TAL HOU
Total/NA	Analysis	Moisture		1	99466	02/13/13 11:05	AS	TAL HOU

Client Sample ID: SO-1620-IM-CPT-08-13 (5-7.5)-20130212

Lab Sample ID: 600-68489-4

Date Collected: 02/12/13 10:10

Matrix: Solid

Date Received: 02/12/13 16:37

Percent Solids: 82.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	99523	02/13/13 17:58	YX	TAL HOU
Total/NA	Prep	3550B			99571	02/14/13 13:04	LB	TAL HOU
Total/NA	Analysis	8270C LL		50	100121	02/21/13 01:14	JH	TAL HOU

TestAmerica Houston

Lab Chronicle

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68489-1

Client Sample ID: SO-1620-IM-CPT-08-13 (5-7.5)-20130212

Lab Sample ID: 600-68489-4

Date Collected: 02/12/13 10:10

Matrix: Solid

Date Received: 02/12/13 16:37

Percent Solids: 82.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			99555	02/14/13 11:38	NER	TAL HOU
Total/NA	Analysis	6010B		1	99636	02/15/13 12:01	DCL	TAL HOU
Total/NA	Analysis	6010B		1	99779	02/18/13 10:19	DCL	TAL HOU
Total/NA	Analysis	Moisture		1	99466	02/13/13 11:05	AS	TAL HOU

Client Sample ID: SO-1620-IM-CPT-08-13 (15-16)-20130212

Lab Sample ID: 600-68489-5

Date Collected: 02/12/13 10:50

Matrix: Solid

Date Received: 02/12/13 16:37

Percent Solids: 83.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	99523	02/13/13 18:21	YX	TAL HOU
Total/NA	Prep	3550B			99571	02/14/13 13:04	LB	TAL HOU
Total/NA	Analysis	8270C LL		1	100121	02/21/13 01:41	JH	TAL HOU
Total/NA	Prep	3050B			99555	02/14/13 11:38	NER	TAL HOU
Total/NA	Analysis	6010B		1	99636	02/15/13 12:03	DCL	TAL HOU
Total/NA	Analysis	6010B		1	99779	02/18/13 10:23	DCL	TAL HOU
Total/NA	Analysis	Moisture		1	99466	02/13/13 11:05	AS	TAL HOU

Client Sample ID: SO-1620-IM-CPT-09-13 (2.5-5)-20130212

Lab Sample ID: 600-68489-6

Date Collected: 02/12/13 12:15

Matrix: Solid

Date Received: 02/12/13 16:37

Percent Solids: 81.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	99523	02/13/13 18:45	YX	TAL HOU
Total/NA	Prep	3550B			99571	02/14/13 13:04	LB	TAL HOU
Total/NA	Analysis	8270C LL		100	100121	02/21/13 02:08	JH	TAL HOU
Total/NA	Prep	3050B			99555	02/14/13 11:38	NER	TAL HOU
Total/NA	Analysis	6010B		1	99636	02/15/13 12:12	DCL	TAL HOU
Total/NA	Analysis	6010B		1	99779	02/18/13 10:39	DCL	TAL HOU
Total/NA	Analysis	Moisture		1	99466	02/13/13 11:05	AS	TAL HOU

Client Sample ID: SO-1620-IM-CPT-09-13 (5-7.5)-20130212

Lab Sample ID: 600-68489-7

Date Collected: 02/12/13 12:30

Matrix: Solid

Date Received: 02/12/13 16:37

Percent Solids: 86.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	99523	02/13/13 19:08	YX	TAL HOU
Total/NA	Prep	3550B			99571	02/14/13 13:04	LB	TAL HOU
Total/NA	Analysis	8270C LL		100	100121	02/21/13 02:35	JH	TAL HOU
Total/NA	Prep	3550B	DL		99571	02/14/13 13:04	LB	TAL HOU
Total/NA	Analysis	8270C LL	DL	1000	100320	02/22/13 12:09	JH	TAL HOU
Total/NA	Prep	3050B			99555	02/14/13 11:38	NER	TAL HOU

TestAmerica Houston

Lab Chronicle

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68489-1

Client Sample ID: SO-1620-IM-CPT-09-13 (5-7.5)-20130212

Lab Sample ID: 600-68489-7

Date Collected: 02/12/13 12:30

Matrix: Solid

Date Received: 02/12/13 16:37

Percent Solids: 86.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	6010B		1	99636	02/15/13 12:15	DCL	TAL HOU
Total/NA	Analysis	6010B		1	99779	02/18/13 10:42	DCL	TAL HOU
Total/NA	Analysis	Moisture		1	99466	02/13/13 11:05	AS	TAL HOU

Client Sample ID: SO-1620-IM-CPT-09-13 (15-15.7)-20130212

Lab Sample ID: 600-68489-8

Date Collected: 02/12/13 12:35

Matrix: Solid

Date Received: 02/12/13 16:37

Percent Solids: 86.5

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	99523	02/13/13 19:32	YX	TAL HOU
Total/NA	Prep	3550B			99571	02/14/13 13:04	LB	TAL HOU
Total/NA	Analysis	8270C LL		1	100121	02/21/13 03:02	JH	TAL HOU
Total/NA	Prep	3050B			99555	02/14/13 11:38	NER	TAL HOU
Total/NA	Analysis	6010B		1	99636	02/15/13 12:17	DCL	TAL HOU
Total/NA	Analysis	6010B		1	99779	02/18/13 10:46	DCL	TAL HOU
Total/NA	Analysis	Moisture		1	99466	02/13/13 11:05	AS	TAL HOU

Client Sample ID: SO-1620-IM-CPT-07-13 (2.5-5)-20130212

Lab Sample ID: 600-68489-9

Date Collected: 02/12/13 13:30

Matrix: Solid

Date Received: 02/12/13 16:37

Percent Solids: 84.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	99523	02/13/13 19:56	YX	TAL HOU
Total/NA	Prep	3550B			99571	02/14/13 13:04	LB	TAL HOU
Total/NA	Analysis	8270C LL		100	100121	02/21/13 03:29	JH	TAL HOU
Total/NA	Prep	3050B			99555	02/14/13 11:38	NER	TAL HOU
Total/NA	Analysis	6010B		1	99636	02/15/13 12:26	DCL	TAL HOU
Total/NA	Analysis	6010B		1	99779	02/18/13 10:50	DCL	TAL HOU
Total/NA	Analysis	Moisture		1	99466	02/13/13 11:05	AS	TAL HOU

Client Sample ID: SO-1620-IM-CPT-07-13 (7.5-10)-20130212

Lab Sample ID: 600-68489-10

Date Collected: 02/12/13 13:40

Matrix: Solid

Date Received: 02/12/13 16:37

Percent Solids: 94.5

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	99523	02/13/13 20:19	YX	TAL HOU
Total/NA	Prep	3550B			99571	02/14/13 13:04	LB	TAL HOU
Total/NA	Analysis	8270C LL		1	100121	02/21/13 03:55	JH	TAL HOU
Total/NA	Prep	3050B			99555	02/14/13 11:38	NER	TAL HOU
Total/NA	Analysis	6010B		1	99636	02/15/13 12:28	DCL	TAL HOU
Total/NA	Analysis	6010B		1	99779	02/18/13 11:02	DCL	TAL HOU
Total/NA	Analysis	Moisture		1	99985	02/20/13 12:46	AS	TAL HOU

TestAmerica Houston

Lab Chronicle

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68489-1

Client Sample ID: SO-1620-IM-CPT-11-13 (1.4-2.5)-20130212

Lab Sample ID: 600-68489-11

Date Collected: 02/12/13 15:20

Matrix: Solid

Date Received: 02/12/13 16:37

Percent Solids: 97.2

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	99523	02/13/13 20:42	YX	TAL HOU
Total/NA	Prep	3550B			99571	02/14/13 13:04	LB	TAL HOU
Total/NA	Analysis	8270C LL		10	100424	02/26/13 18:13	TTD	TAL HOU
Total/NA	Prep	3050B			99555	02/14/13 11:38	NER	TAL HOU
Total/NA	Analysis	6010B		1	99636	02/15/13 12:31	DCL	TAL HOU
Total/NA	Analysis	6010B		1	99779	02/18/13 11:06	DCL	TAL HOU
Total/NA	Analysis	Moisture		1	99985	02/20/13 12:46	AS	TAL HOU

Client Sample ID: SO-1620-IM-CPT-05-13 (4-5)-20130212

Lab Sample ID: 600-68489-12

Date Collected: 02/11/13 00:00

Matrix: Solid

Date Received: 02/12/13 16:37

Percent Solids: 40.6

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	99523	02/13/13 21:06	YX	TAL HOU
Total/NA	Prep	3550B			99571	02/14/13 13:04	LB	TAL HOU
Total/NA	Analysis	8270C LL		1	100121	02/21/13 04:22	JH	TAL HOU
Total/NA	Prep	3050B			99555	02/14/13 11:38	NER	TAL HOU
Total/NA	Analysis	6010B		1	99636	02/15/13 12:34	DCL	TAL HOU
Total/NA	Analysis	6010B		1	99779	02/18/13 11:09	DCL	TAL HOU
Total/NA	Analysis	Moisture		1	99985	02/20/13 12:46	AS	TAL HOU

Client Sample ID: SO-1620-IM-CPT-05-13 (7.5-10)-20130212

Lab Sample ID: 600-68489-13

Date Collected: 02/11/13 00:00

Matrix: Solid

Date Received: 02/12/13 16:37

Percent Solids: 138.2

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	99523	02/13/13 21:30	YX	TAL HOU
Total/NA	Prep	3550B			99571	02/14/13 13:04	LB	TAL HOU
Total/NA	Analysis	8270C LL		1	100183	02/21/13 17:47	JH	TAL HOU
Total/NA	Prep	3050B			99555	02/14/13 11:38	NER	TAL HOU
Total/NA	Analysis	6010B		1	99636	02/15/13 12:36	DCL	TAL HOU
Total/NA	Analysis	6010B		1	99779	02/18/13 11:13	DCL	TAL HOU
Total/NA	Analysis	Moisture		1	99985	02/20/13 12:46	AS	TAL HOU

Laboratory References:

TAL HOU = TestAmerica Houston, 6310 Rothway Street, Houston, TX 77040, TEL (713)690-4444

Certification Summary

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68489-1

Laboratory: TestAmerica Houston

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Arkansas DEQ	State Program	6	88-0759	08-04-12
Louisiana	NELAP	6	01967	06-30-13
Oklahoma	State Program	6	9503	08-31-13
Texas	NELAP	6	T104704223-10-6-TX	10-31-13
USDA	Federal		P330-08-00217	04-01-14
Utah	NELAP	8	GULF	10-31-13

Chain of Custody Record

Client Information

Client Contact:
Mr. Eric Matzner
Company:
Pastor, Behling & Wheeler LLC
Address:
2201 Double Creek Dr Suite 4004
City:
Round Rock
State, Zip:
TX, 78664
Phone:
512-671-3434 (Tel) 512-671-3446 (Fax)
Email:
eric.matzner@bhwllc.com
Project Name:
1620-UPRR-HMPW
Site:

Sampler:
Carolyn Sexton
Phone:
512-671-3434
Lab PM:
Kudchadkar, Sachin G
E-Mail:
sachin.kudchadkar@testamerica.com

Analysis Requested

Carrier Tracking No(s):
COC No:
600-18948-7248 6
Page: 1 of 1
Job #:

Due Date Requested:

TAT Requested (days):
Standard

PO #:
Purchase Order not required
WO #:

Project #:
60003722
SSOV#:

Sample Identification

Sample Date

Sample Time

Sample Type (C=Comp, G=Grab) Preservation Code

Matrix (Inorganic, Organic, etc.)

Field Filtered Sample (Yes or No)

Perform MS/MSD (Yes or No)

8270C_LL - Semivolatiles

8260B - Volatiles

6010B - As, Pb

Total Number of containers

Special Instructions/Note:

Sample ID	Sample Date	Sample Time	Sample Type	Preservation Code	Matrix	Field Filtered Sample	Perform MS/MSD	8270C_LL	8260B	6010B	Total Number of containers	Special Instructions/Note
SO-1620-IM-CPT-06-13 (3-S)-20130212	2-12-13	0850	G		Solid	X	X	X	X	X	2	
SO-1620-IM-CPT-06-13 (13-15)-20130212		0910	G		Solid	X	X	X	X	X	2	
SO-1620-IM-CPT-08-13 (2.5-5)-20130212		0950	G		Solid	X	X	X	X	X	2	
SO-1620-IM-CPT-08-13 (15-16)-20130212		1010	G		Solid	X	X	X	X	X	2	
SO-1620-IM-CPT-08-13 (2.5-5)-20130212		1050	G		Solid	X	X	X	X	X	2	
SO-1620-IM-CPT-09-13 (2.5-5)-20130212		1215	G		Solid	X	X	X	X	X	2	
SO-1620-IM-CPT-09-13 (15-15.7)-20130212		1230	G		Solid	X	X	X	X	X	2	
SO-1620-IM-CPT-09-13 (15-15.7)-20130212		1235	G		Solid	X	X	X	X	X	2	
SO-1620-IM-CPT-07-13 (2.5-5)-20130212		1330	G		Solid	X	X	X	X	X	2	
SO-1620-IM-CPT-07-13 (2.5-5)-20130212		1340	G		Solid	X	X	X	X	X	2	
SO-1620-IM-CPT-11-13 (1.4-2.5)-20130212		1520	G		Solid	X	X	X	X	X	2	

Possible Hazard Identification
 Non-Hazard Flammable Skin Irritant Poison B Unknown Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
 Return To Client Disposal By Lab Archive For _____ Months

Empty Kit Relinquished by:

Relinquished by: *WMT* Date: _____

Relinquished by: _____ Date: _____

Relinquished by: _____ Date: _____

Relinquished by: _____ Date: _____

Relinquished by: _____ Date: _____

Relinquished by: _____ Date: _____

Custody Seals Intact: Yes No

Custody Seal No.:

Date/Time: 2-12-13/1350

Date/Time: 2/12/13

Date/Time: 1712

Date/Time: 02/12/13

Date/Time: 1712

Date/Time: 02/12/13

Date/Time: 1712

Date/Time: _____

Date/Time: _____

Login Sample Receipt Checklist

Client: Pastor, Behling & Wheeler LLC

Job Number: 600-68489-1

Login Number: 68489

List Source: TestAmerica Houston

List Number: 1

Creator: Pulumbarit, Josh

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	1.3
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	True	

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Houston
6310 Rothway Street
Houston, TX 77040
Tel: (713)690-4444

TestAmerica Job ID: 600-68567-1
Client Project/Site: UPRR HWPW

For:
Pastor, Behling & Wheeler LLC
2201 Double Creek Dr
Suite 4004
Round Rock, Texas 78664

Attn: Mr. Eric Matzner



Authorized for release by:
3/5/2013 2:48:14 PM
Cathy Upton
Data Delivery Analyst
cathy.upton@testamericainc.com

Designee for
Sachin Kudchadkar
Project Manager II
sachin.kudchadkar@testamericainc.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.



LINKS

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results through
TotalAccess

Have a Question?



Visit us at:
www.testamericainc.com

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15
- 16
- 17



Table of Contents

Cover Page	1
Table of Contents	2
TRRP Cover Page	3
TRRP Checklists & DCSs	4
Case Narrative	30
Method Summary	31
Sample Summary	32
Client Sample Results	33
Definitions/Glossary	50
Surrogate Summary	51
QC Sample Results	53
Default Detection Limits	67
QC Association Summary	69
Lab Chronicle	73
Certification Summary	77
Chain of Custody	78
Receipt Checklists	80

Job Number: 600-68567-1
Project Name/Number: UPRR HWPW

This Data Package consists of:

This signature page, the laboratory review checklist, and the following Reportable Data:

- R1 Field Chain-of-Custody Form
- R2 Sample Identification Cross-reference;
- R3 Test Reports (Analytical Data Sheets) for each environmental sample that includes:
 - a) Items consistent with NELAC Chapter 5
 - b) dilution factors,
 - c) preparation methods,
 - d) cleanup methods, and
 - e) if required for the project, tentatively identified compounds (TICs).
- R4 Surrogate Recovery Data including:
 - a) Calculated recovery (%R), and
 - b) The laboratory's surrogate QC limits.
- R5 Test Reports/Summary Forms for Blank Samples;
- R6 Test Reports/Summary Forms for Laboratory Control Samples (LCSs) including:
 - a) LCS spiking amounts,
 - b) Calculated %R for each analyte, and
 - d) The laboratory's LCS QC limits
- R7 Test Reports for Matrix Spike/Matrix Spike Duplicates (MS/MSDs) including:
 - a) Samples associated with the MS/MSD clearly identified,
 - b) MS/MSD spiking amounts,
 - c) Concentration of each MS/MSD analyte measured in the parent and spiked sample,
 - d) Calculated %Rs and relative percent differences (RPDs), and
 - e) The laboratory's MS/MSD QC limits
- R8 Laboratory analytical duplicates (if applicable) recovery and precision, including:
 - a) the amount of analyte measured in the duplicate,
 - b) the calculated RPD, and
 - c) the laboratory's QC limits for analytical duplicates.
- R9 List of method quantitation limit (MQL) and detectability check sample results for each analyte for each method and matrix;
- R10 Other problems or anomalies

The exception report for each "No" or "Not Reviewed (NR)" item in the Laboratory Review Checklist and for each analyte, matrix, and method for which the laboratory does not hold NELAC accreditation under the Texas Laboratory Accreditation Program.

Release Statement: I am responsible for the release of this laboratory data package. This laboratory is NELAC accredited under Texas laboratory Accreditation Program for all the methods, analytes, and matrices reported in this data package except as noted in the Exception Reports. The data have been reviewed and are technically compliant with the requirements of the methods used, except where noted by the laboratory in the Exception Reports. By my signature below, I affirm, to the best of my knowledge, that all problems/anomalies observed by the laboratory have been identified in the Laboratory Review Checklist, and no information affecting the quality of the data has been knowingly withheld.

<p><u>Cathy Upton</u> Name (printed)</p>	 Signature	<p><u>03/05/2013</u> Date</p>
<p><u>Data Delivery Analyst</u> Official Title (printed)</p>		

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4
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12
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14
15
16
17

Appendix A (cont'd): Laboratory Review Checklist: Reportable Data							
Laboratory Name: TestAmerica-Houston			LRC Date: 02/25/13				
Project Name: 1620 UPRR HWPW			Laboratory Job Number: 600-68567				
Reviewer Name: TWR			Prep Batch Number(s): 600-99888- ICP				
# ¹	A ²	Description	Yes	No	NA ³	NR ⁴	ER# ⁵
R1	OI	Chain-of-custody (C-O-C)					
		Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?	X				
		Were all departures from standard conditions described in an exception report?			X		
R2	OI	Sample and quality control (QC) identification					
		Are all field sample ID numbers cross-referenced to the laboratory ID numbers?	X				
		Are all laboratory ID numbers cross-referenced to the corresponding QC data?	X				
R3	OI	Test reports					
		Were all samples prepared and analyzed within holding times?	X				
		Other than those results < MQL, were all other raw values bracketed by calibration standards?	X				
		Were calculations checked by a peer or supervisor?	X				
		Were all analyte identifications checked by a peer or supervisor?	X				
		Were sample detection limits reported for all analytes not detected?	X				
		Were all results for soil and sediment samples reported on a dry weight basis?	X				
		Were % moisture (or solids) reported for all soil and sediment samples?	X				
		Were bulk soil/solid samples for volatile analysis extracted with methanol per SW846 Method 5035?			X		
		If required for the project, TICs reported?			X		
R4	O	Surrogate recovery data					
		Were surrogates added prior to extraction?			X		
		Were surrogate percent recoveries in all samples within the laboratory QC limits?			X		
R5	OI	Test reports/summary forms for blank samples					
		Were appropriate type(s) of blanks analyzed?	X				
		Were blanks analyzed at the appropriate frequency?	X				
		Were method blanks taken through the entire analytical process, including preparation and, if applicable, cleanup procedures?	X				
		Were blank concentrations < MQL?	X				
R6	OI	Laboratory control samples (LCS):					
		Were all COCs included in the LCS?	X				
		Was each LCS taken through the entire analytical procedure, including prep and cleanup steps?	X				
		Were LCSs analyzed at the required frequency?	X				
		Were LCS (and LCSD, if applicable) %Rs within the laboratory QC limits?	X				
		Does the detectability check sample data document the laboratory's capability to detect the COCs at the MDL used to calculate the SDLs?	X				
		Was the LCSD RPD within QC limits?			X		
R7	OI	Matrix spike (MS) and matrix spike duplicate (MSD) data					
		Were the project/method specified analytes included in the MS and MSD?	X				
		Were MS/MSD analyzed at the appropriate frequency?	X				
		Were MS (and MSD, if applicable) %Rs within the laboratory QC limits?	X				
		Were MS/MSD RPDs within laboratory QC limits?	X				
R8	OI	Analytical duplicate data					
		Were appropriate analytical duplicates analyzed for each matrix?	X				
		Were analytical duplicates analyzed at the appropriate frequency?	X				
		Were RPDs or relative standard deviations within the laboratory QC limits?	X				
R9	OI	Method quantitation limits (MQLs):					
		Are the MQLs for each method analyte included in the laboratory data package?	X				
		Do the MQLs correspond to the concentration of the lowest non-zero calibration standard?	X				
		Are unadjusted MQLs and DCSs included in the laboratory data package?	X				
R10	OI	Other problems/anomalies					
		Are all known problems/anomalies/special conditions noted in this LRC and ER?	X				
		Was applicable and available technology used to lower the SDL to minimize the matrix interference affects on the sample results?	X				1
		Is the laboratory NELAC-accredited under the Texas Laboratory Accreditation Program for the analytes, matrices and methods associated with this laboratory data package?	X				

- Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.
- O = organic analyses; I = inorganic analyses (and general chemistry, when applicable);
- NA = Not applicable;
- NR = Not reviewed;
- ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

Appendix A (cont'd): Laboratory Review Checklist: Reportable Data									
Laboratory Name: TestAmerica-Houston					LRC Date: 02/25/13				
Project Name: 1620 UPRR HWPW					Laboratory Job Number: 600-68567				
Reviewer Name: TWR					Prep Batch Number(s): 600-99888- ICP				
# ¹	A ²	Description	Yes	No	NA ³	NR ⁴	ER# ⁵		
S1	OI	Initial calibration (ICAL)							
		Were response factors and/or relative response factors for each analyte within QC limits?			X				
		Were percent RSDs or correlation coefficient criteria met?			X				
		Was the number of standards recommended in the method used for all analytes?	X						
		Were all points generated between the lowest and highest standard used to calculate the curve?			X				
		Are ICAL data available for all instruments used?	X						
		Has the initial calibration curve been verified using an appropriate second source standard?	X						
S2	OI	Initial and continuing calibration verification (ICCV and CCV) and continuing calibration							
		Was the CCV analyzed at the method-required frequency?	X						
		Were percent differences for each analyte within the method-required QC limits?	X						
		Was the ICAL curve verified for each analyte?	X						
		Was the absolute value of the analyte concentration in the inorganic CCB < MDL?	X						
S3	O	Mass spectral tuning:							
		Was the appropriate compound for the method used for tuning?			X				
		Were ion abundance data within the method-required QC limits?			X				
S4	O	Internal standards (IS):							
		Were IS area counts and retention times within the method-required QC limits?			X				
S5	OI	Raw data (NELAC section 5.5.10)							
		Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?	X						
		Were data associated with manual integrations flagged on the raw data?			X				
S6	O	Dual column confirmation							
		Did dual column confirmation results meet the method-required QC?			X				
S7	O	Tentatively identified compounds (TICs):							
		If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?			X				
S8	I	Interference Check Sample (ICS) results:							
		Were percent recoveries within method QC limits?	X						
S9	I	Serial dilutions, post digestion spikes, and method of standard additions							
		Were percent differences, recoveries, and the linearity within the QC limits specified in the method?				X	2		
S10	OI	Method detection limit (MDL) studies							
		Was a MDL study performed for each reported analyte?	X						
		Is the MDL either adjusted or supported by the analysis of DCSs?	X						
S11	OI	Proficiency test reports:							
		Was the laboratory's performance acceptable on the applicable proficiency tests or evaluation studies?	X						
S12	OI	Standards documentation							
		Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?	X						
S13	OI	Compound/analyte identification procedures							
		Are the procedures for compound/analyte identification documented?	X						
S14	OI	Demonstration of analyst competency (DOC)							
		Was DOC conducted consistent with NELAC Chapter 5?	X						
		Is documentation of the analyst's competency up-to-date and on file?	X						
S15	OI	Verification/validation documentation for methods (NELAC Chapter 5)							
		Are all the methods used to generate the data documented, verified, and validated, where applicable?	X						
S16	OI	Laboratory standard operating procedures (SOPs):							
		Are laboratory SOPs current and on file for each method performed?	X						

- 1 Items identified by the letter "R" should be included in the laboratory data package submitted to the TCEQ in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.
- 2 O = organic analyses; I = inorganic analyses (and general chemistry, when applicable).
- 3 NA = Not applicable.
- 4 NR = Not Reviewed.
- 5 ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

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17

Appendix A (cont'd): Laboratory Review Checklist: Exception Reports	
Laboratory Name: TestAmerica-Houston	LRC Date: 02/25/13
Project Name: 1620 UPRR HWPW	Laboratory Job Number: 600-68567
Reviewer Name: TWR	Prep Batch Number(s): 600-99888- ICP
ER #¹	DESCRIPTION
1	The lead SDL was elevated in samples 68567-10 due to the dilution necessary to bring this analyte to within linear dynamic range.
2	The laboratory selected a sample from another group to perform as the PDS and SD.

ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked on the LRC)

Appendix A (cont'd): Laboratory Review Checklist: Reportable Data							
Laboratory Name: TestAmerica-Houston			LRC Date: 02/25/13				
Project Name: UPRR HWPW			Laboratory Job Number: 600-68567				
Reviewer Name: YX			Prep Batch Number: 600-99613, 99676, 99988(S) and 99606(W)-VOA				
# ¹	A ²	Description	Yes	No	NA ³	NR ⁴	ER# ⁵
R1	OI	Chain-of-custody (C-O-C)					
		Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?	X				
		Were all departures from standard conditions described in an exception report?			X		
R2	OI	Sample and quality control (QC) identification					
		Are all field sample ID numbers cross-referenced to the laboratory ID numbers?	X				
		Are all laboratory ID numbers cross-referenced to the corresponding QC data?	X				
R3	OI	Test reports					
		Were all samples prepared and analyzed within holding times?	X				
		Other than those results < MQL, were all other raw values bracketed by calibration standards?	X				
		Were calculations checked by a peer or supervisor?	X				
		Were all analyte identifications checked by a peer or supervisor?	X				
		Were sample detection limits reported for all analytes not detected?	X				
		Were all results for soil and sediment samples reported on a dry weight basis?	X				
		Were % moisture (or solids) reported for all soil and sediment samples?	X				
		Were bulk soil/solid samples for volatile analysis extracted with methanol per SW846 Method 5035?			X		
		If required for the project, TICs reported?			X		
R4	O	Surrogate recovery data					
		Were surrogates added prior to extraction?	X				
		Were surrogate percent recoveries in all samples within the laboratory QC limits?		X			1
R5	OI	Test reports/summary forms for blank samples					
		Were appropriate type(s) of blanks analyzed?	X				
		Were blanks analyzed at the appropriate frequency?	X				
		Were method blanks taken through the entire analytical process, including preparation and, if applicable, cleanup procedures?	X				
		Were blank concentrations < MQL?	X				2
R6	OI	Laboratory control samples (LCS):					
		Were all COCs included in the LCS?	X				
		Was each LCS taken through the entire analytical procedure, including prep and cleanup steps?	X				
		Were LCSs analyzed at the required frequency?	X				
		Were LCS (and LCSD, if applicable) %Rs within the laboratory QC limits?	X				
		Does the detectability check sample data document the laboratory's capability to detect the COCs at the MDL used to calculate the SDLs?	X				
		Was the LCSD RPD within QC limits?	X				
R7	OI	Matrix spike (MS) and matrix spike duplicate (MSD) data					
		Were the project/method specified analytes included in the MS and MSD?	X				
		Were MS/MSD analyzed at the appropriate frequency?	X				
		Were MS (and MSD, if applicable) %Rs within the laboratory QC limits?	X				
		Were MS/MSD RPDs within laboratory QC limits?	X				
R8	OI	Analytical duplicate data					
		Were appropriate analytical duplicates analyzed for each matrix?			X		
		Were analytical duplicates analyzed at the appropriate frequency?			X		
		Were RPDs or relative standard deviations within the laboratory QC limits?			X		
R9	OI	Method quantitation limits (MQLs):					
		Are the MQLs for each method analyte included in the laboratory data package?	X				
		Do the MQLs correspond to the concentration of the lowest non-zero calibration standard?	X				
		Are unadjusted MQLs and DCSs included in the laboratory data package?	X				
R10	OI	Other problems/anomalies					
		Are all known problems/anomalies/special conditions noted in this LRC and ER?	X				
		Was applicable and available technology used to lower the SDL to minimize the matrix interference affects on the sample results?	X				3
		Is the laboratory NELAC-accredited under the Texas Laboratory Accreditation Program for the analytes, matrices and methods associated with this laboratory data package?	X				

- Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.
- O = organic analyses; I = inorganic analyses (and general chemistry, when applicable);
- NA = Not applicable;
- NR = Not reviewed;
- ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

Appendix A (cont'd): Laboratory Review Checklist: Reportable Data							
Laboratory Name: TestAmerica-Houston			LRC Date: 02/25/13				
Project Name: UPRR HWPW			Laboratory Job Number: 600-68567				
Reviewer Name: YX			Prep Batch Number: 600-99613, 99676, 99988(S) and 99606(W)-VOA				
# ¹	A ²	Description	Yes	No	NA ³	NR ⁴	ER# ⁵
S1	OI	Initial calibration (ICAL)					
		Were response factors and/or relative response factors for each analyte within QC limits?	X				
		Were percent RSDs or correlation coefficient criteria met?	X				
		Was the number of standards recommended in the method used for all analytes?	X				
		Were all points generated between the lowest and highest standard used to calculate the curve?	X				
		Are ICAL data available for all instruments used?	X				
		Has the initial calibration curve been verified using an appropriate second source standard?	X				
S2	OI	Initial and continuing calibration verification (ICCV and CCV) and continuing calibration					
		Was the CCV analyzed at the method-required frequency?	X				
		Were percent differences for each analyte within the method-required QC limits?	X				
		Was the ICAL curve verified for each analyte?	X				
		Was the absolute value of the analyte concentration in the inorganic CCB < MDL?			X		
S3	O	Mass spectral tuning:					
		Was the appropriate compound for the method used for tuning?	X				
		Were ion abundance data within the method-required QC limits?	X				
S4	O	Internal standards (IS):					
		Were IS area counts and retention times within the method-required QC limits?		X			4
S5	OI	Raw data (NELAC section 5.5.10)					
		Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?	X				
		Were data associated with manual integrations flagged on the raw data?	X				
S6	O	Dual column confirmation					
		Did dual column confirmation results meet the method-required QC?			X		
S7	O	Tentatively identified compounds (TICs):					
		If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?			X		
S8	I	Interference Check Sample (ICS) results:					
		Were percent recoveries within method QC limits?			X		
S9	I	Serial dilutions, post digestion spikes, and method of standard additions					
		Were percent differences, recoveries, and the linearity within the QC limits specified in the method?			X		
S10	OI	Method detection limit (MDL) studies					
		Was a MDL study performed for each reported analyte?	X				
		Is the MDL either adjusted or supported by the analysis of DCSs?	X				
S11	OI	Proficiency test reports:					
		Was the laboratory's performance acceptable on the applicable proficiency tests or evaluation studies?	X				
S12	OI	Standards documentation					
		Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?	X				
S13	OI	Compound/analyte identification procedures					
		Are the procedures for compound/analyte identification documented?	X				
S14	OI	Demonstration of analyst competency (DOC)					
		Was DOC conducted consistent with NELAC Chapter 5?	X				
		Is documentation of the analyst's competency up-to-date and on file?	X				
S15	OI	Verification/validation documentation for methods (NELAC Chapter 5)					
		Are all the methods used to generate the data documented, verified, and validated, where applicable?	X				
S16	OI	Laboratory standard operating procedures (SOPs):					
		Are laboratory SOPs current and on file for each method performed?	X				

- 1 Items identified by the letter "R" should be included in the laboratory data package submitted to the TCEQ in the TRRP-required report(s).
- 2 Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.
- 3 O = organic analyses; I = inorganic analyses (and general chemistry, when applicable).
- 4 NA = Not applicable.
- 5 NR = Not Reviewed.
- 6 ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

Appendix A (cont'd): Laboratory Review Checklist: Exception Reports	
Laboratory Name: TestAmerica-Houston	LRC Date: 02/25/13
Project Name: UPRR HWPW	Laboratory Job Number: 600-68567
Reviewer Name: YX	Prep Batch Number: 600-99613, 99676, 99988(S) and 99606(W)-VOA
ER #¹	DESCRIPTION
1	Surrogate recoveries (BFB and 1,2-DCA-d4) were outside of acceptance limits for sample 600-68567-12 1X. Evidence of matrix interference is present as confirmed by the 10X analysis.
2	Methylene chloride was detected above the MDL, but below the MQL in the method blanks for batches 600-99613 and 99676. This analyte is a recognized potential laboratory contaminant. The levels of detection are below the recommended reporting limit and the appropriate flags have been applied to the report.
3	The Ethylbenzene and Total Xylenes SDLs were elevated in samples 600-68567-11 and 12 due to the high concentration of these analytes.
4	All Internal Standard responses were below the acceptance limits for 600-68567-12 1X, indicating a high bias. The sample shows evidence of matrix interference as confirmed by the 10X analysis. The laboratory determined and QA confirmed that the 1X analysis was the best achievable analytical results for all but the over calibration range analytes reported from the medium level analysis—see attached chromatogram and ISTD responses.

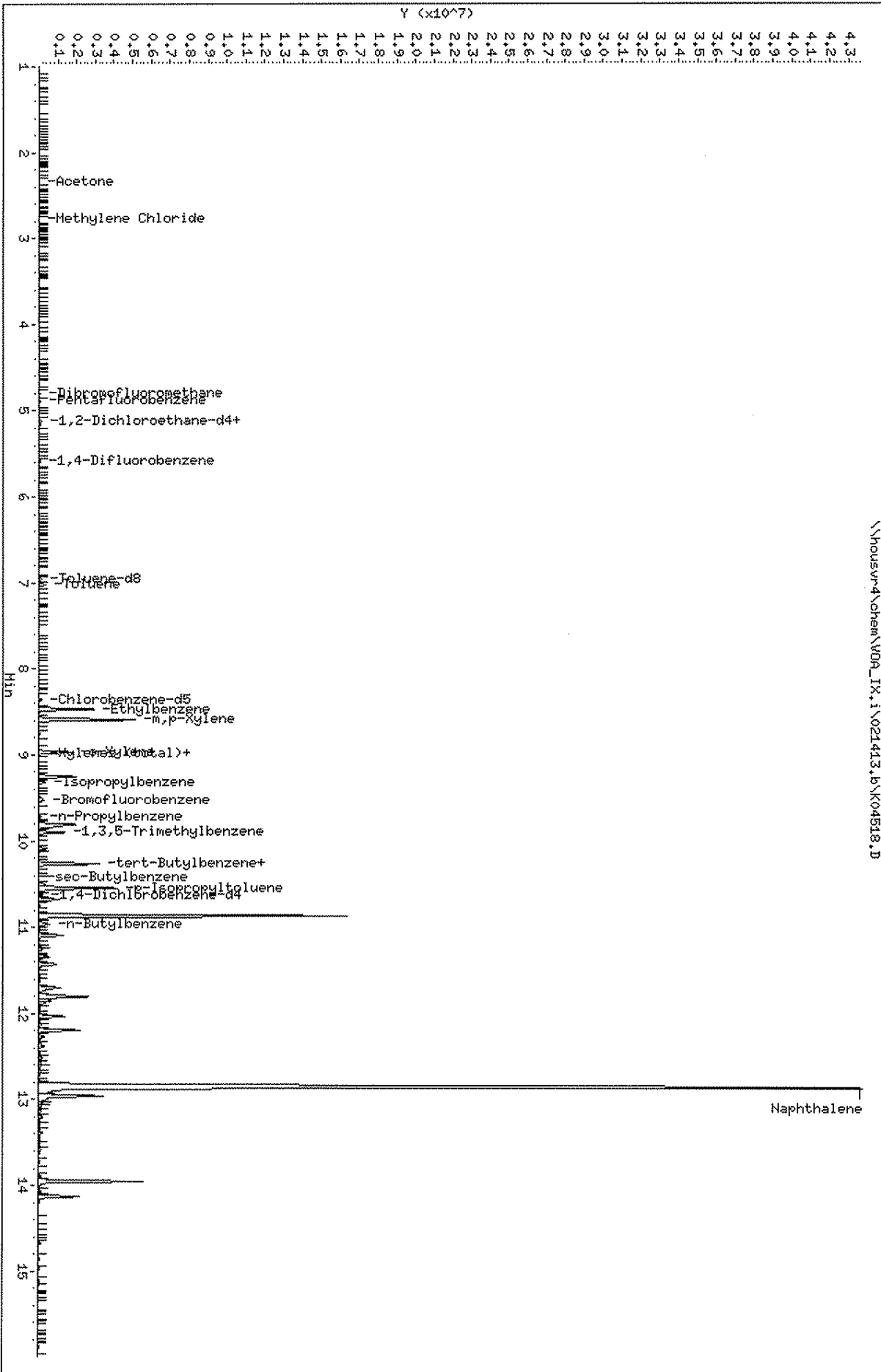
ER# = Exception Report identification number (an Exception Report should be completed for an item if “NR” or “No” is checked on the LRC)



Data File: \\housvr4\chem\WDA_IX.1\021413.B\K04518.D
 Date: 14-FEB-2013 19:16
 Client ID: 80-1620-1H-CPT-16-1
 Sample Info: 600-68567-B-12
 Column phase: DB-624

Instrument: WDA_IX.1
 Operator: YX
 Column diameter: 0.18

\\housvr4\chem\WDA_IX.1\021413.B\K04518.D



TestAmerica Houston

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: VOA IX.i
 Lab File ID: K04518.D
 Lab Smp Id: 600-68567-B-12
 Analysis Type: VOA
 Quant Type: ISTD
 Operator: YX
 Method File: \\housvr4\chem\VOA IX.i\021413.b\8260bs9.m
 Misc Info: 600-68567-B-12

Calibration Date: 14-FEB-2013
 Calibration Time: 11:57
 Client Smp ID: SO-1620-IM-CPT-16-1
 Level: LOW
 Sample Type: SOLID

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF	
		LOWER	UPPER			
48 Pentafluorobenzen	153718	76859	307436	55231	-64.07	<-
58 1,4-Difluorobenze	220403	110202	440806	81935	-62.82	<-
93 Chlorobenzene-d5	207185	103593	414370	91825	-55.68	<-
124 1,4-Dichlorobenze	132583	66292	265166	51284	-61.32	<-

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
48 Pentafluorobenzen	4.88	4.38	5.38	4.89	0.07
58 1,4-Difluorobenze	5.58	5.08	6.08	5.58	0.06
93 Chlorobenzene-d5	8.35	7.85	8.85	8.36	0.04
124 1,4-Dichlorobenze	10.62	10.12	11.12	10.62	-0.00

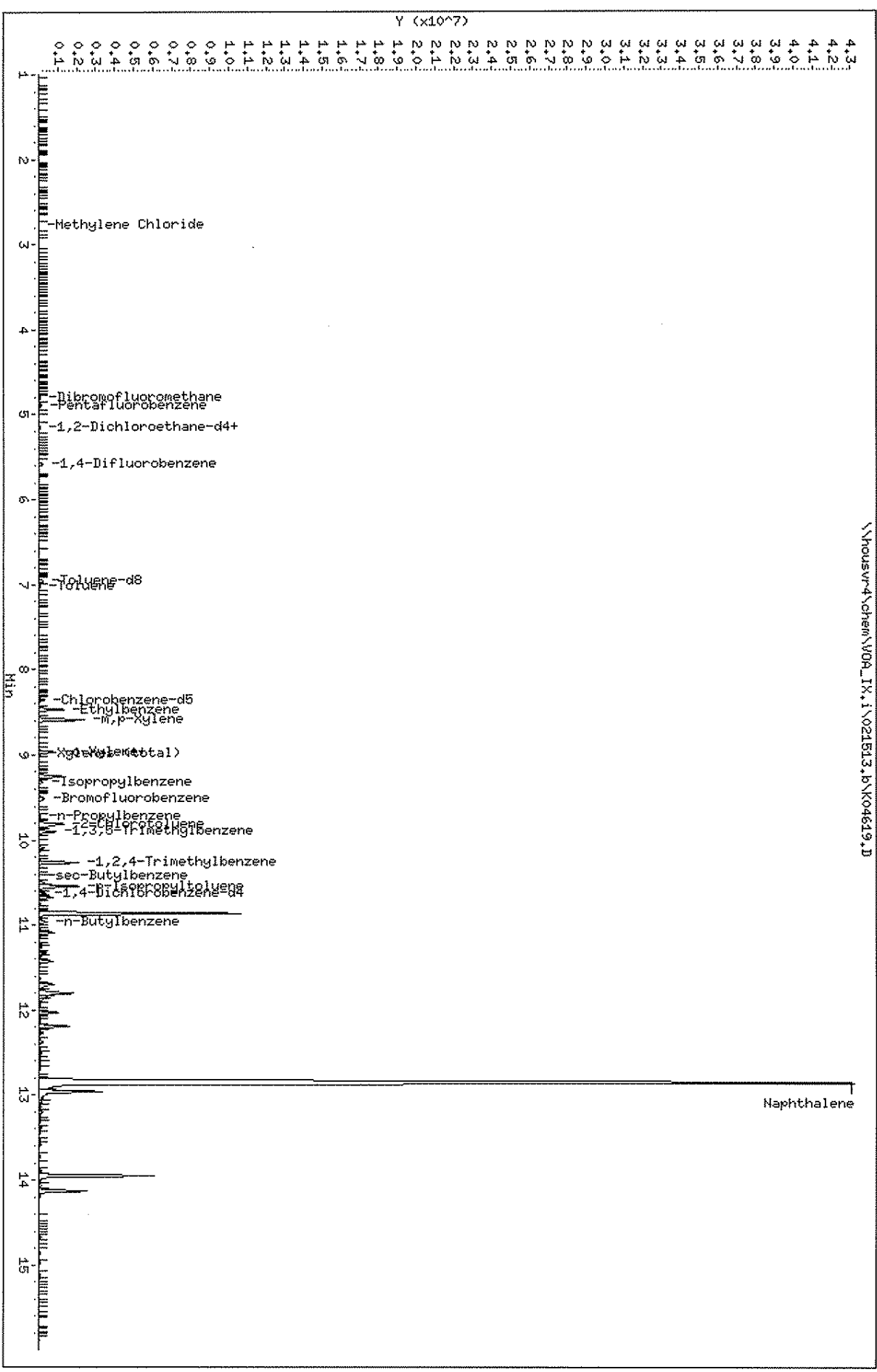
AREA UPPER LIMIT = +100% of internal standard area.
 AREA LOWER LIMIT = - 50% of internal standard area.
 RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
 RT LOWER LIMIT = - 0.50 minutes of internal standard RT.



Data File: \housvr4\chem\W04_IX_1\021513.B\K04619.D
 Date: 15-FEB-2013 18:02
 Client ID: SO-1620-1H-CPT-16-1
 Sample Info: 600-68567-B-12
 Column phase: DB-624

Instrument: W04_IX.1
 Operator: YX
 Column diameter: 0.18

\\housvr4\chem\W04_IX_1\021513.B\K04619.D



TestAmerica Houston

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: VOA_IX.i
 Lab File ID: K04619.D
 Lab Smp Id: 600-68567-B-12
 Analysis Type: VOA
 Quant Type: ISTD
 Operator: YX
 Method File: \\housvr4\chem\VOA_IX.i\021513.b\8260bs9.m
 Misc Info: 600-68567-B-12

Calibration Date: 15-FEB-2013
 Calibration Time: 10:39
 Client Smp ID: SO-1620-IM-CPT-16-1
 Level: LOW
 Sample Type: SOLID

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
48 Pentafluorobenzen	146403	73202	292806	108479	-25.90
58 1,4-Difluorobenze	213176	106588	426352	158158	-25.81
93 Chlorobenzene-d5	199289	99645	398578	158736	-20.35
124 1,4-Dichlorobenze	127936	63968	255872	94999	-25.74

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
48 Pentafluorobenzen	4.88	4.38	5.38	4.89	0.07
58 1,4-Difluorobenze	5.58	5.08	6.08	5.59	0.12
93 Chlorobenzene-d5	8.35	7.85	8.85	8.36	0.04
124 1,4-Dichlorobenze	10.62	10.12	11.12	10.62	0.03

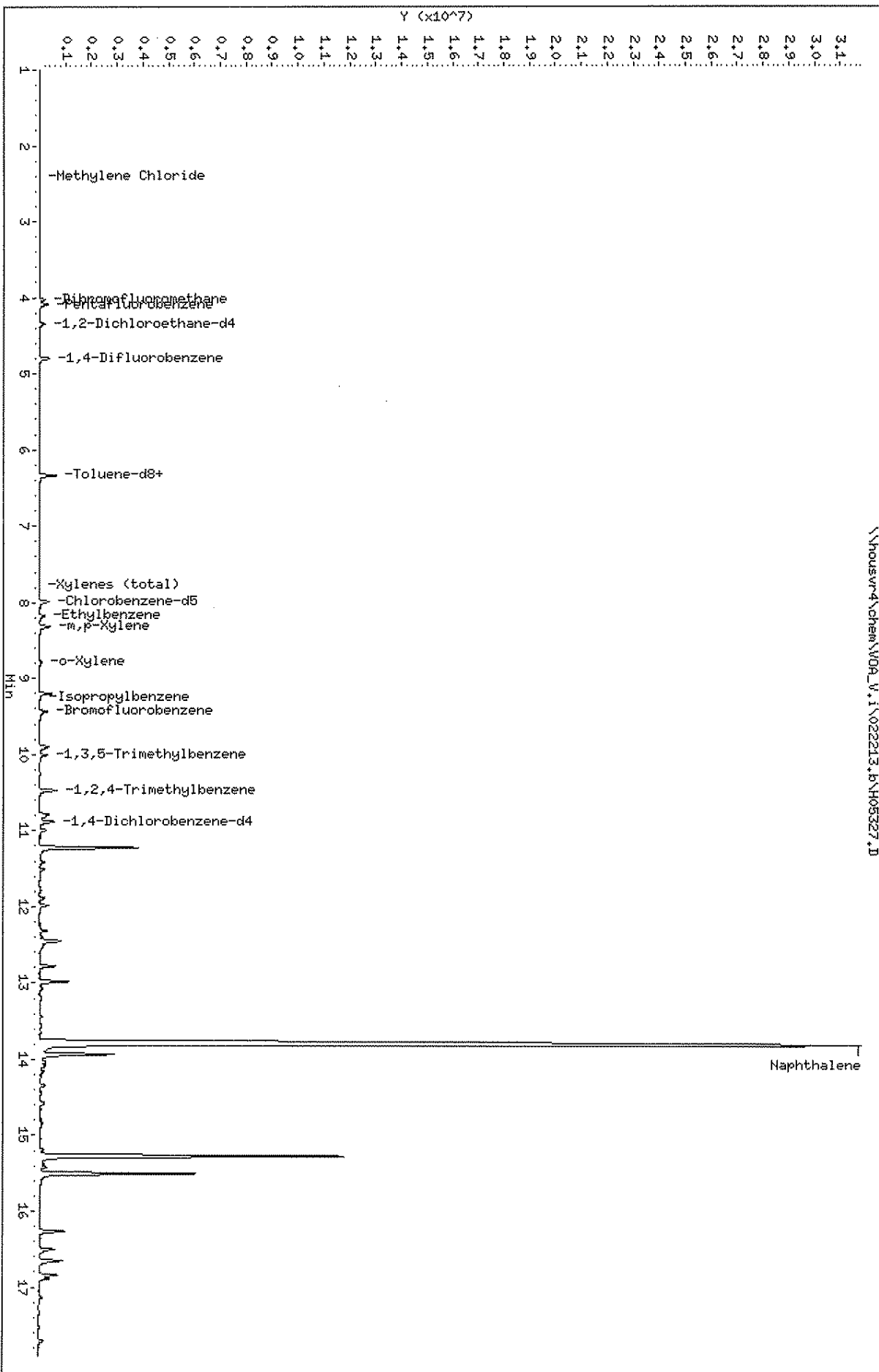
AREA UPPER LIMIT = +100% of internal standard area.
 AREA LOWER LIMIT = - 50% of internal standard area.
 RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
 RT LOWER LIMIT = - 0.50 minutes of internal standard RT.



Data File: \\housew4\chem\W04_V.1\022213.B\H05327.D
Date: 22-FEB-2013 18:58
Client ID: SO-1620-1H-CPT-16-1
Sample Info: 600-68567-B-12-A
Column phase: DB-624

Instrument: W04_V.1
Operator: MS
Column diameter: 0.18

\\housew4\chem\W04_V.1\022213.B\H05327.D



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Appendix A (cont'd): Laboratory Review Checklist: Reportable Data							
Laboratory Name: TestAmerica-Houston			LRC Date: 02/25/13				
Project Name: UPRR HWPW			Laboratory Job Number 600-68567				
Reviewer Name: JOH			Prep Batch Number(s): 600-99571, 99693(S), 99685(W) - SV				
# ¹	A ²	Description	Yes	No	NA ³	NR ⁴	ER# ⁵
R1	OI	Chain-of-custody (C-O-C)					
		Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?	X				
		Were all departures from standard conditions described in an exception report?			X		
R2	OI	Sample and quality control (QC) identification					
		Are all field sample ID numbers cross-referenced to the laboratory ID numbers?	X				
		Are all laboratory ID numbers cross-referenced to the corresponding QC data?	X				
R3	OI	Test reports					
		Were all samples prepared and analyzed within holding times?	X				
		Other than those results < MQL, were all other raw values bracketed by calibration standards?	X				
		Were calculations checked by a peer or supervisor?	X				
		Were all analyte identifications checked by a peer or supervisor?	X				
		Were sample detection limits reported for all analytes not detected?	X				
		Were all results for soil and sediment samples reported on a dry weight basis?	X				
		Were % moisture (or solids) reported for all soil and sediment samples?	X				
		Were bulk soil/solid samples for volatile analysis extracted with methanol per SW846 Method 5035?			X		
		If required for the project, TICs reported?			X		
R4	O	Surrogate recovery data					
		Were surrogates added prior to extraction?	X				
		Were surrogate percent recoveries in all samples within the laboratory QC limits?		X			1
R5	OI	Test reports/summary forms for blank samples					
		Were appropriate type(s) of blanks analyzed?	X				
		Were blanks analyzed at the appropriate frequency?	X				
		Were method blanks taken through the entire analytical process, including preparation and, if applicable, cleanup procedures?	X				
		Were blank concentrations < MQL?	X				2
R6	OI	Laboratory control samples (LCS):					
		Were all COCs included in the LCS?	X				
		Was each LCS taken through the entire analytical procedure, including prep and cleanup steps?	X				
		Were LCSs analyzed at the required frequency?	X				
		Were LCS (and LCSD, if applicable) %Rs within the laboratory QC limits?	X				
		Does the detectability check sample data document the laboratory's capability to detect the COCs at the MDL used to calculate the SDLs?	X				
		Was the LCSD RPD within QC limits?			X		
R7	OI	Matrix spike (MS) and matrix spike duplicate (MSD) data					
		Were the project/method specified analytes included in the MS and MSD?	X				
		Were MS/MSD analyzed at the appropriate frequency?	X				
		Were MS (and MSD, if applicable) %Rs within the laboratory QC limits?		X			3
		Were MS/MSD RPDs within laboratory QC limits?		X			3
R8	OI	Analytical duplicate data					
		Were appropriate analytical duplicates analyzed for each matrix?			X		
		Were analytical duplicates analyzed at the appropriate frequency?			X		
		Were RPDs or relative standard deviations within the laboratory QC limits?			X		
R9	OI	Method quantitation limits (MQLs):					
		Are the MQLs for each method analyte included in the laboratory data package?	X				
		Do the MQLs correspond to the concentration of the lowest non-zero calibration standard?	X				
		Are unadjusted MQLs and DCSs included in the laboratory data package?	X				
R10	OI	Other problems/anomalies					
		Are all known problems/anomalies/special conditions noted in this LRC and ER?	X				3
		Was applicable and available technology used to lower the SDL to minimize the matrix interference affects on the sample results?	X				4
		Is the laboratory NELAC-accredited under the Texas Laboratory Accreditation Program for the analytes, matrices and methods associated with this laboratory data package?	X				

- Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.
- O = organic analyses; I = inorganic analyses (and general chemistry, when applicable);
- NA = Not applicable;
- NR = Not reviewed;
- ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

Appendix A (cont'd): Laboratory Review Checklist: Reportable Data									
Laboratory Name: TestAmerica-Houston					LRC Date: 02/25/13				
Project Name: UPRR HWPW					Laboratory Job Number 600-68567				
Reviewer Name: JOH					Prep Batch Number(s): 600-99571, 99693(S), 99685(W) - SV				
# ¹	A ²	Description	Yes	No	NA ³	NR ⁴	ER# ⁵		
S1	OI	Initial calibration (ICAL)							
		Were response factors and/or relative response factors for each analyte within QC limits?	X						
		Were percent RSDs or correlation coefficient criteria met?	X						
		Was the number of standards recommended in the method used for all analytes?	X						
		Were all points generated between the lowest and highest standard used to calculate the curve?	X						
		Are ICAL data available for all instruments used?	X						
		Has the initial calibration curve been verified using an appropriate second source standard?	X						
S2	OI	Initial and continuing calibration verification (ICCV and CCV) and continuing calibration							
		Was the CCV analyzed at the method-required frequency?	X						
		Were percent differences for each analyte within the method-required QC limits?	X						
		Was the ICAL curve verified for each analyte?	X						
		Was the absolute value of the analyte concentration in the inorganic CCB < MDL?				X			
S3	O	Mass spectral tuning:							
		Was the appropriate compound for the method used for tuning?				X			
		Were ion abundance data within the method-required QC limits?				X			
S4	O	Internal standards (IS):							
		Were IS area counts and retention times within the method-required QC limits?				X			
S5	OI	Raw data (NELAC section 5.5.10)							
		Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?	X						
		Were data associated with manual integrations flagged on the raw data?	X						
S6	O	Dual column confirmation							
		Did dual column confirmation results meet the method-required QC?				X			
S7	O	Tentatively identified compounds (TICs):							
		If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?				X			
S8	I	Interference Check Sample (ICS) results:							
		Were percent recoveries within method QC limits?				X			
S9	I	Serial dilutions, post digestion spikes, and method of standard additions							
		Were percent differences, recoveries, and the linearity within the QC limits specified in the method?				X			
S10	OI	Method detection limit (MDL) studies							
		Was a MDL study performed for each reported analyte?	X						
		Is the MDL either adjusted or supported by the analysis of DCSs?	X						
S11	OI	Proficiency test reports:							
		Was the laboratory's performance acceptable on the applicable proficiency tests or evaluation studies?	X						
S12	OI	Standards documentation							
		Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?	X						
S13	OI	Compound/analyte identification procedures							
		Are the procedures for compound/analyte identification documented?	X						
S14	OI	Demonstration of analyst competency (DOC)							
		Was DOC conducted consistent with NELAC Chapter 5?	X						
		Is documentation of the analyst's competency up-to-date and on file?	X						
S15	OI	Verification/validation documentation for methods (NELAC Chapter 5)							
		Are all the methods used to generate the data documented, verified, and validated, where applicable?	X						
S16	OI	Laboratory standard operating procedures (SOPs):							
		Are laboratory SOPs current and on file for each method performed?	X						

- 1 Items identified by the letter "R" should be included in the laboratory data package submitted to the TCEQ in the TRRP-required report(s).
- 2 Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.
- 3 O = organic analyses; I = inorganic analyses (and general chemistry, when applicable).
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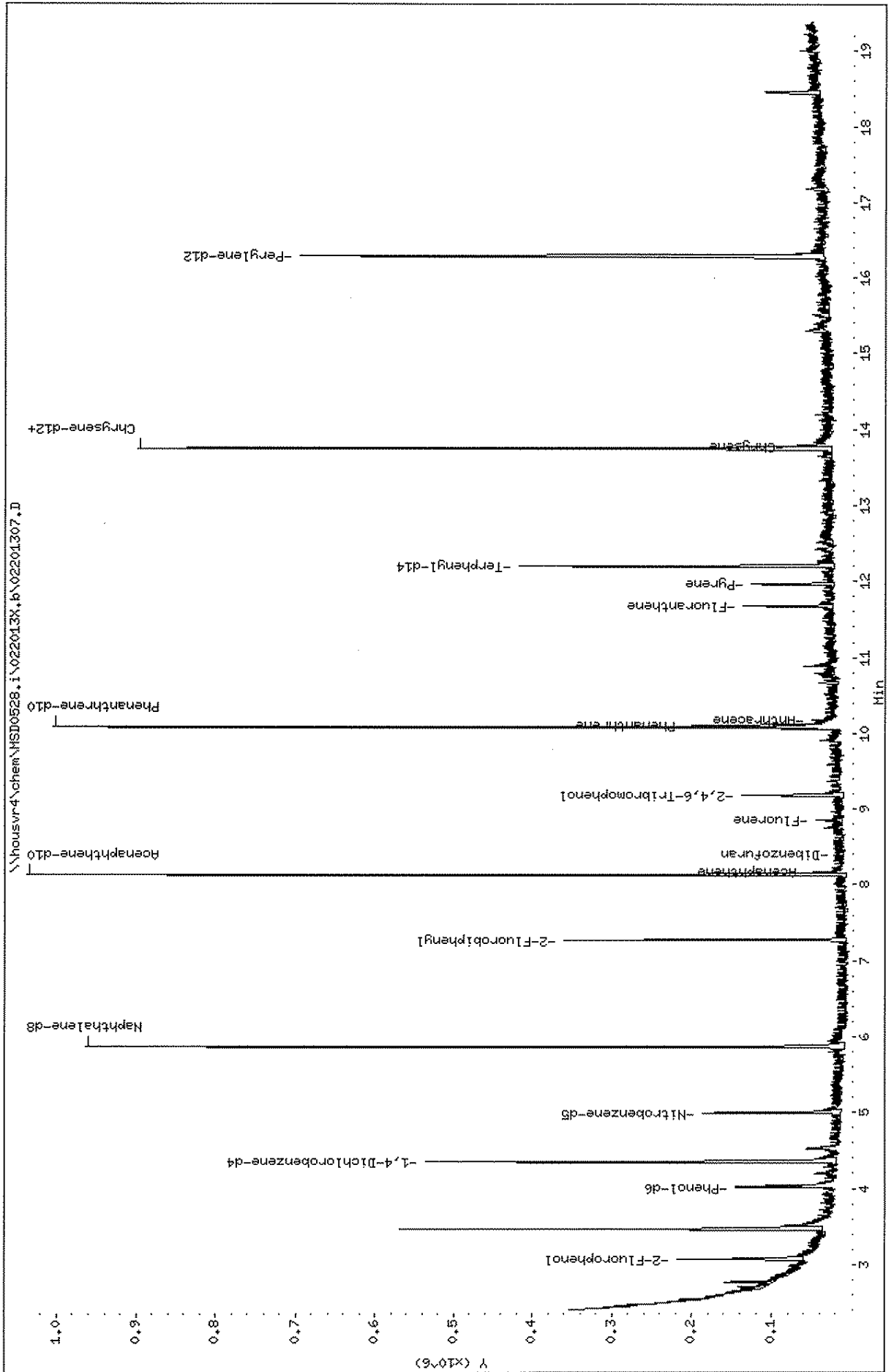
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Appendix A (cont'd): Laboratory Review Checklist: Exception Reports	
Laboratory Name: TestAmerica-Houston	LRC Date: 02/25/13
Project Name: UPRR HWPW	Laboratory Job Number 600-68567
Reviewer Name: JOH	Prep Batch Number(s): 600-99571, 99693(S), 99685(W) - SV
ER #¹	DESCRIPTION
1	<p>Six surrogates are used for this analysis. The laboratory's SOP allows one base one acid of these surrogates to be outside acceptance criteria without performing re-extraction/re-analysis. Samples 600-68567-2 and 6 contained an allowable number of surrogate compounds outside limits. These results have been reported and qualified.</p> <p>Due to the level of dilution required for samples 600-68567-3, 3MS, 3MSD, 4, 5, 7, 10, 11, 12 and 12DL; surrogate recoveries are not reported.</p>
2	Naphthalene was detected above the MDL, but below the MQL in the method blank for batch 99685. The level of detection is below the recommended reporting limit and the appropriate flags have been applied.
3	<p>The matrix spike duplicate (MSD) recoveries and the precision between the MS/MSD for batch 99693 were outside control limits due to the non-homogenous nature of the sample—see attached chromatograms and Case Narrative. The associated laboratory control sample (LCS) and matrix spike (MS) recoveries met acceptance criteria.</p> <p>The matrix spike / matrix spike duplicate (MS/MSD) for batch 99685 could not be recovered due to sample matrix interferences which required sample dilution.</p>
4	All of the SDLs in samples 600-68567-3, 4, 5, 10, 11 and 12 were elevated due to the nature of the sample matrix and/or the high concentration of target analytes.

ER# = Exception Report identification number (an Exception Report should be completed for an item if “NR” or “No” is checked on the LRC)

Data File: \\housvr4\chem\MSD0528.i\022013X.b\02201307.D
Date: 20-FEB-2013 10:15
Client ID: SO-1620-IN-CPT-12-1
Sample Info: 600-68567-A-8-A
Volume Injected (uL): 1.0
Column phase: RXI-5MS

Instrument: MSD0528.i
Operator: JQH
Column diameter: 0.25



Date: 20-FEB-2013 10:43

Client ID: SO-1620-IH-CPT-12-1

Sample Info: 600-68567-A-8-B MS

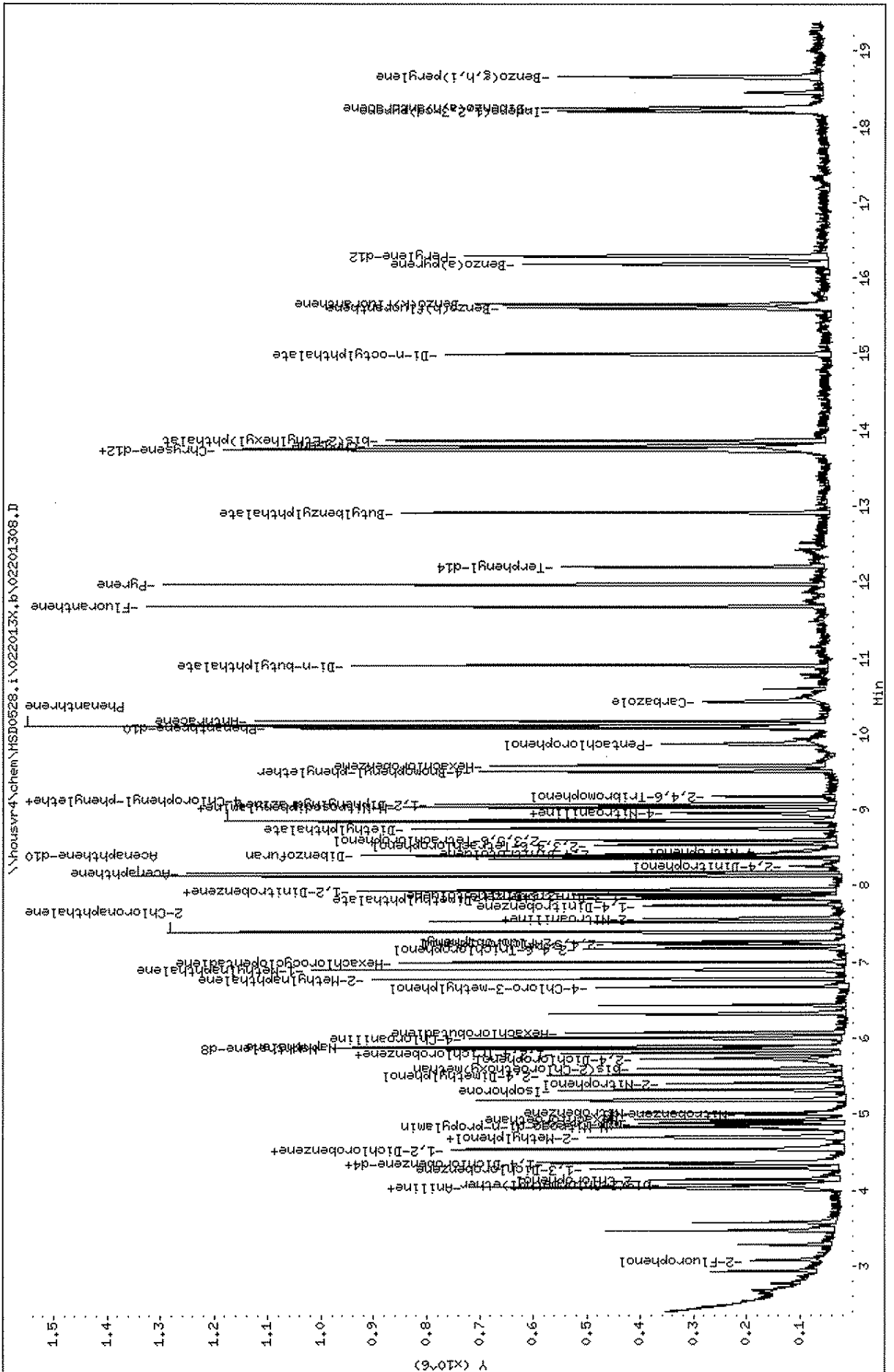
Volume Injected (uL): 1.0

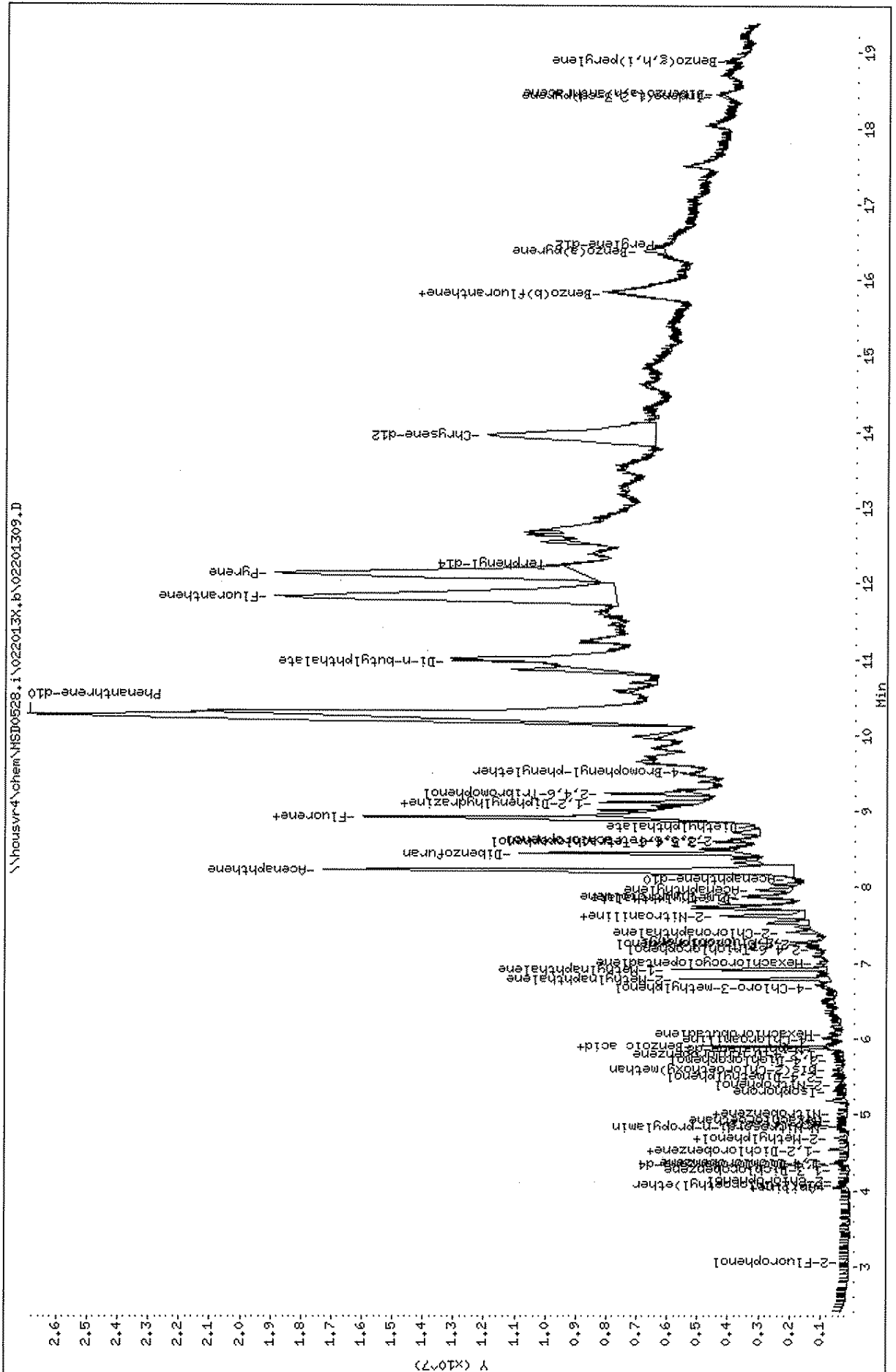
Column phase: RXI-5MS

Instrument: MSD0528.i

Operator: JDH

Column diameter: 0.25





Detection Check Standard

Matrix: Solid
Method: 8260B
Preparation: Wei Shen
Date Analyzed: 9/6/2012
Date Prepared: 9/6/2012
TALs Batches: K24707.D
Units: ug/Kg

Analyte	MDL	DCS Spike	Measured Result	MQL
Dichlorodifluoromethane	1.54	5	2.69	5
Chloromethane	1.66	5	3.99	10
Vinyl Chloride	0.9	2.5	2.91	10
Bromomethane	0.83	2.5	4.5	10
Chloroethane	1.4	2.5	3.06	10
Trichlorofluoromethane	0.66	2.5	2.75	10
Acrolein	6.23	5	42.72	25
1,1-Dichloroethene	1.22	2.5	3.29	5
Trichlorotrifluoromethane	0.66	2.5	3.42	10
Acetone	1.66	5	17.94	10
Methyl Iodide	2.5	5	9.39	5
Carbon Disulfide	0.55	2.5	6.25	10
Acetonitrile	1.39	2.5	5.97	10
Allyl chloride	1.39	2.5	6.27	5
Methylene Chloride	2.19	5	1.79	10
Acrylonitrile	5.82	5	47.18	25
trans-1,2-Dichloroethene	1.14	2.5	3.44	5
Methyl tert-butyl ether	1.83	5	4.17	5
1,1-Dichloroethane	0.87	2.5	3.01	5
Vinyl Acetate	0.93	2.5	4.73	5
Chloroprene	2.71	5	9.57	5
cis-1,2-Dichloroethene	0.83	2.5	3.38	5
1,2-Dichloroethene (total)	1.9	2.5	6.83	10
2,2-Dichloropropane	1.82	5	3.86	5
Propionitrile	2.36	5	5.68	5
2-Butanone (MEK)	1.9	5	10.76	10
Methacrylonitrile	5	5	6.78	5
Bromochloromethane	1.78	5	4.36	5
Chloroform	0.66	2.5	4.84	5
1,1,1-Trichloroethane	0.74	2.5	3.47	5
1,1-Dichloropropene	0.65	2.5	6.23	5
Carbon Tetrachloride	1.13	2.5	3.62	5
Isobutyl alcohol	17.16	5	12.74	5
Benzene	0.63	2.5	3.34	5
1,2-Dichloroethane	0.9	2.5	2.95	5
Trichloroethene	1.4	2.5	2.96	5
1,2-Dichloropropane	0.71	2.5	2.32	5
Methyl methacrylate	2.86	5	5.76	10
Methylene Bromide		2.5	2.37	10

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Bromodichloromethane	0.66	2.5	2.52	5
2-Chloroethyl vinyl ether	0.98	2.5	4.02	10
cis-1,3-Dichloropropene	0.54	2.5	2.41	5
4-Methyl-2-pentanone	1.47	5	5.98	10
Toluene	1.38	2.5	2.72	5
trans-1,3-Dichloropropene	0.58	2.5	2.17	5
Ethyl methacrylate	1.66	5	6.52	5
1,1,2-Trichloroethane	0.73	2.5	2.24	5
1,3-Dichloropropane	0.63	2.5	2.24	5
Tetrachloroethene	1.4	2.5	2.82	5
2-Hexanone	1.01	2.5	4	10
Dibromochloromethane	0.94	2.5	2.25	5
1,2-Dibromoethane	6.54	5	3.06	10
Chlorobenzene	0.96	2.5	2.75	5
1,1,1,2-Tetrachloroethane	1.4	2.5	2.9	5
Ethylbenzene	1.02	2.5	2.93	5
m,p-Xylene	1.52	5	9.39	10
o-Xylene	1.13	2.5	3.24	5
Xylenes (total)	1.13	2.5	9.09	5
Styrene	0.71	2.5	2.13	5
Bromoform	1.37	5	3.52	5
Isopropylbenzene	0.92	2.5	3.21	5
trans-1,4-Dichloro-2-butene	1.9	5	5.77	5
Bromobenzene	0.99	2.5	2.94	5
n-Propylbenzene	0.95	2.5	2.99	5
2-Chlorotoluene	0.68	2.5	3.2	5
4-Chlorotoluene	0.83	2.5	2.73	5
1,3,5-Trimethylbenzene	1.6	5	4.67	5
tert-Butylbenzene	0.95	2.5	3.25	5
1,2,4-Trimethylbenzene	0.92	2.5	2.93	5
sec-Butylbenzene	0.7	2.5	3.31	5
1,3-Dichlorobenzene	0.71	2.5	2.86	5
1,4-Dichlorobenzene	0.66	2.5	3.13	5
1,2-Dichlorobenzene	0.8	2.5	2.77	5
p-Isopropyltoluene	0.63	2.5	3.11	5
n-Butylbenzene	0.58	2.5	3.22	5
1,2-Dibromo-3-chloropropane	2.44	5	3.26	5
1,2,3-Trichloropropane	1.31	5	3.28	5
1,2,4-Trichlorobenzene	1.97	5	4.84	5
Hexachlorobutadiene	1.13	2.5	3.76	5
1,2,3-Trichlorobenzene	0.62	2.5	2.91	5
Naphthalene	2.37	5	3.53	10

Detection Check Standard

Matrix: Water
Method: 8260B_LL
Preparation: Wei Shen
Date Analyzed: 9/6/2012
Date Prepared: 9/6/2012
TALs Batches: A25003.D
Units: ug/L

Analyte	MDL	DCS Spike	Measured Result	MQL
Dichlorodifluoromethane	0.12	0.25	0.223	1
Chloromethane	0.18	0.25	0.25	2
Vinyl Chloride	0.11	0.25	0.322	2
Bromomethane	0.25	0.25	0.365	2
Chloroethane	0.08	0.25	0.295	2
Trichlorofluoromethane	0.08	0.25	0.495	1
Allyl chloride	2	0.25	0.581	2
Acrolein	1.63	0.5	1.85	5
1,1-Dichloroethene	0.19	0.25	0.345	1
trans-1,2-Dichloroethene	0.09	0.25	0.311	1
Trichlorotrifluoroethane	1	0.25	0.372	2
Acetone	0.99	0.5	1.5	2
Methyl Iodide (Iodomethane)	2	0.25	0.644	2
Carbon Disulfide	0.24	0.25	0.731	1
2-Propanol (Isopropyl alcohol)	3.72	0.5	4.68	5
Acetonitrile	0.27	0.25	0.604	1
Methylene Chloride	0.15	0.25	0.0218	1
Methyl tert-butyl ether	0.12	0.25	0.27	1
Vinyl Acetate	0.21	0.25	1.29	1
Acrylonitrile	0.52	0.5	3.64	1
Chloroprene (2-Chloro-1,3-butadiene)	0.33	0.25	0.673	2
Propionitrile	0.66	0.5	5.26	5
cis-1,2-Dichloroethene	0.06	0.25	0.316	1
1,2-Dichloroethene	0.3	0.25	0.627	1
2-Butanone (MEK)	0.76	0.5	1.8	5
Isobutyl alcohol	3.32	0.5	26.58	1
Bromochloromethane	0.18	0.25	0.302	1
Methacrylonitrile	0.41	0.5	0.42	1
Carbon Tetrachloride	0.15	0.25	0.284	5
Benzene	0.08	0.25	0.328	1
1,2-Dichloroethane	0.14	0.25	0.3	1
Trichloroethene	0.13	0.25	0.33	1
1,1,1-Trichloroethane	0.15	0.25	0.286	1
1,1-Dichloroethane	0.11	0.25	0.286	1
1,2-Dichloropropane	0.16	0.25	0.25	1
2,2-Dichloropropane	0.13	0.25	0.329	1
Methylene Bromide (Bromomethane)	0.25	0.25	0.32	1
1,4-Dioxane	30.79	0.5	17.06	50
Methyl methacrylate	0.33	0.25	0.609	1



Bromodichloromethane	0.16	0.25	0.274	1
2-Chloroethyl vinyl ether	0.5	0.25	0.383	1
1,1-Dichloropropene	0.21	0.25	0.837	1
cis-1,3-Dichloropropene	0.18	0.25	0.293	1
4-Methyl-2-pentanone	0.45	0.5	0.846	2
Toluene	0.15	0.25	0.312	1
trans-1,3-Dichloropropene	0.21	0.25	1.02	1
1,1,2-Trichloroethane	0.28	0.25	0.337	1
Tetrachloroethene	0.18	0.25	0.36	1
1,3-Dichloropropane	0.22	0.5	0.513	1
2-Hexanone	0.35	0.5	0.404	
Dibromochloromethane	0.16	0.25	0.877	1
1,2-Dibromoethane (Ethylene bromide)	0.18	0.25	0.324	
Chlorobenzene	0.12	0.25	0.347	1
1,1,1,2-Tetrachloroethane	0.18	0.25	0.257	1
Ethylbenzene	0.11	0.25	0.344	1
m,p-Xylene	0.17	0.25	0.643	2
o-Xylene	0.12	0.25	0.34	1
Xylenes (total)	0.26	0.5	1.44	3
Styrene	0.07	0.25	0.309	1
Bromoform	0.19	0.25	2.09	1
Isopropylbenzene	0.18	0.25	0.291	1
Bromobenzene	0.19	0.25	0.397	1
1,2,3-Trichloropropane	0.29	0.5	0.334	1
1,1,2,2-Tetrachloroethane	0.22	0.5	0.611	1
trans-1,4-Dichloro-2-butene	0.64	0.5	4.13	1
n-Propylbenzene	0.15	0.25	0.29	1
2-Chlorotoluene	0.13	0.25	0.351	1
4-Chlorotoluene	0.14	0.25	0.353	1
1,3,5-Trimethylbenzene	0.1	0.25	0.342	1
tert-Butylbenzene	0.08	0.25	0.349	1
p-Isopropyltoluene	0.1	0.25	0.433	
1,2,4-Trimethylbenzene	0.14	0.25	0.362	1
sec-Butylbenzene	0.12	0.25	0.378	1
1,3-Dichlorobenzene	0.13	0.25	0.555	1
1,4-Dichlorobenzene	0.11	0.25	0.56	1
1,2-Dichlorobenzene	0.1	0.25	0.716	1
n-Butylbenzene	0.16	0.25	0.4	1
1,2-Dibromo-3-chloropropane	0.33	0.25	1.61	
1,2,4-Trichlorobenzene	0.31	0.25	2.3	1
Hexachlorobutadiene	0.17	0.25	1.13	
Naphthalene	0.32	0.5	1.51	1
1,2,3-Trichlorobenzene	0.57	0.5	1.56	1

Quality Control Report

Detection Check Standard

Matrix: Water
 Method: 8270C LL
 Preparation: 3510
 Date Analyzed: 7/3/2012
 Date Prepared: 7/3/2012
 Lab Sample ID: 600-83605_6-a
 File #: MSD3260.i\073012C.b\07301205.D
 Units: ug/L

Analyte	MDL	DCS Spike	DCS Result	MLQ
Aniline	0.08	0.5	0.167	0.5
Phenol	0.04	0.5	0.302	0.5
bis(2-Chloroethyl)ether	0.15	0.5	0.244	0.5
2-Chlorophenol	0.13	0.5	0.344	0.5
1,3-Dichlorobenzene	0.17	0.5	0.362	0.5
1,4-Dichlorobenzene	0.13	0.5		0.5
1,2-Dichlorobenzene	0.17	0.5	0.338	0.5
Benzyl alcohol	0.17	0.5	0.313	0.5
2-Methylphenol	0.12	0.5	0.334	0.5
m&p-Cresols	0.2	0.5	0.254	1
bis (2-Chloroisopropyl) ether	0.15	0.5	0.293	0.5
N-Nitroso-di-n-propylamine	0.1	0.5	0.299	0.5
Hexachloroethane	0.1	0.5	0.321	0.5
Nitrobenzene	0.11	0.5	0.355	0.5
Isophorone	0.11	0.5	0.306	0.5
2-Nitrophenol	0.22	0.5	0.244	0.5
2,4-Dimethylphenol	0.31	0.5	0.115	0.5
bis(2-Chloroethoxy)methane	0.13	0.5	0.286	0.5
2,4-Dichlorophenol	0.15	0.5	0.289	0.5
1,2,4-Trichlorobenzene	0.12	0.5	0.335	0.5
Naphthalene	0.08	0.5	0.314	0.5
4-Chloroaniline	0.21	0.5	0.266	0.5
Hexachlorobutadiene	0.18	0.5	0.36	0.5
4-Chloro-3-methylphenol	0.17	0.5	0.297	0.5
2-Methylnaphthalene	0.07	0.5	0.342	0.5
1-Methylnaphthalene	0.09	0.5	0.328	0.5
Hexachlorocyclopentadiene	0.13	0.5	0.308	0.5
2,4,6-Trichlorophenol	0.18	0.5	0.213	0.5
2,4,5-Trichlorophenol	0.25	0.5	0.224	0.5
2-Chloronaphthalene	0.08	0.5	0.32	0.5
2-Nitroaniline	0.19	0.5	0.401	0.5
1,4 Dinitrobenzene	5	0.5	0.204	0.5
1,3- Dinitrobenzene	0.08	0.5	0.289	0.5
1,2-Dinitrobenzene	0.5	0.5	0.243	0.5
Dimethylphthalate	0.07	0.5	0.317	0.5
Acenaphthylene	0.06	0.5	0.307	0.5
2,6-Dinitrotoluene	0.08	0.5	0.158	0.5
3-Nitroaniline	0.16	0.5	0.431	0.5
Acenaphthene	0.08	0.5	0.338	0.5

4-Nitrophenol	0.56	0.5	0.414	0.5
Dibenzofuran	0.08	0.5	0.332	0.5
2,4-Dinitrotoluene	0.13	0.5	0.183	0.5
2,3,4,6-Tetrachlorophenol	0.5	0.5	0.276	0.5
2,3,5,6-Tetrachlorophenol	0.5	0.5	0.212	0.5
Diethylphthalate	1.5	0.5	0.496	0.5
4-Chlorophenyl-phenylether	0.1	0.5	0.383	0.5
Fluorene	0.07	0.5	0.326	0.5
4-Nitroaniline	0.25	0.5	0.164	0.5
4,6-Dinitro-2-Methylphenol	0.83	0.5	0.329	0.5
N-Nitrosodiphenylamine	0.1	0.5	0.331	0.5
Diphenylamine	0.1	0.5	0.192	0.5
1,2-Diphenylhydrazine	0.11	0.5	0.416	0.5
Azobenzene	0.07	0.5	0.435	0.5
4-Bromophenyl-phenylether	0.1	0.5	0.502	0.5
Hexachlorobenzene	0.11	0.5	0.142	0.5
Phenanthrene	0.06	0.5	0.346	0.5
Anthracene	0.05	0.5	0.31	0.5
Carbazole	0.17	0.5		0.5
Di-n-butylphthalate	0.11	0.5	0.17	0.5
Fluoranthene	0.07	0.5	0.305	0.5
Pyrene	0.11	0.5	0.246	0.5
Butylbenzylphthalate	0.12	0.5	0.222	0.5
3,3'-Dichlorobenzidene	0.18	0.5	0.164	0.5
Benzo(a)anthracene	0.08	0.5	0.321	0.5
Chrysene	0.08	0.5	0.399	0.5
bis(2-Ethylhexyl)phthalate	0.37	0.5	0.241	0.5
Di-n-octylphthalate	0.16	0.5	0.343	0.5
Benzo(b)fluoranthene	0.07	0.5	0.352	0.5
Benzo(k)fluoranthene	0.09	0.5	0.21	0.5
Benzo(a)pyrene	0.08	0.5	0.324	0.5
Indeno(1,2,3-cd)pyrene	0.07	0.5	0.622	0.5
Dibenz(a,h)anthracene	0.08	0.5	0.662	0.5
Benzo(g,h,i)perylene	0.08	0.5	0.528	0.5



Detection Check Standard

Matrix: Soil
Method: 8270_LL
Preparation: TD
Date Analyzed: 7/26/2012
Date Prepared: 7/26/2012
TALs Batches: 300-84246-7-a
Units: ug/Kg

Analyte	MDL	DCS Spike	Measured Result	MQL
N-Nitrosodimethylamine	4.19	15	2.21	16.67
Aniline	2.98	15	2.52	16.67
Phenol	4.24	15	4.81	16.67
bis(2-Chloroethyl) ether	1.65	15	3.72	16.67
2-Chlorophenol	1.97	15	4.97	16.67
1,3-Dichlorobenzene	1.54	15	5.84	16.67
1,4_Dichlorobenzene	2.25	15		16.67
1,2-Dichlorobenzene	3.02	15	4.85	16.67
Benzyl alcohol	5.83	15	4.46	16.67
2-methylphenol	3.23	15	4.19	16.67
m&p-Cresols	2.79	15	4.76	16.67
bis(2-Chloroisopropyl) ether	8.84	15	4.62	16.67
N-Nitro-di-n-propylamine	2.22	15	4.97	16.67
Hexachloroethane	2.31	15	4.03	16.67
Nitrobenzene	2.96	15	5.74	16.67
Isophorone	1	15	4.71	16.67
2-Nitrophenol	3.89	15	4.61	16.67
2,4-Dimethylphenol	8.58	15	4.18	16.67
bis(2-Chloroethoxy) methane	1.42	15	4.53	16.67
2,4-Dichlorophenol	3.87	15	4.18	16.67
1,2,4-Trichlorobenzene	2.1	15	5.44	16.67
Naphthalene	1.35	15	5.16	16.67
4-Chloroaniline	5.82	15	4.57	16.67
Hexachlorobutadiene	1.92	15	4.7	16.67
4-Chloro-3-methylphenol	15.58	15	3.36	16.67
2-Methylnaphthalene	2.74	15	5.04	16.67
1-Methylnaphthalene	1.57	15	4.98	16.67
2,4,6-Trichlorophenol	2.68	15	3.14	16.67
2,4,5-Trichlorophenol	10.01	15	3.37	16.67
2-Chloronaphthalene	1.21	15	5.11	16.67
2-Nitroaniline	4.89	15	10.17	16.67
1,4-Dinitrobenzene	2.25	15	0.796	16.67
1,3-Dinitrobenzene	1.54	15	2.97	16.67
1,2-Dinitrobenzene	3.02	15	0.935	16.67
Dimethylphthalate	4.89	15	4.31	16.67
Acenaphthylene	1	15	4.47	16.67
2,6-Dinitrotoluene	2.95	15	0.577	16.67
3-Nitroaniline	7.15	15	17.44	16.67

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Acenaphthene	1.44	15	4.73	16.67
Dibenzofuran	1.78	15	5.12	16.67
2,4-Dinitrotoluene	3.61	15	2.51	16.67
Diethylphthalate	8.43	15	12.54	16.67
4-Chlorophenyl-phenylether	1.8	15	3.61	16.67
Fluorene	2.36	15	4.27	16.67
4-Nitoraniline	11.15	15	2.96	16.67
4,6-Dinitro-2-methylphenol	4.98	15	5.75	16.67
N-Nitrosodiphenylamine	1.89	15	5.73	16.67
Diphenylamine	1.94	15	2.19	16.67
1,2-Diphenylhydrazine	1.62	15	7.1	16.67
Azobenzene	1.85	15	7.39	16.67
4-Bromophenyl-phenylether	2.84	15	4.54	16.67
Hexachlorobenzene	1.52	15		16.67
Phenanthrene	4.95	15	4.62	16.67
Anthracene	1.28	15	5.7	16.67
Carbazole	3.12	15		16.67
Di-n-butylphthalate	2.59	15	1.49	16.67
Fluoranthene	3.11	15	6.14	16.67
Pyrene	1.83	15	3.72	16.67
Butylbenzylphthalate	6.19	15	3.3	16.67
3,3'-Dichlorobenzidine	10.16	15	3.05	16.67
Benzo(a) anthracene	1.38	15	6.43	16.67
Chrysene	1.02	15	6.23	16.67
bis(2-Ethylhexyl) phthalate	5.37	15	5.98	16.67
Di-n-octylphthalate	1.9	15	8.95	16.67
Benzo(b) fluoranthene	1.72	15	6.47	16.67
Benzo(k) fluoranthene	1.49	15	3.81	16.67
Benzo(a) pyrene	1.61	15	5.93	16.67
Indeo(1,2,3-cd) pyrene	3.5	15	15.14	16.67
Dibenzo(a,h) anthracene	3.63	15	16.4	16.67
Benzo(g,h,i) perylene	5.07	15	12.07	16.67

Detection Check Standard

Matrix: Soil
Method: 6010B
Preparation: 3050
Date Analyzed: 9/27/2012
Date Prepared: 9/26/2012
Instrument: Thermo 6500
TALS Batches: 89675, 89637p
Prep/Reagent Factor = 50
Units: mg/kg

Analyte	MDL	DCS Spike	Measured Result	MQL
Aluminum	0.299654	0.5	0.655	25
Antimony	0.231553	0.45	0.475	2.5
Arsenic	0.217923	0.5	0.505	1
Barium	0.011322	0.03	0.03	1
Beryllium	0.014513	0.02	0.02	0.25
Boron	0.385535	0.6	0.685	20
Cadmium	0.025642	0.05	0.05	0.25
Calcium	0.86399	1.5	3.185	100
Chromium	0.050606	0.1	0.095	0.5
Cobalt	0.067622	0.1	0.095	0.5
Copper	0.173703	0.5	0.55	0.5
Iron	2.534007	4	4.105	20
Lead	0.104832	0.2	0.27	0.5
Selenium	0.258884	0.5	0.595	2
Manganese	0.038111	0.05	0.055	1.5
Molybdenum	0.136448	0.35	0.36	0.5
Nickel	0.116599	0.15	0.155	1
Silver	0.118848	0.2	0.165	0.5
Sodium	0.885548	2.4	2.045	100
Strontium	0.00252	0.005	0.97	0.25
Thallium	0.276988	0.7	0.835	1.5
Tin	0.08729	0.15	0.17	1
Titanium	0.014529	0.03	0.02	0.5
Vanadium	0.079068	0.15	0.145	0.5
Zinc	0.108432	0.2	0.34	1.5

Case Narrative

Client: Pastor, Behling & Wheeler LLC
Project/Site: UPRR HWPW

TestAmerica Job ID: 600-68567-1

Job ID: 600-68567-1

Laboratory: TestAmerica Houston

Narrative

Job Narrative 600-68567-1

Comments

No additional comments.

Receipt

The samples were received on 2/13/2013 4:58 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 2.3° C.

Metals

Method(s) 6010B: The following sample(s) required filtration to reduce matrix interferences: (600-68567-1 DU), (600-68567-1 MS), (600-68567-1 MSD), SO-1620-IM-CPT-11-13 (10-12.5)-20130212 (600-68567-1), SO-1620-IM-CPT-12-13 (15-15.9)-20130213 (600-68567-9), SO-1620-IM-CPT-12-13 (2.5-5)-20130213 (600-68567-7), SO-1620-IM-CPT-12-13 (5-7.5)-20130213 (600-68567-8), SO-1620-IM-CPT-13-13 (1.5-2.5)-20130213 (600-68567-4), SO-1620-IM-CPT-13-13 (15-17.2)-20130213 (600-68567-6), SO-1620-IM-CPT-13-13 (5-7.5)-20130213 (600-68567-5), SO-1620-IM-CPT-16-13 (1.9-5)-20130213 (600-68567-10), SO-1620-IM-CPT-16-13 (10-12.5)-20130213 (600-68567-11), SO-1620-IM-CPT-16-13 (15-17.5)-20130213 (600-68567-12), SO-1620-IM-CPT-Dup1-13-20130212 (600-68567-2).

Organic Prep

Method(s) 3550B: Due to the matrix, the following sample(s) could not be concentrated to the final method required volume: SO-1620-IM-CPT-12-13 (2.5-5)-20130213 (600-68567-7). The SDLs are elevated proportionately.

Method(s) 3550B: The final extract for the MSD was much darker (black) than that of the initial sample and the MS (light yellow). There is a possibility that some creosote and/or tar was inadvertently added from the soil jar for the MSD, causing it's difference in color.

Method Summary

Client: Pastor, Behling & Wheeler LLC
Project/Site: UPRR HWPW

TestAmerica Job ID: 600-68567-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL HOU
8270C LL	Semivolatile Organic Compounds by GCMS - Low Levels	SW846	TAL HOU
6010B	Metals (ICP)	SW846	TAL HOU
Moisture	Percent Moisture	EPA	TAL HOU

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL HOU = TestAmerica Houston, 6310 Rothway Street, Houston, TX 77040, TEL (713)690-4444



Sample Summary

Client: Pastor, Behling & Wheeler LLC
Project/Site: UPRR HWPW

TestAmerica Job ID: 600-68567-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
600-68567-1	SO-1620-IM-CPT-11-13 (10-12.5)-20130212	Solid	02/12/13 15:10	02/13/13 16:58
600-68567-2	SO-1620-IM-CPT-Dup1-13-20130212	Solid	02/12/13 15:20	02/13/13 16:58
600-68567-3	WG-1620-IM-CPT-09-13A-20130213	Water	02/13/13 09:00	02/13/13 16:58
600-68567-4	SO-1620-IM-CPT-13-13 (1.5-2.5)-20130213	Solid	02/13/13 12:45	02/13/13 16:58
600-68567-5	SO-1620-IM-CPT-13-13 (5-7.5)-20130213	Solid	02/13/13 12:55	02/13/13 16:58
600-68567-6	SO-1620-IM-CPT-13-13 (15-17.2)-20130213	Solid	02/13/13 13:05	02/13/13 16:58
600-68567-7	SO-1620-IM-CPT-12-13 (2.5-5)-20130213	Solid	02/13/13 13:55	02/13/13 16:58
600-68567-8	SO-1620-IM-CPT-12-13 (5-7.5)-20130213	Solid	02/13/13 14:10	02/13/13 16:58
600-68567-9	SO-1620-IM-CPT-12-13 (15-15.9)-20130213	Solid	02/13/13 14:20	02/13/13 16:58
600-68567-10	SO-1620-IM-CPT-16-13 (1.9-5)-20130213	Solid	02/13/13 15:00	02/13/13 16:58
600-68567-11	SO-1620-IM-CPT-16-13 (10-12.5)-20130213	Solid	02/13/13 15:20	02/13/13 16:58
600-68567-12	SO-1620-IM-CPT-16-13 (15-17.5)-20130213	Solid	02/13/13 15:35	02/13/13 16:58

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: UPRR HWPW

TestAmerica Job ID: 600-68567-1

Client Sample ID: SO-1620-IM-CPT-11-13 (10-12.5)-20130212

Lab Sample ID: 600-68567-1

Date Collected: 02/12/13 15:10

Matrix: Solid

Date Received: 02/13/13 16:58

Percent Solids: 84.4

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	0.00290	J b	0.0118	0.00259	mg/Kg	✪		02/14/13 14:09	1
Benzene	0.000746	U	0.00592	0.000746	mg/Kg	✪		02/14/13 14:09	1
1,2-Dichloroethane	0.00107	U	0.00592	0.00107	mg/Kg	✪		02/14/13 14:09	1
Toluene	0.00163	U	0.00592	0.00163	mg/Kg	✪		02/14/13 14:09	1
Chlorobenzene	0.00114	U	0.00592	0.00114	mg/Kg	✪		02/14/13 14:09	1
Ethylbenzene	0.00121	U	0.00592	0.00121	mg/Kg	✪		02/14/13 14:09	1
Xylenes, Total	0.00134	U	0.00592	0.00134	mg/Kg	✪		02/14/13 14:09	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	101		61 - 130					02/14/13 14:09	1
Dibromofluoromethane	81		68 - 140					02/14/13 14:09	1
Toluene-d8 (Surr)	117		50 - 130					02/14/13 14:09	1
4-Bromofluorobenzene	117		57 - 140					02/14/13 14:09	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.00502	U	0.0197	0.00502	mg/Kg	✪	02/14/13 13:04	02/21/13 18:14	1
Nitrobenzene	0.00350	U	0.0197	0.00350	mg/Kg	✪	02/14/13 13:04	02/21/13 18:14	1
2,4-Dimethylphenol	0.0102	U	0.0197	0.0102	mg/Kg	✪	02/14/13 13:04	02/21/13 18:14	1
Bis(2-chloroethoxy)methane	0.00168	U	0.0197	0.00168	mg/Kg	✪	02/14/13 13:04	02/21/13 18:14	1
Naphthalene	0.00160	U	0.0197	0.00160	mg/Kg	✪	02/14/13 13:04	02/21/13 18:14	1
2-Methylnaphthalene	0.00324	U	0.0197	0.00324	mg/Kg	✪	02/14/13 13:04	02/21/13 18:14	1
2-Chloronaphthalene	0.00143	U	0.0197	0.00143	mg/Kg	✪	02/14/13 13:04	02/21/13 18:14	1
Acenaphthylene	0.00118	U	0.0197	0.00118	mg/Kg	✪	02/14/13 13:04	02/21/13 18:14	1
2,6-Dinitrotoluene	0.0219		0.0197	0.00349	mg/Kg	✪	02/14/13 13:04	02/21/13 18:14	1
Acenaphthene	0.00170	U	0.0197	0.00170	mg/Kg	✪	02/14/13 13:04	02/21/13 18:14	1
4-Nitrophenol	0.00601	U	0.0197	0.00601	mg/Kg	✪	02/14/13 13:04	02/21/13 18:14	1
Dibenzofuran	0.00211	U	0.0197	0.00211	mg/Kg	✪	02/14/13 13:04	02/21/13 18:14	1
2,4-Dinitrotoluene	0.0261		0.0197	0.00427	mg/Kg	✪	02/14/13 13:04	02/21/13 18:14	1
Fluorene	0.00462	J	0.0197	0.00279	mg/Kg	✪	02/14/13 13:04	02/21/13 18:14	1
4,6-Dinitro-2-methylphenol	0.00590	U	0.0197	0.00590	mg/Kg	✪	02/14/13 13:04	02/21/13 18:14	1
N-Nitrosodiphenylamine	0.00224	U	0.0197	0.00224	mg/Kg	✪	02/14/13 13:04	02/21/13 18:14	1
1,2-Diphenylhydrazine	0.00192	U	0.0197	0.00192	mg/Kg	✪	02/14/13 13:04	02/21/13 18:14	1
Pentachlorophenol	0.00474	U	0.198	0.00474	mg/Kg	✪	02/14/13 13:04	02/21/13 18:14	1
Phenanthrene	0.0198		0.0197	0.00586	mg/Kg	✪	02/14/13 13:04	02/21/13 18:14	1
Anthracene	0.0143	J	0.0197	0.00152	mg/Kg	✪	02/14/13 13:04	02/21/13 18:14	1
Di-n-butyl phthalate	0.00307	U	0.0789	0.00307	mg/Kg	✪	02/14/13 13:04	02/21/13 18:14	1
Fluoranthene	0.00368	U	0.0197	0.00368	mg/Kg	✪	02/14/13 13:04	02/21/13 18:14	1
Pyrene	0.0114	J	0.0197	0.00217	mg/Kg	✪	02/14/13 13:04	02/21/13 18:14	1
Benzo[a]anthracene	0.00403	J	0.0197	0.00163	mg/Kg	✪	02/14/13 13:04	02/21/13 18:14	1
Bis(2-ethylhexyl) phthalate	0.0227	J	0.0789	0.00636	mg/Kg	✪	02/14/13 13:04	02/21/13 18:14	1
Chrysene	0.00383	J	0.0197	0.00121	mg/Kg	✪	02/14/13 13:04	02/21/13 18:14	1
Benzo[a]pyrene	0.00191	U	0.0197	0.00191	mg/Kg	✪	02/14/13 13:04	02/21/13 18:14	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorophenol	68		23 - 108				02/14/13 13:04	02/21/13 18:14	1
Phenol-d6	71		26 - 108				02/14/13 13:04	02/21/13 18:14	1
Nitrobenzene-d5	73		34 - 118				02/14/13 13:04	02/21/13 18:14	1
2-Fluorobiphenyl	96		51 - 109				02/14/13 13:04	02/21/13 18:14	1
2,4,6-Tribromophenol	79		34 - 122				02/14/13 13:04	02/21/13 18:14	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: UPRR HWPW

TestAmerica Job ID: 600-68567-1

Client Sample ID: SO-1620-IM-CPT-11-13 (10-12.5)-20130212

Lab Sample ID: 600-68567-1

Date Collected: 02/12/13 15:10

Matrix: Solid

Date Received: 02/13/13 16:58

Percent Solids: 84.4

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Terphenyl-d14	90		56 - 123	02/14/13 13:04	02/21/13 18:14	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	7.66		1.12	0.244	mg/Kg	☼	02/19/13 12:08	02/20/13 11:51	1
Lead	9.28		0.559	0.117	mg/Kg	☼	02/19/13 12:08	02/20/13 11:51	1

General Chemistry

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	16		1.0	1.0	%			02/14/13 15:11	1
Percent Solids	84		1.0	1.0	%			02/14/13 15:11	1

Client Sample ID: SO-1620-IM-CPT-Dup1-13-20130212

Lab Sample ID: 600-68567-2

Date Collected: 02/12/13 15:20

Matrix: Solid

Date Received: 02/13/13 16:58

Percent Solids: 86.4

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	0.00253	U	0.0116	0.00253	mg/Kg	☼		02/14/13 14:32	1
Benzene	0.000729	U	0.00579	0.000729	mg/Kg	☼		02/14/13 14:32	1
1,2-Dichloroethane	0.00413	J	0.00579	0.00104	mg/Kg	☼		02/14/13 14:32	1
Toluene	0.00160	U	0.00579	0.00160	mg/Kg	☼		02/14/13 14:32	1
Chlorobenzene	0.00111	U	0.00579	0.00111	mg/Kg	☼		02/14/13 14:32	1
Ethylbenzene	0.00118	U	0.00579	0.00118	mg/Kg	☼		02/14/13 14:32	1
Xylenes, Total	0.00131	U	0.00579	0.00131	mg/Kg	☼		02/14/13 14:32	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	101		61 - 130		02/14/13 14:32	1
Dibromofluoromethane	79		68 - 140		02/14/13 14:32	1
Toluene-d8 (Surr)	112		50 - 130		02/14/13 14:32	1
4-Bromofluorobenzene	114		57 - 140		02/14/13 14:32	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.00490	U	0.0193	0.00490	mg/Kg	☼	02/14/13 13:04	02/21/13 18:40	1
Nitrobenzene	0.00342	U	0.0193	0.00342	mg/Kg	☼	02/14/13 13:04	02/21/13 18:40	1
2,4-Dimethylphenol	0.00992	U	0.0193	0.00992	mg/Kg	☼	02/14/13 13:04	02/21/13 18:40	1
Bis(2-chloroethoxy)methane	0.00164	U	0.0193	0.00164	mg/Kg	☼	02/14/13 13:04	02/21/13 18:40	1
Naphthalene	0.00156	U	0.0193	0.00156	mg/Kg	☼	02/14/13 13:04	02/21/13 18:40	1
2-Methylnaphthalene	0.00317	U	0.0193	0.00317	mg/Kg	☼	02/14/13 13:04	02/21/13 18:40	1
2-Chloronaphthalene	0.00140	U	0.0193	0.00140	mg/Kg	☼	02/14/13 13:04	02/21/13 18:40	1
Acenaphthylene	0.00116	U	0.0193	0.00116	mg/Kg	☼	02/14/13 13:04	02/21/13 18:40	1
2,6-Dinitrotoluene	0.0299		0.0193	0.00341	mg/Kg	☼	02/14/13 13:04	02/21/13 18:40	1
Acenaphthene	0.00167	U	0.0193	0.00167	mg/Kg	☼	02/14/13 13:04	02/21/13 18:40	1
4-Nitrophenol	0.00588	U	0.0193	0.00588	mg/Kg	☼	02/14/13 13:04	02/21/13 18:40	1
Dibenzofuran	0.00206	U	0.0193	0.00206	mg/Kg	☼	02/14/13 13:04	02/21/13 18:40	1
2,4-Dinitrotoluene	0.0391		0.0193	0.00418	mg/Kg	☼	02/14/13 13:04	02/21/13 18:40	1
Fluorene	0.00273	U	0.0193	0.00273	mg/Kg	☼	02/14/13 13:04	02/21/13 18:40	1
4,6-Dinitro-2-methylphenol	0.00576	U	0.0193	0.00576	mg/Kg	☼	02/14/13 13:04	02/21/13 18:40	1
N-Nitrosodiphenylamine	0.00219	U	0.0193	0.00219	mg/Kg	☼	02/14/13 13:04	02/21/13 18:40	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: UPRR HWPW

TestAmerica Job ID: 600-68567-1

Client Sample ID: SO-1620-IM-CPT-Dup1-13-20130212

Lab Sample ID: 600-68567-2

Date Collected: 02/12/13 15:20

Matrix: Solid

Date Received: 02/13/13 16:58

Percent Solids: 86.4

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Diphenylhydrazine	0.00187	U	0.0193	0.00187	mg/Kg	☼	02/14/13 13:04	02/21/13 18:40	1
Pentachlorophenol	0.00463	U	0.193	0.00463	mg/Kg	☼	02/14/13 13:04	02/21/13 18:40	1
Phenanthrene	0.00573	U	0.0193	0.00573	mg/Kg	☼	02/14/13 13:04	02/21/13 18:40	1
Anthracene	0.00148	U	0.0193	0.00148	mg/Kg	☼	02/14/13 13:04	02/21/13 18:40	1
Di-n-butyl phthalate	0.00300	U	0.0771	0.00300	mg/Kg	☼	02/14/13 13:04	02/21/13 18:40	1
Fluoranthene	0.00360	U	0.0193	0.00360	mg/Kg	☼	02/14/13 13:04	02/21/13 18:40	1
Pyrene	0.00212	U	0.0193	0.00212	mg/Kg	☼	02/14/13 13:04	02/21/13 18:40	1
Benzo[a]anthracene	0.00160	U	0.0193	0.00160	mg/Kg	☼	02/14/13 13:04	02/21/13 18:40	1
Bis(2-ethylhexyl) phthalate	0.00621	U	0.0771	0.00621	mg/Kg	☼	02/14/13 13:04	02/21/13 18:40	1
Chrysene	0.00118	U	0.0193	0.00118	mg/Kg	☼	02/14/13 13:04	02/21/13 18:40	1
Benzo[a]pyrene	0.00186	U	0.0193	0.00186	mg/Kg	☼	02/14/13 13:04	02/21/13 18:40	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	83		23 - 108	02/14/13 13:04	02/21/13 18:40	1
Phenol-d6	80		26 - 108	02/14/13 13:04	02/21/13 18:40	1
Nitrobenzene-d5	83		34 - 118	02/14/13 13:04	02/21/13 18:40	1
2-Fluorobiphenyl	112	X	51 - 109	02/14/13 13:04	02/21/13 18:40	1
2,4,6-Tribromophenol	74		34 - 122	02/14/13 13:04	02/21/13 18:40	1
Terphenyl-d14	93		56 - 123	02/14/13 13:04	02/21/13 18:40	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	8.78		1.08	0.236	mg/Kg	☼	02/19/13 12:08	02/20/13 10:41	1
Lead	9.40		0.541	0.113	mg/Kg	☼	02/19/13 12:08	02/20/13 10:41	1

General Chemistry

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	14		1.0	1.0	%			02/14/13 15:11	1
Percent Solids	86		1.0	1.0	%			02/14/13 15:11	1

Client Sample ID: WG-1620-IM-CPT-09-13A-20130213

Lab Sample ID: 600-68567-3

Date Collected: 02/13/13 09:00

Matrix: Water

Date Received: 02/13/13 16:58

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			02/14/13 21:21	1
Benzene	0.0399		0.00100	0.0000800	mg/L			02/14/13 21:21	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			02/14/13 21:21	1
Toluene	0.000888	J	0.00100	0.000150	mg/L			02/14/13 21:21	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			02/14/13 21:21	1
Ethylbenzene	0.00646		0.00100	0.000110	mg/L			02/14/13 21:21	1
Xylenes, Total	0.0146		0.00300	0.000260	mg/L			02/14/13 21:21	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	104		67 - 139		02/14/13 21:21	1
Dibromofluoromethane	74		62 - 130		02/14/13 21:21	1
Toluene-d8 (Surr)	82		70 - 130		02/14/13 21:21	1
1,2-Dichloroethane-d4 (Surr)	82		50 - 134		02/14/13 21:21	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: UPRR HWPW

TestAmerica Job ID: 600-68567-1

Client Sample ID: WG-1620-IM-CPT-09-13A-20130213

Lab Sample ID: 600-68567-3

Date Collected: 02/13/13 09:00

Matrix: Water

Date Received: 02/13/13 16:58

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.00189	U	0.0236	0.00189	mg/L		02/15/13 15:28	02/19/13 18:32	50
Nitrobenzene	0.00519	U	0.0236	0.00519	mg/L		02/15/13 15:28	02/19/13 18:32	50
2,4-Dimethylphenol	0.0146	U	0.0236	0.0146	mg/L		02/15/13 15:28	02/19/13 18:32	50
Bis(2-chloroethoxy)methane	0.00613	U	0.0236	0.00613	mg/L		02/15/13 15:28	02/19/13 18:32	50
Naphthalene	0.0609	J b	0.236	0.00377	mg/L		02/15/13 15:28	02/19/13 18:32	50
2-Methylnaphthalene	0.338		0.0236	0.00330	mg/L		02/15/13 15:28	02/19/13 18:32	50
2-Chloronaphthalene	0.00377	U	0.0236	0.00377	mg/L		02/15/13 15:28	02/19/13 18:32	50
Acenaphthylene	0.00283	U	0.0236	0.00283	mg/L		02/15/13 15:28	02/19/13 18:32	50
2,6-Dinitrotoluene	0.00377	U	0.0236	0.00377	mg/L		02/15/13 15:28	02/19/13 18:32	50
Acenaphthene	0.224		0.0236	0.00377	mg/L		02/15/13 15:28	02/19/13 18:32	50
4-Nitrophenol	0.0264	U	0.0472	0.0264	mg/L		02/15/13 15:28	02/19/13 18:32	50
Dibenzofuran	0.0720		0.0236	0.00377	mg/L		02/15/13 15:28	02/19/13 18:32	50
2,4-Dinitrotoluene	0.00613	U	0.0236	0.00613	mg/L		02/15/13 15:28	02/19/13 18:32	50
Fluorene	0.121		0.0236	0.00330	mg/L		02/15/13 15:28	02/19/13 18:32	50
4,6-Dinitro-2-methylphenol	0.0392	U	0.0472	0.0392	mg/L		02/15/13 15:28	02/19/13 18:32	50
N-Nitrosodiphenylamine	0.00472	U	0.0236	0.00472	mg/L		02/15/13 15:28	02/19/13 18:32	50
1,2-Diphenylhydrazine	0.00519	U	0.0236	0.00519	mg/L		02/15/13 15:28	02/19/13 18:32	50
Pentachlorophenol	0.0288	U	0.0472	0.0288	mg/L		02/15/13 15:28	02/19/13 18:32	50
Phenanthrene	0.101		0.0236	0.00283	mg/L		02/15/13 15:28	02/19/13 18:32	50
Anthracene	0.0184	J	0.0236	0.00236	mg/L		02/15/13 15:28	02/19/13 18:32	50
Di-n-butyl phthalate	0.00519	U	0.0236	0.00519	mg/L		02/15/13 15:28	02/19/13 18:32	50
Fluoranthene	0.00330	U	0.0236	0.00330	mg/L		02/15/13 15:28	02/19/13 18:32	50
Pyrene	0.0102	J	0.0236	0.00519	mg/L		02/15/13 15:28	02/19/13 18:32	50
Benzo[a]anthracene	0.00377	U	0.0236	0.00377	mg/L		02/15/13 15:28	02/19/13 18:32	50
Bis(2-ethylhexyl) phthalate	0.0175	U	0.0236	0.0175	mg/L		02/15/13 15:28	02/19/13 18:32	50
Chrysene	0.00377	U	0.0236	0.00377	mg/L		02/15/13 15:28	02/19/13 18:32	50
Benzo[a]pyrene	0.00377	U	0.0236	0.00377	mg/L		02/15/13 15:28	02/19/13 18:32	50

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Phenol-d6	0	X	10 - 94	02/15/13 15:28	02/19/13 18:32	50
2,4,6-Tribromophenol	0	X	10 - 123	02/15/13 15:28	02/19/13 18:32	50
2-Fluorobiphenyl	0	X	43 - 116	02/15/13 15:28	02/19/13 18:32	50
2-Fluorophenol	0	X	10 - 100	02/15/13 15:28	02/19/13 18:32	50
Nitrobenzene-d5	0	X	35 - 114	02/15/13 15:28	02/19/13 18:32	50
Terphenyl-d14	0	X	33 - 141	02/15/13 15:28	02/19/13 18:32	50

Client Sample ID: SO-1620-IM-CPT-13-13 (1.5-2.5)-20130213

Lab Sample ID: 600-68567-4

Date Collected: 02/13/13 12:45

Matrix: Solid

Date Received: 02/13/13 16:58

Percent Solids: 77.6

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	0.00282	U	0.0129	0.00282	mg/Kg	☼		02/14/13 20:03	1
Benzene	0.000811	U	0.00644	0.000811	mg/Kg	☼		02/14/13 20:03	1
1,2-Dichloroethane	0.00461	J	0.00644	0.00116	mg/Kg	☼		02/14/13 20:03	1
Toluene	0.00178	U	0.00644	0.00178	mg/Kg	☼		02/14/13 20:03	1
Chlorobenzene	0.00124	U	0.00644	0.00124	mg/Kg	☼		02/14/13 20:03	1
Ethylbenzene	0.00131	U	0.00644	0.00131	mg/Kg	☼		02/14/13 20:03	1
Xylenes, Total	0.00146	U	0.00644	0.00146	mg/Kg	☼		02/14/13 20:03	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: UPRR HWPW

TestAmerica Job ID: 600-68567-1

Client Sample ID: SO-1620-IM-CPT-13-13 (1.5-2.5)-20130213

Lab Sample ID: 600-68567-4

Date Collected: 02/13/13 12:45

Matrix: Solid

Date Received: 02/13/13 16:58

Percent Solids: 77.6

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	110		61 - 130		02/14/13 20:03	1
Dibromofluoromethane	87		68 - 140		02/14/13 20:03	1
Toluene-d8 (Surr)	121		50 - 130		02/14/13 20:03	1
4-Bromofluorobenzene	126		57 - 140		02/14/13 20:03	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.546	U	2.15	0.546	mg/Kg	☼	02/14/13 13:04	02/21/13 19:07	100
Nitrobenzene	0.381	U	2.15	0.381	mg/Kg	☼	02/14/13 13:04	02/21/13 19:07	100
2,4-Dimethylphenol	1.10	U	2.15	1.10	mg/Kg	☼	02/14/13 13:04	02/21/13 19:07	100
Bis(2-chloroethoxy)methane	0.183	U	2.15	0.183	mg/Kg	☼	02/14/13 13:04	02/21/13 19:07	100
Naphthalene	0.174	U	2.15	0.174	mg/Kg	☼	02/14/13 13:04	02/21/13 19:07	100
2-Methylnaphthalene	0.353	U	2.15	0.353	mg/Kg	☼	02/14/13 13:04	02/21/13 19:07	100
2-Chloronaphthalene	0.156	U	2.15	0.156	mg/Kg	☼	02/14/13 13:04	02/21/13 19:07	100
Acenaphthylene	0.129	U	2.15	0.129	mg/Kg	☼	02/14/13 13:04	02/21/13 19:07	100
2,6-Dinitrotoluene	0.380	U	2.15	0.380	mg/Kg	☼	02/14/13 13:04	02/21/13 19:07	100
Acenaphthene	0.185	U	2.15	0.185	mg/Kg	☼	02/14/13 13:04	02/21/13 19:07	100
4-Nitrophenol	0.654	U	2.15	0.654	mg/Kg	☼	02/14/13 13:04	02/21/13 19:07	100
Dibenzofuran	0.229	U	2.15	0.229	mg/Kg	☼	02/14/13 13:04	02/21/13 19:07	100
2,4-Dinitrotoluene	0.465	U	2.15	0.465	mg/Kg	☼	02/14/13 13:04	02/21/13 19:07	100
Fluorene	0.304	U	2.15	0.304	mg/Kg	☼	02/14/13 13:04	02/21/13 19:07	100
4,6-Dinitro-2-methylphenol	0.641	U	2.15	0.641	mg/Kg	☼	02/14/13 13:04	02/21/13 19:07	100
N-Nitrosodiphenylamine	0.243	U	2.15	0.243	mg/Kg	☼	02/14/13 13:04	02/21/13 19:07	100
1,2-Diphenylhydrazine	0.209	U	2.15	0.209	mg/Kg	☼	02/14/13 13:04	02/21/13 19:07	100
Pentachlorophenol	0.515	U	2.15	0.515	mg/Kg	☼	02/14/13 13:04	02/21/13 19:07	100
Phenanthrene	0.674	J	2.15	0.637	mg/Kg	☼	02/14/13 13:04	02/21/13 19:07	100
Anthracene	0.368	J	2.15	0.165	mg/Kg	☼	02/14/13 13:04	02/21/13 19:07	100
Di-n-butyl phthalate	0.333	U	8.59	0.333	mg/Kg	☼	02/14/13 13:04	02/21/13 19:07	100
Fluoranthene	2.11	J	2.15	0.400	mg/Kg	☼	02/14/13 13:04	02/21/13 19:07	100
Pyrene	3.13		2.15	0.236	mg/Kg	☼	02/14/13 13:04	02/21/13 19:07	100
Benzo[a]anthracene	1.08	J	2.15	0.178	mg/Kg	☼	02/14/13 13:04	02/21/13 19:07	100
Bis(2-ethylhexyl) phthalate	12.7		8.59	0.691	mg/Kg	☼	02/14/13 13:04	02/21/13 19:07	100
Chrysene	1.35	J	2.15	0.131	mg/Kg	☼	02/14/13 13:04	02/21/13 19:07	100
Benzo[a]pyrene	1.88	J	2.15	0.207	mg/Kg	☼	02/14/13 13:04	02/21/13 19:07	100

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	0	X	23 - 108	02/14/13 13:04	02/21/13 19:07	100
Phenol-d6	0	X	26 - 108	02/14/13 13:04	02/21/13 19:07	100
Nitrobenzene-d5	0	X	34 - 118	02/14/13 13:04	02/21/13 19:07	100
2-Fluorobiphenyl	0	X	51 - 109	02/14/13 13:04	02/21/13 19:07	100
2,4,6-Tribromophenol	0	X	34 - 122	02/14/13 13:04	02/21/13 19:07	100
Terphenyl-d14	0	X	56 - 123	02/14/13 13:04	02/21/13 19:07	100

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	27.0		1.24	0.270	mg/Kg	☼	02/19/13 12:08	02/20/13 10:43	1
Lead	2360		0.619	0.130	mg/Kg	☼	02/19/13 12:08	02/20/13 10:43	1

General Chemistry

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	22		1.0	1.0	%			02/14/13 15:11	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: UPRR HWPW

TestAmerica Job ID: 600-68567-1

Client Sample ID: SO-1620-IM-CPT-13-13 (1.5-2.5)-20130213

Lab Sample ID: 600-68567-4

Date Collected: 02/13/13 12:45

Matrix: Solid

Date Received: 02/13/13 16:58

General Chemistry (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	78		1.0	1.0	%			02/14/13 15:11	1

Client Sample ID: SO-1620-IM-CPT-13-13 (5-7.5)-20130213

Lab Sample ID: 600-68567-5

Date Collected: 02/13/13 12:55

Matrix: Solid

Date Received: 02/13/13 16:58

Percent Solids: 83.9

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	0.00474	J b	0.0119	0.00261	mg/Kg	☼		02/14/13 16:31	1
Benzene	0.000751	U	0.00596	0.000751	mg/Kg	☼		02/14/13 16:31	1
1,2-Dichloroethane	0.00107	U	0.00596	0.00107	mg/Kg	☼		02/14/13 16:31	1
Toluene	0.00164	U	0.00596	0.00164	mg/Kg	☼		02/14/13 16:31	1
Chlorobenzene	0.00114	U	0.00596	0.00114	mg/Kg	☼		02/14/13 16:31	1
Ethylbenzene	0.00122	U	0.00596	0.00122	mg/Kg	☼		02/14/13 16:31	1
Xylenes, Total	0.00135	U	0.00596	0.00135	mg/Kg	☼		02/14/13 16:31	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	93		61 - 130					02/14/13 16:31	1
Dibromofluoromethane	81		68 - 140					02/14/13 16:31	1
Toluene-d8 (Surr)	116		50 - 130					02/14/13 16:31	1
4-Bromofluorobenzene	112		57 - 140					02/14/13 16:31	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.252	U	0.991	0.252	mg/Kg	☼	02/14/13 13:04	02/21/13 19:34	50
Nitrobenzene	0.176	U	0.991	0.176	mg/Kg	☼	02/14/13 13:04	02/21/13 19:34	50
2,4-Dimethylphenol	0.510	U	0.991	0.510	mg/Kg	☼	02/14/13 13:04	02/21/13 19:34	50
Bis(2-chloroethoxy)methane	0.0844	U	0.991	0.0844	mg/Kg	☼	02/14/13 13:04	02/21/13 19:34	50
Naphthalene	0.0802	U	0.991	0.0802	mg/Kg	☼	02/14/13 13:04	02/21/13 19:34	50
2-Methylnaphthalene	0.163	U	0.991	0.163	mg/Kg	☼	02/14/13 13:04	02/21/13 19:34	50
2-Chloronaphthalene	0.0719	U	0.991	0.0719	mg/Kg	☼	02/14/13 13:04	02/21/13 19:34	50
Acenaphthylene	0.0594	U	0.991	0.0594	mg/Kg	☼	02/14/13 13:04	02/21/13 19:34	50
2,6-Dinitrotoluene	0.175	U	0.991	0.175	mg/Kg	☼	02/14/13 13:04	02/21/13 19:34	50
Acenaphthene	0.0856	U	0.991	0.0856	mg/Kg	☼	02/14/13 13:04	02/21/13 19:34	50
4-Nitrophenol	0.302	U	0.991	0.302	mg/Kg	☼	02/14/13 13:04	02/21/13 19:34	50
Dibenzofuran	0.106	U	0.991	0.106	mg/Kg	☼	02/14/13 13:04	02/21/13 19:34	50
2,4-Dinitrotoluene	0.215	U	0.991	0.215	mg/Kg	☼	02/14/13 13:04	02/21/13 19:34	50
Fluorene	0.140	U	0.991	0.140	mg/Kg	☼	02/14/13 13:04	02/21/13 19:34	50
4,6-Dinitro-2-methylphenol	0.296	U	0.991	0.296	mg/Kg	☼	02/14/13 13:04	02/21/13 19:34	50
N-Nitrosodiphenylamine	0.112	U	0.991	0.112	mg/Kg	☼	02/14/13 13:04	02/21/13 19:34	50
1,2-Diphenylhydrazine	0.0963	U	0.991	0.0963	mg/Kg	☼	02/14/13 13:04	02/21/13 19:34	50
Pentachlorophenol	0.238	U	9.92	0.238	mg/Kg	☼	02/14/13 13:04	02/21/13 19:34	50
Phenanthrene	0.294	U	0.991	0.294	mg/Kg	☼	02/14/13 13:04	02/21/13 19:34	50
Anthracene	0.0761	U	0.991	0.0761	mg/Kg	☼	02/14/13 13:04	02/21/13 19:34	50
Di-n-butyl phthalate	0.154	U	3.96	0.154	mg/Kg	☼	02/14/13 13:04	02/21/13 19:34	50
Fluoranthene	0.185	U	0.991	0.185	mg/Kg	☼	02/14/13 13:04	02/21/13 19:34	50
Pyrene	0.109	U	0.991	0.109	mg/Kg	☼	02/14/13 13:04	02/21/13 19:34	50
Benzo[a]anthracene	0.0820	U	0.991	0.0820	mg/Kg	☼	02/14/13 13:04	02/21/13 19:34	50
Bis(2-ethylhexyl) phthalate	0.319	U	3.96	0.319	mg/Kg	☼	02/14/13 13:04	02/21/13 19:34	50
Chrysene	0.0606	U	0.991	0.0606	mg/Kg	☼	02/14/13 13:04	02/21/13 19:34	50

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: UPRR HWPW

TestAmerica Job ID: 600-68567-1

Client Sample ID: SO-1620-IM-CPT-13-13 (5-7.5)-20130213

Lab Sample ID: 600-68567-5

Date Collected: 02/13/13 12:55

Matrix: Solid

Date Received: 02/13/13 16:58

Percent Solids: 83.9

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]pyrene	0.0957	U	0.991	0.0957	mg/Kg	☼	02/14/13 13:04	02/21/13 19:34	50
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorophenol	0	X	23 - 108				02/14/13 13:04	02/21/13 19:34	50
Phenol-d6	0	X	26 - 108				02/14/13 13:04	02/21/13 19:34	50
Nitrobenzene-d5	0	X	34 - 118				02/14/13 13:04	02/21/13 19:34	50
2-Fluorobiphenyl	0	X	51 - 109				02/14/13 13:04	02/21/13 19:34	50
2,4,6-Tribromophenol	0	X	34 - 122				02/14/13 13:04	02/21/13 19:34	50
Terphenyl-d14	0	X	56 - 123				02/14/13 13:04	02/21/13 19:34	50

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	1.57		1.09	0.238	mg/Kg	☼	02/19/13 12:08	02/20/13 10:46	1
Lead	21.6		0.547	0.115	mg/Kg	☼	02/19/13 12:08	02/20/13 10:46	1

General Chemistry

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	16		1.0	1.0	%			02/14/13 15:11	1
Percent Solids	84		1.0	1.0	%			02/14/13 15:11	1

Client Sample ID: SO-1620-IM-CPT-13-13 (15-17.2)-20130213

Lab Sample ID: 600-68567-6

Date Collected: 02/13/13 13:05

Matrix: Solid

Date Received: 02/13/13 16:58

Percent Solids: 80.5

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	0.00272	U	0.0124	0.00272	mg/Kg	☼		02/14/13 16:55	1
Benzene	0.000783	U	0.00621	0.000783	mg/Kg	☼		02/14/13 16:55	1
1,2-Dichloroethane	0.00112	U	0.00621	0.00112	mg/Kg	☼		02/14/13 16:55	1
Toluene	0.00172	U	0.00621	0.00172	mg/Kg	☼		02/14/13 16:55	1
Chlorobenzene	0.00119	U	0.00621	0.00119	mg/Kg	☼		02/14/13 16:55	1
Ethylbenzene	0.00127	U	0.00621	0.00127	mg/Kg	☼		02/14/13 16:55	1
Xylenes, Total	0.00140	U	0.00621	0.00140	mg/Kg	☼		02/14/13 16:55	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	97		61 - 130					02/14/13 16:55	1
Dibromofluoromethane	82		68 - 140					02/14/13 16:55	1
Toluene-d8 (Surr)	116		50 - 130					02/14/13 16:55	1
4-Bromofluorobenzene	114		57 - 140					02/14/13 16:55	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.00527	U	0.0207	0.00527	mg/Kg	☼	02/14/13 13:04	02/21/13 20:01	1
Nitrobenzene	0.00368	U	0.0207	0.00368	mg/Kg	☼	02/14/13 13:04	02/21/13 20:01	1
2,4-Dimethylphenol	0.0107	U	0.0207	0.0107	mg/Kg	☼	02/14/13 13:04	02/21/13 20:01	1
Bis(2-chloroethoxy)methane	0.00176	U	0.0207	0.00176	mg/Kg	☼	02/14/13 13:04	02/21/13 20:01	1
Naphthalene	0.00168	U	0.0207	0.00168	mg/Kg	☼	02/14/13 13:04	02/21/13 20:01	1
2-Methylnaphthalene	0.00340	U	0.0207	0.00340	mg/Kg	☼	02/14/13 13:04	02/21/13 20:01	1
2-Chloronaphthalene	0.00150	U	0.0207	0.00150	mg/Kg	☼	02/14/13 13:04	02/21/13 20:01	1
Acenaphthylene	0.00124	U	0.0207	0.00124	mg/Kg	☼	02/14/13 13:04	02/21/13 20:01	1
2,6-Dinitrotoluene	0.00366	U	0.0207	0.00366	mg/Kg	☼	02/14/13 13:04	02/21/13 20:01	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: UPRR HWPW

TestAmerica Job ID: 600-68567-1

Client Sample ID: SO-1620-IM-CPT-13-13 (15-17.2)-20130213

Lab Sample ID: 600-68567-6

Date Collected: 02/13/13 13:05

Matrix: Solid

Date Received: 02/13/13 16:58

Percent Solids: 80.5

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	0.00179	U	0.0207	0.00179	mg/Kg	☼	02/14/13 13:04	02/21/13 20:01	1
4-Nitrophenol	0.00631	U	0.0207	0.00631	mg/Kg	☼	02/14/13 13:04	02/21/13 20:01	1
Dibenzofuran	0.00221	U	0.0207	0.00221	mg/Kg	☼	02/14/13 13:04	02/21/13 20:01	1
2,4-Dinitrotoluene	0.00448	U	0.0207	0.00448	mg/Kg	☼	02/14/13 13:04	02/21/13 20:01	1
Fluorene	0.00293	U	0.0207	0.00293	mg/Kg	☼	02/14/13 13:04	02/21/13 20:01	1
4,6-Dinitro-2-methylphenol	0.00619	U	0.0207	0.00619	mg/Kg	☼	02/14/13 13:04	02/21/13 20:01	1
N-Nitrosodiphenylamine	0.00235	U	0.0207	0.00235	mg/Kg	☼	02/14/13 13:04	02/21/13 20:01	1
1,2-Diphenylhydrazine	0.00201	U	0.0207	0.00201	mg/Kg	☼	02/14/13 13:04	02/21/13 20:01	1
Pentachlorophenol	0.00497	U	0.207	0.00497	mg/Kg	☼	02/14/13 13:04	02/21/13 20:01	1
Phenanthrene	0.00615	U	0.0207	0.00615	mg/Kg	☼	02/14/13 13:04	02/21/13 20:01	1
Anthracene	0.00159	U	0.0207	0.00159	mg/Kg	☼	02/14/13 13:04	02/21/13 20:01	1
Di-n-butyl phthalate	0.00322	U	0.0828	0.00322	mg/Kg	☼	02/14/13 13:04	02/21/13 20:01	1
Fluoranthene	0.00386	U	0.0207	0.00386	mg/Kg	☼	02/14/13 13:04	02/21/13 20:01	1
Pyrene	0.0136	J	0.0207	0.00227	mg/Kg	☼	02/14/13 13:04	02/21/13 20:01	1
Benzo[a]anthracene	0.00554	J	0.0207	0.00171	mg/Kg	☼	02/14/13 13:04	02/21/13 20:01	1
Bis(2-ethylhexyl) phthalate	0.0247	J	0.0828	0.00667	mg/Kg	☼	02/14/13 13:04	02/21/13 20:01	1
Chrysene	0.00587	J	0.0207	0.00127	mg/Kg	☼	02/14/13 13:04	02/21/13 20:01	1
Benzo[a]pyrene	0.0134	J	0.0207	0.00200	mg/Kg	☼	02/14/13 13:04	02/21/13 20:01	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorophenol	83		23 - 108				02/14/13 13:04	02/21/13 20:01	1
Phenol-d6	80		26 - 108				02/14/13 13:04	02/21/13 20:01	1
Nitrobenzene-d5	84		34 - 118				02/14/13 13:04	02/21/13 20:01	1
2-Fluorobiphenyl	112	X	51 - 109				02/14/13 13:04	02/21/13 20:01	1
2,4,6-Tribromophenol	65		34 - 122				02/14/13 13:04	02/21/13 20:01	1
Terphenyl-d14	98		56 - 123				02/14/13 13:04	02/21/13 20:01	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	4.02		1.15	0.251	mg/Kg	☼	02/19/13 12:08	02/20/13 10:49	1
Lead	6.96		0.575	0.121	mg/Kg	☼	02/19/13 12:08	02/20/13 10:49	1

General Chemistry

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	20		1.0	1.0	%			02/14/13 15:11	1
Percent Solids	80		1.0	1.0	%			02/14/13 15:11	1

Client Sample ID: SO-1620-IM-CPT-12-13 (2.5-5)-20130213

Lab Sample ID: 600-68567-7

Date Collected: 02/13/13 13:55

Matrix: Solid

Date Received: 02/13/13 16:58

Percent Solids: 68.2

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	0.00557	J b	0.0147	0.00321	mg/Kg	☼		02/14/13 17:18	1
Benzene	0.00127	J	0.00733	0.000923	mg/Kg	☼		02/14/13 17:18	1
1,2-Dichloroethane	0.00132	U	0.00733	0.00132	mg/Kg	☼		02/14/13 17:18	1
Toluene	0.00202	U	0.00733	0.00202	mg/Kg	☼		02/14/13 17:18	1
Chlorobenzene	0.00141	U	0.00733	0.00141	mg/Kg	☼		02/14/13 17:18	1
Ethylbenzene	0.00190	J	0.00733	0.00150	mg/Kg	☼		02/14/13 17:18	1
Xylenes, Total	0.00595	J	0.00733	0.00166	mg/Kg	☼		02/14/13 17:18	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: UPRR HWPW

TestAmerica Job ID: 600-68567-1

Client Sample ID: SO-1620-IM-CPT-12-13 (2.5-5)-20130213

Lab Sample ID: 600-68567-7

Date Collected: 02/13/13 13:55

Matrix: Solid

Date Received: 02/13/13 16:58

Percent Solids: 68.2

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	99		61 - 130		02/14/13 17:18	1
Dibromofluoromethane	78		68 - 140		02/14/13 17:18	1
Toluene-d8 (Surr)	119		50 - 130		02/14/13 17:18	1
4-Bromofluorobenzene	114		57 - 140		02/14/13 17:18	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	6.21	U	24.4	6.21	mg/Kg	☼	02/15/13 15:53	02/20/13 09:48	100
Nitrobenzene	4.34	U	24.4	4.34	mg/Kg	☼	02/15/13 15:53	02/20/13 09:48	100
2,4-Dimethylphenol	12.6	U	24.4	12.6	mg/Kg	☼	02/15/13 15:53	02/20/13 09:48	100
Bis(2-chloroethoxy)methane	2.08	U	24.4	2.08	mg/Kg	☼	02/15/13 15:53	02/20/13 09:48	100
Naphthalene	86.8		24.4	1.98	mg/Kg	☼	02/15/13 15:53	02/20/13 09:48	100
2-Methylnaphthalene	32.3		24.4	4.01	mg/Kg	☼	02/15/13 15:53	02/20/13 09:48	100
2-Chloronaphthalene	1.77	U	24.4	1.77	mg/Kg	☼	02/15/13 15:53	02/20/13 09:48	100
Acenaphthylene	1.46	U	24.4	1.46	mg/Kg	☼	02/15/13 15:53	02/20/13 09:48	100
2,6-Dinitrotoluene	4.32	U	24.4	4.32	mg/Kg	☼	02/15/13 15:53	02/20/13 09:48	100
Acenaphthene	77.9		24.4	2.11	mg/Kg	☼	02/15/13 15:53	02/20/13 09:48	100
4-Nitrophenol	7.44	U	24.4	7.44	mg/Kg	☼	02/15/13 15:53	02/20/13 09:48	100
Dibenzofuran	46.5		24.4	2.61	mg/Kg	☼	02/15/13 15:53	02/20/13 09:48	100
2,4-Dinitrotoluene	5.29	U	24.4	5.29	mg/Kg	☼	02/15/13 15:53	02/20/13 09:48	100
Fluorene	85.7		24.4	3.46	mg/Kg	☼	02/15/13 15:53	02/20/13 09:48	100
4,6-Dinitro-2-methylphenol	7.29	U	24.4	7.29	mg/Kg	☼	02/15/13 15:53	02/20/13 09:48	100
N-Nitrosodiphenylamine	2.77	U	24.4	2.77	mg/Kg	☼	02/15/13 15:53	02/20/13 09:48	100
1,2-Diphenylhydrazine	2.37	U	24.4	2.37	mg/Kg	☼	02/15/13 15:53	02/20/13 09:48	100
Pentachlorophenol	5.86	U	245	5.86	mg/Kg	☼	02/15/13 15:53	02/20/13 09:48	100
Phenanthrene	283		24.4	7.25	mg/Kg	☼	02/15/13 15:53	02/20/13 09:48	100
Anthracene	51.9		24.4	1.87	mg/Kg	☼	02/15/13 15:53	02/20/13 09:48	100
Di-n-butyl phthalate	3.79	U	97.7	3.79	mg/Kg	☼	02/15/13 15:53	02/20/13 09:48	100
Fluoranthene	171		24.4	4.56	mg/Kg	☼	02/15/13 15:53	02/20/13 09:48	100
Pyrene	122		24.4	2.68	mg/Kg	☼	02/15/13 15:53	02/20/13 09:48	100
Benzo[a]anthracene	36.5		24.4	2.02	mg/Kg	☼	02/15/13 15:53	02/20/13 09:48	100
Bis(2-ethylhexyl) phthalate	7.87	U	97.7	7.87	mg/Kg	☼	02/15/13 15:53	02/20/13 09:48	100
Chrysene	37.7		24.4	1.49	mg/Kg	☼	02/15/13 15:53	02/20/13 09:48	100
Benzo[a]pyrene	14.4	J	24.4	2.36	mg/Kg	☼	02/15/13 15:53	02/20/13 09:48	100

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	0	X	23 - 108	02/15/13 15:53	02/20/13 09:48	100
Phenol-d6	0	X	26 - 108	02/15/13 15:53	02/20/13 09:48	100
Nitrobenzene-d5	0	X	34 - 118	02/15/13 15:53	02/20/13 09:48	100
2-Fluorobiphenyl	0	X	51 - 109	02/15/13 15:53	02/20/13 09:48	100
2,4,6-Tribromophenol	0	X	34 - 122	02/15/13 15:53	02/20/13 09:48	100
Terphenyl-d14	0	X	56 - 123	02/15/13 15:53	02/20/13 09:48	100

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	37.1		1.42	0.310	mg/Kg	☼	02/19/13 12:08	02/20/13 10:51	1
Lead	2430		0.712	0.149	mg/Kg	☼	02/19/13 12:08	02/20/13 10:51	1

General Chemistry

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	32		1.0	1.0	%			02/14/13 15:11	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: UPRR HWPW

TestAmerica Job ID: 600-68567-1

Client Sample ID: SO-1620-IM-CPT-12-13 (2.5-5)-20130213

Lab Sample ID: 600-68567-7

Date Collected: 02/13/13 13:55

Matrix: Solid

Date Received: 02/13/13 16:58

General Chemistry (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	68		1.0	1.0	%			02/14/13 15:11	1

Client Sample ID: SO-1620-IM-CPT-12-13 (5-7.5)-20130213

Lab Sample ID: 600-68567-8

Date Collected: 02/13/13 14:10

Matrix: Solid

Date Received: 02/13/13 16:58

Percent Solids: 82.8

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	0.00599	J b	0.0121	0.00265	mg/Kg	☼		02/14/13 17:41	1
Benzene	0.000761	U	0.00604	0.000761	mg/Kg	☼		02/14/13 17:41	1
1,2-Dichloroethane	0.00109	U	0.00604	0.00109	mg/Kg	☼		02/14/13 17:41	1
Toluene	0.00167	U	0.00604	0.00167	mg/Kg	☼		02/14/13 17:41	1
Chlorobenzene	0.00116	U	0.00604	0.00116	mg/Kg	☼		02/14/13 17:41	1
Ethylbenzene	0.00123	U	0.00604	0.00123	mg/Kg	☼		02/14/13 17:41	1
Xylenes, Total	0.00137	U	0.00604	0.00137	mg/Kg	☼		02/14/13 17:41	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	107		61 - 130					02/14/13 17:41	1
Dibromofluoromethane	85		68 - 140					02/14/13 17:41	1
Toluene-d8 (Surr)	120		50 - 130					02/14/13 17:41	1
4-Bromofluorobenzene	121		57 - 140					02/14/13 17:41	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.00511	U	0.0201	0.00511	mg/Kg	☼	02/15/13 15:53	02/20/13 10:15	1
Nitrobenzene	0.00357	U	0.0201	0.00357	mg/Kg	☼	02/15/13 15:53	02/20/13 10:15	1
2,4-Dimethylphenol	0.0103	U	0.0201	0.0103	mg/Kg	☼	02/15/13 15:53	02/20/13 10:15	1
Bis(2-chloroethoxy)methane	0.00171	U	0.0201	0.00171	mg/Kg	☼	02/15/13 15:53	02/20/13 10:15	1
Naphthalene	0.00163	U	0.0201	0.00163	mg/Kg	☼	02/15/13 15:53	02/20/13 10:15	1
2-Methylnaphthalene	0.00330	U	0.0201	0.00330	mg/Kg	☼	02/15/13 15:53	02/20/13 10:15	1
2-Chloronaphthalene	0.00146	U	0.0201	0.00146	mg/Kg	☼	02/15/13 15:53	02/20/13 10:15	1
Acenaphthylene	0.00121	U	0.0201	0.00121	mg/Kg	☼	02/15/13 15:53	02/20/13 10:15	1
2,6-Dinitrotoluene	0.00356	U	0.0201	0.00356	mg/Kg	☼	02/15/13 15:53	02/20/13 10:15	1
Acenaphthene	0.00901	J	0.0201	0.00174	mg/Kg	☼	02/15/13 15:53	02/20/13 10:15	1
4-Nitrophenol	0.00613	U	0.0201	0.00613	mg/Kg	☼	02/15/13 15:53	02/20/13 10:15	1
Dibenzofuran	0.00247	J	0.0201	0.00215	mg/Kg	☼	02/15/13 15:53	02/20/13 10:15	1
2,4-Dinitrotoluene	0.00435	U	0.0201	0.00435	mg/Kg	☼	02/15/13 15:53	02/20/13 10:15	1
Fluorene	0.0106	J	0.0201	0.00285	mg/Kg	☼	02/15/13 15:53	02/20/13 10:15	1
4,6-Dinitro-2-methylphenol	0.00601	U	0.0201	0.00601	mg/Kg	☼	02/15/13 15:53	02/20/13 10:15	1
N-Nitrosodiphenylamine	0.00228	U	0.0201	0.00228	mg/Kg	☼	02/15/13 15:53	02/20/13 10:15	1
1,2-Diphenylhydrazine	0.00195	U	0.0201	0.00195	mg/Kg	☼	02/15/13 15:53	02/20/13 10:15	1
Pentachlorophenol	0.00482	U	0.201	0.00482	mg/Kg	☼	02/15/13 15:53	02/20/13 10:15	1
Phenanthrene	0.0585		0.0201	0.00597	mg/Kg	☼	02/15/13 15:53	02/20/13 10:15	1
Anthracene	0.0124	J	0.0201	0.00154	mg/Kg	☼	02/15/13 15:53	02/20/13 10:15	1
Di-n-butyl phthalate	0.00312	U	0.0804	0.00312	mg/Kg	☼	02/15/13 15:53	02/20/13 10:15	1
Fluoranthene	0.0472		0.0201	0.00375	mg/Kg	☼	02/15/13 15:53	02/20/13 10:15	1
Pyrene	0.0330		0.0201	0.00221	mg/Kg	☼	02/15/13 15:53	02/20/13 10:15	1
Benzo[a]anthracene	0.00890	J	0.0201	0.00166	mg/Kg	☼	02/15/13 15:53	02/20/13 10:15	1
Bis(2-ethylhexyl) phthalate	0.00648	U	0.0804	0.00648	mg/Kg	☼	02/15/13 15:53	02/20/13 10:15	1
Chrysene	0.0117	J	0.0201	0.00123	mg/Kg	☼	02/15/13 15:53	02/20/13 10:15	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: UPRR HWPW

TestAmerica Job ID: 600-68567-1

Client Sample ID: SO-1620-IM-CPT-12-13 (5-7.5)-20130213

Lab Sample ID: 600-68567-8

Date Collected: 02/13/13 14:10

Matrix: Solid

Date Received: 02/13/13 16:58

Percent Solids: 82.8

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]pyrene	0.00194	U	0.0201	0.00194	mg/Kg	☼	02/15/13 15:53	02/20/13 10:15	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorophenol	66		23 - 108				02/15/13 15:53	02/20/13 10:15	1
Phenol-d6	63		26 - 108				02/15/13 15:53	02/20/13 10:15	1
Nitrobenzene-d5	77		34 - 118				02/15/13 15:53	02/20/13 10:15	1
2-Fluorobiphenyl	71		51 - 109				02/15/13 15:53	02/20/13 10:15	1
2,4,6-Tribromophenol	58		34 - 122				02/15/13 15:53	02/20/13 10:15	1
Terphenyl-d14	77		56 - 123				02/15/13 15:53	02/20/13 10:15	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	1.09	J	1.11	0.242	mg/Kg	☼	02/19/13 12:08	02/20/13 10:54	1
Lead	7.27		0.554	0.116	mg/Kg	☼	02/19/13 12:08	02/20/13 10:54	1

General Chemistry

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	17		1.0	1.0	%			02/14/13 15:11	1
Percent Solids	83		1.0	1.0	%			02/14/13 15:11	1

Client Sample ID: SO-1620-IM-CPT-12-13 (15-15.9)-20130213

Lab Sample ID: 600-68567-9

Date Collected: 02/13/13 14:20

Matrix: Solid

Date Received: 02/13/13 16:58

Percent Solids: 79.5

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	0.00740	J b	0.0126	0.00275	mg/Kg	☼		02/14/13 18:05	1
Benzene	0.000792	U	0.00629	0.000792	mg/Kg	☼		02/14/13 18:05	1
1,2-Dichloroethane	0.00496	J	0.00629	0.00113	mg/Kg	☼		02/14/13 18:05	1
Toluene	0.00174	U	0.00629	0.00174	mg/Kg	☼		02/14/13 18:05	1
Chlorobenzene	0.00121	U	0.00629	0.00121	mg/Kg	☼		02/14/13 18:05	1
Ethylbenzene	0.00128	U	0.00629	0.00128	mg/Kg	☼		02/14/13 18:05	1
Xylenes, Total	0.00142	U	0.00629	0.00142	mg/Kg	☼		02/14/13 18:05	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	104		61 - 130					02/14/13 18:05	1
Dibromofluoromethane	79		68 - 140					02/14/13 18:05	1
Toluene-d8 (Surr)	119		50 - 130					02/14/13 18:05	1
4-Bromofluorobenzene	121		57 - 140					02/14/13 18:05	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.00532	U	0.0209	0.00532	mg/Kg	☼	02/15/13 15:53	02/20/13 11:37	1
Nitrobenzene	0.00371	U	0.0209	0.00371	mg/Kg	☼	02/15/13 15:53	02/20/13 11:37	1
2,4-Dimethylphenol	0.0108	U	0.0209	0.0108	mg/Kg	☼	02/15/13 15:53	02/20/13 11:37	1
Bis(2-chloroethoxy)methane	0.00178	U	0.0209	0.00178	mg/Kg	☼	02/15/13 15:53	02/20/13 11:37	1
Naphthalene	0.0208	J	0.0209	0.00169	mg/Kg	☼	02/15/13 15:53	02/20/13 11:37	1
2-Methylnaphthalene	0.00903	J	0.0209	0.00344	mg/Kg	☼	02/15/13 15:53	02/20/13 11:37	1
2-Chloronaphthalene	0.00152	U	0.0209	0.00152	mg/Kg	☼	02/15/13 15:53	02/20/13 11:37	1
Acenaphthylene	0.00125	U	0.0209	0.00125	mg/Kg	☼	02/15/13 15:53	02/20/13 11:37	1
2,6-Dinitrotoluene	0.00370	U	0.0209	0.00370	mg/Kg	☼	02/15/13 15:53	02/20/13 11:37	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: UPRR HWPW

TestAmerica Job ID: 600-68567-1

Client Sample ID: SO-1620-IM-CPT-12-13 (15-15.9)-20130213

Lab Sample ID: 600-68567-9

Date Collected: 02/13/13 14:20

Matrix: Solid

Date Received: 02/13/13 16:58

Percent Solids: 79.5

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	0.0297		0.0209	0.00181	mg/Kg	☼	02/15/13 15:53	02/20/13 11:37	1
4-Nitrophenol	0.00637	U	0.0209	0.00637	mg/Kg	☼	02/15/13 15:53	02/20/13 11:37	1
Dibenzofuran	0.0168	J	0.0209	0.00223	mg/Kg	☼	02/15/13 15:53	02/20/13 11:37	1
2,4-Dinitrotoluene	0.00453	U	0.0209	0.00453	mg/Kg	☼	02/15/13 15:53	02/20/13 11:37	1
Fluorene	0.0328		0.0209	0.00296	mg/Kg	☼	02/15/13 15:53	02/20/13 11:37	1
4,6-Dinitro-2-methylphenol	0.00625	U	0.0209	0.00625	mg/Kg	☼	02/15/13 15:53	02/20/13 11:37	1
N-Nitrosodiphenylamine	0.00237	U	0.0209	0.00237	mg/Kg	☼	02/15/13 15:53	02/20/13 11:37	1
1,2-Diphenylhydrazine	0.00203	U	0.0209	0.00203	mg/Kg	☼	02/15/13 15:53	02/20/13 11:37	1
Pentachlorophenol	0.00502	U	0.210	0.00502	mg/Kg	☼	02/15/13 15:53	02/20/13 11:37	1
Phenanthrene	0.133		0.0209	0.00621	mg/Kg	☼	02/15/13 15:53	02/20/13 11:37	1
Anthracene	0.0244		0.0209	0.00161	mg/Kg	☼	02/15/13 15:53	02/20/13 11:37	1
Di-n-butyl phthalate	0.00422	J	0.0837	0.00325	mg/Kg	☼	02/15/13 15:53	02/20/13 11:37	1
Fluoranthene	0.0940		0.0209	0.00390	mg/Kg	☼	02/15/13 15:53	02/20/13 11:37	1
Pyrene	0.0746		0.0209	0.00230	mg/Kg	☼	02/15/13 15:53	02/20/13 11:37	1
Benzo[a]anthracene	0.0196	J	0.0209	0.00173	mg/Kg	☼	02/15/13 15:53	02/20/13 11:37	1
Bis(2-ethylhexyl) phthalate	0.0123	J	0.0837	0.00674	mg/Kg	☼	02/15/13 15:53	02/20/13 11:37	1
Chrysene	0.0225		0.0209	0.00128	mg/Kg	☼	02/15/13 15:53	02/20/13 11:37	1
Benzo[a]pyrene	0.00202	U	0.0209	0.00202	mg/Kg	☼	02/15/13 15:53	02/20/13 11:37	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorophenol	70		23 - 108				02/15/13 15:53	02/20/13 11:37	1
Phenol-d6	71		26 - 108				02/15/13 15:53	02/20/13 11:37	1
Nitrobenzene-d5	81		34 - 118				02/15/13 15:53	02/20/13 11:37	1
2-Fluorobiphenyl	92		51 - 109				02/15/13 15:53	02/20/13 11:37	1
2,4,6-Tribromophenol	70		34 - 122				02/15/13 15:53	02/20/13 11:37	1
Terphenyl-d14	96		56 - 123				02/15/13 15:53	02/20/13 11:37	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	10.7		1.26	0.274	mg/Kg	☼	02/19/13 12:08	02/20/13 11:03	1
Lead	18.3		0.629	0.132	mg/Kg	☼	02/19/13 12:08	02/20/13 11:03	1

General Chemistry

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	20		1.0	1.0	%			02/14/13 15:11	1
Percent Solids	80		1.0	1.0	%			02/14/13 15:11	1

Client Sample ID: SO-1620-IM-CPT-16-13 (1.9-5)-20130213

Lab Sample ID: 600-68567-10

Date Collected: 02/13/13 15:00

Matrix: Solid

Date Received: 02/13/13 16:58

Percent Solids: 77.7

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	0.00282	U	0.0129	0.00282	mg/Kg	☼		02/14/13 18:28	1
Benzene	0.000811	U	0.00644	0.000811	mg/Kg	☼		02/14/13 18:28	1
1,2-Dichloroethane	0.00486	J	0.00644	0.00116	mg/Kg	☼		02/14/13 18:28	1
Toluene	0.00178	U	0.00644	0.00178	mg/Kg	☼		02/14/13 18:28	1
Chlorobenzene	0.00124	U	0.00644	0.00124	mg/Kg	☼		02/14/13 18:28	1
Ethylbenzene	0.00131	U	0.00644	0.00131	mg/Kg	☼		02/14/13 18:28	1
Xylenes, Total	0.00145	U	0.00644	0.00145	mg/Kg	☼		02/14/13 18:28	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: UPRR HWPW

TestAmerica Job ID: 600-68567-1

Client Sample ID: SO-1620-IM-CPT-16-13 (1.9-5)-20130213

Lab Sample ID: 600-68567-10

Date Collected: 02/13/13 15:00

Matrix: Solid

Date Received: 02/13/13 16:58

Percent Solids: 77.7

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	101		61 - 130		02/14/13 18:28	1
Dibromofluoromethane	77		68 - 140		02/14/13 18:28	1
Toluene-d8 (Surr)	125		50 - 130		02/14/13 18:28	1
4-Bromofluorobenzene	120		57 - 140		02/14/13 18:28	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.0545	U	0.214	0.0545	mg/Kg	☼	02/15/13 15:53	02/20/13 12:05	10
Nitrobenzene	0.0381	U	0.214	0.0381	mg/Kg	☼	02/15/13 15:53	02/20/13 12:05	10
2,4-Dimethylphenol	0.110	U	0.214	0.110	mg/Kg	☼	02/15/13 15:53	02/20/13 12:05	10
Bis(2-chloroethoxy)methane	0.0183	U	0.214	0.0183	mg/Kg	☼	02/15/13 15:53	02/20/13 12:05	10
Naphthalene	0.0174	U	0.214	0.0174	mg/Kg	☼	02/15/13 15:53	02/20/13 12:05	10
2-Methylnaphthalene	0.0352	U	0.214	0.0352	mg/Kg	☼	02/15/13 15:53	02/20/13 12:05	10
2-Chloronaphthalene	0.0156	U	0.214	0.0156	mg/Kg	☼	02/15/13 15:53	02/20/13 12:05	10
Acenaphthylene	0.0129	U	0.214	0.0129	mg/Kg	☼	02/15/13 15:53	02/20/13 12:05	10
2,6-Dinitrotoluene	0.0379	U	0.214	0.0379	mg/Kg	☼	02/15/13 15:53	02/20/13 12:05	10
Acenaphthene	0.0426	J	0.214	0.0185	mg/Kg	☼	02/15/13 15:53	02/20/13 12:05	10
4-Nitrophenol	0.0653	U	0.214	0.0653	mg/Kg	☼	02/15/13 15:53	02/20/13 12:05	10
Dibenzofuran	0.0229	U	0.214	0.0229	mg/Kg	☼	02/15/13 15:53	02/20/13 12:05	10
2,4-Dinitrotoluene	0.0464	U	0.214	0.0464	mg/Kg	☼	02/15/13 15:53	02/20/13 12:05	10
Fluorene	0.0303	U	0.214	0.0303	mg/Kg	☼	02/15/13 15:53	02/20/13 12:05	10
4,6-Dinitro-2-methylphenol	0.0640	U	0.214	0.0640	mg/Kg	☼	02/15/13 15:53	02/20/13 12:05	10
N-Nitrosodiphenylamine	0.0243	U	0.214	0.0243	mg/Kg	☼	02/15/13 15:53	02/20/13 12:05	10
1,2-Diphenylhydrazine	0.0208	U	0.214	0.0208	mg/Kg	☼	02/15/13 15:53	02/20/13 12:05	10
Pentachlorophenol	0.0514	U	2.15	0.0514	mg/Kg	☼	02/15/13 15:53	02/20/13 12:05	10
Phenanthrene	0.103	J	0.214	0.0636	mg/Kg	☼	02/15/13 15:53	02/20/13 12:05	10
Anthracene	0.0477	J	0.214	0.0165	mg/Kg	☼	02/15/13 15:53	02/20/13 12:05	10
Di-n-butyl phthalate	0.0333	U	0.857	0.0333	mg/Kg	☼	02/15/13 15:53	02/20/13 12:05	10
Fluoranthene	0.133	J	0.214	0.0400	mg/Kg	☼	02/15/13 15:53	02/20/13 12:05	10
Pyrene	0.130	J	0.214	0.0235	mg/Kg	☼	02/15/13 15:53	02/20/13 12:05	10
Benzo[a]anthracene	0.0746	J	0.214	0.0177	mg/Kg	☼	02/15/13 15:53	02/20/13 12:05	10
Bis(2-ethylhexyl) phthalate	0.0868	J	0.857	0.0690	mg/Kg	☼	02/15/13 15:53	02/20/13 12:05	10
Chrysene	0.0466	J	0.214	0.0131	mg/Kg	☼	02/15/13 15:53	02/20/13 12:05	10
Benzo[a]pyrene	0.0207	U	0.214	0.0207	mg/Kg	☼	02/15/13 15:53	02/20/13 12:05	10

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	0	X	23 - 108	02/15/13 15:53	02/20/13 12:05	10
Phenol-d6	0	X	26 - 108	02/15/13 15:53	02/20/13 12:05	10
Nitrobenzene-d5	0	X	34 - 118	02/15/13 15:53	02/20/13 12:05	10
2-Fluorobiphenyl	0	X	51 - 109	02/15/13 15:53	02/20/13 12:05	10
2,4,6-Tribromophenol	0	X	34 - 122	02/15/13 15:53	02/20/13 12:05	10
Terphenyl-d14	0	X	56 - 123	02/15/13 15:53	02/20/13 12:05	10

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	32.5		1.25	0.272	mg/Kg	☼	02/19/13 12:08	02/20/13 11:56	1

Method: 6010B - Metals (ICP) - DL

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	5460		6.25	1.31	mg/Kg	☼	02/19/13 12:08	02/20/13 14:26	10

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: UPRR HWPW

TestAmerica Job ID: 600-68567-1

Client Sample ID: SO-1620-IM-CPT-16-13 (1.9-5)-20130213

Lab Sample ID: 600-68567-10

Date Collected: 02/13/13 15:00

Matrix: Solid

Date Received: 02/13/13 16:58

General Chemistry

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	22		1.0	1.0	%			02/14/13 15:11	1
Percent Solids	78		1.0	1.0	%			02/14/13 15:11	1

Client Sample ID: SO-1620-IM-CPT-16-13 (10-12.5)-20130213

Lab Sample ID: 600-68567-11

Date Collected: 02/13/13 15:20

Matrix: Solid

Date Received: 02/13/13 16:58

Percent Solids: 85.2

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	0.00688	J b	0.0117	0.00257	mg/Kg	☼		02/14/13 18:52	1
Benzene	0.00303	J	0.00587	0.000739	mg/Kg	☼		02/14/13 18:52	1
1,2-Dichloroethane	0.00396	J	0.00587	0.00106	mg/Kg	☼		02/14/13 18:52	1
Toluene	0.0454		0.00587	0.00162	mg/Kg	☼		02/14/13 18:52	1
Chlorobenzene	0.00113	U	0.00587	0.00113	mg/Kg	☼		02/14/13 18:52	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	110		61 - 130					02/14/13 18:52	1
Dibromofluoromethane	89		68 - 140					02/14/13 18:52	1
Toluene-d8 (Surr)	118		50 - 130					02/14/13 18:52	1
4-Bromofluorobenzene	132		57 - 140					02/14/13 18:52	1

Method: 8260B - Volatile Organic Compounds (GC/MS) - DL

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	0.599		0.0293	0.00598	mg/Kg	☼		02/15/13 17:38	5
Xylenes, Total	1.53		0.0293	0.00663	mg/Kg	☼		02/15/13 17:38	5
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	105		61 - 130					02/15/13 17:38	5
Dibromofluoromethane	88		68 - 140					02/15/13 17:38	5
Toluene-d8 (Surr)	111		50 - 130					02/15/13 17:38	5
4-Bromofluorobenzene	139		57 - 140					02/15/13 17:38	5

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.0497	U	0.195	0.0497	mg/Kg	☼	02/15/13 15:53	02/20/13 12:32	10
Nitrobenzene	0.0347	U	0.195	0.0347	mg/Kg	☼	02/15/13 15:53	02/20/13 12:32	10
2,4-Dimethylphenol	0.100	U	0.195	0.100	mg/Kg	☼	02/15/13 15:53	02/20/13 12:32	10
Bis(2-chloroethoxy)methane	0.0166	U	0.195	0.0166	mg/Kg	☼	02/15/13 15:53	02/20/13 12:32	10
Naphthalene	9.40		0.195	0.0158	mg/Kg	☼	02/15/13 15:53	02/20/13 12:32	10
2-Methylnaphthalene	2.52		0.195	0.0321	mg/Kg	☼	02/15/13 15:53	02/20/13 12:32	10
2-Chloronaphthalene	0.0142	U	0.195	0.0142	mg/Kg	☼	02/15/13 15:53	02/20/13 12:32	10
Acenaphthylene	0.0117	U	0.195	0.0117	mg/Kg	☼	02/15/13 15:53	02/20/13 12:32	10
2,6-Dinitrotoluene	0.0346	U	0.195	0.0346	mg/Kg	☼	02/15/13 15:53	02/20/13 12:32	10
Acenaphthene	2.44		0.195	0.0169	mg/Kg	☼	02/15/13 15:53	02/20/13 12:32	10
4-Nitrophenol	0.0595	U	0.195	0.0595	mg/Kg	☼	02/15/13 15:53	02/20/13 12:32	10
Dibenzofuran	1.99		0.195	0.0208	mg/Kg	☼	02/15/13 15:53	02/20/13 12:32	10
2,4-Dinitrotoluene	0.0423	U	0.195	0.0423	mg/Kg	☼	02/15/13 15:53	02/20/13 12:32	10
Fluorene	2.10		0.195	0.0276	mg/Kg	☼	02/15/13 15:53	02/20/13 12:32	10
4,6-Dinitro-2-methylphenol	0.0583	U	0.195	0.0583	mg/Kg	☼	02/15/13 15:53	02/20/13 12:32	10
N-Nitrosodiphenylamine	0.0221	U	0.195	0.0221	mg/Kg	☼	02/15/13 15:53	02/20/13 12:32	10
1,2-Diphenylhydrazine	0.0190	U	0.195	0.0190	mg/Kg	☼	02/15/13 15:53	02/20/13 12:32	10

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: UPRR HWPW

TestAmerica Job ID: 600-68567-1

Client Sample ID: SO-1620-IM-CPT-16-13 (10-12.5)-20130213

Lab Sample ID: 600-68567-11

Date Collected: 02/13/13 15:20

Matrix: Solid

Date Received: 02/13/13 16:58

Percent Solids: 85.2

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Pentachlorophenol	0.0469	U	1.96	0.0469	mg/Kg	☼	02/15/13 15:53	02/20/13 12:32	10
Phenanthrene	6.13		0.195	0.0580	mg/Kg	☼	02/15/13 15:53	02/20/13 12:32	10
Anthracene	0.919		0.195	0.0150	mg/Kg	☼	02/15/13 15:53	02/20/13 12:32	10
Di-n-butyl phthalate	0.0303	U	0.781	0.0303	mg/Kg	☼	02/15/13 15:53	02/20/13 12:32	10
Fluoranthene	1.78		0.195	0.0364	mg/Kg	☼	02/15/13 15:53	02/20/13 12:32	10
Pyrene	1.26		0.195	0.0214	mg/Kg	☼	02/15/13 15:53	02/20/13 12:32	10
Benzo[a]anthracene	0.215		0.195	0.0162	mg/Kg	☼	02/15/13 15:53	02/20/13 12:32	10
Bis(2-ethylhexyl) phthalate	0.0629	U	0.781	0.0629	mg/Kg	☼	02/15/13 15:53	02/20/13 12:32	10
Chrysene	0.229		0.195	0.0119	mg/Kg	☼	02/15/13 15:53	02/20/13 12:32	10
Benzo[a]pyrene	0.0797	J	0.195	0.0189	mg/Kg	☼	02/15/13 15:53	02/20/13 12:32	10
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorophenol	0	X	23 - 108				02/15/13 15:53	02/20/13 12:32	10
Phenol-d6	0	X	26 - 108				02/15/13 15:53	02/20/13 12:32	10
Nitrobenzene-d5	0	X	34 - 118				02/15/13 15:53	02/20/13 12:32	10
2-Fluorobiphenyl	0	X	51 - 109				02/15/13 15:53	02/20/13 12:32	10
2,4,6-Tribromophenol	0	X	34 - 122				02/15/13 15:53	02/20/13 12:32	10
Terphenyl-d14	0	X	56 - 123				02/15/13 15:53	02/20/13 12:32	10

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	1.43		1.15	0.251	mg/Kg	☼	02/19/13 12:08	02/20/13 11:59	1
Lead	7.83		0.575	0.121	mg/Kg	☼	02/19/13 12:08	02/20/13 11:59	1

General Chemistry

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	15		1.0	1.0	%			02/14/13 15:11	1
Percent Solids	85		1.0	1.0	%			02/14/13 15:11	1

Client Sample ID: SO-1620-IM-CPT-16-13 (15-17.5)-20130213

Lab Sample ID: 600-68567-12

Date Collected: 02/13/13 15:35

Matrix: Solid

Date Received: 02/13/13 16:58

Percent Solids: 77.4

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	0.0102	J b	0.0129	0.00283	mg/Kg	☼		02/14/13 19:16	1
Benzene	0.105		0.00646	0.000814	mg/Kg	☼		02/14/13 19:16	1
1,2-Dichloroethane	0.00451	J	0.00646	0.00116	mg/Kg	☼		02/14/13 19:16	1
Toluene	0.178		0.00646	0.00178	mg/Kg	☼		02/14/13 19:16	1
Chlorobenzene	0.0214		0.00646	0.00124	mg/Kg	☼		02/14/13 19:16	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	133	X	61 - 130					02/14/13 19:16	1
Dibromofluoromethane	98		68 - 140					02/14/13 19:16	1
Toluene-d8 (Surr)	113		50 - 130					02/14/13 19:16	1
4-Bromofluorobenzene	155	X	57 - 140					02/14/13 19:16	1

Method: 8260B - Volatile Organic Compounds (GC/MS) - DL

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	5920		1250	255	ug/Kg		02/20/13 10:00	02/22/13 18:58	2
Xylenes, Total	16900		1250	283	ug/Kg		02/20/13 10:00	02/22/13 18:58	2

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: UPRR HWPW

TestAmerica Job ID: 600-68567-1

Client Sample ID: SO-1620-IM-CPT-16-13 (15-17.5)-20130213

Lab Sample ID: 600-68567-12

Date Collected: 02/13/13 15:35

Matrix: Solid

Date Received: 02/13/13 16:58

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	98		50 - 130	02/20/13 10:00	02/22/13 18:58	2
Dibromofluoromethane	114		68 - 140	02/20/13 10:00	02/22/13 18:58	2
4-Bromofluorobenzene	93		57 - 140	02/20/13 10:00	02/22/13 18:58	2
1,2-Dichloroethane-d4 (Surr)	115		61 - 130	02/20/13 10:00	02/22/13 18:58	2

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.547	U	2.15	0.547	mg/Kg	☼	02/15/13 15:53	02/20/13 12:59	100
Nitrobenzene	0.382	U	2.15	0.382	mg/Kg	☼	02/15/13 15:53	02/20/13 12:59	100
2,4-Dimethylphenol	1.11	U	2.15	1.11	mg/Kg	☼	02/15/13 15:53	02/20/13 12:59	100
Bis(2-chloroethoxy)methane	0.183	U	2.15	0.183	mg/Kg	☼	02/15/13 15:53	02/20/13 12:59	100
2-Methylnaphthalene	25.2		2.15	0.354	mg/Kg	☼	02/15/13 15:53	02/20/13 12:59	100
2-Chloronaphthalene	0.156	U	2.15	0.156	mg/Kg	☼	02/15/13 15:53	02/20/13 12:59	100
Acenaphthylene	0.761	J	2.15	0.129	mg/Kg	☼	02/15/13 15:53	02/20/13 12:59	100
2,6-Dinitrotoluene	0.381	U	2.15	0.381	mg/Kg	☼	02/15/13 15:53	02/20/13 12:59	100
Acenaphthene	18.1		2.15	0.186	mg/Kg	☼	02/15/13 15:53	02/20/13 12:59	100
4-Nitrophenol	0.656	U	2.15	0.656	mg/Kg	☼	02/15/13 15:53	02/20/13 12:59	100
Dibenzofuran	22.5		2.15	0.230	mg/Kg	☼	02/15/13 15:53	02/20/13 12:59	100
2,4-Dinitrotoluene	0.466	U	2.15	0.466	mg/Kg	☼	02/15/13 15:53	02/20/13 12:59	100
Fluorene	18.7		2.15	0.305	mg/Kg	☼	02/15/13 15:53	02/20/13 12:59	100
4,6-Dinitro-2-methylphenol	0.643	U	2.15	0.643	mg/Kg	☼	02/15/13 15:53	02/20/13 12:59	100
N-Nitrosodiphenylamine	0.244	U	2.15	0.244	mg/Kg	☼	02/15/13 15:53	02/20/13 12:59	100
1,2-Diphenylhydrazine	0.209	U	2.15	0.209	mg/Kg	☼	02/15/13 15:53	02/20/13 12:59	100
Pentachlorophenol	0.516	U	21.6	0.516	mg/Kg	☼	02/15/13 15:53	02/20/13 12:59	100
Phenanthrene	64.3		2.15	0.639	mg/Kg	☼	02/15/13 15:53	02/20/13 12:59	100
Anthracene	12.4		2.15	0.165	mg/Kg	☼	02/15/13 15:53	02/20/13 12:59	100
Di-n-butyl phthalate	0.334	U	8.61	0.334	mg/Kg	☼	02/15/13 15:53	02/20/13 12:59	100
Fluoranthene	15.9		2.15	0.402	mg/Kg	☼	02/15/13 15:53	02/20/13 12:59	100
Pyrene	10.8		2.15	0.236	mg/Kg	☼	02/15/13 15:53	02/20/13 12:59	100
Benzo[a]anthracene	1.85	J	2.15	0.178	mg/Kg	☼	02/15/13 15:53	02/20/13 12:59	100
Bis(2-ethylhexyl) phthalate	0.693	U	8.61	0.693	mg/Kg	☼	02/15/13 15:53	02/20/13 12:59	100
Chrysene	1.57	J	2.15	0.132	mg/Kg	☼	02/15/13 15:53	02/20/13 12:59	100
Benzo[a]pyrene	0.208	U	2.15	0.208	mg/Kg	☼	02/15/13 15:53	02/20/13 12:59	100

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	0	X	23 - 108	02/15/13 15:53	02/20/13 12:59	100
Phenol-d6	0	X	26 - 108	02/15/13 15:53	02/20/13 12:59	100
Nitrobenzene-d5	0	X	34 - 118	02/15/13 15:53	02/20/13 12:59	100
2-Fluorobiphenyl	0	X	51 - 109	02/15/13 15:53	02/20/13 12:59	100
2,4,6-Tribromophenol	0	X	34 - 122	02/15/13 15:53	02/20/13 12:59	100
Terphenyl-d14	0	X	56 - 123	02/15/13 15:53	02/20/13 12:59	100

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels - DL

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	118		4.30	0.349	mg/Kg	☼	02/15/13 15:53	02/21/13 15:12	200

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	0	X	23 - 108	02/15/13 15:53	02/21/13 15:12	200
Phenol-d6	0	X	26 - 108	02/15/13 15:53	02/21/13 15:12	200
Nitrobenzene-d5	0	X	34 - 118	02/15/13 15:53	02/21/13 15:12	200
2-Fluorobiphenyl	0	X	51 - 109	02/15/13 15:53	02/21/13 15:12	200

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: UPRR HWPW

TestAmerica Job ID: 600-68567-1

Client Sample ID: SO-1620-IM-CPT-16-13 (15-17.5)-20130213

Lab Sample ID: 600-68567-12

Date Collected: 02/13/13 15:35

Matrix: Solid

Date Received: 02/13/13 16:58

Percent Solids: 77.4

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels - DL (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	0	X	34 - 122	02/15/13 15:53	02/21/13 15:12	200
Terphenyl-d14	0	X	56 - 123	02/15/13 15:53	02/21/13 15:12	200

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	1.39		1.25	0.273	mg/Kg	☼	02/19/13 12:08	02/20/13 12:01	1
Lead	4.64		0.627	0.132	mg/Kg	☼	02/19/13 12:08	02/20/13 12:01	1

General Chemistry

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	23		1.0	1.0	%			02/14/13 15:11	1
Percent Solids	77		1.0	1.0	%			02/14/13 15:11	1



Definitions/Glossary

Client: Pastor, Behling & Wheeler LLC
Project/Site: UPRR HWPW

TestAmerica Job ID: 600-68567-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
U	Analyte was not detected at or above the SDL.
b	The compound was found in the blank and sample
J	Result is less than the MQL but greater than or equal to the SDL and the concentration is an estimated value.
X	Surrogate is outside control limits

GC/MS Semi VOA

Qualifier	Qualifier Description
U	Analyte was not detected at or above the SDL.
J	Result is less than the MQL but greater than or equal to the SDL and the concentration is an estimated value.
X	Surrogate is outside control limits
b	The compound was found in the blank and sample
N	MS, MSD: Spike recovery exceeds upper or lower control limits.
4	MS, MSD: The analyte present in the original sample is 4 times greater than the matrix spike concentration; therefore, control limits are not applicable.
N	RPD of the MS and MSD exceeds the control limits
E	Result is greater than the UQL and the concentration is an estimated value.

Metals

Qualifier	Qualifier Description
J	Result is less than the MQL but greater than or equal to the SDL and the concentration is an estimated value.
U	Analyte was not detected at or above the SDL.

General Chemistry

Qualifier	Qualifier Description
F	Duplicate RPD exceeds the control limit

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Surrogate Summary

Client: Pastor, Behling & Wheeler LLC
 Project/Site: UPRR HWPW

TestAmerica Job ID: 600-68567-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Solid

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		12DCE (61-130)	DBFM (68-140)	TOL (50-130)	BFB (57-140)
600-68567-1	SO-1620-IM-CPT-11-13 (10-12.5)-2	101	81	117	117
600-68567-1 MS	SO-1620-IM-CPT-11-13 (10-12.5)-2	107	89	126	127
600-68567-1 MSD	SO-1620-IM-CPT-11-13 (10-12.5)-2	106	87	125	122
600-68567-2	SO-1620-IM-CPT-Dup1-13-2013021	101	79	112	114
600-68567-4	SO-1620-IM-CPT-13-13 (1.5-2.5)-2C	110	87	121	126
600-68567-5	SO-1620-IM-CPT-13-13 (5-7.5)-201	93	81	116	112
600-68567-6	SO-1620-IM-CPT-13-13 (15-17.2)-2	97	82	116	114
600-68567-7	SO-1620-IM-CPT-12-13 (2.5-5)-201	99	78	119	114
600-68567-8	SO-1620-IM-CPT-12-13 (5-7.5)-201	107	85	120	121
600-68567-9	SO-1620-IM-CPT-12-13 (15-15.9)-2	104	79	119	121
600-68567-10	SO-1620-IM-CPT-16-13 (1.9-5)-201	101	77	125	120
600-68567-11	SO-1620-IM-CPT-16-13 (10-12.5)-2	110	89	118	132
600-68567-11 - DL	SO-1620-IM-CPT-16-13 (10-12.5)-2	105	88	111	139
600-68567-12 - DL	SO-1620-IM-CPT-16-13 (15-17.5)-2	115	114	98	93
600-68567-12	SO-1620-IM-CPT-16-13 (15-17.5)-2	133 X	98	113	155 X
LCS 600-99613/7	Lab Control Sample	114	90	125	123
LCS 600-99676/3	Lab Control Sample	123	97	129	131
LCS 600-99960/1-A	Lab Control Sample	107	110	114	108
LCSD 600-99960/2-A	Lab Control Sample Dup	96	100	106	98
MB 600-99613/3	Method Blank	107	83	120	121
MB 600-99676/4	Method Blank	91	75	113	119
MB 600-99960/3-A	Method Blank	99	101	107	100

Surrogate Legend

12DCE = 1,2-Dichloroethane-d4 (Surr)
 DBFM = Dibromofluoromethane
 TOL = Toluene-d8 (Surr)
 BFB = 4-Bromofluorobenzene

Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		BFB (67-139)	DBFM (62-130)	TOL (70-130)	12DCE (50-134)
600-68567-3	WG-1620-IM-CPT-09-13A-2013021	104	74	82	82
LCS 600-99606/3	Lab Control Sample	105	83	88	83
MB 600-99606/4	Method Blank	104	76	84	80

Surrogate Legend

BFB = 4-Bromofluorobenzene
 DBFM = Dibromofluoromethane
 TOL = Toluene-d8 (Surr)
 12DCE = 1,2-Dichloroethane-d4 (Surr)

Surrogate Summary

Client: Pastor, Behling & Wheeler LLC
Project/Site: UPRR HWPW

TestAmerica Job ID: 600-68567-1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)					
		2FP (23-108)	PHL (26-108)	NBZ (34-118)	FBP (51-109)	TBP (34-122)	TPH (56-123)
600-68567-1	SO-1620-IM-CPT-11-13 (10-12.5)-2	68	71	73	96	79	90
600-68567-2	SO-1620-IM-CPT-Dup1-13-2013021	83	80	83	112 X	74	93
600-68567-4	SO-1620-IM-CPT-13-13 (1.5-2.5)-2C	0 X	0 X	0 X	0 X	0 X	0 X
600-68567-5	SO-1620-IM-CPT-13-13 (5-7.5)-201	0 X	0 X	0 X	0 X	0 X	0 X
600-68567-6	SO-1620-IM-CPT-13-13 (15-17.2)-2	83	80	84	112 X	65	98
600-68567-7	SO-1620-IM-CPT-12-13 (2.5-5)-201	0 X	0 X	0 X	0 X	0 X	0 X
600-68567-8	SO-1620-IM-CPT-12-13 (5-7.5)-201	66	63	77	71	58	77
600-68567-8 MS	SO-1620-IM-CPT-12-13 (5-7.5)-201	70	71	81	84	85	88
600-68567-8 MSD	SO-1620-IM-CPT-12-13 (5-7.5)-201	92	80	93	85	45	92
600-68567-9	SO-1620-IM-CPT-12-13 (15-15.9)-2	70	71	81	92	70	96
600-68567-10	SO-1620-IM-CPT-16-13 (1.9-5)-201	0 X	0 X	0 X	0 X	0 X	0 X
600-68567-11	SO-1620-IM-CPT-16-13 (10-12.5)-2	0 X	0 X	0 X	0 X	0 X	0 X
600-68567-12	SO-1620-IM-CPT-16-13 (15-17.5)-2	0 X	0 X	0 X	0 X	0 X	0 X
600-68567-12 - DL	SO-1620-IM-CPT-16-13 (15-17.5)-2	0 X	0 X	0 X	0 X	0 X	0 X
LCS 600-99571/2-A	Lab Control Sample	77	83	76	101	86	85
LCS 600-99693/2-A	Lab Control Sample	82	83	88	90	93	94
MB 600-99571/1-A	Method Blank	67	70	68	89	49	77
MB 600-99693/1-A	Method Blank	47	51	57	63	35	64

Surrogate Legend

2FP = 2-Fluorophenol
PHL = Phenol-d6
NBZ = Nitrobenzene-d5
FBP = 2-Fluorobiphenyl
TBP = 2,4,6-Tribromophenol
TPH = Terphenyl-d14

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)					
		PHL (10-94)	TBP (10-123)	FBP (43-116)	2FP (10-100)	NBZ (35-114)	TPH (33-141)
600-68567-3	WG-1620-IM-CPT-09-13A-2013021	0 X	0 X	0 X	0 X	0 X	0 X
600-68567-3 MS	WG-1620-IM-CPT-09-13A-2013021	0 X	0 X	0 X	0 X	0 X	0 X
600-68567-3 MSD	WG-1620-IM-CPT-09-13A-2013021	0 X	0 X	0 X	0 X	0 X	0 X
LCS 600-99685/2-A	Lab Control Sample	32	80	97	48	80	85
MB 600-99685/1-A	Method Blank	27	55	99	45	78	86

Surrogate Legend

PHL = Phenol-d6
TBP = 2,4,6-Tribromophenol
FBP = 2-Fluorobiphenyl
2FP = 2-Fluorophenol
NBZ = Nitrobenzene-d5
TPH = Terphenyl-d14

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: UPRR HWPW

TestAmerica Job ID: 600-68567-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 600-99606/4

Matrix: Water

Analysis Batch: 99606

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB	MB	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			02/14/13 13:46	1
Benzene	0.0000800	U	0.00100	0.0000800	mg/L			02/14/13 13:46	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			02/14/13 13:46	1
Toluene	0.000150	U	0.00100	0.000150	mg/L			02/14/13 13:46	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			02/14/13 13:46	1
Ethylbenzene	0.000110	U	0.00100	0.000110	mg/L			02/14/13 13:46	1
Xylenes, Total	0.000260	U	0.00300	0.000260	mg/L			02/14/13 13:46	1

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
4-Bromofluorobenzene	104		67 - 139		02/14/13 13:46	1
Dibromofluoromethane	76		62 - 130		02/14/13 13:46	1
Toluene-d8 (Surr)	84		70 - 130		02/14/13 13:46	1
1,2-Dichloroethane-d4 (Surr)	80		50 - 134		02/14/13 13:46	1

Lab Sample ID: LCS 600-99606/3

Matrix: Water

Analysis Batch: 99606

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	0.0100	0.01038		mg/L		104	69 - 131
1,2-Dichloroethane	0.0100	0.01108		mg/L		111	66 - 140
Toluene	0.0100	0.01023		mg/L		102	67 - 130
Chlorobenzene	0.0100	0.01044		mg/L		104	60 - 136
Ethylbenzene	0.0100	0.009980		mg/L		100	68 - 128
Xylenes, Total	0.0300	0.03057		mg/L		102	68 - 132

Surrogate	LCS	LCS	Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene	105		67 - 139
Dibromofluoromethane	83		62 - 130
Toluene-d8 (Surr)	88		70 - 130
1,2-Dichloroethane-d4 (Surr)	83		50 - 134

Lab Sample ID: MB 600-99613/3

Matrix: Solid

Analysis Batch: 99613

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB	MB	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Methylene Chloride	0.002280	J	0.0100	0.00219	mg/Kg			02/14/13 12:58	1
Benzene	0.000630	U	0.00500	0.000630	mg/Kg			02/14/13 12:58	1
1,2-Dichloroethane	0.000900	U	0.00500	0.000900	mg/Kg			02/14/13 12:58	1
Toluene	0.00138	U	0.00500	0.00138	mg/Kg			02/14/13 12:58	1
Chlorobenzene	0.000960	U	0.00500	0.000960	mg/Kg			02/14/13 12:58	1
Ethylbenzene	0.00102	U	0.00500	0.00102	mg/Kg			02/14/13 12:58	1
Xylenes, Total	0.00113	U	0.00500	0.00113	mg/Kg			02/14/13 12:58	1

TestAmerica Houston

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: UPRR HWPW

TestAmerica Job ID: 600-68567-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 600-99613/3

Matrix: Solid

Analysis Batch: 99613

Client Sample ID: Method Blank

Prep Type: Total/NA

Surrogate	MB MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery Qualifier				
Dibromofluoromethane	83	68 - 140		02/14/13 12:58	1
1,2-Dichloroethane-d4 (Surr)	107	61 - 130		02/14/13 12:58	1
Toluene-d8 (Surr)	120	50 - 130		02/14/13 12:58	1
4-Bromofluorobenzene	121	57 - 140		02/14/13 12:58	1

Lab Sample ID: LCS 600-99613/7

Matrix: Solid

Analysis Batch: 99613

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Methylene Chloride	0.0500	0.06118		mg/Kg		122	48 - 144
Benzene	0.0500	0.05338		mg/Kg		107	66 - 128
1,2-Dichloroethane	0.0500	0.04151		mg/Kg		83	61 - 135
Toluene	0.0500	0.05312		mg/Kg		106	69 - 125
Chlorobenzene	0.0500	0.05317		mg/Kg		106	67 - 126
Ethylbenzene	0.0500	0.05322		mg/Kg		106	64 - 127
Xylenes, Total	0.150	0.1672		mg/Kg		111	65 - 129

Surrogate	LCS LCS	Limits
	%Recovery Qualifier	
Dibromofluoromethane	90	68 - 140
1,2-Dichloroethane-d4 (Surr)	114	61 - 130
Toluene-d8 (Surr)	125	50 - 130
4-Bromofluorobenzene	123	57 - 140

Lab Sample ID: 600-68567-1 MS

Matrix: Solid

Analysis Batch: 99613

Client Sample ID: SO-1620-IM-CPT-11-13 (10-12.5)-20130212

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Methylene Chloride	0.00290	J b	0.0592	0.06740		mg/Kg	✱	109	60 - 140
Benzene	0.000746	U	0.0592	0.06305		mg/Kg	✱	106	65 - 135
1,2-Dichloroethane	0.00107	U	0.0592	0.04800		mg/Kg	✱	81	60 - 140
Toluene	0.00163	U	0.0592	0.06245		mg/Kg	✱	105	64 - 135
Chlorobenzene	0.00114	U	0.0592	0.06199		mg/Kg	✱	105	65 - 135
Ethylbenzene	0.00121	U	0.0592	0.06311		mg/Kg	✱	107	60 - 140
Xylenes, Total	0.00134	U	0.178	0.1945		mg/Kg	✱	109	60 - 140

Surrogate	MS MS	Limits
	%Recovery Qualifier	
Dibromofluoromethane	89	68 - 140
1,2-Dichloroethane-d4 (Surr)	107	61 - 130
Toluene-d8 (Surr)	126	50 - 130
4-Bromofluorobenzene	127	57 - 140

TestAmerica Houston

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: UPRR HWPW

TestAmerica Job ID: 600-68567-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 600-68567-1 MSD

Matrix: Solid

Analysis Batch: 99613

Client Sample ID: SO-1620-IM-CPT-11-13 (10-12.5)-20130212

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Methylene Chloride	0.00290	J b	0.0592	0.08301		mg/Kg	☼	135	60 - 140	21	30
Benzene	0.000746	U	0.0592	0.07414		mg/Kg	☼	125	65 - 135	16	30
1,2-Dichloroethane	0.00107	U	0.0592	0.05602		mg/Kg	☼	95	60 - 140	15	30
Toluene	0.00163	U	0.0592	0.07227		mg/Kg	☼	122	64 - 135	15	30
Chlorobenzene	0.00114	U	0.0592	0.07156		mg/Kg	☼	121	65 - 135	14	30
Ethylbenzene	0.00121	U	0.0592	0.07260		mg/Kg	☼	123	60 - 140	14	30
Xylenes, Total	0.00134	U	0.178	0.2277		mg/Kg	☼	128	60 - 140	16	30

Surrogate	MSD %Recovery	MSD Qualifier	Limits
Dibromofluoromethane	87		68 - 140
1,2-Dichloroethane-d4 (Surr)	106		61 - 130
Toluene-d8 (Surr)	125		50 - 130
4-Bromofluorobenzene	122		57 - 140

Lab Sample ID: MB 600-99676/4

Matrix: Solid

Analysis Batch: 99676

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	0.008241	J	0.0100	0.00219	mg/Kg			02/15/13 12:06	1
Benzene	0.000630	U	0.00500	0.000630	mg/Kg			02/15/13 12:06	1
1,2-Dichloroethane	0.000900	U	0.00500	0.000900	mg/Kg			02/15/13 12:06	1
Toluene	0.00138	U	0.00500	0.00138	mg/Kg			02/15/13 12:06	1
Chlorobenzene	0.000960	U	0.00500	0.000960	mg/Kg			02/15/13 12:06	1
Ethylbenzene	0.00102	U	0.00500	0.00102	mg/Kg			02/15/13 12:06	1
Xylenes, Total	0.00113	U	0.00500	0.00113	mg/Kg			02/15/13 12:06	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Dibromofluoromethane	75		68 - 140		02/15/13 12:06	1
1,2-Dichloroethane-d4 (Surr)	91		61 - 130		02/15/13 12:06	1
Toluene-d8 (Surr)	113		50 - 130		02/15/13 12:06	1
4-Bromofluorobenzene	119		57 - 140		02/15/13 12:06	1

Lab Sample ID: LCS 600-99676/3

Matrix: Solid

Analysis Batch: 99676

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Methylene Chloride	0.0500	0.06606		mg/Kg		132	48 - 144
Benzene	0.0500	0.06115		mg/Kg		122	66 - 128
1,2-Dichloroethane	0.0500	0.05346		mg/Kg		107	61 - 135
Toluene	0.0500	0.05822		mg/Kg		116	69 - 125
Chlorobenzene	0.0500	0.05936		mg/Kg		119	67 - 126
Ethylbenzene	0.0500	0.05773		mg/Kg		115	64 - 127
Xylenes, Total	0.150	0.1792		mg/Kg		119	65 - 129

TestAmerica Houston

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: UPRR HWPW

TestAmerica Job ID: 600-68567-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 600-99676/3

Matrix: Solid

Analysis Batch: 99676

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Surrogate	LCS		Limits
	%Recovery	Qualifier	
Dibromofluoromethane	97		68 - 140
1,2-Dichloroethane-d4 (Surr)	123		61 - 130
Toluene-d8 (Surr)	129		50 - 130
4-Bromofluorobenzene	131		57 - 140

Lab Sample ID: MB 600-99960/3-A

Matrix: Solid

Analysis Batch: 99988

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 99960

Analyte	MB		MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Ethylbenzene	128	U	625	128	ug/Kg		02/20/13 10:00	02/20/13 12:36	1
Xylenes, Total	141	U	625	141	ug/Kg		02/20/13 10:00	02/20/13 12:36	1

Surrogate	MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
Dibromofluoromethane	101		68 - 140	02/20/13 10:00	02/20/13 12:36	1
1,2-Dichloroethane-d4 (Surr)	99		61 - 130	02/20/13 10:00	02/20/13 12:36	1
Toluene-d8 (Surr)	107		50 - 130	02/20/13 10:00	02/20/13 12:36	1
4-Bromofluorobenzene	100		57 - 140	02/20/13 10:00	02/20/13 12:36	1

Lab Sample ID: LCS 600-99960/1-A

Matrix: Solid

Analysis Batch: 99988

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 99960

Analyte	Spike Added	LCS		Unit	D	%Rec	%Rec. Limits
		Result	Qualifier				
Ethylbenzene	6250	6947		ug/Kg		111	64 - 127
Xylenes, Total	18800	22750		ug/Kg		121	65 - 129

Surrogate	LCS		Limits
	%Recovery	Qualifier	
Dibromofluoromethane	110		68 - 140
1,2-Dichloroethane-d4 (Surr)	107		61 - 130
Toluene-d8 (Surr)	114		50 - 130
4-Bromofluorobenzene	108		57 - 140

Lab Sample ID: LCSD 600-99960/2-A

Matrix: Solid

Analysis Batch: 99988

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 99960

Analyte	Spike Added	LCSD		Unit	D	%Rec	%Rec. Limits	RPD	
		Result	Qualifier					RPD	Limit
Ethylbenzene	6250	6723		ug/Kg		108	64 - 127	3	30
Xylenes, Total	18800	22110		ug/Kg		118	65 - 129	3	30

Surrogate	LCSD		Limits
	%Recovery	Qualifier	
Dibromofluoromethane	100		68 - 140
1,2-Dichloroethane-d4 (Surr)	96		61 - 130
Toluene-d8 (Surr)	106		50 - 130
4-Bromofluorobenzene	98		57 - 140

TestAmerica Houston

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: UPRR HWPW

TestAmerica Job ID: 600-68567-1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Lab Sample ID: MB 600-99571/1-A

Matrix: Solid

Analysis Batch: 100037

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 99571

Analyte	MB Result	MB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.00424	U	0.0167	0.00424	mg/Kg		02/14/13 13:04	02/20/13 10:45	1
Nitrobenzene	0.00296	U	0.0167	0.00296	mg/Kg		02/14/13 13:04	02/20/13 10:45	1
2,4-Dimethylphenol	0.00857	U	0.0167	0.00857	mg/Kg		02/14/13 13:04	02/20/13 10:45	1
Bis(2-chloroethoxy)methane	0.00142	U	0.0167	0.00142	mg/Kg		02/14/13 13:04	02/20/13 10:45	1
Naphthalene	0.00135	U	0.0167	0.00135	mg/Kg		02/14/13 13:04	02/20/13 10:45	1
2-Methylnaphthalene	0.00274	U	0.0167	0.00274	mg/Kg		02/14/13 13:04	02/20/13 10:45	1
2-Chloronaphthalene	0.00121	U	0.0167	0.00121	mg/Kg		02/14/13 13:04	02/20/13 10:45	1
Acenaphthylene	0.000999	U	0.0167	0.000999	mg/Kg		02/14/13 13:04	02/20/13 10:45	1
2,6-Dinitrotoluene	0.00295	U	0.0167	0.00295	mg/Kg		02/14/13 13:04	02/20/13 10:45	1
Acenaphthene	0.00144	U	0.0167	0.00144	mg/Kg		02/14/13 13:04	02/20/13 10:45	1
4-Nitrophenol	0.00508	U	0.0167	0.00508	mg/Kg		02/14/13 13:04	02/20/13 10:45	1
Dibenzofuran	0.00178	U	0.0167	0.00178	mg/Kg		02/14/13 13:04	02/20/13 10:45	1
2,4-Dinitrotoluene	0.00361	U	0.0167	0.00361	mg/Kg		02/14/13 13:04	02/20/13 10:45	1
Fluorene	0.00236	U	0.0167	0.00236	mg/Kg		02/14/13 13:04	02/20/13 10:45	1
4,6-Dinitro-2-methylphenol	0.00498	U	0.0167	0.00498	mg/Kg		02/14/13 13:04	02/20/13 10:45	1
N-Nitrosodiphenylamine	0.00189	U	0.0167	0.00189	mg/Kg		02/14/13 13:04	02/20/13 10:45	1
1,2-Diphenylhydrazine	0.00162	U	0.0167	0.00162	mg/Kg		02/14/13 13:04	02/20/13 10:45	1
Pentachlorophenol	0.00400	U	0.167	0.00400	mg/Kg		02/14/13 13:04	02/20/13 10:45	1
Phenanthrene	0.00495	U	0.0167	0.00495	mg/Kg		02/14/13 13:04	02/20/13 10:45	1
Anthracene	0.00128	U	0.0167	0.00128	mg/Kg		02/14/13 13:04	02/20/13 10:45	1
Di-n-butyl phthalate	0.00259	U	0.0666	0.00259	mg/Kg		02/14/13 13:04	02/20/13 10:45	1
Fluoranthene	0.00311	U	0.0167	0.00311	mg/Kg		02/14/13 13:04	02/20/13 10:45	1
Pyrene	0.00183	U	0.0167	0.00183	mg/Kg		02/14/13 13:04	02/20/13 10:45	1
Benzo[a]anthracene	0.00138	U	0.0167	0.00138	mg/Kg		02/14/13 13:04	02/20/13 10:45	1
Bis(2-ethylhexyl) phthalate	0.00537	U	0.0666	0.00537	mg/Kg		02/14/13 13:04	02/20/13 10:45	1
Chrysene	0.00102	U	0.0167	0.00102	mg/Kg		02/14/13 13:04	02/20/13 10:45	1
Benzo[a]pyrene	0.00161	U	0.0167	0.00161	mg/Kg		02/14/13 13:04	02/20/13 10:45	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Phenol-d6	70		26 - 108	02/14/13 13:04	02/20/13 10:45	1
2-Fluorophenol	67		23 - 108	02/14/13 13:04	02/20/13 10:45	1
Nitrobenzene-d5	68		34 - 118	02/14/13 13:04	02/20/13 10:45	1
2-Fluorobiphenyl	89		51 - 109	02/14/13 13:04	02/20/13 10:45	1
2,4,6-Tribromophenol	49		34 - 122	02/14/13 13:04	02/20/13 10:45	1
Terphenyl-d14	77		56 - 123	02/14/13 13:04	02/20/13 10:45	1

Lab Sample ID: LCS 600-99571/2-A

Matrix: Solid

Analysis Batch: 100037

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 99571

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Phenol	0.333	0.2749		mg/Kg		83	33 - 122
Nitrobenzene	0.333	0.2612		mg/Kg		78	53 - 123
2,4-Dimethylphenol	0.333	0.2737		mg/Kg		82	36 - 124
Bis(2-chloroethoxy)methane	0.333	0.1994		mg/Kg		60	54 - 114
Naphthalene	0.333	0.2664		mg/Kg		80	52 - 117
2-Methylnaphthalene	0.333	0.2853		mg/Kg		86	54 - 130
2-Chloronaphthalene	0.333	0.2747		mg/Kg		82	50 - 123

TestAmerica Houston

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: UPRR HWPW

TestAmerica Job ID: 600-68567-1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Lab Sample ID: LCS 600-99571/2-A
Matrix: Solid
Analysis Batch: 100037

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 99571

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acenaphthylene	0.333	0.2771		mg/Kg		83	51 - 122
2,6-Dinitrotoluene	0.333	0.2660		mg/Kg		80	53 - 116
Acenaphthene	0.333	0.2693		mg/Kg		81	58 - 125
4-Nitrophenol	0.333	0.1966		mg/Kg		59	20 - 132
Dibenzofuran	0.333	0.2714		mg/Kg		82	54 - 119
2,4-Dinitrotoluene	0.333	0.2641		mg/Kg		79	53 - 123
Fluorene	0.333	0.2690		mg/Kg		81	52 - 147
4,6-Dinitro-2-methylphenol	0.333	0.2523		mg/Kg		76	34 - 124
N-Nitrosodiphenylamine	0.333	0.2838		mg/Kg		85	47 - 127
1,2-Diphenylhydrazine	0.333	0.2393		mg/Kg		72	49 - 131
Pentachlorophenol	0.333	0.2312		mg/Kg		69	17 - 124
Phenanthrene	0.333	0.2748		mg/Kg		83	55 - 120
Anthracene	0.333	0.2729		mg/Kg		82	52 - 120
Di-n-butyl phthalate	0.333	0.2594		mg/Kg		78	61 - 124
Fluoranthene	0.333	0.2810		mg/Kg		84	56 - 123
Pyrene	0.333	0.2752		mg/Kg		83	48 - 131
Benzo[a]anthracene	0.333	0.2725		mg/Kg		82	49 - 124
Bis(2-ethylhexyl) phthalate	0.333	0.2662		mg/Kg		80	55 - 136
Chrysene	0.333	0.2448		mg/Kg		74	50 - 123
Benzo[a]pyrene	0.333	0.2754		mg/Kg		83	58 - 123

Surrogate	LCS %Recovery	LCS Qualifier	LCS Limits
Phenol-d6	83		26 - 108
2-Fluorophenol	77		23 - 108
Nitrobenzene-d5	76		34 - 118
2-Fluorobiphenyl	101		51 - 109
2,4,6-Tribromophenol	86		34 - 122
Terphenyl-d14	85		56 - 123

Lab Sample ID: MB 600-99685/1-A
Matrix: Water
Analysis Batch: 99980

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 99685

Analyte	MB Result	MB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.0000400	U	0.000500	0.0000400	mg/L		02/15/13 15:28	02/19/13 11:03	1
Nitrobenzene	0.000110	U	0.000500	0.000110	mg/L		02/15/13 15:28	02/19/13 11:03	1
2,4-Dimethylphenol	0.000310	U	0.000500	0.000310	mg/L		02/15/13 15:28	02/19/13 11:03	1
Bis(2-chloroethoxy)methane	0.000130	U	0.000500	0.000130	mg/L		02/15/13 15:28	02/19/13 11:03	1
Naphthalene	0.0002434	J	0.00500	0.0000800	mg/L		02/15/13 15:28	02/19/13 11:03	1
2-Methylnaphthalene	0.0000700	U	0.000500	0.0000700	mg/L		02/15/13 15:28	02/19/13 11:03	1
2-Chloronaphthalene	0.0000800	U	0.000500	0.0000800	mg/L		02/15/13 15:28	02/19/13 11:03	1
Acenaphthylene	0.0000600	U	0.000500	0.0000600	mg/L		02/15/13 15:28	02/19/13 11:03	1
2,6-Dinitrotoluene	0.0000800	U	0.000500	0.0000800	mg/L		02/15/13 15:28	02/19/13 11:03	1
Acenaphthene	0.0000800	U	0.000500	0.0000800	mg/L		02/15/13 15:28	02/19/13 11:03	1
4-Nitrophenol	0.000560	U	0.00100	0.000560	mg/L		02/15/13 15:28	02/19/13 11:03	1
Dibenzofuran	0.0000800	U	0.000500	0.0000800	mg/L		02/15/13 15:28	02/19/13 11:03	1
2,4-Dinitrotoluene	0.000130	U	0.000500	0.000130	mg/L		02/15/13 15:28	02/19/13 11:03	1
Fluorene	0.0000700	U	0.000500	0.0000700	mg/L		02/15/13 15:28	02/19/13 11:03	1

TestAmerica Houston

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: UPRR HWPW

TestAmerica Job ID: 600-68567-1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Lab Sample ID: MB 600-99685/1-A

Matrix: Water

Analysis Batch: 99980

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 99685

Analyte	MB Result	MB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
4,6-Dinitro-2-methylphenol	0.000830	U	0.00100	0.000830	mg/L		02/15/13 15:28	02/19/13 11:03	1
N-Nitrosodiphenylamine	0.000100	U	0.000500	0.000100	mg/L		02/15/13 15:28	02/19/13 11:03	1
1,2-Diphenylhydrazine	0.000110	U	0.000500	0.000110	mg/L		02/15/13 15:28	02/19/13 11:03	1
Pentachlorophenol	0.000610	U	0.00100	0.000610	mg/L		02/15/13 15:28	02/19/13 11:03	1
Phenanthrene	0.000600	U	0.000500	0.000600	mg/L		02/15/13 15:28	02/19/13 11:03	1
Anthracene	0.000500	U	0.000500	0.000500	mg/L		02/15/13 15:28	02/19/13 11:03	1
Di-n-butyl phthalate	0.000110	U	0.000500	0.000110	mg/L		02/15/13 15:28	02/19/13 11:03	1
Fluoranthene	0.000700	U	0.000500	0.000700	mg/L		02/15/13 15:28	02/19/13 11:03	1
Pyrene	0.000110	U	0.000500	0.000110	mg/L		02/15/13 15:28	02/19/13 11:03	1
Benzo[a]anthracene	0.000800	U	0.000500	0.000800	mg/L		02/15/13 15:28	02/19/13 11:03	1
Bis(2-ethylhexyl) phthalate	0.000370	U	0.000500	0.000370	mg/L		02/15/13 15:28	02/19/13 11:03	1
Chrysene	0.000800	U	0.000500	0.000800	mg/L		02/15/13 15:28	02/19/13 11:03	1
Benzo[a]pyrene	0.000800	U	0.000500	0.000800	mg/L		02/15/13 15:28	02/19/13 11:03	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Phenol-d6	27		10 - 94	02/15/13 15:28	02/19/13 11:03	1
2-Fluorophenol	45		10 - 100	02/15/13 15:28	02/19/13 11:03	1
Nitrobenzene-d5	78		35 - 114	02/15/13 15:28	02/19/13 11:03	1
2-Fluorobiphenyl	99		43 - 116	02/15/13 15:28	02/19/13 11:03	1
2,4,6-Tribromophenol	55		10 - 123	02/15/13 15:28	02/19/13 11:03	1
Terphenyl-d14	86		33 - 141	02/15/13 15:28	02/19/13 11:03	1

Lab Sample ID: LCS 600-99685/2-A

Matrix: Water

Analysis Batch: 99980

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 99685

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Phenol	0.0100	0.003870		mg/L		39	11 - 112
Nitrobenzene	0.0100	0.008215		mg/L		82	42 - 119
2,4-Dimethylphenol	0.0100	0.007895		mg/L		79	36 - 109
Bis(2-chloroethoxy)methane	0.0100	0.006228		mg/L		62	42 - 119
Naphthalene	0.0100	0.008742		mg/L		87	39 - 120
2-Methylnaphthalene	0.0100	0.009251		mg/L		93	40 - 121
2-Chloronaphthalene	0.0100	0.008689		mg/L		87	43 - 120
Acenaphthylene	0.0100	0.008779		mg/L		88	35 - 135
2,6-Dinitrotoluene	0.0100	0.008184		mg/L		82	45 - 122
Acenaphthene	0.0100	0.008573		mg/L		86	47 - 145
4-Nitrophenol	0.0100	0.002606		mg/L		26	14 - 132
Dibenzofuran	0.0100	0.008468		mg/L		85	46 - 123
2,4-Dinitrotoluene	0.0100	0.008091		mg/L		81	43 - 128
Fluorene	0.0100	0.008581		mg/L		86	48 - 127
4,6-Dinitro-2-methylphenol	0.0100	0.008951		mg/L		90	24 - 122
N-Nitrosodiphenylamine	0.0100	0.008856		mg/L		89	43 - 107
1,2-Diphenylhydrazine	0.0100	0.007599		mg/L		76	47 - 117
Pentachlorophenol	0.0100	0.006866		mg/L		69	9 - 147
Phenanthrene	0.0100	0.008455		mg/L		85	52 - 121
Anthracene	0.0100	0.008370		mg/L		84	53 - 124
Di-n-butyl phthalate	0.0100	0.008275		mg/L		83	54 - 138

TestAmerica Houston

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: UPRR HWPW

TestAmerica Job ID: 600-68567-1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Lab Sample ID: LCS 600-99685/2-A

Matrix: Water

Analysis Batch: 99980

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 99685

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Fluoranthene	0.0100	0.008801		mg/L		88	53 - 127
Pyrene	0.0100	0.008688		mg/L		87	49 - 121
Benzo[a]anthracene	0.0100	0.008566		mg/L		86	53 - 122
Bis(2-ethylhexyl) phthalate	0.0100	0.008196		mg/L		82	47 - 132
Chrysene	0.0100	0.007852		mg/L		79	49 - 124
Benzo[a]pyrene	0.0100	0.008558		mg/L		86	50 - 124

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Phenol-d6	32		10 - 94
2-Fluorophenol	48		10 - 100
Nitrobenzene-d5	80		35 - 114
2-Fluorobiphenyl	97		43 - 116
2,4,6-Tribromophenol	80		10 - 123
Terphenyl-d14	85		33 - 141

Lab Sample ID: 600-68567-3 MS

Matrix: Water

Analysis Batch: 99980

Client Sample ID: WG-1620-IM-CPT-09-13A-20130213

Prep Type: Total/NA

Prep Batch: 99685

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Phenol	0.00189	U	0.0189	0.00189	U N	mg/L		0	10 - 62
Nitrobenzene	0.00519	U	0.0189	0.00519	U N	mg/L		0	37 - 104
2,4-Dimethylphenol	0.0146	U	0.0189	0.0146	U N	mg/L		0	25 - 85
Bis(2-chloroethoxy)methane	0.00613	U	0.0189	0.00613	U N	mg/L		0	42 - 101
Naphthalene	0.0609	J b	0.0189	0.06311	J N	mg/L		12	34 - 99
2-Methylnaphthalene	0.338		0.0189	0.2978	4	mg/L		-211	36 - 111
2-Chloronaphthalene	0.00377	U	0.0189	0.00377	U N	mg/L		0	42 - 100
Acenaphthylene	0.00283	U	0.0189	0.00283	U N	mg/L		0	38 - 115
2,6-Dinitrotoluene	0.00377	U	0.0189	0.00377	U N	mg/L		0	47 - 118
Acenaphthene	0.224		0.0189	0.1970	4	mg/L		-142	46 - 118
4-Nitrophenol	0.0264	U	0.0189	0.0264	U	mg/L		NC	10 - 100
Dibenzofuran	0.0720		0.0189	0.07192	N	mg/L		-0.2	46 - 110
2,4-Dinitrotoluene	0.00613	U	0.0189	0.00613	U N	mg/L		0	41 - 125
Fluorene	0.121		0.0189	0.1147	4	mg/L		-35	44 - 112
4,6-Dinitro-2-methylphenol	0.0392	U	0.0189	0.0392	U	mg/L		NC	28 - 128
N-Nitrosodiphenylamine	0.00472	U	0.0189	0.00472	U N	mg/L		0	58 - 142
1,2-Diphenylhydrazine	0.00519	U	0.0189	0.00519	U N	mg/L		0	10 - 130
Pentachlorophenol	0.0288	U	0.0189	0.0288	U	mg/L		NC	45 - 155
Phenanthrene	0.101		0.0189	0.1008	4	mg/L		-2	41 - 117
Anthracene	0.0184	J	0.0189	0.02665		mg/L		44	35 - 116
Di-n-butyl phthalate	0.00519	U	0.0189	0.00519	U N	mg/L		0	31 - 137
Fluoranthene	0.00330	U	0.0189	0.01614	J	mg/L		86	14 - 145
Pyrene	0.0102	J	0.0189	0.02218	J	mg/L		63	28 - 133
Benzo[a]anthracene	0.00377	U	0.0189	0.00377	U N	mg/L		0	24 - 126
Bis(2-ethylhexyl) phthalate	0.0175	U	0.0189	0.0175	U N	mg/L		0	14 - 123
Chrysene	0.00377	U	0.0189	0.00377	U N	mg/L		0	23 - 128
Benzo[a]pyrene	0.00377	U	0.0189	0.00377	U N	mg/L		0	60 - 140

TestAmerica Houston

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: UPRR HWPW

TestAmerica Job ID: 600-68567-1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Lab Sample ID: 600-68567-3 MS

Client Sample ID: WG-1620-IM-CPT-09-13A-20130213

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 99980

Prep Batch: 99685

Surrogate	MS MS		Limits
	%Recovery	Qualifier	
Phenol-d6	0	X	10 - 94
2-Fluorophenol	0	X	10 - 100
Nitrobenzene-d5	0	X	35 - 114
2-Fluorobiphenyl	0	X	43 - 116
2,4,6-Tribromophenol	0	X	10 - 123
Terphenyl-d14	0	X	33 - 141

Lab Sample ID: 600-68567-3 MSD

Client Sample ID: WG-1620-IM-CPT-09-13A-20130213

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 99980

Prep Batch: 99685

Analyte	Sample	Sample	Spike	MSD MSD		Unit	D	%Rec	%Rec.	RPD	RPD	Limit
	Result	Qualifier		Added	Result				Qualifier			
Phenol	0.00189	U	0.0189	0.00189	U N	mg/L		0	10 - 62	NC	20	
Nitrobenzene	0.00519	U	0.0189	0.00519	U N	mg/L		0	37 - 104	NC	20	
2,4-Dimethylphenol	0.0146	U	0.0189	0.0146	U N	mg/L		0	25 - 85	NC	20	
Bis(2-chloroethoxy)methane	0.00613	U	0.0189	0.00613	U N	mg/L		0	42 - 101	NC	20	
Naphthalene	0.0609	J b	0.0189	0.06728	J	mg/L		34	34 - 99	6	20	
2-Methylnaphthalene	0.338		0.0189	0.3075	4	mg/L		-160	36 - 111	3	20	
2-Chloronaphthalene	0.00377	U	0.0189	0.00377	U N	mg/L		0	42 - 100	NC	20	
Acenaphthylene	0.00283	U	0.0189	0.00283	U N	mg/L		0	38 - 115	NC	20	
2,6-Dinitrotoluene	0.00377	U	0.0189	0.00377	U N	mg/L		0	47 - 118	NC	20	
Acenaphthene	0.224		0.0189	0.2001	4	mg/L		-125	46 - 118	2	20	
4-Nitrophenol	0.0264	U	0.0189	0.0264	U	mg/L		NC	10 - 100	NC	20	
Dibenzofuran	0.0720		0.0189	0.07349	N	mg/L		8	46 - 110	2	20	
2,4-Dinitrotoluene	0.00613	U	0.0189	0.00613	U N	mg/L		0	41 - 125	NC	20	
Fluorene	0.121		0.0189	0.1175	4	mg/L		-20	44 - 112	2	20	
4,6-Dinitro-2-methylphenol	0.0392	U	0.0189	0.0392	U	mg/L		NC	28 - 128	NC	20	
N-Nitrosodiphenylamine	0.00472	U	0.0189	0.00472	U N	mg/L		0	58 - 142	NC	20	
1,2-Diphenylhydrazine	0.00519	U	0.0189	0.00519	U N	mg/L		0	10 - 130	NC	20	
Pentachlorophenol	0.0288	U	0.0189	0.0288	U	mg/L		NC	45 - 155	NC	20	
Phenanthrene	0.101		0.0189	0.1005	4	mg/L		-4	41 - 117	0	20	
Anthracene	0.0184	J	0.0189	0.02594		mg/L		40	35 - 116	3	20	
Di-n-butyl phthalate	0.00519	U	0.0189	0.00519	U N	mg/L		0	31 - 137	NC	20	
Fluoranthene	0.00330	U	0.0189	0.01532	J	mg/L		81	14 - 145	5	20	
Pyrene	0.0102	J	0.0189	0.02225	J	mg/L		64	28 - 133	0	20	
Benzo[a]anthracene	0.00377	U	0.0189	0.00377	U N	mg/L		0	24 - 126	NC	20	
Bis(2-ethylhexyl) phthalate	0.0175	U	0.0189	0.0175	U N	mg/L		0	14 - 123	NC	20	
Chrysene	0.00377	U	0.0189	0.00377	U N	mg/L		0	23 - 128	NC	20	
Benzo[a]pyrene	0.00377	U	0.0189	0.00377	U N	mg/L		0	60 - 140	NC	20	

Surrogate	MSD MSD		Limits
	%Recovery	Qualifier	
Phenol-d6	0	X	10 - 94
2-Fluorophenol	0	X	10 - 100
Nitrobenzene-d5	0	X	35 - 114
2-Fluorobiphenyl	0	X	43 - 116
2,4,6-Tribromophenol	0	X	10 - 123
Terphenyl-d14	0	X	33 - 141

TestAmerica Houston

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: UPRR HWPW

TestAmerica Job ID: 600-68567-1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Lab Sample ID: MB 600-99693/1-A

Matrix: Solid

Analysis Batch: 100102

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 99693

Analyte	MB Result	MB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.00423	U	0.0166	0.00423	mg/Kg		02/15/13 15:53	02/20/13 08:53	1
Nitrobenzene	0.00295	U	0.0166	0.00295	mg/Kg		02/15/13 15:53	02/20/13 08:53	1
2,4-Dimethylphenol	0.00856	U	0.0166	0.00856	mg/Kg		02/15/13 15:53	02/20/13 08:53	1
Bis(2-chloroethoxy)methane	0.00142	U	0.0166	0.00142	mg/Kg		02/15/13 15:53	02/20/13 08:53	1
Naphthalene	0.00135	U	0.0166	0.00135	mg/Kg		02/15/13 15:53	02/20/13 08:53	1
2-Methylnaphthalene	0.00273	U	0.0166	0.00273	mg/Kg		02/15/13 15:53	02/20/13 08:53	1
2-Chloronaphthalene	0.00121	U	0.0166	0.00121	mg/Kg		02/15/13 15:53	02/20/13 08:53	1
Acenaphthylene	0.000998	U	0.0166	0.000998	mg/Kg		02/15/13 15:53	02/20/13 08:53	1
2,6-Dinitrotoluene	0.00294	U	0.0166	0.00294	mg/Kg		02/15/13 15:53	02/20/13 08:53	1
Acenaphthene	0.00144	U	0.0166	0.00144	mg/Kg		02/15/13 15:53	02/20/13 08:53	1
4-Nitrophenol	0.00507	U	0.0166	0.00507	mg/Kg		02/15/13 15:53	02/20/13 08:53	1
Dibenzofuran	0.00178	U	0.0166	0.00178	mg/Kg		02/15/13 15:53	02/20/13 08:53	1
2,4-Dinitrotoluene	0.00360	U	0.0166	0.00360	mg/Kg		02/15/13 15:53	02/20/13 08:53	1
Fluorene	0.00235	U	0.0166	0.00235	mg/Kg		02/15/13 15:53	02/20/13 08:53	1
4,6-Dinitro-2-methylphenol	0.00497	U	0.0166	0.00497	mg/Kg		02/15/13 15:53	02/20/13 08:53	1
N-Nitrosodiphenylamine	0.00189	U	0.0166	0.00189	mg/Kg		02/15/13 15:53	02/20/13 08:53	1
1,2-Diphenylhydrazine	0.00162	U	0.0166	0.00162	mg/Kg		02/15/13 15:53	02/20/13 08:53	1
Pentachlorophenol	0.00399	U	0.167	0.00399	mg/Kg		02/15/13 15:53	02/20/13 08:53	1
Phenanthrene	0.00494	U	0.0166	0.00494	mg/Kg		02/15/13 15:53	02/20/13 08:53	1
Anthracene	0.00128	U	0.0166	0.00128	mg/Kg		02/15/13 15:53	02/20/13 08:53	1
Di-n-butyl phthalate	0.00258	U	0.0665	0.00258	mg/Kg		02/15/13 15:53	02/20/13 08:53	1
Fluoranthene	0.00310	U	0.0166	0.00310	mg/Kg		02/15/13 15:53	02/20/13 08:53	1
Pyrene	0.00183	U	0.0166	0.00183	mg/Kg		02/15/13 15:53	02/20/13 08:53	1
Benzo[a]anthracene	0.00138	U	0.0166	0.00138	mg/Kg		02/15/13 15:53	02/20/13 08:53	1
Bis(2-ethylhexyl) phthalate	0.00536	U	0.0665	0.00536	mg/Kg		02/15/13 15:53	02/20/13 08:53	1
Chrysene	0.00102	U	0.0166	0.00102	mg/Kg		02/15/13 15:53	02/20/13 08:53	1
Benzo[a]pyrene	0.00161	U	0.0166	0.00161	mg/Kg		02/15/13 15:53	02/20/13 08:53	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Phenol-d6	51		26 - 108	02/15/13 15:53	02/20/13 08:53	1
2-Fluorophenol	47		23 - 108	02/15/13 15:53	02/20/13 08:53	1
Nitrobenzene-d5	57		34 - 118	02/15/13 15:53	02/20/13 08:53	1
2-Fluorobiphenyl	63		51 - 109	02/15/13 15:53	02/20/13 08:53	1
2,4,6-Tribromophenol	35		34 - 122	02/15/13 15:53	02/20/13 08:53	1
Terphenyl-d14	64		56 - 123	02/15/13 15:53	02/20/13 08:53	1

Lab Sample ID: LCS 600-99693/2-A

Matrix: Solid

Analysis Batch: 100102

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 99693

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Phenol	0.333	0.2648		mg/Kg		80	33 - 122
Nitrobenzene	0.333	0.2874		mg/Kg		86	53 - 123
2,4-Dimethylphenol	0.333	0.2965		mg/Kg		89	36 - 124
Bis(2-chloroethoxy)methane	0.333	0.2642		mg/Kg		79	54 - 114
Naphthalene	0.333	0.2961		mg/Kg		89	52 - 117
2-Methylnaphthalene	0.333	0.2822		mg/Kg		85	54 - 130
2-Chloronaphthalene	0.333	0.2710		mg/Kg		81	50 - 123

TestAmerica Houston

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: UPRR HWPW

TestAmerica Job ID: 600-68567-1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Lab Sample ID: LCS 600-99693/2-A

Matrix: Solid

Analysis Batch: 100102

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 99693

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits	
Acenaphthylene	0.333	0.2910		mg/Kg		87	51 - 122	
2,6-Dinitrotoluene	0.333	0.2847		mg/Kg		86	53 - 116	
Acenaphthene	0.333	0.2944		mg/Kg		88	58 - 125	
4-Nitrophenol	0.333	0.1923		mg/Kg		58	20 - 132	
Dibenzofuran	0.333	0.2780		mg/Kg		83	54 - 119	
2,4-Dinitrotoluene	0.333	0.2858		mg/Kg		86	53 - 123	
Fluorene	0.333	0.2900		mg/Kg		87	52 - 147	
4,6-Dinitro-2-methylphenol	0.333	0.2238		mg/Kg		67	34 - 124	
N-Nitrosodiphenylamine	0.333	0.3301		mg/Kg		99	47 - 127	
1,2-Diphenylhydrazine	0.333	0.2779		mg/Kg		83	49 - 131	
Pentachlorophenol	0.333	0.1642	J	mg/Kg		49	17 - 124	
Phenanthrene	0.333	0.2797		mg/Kg		84	55 - 120	
Anthracene	0.333	0.2774		mg/Kg		83	52 - 120	
Di-n-butyl phthalate	0.333	0.2911		mg/Kg		87	61 - 124	
Fluoranthene	0.333	0.2867		mg/Kg		86	56 - 123	
Pyrene	0.333	0.3026		mg/Kg		91	48 - 131	
Benzo[a]anthracene	0.333	0.2896		mg/Kg		87	49 - 124	
Bis(2-ethylhexyl) phthalate	0.333	0.3082		mg/Kg		93	55 - 136	
Chrysene	0.333	0.2930		mg/Kg		88	50 - 123	
Benzo[a]pyrene	0.333	0.2899		mg/Kg		87	58 - 123	

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
Phenol-d6	83		26 - 108
2-Fluorophenol	82		23 - 108
Nitrobenzene-d5	88		34 - 118
2-Fluorobiphenyl	90		51 - 109
2,4,6-Tribromophenol	93		34 - 122
Terphenyl-d14	94		56 - 123

Lab Sample ID: 600-68567-8 MS

Matrix: Solid

Analysis Batch: 100102

Client Sample ID: SO-1620-IM-CPT-12-13 (5-7.5)-20130213

Prep Type: Total/NA

Prep Batch: 99693

Analyte	Sample Result	Sample Qualifier	Spike Added	MS MS		Unit	D	%Rec	%Rec. Limits	
				Result	Qualifier					
Phenol	0.00511	U	0.403	0.3275		mg/Kg	☼	81	31 - 121	
Nitrobenzene	0.00357	U	0.403	0.3128		mg/Kg	☼	78	29 - 118	
2,4-Dimethylphenol	0.0103	U	0.403	0.3111		mg/Kg	☼	77	29 - 122	
Bis(2-chloroethoxy)methane	0.00171	U	0.403	0.2791		mg/Kg	☼	69	33 - 119	
Naphthalene	0.00163	U	0.403	0.3389		mg/Kg	☼	84	30 - 112	
2-Methylnaphthalene	0.00330	U	0.403	0.3183		mg/Kg	☼	79	32 - 136	
2-Chloronaphthalene	0.00146	U	0.403	0.3283		mg/Kg	☼	82	34 - 126	
Acenaphthylene	0.00121	U	0.403	0.3446		mg/Kg	☼	86	32 - 137	
2,6-Dinitrotoluene	0.00356	U	0.403	0.3488		mg/Kg	☼	87	30 - 124	
Acenaphthene	0.00901	J	0.403	0.3819		mg/Kg	☼	93	25 - 134	
4-Nitrophenol	0.00613	U	0.403	0.2809		mg/Kg	☼	70	25 - 122	
Dibenzofuran	0.00247	J	0.403	0.3537		mg/Kg	☼	87	35 - 125	
2,4-Dinitrotoluene	0.00435	U	0.403	0.3228		mg/Kg	☼	80	10 - 129	
Fluorene	0.0106	J	0.403	0.3971		mg/Kg	☼	96	36 - 122	

TestAmerica Houston

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: UPRR HWPW

TestAmerica Job ID: 600-68567-1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Lab Sample ID: 600-68567-8 MS

Client Sample ID: SO-1620-IM-CPT-12-13 (5-7.5)-20130213

Matrix: Solid

Prep Type: Total/NA

Analysis Batch: 100102

Prep Batch: 99693

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec. Limits
	Result	Qualifier	Added	Result	Qualifier				
4,6-Dinitro-2-methylphenol	0.00601	U	0.403	0.2352		mg/Kg	*	58	10 - 104
N-Nitrosodiphenylamine	0.00228	U	0.403	0.3903		mg/Kg	*	97	28 - 106
1,2-Diphenylhydrazine	0.00195	U	0.403	0.3214		mg/Kg	*	80	30 - 130
Pentachlorophenol	0.00482	U	0.403	0.1757	J	mg/Kg	*	44	25 - 124
Phenanthrene	0.0585		0.403	0.4815		mg/Kg	*	105	26 - 126
Anthracene	0.0124	J	0.403	0.3495		mg/Kg	*	84	35 - 115
Di-n-butyl phthalate	0.00312	U	0.403	0.3299		mg/Kg	*	82	41 - 126
Fluoranthene	0.0472		0.403	0.4294		mg/Kg	*	95	37 - 132
Pyrene	0.0330		0.403	0.4521		mg/Kg	*	104	28 - 138
Benzo[a]anthracene	0.00890	J	0.403	0.3505		mg/Kg	*	85	38 - 128
Bis(2-ethylhexyl) phthalate	0.00648	U	0.403	0.3631		mg/Kg	*	90	44 - 139
Chrysene	0.0117	J	0.403	0.3587		mg/Kg	*	86	36 - 130
Benzo[a]pyrene	0.00194	U	0.403	0.3512		mg/Kg	*	87	30 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
Phenol-d6	71		26 - 108
2-Fluorophenol	70		23 - 108
Nitrobenzene-d5	81		34 - 118
2-Fluorobiphenyl	84		51 - 109
2,4,6-Tribromophenol	85		34 - 122
Terphenyl-d14	88		56 - 123

Lab Sample ID: 600-68567-8 MSD

Client Sample ID: SO-1620-IM-CPT-12-13 (5-7.5)-20130213

Matrix: Solid

Prep Type: Total/NA

Analysis Batch: 100102

Prep Batch: 99693

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
	Result	Qualifier	Added	Result	Qualifier						
Phenol	0.00511	U	0.402	0.3509		mg/Kg	*	87	31 - 121	7	30
Nitrobenzene	0.00357	U	0.402	0.3135		mg/Kg	*	78	29 - 118	0	30
2,4-Dimethylphenol	0.0103	U	0.402	0.3429		mg/Kg	*	85	29 - 122	10	30
Bis(2-chloroethoxy)methane	0.00171	U	0.402	0.3169		mg/Kg	*	79	33 - 119	13	30
Naphthalene	0.00163	U	0.402	2.397	N	mg/Kg	*	597	30 - 112	150	30
2-Methylnaphthalene	0.00330	U	0.402	2.859	N	mg/Kg	*	712	32 - 136	160	30
2-Chloronaphthalene	0.00146	U	0.402	0.3276		mg/Kg	*	82	34 - 126	0	30
Acenaphthylene	0.00121	U	0.402	0.7101	N	mg/Kg	*	177	32 - 137	69	30
2,6-Dinitrotoluene	0.00356	U	0.402	0.1537	N	mg/Kg	*	38	30 - 124	78	30
Acenaphthene	0.00901	J	0.402	13.88	E N	mg/Kg	*	3452	25 - 134	189	30
4-Nitrophenol	0.00613	U	0.402	0.00612	U N	mg/Kg	*	0	25 - 122	NC	30
Dibenzofuran	0.00247	J	0.402	7.109	E N	mg/Kg	*	1769	35 - 125	181	30
2,4-Dinitrotoluene	0.00435	U	0.402	0.00435	U N	mg/Kg	*	0	10 - 129	NC	30
Fluorene	0.0106	J	0.402	18.85	E N	mg/Kg	*	4689	36 - 122	192	30
4,6-Dinitro-2-methylphenol	0.00601	U	0.402	0.00600	U N	mg/Kg	*	0	10 - 104	NC	30
N-Nitrosodiphenylamine	0.00228	U	0.402	0.00228	U N	mg/Kg	*	0	28 - 106	NC	30
1,2-Diphenylhydrazine	0.00195	U	0.402	0.3217		mg/Kg	*	80	30 - 130	0	30
Pentachlorophenol	0.00482	U	0.402	0.00482	U N	mg/Kg	*	0	25 - 124	NC	30
Phenanthrene	0.0585		0.402	0.00597	U N	mg/Kg	*	0	26 - 126	NC	30
Anthracene	0.0124	J	0.402	0.00154	U N	mg/Kg	*	0	35 - 115	NC	30
Di-n-butyl phthalate	0.00312	U	0.402	0.2794		mg/Kg	*	70	41 - 126	17	30

TestAmerica Houston

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: UPRR HWPW

TestAmerica Job ID: 600-68567-1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Lab Sample ID: 600-68567-8 MSD

Client Sample ID: SO-1620-IM-CPT-12-13 (5-7.5)-20130213

Matrix: Solid

Prep Type: Total/NA

Analysis Batch: 100102

Prep Batch: 99693

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.	Limits	RPD	Limit
	Result	Qualifier	Added	Result	Qualifier							
Fluoranthene	0.0472		0.402	30.03	E N	mg/Kg	☼	7463	37 - 132	194	30	
Pyrene	0.0330		0.402	19.92	E N	mg/Kg	☼	4951	28 - 138	191	30	
Benzo[a]anthracene	0.00890	J	0.402	0.00166	U N	mg/Kg	☼	0	38 - 128	NC	30	
Bis(2-ethylhexyl) phthalate	0.00648	U	0.402	0.00647	U N	mg/Kg	☼	0	44 - 139	NC	30	
Chrysene	0.0117	J	0.402	0.00123	U N	mg/Kg	☼	0	36 - 130	NC	30	
Benzo[a]pyrene	0.00194	U	0.402	4.514	E N	mg/Kg	☼	1124	30 - 130	171	30	

Surrogate	MSD	MSD	Limits
	%Recovery	Qualifier	
Phenol-d6	80		26 - 108
2-Fluorophenol	92		23 - 108
Nitrobenzene-d5	93		34 - 118
2-Fluorobiphenyl	85		51 - 109
2,4,6-Tribromophenol	45		34 - 122
Terphenyl-d14	92		56 - 123

Method: 6010B - Metals (ICP)

Lab Sample ID: MB 600-99888/1-A

Client Sample ID: Method Blank

Matrix: Solid

Prep Type: Total/NA

Analysis Batch: 99954

Prep Batch: 99888

Analyte	MB	MB	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil	Fac
	Result	Qualifier								
Arsenic	0.218	U	1.00	0.218	mg/Kg		02/19/13 12:08	02/20/13 10:01	1	
Lead	0.105	U	0.500	0.105	mg/Kg		02/19/13 12:08	02/20/13 10:01	1	

Lab Sample ID: LCSSRM 600-99888/2-A

Client Sample ID: Lab Control Sample

Matrix: Solid

Prep Type: Total/NA

Analysis Batch: 99954

Prep Batch: 99888

Analyte	Spike Added	LCSSRM	LCSSRM	Unit	D	%Rec	%Rec.	Limits
		Result	Qualifier					
Arsenic	168	161.3		mg/Kg		96.0	83.3 - 117.3	
Lead	76.9	71.71		mg/Kg		93.3	81.3 - 118.7	

Lab Sample ID: 600-68567-1 MS

Client Sample ID: SO-1620-IM-CPT-11-13 (10-12.5)-20130212

Matrix: Solid

Prep Type: Total/NA

Analysis Batch: 99954

Prep Batch: 99888

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec.	Limits
	Result	Qualifier	Added	Result	Qualifier					
Arsenic	7.66		56.4	56.52		mg/Kg	☼	87	75 - 125	
Lead	9.28		56.4	62.28		mg/Kg	☼	94	75 - 125	

Lab Sample ID: 600-68567-1 MSD

Client Sample ID: SO-1620-IM-CPT-11-13 (10-12.5)-20130212

Matrix: Solid

Prep Type: Total/NA

Analysis Batch: 99954

Prep Batch: 99888

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.	Limits	RPD	Limit
	Result	Qualifier	Added	Result	Qualifier							
Arsenic	7.66		58.1	59.06		mg/Kg	☼	89	75 - 125	4	20	

TestAmerica Houston

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: UPRR HWPW

TestAmerica Job ID: 600-68567-1

Method: 6010B - Metals (ICP) (Continued)

Lab Sample ID: 600-68567-1 MSD

Client Sample ID: SO-1620-IM-CPT-11-13 (10-12.5)-20130212

Matrix: Solid

Prep Type: Total/NA

Analysis Batch: 99954

Prep Batch: 99888

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Lead	9.28		58.1	64.51		mg/Kg	✪	95	75 - 125	4	20

Lab Sample ID: 600-68567-1 DU

Client Sample ID: SO-1620-IM-CPT-11-13 (10-12.5)-20130212

Matrix: Solid

Prep Type: Total/NA

Analysis Batch: 99954

Prep Batch: 99888

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Arsenic	7.66		6.353		mg/Kg	✪	19	20
Lead	9.28		7.886		mg/Kg	✪	16	20

Method: Moisture - Percent Moisture

Lab Sample ID: 600-68567-1 DU

Client Sample ID: SO-1620-IM-CPT-11-13 (10-12.5)-20130212

Matrix: Solid

Prep Type: Total/NA

Analysis Batch: 99595

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Percent Moisture	16		11	F	%		34	20
Percent Solids	84		89		%		5	20

Unadjusted Detection Limits

Client: Pastor, Behling & Wheeler LLC
 Project/Site: UPRR HWPW

TestAmerica Job ID: 600-68567-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	MQL	MDL	Units	Method
1,2-Dichloroethane	0.00500	0.000900	mg/Kg	8260B
1,2-Dichloroethane	0.00100	0.000140	mg/L	8260B
Benzene	0.00500	0.000630	mg/Kg	8260B
Benzene	0.00100	0.0000800	mg/L	8260B
Chlorobenzene	0.00500	0.000960	mg/Kg	8260B
Chlorobenzene	0.00100	0.000120	mg/L	8260B
Ethylbenzene	0.00500	0.00102	mg/Kg	8260B
Ethylbenzene	5.00	1.02	ug/Kg	8260B
Ethylbenzene	0.00100	0.000110	mg/L	8260B
Methylene Chloride	0.0100	0.00219	mg/Kg	8260B
Methylene Chloride	0.00100	0.000150	mg/L	8260B
Toluene	0.00500	0.00138	mg/Kg	8260B
Toluene	0.00100	0.000150	mg/L	8260B
Xylenes, Total	0.00500	0.00113	mg/Kg	8260B
Xylenes, Total	5.00	1.13	ug/Kg	8260B
Xylenes, Total	0.00300	0.000260	mg/L	8260B

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	MQL	MDL	Units	Method
1,2-Diphenylhydrazine	0.0167	0.00162	mg/Kg	8270C LL
1,2-Diphenylhydrazine	0.000500	0.000110	mg/L	8270C LL
2,4-Dimethylphenol	0.0167	0.00858	mg/Kg	8270C LL
2,4-Dimethylphenol	0.000500	0.000310	mg/L	8270C LL
2,4-Dinitrotoluene	0.0167	0.00361	mg/Kg	8270C LL
2,4-Dinitrotoluene	0.000500	0.000130	mg/L	8270C LL
2,6-Dinitrotoluene	0.0167	0.00295	mg/Kg	8270C LL
2,6-Dinitrotoluene	0.000500	0.0000800	mg/L	8270C LL
2-Chloronaphthalene	0.0167	0.00121	mg/Kg	8270C LL
2-Chloronaphthalene	0.000500	0.0000800	mg/L	8270C LL
2-Methylnaphthalene	0.0167	0.00274	mg/Kg	8270C LL
2-Methylnaphthalene	0.000500	0.0000700	mg/L	8270C LL
4,6-Dinitro-2-methylphenol	0.0167	0.00498	mg/Kg	8270C LL
4,6-Dinitro-2-methylphenol	0.00100	0.000830	mg/L	8270C LL
4-Nitrophenol	0.0167	0.00508	mg/Kg	8270C LL
4-Nitrophenol	0.00100	0.000560	mg/L	8270C LL
Acenaphthene	0.0167	0.00144	mg/Kg	8270C LL
Acenaphthene	0.000500	0.0000800	mg/L	8270C LL
Acenaphthylene	0.0167	0.00100	mg/Kg	8270C LL
Acenaphthylene	0.000500	0.0000600	mg/L	8270C LL
Anthracene	0.0167	0.00128	mg/Kg	8270C LL
Anthracene	0.000500	0.0000500	mg/L	8270C LL
Benzo[a]anthracene	0.0167	0.00138	mg/Kg	8270C LL
Benzo[a]anthracene	0.000500	0.0000800	mg/L	8270C LL
Benzo[a]pyrene	0.0167	0.00161	mg/Kg	8270C LL
Benzo[a]pyrene	0.000500	0.0000800	mg/L	8270C LL
Bis(2-chloroethoxy)methane	0.0167	0.00142	mg/Kg	8270C LL
Bis(2-chloroethoxy)methane	0.000500	0.000130	mg/L	8270C LL
Bis(2-ethylhexyl) phthalate	0.0667	0.00537	mg/Kg	8270C LL
Bis(2-ethylhexyl) phthalate	0.000500	0.000370	mg/L	8270C LL
Chrysene	0.0167	0.00102	mg/Kg	8270C LL
Chrysene	0.000500	0.0000800	mg/L	8270C LL

TestAmerica Houston

Unadjusted Detection Limits

Client: Pastor, Behling & Wheeler LLC
 Project/Site: UPRR HWPW

TestAmerica Job ID: 600-68567-1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Analyte	MQL	MDL	Units	Method
Dibenzofuran	0.0167	0.00178	mg/Kg	8270C LL
Dibenzofuran	0.000500	0.0000800	mg/L	8270C LL
Di-n-butyl phthalate	0.0667	0.00259	mg/Kg	8270C LL
Di-n-butyl phthalate	0.000500	0.000110	mg/L	8270C LL
Fluoranthene	0.0167	0.00311	mg/Kg	8270C LL
Fluoranthene	0.000500	0.0000700	mg/L	8270C LL
Fluorene	0.0167	0.00236	mg/Kg	8270C LL
Fluorene	0.000500	0.0000700	mg/L	8270C LL
Naphthalene	0.0167	0.00135	mg/Kg	8270C LL
Naphthalene	0.00500	0.0000800	mg/L	8270C LL
Nitrobenzene	0.0167	0.00296	mg/Kg	8270C LL
Nitrobenzene	0.000500	0.000110	mg/L	8270C LL
N-Nitrosodiphenylamine	0.0167	0.00189	mg/Kg	8270C LL
N-Nitrosodiphenylamine	0.000500	0.000100	mg/L	8270C LL
Pentachlorophenol	0.167	0.00400	mg/Kg	8270C LL
Pentachlorophenol	0.00100	0.000610	mg/L	8270C LL
Phenanthrene	0.0167	0.00495	mg/Kg	8270C LL
Phenanthrene	0.000500	0.0000600	mg/L	8270C LL
Phenol	0.0167	0.00424	mg/Kg	8270C LL
Phenol	0.000500	0.0000400	mg/L	8270C LL
Pyrene	0.0167	0.00183	mg/Kg	8270C LL
Pyrene	0.000500	0.000110	mg/L	8270C LL

Method: 6010B - Metals (ICP)

Analyte	MQL	MDL	Units	Method
Arsenic	1.00	0.218	mg/Kg	6010B
Lead	0.500	0.105	mg/Kg	6010B

General Chemistry

Analyte	MQL	MDL	Units	Method
Percent Moisture	1.0	1.0	%	Moisture
Percent Solids	1.0	1.0	%	Moisture

QC Association Summary

Client: Pastor, Behling & Wheeler LLC
 Project/Site: UPRR HWPW

TestAmerica Job ID: 600-68567-1

GC/MS VOA

Analysis Batch: 99606

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-68567-3	WG-1620-IM-CPT-09-13A-20130213	Total/NA	Water	8260B	
LCS 600-99606/3	Lab Control Sample	Total/NA	Water	8260B	
MB 600-99606/4	Method Blank	Total/NA	Water	8260B	

Analysis Batch: 99613

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-68567-1	SO-1620-IM-CPT-11-13 (10-12.5)-20130212	Total/NA	Solid	8260B	
600-68567-1 MS	SO-1620-IM-CPT-11-13 (10-12.5)-20130212	Total/NA	Solid	8260B	
600-68567-1 MSD	SO-1620-IM-CPT-11-13 (10-12.5)-20130212	Total/NA	Solid	8260B	
600-68567-2	SO-1620-IM-CPT-Dup1-13-20130212	Total/NA	Solid	8260B	
600-68567-4	SO-1620-IM-CPT-13-13 (1.5-2.5)-20130213	Total/NA	Solid	8260B	
600-68567-5	SO-1620-IM-CPT-13-13 (5-7.5)-20130213	Total/NA	Solid	8260B	
600-68567-6	SO-1620-IM-CPT-13-13 (15-17.2)-20130213	Total/NA	Solid	8260B	
600-68567-7	SO-1620-IM-CPT-12-13 (2.5-5)-20130213	Total/NA	Solid	8260B	
600-68567-8	SO-1620-IM-CPT-12-13 (5-7.5)-20130213	Total/NA	Solid	8260B	
600-68567-9	SO-1620-IM-CPT-12-13 (15-15.9)-20130213	Total/NA	Solid	8260B	
600-68567-10	SO-1620-IM-CPT-16-13 (1.9-5)-20130213	Total/NA	Solid	8260B	
600-68567-11	SO-1620-IM-CPT-16-13 (10-12.5)-20130213	Total/NA	Solid	8260B	
600-68567-12	SO-1620-IM-CPT-16-13 (15-17.5)-20130213	Total/NA	Solid	8260B	
LCS 600-99613/7	Lab Control Sample	Total/NA	Solid	8260B	
MB 600-99613/3	Method Blank	Total/NA	Solid	8260B	

Analysis Batch: 99676

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-68567-11 - DL	SO-1620-IM-CPT-16-13 (10-12.5)-20130213	Total/NA	Solid	8260B	
LCS 600-99676/3	Lab Control Sample	Total/NA	Solid	8260B	
MB 600-99676/4	Method Blank	Total/NA	Solid	8260B	

Prep Batch: 99960

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-68567-12 - DL	SO-1620-IM-CPT-16-13 (15-17.5)-20130213	Total/NA	Solid	5030B	
LCS 600-99960/1-A	Lab Control Sample	Total/NA	Solid	5030B	
LCSD 600-99960/2-A	Lab Control Sample Dup	Total/NA	Solid	5030B	
MB 600-99960/3-A	Method Blank	Total/NA	Solid	5030B	

Analysis Batch: 99988

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 600-99960/1-A	Lab Control Sample	Total/NA	Solid	8260B	99960
LCSD 600-99960/2-A	Lab Control Sample Dup	Total/NA	Solid	8260B	99960
MB 600-99960/3-A	Method Blank	Total/NA	Solid	8260B	99960

Analysis Batch: 100232

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-68567-12 - DL	SO-1620-IM-CPT-16-13 (15-17.5)-20130213	Total/NA	Solid	8260B	99960

GC/MS Semi VOA

Prep Batch: 99571

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-68567-1	SO-1620-IM-CPT-11-13 (10-12.5)-20130212	Total/NA	Solid	3550B	

TestAmerica Houston

QC Association Summary

Client: Pastor, Behling & Wheeler LLC
 Project/Site: UPRR HWPW

TestAmerica Job ID: 600-68567-1

GC/MS Semi VOA (Continued)

Prep Batch: 99571 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-68567-2	SO-1620-IM-CPT-Dup1-13-20130212	Total/NA	Solid	3550B	
600-68567-4	SO-1620-IM-CPT-13-13 (1.5-2.5)-20130213	Total/NA	Solid	3550B	
600-68567-5	SO-1620-IM-CPT-13-13 (5-7.5)-20130213	Total/NA	Solid	3550B	
600-68567-6	SO-1620-IM-CPT-13-13 (15-17.2)-20130213	Total/NA	Solid	3550B	
LCS 600-99571/2-A	Lab Control Sample	Total/NA	Solid	3550B	
MB 600-99571/1-A	Method Blank	Total/NA	Solid	3550B	

Prep Batch: 99685

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-68567-3	WG-1620-IM-CPT-09-13A-20130213	Total/NA	Water	3510C	
600-68567-3 MS	WG-1620-IM-CPT-09-13A-20130213	Total/NA	Water	3510C	
600-68567-3 MSD	WG-1620-IM-CPT-09-13A-20130213	Total/NA	Water	3510C	
LCS 600-99685/2-A	Lab Control Sample	Total/NA	Water	3510C	
MB 600-99685/1-A	Method Blank	Total/NA	Water	3510C	

Prep Batch: 99693

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-68567-7	SO-1620-IM-CPT-12-13 (2.5-5)-20130213	Total/NA	Solid	3550B	
600-68567-8	SO-1620-IM-CPT-12-13 (5-7.5)-20130213	Total/NA	Solid	3550B	
600-68567-8 MS	SO-1620-IM-CPT-12-13 (5-7.5)-20130213	Total/NA	Solid	3550B	
600-68567-8 MSD	SO-1620-IM-CPT-12-13 (5-7.5)-20130213	Total/NA	Solid	3550B	
600-68567-9	SO-1620-IM-CPT-12-13 (15-15.9)-20130213	Total/NA	Solid	3550B	
600-68567-10	SO-1620-IM-CPT-16-13 (1.9-5)-20130213	Total/NA	Solid	3550B	
600-68567-11	SO-1620-IM-CPT-16-13 (10-12.5)-20130213	Total/NA	Solid	3550B	
600-68567-12	SO-1620-IM-CPT-16-13 (15-17.5)-20130213	Total/NA	Solid	3550B	
600-68567-12 - DL	SO-1620-IM-CPT-16-13 (15-17.5)-20130213	Total/NA	Solid	3550B	
LCS 600-99693/2-A	Lab Control Sample	Total/NA	Solid	3550B	
MB 600-99693/1-A	Method Blank	Total/NA	Solid	3550B	

Analysis Batch: 99980

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-68567-3	WG-1620-IM-CPT-09-13A-20130213	Total/NA	Water	8270C LL	99685
600-68567-3 MS	WG-1620-IM-CPT-09-13A-20130213	Total/NA	Water	8270C LL	99685
600-68567-3 MSD	WG-1620-IM-CPT-09-13A-20130213	Total/NA	Water	8270C LL	99685
LCS 600-99685/2-A	Lab Control Sample	Total/NA	Water	8270C LL	99685
MB 600-99685/1-A	Method Blank	Total/NA	Water	8270C LL	99685

Analysis Batch: 100037

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 600-99571/2-A	Lab Control Sample	Total/NA	Solid	8270C LL	99571
MB 600-99571/1-A	Method Blank	Total/NA	Solid	8270C LL	99571

Analysis Batch: 100102

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-68567-7	SO-1620-IM-CPT-12-13 (2.5-5)-20130213	Total/NA	Solid	8270C LL	99693
600-68567-8	SO-1620-IM-CPT-12-13 (5-7.5)-20130213	Total/NA	Solid	8270C LL	99693
600-68567-8 MS	SO-1620-IM-CPT-12-13 (5-7.5)-20130213	Total/NA	Solid	8270C LL	99693
600-68567-8 MSD	SO-1620-IM-CPT-12-13 (5-7.5)-20130213	Total/NA	Solid	8270C LL	99693
600-68567-9	SO-1620-IM-CPT-12-13 (15-15.9)-20130213	Total/NA	Solid	8270C LL	99693
600-68567-10	SO-1620-IM-CPT-16-13 (1.9-5)-20130213	Total/NA	Solid	8270C LL	99693
600-68567-11	SO-1620-IM-CPT-16-13 (10-12.5)-20130213	Total/NA	Solid	8270C LL	99693

TestAmerica Houston

QC Association Summary

Client: Pastor, Behling & Wheeler LLC
 Project/Site: UPRR HWPW

TestAmerica Job ID: 600-68567-1

GC/MS Semi VOA (Continued)

Analysis Batch: 100102 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-68567-12	SO-1620-IM-CPT-16-13 (15-17.5)-20130213	Total/NA	Solid	8270C LL	99693
LCS 600-99693/2-A	Lab Control Sample	Total/NA	Solid	8270C LL	99693
MB 600-99693/1-A	Method Blank	Total/NA	Solid	8270C LL	99693

Analysis Batch: 100168

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-68567-12 - DL	SO-1620-IM-CPT-16-13 (15-17.5)-20130213	Total/NA	Solid	8270C LL	99693

Analysis Batch: 100183

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-68567-1	SO-1620-IM-CPT-11-13 (10-12.5)-20130212	Total/NA	Solid	8270C LL	99571
600-68567-2	SO-1620-IM-CPT-Dup1-13-20130212	Total/NA	Solid	8270C LL	99571
600-68567-4	SO-1620-IM-CPT-13-13 (1.5-2.5)-20130213	Total/NA	Solid	8270C LL	99571
600-68567-5	SO-1620-IM-CPT-13-13 (5-7.5)-20130213	Total/NA	Solid	8270C LL	99571
600-68567-6	SO-1620-IM-CPT-13-13 (15-17.2)-20130213	Total/NA	Solid	8270C LL	99571

Metals

Prep Batch: 99888

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-68567-1	SO-1620-IM-CPT-11-13 (10-12.5)-20130212	Total/NA	Solid	3050B	
600-68567-1 DU	SO-1620-IM-CPT-11-13 (10-12.5)-20130212	Total/NA	Solid	3050B	
600-68567-1 MS	SO-1620-IM-CPT-11-13 (10-12.5)-20130212	Total/NA	Solid	3050B	
600-68567-1 MSD	SO-1620-IM-CPT-11-13 (10-12.5)-20130212	Total/NA	Solid	3050B	
600-68567-2	SO-1620-IM-CPT-Dup1-13-20130212	Total/NA	Solid	3050B	
600-68567-4	SO-1620-IM-CPT-13-13 (1.5-2.5)-20130213	Total/NA	Solid	3050B	
600-68567-5	SO-1620-IM-CPT-13-13 (5-7.5)-20130213	Total/NA	Solid	3050B	
600-68567-6	SO-1620-IM-CPT-13-13 (15-17.2)-20130213	Total/NA	Solid	3050B	
600-68567-7	SO-1620-IM-CPT-12-13 (2.5-5)-20130213	Total/NA	Solid	3050B	
600-68567-8	SO-1620-IM-CPT-12-13 (5-7.5)-20130213	Total/NA	Solid	3050B	
600-68567-9	SO-1620-IM-CPT-12-13 (15-15.9)-20130213	Total/NA	Solid	3050B	
600-68567-10 - DL	SO-1620-IM-CPT-16-13 (1.9-5)-20130213	Total/NA	Solid	3050B	
600-68567-10	SO-1620-IM-CPT-16-13 (1.9-5)-20130213	Total/NA	Solid	3050B	
600-68567-11	SO-1620-IM-CPT-16-13 (10-12.5)-20130213	Total/NA	Solid	3050B	
600-68567-12	SO-1620-IM-CPT-16-13 (15-17.5)-20130213	Total/NA	Solid	3050B	
LCSSRM 600-99888/2-A	Lab Control Sample	Total/NA	Solid	3050B	
MB 600-99888/1-A	Method Blank	Total/NA	Solid	3050B	

Analysis Batch: 99954

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-68567-1	SO-1620-IM-CPT-11-13 (10-12.5)-20130212	Total/NA	Solid	6010B	99888
600-68567-1 DU	SO-1620-IM-CPT-11-13 (10-12.5)-20130212	Total/NA	Solid	6010B	99888
600-68567-1 MS	SO-1620-IM-CPT-11-13 (10-12.5)-20130212	Total/NA	Solid	6010B	99888
600-68567-1 MSD	SO-1620-IM-CPT-11-13 (10-12.5)-20130212	Total/NA	Solid	6010B	99888
600-68567-2	SO-1620-IM-CPT-Dup1-13-20130212	Total/NA	Solid	6010B	99888
600-68567-4	SO-1620-IM-CPT-13-13 (1.5-2.5)-20130213	Total/NA	Solid	6010B	99888
600-68567-5	SO-1620-IM-CPT-13-13 (5-7.5)-20130213	Total/NA	Solid	6010B	99888
600-68567-6	SO-1620-IM-CPT-13-13 (15-17.2)-20130213	Total/NA	Solid	6010B	99888
600-68567-7	SO-1620-IM-CPT-12-13 (2.5-5)-20130213	Total/NA	Solid	6010B	99888
600-68567-8	SO-1620-IM-CPT-12-13 (5-7.5)-20130213	Total/NA	Solid	6010B	99888

TestAmerica Houston

QC Association Summary

Client: Pastor, Behling & Wheeler LLC
 Project/Site: UPRR HWPW

TestAmerica Job ID: 600-68567-1

Metals (Continued)

Analysis Batch: 99954 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-68567-9	SO-1620-IM-CPT-12-13 (15-15.9)-20130213	Total/NA	Solid	6010B	99888
600-68567-10 - DL	SO-1620-IM-CPT-16-13 (1.9-5)-20130213	Total/NA	Solid	6010B	99888
600-68567-10	SO-1620-IM-CPT-16-13 (1.9-5)-20130213	Total/NA	Solid	6010B	99888
600-68567-11	SO-1620-IM-CPT-16-13 (10-12.5)-20130213	Total/NA	Solid	6010B	99888
600-68567-12	SO-1620-IM-CPT-16-13 (15-17.5)-20130213	Total/NA	Solid	6010B	99888
LCSSRM 600-99888/2-A	Lab Control Sample	Total/NA	Solid	6010B	99888
MB 600-99888/1-A	Method Blank	Total/NA	Solid	6010B	99888

General Chemistry

Analysis Batch: 99595

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-68567-1	SO-1620-IM-CPT-11-13 (10-12.5)-20130212	Total/NA	Solid	Moisture	
600-68567-1 DU	SO-1620-IM-CPT-11-13 (10-12.5)-20130212	Total/NA	Solid	Moisture	
600-68567-2	SO-1620-IM-CPT-Dup1-13-20130212	Total/NA	Solid	Moisture	
600-68567-4	SO-1620-IM-CPT-13-13 (1.5-2.5)-20130213	Total/NA	Solid	Moisture	
600-68567-5	SO-1620-IM-CPT-13-13 (5-7.5)-20130213	Total/NA	Solid	Moisture	
600-68567-6	SO-1620-IM-CPT-13-13 (15-17.2)-20130213	Total/NA	Solid	Moisture	
600-68567-7	SO-1620-IM-CPT-12-13 (2.5-5)-20130213	Total/NA	Solid	Moisture	
600-68567-8	SO-1620-IM-CPT-12-13 (5-7.5)-20130213	Total/NA	Solid	Moisture	
600-68567-9	SO-1620-IM-CPT-12-13 (15-15.9)-20130213	Total/NA	Solid	Moisture	
600-68567-10	SO-1620-IM-CPT-16-13 (1.9-5)-20130213	Total/NA	Solid	Moisture	
600-68567-11	SO-1620-IM-CPT-16-13 (10-12.5)-20130213	Total/NA	Solid	Moisture	
600-68567-12	SO-1620-IM-CPT-16-13 (15-17.5)-20130213	Total/NA	Solid	Moisture	

Lab Chronicle

Client: Pastor, Behling & Wheeler LLC
 Project/Site: UPRR HWPW

TestAmerica Job ID: 600-68567-1

Client Sample ID: SO-1620-IM-CPT-11-13 (10-12.5)-20130212

Lab Sample ID: 600-68567-1

Date Collected: 02/12/13 15:10

Matrix: Solid

Date Received: 02/13/13 16:58

Percent Solids: 84.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	99613	02/14/13 14:09	YX	TAL HOU
Total/NA	Prep	3550B			99571	02/14/13 13:04	LB	TAL HOU
Total/NA	Analysis	8270C LL		1	100183	02/21/13 18:14	JH	TAL HOU
Total/NA	Prep	3050B			99888	02/19/13 12:08	NER	TAL HOU
Total/NA	Analysis	6010B		1	99954	02/20/13 11:51	DCL	TAL HOU
Total/NA	Analysis	Moisture		1	99595	02/14/13 15:11	AS	TAL HOU

Client Sample ID: SO-1620-IM-CPT-Dup1-13-20130212

Lab Sample ID: 600-68567-2

Date Collected: 02/12/13 15:20

Matrix: Solid

Date Received: 02/13/13 16:58

Percent Solids: 86.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	99613	02/14/13 14:32	YX	TAL HOU
Total/NA	Prep	3550B			99571	02/14/13 13:04	LB	TAL HOU
Total/NA	Analysis	8270C LL		1	100183	02/21/13 18:40	JH	TAL HOU
Total/NA	Prep	3050B			99888	02/19/13 12:08	NER	TAL HOU
Total/NA	Analysis	6010B		1	99954	02/20/13 10:41	DCL	TAL HOU
Total/NA	Analysis	Moisture		1	99595	02/14/13 15:11	AS	TAL HOU

Client Sample ID: WG-1620-IM-CPT-09-13A-20130213

Lab Sample ID: 600-68567-3

Date Collected: 02/13/13 09:00

Matrix: Water

Date Received: 02/13/13 16:58

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	99606	02/14/13 21:21	DT	TAL HOU
Total/NA	Prep	3510C			99685	02/15/13 15:28	LR	TAL HOU
Total/NA	Analysis	8270C LL		50	99980	02/19/13 18:32	JH	TAL HOU

Client Sample ID: SO-1620-IM-CPT-13-13 (1.5-2.5)-20130213

Lab Sample ID: 600-68567-4

Date Collected: 02/13/13 12:45

Matrix: Solid

Date Received: 02/13/13 16:58

Percent Solids: 77.6

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	99613	02/14/13 20:03	YX	TAL HOU
Total/NA	Prep	3550B			99571	02/14/13 13:04	LB	TAL HOU
Total/NA	Analysis	8270C LL		100	100183	02/21/13 19:07	JH	TAL HOU
Total/NA	Prep	3050B			99888	02/19/13 12:08	NER	TAL HOU
Total/NA	Analysis	6010B		1	99954	02/20/13 10:43	DCL	TAL HOU
Total/NA	Analysis	Moisture		1	99595	02/14/13 15:11	AS	TAL HOU

TestAmerica Houston

Lab Chronicle

Client: Pastor, Behling & Wheeler LLC
 Project/Site: UPRR HWPW

TestAmerica Job ID: 600-68567-1

Client Sample ID: SO-1620-IM-CPT-13-13 (5-7.5)-20130213

Lab Sample ID: 600-68567-5

Date Collected: 02/13/13 12:55

Matrix: Solid

Date Received: 02/13/13 16:58

Percent Solids: 83.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	99613	02/14/13 16:31	YX	TAL HOU
Total/NA	Prep	3550B			99571	02/14/13 13:04	LB	TAL HOU
Total/NA	Analysis	8270C LL		50	100183	02/21/13 19:34	JH	TAL HOU
Total/NA	Prep	3050B			99888	02/19/13 12:08	NER	TAL HOU
Total/NA	Analysis	6010B		1	99954	02/20/13 10:46	DCL	TAL HOU
Total/NA	Analysis	Moisture		1	99595	02/14/13 15:11	AS	TAL HOU

Client Sample ID: SO-1620-IM-CPT-13-13 (15-17.2)-20130213

Lab Sample ID: 600-68567-6

Date Collected: 02/13/13 13:05

Matrix: Solid

Date Received: 02/13/13 16:58

Percent Solids: 80.5

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	99613	02/14/13 16:55	YX	TAL HOU
Total/NA	Prep	3550B			99571	02/14/13 13:04	LB	TAL HOU
Total/NA	Analysis	8270C LL		1	100183	02/21/13 20:01	JH	TAL HOU
Total/NA	Prep	3050B			99888	02/19/13 12:08	NER	TAL HOU
Total/NA	Analysis	6010B		1	99954	02/20/13 10:49	DCL	TAL HOU
Total/NA	Analysis	Moisture		1	99595	02/14/13 15:11	AS	TAL HOU

Client Sample ID: SO-1620-IM-CPT-12-13 (2.5-5)-20130213

Lab Sample ID: 600-68567-7

Date Collected: 02/13/13 13:55

Matrix: Solid

Date Received: 02/13/13 16:58

Percent Solids: 68.2

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	99613	02/14/13 17:18	YX	TAL HOU
Total/NA	Prep	3550B			99693	02/15/13 15:53	LB	TAL HOU
Total/NA	Analysis	8270C LL		100	100102	02/20/13 09:48	TTD	TAL HOU
Total/NA	Prep	3050B			99888	02/19/13 12:08	NER	TAL HOU
Total/NA	Analysis	6010B		1	99954	02/20/13 10:51	DCL	TAL HOU
Total/NA	Analysis	Moisture		1	99595	02/14/13 15:11	AS	TAL HOU

Client Sample ID: SO-1620-IM-CPT-12-13 (5-7.5)-20130213

Lab Sample ID: 600-68567-8

Date Collected: 02/13/13 14:10

Matrix: Solid

Date Received: 02/13/13 16:58

Percent Solids: 82.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	99613	02/14/13 17:41	YX	TAL HOU
Total/NA	Prep	3550B			99693	02/15/13 15:53	LB	TAL HOU
Total/NA	Analysis	8270C LL		1	100102	02/20/13 10:15	TTD	TAL HOU
Total/NA	Prep	3050B			99888	02/19/13 12:08	NER	TAL HOU
Total/NA	Analysis	6010B		1	99954	02/20/13 10:54	DCL	TAL HOU
Total/NA	Analysis	Moisture		1	99595	02/14/13 15:11	AS	TAL HOU

TestAmerica Houston

Lab Chronicle

Client: Pastor, Behling & Wheeler LLC
 Project/Site: UPRR HWPW

TestAmerica Job ID: 600-68567-1

Client Sample ID: SO-1620-IM-CPT-12-13 (15-15.9)-20130213

Lab Sample ID: 600-68567-9

Date Collected: 02/13/13 14:20

Matrix: Solid

Date Received: 02/13/13 16:58

Percent Solids: 79.5

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	99613	02/14/13 18:05	YX	TAL HOU
Total/NA	Prep	3550B			99693	02/15/13 15:53	LB	TAL HOU
Total/NA	Analysis	8270C LL		1	100102	02/20/13 11:37	TTD	TAL HOU
Total/NA	Prep	3050B			99888	02/19/13 12:08	NER	TAL HOU
Total/NA	Analysis	6010B		1	99954	02/20/13 11:03	DCL	TAL HOU
Total/NA	Analysis	Moisture		1	99595	02/14/13 15:11	AS	TAL HOU

Client Sample ID: SO-1620-IM-CPT-16-13 (1.9-5)-20130213

Lab Sample ID: 600-68567-10

Date Collected: 02/13/13 15:00

Matrix: Solid

Date Received: 02/13/13 16:58

Percent Solids: 77.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	99613	02/14/13 18:28	YX	TAL HOU
Total/NA	Prep	3550B			99693	02/15/13 15:53	LB	TAL HOU
Total/NA	Analysis	8270C LL		10	100102	02/20/13 12:05	TTD	TAL HOU
Total/NA	Prep	3050B	DL		99888	02/19/13 12:08	NER	TAL HOU
Total/NA	Analysis	6010B	DL	10	99954	02/20/13 14:26	DCL	TAL HOU
Total/NA	Prep	3050B			99888	02/19/13 12:08	NER	TAL HOU
Total/NA	Analysis	6010B		1	99954	02/20/13 11:56	DCL	TAL HOU
Total/NA	Analysis	Moisture		1	99595	02/14/13 15:11	AS	TAL HOU

Client Sample ID: SO-1620-IM-CPT-16-13 (10-12.5)-20130213

Lab Sample ID: 600-68567-11

Date Collected: 02/13/13 15:20

Matrix: Solid

Date Received: 02/13/13 16:58

Percent Solids: 85.2

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	99613	02/14/13 18:52	YX	TAL HOU
Total/NA	Analysis	8260B	DL	5	99676	02/15/13 17:38	YX	TAL HOU
Total/NA	Prep	3550B			99693	02/15/13 15:53	LB	TAL HOU
Total/NA	Analysis	8270C LL		10	100102	02/20/13 12:32	TTD	TAL HOU
Total/NA	Prep	3050B			99888	02/19/13 12:08	NER	TAL HOU
Total/NA	Analysis	6010B		1	99954	02/20/13 11:59	DCL	TAL HOU
Total/NA	Analysis	Moisture		1	99595	02/14/13 15:11	AS	TAL HOU

Client Sample ID: SO-1620-IM-CPT-16-13 (15-17.5)-20130213

Lab Sample ID: 600-68567-12

Date Collected: 02/13/13 15:35

Matrix: Solid

Date Received: 02/13/13 16:58

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030B	DL		99960	02/20/13 10:00	KLK	TAL HOU
Total/NA	Analysis	8260B	DL	2	100232	02/22/13 18:58	WS	TAL HOU
Total/NA	Analysis	8260B		1	99613	02/14/13 19:16	YX	TAL HOU

TestAmerica Houston

Lab Chronicle

Client: Pastor, Behling & Wheeler LLC
Project/Site: UPRR HWPW

TestAmerica Job ID: 600-68567-1

Client Sample ID: SO-1620-IM-CPT-16-13 (15-17.5)-20130213

Lab Sample ID: 600-68567-12

Date Collected: 02/13/13 15:35

Matrix: Solid

Date Received: 02/13/13 16:58

Percent Solids: 77.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550B			99693	02/15/13 15:53	LB	TAL HOU
Total/NA	Analysis	8270C LL		100	100102	02/20/13 12:59	TTD	TAL HOU
Total/NA	Prep	3550B	DL		99693	02/15/13 15:53	LB	TAL HOU
Total/NA	Analysis	8270C LL	DL	200	100168	02/21/13 15:12	TTD	TAL HOU
Total/NA	Prep	3050B			99888	02/19/13 12:08	NER	TAL HOU
Total/NA	Analysis	6010B		1	99954	02/20/13 12:01	DCL	TAL HOU
Total/NA	Analysis	Moisture		1	99595	02/14/13 15:11	AS	TAL HOU

Laboratory References:

TAL HOU = TestAmerica Houston, 6310 Rothway Street, Houston, TX 77040, TEL (713)690-4444

Certification Summary

Client: Pastor, Behling & Wheeler LLC
Project/Site: UPRR HWPW

TestAmerica Job ID: 600-68567-1

Laboratory: TestAmerica Houston

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Arkansas DEQ	State Program	6	88-0759	08-04-12
Louisiana	NELAP	6	01967	06-30-13
Oklahoma	State Program	6	9503	08-31-13
Texas	NELAP	6	T104704223-10-6-TX	10-31-13
USDA	Federal		P330-08-00217	04-01-14
Utah	NELAP	8	GULF	10-31-13

ica Houston
 Street
 TX 77040
 (713) 690-4444 Fax (713) 690-5646

Chain of Custody Record

TestAmerica
 THE LABORATORY FOR ENVIRONMENTAL TESTING

Client Information
 Client Contact: Mr. Eric Matzner
 Company: Pastor, Behling & Wheeler LLC
 Address: 2201 Double Creek Dr Suite 4004
 City: Round Rock
 State, Zip: TX, 78664
 Phone: 512-671-3434 (Tel) 512-671-3446 (Fax)
 Email: eric.matzner@pbwllc.com
 Project Name: UPRR HW/PW
 Site: SSSOW#:

Sampler: Carolyn Sexton
Lab PM: Kuchradkar, Sachin G
Phone: 512-671-3434
Email: sachin.kuchradkar@testamericainc.com
Carrier Tracking No(s):
COC No: 600-19058-72672
Page: 1 of 2
Job #:

Due Date Requested:
TAT Requested (days): Standard
PO #:
Purchase Order not required:
Project #:
WO #:
SSOW#:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix (Metallic, Nonmetallic, Organic, Inorganic, etc.)	Analysis Requested			Special Instructions/Note:
					Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	Total Number of containers	
SO-1620-IM-CPT-11-13 (10-13-5) 20130212	2/12/13	1510	G	Solid	X	X	X	
SO-1620-IM-CPT-13-13 (5-7-3) 20130213	2/12/13	1520	G	Solid	X	X	X	
SO-1620-IM-CPT-09-13A-10130213	2/13/13	0900	G	Solid	X	X	X	
SO-1620-IM-CPT-13-13 (1.5-2.3) 20130213		1245	G	Solid	X	X	X	
SO-1620-IM-CPT-13-13 (5-7-3) 20130213		1265	G	Solid	X	X	X	
SO-1620-IM-CPT-13-13 (1.5-2.3) 20130213		1305	G	Solid	X	X	X	
SO-1620-IM-CPT-13-13 (5-7-3) 20130213		1355	G	Solid	X	X	X	
SO-1620-IM-CPT-13-13 (5-7-3) 20130213		1416	G	Solid	X	X	X	
SO-1620-IM-CPT-13-13 (5-7-3) 20130213		1426	G	Solid	X	X	X	

Possible Hazard Identification
 Non-Hazard Flammable Skin Irritant Poison B Unknown Radiological
Deliverable Requested: I, II, III, IV, Other (specify)
Special Instructions/QC Requirements:
 Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
 Return To Client Disposal By Lab Archive For _____ Months
 Empty Kit Relinquished by: _____ Date: _____
 Relinquished by: _____ Date/Time: _____

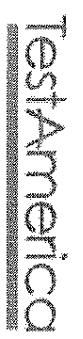
Relinquished by: Carolyn Sexton
Date/Time: 02/13/13 1615
Company: PBW
Received by: _____
Date/Time: 02/13/13 1658
Company: _____
Custody Seals Intact: Yes No
Custody Seal No.: _____
Cooler Temperature(s) °C and Other Remarks:



Testica Houston

6310 Rutliffway Street
Houston, TX 77040
Phone (713) 690-4444 Fax (713) 690-5646

Chain of Custody Record



THIS IS A MEMBER OF ENVIRONMENTAL TESTING

Client Information
Client Contact: Mr. Eric Matzner
Company: Pastor, Behling & Wheeler LLC
Address: 2201 Double Creek Dr Suite 4004
City: Round Rock
State, Zip: TX, 78664
Phone: 512-671-3434 (Tel) 512-671-3446 (Fax)
Email: eric.matzner@pbwllc.com
Project Name: 1620-UPRR-HMPW
Site: 1620-UPRR-HMPW

Sampler: *Caroline Sexton*
Phone: 5
Lab P/N: Kuchchadkar, Sachin G
E-Mail: sachin.kuchchadkar@lestiamericalnc.com

Carrier Tracking No(s):
COC No: 600-18948-7248.6
Page: 2 of 2
Job #:

Due Date Requested:
TAT Requested (days):
PO #:
Purchase Order not required
WOC #:
Project #:
SSOV#:

Analysis Requested

Sample Identification	Sample Date	Sample Time	Sample Type (G=Comp, G=Grab)	Matrix (Hydrate, Sulfide, Oxide, etc.)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8270C_LL - Semivolatiles	8260B - Volatiles	6010B - As, Pb	Total Number of containers	Special Instructions/Note:
SD-1620-IM-CPT-16-13(19-5) 20130213	02-13-13	1500	G	Solid	X	X	X	X	X	2	
SO-1620-IM-CPT-16-13(00-125) 20130213		1530	G	Solid	X	X	X	X	X	2	
SO-1620-IM-CPT-16-13(15-17.6) 20130213		1535	G	Solid	X	X	X	X	X	2	
				Solid							
				Solid							
				Solid							
				Solid							
				Solid							
				Solid							
				Solid							

Possible Hazard Identification
 Non-Hazard Flammable Skin Irritant Poison B Unknown Radiological
 Deliverable Requested: I, II, III, IV, Other (Specify)
 Empty Kit Relinquished by: _____ Date: _____
 Relinquished by: _____ Date/Time: _____
 Relinquished by: _____ Date/Time: _____
 Relinquished by: _____ Date/Time: _____
 Custody Seals Intact: Yes No
 Custody Seal No.: _____

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
 Return To Client Disposal By Lab Archive For _____ Months
 Special Instructions/QC Requirements:
 Received by: _____ Date/Time: _____
 Received by: _____ Date/Time: _____
 Received by: _____ Date/Time: _____
 Method of Shipment: _____
 Cooler Temperature(s) °C and Other Remarks:

Login Sample Receipt Checklist

Client: Pastor, Behling & Wheeler LLC

Job Number: 600-68567-1

Login Number: 68567

List Source: TestAmerica Houston

List Number: 1

Creator: Pulumbarit, Josh

Question	Answer	Comment
Radioactivity wasn't checked or is <=/ background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	2.3
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	True	

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Houston
6310 Rothway Street
Houston, TX 77040
Tel: (713)690-4444

TestAmerica Job ID: 600-68626-1

Client Project/Site: 1620 UPRR HWPW

For:

Pastor, Behling & Wheeler LLC
2201 Double Creek Dr
Suite 4004
Round Rock, Texas 78664

Attn: Mr. Eric Matzner



Authorized for release by:

2/28/2013 3:18:41 PM

Cathy Upton

Data Delivery Analyst

cathy.upton@testamericainc.com

Designee for

Sachin Kudchadkar

Project Manager II

sachin.kudchadkar@testamericainc.com

LINKS

Review your project
results through

TotalAccess

Have a Question?



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www.testamericainc.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17



Table of Contents

Cover Page	1
Table of Contents	2
TRRP Cover Page	3
TRRP Checklists & DCSs	4
Case Narrative	18
Method Summary	19
Sample Summary	20
Client Sample Results	21
Definitions/Glossary	36
Surrogate Summary	37
QC Sample Results	39
Default Detection Limits	45
QC Association Summary	46
Lab Chronicle	49
Certification Summary	53
Chain of Custody	54
Receipt Checklists	55

Job Number: 600-68626-1
Project Name/Number: 1620 UPRR HWPW

This Data Package consists of:

This signature page, the laboratory review checklist, and the following Reportable Data:

- R1 Field Chain-of-Custody Form
- R2 Sample Identification Cross-reference;
- R3 Test Reports (Analytical Data Sheets) for each environmental sample that includes:
 - a) Items consistent with NELAC Chapter 5
 - b) dilution factors,
 - c) preparation methods,
 - d) cleanup methods, and
 - e) if required for the project, tentatively identified compounds (TICs).
- R4 Surrogate Recovery Data including:
 - a) Calculated recovery (%R), and
 - b) The laboratory's surrogate QC limits.
- R5 Test Reports/Summary Forms for Blank Samples;
- R6 Test Reports/Summary Forms for Laboratory Control Samples (LCSs) including:
 - a) LCS spiking amounts,
 - b) Calculated %R for each analyte, and
 - d) The laboratory's LCS QC limits
- R7 Test Reports for Matrix Spike/Matrix Spike Duplicates (MS/MSDs) including:
 - a) Samples associated with the MS/MSD clearly identified,
 - b) MS/MSD spiking amounts,
 - c) Concentration of each MS/MSD analyte measured in the parent and spiked sample,
 - d) Calculated %Rs and relative percent differences (RPDs), and
 - e) The laboratory's MS/MSD QC limits
- R8 Laboratory analytical duplicates (if applicable) recovery and precision, including:
 - a) the amount of analyte measured in the duplicate,
 - b) the calculated RPD, and
 - c) the laboratory's QC limits for analytical duplicates.
- R9 List of method quantitation limit (MQL) and detectability check sample results for each analyte for each method and matrix;
- R10 Other problems or anomalies

The exception report for each "No" or "Not Reviewed (NR)" item in the Laboratory Review Checklist and for each analyte, matrix, and method for which the laboratory does not hold NELAC accreditation under the Texas Laboratory Accreditation Program.

Release Statement: I am responsible for the release of this laboratory data package. This laboratory is NELAC accredited under Texas laboratory Accreditation Program for all the methods, analytes, and matrices reported in this data package except as noted in the Exception Reports. The data have been reviewed and are technically compliant with the requirements of the methods used, except where noted by the laboratory in the Exception Reports. By my signature below, I affirm, to the best of my knowledge, that all problems/anomalies observed by the laboratory have been identified in the Laboratory Review Checklist, and no information affecting the quality of the data has been knowingly withheld.

Cathy Upton
Name (printed)
Data Delivery Analyst
Official Title (printed)


Signature

02/28/2013
Date

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Appendix A (cont'd): Laboratory Review Checklist: Reportable Data							
Laboratory Name: TestAmerica-Houston			LRC Date: 02/28/13				
Project Name: 1620 UPRR HWPW			Laboratory Job Number: 600-68626				
Reviewer Name: TWR			Prep Batch Number(s): 600-99913- ICP				
# ¹	A ²	Description	Yes	No	NA ³	NR ⁴	ER# ⁵
R1	OI	Chain-of-custody (C-O-C)					
		Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?	X				
		Were all departures from standard conditions described in an exception report?			X		
R2	OI	Sample and quality control (QC) identification					
		Are all field sample ID numbers cross-referenced to the laboratory ID numbers?	X				
		Are all laboratory ID numbers cross-referenced to the corresponding QC data?	X				
R3	OI	Test reports					
		Were all samples prepared and analyzed within holding times?	X				
		Other than those results < MQL, were all other raw values bracketed by calibration standards?	X				
		Were calculations checked by a peer or supervisor?	X				
		Were all analyte identifications checked by a peer or supervisor?	X				
		Were sample detection limits reported for all analytes not detected?	X				
		Were all results for soil and sediment samples reported on a dry weight basis?	X				
		Were % moisture (or solids) reported for all soil and sediment samples?	X				
		Were bulk soil/solid samples for volatile analysis extracted with methanol per SW846 Method 5035?			X		
		If required for the project, TICs reported?			X		
R4	O	Surrogate recovery data					
		Were surrogates added prior to extraction?			X		
		Were surrogate percent recoveries in all samples within the laboratory QC limits?			X		
R5	OI	Test reports/summary forms for blank samples					
		Were appropriate type(s) of blanks analyzed?	X				
		Were blanks analyzed at the appropriate frequency?	X				
		Were method blanks taken through the entire analytical process, including preparation and, if applicable, cleanup procedures?	X				
		Were blank concentrations < MQL?	X				
R6	OI	Laboratory control samples (LCS):					
		Were all COCs included in the LCS?	X				
		Was each LCS taken through the entire analytical procedure, including prep and cleanup steps?	X				
		Were LCSs analyzed at the required frequency?	X				
		Were LCS (and LCSD, if applicable) %Rs within the laboratory QC limits?	X				
		Does the detectability check sample data document the laboratory's capability to detect the COCs at the MDL used to calculate the SDLs?	X				
		Was the LCSD RPD within QC limits?			X		
R7	OI	Matrix spike (MS) and matrix spike duplicate (MSD) data					
		Were the project/method specified analytes included in the MS and MSD?	X				
		Were MS/MSD analyzed at the appropriate frequency?	X				
		Were MS (and MSD, if applicable) %Rs within the laboratory QC limits?		X			1
		Were MS/MSD RPDs within laboratory QC limits?		X			2
R8	OI	Analytical duplicate data					
		Were appropriate analytical duplicates analyzed for each matrix?	X				
		Were analytical duplicates analyzed at the appropriate frequency?	X				
		Were RPDs or relative standard deviations within the laboratory QC limits?		X			3
R9	OI	Method quantitation limits (MQLs):					
		Are the MQLs for each method analyte included in the laboratory data package?	X				
		Do the MQLs correspond to the concentration of the lowest non-zero calibration standard?	X				
		Are unadjusted MQLs and DCSs included in the laboratory data package?	X				
R10	OI	Other problems/anomalies					
		Are all known problems/anomalies/special conditions noted in this LRC and ER?	X				
		Was applicable and available technology used to lower the SDL to minimize the matrix interference affects on the sample results?	X				
		Is the laboratory NELAC-accredited under the Texas Laboratory Accreditation Program for the analytes, matrices and methods associated with this laboratory data package?	X				

- Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.
- O = organic analyses; I = inorganic analyses (and general chemistry, when applicable);
- NA = Not applicable;
- NR = Not reviewed;
- ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

Appendix A (cont'd): Laboratory Review Checklist: Reportable Data									
Laboratory Name: TestAmerica-Houston					LRC Date: 02/28/13				
Project Name: 1620 UPRR HWPW					Laboratory Job Number: 600-68626				
Reviewer Name: TWR					Prep Batch Number(s): 600-99913- ICP				
# ¹	A ²	Description	Yes	No	NA ³	NR ⁴	ER# ⁵		
S1	OI	Initial calibration (ICAL)							
		Were response factors and/or relative response factors for each analyte within QC limits?			X				
		Were percent RSDs or correlation coefficient criteria met?			X				
		Was the number of standards recommended in the method used for all analytes?	X						
		Were all points generated between the lowest and highest standard used to calculate the curve?			X				
		Are ICAL data available for all instruments used?	X						
		Has the initial calibration curve been verified using an appropriate second source standard?	X						
S2	OI	Initial and continuing calibration verification (ICCV and CCV) and continuing calibration							
		Was the CCV analyzed at the method-required frequency?	X						
		Were percent differences for each analyte within the method-required QC limits?	X						
		Was the ICAL curve verified for each analyte?	X						
		Was the absolute value of the analyte concentration in the inorganic CCB < MDL?	X						
S3	O	Mass spectral tuning:							
		Was the appropriate compound for the method used for tuning?			X				
		Were ion abundance data within the method-required QC limits?			X				
S4	O	Internal standards (IS):							
		Were IS area counts and retention times within the method-required QC limits?			X				
S5	OI	Raw data (NELAC section 5.5.10)							
		Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?	X						
		Were data associated with manual integrations flagged on the raw data?			X				
S6	O	Dual column confirmation							
		Did dual column confirmation results meet the method-required QC?			X				
S7	O	Tentatively identified compounds (TICs):							
		If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?			X				
S8	I	Interference Check Sample (ICS) results:							
		Were percent recoveries within method QC limits?	X						
S9	I	Serial dilutions, post digestion spikes, and method of standard additions							
		Were percent differences, recoveries, and the linearity within the QC limits specified in the method?		X				4	
S10	OI	Method detection limit (MDL) studies							
		Was a MDL study performed for each reported analyte?	X						
		Is the MDL either adjusted or supported by the analysis of DCSs?	X						
S11	OI	Proficiency test reports:							
		Was the laboratory's performance acceptable on the applicable proficiency tests or evaluation studies?	X						
S12	OI	Standards documentation							
		Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?	X						
S13	OI	Compound/analyte identification procedures							
		Are the procedures for compound/analyte identification documented?	X						
S14	OI	Demonstration of analyst competency (DOC)							
		Was DOC conducted consistent with NELAC Chapter 5?	X						
		Is documentation of the analyst's competency up-to-date and on file?	X						
S15	OI	Verification/validation documentation for methods (NELAC Chapter 5)							
		Are all the methods used to generate the data documented, verified, and validated, where applicable?	X						
S16	OI	Laboratory standard operating procedures (SOPs):							
		Are laboratory SOPs current and on file for each method performed?	X						

- 1 Items identified by the letter "R" should be included in the laboratory data package submitted to the TCEQ in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.
- 2 O = organic analyses; I = inorganic analyses (and general chemistry, when applicable).
- 3 NA = Not applicable.
- 4 NR = Not Reviewed.
- 5 ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

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Appendix A (cont'd): Laboratory Review Checklist: Exception Reports	
Laboratory Name: TestAmerica-Houston	LRC Date: 02/28/13
Project Name: 1620 UPRR HWPW	Laboratory Job Number: 600-68626
Reviewer Name: TWR	Prep Batch Number(s): 600-99913- ICP
ER #¹	DESCRIPTION
1	The lead recovery in sample 68626-5 MSD was above acceptance limits due to matrix interference. Method performance is demonstrated by an acceptable LCS recovery.
2	The lead RPD between samples 68626-5 MS and MSD was above acceptance limits due to the non-homogenous nature of the samples.
3	The lead RPD between samples 68626-5 and 68626-5 MD was above acceptance limits due to the non-homogenous nature of the samples.
4	The lead percent difference between samples 68626-5 and 68626-5 SD was above acceptance limits due to matrix interference.

ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked on the LRC)

Appendix A (cont'd): Laboratory Review Checklist: Reportable Data							
Laboratory Name: TestAmerica-Houston			LRC Date: 02/25/13				
Project Name: 1620 UPRR HWPW			Laboratory Job Number: 600-68626				
Reviewer Name: YX			Prep Batch Number: 600-99676, 100012 and 100100-VOA				
# ¹	A ²	Description	Yes	No	NA ³	NR ⁴	ER# ⁵
R1	OI	Chain-of-custody (C-O-C)					
		Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?	X				
		Were all departures from standard conditions described in an exception report?			X		
R2	OI	Sample and quality control (QC) identification					
		Are all field sample ID numbers cross-referenced to the laboratory ID numbers?	X				
		Are all laboratory ID numbers cross-referenced to the corresponding QC data?	X				
R3	OI	Test reports					
		Were all samples prepared and analyzed within holding times?	X				
		Other than those results < MQL, were all other raw values bracketed by calibration standards?	X				
		Were calculations checked by a peer or supervisor?	X				
		Were all analyte identifications checked by a peer or supervisor?	X				
		Were sample detection limits reported for all analytes not detected?	X				
		Were all results for soil and sediment samples reported on a dry weight basis?	X				
		Were % moisture (or solids) reported for all soil and sediment samples?	X				
		Were bulk soil/solid samples for volatile analysis extracted with methanol per SW846 Method 5035?			X		
		If required for the project, TICs reported?			X		
R4	O	Surrogate recovery data					
		Were surrogates added prior to extraction?	X				
		Were surrogate percent recoveries in all samples within the laboratory QC limits?	X				
R5	OI	Test reports/summary forms for blank samples					
		Were appropriate type(s) of blanks analyzed?	X				
		Were blanks analyzed at the appropriate frequency?	X				
		Were method blanks taken through the entire analytical process, including preparation and, if applicable, cleanup procedures?	X				
		Were blank concentrations < MQL?	X				1
R6	OI	Laboratory control samples (LCS):					
		Were all COCs included in the LCS?	X				
		Was each LCS taken through the entire analytical procedure, including prep and cleanup steps?	X				
		Were LCSs analyzed at the required frequency?	X				
		Were LCS (and LCSD, if applicable) %Rs within the laboratory QC limits?	X				
		Does the detectability check sample data document the laboratory's capability to detect the COCs at the MDL used to calculate the SDLs?	X				
		Was the LCSD RPD within QC limits?			X		
R7	OI	Matrix spike (MS) and matrix spike duplicate (MSD) data					
		Were the project/method specified analytes included in the MS and MSD?	X				
		Were MS/MSD analyzed at the appropriate frequency?	X				
		Were MS (and MSD, if applicable) %Rs within the laboratory QC limits?			X		2
		Were MS/MSD RPDs within laboratory QC limits?			X		2
R8	OI	Analytical duplicate data					
		Were appropriate analytical duplicates analyzed for each matrix?			X		
		Were analytical duplicates analyzed at the appropriate frequency?			X		
		Were RPDs or relative standard deviations within the laboratory QC limits?			X		
R9	OI	Method quantitation limits (MQLs):					
		Are the MQLs for each method analyte included in the laboratory data package?	X				
		Do the MQLs correspond to the concentration of the lowest non-zero calibration standard?	X				
		Are unadjusted MQLs and DCSs included in the laboratory data package?	X				
R10	OI	Other problems/anomalies					
		Are all known problems/anomalies/special conditions noted in this LRC and ER?	X				
		Was applicable and available technology used to lower the SDL to minimize the matrix interference affects on the sample results?	X				3
		Is the laboratory NELAC-accredited under the Texas Laboratory Accreditation Program for the analytes, matrices and methods associated with this laboratory data package?	X				

- Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.
- O = organic analyses; I = inorganic analyses (and general chemistry, when applicable);
- NA = Not applicable;
- NR = Not reviewed;
- ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

Appendix A (cont'd): Laboratory Review Checklist: Reportable Data									
Laboratory Name: TestAmerica-Houston					LRC Date: 02/25/13				
Project Name: 1620 UPRR HWPW					Laboratory Job Number: 600-68626				
Reviewer Name: YX					Prep Batch Number: 600-99676, 100012 and 100100-VOA				
# ¹	A ²	Description	Yes	No	NA ³	NR ⁴	ER# ⁵		
S1	OI	Initial calibration (ICAL)							
		Were response factors and/or relative response factors for each analyte within QC limits?	X						
		Were percent RSDs or correlation coefficient criteria met?	X						
		Was the number of standards recommended in the method used for all analytes?	X						
		Were all points generated between the lowest and highest standard used to calculate the curve?	X						
		Are ICAL data available for all instruments used?	X						
		Has the initial calibration curve been verified using an appropriate second source standard?	X						
S2	OI	Initial and continuing calibration verification (ICCV and CCV) and continuing calibration							
		Was the CCV analyzed at the method-required frequency?	X						
		Were percent differences for each analyte within the method-required QC limits?	X						
		Was the ICAL curve verified for each analyte?	X						
		Was the absolute value of the analyte concentration in the inorganic CCB < MDL?				X			
S3	O	Mass spectral tuning:							
		Was the appropriate compound for the method used for tuning?	X						
		Were ion abundance data within the method-required QC limits?	X						
S4	O	Internal standards (IS):							
		Were IS area counts and retention times within the method-required QC limits?	X						
S5	OI	Raw data (NELAC section 5.5.10)							
		Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?	X						
		Were data associated with manual integrations flagged on the raw data?	X						
S6	O	Dual column confirmation							
		Did dual column confirmation results meet the method-required QC?				X			
S7	O	Tentatively identified compounds (TICs):							
		If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?				X			
S8	I	Interference Check Sample (ICS) results:							
		Were percent recoveries within method QC limits?				X			
S9	I	Serial dilutions, post digestion spikes, and method of standard additions							
		Were percent differences, recoveries, and the linearity within the QC limits specified in the method?				X			
S10	OI	Method detection limit (MDL) studies							
		Was a MDL study performed for each reported analyte?	X						
		Is the MDL either adjusted or supported by the analysis of DCSs?	X						
S11	OI	Proficiency test reports:							
		Was the laboratory's performance acceptable on the applicable proficiency tests or evaluation studies?	X						
S12	OI	Standards documentation							
		Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?	X						
S13	OI	Compound/analyte identification procedures							
		Are the procedures for compound/analyte identification documented?	X						
S14	OI	Demonstration of analyst competency (DOC)							
		Was DOC conducted consistent with NELAC Chapter 5?	X						
		Is documentation of the analyst's competency up-to-date and on file?	X						
S15	OI	Verification/validation documentation for methods (NELAC Chapter 5)							
		Are all the methods used to generate the data documented, verified, and validated, where applicable?	X						
S16	OI	Laboratory standard operating procedures (SOPs):							
		Are laboratory SOPs current and on file for each method performed?	X						

- 1 Items identified by the letter "R" should be included in the laboratory data package submitted to the TCEQ in the TRRP-required report(s).
- 2 Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.
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Appendix A (cont'd): Laboratory Review Checklist: Exception Reports	
Laboratory Name: TestAmerica-Houston	LRC Date: 02/25/13
Project Name: 1620 UPRR HWPW	Laboratory Job Number: 600-68626
Reviewer Name: YX	Prep Batch Number: 600-99676, 100012 and 100100-VOA
ER #¹	DESCRIPTION
1	Methylene chloride was detected above the MDL, but below the MQL in the method blank for batch 600-99676. This analyte is a recognized potential laboratory contaminant. The level of detection is below the recommended reporting limit and the appropriate flags have been applied to the report.
2	The laboratory selected samples from other groups to perform as the MS/MSDs.
3	All of the SDLs were elevated in samples 600-68626-4, 5 and 6 due to the nature of the sample matrix and/or the high concentration of target analytes.

ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked on the LRC)

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Appendix A (cont'd): Laboratory Review Checklist: Reportable Data							
Laboratory Name: TestAmerica-Houston			LRC Date: 02/26/13				
Project Name: 1620 UPRR HWPW			Laboratory Job Number 600-68626				
Reviewer Name: JOH			Prep Batch Number(s): 600-99693 - SV				
# ¹	A ²	Description	Yes	No	NA ³	NR ⁴	ER# ⁵
R1	OI	Chain-of-custody (C-O-C)					
		Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?	X				
		Were all departures from standard conditions described in an exception report?			X		
R2	OI	Sample and quality control (QC) identification					
		Are all field sample ID numbers cross-referenced to the laboratory ID numbers?	X				
		Are all laboratory ID numbers cross-referenced to the corresponding QC data?	X				
R3	OI	Test reports					
		Were all samples prepared and analyzed within holding times?	X				
		Other than those results < MQL, were all other raw values bracketed by calibration standards?	X				
		Were calculations checked by a peer or supervisor?	X				
		Were all analyte identifications checked by a peer or supervisor?	X				
		Were sample detection limits reported for all analytes not detected?	X				
		Were all results for soil and sediment samples reported on a dry weight basis?	X				
		Were % moisture (or solids) reported for all soil and sediment samples?	X				
		Were bulk soil/solid samples for volatile analysis extracted with methanol per SW846 Method 5035?			X		
		If required for the project, TICs reported?			X		
R4	O	Surrogate recovery data					
		Were surrogates added prior to extraction?	X				
		Were surrogate percent recoveries in all samples within the laboratory QC limits?		X			1
R5	OI	Test reports/summary forms for blank samples					
		Were appropriate type(s) of blanks analyzed?	X				
		Were blanks analyzed at the appropriate frequency?	X				
		Were method blanks taken through the entire analytical process, including preparation and, if applicable, cleanup procedures?	X				
		Were blank concentrations < MQL?	X				
R6	OI	Laboratory control samples (LCS):					
		Were all COCs included in the LCS?	X				
		Was each LCS taken through the entire analytical procedure, including prep and cleanup steps?	X				
		Were LCSs analyzed at the required frequency?	X				
		Were LCS (and LCSD, if applicable) %Rs within the laboratory QC limits?	X				
		Does the detectability check sample data document the laboratory's capability to detect the COCs at the MDL used to calculate the SDLs?	X				
		Was the LCSD RPD within QC limits?			X		
R7	OI	Matrix spike (MS) and matrix spike duplicate (MSD) data					
		Were the project/method specified analytes included in the MS and MSD?	X				
		Were MS/MSD analyzed at the appropriate frequency?	X				
		Were MS (and MSD, if applicable) %Rs within the laboratory QC limits?		X			2
		Were MS/MSD RPDs within laboratory QC limits?		X			2
R8	OI	Analytical duplicate data					
		Were appropriate analytical duplicates analyzed for each matrix?			X		
		Were analytical duplicates analyzed at the appropriate frequency?			X		
		Were RPDs or relative standard deviations within the laboratory QC limits?			X		
R9	OI	Method quantitation limits (MQLs):					
		Are the MQLs for each method analyte included in the laboratory data package?	X				
		Do the MQLs correspond to the concentration of the lowest non-zero calibration standard?	X				
		Are unadjusted MQLs and DCSs included in the laboratory data package?	X				
R10	OI	Other problems/anomalies					
		Are all known problems/anomalies/special conditions noted in this LRC and ER?	X				
		Was applicable and available technology used to lower the SDL to minimize the matrix interference affects on the sample results?	X				3
		Is the laboratory NELAC-accredited under the Texas Laboratory Accreditation Program for the analytes, matrices and methods associated with this laboratory data package?	X				

- Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.
- O = organic analyses; I = inorganic analyses (and general chemistry, when applicable);
- NA = Not applicable;
- NR = Not reviewed;
- ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

Appendix A (cont'd): Laboratory Review Checklist: Reportable Data							
Laboratory Name: TestAmerica-Houston				LRC Date: 02/26/13			
Project Name: 1620 UPRR HWPW				Laboratory Job Number 600-68626			
Reviewer Name: JOH				Prep Batch Number(s): 600-99693 - SV			
# ¹	A ²	Description	Yes	No	NA ³	NR ⁴	ER# ⁵
S1	OI	Initial calibration (ICAL)					
		Were response factors and/or relative response factors for each analyte within QC limits?	X				
		Were percent RSDs or correlation coefficient criteria met?	X				
		Was the number of standards recommended in the method used for all analytes?	X				
		Were all points generated between the lowest and highest standard used to calculate the curve?	X				
		Are ICAL data available for all instruments used?	X				
		Has the initial calibration curve been verified using an appropriate second source standard?	X				
S2	OI	Initial and continuing calibration verification (ICCV and CCV) and continuing calibration					
		Was the CCV analyzed at the method-required frequency?	X				
		Were percent differences for each analyte within the method-required QC limits?	X				
		Was the ICAL curve verified for each analyte?	X				
		Was the absolute value of the analyte concentration in the inorganic CCB < MDL?			X		
S3	O	Mass spectral tuning:					
		Was the appropriate compound for the method used for tuning?			X		
		Were ion abundance data within the method-required QC limits?			X		
S4	O	Internal standards (IS):					
		Were IS area counts and retention times within the method-required QC limits?			X		
S5	OI	Raw data (NELAC section 5.5.10)					
		Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?	X				
		Were data associated with manual integrations flagged on the raw data?	X				
S6	O	Dual column confirmation					
		Did dual column confirmation results meet the method-required QC?			X		
S7	O	Tentatively identified compounds (TICs):					
		If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?			X		
S8	I	Interference Check Sample (ICS) results:					
		Were percent recoveries within method QC limits?			X		
S9	I	Serial dilutions, post digestion spikes, and method of standard additions					
		Were percent differences, recoveries, and the linearity within the QC limits specified in the method?			X		
S10	OI	Method detection limit (MDL) studies					
		Was a MDL study performed for each reported analyte?	X				
		Is the MDL either adjusted or supported by the analysis of DCSs?	X				
S11	OI	Proficiency test reports:					
		Was the laboratory's performance acceptable on the applicable proficiency tests or evaluation studies?	X				
S12	OI	Standards documentation					
		Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?	X				
S13	OI	Compound/analyte identification procedures					
		Are the procedures for compound/analyte identification documented?	X				
S14	OI	Demonstration of analyst competency (DOC)					
		Was DOC conducted consistent with NELAC Chapter 5?	X				
		Is documentation of the analyst's competency up-to-date and on file?	X				
S15	OI	Verification/validation documentation for methods (NELAC Chapter 5)					
		Are all the methods used to generate the data documented, verified, and validated, where applicable?	X				
S16	OI	Laboratory standard operating procedures (SOPs):					
		Are laboratory SOPs current and on file for each method performed?	X				

- 1 Items identified by the letter "R" should be included in the laboratory data package submitted to the TCEQ in the TRRP-required report(s).
- 2 Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.
- 3 O = organic analyses; I = inorganic analyses (and general chemistry, when applicable).
- 4 NA = Not applicable.
- 5 NR = Not Reviewed.
- 6 ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

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Appendix A (cont'd): Laboratory Review Checklist: Exception Reports	
Laboratory Name: TestAmerica-Houston	LRC Date: 02/26/13
Project Name: 1620 UPRR HWPW	Laboratory Job Number 600-68626
Reviewer Name: JOH	Prep Batch Number(s): 600-99693 - SV
ER #¹	DESCRIPTION
1	Six surrogates are used for this analysis. The laboratory's SOP allows one base and one acid of these surrogates to be outside acceptance criteria without performing re-extraction/re-analysis. Sample 600-68626-10 contained an allowable number of surrogate compounds outside limits. These results have been reported and qualified. Due to the level of dilution required for samples 600-68626-1, 2, 4, 4DL 5, 6, 7, 8, and 9; surrogate recoveries are not reported.
2	The laboratory selected a sample from another group to perform as the MS/MSD.
3	All of the SDLs in samples 600-68626-1, 2, 4, 5, 6, 7, 8, 9 and 10 were elevated due to the high concentration of target analytes and/or the nature of the sample matrix.

ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked on the LRC)

Detection Check Standard

Matrix: Solid
Method: 8260B
Preparation: Wei Shen
Date Analyzed: 10/9/2012
Date Prepared: 10/9/2012
TALs Batches: K28205.D
Units: ug/Kg

Analyte	MDL	DCS Spike	Measured Result	MQL
Dichlorodifluoromethane	1.54	2.5	1.57	5
Chloromethane	1.66	2.5	2.85	10
Vinyl Chloride	0.9	2.5	2.86	10
Bromomethane	0.83	2.5	2.54	10
Chloroethane	1.4	2.5	3.11	10
Trichlorofluoromethane	0.66	2.5	2.92	10
Acrolein	1.39	2.5	17.79	5
1,1-Dichloroethene	1.22	2.5	3.06	5
Trichlorotrifluoromethane	0.66	2.5	3.02	10
Acetone	1.66	2.5	0.026	5
Methyl Iodide	2.5	5	8.55	5
2-Propanol	27.47	2.5	85.83	5
Carbon Disulfide	0.55	2.5	6.35	10
Acetonitrile	1.39	2.5	6.05	10
Allyl chloride	1.39	2.5	5.73	5
Methylene Chloride	2.19	5	2.38	10
Acrylonitrile	5.82	5	21.17	25
trans-1,2-Dichloroethene	1.14	2.5	3.05	5
Methyl tert-butyl ether	1.83	2.5	2.92	5
1,1-Dichloroethane	0.87	2.5	3.11	5
Vinyl Acetate	0.93	2.5	5.79	5
Chloroprene	2.71	5	7.68	5
cis-1,2-Dichloroethene	0.83	2.5	3.22	5
1,2-Dichloroethene (total)	1.9	2.5	6.27	10
2,2-Dichloropropane	1.82	2.5	2.95	5
2-Butanone	1.9	2.5	6.25	5
Propionitrile	2.36	5	9.5	5
Methacrylonitrile	5	5	8.06	5
Bromochloromethane	1.78	2.5	3.03	5
Chloroform	0.66	2.5	3.48	5
1,1,1-Trichloroethane	0.74	2.5	3.13	5
1,1-Dichloropropene	0.65	2.5	3.25	5
Carbon Tetrachloride	1.13	2.5	3.19	5
Isobutyl alcohol	17.16	5	21.72	5
Benzene	0.63	2.5	3.18	5
1,2-Dichloroethane	0.9	2.5	3.35	5
Trichloroethene	1.4	2.5	3.24	5
1,2-Dichloropropane	0.71	2.5	3.01	5
Methyl methacrylate	2.86	5	4.06	10



Methylene Bromide	0.75	2.5	3.02	5
1,4-Dioxane	62.07	250	133.4	500
Bromodichloromethane	0.66	2.5	2.98	5
2-Chloroethyl vinyl ether	0.98	2.5	5.97	10
cis-1,3-Dichloropropene	0.54	2.5	3.02	5
Toluene	1.38	2.5	3.32	5
trans-1,3-Dichloropropene	0.58	2.5	2.96	5
Ethyl methacrylate	1.66	2.5	5.65	5
1,1,2-Trichloroethane	0.73	2.5	2.97	5
1,3-Dichloropropane	0.63	2.5	3.23	5
Tetrachloroethene	1.4	2.5	3.03	5
2-Hexanone	1.01	2.5	5.68	10
Dibromochloromethane	0.94	2.5	2.86	5
1,2-Dibromoethane	6.54	5	4.2	10
Chlorobenzene	0.96	2.5	3.1	5
1,1,1,2-Tetrachloroethane	1.4	2.5	2.99	5
Ethylbenzene	1.02	2.5	3	5
m,p-Xylene	1.52	2.5	6.04	10
o-Xylene	1.13	2.5	3	5
Xylenes (total)	1.13	2.5	9.05	5
Styrene	0.71	2.5	2.97	5
Bromoform	1.37	2.5	2.56	5
Isopropylbenzene	0.92	2.5	2.9	5
trans-1,4-Dichloro-2-butene	1.9	2.5	5.17	5
Bromobenzene	0.99	2.5	3.05	5
n-Propylbenzene	0.95	2.5	2.96	5
2-Chlorotoluene	0.68	2.5	3.07	5
4-Chlorotoluene	0.83	2.5	2.99	5
1,3,5-Trimethylbenzene	1.6	2.5	2.85	5
tert-Butylbenzene	0.95	2.5	2.88	5
1,2,4-Trimethylbenzene	0.92	2.5	2.93	5
sec-Butylbenzene	0.7	2.5	2.94	5
1,3-Dichlorobenzene	0.71	2.5	3.04	5
1,4-Dichlorobenzene	0.66	2.5	3.03	5
1,2-Dichlorobenzene	0.8	2.5	2.97	5
p-Isopropyltoluene	0.63	2.5	2.77	5
n-Butylbenzene	0.58	2.5	2.84	5
1,2,3-Trichloropropane	1.31	2.5	2.82	5
1,2,4-Trichlorobenzene	1.97	2.5	4.09	5
Hexachlorobutadiene	1.13	2.5	5.72	5
1,2,3-Trichlorobenzene	0.62	2.5	3.3	5
Naphthalene	2.37	5	4.44	10

**Quality Control Report
Detection Check Standard**

Matrix: Soil
 Method: 8270C LL
 Preparation: 3550B
 Date Analyzed: 10/18/2012
 Date Prepared: 10/11/2012
 Lab Sample ID: 600-90857_18-a
 Units: ug/Kg

Analyte	MDL	DCS Spike	DCS Result	MQL
Pyridine	3.52	8.35	1.08	16.67
N-Nitrosodimethylamine	30.71	16.7	11.97	16.67
Aniline	2.98	8.35	2.33	16.67
Phenol	4.24	8.35	7.91	16.67
bis(2-Chloroethyl)ether	1.65	8.35	7.29	16.67
2-Chlorophenol	1.97	8.35	7.54	16.67
1,3-Dichlorobenzene	1.54	8.35	7.19	16.67
1,4-Dichlorobenzene	2.25	8.35	6.84	16.67
1,2-Dichlorobenzene	3.02	8.35	7.29	16.67
Benzyl alcohol	5.83	16.7	9.50	16.67
2-Methylphenol	3.23	8.35	6.07	16.67
m&p-Cresols	2.79	8.35	4.59	33.33
bis (2-Chloroisopropyl) ether	8.84	16.7	13.41	16.67
N-Nitroso-di-n-propylamine	2.22	8.35	6.29	16.67
Hexachloroethane	2.31	8.35	8.47	16.67
Nitrobenzene	2.96	8.35	7.35	16.67
Isophorone	5	8.35	6.03	16.67
2-Nitrophenol	3.89	8.35	3.94	16.67
Benzoic acid	32.76	33.4	220.80	83.33
2,4-Dimethylphenol	8.58	16.7	9.79	16.67
bis(2-Chloroethoxy)methane	1.42	8.35	5.19	16.67
2,4-Dichlorophenol	8.58	16.7	9.48	16.67
1,2,4-Trichlorobenzene	2.1	8.35	7.92	16.67
Naphthalene	1.35	8.35	6.35	16.67
4-Chloroaniline	5.82	8.35	3.69	16.67
Hexachlorobutadiene	1.92	8.35	5.91	16.67
4-Chloro-3-methylphenol	15.58	16.7	8.00	16.67
2-Methylnaphthalene	2.74	8.35	5.53	16.67
1-Methylnaphthalene	1.57	8.35	6.53	16.67
Hexachlorocyclopentadiene	4.61	8.35	14.08	16.67
2,4,6-Trichlorophenol	2.68	8.35	5.54	16.67
2,4,5-Trichlorophenol	10.01	16.7	8.68	16.67
2-Chloronaphthalene	1.21	8.35	6.26	16.67
2-Nitroaniline	4.89	8.35	4.10	16.67
Dimethylphthalate	4.89	8.35	5.80	16.67
1,4 Dinitrobenzene	16.67	8.35	14.23	16.67
1,3- Dinitrobenzene	2.96	8.35	13.00	16.67
1,2-Dinitrobenzene	16.67	8.35	4.73	16.67
Acenaphthylene	5	8.35	6.86	16.67

2,6-Dinitrotoluene	2.95	8.35	8.78	16.67
3-Nitroaniline	7.15	8.35	3.09	16.67
Acenaphthene	1.44	8.35	6.03	16.67
Dibenzofuran	1.78	8.35	6.15	16.67
2,4-Dinitrotoluene	3.61	8.35	6.10	16.67
2,3,4,6-Tetrachlorophenol	16.67	16.7	15.95	16.67
Diethylphthalate	8.43	16.7	11.50	16.67
4-Chlorophenyl-phenylether	1.8	8.35	6.79	16.67
Fluorene	2.36	8.35	5.57	16.67
4-Nitroaniline	11.15	16.7	5.63	16.67
4,6-Dinitro-2-Methylphenol	4.98	16.7	15.38	16.67
N-Nitrosodiphenylamine	1.89	8.35	5.94	16.67
Diphenylamine	1.94	8.35	4.69	16.67
1,2-Diphenylhydrazine	1.62	8.35	5.61	16.67
Azobenzene	1.85	8.35	5.14	16.67
4-Bromophenyl-phenylether	2.84	8.35	6.26	16.67
Hexachlorobenzene	1.52	8.35	6.89	16.67
Phenanthrene	4.95	8.35	6.76	16.67
Anthracene	1.28	8.35	6.66	16.67
Carbazole	3.12	8.35	6.16	16.67
Di-n-butylphthalate	2.59	8.35	6.08	16.67
Fluoranthene	3.11	8.35	6.58	16.67
Pyrene	1.83	8.35	7.09	16.67
Butylbenzylphthalate	6.19	16.7	9.35	66.68
3,3'-Dichlorobenzidene	10.16	16.7	6.12	16.67
Benzo(a)anthracene	1.38	8.35	6.93	16.67
bis(2-Ethylhexyl)phthalate	5.37	16.7	10.49	66.68
Chrysene	1.02	8.35	10.06	16.67
Di-n-octylphthalate	1.9	8.35	3.61	66.68
Benzo(b)fluoranthene	1.72	8.35	3.95	16.67
Benzo(k)fluoranthene	1.49	8.35	8.45	16.67
Benzo(a)pyrene	1.61	8.35	5.20	16.67
Indeno(1,2,3-cd)pyrene	3.5	8.35	14.82	16.67
Dibenz(a,h)anthracene	3.63	8.35	2.38	16.67
Benzo(g,h,i)perylene	5.07	16.7	12.37	16.67



Detection Check Standard

Matrix: Soil
Method: 6010B
Preparation: 3050
Date Analyzed: 11/29/2012
Date Prepared: 11/28/2012
Instrument: Thermo 6500
TALS Batches: 94304,94171(prepare)
Prep/Reagent Factor = 50
Units: mg/kg

Analyte	MDL	DCS Spike	Measured Result	MQL
Aluminum	0.299654	0.5	0.44	25
Antimony	0.231553	0.45	0.475	2.5
Arsenic	0.217923	0.5	0.58	1
Barium	0.011322	0.03	0.03	1
Beryllium	0.014513	0.02	0.02	0.25
Boron	0.385535	0.6	0.885	20
Cadmium	0.025642	0.05	0.055	0.25
Calcium	0.86399	1.5	2.205	100
Chromium	0.050606	0.1	0.11	0.5
Cobalt	0.067622	0.1	0.1	0.5
Copper	0.173703	0.5	0.385	0.5
Iron	2.534007	4	4.285	20
Lead	0.104832	0.2	0.23	0.5
Selenium	0.258884	0.5	0.56	2
Manganese	0.038111	0.05	0.045	1.5
Molybdenum	0.136448	0.35	0.38	0.5
Nickel	0.116599	0.15	0.14	1
Silver	0.118848	0.2	0.21	0.5
Sodium	0.885548	2.4	3.225	100
Strontium	0.00252	0.005	0.985	0.25
Thallium	0.276988	0.7	0.71	1.5
Tin	0.08729	0.15	0.16	1
Titanium	0.014529	0.03	0.02	0.5
Vanadium	0.079068	0.15	0.17	0.5
Zinc	0.108432	0.2	0.315	1.5

Case Narrative

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68626-1

Job ID: 600-68626-1

Laboratory: TestAmerica Houston

Narrative

**Job Narrative
600-68626-1**

Comments

No additional comments.

Receipt

The samples were received on 2/14/2013 3:30 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 3.0° C.

Metals

Method(s) 200.7 Rev 4.4, 6010B: The following sample(s) required filtration to reduce matrix interferences: (600-68626-5 DU), (600-68626-5 MS), (600-68626-5 MSD), SO-1620-IM-CPT-14-13 (1.4-2.5)-20120214 (600-68626-4), SO-1620-IM-CPT-14-13 (12.5-15)-20120214 (600-68626-5), SO-1620-IM-CPT-14-13 (15-16.4)-20120214 (600-68626-6), SO-1620-IM-CPT-15-13 (15-16.2)-20120214 (600-68626-9), SO-1620-IM-CPT-15-13 (2-5)-20120214 (600-68626-7), SO-1620-IM-CPT-15-13 (5.0-7.5)-20120214 (600-68626-8), SO-1620-IM-CPT-19-13 (1.9-5.0)-0120214 (600-68626-1), SO-1620-IM-CPT-19-13 (7.5-10)-20120214 (600-68626-3), SO-1620-IM-CPT-20-13 (0-2.5)-0120214 (600-68626-10), SO-1620-IM-CPT-20-13 (5-7.5)-20120214 (600-68626-11), SO-1620-IM-CPT-DUP2-20120214 (600-68626-2).

Organic Prep

Method(s) 3550B: Due to the matrix, the following sample(s) could not be concentrated to the final method required volume: SO-1620-IM-CPT-19-13 (1.9-5.0)-0120214 (600-68626-1), SO-1620-IM-CPT-DUP2-20120214 (600-68626-2), SO-1620-IM-CPT-14-13 (15-16.4)-20120214 (600-68626-6), SO-1620-IM-CPT-15-13 (2-5)-20120214 (600-68626-7), SO-1620-IM-CPT-15-13 (5.0-7.5)-20120214 (600-68626-8) and SO-1620-IM-CPT-15-13 (15-16.2)-20120214 (600-68626-9). The SDLs are elevated proportionately.

Method Summary

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68626-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL HOU
8270C LL	Semivolatile Organic Compounds by GCMS - Low Levels	SW846	TAL HOU
6010B	Metals (ICP)	SW846	TAL HOU
Moisture	Percent Moisture	EPA	TAL HOU

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL HOU = TestAmerica Houston, 6310 Rothway Street, Houston, TX 77040, TEL (713)690-4444



Sample Summary

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68626-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
600-68626-1	SO-1620-IM-CPT-19-13 (1.9-5.0)-20120214	Solid	02/14/13 08:45	02/14/13 15:30
600-68626-2	SO-1620-IM-CPT-DUP2-20120214	Solid	02/14/13 09:00	02/14/13 15:30
600-68626-3	SO-1620-IM-CPT-19-13 (7.5-10)-20120214	Solid	02/14/13 09:15	02/14/13 15:30
600-68626-4	SO-1620-IM-CPT-14-13 (1.4-2.5)-20120214	Solid	02/14/13 10:05	02/14/13 15:30
600-68626-5	SO-1620-IM-CPT-14-13 (12.5-15)-20120214	Solid	02/14/13 10:35	02/14/13 15:30
600-68626-6	SO-1620-IM-CPT-14-13 (15-16.4)-20120214	Solid	02/14/13 10:45	02/14/13 15:30
600-68626-7	SO-1620-IM-CPT-15-13 (2-5)-20120214	Solid	02/14/13 11:30	02/14/13 15:30
600-68626-8	SO-1620-IM-CPT-15-13 (5.0-7.5)-20120214	Solid	02/14/13 11:50	02/14/13 15:30
600-68626-9	SO-1620-IM-CPT-15-13 (15-16.2)-20120214	Solid	02/14/13 12:00	02/14/13 15:30
600-68626-10	SO-1620-IM-CPT-20-13 (0-2.5)-0120214	Solid	02/14/13 13:50	02/14/13 15:30
600-68626-11	SO-1620-IM-CPT-20-13 (5-7.5)-20120214	Solid	02/14/13 14:50	02/14/13 15:30

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68626-1

Client Sample ID: SO-1620-IM-CPT-19-13 (1.9-5.0)-0120214

Lab Sample ID: 600-68626-1

Date Collected: 02/14/13 08:45

Matrix: Solid

Date Received: 02/14/13 15:30

Percent Solids: 88.2

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	0.00248	U	0.0113	0.00248	mg/Kg	☼		02/20/13 17:16	1
Benzene	0.00118	J	0.00567	0.000715	mg/Kg	☼		02/20/13 17:16	1
1,2-Dichloroethane	0.00102	U	0.00567	0.00102	mg/Kg	☼		02/20/13 17:16	1
Toluene	0.00479	J	0.00567	0.00157	mg/Kg	☼		02/20/13 17:16	1
Chlorobenzene	0.00109	U	0.00567	0.00109	mg/Kg	☼		02/20/13 17:16	1
Ethylbenzene	0.0247		0.00567	0.00116	mg/Kg	☼		02/20/13 17:16	1
Xylenes, Total	0.0830		0.00567	0.00128	mg/Kg	☼		02/20/13 17:16	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	94		61 - 130					02/20/13 17:16	1
Dibromofluoromethane	99		68 - 140					02/20/13 17:16	1
Toluene-d8 (Surr)	121		50 - 130					02/20/13 17:16	1
4-Bromofluorobenzene	112		57 - 140					02/20/13 17:16	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	4.80	U	18.9	4.80	mg/Kg	☼	02/15/13 15:53	02/21/13 09:42	100
Nitrobenzene	3.35	U	18.9	3.35	mg/Kg	☼	02/15/13 15:53	02/21/13 09:42	100
2,4-Dimethylphenol	9.71	U	18.9	9.71	mg/Kg	☼	02/15/13 15:53	02/21/13 09:42	100
Bis(2-chloroethoxy)methane	1.61	U	18.9	1.61	mg/Kg	☼	02/15/13 15:53	02/21/13 09:42	100
Naphthalene	1.53	U	18.9	1.53	mg/Kg	☼	02/15/13 15:53	02/21/13 09:42	100
2-Methylnaphthalene	3100	U	18900	3100	ug/Kg	☼	02/15/13 15:53	02/21/13 09:42	100
2-Chloronaphthalene	1.37	U	18.9	1.37	mg/Kg	☼	02/15/13 15:53	02/21/13 09:42	100
Acenaphthylene	1.13	U	18.9	1.13	mg/Kg	☼	02/15/13 15:53	02/21/13 09:42	100
2,6-Dinitrotoluene	3.34	U	18.9	3.34	mg/Kg	☼	02/15/13 15:53	02/21/13 09:42	100
Acenaphthene	4.07	J	18.9	1.63	mg/Kg	☼	02/15/13 15:53	02/21/13 09:42	100
4-Nitrophenol	5.75	U	18.9	5.75	mg/Kg	☼	02/15/13 15:53	02/21/13 09:42	100
Dibenzofuran	2.01	U	18.9	2.01	mg/Kg	☼	02/15/13 15:53	02/21/13 09:42	100
2,4-Dinitrotoluene	4.09	U	18.9	4.09	mg/Kg	☼	02/15/13 15:53	02/21/13 09:42	100
Fluorene	5.24	J	18.9	2.67	mg/Kg	☼	02/15/13 15:53	02/21/13 09:42	100
4,6-Dinitro-2-methylphenol	5.64	U	18.9	5.64	mg/Kg	☼	02/15/13 15:53	02/21/13 09:42	100
N-Nitrosodiphenylamine	2.14	U	18.9	2.14	mg/Kg	☼	02/15/13 15:53	02/21/13 09:42	100
1,2-Diphenylhydrazine	1.83	U	18.9	1.83	mg/Kg	☼	02/15/13 15:53	02/21/13 09:42	100
Pentachlorophenol	4.53	U	189	4.53	mg/Kg	☼	02/15/13 15:53	02/21/13 09:42	100
Phenanthrene	34.3		18.9	5.60	mg/Kg	☼	02/15/13 15:53	02/21/13 09:42	100
Anthracene	7.13	J	18.9	1.45	mg/Kg	☼	02/15/13 15:53	02/21/13 09:42	100
Di-n-butyl phthalate	2.93	U	75.5	2.93	mg/Kg	☼	02/15/13 15:53	02/21/13 09:42	100
Fluoranthene	19.3		18.9	3.52	mg/Kg	☼	02/15/13 15:53	02/21/13 09:42	100
Pyrene	21.9		18.9	2.07	mg/Kg	☼	02/15/13 15:53	02/21/13 09:42	100
Benzo[a]anthracene	6.73	J	18.9	1.56	mg/Kg	☼	02/15/13 15:53	02/21/13 09:42	100
Bis(2-ethylhexyl) phthalate	38.6	J	75.5	6.08	mg/Kg	☼	02/15/13 15:53	02/21/13 09:42	100
Chrysene	8.00	J	18.9	1.15	mg/Kg	☼	02/15/13 15:53	02/21/13 09:42	100
Benzo[a]pyrene	2.50	J	18.9	1.82	mg/Kg	☼	02/15/13 15:53	02/21/13 09:42	100
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorophenol	0	X	23 - 108				02/15/13 15:53	02/21/13 09:42	100
Phenol-d6	0	X	26 - 108				02/15/13 15:53	02/21/13 09:42	100
Nitrobenzene-d5	0	X	34 - 118				02/15/13 15:53	02/21/13 09:42	100
2-Fluorobiphenyl	0	X	51 - 109				02/15/13 15:53	02/21/13 09:42	100
2,4,6-Tribromophenol	0	X	34 - 122				02/15/13 15:53	02/21/13 09:42	100

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68626-1

Client Sample ID: SO-1620-IM-CPT-19-13 (1.9-5.0)-0120214

Lab Sample ID: 600-68626-1

Date Collected: 02/14/13 08:45

Matrix: Solid

Date Received: 02/14/13 15:30

Percent Solids: 88.2

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Terphenyl-d14	0	X	56 - 123	02/15/13 15:53	02/21/13 09:42	100

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	12.6		1.11	0.242	mg/Kg	☼	02/19/13 16:17	02/25/13 13:48	1
Lead	1170		0.556	0.117	mg/Kg	☼	02/19/13 16:17	02/21/13 15:56	1

General Chemistry

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	12		1.0	1.0	%			02/15/13 17:10	1
Percent Solids	88		1.0	1.0	%			02/15/13 17:10	1

Client Sample ID: SO-1620-IM-CPT-DUP2-20120214

Lab Sample ID: 600-68626-2

Date Collected: 02/14/13 09:00

Matrix: Solid

Date Received: 02/14/13 15:30

Percent Solids: 83.9

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	0.00797	J b	0.0119	0.00261	mg/Kg	☼		02/15/13 13:18	1
Benzene	0.00599		0.00596	0.000751	mg/Kg	☼		02/15/13 13:18	1
1,2-Dichloroethane	0.00107	U	0.00596	0.00107	mg/Kg	☼		02/15/13 13:18	1
Toluene	0.0257		0.00596	0.00164	mg/Kg	☼		02/15/13 13:18	1
Chlorobenzene	0.00114	U	0.00596	0.00114	mg/Kg	☼		02/15/13 13:18	1
Ethylbenzene	0.116		0.00596	0.00122	mg/Kg	☼		02/15/13 13:18	1
Xylenes, Total	0.391		0.00596	0.00135	mg/Kg	☼		02/15/13 13:18	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	100		61 - 130		02/15/13 13:18	1
Dibromofluoromethane	68		68 - 140		02/15/13 13:18	1
Toluene-d8 (Surr)	118		50 - 130		02/15/13 13:18	1
4-Bromofluorobenzene	118		57 - 140		02/15/13 13:18	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	5.05	U	19.8	5.05	mg/Kg	☼	02/15/13 15:53	02/21/13 10:09	100
Nitrobenzene	3.52	U	19.8	3.52	mg/Kg	☼	02/15/13 15:53	02/21/13 10:09	100
2,4-Dimethylphenol	10.2	U	19.8	10.2	mg/Kg	☼	02/15/13 15:53	02/21/13 10:09	100
Bis(2-chloroethoxy)methane	1.69	U	19.8	1.69	mg/Kg	☼	02/15/13 15:53	02/21/13 10:09	100
Naphthalene	14.0	J	19.8	1.61	mg/Kg	☼	02/15/13 15:53	02/21/13 10:09	100
2-Methylnaphthalene	31100		19800	3260	ug/Kg	☼	02/15/13 15:53	02/21/13 10:09	100
2-Chloronaphthalene	1.44	U	19.8	1.44	mg/Kg	☼	02/15/13 15:53	02/21/13 10:09	100
Acenaphthylene	1.19	U	19.8	1.19	mg/Kg	☼	02/15/13 15:53	02/21/13 10:09	100
2,6-Dinitrotoluene	3.51	U	19.8	3.51	mg/Kg	☼	02/15/13 15:53	02/21/13 10:09	100
Acenaphthene	46.2		19.8	1.71	mg/Kg	☼	02/15/13 15:53	02/21/13 10:09	100
4-Nitrophenol	6.05	U	19.8	6.05	mg/Kg	☼	02/15/13 15:53	02/21/13 10:09	100
Dibenzofuran	32.1		19.8	2.12	mg/Kg	☼	02/15/13 15:53	02/21/13 10:09	100
2,4-Dinitrotoluene	4.30	U	19.8	4.30	mg/Kg	☼	02/15/13 15:53	02/21/13 10:09	100
Fluorene	76.0		19.8	2.81	mg/Kg	☼	02/15/13 15:53	02/21/13 10:09	100
4,6-Dinitro-2-methylphenol	5.93	U	19.8	5.93	mg/Kg	☼	02/15/13 15:53	02/21/13 10:09	100
N-Nitrosodiphenylamine	2.25	U	19.8	2.25	mg/Kg	☼	02/15/13 15:53	02/21/13 10:09	100

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68626-1

Client Sample ID: SO-1620-IM-CPT-DUP2-20120214

Lab Sample ID: 600-68626-2

Date Collected: 02/14/13 09:00

Matrix: Solid

Date Received: 02/14/13 15:30

Percent Solids: 83.9

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Diphenylhydrazine	1.93	U	19.8	1.93	mg/Kg	☼	02/15/13 15:53	02/21/13 10:09	100
Pentachlorophenol	4.76	U	199	4.76	mg/Kg	☼	02/15/13 15:53	02/21/13 10:09	100
Phenanthrene	378		19.8	5.89	mg/Kg	☼	02/15/13 15:53	02/21/13 10:09	100
Anthracene	72.1		19.8	1.52	mg/Kg	☼	02/15/13 15:53	02/21/13 10:09	100
Di-n-butyl phthalate	3.08	U	79.4	3.08	mg/Kg	☼	02/15/13 15:53	02/21/13 10:09	100
Fluoranthene	208		19.8	3.70	mg/Kg	☼	02/15/13 15:53	02/21/13 10:09	100
Pyrene	207		19.8	2.18	mg/Kg	☼	02/15/13 15:53	02/21/13 10:09	100
Benzo[a]anthracene	51.1		19.8	1.64	mg/Kg	☼	02/15/13 15:53	02/21/13 10:09	100
Bis(2-ethylhexyl) phthalate	185		79.4	6.39	mg/Kg	☼	02/15/13 15:53	02/21/13 10:09	100
Chrysene	65.9		19.8	1.21	mg/Kg	☼	02/15/13 15:53	02/21/13 10:09	100
Benzo[a]pyrene	21.1		19.8	1.92	mg/Kg	☼	02/15/13 15:53	02/21/13 10:09	100

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	0	X	23 - 108	02/15/13 15:53	02/21/13 10:09	100
Phenol-d6	0	X	26 - 108	02/15/13 15:53	02/21/13 10:09	100
Nitrobenzene-d5	0	X	34 - 118	02/15/13 15:53	02/21/13 10:09	100
2-Fluorobiphenyl	0	X	51 - 109	02/15/13 15:53	02/21/13 10:09	100
2,4,6-Tribromophenol	0	X	34 - 122	02/15/13 15:53	02/21/13 10:09	100
Terphenyl-d14	0	X	56 - 123	02/15/13 15:53	02/21/13 10:09	100

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	12.3		1.12	0.245	mg/Kg	☼	02/19/13 16:17	02/25/13 13:51	1
Lead	952		0.562	0.118	mg/Kg	☼	02/19/13 16:17	02/21/13 15:58	1

General Chemistry

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	16		1.0	1.0	%			02/15/13 17:10	1
Percent Solids	84		1.0	1.0	%			02/15/13 17:10	1

Client Sample ID: SO-1620-IM-CPT-19-13 (7.5-10)-20120214

Lab Sample ID: 600-68626-3

Date Collected: 02/14/13 09:15

Matrix: Solid

Date Received: 02/14/13 15:30

Percent Solids: 82.8

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	0.00264	U	0.0121	0.00264	mg/Kg	☼		02/15/13 21:10	1
Benzene	0.000761	U	0.00604	0.000761	mg/Kg	☼		02/15/13 21:10	1
1,2-Dichloroethane	0.00109	U	0.00604	0.00109	mg/Kg	☼		02/15/13 21:10	1
Toluene	0.00167	U	0.00604	0.00167	mg/Kg	☼		02/15/13 21:10	1
Chlorobenzene	0.00116	U	0.00604	0.00116	mg/Kg	☼		02/15/13 21:10	1
Ethylbenzene	0.00123	U	0.00604	0.00123	mg/Kg	☼		02/15/13 21:10	1
Xylenes, Total	0.00136	U	0.00604	0.00136	mg/Kg	☼		02/15/13 21:10	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	94		61 - 130		02/15/13 21:10	1
Dibromofluoromethane	77		68 - 140		02/15/13 21:10	1
Toluene-d8 (Surr)	111		50 - 130		02/15/13 21:10	1
4-Bromofluorobenzene	124		57 - 140		02/15/13 21:10	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68626-1

Client Sample ID: SO-1620-IM-CPT-19-13 (7.5-10)-20120214

Lab Sample ID: 600-68626-3

Date Collected: 02/14/13 09:15

Matrix: Solid

Date Received: 02/14/13 15:30

Percent Solids: 82.8

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.00512	U	0.0201	0.00512	mg/Kg	☼	02/15/13 15:53	02/21/13 10:37	1
Nitrobenzene	0.00357	U	0.0201	0.00357	mg/Kg	☼	02/15/13 15:53	02/21/13 10:37	1
2,4-Dimethylphenol	0.0104	U	0.0201	0.0104	mg/Kg	☼	02/15/13 15:53	02/21/13 10:37	1
Bis(2-chloroethoxy)methane	0.00171	U	0.0201	0.00171	mg/Kg	☼	02/15/13 15:53	02/21/13 10:37	1
Naphthalene	0.00163	U	0.0201	0.00163	mg/Kg	☼	02/15/13 15:53	02/21/13 10:37	1
2-Methylnaphthalene	3.31	U	20.1	3.31	ug/Kg	☼	02/15/13 15:53	02/21/13 10:37	1
2-Chloronaphthalene	0.00146	U	0.0201	0.00146	mg/Kg	☼	02/15/13 15:53	02/21/13 10:37	1
Acenaphthylene	0.00121	U	0.0201	0.00121	mg/Kg	☼	02/15/13 15:53	02/21/13 10:37	1
2,6-Dinitrotoluene	0.00356	U	0.0201	0.00356	mg/Kg	☼	02/15/13 15:53	02/21/13 10:37	1
Acenaphthene	0.0128	J	0.0201	0.00174	mg/Kg	☼	02/15/13 15:53	02/21/13 10:37	1
4-Nitrophenol	0.00613	U	0.0201	0.00613	mg/Kg	☼	02/15/13 15:53	02/21/13 10:37	1
Dibenzofuran	0.0124	J	0.0201	0.00215	mg/Kg	☼	02/15/13 15:53	02/21/13 10:37	1
2,4-Dinitrotoluene	0.00436	U	0.0201	0.00436	mg/Kg	☼	02/15/13 15:53	02/21/13 10:37	1
Fluorene	0.0247		0.0201	0.00285	mg/Kg	☼	02/15/13 15:53	02/21/13 10:37	1
4,6-Dinitro-2-methylphenol	0.00601	U	0.0201	0.00601	mg/Kg	☼	02/15/13 15:53	02/21/13 10:37	1
N-Nitrosodiphenylamine	0.00228	U	0.0201	0.00228	mg/Kg	☼	02/15/13 15:53	02/21/13 10:37	1
1,2-Diphenylhydrazine	0.00196	U	0.0201	0.00196	mg/Kg	☼	02/15/13 15:53	02/21/13 10:37	1
Pentachlorophenol	0.00483	U	0.202	0.00483	mg/Kg	☼	02/15/13 15:53	02/21/13 10:37	1
Phenanthrene	0.117		0.0201	0.00597	mg/Kg	☼	02/15/13 15:53	02/21/13 10:37	1
Anthracene	0.0230		0.0201	0.00155	mg/Kg	☼	02/15/13 15:53	02/21/13 10:37	1
Di-n-butyl phthalate	0.00313	U	0.0805	0.00313	mg/Kg	☼	02/15/13 15:53	02/21/13 10:37	1
Fluoranthene	0.0727		0.0201	0.00375	mg/Kg	☼	02/15/13 15:53	02/21/13 10:37	1
Pyrene	0.0596		0.0201	0.00221	mg/Kg	☼	02/15/13 15:53	02/21/13 10:37	1
Benzo[a]anthracene	0.0147	J	0.0201	0.00167	mg/Kg	☼	02/15/13 15:53	02/21/13 10:37	1
Bis(2-ethylhexyl) phthalate	0.0278	J	0.0805	0.00648	mg/Kg	☼	02/15/13 15:53	02/21/13 10:37	1
Chrysene	0.0201		0.0201	0.00123	mg/Kg	☼	02/15/13 15:53	02/21/13 10:37	1
Benzo[a]pyrene	0.00704	J	0.0201	0.00194	mg/Kg	☼	02/15/13 15:53	02/21/13 10:37	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	60		23 - 108	02/15/13 15:53	02/21/13 10:37	1
Phenol-d6	62		26 - 108	02/15/13 15:53	02/21/13 10:37	1
Nitrobenzene-d5	75		34 - 118	02/15/13 15:53	02/21/13 10:37	1
2-Fluorobiphenyl	80		51 - 109	02/15/13 15:53	02/21/13 10:37	1
2,4,6-Tribromophenol	60		34 - 122	02/15/13 15:53	02/21/13 10:37	1
Terphenyl-d14	86		56 - 123	02/15/13 15:53	02/21/13 10:37	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	1.99		1.18	0.258	mg/Kg	☼	02/19/13 16:17	02/25/13 13:53	1
Lead	9.59		0.592	0.124	mg/Kg	☼	02/19/13 16:17	02/21/13 16:01	1

General Chemistry

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	17		1.0	1.0	%			02/15/13 17:10	1
Percent Solids	83		1.0	1.0	%			02/15/13 17:10	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68626-1

Client Sample ID: SO-1620-IM-CPT-14-13 (1.4-2.5)-20120214

Lab Sample ID: 600-68626-4

Date Collected: 02/14/13 10:05

Matrix: Solid

Date Received: 02/14/13 15:30

Percent Solids: 80.1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	0.0137	U	0.0624	0.0137	mg/Kg	☼		02/21/13 14:32	5
Benzene	0.00393	U	0.0312	0.00393	mg/Kg	☼		02/21/13 14:32	5
1,2-Dichloroethane	0.00561	U	0.0312	0.00561	mg/Kg	☼		02/21/13 14:32	5
Toluene	0.00861	U	0.0312	0.00861	mg/Kg	☼		02/21/13 14:32	5
Chlorobenzene	0.00599	U	0.0312	0.00599	mg/Kg	☼		02/21/13 14:32	5
Ethylbenzene	0.00636	U	0.0312	0.00636	mg/Kg	☼		02/21/13 14:32	5
Xylenes, Total	0.00705	U	0.0312	0.00705	mg/Kg	☼		02/21/13 14:32	5

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	87		61 - 130		02/21/13 14:32	5
Dibromofluoromethane	82		68 - 140		02/21/13 14:32	5
Toluene-d8 (Surr)	108		50 - 130		02/21/13 14:32	5
4-Bromofluorobenzene	106		57 - 140		02/21/13 14:32	5

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.529	U	2.08	0.529	mg/Kg	☼	02/15/13 15:53	02/21/13 11:05	100
Nitrobenzene	0.369	U	2.08	0.369	mg/Kg	☼	02/15/13 15:53	02/21/13 11:05	100
2,4-Dimethylphenol	1.07	U	2.08	1.07	mg/Kg	☼	02/15/13 15:53	02/21/13 11:05	100
Bis(2-chloroethoxy)methane	0.177	U	2.08	0.177	mg/Kg	☼	02/15/13 15:53	02/21/13 11:05	100
Naphthalene	1.71	J	2.08	0.168	mg/Kg	☼	02/15/13 15:53	02/21/13 11:05	100
2-Methylnaphthalene	2300		2080	342	ug/Kg	☼	02/15/13 15:53	02/21/13 11:05	100
2-Chloronaphthalene	0.151	U	2.08	0.151	mg/Kg	☼	02/15/13 15:53	02/21/13 11:05	100
Acenaphthylene	0.125	U	2.08	0.125	mg/Kg	☼	02/15/13 15:53	02/21/13 11:05	100
2,6-Dinitrotoluene	0.368	U	2.08	0.368	mg/Kg	☼	02/15/13 15:53	02/21/13 11:05	100
Acenaphthene	1.43	J	2.08	0.180	mg/Kg	☼	02/15/13 15:53	02/21/13 11:05	100
4-Nitrophenol	0.634	U	2.08	0.634	mg/Kg	☼	02/15/13 15:53	02/21/13 11:05	100
Dibenzofuran	2.53		2.08	0.222	mg/Kg	☼	02/15/13 15:53	02/21/13 11:05	100
2,4-Dinitrotoluene	0.450	U	2.08	0.450	mg/Kg	☼	02/15/13 15:53	02/21/13 11:05	100
Fluorene	8.77		2.08	0.294	mg/Kg	☼	02/15/13 15:53	02/21/13 11:05	100
4,6-Dinitro-2-methylphenol	0.621	U	2.08	0.621	mg/Kg	☼	02/15/13 15:53	02/21/13 11:05	100
N-Nitrosodiphenylamine	0.236	U	2.08	0.236	mg/Kg	☼	02/15/13 15:53	02/21/13 11:05	100
1,2-Diphenylhydrazine	0.202	U	2.08	0.202	mg/Kg	☼	02/15/13 15:53	02/21/13 11:05	100
Pentachlorophenol	0.499	U	20.8	0.499	mg/Kg	☼	02/15/13 15:53	02/21/13 11:05	100
Phenanthrene	16.1		2.08	0.618	mg/Kg	☼	02/15/13 15:53	02/21/13 11:05	100
Di-n-butyl phthalate	0.323	U	8.32	0.323	mg/Kg	☼	02/15/13 15:53	02/21/13 11:05	100
Fluoranthene	4.21		2.08	0.388	mg/Kg	☼	02/15/13 15:53	02/21/13 11:05	100
Pyrene	3.53		2.08	0.228	mg/Kg	☼	02/15/13 15:53	02/21/13 11:05	100
Benzo[a]anthracene	0.995	J	2.08	0.172	mg/Kg	☼	02/15/13 15:53	02/21/13 11:05	100
Bis(2-ethylhexyl) phthalate	0.670	U	8.32	0.670	mg/Kg	☼	02/15/13 15:53	02/21/13 11:05	100
Chrysene	2.43		2.08	0.127	mg/Kg	☼	02/15/13 15:53	02/21/13 11:05	100
Benzo[a]pyrene	0.201	U	2.08	0.201	mg/Kg	☼	02/15/13 15:53	02/21/13 11:05	100

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	0	X	23 - 108	02/15/13 15:53	02/21/13 11:05	100
Phenol-d6	0	X	26 - 108	02/15/13 15:53	02/21/13 11:05	100
Nitrobenzene-d5	0	X	34 - 118	02/15/13 15:53	02/21/13 11:05	100
2-Fluorobiphenyl	0	X	51 - 109	02/15/13 15:53	02/21/13 11:05	100
2,4,6-Tribromophenol	0	X	34 - 122	02/15/13 15:53	02/21/13 11:05	100
Terphenyl-d14	0	X	56 - 123	02/15/13 15:53	02/21/13 11:05	100

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68626-1

Client Sample ID: SO-1620-IM-CPT-14-13 (1.4-2.5)-20120214

Lab Sample ID: 600-68626-4

Date Collected: 02/14/13 10:05

Matrix: Solid

Date Received: 02/14/13 15:30

Percent Solids: 80.1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels - DL

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	160		10.4	0.799	mg/Kg	☼	02/15/13 15:53	02/22/13 13:02	500
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorophenol	0	X	23 - 108				02/15/13 15:53	02/22/13 13:02	500
Phenol-d6	0	X	26 - 108				02/15/13 15:53	02/22/13 13:02	500
Nitrobenzene-d5	0	X	34 - 118				02/15/13 15:53	02/22/13 13:02	500
2-Fluorobiphenyl	0	X	51 - 109				02/15/13 15:53	02/22/13 13:02	500
2,4,6-Tribromophenol	0	X	34 - 122				02/15/13 15:53	02/22/13 13:02	500
Terphenyl-d14	0	X	56 - 123				02/15/13 15:53	02/22/13 13:02	500

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	31.9		1.14	0.249	mg/Kg	☼	02/19/13 16:17	02/25/13 13:56	1
Lead	1330		0.572	0.120	mg/Kg	☼	02/19/13 16:17	02/21/13 16:03	1

General Chemistry

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	20		1.0	1.0	%			02/15/13 17:10	1
Percent Solids	80		1.0	1.0	%			02/15/13 17:10	1

Client Sample ID: SO-1620-IM-CPT-14-13 (12.5-15)-20120214

Lab Sample ID: 600-68626-5

Date Collected: 02/14/13 10:35

Matrix: Solid

Date Received: 02/14/13 15:30

Percent Solids: 85.0

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	0.0129	U	0.0588	0.0129	mg/Kg	☼		02/20/13 19:37	5
Benzene	0.00766	J	0.0294	0.00371	mg/Kg	☼		02/20/13 19:37	5
1,2-Dichloroethane	0.00529	U	0.0294	0.00529	mg/Kg	☼		02/20/13 19:37	5
Toluene	0.0418		0.0294	0.00812	mg/Kg	☼		02/20/13 19:37	5
Chlorobenzene	0.00565	U	0.0294	0.00565	mg/Kg	☼		02/20/13 19:37	5
Ethylbenzene	0.0505		0.0294	0.00600	mg/Kg	☼		02/20/13 19:37	5
Xylenes, Total	0.154		0.0294	0.00665	mg/Kg	☼		02/20/13 19:37	5
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	93		61 - 130					02/20/13 19:37	5
Dibromofluoromethane	122		68 - 140					02/20/13 19:37	5
Toluene-d8 (Surr)	116		50 - 130					02/20/13 19:37	5
4-Bromofluorobenzene	114		57 - 140					02/20/13 19:37	5

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	2.18		1.96	0.499	mg/Kg	☼	02/15/13 15:53	02/21/13 11:32	100
Nitrobenzene	0.348	U	1.96	0.348	mg/Kg	☼	02/15/13 15:53	02/21/13 11:32	100
2,4-Dimethylphenol	4.94		1.96	1.01	mg/Kg	☼	02/15/13 15:53	02/21/13 11:32	100
Bis(2-chloroethoxy)methane	0.167	U	1.96	0.167	mg/Kg	☼	02/15/13 15:53	02/21/13 11:32	100
Naphthalene	92.8		1.96	0.159	mg/Kg	☼	02/15/13 15:53	02/21/13 11:32	100
2-Methylnaphthalene	22600		1960	322	ug/Kg	☼	02/15/13 15:53	02/21/13 11:32	100
2-Chloronaphthalene	0.142	U	1.96	0.142	mg/Kg	☼	02/15/13 15:53	02/21/13 11:32	100
Acenaphthylene	0.910	J	1.96	0.118	mg/Kg	☼	02/15/13 15:53	02/21/13 11:32	100
2,6-Dinitrotoluene	0.347	U	1.96	0.347	mg/Kg	☼	02/15/13 15:53	02/21/13 11:32	100

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68626-1

Client Sample ID: SO-1620-IM-CPT-14-13 (12.5-15)-20120214

Lab Sample ID: 600-68626-5

Date Collected: 02/14/13 10:35

Matrix: Solid

Date Received: 02/14/13 15:30

Percent Solids: 85.0

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	16.8		1.96	0.169	mg/Kg	☼	02/15/13 15:53	02/21/13 11:32	100
4-Nitrophenol	0.597	U	1.96	0.597	mg/Kg	☼	02/15/13 15:53	02/21/13 11:32	100
Dibenzofuran	19.2		1.96	0.209	mg/Kg	☼	02/15/13 15:53	02/21/13 11:32	100
2,4-Dinitrotoluene	0.424	U	1.96	0.424	mg/Kg	☼	02/15/13 15:53	02/21/13 11:32	100
Fluorene	17.5		1.96	0.277	mg/Kg	☼	02/15/13 15:53	02/21/13 11:32	100
4,6-Dinitro-2-methylphenol	0.586	U	1.96	0.586	mg/Kg	☼	02/15/13 15:53	02/21/13 11:32	100
N-Nitrosodiphenylamine	0.222	U	1.96	0.222	mg/Kg	☼	02/15/13 15:53	02/21/13 11:32	100
1,2-Diphenylhydrazine	0.190	U	1.96	0.190	mg/Kg	☼	02/15/13 15:53	02/21/13 11:32	100
Pentachlorophenol	0.470	U	19.6	0.470	mg/Kg	☼	02/15/13 15:53	02/21/13 11:32	100
Phenanthrene	65.5		1.96	0.582	mg/Kg	☼	02/15/13 15:53	02/21/13 11:32	100
Anthracene	8.88		1.96	0.150	mg/Kg	☼	02/15/13 15:53	02/21/13 11:32	100
Di-n-butyl phthalate	0.305	U	7.84	0.305	mg/Kg	☼	02/15/13 15:53	02/21/13 11:32	100
Fluoranthene	22.8		1.96	0.366	mg/Kg	☼	02/15/13 15:53	02/21/13 11:32	100
Pyrene	15.3		1.96	0.215	mg/Kg	☼	02/15/13 15:53	02/21/13 11:32	100
Benzo[a]anthracene	3.58		1.96	0.162	mg/Kg	☼	02/15/13 15:53	02/21/13 11:32	100
Bis(2-ethylhexyl) phthalate	0.631	U	7.84	0.631	mg/Kg	☼	02/15/13 15:53	02/21/13 11:32	100
Chrysene	3.94		1.96	0.120	mg/Kg	☼	02/15/13 15:53	02/21/13 11:32	100
Benzo[a]pyrene	1.24	J	1.96	0.189	mg/Kg	☼	02/15/13 15:53	02/21/13 11:32	100
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorophenol	0	X	23 - 108				02/15/13 15:53	02/21/13 11:32	100
Phenol-d6	0	X	26 - 108				02/15/13 15:53	02/21/13 11:32	100
Nitrobenzene-d5	0	X	34 - 118				02/15/13 15:53	02/21/13 11:32	100
2-Fluorobiphenyl	0	X	51 - 109				02/15/13 15:53	02/21/13 11:32	100
2,4,6-Tribromophenol	0	X	34 - 122				02/15/13 15:53	02/21/13 11:32	100
Terphenyl-d14	0	X	56 - 123				02/15/13 15:53	02/21/13 11:32	100

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	4.80		1.09	0.237	mg/Kg	☼	02/19/13 16:17	02/25/13 13:58	1
Lead	6.81		0.545	0.114	mg/Kg	☼	02/19/13 16:17	02/21/13 16:06	1

General Chemistry

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	15		1.0	1.0	%			02/15/13 17:10	1
Percent Solids	85		1.0	1.0	%			02/15/13 17:10	1

Client Sample ID: SO-1620-IM-CPT-14-13 (15-16.4)-20120214

Lab Sample ID: 600-68626-6

Date Collected: 02/14/13 10:45

Matrix: Solid

Date Received: 02/14/13 15:30

Percent Solids: 85.2

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	0.0128	U	0.0587	0.0128	mg/Kg	☼		02/20/13 20:00	5
Benzene	0.0230	J	0.0293	0.00370	mg/Kg	☼		02/20/13 20:00	5
1,2-Dichloroethane	0.00528	U	0.0293	0.00528	mg/Kg	☼		02/20/13 20:00	5
Toluene	0.136		0.0293	0.00809	mg/Kg	☼		02/20/13 20:00	5
Chlorobenzene	0.00563	U	0.0293	0.00563	mg/Kg	☼		02/20/13 20:00	5
Ethylbenzene	0.159		0.0293	0.00598	mg/Kg	☼		02/20/13 20:00	5
Xylenes, Total	0.478		0.0293	0.00663	mg/Kg	☼		02/20/13 20:00	5

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68626-1

Client Sample ID: SO-1620-IM-CPT-14-13 (15-16.4)-20120214

Lab Sample ID: 600-68626-6

Date Collected: 02/14/13 10:45

Matrix: Solid

Date Received: 02/14/13 15:30

Percent Solids: 85.2

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	92		61 - 130		02/20/13 20:00	5
Dibromofluoromethane	115		68 - 140		02/20/13 20:00	5
Toluene-d8 (Surr)	112		50 - 130		02/20/13 20:00	5
4-Bromofluorobenzene	109		57 - 140		02/20/13 20:00	5

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	4.97	U	19.5	4.97	mg/Kg	☼	02/15/13 15:53	02/21/13 12:00	100
Nitrobenzene	3.47	U	19.5	3.47	mg/Kg	☼	02/15/13 15:53	02/21/13 12:00	100
2,4-Dimethylphenol	10.1	U	19.5	10.1	mg/Kg	☼	02/15/13 15:53	02/21/13 12:00	100
Bis(2-chloroethoxy)methane	1.66	U	19.5	1.66	mg/Kg	☼	02/15/13 15:53	02/21/13 12:00	100
Naphthalene	168		19.5	1.58	mg/Kg	☼	02/15/13 15:53	02/21/13 12:00	100
2-Methylnaphthalene	39100		19500	3210	ug/Kg	☼	02/15/13 15:53	02/21/13 12:00	100
2-Chloronaphthalene	1.42	U	19.5	1.42	mg/Kg	☼	02/15/13 15:53	02/21/13 12:00	100
Acenaphthylene	1.17	U	19.5	1.17	mg/Kg	☼	02/15/13 15:53	02/21/13 12:00	100
2,6-Dinitrotoluene	3.46	U	19.5	3.46	mg/Kg	☼	02/15/13 15:53	02/21/13 12:00	100
Acenaphthene	31.4		19.5	1.69	mg/Kg	☼	02/15/13 15:53	02/21/13 12:00	100
4-Nitrophenol	5.95	U	19.5	5.95	mg/Kg	☼	02/15/13 15:53	02/21/13 12:00	100
Dibenzofuran	37.0		19.5	2.09	mg/Kg	☼	02/15/13 15:53	02/21/13 12:00	100
2,4-Dinitrotoluene	4.23	U	19.5	4.23	mg/Kg	☼	02/15/13 15:53	02/21/13 12:00	100
Fluorene	44.5		19.5	2.77	mg/Kg	☼	02/15/13 15:53	02/21/13 12:00	100
4,6-Dinitro-2-methylphenol	5.84	U	19.5	5.84	mg/Kg	☼	02/15/13 15:53	02/21/13 12:00	100
N-Nitrosodiphenylamine	2.21	U	19.5	2.21	mg/Kg	☼	02/15/13 15:53	02/21/13 12:00	100
1,2-Diphenylhydrazine	1.90	U	19.5	1.90	mg/Kg	☼	02/15/13 15:53	02/21/13 12:00	100
Pentachlorophenol	4.69	U	196	4.69	mg/Kg	☼	02/15/13 15:53	02/21/13 12:00	100
Phenanthrene	133		19.5	5.80	mg/Kg	☼	02/15/13 15:53	02/21/13 12:00	100
Anthracene	25.7		19.5	1.50	mg/Kg	☼	02/15/13 15:53	02/21/13 12:00	100
Di-n-butyl phthalate	3.04	U	78.1	3.04	mg/Kg	☼	02/15/13 15:53	02/21/13 12:00	100
Fluoranthene	46.4		19.5	3.64	mg/Kg	☼	02/15/13 15:53	02/21/13 12:00	100
Pyrene	30.8		19.5	2.14	mg/Kg	☼	02/15/13 15:53	02/21/13 12:00	100
Benzo[a]anthracene	8.34	J	19.5	1.62	mg/Kg	☼	02/15/13 15:53	02/21/13 12:00	100
Bis(2-ethylhexyl) phthalate	6.29	U	78.1	6.29	mg/Kg	☼	02/15/13 15:53	02/21/13 12:00	100
Chrysene	11.0	J	19.5	1.20	mg/Kg	☼	02/15/13 15:53	02/21/13 12:00	100
Benzo[a]pyrene	1.89	U	19.5	1.89	mg/Kg	☼	02/15/13 15:53	02/21/13 12:00	100

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	0	X	23 - 108	02/15/13 15:53	02/21/13 12:00	100
Phenol-d6	0	X	26 - 108	02/15/13 15:53	02/21/13 12:00	100
Nitrobenzene-d5	0	X	34 - 118	02/15/13 15:53	02/21/13 12:00	100
2-Fluorobiphenyl	0	X	51 - 109	02/15/13 15:53	02/21/13 12:00	100
2,4,6-Tribromophenol	0	X	34 - 122	02/15/13 15:53	02/21/13 12:00	100
Terphenyl-d14	0	X	56 - 123	02/15/13 15:53	02/21/13 12:00	100

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	2.68		1.10	0.239	mg/Kg	☼	02/19/13 16:17	02/25/13 14:15	1
Lead	11.5		0.548	0.115	mg/Kg	☼	02/19/13 16:17	02/21/13 16:22	1

General Chemistry

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	15		1.0	1.0	%			02/15/13 17:10	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68626-1

Client Sample ID: SO-1620-IM-CPT-14-13 (15-16.4)-20120214

Lab Sample ID: 600-68626-6

Date Collected: 02/14/13 10:45

Matrix: Solid

Date Received: 02/14/13 15:30

General Chemistry (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	85		1.0	1.0	%			02/15/13 17:10	1

Client Sample ID: SO-1620-IM-CPT-15-13 (2-5)-20120214

Lab Sample ID: 600-68626-7

Date Collected: 02/14/13 11:30

Matrix: Solid

Date Received: 02/14/13 15:30

Percent Solids: 65.0

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	0.00337	U	0.0154	0.00337	mg/Kg	☼		02/20/13 18:03	1
Benzene	0.00164	J	0.00769	0.000969	mg/Kg	☼		02/20/13 18:03	1
1,2-Dichloroethane	0.00138	U	0.00769	0.00138	mg/Kg	☼		02/20/13 18:03	1
Toluene	0.00212	U	0.00769	0.00212	mg/Kg	☼		02/20/13 18:03	1
Chlorobenzene	0.00148	U	0.00769	0.00148	mg/Kg	☼		02/20/13 18:03	1
Ethylbenzene	0.00157	U	0.00769	0.00157	mg/Kg	☼		02/20/13 18:03	1
Xylenes, Total	0.00174	U	0.00769	0.00174	mg/Kg	☼		02/20/13 18:03	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	93		61 - 130					02/20/13 18:03	1
Dibromofluoromethane	94		68 - 140					02/20/13 18:03	1
Toluene-d8 (Surr)	120		50 - 130					02/20/13 18:03	1
4-Bromofluorobenzene	112		57 - 140					02/20/13 18:03	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	6.50	U	25.6	6.50	mg/Kg	☼	02/15/13 15:53	02/21/13 12:28	100
Nitrobenzene	4.54	U	25.6	4.54	mg/Kg	☼	02/15/13 15:53	02/21/13 12:28	100
2,4-Dimethylphenol	13.2	U	25.6	13.2	mg/Kg	☼	02/15/13 15:53	02/21/13 12:28	100
Bis(2-chloroethoxy)methane	2.18	U	25.6	2.18	mg/Kg	☼	02/15/13 15:53	02/21/13 12:28	100
Naphthalene	28.4		25.6	2.07	mg/Kg	☼	02/15/13 15:53	02/21/13 12:28	100
2-Methylnaphthalene	11100	J	25600	4200	ug/Kg	☼	02/15/13 15:53	02/21/13 12:28	100
2-Chloronaphthalene	1.86	U	25.6	1.86	mg/Kg	☼	02/15/13 15:53	02/21/13 12:28	100
Acenaphthylene	1.53	U	25.6	1.53	mg/Kg	☼	02/15/13 15:53	02/21/13 12:28	100
2,6-Dinitrotoluene	4.52	U	25.6	4.52	mg/Kg	☼	02/15/13 15:53	02/21/13 12:28	100
Acenaphthene	19.5	J	25.6	2.21	mg/Kg	☼	02/15/13 15:53	02/21/13 12:28	100
4-Nitrophenol	7.79	U	25.6	7.79	mg/Kg	☼	02/15/13 15:53	02/21/13 12:28	100
Dibenzofuran	15.8	J	25.6	2.73	mg/Kg	☼	02/15/13 15:53	02/21/13 12:28	100
2,4-Dinitrotoluene	5.54	U	25.6	5.54	mg/Kg	☼	02/15/13 15:53	02/21/13 12:28	100
Fluorene	30.3		25.6	3.62	mg/Kg	☼	02/15/13 15:53	02/21/13 12:28	100
4,6-Dinitro-2-methylphenol	7.64	U	25.6	7.64	mg/Kg	☼	02/15/13 15:53	02/21/13 12:28	100
N-Nitrosodiphenylamine	2.90	U	25.6	2.90	mg/Kg	☼	02/15/13 15:53	02/21/13 12:28	100
1,2-Diphenylhydrazine	2.48	U	25.6	2.48	mg/Kg	☼	02/15/13 15:53	02/21/13 12:28	100
Pentachlorophenol	6.13	U	25.6	6.13	mg/Kg	☼	02/15/13 15:53	02/21/13 12:28	100
Phenanthrene	109		25.6	7.59	mg/Kg	☼	02/15/13 15:53	02/21/13 12:28	100
Anthracene	20.3	J	25.6	1.96	mg/Kg	☼	02/15/13 15:53	02/21/13 12:28	100
Di-n-butyl phthalate	3.97	U	102	3.97	mg/Kg	☼	02/15/13 15:53	02/21/13 12:28	100
Fluoranthene	80.6		25.6	4.77	mg/Kg	☼	02/15/13 15:53	02/21/13 12:28	100
Pyrene	65.9		25.6	2.81	mg/Kg	☼	02/15/13 15:53	02/21/13 12:28	100
Benzo[a]anthracene	13.2	J	25.6	2.12	mg/Kg	☼	02/15/13 15:53	02/21/13 12:28	100
Bis(2-ethylhexyl) phthalate	8.23	U	102	8.23	mg/Kg	☼	02/15/13 15:53	02/21/13 12:28	100
Chrysene	20.5	J	25.6	1.56	mg/Kg	☼	02/15/13 15:53	02/21/13 12:28	100

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68626-1

Client Sample ID: SO-1620-IM-CPT-15-13 (2-5)-20120214

Lab Sample ID: 600-68626-7

Date Collected: 02/14/13 11:30

Matrix: Solid

Date Received: 02/14/13 15:30

Percent Solids: 65.0

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]pyrene	7.21	J	25.6	2.47	mg/Kg	☼	02/15/13 15:53	02/21/13 12:28	100
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorophenol	0	X	23 - 108				02/15/13 15:53	02/21/13 12:28	100
Phenol-d6	0	X	26 - 108				02/15/13 15:53	02/21/13 12:28	100
Nitrobenzene-d5	0	X	34 - 118				02/15/13 15:53	02/21/13 12:28	100
2-Fluorobiphenyl	0	X	51 - 109				02/15/13 15:53	02/21/13 12:28	100
2,4,6-Tribromophenol	0	X	34 - 122				02/15/13 15:53	02/21/13 12:28	100
Terphenyl-d14	0	X	56 - 123				02/15/13 15:53	02/21/13 12:28	100

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	1.68		1.48	0.322	mg/Kg	☼	02/19/13 16:17	02/25/13 14:17	1
Lead	63.0		0.739	0.155	mg/Kg	☼	02/19/13 16:17	02/21/13 16:24	1

General Chemistry

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	35		1.0	1.0	%			02/15/13 17:10	1
Percent Solids	65		1.0	1.0	%			02/15/13 17:10	1

Client Sample ID: SO-1620-IM-CPT-15-13 (5.0-7.5)-20120214

Lab Sample ID: 600-68626-8

Date Collected: 02/14/13 11:50

Matrix: Solid

Date Received: 02/14/13 15:30

Percent Solids: 83.2

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	0.00263	U	0.0120	0.00263	mg/Kg	☼		02/20/13 18:26	1
Benzene	0.000757	U	0.00601	0.000757	mg/Kg	☼		02/20/13 18:26	1
1,2-Dichloroethane	0.00108	U	0.00601	0.00108	mg/Kg	☼		02/20/13 18:26	1
Toluene	0.00166	U	0.00601	0.00166	mg/Kg	☼		02/20/13 18:26	1
Chlorobenzene	0.00115	U	0.00601	0.00115	mg/Kg	☼		02/20/13 18:26	1
Ethylbenzene	0.00123	U	0.00601	0.00123	mg/Kg	☼		02/20/13 18:26	1
Xylenes, Total	0.00136	U	0.00601	0.00136	mg/Kg	☼		02/20/13 18:26	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	94		61 - 130					02/20/13 18:26	1
Dibromofluoromethane	109		68 - 140					02/20/13 18:26	1
Toluene-d8 (Surr)	113		50 - 130					02/20/13 18:26	1
4-Bromofluorobenzene	106		57 - 140					02/20/13 18:26	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.508	U	2.00	0.508	mg/Kg	☼	02/15/13 15:53	02/22/13 13:28	10
Nitrobenzene	0.355	U	2.00	0.355	mg/Kg	☼	02/15/13 15:53	02/22/13 13:28	10
2,4-Dimethylphenol	1.03	U	2.00	1.03	mg/Kg	☼	02/15/13 15:53	02/22/13 13:28	10
Bis(2-chloroethoxy)methane	0.170	U	2.00	0.170	mg/Kg	☼	02/15/13 15:53	02/22/13 13:28	10
Naphthalene	0.162	U	2.00	0.162	mg/Kg	☼	02/15/13 15:53	02/22/13 13:28	10
2-Methylnaphthalene	328	U	2000	328	ug/Kg	☼	02/15/13 15:53	02/22/13 13:28	10
2-Chloronaphthalene	0.145	U	2.00	0.145	mg/Kg	☼	02/15/13 15:53	02/22/13 13:28	10
Acenaphthylene	0.120	U	2.00	0.120	mg/Kg	☼	02/15/13 15:53	02/22/13 13:28	10
2,6-Dinitrotoluene	0.353	U	2.00	0.353	mg/Kg	☼	02/15/13 15:53	02/22/13 13:28	10

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68626-1

Client Sample ID: SO-1620-IM-CPT-15-13 (5.0-7.5)-20120214

Lab Sample ID: 600-68626-8

Date Collected: 02/14/13 11:50

Matrix: Solid

Date Received: 02/14/13 15:30

Percent Solids: 83.2

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	0.173	U	2.00	0.173	mg/Kg	☼	02/15/13 15:53	02/22/13 13:28	10
4-Nitrophenol	0.609	U	2.00	0.609	mg/Kg	☼	02/15/13 15:53	02/22/13 13:28	10
Dibenzofuran	0.213	U	2.00	0.213	mg/Kg	☼	02/15/13 15:53	02/22/13 13:28	10
2,4-Dinitrotoluene	0.432	U	2.00	0.432	mg/Kg	☼	02/15/13 15:53	02/22/13 13:28	10
Fluorene	0.283	U	2.00	0.283	mg/Kg	☼	02/15/13 15:53	02/22/13 13:28	10
4,6-Dinitro-2-methylphenol	0.597	U	2.00	0.597	mg/Kg	☼	02/15/13 15:53	02/22/13 13:28	10
N-Nitrosodiphenylamine	0.226	U	2.00	0.226	mg/Kg	☼	02/15/13 15:53	02/22/13 13:28	10
1,2-Diphenylhydrazine	0.194	U	2.00	0.194	mg/Kg	☼	02/15/13 15:53	02/22/13 13:28	10
Pentachlorophenol	0.479	U	20.0	0.479	mg/Kg	☼	02/15/13 15:53	02/22/13 13:28	10
Phenanthrene	0.688	J	2.00	0.593	mg/Kg	☼	02/15/13 15:53	02/22/13 13:28	10
Anthracene	0.153	U	2.00	0.153	mg/Kg	☼	02/15/13 15:53	02/22/13 13:28	10
Di-n-butyl phthalate	0.310	U	7.99	0.310	mg/Kg	☼	02/15/13 15:53	02/22/13 13:28	10
Fluoranthene	0.373	U	2.00	0.373	mg/Kg	☼	02/15/13 15:53	02/22/13 13:28	10
Pyrene	0.219	U	2.00	0.219	mg/Kg	☼	02/15/13 15:53	02/22/13 13:28	10
Benzo[a]anthracene	0.165	U	2.00	0.165	mg/Kg	☼	02/15/13 15:53	02/22/13 13:28	10
Bis(2-ethylhexyl) phthalate	0.643	U	7.99	0.643	mg/Kg	☼	02/15/13 15:53	02/22/13 13:28	10
Chrysene	0.122	U	2.00	0.122	mg/Kg	☼	02/15/13 15:53	02/22/13 13:28	10
Benzo[a]pyrene	0.193	U	2.00	0.193	mg/Kg	☼	02/15/13 15:53	02/22/13 13:28	10
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorophenol	0	X	23 - 108				02/15/13 15:53	02/22/13 13:28	10
Phenol-d6	0	X	26 - 108				02/15/13 15:53	02/22/13 13:28	10
Nitrobenzene-d5	0	X	34 - 118				02/15/13 15:53	02/22/13 13:28	10
2-Fluorobiphenyl	0	X	51 - 109				02/15/13 15:53	02/22/13 13:28	10
2,4,6-Tribromophenol	0	X	34 - 122				02/15/13 15:53	02/22/13 13:28	10
Terphenyl-d14	0	X	56 - 123				02/15/13 15:53	02/22/13 13:28	10

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	1.74		1.12	0.245	mg/Kg	☼	02/19/13 16:17	02/25/13 14:19	1
Lead	7.31		0.562	0.118	mg/Kg	☼	02/19/13 16:17	02/21/13 16:27	1

General Chemistry

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	17		1.0	1.0	%			02/15/13 17:10	1
Percent Solids	83		1.0	1.0	%			02/15/13 17:10	1

Client Sample ID: SO-1620-IM-CPT-15-13 (15-16.2)-20120214

Lab Sample ID: 600-68626-9

Date Collected: 02/14/13 12:00

Matrix: Solid

Date Received: 02/14/13 15:30

Percent Solids: 84.4

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	0.00259	U	0.0118	0.00259	mg/Kg	☼		02/20/13 20:24	1
Benzene	0.00561	J	0.00592	0.000746	mg/Kg	☼		02/20/13 20:24	1
1,2-Dichloroethane	0.00107	U	0.00592	0.00107	mg/Kg	☼		02/20/13 20:24	1
Toluene	0.0177		0.00592	0.00163	mg/Kg	☼		02/20/13 20:24	1
Chlorobenzene	0.00114	U	0.00592	0.00114	mg/Kg	☼		02/20/13 20:24	1
Ethylbenzene	0.0464		0.00592	0.00121	mg/Kg	☼		02/20/13 20:24	1
Xylenes, Total	0.0876		0.00592	0.00134	mg/Kg	☼		02/20/13 20:24	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68626-1

Client Sample ID: SO-1620-IM-CPT-15-13 (15-16.2)-20120214

Lab Sample ID: 600-68626-9

Date Collected: 02/14/13 12:00

Matrix: Solid

Date Received: 02/14/13 15:30

Percent Solids: 84.4

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	94		61 - 130		02/20/13 20:24	1
Dibromofluoromethane	119		68 - 140		02/20/13 20:24	1
Toluene-d8 (Surr)	121		50 - 130		02/20/13 20:24	1
4-Bromofluorobenzene	120		57 - 140		02/20/13 20:24	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	5.02	U	19.7	5.02	mg/Kg	☼	02/15/13 15:53	02/21/13 13:23	100
Nitrobenzene	3.50	U	19.7	3.50	mg/Kg	☼	02/15/13 15:53	02/21/13 13:23	100
2,4-Dimethylphenol	10.2	U	19.7	10.2	mg/Kg	☼	02/15/13 15:53	02/21/13 13:23	100
Bis(2-chloroethoxy)methane	1.68	U	19.7	1.68	mg/Kg	☼	02/15/13 15:53	02/21/13 13:23	100
Naphthalene	56.5		19.7	1.60	mg/Kg	☼	02/15/13 15:53	02/21/13 13:23	100
2-Methylnaphthalene	17300	J	19700	3240	ug/Kg	☼	02/15/13 15:53	02/21/13 13:23	100
2-Chloronaphthalene	1.43	U	19.7	1.43	mg/Kg	☼	02/15/13 15:53	02/21/13 13:23	100
Acenaphthylene	1.18	U	19.7	1.18	mg/Kg	☼	02/15/13 15:53	02/21/13 13:23	100
2,6-Dinitrotoluene	3.49	U	19.7	3.49	mg/Kg	☼	02/15/13 15:53	02/21/13 13:23	100
Acenaphthene	21.6		19.7	1.70	mg/Kg	☼	02/15/13 15:53	02/21/13 13:23	100
4-Nitrophenol	6.01	U	19.7	6.01	mg/Kg	☼	02/15/13 15:53	02/21/13 13:23	100
Dibenzofuran	18.0	J	19.7	2.11	mg/Kg	☼	02/15/13 15:53	02/21/13 13:23	100
2,4-Dinitrotoluene	4.27	U	19.7	4.27	mg/Kg	☼	02/15/13 15:53	02/21/13 13:23	100
Fluorene	22.0		19.7	2.79	mg/Kg	☼	02/15/13 15:53	02/21/13 13:23	100
4,6-Dinitro-2-methylphenol	5.89	U	19.7	5.89	mg/Kg	☼	02/15/13 15:53	02/21/13 13:23	100
N-Nitrosodiphenylamine	2.24	U	19.7	2.24	mg/Kg	☼	02/15/13 15:53	02/21/13 13:23	100
1,2-Diphenylhydrazine	1.92	U	19.7	1.92	mg/Kg	☼	02/15/13 15:53	02/21/13 13:23	100
Pentachlorophenol	4.73	U	198	4.73	mg/Kg	☼	02/15/13 15:53	02/21/13 13:23	100
Phenanthrene	55.4		19.7	5.86	mg/Kg	☼	02/15/13 15:53	02/21/13 13:23	100
Anthracene	8.11	J	19.7	1.51	mg/Kg	☼	02/15/13 15:53	02/21/13 13:23	100
Di-n-butyl phthalate	3.06	U	78.9	3.06	mg/Kg	☼	02/15/13 15:53	02/21/13 13:23	100
Fluoranthene	19.6	J	19.7	3.68	mg/Kg	☼	02/15/13 15:53	02/21/13 13:23	100
Pyrene	13.8	J	19.7	2.17	mg/Kg	☼	02/15/13 15:53	02/21/13 13:23	100
Benzo[a]anthracene	4.00	J	19.7	1.63	mg/Kg	☼	02/15/13 15:53	02/21/13 13:23	100
Bis(2-ethylhexyl) phthalate	6.35	U	78.9	6.35	mg/Kg	☼	02/15/13 15:53	02/21/13 13:23	100
Chrysene	3.70	J	19.7	1.21	mg/Kg	☼	02/15/13 15:53	02/21/13 13:23	100
Benzo[a]pyrene	1.90	U	19.7	1.90	mg/Kg	☼	02/15/13 15:53	02/21/13 13:23	100

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	0	X	23 - 108	02/15/13 15:53	02/21/13 13:23	100
Phenol-d6	0	X	26 - 108	02/15/13 15:53	02/21/13 13:23	100
Nitrobenzene-d5	0	X	34 - 118	02/15/13 15:53	02/21/13 13:23	100
2-Fluorobiphenyl	0	X	51 - 109	02/15/13 15:53	02/21/13 13:23	100
2,4,6-Tribromophenol	0	X	34 - 122	02/15/13 15:53	02/21/13 13:23	100
Terphenyl-d14	0	X	56 - 123	02/15/13 15:53	02/21/13 13:23	100

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	3.03		1.13	0.246	mg/Kg	☼	02/19/13 16:17	02/25/13 14:22	1
Lead	9.77		0.564	0.118	mg/Kg	☼	02/19/13 16:17	02/21/13 16:29	1

General Chemistry

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	16		1.0	1.0	%			02/15/13 17:10	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68626-1

Client Sample ID: SO-1620-IM-CPT-15-13 (15-16.2)-20120214

Lab Sample ID: 600-68626-9

Date Collected: 02/14/13 12:00

Matrix: Solid

Date Received: 02/14/13 15:30

General Chemistry (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	84		1.0	1.0	%			02/15/13 17:10	1

Client Sample ID: SO-1620-IM-CPT-20-13 (0-2.5)-0120214

Lab Sample ID: 600-68626-10

Date Collected: 02/14/13 13:50

Matrix: Solid

Date Received: 02/14/13 15:30

Percent Solids: 88.3

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	0.00248	U	0.0113	0.00248	mg/Kg	☼		02/21/13 15:19	1
Benzene	0.000714	U	0.00566	0.000714	mg/Kg	☼		02/21/13 15:19	1
1,2-Dichloroethane	0.00102	U	0.00566	0.00102	mg/Kg	☼		02/21/13 15:19	1
Toluene	0.00156	U	0.00566	0.00156	mg/Kg	☼		02/21/13 15:19	1
Chlorobenzene	0.00109	U	0.00566	0.00109	mg/Kg	☼		02/21/13 15:19	1
Ethylbenzene	0.00116	U	0.00566	0.00116	mg/Kg	☼		02/21/13 15:19	1
Xylenes, Total	0.00128	U	0.00566	0.00128	mg/Kg	☼		02/21/13 15:19	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	87		61 - 130					02/21/13 15:19	1
Dibromofluoromethane	107		68 - 140					02/21/13 15:19	1
Toluene-d8 (Surr)	107		50 - 130					02/21/13 15:19	1
4-Bromofluorobenzene	108		57 - 140					02/21/13 15:19	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.0480	U	0.189	0.0480	mg/Kg	☼	02/15/13 15:53	02/22/13 13:55	10
Nitrobenzene	0.0335	U	0.189	0.0335	mg/Kg	☼	02/15/13 15:53	02/22/13 13:55	10
2,4-Dimethylphenol	0.0971	U	0.189	0.0971	mg/Kg	☼	02/15/13 15:53	02/22/13 13:55	10
Bis(2-chloroethoxy)methane	0.0161	U	0.189	0.0161	mg/Kg	☼	02/15/13 15:53	02/22/13 13:55	10
Naphthalene	0.0153	U	0.189	0.0153	mg/Kg	☼	02/15/13 15:53	02/22/13 13:55	10
2-Methylnaphthalene	31.0	U	189	31.0	ug/Kg	☼	02/15/13 15:53	02/22/13 13:55	10
2-Chloronaphthalene	0.0137	U	0.189	0.0137	mg/Kg	☼	02/15/13 15:53	02/22/13 13:55	10
Acenaphthylene	0.0113	U	0.189	0.0113	mg/Kg	☼	02/15/13 15:53	02/22/13 13:55	10
2,6-Dinitrotoluene	0.0334	U	0.189	0.0334	mg/Kg	☼	02/15/13 15:53	02/22/13 13:55	10
Acenaphthene	0.0163	U	0.189	0.0163	mg/Kg	☼	02/15/13 15:53	02/22/13 13:55	10
4-Nitrophenol	0.0575	U	0.189	0.0575	mg/Kg	☼	02/15/13 15:53	02/22/13 13:55	10
Dibenzofuran	0.0201	U	0.189	0.0201	mg/Kg	☼	02/15/13 15:53	02/22/13 13:55	10
2,4-Dinitrotoluene	0.0409	U	0.189	0.0409	mg/Kg	☼	02/15/13 15:53	02/22/13 13:55	10
Fluorene	0.0267	U	0.189	0.0267	mg/Kg	☼	02/15/13 15:53	02/22/13 13:55	10
4,6-Dinitro-2-methylphenol	0.0564	U	0.189	0.0564	mg/Kg	☼	02/15/13 15:53	02/22/13 13:55	10
N-Nitrosodiphenylamine	0.0214	U	0.189	0.0214	mg/Kg	☼	02/15/13 15:53	02/22/13 13:55	10
1,2-Diphenylhydrazine	0.0183	U	0.189	0.0183	mg/Kg	☼	02/15/13 15:53	02/22/13 13:55	10
Pentachlorophenol	0.0453	U	1.89	0.0453	mg/Kg	☼	02/15/13 15:53	02/22/13 13:55	10
Phenanthrene	0.242		0.189	0.0560	mg/Kg	☼	02/15/13 15:53	02/22/13 13:55	10
Anthracene	0.0630	J	0.189	0.0145	mg/Kg	☼	02/15/13 15:53	02/22/13 13:55	10
Di-n-butyl phthalate	0.0293	U	0.755	0.0293	mg/Kg	☼	02/15/13 15:53	02/22/13 13:55	10
Fluoranthene	0.279		0.189	0.0352	mg/Kg	☼	02/15/13 15:53	02/22/13 13:55	10
Pyrene	0.299		0.189	0.0207	mg/Kg	☼	02/15/13 15:53	02/22/13 13:55	10
Benzo[a]anthracene	0.145	J	0.189	0.0156	mg/Kg	☼	02/15/13 15:53	02/22/13 13:55	10
Bis(2-ethylhexyl) phthalate	0.242	J	0.755	0.0608	mg/Kg	☼	02/15/13 15:53	02/22/13 13:55	10
Chrysene	0.158	J	0.189	0.0115	mg/Kg	☼	02/15/13 15:53	02/22/13 13:55	10

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68626-1

Client Sample ID: SO-1620-IM-CPT-20-13 (0-2.5)-0120214

Lab Sample ID: 600-68626-10

Date Collected: 02/14/13 13:50

Matrix: Solid

Date Received: 02/14/13 15:30

Percent Solids: 88.3

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]pyrene	0.212		0.189	0.0182	mg/Kg	☼	02/15/13 15:53	02/22/13 13:55	10
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorophenol	52		23 - 108				02/15/13 15:53	02/22/13 13:55	10
Phenol-d6	41		26 - 108				02/15/13 15:53	02/22/13 13:55	10
Nitrobenzene-d5	101		34 - 118				02/15/13 15:53	02/22/13 13:55	10
2-Fluorobiphenyl	10 X		51 - 109				02/15/13 15:53	02/22/13 13:55	10
2,4,6-Tribromophenol	84		34 - 122				02/15/13 15:53	02/22/13 13:55	10
Terphenyl-d14	70		56 - 123				02/15/13 15:53	02/22/13 13:55	10

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	2.49		1.09	0.237	mg/Kg	☼	02/19/13 16:17	02/25/13 14:24	1
Lead	118		0.545	0.114	mg/Kg	☼	02/19/13 16:17	02/21/13 16:31	1

General Chemistry

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	12		1.0	1.0	%			02/15/13 17:10	1
Percent Solids	88		1.0	1.0	%			02/15/13 17:10	1

Client Sample ID: SO-1620-IM-CPT-20-13 (5-7.5)-20120214

Lab Sample ID: 600-68626-11

Date Collected: 02/14/13 14:50

Matrix: Solid

Date Received: 02/14/13 15:30

Percent Solids: 84.5

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	0.00259	U	0.0118	0.00259	mg/Kg	☼		02/20/13 19:13	1
Benzene	0.000746	U	0.00592	0.000746	mg/Kg	☼		02/20/13 19:13	1
1,2-Dichloroethane	0.00107	U	0.00592	0.00107	mg/Kg	☼		02/20/13 19:13	1
Toluene	0.00163	U	0.00592	0.00163	mg/Kg	☼		02/20/13 19:13	1
Chlorobenzene	0.00114	U	0.00592	0.00114	mg/Kg	☼		02/20/13 19:13	1
Ethylbenzene	0.00121	U	0.00592	0.00121	mg/Kg	☼		02/20/13 19:13	1
Xylenes, Total	0.00134	U	0.00592	0.00134	mg/Kg	☼		02/20/13 19:13	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	93		61 - 130					02/20/13 19:13	1
Dibromofluoromethane	118		68 - 140					02/20/13 19:13	1
Toluene-d8 (Surr)	117		50 - 130					02/20/13 19:13	1
4-Bromofluorobenzene	108		57 - 140					02/20/13 19:13	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.00502	U	0.0197	0.00502	mg/Kg	☼	02/15/13 15:53	02/21/13 14:17	1
Nitrobenzene	0.00350	U	0.0197	0.00350	mg/Kg	☼	02/15/13 15:53	02/21/13 14:17	1
2,4-Dimethylphenol	0.0102	U	0.0197	0.0102	mg/Kg	☼	02/15/13 15:53	02/21/13 14:17	1
Bis(2-chloroethoxy)methane	0.00168	U	0.0197	0.00168	mg/Kg	☼	02/15/13 15:53	02/21/13 14:17	1
Naphthalene	0.00160	U	0.0197	0.00160	mg/Kg	☼	02/15/13 15:53	02/21/13 14:17	1
2-Methylnaphthalene	3.24	U	19.7	3.24	ug/Kg	☼	02/15/13 15:53	02/21/13 14:17	1
2-Chloronaphthalene	0.00143	U	0.0197	0.00143	mg/Kg	☼	02/15/13 15:53	02/21/13 14:17	1
Acenaphthylene	0.00118	U	0.0197	0.00118	mg/Kg	☼	02/15/13 15:53	02/21/13 14:17	1
2,6-Dinitrotoluene	0.00349	U	0.0197	0.00349	mg/Kg	☼	02/15/13 15:53	02/21/13 14:17	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68626-1

Client Sample ID: SO-1620-IM-CPT-20-13 (5-7.5)-20120214

Lab Sample ID: 600-68626-11

Date Collected: 02/14/13 14:50

Matrix: Solid

Date Received: 02/14/13 15:30

Percent Solids: 84.5

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	0.00170	U	0.0197	0.00170	mg/Kg	☼	02/15/13 15:53	02/21/13 14:17	1
4-Nitrophenol	0.00601	U	0.0197	0.00601	mg/Kg	☼	02/15/13 15:53	02/21/13 14:17	1
Dibenzofuran	0.00211	U	0.0197	0.00211	mg/Kg	☼	02/15/13 15:53	02/21/13 14:17	1
2,4-Dinitrotoluene	0.00427	U	0.0197	0.00427	mg/Kg	☼	02/15/13 15:53	02/21/13 14:17	1
Fluorene	0.00279	U	0.0197	0.00279	mg/Kg	☼	02/15/13 15:53	02/21/13 14:17	1
4,6-Dinitro-2-methylphenol	0.00589	U	0.0197	0.00589	mg/Kg	☼	02/15/13 15:53	02/21/13 14:17	1
N-Nitrosodiphenylamine	0.00224	U	0.0197	0.00224	mg/Kg	☼	02/15/13 15:53	02/21/13 14:17	1
1,2-Diphenylhydrazine	0.00192	U	0.0197	0.00192	mg/Kg	☼	02/15/13 15:53	02/21/13 14:17	1
Pentachlorophenol	0.00473	U	0.198	0.00473	mg/Kg	☼	02/15/13 15:53	02/21/13 14:17	1
Phenanthrene	0.00853	J	0.0197	0.00586	mg/Kg	☼	02/15/13 15:53	02/21/13 14:17	1
Anthracene	0.00220	J	0.0197	0.00152	mg/Kg	☼	02/15/13 15:53	02/21/13 14:17	1
Di-n-butyl phthalate	0.00307	U	0.0789	0.00307	mg/Kg	☼	02/15/13 15:53	02/21/13 14:17	1
Fluoranthene	0.00368	U	0.0197	0.00368	mg/Kg	☼	02/15/13 15:53	02/21/13 14:17	1
Pyrene	0.00217	U	0.0197	0.00217	mg/Kg	☼	02/15/13 15:53	02/21/13 14:17	1
Benzo[a]anthracene	0.00163	U	0.0197	0.00163	mg/Kg	☼	02/15/13 15:53	02/21/13 14:17	1
Bis(2-ethylhexyl) phthalate	0.00636	U	0.0789	0.00636	mg/Kg	☼	02/15/13 15:53	02/21/13 14:17	1
Chrysene	0.00121	U	0.0197	0.00121	mg/Kg	☼	02/15/13 15:53	02/21/13 14:17	1
Benzo[a]pyrene	0.00191	U	0.0197	0.00191	mg/Kg	☼	02/15/13 15:53	02/21/13 14:17	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	64		23 - 108	02/15/13 15:53	02/21/13 14:17	1
Phenol-d6	69		26 - 108	02/15/13 15:53	02/21/13 14:17	1
Nitrobenzene-d5	71		34 - 118	02/15/13 15:53	02/21/13 14:17	1
2-Fluorobiphenyl	80		51 - 109	02/15/13 15:53	02/21/13 14:17	1
2,4,6-Tribromophenol	60		34 - 122	02/15/13 15:53	02/21/13 14:17	1
Terphenyl-d14	88		56 - 123	02/15/13 15:53	02/21/13 14:17	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	1.16		1.13	0.246	mg/Kg	☼	02/19/13 16:17	02/25/13 14:26	1
Lead	7.05		0.564	0.118	mg/Kg	☼	02/19/13 16:17	02/21/13 16:34	1

General Chemistry

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	16		1.0	1.0	%			02/15/13 17:10	1
Percent Solids	84		1.0	1.0	%			02/15/13 17:10	1

Definitions/Glossary

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68626-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
U	Analyte was not detected at or above the SDL.
J	Result is less than the MQL but greater than or equal to the SDL and the concentration is an estimated value.
b	The compound was found in the blank and sample

GC/MS Semi VOA

Qualifier	Qualifier Description
U	Analyte was not detected at or above the SDL.
X	Surrogate is outside control limits
J	Result is less than the MQL but greater than or equal to the SDL and the concentration is an estimated value.

Metals

Qualifier	Qualifier Description
F	Duplicate RPD exceeds the control limit
N	MS, MSD: Spike recovery exceeds upper or lower control limits.
N	RPD of the MS and MSD exceeds the control limits
U	Analyte was not detected at or above the SDL.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
▫	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Surrogate Summary

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68626-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Solid

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		12DCE (61-130)	DBFM (68-140)	TOL (50-130)	BFB (57-140)
600-68626-1	SO-1620-IM-CPT-19-13 (1.9-5.0)-01	94	99	121	112
600-68626-2	SO-1620-IM-CPT-DUP2-20120214	100	68	118	118
600-68626-3	SO-1620-IM-CPT-19-13 (7.5-10)-20	94	77	111	124
600-68626-4	SO-1620-IM-CPT-14-13 (1.4-2.5)-2C	87	82	108	106
600-68626-5	SO-1620-IM-CPT-14-13 (12.5-15)-2I	93	122	116	114
600-68626-6	SO-1620-IM-CPT-14-13 (15-16.4)-2I	92	115	112	109
600-68626-7	SO-1620-IM-CPT-15-13 (2-5)-2012C	93	94	120	112
600-68626-8	SO-1620-IM-CPT-15-13 (5.0-7.5)-2C	94	109	113	106
600-68626-9	SO-1620-IM-CPT-15-13 (15-16.2)-2I	94	119	121	120
600-68626-10	SO-1620-IM-CPT-20-13 (0-2.5)-012I	87	107	107	108
600-68626-11	SO-1620-IM-CPT-20-13 (5-7.5)-201:	93	118	117	108
LCS 600-100012/4	Lab Control Sample	99	117	99	93
LCS 600-100100/3	Lab Control Sample	83	111	116	108
LCS 600-99676/3	Lab Control Sample	123	97	129	131
MB 600-100012/3	Method Blank	90	115	118	108
MB 600-100100/4	Method Blank	95	109	105	107
MB 600-99676/4	Method Blank	91	75	113	119

Surrogate Legend

12DCE = 1,2-Dichloroethane-d4 (Surr)
 DBFM = Dibromofluoromethane
 TOL = Toluene-d8 (Surr)
 BFB = 4-Bromofluorobenzene

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Matrix: Solid

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)					
		2FP (23-108)	PHL (26-108)	NBZ (34-118)	FBP (51-109)	TBP (34-122)	TPH (56-123)
600-68626-1	SO-1620-IM-CPT-19-13 (1.9-5.0)-01	0 X	0 X	0 X	0 X	0 X	0 X
600-68626-2	SO-1620-IM-CPT-DUP2-20120214	0 X	0 X	0 X	0 X	0 X	0 X
600-68626-3	SO-1620-IM-CPT-19-13 (7.5-10)-20	60	62	75	80	60	86
600-68626-4	SO-1620-IM-CPT-14-13 (1.4-2.5)-2C	0 X	0 X	0 X	0 X	0 X	0 X
600-68626-4 - DL	SO-1620-IM-CPT-14-13 (1.4-2.5)-2C	0 X	0 X	0 X	0 X	0 X	0 X
600-68626-5	SO-1620-IM-CPT-14-13 (12.5-15)-2I	0 X	0 X	0 X	0 X	0 X	0 X
600-68626-6	SO-1620-IM-CPT-14-13 (15-16.4)-2I	0 X	0 X	0 X	0 X	0 X	0 X
600-68626-7	SO-1620-IM-CPT-15-13 (2-5)-2012C	0 X	0 X	0 X	0 X	0 X	0 X
600-68626-8	SO-1620-IM-CPT-15-13 (5.0-7.5)-2C	0 X	0 X	0 X	0 X	0 X	0 X
600-68626-9	SO-1620-IM-CPT-15-13 (15-16.2)-2I	0 X	0 X	0 X	0 X	0 X	0 X
600-68626-10	SO-1620-IM-CPT-20-13 (0-2.5)-012I	52	41	101	10 X	84	70
600-68626-11	SO-1620-IM-CPT-20-13 (5-7.5)-201:	64	69	71	80	60	88
LCS 600-99693/2-A	Lab Control Sample	82	83	88	90	93	94
MB 600-99693/1-A	Method Blank	47	51	57	63	35	64

Surrogate Legend

2FP = 2-Fluorophenol
 PHL = Phenol-d6
 NBZ = Nitrobenzene-d5
 FBP = 2-Fluorobiphenyl

TestAmerica Houston

Surrogate Summary

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68626-1

TBP = 2,4,6-Tribromophenol
TPH = Terphenyl-d14

- 1
- 2
- 3
- 4
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QC Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68626-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 600-100012/3

Matrix: Solid

Analysis Batch: 100012

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB MB		MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Methylene Chloride	0.00219	U	0.0100	0.00219	mg/Kg			02/20/13 11:21	1
Benzene	0.000630	U	0.00500	0.000630	mg/Kg			02/20/13 11:21	1
1,2-Dichloroethane	0.000900	U	0.00500	0.000900	mg/Kg			02/20/13 11:21	1
Toluene	0.00138	U	0.00500	0.00138	mg/Kg			02/20/13 11:21	1
Chlorobenzene	0.000960	U	0.00500	0.000960	mg/Kg			02/20/13 11:21	1
Ethylbenzene	0.00102	U	0.00500	0.00102	mg/Kg			02/20/13 11:21	1
Xylenes, Total	0.00113	U	0.00500	0.00113	mg/Kg			02/20/13 11:21	1

Surrogate	MB MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
1,2-Dichloroethane-d4 (Surr)	90		61 - 130		02/20/13 11:21	1
Dibromofluoromethane	115		68 - 140		02/20/13 11:21	1
Toluene-d8 (Surr)	118		50 - 130		02/20/13 11:21	1
4-Bromofluorobenzene	108		57 - 140		02/20/13 11:21	1

Lab Sample ID: LCS 600-100012/4

Matrix: Solid

Analysis Batch: 100012

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS LCS		Unit	D	%Rec	%Rec. Limits
		Result	Qualifier				
Methylene Chloride	0.0500	0.04601		mg/Kg		92	48 - 144
Benzene	0.0500	0.04416		mg/Kg		88	66 - 128
1,2-Dichloroethane	0.0500	0.03768		mg/Kg		75	61 - 135
Toluene	0.0500	0.03762		mg/Kg		75	69 - 125
Chlorobenzene	0.0500	0.03968		mg/Kg		79	67 - 126
Ethylbenzene	0.0500	0.04136		mg/Kg		83	64 - 127
Xylenes, Total	0.150	0.1309		mg/Kg		87	65 - 129

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
1,2-Dichloroethane-d4 (Surr)	99		61 - 130
Dibromofluoromethane	117		68 - 140
Toluene-d8 (Surr)	99		50 - 130
4-Bromofluorobenzene	93		57 - 140

Lab Sample ID: MB 600-100100/4

Matrix: Solid

Analysis Batch: 100100

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB MB		MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Methylene Chloride	0.00219	U	0.0100	0.00219	mg/Kg			02/21/13 09:47	1
Benzene	0.000630	U	0.00500	0.000630	mg/Kg			02/21/13 09:47	1
1,2-Dichloroethane	0.000900	U	0.00500	0.000900	mg/Kg			02/21/13 09:47	1
Toluene	0.00138	U	0.00500	0.00138	mg/Kg			02/21/13 09:47	1
Chlorobenzene	0.000960	U	0.00500	0.000960	mg/Kg			02/21/13 09:47	1
Ethylbenzene	0.00102	U	0.00500	0.00102	mg/Kg			02/21/13 09:47	1
Xylenes, Total	0.00113	U	0.00500	0.00113	mg/Kg			02/21/13 09:47	1

TestAmerica Houston

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68626-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 600-100100/4
Matrix: Solid
Analysis Batch: 100100

Client Sample ID: Method Blank
Prep Type: Total/NA

Surrogate	MB MB %Recovery Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	95	61 - 130		02/21/13 09:47	1
Dibromofluoromethane	109	68 - 140		02/21/13 09:47	1
Toluene-d8 (Surr)	105	50 - 130		02/21/13 09:47	1
4-Bromofluorobenzene	107	57 - 140		02/21/13 09:47	1

Lab Sample ID: LCS 600-100100/3
Matrix: Solid
Analysis Batch: 100100

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Methylene Chloride	0.0500	0.05075		mg/Kg		102	48 - 144
Benzene	0.0500	0.05164		mg/Kg		103	66 - 128
1,2-Dichloroethane	0.0500	0.03918		mg/Kg		78	61 - 135
Toluene	0.0500	0.05109		mg/Kg		102	69 - 125
Chlorobenzene	0.0500	0.05117		mg/Kg		102	67 - 126
Ethylbenzene	0.0500	0.05027		mg/Kg		101	64 - 127
Xylenes, Total	0.150	0.1576		mg/Kg		105	65 - 129

Surrogate	LCS LCS %Recovery Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	83	61 - 130
Dibromofluoromethane	111	68 - 140
Toluene-d8 (Surr)	116	50 - 130
4-Bromofluorobenzene	108	57 - 140

Lab Sample ID: MB 600-99676/4
Matrix: Solid
Analysis Batch: 99676

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB MB Result Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	0.008241 J	0.0100	0.00219	mg/Kg			02/15/13 12:06	1
Benzene	0.000630 U	0.00500	0.000630	mg/Kg			02/15/13 12:06	1
1,2-Dichloroethane	0.000900 U	0.00500	0.000900	mg/Kg			02/15/13 12:06	1
Toluene	0.00138 U	0.00500	0.00138	mg/Kg			02/15/13 12:06	1
Chlorobenzene	0.000960 U	0.00500	0.000960	mg/Kg			02/15/13 12:06	1
Ethylbenzene	0.00102 U	0.00500	0.00102	mg/Kg			02/15/13 12:06	1
Xylenes, Total	0.00113 U	0.00500	0.00113	mg/Kg			02/15/13 12:06	1

Surrogate	MB MB %Recovery Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	91	61 - 130		02/15/13 12:06	1
Dibromofluoromethane	75	68 - 140		02/15/13 12:06	1
Toluene-d8 (Surr)	113	50 - 130		02/15/13 12:06	1
4-Bromofluorobenzene	119	57 - 140		02/15/13 12:06	1

TestAmerica Houston

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68626-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 600-99676/3

Matrix: Solid

Analysis Batch: 99676

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Methylene Chloride	0.0500	0.06606		mg/Kg		132	48 - 144
Benzene	0.0500	0.06115		mg/Kg		122	66 - 128
1,2-Dichloroethane	0.0500	0.05346		mg/Kg		107	61 - 135
Toluene	0.0500	0.05822		mg/Kg		116	69 - 125
Chlorobenzene	0.0500	0.05936		mg/Kg		119	67 - 126
Ethylbenzene	0.0500	0.05773		mg/Kg		115	64 - 127
Xylenes, Total	0.150	0.1792		mg/Kg		119	65 - 129

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	123		61 - 130
Dibromofluoromethane	97		68 - 140
Toluene-d8 (Surr)	129		50 - 130
4-Bromofluorobenzene	131		57 - 140

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Lab Sample ID: MB 600-99693/1-A

Matrix: Solid

Analysis Batch: 100102

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 99693

Analyte	MB Result	MB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.00423	U	0.0166	0.00423	mg/Kg		02/15/13 15:53	02/20/13 08:53	1
Nitrobenzene	0.00295	U	0.0166	0.00295	mg/Kg		02/15/13 15:53	02/20/13 08:53	1
2,4-Dimethylphenol	0.00856	U	0.0166	0.00856	mg/Kg		02/15/13 15:53	02/20/13 08:53	1
Bis(2-chloroethoxy)methane	0.00142	U	0.0166	0.00142	mg/Kg		02/15/13 15:53	02/20/13 08:53	1
Naphthalene	0.00135	U	0.0166	0.00135	mg/Kg		02/15/13 15:53	02/20/13 08:53	1
2-Methylnaphthalene	2.73	U	16.6	2.73	ug/Kg		02/15/13 15:53	02/20/13 08:53	1
2-Chloronaphthalene	0.00121	U	0.0166	0.00121	mg/Kg		02/15/13 15:53	02/20/13 08:53	1
Acenaphthylene	0.000998	U	0.0166	0.000998	mg/Kg		02/15/13 15:53	02/20/13 08:53	1
2,6-Dinitrotoluene	0.00294	U	0.0166	0.00294	mg/Kg		02/15/13 15:53	02/20/13 08:53	1
Acenaphthene	0.00144	U	0.0166	0.00144	mg/Kg		02/15/13 15:53	02/20/13 08:53	1
4-Nitrophenol	0.00507	U	0.0166	0.00507	mg/Kg		02/15/13 15:53	02/20/13 08:53	1
Dibenzofuran	0.00178	U	0.0166	0.00178	mg/Kg		02/15/13 15:53	02/20/13 08:53	1
2,4-Dinitrotoluene	0.00360	U	0.0166	0.00360	mg/Kg		02/15/13 15:53	02/20/13 08:53	1
Fluorene	0.00235	U	0.0166	0.00235	mg/Kg		02/15/13 15:53	02/20/13 08:53	1
4,6-Dinitro-2-methylphenol	0.00497	U	0.0166	0.00497	mg/Kg		02/15/13 15:53	02/20/13 08:53	1
N-Nitrosodiphenylamine	0.00189	U	0.0166	0.00189	mg/Kg		02/15/13 15:53	02/20/13 08:53	1
1,2-Diphenylhydrazine	0.00162	U	0.0166	0.00162	mg/Kg		02/15/13 15:53	02/20/13 08:53	1
Pentachlorophenol	0.00399	U	0.167	0.00399	mg/Kg		02/15/13 15:53	02/20/13 08:53	1
Phenanthrene	0.00494	U	0.0166	0.00494	mg/Kg		02/15/13 15:53	02/20/13 08:53	1
Anthracene	0.00128	U	0.0166	0.00128	mg/Kg		02/15/13 15:53	02/20/13 08:53	1
Di-n-butyl phthalate	0.00258	U	0.0665	0.00258	mg/Kg		02/15/13 15:53	02/20/13 08:53	1
Fluoranthene	0.00310	U	0.0166	0.00310	mg/Kg		02/15/13 15:53	02/20/13 08:53	1
Pyrene	0.00183	U	0.0166	0.00183	mg/Kg		02/15/13 15:53	02/20/13 08:53	1
Benzo[a]anthracene	0.00138	U	0.0166	0.00138	mg/Kg		02/15/13 15:53	02/20/13 08:53	1
Bis(2-ethylhexyl) phthalate	0.00536	U	0.0665	0.00536	mg/Kg		02/15/13 15:53	02/20/13 08:53	1
Chrysene	0.00102	U	0.0166	0.00102	mg/Kg		02/15/13 15:53	02/20/13 08:53	1

TestAmerica Houston

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68626-1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Lab Sample ID: MB 600-99693/1-A

Matrix: Solid

Analysis Batch: 100102

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 99693

Analyte	MB Result	MB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]pyrene	0.00161	U	0.0166	0.00161	mg/Kg		02/15/13 15:53	02/20/13 08:53	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	47		23 - 108	02/15/13 15:53	02/20/13 08:53	1
Phenol-d6	51		26 - 108	02/15/13 15:53	02/20/13 08:53	1
Nitrobenzene-d5	57		34 - 118	02/15/13 15:53	02/20/13 08:53	1
2-Fluorobiphenyl	63		51 - 109	02/15/13 15:53	02/20/13 08:53	1
2,4,6-Tribromophenol	35		34 - 122	02/15/13 15:53	02/20/13 08:53	1
Terphenyl-d14	64		56 - 123	02/15/13 15:53	02/20/13 08:53	1

Lab Sample ID: LCS 600-99693/2-A

Matrix: Solid

Analysis Batch: 100102

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 99693

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Phenol	0.333	0.2648		mg/Kg		80	33 - 122
Nitrobenzene	0.333	0.2874		mg/Kg		86	53 - 123
2,4-Dimethylphenol	0.333	0.2965		mg/Kg		89	36 - 124
Bis(2-chloroethoxy)methane	0.333	0.2642		mg/Kg		79	54 - 114
Naphthalene	0.333	0.2961		mg/Kg		89	52 - 117
2-Methylnaphthalene	333	282.2		ug/Kg		85	54 - 130
2-Chloronaphthalene	0.333	0.2710		mg/Kg		81	50 - 123
Acenaphthylene	0.333	0.2910		mg/Kg		87	51 - 122
2,6-Dinitrotoluene	0.333	0.2847		mg/Kg		86	53 - 116
Acenaphthene	0.333	0.2944		mg/Kg		88	58 - 125
4-Nitrophenol	0.333	0.1923		mg/Kg		58	20 - 132
Dibenzofuran	0.333	0.2780		mg/Kg		83	54 - 119
2,4-Dinitrotoluene	0.333	0.2858		mg/Kg		86	53 - 123
Fluorene	0.333	0.2900		mg/Kg		87	52 - 147
4,6-Dinitro-2-methylphenol	0.333	0.2238		mg/Kg		67	34 - 124
N-Nitrosodiphenylamine	0.333	0.3301		mg/Kg		99	47 - 127
1,2-Diphenylhydrazine	0.333	0.2779		mg/Kg		83	49 - 131
Pentachlorophenol	0.333	0.1642	J	mg/Kg		49	17 - 124
Phenanthrene	0.333	0.2797		mg/Kg		84	55 - 120
Anthracene	0.333	0.2774		mg/Kg		83	52 - 120
Di-n-butyl phthalate	0.333	0.2911		mg/Kg		87	61 - 124
Fluoranthene	0.333	0.2867		mg/Kg		86	56 - 123
Pyrene	0.333	0.3026		mg/Kg		91	48 - 131
Benzo[a]anthracene	0.333	0.2896		mg/Kg		87	49 - 124
Bis(2-ethylhexyl) phthalate	0.333	0.3082		mg/Kg		93	55 - 136
Chrysene	0.333	0.2930		mg/Kg		88	50 - 123
Benzo[a]pyrene	0.333	0.2899		mg/Kg		87	58 - 123

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2-Fluorophenol	82		23 - 108
Phenol-d6	83		26 - 108
Nitrobenzene-d5	88		34 - 118

TestAmerica Houston

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68626-1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Lab Sample ID: LCS 600-99693/2-A
Matrix: Solid
Analysis Batch: 100102

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 99693

Surrogate	LCS		Limits
	%Recovery	Qualifier	
2-Fluorobiphenyl	90		51 - 109
2,4,6-Tribromophenol	93		34 - 122
Terphenyl-d14	94		56 - 123

Method: 6010B - Metals (ICP)

Lab Sample ID: MB 600-99913/1-A
Matrix: Solid
Analysis Batch: 100065

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 99913

Analyte	MB		MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Lead	0.105	U	0.500	0.105	mg/Kg		02/19/13 16:17	02/21/13 15:51	1

Lab Sample ID: MB 600-99913/1-A
Matrix: Solid
Analysis Batch: 100268

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 99913

Analyte	MB		MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Arsenic	0.218	U	1.00	0.218	mg/Kg		02/19/13 16:17	02/25/13 13:44	1

Lab Sample ID: LCSSRM 600-99913/2-A
Matrix: Solid
Analysis Batch: 100065

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 99913

Analyte	Spike Added	LCSSRM		Unit	D	%Rec	%Rec. Limits	
		Result	Qualifier					
Lead	76.9	74.44		mg/Kg		96.8	81.3 - 118.7	

Lab Sample ID: LCSSRM 600-99913/2-A
Matrix: Solid
Analysis Batch: 100268

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 99913

Analyte	Spike Added	LCSSRM		Unit	D	%Rec	%Rec. Limits	
		Result	Qualifier					
Arsenic	168	158.5		mg/Kg		94.3	83.3 - 117.3	

Lab Sample ID: 600-68626-5 MS
Matrix: Solid
Analysis Batch: 100065

Client Sample ID: SO-1620-IM-CPT-14-13 (12.5-15)-20120214
Prep Type: Total/NA
Prep Batch: 99913

Analyte	Sample Result	Sample Qualifier	Spike Added	MS		Unit	D	%Rec	%Rec. Limits	
				Result	Qualifier					
Lead	6.81		58.2	67.57		mg/Kg	☼	104	75 - 125	

Lab Sample ID: 600-68626-5 MS
Matrix: Solid
Analysis Batch: 100268

Client Sample ID: SO-1620-IM-CPT-14-13 (12.5-15)-20120214
Prep Type: Total/NA
Prep Batch: 99913

Analyte	Sample Result	Sample Qualifier	Spike Added	MS		Unit	D	%Rec	%Rec. Limits	
				Result	Qualifier					
Arsenic	4.80		58.2	62.15		mg/Kg	☼	98	75 - 125	

TestAmerica Houston

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68626-1

Method: 6010B - Metals (ICP) (Continued)

Lab Sample ID: 600-68626-5 MSD

Matrix: Solid

Analysis Batch: 100065

Client Sample ID: SO-1620-IM-CPT-14-13 (12.5-15)-20120214

Prep Type: Total/NA

Prep Batch: 99913

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.	RPD	RPD
	Result	Qualifier	Added	Result	Qualifier				Limits		Limit
Lead	6.81		57.7	97.30	N	mg/Kg	☼	157	75 - 125	36	20

Lab Sample ID: 600-68626-5 MSD

Matrix: Solid

Analysis Batch: 100268

Client Sample ID: SO-1620-IM-CPT-14-13 (12.5-15)-20120214

Prep Type: Total/NA

Prep Batch: 99913

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.	RPD	RPD
	Result	Qualifier	Added	Result	Qualifier				Limits		Limit
Arsenic	4.80		57.7	64.19		mg/Kg	☼	103	75 - 125	3	20

Lab Sample ID: 600-68626-5 DU

Matrix: Solid

Analysis Batch: 100065

Client Sample ID: SO-1620-IM-CPT-14-13 (12.5-15)-20120214

Prep Type: Total/NA

Prep Batch: 99913

Analyte	Sample	Sample	DU		Unit	D	RPD	RPD
	Result	Qualifier	Result	Qualifier				Limit
Lead	6.81		9.325	F	mg/Kg	☼	31	20

Lab Sample ID: 600-68626-5 DU

Matrix: Solid

Analysis Batch: 100268

Client Sample ID: SO-1620-IM-CPT-14-13 (12.5-15)-20120214

Prep Type: Total/NA

Prep Batch: 99913

Analyte	Sample	Sample	DU		Unit	D	RPD	RPD
	Result	Qualifier	Result	Qualifier				Limit
Arsenic	4.80		9.768	F	mg/Kg	☼	68	20

Method: Moisture - Percent Moisture

Lab Sample ID: 600-68626-1 DU

Matrix: Solid

Analysis Batch: 99710

Client Sample ID: SO-1620-IM-CPT-19-13 (1.9-5.0)-0120214

Prep Type: Total/NA

Analyte	Sample	Sample	DU		Unit	D	RPD	RPD
	Result	Qualifier	Result	Qualifier				Limit
Percent Moisture	12		12		%		2	20
Percent Solids	88		88		%		0.3	20

Unadjusted Detection Limits

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68626-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	MQL	MDL	Units	Method
1,2-Dichloroethane	0.00500	0.000900	mg/Kg	8260B
Benzene	0.00500	0.000630	mg/Kg	8260B
Chlorobenzene	0.00500	0.000960	mg/Kg	8260B
Ethylbenzene	0.00500	0.00102	mg/Kg	8260B
Methylene Chloride	0.0100	0.00219	mg/Kg	8260B
Toluene	0.00500	0.00138	mg/Kg	8260B
Xylenes, Total	0.00500	0.00113	mg/Kg	8260B

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	MQL	MDL	Units	Method
1,2-Diphenylhydrazine	0.0167	0.00162	mg/Kg	8270C LL
2,4-Dimethylphenol	0.0167	0.00858	mg/Kg	8270C LL
2,4-Dinitrotoluene	0.0167	0.00361	mg/Kg	8270C LL
2,6-Dinitrotoluene	0.0167	0.00295	mg/Kg	8270C LL
2-Chloronaphthalene	0.0167	0.00121	mg/Kg	8270C LL
2-Methylnaphthalene	16.7	2.74	ug/Kg	8270C LL
4,6-Dinitro-2-methylphenol	0.0167	0.00498	mg/Kg	8270C LL
4-Nitrophenol	0.0167	0.00508	mg/Kg	8270C LL
Acenaphthene	0.0167	0.00144	mg/Kg	8270C LL
Acenaphthylene	0.0167	0.00100	mg/Kg	8270C LL
Anthracene	0.0167	0.00128	mg/Kg	8270C LL
Benzo[a]anthracene	0.0167	0.00138	mg/Kg	8270C LL
Benzo[a]pyrene	0.0167	0.00161	mg/Kg	8270C LL
Bis(2-chloroethoxy)methane	0.0167	0.00142	mg/Kg	8270C LL
Bis(2-ethylhexyl) phthalate	0.0667	0.00537	mg/Kg	8270C LL
Chrysene	0.0167	0.00102	mg/Kg	8270C LL
Dibenzofuran	0.0167	0.00178	mg/Kg	8270C LL
Di-n-butyl phthalate	0.0667	0.00259	mg/Kg	8270C LL
Fluoranthene	0.0167	0.00311	mg/Kg	8270C LL
Fluorene	0.0167	0.00236	mg/Kg	8270C LL
Naphthalene	0.0167	0.00135	mg/Kg	8270C LL
Nitrobenzene	0.0167	0.00296	mg/Kg	8270C LL
N-Nitrosodiphenylamine	0.0167	0.00189	mg/Kg	8270C LL
Pentachlorophenol	0.167	0.00400	mg/Kg	8270C LL
Phenanthrene	0.0167	0.00495	mg/Kg	8270C LL
Phenol	0.0167	0.00424	mg/Kg	8270C LL
Pyrene	0.0167	0.00183	mg/Kg	8270C LL

Method: 6010B - Metals (ICP)

Analyte	MQL	MDL	Units	Method
Arsenic	1.00	0.218	mg/Kg	6010B
Lead	0.500	0.105	mg/Kg	6010B

General Chemistry

Analyte	MQL	MDL	Units	Method
Percent Moisture	1.0	1.0	%	Moisture
Percent Solids	1.0	1.0	%	Moisture

QC Association Summary

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68626-1

GC/MS VOA

Analysis Batch: 99676

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-68626-2	SO-1620-IM-CPT-DUP2-20120214	Total/NA	Solid	8260B	
600-68626-3	SO-1620-IM-CPT-19-13 (7.5-10)-20120214	Total/NA	Solid	8260B	
LCS 600-99676/3	Lab Control Sample	Total/NA	Solid	8260B	
MB 600-99676/4	Method Blank	Total/NA	Solid	8260B	

Analysis Batch: 100012

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-68626-1	SO-1620-IM-CPT-19-13 (1.9-5.0)-0120214	Total/NA	Solid	8260B	
600-68626-5	SO-1620-IM-CPT-14-13 (12.5-15)-20120214	Total/NA	Solid	8260B	
600-68626-6	SO-1620-IM-CPT-14-13 (15-16.4)-20120214	Total/NA	Solid	8260B	
600-68626-7	SO-1620-IM-CPT-15-13 (2-5)-20120214	Total/NA	Solid	8260B	
600-68626-8	SO-1620-IM-CPT-15-13 (5.0-7.5)-20120214	Total/NA	Solid	8260B	
600-68626-9	SO-1620-IM-CPT-15-13 (15-16.2)-20120214	Total/NA	Solid	8260B	
600-68626-11	SO-1620-IM-CPT-20-13 (5-7.5)-20120214	Total/NA	Solid	8260B	
LCS 600-100012/4	Lab Control Sample	Total/NA	Solid	8260B	
MB 600-100012/3	Method Blank	Total/NA	Solid	8260B	

Analysis Batch: 100100

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-68626-4	SO-1620-IM-CPT-14-13 (1.4-2.5)-20120214	Total/NA	Solid	8260B	
600-68626-10	SO-1620-IM-CPT-20-13 (0-2.5)-0120214	Total/NA	Solid	8260B	
LCS 600-100100/3	Lab Control Sample	Total/NA	Solid	8260B	
MB 600-100100/4	Method Blank	Total/NA	Solid	8260B	

GC/MS Semi VOA

Prep Batch: 99693

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-68626-1	SO-1620-IM-CPT-19-13 (1.9-5.0)-0120214	Total/NA	Solid	3550B	
600-68626-2	SO-1620-IM-CPT-DUP2-20120214	Total/NA	Solid	3550B	
600-68626-3	SO-1620-IM-CPT-19-13 (7.5-10)-20120214	Total/NA	Solid	3550B	
600-68626-4	SO-1620-IM-CPT-14-13 (1.4-2.5)-20120214	Total/NA	Solid	3550B	
600-68626-4 - DL	SO-1620-IM-CPT-14-13 (1.4-2.5)-20120214	Total/NA	Solid	3550B	
600-68626-5	SO-1620-IM-CPT-14-13 (12.5-15)-20120214	Total/NA	Solid	3550B	
600-68626-6	SO-1620-IM-CPT-14-13 (15-16.4)-20120214	Total/NA	Solid	3550B	
600-68626-7	SO-1620-IM-CPT-15-13 (2-5)-20120214	Total/NA	Solid	3550B	
600-68626-8	SO-1620-IM-CPT-15-13 (5.0-7.5)-20120214	Total/NA	Solid	3550B	
600-68626-9	SO-1620-IM-CPT-15-13 (15-16.2)-20120214	Total/NA	Solid	3550B	
600-68626-10	SO-1620-IM-CPT-20-13 (0-2.5)-0120214	Total/NA	Solid	3550B	
600-68626-11	SO-1620-IM-CPT-20-13 (5-7.5)-20120214	Total/NA	Solid	3550B	
LCS 600-99693/2-A	Lab Control Sample	Total/NA	Solid	3550B	
MB 600-99693/1-A	Method Blank	Total/NA	Solid	3550B	

Analysis Batch: 100102

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 600-99693/2-A	Lab Control Sample	Total/NA	Solid	8270C LL	99693
MB 600-99693/1-A	Method Blank	Total/NA	Solid	8270C LL	99693

TestAmerica Houston

QC Association Summary

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68626-1

GC/MS Semi VOA (Continued)

Analysis Batch: 100168

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-68626-1	SO-1620-IM-CPT-19-13 (1.9-5.0)-0120214	Total/NA	Solid	8270C LL	99693
600-68626-2	SO-1620-IM-CPT-DUP2-20120214	Total/NA	Solid	8270C LL	99693
600-68626-3	SO-1620-IM-CPT-19-13 (7.5-10)-20120214	Total/NA	Solid	8270C LL	99693
600-68626-4	SO-1620-IM-CPT-14-13 (1.4-2.5)-20120214	Total/NA	Solid	8270C LL	99693
600-68626-5	SO-1620-IM-CPT-14-13 (12.5-15)-20120214	Total/NA	Solid	8270C LL	99693
600-68626-6	SO-1620-IM-CPT-14-13 (15-16.4)-20120214	Total/NA	Solid	8270C LL	99693
600-68626-7	SO-1620-IM-CPT-15-13 (2-5)-20120214	Total/NA	Solid	8270C LL	99693
600-68626-9	SO-1620-IM-CPT-15-13 (15-16.2)-20120214	Total/NA	Solid	8270C LL	99693
600-68626-11	SO-1620-IM-CPT-20-13 (5-7.5)-20120214	Total/NA	Solid	8270C LL	99693

Analysis Batch: 100320

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-68626-4 - DL	SO-1620-IM-CPT-14-13 (1.4-2.5)-20120214	Total/NA	Solid	8270C LL	99693
600-68626-8	SO-1620-IM-CPT-15-13 (5.0-7.5)-20120214	Total/NA	Solid	8270C LL	99693
600-68626-10	SO-1620-IM-CPT-20-13 (0-2.5)-0120214	Total/NA	Solid	8270C LL	99693

Metals

Prep Batch: 99913

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-68626-1	SO-1620-IM-CPT-19-13 (1.9-5.0)-0120214	Total/NA	Solid	3050B	
600-68626-2	SO-1620-IM-CPT-DUP2-20120214	Total/NA	Solid	3050B	
600-68626-3	SO-1620-IM-CPT-19-13 (7.5-10)-20120214	Total/NA	Solid	3050B	
600-68626-4	SO-1620-IM-CPT-14-13 (1.4-2.5)-20120214	Total/NA	Solid	3050B	
600-68626-5	SO-1620-IM-CPT-14-13 (12.5-15)-20120214	Total/NA	Solid	3050B	
600-68626-5 DU	SO-1620-IM-CPT-14-13 (12.5-15)-20120214	Total/NA	Solid	3050B	
600-68626-5 MS	SO-1620-IM-CPT-14-13 (12.5-15)-20120214	Total/NA	Solid	3050B	
600-68626-5 MSD	SO-1620-IM-CPT-14-13 (12.5-15)-20120214	Total/NA	Solid	3050B	
600-68626-6	SO-1620-IM-CPT-14-13 (15-16.4)-20120214	Total/NA	Solid	3050B	
600-68626-7	SO-1620-IM-CPT-15-13 (2-5)-20120214	Total/NA	Solid	3050B	
600-68626-8	SO-1620-IM-CPT-15-13 (5.0-7.5)-20120214	Total/NA	Solid	3050B	
600-68626-9	SO-1620-IM-CPT-15-13 (15-16.2)-20120214	Total/NA	Solid	3050B	
600-68626-10	SO-1620-IM-CPT-20-13 (0-2.5)-0120214	Total/NA	Solid	3050B	
600-68626-11	SO-1620-IM-CPT-20-13 (5-7.5)-20120214	Total/NA	Solid	3050B	
LCSSRM 600-99913/2-A	Lab Control Sample	Total/NA	Solid	3050B	
MB 600-99913/1-A	Method Blank	Total/NA	Solid	3050B	

Analysis Batch: 100065

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-68626-1	SO-1620-IM-CPT-19-13 (1.9-5.0)-0120214	Total/NA	Solid	6010B	99913
600-68626-2	SO-1620-IM-CPT-DUP2-20120214	Total/NA	Solid	6010B	99913
600-68626-3	SO-1620-IM-CPT-19-13 (7.5-10)-20120214	Total/NA	Solid	6010B	99913
600-68626-4	SO-1620-IM-CPT-14-13 (1.4-2.5)-20120214	Total/NA	Solid	6010B	99913
600-68626-5	SO-1620-IM-CPT-14-13 (12.5-15)-20120214	Total/NA	Solid	6010B	99913
600-68626-5 DU	SO-1620-IM-CPT-14-13 (12.5-15)-20120214	Total/NA	Solid	6010B	99913
600-68626-5 MS	SO-1620-IM-CPT-14-13 (12.5-15)-20120214	Total/NA	Solid	6010B	99913
600-68626-5 MSD	SO-1620-IM-CPT-14-13 (12.5-15)-20120214	Total/NA	Solid	6010B	99913
600-68626-6	SO-1620-IM-CPT-14-13 (15-16.4)-20120214	Total/NA	Solid	6010B	99913
600-68626-7	SO-1620-IM-CPT-15-13 (2-5)-20120214	Total/NA	Solid	6010B	99913
600-68626-8	SO-1620-IM-CPT-15-13 (5.0-7.5)-20120214	Total/NA	Solid	6010B	99913

TestAmerica Houston

QC Association Summary

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68626-1

Metals (Continued)

Analysis Batch: 100065 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-68626-9	SO-1620-IM-CPT-15-13 (15-16.2)-20120214	Total/NA	Solid	6010B	99913
600-68626-10	SO-1620-IM-CPT-20-13 (0-2.5)-0120214	Total/NA	Solid	6010B	99913
600-68626-11	SO-1620-IM-CPT-20-13 (5-7.5)-20120214	Total/NA	Solid	6010B	99913
LCSSRM 600-99913/2-A	Lab Control Sample	Total/NA	Solid	6010B	99913
MB 600-99913/1-A	Method Blank	Total/NA	Solid	6010B	99913

Analysis Batch: 100268

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-68626-1	SO-1620-IM-CPT-19-13 (1.9-5.0)-0120214	Total/NA	Solid	6010B	99913
600-68626-2	SO-1620-IM-CPT-DUP2-20120214	Total/NA	Solid	6010B	99913
600-68626-3	SO-1620-IM-CPT-19-13 (7.5-10)-20120214	Total/NA	Solid	6010B	99913
600-68626-4	SO-1620-IM-CPT-14-13 (1.4-2.5)-20120214	Total/NA	Solid	6010B	99913
600-68626-5	SO-1620-IM-CPT-14-13 (12.5-15)-20120214	Total/NA	Solid	6010B	99913
600-68626-5 DU	SO-1620-IM-CPT-14-13 (12.5-15)-20120214	Total/NA	Solid	6010B	99913
600-68626-5 MS	SO-1620-IM-CPT-14-13 (12.5-15)-20120214	Total/NA	Solid	6010B	99913
600-68626-5 MSD	SO-1620-IM-CPT-14-13 (12.5-15)-20120214	Total/NA	Solid	6010B	99913
600-68626-6	SO-1620-IM-CPT-14-13 (15-16.4)-20120214	Total/NA	Solid	6010B	99913
600-68626-7	SO-1620-IM-CPT-15-13 (2-5)-20120214	Total/NA	Solid	6010B	99913
600-68626-8	SO-1620-IM-CPT-15-13 (5.0-7.5)-20120214	Total/NA	Solid	6010B	99913
600-68626-9	SO-1620-IM-CPT-15-13 (15-16.2)-20120214	Total/NA	Solid	6010B	99913
600-68626-10	SO-1620-IM-CPT-20-13 (0-2.5)-0120214	Total/NA	Solid	6010B	99913
600-68626-11	SO-1620-IM-CPT-20-13 (5-7.5)-20120214	Total/NA	Solid	6010B	99913
LCSSRM 600-99913/2-A	Lab Control Sample	Total/NA	Solid	6010B	99913
MB 600-99913/1-A	Method Blank	Total/NA	Solid	6010B	99913

General Chemistry

Analysis Batch: 99710

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-68626-1	SO-1620-IM-CPT-19-13 (1.9-5.0)-0120214	Total/NA	Solid	Moisture	
600-68626-1 DU	SO-1620-IM-CPT-19-13 (1.9-5.0)-0120214	Total/NA	Solid	Moisture	
600-68626-2	SO-1620-IM-CPT-DUP2-20120214	Total/NA	Solid	Moisture	
600-68626-3	SO-1620-IM-CPT-19-13 (7.5-10)-20120214	Total/NA	Solid	Moisture	
600-68626-4	SO-1620-IM-CPT-14-13 (1.4-2.5)-20120214	Total/NA	Solid	Moisture	
600-68626-5	SO-1620-IM-CPT-14-13 (12.5-15)-20120214	Total/NA	Solid	Moisture	
600-68626-6	SO-1620-IM-CPT-14-13 (15-16.4)-20120214	Total/NA	Solid	Moisture	
600-68626-7	SO-1620-IM-CPT-15-13 (2-5)-20120214	Total/NA	Solid	Moisture	
600-68626-8	SO-1620-IM-CPT-15-13 (5.0-7.5)-20120214	Total/NA	Solid	Moisture	
600-68626-9	SO-1620-IM-CPT-15-13 (15-16.2)-20120214	Total/NA	Solid	Moisture	
600-68626-10	SO-1620-IM-CPT-20-13 (0-2.5)-0120214	Total/NA	Solid	Moisture	
600-68626-11	SO-1620-IM-CPT-20-13 (5-7.5)-20120214	Total/NA	Solid	Moisture	

Lab Chronicle

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68626-1

Client Sample ID: SO-1620-IM-CPT-19-13 (1.9-5.0)-0120214

Lab Sample ID: 600-68626-1

Date Collected: 02/14/13 08:45

Matrix: Solid

Date Received: 02/14/13 15:30

Percent Solids: 88.2

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	100012	02/20/13 17:16	WS	TAL HOU
Total/NA	Prep	3550B			99693	02/15/13 15:53	LB	TAL HOU
Total/NA	Analysis	8270C LL		100	100168	02/21/13 09:42	TTD	TAL HOU
Total/NA	Prep	3050B			99913	02/19/13 16:17	NER	TAL HOU
Total/NA	Analysis	6010B		1	100065	02/21/13 15:56	DCL	TAL HOU
Total/NA	Analysis	6010B		1	100268	02/25/13 13:48	DCL	TAL HOU
Total/NA	Analysis	Moisture		1	99710	02/15/13 17:10	MB	TAL HOU

Client Sample ID: SO-1620-IM-CPT-DUP2-20120214

Lab Sample ID: 600-68626-2

Date Collected: 02/14/13 09:00

Matrix: Solid

Date Received: 02/14/13 15:30

Percent Solids: 83.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	99676	02/15/13 13:18	YX	TAL HOU
Total/NA	Prep	3550B			99693	02/15/13 15:53	LB	TAL HOU
Total/NA	Analysis	8270C LL		100	100168	02/21/13 10:09	TTD	TAL HOU
Total/NA	Prep	3050B			99913	02/19/13 16:17	NER	TAL HOU
Total/NA	Analysis	6010B		1	100065	02/21/13 15:58	DCL	TAL HOU
Total/NA	Analysis	6010B		1	100268	02/25/13 13:51	DCL	TAL HOU
Total/NA	Analysis	Moisture		1	99710	02/15/13 17:10	MB	TAL HOU

Client Sample ID: SO-1620-IM-CPT-19-13 (7.5-10)-20120214

Lab Sample ID: 600-68626-3

Date Collected: 02/14/13 09:15

Matrix: Solid

Date Received: 02/14/13 15:30

Percent Solids: 82.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	99676	02/15/13 21:10	YX	TAL HOU
Total/NA	Prep	3550B			99693	02/15/13 15:53	LB	TAL HOU
Total/NA	Analysis	8270C LL		1	100168	02/21/13 10:37	TTD	TAL HOU
Total/NA	Prep	3050B			99913	02/19/13 16:17	NER	TAL HOU
Total/NA	Analysis	6010B		1	100065	02/21/13 16:01	DCL	TAL HOU
Total/NA	Analysis	6010B		1	100268	02/25/13 13:53	DCL	TAL HOU
Total/NA	Analysis	Moisture		1	99710	02/15/13 17:10	MB	TAL HOU

Client Sample ID: SO-1620-IM-CPT-14-13 (1.4-2.5)-20120214

Lab Sample ID: 600-68626-4

Date Collected: 02/14/13 10:05

Matrix: Solid

Date Received: 02/14/13 15:30

Percent Solids: 80.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		5	100100	02/21/13 14:32	WS	TAL HOU
Total/NA	Prep	3550B			99693	02/15/13 15:53	LB	TAL HOU
Total/NA	Analysis	8270C LL		100	100168	02/21/13 11:05	TTD	TAL HOU

TestAmerica Houston

Lab Chronicle

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68626-1

Client Sample ID: SO-1620-IM-CPT-14-13 (1.4-2.5)-20120214

Lab Sample ID: 600-68626-4

Date Collected: 02/14/13 10:05

Matrix: Solid

Date Received: 02/14/13 15:30

Percent Solids: 80.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550B	DL		99693	02/15/13 15:53	LB	TAL HOU
Total/NA	Analysis	8270C LL	DL	500	100320	02/22/13 13:02	JH	TAL HOU
Total/NA	Prep	3050B			99913	02/19/13 16:17	NER	TAL HOU
Total/NA	Analysis	6010B		1	100065	02/21/13 16:03	DCL	TAL HOU
Total/NA	Analysis	6010B		1	100268	02/25/13 13:56	DCL	TAL HOU
Total/NA	Analysis	Moisture		1	99710	02/15/13 17:10	MB	TAL HOU

Client Sample ID: SO-1620-IM-CPT-14-13 (12.5-15)-20120214

Lab Sample ID: 600-68626-5

Date Collected: 02/14/13 10:35

Matrix: Solid

Date Received: 02/14/13 15:30

Percent Solids: 85.0

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		5	100012	02/20/13 19:37	WS	TAL HOU
Total/NA	Prep	3550B			99693	02/15/13 15:53	LB	TAL HOU
Total/NA	Analysis	8270C LL		100	100168	02/21/13 11:32	TTD	TAL HOU
Total/NA	Prep	3050B			99913	02/19/13 16:17	NER	TAL HOU
Total/NA	Analysis	6010B		1	100065	02/21/13 16:06	DCL	TAL HOU
Total/NA	Analysis	6010B		1	100268	02/25/13 13:58	DCL	TAL HOU
Total/NA	Analysis	Moisture		1	99710	02/15/13 17:10	MB	TAL HOU

Client Sample ID: SO-1620-IM-CPT-14-13 (15-16.4)-20120214

Lab Sample ID: 600-68626-6

Date Collected: 02/14/13 10:45

Matrix: Solid

Date Received: 02/14/13 15:30

Percent Solids: 85.2

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		5	100012	02/20/13 20:00	WS	TAL HOU
Total/NA	Prep	3550B			99693	02/15/13 15:53	LB	TAL HOU
Total/NA	Analysis	8270C LL		100	100168	02/21/13 12:00	TTD	TAL HOU
Total/NA	Prep	3050B			99913	02/19/13 16:17	NER	TAL HOU
Total/NA	Analysis	6010B		1	100065	02/21/13 16:22	DCL	TAL HOU
Total/NA	Analysis	6010B		1	100268	02/25/13 14:15	DCL	TAL HOU
Total/NA	Analysis	Moisture		1	99710	02/15/13 17:10	MB	TAL HOU

Client Sample ID: SO-1620-IM-CPT-15-13 (2-5)-20120214

Lab Sample ID: 600-68626-7

Date Collected: 02/14/13 11:30

Matrix: Solid

Date Received: 02/14/13 15:30

Percent Solids: 65.0

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	100012	02/20/13 18:03	WS	TAL HOU
Total/NA	Prep	3550B			99693	02/15/13 15:53	LB	TAL HOU
Total/NA	Analysis	8270C LL		100	100168	02/21/13 12:28	TTD	TAL HOU
Total/NA	Prep	3050B			99913	02/19/13 16:17	NER	TAL HOU

TestAmerica Houston

Lab Chronicle

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68626-1

Client Sample ID: SO-1620-IM-CPT-15-13 (2-5)-20120214

Lab Sample ID: 600-68626-7

Date Collected: 02/14/13 11:30

Matrix: Solid

Date Received: 02/14/13 15:30

Percent Solids: 65.0

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	6010B		1	100065	02/21/13 16:24	DCL	TAL HOU
Total/NA	Analysis	6010B		1	100268	02/25/13 14:17	DCL	TAL HOU
Total/NA	Analysis	Moisture		1	99710	02/15/13 17:10	MB	TAL HOU

Client Sample ID: SO-1620-IM-CPT-15-13 (5.0-7.5)-20120214

Lab Sample ID: 600-68626-8

Date Collected: 02/14/13 11:50

Matrix: Solid

Date Received: 02/14/13 15:30

Percent Solids: 83.2

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	100012	02/20/13 18:26	WS	TAL HOU
Total/NA	Prep	3550B			99693	02/15/13 15:53	LB	TAL HOU
Total/NA	Analysis	8270C LL		10	100320	02/22/13 13:28	JH	TAL HOU
Total/NA	Prep	3050B			99913	02/19/13 16:17	NER	TAL HOU
Total/NA	Analysis	6010B		1	100065	02/21/13 16:27	DCL	TAL HOU
Total/NA	Analysis	6010B		1	100268	02/25/13 14:19	DCL	TAL HOU
Total/NA	Analysis	Moisture		1	99710	02/15/13 17:10	MB	TAL HOU

Client Sample ID: SO-1620-IM-CPT-15-13 (15-16.2)-20120214

Lab Sample ID: 600-68626-9

Date Collected: 02/14/13 12:00

Matrix: Solid

Date Received: 02/14/13 15:30

Percent Solids: 84.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	100012	02/20/13 20:24	WS	TAL HOU
Total/NA	Prep	3550B			99693	02/15/13 15:53	LB	TAL HOU
Total/NA	Analysis	8270C LL		100	100168	02/21/13 13:23	TTD	TAL HOU
Total/NA	Prep	3050B			99913	02/19/13 16:17	NER	TAL HOU
Total/NA	Analysis	6010B		1	100065	02/21/13 16:29	DCL	TAL HOU
Total/NA	Analysis	6010B		1	100268	02/25/13 14:22	DCL	TAL HOU
Total/NA	Analysis	Moisture		1	99710	02/15/13 17:10	MB	TAL HOU

Client Sample ID: SO-1620-IM-CPT-20-13 (0-2.5)-0120214

Lab Sample ID: 600-68626-10

Date Collected: 02/14/13 13:50

Matrix: Solid

Date Received: 02/14/13 15:30

Percent Solids: 88.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	100100	02/21/13 15:19	WS	TAL HOU
Total/NA	Prep	3550B			99693	02/15/13 15:53	LB	TAL HOU
Total/NA	Analysis	8270C LL		10	100320	02/22/13 13:55	JH	TAL HOU
Total/NA	Prep	3050B			99913	02/19/13 16:17	NER	TAL HOU
Total/NA	Analysis	6010B		1	100065	02/21/13 16:31	DCL	TAL HOU
Total/NA	Analysis	6010B		1	100268	02/25/13 14:24	DCL	TAL HOU
Total/NA	Analysis	Moisture		1	99710	02/15/13 17:10	MB	TAL HOU

TestAmerica Houston

Lab Chronicle

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68626-1

Client Sample ID: SO-1620-IM-CPT-20-13 (5-7.5)-20120214

Lab Sample ID: 600-68626-11

Date Collected: 02/14/13 14:50

Matrix: Solid

Date Received: 02/14/13 15:30

Percent Solids: 84.5

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	100012	02/20/13 19:13	WS	TAL HOU
Total/NA	Prep	3550B			99693	02/15/13 15:53	LB	TAL HOU
Total/NA	Analysis	8270C LL		1	100168	02/21/13 14:17	TTD	TAL HOU
Total/NA	Prep	3050B			99913	02/19/13 16:17	NER	TAL HOU
Total/NA	Analysis	6010B		1	100065	02/21/13 16:34	DCL	TAL HOU
Total/NA	Analysis	6010B		1	100268	02/25/13 14:26	DCL	TAL HOU
Total/NA	Analysis	Moisture		1	99710	02/15/13 17:10	MB	TAL HOU

Laboratory References:

TAL HOU = TestAmerica Houston, 6310 Rothway Street, Houston, TX 77040, TEL (713)690-4444

Certification Summary

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68626-1

Laboratory: TestAmerica Houston

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Arkansas DEQ	State Program	6	88-0759	08-04-12
Louisiana	NELAP	6	01967	06-30-13
Oklahoma	State Program	6	9503	08-31-13
Texas	NELAP	6	T104704223-10-6-TX	10-31-13
USDA	Federal		P330-08-00217	04-01-14
Utah	NELAP	8	GULF	10-31-13

Client Information
 Company: Pastor, Behling & Wheeler LLC
 Address: 2201 Double Creek Dr Suite 4004
 City: Round Rock
 State, zip: TX, 78664
 Phone: 512-671-3434 (Tel) 512-671-3446 (Fax)
 Email: eric.matzner@pbwllc.com
 Project Name: 1620-UPRR HWPW
 Site:
 Sampler: *Carolya Sexton*
 Phone: 512-631-3434
 Lab P#:
 Kutchackar, Sachin G
 Email: sachin.kutchackar@testamerica.com
 Project #:
 WO #:
 PO #:
 Purchase Order not required
 Date:
 TAT Requested (days):
 Standard
 Analysis Requested
 COC No: 600-18948-7248.6
 Page: 1 of 1
 Job #:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=Water, S=Soil, O=Other)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	Analysis Requested	Special Instructions/Note
SO-1620-1M-CPT-13-13 (19.5.0) 20120214	2/14/13	8:45	G	Solid	X	X	8270C_LL - Semivolatiles	
SO-1620-1M-CPT-13-13 (19.5.0) 20120214		9:00	G	Solid	X	X	8260B - Volatiles	
SO-1620-1M-CPT-13-13 (19.5.0) 20120214		9:15	G	Solid	X	X	6010B - As, Pb	
SO-1620-1M-CPT-14-13 (14.2.5) 20120214		10:35	G	Solid	X	X		
SO-1620-1M-CPT-14-13 (14.2.5) 20120214		10:35	G	Solid	X	X		
SO-1620-1M-CPT-14-13 (14.2.5) 20120214		10:45	G	Solid	X	X		
SO-1620-1M-CPT-15-13 (15.15.4) 20120214		11:30	G	Solid	X	X		
SO-1620-1M-CPT-15-13 (15.15.4) 20120214		11:50	G	Solid	X	X		
SO-1620-1M-CPT-15-13 (15.15.4) 20120214		12:00	G	Solid	X	X		
SO-1620-1M-CPT-15-13 (15.15.4) 20120214		13:50	G	Solid	X	X		
SO-1620-1M-CPT-15-13 (15.15.4) 20120214		14:05	G	Solid	X	X		

Possible Hazard Identification
 Non-Hazard Flammable Skin Irritant Poison B Unknown Radiological
 Deliverable Requested: I, II, III, IV, Other (specify):
 Empty Kit Relinquished by: _____ Date: _____
 Relinquished by: *Carolya Sexton* Date/Time: 2/14/13 1530 Company: PBW
 Relinquished by: _____ Date/Time: _____ Company: _____
 Relinquished by: _____ Date/Time: 2/14/13 1614 Company: PBW
 Custody Seals Intact: _____ Custody Seal No.: _____
 Method of Shipment: _____ Date/Time: 2/14/13 1530 Company: PBW
 Received by: _____ Date/Time: 2/14/13 1614 Company: PBW
 Special Instructions/Note: _____
 Special Instructions/QC Requirements: _____
 Sample Disposal (A fee may be assessed; if samples are retained longer than 1 month)
 Return To Client Disposal By Lab Archive For _____ Months

Preservation Codes:
 A - HCL
 B - NaOH
 C - Zn Acetate
 D - Nitric Acid
 E - NaHSO4
 F - MeOH
 G - Ammonia
 H - Ascorbic Acid
 I - Ice
 J - DI Water
 K - EDTA
 L - EDA
 M - Hexane
 N - None
 O - AsNaO2
 P - Na2O4S
 Q - Na2SO3
 R - Na2S2O3
 S - H2SO4
 T - TSP Dodecahydrate
 U - Acetone
 V - MCAA
 W - pH 4.5
 Z - other (specify)
 Other: _____

Login Sample Receipt Checklist

Client: Pastor, Behling & Wheeler LLC

Job Number: 600-68626-1

Login Number: 68626

List Number: 1

Creator: Capps, Dana

List Source: TestAmerica Houston

Question	Answer	Comment
Radioactivity wasn't checked or is <=/ background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	3.0
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	True	

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Houston

6310 Rothway Street

Houston, TX 77040

Tel: (713)690-4444

TestAmerica Job ID: 600-68719-1

Client Project/Site: 1620 UPRR HWPW

For:

Pastor, Behling & Wheeler LLC

2201 Double Creek Dr

Suite 4004

Round Rock, Texas 78664

Attn: Mr. Eric Matzner



Authorized for release by:

3/6/2013 3:55:31 PM

Cathy Upton

Data Delivery Analyst

cathy.upton@testamericainc.com

Designee for

Sachin Kudchadkar

Project Manager II

sachin.kudchadkar@testamericainc.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.



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results through

TotalAccess

Have a Question?



Visit us at:

www.testamericainc.com

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2

3

4

5

6

7

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9

10

11

12

13

14

15

16

17



Table of Contents

Cover Page	1
Table of Contents	2
TRRP Cover Page	3
TRRP Checklists & DCSs	4
Case Narrative	18
Method Summary	19
Sample Summary	20
Client Sample Results	21
Definitions/Glossary	35
Surrogate Summary	36
QC Sample Results	38
Default Detection Limits	47
QC Association Summary	48
Lab Chronicle	51
Certification Summary	54
Chain of Custody	55
Receipt Checklists	56

Job Number: 600-68719-1
Project Name/Number: 1620 UPRR HWPW

This Data Package consists of:

This signature page, the laboratory review checklist, and the following Reportable Data:

- R1 Field Chain-of-Custody Form
- R2 Sample Identification Cross-reference;
- R3 Test Reports (Analytical Data Sheets) for each environmental sample that includes:
 - a) Items consistent with NELAC Chapter 5
 - b) dilution factors,
 - c) preparation methods,
 - d) cleanup methods, and
 - e) if required for the project, tentatively identified compounds (TICs).
- R4 Surrogate Recovery Data including:
 - a) Calculated recovery (%R), and
 - b) The laboratory's surrogate QC limits.
- R5 Test Reports/Summary Forms for Blank Samples;
- R6 Test Reports/Summary Forms for Laboratory Control Samples (LCSs) including:
 - a) LCS spiking amounts,
 - b) Calculated %R for each analyte, and
 - d) The laboratory's LCS QC limits
- R7 Test Reports for Matrix Spike/Matrix Spike Duplicates (MS/MSDs) including:
 - a) Samples associated with the MS/MSD clearly identified,
 - b) MS/MSD spiking amounts,
 - c) Concentration of each MS/MSD analyte measured in the parent and spiked sample,
 - d) Calculated %Rs and relative percent differences (RPDs), and
 - e) The laboratory's MS/MSD QC limits
- R8 Laboratory analytical duplicates (if applicable) recovery and precision, including:
 - a) the amount of analyte measured in the duplicate,
 - b) the calculated RPD, and
 - c) the laboratory's QC limits for analytical duplicates.
- R9 List of method quantitation limit (MQL) and detectability check sample results for each analyte for each method and matrix;
- R10 Other problems or anomalies

The exception report for each "No" or "Not Reviewed (NR)" item in the Laboratory Review Checklist and for each analyte, matrix, and method for which the laboratory does not hold NELAC accreditation under the Texas Laboratory Accreditation Program.

Release Statement: I am responsible for the release of this laboratory data package. This laboratory is NELAC accredited under Texas laboratory Accreditation Program for all the methods, analytes, and matrices reported in this data package except as noted in the Exception Reports. The data have been reviewed and are technically compliant with the requirements of the methods used, except where noted by the laboratory in the Exception Reports. By my signature below, I affirm, to the best of my knowledge, that all problems/anomalies observed by the laboratory have been identified in the Laboratory Review Checklist, and no information affecting the quality of the data has been knowingly withheld.

Cathy Upton
Name (printed)
Data Delivery Analyst
Official Title (printed)


Signature

03/06/2013
Date

Appendix A (cont'd): Laboratory Review Checklist: Reportable Data							
Laboratory Name: TestAmerica-Houston				LRC Date: 02/27/13			
Project Name: 1620 UPRR HWPW				Laboratory Job Number: 600-68719			
Reviewer Name: TWR				Prep Batch Number(s): 600-99913, 100062- ICP			
# ¹	A ²	Description	Yes	No	NA ³	NR ⁴	ER# ⁵
R1	OI	Chain-of-custody (C-O-C)					
		Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?		X			1
		Were all departures from standard conditions described in an exception report?	X				
R2	OI	Sample and quality control (QC) identification					
		Are all field sample ID numbers cross-referenced to the laboratory ID numbers?	X				
		Are all laboratory ID numbers cross-referenced to the corresponding QC data?	X				
R3	OI	Test reports					
		Were all samples prepared and analyzed within holding times?	X				
		Other than those results < MQL, were all other raw values bracketed by calibration standards?	X				
		Were calculations checked by a peer or supervisor?	X				
		Were all analyte identifications checked by a peer or supervisor?	X				
		Were sample detection limits reported for all analytes not detected?	X				
		Were all results for soil and sediment samples reported on a dry weight basis?	X				
		Were % moisture (or solids) reported for all soil and sediment samples?	X				
		Were bulk soil/solid samples for volatile analysis extracted with methanol per SW846 Method 5035?			X		
		If required for the project, TICs reported?			X		
R4	O	Surrogate recovery data					
		Were surrogates added prior to extraction?			X		
		Were surrogate percent recoveries in all samples within the laboratory QC limits?			X		
R5	OI	Test reports/summary forms for blank samples					
		Were appropriate type(s) of blanks analyzed?	X				
		Were blanks analyzed at the appropriate frequency?	X				
		Were method blanks taken through the entire analytical process, including preparation and, if applicable, cleanup procedures?	X				
		Were blank concentrations < MQL?	X				
R6	OI	Laboratory control samples (LCS):					
		Were all COCs included in the LCS?	X				
		Was each LCS taken through the entire analytical procedure, including prep and cleanup steps?	X				
		Were LCSs analyzed at the required frequency?	X				
		Were LCS (and LCSD, if applicable) %Rs within the laboratory QC limits?	X				
		Does the detectability check sample data document the laboratory's capability to detect the COCs at the MDL used to calculate the SDLs?	X				
		Was the LCSD RPD within QC limits?			X		
R7	OI	Matrix spike (MS) and matrix spike duplicate (MSD) data					
		Were the project/method specified analytes included in the MS and MSD?	X				
		Were MS/MSD analyzed at the appropriate frequency?	X				
		Were MS (and MSD, if applicable) %Rs within the laboratory QC limits?	X				
		Were MS/MSD RPDs within laboratory QC limits?	X				
R8	OI	Analytical duplicate data					
		Were appropriate analytical duplicates analyzed for each matrix?	X				
		Were analytical duplicates analyzed at the appropriate frequency?	X				
		Were RPDs or relative standard deviations within the laboratory QC limits?	X				
R9	OI	Method quantitation limits (MQLs):					
		Are the MQLs for each method analyte included in the laboratory data package?	X				
		Do the MQLs correspond to the concentration of the lowest non-zero calibration standard?	X				
		Are unadjusted MQLs and DCSs included in the laboratory data package?	X				
R10	OI	Other problems/anomalies					
		Are all known problems/anomalies/special conditions noted in this LRC and ER?	X				
		Was applicable and available technology used to lower the SDL to minimize the matrix interference affects on the sample results?	X				
		Is the laboratory NELAC-accredited under the Texas Laboratory Accreditation Program for the analytes, matrices and methods associated with this laboratory data package?	X				

- Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.
- O = organic analyses; I = inorganic analyses (and general chemistry, when applicable);
- NA = Not applicable;
- NR = Not reviewed;
- ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

Appendix A (cont'd): Laboratory Review Checklist: Reportable Data									
Laboratory Name: TestAmerica-Houston					LRC Date: 02/27/13				
Project Name: 1620 UPRR HWPW					Laboratory Job Number: 600-68719				
Reviewer Name: TWR					Prep Batch Number(s): 600-99913, 100062- ICP				
# ¹	A ²	Description	Yes	No	NA ³	NR ⁴	ER# ⁵		
S1	OI	Initial calibration (ICAL)							
		Were response factors and/or relative response factors for each analyte within QC limits?			X				
		Were percent RSDs or correlation coefficient criteria met?			X				
		Was the number of standards recommended in the method used for all analytes?	X						
		Were all points generated between the lowest and highest standard used to calculate the curve?			X				
		Are ICAL data available for all instruments used?	X						
		Has the initial calibration curve been verified using an appropriate second source standard?	X						
S2	OI	Initial and continuing calibration verification (ICCV and CCV) and continuing calibration							
		Was the CCV analyzed at the method-required frequency?	X						
		Were percent differences for each analyte within the method-required QC limits?	X						
		Was the ICAL curve verified for each analyte?	X						
		Was the absolute value of the analyte concentration in the inorganic CCB < MDL?	X						
S3	O	Mass spectral tuning:							
		Was the appropriate compound for the method used for tuning?			X				
		Were ion abundance data within the method-required QC limits?			X				
S4	O	Internal standards (IS):							
		Were IS area counts and retention times within the method-required QC limits?			X				
S5	OI	Raw data (NELAC section 5.5.10)							
		Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?	X						
		Were data associated with manual integrations flagged on the raw data?			X				
S6	O	Dual column confirmation							
		Did dual column confirmation results meet the method-required QC?			X				
S7	O	Tentatively identified compounds (TICs):							
		If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?			X				
S8	I	Interference Check Sample (ICS) results:							
		Were percent recoveries within method QC limits?	X						
S9	I	Serial dilutions, post digestion spikes, and method of standard additions							
		Were percent differences, recoveries, and the linearity within the QC limits specified in the method?				X	2		
S10	OI	Method detection limit (MDL) studies							
		Was a MDL study performed for each reported analyte?	X						
		Is the MDL either adjusted or supported by the analysis of DCSs?	X						
S11	OI	Proficiency test reports:							
		Was the laboratory's performance acceptable on the applicable proficiency tests or evaluation studies?	X						
S12	OI	Standards documentation							
		Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?	X						
S13	OI	Compound/analyte identification procedures							
		Are the procedures for compound/analyte identification documented?	X						
S14	OI	Demonstration of analyst competency (DOC)							
		Was DOC conducted consistent with NELAC Chapter 5?	X						
		Is documentation of the analyst's competency up-to-date and on file?	X						
S15	OI	Verification/validation documentation for methods (NELAC Chapter 5)							
		Are all the methods used to generate the data documented, verified, and validated, where applicable?	X						
S16	OI	Laboratory standard operating procedures (SOPs):							
		Are laboratory SOPs current and on file for each method performed?	X						

- 1 Items identified by the letter "R" should be included in the laboratory data package submitted to the TCEQ in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.
- 2 O = organic analyses; I = inorganic analyses (and general chemistry, when applicable).
- 3 NA = Not applicable.
- 4 NR = Not Reviewed.
- 5 ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

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Appendix A (cont'd): Laboratory Review Checklist: Exception Reports	
Laboratory Name: TestAmerica-Houston	LRC Date: 02/27/13
Project Name: 1620 UPRR HWPW	Laboratory Job Number: 600-68719
Reviewer Name: TWR	Prep Batch Number(s): 600-99913, 100062- ICP
ER #¹	DESCRIPTION
1	See Case Narrative.
2	The laboratory selected a sample from another group to perform as the PDS and SD.

ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked on the LRC)

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Appendix A (cont'd): Laboratory Review Checklist: Reportable Data							
Laboratory Name: TestAmerica-Houston			LRC Date: 02/26/13				
Project Name: 1620 UPRR HWPW			Laboratory Job Number: 600-68719				
Reviewer Name: WS			Prep Batch Number: 600-100012 and 100100 -VOA				
# ¹	A ²	Description	Yes	No	NA ³	NR ⁴	ER# ⁵
R1	OI	Chain-of-custody (C-O-C)					
		Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?		X			1
		Were all departures from standard conditions described in an exception report?	X				
R2	OI	Sample and quality control (QC) identification					
		Are all field sample ID numbers cross-referenced to the laboratory ID numbers?	X				
		Are all laboratory ID numbers cross-referenced to the corresponding QC data?	X				
R3	OI	Test reports					
		Were all samples prepared and analyzed within holding times?	X				
		Other than those results < MQL, were all other raw values bracketed by calibration standards?	X				
		Were calculations checked by a peer or supervisor?	X				
		Were all analyte identifications checked by a peer or supervisor?	X				
		Were sample detection limits reported for all analytes not detected?	X				
		Were all results for soil and sediment samples reported on a dry weight basis?	X				
		Were % moisture (or solids) reported for all soil and sediment samples?	X				
		Were bulk soil/solid samples for volatile analysis extracted with methanol per SW846 Method 5035?			X		
		If required for the project, TICs reported?			X		
R4	O	Surrogate recovery data					
		Were surrogates added prior to extraction?	X				
		Were surrogate percent recoveries in all samples within the laboratory QC limits?		X			2
R5	OI	Test reports/summary forms for blank samples					
		Were appropriate type(s) of blanks analyzed?	X				
		Were blanks analyzed at the appropriate frequency?	X				
		Were method blanks taken through the entire analytical process, including preparation and, if applicable, cleanup procedures?	X				
		Were blank concentrations < MQL?	X				
R6	OI	Laboratory control samples (LCS):					
		Were all COCs included in the LCS?	X				
		Was each LCS taken through the entire analytical procedure, including prep and cleanup steps?	X				
		Were LCSs analyzed at the required frequency?	X				
		Were LCS (and LCSD, if applicable) %Rs within the laboratory QC limits?	X				
		Does the detectability check sample data document the laboratory's capability to detect the COCs at the MDL used to calculate the SDLs?	X				
		Was the LCSD RPD within QC limits?	X				
R7	OI	Matrix spike (MS) and matrix spike duplicate (MSD) data					
		Were the project/method specified analytes included in the MS and MSD?	X				
		Were MS/MSD analyzed at the appropriate frequency?	X				
		Were MS (and MSD, if applicable) %Rs within the laboratory QC limits?	X				
		Were MS/MSD RPDs within laboratory QC limits?	X				
R8	OI	Analytical duplicate data					
		Were appropriate analytical duplicates analyzed for each matrix?			X		
		Were analytical duplicates analyzed at the appropriate frequency?			X		
		Were RPDs or relative standard deviations within the laboratory QC limits?			X		
R9	OI	Method quantitation limits (MQLs):					
		Are the MQLs for each method analyte included in the laboratory data package?	X				
		Do the MQLs correspond to the concentration of the lowest non-zero calibration standard?	X				
		Are unadjusted MQLs and DCSs included in the laboratory data package?	X				
R10	OI	Other problems/anomalies					
		Are all known problems/anomalies/special conditions noted in this LRC and ER?	X				
		Was applicable and available technology used to lower the SDL to minimize the matrix interference affects on the sample results?	X				
		Is the laboratory NELAC-accredited under the Texas Laboratory Accreditation Program for the analytes, matrices and methods associated with this laboratory data package?	X				

- Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.
- O = organic analyses; I = inorganic analyses (and general chemistry, when applicable);
- NA = Not applicable;
- NR = Not reviewed;
- ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

Appendix A (cont'd): Laboratory Review Checklist: Reportable Data							
Laboratory Name: TestAmerica-Houston				LRC Date: 02/26/13			
Project Name: 1620 UPRR HWPW				Laboratory Job Number: 600-68719			
Reviewer Name: WS				Prep Batch Number: 600-100012 and 100100 -VOA			
# ¹	A ²	Description	Yes	No	NA ³	NR ⁴	ER# ⁵
S1	OI	Initial calibration (ICAL)					
		Were response factors and/or relative response factors for each analyte within QC limits?	X				
		Were percent RSDs or correlation coefficient criteria met?	X				
		Was the number of standards recommended in the method used for all analytes?	X				
		Were all points generated between the lowest and highest standard used to calculate the curve?	X				
		Are ICAL data available for all instruments used?	X				
		Has the initial calibration curve been verified using an appropriate second source standard?	X				
S2	OI	Initial and continuing calibration verification (ICCV and CCV) and continuing calibration					
		Was the CCV analyzed at the method-required frequency?	X				
		Were percent differences for each analyte within the method-required QC limits?	X				
		Was the ICAL curve verified for each analyte?	X				
		Was the absolute value of the analyte concentration in the inorganic CCB < MDL?			X		
S3	O	Mass spectral tuning:					
		Was the appropriate compound for the method used for tuning?	X				
		Were ion abundance data within the method-required QC limits?	X				
S4	O	Internal standards (IS):					
		Were IS area counts and retention times within the method-required QC limits?	X				
S5	OI	Raw data (NELAC section 5.5.10)					
		Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?	X				
		Were data associated with manual integrations flagged on the raw data?	X				
S6	O	Dual column confirmation					
		Did dual column confirmation results meet the method-required QC?			X		
S7	O	Tentatively identified compounds (TICs):					
		If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?			X		
S8	I	Interference Check Sample (ICS) results:					
		Were percent recoveries within method QC limits?			X		
S9	I	Serial dilutions, post digestion spikes, and method of standard additions					
		Were percent differences, recoveries, and the linearity within the QC limits specified in the method?			X		
S10	OI	Method detection limit (MDL) studies					
		Was a MDL study performed for each reported analyte?	X				
		Is the MDL either adjusted or supported by the analysis of DCSs?	X				
S11	OI	Proficiency test reports:					
		Was the laboratory's performance acceptable on the applicable proficiency tests or evaluation studies?	X				
S12	OI	Standards documentation					
		Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?	X				
S13	OI	Compound/analyte identification procedures					
		Are the procedures for compound/analyte identification documented?	X				
S14	OI	Demonstration of analyst competency (DOC)					
		Was DOC conducted consistent with NELAC Chapter 5?	X				
		Is documentation of the analyst's competency up-to-date and on file?	X				
S15	OI	Verification/validation documentation for methods (NELAC Chapter 5)					
		Are all the methods used to generate the data documented, verified, and validated, where applicable?	X				
S16	OI	Laboratory standard operating procedures (SOPs):					
		Are laboratory SOPs current and on file for each method performed?	X				

- 1 Items identified by the letter "R" should be included in the laboratory data package submitted to the TCEQ in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.
- 2 O = organic analyses; I = inorganic analyses (and general chemistry, when applicable).
- 3 NA = Not applicable.
- 4 NR = Not Reviewed.
- 5 ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

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Appendix A (cont'd): Laboratory Review Checklist: Exception Reports	
Laboratory Name: TestAmerica-Houston	LRC Date: 02/26/13
Project Name: 1620 UPRR HWPW	Laboratory Job Number: 600-68719
Reviewer Name: WS	Prep Batch Number: 600-100012 and 100100 -VOA
ER #¹	DESCRIPTION
1	See Case Narrative.
2	Surrogate (BFB) recovery for the following samples were outside control limits: 600-68719-2 and 5. Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

ER# = Exception Report identification number (an Exception Report should be completed for an item if “NR” or “No” is checked on the LRC)

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Appendix A (cont'd): Laboratory Review Checklist: Reportable Data							
Laboratory Name: TestAmerica-Houston			LRC Date: 02/21/13				
Project Name: 1620 UPRR HWPW			Laboratory Job Number: 600-68719				
Reviewer Name: TTD			Prep Batch Number: 600-100020-SV				
# ¹	A ²	Description	Yes	No	NA ³	NR ⁴	ER# ⁵
R1	OI	Chain-of-custody (C-O-C)					
		Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?		X			1
		Were all departures from standard conditions described in an exception report?	X				
R2	OI	Sample and quality control (QC) identification					
		Are all field sample ID numbers cross-referenced to the laboratory ID numbers?	X				
		Are all laboratory ID numbers cross-referenced to the corresponding QC data?	X				
R3	OI	Test reports					
		Were all samples prepared and analyzed within holding times?	X				
		Other than those results < MQL, were all other raw values bracketed by calibration standards?	X				
		Were calculations checked by a peer or supervisor?	X				
		Were all analyte identifications checked by a peer or supervisor?	X				
		Were sample detection limits reported for all analytes not detected?	X				
		Were all results for soil and sediment samples reported on a dry weight basis?	X				
		Were % moisture (or solids) reported for all soil and sediment samples?	X				
		Were bulk soil/solid samples for volatile analysis extracted with methanol per SW846 Method 5035?				X	
		If required for the project, TICs reported?				X	
R4	O	Surrogate recovery data					
		Were surrogates added prior to extraction?	X				
		Were surrogate percent recoveries in all samples within the laboratory QC limits?		X			2
R5	OI	Test reports/summary forms for blank samples					
		Were appropriate type(s) of blanks analyzed?	X				
		Were blanks analyzed at the appropriate frequency?	X				
		Were method blanks taken through the entire analytical process, including preparation and, if applicable, cleanup procedures?	X				
		Were blank concentrations < MQL?	X				
R6	OI	Laboratory control samples (LCS):					
		Were all COCs included in the LCS?	X				
		Was each LCS taken through the entire analytical procedure, including prep and cleanup steps?	X				
		Were LCSs analyzed at the required frequency?	X				
		Were LCS (and LCSD, if applicable) %Rs within the laboratory QC limits?	X				
		Does the detectability check sample data document the laboratory's capability to detect the COCs at the MDL used to calculate the SDLs?	X				
		Was the LCSD RPD within QC limits?	X				
R7	OI	Matrix spike (MS) and matrix spike duplicate (MSD) data					
		Were the project/method specified analytes included in the MS and MSD?	X				
		Were MS/MSD analyzed at the appropriate frequency?	X				
		Were MS (and MSD, if applicable) %Rs within the laboratory QC limits?		X			3
		Were MS/MSD RPDs within laboratory QC limits?		X			3
R8	OI	Analytical duplicate data					
		Were appropriate analytical duplicates analyzed for each matrix?				X	
		Were analytical duplicates analyzed at the appropriate frequency?				X	
		Were RPDs or relative standard deviations within the laboratory QC limits?				X	
R9	OI	Method quantitation limits (MQLs):					
		Are the MQLs for each method analyte included in the laboratory data package?	X				
		Do the MQLs correspond to the concentration of the lowest non-zero calibration standard?	X				
		Are unadjusted MQLs and DCSs included in the laboratory data package?	X				
R10	OI	Other problems/anomalies					
		Are all known problems/anomalies/special conditions noted in this LRC and ER?	X				
		Was applicable and available technology used to lower the SDL to minimize the matrix interference affects on the sample results?	X				4
		Is the laboratory NELAC-accredited under the Texas Laboratory Accreditation Program for the analytes, matrices and methods associated with this laboratory data package?	X				

- Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.
- O = organic analyses; I = inorganic analyses (and general chemistry, when applicable);
- NA = Not applicable;
- NR = Not reviewed;
- ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

Appendix A (cont'd): Laboratory Review Checklist: Reportable Data									
Laboratory Name: TestAmerica-Houston					LRC Date: 02/21/13				
Project Name: 1620 UPRR HWPW					Laboratory Job Number: 600-68719				
Reviewer Name: TTD					Prep Batch Number: 600-100020-SV				
# ¹	A ²	Description	Yes	No	NA ³	NR ⁴	ER# ⁵		
S1	OI	Initial calibration (ICAL)							
		Were response factors and/or relative response factors for each analyte within QC limits?	X						
		Were percent RSDs or correlation coefficient criteria met?	X						
		Was the number of standards recommended in the method used for all analytes?	X						
		Were all points generated between the lowest and highest standard used to calculate the curve?	X						
		Are ICAL data available for all instruments used?	X						
		Has the initial calibration curve been verified using an appropriate second source standard?	X						
S2	OI	Initial and continuing calibration verification (ICCV and CCV) and continuing calibration							
		Was the CCV analyzed at the method-required frequency?	X						
		Were percent differences for each analyte within the method-required QC limits?	X						
		Was the ICAL curve verified for each analyte?	X						
		Was the absolute value of the analyte concentration in the inorganic CCB < MDL?			X				
S3	O	Mass spectral tuning:							
		Was the appropriate compound for the method used for tuning?	X						
		Were ion abundance data within the method-required QC limits?	X						
S4	O	Internal standards (IS):							
		Were IS area counts and retention times within the method-required QC limits?	X						
S5	OI	Raw data (NELAC section 5.5.10)							
		Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?	X						
		Were data associated with manual integrations flagged on the raw data?	X						
S6	O	Dual column confirmation							
		Did dual column confirmation results meet the method-required QC?			X				
S7	O	Tentatively identified compounds (TICs):							
		If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?			X				
S8	I	Interference Check Sample (ICS) results:							
		Were percent recoveries within method QC limits?			X				
S9	I	Serial dilutions, post digestion spikes, and method of standard additions							
		Were percent differences, recoveries, and the linearity within the QC limits specified in the method?			X				
S10	OI	Method detection limit (MDL) studies							
		Was a MDL study performed for each reported analyte?	X						
		Is the MDL either adjusted or supported by the analysis of DCSs?	X						
S11	OI	Proficiency test reports:							
		Was the laboratory's performance acceptable on the applicable proficiency tests or evaluation studies?	X						
S12	OI	Standards documentation							
		Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?	X						
S13	OI	Compound/analyte identification procedures							
		Are the procedures for compound/analyte identification documented?	X						
S14	OI	Demonstration of analyst competency (DOC)							
		Was DOC conducted consistent with NELAC Chapter 5?	X						
		Is documentation of the analyst's competency up-to-date and on file?	X						
S15	OI	Verification/validation documentation for methods (NELAC Chapter 5)							
		Are all the methods used to generate the data documented, verified, and validated, where applicable?	X						
S16	OI	Laboratory standard operating procedures (SOPs):							
		Are laboratory SOPs current and on file for each method performed?	X						

- 1 Items identified by the letter "R" should be included in the laboratory data package submitted to the TCEQ in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.
- 2 O = organic analyses; I = inorganic analyses (and general chemistry, when applicable).
- 3 NA = Not applicable.
- 4 NR = Not Reviewed.
- 5 ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

Appendix A (cont'd): Laboratory Review Checklist: Exception Reports	
Laboratory Name: TestAmerica-Houston	LRC Date: 02/21/13
Project Name: 1620 UPRR HWPW	Laboratory Job Number: 600-68719
Reviewer Name: TTD	Prep Batch Number: 600-100020-SV
ER #¹	DESCRIPTION
1	See Case Narrative.
2	Due to the level of dilution required for samples 600-68719-1, 2, 3, 4, 5, 6, 6MS, 6MSD, 7, 9, and 10; surrogate recoveries are not reported.
3	Matrix spikes for batch 100020 could not be recovered due to sample matrix interferences which required sample dilution. The associated laboratory control sample (LCS) met acceptance criteria.
4	All of the SDLs in samples 600-68719-1, 2, 3, 4, 5, 6, 7, 9, and 10 were elevated due to the nature of the sample matrix and/or the high concentration of target analytes.

ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked on the LRC)

Detection Check Standard

Matrix: Solid
Method: 8260B
Preparation: Wei Shen
Date Analyzed: 10/9/2012
Date Prepared: 10/9/2012
TALs Batches: K28205.D
Units: ug/Kg

Analyte	MDL	DCS Spike	Measured Result	MQL
Dichlorodifluoromethane	1.54	2.5	1.57	5
Chloromethane	1.66	2.5	2.85	10
Vinyl Chloride	0.9	2.5	2.86	10
Bromomethane	0.83	2.5	2.54	10
Chloroethane	1.4	2.5	3.11	10
Trichlorofluoromethane	0.66	2.5	2.92	10
Acrolein	1.39	2.5	17.79	5
1,1-Dichloroethene	1.22	2.5	3.06	5
Trichlorotrifluoromethane	0.66	2.5	3.02	10
Acetone	1.66	2.5	0.026	5
Methyl Iodide	2.5	5	8.55	5
2-Propanol	27.47	2.5	85.83	5
Carbon Disulfide	0.55	2.5	6.35	10
Acetonitrile	1.39	2.5	6.05	10
Allyl chloride	1.39	2.5	5.73	5
Methylene Chloride	2.19	5	2.38	10
Acrylonitrile	5.82	5	21.17	25
trans-1,2-Dichloroethene	1.14	2.5	3.05	5
Methyl tert-butyl ether	1.83	2.5	2.92	5
1,1-Dichloroethane	0.87	2.5	3.11	5
Vinyl Acetate	0.93	2.5	5.79	5
Chloroprene	2.71	5	7.68	5
cis-1,2-Dichloroethene	0.83	2.5	3.22	5
1,2-Dichloroethene (total)	1.9	2.5	6.27	10
2,2-Dichloropropane	1.82	2.5	2.95	5
2-Butanone	1.9	2.5	6.25	5
Propionitrile	2.36	5	9.5	5
Methacrylonitrile	5	5	8.06	5
Bromochloromethane	1.78	2.5	3.03	5
Chloroform	0.66	2.5	3.48	5
1,1,1-Trichloroethane	0.74	2.5	3.13	5
1,1-Dichloropropene	0.65	2.5	3.25	5
Carbon Tetrachloride	1.13	2.5	3.19	5
Isobutyl alcohol	17.16	5	21.72	5
Benzene	0.63	2.5	3.18	5
1,2-Dichloroethane	0.9	2.5	3.35	5
Trichloroethene	1.4	2.5	3.24	5
1,2-Dichloropropane	0.71	2.5	3.01	5
Methyl methacrylate	2.86	5	4.06	10



Methylene Bromide	0.75	2.5	3.02	5
1,4-Dioxane	62.07	250	133.4	500
Bromodichloromethane	0.66	2.5	2.98	5
2-Chloroethyl vinyl ether	0.98	2.5	5.97	10
cis-1,3-Dichloropropene	0.54	2.5	3.02	5
Toluene	1.38	2.5	3.32	5
trans-1,3-Dichloropropene	0.58	2.5	2.96	5
Ethyl methacrylate	1.66	2.5	5.65	5
1,1,2-Trichloroethane	0.73	2.5	2.97	5
1,3-Dichloropropane	0.63	2.5	3.23	5
Tetrachloroethene	1.4	2.5	3.03	5
2-Hexanone	1.01	2.5	5.68	10
Dibromochloromethane	0.94	2.5	2.86	5
1,2-Dibromoethane	6.54	5	4.2	10
Chlorobenzene	0.96	2.5	3.1	5
1,1,1,2-Tetrachloroethane	1.4	2.5	2.99	5
Ethylbenzene	1.02	2.5	3	5
m,p-Xylene	1.52	2.5	6.04	10
o-Xylene	1.13	2.5	3	5
Xylenes (total)	1.13	2.5	9.05	5
Styrene	0.71	2.5	2.97	5
Bromoform	1.37	2.5	2.56	5
Isopropylbenzene	0.92	2.5	2.9	5
trans-1,4-Dichloro-2-butene	1.9	2.5	5.17	5
Bromobenzene	0.99	2.5	3.05	5
n-Propylbenzene	0.95	2.5	2.96	5
2-Chlorotoluene	0.68	2.5	3.07	5
4-Chlorotoluene	0.83	2.5	2.99	5
1,3,5-Trimethylbenzene	1.6	2.5	2.85	5
tert-Butylbenzene	0.95	2.5	2.88	5
1,2,4-Trimethylbenzene	0.92	2.5	2.93	5
sec-Butylbenzene	0.7	2.5	2.94	5
1,3-Dichlorobenzene	0.71	2.5	3.04	5
1,4-Dichlorobenzene	0.66	2.5	3.03	5
1,2-Dichlorobenzene	0.8	2.5	2.97	5
p-Isopropyltoluene	0.63	2.5	2.77	5
n-Butylbenzene	0.58	2.5	2.84	5
1,2,3-Trichloropropane	1.31	2.5	2.82	5
1,2,4-Trichlorobenzene	1.97	2.5	4.09	5
Hexachlorobutadiene	1.13	2.5	5.72	5
1,2,3-Trichlorobenzene	0.62	2.5	3.3	5
Naphthalene	2.37	5	4.44	10

**Quality Control Report
Detection Check Standard**

Matrix: Soil
 Method: 8270C LL
 Preparation: 3550B
 Date Analyzed: 10/18/2012
 Date Prepared: 10/11/2012
 Lab Sample ID: 600-90857_18-a
 Units: ug/Kg

Analyte	MDL	DCS Spike	DCS Result	MQL
Pyridine	3.52	8.35	1.08	16.67
N-Nitrosodimethylamine	30.71	16.7	11.97	16.67
Aniline	2.98	8.35	2.33	16.67
Phenol	4.24	8.35	7.91	16.67
bis(2-Chloroethyl)ether	1.65	8.35	7.29	16.67
2-Chlorophenol	1.97	8.35	7.54	16.67
1,3-Dichlorobenzene	1.54	8.35	7.19	16.67
1,4-Dichlorobenzene	2.25	8.35	6.84	16.67
1,2-Dichlorobenzene	3.02	8.35	7.29	16.67
Benzyl alcohol	5.83	16.7	9.50	16.67
2-Methylphenol	3.23	8.35	6.07	16.67
m&p-Cresols	2.79	8.35	4.59	33.33
bis (2-Chloroisopropyl) ether	8.84	16.7	13.41	16.67
N-Nitroso-di-n-propylamine	2.22	8.35	6.29	16.67
Hexachloroethane	2.31	8.35	8.47	16.67
Nitrobenzene	2.96	8.35	7.35	16.67
Isophorone	5	8.35	6.03	16.67
2-Nitrophenol	3.89	8.35	3.94	16.67
Benzoic acid	32.76	33.4	220.80	83.33
2,4-Dimethylphenol	8.58	16.7	9.79	16.67
bis(2-Chloroethoxy)methane	1.42	8.35	5.19	16.67
2,4-Dichlorophenol	8.58	16.7	9.48	16.67
1,2,4-Trichlorobenzene	2.1	8.35	7.92	16.67
Naphthalene	1.35	8.35	6.35	16.67
4-Chloroaniline	5.82	8.35	3.69	16.67
Hexachlorobutadiene	1.92	8.35	5.91	16.67
4-Chloro-3-methylphenol	15.58	16.7	8.00	16.67
2-Methylnaphthalene	2.74	8.35	5.53	16.67
1-Methylnaphthalene	1.57	8.35	6.53	16.67
Hexachlorocyclopentadiene	4.61	8.35	14.08	16.67
2,4,6-Trichlorophenol	2.68	8.35	5.54	16.67
2,4,5-Trichlorophenol	10.01	16.7	8.68	16.67
2-Chloronaphthalene	1.21	8.35	6.26	16.67
2-Nitroaniline	4.89	8.35	4.10	16.67
Dimethylphthalate	4.89	8.35	5.80	16.67
1,4 Dinitrobenzene	16.67	8.35	14.23	16.67
1,3- Dinitrobenzene	2.96	8.35	13.00	16.67
1,2-Dinitrobenzene	16.67	8.35	4.73	16.67
Acenaphthylene	5	8.35	6.86	16.67

2,6-Dinitrotoluene	2.95	8.35	8.78	16.67
3-Nitroaniline	7.15	8.35	3.09	16.67
Acenaphthene	1.44	8.35	6.03	16.67
Dibenzofuran	1.78	8.35	6.15	16.67
2,4-Dinitrotoluene	3.61	8.35	6.10	16.67
2,3,4,6-Tetrachlorophenol	16.67	16.7	15.95	16.67
Diethylphthalate	8.43	16.7	11.50	16.67
4-Chlorophenyl-phenylether	1.8	8.35	6.79	16.67
Fluorene	2.36	8.35	5.57	16.67
4-Nitroaniline	11.15	16.7	5.63	16.67
4,6-Dinitro-2-Methylphenol	4.98	16.7	15.38	16.67
N-Nitrosodiphenylamine	1.89	8.35	5.94	16.67
Diphenylamine	1.94	8.35	4.69	16.67
1,2-Diphenylhydrazine	1.62	8.35	5.61	16.67
Azobenzene	1.85	8.35	5.14	16.67
4-Bromophenyl-phenylether	2.84	8.35	6.26	16.67
Hexachlorobenzene	1.52	8.35	6.89	16.67
Phenanthrene	4.95	8.35	6.76	16.67
Anthracene	1.28	8.35	6.66	16.67
Carbazole	3.12	8.35	6.16	16.67
Di-n-butylphthalate	2.59	8.35	6.08	16.67
Fluoranthene	3.11	8.35	6.58	16.67
Pyrene	1.83	8.35	7.09	16.67
Butylbenzylphthalate	6.19	16.7	9.35	66.68
3,3'-Dichlorobenzidene	10.16	16.7	6.12	16.67
Benzo(a)anthracene	1.38	8.35	6.93	16.67
bis(2-Ethylhexyl)phthalate	5.37	16.7	10.49	66.68
Chrysene	1.02	8.35	10.06	16.67
Di-n-octylphthalate	1.9	8.35	3.61	66.68
Benzo(b)fluoranthene	1.72	8.35	3.95	16.67
Benzo(k)fluoranthene	1.49	8.35	8.45	16.67
Benzo(a)pyrene	1.61	8.35	5.20	16.67
Indeno(1,2,3-cd)pyrene	3.5	8.35	14.82	16.67
Dibenz(a,h)anthracene	3.63	8.35	2.38	16.67
Benzo(g,h,i)perylene	5.07	16.7	12.37	16.67



Detection Check Standard

Matrix: Soil
Method: 6010B
Preparation: 3050
Date Analyzed: 11/29/2012
Date Prepared: 11/28/2012
Instrument: Thermo 6500
TALS Batches: 94304,94171(prepare)
Prep/Reagent Factor = 50
Units: mg/kg

Analyte	MDL	DCS Spike	Measured Result	MQL
Aluminum	0.299654	0.5	0.44	25
Antimony	0.231553	0.45	0.475	2.5
Arsenic	0.217923	0.5	0.58	1
Barium	0.011322	0.03	0.03	1
Beryllium	0.014513	0.02	0.02	0.25
Boron	0.385535	0.6	0.885	20
Cadmium	0.025642	0.05	0.055	0.25
Calcium	0.86399	1.5	2.205	100
Chromium	0.050606	0.1	0.11	0.5
Cobalt	0.067622	0.1	0.1	0.5
Copper	0.173703	0.5	0.385	0.5
Iron	2.534007	4	4.285	20
Lead	0.104832	0.2	0.23	0.5
Selenium	0.258884	0.5	0.56	2
Manganese	0.038111	0.05	0.045	1.5
Molybdenum	0.136448	0.35	0.38	0.5
Nickel	0.116599	0.15	0.14	1
Silver	0.118848	0.2	0.21	0.5
Sodium	0.885548	2.4	3.225	100
Strontium	0.00252	0.005	0.985	0.25
Thallium	0.276988	0.7	0.71	1.5
Tin	0.08729	0.15	0.16	1
Titanium	0.014529	0.03	0.02	0.5
Vanadium	0.079068	0.15	0.17	0.5
Zinc	0.108432	0.2	0.315	1.5

Case Narrative

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68719-1

Job ID: 600-68719-1

Laboratory: TestAmerica Houston

Narrative

Job Narrative 600-68719-1

Comments

No additional comments.

Receipt

The samples were received on 2/15/2013 6:08 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 2.0° C.

Except:

A Chain-of-Custody (COC) was not received with these samples. The sample IDs, dates and times were logged in from the sample bottles. The COC was delivered via Apple courier on the following work day and is included in the package.

Metals

Method(s) 200.7 Rev 4.4, 6010B: The following sample(s) required filtration to reduce matrix interferences: (600-68719-4 DU), (600-68719-4 MS), (600-68719-4 MSD), SO-1620-IM-CPT-10-13 (2-5) - 20120215 (600-68719-5), SO-1620-IM-CPT-10-13 (5-7.5) - 20120215 (600-68719-6), SO-1620-IM-CPT-17-13 (13-15) - 20120215 (600-68719-4), SO-1620-IM-CPT-17-13 (2.3-5) - 20120215 (600-68719-3), SO-1620-IM-CPT-18-13 (1.7-5) - 20120215 (600-68719-7), SO-1620-IM-CPT-18-13 (12.5-14.3) - 20120215 (600-68719-8), SO-1620-IM-CPT-21-13 (2.5-5) - 20120215 (600-68719-9), SO-1620-IM-SB-22-13 (2.5-5) - 20120215 (600-68719-1), SO-1620-IM-SB-22-13 (7.5-10) - 20120215 (600-68719-2), SO-1620-IM-CPT-21-13 (7.5-10) - 20120215 (600-68719-10).

Organic Prep

Method(s) 3550B: Due to the matrix, the following sample(s) could not be concentrated to the final method required volume: SO-1620-IM-SB-22-13 (2.5-5) - 20120215 (600-68719-1), SO-1620-IM-CPT-17-13 (2.3-5) - 20120215 (600-68719-3), SO-1620-IM-CPT-10-13 (2-5) - 20120215 (600-68719-5), SO-1620-IM-CPT-18-13 (1.7-5) - 20120215 (600-68719-7), SO-1620-IM-CPT-21-13 (2.5-5) - 20120215 (600-68719-9), SO-1620-IM-CPT-21-13 (7.5-10) - 20120215 (600-68719-10). The SDLs are elevated proportionately.

Method Summary

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68719-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL HOU
8270C LL	Semivolatile Organic Compounds by GCMS - Low Levels	SW846	TAL HOU
6010B	Metals (ICP)	SW846	TAL HOU
Moisture	Percent Moisture	EPA	TAL HOU

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL HOU = TestAmerica Houston, 6310 Rothway Street, Houston, TX 77040, TEL (713)690-4444



Sample Summary

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68719-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
600-68719-1	SO-1620-IM-CPT-22-13 (2.5-5) - 20120215	Solid	02/15/13 10:20	02/15/13 18:08
600-68719-2	SO-1620-IM-CPT-22-13 (7.5-10) - 20120215	Solid	02/15/13 10:30	02/15/13 18:08
600-68719-3	SO-1620-IM-CPT-17-13 (2.3-5) - 20120215	Solid	02/15/13 13:50	02/15/13 18:08
600-68719-4	SO-1620-IM-CPT-17-13 (13-15) - 20120215	Solid	02/15/13 14:30	02/15/13 18:08
600-68719-5	SO-1620-IM-CPT-10-13 (2-5) - 20120215	Solid	02/15/13 12:55	02/15/13 18:08
600-68719-6	SO-1620-IM-CPT-10-13 (5-7.5) - 20120215	Solid	02/15/13 13:25	02/15/13 18:08
600-68719-7	SO-1620-IM-CPT-18-13 (1.7-5) - 20120214	Solid	02/14/13 15:05	02/15/13 18:08
600-68719-8	SO-1620-IM-CPT-18-13 (12.5-14.3) - 20120214	Solid	02/14/13 15:20	02/15/13 18:08
600-68719-9	SO-1620-IM-CPT-21-13 (2.5-5) - 20120215	Solid	02/15/13 11:25	02/15/13 18:08
600-68719-10	SO-1620-IM-CPT-21-13 (7.5-10) - 20120215	Solid	02/15/13 11:35	02/15/13 18:08

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68719-1

Client Sample ID: SO-1620-IM-CPT-22-13 (2.5-5) - 20120215

Lab Sample ID: 600-68719-1

Date Collected: 02/15/13 10:20

Matrix: Solid

Date Received: 02/15/13 18:08

Percent Solids: 94.5

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	0.00232	U	0.0106	0.00232	mg/Kg	☼		02/20/13 12:31	1
Benzene	0.000667	U	0.00529	0.000667	mg/Kg	☼		02/20/13 12:31	1
1,2-Dichloroethane	0.000953	U	0.00529	0.000953	mg/Kg	☼		02/20/13 12:31	1
Toluene	0.00146	U	0.00529	0.00146	mg/Kg	☼		02/20/13 12:31	1
Chlorobenzene	0.00102	U	0.00529	0.00102	mg/Kg	☼		02/20/13 12:31	1
Ethylbenzene	0.00108	U	0.00529	0.00108	mg/Kg	☼		02/20/13 12:31	1
Xylenes, Total	0.00120	U	0.00529	0.00120	mg/Kg	☼		02/20/13 12:31	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	91		61 - 130					02/20/13 12:31	1
Dibromofluoromethane	73		68 - 140					02/20/13 12:31	1
Toluene-d8 (Surr)	114		50 - 130					02/20/13 12:31	1
4-Bromofluorobenzene	107		57 - 140					02/20/13 12:31	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.224	U	0.881	0.224	mg/Kg	☼	02/20/13 15:28	02/21/13 20:28	50
Nitrobenzene	0.156	U	0.881	0.156	mg/Kg	☼	02/20/13 15:28	02/21/13 20:28	50
2,4-Dimethylphenol	0.454	U	0.881	0.454	mg/Kg	☼	02/20/13 15:28	02/21/13 20:28	50
Bis(2-chloroethoxy)methane	0.0751	U	0.881	0.0751	mg/Kg	☼	02/20/13 15:28	02/21/13 20:28	50
Naphthalene	0.0714	U	0.881	0.0714	mg/Kg	☼	02/20/13 15:28	02/21/13 20:28	50
2-Methylnaphthalene	0.145	U	0.881	0.145	mg/Kg	☼	02/20/13 15:28	02/21/13 20:28	50
2-Chloronaphthalene	0.0640	U	0.881	0.0640	mg/Kg	☼	02/20/13 15:28	02/21/13 20:28	50
Acenaphthylene	0.0529	U	0.881	0.0529	mg/Kg	☼	02/20/13 15:28	02/21/13 20:28	50
2,6-Dinitrotoluene	0.156	U	0.881	0.156	mg/Kg	☼	02/20/13 15:28	02/21/13 20:28	50
Acenaphthene	0.0761	U	0.881	0.0761	mg/Kg	☼	02/20/13 15:28	02/21/13 20:28	50
4-Nitrophenol	0.269	U	0.881	0.269	mg/Kg	☼	02/20/13 15:28	02/21/13 20:28	50
Dibenzofuran	0.0941	U	0.881	0.0941	mg/Kg	☼	02/20/13 15:28	02/21/13 20:28	50
2,4-Dinitrotoluene	0.191	U	0.881	0.191	mg/Kg	☼	02/20/13 15:28	02/21/13 20:28	50
Fluorene	0.125	U	0.881	0.125	mg/Kg	☼	02/20/13 15:28	02/21/13 20:28	50
4,6-Dinitro-2-methylphenol	0.263	U	0.881	0.263	mg/Kg	☼	02/20/13 15:28	02/21/13 20:28	50
N-Nitrosodiphenylamine	0.0999	U	0.881	0.0999	mg/Kg	☼	02/20/13 15:28	02/21/13 20:28	50
1,2-Diphenylhydrazine	0.0856	U	0.881	0.0856	mg/Kg	☼	02/20/13 15:28	02/21/13 20:28	50
Pentachlorophenol	0.211	U	8.83	0.211	mg/Kg	☼	02/20/13 15:28	02/21/13 20:28	50
Phenanthrene	0.262	U	0.881	0.262	mg/Kg	☼	02/20/13 15:28	02/21/13 20:28	50
Anthracene	0.251	J	0.881	0.0677	mg/Kg	☼	02/20/13 15:28	02/21/13 20:28	50
Di-n-butyl phthalate	0.137	U	3.52	0.137	mg/Kg	☼	02/20/13 15:28	02/21/13 20:28	50
Fluoranthene	0.164	U	0.881	0.164	mg/Kg	☼	02/20/13 15:28	02/21/13 20:28	50
Pyrene	0.179	J	0.881	0.0967	mg/Kg	☼	02/20/13 15:28	02/21/13 20:28	50
Benzo[a]anthracene	0.0730	U	0.881	0.0730	mg/Kg	☼	02/20/13 15:28	02/21/13 20:28	50
Bis(2-ethylhexyl) phthalate	0.284	U	3.52	0.284	mg/Kg	☼	02/20/13 15:28	02/21/13 20:28	50
Chrysene	0.0539	U	0.881	0.0539	mg/Kg	☼	02/20/13 15:28	02/21/13 20:28	50
Benzo[a]pyrene	0.0851	U	0.881	0.0851	mg/Kg	☼	02/20/13 15:28	02/21/13 20:28	50
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorophenol	0	X	23 - 108				02/20/13 15:28	02/21/13 20:28	50
Phenol-d6	0	X	26 - 108				02/20/13 15:28	02/21/13 20:28	50
Nitrobenzene-d5	0	X	34 - 118				02/20/13 15:28	02/21/13 20:28	50
2-Fluorobiphenyl	0	X	51 - 109				02/20/13 15:28	02/21/13 20:28	50
2,4,6-Tribromophenol	0	X	34 - 122				02/20/13 15:28	02/21/13 20:28	50

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68719-1

Client Sample ID: SO-1620-IM-CPT-22-13 (2.5-5) - 20120215

Lab Sample ID: 600-68719-1

Date Collected: 02/15/13 10:20

Matrix: Solid

Date Received: 02/15/13 18:08

Percent Solids: 94.5

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Terphenyl-d14	0	X	56 - 123	02/20/13 15:28	02/21/13 20:28	50

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	2.19		0.971	0.212	mg/Kg	☼	02/19/13 16:17	02/25/13 14:29	1
Lead	10.2		0.486	0.102	mg/Kg	☼	02/19/13 16:17	02/21/13 16:36	1

General Chemistry

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	5.5		1.0	1.0	%			02/18/13 17:15	1
Percent Solids	94		1.0	1.0	%			02/18/13 17:15	1

Client Sample ID: SO-1620-IM-CPT-22-13 (7.5-10) - 20120215

Lab Sample ID: 600-68719-2

Date Collected: 02/15/13 10:30

Matrix: Solid

Date Received: 02/15/13 18:08

Percent Solids: 81.5

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	0.00345	J	0.0123	0.00269	mg/Kg	☼		02/21/13 16:31	1
Benzene	0.000773	U	0.00613	0.000773	mg/Kg	☼		02/21/13 16:31	1
1,2-Dichloroethane	0.00110	U	0.00613	0.00110	mg/Kg	☼		02/21/13 16:31	1
Toluene	0.00169	U	0.00613	0.00169	mg/Kg	☼		02/21/13 16:31	1
Chlorobenzene	0.00118	U	0.00613	0.00118	mg/Kg	☼		02/21/13 16:31	1
Ethylbenzene	0.00125	U	0.00613	0.00125	mg/Kg	☼		02/21/13 16:31	1
Xylenes, Total	0.00139	U	0.00613	0.00139	mg/Kg	☼		02/21/13 16:31	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	83		61 - 130		02/21/13 16:31	1
Dibromofluoromethane	101		68 - 140		02/21/13 16:31	1
Toluene-d8 (Surr)	101		50 - 130		02/21/13 16:31	1
4-Bromofluorobenzene	159	X	57 - 140		02/21/13 16:31	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.259	U	1.02	0.259	mg/Kg	☼	02/20/13 15:28	02/21/13 20:54	50
Nitrobenzene	0.181	U	1.02	0.181	mg/Kg	☼	02/20/13 15:28	02/21/13 20:54	50
2,4-Dimethylphenol	0.525	U	1.02	0.525	mg/Kg	☼	02/20/13 15:28	02/21/13 20:54	50
Bis(2-chloroethoxy)methane	0.0869	U	1.02	0.0869	mg/Kg	☼	02/20/13 15:28	02/21/13 20:54	50
Naphthalene	0.0826	U	1.02	0.0826	mg/Kg	☼	02/20/13 15:28	02/21/13 20:54	50
2-Methylnaphthalene	0.168	U	1.02	0.168	mg/Kg	☼	02/20/13 15:28	02/21/13 20:54	50
2-Chloronaphthalene	0.0740	U	1.02	0.0740	mg/Kg	☼	02/20/13 15:28	02/21/13 20:54	50
Acenaphthylene	0.0612	U	1.02	0.0612	mg/Kg	☼	02/20/13 15:28	02/21/13 20:54	50
2,6-Dinitrotoluene	0.180	U	1.02	0.180	mg/Kg	☼	02/20/13 15:28	02/21/13 20:54	50
Acenaphthene	0.0881	U	1.02	0.0881	mg/Kg	☼	02/20/13 15:28	02/21/13 20:54	50
4-Nitrophenol	0.311	U	1.02	0.311	mg/Kg	☼	02/20/13 15:28	02/21/13 20:54	50
Dibenzofuran	0.109	U	1.02	0.109	mg/Kg	☼	02/20/13 15:28	02/21/13 20:54	50
2,4-Dinitrotoluene	0.221	U	1.02	0.221	mg/Kg	☼	02/20/13 15:28	02/21/13 20:54	50
Fluorene	0.760	J	1.02	0.144	mg/Kg	☼	02/20/13 15:28	02/21/13 20:54	50
4,6-Dinitro-2-methylphenol	0.305	U	1.02	0.305	mg/Kg	☼	02/20/13 15:28	02/21/13 20:54	50
N-Nitrosodiphenylamine	0.116	U	1.02	0.116	mg/Kg	☼	02/20/13 15:28	02/21/13 20:54	50

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68719-1

Client Sample ID: SO-1620-IM-CPT-22-13 (7.5-10) - 20120215

Lab Sample ID: 600-68719-2

Date Collected: 02/15/13 10:30

Matrix: Solid

Date Received: 02/15/13 18:08

Percent Solids: 81.5

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Diphenylhydrazine	0.0991	U	1.02	0.0991	mg/Kg	☼	02/20/13 15:28	02/21/13 20:54	50
Pentachlorophenol	0.245	U	10.2	0.245	mg/Kg	☼	02/20/13 15:28	02/21/13 20:54	50
Phenanthrene	1.11		1.02	0.303	mg/Kg	☼	02/20/13 15:28	02/21/13 20:54	50
Anthracene	0.195	J	1.02	0.0783	mg/Kg	☼	02/20/13 15:28	02/21/13 20:54	50
Di-n-butyl phthalate	0.158	U	4.08	0.158	mg/Kg	☼	02/20/13 15:28	02/21/13 20:54	50
Fluoranthene	0.190	U	1.02	0.190	mg/Kg	☼	02/20/13 15:28	02/21/13 20:54	50
Pyrene	0.112	U	1.02	0.112	mg/Kg	☼	02/20/13 15:28	02/21/13 20:54	50
Benzo[a]anthracene	0.0844	U	1.02	0.0844	mg/Kg	☼	02/20/13 15:28	02/21/13 20:54	50
Bis(2-ethylhexyl) phthalate	0.329	U	4.08	0.329	mg/Kg	☼	02/20/13 15:28	02/21/13 20:54	50
Chrysene	0.0624	U	1.02	0.0624	mg/Kg	☼	02/20/13 15:28	02/21/13 20:54	50
Benzo[a]pyrene	0.0985	U	1.02	0.0985	mg/Kg	☼	02/20/13 15:28	02/21/13 20:54	50

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	0	X	23 - 108	02/20/13 15:28	02/21/13 20:54	50
Phenol-d6	0	X	26 - 108	02/20/13 15:28	02/21/13 20:54	50
Nitrobenzene-d5	0	X	34 - 118	02/20/13 15:28	02/21/13 20:54	50
2-Fluorobiphenyl	0	X	51 - 109	02/20/13 15:28	02/21/13 20:54	50
2,4,6-Tribromophenol	0	X	34 - 122	02/20/13 15:28	02/21/13 20:54	50
Terphenyl-d14	0	X	56 - 123	02/20/13 15:28	02/21/13 20:54	50

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	1.41		1.23	0.267	mg/Kg	☼	02/19/13 16:17	02/25/13 14:31	1
Lead	5.39		0.613	0.129	mg/Kg	☼	02/19/13 16:17	02/21/13 16:38	1

General Chemistry

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	18		1.0	1.0	%			02/18/13 17:15	1
Percent Solids	82		1.0	1.0	%			02/18/13 17:15	1

Client Sample ID: SO-1620-IM-CPT-17-13 (2.3-5) - 20120215

Lab Sample ID: 600-68719-3

Date Collected: 02/15/13 13:50

Matrix: Solid

Date Received: 02/15/13 18:08

Percent Solids: 43.3

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	0.0142	J	0.0231	0.00506	mg/Kg	☼		02/20/13 20:47	1
Benzene	0.00841	J	0.0116	0.00146	mg/Kg	☼		02/20/13 20:47	1
1,2-Dichloroethane	0.00208	U	0.0116	0.00208	mg/Kg	☼		02/20/13 20:47	1
Toluene	0.0111	J	0.0116	0.00319	mg/Kg	☼		02/20/13 20:47	1
Chlorobenzene	0.00222	U	0.0116	0.00222	mg/Kg	☼		02/20/13 20:47	1
Ethylbenzene	0.0197		0.0116	0.00236	mg/Kg	☼		02/20/13 20:47	1
Xylenes, Total	0.0646		0.0116	0.00261	mg/Kg	☼		02/20/13 20:47	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	97		61 - 130		02/20/13 20:47	1
Dibromofluoromethane	116		68 - 140		02/20/13 20:47	1
Toluene-d8 (Surr)	126		50 - 130		02/20/13 20:47	1
4-Bromofluorobenzene	129		57 - 140		02/20/13 20:47	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68719-1

Client Sample ID: SO-1620-IM-CPT-17-13 (2.3-5) - 20120215

Lab Sample ID: 600-68719-3

Date Collected: 02/15/13 13:50

Matrix: Solid

Date Received: 02/15/13 18:08

Percent Solids: 43.3

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	4.89	U	19.2	4.89	mg/Kg	☼	02/20/13 15:28	02/21/13 21:21	50
Nitrobenzene	3.41	U	19.2	3.41	mg/Kg	☼	02/20/13 15:28	02/21/13 21:21	50
2,4-Dimethylphenol	9.90	U	19.2	9.90	mg/Kg	☼	02/20/13 15:28	02/21/13 21:21	50
Bis(2-chloroethoxy)methane	1.64	U	19.2	1.64	mg/Kg	☼	02/20/13 15:28	02/21/13 21:21	50
Naphthalene	7.60	J	19.2	1.56	mg/Kg	☼	02/20/13 15:28	02/21/13 21:21	50
2-Methylnaphthalene	55.6		19.2	3.16	mg/Kg	☼	02/20/13 15:28	02/21/13 21:21	50
2-Chloronaphthalene	1.40	U	19.2	1.40	mg/Kg	☼	02/20/13 15:28	02/21/13 21:21	50
Acenaphthylene	1.15	U	19.2	1.15	mg/Kg	☼	02/20/13 15:28	02/21/13 21:21	50
2,6-Dinitrotoluene	3.40	U	19.2	3.40	mg/Kg	☼	02/20/13 15:28	02/21/13 21:21	50
Acenaphthene	6.54	J	19.2	1.66	mg/Kg	☼	02/20/13 15:28	02/21/13 21:21	50
4-Nitrophenol	5.86	U	19.2	5.86	mg/Kg	☼	02/20/13 15:28	02/21/13 21:21	50
Dibenzofuran	2.05	U	19.2	2.05	mg/Kg	☼	02/20/13 15:28	02/21/13 21:21	50
2,4-Dinitrotoluene	4.16	U	19.2	4.16	mg/Kg	☼	02/20/13 15:28	02/21/13 21:21	50
Fluorene	11.3	J	19.2	2.72	mg/Kg	☼	02/20/13 15:28	02/21/13 21:21	50
4,6-Dinitro-2-methylphenol	5.74	U	19.2	5.74	mg/Kg	☼	02/20/13 15:28	02/21/13 21:21	50
N-Nitrosodiphenylamine	2.18	U	19.2	2.18	mg/Kg	☼	02/20/13 15:28	02/21/13 21:21	50
1,2-Diphenylhydrazine	1.87	U	19.2	1.87	mg/Kg	☼	02/20/13 15:28	02/21/13 21:21	50
Pentachlorophenol	4.61	U	193	4.61	mg/Kg	☼	02/20/13 15:28	02/21/13 21:21	50
Phenanthrene	27.1		19.2	5.71	mg/Kg	☼	02/20/13 15:28	02/21/13 21:21	50
Anthracene	41.3		19.2	1.48	mg/Kg	☼	02/20/13 15:28	02/21/13 21:21	50
Di-n-butyl phthalate	2.99	U	76.9	2.99	mg/Kg	☼	02/20/13 15:28	02/21/13 21:21	50
Fluoranthene	3.59	U	19.2	3.59	mg/Kg	☼	02/20/13 15:28	02/21/13 21:21	50
Pyrene	47.4		19.2	2.11	mg/Kg	☼	02/20/13 15:28	02/21/13 21:21	50
Benzo[a]anthracene	8.50	J	19.2	1.59	mg/Kg	☼	02/20/13 15:28	02/21/13 21:21	50
Bis(2-ethylhexyl) phthalate	6.19	U	76.9	6.19	mg/Kg	☼	02/20/13 15:28	02/21/13 21:21	50
Chrysene	15.5	J	19.2	1.18	mg/Kg	☼	02/20/13 15:28	02/21/13 21:21	50
Benzo[a]pyrene	14.5	J	19.2	1.86	mg/Kg	☼	02/20/13 15:28	02/21/13 21:21	50

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	0	X	23 - 108	02/20/13 15:28	02/21/13 21:21	50
Phenol-d6	0	X	26 - 108	02/20/13 15:28	02/21/13 21:21	50
Nitrobenzene-d5	0	X	34 - 118	02/20/13 15:28	02/21/13 21:21	50
2-Fluorobiphenyl	0	X	51 - 109	02/20/13 15:28	02/21/13 21:21	50
2,4,6-Tribromophenol	0	X	34 - 122	02/20/13 15:28	02/21/13 21:21	50
Terphenyl-d14	0	X	56 - 123	02/20/13 15:28	02/21/13 21:21	50

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	3.01		2.24	0.489	mg/Kg	☼	02/19/13 16:17	02/25/13 14:33	1
Lead	151		1.12	0.235	mg/Kg	☼	02/19/13 16:17	02/21/13 16:41	1

General Chemistry

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	57		1.0	1.0	%			02/18/13 17:15	1
Percent Solids	43		1.0	1.0	%			02/18/13 17:15	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68719-1

Client Sample ID: SO-1620-IM-CPT-17-13 (13-15) - 20120215

Lab Sample ID: 600-68719-4

Date Collected: 02/15/13 14:30

Matrix: Solid

Date Received: 02/15/13 18:08

Percent Solids: 61.1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	0.00358	U	0.0164	0.00358	mg/Kg	☼		02/21/13 16:55	1
Benzene	0.00117	J	0.00818	0.00103	mg/Kg	☼		02/21/13 16:55	1
1,2-Dichloroethane	0.00147	U	0.00818	0.00147	mg/Kg	☼		02/21/13 16:55	1
Toluene	0.0406		0.00818	0.00226	mg/Kg	☼		02/21/13 16:55	1
Chlorobenzene	0.00157	U	0.00818	0.00157	mg/Kg	☼		02/21/13 16:55	1
Ethylbenzene	0.0876		0.00818	0.00167	mg/Kg	☼		02/21/13 16:55	1
Xylenes, Total	0.328		0.00818	0.00185	mg/Kg	☼		02/21/13 16:55	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	94		61 - 130		02/21/13 16:55	1
Dibromofluoromethane	117		68 - 140		02/21/13 16:55	1
Toluene-d8 (Surr)	109		50 - 130		02/21/13 16:55	1
4-Bromofluorobenzene	120		57 - 140		02/21/13 16:55	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.346	U	1.36	0.346	mg/Kg	☼	02/20/13 15:28	02/21/13 21:48	50
Nitrobenzene	0.242	U	1.36	0.242	mg/Kg	☼	02/20/13 15:28	02/21/13 21:48	50
2,4-Dimethylphenol	0.700	U	1.36	0.700	mg/Kg	☼	02/20/13 15:28	02/21/13 21:48	50
Bis(2-chloroethoxy)methane	0.116	U	1.36	0.116	mg/Kg	☼	02/20/13 15:28	02/21/13 21:48	50
Naphthalene	52.2		1.36	0.110	mg/Kg	☼	02/20/13 15:28	02/21/13 21:48	50
2-Methylnaphthalene	13.4		1.36	0.224	mg/Kg	☼	02/20/13 15:28	02/21/13 21:48	50
2-Chloronaphthalene	0.0988	U	1.36	0.0988	mg/Kg	☼	02/20/13 15:28	02/21/13 21:48	50
Acenaphthylene	0.358	J	1.36	0.0816	mg/Kg	☼	02/20/13 15:28	02/21/13 21:48	50
2,6-Dinitrotoluene	1.47		1.36	0.241	mg/Kg	☼	02/20/13 15:28	02/21/13 21:48	50
Acenaphthene	12.4		1.36	0.118	mg/Kg	☼	02/20/13 15:28	02/21/13 21:48	50
4-Nitrophenol	0.415	U	1.36	0.415	mg/Kg	☼	02/20/13 15:28	02/21/13 21:48	50
Dibenzofuran	0.145	U	1.36	0.145	mg/Kg	☼	02/20/13 15:28	02/21/13 21:48	50
2,4-Dinitrotoluene	0.295	U	1.36	0.295	mg/Kg	☼	02/20/13 15:28	02/21/13 21:48	50
Fluorene	12.0		1.36	0.193	mg/Kg	☼	02/20/13 15:28	02/21/13 21:48	50
4,6-Dinitro-2-methylphenol	0.407	U	1.36	0.407	mg/Kg	☼	02/20/13 15:28	02/21/13 21:48	50
N-Nitrosodiphenylamine	0.154	U	1.36	0.154	mg/Kg	☼	02/20/13 15:28	02/21/13 21:48	50
1,2-Diphenylhydrazine	0.132	U	1.36	0.132	mg/Kg	☼	02/20/13 15:28	02/21/13 21:48	50
Pentachlorophenol	0.327	U	13.6	0.327	mg/Kg	☼	02/20/13 15:28	02/21/13 21:48	50
Phenanthrene	31.5		1.36	0.404	mg/Kg	☼	02/20/13 15:28	02/21/13 21:48	50
Anthracene	6.01		1.36	0.104	mg/Kg	☼	02/20/13 15:28	02/21/13 21:48	50
Di-n-butyl phthalate	0.211	U	5.44	0.211	mg/Kg	☼	02/20/13 15:28	02/21/13 21:48	50
Fluoranthene	11.0		1.36	0.254	mg/Kg	☼	02/20/13 15:28	02/21/13 21:48	50
Pyrene	6.73		1.36	0.149	mg/Kg	☼	02/20/13 15:28	02/21/13 21:48	50
Benzo[a]anthracene	1.46		1.36	0.113	mg/Kg	☼	02/20/13 15:28	02/21/13 21:48	50
Bis(2-ethylhexyl) phthalate	0.438	U	5.44	0.438	mg/Kg	☼	02/20/13 15:28	02/21/13 21:48	50
Chrysene	1.25	J	1.36	0.0833	mg/Kg	☼	02/20/13 15:28	02/21/13 21:48	50
Benzo[a]pyrene	1.13	J	1.36	0.131	mg/Kg	☼	02/20/13 15:28	02/21/13 21:48	50

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	0	X	23 - 108	02/20/13 15:28	02/21/13 21:48	50
Phenol-d6	0	X	26 - 108	02/20/13 15:28	02/21/13 21:48	50
Nitrobenzene-d5	0	X	34 - 118	02/20/13 15:28	02/21/13 21:48	50
2-Fluorobiphenyl	0	X	51 - 109	02/20/13 15:28	02/21/13 21:48	50
2,4,6-Tribromophenol	0	X	34 - 122	02/20/13 15:28	02/21/13 21:48	50

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68719-1

Client Sample ID: SO-1620-IM-CPT-17-13 (13-15) - 20120215

Lab Sample ID: 600-68719-4

Date Collected: 02/15/13 14:30

Matrix: Solid

Date Received: 02/15/13 18:08

Percent Solids: 61.1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Terphenyl-d14	0	X	56 - 123	02/20/13 15:28	02/21/13 21:48	50

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	2.82		1.60	0.350	mg/Kg	☼	02/19/13 16:17	02/25/13 14:36	1
Lead	6.46		0.802	0.168	mg/Kg	☼	02/19/13 16:17	02/21/13 16:43	1

General Chemistry

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	39		1.0	1.0	%			02/18/13 17:15	1
Percent Solids	61		1.0	1.0	%			02/18/13 17:15	1

Client Sample ID: SO-1620-IM-CPT-10-13 (2-5) - 20120215

Lab Sample ID: 600-68719-5

Date Collected: 02/15/13 12:55

Matrix: Solid

Date Received: 02/15/13 18:08

Percent Solids: 86.3

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	0.00254	U	0.0116	0.00254	mg/Kg	☼		02/20/13 21:11	1
Benzene	0.000950	J	0.00579	0.000730	mg/Kg	☼		02/20/13 21:11	1
1,2-Dichloroethane	0.00104	U	0.00579	0.00104	mg/Kg	☼		02/20/13 21:11	1
Toluene	0.00261	J	0.00579	0.00160	mg/Kg	☼		02/20/13 21:11	1
Chlorobenzene	0.00111	U	0.00579	0.00111	mg/Kg	☼		02/20/13 21:11	1
Ethylbenzene	0.00289	J	0.00579	0.00118	mg/Kg	☼		02/20/13 21:11	1
Xylenes, Total	0.0180		0.00579	0.00131	mg/Kg	☼		02/20/13 21:11	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	87		61 - 130		02/20/13 21:11	1
Dibromofluoromethane	114		68 - 140		02/20/13 21:11	1
Toluene-d8 (Surr)	120		50 - 130		02/20/13 21:11	1
4-Bromofluorobenzene	151	X	57 - 140		02/20/13 21:11	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	2.46	U	9.66	2.46	mg/Kg	☼	02/20/13 15:28	02/21/13 22:15	50
Nitrobenzene	1.72	U	9.66	1.72	mg/Kg	☼	02/20/13 15:28	02/21/13 22:15	50
2,4-Dimethylphenol	4.97	U	9.66	4.97	mg/Kg	☼	02/20/13 15:28	02/21/13 22:15	50
Bis(2-chloroethoxy)methane	0.823	U	9.66	0.823	mg/Kg	☼	02/20/13 15:28	02/21/13 22:15	50
Naphthalene	0.782	U	9.66	0.782	mg/Kg	☼	02/20/13 15:28	02/21/13 22:15	50
2-Methylnaphthalene	1.59	U	9.66	1.59	mg/Kg	☼	02/20/13 15:28	02/21/13 22:15	50
2-Chloronaphthalene	0.701	U	9.66	0.701	mg/Kg	☼	02/20/13 15:28	02/21/13 22:15	50
Acenaphthylene	0.579	U	9.66	0.579	mg/Kg	☼	02/20/13 15:28	02/21/13 22:15	50
2,6-Dinitrotoluene	1.71	U	9.66	1.71	mg/Kg	☼	02/20/13 15:28	02/21/13 22:15	50
Acenaphthene	0.834	U	9.66	0.834	mg/Kg	☼	02/20/13 15:28	02/21/13 22:15	50
4-Nitrophenol	2.94	U	9.66	2.94	mg/Kg	☼	02/20/13 15:28	02/21/13 22:15	50
Dibenzofuran	1.03	U	9.66	1.03	mg/Kg	☼	02/20/13 15:28	02/21/13 22:15	50
2,4-Dinitrotoluene	2.09	U	9.66	2.09	mg/Kg	☼	02/20/13 15:28	02/21/13 22:15	50
Fluorene	1.37	U	9.66	1.37	mg/Kg	☼	02/20/13 15:28	02/21/13 22:15	50
4,6-Dinitro-2-methylphenol	2.89	U	9.66	2.89	mg/Kg	☼	02/20/13 15:28	02/21/13 22:15	50
N-Nitrosodiphenylamine	1.10	U	9.66	1.10	mg/Kg	☼	02/20/13 15:28	02/21/13 22:15	50

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68719-1

Client Sample ID: SO-1620-IM-CPT-10-13 (2-5) - 20120215

Lab Sample ID: 600-68719-5

Date Collected: 02/15/13 12:55

Matrix: Solid

Date Received: 02/15/13 18:08

Percent Solids: 86.3

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Diphenylhydrazine	0.939	U	9.66	0.939	mg/Kg	☼	02/20/13 15:28	02/21/13 22:15	50
Pentachlorophenol	2.32	U	96.8	2.32	mg/Kg	☼	02/20/13 15:28	02/21/13 22:15	50
Phenanthrene	3.49	J	9.66	2.87	mg/Kg	☼	02/20/13 15:28	02/21/13 22:15	50
Anthracene	3.57	J	9.66	0.742	mg/Kg	☼	02/20/13 15:28	02/21/13 22:15	50
Di-n-butyl phthalate	1.50	U	38.6	1.50	mg/Kg	☼	02/20/13 15:28	02/21/13 22:15	50
Fluoranthene	1.80	U	9.66	1.80	mg/Kg	☼	02/20/13 15:28	02/21/13 22:15	50
Pyrene	3.30	J	9.66	1.06	mg/Kg	☼	02/20/13 15:28	02/21/13 22:15	50
Benzo[a]anthracene	0.800	U	9.66	0.800	mg/Kg	☼	02/20/13 15:28	02/21/13 22:15	50
Bis(2-ethylhexyl) phthalate	3.11	U	38.6	3.11	mg/Kg	☼	02/20/13 15:28	02/21/13 22:15	50
Chrysene	0.591	U	9.66	0.591	mg/Kg	☼	02/20/13 15:28	02/21/13 22:15	50
Benzo[a]pyrene	6.12	J	9.66	0.933	mg/Kg	☼	02/20/13 15:28	02/21/13 22:15	50

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	0	X	23 - 108	02/20/13 15:28	02/21/13 22:15	50
Phenol-d6	0	X	26 - 108	02/20/13 15:28	02/21/13 22:15	50
Nitrobenzene-d5	0	X	34 - 118	02/20/13 15:28	02/21/13 22:15	50
2-Fluorobiphenyl	0	X	51 - 109	02/20/13 15:28	02/21/13 22:15	50
2,4,6-Tribromophenol	0	X	34 - 122	02/20/13 15:28	02/21/13 22:15	50
Terphenyl-d14	0	X	56 - 123	02/20/13 15:28	02/21/13 22:15	50

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	9.73		1.07	0.234	mg/Kg	☼	02/19/13 16:17	02/25/13 14:51	1
Lead	420		0.537	0.112	mg/Kg	☼	02/19/13 16:17	02/21/13 16:59	1

General Chemistry

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	14		1.0	1.0	%			02/18/13 17:15	1
Percent Solids	86		1.0	1.0	%			02/18/13 17:15	1

Client Sample ID: SO-1620-IM-CPT-10-13 (5-7.5) - 20120215

Lab Sample ID: 600-68719-6

Date Collected: 02/15/13 13:25

Matrix: Solid

Date Received: 02/15/13 18:08

Percent Solids: 90.1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	0.00243	U	0.0111	0.00243	mg/Kg	☼		02/21/13 10:58	1
Benzene	0.000699	U	0.00555	0.000699	mg/Kg	☼		02/21/13 10:58	1
1,2-Dichloroethane	0.000999	U	0.00555	0.000999	mg/Kg	☼		02/21/13 10:58	1
Toluene	0.00153	U	0.00555	0.00153	mg/Kg	☼		02/21/13 10:58	1
Chlorobenzene	0.00107	U	0.00555	0.00107	mg/Kg	☼		02/21/13 10:58	1
Ethylbenzene	0.00113	U	0.00555	0.00113	mg/Kg	☼		02/21/13 10:58	1
Xylenes, Total	0.00125	U	0.00555	0.00125	mg/Kg	☼		02/21/13 10:58	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	80		61 - 130		02/21/13 10:58	1
Dibromofluoromethane	102		68 - 140		02/21/13 10:58	1
Toluene-d8 (Surr)	106		50 - 130		02/21/13 10:58	1
4-Bromofluorobenzene	119		57 - 140		02/21/13 10:58	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68719-1

Client Sample ID: SO-1620-IM-CPT-10-13 (5-7.5) - 20120215

Lab Sample ID: 600-68719-6

Date Collected: 02/15/13 13:25

Matrix: Solid

Date Received: 02/15/13 18:08

Percent Solids: 90.1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.235	U	0.923	0.235	mg/Kg	☼	02/20/13 15:28	02/21/13 22:42	50
Nitrobenzene	0.164	U	0.923	0.164	mg/Kg	☼	02/20/13 15:28	02/21/13 22:42	50
2,4-Dimethylphenol	0.475	U	0.923	0.475	mg/Kg	☼	02/20/13 15:28	02/21/13 22:42	50
Bis(2-chloroethoxy)methane	0.0786	U	0.923	0.0786	mg/Kg	☼	02/20/13 15:28	02/21/13 22:42	50
Naphthalene	0.0748	U	0.923	0.0748	mg/Kg	☼	02/20/13 15:28	02/21/13 22:42	50
2-Methylnaphthalene	0.152	U	0.923	0.152	mg/Kg	☼	02/20/13 15:28	02/21/13 22:42	50
2-Chloronaphthalene	0.0670	U	0.923	0.0670	mg/Kg	☼	02/20/13 15:28	02/21/13 22:42	50
Acenaphthylene	0.0554	U	0.923	0.0554	mg/Kg	☼	02/20/13 15:28	02/21/13 22:42	50
2,6-Dinitrotoluene	0.163	U	0.923	0.163	mg/Kg	☼	02/20/13 15:28	02/21/13 22:42	50
Acenaphthene	0.0798	U	0.923	0.0798	mg/Kg	☼	02/20/13 15:28	02/21/13 22:42	50
4-Nitrophenol	0.281	U	0.923	0.281	mg/Kg	☼	02/20/13 15:28	02/21/13 22:42	50
Dibenzofuran	0.0986	U	0.923	0.0986	mg/Kg	☼	02/20/13 15:28	02/21/13 22:42	50
2,4-Dinitrotoluene	0.200	U	0.923	0.200	mg/Kg	☼	02/20/13 15:28	02/21/13 22:42	50
Fluorene	0.131	U	0.923	0.131	mg/Kg	☼	02/20/13 15:28	02/21/13 22:42	50
4,6-Dinitro-2-methylphenol	0.276	U	0.923	0.276	mg/Kg	☼	02/20/13 15:28	02/21/13 22:42	50
N-Nitrosodiphenylamine	0.105	U	0.923	0.105	mg/Kg	☼	02/20/13 15:28	02/21/13 22:42	50
1,2-Diphenylhydrazine	0.0897	U	0.923	0.0897	mg/Kg	☼	02/20/13 15:28	02/21/13 22:42	50
Pentachlorophenol	0.222	U	9.25	0.222	mg/Kg	☼	02/20/13 15:28	02/21/13 22:42	50
Phenanthrene	0.274	U	0.923	0.274	mg/Kg	☼	02/20/13 15:28	02/21/13 22:42	50
Anthracene	0.0709	U	0.923	0.0709	mg/Kg	☼	02/20/13 15:28	02/21/13 22:42	50
Di-n-butyl phthalate	0.143	U	3.69	0.143	mg/Kg	☼	02/20/13 15:28	02/21/13 22:42	50
Fluoranthene	0.172	U	0.923	0.172	mg/Kg	☼	02/20/13 15:28	02/21/13 22:42	50
Pyrene	0.101	U	0.923	0.101	mg/Kg	☼	02/20/13 15:28	02/21/13 22:42	50
Benzo[a]anthracene	0.0764	U	0.923	0.0764	mg/Kg	☼	02/20/13 15:28	02/21/13 22:42	50
Bis(2-ethylhexyl) phthalate	0.297	U	3.69	0.297	mg/Kg	☼	02/20/13 15:28	02/21/13 22:42	50
Chrysene	0.0565	U	0.923	0.0565	mg/Kg	☼	02/20/13 15:28	02/21/13 22:42	50
Benzo[a]pyrene	0.0892	U	0.923	0.0892	mg/Kg	☼	02/20/13 15:28	02/21/13 22:42	50

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	0	X	23 - 108	02/20/13 15:28	02/21/13 22:42	50
Phenol-d6	0	X	26 - 108	02/20/13 15:28	02/21/13 22:42	50
Nitrobenzene-d5	0	X	34 - 118	02/20/13 15:28	02/21/13 22:42	50
2-Fluorobiphenyl	0	X	51 - 109	02/20/13 15:28	02/21/13 22:42	50
2,4,6-Tribromophenol	0	X	34 - 122	02/20/13 15:28	02/21/13 22:42	50
Terphenyl-d14	0	X	56 - 123	02/20/13 15:28	02/21/13 22:42	50

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	7.24		1.06	0.230	mg/Kg	☼	02/19/13 16:17	02/25/13 14:54	1
Lead	43.8		0.528	0.111	mg/Kg	☼	02/19/13 16:17	02/21/13 17:01	1

General Chemistry

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	9.9		1.0	1.0	%			02/18/13 17:15	1
Percent Solids	90		1.0	1.0	%			02/18/13 17:15	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68719-1

Client Sample ID: SO-1620-IM-CPT-18-13 (1.7-5) - 20120214

Lab Sample ID: 600-68719-7

Date Collected: 02/14/13 15:05

Matrix: Solid

Date Received: 02/15/13 18:08

Percent Solids: 89.0

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	0.00246	U	0.0112	0.00246	mg/Kg	☼		02/21/13 10:35	1
Benzene	0.000708	U	0.00562	0.000708	mg/Kg	☼		02/21/13 10:35	1
1,2-Dichloroethane	0.00101	U	0.00562	0.00101	mg/Kg	☼		02/21/13 10:35	1
Toluene	0.00155	U	0.00562	0.00155	mg/Kg	☼		02/21/13 10:35	1
Chlorobenzene	0.00108	U	0.00562	0.00108	mg/Kg	☼		02/21/13 10:35	1
Ethylbenzene	0.00115	U	0.00562	0.00115	mg/Kg	☼		02/21/13 10:35	1
Xylenes, Total	0.00192	J	0.00562	0.00127	mg/Kg	☼		02/21/13 10:35	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	82		61 - 130		02/21/13 10:35	1
Dibromofluoromethane	90		68 - 140		02/21/13 10:35	1
Toluene-d8 (Surr)	108		50 - 130		02/21/13 10:35	1
4-Bromofluorobenzene	104		57 - 140		02/21/13 10:35	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	2.38	U	9.36	2.38	mg/Kg	☼	02/20/13 15:28	02/22/13 00:02	50
Nitrobenzene	1.66	U	9.36	1.66	mg/Kg	☼	02/20/13 15:28	02/22/13 00:02	50
2,4-Dimethylphenol	4.82	U	9.36	4.82	mg/Kg	☼	02/20/13 15:28	02/22/13 00:02	50
Bis(2-chloroethoxy)methane	0.797	U	9.36	0.797	mg/Kg	☼	02/20/13 15:28	02/22/13 00:02	50
Naphthalene	1.93	J	9.36	0.758	mg/Kg	☼	02/20/13 15:28	02/22/13 00:02	50
2-Methylnaphthalene	2.27	J	9.36	1.54	mg/Kg	☼	02/20/13 15:28	02/22/13 00:02	50
2-Chloronaphthalene	0.679	U	9.36	0.679	mg/Kg	☼	02/20/13 15:28	02/22/13 00:02	50
Acenaphthylene	0.561	U	9.36	0.561	mg/Kg	☼	02/20/13 15:28	02/22/13 00:02	50
2,6-Dinitrotoluene	1.66	U	9.36	1.66	mg/Kg	☼	02/20/13 15:28	02/22/13 00:02	50
Acenaphthene	2.66	J	9.36	0.808	mg/Kg	☼	02/20/13 15:28	02/22/13 00:02	50
4-Nitrophenol	2.85	U	9.36	2.85	mg/Kg	☼	02/20/13 15:28	02/22/13 00:02	50
Dibenzofuran	3.01	J	9.36	0.999	mg/Kg	☼	02/20/13 15:28	02/22/13 00:02	50
2,4-Dinitrotoluene	2.03	U	9.36	2.03	mg/Kg	☼	02/20/13 15:28	02/22/13 00:02	50
Fluorene	7.79	J	9.36	1.32	mg/Kg	☼	02/20/13 15:28	02/22/13 00:02	50
4,6-Dinitro-2-methylphenol	2.79	U	9.36	2.79	mg/Kg	☼	02/20/13 15:28	02/22/13 00:02	50
N-Nitrosodiphenylamine	1.06	U	9.36	1.06	mg/Kg	☼	02/20/13 15:28	02/22/13 00:02	50
1,2-Diphenylhydrazine	0.909	U	9.36	0.909	mg/Kg	☼	02/20/13 15:28	02/22/13 00:02	50
Pentachlorophenol	2.24	U	93.7	2.24	mg/Kg	☼	02/20/13 15:28	02/22/13 00:02	50
Phenanthrene	12.4		9.36	2.78	mg/Kg	☼	02/20/13 15:28	02/22/13 00:02	50
Anthracene	70.9		9.36	0.718	mg/Kg	☼	02/20/13 15:28	02/22/13 00:02	50
Di-n-butyl phthalate	1.45	U	37.4	1.45	mg/Kg	☼	02/20/13 15:28	02/22/13 00:02	50
Fluoranthene	1.75	U	9.36	1.75	mg/Kg	☼	02/20/13 15:28	02/22/13 00:02	50
Pyrene	5.33	J	9.36	1.03	mg/Kg	☼	02/20/13 15:28	02/22/13 00:02	50
Benzo[a]anthracene	2.37	J	9.36	0.774	mg/Kg	☼	02/20/13 15:28	02/22/13 00:02	50
Bis(2-ethylhexyl) phthalate	3.01	U	37.4	3.01	mg/Kg	☼	02/20/13 15:28	02/22/13 00:02	50
Chrysene	3.29	J	9.36	0.572	mg/Kg	☼	02/20/13 15:28	02/22/13 00:02	50
Benzo[a]pyrene	6.50	J	9.36	0.904	mg/Kg	☼	02/20/13 15:28	02/22/13 00:02	50

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	0	X	23 - 108	02/20/13 15:28	02/22/13 00:02	50
Phenol-d6	0	X	26 - 108	02/20/13 15:28	02/22/13 00:02	50
Nitrobenzene-d5	0	X	34 - 118	02/20/13 15:28	02/22/13 00:02	50
2-Fluorobiphenyl	0	X	51 - 109	02/20/13 15:28	02/22/13 00:02	50
2,4,6-Tribromophenol	0	X	34 - 122	02/20/13 15:28	02/22/13 00:02	50

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68719-1

Client Sample ID: SO-1620-IM-CPT-18-13 (1.7-5) - 20120214

Lab Sample ID: 600-68719-7

Date Collected: 02/14/13 15:05

Matrix: Solid

Date Received: 02/15/13 18:08

Percent Solids: 89.0

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Terphenyl-d14	0	X	56 - 123	02/20/13 15:28	02/22/13 00:02	50

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	16.9		1.08	0.235	mg/Kg	☼	02/19/13 16:17	02/25/13 14:56	1
Lead	751		0.540	0.113	mg/Kg	☼	02/19/13 16:17	02/21/13 17:03	1

General Chemistry

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	11		1.0	1.0	%			02/18/13 17:15	1
Percent Solids	89		1.0	1.0	%			02/18/13 17:15	1

Client Sample ID: SO-1620-IM-CPT-18-13 (12.5-14.3) - 20120214

Lab Sample ID: 600-68719-8

Date Collected: 02/14/13 15:20

Matrix: Solid

Date Received: 02/15/13 18:08

Percent Solids: 83.9

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	0.00261	U	0.0119	0.00261	mg/Kg	☼		02/21/13 10:11	1
Benzene	0.000751	U	0.00596	0.000751	mg/Kg	☼		02/21/13 10:11	1
1,2-Dichloroethane	0.00107	U	0.00596	0.00107	mg/Kg	☼		02/21/13 10:11	1
Toluene	0.00164	U	0.00596	0.00164	mg/Kg	☼		02/21/13 10:11	1
Chlorobenzene	0.00114	U	0.00596	0.00114	mg/Kg	☼		02/21/13 10:11	1
Ethylbenzene	0.00122	U	0.00596	0.00122	mg/Kg	☼		02/21/13 10:11	1
Xylenes, Total	0.00135	U	0.00596	0.00135	mg/Kg	☼		02/21/13 10:11	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	84		61 - 130		02/21/13 10:11	1
Dibromofluoromethane	105		68 - 140		02/21/13 10:11	1
Toluene-d8 (Surr)	104		50 - 130		02/21/13 10:11	1
4-Bromofluorobenzene	104		57 - 140		02/21/13 10:11	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.00504	U	0.0198	0.00504	mg/Kg	☼	02/20/13 15:28	02/22/13 00:29	1
Nitrobenzene	0.00352	U	0.0198	0.00352	mg/Kg	☼	02/20/13 15:28	02/22/13 00:29	1
2,4-Dimethylphenol	0.0102	U	0.0198	0.0102	mg/Kg	☼	02/20/13 15:28	02/22/13 00:29	1
Bis(2-chloroethoxy)methane	0.00169	U	0.0198	0.00169	mg/Kg	☼	02/20/13 15:28	02/22/13 00:29	1
Naphthalene	0.00160	U	0.0198	0.00160	mg/Kg	☼	02/20/13 15:28	02/22/13 00:29	1
2-Methylnaphthalene	0.00326	U	0.0198	0.00326	mg/Kg	☼	02/20/13 15:28	02/22/13 00:29	1
2-Chloronaphthalene	0.00144	U	0.0198	0.00144	mg/Kg	☼	02/20/13 15:28	02/22/13 00:29	1
Acenaphthylene	0.00119	U	0.0198	0.00119	mg/Kg	☼	02/20/13 15:28	02/22/13 00:29	1
2,6-Dinitrotoluene	0.00350	U	0.0198	0.00350	mg/Kg	☼	02/20/13 15:28	02/22/13 00:29	1
Acenaphthene	0.00171	U	0.0198	0.00171	mg/Kg	☼	02/20/13 15:28	02/22/13 00:29	1
4-Nitrophenol	0.00604	U	0.0198	0.00604	mg/Kg	☼	02/20/13 15:28	02/22/13 00:29	1
Dibenzofuran	0.00211	U	0.0198	0.00211	mg/Kg	☼	02/20/13 15:28	02/22/13 00:29	1
2,4-Dinitrotoluene	0.00429	U	0.0198	0.00429	mg/Kg	☼	02/20/13 15:28	02/22/13 00:29	1
Fluorene	0.00280	U	0.0198	0.00280	mg/Kg	☼	02/20/13 15:28	02/22/13 00:29	1
4,6-Dinitro-2-methylphenol	0.00592	U	0.0198	0.00592	mg/Kg	☼	02/20/13 15:28	02/22/13 00:29	1
N-Nitrosodiphenylamine	0.00225	U	0.0198	0.00225	mg/Kg	☼	02/20/13 15:28	02/22/13 00:29	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68719-1

Client Sample ID: SO-1620-IM-CPT-18-13 (12.5-14.3) - 20120214

Lab Sample ID: 600-68719-8

Date Collected: 02/14/13 15:20

Matrix: Solid

Date Received: 02/15/13 18:08

Percent Solids: 83.9

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Diphenylhydrazine	0.00192	U	0.0198	0.00192	mg/Kg	☼	02/20/13 15:28	02/22/13 00:29	1
Pentachlorophenol	0.00475	U	0.198	0.00475	mg/Kg	☼	02/20/13 15:28	02/22/13 00:29	1
Phenanthrene	0.00588	U	0.0198	0.00588	mg/Kg	☼	02/20/13 15:28	02/22/13 00:29	1
Anthracene	0.0133	J	0.0198	0.00152	mg/Kg	☼	02/20/13 15:28	02/22/13 00:29	1
Di-n-butyl phthalate	0.00308	U	0.0792	0.00308	mg/Kg	☼	02/20/13 15:28	02/22/13 00:29	1
Fluoranthene	0.00369	U	0.0198	0.00369	mg/Kg	☼	02/20/13 15:28	02/22/13 00:29	1
Pyrene	0.00217	U	0.0198	0.00217	mg/Kg	☼	02/20/13 15:28	02/22/13 00:29	1
Benzo[a]anthracene	0.00164	U	0.0198	0.00164	mg/Kg	☼	02/20/13 15:28	02/22/13 00:29	1
Bis(2-ethylhexyl) phthalate	0.00638	U	0.0792	0.00638	mg/Kg	☼	02/20/13 15:28	02/22/13 00:29	1
Chrysene	0.00121	U	0.0198	0.00121	mg/Kg	☼	02/20/13 15:28	02/22/13 00:29	1
Benzo[a]pyrene	0.00191	U	0.0198	0.00191	mg/Kg	☼	02/20/13 15:28	02/22/13 00:29	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	73		23 - 108	02/20/13 15:28	02/22/13 00:29	1
Phenol-d6	69		26 - 108	02/20/13 15:28	02/22/13 00:29	1
Nitrobenzene-d5	70		34 - 118	02/20/13 15:28	02/22/13 00:29	1
2-Fluorobiphenyl	92		51 - 109	02/20/13 15:28	02/22/13 00:29	1
2,4,6-Tribromophenol	49		34 - 122	02/20/13 15:28	02/22/13 00:29	1
Terphenyl-d14	87		56 - 123	02/20/13 15:28	02/22/13 00:29	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	1.03	J	1.18	0.257	mg/Kg	☼	02/19/13 16:17	02/25/13 14:59	1
Lead	3.97		0.590	0.124	mg/Kg	☼	02/19/13 16:17	02/21/13 17:06	1

General Chemistry

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	16		1.0	1.0	%			02/18/13 17:15	1
Percent Solids	84		1.0	1.0	%			02/18/13 17:15	1

Client Sample ID: SO-1620-IM-CPT-21-13 (2.5-5) - 20120215

Lab Sample ID: 600-68719-9

Date Collected: 02/15/13 11:25

Matrix: Solid

Date Received: 02/15/13 18:08

Percent Solids: 86.9

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	0.00252	U	0.0115	0.00252	mg/Kg	☼		02/21/13 17:19	1
Benzene	0.00428	J	0.00575	0.000725	mg/Kg	☼		02/21/13 17:19	1
1,2-Dichloroethane	0.00104	U	0.00575	0.00104	mg/Kg	☼		02/21/13 17:19	1
Toluene	0.0159		0.00575	0.00159	mg/Kg	☼		02/21/13 17:19	1
Chlorobenzene	0.00110	U	0.00575	0.00110	mg/Kg	☼		02/21/13 17:19	1
Ethylbenzene	0.106		0.00575	0.00117	mg/Kg	☼		02/21/13 17:19	1
Xylenes, Total	0.259		0.00575	0.00130	mg/Kg	☼		02/21/13 17:19	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	88		61 - 130		02/21/13 17:19	1
Dibromofluoromethane	116		68 - 140		02/21/13 17:19	1
Toluene-d8 (Surr)	113		50 - 130		02/21/13 17:19	1
4-Bromofluorobenzene	116		57 - 140		02/21/13 17:19	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68719-1

Client Sample ID: SO-1620-IM-CPT-21-13 (2.5-5) - 20120215

Lab Sample ID: 600-68719-9

Date Collected: 02/15/13 11:25

Matrix: Solid

Date Received: 02/15/13 18:08

Percent Solids: 86.9

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	2.44	U	9.58	2.44	mg/Kg	☼	02/20/13 15:28	02/22/13 00:56	50
Nitrobenzene	1.70	U	9.58	1.70	mg/Kg	☼	02/20/13 15:28	02/22/13 00:56	50
2,4-Dimethylphenol	4.93	U	9.58	4.93	mg/Kg	☼	02/20/13 15:28	02/22/13 00:56	50
Bis(2-chloroethoxy)methane	0.816	U	9.58	0.816	mg/Kg	☼	02/20/13 15:28	02/22/13 00:56	50
Naphthalene	226		9.58	0.776	mg/Kg	☼	02/20/13 15:28	02/22/13 00:56	50
2-Methylnaphthalene	83.5		9.58	1.57	mg/Kg	☼	02/20/13 15:28	02/22/13 00:56	50
2-Chloronaphthalene	0.695	U	9.58	0.695	mg/Kg	☼	02/20/13 15:28	02/22/13 00:56	50
Acenaphthylene	2.09	J	9.58	0.575	mg/Kg	☼	02/20/13 15:28	02/22/13 00:56	50
2,6-Dinitrotoluene	1.70	U	9.58	1.70	mg/Kg	☼	02/20/13 15:28	02/22/13 00:56	50
Acenaphthene	66.2		9.58	0.828	mg/Kg	☼	02/20/13 15:28	02/22/13 00:56	50
4-Nitrophenol	2.92	U	9.58	2.92	mg/Kg	☼	02/20/13 15:28	02/22/13 00:56	50
Dibenzofuran	48.1		9.58	1.02	mg/Kg	☼	02/20/13 15:28	02/22/13 00:56	50
2,4-Dinitrotoluene	2.07	U	9.58	2.07	mg/Kg	☼	02/20/13 15:28	02/22/13 00:56	50
Fluorene	61.6		9.58	1.36	mg/Kg	☼	02/20/13 15:28	02/22/13 00:56	50
4,6-Dinitro-2-methylphenol	2.86	U	9.58	2.86	mg/Kg	☼	02/20/13 15:28	02/22/13 00:56	50
N-Nitrosodiphenylamine	1.09	U	9.58	1.09	mg/Kg	☼	02/20/13 15:28	02/22/13 00:56	50
1,2-Diphenylhydrazine	0.931	U	9.58	0.931	mg/Kg	☼	02/20/13 15:28	02/22/13 00:56	50
Pentachlorophenol	2.30	U	96.0	2.30	mg/Kg	☼	02/20/13 15:28	02/22/13 00:56	50
Phenanthrene	157		9.58	2.84	mg/Kg	☼	02/20/13 15:28	02/22/13 00:56	50
Anthracene	50.2		9.58	0.736	mg/Kg	☼	02/20/13 15:28	02/22/13 00:56	50
Di-n-butyl phthalate	1.49	U	38.3	1.49	mg/Kg	☼	02/20/13 15:28	02/22/13 00:56	50
Fluoranthene	67.4		9.58	1.79	mg/Kg	☼	02/20/13 15:28	02/22/13 00:56	50
Pyrene	41.4		9.58	1.05	mg/Kg	☼	02/20/13 15:28	02/22/13 00:56	50
Benzo[a]anthracene	11.5		9.58	0.793	mg/Kg	☼	02/20/13 15:28	02/22/13 00:56	50
Bis(2-ethylhexyl) phthalate	3.09	U	38.3	3.09	mg/Kg	☼	02/20/13 15:28	02/22/13 00:56	50
Chrysene	10.4		9.58	0.586	mg/Kg	☼	02/20/13 15:28	02/22/13 00:56	50
Benzo[a]pyrene	8.36	J	9.58	0.925	mg/Kg	☼	02/20/13 15:28	02/22/13 00:56	50

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	0	X	23 - 108	02/20/13 15:28	02/22/13 00:56	50
Phenol-d6	0	X	26 - 108	02/20/13 15:28	02/22/13 00:56	50
Nitrobenzene-d5	0	X	34 - 118	02/20/13 15:28	02/22/13 00:56	50
2-Fluorobiphenyl	0	X	51 - 109	02/20/13 15:28	02/22/13 00:56	50
2,4,6-Tribromophenol	0	X	34 - 122	02/20/13 15:28	02/22/13 00:56	50
Terphenyl-d14	0	X	56 - 123	02/20/13 15:28	02/22/13 00:56	50

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.815	J	1.06	0.232	mg/Kg	☼	02/19/13 16:17	02/25/13 15:02	1
Lead	8.08		0.532	0.112	mg/Kg	☼	02/19/13 16:17	02/21/13 17:09	1

General Chemistry

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	13		1.0	1.0	%			02/18/13 17:15	1
Percent Solids	87		1.0	1.0	%			02/18/13 17:15	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68719-1

Client Sample ID: SO-1620-IM-CPT-21-13 (7.5-10) - 20120215

Lab Sample ID: 600-68719-10

Date Collected: 02/15/13 11:35

Matrix: Solid

Date Received: 02/15/13 18:08

Percent Solids: 83.5

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	0.00262	U	0.0120	0.00262	mg/Kg	☼		02/21/13 17:42	1
Benzene	0.00150	J	0.00599	0.000754	mg/Kg	☼		02/21/13 17:42	1
1,2-Dichloroethane	0.00108	U	0.00599	0.00108	mg/Kg	☼		02/21/13 17:42	1
Toluene	0.00211	J	0.00599	0.00165	mg/Kg	☼		02/21/13 17:42	1
Chlorobenzene	0.00115	U	0.00599	0.00115	mg/Kg	☼		02/21/13 17:42	1
Ethylbenzene	0.118		0.00599	0.00122	mg/Kg	☼		02/21/13 17:42	1
Xylenes, Total	0.259		0.00599	0.00135	mg/Kg	☼		02/21/13 17:42	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	91		61 - 130		02/21/13 17:42	1
Dibromofluoromethane	117		68 - 140		02/21/13 17:42	1
Toluene-d8 (Surr)	108		50 - 130		02/21/13 17:42	1
4-Bromofluorobenzene	118		57 - 140		02/21/13 17:42	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	2.53	U	9.95	2.53	mg/Kg	☼	02/20/13 15:28	02/22/13 01:23	50
Nitrobenzene	1.77	U	9.95	1.77	mg/Kg	☼	02/20/13 15:28	02/22/13 01:23	50
2,4-Dimethylphenol	5.12	U	9.95	5.12	mg/Kg	☼	02/20/13 15:28	02/22/13 01:23	50
Bis(2-chloroethoxy)methane	0.848	U	9.95	0.848	mg/Kg	☼	02/20/13 15:28	02/22/13 01:23	50
Naphthalene	143		9.95	0.806	mg/Kg	☼	02/20/13 15:28	02/22/13 01:23	50
2-Methylnaphthalene	40.2		9.95	1.64	mg/Kg	☼	02/20/13 15:28	02/22/13 01:23	50
2-Chloronaphthalene	0.722	U	9.95	0.722	mg/Kg	☼	02/20/13 15:28	02/22/13 01:23	50
Acenaphthylene	0.597	U	9.95	0.597	mg/Kg	☼	02/20/13 15:28	02/22/13 01:23	50
2,6-Dinitrotoluene	1.76	U	9.95	1.76	mg/Kg	☼	02/20/13 15:28	02/22/13 01:23	50
Acenaphthene	34.6		9.95	0.860	mg/Kg	☼	02/20/13 15:28	02/22/13 01:23	50
4-Nitrophenol	3.03	U	9.95	3.03	mg/Kg	☼	02/20/13 15:28	02/22/13 01:23	50
Dibenzofuran	23.5		9.95	1.06	mg/Kg	☼	02/20/13 15:28	02/22/13 01:23	50
2,4-Dinitrotoluene	2.15	U	9.95	2.15	mg/Kg	☼	02/20/13 15:28	02/22/13 01:23	50
Fluorene	30.8		9.95	1.41	mg/Kg	☼	02/20/13 15:28	02/22/13 01:23	50
4,6-Dinitro-2-methylphenol	2.97	U	9.95	2.97	mg/Kg	☼	02/20/13 15:28	02/22/13 01:23	50
N-Nitrosodiphenylamine	1.13	U	9.95	1.13	mg/Kg	☼	02/20/13 15:28	02/22/13 01:23	50
1,2-Diphenylhydrazine	0.967	U	9.95	0.967	mg/Kg	☼	02/20/13 15:28	02/22/13 01:23	50
Pentachlorophenol	2.39	U	99.7	2.39	mg/Kg	☼	02/20/13 15:28	02/22/13 01:23	50
Phenanthrene	67.7		9.95	2.95	mg/Kg	☼	02/20/13 15:28	02/22/13 01:23	50
Anthracene	22.8		9.95	0.764	mg/Kg	☼	02/20/13 15:28	02/22/13 01:23	50
Di-n-butyl phthalate	1.55	U	39.8	1.55	mg/Kg	☼	02/20/13 15:28	02/22/13 01:23	50
Fluoranthene	27.5		9.95	1.86	mg/Kg	☼	02/20/13 15:28	02/22/13 01:23	50
Pyrene	20.9		9.95	1.09	mg/Kg	☼	02/20/13 15:28	02/22/13 01:23	50
Benzo[a]anthracene	6.10	J	9.95	0.824	mg/Kg	☼	02/20/13 15:28	02/22/13 01:23	50
Bis(2-ethylhexyl) phthalate	3.21	U	39.8	3.21	mg/Kg	☼	02/20/13 15:28	02/22/13 01:23	50
Chrysene	4.21	J	9.95	0.609	mg/Kg	☼	02/20/13 15:28	02/22/13 01:23	50
Benzo[a]pyrene	6.74	J	9.95	0.961	mg/Kg	☼	02/20/13 15:28	02/22/13 01:23	50

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	0	X	23 - 108	02/20/13 15:28	02/22/13 01:23	50
Phenol-d6	0	X	26 - 108	02/20/13 15:28	02/22/13 01:23	50
Nitrobenzene-d5	0	X	34 - 118	02/20/13 15:28	02/22/13 01:23	50
2-Fluorobiphenyl	0	X	51 - 109	02/20/13 15:28	02/22/13 01:23	50
2,4,6-Tribromophenol	0	X	34 - 122	02/20/13 15:28	02/22/13 01:23	50

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68719-1

Client Sample ID: SO-1620-IM-CPT-21-13 (7.5-10) - 20120215

Lab Sample ID: 600-68719-10

Date Collected: 02/15/13 11:35

Matrix: Solid

Date Received: 02/15/13 18:08

Percent Solids: 83.5

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Terphenyl-d14	0	X	56 - 123	02/20/13 15:28	02/22/13 01:23	50

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	1.31		1.13	0.246	mg/Kg	☼	02/21/13 09:24	02/22/13 13:38	1
Lead	6.85		0.565	0.118	mg/Kg	☼	02/21/13 09:24	02/22/13 13:38	1

General Chemistry

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	16		1.0	1.0	%			02/18/13 17:15	1
Percent Solids	84		1.0	1.0	%			02/18/13 17:15	1

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- 14
- 15
- 16
- 17

Definitions/Glossary

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68719-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
U	Analyte was not detected at or above the SDL.
J	Result is less than the MQL but greater than or equal to the SDL and the concentration is an estimated value.
X	Surrogate is outside control limits

GC/MS Semi VOA

Qualifier	Qualifier Description
U	Analyte was not detected at or above the SDL.
X	Surrogate is outside control limits
J	Result is less than the MQL but greater than or equal to the SDL and the concentration is an estimated value.
N	MS, MSD: Spike recovery exceeds upper or lower control limits.
N	RPD of the MS and MSD exceeds the control limits

Metals

Qualifier	Qualifier Description
J	Result is less than the MQL but greater than or equal to the SDL and the concentration is an estimated value.
U	Analyte was not detected at or above the SDL.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
▫	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Surrogate Summary

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68719-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		12DCE (61-130)	DBFM (68-140)	TOL (50-130)	BFB (57-140)
600-68719-1	SO-1620-IM-CPT-22-13 (2.5-5) - 20	91	73	114	107
600-68719-1 MS	SO-1620-IM-CPT-22-13 (2.5-5) - 20	95	71	118	107
600-68719-1 MSD	SO-1620-IM-CPT-22-13 (2.5-5) - 20	93	75	119	110
600-68719-2	SO-1620-IM-CPT-22-13 (7.5-10) - 20	83	101	101	159 X
600-68719-3	SO-1620-IM-CPT-17-13 (2.3-5) - 20	97	116	126	129
600-68719-4	SO-1620-IM-CPT-17-13 (13-15) - 20	94	117	109	120
600-68719-5	SO-1620-IM-CPT-10-13 (2-5) - 2012	87	114	120	151 X
600-68719-6	SO-1620-IM-CPT-10-13 (5-7.5) - 20	80	102	106	119
600-68719-7	SO-1620-IM-CPT-18-13 (1.7-5) - 20	82	90	108	104
600-68719-8	SO-1620-IM-CPT-18-13 (12.5-14.3)	84	105	104	104
600-68719-8 MS	SO-1620-IM-CPT-18-13 (12.5-14.3)	76	102	110	107
600-68719-8 MSD	SO-1620-IM-CPT-18-13 (12.5-14.3)	79	103	113	106
600-68719-9	SO-1620-IM-CPT-21-13 (2.5-5) - 20	88	116	113	116
600-68719-10	SO-1620-IM-CPT-21-13 (7.5-10) - 20	91	117	108	118
LCS 600-100012/4	Lab Control Sample	99	117	99	93
LCS 600-100100/3	Lab Control Sample	83	111	116	108
MB 600-100012/3	Method Blank	90	115	118	108
MB 600-100100/4	Method Blank	95	109	105	107

Surrogate Legend

12DCE = 1,2-Dichloroethane-d4 (Surr)

DBFM = Dibromofluoromethane

TOL = Toluene-d8 (Surr)

BFB = 4-Bromofluorobenzene

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)					
		2FP (23-108)	PHL (26-108)	NBZ (34-118)	FBP (51-109)	TBP (34-122)	TPH (56-123)
600-68719-1	SO-1620-IM-CPT-22-13 (2.5-5) - 20	0 X	0 X	0 X	0 X	0 X	0 X
600-68719-2	SO-1620-IM-CPT-22-13 (7.5-10) - 20	0 X	0 X	0 X	0 X	0 X	0 X
600-68719-3	SO-1620-IM-CPT-17-13 (2.3-5) - 20	0 X	0 X	0 X	0 X	0 X	0 X
600-68719-4	SO-1620-IM-CPT-17-13 (13-15) - 20	0 X	0 X	0 X	0 X	0 X	0 X
600-68719-5	SO-1620-IM-CPT-10-13 (2-5) - 2012	0 X	0 X	0 X	0 X	0 X	0 X
600-68719-6	SO-1620-IM-CPT-10-13 (5-7.5) - 20	0 X	0 X	0 X	0 X	0 X	0 X
600-68719-6 MS	SO-1620-IM-CPT-10-13 (5-7.5) - 20	0 X	0 X	0 X	0 X	0 X	0 X
600-68719-6 MSD	SO-1620-IM-CPT-10-13 (5-7.5) - 20	0 X	0 X	0 X	0 X	0 X	0 X
600-68719-7	SO-1620-IM-CPT-18-13 (1.7-5) - 20	0 X	0 X	0 X	0 X	0 X	0 X
600-68719-8	SO-1620-IM-CPT-18-13 (12.5-14.3)	73	69	70	92	49	87
600-68719-9	SO-1620-IM-CPT-21-13 (2.5-5) - 20	0 X	0 X	0 X	0 X	0 X	0 X
600-68719-10	SO-1620-IM-CPT-21-13 (7.5-10) - 20	0 X	0 X	0 X	0 X	0 X	0 X
LCS 600-100020/2-A	Lab Control Sample	72	74	72	89	72	75
MB 600-100020/1-A	Method Blank	71	68	67	88	50	76

Surrogate Legend

2FP = 2-Fluorophenol

PHL = Phenol-d6

NBZ = Nitrobenzene-d5

TestAmerica Houston

Surrogate Summary

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68719-1

FBP = 2-Fluorobiphenyl
TBP = 2,4,6-Tribromophenol
TPH = Terphenyl-d14

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QC Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68719-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 600-100012/3

Matrix: Solid

Analysis Batch: 100012

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	0.00219	U	0.0100	0.00219	mg/Kg			02/20/13 11:21	1
Benzene	0.000630	U	0.00500	0.000630	mg/Kg			02/20/13 11:21	1
1,2-Dichloroethane	0.000900	U	0.00500	0.000900	mg/Kg			02/20/13 11:21	1
Toluene	0.00138	U	0.00500	0.00138	mg/Kg			02/20/13 11:21	1
Chlorobenzene	0.000960	U	0.00500	0.000960	mg/Kg			02/20/13 11:21	1
Ethylbenzene	0.00102	U	0.00500	0.00102	mg/Kg			02/20/13 11:21	1
Xylenes, Total	0.00113	U	0.00500	0.00113	mg/Kg			02/20/13 11:21	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	90		61 - 130		02/20/13 11:21	1
Dibromofluoromethane	115		68 - 140		02/20/13 11:21	1
Toluene-d8 (Surr)	118		50 - 130		02/20/13 11:21	1
4-Bromofluorobenzene	108		57 - 140		02/20/13 11:21	1

Lab Sample ID: LCS 600-100012/4

Matrix: Solid

Analysis Batch: 100012

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Methylene Chloride	0.0500	0.04601		mg/Kg		92	48 - 144
Benzene	0.0500	0.04416		mg/Kg		88	66 - 128
1,2-Dichloroethane	0.0500	0.03768		mg/Kg		75	61 - 135
Toluene	0.0500	0.03762		mg/Kg		75	69 - 125
Chlorobenzene	0.0500	0.03968		mg/Kg		79	67 - 126
Ethylbenzene	0.0500	0.04136		mg/Kg		83	64 - 127
Xylenes, Total	0.150	0.1309		mg/Kg		87	65 - 129

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	99		61 - 130
Dibromofluoromethane	117		68 - 140
Toluene-d8 (Surr)	99		50 - 130
4-Bromofluorobenzene	93		57 - 140

Lab Sample ID: 600-68719-1 MS

Matrix: Solid

Analysis Batch: 100012

Client Sample ID: SO-1620-IM-CPT-22-13 (2.5-5) - 20120215

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Methylene Chloride	0.00232	U	0.0529	0.05913		mg/Kg	☼	112	60 - 140
Benzene	0.000667	U	0.0529	0.05152		mg/Kg	☼	97	65 - 135
1,2-Dichloroethane	0.000953	U	0.0529	0.03906		mg/Kg	☼	74	60 - 140
Toluene	0.00146	U	0.0529	0.05011		mg/Kg	☼	95	64 - 135
Chlorobenzene	0.00102	U	0.0529	0.05047		mg/Kg	☼	95	65 - 135
Ethylbenzene	0.00108	U	0.0529	0.04810		mg/Kg	☼	91	60 - 140
Xylenes, Total	0.00120	U	0.159	0.1540		mg/Kg	☼	97	60 - 140

TestAmerica Houston

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68719-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 600-68719-1 MS

Matrix: Solid

Analysis Batch: 100012

Client Sample ID: SO-1620-IM-CPT-22-13 (2.5-5) - 20120215

Prep Type: Total/NA

Surrogate	MS MS		Limits
	%Recovery	Qualifier	
1,2-Dichloroethane-d4 (Surr)	95		61 - 130
Dibromofluoromethane	71		68 - 140
Toluene-d8 (Surr)	118		50 - 130
4-Bromofluorobenzene	107		57 - 140

Lab Sample ID: 600-68719-1 MSD

Matrix: Solid

Analysis Batch: 100012

Client Sample ID: SO-1620-IM-CPT-22-13 (2.5-5) - 20120215

Prep Type: Total/NA

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.	RPD	Limit
	Result	Qualifier		Result	Qualifier				Limits		
Methylene Chloride	0.00232	U	0.0529	0.05231		mg/Kg	☼	99	60 - 140	12	30
Benzene	0.000667	U	0.0529	0.04970		mg/Kg	☼	94	65 - 135	4	30
1,2-Dichloroethane	0.000953	U	0.0529	0.03871		mg/Kg	☼	73	60 - 140	1	30
Toluene	0.00146	U	0.0529	0.04812		mg/Kg	☼	91	64 - 135	4	30
Chlorobenzene	0.00102	U	0.0529	0.04815		mg/Kg	☼	91	65 - 135	5	30
Ethylbenzene	0.00108	U	0.0529	0.04612		mg/Kg	☼	87	60 - 140	4	30
Xylenes, Total	0.00120	U	0.159	0.1486		mg/Kg	☼	94	60 - 140	4	30

Surrogate	MSD MSD		Limits
	%Recovery	Qualifier	
1,2-Dichloroethane-d4 (Surr)	93		61 - 130
Dibromofluoromethane	75		68 - 140
Toluene-d8 (Surr)	119		50 - 130
4-Bromofluorobenzene	110		57 - 140

Lab Sample ID: MB 600-100100/4

Matrix: Solid

Analysis Batch: 100100

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB	MB	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Methylene Chloride	0.00219	U	0.0100	0.00219	mg/Kg			02/21/13 09:47	1
Benzene	0.000630	U	0.00500	0.000630	mg/Kg			02/21/13 09:47	1
1,2-Dichloroethane	0.000900	U	0.00500	0.000900	mg/Kg			02/21/13 09:47	1
Toluene	0.00138	U	0.00500	0.00138	mg/Kg			02/21/13 09:47	1
Chlorobenzene	0.000960	U	0.00500	0.000960	mg/Kg			02/21/13 09:47	1
Ethylbenzene	0.00102	U	0.00500	0.00102	mg/Kg			02/21/13 09:47	1
Xylenes, Total	0.00113	U	0.00500	0.00113	mg/Kg			02/21/13 09:47	1

Surrogate	MB MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
1,2-Dichloroethane-d4 (Surr)	95		61 - 130		02/21/13 09:47	1
Dibromofluoromethane	109		68 - 140		02/21/13 09:47	1
Toluene-d8 (Surr)	105		50 - 130		02/21/13 09:47	1
4-Bromofluorobenzene	107		57 - 140		02/21/13 09:47	1

TestAmerica Houston

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68719-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 600-100100/3

Matrix: Solid

Analysis Batch: 100100

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Methylene Chloride	0.0500	0.05075		mg/Kg		102	48 - 144
Benzene	0.0500	0.05164		mg/Kg		103	66 - 128
1,2-Dichloroethane	0.0500	0.03918		mg/Kg		78	61 - 135
Toluene	0.0500	0.05109		mg/Kg		102	69 - 125
Chlorobenzene	0.0500	0.05117		mg/Kg		102	67 - 126
Ethylbenzene	0.0500	0.05027		mg/Kg		101	64 - 127
Xylenes, Total	0.150	0.1576		mg/Kg		105	65 - 129

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	83		61 - 130
Dibromofluoromethane	111		68 - 140
Toluene-d8 (Surr)	116		50 - 130
4-Bromofluorobenzene	108		57 - 140

Lab Sample ID: 600-68719-8 MS

Matrix: Solid

Analysis Batch: 100100

Client Sample ID: SO-1620-IM-CPT-18-13 (12.5-14.3) - 20120214

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Methylene Chloride	0.00261	U	0.0596	0.06501		mg/Kg	☼	109	60 - 140
Benzene	0.000751	U	0.0596	0.06766		mg/Kg	☼	114	65 - 135
1,2-Dichloroethane	0.00107	U	0.0596	0.05164		mg/Kg	☼	87	60 - 140
Toluene	0.00164	U	0.0596	0.06838		mg/Kg	☼	115	64 - 135
Chlorobenzene	0.00114	U	0.0596	0.06893		mg/Kg	☼	116	65 - 135
Ethylbenzene	0.00122	U	0.0596	0.06628		mg/Kg	☼	111	60 - 140
Xylenes, Total	0.00135	U	0.179	0.2112		mg/Kg	☼	118	60 - 140

Surrogate	MS %Recovery	MS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	76		61 - 130
Dibromofluoromethane	102		68 - 140
Toluene-d8 (Surr)	110		50 - 130
4-Bromofluorobenzene	107		57 - 140

Lab Sample ID: 600-68719-8 MSD

Matrix: Solid

Analysis Batch: 100100

Client Sample ID: SO-1620-IM-CPT-18-13 (12.5-14.3) - 20120214

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Methylene Chloride	0.00261	U	0.0596	0.06542		mg/Kg	☼	110	60 - 140	1	30
Benzene	0.000751	U	0.0596	0.06963		mg/Kg	☼	117	65 - 135	3	30
1,2-Dichloroethane	0.00107	U	0.0596	0.05194		mg/Kg	☼	87	60 - 140	1	30
Toluene	0.00164	U	0.0596	0.06965		mg/Kg	☼	117	64 - 135	2	30
Chlorobenzene	0.00114	U	0.0596	0.06786		mg/Kg	☼	114	65 - 135	2	30
Ethylbenzene	0.00122	U	0.0596	0.06768		mg/Kg	☼	114	60 - 140	2	30
Xylenes, Total	0.00135	U	0.179	0.2141		mg/Kg	☼	120	60 - 140	1	30

TestAmerica Houston

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68719-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 600-68719-8 MSD

Matrix: Solid

Analysis Batch: 100100

Client Sample ID: SO-1620-IM-CPT-18-13 (12.5-14.3) - 20120214

Prep Type: Total/NA

Surrogate	MSD MSD		Limits
	%Recovery	Qualifier	
1,2-Dichloroethane-d4 (Surr)	79		61 - 130
Dibromofluoromethane	103		68 - 140
Toluene-d8 (Surr)	113		50 - 130
4-Bromofluorobenzene	106		57 - 140

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Lab Sample ID: MB 600-100020/1-A

Matrix: Solid

Analysis Batch: 100183

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 100020

Analyte	MB MB		MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Phenol	0.00423	U	0.0166	0.00423	mg/Kg		02/20/13 15:28	02/21/13 16:00	1
Nitrobenzene	0.00295	U	0.0166	0.00295	mg/Kg		02/20/13 15:28	02/21/13 16:00	1
2,4-Dimethylphenol	0.00856	U	0.0166	0.00856	mg/Kg		02/20/13 15:28	02/21/13 16:00	1
Bis(2-chloroethoxy)methane	0.00142	U	0.0166	0.00142	mg/Kg		02/20/13 15:28	02/21/13 16:00	1
Naphthalene	0.00135	U	0.0166	0.00135	mg/Kg		02/20/13 15:28	02/21/13 16:00	1
2-Methylnaphthalene	0.00273	U	0.0166	0.00273	mg/Kg		02/20/13 15:28	02/21/13 16:00	1
2-Chloronaphthalene	0.00121	U	0.0166	0.00121	mg/Kg		02/20/13 15:28	02/21/13 16:00	1
Acenaphthylene	0.000998	U	0.0166	0.000998	mg/Kg		02/20/13 15:28	02/21/13 16:00	1
2,6-Dinitrotoluene	0.00294	U	0.0166	0.00294	mg/Kg		02/20/13 15:28	02/21/13 16:00	1
Acenaphthene	0.00144	U	0.0166	0.00144	mg/Kg		02/20/13 15:28	02/21/13 16:00	1
4-Nitrophenol	0.00507	U	0.0166	0.00507	mg/Kg		02/20/13 15:28	02/21/13 16:00	1
Dibenzofuran	0.00178	U	0.0166	0.00178	mg/Kg		02/20/13 15:28	02/21/13 16:00	1
2,4-Dinitrotoluene	0.00360	U	0.0166	0.00360	mg/Kg		02/20/13 15:28	02/21/13 16:00	1
Fluorene	0.00236	U	0.0166	0.00236	mg/Kg		02/20/13 15:28	02/21/13 16:00	1
4,6-Dinitro-2-methylphenol	0.00497	U	0.0166	0.00497	mg/Kg		02/20/13 15:28	02/21/13 16:00	1
N-Nitrosodiphenylamine	0.00189	U	0.0166	0.00189	mg/Kg		02/20/13 15:28	02/21/13 16:00	1
1,2-Diphenylhydrazine	0.00162	U	0.0166	0.00162	mg/Kg		02/20/13 15:28	02/21/13 16:00	1
Pentachlorophenol	0.00399	U	0.167	0.00399	mg/Kg		02/20/13 15:28	02/21/13 16:00	1
Phenanthrene	0.00494	U	0.0166	0.00494	mg/Kg		02/20/13 15:28	02/21/13 16:00	1
Anthracene	0.00128	U	0.0166	0.00128	mg/Kg		02/20/13 15:28	02/21/13 16:00	1
Di-n-butyl phthalate	0.00258	U	0.0665	0.00258	mg/Kg		02/20/13 15:28	02/21/13 16:00	1
Fluoranthene	0.00310	U	0.0166	0.00310	mg/Kg		02/20/13 15:28	02/21/13 16:00	1
Pyrene	0.00183	U	0.0166	0.00183	mg/Kg		02/20/13 15:28	02/21/13 16:00	1
Benzo[a]anthracene	0.00138	U	0.0166	0.00138	mg/Kg		02/20/13 15:28	02/21/13 16:00	1
Bis(2-ethylhexyl) phthalate	0.00536	U	0.0665	0.00536	mg/Kg		02/20/13 15:28	02/21/13 16:00	1
Chrysene	0.00102	U	0.0166	0.00102	mg/Kg		02/20/13 15:28	02/21/13 16:00	1
Benzo[a]pyrene	0.00161	U	0.0166	0.00161	mg/Kg		02/20/13 15:28	02/21/13 16:00	1

Surrogate	MB MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
2-Fluorophenol	71		23 - 108	02/20/13 15:28	02/21/13 16:00	1
Phenol-d6	68		26 - 108	02/20/13 15:28	02/21/13 16:00	1
Nitrobenzene-d5	67		34 - 118	02/20/13 15:28	02/21/13 16:00	1
2-Fluorobiphenyl	88		51 - 109	02/20/13 15:28	02/21/13 16:00	1
2,4,6-Tribromophenol	50		34 - 122	02/20/13 15:28	02/21/13 16:00	1
Terphenyl-d14	76		56 - 123	02/20/13 15:28	02/21/13 16:00	1

TestAmerica Houston

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68719-1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Lab Sample ID: LCS 600-100020/2-A

Matrix: Solid

Analysis Batch: 100183

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 100020

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Phenol	0.333	0.2624		mg/Kg		79	33 - 122
Nitrobenzene	0.333	0.2437		mg/Kg		73	53 - 123
2,4-Dimethylphenol	0.333	0.2548		mg/Kg		76	36 - 124
Bis(2-chloroethoxy)methane	0.333	0.2006		mg/Kg		60	54 - 114
Naphthalene	0.333	0.2502		mg/Kg		75	52 - 117
2-Methylnaphthalene	0.333	0.2641		mg/Kg		79	54 - 130
2-Chloronaphthalene	0.333	0.2532		mg/Kg		76	50 - 123
Acenaphthylene	0.333	0.2582		mg/Kg		77	51 - 122
2,6-Dinitrotoluene	0.333	0.2463		mg/Kg		74	53 - 116
Acenaphthene	0.333	0.2520		mg/Kg		76	58 - 125
4-Nitrophenol	0.333	0.2097		mg/Kg		63	20 - 132
Dibenzofuran	0.333	0.2494		mg/Kg		75	54 - 119
2,4-Dinitrotoluene	0.333	0.2440		mg/Kg		73	53 - 123
Fluorene	0.333	0.2530		mg/Kg		76	52 - 147
4,6-Dinitro-2-methylphenol	0.333	0.2490		mg/Kg		75	34 - 124
N-Nitrosodiphenylamine	0.333	0.2559		mg/Kg		77	47 - 127
1,2-Diphenylhydrazine	0.333	0.2186		mg/Kg		66	49 - 131
Pentachlorophenol	0.333	0.2208		mg/Kg		66	17 - 124
Phenanthrene	0.333	0.2425		mg/Kg		73	55 - 120
Anthracene	0.333	0.2406		mg/Kg		72	52 - 120
Di-n-butyl phthalate	0.333	0.2370		mg/Kg		71	61 - 124
Fluoranthene	0.333	0.2513		mg/Kg		75	56 - 123
Pyrene	0.333	0.2512		mg/Kg		75	48 - 131
Benzo[a]anthracene	0.333	0.2457		mg/Kg		74	49 - 124
Bis(2-ethylhexyl) phthalate	0.333	0.2400		mg/Kg		72	55 - 136
Chrysene	0.333	0.2262		mg/Kg		68	50 - 123
Benzo[a]pyrene	0.333	0.2524		mg/Kg		76	58 - 123

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2-Fluorophenol	72		23 - 108
Phenol-d6	74		26 - 108
Nitrobenzene-d5	72		34 - 118
2-Fluorobiphenyl	89		51 - 109
2,4,6-Tribromophenol	72		34 - 122
Terphenyl-d14	75		56 - 123

Lab Sample ID: 600-68719-6 MS

Matrix: Solid

Analysis Batch: 100183

Client Sample ID: SO-1620-IM-CPT-10-13 (5-7.5) - 20120215

Prep Type: Total/NA

Prep Batch: 100020

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Phenol	0.235	U	0.370	0.235	U N	mg/Kg	☼	0	31 - 121
Nitrobenzene	0.164	U	0.370	0.164	U N	mg/Kg	☼	0	29 - 118
2,4-Dimethylphenol	0.475	U	0.370	0.476	U	mg/Kg	☼	NC	29 - 122
Bis(2-chloroethoxy)methane	0.0786	U	0.370	0.0787	U N	mg/Kg	☼	0	33 - 119
Naphthalene	0.0748	U	0.370	0.0749	U N	mg/Kg	☼	0	30 - 112
2-Methylnaphthalene	0.152	U	0.370	0.152	U N	mg/Kg	☼	0	32 - 136
2-Chloronaphthalene	0.0670	U	0.370	0.0671	U N	mg/Kg	☼	0	34 - 126

TestAmerica Houston

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68719-1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Lab Sample ID: 600-68719-6 MS

Matrix: Solid

Analysis Batch: 100183

Client Sample ID: SO-1620-IM-CPT-10-13 (5-7.5) - 20120215

Prep Type: Total/NA

Prep Batch: 100020

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec.	Limits
	Result	Qualifier	Added	Result	Qualifier					
Acenaphthylene	0.0554	U	0.370	0.0555	U N	mg/Kg	☼	0		32 - 137
2,6-Dinitrotoluene	0.163	U	0.370	0.164	U N	mg/Kg	☼	0		30 - 124
Acenaphthene	0.0798	U	0.370	0.0799	U N	mg/Kg	☼	0		25 - 134
4-Nitrophenol	0.281	U	0.370	0.282	U N	mg/Kg	☼	0		25 - 122
Dibenzofuran	0.0986	U	0.370	0.0987	U N	mg/Kg	☼	0		35 - 125
2,4-Dinitrotoluene	0.200	U	0.370	0.200	U N	mg/Kg	☼	0		10 - 129
Fluorene	0.131	U	0.370	0.131	U N	mg/Kg	☼	0		36 - 122
4,6-Dinitro-2-methylphenol	0.276	U	0.370	0.276	U N	mg/Kg	☼	0		10 - 104
N-Nitrosodiphenylamine	0.105	U	0.370	0.105	U N	mg/Kg	☼	0		28 - 106
1,2-Diphenylhydrazine	0.0897	U	0.370	0.0898	U N	mg/Kg	☼	0		30 - 130
Pentachlorophenol	0.222	U	0.370	0.222	U N	mg/Kg	☼	0		25 - 124
Phenanthrene	0.274	U	0.370	0.5587	J N	mg/Kg	☼	151		26 - 126
Anthracene	0.0709	U	0.370	0.0710	U N	mg/Kg	☼	0		35 - 115
Di-n-butyl phthalate	0.143	U	0.370	0.144	U N	mg/Kg	☼	0		41 - 126
Fluoranthene	0.172	U	0.370	0.172	U N	mg/Kg	☼	0		37 - 132
Pyrene	0.101	U	0.370	0.101	U N	mg/Kg	☼	0		28 - 138
Benzo[a]anthracene	0.0764	U	0.370	0.0765	U N	mg/Kg	☼	0		38 - 128
Bis(2-ethylhexyl) phthalate	0.297	U	0.370	0.298	U N	mg/Kg	☼	0		44 - 139
Chrysene	0.0565	U	0.370	0.0566	U N	mg/Kg	☼	0		36 - 130
Benzo[a]pyrene	0.0892	U	0.370	0.0893	U N	mg/Kg	☼	0		30 - 130

Surrogate	MS	MS	Limits
	%Recovery	Qualifier	
2-Fluorophenol	0	X	23 - 108
Phenol-d6	0	X	26 - 108
Nitrobenzene-d5	0	X	34 - 118
2-Fluorobiphenyl	0	X	51 - 109
2,4,6-Tribromophenol	0	X	34 - 122
Terphenyl-d14	0	X	56 - 123

Lab Sample ID: 600-68719-6 MSD

Matrix: Solid

Analysis Batch: 100183

Client Sample ID: SO-1620-IM-CPT-10-13 (5-7.5) - 20120215

Prep Type: Total/NA

Prep Batch: 100020

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.	Limits	RPD	Limit
	Result	Qualifier	Added	Result	Qualifier							
Phenol	0.235	U	0.369	0.235	U N	mg/Kg	☼	0		31 - 121	NC	30
Nitrobenzene	0.164	U	0.369	0.164	U N	mg/Kg	☼	0		29 - 118	NC	30
2,4-Dimethylphenol	0.475	U	0.369	0.475	U	mg/Kg	☼	NC		29 - 122	NC	30
Bis(2-chloroethoxy)methane	0.0786	U	0.369	0.0786	U N	mg/Kg	☼	0		33 - 119	NC	30
Naphthalene	0.0748	U	0.369	0.0747	U N	mg/Kg	☼	0		30 - 112	NC	30
2-Methylnaphthalene	0.152	U	0.369	0.152	U N	mg/Kg	☼	0		32 - 136	NC	30
2-Chloronaphthalene	0.0670	U	0.369	0.0670	U N	mg/Kg	☼	0		34 - 126	NC	30
Acenaphthylene	0.0554	U	0.369	0.0553	U N	mg/Kg	☼	0		32 - 137	NC	30
2,6-Dinitrotoluene	0.163	U	0.369	0.163	U N	mg/Kg	☼	0		30 - 124	NC	30
Acenaphthene	0.0798	U	0.369	0.0797	U N	mg/Kg	☼	0		25 - 134	NC	30
4-Nitrophenol	0.281	U	0.369	0.281	U N	mg/Kg	☼	0		25 - 122	NC	30
Dibenzofuran	0.0986	U	0.369	0.0985	U N	mg/Kg	☼	0		35 - 125	NC	30
2,4-Dinitrotoluene	0.200	U	0.369	0.200	U N	mg/Kg	☼	0		10 - 129	NC	30
Fluorene	0.131	U	0.369	0.131	U N	mg/Kg	☼	0		36 - 122	NC	30

TestAmerica Houston

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68719-1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Lab Sample ID: 600-68719-6 MSD

Matrix: Solid

Analysis Batch: 100183

Client Sample ID: SO-1620-IM-CPT-10-13 (5-7.5) - 20120215

Prep Type: Total/NA

Prep Batch: 100020

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.	RPD	Limit
	Result	Qualifier	Added	Result	Qualifier				Limits		
4,6-Dinitro-2-methylphenol	0.276	U	0.369	0.276	U N	mg/Kg	☼	0	10 - 104	NC	30
N-Nitrosodiphenylamine	0.105	U	0.369	0.105	U N	mg/Kg	☼	0	28 - 106	NC	30
1,2-Diphenylhydrazine	0.0897	U	0.369	0.0897	U N	mg/Kg	☼	0	30 - 130	NC	30
Pentachlorophenol	0.222	U	0.369	0.221	U N	mg/Kg	☼	0	25 - 124	NC	30
Phenanthrene	0.274	U	0.369	0.3666	J N	mg/Kg	☼	99	26 - 126	42	30
Anthracene	0.0709	U	0.369	0.0708	U N	mg/Kg	☼	0	35 - 115	NC	30
Di-n-butyl phthalate	0.143	U	0.369	0.143	U N	mg/Kg	☼	0	41 - 126	NC	30
Fluoranthene	0.172	U	0.369	0.172	U N	mg/Kg	☼	0	37 - 132	NC	30
Pyrene	0.101	U	0.369	0.101	U N	mg/Kg	☼	0	28 - 138	NC	30
Benzo[a]anthracene	0.0764	U	0.369	0.0764	U N	mg/Kg	☼	0	38 - 128	NC	30
Bis(2-ethylhexyl) phthalate	0.297	U	0.369	0.297	U N	mg/Kg	☼	0	44 - 139	NC	30
Chrysene	0.0565	U	0.369	0.0565	U N	mg/Kg	☼	0	36 - 130	NC	30
Benzo[a]pyrene	0.0892	U	0.369	0.0891	U N	mg/Kg	☼	0	30 - 130	NC	30

Surrogate	MSD	MSD	Limits
	%Recovery	Qualifier	
2-Fluorophenol	0	X	23 - 108
Phenol-d6	0	X	26 - 108
Nitrobenzene-d5	0	X	34 - 118
2-Fluorobiphenyl	0	X	51 - 109
2,4,6-Tribromophenol	0	X	34 - 122
Terphenyl-d14	0	X	56 - 123

Method: 6010B - Metals (ICP)

Lab Sample ID: MB 600-100062/1-A

Matrix: Solid

Analysis Batch: 100152

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 100062

Analyte	MB	MB	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Arsenic	0.218	U	1.00	0.218	mg/Kg		02/21/13 09:24	02/22/13 13:03	1
Lead	0.105	U	0.500	0.105	mg/Kg		02/21/13 09:24	02/22/13 13:03	1

Lab Sample ID: LCSSRM 600-100062/2-A

Matrix: Solid

Analysis Batch: 100152

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 100062

Analyte	Spike	LCSSRM	LCSSRM	Unit	D	%Rec	%Rec.
		Result	Qualifier				Limits
Arsenic	168	165.7		mg/Kg		98.6	83.3 - 117.
Lead	76.9	74.26		mg/Kg		96.6	81.3 - 118.

Lab Sample ID: MB 600-99913/1-A

Matrix: Solid

Analysis Batch: 100065

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 99913

Analyte	MB	MB	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Lead	0.105	U	0.500	0.105	mg/Kg		02/19/13 16:17	02/21/13 15:51	1

TestAmerica Houston

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68719-1

Method: 6010B - Metals (ICP) (Continued)

Lab Sample ID: MB 600-99913/1-A
Matrix: Solid
Analysis Batch: 100268

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 99913

Analyte	MB Result	MB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.218	U	1.00	0.218	mg/Kg		02/19/13 16:17	02/25/13 13:44	1

Lab Sample ID: LCSSRM 600-99913/2-A
Matrix: Solid
Analysis Batch: 100065

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 99913

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec. Limits
Lead	76.9	74.44		mg/Kg		96.8	81.3 - 118.7

Lab Sample ID: LCSSRM 600-99913/2-A
Matrix: Solid
Analysis Batch: 100268

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 99913

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	168	158.5		mg/Kg		94.3	83.3 - 117.3

Lab Sample ID: 600-68719-4 MS
Matrix: Solid
Analysis Batch: 100065

Client Sample ID: SO-1620-IM-CPT-17-13 (13-15) - 20120215
Prep Type: Total/NA
Prep Batch: 99913

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Lead	6.46		77.2	91.23		mg/Kg	☼	110	75 - 125

Lab Sample ID: 600-68719-4 MS
Matrix: Solid
Analysis Batch: 100268

Client Sample ID: SO-1620-IM-CPT-17-13 (13-15) - 20120215
Prep Type: Total/NA
Prep Batch: 99913

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	2.82		77.2	81.66		mg/Kg	☼	102	75 - 125

Lab Sample ID: 600-68719-4 MSD
Matrix: Solid
Analysis Batch: 100065

Client Sample ID: SO-1620-IM-CPT-17-13 (13-15) - 20120215
Prep Type: Total/NA
Prep Batch: 99913

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Lead	6.46		80.2	91.28		mg/Kg	☼	106	75 - 125	0	20

Lab Sample ID: 600-68719-4 MSD
Matrix: Solid
Analysis Batch: 100268

Client Sample ID: SO-1620-IM-CPT-17-13 (13-15) - 20120215
Prep Type: Total/NA
Prep Batch: 99913

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Arsenic	2.82		80.2	80.29		mg/Kg	☼	97	75 - 125	2	20

TestAmerica Houston

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68719-1

Method: 6010B - Metals (ICP) (Continued)

Lab Sample ID: 600-68719-4 DU

Matrix: Solid

Analysis Batch: 100065

Client Sample ID: SO-1620-IM-CPT-17-13 (13-15) - 20120215

Prep Type: Total/NA

Prep Batch: 99913

Analyte	Sample	Sample	DU	DU	Unit	D	RPD	RPD
	Result	Qualifier	Result	Qualifier				Limit
Lead	6.46		6.626		mg/Kg	☼	3	20

Lab Sample ID: 600-68719-4 DU

Matrix: Solid

Analysis Batch: 100268

Client Sample ID: SO-1620-IM-CPT-17-13 (13-15) - 20120215

Prep Type: Total/NA

Prep Batch: 99913

Analyte	Sample	Sample	DU	DU	Unit	D	RPD	RPD
	Result	Qualifier	Result	Qualifier				Limit
Arsenic	2.82		1.491	J	mg/Kg	☼	62	20

Method: Moisture - Percent Moisture

Lab Sample ID: 600-68719-1 DU

Matrix: Solid

Analysis Batch: 99838

Client Sample ID: SO-1620-IM-CPT-22-13 (2.5-5) - 20120215

Prep Type: Total/NA

Analyte	Sample	Sample	DU	DU	Unit	D	RPD	RPD
	Result	Qualifier	Result	Qualifier				Limit
Percent Moisture	5.5		5.8		%		4	20
Percent Solids	94		94		%		0.2	20

Unadjusted Detection Limits

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68719-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	MQL	MDL	Units	Method
1,2-Dichloroethane	0.00500	0.000900	mg/Kg	8260B
Benzene	0.00500	0.000630	mg/Kg	8260B
Chlorobenzene	0.00500	0.000960	mg/Kg	8260B
Ethylbenzene	0.00500	0.00102	mg/Kg	8260B
Methylene Chloride	0.0100	0.00219	mg/Kg	8260B
Toluene	0.00500	0.00138	mg/Kg	8260B
Xylenes, Total	0.00500	0.00113	mg/Kg	8260B

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	MQL	MDL	Units	Method
1,2-Diphenylhydrazine	0.0167	0.00162	mg/Kg	8270C LL
2,4-Dimethylphenol	0.0167	0.00858	mg/Kg	8270C LL
2,4-Dinitrotoluene	0.0167	0.00361	mg/Kg	8270C LL
2,6-Dinitrotoluene	0.0167	0.00295	mg/Kg	8270C LL
2-Chloronaphthalene	0.0167	0.00121	mg/Kg	8270C LL
2-Methylnaphthalene	0.0167	0.00274	mg/Kg	8270C LL
4,6-Dinitro-2-methylphenol	0.0167	0.00498	mg/Kg	8270C LL
4-Nitrophenol	0.0167	0.00508	mg/Kg	8270C LL
Acenaphthene	0.0167	0.00144	mg/Kg	8270C LL
Acenaphthylene	0.0167	0.00100	mg/Kg	8270C LL
Anthracene	0.0167	0.00128	mg/Kg	8270C LL
Benzo[a]anthracene	0.0167	0.00138	mg/Kg	8270C LL
Benzo[a]pyrene	0.0167	0.00161	mg/Kg	8270C LL
Bis(2-chloroethoxy)methane	0.0167	0.00142	mg/Kg	8270C LL
Bis(2-ethylhexyl) phthalate	0.0667	0.00537	mg/Kg	8270C LL
Chrysene	0.0167	0.00102	mg/Kg	8270C LL
Dibenzofuran	0.0167	0.00178	mg/Kg	8270C LL
Di-n-butyl phthalate	0.0667	0.00259	mg/Kg	8270C LL
Fluoranthene	0.0167	0.00311	mg/Kg	8270C LL
Fluorene	0.0167	0.00236	mg/Kg	8270C LL
Naphthalene	0.0167	0.00135	mg/Kg	8270C LL
Nitrobenzene	0.0167	0.00296	mg/Kg	8270C LL
N-Nitrosodiphenylamine	0.0167	0.00189	mg/Kg	8270C LL
Pentachlorophenol	0.167	0.00400	mg/Kg	8270C LL
Phenanthrene	0.0167	0.00495	mg/Kg	8270C LL
Phenol	0.0167	0.00424	mg/Kg	8270C LL
Pyrene	0.0167	0.00183	mg/Kg	8270C LL

Method: 6010B - Metals (ICP)

Analyte	MQL	MDL	Units	Method
Arsenic	1.00	0.218	mg/Kg	6010B
Lead	0.500	0.105	mg/Kg	6010B

General Chemistry

Analyte	MQL	MDL	Units	Method
Percent Moisture	1.0	1.0	%	Moisture
Percent Solids	1.0	1.0	%	Moisture

QC Association Summary

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68719-1

GC/MS VOA

Analysis Batch: 100012

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-68719-1	SO-1620-IM-CPT-22-13 (2.5-5) - 20120215	Total/NA	Solid	8260B	
600-68719-1 MS	SO-1620-IM-CPT-22-13 (2.5-5) - 20120215	Total/NA	Solid	8260B	
600-68719-1 MSD	SO-1620-IM-CPT-22-13 (2.5-5) - 20120215	Total/NA	Solid	8260B	
600-68719-3	SO-1620-IM-CPT-17-13 (2.3-5) - 20120215	Total/NA	Solid	8260B	
600-68719-5	SO-1620-IM-CPT-10-13 (2-5) - 20120215	Total/NA	Solid	8260B	
LCS 600-100012/4	Lab Control Sample	Total/NA	Solid	8260B	
MB 600-100012/3	Method Blank	Total/NA	Solid	8260B	

Analysis Batch: 100100

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-68719-2	SO-1620-IM-CPT-22-13 (7.5-10) - 20120215	Total/NA	Solid	8260B	
600-68719-4	SO-1620-IM-CPT-17-13 (13-15) - 20120215	Total/NA	Solid	8260B	
600-68719-6	SO-1620-IM-CPT-10-13 (5-7.5) - 20120215	Total/NA	Solid	8260B	
600-68719-7	SO-1620-IM-CPT-18-13 (1.7-5) - 20120214	Total/NA	Solid	8260B	
600-68719-8	SO-1620-IM-CPT-18-13 (12.5-14.3) - 20120214	Total/NA	Solid	8260B	
600-68719-8 MS	SO-1620-IM-CPT-18-13 (12.5-14.3) - 20120214	Total/NA	Solid	8260B	
600-68719-8 MSD	SO-1620-IM-CPT-18-13 (12.5-14.3) - 20120214	Total/NA	Solid	8260B	
600-68719-9	SO-1620-IM-CPT-21-13 (2.5-5) - 20120215	Total/NA	Solid	8260B	
600-68719-10	SO-1620-IM-CPT-21-13 (7.5-10) - 20120215	Total/NA	Solid	8260B	
LCS 600-100100/3	Lab Control Sample	Total/NA	Solid	8260B	
MB 600-100100/4	Method Blank	Total/NA	Solid	8260B	

GC/MS Semi VOA

Prep Batch: 100020

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-68719-1	SO-1620-IM-CPT-22-13 (2.5-5) - 20120215	Total/NA	Solid	3550B	
600-68719-2	SO-1620-IM-CPT-22-13 (7.5-10) - 20120215	Total/NA	Solid	3550B	
600-68719-3	SO-1620-IM-CPT-17-13 (2.3-5) - 20120215	Total/NA	Solid	3550B	
600-68719-4	SO-1620-IM-CPT-17-13 (13-15) - 20120215	Total/NA	Solid	3550B	
600-68719-5	SO-1620-IM-CPT-10-13 (2-5) - 20120215	Total/NA	Solid	3550B	
600-68719-6	SO-1620-IM-CPT-10-13 (5-7.5) - 20120215	Total/NA	Solid	3550B	
600-68719-6 MS	SO-1620-IM-CPT-10-13 (5-7.5) - 20120215	Total/NA	Solid	3550B	
600-68719-6 MSD	SO-1620-IM-CPT-10-13 (5-7.5) - 20120215	Total/NA	Solid	3550B	
600-68719-7	SO-1620-IM-CPT-18-13 (1.7-5) - 20120214	Total/NA	Solid	3550B	
600-68719-8	SO-1620-IM-CPT-18-13 (12.5-14.3) - 20120214	Total/NA	Solid	3550B	
600-68719-9	SO-1620-IM-CPT-21-13 (2.5-5) - 20120215	Total/NA	Solid	3550B	
600-68719-10	SO-1620-IM-CPT-21-13 (7.5-10) - 20120215	Total/NA	Solid	3550B	
LCS 600-100020/2-A	Lab Control Sample	Total/NA	Solid	3550B	
MB 600-100020/1-A	Method Blank	Total/NA	Solid	3550B	

Analysis Batch: 100183

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-68719-1	SO-1620-IM-CPT-22-13 (2.5-5) - 20120215	Total/NA	Solid	8270C LL	100020
600-68719-2	SO-1620-IM-CPT-22-13 (7.5-10) - 20120215	Total/NA	Solid	8270C LL	100020
600-68719-3	SO-1620-IM-CPT-17-13 (2.3-5) - 20120215	Total/NA	Solid	8270C LL	100020
600-68719-4	SO-1620-IM-CPT-17-13 (13-15) - 20120215	Total/NA	Solid	8270C LL	100020
600-68719-5	SO-1620-IM-CPT-10-13 (2-5) - 20120215	Total/NA	Solid	8270C LL	100020
600-68719-6	SO-1620-IM-CPT-10-13 (5-7.5) - 20120215	Total/NA	Solid	8270C LL	100020
600-68719-6 MS	SO-1620-IM-CPT-10-13 (5-7.5) - 20120215	Total/NA	Solid	8270C LL	100020

TestAmerica Houston

QC Association Summary

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68719-1

GC/MS Semi VOA (Continued)

Analysis Batch: 100183 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-68719-6 MSD	SO-1620-IM-CPT-10-13 (5-7.5) - 20120215	Total/NA	Solid	8270C LL	100020
600-68719-7	SO-1620-IM-CPT-18-13 (1.7-5) - 20120214	Total/NA	Solid	8270C LL	100020
600-68719-8	SO-1620-IM-CPT-18-13 (12.5-14.3) - 20120214	Total/NA	Solid	8270C LL	100020
600-68719-9	SO-1620-IM-CPT-21-13 (2.5-5) - 20120215	Total/NA	Solid	8270C LL	100020
600-68719-10	SO-1620-IM-CPT-21-13 (7.5-10) - 20120215	Total/NA	Solid	8270C LL	100020
LCS 600-100020/2-A	Lab Control Sample	Total/NA	Solid	8270C LL	100020
MB 600-100020/1-A	Method Blank	Total/NA	Solid	8270C LL	100020

Metals

Prep Batch: 99913

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-68719-1	SO-1620-IM-CPT-22-13 (2.5-5) - 20120215	Total/NA	Solid	3050B	
600-68719-2	SO-1620-IM-CPT-22-13 (7.5-10) - 20120215	Total/NA	Solid	3050B	
600-68719-3	SO-1620-IM-CPT-17-13 (2.3-5) - 20120215	Total/NA	Solid	3050B	
600-68719-4	SO-1620-IM-CPT-17-13 (13-15) - 20120215	Total/NA	Solid	3050B	
600-68719-4 DU	SO-1620-IM-CPT-17-13 (13-15) - 20120215	Total/NA	Solid	3050B	
600-68719-4 MS	SO-1620-IM-CPT-17-13 (13-15) - 20120215	Total/NA	Solid	3050B	
600-68719-4 MSD	SO-1620-IM-CPT-17-13 (13-15) - 20120215	Total/NA	Solid	3050B	
600-68719-5	SO-1620-IM-CPT-10-13 (2-5) - 20120215	Total/NA	Solid	3050B	
600-68719-6	SO-1620-IM-CPT-10-13 (5-7.5) - 20120215	Total/NA	Solid	3050B	
600-68719-7	SO-1620-IM-CPT-18-13 (1.7-5) - 20120214	Total/NA	Solid	3050B	
600-68719-8	SO-1620-IM-CPT-18-13 (12.5-14.3) - 20120214	Total/NA	Solid	3050B	
600-68719-9	SO-1620-IM-CPT-21-13 (2.5-5) - 20120215	Total/NA	Solid	3050B	
LCSSRM 600-99913/2-A	Lab Control Sample	Total/NA	Solid	3050B	
MB 600-99913/1-A	Method Blank	Total/NA	Solid	3050B	

Prep Batch: 100062

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-68719-10	SO-1620-IM-CPT-21-13 (7.5-10) - 20120215	Total/NA	Solid	3050B	
LCSSRM 600-100062/2-A	Lab Control Sample	Total/NA	Solid	3050B	
MB 600-100062/1-A	Method Blank	Total/NA	Solid	3050B	

Analysis Batch: 100065

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-68719-1	SO-1620-IM-CPT-22-13 (2.5-5) - 20120215	Total/NA	Solid	6010B	99913
600-68719-2	SO-1620-IM-CPT-22-13 (7.5-10) - 20120215	Total/NA	Solid	6010B	99913
600-68719-3	SO-1620-IM-CPT-17-13 (2.3-5) - 20120215	Total/NA	Solid	6010B	99913
600-68719-4	SO-1620-IM-CPT-17-13 (13-15) - 20120215	Total/NA	Solid	6010B	99913
600-68719-4 DU	SO-1620-IM-CPT-17-13 (13-15) - 20120215	Total/NA	Solid	6010B	99913
600-68719-4 MS	SO-1620-IM-CPT-17-13 (13-15) - 20120215	Total/NA	Solid	6010B	99913
600-68719-4 MSD	SO-1620-IM-CPT-17-13 (13-15) - 20120215	Total/NA	Solid	6010B	99913
600-68719-5	SO-1620-IM-CPT-10-13 (2-5) - 20120215	Total/NA	Solid	6010B	99913
600-68719-6	SO-1620-IM-CPT-10-13 (5-7.5) - 20120215	Total/NA	Solid	6010B	99913
600-68719-7	SO-1620-IM-CPT-18-13 (1.7-5) - 20120214	Total/NA	Solid	6010B	99913
600-68719-8	SO-1620-IM-CPT-18-13 (12.5-14.3) - 20120214	Total/NA	Solid	6010B	99913
600-68719-9	SO-1620-IM-CPT-21-13 (2.5-5) - 20120215	Total/NA	Solid	6010B	99913
LCSSRM 600-99913/2-A	Lab Control Sample	Total/NA	Solid	6010B	99913
MB 600-99913/1-A	Method Blank	Total/NA	Solid	6010B	99913

TestAmerica Houston

QC Association Summary

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68719-1

Metals (Continued)

Analysis Batch: 100152

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-68719-10	SO-1620-IM-CPT-21-13 (7.5-10) - 20120215	Total/NA	Solid	6010B	100062
LCSSRM 600-100062/2-A	Lab Control Sample	Total/NA	Solid	6010B	100062
MB 600-100062/1-A	Method Blank	Total/NA	Solid	6010B	100062

Analysis Batch: 100268

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-68719-1	SO-1620-IM-CPT-22-13 (2.5-5) - 20120215	Total/NA	Solid	6010B	99913
600-68719-2	SO-1620-IM-CPT-22-13 (7.5-10) - 20120215	Total/NA	Solid	6010B	99913
600-68719-3	SO-1620-IM-CPT-17-13 (2.3-5) - 20120215	Total/NA	Solid	6010B	99913
600-68719-4	SO-1620-IM-CPT-17-13 (13-15) - 20120215	Total/NA	Solid	6010B	99913
600-68719-4 DU	SO-1620-IM-CPT-17-13 (13-15) - 20120215	Total/NA	Solid	6010B	99913
600-68719-4 MS	SO-1620-IM-CPT-17-13 (13-15) - 20120215	Total/NA	Solid	6010B	99913
600-68719-4 MSD	SO-1620-IM-CPT-17-13 (13-15) - 20120215	Total/NA	Solid	6010B	99913
600-68719-5	SO-1620-IM-CPT-10-13 (2-5) - 20120215	Total/NA	Solid	6010B	99913
600-68719-6	SO-1620-IM-CPT-10-13 (5-7.5) - 20120215	Total/NA	Solid	6010B	99913
600-68719-7	SO-1620-IM-CPT-18-13 (1.7-5) - 20120214	Total/NA	Solid	6010B	99913
600-68719-8	SO-1620-IM-CPT-18-13 (12.5-14.3) - 20120214	Total/NA	Solid	6010B	99913
600-68719-9	SO-1620-IM-CPT-21-13 (2.5-5) - 20120215	Total/NA	Solid	6010B	99913
LCSSRM 600-99913/2-A	Lab Control Sample	Total/NA	Solid	6010B	99913
MB 600-99913/1-A	Method Blank	Total/NA	Solid	6010B	99913

General Chemistry

Analysis Batch: 99838

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-68719-1	SO-1620-IM-CPT-22-13 (2.5-5) - 20120215	Total/NA	Solid	Moisture	
600-68719-1 DU	SO-1620-IM-CPT-22-13 (2.5-5) - 20120215	Total/NA	Solid	Moisture	
600-68719-2	SO-1620-IM-CPT-22-13 (7.5-10) - 20120215	Total/NA	Solid	Moisture	
600-68719-3	SO-1620-IM-CPT-17-13 (2.3-5) - 20120215	Total/NA	Solid	Moisture	
600-68719-4	SO-1620-IM-CPT-17-13 (13-15) - 20120215	Total/NA	Solid	Moisture	
600-68719-5	SO-1620-IM-CPT-10-13 (2-5) - 20120215	Total/NA	Solid	Moisture	
600-68719-6	SO-1620-IM-CPT-10-13 (5-7.5) - 20120215	Total/NA	Solid	Moisture	
600-68719-7	SO-1620-IM-CPT-18-13 (1.7-5) - 20120214	Total/NA	Solid	Moisture	
600-68719-8	SO-1620-IM-CPT-18-13 (12.5-14.3) - 20120214	Total/NA	Solid	Moisture	
600-68719-9	SO-1620-IM-CPT-21-13 (2.5-5) - 20120215	Total/NA	Solid	Moisture	
600-68719-10	SO-1620-IM-CPT-21-13 (7.5-10) - 20120215	Total/NA	Solid	Moisture	

Lab Chronicle

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68719-1

Client Sample ID: SO-1620-IM-CPT-22-13 (2.5-5) - 20120215

Lab Sample ID: 600-68719-1

Date Collected: 02/15/13 10:20

Matrix: Solid

Date Received: 02/15/13 18:08

Percent Solids: 94.5

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	100012	02/20/13 12:31	WS	TAL HOU
Total/NA	Prep	3550B			100020	02/20/13 15:28	LB	TAL HOU
Total/NA	Analysis	8270C LL		50	100183	02/21/13 20:28	JH	TAL HOU
Total/NA	Prep	3050B			99913	02/19/13 16:17	NER	TAL HOU
Total/NA	Analysis	6010B		1	100065	02/21/13 16:36	DCL	TAL HOU
Total/NA	Analysis	6010B		1	100268	02/25/13 14:29	DCL	TAL HOU
Total/NA	Analysis	Moisture		1	99838	02/18/13 17:15	KRD	TAL HOU

Client Sample ID: SO-1620-IM-CPT-22-13 (7.5-10) - 20120215

Lab Sample ID: 600-68719-2

Date Collected: 02/15/13 10:30

Matrix: Solid

Date Received: 02/15/13 18:08

Percent Solids: 81.5

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	100100	02/21/13 16:31	WS	TAL HOU
Total/NA	Prep	3550B			100020	02/20/13 15:28	LB	TAL HOU
Total/NA	Analysis	8270C LL		50	100183	02/21/13 20:54	JH	TAL HOU
Total/NA	Prep	3050B			99913	02/19/13 16:17	NER	TAL HOU
Total/NA	Analysis	6010B		1	100065	02/21/13 16:38	DCL	TAL HOU
Total/NA	Analysis	6010B		1	100268	02/25/13 14:31	DCL	TAL HOU
Total/NA	Analysis	Moisture		1	99838	02/18/13 17:15	KRD	TAL HOU

Client Sample ID: SO-1620-IM-CPT-17-13 (2.3-5) - 20120215

Lab Sample ID: 600-68719-3

Date Collected: 02/15/13 13:50

Matrix: Solid

Date Received: 02/15/13 18:08

Percent Solids: 43.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	100012	02/20/13 20:47	WS	TAL HOU
Total/NA	Prep	3550B			100020	02/20/13 15:28	LB	TAL HOU
Total/NA	Analysis	8270C LL		50	100183	02/21/13 21:21	JH	TAL HOU
Total/NA	Prep	3050B			99913	02/19/13 16:17	NER	TAL HOU
Total/NA	Analysis	6010B		1	100065	02/21/13 16:41	DCL	TAL HOU
Total/NA	Analysis	6010B		1	100268	02/25/13 14:33	DCL	TAL HOU
Total/NA	Analysis	Moisture		1	99838	02/18/13 17:15	KRD	TAL HOU

Client Sample ID: SO-1620-IM-CPT-17-13 (13-15) - 20120215

Lab Sample ID: 600-68719-4

Date Collected: 02/15/13 14:30

Matrix: Solid

Date Received: 02/15/13 18:08

Percent Solids: 61.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	100100	02/21/13 16:55	WS	TAL HOU
Total/NA	Prep	3550B			100020	02/20/13 15:28	LB	TAL HOU
Total/NA	Analysis	8270C LL		50	100183	02/21/13 21:48	JH	TAL HOU

TestAmerica Houston

Lab Chronicle

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68719-1

Client Sample ID: SO-1620-IM-CPT-17-13 (13-15) - 20120215

Lab Sample ID: 600-68719-4

Date Collected: 02/15/13 14:30

Matrix: Solid

Date Received: 02/15/13 18:08

Percent Solids: 61.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			99913	02/19/13 16:17	NER	TAL HOU
Total/NA	Analysis	6010B		1	100065	02/21/13 16:43	DCL	TAL HOU
Total/NA	Analysis	6010B		1	100268	02/25/13 14:36	DCL	TAL HOU
Total/NA	Analysis	Moisture		1	99838	02/18/13 17:15	KRD	TAL HOU

Client Sample ID: SO-1620-IM-CPT-10-13 (2-5) - 20120215

Lab Sample ID: 600-68719-5

Date Collected: 02/15/13 12:55

Matrix: Solid

Date Received: 02/15/13 18:08

Percent Solids: 86.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	100012	02/20/13 21:11	WS	TAL HOU
Total/NA	Prep	3550B			100020	02/20/13 15:28	LB	TAL HOU
Total/NA	Analysis	8270C LL		50	100183	02/21/13 22:15	JH	TAL HOU
Total/NA	Prep	3050B			99913	02/19/13 16:17	NER	TAL HOU
Total/NA	Analysis	6010B		1	100065	02/21/13 16:59	DCL	TAL HOU
Total/NA	Analysis	6010B		1	100268	02/25/13 14:51	DCL	TAL HOU
Total/NA	Analysis	Moisture		1	99838	02/18/13 17:15	KRD	TAL HOU

Client Sample ID: SO-1620-IM-CPT-10-13 (5-7.5) - 20120215

Lab Sample ID: 600-68719-6

Date Collected: 02/15/13 13:25

Matrix: Solid

Date Received: 02/15/13 18:08

Percent Solids: 90.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	100100	02/21/13 10:58	WS	TAL HOU
Total/NA	Prep	3550B			100020	02/20/13 15:28	LB	TAL HOU
Total/NA	Analysis	8270C LL		50	100183	02/21/13 22:42	JH	TAL HOU
Total/NA	Prep	3050B			99913	02/19/13 16:17	NER	TAL HOU
Total/NA	Analysis	6010B		1	100065	02/21/13 17:01	DCL	TAL HOU
Total/NA	Analysis	6010B		1	100268	02/25/13 14:54	DCL	TAL HOU
Total/NA	Analysis	Moisture		1	99838	02/18/13 17:15	KRD	TAL HOU

Client Sample ID: SO-1620-IM-CPT-18-13 (1.7-5) - 20120214

Lab Sample ID: 600-68719-7

Date Collected: 02/14/13 15:05

Matrix: Solid

Date Received: 02/15/13 18:08

Percent Solids: 89.0

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	100100	02/21/13 10:35	WS	TAL HOU
Total/NA	Prep	3550B			100020	02/20/13 15:28	LB	TAL HOU
Total/NA	Analysis	8270C LL		50	100183	02/22/13 00:02	JH	TAL HOU
Total/NA	Prep	3050B			99913	02/19/13 16:17	NER	TAL HOU
Total/NA	Analysis	6010B		1	100065	02/21/13 17:03	DCL	TAL HOU
Total/NA	Analysis	6010B		1	100268	02/25/13 14:56	DCL	TAL HOU

TestAmerica Houston

Lab Chronicle

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68719-1

Client Sample ID: SO-1620-IM-CPT-18-13 (1.7-5) - 20120214

Lab Sample ID: 600-68719-7

Date Collected: 02/14/13 15:05

Matrix: Solid

Date Received: 02/15/13 18:08

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	99838	02/18/13 17:15	KRD	TAL HOU

Client Sample ID: SO-1620-IM-CPT-18-13 (12.5-14.3) - 20120214

Lab Sample ID: 600-68719-8

Date Collected: 02/14/13 15:20

Matrix: Solid

Date Received: 02/15/13 18:08

Percent Solids: 83.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	100100	02/21/13 10:11	WS	TAL HOU
Total/NA	Prep	3550B			100020	02/20/13 15:28	LB	TAL HOU
Total/NA	Analysis	8270C LL		1	100183	02/22/13 00:29	JH	TAL HOU
Total/NA	Prep	3050B			99913	02/19/13 16:17	NER	TAL HOU
Total/NA	Analysis	6010B		1	100065	02/21/13 17:06	DCL	TAL HOU
Total/NA	Analysis	6010B		1	100268	02/25/13 14:59	DCL	TAL HOU
Total/NA	Analysis	Moisture		1	99838	02/18/13 17:15	KRD	TAL HOU

Client Sample ID: SO-1620-IM-CPT-21-13 (2.5-5) - 20120215

Lab Sample ID: 600-68719-9

Date Collected: 02/15/13 11:25

Matrix: Solid

Date Received: 02/15/13 18:08

Percent Solids: 86.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	100100	02/21/13 17:19	WS	TAL HOU
Total/NA	Prep	3550B			100020	02/20/13 15:28	LB	TAL HOU
Total/NA	Analysis	8270C LL		50	100183	02/22/13 00:56	JH	TAL HOU
Total/NA	Prep	3050B			99913	02/19/13 16:17	NER	TAL HOU
Total/NA	Analysis	6010B		1	100065	02/21/13 17:09	DCL	TAL HOU
Total/NA	Analysis	6010B		1	100268	02/25/13 15:02	DCL	TAL HOU
Total/NA	Analysis	Moisture		1	99838	02/18/13 17:15	KRD	TAL HOU

Client Sample ID: SO-1620-IM-CPT-21-13 (7.5-10) - 20120215

Lab Sample ID: 600-68719-10

Date Collected: 02/15/13 11:35

Matrix: Solid

Date Received: 02/15/13 18:08

Percent Solids: 83.5

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	100100	02/21/13 17:42	WS	TAL HOU
Total/NA	Prep	3550B			100020	02/20/13 15:28	LB	TAL HOU
Total/NA	Analysis	8270C LL		50	100183	02/22/13 01:23	JH	TAL HOU
Total/NA	Prep	3050B			100062	02/21/13 09:24	NER	TAL HOU
Total/NA	Analysis	6010B		1	100152	02/22/13 13:38	DCL	TAL HOU
Total/NA	Analysis	Moisture		1	99838	02/18/13 17:15	KRD	TAL HOU

Laboratory References:

TAL HOU = TestAmerica Houston, 6310 Rothway Street, Houston, TX 77040, TEL (713)690-4444

TestAmerica Houston

Certification Summary

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68719-1

Laboratory: TestAmerica Houston

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Arkansas DEQ	State Program	6	88-0759	08-04-12
Louisiana	NELAP	6	01967	06-30-13
Oklahoma	State Program	6	9503	08-31-13
Texas	NELAP	6	T104704223-10-6-TX	10-31-13
USDA	Federal		P330-08-00217	04-01-14
Utah	NELAP	8	GULF	10-31-13

TestAmerica
6310 Rothway Street
Houston, TX 77040
Phone (713) 690-4444 Fax (713) 690-5646

Chain of Custody Record

TestAmerica
THE LABORATORY OF ENVIRONMENTAL TESTING

Client Information
 Client Contact: Mr. Eric Matzner
 Company: Pastor, Behling & Wheeler LLC
 Address: 2201 Double Creek Dr. Suite 4004
 City: Round Rock
 State, Zip: TX, 78664
 Phone: 512-671-3434 (Tel) 512-671-3446 (Fax)
 Email: eric.matzner@pbwllc.com
 Project Name: 1620-LPRR HWPIW
 Site:

Lab P/N: Kuchadkar, Sachin G
 E-Mail: sachin.kuchadkar@testamerica.com
 Camer Tracking ref(s):

COC No: 600-18948-7248.6
 Page: 1 of 1
 Job #:

Sample Identification	Sample Date	Sample Time	Sample Type (C-comp, G-grab)	Matrix (Water, Swab, On-surface, Air)	Field Filtered Sample (Yes or No)		8270C LL-SamVolatiles		8260B - Volatiles		6010B - As, Pb		Total Number of Containers	Special Instructions/Note:
					Field Filtered	MSD (Yes or No)	N	N	N	N	N	N		
S0-1620-1M-CPT-18-13(17-5)-20120215	08.14.13	1505	G	Solid	X	X	X	X	X	X	X	2		
S0-1620-1M-CPT-18-13(12.5-14.9)-20120215	08.14.13	1520	G	Solid	X	X	X	X	X	X	X	2		
S0-1620-1M-CPT-20-13(2.5-5)-20120215	08.15.13	1020	G	Solid	X	X	X	X	X	X	X	2		
S0-1620-1M-CPT-20-13(4.5-10)-20120215	08.15.13	1030	G	Solid	X	X	X	X	X	X	X	2		
S0-1620-1M-CPT-21-13(2.5-5)-20120215	08.15.13	1125	G	Solid	X	X	X	X	X	X	X	2		
S0-1620-1M-CPT-21-13(7.5-10)-20120215	08.15.13	1135	G	Solid	X	X	X	X	X	X	X	2		
S0-1620-1M-CPT-10-13(2.5-5)-20120215	08.15.13	1255	G	Solid	X	X	X	X	X	X	X	2		
S0-1620-1M-CPT-10-13(5-7.5)-20120215	08.15.13	1325	G	Solid	X	X	X	X	X	X	X	2		
S0-1620-1M-CPT-17-13(2.3-5)-20120215	08.15.13	1350	G	Solid	X	X	X	X	X	X	X	2		
S0-1620-1M-CPT-17-13(15-15)-20120215	08.15.13	1430	G	Solid	X	X	X	X	X	X	X	2		

Preservation Codes:
 A - HCL, B - NaOH, C - AsH2O2, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice Water, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsH2O2, P - Zn Acetate, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - ph 4-5, Z - other (specify)

Analysis Requested: _____

Special Instructions/OC Requirements:
 Return To Client Disposal By Lab Archive For _____ Months

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

Empty Kit Relinquished by: _____ Date: 08.15.13
 Relinquished by: _____ Date: 08.15.13
 Relinquished by: _____ Date: 08.15.13
 Relinquished by: _____ Date: 08.15.13

Company: PBW Company: PBW Company: PBW Company: PBW

Method of Shipment: _____

Revised by: _____ Date: 08.15.13
 Resigned by: _____ Date: 08.15.13
 Recalled by: _____ Date: 08.15.13

Cooler Temperature(s) °C and Other Remarks: _____



Login Sample Receipt Checklist

Client: Pastor, Behling & Wheeler LLC

Job Number: 600-68719-1

Login Number: 68719

List Source: TestAmerica Houston

List Number: 1

Creator: Capps, Dana

Question	Answer	Comment
Radioactivity wasn't checked or is <=/ background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	2.0
COC is present.	False	
COC is filled out in ink and legible.	False	
COC is filled out with all pertinent information.	False	
Is the Field Sampler's name present on COC?	False	
There are no discrepancies between the containers received and the COC.	False	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	Logged in per container labels.
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	True	

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Houston
6310 Rothway Street
Houston, TX 77040
Tel: (713)690-4444

TestAmerica Job ID: 600-68753-1

Client Project/Site: 1620 UPRR HWPW

For:

Pastor, Behling & Wheeler LLC
2201 Double Creek Dr
Suite 4004
Round Rock, Texas 78664

Attn: Mr. Eric Matzner



Authorized for release by:

3/7/2013 2:48:21 PM

Cathy Upton

Data Delivery Analyst

cathy.upton@testamericainc.com

Designee for

Sachin Kudchadkar

Project Manager II

sachin.kudchadkar@testamericainc.com

LINKS

Review your project
results through

TotalAccess

Have a Question?



Visit us at:

www.testamericainc.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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12

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15

16

17



Table of Contents

Cover Page	1
Table of Contents	2
TRRP Cover Page	3
TRRP Checklists & DCSs	4
Case Narrative	14
Method Summary	15
Sample Summary	16
Client Sample Results	17
Definitions/Glossary	21
Surrogate Summary	22
QC Sample Results	23
Default Detection Limits	27
QC Association Summary	28
Lab Chronicle	29
Certification Summary	30
Chain of Custody	31
Receipt Checklists	32

Job Number: 600-68753-1
Project Name/Number: 1620 UPRR HWPW

This Data Package consists of:

This signature page, the laboratory review checklist, and the following Reportable Data:

- R1 Field Chain-of-Custody Form
- R2 Sample Identification Cross-reference;
- R3 Test Reports (Analytical Data Sheets) for each environmental sample that includes:
 - a) Items consistent with NELAC Chapter 5
 - b) dilution factors,
 - c) preparation methods,
 - d) cleanup methods, and
 - e) if required for the project, tentatively identified compounds (TICs).
- R4 Surrogate Recovery Data including:
 - a) Calculated recovery (%R), and
 - b) The laboratory's surrogate QC limits.
- R5 Test Reports/Summary Forms for Blank Samples;
- R6 Test Reports/Summary Forms for Laboratory Control Samples (LCSs) including:
 - a) LCS spiking amounts,
 - b) Calculated %R for each analyte, and
 - d) The laboratory's LCS QC limits
- R7 Test Reports for Matrix Spike/Matrix Spike Duplicates (MS/MSDs) including:
 - a) Samples associated with the MS/MSD clearly identified,
 - b) MS/MSD spiking amounts,
 - c) Concentration of each MS/MSD analyte measured in the parent and spiked sample,
 - d) Calculated %Rs and relative percent differences (RPDs), and
 - e) The laboratory's MS/MSD QC limits
- R8 Laboratory analytical duplicates (if applicable) recovery and precision, including:
 - a) the amount of analyte measured in the duplicate,
 - b) the calculated RPD, and
 - c) the laboratory's QC limits for analytical duplicates.
- R9 List of method quantitation limit (MQL) and detectability check sample results for each analyte for each method and matrix;
- R10 Other problems or anomalies

The exception report for each "No" or "Not Reviewed (NR)" item in the Laboratory Review Checklist and for each analyte, matrix, and method for which the laboratory does not hold NELAC accreditation under the Texas Laboratory Accreditation Program.

Release Statement: I am responsible for the release of this laboratory data package. This laboratory is NELAC accredited under Texas laboratory Accreditation Program for all the methods, analytes, and matrices reported in this data package except as noted in the Exception Reports. The data have been reviewed and are technically compliant with the requirements of the methods used, except where noted by the laboratory in the Exception Reports. By my signature below, I affirm, to the best of my knowledge, that all problems/anomalies observed by the laboratory have been identified in the Laboratory Review Checklist, and no information affecting the quality of the data has been knowingly withheld.

Cathy Upton
Name (printed)
Data Delivery Analyst
Official Title (printed)


Signature

03/07/2013
Date

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Appendix A (cont'd): Laboratory Review Checklist: Reportable Data							
Laboratory Name: TestAmerica-Houston			LRC Date: 02/26/13				
Project Name: 1620 UPRR HWPW			Laboratory Job Number: 600-68753				
Reviewer Name: DT			Prep Batch Number: 600-99934-VOA				
# ¹	A ²	Description	Yes	No	NA ³	NR ⁴	ER# ⁵
R1	OI	Chain-of-custody (C-O-C)					
		Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?		X			1
		Were all departures from standard conditions described in an exception report?	X				
R2	OI	Sample and quality control (QC) identification					
		Are all field sample ID numbers cross-referenced to the laboratory ID numbers?	X				
		Are all laboratory ID numbers cross-referenced to the corresponding QC data?	X				
R3	OI	Test reports					
		Were all samples prepared and analyzed within holding times?	X				
		Other than those results < MQL, were all other raw values bracketed by calibration standards?	X				
		Were calculations checked by a peer or supervisor?	X				
		Were all analyte identifications checked by a peer or supervisor?	X				
		Were sample detection limits reported for all analytes not detected?	X				
		Were all results for soil and sediment samples reported on a dry weight basis?			X		
		Were % moisture (or solids) reported for all soil and sediment samples?			X		
		Were bulk soil/solid samples for volatile analysis extracted with methanol per SW846 Method 5035?			X		
		If required for the project, TICs reported?			X		
R4	O	Surrogate recovery data					
		Were surrogates added prior to extraction?	X				
		Were surrogate percent recoveries in all samples within the laboratory QC limits?	X				
R5	OI	Test reports/summary forms for blank samples					
		Were appropriate type(s) of blanks analyzed?	X				
		Were blanks analyzed at the appropriate frequency?	X				
		Were method blanks taken through the entire analytical process, including preparation and, if applicable, cleanup procedures?	X				
		Were blank concentrations < MQL?	X				
R6	OI	Laboratory control samples (LCS):					
		Were all COCs included in the LCS?	X				
		Was each LCS taken through the entire analytical procedure, including prep and cleanup steps?	X				
		Were LCSs analyzed at the required frequency?	X				
		Were LCS (and LCSD, if applicable) %Rs within the laboratory QC limits?	X				
		Does the detectability check sample data document the laboratory's capability to detect the COCs at the MDL used to calculate the SDLs?	X				
		Was the LCSD RPD within QC limits?			X		
R7	OI	Matrix spike (MS) and matrix spike duplicate (MSD) data					
		Were the project/method specified analytes included in the MS and MSD?	X				
		Were MS/MSD analyzed at the appropriate frequency?	X				
		Were MS (and MSD, if applicable) %Rs within the laboratory QC limits?	X				
		Were MS/MSD RPDs within laboratory QC limits?	X				
R8	OI	Analytical duplicate data					
		Were appropriate analytical duplicates analyzed for each matrix?			X		
		Were analytical duplicates analyzed at the appropriate frequency?			X		
		Were RPDs or relative standard deviations within the laboratory QC limits?			X		
R9	OI	Method quantitation limits (MQLs):					
		Are the MQLs for each method analyte included in the laboratory data package?	X				
		Do the MQLs correspond to the concentration of the lowest non-zero calibration standard?	X				
		Are unadjusted MQLs and DCSs included in the laboratory data package?	X				
R10	OI	Other problems/anomalies					
		Are all known problems/anomalies/special conditions noted in this LRC and ER?	X				
		Was applicable and available technology used to lower the SDL to minimize the matrix interference affects on the sample results?	X				
		Is the laboratory NELAC-accredited under the Texas Laboratory Accreditation Program for the analytes, matrices and methods associated with this laboratory data package?	X				

- Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.
- O = organic analyses; I = inorganic analyses (and general chemistry, when applicable);
- NA = Not applicable;
- NR = Not reviewed;
- ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

Appendix A (cont'd): Laboratory Review Checklist: Reportable Data									
Laboratory Name: TestAmerica-Houston					LRC Date: 02/26/13				
Project Name: 1620 UPRR HWPW					Laboratory Job Number: 600-68753				
Reviewer Name: DT					Prep Batch Number: 600-99934-VOA				
# ¹	A ²	Description	Yes	No	NA ³	NR ⁴	ER# ⁵		
S1	OI	Initial calibration (ICAL)							
		Were response factors and/or relative response factors for each analyte within QC limits?	X						
		Were percent RSDs or correlation coefficient criteria met?	X						
		Was the number of standards recommended in the method used for all analytes?	X						
		Were all points generated between the lowest and highest standard used to calculate the curve?	X						
		Are ICAL data available for all instruments used?	X						
		Has the initial calibration curve been verified using an appropriate second source standard?	X						
S2	OI	Initial and continuing calibration verification (ICCV and CCV) and continuing calibration							
		Was the CCV analyzed at the method-required frequency?	X						
		Were percent differences for each analyte within the method-required QC limits?	X						
		Was the ICAL curve verified for each analyte?	X						
		Was the absolute value of the analyte concentration in the inorganic CCB < MDL?			X				
S3	O	Mass spectral tuning:							
		Was the appropriate compound for the method used for tuning?	X						
		Were ion abundance data within the method-required QC limits?	X						
S4	O	Internal standards (IS):							
		Were IS area counts and retention times within the method-required QC limits?	X						
S5	OI	Raw data (NELAC section 5.5.10)							
		Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?	X						
		Were data associated with manual integrations flagged on the raw data?	X						
S6	O	Dual column confirmation							
		Did dual column confirmation results meet the method-required QC?			X				
S7	O	Tentatively identified compounds (TICs):							
		If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?			X				
S8	I	Interference Check Sample (ICS) results:							
		Were percent recoveries within method QC limits?			X				
S9	I	Serial dilutions, post digestion spikes, and method of standard additions							
		Were percent differences, recoveries, and the linearity within the QC limits specified in the method?			X				
S10	OI	Method detection limit (MDL) studies							
		Was a MDL study performed for each reported analyte?	X						
		Is the MDL either adjusted or supported by the analysis of DCSs?	X						
S11	OI	Proficiency test reports:							
		Was the laboratory's performance acceptable on the applicable proficiency tests or evaluation studies?	X						
S12	OI	Standards documentation							
		Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?	X						
S13	OI	Compound/analyte identification procedures							
		Are the procedures for compound/analyte identification documented?	X						
S14	OI	Demonstration of analyst competency (DOC)							
		Was DOC conducted consistent with NELAC Chapter 5?	X						
		Is documentation of the analyst's competency up-to-date and on file?	X						
S15	OI	Verification/validation documentation for methods (NELAC Chapter 5)							
		Are all the methods used to generate the data documented, verified, and validated, where applicable?	X						
S16	OI	Laboratory standard operating procedures (SOPs):							
		Are laboratory SOPs current and on file for each method performed?	X						

- 1 Items identified by the letter "R" should be included in the laboratory data package submitted to the TCEQ in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.
- 2 O = organic analyses; I = inorganic analyses (and general chemistry, when applicable).
- 3 NA = Not applicable.
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Appendix A (cont'd): Laboratory Review Checklist: Exception Reports	
Laboratory Name: TestAmerica-Houston	LRC Date: 02/26/13
Project Name: 1620 UPRR HWPW	Laboratory Job Number: 600-68753
Reviewer Name: DT	Prep Batch Number: 600-99934-VOA
ER #¹	DESCRIPTION
1	See Case Narrative.

ER# = Exception Report identification number (an Exception Report should be completed for an item if “NR” or “No” is checked on the LRC)

Appendix A (cont'd): Laboratory Review Checklist: Reportable Data							
Laboratory Name: TestAmerica-Houston			LRC Date: 03/01/13				
Project Name: 1620 UPRR HWPW			Laboratory Job Number: 600-68753				
Reviewer Name: TTD			Prep Batch Number: 600-99848-SV				
# ¹	A ²	Description	Yes	No	NA ³	NR ⁴	ER# ⁵
R1	OI	Chain-of-custody (C-O-C)					
		Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?	X				
		Were all departures from standard conditions described in an exception report?			X		
R2	OI	Sample and quality control (QC) identification					
		Are all field sample ID numbers cross-referenced to the laboratory ID numbers?	X				
		Are all laboratory ID numbers cross-referenced to the corresponding QC data?	X				
R3	OI	Test reports					
		Were all samples prepared and analyzed within holding times?	X				
		Other than those results < MQL, were all other raw values bracketed by calibration standards?	X				
		Were calculations checked by a peer or supervisor?	X				
		Were all analyte identifications checked by a peer or supervisor?	X				
		Were sample detection limits reported for all analytes not detected?	X				
		Were all results for soil and sediment samples reported on a dry weight basis?			X		
		Were % moisture (or solids) reported for all soil and sediment samples?			X		
		Were bulk soil/solid samples for volatile analysis extracted with methanol per SW846 Method 5035?			X		
		If required for the project, TICs reported?			X		
R4	O	Surrogate recovery data					
		Were surrogates added prior to extraction?	X				
		Were surrogate percent recoveries in all samples within the laboratory QC limits?		X			1
R5	OI	Test reports/summary forms for blank samples					
		Were appropriate type(s) of blanks analyzed?	X				
		Were blanks analyzed at the appropriate frequency?	X				
		Were method blanks taken through the entire analytical process, including preparation and, if applicable, cleanup procedures?	X				
		Were blank concentrations < MQL?	X				
R6	OI	Laboratory control samples (LCS):					
		Were all COCs included in the LCS?	X				
		Was each LCS taken through the entire analytical procedure, including prep and cleanup steps?	X				
		Were LCSs analyzed at the required frequency?	X				
		Were LCS (and LCSD, if applicable) %Rs within the laboratory QC limits?	X				
		Does the detectability check sample data document the laboratory's capability to detect the COCs at the MDL used to calculate the SDLs?	X				
		Was the LCSD RPD within QC limits?			X		
R7	OI	Matrix spike (MS) and matrix spike duplicate (MSD) data					
		Were the project/method specified analytes included in the MS and MSD?	X				
		Were MS/MSD analyzed at the appropriate frequency?	X				
		Were MS (and MSD, if applicable) %Rs within the laboratory QC limits?			X		2
		Were MS/MSD RPDs within laboratory QC limits?			X		2
R8	OI	Analytical duplicate data					
		Were appropriate analytical duplicates analyzed for each matrix?			X		
		Were analytical duplicates analyzed at the appropriate frequency?			X		
		Were RPDs or relative standard deviations within the laboratory QC limits?			X		
R9	OI	Method quantitation limits (MQLs):					
		Are the MQLs for each method analyte included in the laboratory data package?	X				
		Do the MQLs correspond to the concentration of the lowest non-zero calibration standard?	X				
		Are unadjusted MQLs and DCSs included in the laboratory data package?	X				
R10	OI	Other problems/anomalies					
		Are all known problems/anomalies/special conditions noted in this LRC and ER?	X				
		Was applicable and available technology used to lower the SDL to minimize the matrix interference affects on the sample results?	X				3
		Is the laboratory NELAC-accredited under the Texas Laboratory Accreditation Program for the analytes, matrices and methods associated with this laboratory data package?	X				

- Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.
- O = organic analyses; I = inorganic analyses (and general chemistry, when applicable);
- NA = Not applicable;
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- ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

Appendix A (cont'd): Laboratory Review Checklist: Reportable Data									
Laboratory Name: TestAmerica-Houston					LRC Date: 03/01/13				
Project Name: 1620 UPRR HWPW					Laboratory Job Number: 600-68753				
Reviewer Name: TTD					Prep Batch Number: 600-99848-SV				
# ¹	A ²	Description	Yes	No	NA ³	NR ⁴	ER# ⁵		
S1	OI	Initial calibration (ICAL)							
		Were response factors and/or relative response factors for each analyte within QC limits?	X						
		Were percent RSDs or correlation coefficient criteria met?	X						
		Was the number of standards recommended in the method used for all analytes?	X						
		Were all points generated between the lowest and highest standard used to calculate the curve?	X						
		Are ICAL data available for all instruments used?	X						
		Has the initial calibration curve been verified using an appropriate second source standard?	X						
S2	OI	Initial and continuing calibration verification (ICCV and CCV) and continuing calibration							
		Was the CCV analyzed at the method-required frequency?	X						
		Were percent differences for each analyte within the method-required QC limits?	X						
		Was the ICAL curve verified for each analyte?	X						
		Was the absolute value of the analyte concentration in the inorganic CCB < MDL?			X				
S3	O	Mass spectral tuning:							
		Was the appropriate compound for the method used for tuning?	X						
		Were ion abundance data within the method-required QC limits?	X						
S4	O	Internal standards (IS):							
		Were IS area counts and retention times within the method-required QC limits?	X						
S5	OI	Raw data (NELAC section 5.5.10)							
		Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?	X						
		Were data associated with manual integrations flagged on the raw data?	X						
S6	O	Dual column confirmation							
		Did dual column confirmation results meet the method-required QC?			X				
S7	O	Tentatively identified compounds (TICs):							
		If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?			X				
S8	I	Interference Check Sample (ICS) results:							
		Were percent recoveries within method QC limits?			X				
S9	I	Serial dilutions, post digestion spikes, and method of standard additions							
		Were percent differences, recoveries, and the linearity within the QC limits specified in the method?			X				
S10	OI	Method detection limit (MDL) studies							
		Was a MDL study performed for each reported analyte?	X						
		Is the MDL either adjusted or supported by the analysis of DCSs?	X						
S11	OI	Proficiency test reports:							
		Was the laboratory's performance acceptable on the applicable proficiency tests or evaluation studies?	X						
S12	OI	Standards documentation							
		Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?	X						
S13	OI	Compound/analyte identification procedures							
		Are the procedures for compound/analyte identification documented?	X						
S14	OI	Demonstration of analyst competency (DOC)							
		Was DOC conducted consistent with NELAC Chapter 5?	X						
		Is documentation of the analyst's competency up-to-date and on file?	X						
S15	OI	Verification/validation documentation for methods (NELAC Chapter 5)							
		Are all the methods used to generate the data documented, verified, and validated, where applicable?	X						
S16	OI	Laboratory standard operating procedures (SOPs):							
		Are laboratory SOPs current and on file for each method performed?	X						

- 1 Items identified by the letter "R" should be included in the laboratory data package submitted to the TCEQ in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.
- 2 O = organic analyses; I = inorganic analyses (and general chemistry, when applicable).
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Appendix A (cont'd): Laboratory Review Checklist: Exception Reports	
Laboratory Name: TestAmerica-Houston	LRC Date: 03/01/13
Project Name: 1620 UPRR HWPW	Laboratory Job Number: 600-68753
Reviewer Name: TTD	Prep Batch Number: 600-99848-SV
ER #¹	DESCRIPTION
1	Due to the level of dilution required for sample 600-68753-1DL; the Phenol-d6 surrogate recovery is not reported.
2	The laboratory selected a sample from another group to perform as the MS/MSD.
3	The Acenaphthene SDL in sample 600-68753-1DL was elevated due to the high concentration of this analyte.

The laboratory selected a sample from another group to perform as the MS/MSD.

ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked on the LRC)

Detection Check Standard

Matrix: Water
Method: 8260B_LL
Preparation: Wei Shen
Date Analyzed: 10/8/2012
Date Prepared: 10/8/2012
TALs Batches: A25003.D
Units: ug/L

Analyte	MDL	DCS Spike	Measured Result	MQL
Dichlorodifluoromethane	0.12	1	0.0281	5
Chloromethane	0.18	1	0.355	10
Vinyl Chloride	0.11	0.5	0.131	10
Bromomethane	0.25	1	0.882	10
Chloroethane	0.08	0.5	0.208	10
Allyl chloride	2	1	1.84	5
Acrolein	1.63	1	4.34	5
1,1-Dichloroethene	0.19	0.5	4.3	5
trans-1,2-Dichloroethene	0.09	0.5	4.68	5
Trichlorotrifluoroethane	1	1	0.534	5
Acetone	0.99	1	1.87	5
Methyl Iodide (Iodomethane)	2	1	2.29	5
Carbon Disulfide	0.24	1	2.6	5
2-Propanol (Isopropyl alcohol)	3.72	1	7.51	5
Acetonitrile	0.27	1	1.21	5
Methylene Chloride	0.15	0.5	1.79	10
Methyl tert-butyl ether	0.12	0.5	0.704	5
Vinyl Acetate	0.21	0.5	0.776	5
Acrylonitrile	0.52	1	2.71	5
Chloroprene (2-Chloro-1,3-butadiene)	0.33	1	1.16	5
Propionitrile	0.66	1	1.58	5
cis-1,2-Dichloroethene	0.06	0.5	0.659	5
1,2-Dichloroethene	0.3	1	1.45	5
2-Butanone (MEK)	0.76	1	1.64	5
Isobutyl alcohol	3.32	1	8.48	5
Bromochloromethane	0.18	0.5	0.436	5
Methacrylonitrile	0.41	1	1.62	5
Carbon Tetrachloride	0.15	0.5	0.318	5
Benzene	0.08	0.5	0.355	5
1,2-Dichloroethane	0.14	0.5	0.379	5
Trichloroethene	0.13	0.5	0.343	5
1,1,1-Trichloroethane	0.15	0.5	0.306	5
1,1-Dichloropropene	0.11	0.5	0.281	5
1,2-Dichloroethane	0.3	0.5	0.316	5
1,2-Dichloropropane	0.16	0.5	0.292	5
2,2-Dichloropropane	0.13	1	0.682	5
Methylene Bromide (Bromomethane)	0.25	0.5	0.328	5
1,4-Dioxane	30.79	1	34.08	250
Methyl methacrylate	0.33	1	1.55	5



Bromodichloromethane	0.16	0.5	0.715	5
2-Chloroethyl vinyl ether	0.5	1	2.04	5
1,1-Dichloropropane	0.21	0.5	0.774	5
cis-1,3-Dichloropropene	0.18	0.5	0.718	5
4-Methyl-2-pentanone	0.45	1	2.42	10
Toluene	0.15	0.5	0.431	5
trans-1,3-Dichloropropene	0.21	0.5	0.406	5
Ethyl Methacrylate	0.94	1	0.686	10
1,1,2-Trichloroethane	0.18	0.5	0.401	5
Tetrachloroethene	0.18	0.5	0.823	5
1,3-Dichloropropane	0.22	1	0.89	5
2-Hexanone	0.35	1	2.01	10
Dibromochloromethane	0.16	0.5	0.811	5
1,2-Dibromoethane (Ethylene bromide)	0.18	0.5	0.373	5
Chlorobenzene	0.12	0.5	0.424	5
1,1,1,2-Tetrachloroethane	0.18	0.5	0.401	5
Ethylbenzene	0.11	0.5	0.357	5
m,p-Xylene	0.17	0.5	0.741	10
o-Xylene	0.12	0.5	0.37	5
Xylenes (total)	0.26	0.5	1.11	5
Styrene	0.07	0.5	0.344	5
Bromoform	0.19	0.5	0.915	5
Isopropylbenzene	0.18	0.5	0.367	5
Bromobenzene	0.19	0.5	0.457	5
1,2,3-Trichloropropane	0.29	1	0.89	5
1,1,2,2-Tetrachloroethane	0.22	1	0.729	5
trans-1,4-Dichloro-2-butene	0.64	1	2.36	5
n-Propylbenzene	0.15	0.5	0.372	5
2-Chlorotoluene	0.13	0.5	0.424	5
4-Chlorotoluene	0.14	0.5	0.442	5
1,3,5-Trimethylbenzene	0.1	0.5	0.392	5
tert-Butylbenzene	0.08	0.5	0.359	5
p-Isopropyltoluene	0.1	0.5	0.329	5
1,2,4-Trimethylbenzene	0.14	0.5	0.388	5
sec-Butylbenzene	0.12	0.5	0.329	5
1,3-Dichlorobenzene	0.13	0.5	0.437	5
1,4-Dichlorobenzene	0.11	0.5	0.475	5
1,2-Dichlorobenzene	0.1	0.5	0.466	5
n-Butylbenzene	0.16	0.5	0.297	5
1,2-Dibromo-3-chloropropane	0.33	1	1.2	5
1,2,4-Trichlorobenzene	0.31	1	0.849	5
Hexachlorobutadiene	0.17	0.5	0.363	5
Naphthalene	0.32	1	1.09	5
1,2,3-Trichlorobenzene	0.57	1	0.867	5

**Quality Control Report
Detection Check Standard**

Matrix: Water
 Method: 8270C LL
 Preparation: 3510C
 Date Analyzed: 10/18/2012
 Date Prepared: 10/16/2012
 Lab Sample ID: 600-91246_18-a
 Units: ug/L

Analyte	MDL	DCS Spike	DCS Result	MLQ
Pyridine	0.04	0.25	0.067	0.5
N-Nitrosodimethylamine	0.26	0.25	0.121	0.5
Aniline	0.08	0.25	0.085	0.5
Phenol	0.04	0.25	0.054	0.5
bis(2-Chloroethyl)ether	0.15	0.25	0.149	0.5
2-Chlorophenol	0.13	0.25	0.097	0.5
1,3-Dichlorobenzene	0.17	0.25	0.152	0.5
1,4-Dichlorobenzene	0.13	0.25	0.166	0.5
1,2-Dichlorobenzene	0.17	0.25	0.167	0.5
Benzyl alcohol	0.17	0.25	0.075	0.5
2-Methylphenol	0.12	0.25	0.112	0.5
m&p-Cresols	0.2	0.25	0.053	1
bis (2-Chloroisopropyl) ether	0.4	0.25	0.143	0.5
N-Nitroso-di-n-propylamine	0.1	0.25	0.177	0.5
Hexachloroethane	0.1	0.25	0.185	0.5
Nitrobenzene	0.11	0.25	0.131	0.5
Isophorone	0.11	0.25	0.149	0.5
2-Nitrophenol	0.22	0.5	0.205	0.5
Benzoic acid	2.51	5	6.530	2.5
2,4-Dimethylphenol	0.31	0.5	0.130	0.5
bis(2-Chloroethoxy)methane	0.13	0.25	0.122	0.5
2,4-Dichlorophenol	0.15	0.25	0.068	0.5
1,2,4-Trichlorobenzene	0.12	0.25	0.125	0.5
Naphthalene	0.08	0.25	0.161	0.5
4-Chloroaniline	0.21	0.5	0.232	0.5
Hexachlorobutadiene	0.18	0.25	0.160	0.5
4-Chloro-3-methylphenol	0.17	0.25	0.075	0.5
2-Methylnaphthalene	0.07	0.25	0.128	0.5
1-Methylnaphthalene	0.09	0.25	0.147	0.5
Hexachlorocyclopentadiene	0.13	0.5	0.487	0.5
2,4,6-Trichlorophenol	0.18	0.5	0.062	0.5
2,4,5-Trichlorophenol	0.25	0.5	0.107	0.5
2-Chloronaphthalene	0.08	0.25	0.148	0.5
2-Nitroaniline	0.19	0.5	0.213	0.5
Dimethylphthalate	0.07	0.25	0.145	0.5
1,4 Dinitrobenzene	5	0.25	0.363	0.5
1,3-Dinitrobenzene	0.08	0.25	0.381	0.5
1,2-Dinitrobenzene	0.5	0.25	0.040	0.5
Acenaphthylene	0.06	0.25	0.137	0.5

2,6-Dinitrotoluene	0.08	0.25	0.178	0.5
3-Nitroaniline	0.16	0.5	0.240	0.5
Acenaphthene	0.08	0.25	0.151	0.5
Dibenzofuran	0.08	0.25	0.127	0.5
2,4-Dinitrotoluene	0.13	0.25	0.144	0.5
Diethylphthalate	1.5	0.5	0.431	0.5
4-Chlorophenyl-phenylether	0.1	0.25	0.102	0.5
Fluorene	0.07	0.25	0.107	0.5
4-Nitroaniline	0.25	0.5	0.124	0.5
4,6-Dinitro-2-Methylphenol	0.83	2.5	0.530	1
N-Nitrosodiphenylamine	0.1	0.25	0.176	0.5
Diphenylamine	0.1	0.25	0.099	0.5
1,2-Diphenylhydrazine	0.11	0.25	0.224	0.5
Azobenzene	0.07	0.25	0.117	0.5
4-Bromophenyl-phenylether	0.1	0.25	0.112	0.5
Hexachlorobenzene	0.11	0.25	0.130	0.5
Phenanthrene	0.06	0.25	0.169	0.5
Anthracene	0.05	0.25	0.144	0.5
Carbazole	0.17	0.25	0.140	0.5
Di-n-butylphthalate	0.11	0.25	0.238	0.5
Fluoranthene	0.07	0.25	0.196	0.5
Pyrene	0.11	0.25	0.153	0.5
Butylbenzylphthalate	0.12	0.25	0.238	0.5
3,3'-Dichlorobenzidene	0.5	0.25	0.066	0.5
Benzo(a)anthracene	0.08	0.25	0.175	0.5
bis(2-Ethylhexyl)phthalate	0.37	0.5	0.420	0.5
Chrysene	0.08	0.25	0.212	0.5
Di-n-octylphthalate	0.16	0.25	0.091	0.5
Benzo(b)fluoranthene	0.07	0.25	0.143	0.5
Benzo(k)fluoranthene	0.09	0.25	0.201	0.5
Benzo(a)pyrene	0.08	0.25	0.137	0.5
Indeno(1,2,3-cd)pyrene	0.07	0.25	0.454	0.5
Dibenz(a,h)anthracene	0.08	0.25	0.123	0.5
Benzo(g,h,i)perylene	0.08	0.25	0.112	0.5



Case Narrative

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68753-1

Job ID: 600-68753-1

Laboratory: TestAmerica Houston

Narrative

Job Narrative
600-68753-1

Comments

No additional comments.

Receipt

The samples were received on 2/18/2013 4:26 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 1.3° C.

Except:

A trip blank was submitted for analysis with these samples; however, it was not listed on the Chain of Custody (COC).

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Method Summary

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68753-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL HOU
8270C LL	Semivolatile Organic Compounds by GCMS - Low Levels	SW846	TAL HOU

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL HOU = TestAmerica Houston, 6310 Rothway Street, Houston, TX 77040, TEL (713)690-4444



Sample Summary

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68753-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
600-68753-1	WG-1620-IM-CPT-06-13-A-20120218	Water	02/18/13 10:30	02/18/13 16:26
600-68753-2	WG-1620-IM-CPT-05-13-A-20120218	Water	02/18/13 12:46	02/18/13 16:26
600-68753-3	WG-1620-IM-CPT-04-13-A-20120218	Water	02/18/13 15:20	02/18/13 16:26
600-68753-4	Trip Blank	Water	02/18/13 00:00	02/18/13 16:26

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Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68753-1

Client Sample ID: WG-1620-IM-CPT-06-13-A-20120218

Lab Sample ID: 600-68753-1

Date Collected: 02/18/13 10:30

Matrix: Water

Date Received: 02/18/13 16:26

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			02/19/13 13:19	1
Benzene	0.000110	J	0.00100	0.0000800	mg/L			02/19/13 13:19	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			02/19/13 13:19	1
Toluene	0.000150	U	0.00100	0.000150	mg/L			02/19/13 13:19	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			02/19/13 13:19	1
Ethylbenzene	0.000110	U	0.00100	0.000110	mg/L			02/19/13 13:19	1
Xylenes, Total	0.000879	J	0.00300	0.000260	mg/L			02/19/13 13:19	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	103		67 - 139					02/19/13 13:19	1
Dibromofluoromethane	95		62 - 130					02/19/13 13:19	1
Toluene-d8 (Surr)	91		70 - 130					02/19/13 13:19	1
1,2-Dichloroethane-d4 (Surr)	78		50 - 134					02/19/13 13:19	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.0000381	U	0.000476	0.0000381	mg/L		02/19/13 08:32	02/20/13 22:06	1
Nitrobenzene	0.000105	U	0.000476	0.000105	mg/L		02/19/13 08:32	02/20/13 22:06	1
2,4-Dimethylphenol	0.000295	U	0.000476	0.000295	mg/L		02/19/13 08:32	02/20/13 22:06	1
Bis(2-chloroethoxy)methane	0.000124	U	0.000476	0.000124	mg/L		02/19/13 08:32	02/20/13 22:06	1
Naphthalene	0.000283	J	0.00476	0.0000762	mg/L		02/19/13 08:32	02/20/13 22:06	1
2-Methylnaphthalene	0.000234	J	0.000476	0.0000667	mg/L		02/19/13 08:32	02/20/13 22:06	1
2-Chloronaphthalene	0.0000762	U	0.000476	0.0000762	mg/L		02/19/13 08:32	02/20/13 22:06	1
Acenaphthylene	0.0000571	U	0.000476	0.0000571	mg/L		02/19/13 08:32	02/20/13 22:06	1
2,6-Dinitrotoluene	0.0000762	U	0.000476	0.0000762	mg/L		02/19/13 08:32	02/20/13 22:06	1
4-Nitrophenol	0.000533	U	0.000952	0.000533	mg/L		02/19/13 08:32	02/20/13 22:06	1
Dibenzofuran	0.0000762	U	0.000476	0.0000762	mg/L		02/19/13 08:32	02/20/13 22:06	1
2,4-Dinitrotoluene	0.000124	U	0.000476	0.000124	mg/L		02/19/13 08:32	02/20/13 22:06	1
Fluorene	0.0170		0.000476	0.0000667	mg/L		02/19/13 08:32	02/20/13 22:06	1
4,6-Dinitro-2-methylphenol	0.000790	U	0.000952	0.000790	mg/L		02/19/13 08:32	02/20/13 22:06	1
N-Nitrosodiphenylamine	0.0000952	U	0.000476	0.0000952	mg/L		02/19/13 08:32	02/20/13 22:06	1
1,2-Diphenylhydrazine	0.000105	U	0.000476	0.000105	mg/L		02/19/13 08:32	02/20/13 22:06	1
Pentachlorophenol	0.000581	U	0.000952	0.000581	mg/L		02/19/13 08:32	02/20/13 22:06	1
Phenanthrene	0.00143		0.000476	0.0000571	mg/L		02/19/13 08:32	02/20/13 22:06	1
Anthracene	0.00270		0.000476	0.0000476	mg/L		02/19/13 08:32	02/20/13 22:06	1
Di-n-butyl phthalate	0.000105	U	0.000476	0.000105	mg/L		02/19/13 08:32	02/20/13 22:06	1
Fluoranthene	0.000973		0.000476	0.0000667	mg/L		02/19/13 08:32	02/20/13 22:06	1
Pyrene	0.000784		0.000476	0.000105	mg/L		02/19/13 08:32	02/20/13 22:06	1
Benzo[a]anthracene	0.000186	J	0.000476	0.0000762	mg/L		02/19/13 08:32	02/20/13 22:06	1
Bis(2-ethylhexyl) phthalate	0.000922		0.000476	0.000352	mg/L		02/19/13 08:32	02/20/13 22:06	1
Chrysene	0.000169	J	0.000476	0.0000762	mg/L		02/19/13 08:32	02/20/13 22:06	1
Benzo[a]pyrene	0.0000762	U	0.000476	0.0000762	mg/L		02/19/13 08:32	02/20/13 22:06	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Phenol-d6	15		10 - 94				02/19/13 08:32	02/20/13 22:06	1
2,4,6-Tribromophenol	74		10 - 123				02/19/13 08:32	02/20/13 22:06	1
2-Fluorobiphenyl	82		43 - 116				02/19/13 08:32	02/20/13 22:06	1
2-Fluorophenol	24		10 - 100				02/19/13 08:32	02/20/13 22:06	1
Nitrobenzene-d5	67		35 - 114				02/19/13 08:32	02/20/13 22:06	1
Terphenyl-d14	53		33 - 141				02/19/13 08:32	02/20/13 22:06	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68753-1

Client Sample ID: WG-1620-IM-CPT-06-13-A-20120218

Lab Sample ID: 600-68753-1

Date Collected: 02/18/13 10:30

Matrix: Water

Date Received: 02/18/13 16:26

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels - DL

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	0.0551		0.00476	0.000762	mg/L		02/19/13 08:32	02/21/13 19:20	10
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Phenol-d6	0	X	10 - 94				02/19/13 08:32	02/21/13 19:20	10
2,4,6-Tribromophenol	46		10 - 123				02/19/13 08:32	02/21/13 19:20	10
2-Fluorobiphenyl	62		43 - 116				02/19/13 08:32	02/21/13 19:20	10
2-Fluorophenol	21		10 - 100				02/19/13 08:32	02/21/13 19:20	10
Nitrobenzene-d5	49		35 - 114				02/19/13 08:32	02/21/13 19:20	10
Terphenyl-d14	49		33 - 141				02/19/13 08:32	02/21/13 19:20	10

Client Sample ID: WG-1620-IM-CPT-05-13-A-20120218

Lab Sample ID: 600-68753-2

Date Collected: 02/18/13 12:46

Matrix: Water

Date Received: 02/18/13 16:26

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			02/19/13 13:44	1
Benzene	0.0000800	U	0.00100	0.0000800	mg/L			02/19/13 13:44	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			02/19/13 13:44	1
Toluene	0.000150	U	0.00100	0.000150	mg/L			02/19/13 13:44	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			02/19/13 13:44	1
Ethylbenzene	0.000110	U	0.00100	0.000110	mg/L			02/19/13 13:44	1
Xylenes, Total	0.000260	U	0.00300	0.000260	mg/L			02/19/13 13:44	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	108		67 - 139					02/19/13 13:44	1
Dibromofluoromethane	97		62 - 130					02/19/13 13:44	1
Toluene-d8 (Surr)	95		70 - 130					02/19/13 13:44	1
1,2-Dichloroethane-d4 (Surr)	83		50 - 134					02/19/13 13:44	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.0000381	U	0.000476	0.0000381	mg/L		02/19/13 08:32	02/20/13 22:33	1
Nitrobenzene	0.000105	U	0.000476	0.000105	mg/L		02/19/13 08:32	02/20/13 22:33	1
2,4-Dimethylphenol	0.000295	U	0.000476	0.000295	mg/L		02/19/13 08:32	02/20/13 22:33	1
Bis(2-chloroethoxy)methane	0.000124	U	0.000476	0.000124	mg/L		02/19/13 08:32	02/20/13 22:33	1
Naphthalene	0.0000762	U	0.00476	0.0000762	mg/L		02/19/13 08:32	02/20/13 22:33	1
2-Methylnaphthalene	0.0000667	U	0.000476	0.0000667	mg/L		02/19/13 08:32	02/20/13 22:33	1
2-Chloronaphthalene	0.0000762	U	0.000476	0.0000762	mg/L		02/19/13 08:32	02/20/13 22:33	1
Acenaphthylene	0.0000571	U	0.000476	0.0000571	mg/L		02/19/13 08:32	02/20/13 22:33	1
2,6-Dinitrotoluene	0.0000762	U	0.000476	0.0000762	mg/L		02/19/13 08:32	02/20/13 22:33	1
Acenaphthene	0.0000762	U	0.000476	0.0000762	mg/L		02/19/13 08:32	02/20/13 22:33	1
4-Nitrophenol	0.000533	U	0.000952	0.000533	mg/L		02/19/13 08:32	02/20/13 22:33	1
Dibenzofuran	0.0000762	U	0.000476	0.0000762	mg/L		02/19/13 08:32	02/20/13 22:33	1
2,4-Dinitrotoluene	0.000124	U	0.000476	0.000124	mg/L		02/19/13 08:32	02/20/13 22:33	1
Fluorene	0.0000667	U	0.000476	0.0000667	mg/L		02/19/13 08:32	02/20/13 22:33	1
4,6-Dinitro-2-methylphenol	0.000790	U	0.000952	0.000790	mg/L		02/19/13 08:32	02/20/13 22:33	1
N-Nitrosodiphenylamine	0.0000952	U	0.000476	0.0000952	mg/L		02/19/13 08:32	02/20/13 22:33	1
1,2-Diphenylhydrazine	0.000105	U	0.000476	0.000105	mg/L		02/19/13 08:32	02/20/13 22:33	1
Pentachlorophenol	0.000581	U	0.000952	0.000581	mg/L		02/19/13 08:32	02/20/13 22:33	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68753-1

Client Sample ID: WG-1620-IM-CPT-05-13-A-20120218

Lab Sample ID: 600-68753-2

Date Collected: 02/18/13 12:46

Matrix: Water

Date Received: 02/18/13 16:26

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenanthrene	0.0000571	U	0.000476	0.0000571	mg/L		02/19/13 08:32	02/20/13 22:33	1
Anthracene	0.0000476	U	0.000476	0.0000476	mg/L		02/19/13 08:32	02/20/13 22:33	1
Di-n-butyl phthalate	0.000717		0.000476	0.000105	mg/L		02/19/13 08:32	02/20/13 22:33	1
Fluoranthene	0.0000667	U	0.000476	0.0000667	mg/L		02/19/13 08:32	02/20/13 22:33	1
Pyrene	0.000105	U	0.000476	0.000105	mg/L		02/19/13 08:32	02/20/13 22:33	1
Benzo[a]anthracene	0.0000762	U	0.000476	0.0000762	mg/L		02/19/13 08:32	02/20/13 22:33	1
Bis(2-ethylhexyl) phthalate	0.000664		0.000476	0.000352	mg/L		02/19/13 08:32	02/20/13 22:33	1
Chrysene	0.0000762	U	0.000476	0.0000762	mg/L		02/19/13 08:32	02/20/13 22:33	1
Benzo[a]pyrene	0.0000762	U	0.000476	0.0000762	mg/L		02/19/13 08:32	02/20/13 22:33	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Phenol-d6	13		10 - 94				02/19/13 08:32	02/20/13 22:33	1
2,4,6-Tribromophenol	69		10 - 123				02/19/13 08:32	02/20/13 22:33	1
2-Fluorobiphenyl	75		43 - 116				02/19/13 08:32	02/20/13 22:33	1
2-Fluorophenol	23		10 - 100				02/19/13 08:32	02/20/13 22:33	1
Nitrobenzene-d5	61		35 - 114				02/19/13 08:32	02/20/13 22:33	1
Terphenyl-d14	87		33 - 141				02/19/13 08:32	02/20/13 22:33	1

Client Sample ID: WG-1620-IM-CPT-04-13-A-20120218

Lab Sample ID: 600-68753-3

Date Collected: 02/18/13 15:20

Matrix: Water

Date Received: 02/18/13 16:26

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			02/19/13 15:27	1
Benzene	0.0000800	U	0.00100	0.0000800	mg/L			02/19/13 15:27	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			02/19/13 15:27	1
Toluene	0.000150	U	0.00100	0.000150	mg/L			02/19/13 15:27	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			02/19/13 15:27	1
Ethylbenzene	0.000110	U	0.00100	0.000110	mg/L			02/19/13 15:27	1
Xylenes, Total	0.000561	J	0.00300	0.000260	mg/L			02/19/13 15:27	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	108		67 - 139					02/19/13 15:27	1
Dibromofluoromethane	96		62 - 130					02/19/13 15:27	1
Toluene-d8 (Surr)	95		70 - 130					02/19/13 15:27	1
1,2-Dichloroethane-d4 (Surr)	80		50 - 134					02/19/13 15:27	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.0000381	U	0.000476	0.0000381	mg/L		02/19/13 08:32	02/20/13 23:00	1
Nitrobenzene	0.000105	U	0.000476	0.000105	mg/L		02/19/13 08:32	02/20/13 23:00	1
2,4-Dimethylphenol	0.000295	U	0.000476	0.000295	mg/L		02/19/13 08:32	02/20/13 23:00	1
Bis(2-chloroethoxy)methane	0.000124	U	0.000476	0.000124	mg/L		02/19/13 08:32	02/20/13 23:00	1
Naphthalene	0.0000762	U	0.00476	0.0000762	mg/L		02/19/13 08:32	02/20/13 23:00	1
2-Methylnaphthalene	0.0000667	U	0.000476	0.0000667	mg/L		02/19/13 08:32	02/20/13 23:00	1
2-Chloronaphthalene	0.0000762	U	0.000476	0.0000762	mg/L		02/19/13 08:32	02/20/13 23:00	1
Acenaphthylene	0.0000571	U	0.000476	0.0000571	mg/L		02/19/13 08:32	02/20/13 23:00	1
2,6-Dinitrotoluene	0.0000762	U	0.000476	0.0000762	mg/L		02/19/13 08:32	02/20/13 23:00	1
Acenaphthene	0.0000762	U	0.000476	0.0000762	mg/L		02/19/13 08:32	02/20/13 23:00	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68753-1

Client Sample ID: WG-1620-IM-CPT-04-13-A-20120218

Lab Sample ID: 600-68753-3

Date Collected: 02/18/13 15:20

Matrix: Water

Date Received: 02/18/13 16:26

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Nitrophenol	0.000533	U	0.000952	0.000533	mg/L		02/19/13 08:32	02/20/13 23:00	1
Dibenzofuran	0.0000762	U	0.000476	0.0000762	mg/L		02/19/13 08:32	02/20/13 23:00	1
2,4-Dinitrotoluene	0.000124	U	0.000476	0.000124	mg/L		02/19/13 08:32	02/20/13 23:00	1
Fluorene	0.0000667	U	0.000476	0.0000667	mg/L		02/19/13 08:32	02/20/13 23:00	1
4,6-Dinitro-2-methylphenol	0.000790	U	0.000952	0.000790	mg/L		02/19/13 08:32	02/20/13 23:00	1
N-Nitrosodiphenylamine	0.0000952	U	0.000476	0.0000952	mg/L		02/19/13 08:32	02/20/13 23:00	1
1,2-Diphenylhydrazine	0.000105	U	0.000476	0.000105	mg/L		02/19/13 08:32	02/20/13 23:00	1
Pentachlorophenol	0.000581	U	0.000952	0.000581	mg/L		02/19/13 08:32	02/20/13 23:00	1
Phenanthrene	0.000114	J	0.000476	0.0000571	mg/L		02/19/13 08:32	02/20/13 23:00	1
Anthracene	0.0000476	U	0.000476	0.0000476	mg/L		02/19/13 08:32	02/20/13 23:00	1
Di-n-butyl phthalate	0.000780		0.000476	0.000105	mg/L		02/19/13 08:32	02/20/13 23:00	1
Fluoranthene	0.0000667	U	0.000476	0.0000667	mg/L		02/19/13 08:32	02/20/13 23:00	1
Pyrene	0.000105	U	0.000476	0.000105	mg/L		02/19/13 08:32	02/20/13 23:00	1
Benzo[a]anthracene	0.0000762	U	0.000476	0.0000762	mg/L		02/19/13 08:32	02/20/13 23:00	1
Bis(2-ethylhexyl) phthalate	0.00104		0.000476	0.000352	mg/L		02/19/13 08:32	02/20/13 23:00	1
Chrysene	0.0000762	U	0.000476	0.0000762	mg/L		02/19/13 08:32	02/20/13 23:00	1
Benzo[a]pyrene	0.0000762	U	0.000476	0.0000762	mg/L		02/19/13 08:32	02/20/13 23:00	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Phenol-d6	14		10 - 94	02/19/13 08:32	02/20/13 23:00	1
2,4,6-Tribromophenol	71		10 - 123	02/19/13 08:32	02/20/13 23:00	1
2-Fluorobiphenyl	85		43 - 116	02/19/13 08:32	02/20/13 23:00	1
2-Fluorophenol	26		10 - 100	02/19/13 08:32	02/20/13 23:00	1
Nitrobenzene-d5	68		35 - 114	02/19/13 08:32	02/20/13 23:00	1
Terphenyl-d14	71		33 - 141	02/19/13 08:32	02/20/13 23:00	1

Client Sample ID: Trip Blank

Lab Sample ID: 600-68753-4

Date Collected: 02/18/13 00:00

Matrix: Water

Date Received: 02/18/13 16:26

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			02/19/13 16:24	1
Benzene	0.0000800	U	0.00100	0.0000800	mg/L			02/19/13 16:24	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			02/19/13 16:24	1
Toluene	0.000150	U	0.00100	0.000150	mg/L			02/19/13 16:24	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			02/19/13 16:24	1
Ethylbenzene	0.000110	U	0.00100	0.000110	mg/L			02/19/13 16:24	1
Xylenes, Total	0.000260	U	0.00300	0.000260	mg/L			02/19/13 16:24	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	112		67 - 139		02/19/13 16:24	1
Dibromofluoromethane	101		62 - 130		02/19/13 16:24	1
Toluene-d8 (Surr)	97		70 - 130		02/19/13 16:24	1
1,2-Dichloroethane-d4 (Surr)	86		50 - 134		02/19/13 16:24	1

TestAmerica Houston

Definitions/Glossary

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68753-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
U	Analyte was not detected at or above the SDL.
J	Result is less than the MQL but greater than or equal to the SDL and the concentration is an estimated value.

GC/MS Semi VOA

Qualifier	Qualifier Description
U	Analyte was not detected at or above the SDL.
J	Result is less than the MQL but greater than or equal to the SDL and the concentration is an estimated value.
X	Surrogate is outside control limits

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Surrogate Summary

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68753-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		BFB (67-139)	DBFM (62-130)	TOL (70-130)	12DCE (50-134)
600-68753-1	WG-1620-IM-CPT-06-13-A-2012021	103	95	91	78
600-68753-1 MS	WG-1620-IM-CPT-06-13-A-2012021	99	89	103	76
600-68753-1 MSD	WG-1620-IM-CPT-06-13-A-2012021	103	93	95	77
600-68753-2	WG-1620-IM-CPT-05-13-A-2012021	108	97	95	83
600-68753-3	WG-1620-IM-CPT-04-13-A-2012021	108	96	95	80
600-68753-4	Trip Blank	112	101	97	86
LCS 600-99934/3	Lab Control Sample	102	98	98	84
MB 600-99934/5	Method Blank	105	104	95	90

Surrogate Legend

BFB = 4-Bromofluorobenzene
 DBFM = Dibromofluoromethane
 TOL = Toluene-d8 (Surr)
 12DCE = 1,2-Dichloroethane-d4 (Surr)

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)					
		PHL (10-94)	TBP (10-123)	FBP (43-116)	2FP (10-100)	NBZ (35-114)	TPH (33-141)
600-68753-1	WG-1620-IM-CPT-06-13-A-2012021	15	74	82	24	67	53
600-68753-1 - DL	WG-1620-IM-CPT-06-13-A-2012021	0 X	46	62	21	49	49
600-68753-2	WG-1620-IM-CPT-05-13-A-2012021	13	69	75	23	61	87
600-68753-3	WG-1620-IM-CPT-04-13-A-2012021	14	71	85	26	68	71
LCS 600-99848/2-A	Lab Control Sample	79	83	96	76	75	88
MB 600-99848/1-A	Method Blank	77	62	102	79	74	88

Surrogate Legend

PHL = Phenol-d6
 TBP = 2,4,6-Tribromophenol
 FBP = 2-Fluorobiphenyl
 2FP = 2-Fluorophenol
 NBZ = Nitrobenzene-d5
 TPH = Terphenyl-d14

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68753-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 600-99934/5

Matrix: Water

Analysis Batch: 99934

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB MB		MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			02/19/13 11:36	1
Benzene	0.0000800	U	0.00100	0.0000800	mg/L			02/19/13 11:36	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			02/19/13 11:36	1
Toluene	0.000150	U	0.00100	0.000150	mg/L			02/19/13 11:36	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			02/19/13 11:36	1
Ethylbenzene	0.000110	U	0.00100	0.000110	mg/L			02/19/13 11:36	1
Xylenes, Total	0.000260	U	0.00300	0.000260	mg/L			02/19/13 11:36	1

Surrogate	MB MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
4-Bromofluorobenzene	105		67 - 139		02/19/13 11:36	1
Dibromofluoromethane	104		62 - 130		02/19/13 11:36	1
Toluene-d8 (Surr)	95		70 - 130		02/19/13 11:36	1
1,2-Dichloroethane-d4 (Surr)	90		50 - 134		02/19/13 11:36	1

Lab Sample ID: LCS 600-99934/3

Matrix: Water

Analysis Batch: 99934

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS LCS		Unit	D	%Rec	%Rec. Limits
		Result	Qualifier				
Methylene Chloride	0.0100	0.008298		mg/L		83	62 - 134
Benzene	0.0100	0.01083		mg/L		108	69 - 131
1,2-Dichloroethane	0.0100	0.01085		mg/L		108	66 - 140
Toluene	0.0100	0.01037		mg/L		104	67 - 130
Chlorobenzene	0.0100	0.01073		mg/L		107	60 - 136
Ethylbenzene	0.0100	0.01050		mg/L		105	68 - 128
Xylenes, Total	0.0300	0.03239		mg/L		108	68 - 132

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene	102		67 - 139
Dibromofluoromethane	98		62 - 130
Toluene-d8 (Surr)	98		70 - 130
1,2-Dichloroethane-d4 (Surr)	84		50 - 134

Lab Sample ID: 600-68753-1 MS

Matrix: Water

Analysis Batch: 99934

Client Sample ID: WG-1620-IM-CPT-06-13-A-20120218

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS MS		Unit	D	%Rec	%Rec. Limits
				Result	Qualifier				
Methylene Chloride	0.000150	U	0.0100	0.005953		mg/L		60	60 - 140
Benzene	0.000110	J	0.0100	0.009117		mg/L		90	65 - 125
1,2-Dichloroethane	0.000140	U	0.0100	0.008747		mg/L		87	60 - 140
Toluene	0.000150	U	0.0100	0.008868		mg/L		89	76 - 125
Chlorobenzene	0.000120	U	0.0100	0.009121		mg/L		91	72 - 122
Ethylbenzene	0.000110	U	0.0100	0.009031		mg/L		90	60 - 140
Xylenes, Total	0.000879	J	0.0300	0.02755		mg/L		89	60 - 140

TestAmerica Houston

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68753-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 600-68753-1 MS

Client Sample ID: WG-1620-IM-CPT-06-13-A-20120218

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 99934

Surrogate	MS MS		Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene	99		67 - 139
Dibromofluoromethane	89		62 - 130
Toluene-d8 (Surr)	103		70 - 130
1,2-Dichloroethane-d4 (Surr)	76		50 - 134

Lab Sample ID: 600-68753-1 MSD

Client Sample ID: WG-1620-IM-CPT-06-13-A-20120218

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 99934

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.	RPD	Limit
	Result	Qualifier		Result	Qualifier				Limits		
Methylene Chloride	0.000150	U	0.0100	0.006883		mg/L		69	60 - 140	15	30
Benzene	0.000110	J	0.0100	0.009982		mg/L		99	65 - 125	9	30
1,2-Dichloroethane	0.000140	U	0.0100	0.009855		mg/L		99	60 - 140	12	30
Toluene	0.000150	U	0.0100	0.009638		mg/L		96	76 - 125	8	30
Chlorobenzene	0.000120	U	0.0100	0.01003		mg/L		100	72 - 122	10	30
Ethylbenzene	0.000110	U	0.0100	0.009715		mg/L		97	60 - 140	7	30
Xylenes, Total	0.000879	J	0.0300	0.03015		mg/L		98	60 - 140	9	30

Surrogate	MSD MSD		Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene	103		67 - 139
Dibromofluoromethane	93		62 - 130
Toluene-d8 (Surr)	95		70 - 130
1,2-Dichloroethane-d4 (Surr)	77		50 - 134

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Lab Sample ID: MB 600-99848/1-A

Client Sample ID: Method Blank

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 100121

Prep Batch: 99848

Analyte	MB MB		MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Phenol	0.0000400	U	0.000500	0.0000400	mg/L		02/19/13 08:32	02/20/13 18:32	1
Nitrobenzene	0.000110	U	0.000500	0.000110	mg/L		02/19/13 08:32	02/20/13 18:32	1
2,4-Dimethylphenol	0.000310	U	0.000500	0.000310	mg/L		02/19/13 08:32	02/20/13 18:32	1
Bis(2-chloroethoxy)methane	0.000130	U	0.000500	0.000130	mg/L		02/19/13 08:32	02/20/13 18:32	1
Naphthalene	0.0000800	U	0.000500	0.0000800	mg/L		02/19/13 08:32	02/20/13 18:32	1
2-Methylnaphthalene	0.0000700	U	0.000500	0.0000700	mg/L		02/19/13 08:32	02/20/13 18:32	1
2-Chloronaphthalene	0.0000800	U	0.000500	0.0000800	mg/L		02/19/13 08:32	02/20/13 18:32	1
Acenaphthylene	0.0000600	U	0.000500	0.0000600	mg/L		02/19/13 08:32	02/20/13 18:32	1
2,6-Dinitrotoluene	0.0000800	U	0.000500	0.0000800	mg/L		02/19/13 08:32	02/20/13 18:32	1
Acenaphthene	0.0000800	U	0.000500	0.0000800	mg/L		02/19/13 08:32	02/20/13 18:32	1
4-Nitrophenol	0.000560	U	0.00100	0.000560	mg/L		02/19/13 08:32	02/20/13 18:32	1
Dibenzofuran	0.0000800	U	0.000500	0.0000800	mg/L		02/19/13 08:32	02/20/13 18:32	1
2,4-Dinitrotoluene	0.000130	U	0.000500	0.000130	mg/L		02/19/13 08:32	02/20/13 18:32	1
Fluorene	0.0000700	U	0.000500	0.0000700	mg/L		02/19/13 08:32	02/20/13 18:32	1
4,6-Dinitro-2-methylphenol	0.000830	U	0.00100	0.000830	mg/L		02/19/13 08:32	02/20/13 18:32	1
N-Nitrosodiphenylamine	0.000100	U	0.000500	0.000100	mg/L		02/19/13 08:32	02/20/13 18:32	1

TestAmerica Houston

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68753-1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Lab Sample ID: MB 600-99848/1-A

Matrix: Water

Analysis Batch: 100121

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 99848

Analyte	MB Result	MB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Diphenylhydrazine	0.000110	U	0.000500	0.000110	mg/L		02/19/13 08:32	02/20/13 18:32	1
Pentachlorophenol	0.000610	U	0.00100	0.000610	mg/L		02/19/13 08:32	02/20/13 18:32	1
Phenanthrene	0.0000600	U	0.000500	0.0000600	mg/L		02/19/13 08:32	02/20/13 18:32	1
Anthracene	0.0000500	U	0.000500	0.0000500	mg/L		02/19/13 08:32	02/20/13 18:32	1
Di-n-butyl phthalate	0.000110	U	0.000500	0.000110	mg/L		02/19/13 08:32	02/20/13 18:32	1
Fluoranthene	0.0000700	U	0.000500	0.0000700	mg/L		02/19/13 08:32	02/20/13 18:32	1
Pyrene	0.000110	U	0.000500	0.000110	mg/L		02/19/13 08:32	02/20/13 18:32	1
Benzo[a]anthracene	0.0000800	U	0.000500	0.0000800	mg/L		02/19/13 08:32	02/20/13 18:32	1
Bis(2-ethylhexyl) phthalate	0.000370	U	0.000500	0.000370	mg/L		02/19/13 08:32	02/20/13 18:32	1
Chrysene	0.0000800	U	0.000500	0.0000800	mg/L		02/19/13 08:32	02/20/13 18:32	1
Benzo[a]pyrene	0.0000800	U	0.000500	0.0000800	mg/L		02/19/13 08:32	02/20/13 18:32	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Phenol-d6	77		10 - 94	02/19/13 08:32	02/20/13 18:32	1
2,4,6-Tribromophenol	62		10 - 123	02/19/13 08:32	02/20/13 18:32	1
2-Fluorobiphenyl	102		43 - 116	02/19/13 08:32	02/20/13 18:32	1
2-Fluorophenol	79		10 - 100	02/19/13 08:32	02/20/13 18:32	1
Nitrobenzene-d5	74		35 - 114	02/19/13 08:32	02/20/13 18:32	1
Terphenyl-d14	88		33 - 141	02/19/13 08:32	02/20/13 18:32	1

Lab Sample ID: LCS 600-99848/2-A

Matrix: Water

Analysis Batch: 100121

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 99848

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Phenol	0.0100	0.008324		mg/L		83	11 - 112
Nitrobenzene	0.0100	0.007722		mg/L		77	42 - 119
2,4-Dimethylphenol	0.0100	0.008089		mg/L		81	36 - 109
Bis(2-chloroethoxy)methane	0.0100	0.006195		mg/L		62	42 - 119
Naphthalene	0.0100	0.007910		mg/L		79	39 - 120
2-Methylnaphthalene	0.0100	0.008386		mg/L		84	40 - 121
2-Chloronaphthalene	0.0100	0.008235		mg/L		82	43 - 120
Acenaphthylene	0.0100	0.008277		mg/L		83	35 - 135
2,6-Dinitrotoluene	0.0100	0.007838		mg/L		78	45 - 122
Acenaphthene	0.0100	0.008014		mg/L		80	47 - 145
4-Nitrophenol	0.0100	0.006645		mg/L		66	14 - 132
Dibenzofuran	0.0100	0.008092		mg/L		81	46 - 123
2,4-Dinitrotoluene	0.0100	0.007969		mg/L		80	43 - 128
Fluorene	0.0100	0.007917		mg/L		79	48 - 127
4,6-Dinitro-2-methylphenol	0.0100	0.008150		mg/L		81	24 - 122
N-Nitrosodiphenylamine	0.0100	0.008550		mg/L		86	43 - 107
1,2-Diphenylhydrazine	0.0100	0.007107		mg/L		71	47 - 117
Pentachlorophenol	0.0100	0.006865		mg/L		69	9 - 147
Phenanthrene	0.0100	0.008172		mg/L		82	52 - 121
Anthracene	0.0100	0.008016		mg/L		80	53 - 124
Di-n-butyl phthalate	0.0100	0.008178		mg/L		82	54 - 138
Fluoranthene	0.0100	0.008630		mg/L		86	53 - 127
Pyrene	0.0100	0.008522		mg/L		85	49 - 121

TestAmerica Houston

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68753-1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Lab Sample ID: LCS 600-99848/2-A

Matrix: Water

Analysis Batch: 100121

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 99848

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzo[a]anthracene	0.0100	0.008538		mg/L		85	53 - 122
Bis(2-ethylhexyl) phthalate	0.0100	0.008253		mg/L		83	47 - 132
Chrysene	0.0100	0.007421		mg/L		74	49 - 124
Benzo[a]pyrene	0.0100	0.008509		mg/L		85	50 - 124

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Phenol-d6	79		10 - 94
2,4,6-Tribromophenol	83		10 - 123
2-Fluorobiphenyl	96		43 - 116
2-Fluorophenol	76		10 - 100
Nitrobenzene-d5	75		35 - 114
Terphenyl-d14	88		33 - 141

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15
- 16
- 17

Unadjusted Detection Limits

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68753-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	SQL	MDL	Units	Method
1,2-Dichloroethane	0.00100	0.000140	mg/L	8260B
Benzene	0.00100	0.0000800	mg/L	8260B
Chlorobenzene	0.00100	0.000120	mg/L	8260B
Ethylbenzene	0.00100	0.000110	mg/L	8260B
Methylene Chloride	0.00100	0.000150	mg/L	8260B
Toluene	0.00100	0.000150	mg/L	8260B
Xylenes, Total	0.00300	0.000260	mg/L	8260B

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	SQL	MDL	Units	Method
1,2-Diphenylhydrazine	0.000500	0.000110	mg/L	8270C LL
2,4-Dimethylphenol	0.000500	0.000310	mg/L	8270C LL
2,4-Dinitrotoluene	0.000500	0.000130	mg/L	8270C LL
2,6-Dinitrotoluene	0.000500	0.0000800	mg/L	8270C LL
2-Chloronaphthalene	0.000500	0.0000800	mg/L	8270C LL
2-Methylnaphthalene	0.000500	0.0000700	mg/L	8270C LL
4,6-Dinitro-2-methylphenol	0.00100	0.000830	mg/L	8270C LL
4-Nitrophenol	0.00100	0.000560	mg/L	8270C LL
Acenaphthene	0.000500	0.0000800	mg/L	8270C LL
Acenaphthylene	0.000500	0.0000600	mg/L	8270C LL
Anthracene	0.000500	0.0000500	mg/L	8270C LL
Benzo[a]anthracene	0.000500	0.0000800	mg/L	8270C LL
Benzo[a]pyrene	0.000500	0.0000800	mg/L	8270C LL
Bis(2-chloroethoxy)methane	0.000500	0.000130	mg/L	8270C LL
Bis(2-ethylhexyl) phthalate	0.000500	0.000370	mg/L	8270C LL
Chrysene	0.000500	0.0000800	mg/L	8270C LL
Dibenzofuran	0.000500	0.0000800	mg/L	8270C LL
Di-n-butyl phthalate	0.000500	0.000110	mg/L	8270C LL
Fluoranthene	0.000500	0.0000700	mg/L	8270C LL
Fluorene	0.000500	0.0000700	mg/L	8270C LL
Naphthalene	0.00500	0.0000800	mg/L	8270C LL
Nitrobenzene	0.000500	0.000110	mg/L	8270C LL
N-Nitrosodiphenylamine	0.000500	0.000100	mg/L	8270C LL
Pentachlorophenol	0.00100	0.000610	mg/L	8270C LL
Phenanthrene	0.000500	0.0000600	mg/L	8270C LL
Phenol	0.000500	0.0000400	mg/L	8270C LL
Pyrene	0.000500	0.000110	mg/L	8270C LL

QC Association Summary

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68753-1

GC/MS VOA

Analysis Batch: 99934

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-68753-1	WG-1620-IM-CPT-06-13-A-20120218	Total/NA	Water	8260B	
600-68753-1 MS	WG-1620-IM-CPT-06-13-A-20120218	Total/NA	Water	8260B	
600-68753-1 MSD	WG-1620-IM-CPT-06-13-A-20120218	Total/NA	Water	8260B	
600-68753-2	WG-1620-IM-CPT-05-13-A-20120218	Total/NA	Water	8260B	
600-68753-3	WG-1620-IM-CPT-04-13-A-20120218	Total/NA	Water	8260B	
600-68753-4	Trip Blank	Total/NA	Water	8260B	
LCS 600-99934/3	Lab Control Sample	Total/NA	Water	8260B	
MB 600-99934/5	Method Blank	Total/NA	Water	8260B	

GC/MS Semi VOA

Prep Batch: 99848

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-68753-1	WG-1620-IM-CPT-06-13-A-20120218	Total/NA	Water	3510C	
600-68753-1 - DL	WG-1620-IM-CPT-06-13-A-20120218	Total/NA	Water	3510C	
600-68753-2	WG-1620-IM-CPT-05-13-A-20120218	Total/NA	Water	3510C	
600-68753-3	WG-1620-IM-CPT-04-13-A-20120218	Total/NA	Water	3510C	
LCS 600-99848/2-A	Lab Control Sample	Total/NA	Water	3510C	
MB 600-99848/1-A	Method Blank	Total/NA	Water	3510C	

Analysis Batch: 100121

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-68753-1	WG-1620-IM-CPT-06-13-A-20120218	Total/NA	Water	8270C LL	99848
600-68753-2	WG-1620-IM-CPT-05-13-A-20120218	Total/NA	Water	8270C LL	99848
600-68753-3	WG-1620-IM-CPT-04-13-A-20120218	Total/NA	Water	8270C LL	99848
LCS 600-99848/2-A	Lab Control Sample	Total/NA	Water	8270C LL	99848
MB 600-99848/1-A	Method Blank	Total/NA	Water	8270C LL	99848

Analysis Batch: 100168

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-68753-1 - DL	WG-1620-IM-CPT-06-13-A-20120218	Total/NA	Water	8270C LL	99848

Lab Chronicle

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68753-1

Client Sample ID: WG-1620-IM-CPT-06-13-A-20120218

Lab Sample ID: 600-68753-1

Date Collected: 02/18/13 10:30

Matrix: Water

Date Received: 02/18/13 16:26

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	99934	02/19/13 13:19	KLV	TAL HOU
Total/NA	Prep	3510C			99848	02/19/13 08:32	SMB	TAL HOU
Total/NA	Analysis	8270C LL		1	100121	02/20/13 22:06	JH	TAL HOU
Total/NA	Prep	3510C	DL		99848	02/19/13 08:32	SMB	TAL HOU
Total/NA	Analysis	8270C LL	DL	10	100168	02/21/13 19:20	TTD	TAL HOU

Client Sample ID: WG-1620-IM-CPT-05-13-A-20120218

Lab Sample ID: 600-68753-2

Date Collected: 02/18/13 12:46

Matrix: Water

Date Received: 02/18/13 16:26

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	99934	02/19/13 13:44	KLV	TAL HOU
Total/NA	Prep	3510C			99848	02/19/13 08:32	SMB	TAL HOU
Total/NA	Analysis	8270C LL		1	100121	02/20/13 22:33	JH	TAL HOU

Client Sample ID: WG-1620-IM-CPT-04-13-A-20120218

Lab Sample ID: 600-68753-3

Date Collected: 02/18/13 15:20

Matrix: Water

Date Received: 02/18/13 16:26

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	99934	02/19/13 15:27	KLV	TAL HOU
Total/NA	Prep	3510C			99848	02/19/13 08:32	SMB	TAL HOU
Total/NA	Analysis	8270C LL		1	100121	02/20/13 23:00	JH	TAL HOU

Client Sample ID: Trip Blank

Lab Sample ID: 600-68753-4

Date Collected: 02/18/13 00:00

Matrix: Water

Date Received: 02/18/13 16:26

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	99934	02/19/13 16:24	KLV	TAL HOU

Laboratory References:

TAL HOU = TestAmerica Houston, 6310 Rothway Street, Houston, TX 77040, TEL (713)690-4444

Certification Summary

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68753-1

Laboratory: TestAmerica Houston

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Arkansas DEQ	State Program	6	88-0759	08-04-12
Louisiana	NELAP	6	01967	06-30-13
Oklahoma	State Program	6	9503	08-31-13
Texas	NELAP	6	T104704223-10-6-TX	10-31-13
USDA	Federal		P330-08-00217	04-01-14
Utah	NELAP	8	GULF	10-31-13

Client Information

Client Contact:
Mr. Eric Metzner

Company:
Pastor, Bahling & Wheeler LLC

Address:
2201 Double Creek Dr Suite 4004

City:
Round Rock

State Zip:
TX, 78664

Phone:
512-671-3434(Tel) 512-671-3446(Fax)

Email:
eric.metzner@pbwllc.com

Project Name:
UPRR HWPW

Site:

Sampler:
Cadlyn Sexton

Phone:
512.671.3434

Due Date Requested:

TAT Requested (days):

Standard

PO #:
Purchase Order not required

WO #:

Project #:
60003722

SSOW#:

Lab Pw:
Kudachacker, Sachin G

E-Mail:
sachin.kudachacker@testamericainc.com

Carrier Tracking (No.):

COC No:
800-190577286.2

Page:
1 of 1

Job #:

Preservation Codes:

- A - HCL
- B - NaOH
- C - Zn Acetate
- D - Nitric Acid
- E - NaHSO4
- F - MeOH
- G - Amnolier
- H - Ascorbic Acid
- I - Ice
- J - DI Water
- K - EDTA
- L - EDTA
- Other:
- M - Hexane
- N - None
- O - AsnSO2
- P - Na2CO3
- Q - Na2SO3
- R - Na2S2O3
- S - H2SO4
- T - TSP Dodecahydrate
- U - Acetone
- V - MCAA
- W - ph 4-5
- Z - other (specify)

Analysis Requested

Field Filtered Sample (Yes or No)
Perform MS/MSD (Yes or No)

8260B_LL - Volatiles
8270C_LL - Semivolatiles

Total Number of containers

Special Instructions/Note:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (Water, Sealed, Conversion, etc.)	Preservation Code	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	Total Number of containers	Special Instructions/Note
W/G-1620-IM-CPT-06-13-A-20120218	2.18.13	10:30	G	Water		X	X	5	
W/G-1620-IM-CPT-05-13-A-20120218	2.18.13	1246	G	Water		X	X	5	
W/G-1620-IM-CPT-04-13-A-20120218	2.18.13	1530	G	Water		X	X	5	
				Water					
				Water					
				Water					
				Water					
				Water					
				Water					
				Water					
				Water					

Possible Hazard Identification
 Non-Hazard Flammable Skin Irritant Poison B Unknown Radiological
 Deliverable Requested: I, II, III, IV, Other (specify)

Sample Disposal (A fee may be assessed if samples are retained longer than 7 months)
 Return To Client Disposal By Lab Archive For _____ Months
 Special Instructions/OC Requirements:

Empty Kit Relinquished by:

Relinquished by: *[Signature]*

Date/Time: 02.18.13 1547

Relinquished by: *[Signature]*

Date/Time: 02/18/13 1626

Relinquished by: *[Signature]*

Relinquished by: *[Signature]*

Date/Time: 02/18/13 1626

Company: PBE

Relinquished by: *[Signature]*

Date/Time: 02/18/13 1626

Relinquished by: *[Signature]*

Relinquished by: *[Signature]*

Date/Time: 02/18/13 1626

Company: PBE

Relinquished by: *[Signature]*

Date/Time: 02/18/13 1626

Relinquished by: *[Signature]*

Relinquished by: *[Signature]*

Date/Time: 02/18/13 1626

Company: PBE

Relinquished by: *[Signature]*

Date/Time: 02/18/13 1626

Relinquished by: *[Signature]*

Custody Seals Intact: Yes No

Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks:

Cooler Temperature(s) °C and Other Remarks:

Cooler Temperature(s) °C and Other Remarks:

Cooler Temperature(s) °C and Other Remarks:

Login Sample Receipt Checklist

Client: Pastor, Behling & Wheeler LLC

Job Number: 600-68753-1

Login Number: 68753

List Source: TestAmerica Houston

List Number: 1

Creator: Pulumbarit, Josh

Question	Answer	Comment
Radioactivity wasn't checked or is <=/ background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	1.3
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	True	



TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Houston
6310 Rothway Street
Houston, TX 77040
Tel: (713)690-4444

TestAmerica Job ID: 600-68812-1

Client Project/Site: 1620 UPRR HWPW

For:

Pastor, Behling & Wheeler LLC
2201 Double Creek Dr
Suite 4004
Round Rock, Texas 78664

Attn: Mr. Eric Matzner



Authorized for release by:

3/7/2013 3:03:49 PM

Cathy Upton

Data Delivery Analyst

cathy.upton@testamericainc.com

Designee for

Sachin Kudchadkar

Project Manager II

sachin.kudchadkar@testamericainc.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.



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Have a Question?



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www.testamericainc.com

1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17



Table of Contents

Cover Page	1
Table of Contents	2
TRRP Cover Page	3
TRRP Checklists & DCSs	4
Case Narrative	14
Method Summary	15
Sample Summary	16
Client Sample Results	17
Definitions/Glossary	24
Surrogate Summary	25
QC Sample Results	26
Default Detection Limits	31
QC Association Summary	32
Lab Chronicle	33
Certification Summary	35
Chain of Custody	36
Receipt Checklists	37

Job Number: 600-68812-1
Project Name/Number: 1620 UPRR HWPW

This Data Package consists of:

This signature page, the laboratory review checklist, and the following Reportable Data:

- R1 Field Chain-of-Custody Form
- R2 Sample Identification Cross-reference;
- R3 Test Reports (Analytical Data Sheets) for each environmental sample that includes:
 - a) Items consistent with NELAC Chapter 5
 - b) dilution factors,
 - c) preparation methods,
 - d) cleanup methods, and
 - e) if required for the project, tentatively identified compounds (TICs).
- R4 Surrogate Recovery Data including:
 - a) Calculated recovery (%R), and
 - b) The laboratory's surrogate QC limits.
- R5 Test Reports/Summary Forms for Blank Samples;
- R6 Test Reports/Summary Forms for Laboratory Control Samples (LCSs) including:
 - a) LCS spiking amounts,
 - b) Calculated %R for each analyte, and
 - d) The laboratory's LCS QC limits
- R7 Test Reports for Matrix Spike/Matrix Spike Duplicates (MS/MSDs) including:
 - a) Samples associated with the MS/MSD clearly identified,
 - b) MS/MSD spiking amounts,
 - c) Concentration of each MS/MSD analyte measured in the parent and spiked sample,
 - d) Calculated %Rs and relative percent differences (RPDs), and
 - e) The laboratory's MS/MSD QC limits
- R8 Laboratory analytical duplicates (if applicable) recovery and precision, including:
 - a) the amount of analyte measured in the duplicate,
 - b) the calculated RPD, and
 - c) the laboratory's QC limits for analytical duplicates.
- R9 List of method quantitation limit (MQL) and detectability check sample results for each analyte for each method and matrix;
- R10 Other problems or anomalies

The exception report for each "No" or "Not Reviewed (NR)" item in the Laboratory Review Checklist and for each analyte, matrix, and method for which the laboratory does not hold NELAC accreditation under the Texas Laboratory Accreditation Program.

Release Statement: I am responsible for the release of this laboratory data package. This laboratory is NELAC accredited under Texas laboratory Accreditation Program for all the methods, analytes, and matrices reported in this data package except as noted in the Exception Reports. The data have been reviewed and are technically compliant with the requirements of the methods used, except where noted by the laboratory in the Exception Reports. By my signature below, I affirm, to the best of my knowledge, that all problems/anomalies observed by the laboratory have been identified in the Laboratory Review Checklist, and no information affecting the quality of the data has been knowingly withheld.

Cathy Upton
Name (printed)
Data Delivery Analyst
Official Title (printed)


Signature

03/07/2013
Date

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Appendix A (cont'd): Laboratory Review Checklist: Reportable Data							
Laboratory Name: TestAmerica-Houston			LRC Date: 02/26/13				
Project Name: 1620 UPRR HWPW			Laboratory Job Number: 600-68812				
Reviewer Name: WS			Prep Batch Number: 600-100097 and 100205-VOA				
# ¹	A ²	Description	Yes	No	NA ³	NR ⁴	ER# ⁵
R1	OI	Chain-of-custody (C-O-C)					
		Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?	X				
		Were all departures from standard conditions described in an exception report?			X		
R2	OI	Sample and quality control (QC) identification					
		Are all field sample ID numbers cross-referenced to the laboratory ID numbers?	X				
		Are all laboratory ID numbers cross-referenced to the corresponding QC data?	X				
R3	OI	Test reports					
		Were all samples prepared and analyzed within holding times?	X				
		Other than those results < MQL, were all other raw values bracketed by calibration standards?	X				
		Were calculations checked by a peer or supervisor?	X				
		Were all analyte identifications checked by a peer or supervisor?	X				
		Were sample detection limits reported for all analytes not detected?	X				
		Were all results for soil and sediment samples reported on a dry weight basis?			X		
		Were % moisture (or solids) reported for all soil and sediment samples?			X		
		Were bulk soil/solid samples for volatile analysis extracted with methanol per SW846 Method 5035?			X		
		If required for the project, TICs reported?			X		
R4	O	Surrogate recovery data					
		Were surrogates added prior to extraction?	X				
		Were surrogate percent recoveries in all samples within the laboratory QC limits?	X				
R5	OI	Test reports/summary forms for blank samples					
		Were appropriate type(s) of blanks analyzed?	X				
		Were blanks analyzed at the appropriate frequency?	X				
		Were method blanks taken through the entire analytical process, including preparation and, if applicable, cleanup procedures?	X				
		Were blank concentrations < MQL?	X				
R6	OI	Laboratory control samples (LCS):					
		Were all COCs included in the LCS?	X				
		Was each LCS taken through the entire analytical procedure, including prep and cleanup steps?	X				
		Were LCSs analyzed at the required frequency?	X				
		Were LCS (and LCSD, if applicable) %Rs within the laboratory QC limits?	X				
		Does the detectability check sample data document the laboratory's capability to detect the COCs at the MDL used to calculate the SDLs?	X				
		Was the LCSD RPD within QC limits?	X				
R7	OI	Matrix spike (MS) and matrix spike duplicate (MSD) data					
		Were the project/method specified analytes included in the MS and MSD?	X				
		Were MS/MSD analyzed at the appropriate frequency?	X				
		Were MS (and MSD, if applicable) %Rs within the laboratory QC limits?			X		1
		Were MS/MSD RPDs within laboratory QC limits?			X		1
R8	OI	Analytical duplicate data					
		Were appropriate analytical duplicates analyzed for each matrix?			X		
		Were analytical duplicates analyzed at the appropriate frequency?			X		
		Were RPDs or relative standard deviations within the laboratory QC limits?			X		
R9	OI	Method quantitation limits (MQLs):					
		Are the MQLs for each method analyte included in the laboratory data package?	X				
		Do the MQLs correspond to the concentration of the lowest non-zero calibration standard?	X				
		Are unadjusted MQLs and DCSs included in the laboratory data package?	X				
R10	OI	Other problems/anomalies					
		Are all known problems/anomalies/special conditions noted in this LRC and ER?	X				
		Was applicable and available technology used to lower the SDL to minimize the matrix interference affects on the sample results?	X				2
		Is the laboratory NELAC-accredited under the Texas Laboratory Accreditation Program for the analytes, matrices and methods associated with this laboratory data package?	X				

- Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.
- O = organic analyses; I = inorganic analyses (and general chemistry, when applicable);
- NA = Not applicable;
- NR = Not reviewed;
- ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

Appendix A (cont'd): Laboratory Review Checklist: Reportable Data							
Laboratory Name: TestAmerica-Houston				LRC Date: 02/26/13			
Project Name: 1620 UPRR HWPW				Laboratory Job Number: 600-68812			
Reviewer Name: WS				Prep Batch Number: 600-100097 and 100205-VOA			
# ¹	A ²	Description	Yes	No	NA ³	NR ⁴	ER# ⁵
S1	OI	Initial calibration (ICAL)					
		Were response factors and/or relative response factors for each analyte within QC limits?	X				
		Were percent RSDs or correlation coefficient criteria met?	X				
		Was the number of standards recommended in the method used for all analytes?	X				
		Were all points generated between the lowest and highest standard used to calculate the curve?	X				
		Are ICAL data available for all instruments used?	X				
		Has the initial calibration curve been verified using an appropriate second source standard?	X				
S2	OI	Initial and continuing calibration verification (ICCV and CCV) and continuing calibration					
		Was the CCV analyzed at the method-required frequency?	X				
		Were percent differences for each analyte within the method-required QC limits?	X				
		Was the ICAL curve verified for each analyte?	X				
		Was the absolute value of the analyte concentration in the inorganic CCB < MDL?			X		
S3	O	Mass spectral tuning:					
		Was the appropriate compound for the method used for tuning?	X				
		Were ion abundance data within the method-required QC limits?	X				
S4	O	Internal standards (IS):					
		Were IS area counts and retention times within the method-required QC limits?	X				
S5	OI	Raw data (NELAC section 5.5.10)					
		Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?	X				
		Were data associated with manual integrations flagged on the raw data?	X				
S6	O	Dual column confirmation					
		Did dual column confirmation results meet the method-required QC?			X		
S7	O	Tentatively identified compounds (TICs):					
		If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?			X		
S8	I	Interference Check Sample (ICS) results:					
		Were percent recoveries within method QC limits?			X		
S9	I	Serial dilutions, post digestion spikes, and method of standard additions					
		Were percent differences, recoveries, and the linearity within the QC limits specified in the method?			X		
S10	OI	Method detection limit (MDL) studies					
		Was a MDL study performed for each reported analyte?	X				
		Is the MDL either adjusted or supported by the analysis of DCSs?	X				
S11	OI	Proficiency test reports:					
		Was the laboratory's performance acceptable on the applicable proficiency tests or evaluation studies?	X				
S12	OI	Standards documentation					
		Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?	X				
S13	OI	Compound/analyte identification procedures					
		Are the procedures for compound/analyte identification documented?	X				
S14	OI	Demonstration of analyst competency (DOC)					
		Was DOC conducted consistent with NELAC Chapter 5?	X				
		Is documentation of the analyst's competency up-to-date and on file?	X				
S15	OI	Verification/validation documentation for methods (NELAC Chapter 5)					
		Are all the methods used to generate the data documented, verified, and validated, where applicable?	X				
S16	OI	Laboratory standard operating procedures (SOPs):					
		Are laboratory SOPs current and on file for each method performed?	X				

- 1 Items identified by the letter "R" should be included in the laboratory data package submitted to the TCEQ in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.
- 2 O = organic analyses; I = inorganic analyses (and general chemistry, when applicable).
- 3 NA = Not applicable.
- 4 NR = Not Reviewed.
- 5 ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

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17

Appendix A (cont'd): Laboratory Review Checklist: Exception Reports	
Laboratory Name: TestAmerica-Houston	LRC Date: 02/26/13
Project Name: 1620 UPRR HWPW	Laboratory Job Number: 600-68812
Reviewer Name: WS	Prep Batch Number: 600-100097 and 100205-VOA
ER #¹	DESCRIPTION
1	The laboratory selected samples from other groups to perform as the MS/MSDs.
2	The benzene and ethyl benzene SDLs were elevated in samples 600-68812-4 and 5 due to the high concentrations of these analytes.

ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked on the LRC)

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Appendix A (cont'd): Laboratory Review Checklist: Reportable Data							
Laboratory Name: TestAmerica-Houston			LRC Date: 03/04/13				
Project Name: 1620 UPRR HWPW			Laboratory Job Number: 600-68812				
Reviewer Name: TTD			Prep Batch Number(s): 600-100074 - SV				
# ¹	A ²	Description	Yes	No	NA ³	NR ⁴	ER# ⁵
R1	OI	Chain-of-custody (C-O-C)					
		Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?	X				
		Were all departures from standard conditions described in an exception report?			X		
R2	OI	Sample and quality control (QC) identification					
		Are all field sample ID numbers cross-referenced to the laboratory ID numbers?	X				
		Are all laboratory ID numbers cross-referenced to the corresponding QC data?	X				
R3	OI	Test reports					
		Were all samples prepared and analyzed within holding times?	X				
		Other than those results < MQL, were all other raw values bracketed by calibration standards?	X				
		Were calculations checked by a peer or supervisor?	X				
		Were all analyte identifications checked by a peer or supervisor?	X				
		Were sample detection limits reported for all analytes not detected?	X				
		Were all results for soil and sediment samples reported on a dry weight basis?			X		
		Were % moisture (or solids) reported for all soil and sediment samples?			X		
		Were bulk soil/solid samples for volatile analysis extracted with methanol per SW846 Method 5035?			X		
		If required for the project, TICs reported?			X		
R4	O	Surrogate recovery data					
		Were surrogates added prior to extraction?	X				
		Were surrogate percent recoveries in all samples within the laboratory QC limits?		X			1
R5	OI	Test reports/summary forms for blank samples					
		Were appropriate type(s) of blanks analyzed?	X				
		Were blanks analyzed at the appropriate frequency?	X				
		Were method blanks taken through the entire analytical process, including preparation and, if applicable, cleanup procedures?	X				
		Were blank concentrations < MQL?	X				
R6	OI	Laboratory control samples (LCS):					
		Were all COCs included in the LCS?	X				
		Was each LCS taken through the entire analytical procedure, including prep and cleanup steps?	X				
		Were LCSs analyzed at the required frequency?	X				
		Were LCS (and LCSD, if applicable) %Rs within the laboratory QC limits?	X				
		Does the detectability check sample data document the laboratory's capability to detect the COCs at the MDL used to calculate the SDLs?	X				
		Was the LCSD RPD within QC limits?			X		
R7	OI	Matrix spike (MS) and matrix spike duplicate (MSD) data					
		Were the project/method specified analytes included in the MS and MSD?	X				
		Were MS/MSD analyzed at the appropriate frequency?	X				
		Were MS (and MSD, if applicable) %Rs within the laboratory QC limits?		X			2
		Were MS/MSD RPDs within laboratory QC limits?		X			2
R8	OI	Analytical duplicate data					
		Were appropriate analytical duplicates analyzed for each matrix?			X		
		Were analytical duplicates analyzed at the appropriate frequency?			X		
		Were RPDs or relative standard deviations within the laboratory QC limits?			X		
R9	OI	Method quantitation limits (MQLs):					
		Are the MQLs for each method analyte included in the laboratory data package?	X				
		Do the MQLs correspond to the concentration of the lowest non-zero calibration standard?	X				
		Are unadjusted MQLs and DCSs included in the laboratory data package?	X				
R10	OI	Other problems/anomalies					
		Are all known problems/anomalies/special conditions noted in this LRC and ER?	X				
		Was applicable and available technology used to lower the SDL to minimize the matrix interference affects on the sample results?	X				3
		Is the laboratory NELAC-accredited under the Texas Laboratory Accreditation Program for the analytes, matrices and methods associated with this laboratory data package?	X				

- Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.
- O = organic analyses; I = inorganic analyses (and general chemistry, when applicable);
- NA = Not applicable;
- NR = Not reviewed;
- ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

Appendix A (cont'd): Laboratory Review Checklist: Reportable Data									
Laboratory Name: TestAmerica-Houston					LRC Date: 03/04/13				
Project Name: 1620 UPRR HWPW					Laboratory Job Number: 600-68812				
Reviewer Name: TTD					Prep Batch Number(s): 600-100074 - SV				
# ¹	A ²	Description	Yes	No	NA ³	NR ⁴	ER# ⁵		
S1	OI	Initial calibration (ICAL)							
		Were response factors and/or relative response factors for each analyte within QC limits?	X						
		Were percent RSDs or correlation coefficient criteria met?	X						
		Was the number of standards recommended in the method used for all analytes?	X						
		Were all points generated between the lowest and highest standard used to calculate the curve?	X						
		Are ICAL data available for all instruments used?	X						
		Has the initial calibration curve been verified using an appropriate second source standard?	X						
S2	OI	Initial and continuing calibration verification (ICCV and CCV) and continuing calibration							
		Was the CCV analyzed at the method-required frequency?	X						
		Were percent differences for each analyte within the method-required QC limits?	X						
		Was the ICAL curve verified for each analyte?	X						
		Was the absolute value of the analyte concentration in the inorganic CCB < MDL?			X				
S3	O	Mass spectral tuning:							
		Was the appropriate compound for the method used for tuning?			X				
		Were ion abundance data within the method-required QC limits?			X				
S4	O	Internal standards (IS):							
		Were IS area counts and retention times within the method-required QC limits?			X				
S5	OI	Raw data (NELAC section 5.5.10)							
		Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?	X						
		Were data associated with manual integrations flagged on the raw data?	X						
S6	O	Dual column confirmation							
		Did dual column confirmation results meet the method-required QC?			X				
S7	O	Tentatively identified compounds (TICs):							
		If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?			X				
S8	I	Interference Check Sample (ICS) results:							
		Were percent recoveries within method QC limits?			X				
S9	I	Serial dilutions, post digestion spikes, and method of standard additions							
		Were percent differences, recoveries, and the linearity within the QC limits specified in the method?			X				
S10	OI	Method detection limit (MDL) studies							
		Was a MDL study performed for each reported analyte?	X						
		Is the MDL either adjusted or supported by the analysis of DCSs?	X						
S11	OI	Proficiency test reports:							
		Was the laboratory's performance acceptable on the applicable proficiency tests or evaluation studies?	X						
S12	OI	Standards documentation							
		Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?	X						
S13	OI	Compound/analyte identification procedures							
		Are the procedures for compound/analyte identification documented?	X						
S14	OI	Demonstration of analyst competency (DOC)							
		Was DOC conducted consistent with NELAC Chapter 5?	X						
		Is documentation of the analyst's competency up-to-date and on file?	X						
S15	OI	Verification/validation documentation for methods (NELAC Chapter 5)							
		Are all the methods used to generate the data documented, verified, and validated, where applicable?	X						
S16	OI	Laboratory standard operating procedures (SOPs):							
		Are laboratory SOPs current and on file for each method performed?	X						

- 1 Items identified by the letter "R" should be included in the laboratory data package submitted to the TCEQ in the TRRP-required report(s).
- 2 Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.
- 3 O = organic analyses; I = inorganic analyses (and general chemistry, when applicable).
- 4 NA = Not applicable.
- 5 NR = Not Reviewed.
- 6 ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

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Appendix A (cont'd): Laboratory Review Checklist: Exception Reports	
Laboratory Name: TestAmerica-Houston	LRC Date: 03/04/13
Project Name: 1620 UPRR HWPW	Laboratory Job Number: 600-68812
Reviewer Name: TTD	Prep Batch Number(s): 600-100074 - SV
ER #¹	DESCRIPTION
1	Due to the level of dilution required for samples 600-68812-4, 4DL, 5, and 5DL; surrogate recoveries are not reported.
2	The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision were outside control limits. Matrix interference is suspected. The associated laboratory control sample (LCS) met acceptance criteria.
3	All of the SDLs in samples 600-68812-4 and 5 were elevated due to the high concentrations of target analytes.

ER# = Exception Report identification number (an Exception Report should be completed for an item if “NR” or “No” is checked on the LRC)

Detection Check Standard

Matrix: Water
Method: 8260B_LL
Preparation: Wei Shen
Date Analyzed: 10/8/2012
Date Prepared: 10/8/2012
TALs Batches: A25003.D
Units: ug/L

Analyte	MDL	DCS Spike	Measured Result	MQL
Dichlorodifluoromethane	0.12	1	0.0281	5
Chloromethane	0.18	1	0.355	10
Vinyl Chloride	0.11	0.5	0.131	10
Bromomethane	0.25	1	0.882	10
Chloroethane	0.08	0.5	0.208	10
Allyl chloride	2	1	1.84	5
Acrolein	1.63	1	4.34	5
1,1-Dichloroethene	0.19	0.5	4.3	5
trans-1,2-Dichloroethene	0.09	0.5	4.68	5
Trichlorotrifluoroethane	1	1	0.534	5
Acetone	0.99	1	1.87	5
Methyl Iodide (Iodomethane)	2	1	2.29	5
Carbon Disulfide	0.24	1	2.6	5
2-Propanol (Isopropyl alcohol)	3.72	1	7.51	5
Acetonitrile	0.27	1	1.21	5
Methylene Chloride	0.15	0.5	1.79	10
Methyl tert-butyl ether	0.12	0.5	0.704	5
Vinyl Acetate	0.21	0.5	0.776	5
Acrylonitrile	0.52	1	2.71	5
Chloroprene (2-Chloro-1,3-butadiene)	0.33	1	1.16	5
Propionitrile	0.66	1	1.58	5
cis-1,2-Dichloroethene	0.06	0.5	0.659	5
1,2-Dichloroethene	0.3	1	1.45	5
2-Butanone (MEK)	0.76	1	1.64	5
Isobutyl alcohol	3.32	1	8.48	5
Bromochloromethane	0.18	0.5	0.436	5
Methacrylonitrile	0.41	1	1.62	5
Carbon Tetrachloride	0.15	0.5	0.318	5
Benzene	0.08	0.5	0.355	5
1,2-Dichloroethane	0.14	0.5	0.379	5
Trichloroethene	0.13	0.5	0.343	5
1,1,1-Trichloroethane	0.15	0.5	0.306	5
1,1-Dichloropropene	0.11	0.5	0.281	5
1,2-Dichloroethane	0.3	0.5	0.316	5
1,2-Dichloropropane	0.16	0.5	0.292	5
2,2-Dichloropropane	0.13	1	0.682	5
Methylene Bromide (Bromomethane)	0.25	0.5	0.328	5
1,4-Dioxane	30.79	1	34.08	250
Methyl methacrylate	0.33	1	1.55	5



Bromodichloromethane	0.16	0.5	0.715	5
2-Chloroethyl vinyl ether	0.5	1	2.04	5
1,1-Dichloropropane	0.21	0.5	0.774	5
cis-1,3-Dichloropropene	0.18	0.5	0.718	5
4-Methyl-2-pentanone	0.45	1	2.42	10
Toluene	0.15	0.5	0.431	5
trans-1,3-Dichloropropene	0.21	0.5	0.406	5
Ethyl Methacrylate	0.94	1	0.686	10
1,1,2-Trichloroethane	0.18	0.5	0.401	5
Tetrachloroethene	0.18	0.5	0.823	5
1,3-Dichloropropane	0.22	1	0.89	5
2-Hexanone	0.35	1	2.01	10
Dibromochloromethane	0.16	0.5	0.811	5
1,2-Dibromoethane (Ethylene bromide)	0.18	0.5	0.373	5
Chlorobenzene	0.12	0.5	0.424	5
1,1,1,2-Tetrachloroethane	0.18	0.5	0.401	5
Ethylbenzene	0.11	0.5	0.357	5
m,p-Xylene	0.17	0.5	0.741	10
o-Xylene	0.12	0.5	0.37	5
Xylenes (total)	0.26	0.5	1.11	5
Styrene	0.07	0.5	0.344	5
Bromoform	0.19	0.5	0.915	5
Isopropylbenzene	0.18	0.5	0.367	5
Bromobenzene	0.19	0.5	0.457	5
1,2,3-Trichloropropane	0.29	1	0.89	5
1,1,2,2-Tetrachloroethane	0.22	1	0.729	5
trans-1,4-Dichloro-2-butene	0.64	1	2.36	5
n-Propylbenzene	0.15	0.5	0.372	5
2-Chlorotoluene	0.13	0.5	0.424	5
4-Chlorotoluene	0.14	0.5	0.442	5
1,3,5-Trimethylbenzene	0.1	0.5	0.392	5
tert-Butylbenzene	0.08	0.5	0.359	5
p-Isopropyltoluene	0.1	0.5	0.329	5
1,2,4-Trimethylbenzene	0.14	0.5	0.388	5
sec-Butylbenzene	0.12	0.5	0.329	5
1,3-Dichlorobenzene	0.13	0.5	0.437	5
1,4-Dichlorobenzene	0.11	0.5	0.475	5
1,2-Dichlorobenzene	0.1	0.5	0.466	5
n-Butylbenzene	0.16	0.5	0.297	5
1,2-Dibromo-3-chloropropane	0.33	1	1.2	5
1,2,4-Trichlorobenzene	0.31	1	0.849	5
Hexachlorobutadiene	0.17	0.5	0.363	5
Naphthalene	0.32	1	1.09	5
1,2,3-Trichlorobenzene	0.57	1	0.867	5

**Quality Control Report
Detection Check Standard**

Matrix: Water
 Method: 8270C LL
 Preparation: 3510C
 Date Analyzed: 10/18/2012
 Date Prepared: 10/16/2012
 Lab Sample ID: 600-91246_18-a
 Units: ug/L

Analyte	MDL	DCS Spike	DCS Result	MLQ
Pyridine	0.04	0.25	0.067	0.5
N-Nitrosodimethylamine	0.26	0.25	0.121	0.5
Aniline	0.08	0.25	0.085	0.5
Phenol	0.04	0.25	0.054	0.5
bis(2-Chloroethyl)ether	0.15	0.25	0.149	0.5
2-Chlorophenol	0.13	0.25	0.097	0.5
1,3-Dichlorobenzene	0.17	0.25	0.152	0.5
1,4-Dichlorobenzene	0.13	0.25	0.166	0.5
1,2-Dichlorobenzene	0.17	0.25	0.167	0.5
Benzyl alcohol	0.17	0.25	0.075	0.5
2-Methylphenol	0.12	0.25	0.112	0.5
m&p-Cresols	0.2	0.25	0.053	1
bis (2-Chloroisopropyl) ether	0.4	0.25	0.143	0.5
N-Nitroso-di-n-propylamine	0.1	0.25	0.177	0.5
Hexachloroethane	0.1	0.25	0.185	0.5
Nitrobenzene	0.11	0.25	0.131	0.5
Isophorone	0.11	0.25	0.149	0.5
2-Nitrophenol	0.22	0.5	0.205	0.5
Benzoic acid	2.51	5	6.530	2.5
2,4-Dimethylphenol	0.31	0.5	0.130	0.5
bis(2-Chloroethoxy)methane	0.13	0.25	0.122	0.5
2,4-Dichlorophenol	0.15	0.25	0.068	0.5
1,2,4-Trichlorobenzene	0.12	0.25	0.125	0.5
Naphthalene	0.08	0.25	0.161	0.5
4-Chloroaniline	0.21	0.5	0.232	0.5
Hexachlorobutadiene	0.18	0.25	0.160	0.5
4-Chloro-3-methylphenol	0.17	0.25	0.075	0.5
2-Methylnaphthalene	0.07	0.25	0.128	0.5
1-Methylnaphthalene	0.09	0.25	0.147	0.5
Hexachlorocyclopentadiene	0.13	0.5	0.487	0.5
2,4,6-Trichlorophenol	0.18	0.5	0.062	0.5
2,4,5-Trichlorophenol	0.25	0.5	0.107	0.5
2-Chloronaphthalene	0.08	0.25	0.148	0.5
2-Nitroaniline	0.19	0.5	0.213	0.5
Dimethylphthalate	0.07	0.25	0.145	0.5
1,4 Dinitrobenzene	5	0.25	0.363	0.5
1,3-Dinitrobenzene	0.08	0.25	0.381	0.5
1,2-Dinitrobenzene	0.5	0.25	0.040	0.5
Acenaphthylene	0.06	0.25	0.137	0.5

2,6-Dinitrotoluene	0.08	0.25	0.178	0.5
3-Nitroaniline	0.16	0.5	0.240	0.5
Acenaphthene	0.08	0.25	0.151	0.5
Dibenzofuran	0.08	0.25	0.127	0.5
2,4-Dinitrotoluene	0.13	0.25	0.144	0.5
Diethylphthalate	1.5	0.5	0.431	0.5
4-Chlorophenyl-phenylether	0.1	0.25	0.102	0.5
Fluorene	0.07	0.25	0.107	0.5
4-Nitroaniline	0.25	0.5	0.124	0.5
4,6-Dinitro-2-Methylphenol	0.83	2.5	0.530	1
N-Nitrosodiphenylamine	0.1	0.25	0.176	0.5
Diphenylamine	0.1	0.25	0.099	0.5
1,2-Diphenylhydrazine	0.11	0.25	0.224	0.5
Azobenzene	0.07	0.25	0.117	0.5
4-Bromophenyl-phenylether	0.1	0.25	0.112	0.5
Hexachlorobenzene	0.11	0.25	0.130	0.5
Phenanthrene	0.06	0.25	0.169	0.5
Anthracene	0.05	0.25	0.144	0.5
Carbazole	0.17	0.25	0.140	0.5
Di-n-butylphthalate	0.11	0.25	0.238	0.5
Fluoranthene	0.07	0.25	0.196	0.5
Pyrene	0.11	0.25	0.153	0.5
Butylbenzylphthalate	0.12	0.25	0.238	0.5
3,3'-Dichlorobenzidene	0.5	0.25	0.066	0.5
Benzo(a)anthracene	0.08	0.25	0.175	0.5
bis(2-Ethylhexyl)phthalate	0.37	0.5	0.420	0.5
Chrysene	0.08	0.25	0.212	0.5
Di-n-octylphthalate	0.16	0.25	0.091	0.5
Benzo(b)fluoranthene	0.07	0.25	0.143	0.5
Benzo(k)fluoranthene	0.09	0.25	0.201	0.5
Benzo(a)pyrene	0.08	0.25	0.137	0.5
Indeno(1,2,3-cd)pyrene	0.07	0.25	0.454	0.5
Dibenz(a,h)anthracene	0.08	0.25	0.123	0.5
Benzo(g,h,i)perylene	0.08	0.25	0.112	0.5



Case Narrative

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68812-1

Job ID: 600-68812-1

Laboratory: TestAmerica Houston

Narrative

Job Narrative
600-68812-1

Comments

No additional comments.

Receipt

The samples were received on 2/19/2013 4:25 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 3.1° C.

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Method Summary

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68812-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL HOU
8270C LL	Semivolatile Organic Compounds by GCMS - Low Levels	SW846	TAL HOU

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL HOU = TestAmerica Houston, 6310 Rothway Street, Houston, TX 77040, TEL (713)690-4444



Sample Summary

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68812-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
600-68812-1	WG-1620-IM-CPT-03-13-A-20120219	Water	02/19/13 09:00	02/19/13 16:25
600-68812-2	WG-1620-IM-CPT-01-13-A-20120219	Water	02/19/13 12:30	02/19/13 16:25
600-68812-3	WG-1620-IM-CPT-01-13-B-20120219	Water	02/19/13 13:20	02/19/13 16:25
600-68812-4	WG-1620-IM-CPT-08-13-A-20120219	Water	02/19/13 14:20	02/19/13 16:25
600-68812-5	WG-1620-IM-CPT-Dup1-20120219	Water	02/19/13 14:30	02/19/13 16:25



Client Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68812-1

Client Sample ID: WG-1620-IM-CPT-03-13-A-20120219

Lab Sample ID: 600-68812-1

Date Collected: 02/19/13 09:00

Matrix: Water

Date Received: 02/19/13 16:25

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			02/21/13 19:38	1
Benzene	0.0000800	U	0.00100	0.0000800	mg/L			02/21/13 19:38	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			02/21/13 19:38	1
Toluene	0.000150	U	0.00100	0.000150	mg/L			02/21/13 19:38	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			02/21/13 19:38	1
Ethylbenzene	0.000110	U	0.00100	0.000110	mg/L			02/21/13 19:38	1
Xylenes, Total	0.000260	U	0.00300	0.000260	mg/L			02/21/13 19:38	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	111		67 - 139					02/21/13 19:38	1
Dibromofluoromethane	73		62 - 130					02/21/13 19:38	1
Toluene-d8 (Surr)	80		70 - 130					02/21/13 19:38	1
1,2-Dichloroethane-d4 (Surr)	79		50 - 134					02/21/13 19:38	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.0000364	U	0.000455	0.0000364	mg/L		02/21/13 10:48	02/22/13 14:21	1
Nitrobenzene	0.000100	U	0.000455	0.000100	mg/L		02/21/13 10:48	02/22/13 14:21	1
2,4-Dimethylphenol	0.000282	U	0.000455	0.000282	mg/L		02/21/13 10:48	02/22/13 14:21	1
Bis(2-chloroethoxy)methane	0.000118	U	0.000455	0.000118	mg/L		02/21/13 10:48	02/22/13 14:21	1
Naphthalene	0.000142	J	0.00455	0.0000727	mg/L		02/21/13 10:48	02/22/13 14:21	1
2-Methylnaphthalene	0.000110	J	0.000455	0.0000636	mg/L		02/21/13 10:48	02/22/13 14:21	1
2-Chloronaphthalene	0.0000727	U	0.000455	0.0000727	mg/L		02/21/13 10:48	02/22/13 14:21	1
Acenaphthylene	0.0000545	U	0.000455	0.0000545	mg/L		02/21/13 10:48	02/22/13 14:21	1
2,6-Dinitrotoluene	0.0000727	U	0.000455	0.0000727	mg/L		02/21/13 10:48	02/22/13 14:21	1
Acenaphthene	0.0000727	U	0.000455	0.0000727	mg/L		02/21/13 10:48	02/22/13 14:21	1
4-Nitrophenol	0.000509	U	0.000909	0.000509	mg/L		02/21/13 10:48	02/22/13 14:21	1
Dibenzofuran	0.0000727	U	0.000455	0.0000727	mg/L		02/21/13 10:48	02/22/13 14:21	1
2,4-Dinitrotoluene	0.000118	U	0.000455	0.000118	mg/L		02/21/13 10:48	02/22/13 14:21	1
Fluorene	0.0000636	U	0.000455	0.0000636	mg/L		02/21/13 10:48	02/22/13 14:21	1
4,6-Dinitro-2-methylphenol	0.000755	U	0.000909	0.000755	mg/L		02/21/13 10:48	02/22/13 14:21	1
N-Nitrosodiphenylamine	0.0000909	U	0.000455	0.0000909	mg/L		02/21/13 10:48	02/22/13 14:21	1
1,2-Diphenylhydrazine	0.000100	U	0.000455	0.000100	mg/L		02/21/13 10:48	02/22/13 14:21	1
Pentachlorophenol	0.000555	U	0.000909	0.000555	mg/L		02/21/13 10:48	02/22/13 14:21	1
Phenanthrene	0.000237	J	0.000455	0.0000545	mg/L		02/21/13 10:48	02/22/13 14:21	1
Anthracene	0.000326	J	0.000455	0.0000455	mg/L		02/21/13 10:48	02/22/13 14:21	1
Di-n-butyl phthalate	0.00130		0.000455	0.000100	mg/L		02/21/13 10:48	02/22/13 14:21	1
Fluoranthene	0.0000636	U	0.000455	0.0000636	mg/L		02/21/13 10:48	02/22/13 14:21	1
Pyrene	0.000122	J	0.000455	0.000100	mg/L		02/21/13 10:48	02/22/13 14:21	1
Benzo[a]anthracene	0.0000727	J	0.000455	0.0000727	mg/L		02/21/13 10:48	02/22/13 14:21	1
Bis(2-ethylhexyl) phthalate	0.000848		0.000455	0.000336	mg/L		02/21/13 10:48	02/22/13 14:21	1
Chrysene	0.0000727	U	0.000455	0.0000727	mg/L		02/21/13 10:48	02/22/13 14:21	1
Benzo[a]pyrene	0.0000727	U	0.000455	0.0000727	mg/L		02/21/13 10:48	02/22/13 14:21	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Phenol-d6	24		10 - 94				02/21/13 10:48	02/22/13 14:21	1
2,4,6-Tribromophenol	89		10 - 123				02/21/13 10:48	02/22/13 14:21	1
2-Fluorobiphenyl	111		43 - 116				02/21/13 10:48	02/22/13 14:21	1
2-Fluorophenol	41		10 - 100				02/21/13 10:48	02/22/13 14:21	1
Nitrobenzene-d5	79		35 - 114				02/21/13 10:48	02/22/13 14:21	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68812-1

Client Sample ID: WG-1620-IM-CPT-03-13-A-20120219

Lab Sample ID: 600-68812-1

Date Collected: 02/19/13 09:00

Matrix: Water

Date Received: 02/19/13 16:25

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Terphenyl-d14	101		33 - 141	02/21/13 10:48	02/22/13 14:21	1

Client Sample ID: WG-1620-IM-CPT-01-13-A-20120219

Lab Sample ID: 600-68812-2

Date Collected: 02/19/13 12:30

Matrix: Water

Date Received: 02/19/13 16:25

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			02/22/13 13:25	1
Benzene	0.0000800	U	0.00100	0.0000800	mg/L			02/22/13 13:25	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			02/22/13 13:25	1
Toluene	0.000150	U	0.00100	0.000150	mg/L			02/22/13 13:25	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			02/22/13 13:25	1
Ethylbenzene	0.000110	U	0.00100	0.000110	mg/L			02/22/13 13:25	1
Xylenes, Total	0.000260	U	0.00300	0.000260	mg/L			02/22/13 13:25	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	113		67 - 139		02/22/13 13:25	1
Dibromofluoromethane	73		62 - 130		02/22/13 13:25	1
Toluene-d8 (Surr)	80		70 - 130		02/22/13 13:25	1
1,2-Dichloroethane-d4 (Surr)	79		50 - 134		02/22/13 13:25	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.0000364	U	0.000455	0.0000364	mg/L		02/21/13 10:48	02/22/13 14:48	1
Nitrobenzene	0.000100	U	0.000455	0.000100	mg/L		02/21/13 10:48	02/22/13 14:48	1
2,4-Dimethylphenol	0.000282	U	0.000455	0.000282	mg/L		02/21/13 10:48	02/22/13 14:48	1
Bis(2-chloroethoxy)methane	0.000118	U	0.000455	0.000118	mg/L		02/21/13 10:48	02/22/13 14:48	1
Naphthalene	0.0000727	U	0.00455	0.0000727	mg/L		02/21/13 10:48	02/22/13 14:48	1
2-Methylnaphthalene	0.0000636	U	0.000455	0.0000636	mg/L		02/21/13 10:48	02/22/13 14:48	1
2-Chloronaphthalene	0.0000727	U	0.000455	0.0000727	mg/L		02/21/13 10:48	02/22/13 14:48	1
Acenaphthylene	0.0000545	U	0.000455	0.0000545	mg/L		02/21/13 10:48	02/22/13 14:48	1
2,6-Dinitrotoluene	0.000489		0.000455	0.0000727	mg/L		02/21/13 10:48	02/22/13 14:48	1
Acenaphthene	0.0000727	U	0.000455	0.0000727	mg/L		02/21/13 10:48	02/22/13 14:48	1
4-Nitrophenol	0.000509	U	0.000909	0.000509	mg/L		02/21/13 10:48	02/22/13 14:48	1
Dibenzofuran	0.0000727	U	0.000455	0.0000727	mg/L		02/21/13 10:48	02/22/13 14:48	1
2,4-Dinitrotoluene	0.000118	U	0.000455	0.000118	mg/L		02/21/13 10:48	02/22/13 14:48	1
Fluorene	0.0000636	U	0.000455	0.0000636	mg/L		02/21/13 10:48	02/22/13 14:48	1
4,6-Dinitro-2-methylphenol	0.000755	U	0.000909	0.000755	mg/L		02/21/13 10:48	02/22/13 14:48	1
N-Nitrosodiphenylamine	0.0000909	U	0.000455	0.0000909	mg/L		02/21/13 10:48	02/22/13 14:48	1
1,2-Diphenylhydrazine	0.000100	U	0.000455	0.000100	mg/L		02/21/13 10:48	02/22/13 14:48	1
Pentachlorophenol	0.000555	U	0.000909	0.000555	mg/L		02/21/13 10:48	02/22/13 14:48	1
Phenanthrene	0.0000599	J	0.000455	0.0000545	mg/L		02/21/13 10:48	02/22/13 14:48	1
Anthracene	0.000123	J	0.000455	0.0000455	mg/L		02/21/13 10:48	02/22/13 14:48	1
Di-n-butyl phthalate	0.00129		0.000455	0.000100	mg/L		02/21/13 10:48	02/22/13 14:48	1
Fluoranthene	0.0000636	U	0.000455	0.0000636	mg/L		02/21/13 10:48	02/22/13 14:48	1
Pyrene	0.000100	U	0.000455	0.000100	mg/L		02/21/13 10:48	02/22/13 14:48	1
Benzo[a]anthracene	0.0000727	U	0.000455	0.0000727	mg/L		02/21/13 10:48	02/22/13 14:48	1
Bis(2-ethylhexyl) phthalate	0.00157		0.000455	0.000336	mg/L		02/21/13 10:48	02/22/13 14:48	1
Chrysene	0.0000727	U	0.000455	0.0000727	mg/L		02/21/13 10:48	02/22/13 14:48	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68812-1

Client Sample ID: WG-1620-IM-CPT-01-13-A-20120219

Lab Sample ID: 600-68812-2

Date Collected: 02/19/13 12:30

Matrix: Water

Date Received: 02/19/13 16:25

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]pyrene	0.0000727	U	0.000455	0.0000727	mg/L		02/21/13 10:48	02/22/13 14:48	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Phenol-d6	19		10 - 94				02/21/13 10:48	02/22/13 14:48	1
2,4,6-Tribromophenol	65		10 - 123				02/21/13 10:48	02/22/13 14:48	1
2-Fluorobiphenyl	86		43 - 116				02/21/13 10:48	02/22/13 14:48	1
2-Fluorophenol	34		10 - 100				02/21/13 10:48	02/22/13 14:48	1
Nitrobenzene-d5	66		35 - 114				02/21/13 10:48	02/22/13 14:48	1
Terphenyl-d14	79		33 - 141				02/21/13 10:48	02/22/13 14:48	1

Client Sample ID: WG-1620-IM-CPT-01-13-B-20120219

Lab Sample ID: 600-68812-3

Date Collected: 02/19/13 13:20

Matrix: Water

Date Received: 02/19/13 16:25

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			02/22/13 13:54	1
Benzene	0.0000800	U	0.00100	0.0000800	mg/L			02/22/13 13:54	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			02/22/13 13:54	1
Toluene	0.000150	U	0.00100	0.000150	mg/L			02/22/13 13:54	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			02/22/13 13:54	1
Ethylbenzene	0.000110	U	0.00100	0.000110	mg/L			02/22/13 13:54	1
Xylenes, Total	0.000260	U	0.00300	0.000260	mg/L			02/22/13 13:54	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	111		67 - 139					02/22/13 13:54	1
Dibromofluoromethane	78		62 - 130					02/22/13 13:54	1
Toluene-d8 (Surr)	79		70 - 130					02/22/13 13:54	1
1,2-Dichloroethane-d4 (Surr)	83		50 - 134					02/22/13 13:54	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.0000364	U	0.000455	0.0000364	mg/L		02/21/13 10:48	02/22/13 16:08	1
Nitrobenzene	0.000100	U	0.000455	0.000100	mg/L		02/21/13 10:48	02/22/13 16:08	1
2,4-Dimethylphenol	0.000282	U	0.000455	0.000282	mg/L		02/21/13 10:48	02/22/13 16:08	1
Bis(2-chloroethoxy)methane	0.000118	U	0.000455	0.000118	mg/L		02/21/13 10:48	02/22/13 16:08	1
Naphthalene	0.0000727	U	0.00455	0.0000727	mg/L		02/21/13 10:48	02/22/13 16:08	1
2-Methylnaphthalene	0.0000636	U	0.000455	0.0000636	mg/L		02/21/13 10:48	02/22/13 16:08	1
2-Chloronaphthalene	0.0000727	U	0.000455	0.0000727	mg/L		02/21/13 10:48	02/22/13 16:08	1
Acenaphthylene	0.0000545	U	0.000455	0.0000545	mg/L		02/21/13 10:48	02/22/13 16:08	1
2,6-Dinitrotoluene	0.0000727	U	0.000455	0.0000727	mg/L		02/21/13 10:48	02/22/13 16:08	1
Acenaphthene	0.0000727	U	0.000455	0.0000727	mg/L		02/21/13 10:48	02/22/13 16:08	1
4-Nitrophenol	0.000509	U	0.000909	0.000509	mg/L		02/21/13 10:48	02/22/13 16:08	1
Dibenzofuran	0.0000727	U	0.000455	0.0000727	mg/L		02/21/13 10:48	02/22/13 16:08	1
2,4-Dinitrotoluene	0.000118	U	0.000455	0.000118	mg/L		02/21/13 10:48	02/22/13 16:08	1
Fluorene	0.0000636	U	0.000455	0.0000636	mg/L		02/21/13 10:48	02/22/13 16:08	1
4,6-Dinitro-2-methylphenol	0.000755	U	0.000909	0.000755	mg/L		02/21/13 10:48	02/22/13 16:08	1
N-Nitrosodiphenylamine	0.0000909	U	0.000455	0.0000909	mg/L		02/21/13 10:48	02/22/13 16:08	1
1,2-Diphenylhydrazine	0.000100	U	0.000455	0.000100	mg/L		02/21/13 10:48	02/22/13 16:08	1
Pentachlorophenol	0.000555	U	0.000909	0.000555	mg/L		02/21/13 10:48	02/22/13 16:08	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68812-1

Client Sample ID: WG-1620-IM-CPT-01-13-B-20120219

Lab Sample ID: 600-68812-3

Date Collected: 02/19/13 13:20

Matrix: Water

Date Received: 02/19/13 16:25

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenanthrene	0.0000545	U	0.000455	0.0000545	mg/L		02/21/13 10:48	02/22/13 16:08	1
Anthracene	0.0000891	J	0.000455	0.0000455	mg/L		02/21/13 10:48	02/22/13 16:08	1
Di-n-butyl phthalate	0.000769		0.000455	0.000100	mg/L		02/21/13 10:48	02/22/13 16:08	1
Fluoranthene	0.0000636	U	0.000455	0.0000636	mg/L		02/21/13 10:48	02/22/13 16:08	1
Pyrene	0.000100	U	0.000455	0.000100	mg/L		02/21/13 10:48	02/22/13 16:08	1
Benzo[a]anthracene	0.0000727	U	0.000455	0.0000727	mg/L		02/21/13 10:48	02/22/13 16:08	1
Bis(2-ethylhexyl) phthalate	0.000632		0.000455	0.000336	mg/L		02/21/13 10:48	02/22/13 16:08	1
Chrysene	0.0000727	U	0.000455	0.0000727	mg/L		02/21/13 10:48	02/22/13 16:08	1
Benzo[a]pyrene	0.0000727	U	0.000455	0.0000727	mg/L		02/21/13 10:48	02/22/13 16:08	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Phenol-d6	17		10 - 94				02/21/13 10:48	02/22/13 16:08	1
2,4,6-Tribromophenol	74		10 - 123				02/21/13 10:48	02/22/13 16:08	1
2-Fluorobiphenyl	82		43 - 116				02/21/13 10:48	02/22/13 16:08	1
2-Fluorophenol	33		10 - 100				02/21/13 10:48	02/22/13 16:08	1
Nitrobenzene-d5	63		35 - 114				02/21/13 10:48	02/22/13 16:08	1
Terphenyl-d14	87		33 - 141				02/21/13 10:48	02/22/13 16:08	1

Client Sample ID: WG-1620-IM-CPT-08-13-A-20120219

Lab Sample ID: 600-68812-4

Date Collected: 02/19/13 14:20

Matrix: Water

Date Received: 02/19/13 16:25

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			02/22/13 14:22	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			02/22/13 14:22	1
Toluene	0.00296		0.00100	0.000150	mg/L			02/22/13 14:22	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			02/22/13 14:22	1
Xylenes, Total	0.0807		0.00300	0.000260	mg/L			02/22/13 14:22	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	106		67 - 139					02/22/13 14:22	1
Dibromofluoromethane	74		62 - 130					02/22/13 14:22	1
Toluene-d8 (Surr)	77		70 - 130					02/22/13 14:22	1
1,2-Dichloroethane-d4 (Surr)	81		50 - 134					02/22/13 14:22	1

Method: 8260B - Volatile Organic Compounds (GC/MS) - DL

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.117		0.0100	0.000800	mg/L			02/22/13 19:34	10
Ethylbenzene	0.0733		0.0100	0.00110	mg/L			02/22/13 19:34	10
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	109		67 - 139					02/22/13 19:34	10
Dibromofluoromethane	72		62 - 130					02/22/13 19:34	10
Toluene-d8 (Surr)	80		70 - 130					02/22/13 19:34	10
1,2-Dichloroethane-d4 (Surr)	78		50 - 134					02/22/13 19:34	10

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.00182	U	0.0227	0.00182	mg/L		02/21/13 10:48	02/22/13 16:34	50
Nitrobenzene	0.00500	U	0.0227	0.00500	mg/L		02/21/13 10:48	02/22/13 16:34	50

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68812-1

Client Sample ID: WG-1620-IM-CPT-08-13-A-20120219

Lab Sample ID: 600-68812-4

Date Collected: 02/19/13 14:20

Matrix: Water

Date Received: 02/19/13 16:25

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-Dimethylphenol	0.636		0.0227	0.0141	mg/L		02/21/13 10:48	02/22/13 16:34	50
Bis(2-chloroethoxy)methane	0.00591	U	0.0227	0.00591	mg/L		02/21/13 10:48	02/22/13 16:34	50
2-Methylnaphthalene	0.456		0.0227	0.00318	mg/L		02/21/13 10:48	02/22/13 16:34	50
2-Chloronaphthalene	0.00364	U	0.0227	0.00364	mg/L		02/21/13 10:48	02/22/13 16:34	50
Acenaphthylene	0.00273	U	0.0227	0.00273	mg/L		02/21/13 10:48	02/22/13 16:34	50
2,6-Dinitrotoluene	0.00364	U	0.0227	0.00364	mg/L		02/21/13 10:48	02/22/13 16:34	50
Acenaphthene	0.247		0.0227	0.00364	mg/L		02/21/13 10:48	02/22/13 16:34	50
4-Nitrophenol	0.0255	U	0.0455	0.0255	mg/L		02/21/13 10:48	02/22/13 16:34	50
Dibenzofuran	0.0834		0.0227	0.00364	mg/L		02/21/13 10:48	02/22/13 16:34	50
2,4-Dinitrotoluene	0.00591	U	0.0227	0.00591	mg/L		02/21/13 10:48	02/22/13 16:34	50
Fluorene	0.134		0.0227	0.00318	mg/L		02/21/13 10:48	02/22/13 16:34	50
4,6-Dinitro-2-methylphenol	0.0377	U	0.0455	0.0377	mg/L		02/21/13 10:48	02/22/13 16:34	50
N-Nitrosodiphenylamine	0.00455	U	0.0227	0.00455	mg/L		02/21/13 10:48	02/22/13 16:34	50
1,2-Diphenylhydrazine	0.00500	U	0.0227	0.00500	mg/L		02/21/13 10:48	02/22/13 16:34	50
Pentachlorophenol	0.0277	U	0.0455	0.0277	mg/L		02/21/13 10:48	02/22/13 16:34	50
Phenanthrene	0.0615		0.0227	0.00273	mg/L		02/21/13 10:48	02/22/13 16:34	50
Anthracene	0.0111	J	0.0227	0.00227	mg/L		02/21/13 10:48	02/22/13 16:34	50
Di-n-butyl phthalate	0.00500	U	0.0227	0.00500	mg/L		02/21/13 10:48	02/22/13 16:34	50
Fluoranthene	0.00318	U	0.0227	0.00318	mg/L		02/21/13 10:48	02/22/13 16:34	50
Pyrene	0.00500	U	0.0227	0.00500	mg/L		02/21/13 10:48	02/22/13 16:34	50
Benzo[a]anthracene	0.00364	U	0.0227	0.00364	mg/L		02/21/13 10:48	02/22/13 16:34	50
Bis(2-ethylhexyl) phthalate	0.0168	U	0.0227	0.0168	mg/L		02/21/13 10:48	02/22/13 16:34	50
Chrysene	0.00364	U	0.0227	0.00364	mg/L		02/21/13 10:48	02/22/13 16:34	50
Benzo[a]pyrene	0.00364	U	0.0227	0.00364	mg/L		02/21/13 10:48	02/22/13 16:34	50

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Phenol-d6	0	X	10 - 94	02/21/13 10:48	02/22/13 16:34	50
2,4,6-Tribromophenol	0	X	10 - 123	02/21/13 10:48	02/22/13 16:34	50
2-Fluorobiphenyl	0	X	43 - 116	02/21/13 10:48	02/22/13 16:34	50
2-Fluorophenol	0	X	10 - 100	02/21/13 10:48	02/22/13 16:34	50
Nitrobenzene-d5	0	X	35 - 114	02/21/13 10:48	02/22/13 16:34	50
Terphenyl-d14	0	X	33 - 141	02/21/13 10:48	02/22/13 16:34	50

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels - DL

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	3.56		2.27	0.0364	mg/L		02/21/13 10:48	02/26/13 12:44	500

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Phenol-d6	0	X	10 - 94	02/21/13 10:48	02/26/13 12:44	500
2,4,6-Tribromophenol	0	X	10 - 123	02/21/13 10:48	02/26/13 12:44	500
2-Fluorobiphenyl	0	X	43 - 116	02/21/13 10:48	02/26/13 12:44	500
2-Fluorophenol	0	X	10 - 100	02/21/13 10:48	02/26/13 12:44	500
Nitrobenzene-d5	0	X	35 - 114	02/21/13 10:48	02/26/13 12:44	500
Terphenyl-d14	0	X	33 - 141	02/21/13 10:48	02/26/13 12:44	500

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68812-1

Client Sample ID: WG-1620-IM-CPT-Dup1-20120219

Lab Sample ID: 600-68812-5

Date Collected: 02/19/13 14:30

Matrix: Water

Date Received: 02/19/13 16:25

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			02/22/13 14:51	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			02/22/13 14:51	1
Toluene	0.00305		0.00100	0.000150	mg/L			02/22/13 14:51	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			02/22/13 14:51	1
Xylenes, Total	0.0788		0.00300	0.000260	mg/L			02/22/13 14:51	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	106		67 - 139		02/22/13 14:51	1
Dibromofluoromethane	76		62 - 130		02/22/13 14:51	1
Toluene-d8 (Surr)	78		70 - 130		02/22/13 14:51	1
1,2-Dichloroethane-d4 (Surr)	84		50 - 134		02/22/13 14:51	1

Method: 8260B - Volatile Organic Compounds (GC/MS) - DL

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.111		0.0100	0.000800	mg/L			02/22/13 20:02	10
Ethylbenzene	0.0684		0.0100	0.00110	mg/L			02/22/13 20:02	10

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	109		67 - 139		02/22/13 20:02	10
Dibromofluoromethane	71		62 - 130		02/22/13 20:02	10
Toluene-d8 (Surr)	77		70 - 130		02/22/13 20:02	10
1,2-Dichloroethane-d4 (Surr)	79		50 - 134		02/22/13 20:02	10

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.00182	U	0.0227	0.00182	mg/L		02/21/13 10:48	02/22/13 17:01	50
Nitrobenzene	0.00500	U	0.0227	0.00500	mg/L		02/21/13 10:48	02/22/13 17:01	50
2,4-Dimethylphenol	0.632		0.0227	0.0141	mg/L		02/21/13 10:48	02/22/13 17:01	50
Bis(2-chloroethoxy)methane	0.00591	U	0.0227	0.00591	mg/L		02/21/13 10:48	02/22/13 17:01	50
2-Methylnaphthalene	0.465		0.0227	0.00318	mg/L		02/21/13 10:48	02/22/13 17:01	50
2-Chloronaphthalene	0.00364	U	0.0227	0.00364	mg/L		02/21/13 10:48	02/22/13 17:01	50
Acenaphthylene	0.00273	U	0.0227	0.00273	mg/L		02/21/13 10:48	02/22/13 17:01	50
2,6-Dinitrotoluene	0.00364	U	0.0227	0.00364	mg/L		02/21/13 10:48	02/22/13 17:01	50
Acenaphthene	0.252		0.0227	0.00364	mg/L		02/21/13 10:48	02/22/13 17:01	50
4-Nitrophenol	0.0255	U	0.0455	0.0255	mg/L		02/21/13 10:48	02/22/13 17:01	50
Dibenzofuran	0.0866		0.0227	0.00364	mg/L		02/21/13 10:48	02/22/13 17:01	50
2,4-Dinitrotoluene	0.00591	U	0.0227	0.00591	mg/L		02/21/13 10:48	02/22/13 17:01	50
Fluorene	0.141		0.0227	0.00318	mg/L		02/21/13 10:48	02/22/13 17:01	50
4,6-Dinitro-2-methylphenol	0.0377	U	0.0455	0.0377	mg/L		02/21/13 10:48	02/22/13 17:01	50
N-Nitrosodiphenylamine	0.00455	U	0.0227	0.00455	mg/L		02/21/13 10:48	02/22/13 17:01	50
1,2-Diphenylhydrazine	0.00500	U	0.0227	0.00500	mg/L		02/21/13 10:48	02/22/13 17:01	50
Pentachlorophenol	0.0277	U	0.0455	0.0277	mg/L		02/21/13 10:48	02/22/13 17:01	50
Phenanthrene	0.0608		0.0227	0.00273	mg/L		02/21/13 10:48	02/22/13 17:01	50
Anthracene	0.0107	J	0.0227	0.00227	mg/L		02/21/13 10:48	02/22/13 17:01	50
Di-n-butyl phthalate	0.00500	U	0.0227	0.00500	mg/L		02/21/13 10:48	02/22/13 17:01	50
Fluoranthene	0.00318	U	0.0227	0.00318	mg/L		02/21/13 10:48	02/22/13 17:01	50
Pyrene	0.00500	U	0.0227	0.00500	mg/L		02/21/13 10:48	02/22/13 17:01	50
Benzo[a]anthracene	0.00364	U	0.0227	0.00364	mg/L		02/21/13 10:48	02/22/13 17:01	50
Bis(2-ethylhexyl) phthalate	0.0168	U	0.0227	0.0168	mg/L		02/21/13 10:48	02/22/13 17:01	50
Chrysene	0.00364	U	0.0227	0.00364	mg/L		02/21/13 10:48	02/22/13 17:01	50

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68812-1

Client Sample ID: WG-1620-IM-CPT-Dup1-20120219

Lab Sample ID: 600-68812-5

Date Collected: 02/19/13 14:30

Matrix: Water

Date Received: 02/19/13 16:25

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]pyrene	0.00364	U	0.0227	0.00364	mg/L		02/21/13 10:48	02/22/13 17:01	50
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Phenol-d6	0	X	10 - 94				02/21/13 10:48	02/22/13 17:01	50
2,4,6-Tribromophenol	0	X	10 - 123				02/21/13 10:48	02/22/13 17:01	50
2-Fluorobiphenyl	0	X	43 - 116				02/21/13 10:48	02/22/13 17:01	50
2-Fluorophenol	0	X	10 - 100				02/21/13 10:48	02/22/13 17:01	50
Nitrobenzene-d5	0	X	35 - 114				02/21/13 10:48	02/22/13 17:01	50
Terphenyl-d14	0	X	33 - 141				02/21/13 10:48	02/22/13 17:01	50

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels - DL

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	3.41		2.27	0.0364	mg/L		02/21/13 10:48	02/26/13 13:12	500
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Phenol-d6	0	X	10 - 94				02/21/13 10:48	02/26/13 13:12	500
2,4,6-Tribromophenol	0	X	10 - 123				02/21/13 10:48	02/26/13 13:12	500
2-Fluorobiphenyl	0	X	43 - 116				02/21/13 10:48	02/26/13 13:12	500
2-Fluorophenol	0	X	10 - 100				02/21/13 10:48	02/26/13 13:12	500
Nitrobenzene-d5	0	X	35 - 114				02/21/13 10:48	02/26/13 13:12	500
Terphenyl-d14	0	X	33 - 141				02/21/13 10:48	02/26/13 13:12	500

Definitions/Glossary

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68812-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
U	Analyte was not detected at or above the SDL.

GC/MS Semi VOA

Qualifier	Qualifier Description
U	Analyte was not detected at or above the SDL.
J	Result is less than the MQL but greater than or equal to the SDL and the concentration is an estimated value.
N	MS, MSD: Spike recovery exceeds upper or lower control limits.
N	RPD of the MS and MSD exceeds the control limits
X	Surrogate is outside control limits

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Surrogate Summary

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68812-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		BFB (67-139)	DBFM (62-130)	TOL (70-130)	12DCE (50-134)
600-68812-1	WG-1620-IM-CPT-03-13-A-2012021	111	73	80	79
600-68812-2	WG-1620-IM-CPT-01-13-A-2012021	113	73	80	79
600-68812-3	WG-1620-IM-CPT-01-13-B-2012021	111	78	79	83
600-68812-4 - DL	WG-1620-IM-CPT-08-13-A-2012021	109	72	80	78
600-68812-4	WG-1620-IM-CPT-08-13-A-2012021	106	74	77	81
600-68812-5 - DL	WG-1620-IM-CPT-Dup1-20120219	109	71	77	79
600-68812-5	WG-1620-IM-CPT-Dup1-20120219	106	76	78	84
LCS 600-100097/4	Lab Control Sample	110	84	82	85
LCS 600-100205/3	Lab Control Sample	113	82	81	83
MB 600-100097/6	Method Blank	114	74	83	82
MB 600-100205/4	Method Blank	114	75	81	80

Surrogate Legend

BFB = 4-Bromofluorobenzene
 DBFM = Dibromofluoromethane
 TOL = Toluene-d8 (Surr)
 12DCE = 1,2-Dichloroethane-d4 (Surr)

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)					
		PHL (10-94)	TBP (10-123)	FBP (43-116)	2FP (10-100)	NBZ (35-114)	TPH (33-141)
600-68812-1	WG-1620-IM-CPT-03-13-A-2012021	24	89	111	41	79	101
600-68812-2	WG-1620-IM-CPT-01-13-A-2012021	19	65	86	34	66	79
600-68812-2 MS	WG-1620-IM-CPT-01-13-A-2012021	24	55	66	34	50	55
600-68812-2 MSD	WG-1620-IM-CPT-01-13-A-2012021	33	59	70	43	53	67
600-68812-3	WG-1620-IM-CPT-01-13-B-2012021	17	74	82	33	63	87
600-68812-4	WG-1620-IM-CPT-08-13-A-2012021	0 X	0 X	0 X	0 X	0 X	0 X
600-68812-4 - DL	WG-1620-IM-CPT-08-13-A-2012021	0 X	0 X	0 X	0 X	0 X	0 X
600-68812-5	WG-1620-IM-CPT-Dup1-20120219	0 X	0 X	0 X	0 X	0 X	0 X
600-68812-5 - DL	WG-1620-IM-CPT-Dup1-20120219	0 X	0 X	0 X	0 X	0 X	0 X
LCS 600-100074/2-A	Lab Control Sample	66	69	81	65	66	74
MB 600-100074/1-A	Method Blank	62	43	79	64	63	71

Surrogate Legend

PHL = Phenol-d6
 TBP = 2,4,6-Tribromophenol
 FBP = 2-Fluorobiphenyl
 2FP = 2-Fluorophenol
 NBZ = Nitrobenzene-d5
 TPH = Terphenyl-d14

TestAmerica Houston

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68812-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 600-100097/6

Matrix: Water

Analysis Batch: 100097

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB MB		MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			02/21/13 11:04	1
Benzene	0.0000800	U	0.00100	0.0000800	mg/L			02/21/13 11:04	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			02/21/13 11:04	1
Toluene	0.000150	U	0.00100	0.000150	mg/L			02/21/13 11:04	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			02/21/13 11:04	1
Ethylbenzene	0.000110	U	0.00100	0.000110	mg/L			02/21/13 11:04	1
Xylenes, Total	0.000260	U	0.00300	0.000260	mg/L			02/21/13 11:04	1

Surrogate	MB MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
4-Bromofluorobenzene	114		67 - 139		02/21/13 11:04	1
Dibromofluoromethane	74		62 - 130		02/21/13 11:04	1
Toluene-d8 (Surr)	83		70 - 130		02/21/13 11:04	1
1,2-Dichloroethane-d4 (Surr)	82		50 - 134		02/21/13 11:04	1

Lab Sample ID: LCS 600-100097/4

Matrix: Water

Analysis Batch: 100097

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS LCS		Unit	D	%Rec	%Rec. Limits
		Result	Qualifier				
Methylene Chloride	0.0100	0.007763		mg/L		78	62 - 134
Benzene	0.0100	0.01016		mg/L		102	69 - 131
1,2-Dichloroethane	0.0100	0.01102		mg/L		110	66 - 140
Toluene	0.0100	0.009867		mg/L		99	67 - 130
Chlorobenzene	0.0100	0.01015		mg/L		101	60 - 136
Ethylbenzene	0.0100	0.009583		mg/L		96	68 - 128
Xylenes, Total	0.0300	0.02987		mg/L		100	68 - 132

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene	110		67 - 139
Dibromofluoromethane	84		62 - 130
Toluene-d8 (Surr)	82		70 - 130
1,2-Dichloroethane-d4 (Surr)	85		50 - 134

Lab Sample ID: MB 600-100205/4

Matrix: Water

Analysis Batch: 100205

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB MB		MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			02/22/13 12:28	1
Benzene	0.0000800	U	0.00100	0.0000800	mg/L			02/22/13 12:28	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			02/22/13 12:28	1
Toluene	0.000150	U	0.00100	0.000150	mg/L			02/22/13 12:28	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			02/22/13 12:28	1
Ethylbenzene	0.000110	U	0.00100	0.000110	mg/L			02/22/13 12:28	1
Xylenes, Total	0.000260	U	0.00300	0.000260	mg/L			02/22/13 12:28	1

TestAmerica Houston

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68812-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 600-100205/4

Matrix: Water

Analysis Batch: 100205

Client Sample ID: Method Blank

Prep Type: Total/NA

Surrogate	MB MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
4-Bromofluorobenzene	114		67 - 139		02/22/13 12:28	1
Dibromofluoromethane	75		62 - 130		02/22/13 12:28	1
Toluene-d8 (Surr)	81		70 - 130		02/22/13 12:28	1
1,2-Dichloroethane-d4 (Surr)	80		50 - 134		02/22/13 12:28	1

Lab Sample ID: LCS 600-100205/3

Matrix: Water

Analysis Batch: 100205

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	0.0100	0.01066		mg/L		107	69 - 131
1,2-Dichloroethane	0.0100	0.01129		mg/L		113	66 - 140
Toluene	0.0100	0.01005		mg/L		100	67 - 130
Chlorobenzene	0.0100	0.01068		mg/L		107	60 - 136
Ethylbenzene	0.0100	0.01002		mg/L		100	68 - 128
Xylenes, Total	0.0300	0.03110		mg/L		104	68 - 132

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene	113		67 - 139
Dibromofluoromethane	82		62 - 130
Toluene-d8 (Surr)	81		70 - 130
1,2-Dichloroethane-d4 (Surr)	83		50 - 134

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Lab Sample ID: MB 600-100074/1-A

Matrix: Water

Analysis Batch: 100183

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 100074

Analyte	MB MB		MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Phenol	0.0000400	U	0.000500	0.0000400	mg/L		02/21/13 10:48	02/21/13 16:53	1
Nitrobenzene	0.000110	U	0.000500	0.000110	mg/L		02/21/13 10:48	02/21/13 16:53	1
2,4-Dimethylphenol	0.000310	U	0.000500	0.000310	mg/L		02/21/13 10:48	02/21/13 16:53	1
Bis(2-chloroethoxy)methane	0.000130	U	0.000500	0.000130	mg/L		02/21/13 10:48	02/21/13 16:53	1
Naphthalene	0.0000800	U	0.000500	0.0000800	mg/L		02/21/13 10:48	02/21/13 16:53	1
2-Methylnaphthalene	0.0000700	U	0.000500	0.0000700	mg/L		02/21/13 10:48	02/21/13 16:53	1
2-Chloronaphthalene	0.0000800	U	0.000500	0.0000800	mg/L		02/21/13 10:48	02/21/13 16:53	1
Acenaphthylene	0.0000600	U	0.000500	0.0000600	mg/L		02/21/13 10:48	02/21/13 16:53	1
2,6-Dinitrotoluene	0.0000800	U	0.000500	0.0000800	mg/L		02/21/13 10:48	02/21/13 16:53	1
Acenaphthene	0.0000800	U	0.000500	0.0000800	mg/L		02/21/13 10:48	02/21/13 16:53	1
4-Nitrophenol	0.000560	U	0.00100	0.000560	mg/L		02/21/13 10:48	02/21/13 16:53	1
Dibenzofuran	0.0000800	U	0.000500	0.0000800	mg/L		02/21/13 10:48	02/21/13 16:53	1
2,4-Dinitrotoluene	0.000130	U	0.000500	0.000130	mg/L		02/21/13 10:48	02/21/13 16:53	1
Fluorene	0.0000700	U	0.000500	0.0000700	mg/L		02/21/13 10:48	02/21/13 16:53	1
4,6-Dinitro-2-methylphenol	0.000830	U	0.00100	0.000830	mg/L		02/21/13 10:48	02/21/13 16:53	1
N-Nitrosodiphenylamine	0.000100	U	0.000500	0.000100	mg/L		02/21/13 10:48	02/21/13 16:53	1

TestAmerica Houston

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68812-1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Lab Sample ID: MB 600-100074/1-A

Matrix: Water

Analysis Batch: 100183

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 100074

Analyte	MB Result	MB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Diphenylhydrazine	0.000110	U	0.000500	0.000110	mg/L		02/21/13 10:48	02/21/13 16:53	1
Pentachlorophenol	0.000610	U	0.00100	0.000610	mg/L		02/21/13 10:48	02/21/13 16:53	1
Phenanthrene	0.0000600	U	0.000500	0.0000600	mg/L		02/21/13 10:48	02/21/13 16:53	1
Anthracene	0.0000500	U	0.000500	0.0000500	mg/L		02/21/13 10:48	02/21/13 16:53	1
Di-n-butyl phthalate	0.000110	U	0.000500	0.000110	mg/L		02/21/13 10:48	02/21/13 16:53	1
Fluoranthene	0.0000700	U	0.000500	0.0000700	mg/L		02/21/13 10:48	02/21/13 16:53	1
Pyrene	0.000110	U	0.000500	0.000110	mg/L		02/21/13 10:48	02/21/13 16:53	1
Benzo[a]anthracene	0.0000800	U	0.000500	0.0000800	mg/L		02/21/13 10:48	02/21/13 16:53	1
Bis(2-ethylhexyl) phthalate	0.000370	U	0.000500	0.000370	mg/L		02/21/13 10:48	02/21/13 16:53	1
Chrysene	0.0000800	U	0.000500	0.0000800	mg/L		02/21/13 10:48	02/21/13 16:53	1
Benzo[a]pyrene	0.0000800	U	0.000500	0.0000800	mg/L		02/21/13 10:48	02/21/13 16:53	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Phenol-d6	62		10 - 94	02/21/13 10:48	02/21/13 16:53	1
2,4,6-Tribromophenol	43		10 - 123	02/21/13 10:48	02/21/13 16:53	1
2-Fluorobiphenyl	79		43 - 116	02/21/13 10:48	02/21/13 16:53	1
2-Fluorophenol	64		10 - 100	02/21/13 10:48	02/21/13 16:53	1
Nitrobenzene-d5	63		35 - 114	02/21/13 10:48	02/21/13 16:53	1
Terphenyl-d14	71		33 - 141	02/21/13 10:48	02/21/13 16:53	1

Lab Sample ID: LCS 600-100074/2-A

Matrix: Water

Analysis Batch: 100183

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 100074

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Phenol	0.0100	0.007386		mg/L		74	11 - 112
Nitrobenzene	0.0100	0.007119		mg/L		71	42 - 119
2,4-Dimethylphenol	0.0100	0.007511		mg/L		75	36 - 109
Bis(2-chloroethoxy)methane	0.0100	0.005785		mg/L		58	42 - 119
Naphthalene	0.0100	0.007205		mg/L		72	39 - 120
2-Methylnaphthalene	0.0100	0.007784		mg/L		78	40 - 121
2-Chloronaphthalene	0.0100	0.007281		mg/L		73	43 - 120
Acenaphthylene	0.0100	0.007333		mg/L		73	35 - 135
2,6-Dinitrotoluene	0.0100	0.007116		mg/L		71	45 - 122
Acenaphthene	0.0100	0.007303		mg/L		73	47 - 145
4-Nitrophenol	0.0100	0.004117		mg/L		41	14 - 132
Dibenzofuran	0.0100	0.007248		mg/L		72	46 - 123
2,4-Dinitrotoluene	0.0100	0.007133		mg/L		71	43 - 128
Fluorene	0.0100	0.007294		mg/L		73	48 - 127
4,6-Dinitro-2-methylphenol	0.0100	0.007769		mg/L		78	24 - 122
N-Nitrosodiphenylamine	0.0100	0.007502		mg/L		75	43 - 107
1,2-Diphenylhydrazine	0.0100	0.006447		mg/L		64	47 - 117
Pentachlorophenol	0.0100	0.006386		mg/L		64	9 - 147
Phenanthrene	0.0100	0.007260		mg/L		73	52 - 121
Anthracene	0.0100	0.007260		mg/L		73	53 - 124
Di-n-butyl phthalate	0.0100	0.007130		mg/L		71	54 - 138
Fluoranthene	0.0100	0.007593		mg/L		76	53 - 127
Pyrene	0.0100	0.007542		mg/L		75	49 - 121

TestAmerica Houston

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68812-1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Lab Sample ID: LCS 600-100074/2-A

Matrix: Water

Analysis Batch: 100183

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 100074

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzo[a]anthracene	0.0100	0.007381		mg/L		74	53 - 122
Bis(2-ethylhexyl) phthalate	0.0100	0.007219		mg/L		72	47 - 132
Chrysene	0.0100	0.006839		mg/L		68	49 - 124
Benzo[a]pyrene	0.0100	0.007602		mg/L		76	50 - 124

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Phenol-d6	66		10 - 94
2,4,6-Tribromophenol	69		10 - 123
2-Fluorobiphenyl	81		43 - 116
2-Fluorophenol	65		10 - 100
Nitrobenzene-d5	66		35 - 114
Terphenyl-d14	74		33 - 141

Lab Sample ID: 600-68812-2 MS

Matrix: Water

Analysis Batch: 100320

Client Sample ID: WG-1620-IM-CPT-01-13-A-20120219

Prep Type: Total/NA

Prep Batch: 100074

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Phenol	0.0000364	U	0.00962	0.002695		mg/L		28	10 - 62
Nitrobenzene	0.000100	U	0.00962	0.005186		mg/L		54	37 - 104
2,4-Dimethylphenol	0.000282	U	0.00962	0.005721		mg/L		59	25 - 85
Bis(2-chloroethoxy)methane	0.000118	U	0.00962	0.004029		mg/L		42	42 - 101
Naphthalene	0.0000727	U	0.00962	0.007167		mg/L		75	34 - 99
2-Methylnaphthalene	0.0000636	U	0.00962	0.006055		mg/L		63	36 - 111
2-Chloronaphthalene	0.0000727	U	0.00962	0.005410		mg/L		56	42 - 100
Acenaphthylene	0.0000545	U	0.00962	0.005496		mg/L		57	38 - 115
2,6-Dinitrotoluene	0.000489		0.00962	0.005433		mg/L		51	47 - 118
Acenaphthene	0.0000727	U	0.00962	0.005679		mg/L		59	46 - 118
4-Nitrophenol	0.000509	U	0.00962	0.002343		mg/L		24	10 - 100
Dibenzofuran	0.0000727	U	0.00962	0.005447		mg/L		57	46 - 110
2,4-Dinitrotoluene	0.000118	U	0.00962	0.005106		mg/L		53	41 - 125
Fluorene	0.0000636	U	0.00962	0.005308		mg/L		55	44 - 112
4,6-Dinitro-2-methylphenol	0.000755	U	0.00962	0.007420		mg/L		77	28 - 128
N-Nitrosodiphenylamine	0.0000909	U	0.00962	0.005674		mg/L		59	58 - 142
1,2-Diphenylhydrazine	0.000100	U	0.00962	0.005209		mg/L		54	10 - 130
Pentachlorophenol	0.000555	U	0.00962	0.006088		mg/L		63	45 - 155
Phenanthrene	0.0000599	J	0.00962	0.005574		mg/L		57	41 - 117
Anthracene	0.000123	J	0.00962	0.005402		mg/L		55	35 - 116
Di-n-butyl phthalate	0.00129		0.00962	0.007112		mg/L		61	31 - 137
Fluoranthene	0.0000636	U	0.00962	0.005235		mg/L		54	14 - 145
Pyrene	0.000100	U	0.00962	0.005505		mg/L		57	28 - 133
Benzo[a]anthracene	0.0000727	U	0.00962	0.005389		mg/L		56	24 - 126
Bis(2-ethylhexyl) phthalate	0.00157		0.00962	0.008163		mg/L		69	14 - 123
Chrysene	0.0000727	U	0.00962	0.005092		mg/L		53	23 - 128
Benzo[a]pyrene	0.0000727	U	0.00962	0.005600	N	mg/L		58	60 - 140

TestAmerica Houston

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68812-1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Lab Sample ID: 600-68812-2 MS

Matrix: Water

Analysis Batch: 100320

Client Sample ID: WG-1620-IM-CPT-01-13-A-20120219

Prep Type: Total/NA

Prep Batch: 100074

Surrogate	MS MS		Limits
	%Recovery	Qualifier	
Phenol-d6	24		10 - 94
2,4,6-Tribromophenol	55		10 - 123
2-Fluorobiphenyl	66		43 - 116
2-Fluorophenol	34		10 - 100
Nitrobenzene-d5	50		35 - 114
Terphenyl-d14	55		33 - 141

Lab Sample ID: 600-68812-2 MSD

Matrix: Water

Analysis Batch: 100320

Client Sample ID: WG-1620-IM-CPT-01-13-A-20120219

Prep Type: Total/NA

Prep Batch: 100074

Analyte	Sample	Sample	Spike	MSD MSD		Unit	D	%Rec	%Rec.		RPD	
	Result	Qualifier		Added	Result				Qualifier	Limits	RPD	Limit
Phenol	0.0000364	U	0.00962	0.003548	N	mg/L		37	10 - 62	27	20	
Nitrobenzene	0.000100	U	0.00962	0.005692		mg/L		59	37 - 104	9	20	
2,4-Dimethylphenol	0.000282	U	0.00962	0.006120		mg/L		64	25 - 85	7	20	
Bis(2-chloroethoxy)methane	0.000118	U	0.00962	0.004180		mg/L		43	42 - 101	4	20	
Naphthalene	0.0000727	U	0.00962	0.006307		mg/L		66	34 - 99	13	20	
2-Methylnaphthalene	0.0000636	U	0.00962	0.006471		mg/L		67	36 - 111	7	20	
2-Chloronaphthalene	0.0000727	U	0.00962	0.006017		mg/L		63	42 - 100	11	20	
Acenaphthylene	0.0000545	U	0.00962	0.006060		mg/L		63	38 - 115	10	20	
2,6-Dinitrotoluene	0.000489		0.00962	0.006146		mg/L		59	47 - 118	12	20	
Acenaphthene	0.0000727	U	0.00962	0.006059		mg/L		63	46 - 118	6	20	
4-Nitrophenol	0.000509	U	0.00962	0.003306	N	mg/L		34	10 - 100	34	20	
Dibenzofuran	0.0000727	U	0.00962	0.005959		mg/L		62	46 - 110	9	20	
2,4-Dinitrotoluene	0.000118	U	0.00962	0.005882		mg/L		61	41 - 125	14	20	
Fluorene	0.0000636	U	0.00962	0.005933		mg/L		62	44 - 112	11	20	
4,6-Dinitro-2-methylphenol	0.000755	U	0.00962	0.008814		mg/L		92	28 - 128	17	20	
N-Nitrosodiphenylamine	0.0000909	U	0.00962	0.006556		mg/L		68	58 - 142	14	20	
1,2-Diphenylhydrazine	0.000100	U	0.00962	0.005841		mg/L		61	10 - 130	11	20	
Pentachlorophenol	0.000555	U	0.00962	0.006425		mg/L		67	45 - 155	5	20	
Phenanthrene	0.0000599	J	0.00962	0.006596		mg/L		68	41 - 117	17	20	
Anthracene	0.000123	J	0.00962	0.006268		mg/L		64	35 - 116	15	20	
Di-n-butyl phthalate	0.00129		0.00962	0.008207		mg/L		72	31 - 137	14	20	
Fluoranthene	0.0000636	U	0.00962	0.006308		mg/L		66	14 - 145	19	20	
Pyrene	0.000100	U	0.00962	0.006651		mg/L		69	28 - 133	19	20	
Benzo[a]anthracene	0.0000727	U	0.00962	0.006602		mg/L		69	24 - 126	20	20	
Bis(2-ethylhexyl) phthalate	0.00157		0.00962	0.009498		mg/L		82	14 - 123	15	20	
Chrysene	0.0000727	U	0.00962	0.005912		mg/L		61	23 - 128	15	20	
Benzo[a]pyrene	0.0000727	U	0.00962	0.006783		mg/L		71	60 - 140	19	20	

Surrogate	MSD MSD		Limits
	%Recovery	Qualifier	
Phenol-d6	33		10 - 94
2,4,6-Tribromophenol	59		10 - 123
2-Fluorobiphenyl	70		43 - 116
2-Fluorophenol	43		10 - 100
Nitrobenzene-d5	53		35 - 114
Terphenyl-d14	67		33 - 141

TestAmerica Houston

Unadjusted Detection Limits

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68812-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	MQL	MDL	Units	Method
1,2-Dichloroethane	0.00100	0.000140	mg/L	8260B
Benzene	0.00100	0.0000800	mg/L	8260B
Chlorobenzene	0.00100	0.000120	mg/L	8260B
Ethylbenzene	0.00100	0.000110	mg/L	8260B
Methylene Chloride	0.00100	0.000150	mg/L	8260B
Toluene	0.00100	0.000150	mg/L	8260B
Xylenes, Total	0.00300	0.000260	mg/L	8260B

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	MQL	MDL	Units	Method
1,2-Diphenylhydrazine	0.000500	0.000110	mg/L	8270C LL
2,4-Dimethylphenol	0.000500	0.000310	mg/L	8270C LL
2,4-Dinitrotoluene	0.000500	0.000130	mg/L	8270C LL
2,6-Dinitrotoluene	0.000500	0.0000800	mg/L	8270C LL
2-Chloronaphthalene	0.000500	0.0000800	mg/L	8270C LL
2-Methylnaphthalene	0.000500	0.0000700	mg/L	8270C LL
4,6-Dinitro-2-methylphenol	0.00100	0.000830	mg/L	8270C LL
4-Nitrophenol	0.00100	0.000560	mg/L	8270C LL
Acenaphthene	0.000500	0.0000800	mg/L	8270C LL
Acenaphthylene	0.000500	0.0000600	mg/L	8270C LL
Anthracene	0.000500	0.0000500	mg/L	8270C LL
Benzo[a]anthracene	0.000500	0.0000800	mg/L	8270C LL
Benzo[a]pyrene	0.000500	0.0000800	mg/L	8270C LL
Bis(2-chloroethoxy)methane	0.000500	0.000130	mg/L	8270C LL
Bis(2-ethylhexyl) phthalate	0.000500	0.000370	mg/L	8270C LL
Chrysene	0.000500	0.0000800	mg/L	8270C LL
Dibenzofuran	0.000500	0.0000800	mg/L	8270C LL
Di-n-butyl phthalate	0.000500	0.000110	mg/L	8270C LL
Fluoranthene	0.000500	0.0000700	mg/L	8270C LL
Fluorene	0.000500	0.0000700	mg/L	8270C LL
Naphthalene	0.00500	0.0000800	mg/L	8270C LL
Nitrobenzene	0.000500	0.000110	mg/L	8270C LL
N-Nitrosodiphenylamine	0.000500	0.000100	mg/L	8270C LL
Pentachlorophenol	0.00100	0.000610	mg/L	8270C LL
Phenanthrene	0.000500	0.0000600	mg/L	8270C LL
Phenol	0.000500	0.0000400	mg/L	8270C LL
Pyrene	0.000500	0.000110	mg/L	8270C LL

QC Association Summary

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68812-1

GC/MS VOA

Analysis Batch: 100097

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-68812-1	WG-1620-IM-CPT-03-13-A-20120219	Total/NA	Water	8260B	
LCS 600-100097/4	Lab Control Sample	Total/NA	Water	8260B	
MB 600-100097/6	Method Blank	Total/NA	Water	8260B	

Analysis Batch: 100205

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-68812-2	WG-1620-IM-CPT-01-13-A-20120219	Total/NA	Water	8260B	
600-68812-3	WG-1620-IM-CPT-01-13-B-20120219	Total/NA	Water	8260B	
600-68812-4 - DL	WG-1620-IM-CPT-08-13-A-20120219	Total/NA	Water	8260B	
600-68812-4	WG-1620-IM-CPT-08-13-A-20120219	Total/NA	Water	8260B	
600-68812-5 - DL	WG-1620-IM-CPT-Dup1-20120219	Total/NA	Water	8260B	
600-68812-5	WG-1620-IM-CPT-Dup1-20120219	Total/NA	Water	8260B	
LCS 600-100205/3	Lab Control Sample	Total/NA	Water	8260B	
MB 600-100205/4	Method Blank	Total/NA	Water	8260B	

GC/MS Semi VOA

Prep Batch: 100074

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-68812-1	WG-1620-IM-CPT-03-13-A-20120219	Total/NA	Water	3510C	
600-68812-2	WG-1620-IM-CPT-01-13-A-20120219	Total/NA	Water	3510C	
600-68812-2 MS	WG-1620-IM-CPT-01-13-A-20120219	Total/NA	Water	3510C	
600-68812-2 MSD	WG-1620-IM-CPT-01-13-A-20120219	Total/NA	Water	3510C	
600-68812-3	WG-1620-IM-CPT-01-13-B-20120219	Total/NA	Water	3510C	
600-68812-4	WG-1620-IM-CPT-08-13-A-20120219	Total/NA	Water	3510C	
600-68812-4 - DL	WG-1620-IM-CPT-08-13-A-20120219	Total/NA	Water	3510C	
600-68812-5	WG-1620-IM-CPT-Dup1-20120219	Total/NA	Water	3510C	
600-68812-5 - DL	WG-1620-IM-CPT-Dup1-20120219	Total/NA	Water	3510C	
LCS 600-100074/2-A	Lab Control Sample	Total/NA	Water	3510C	
MB 600-100074/1-A	Method Blank	Total/NA	Water	3510C	

Analysis Batch: 100183

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 600-100074/2-A	Lab Control Sample	Total/NA	Water	8270C LL	100074
MB 600-100074/1-A	Method Blank	Total/NA	Water	8270C LL	100074

Analysis Batch: 100320

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-68812-1	WG-1620-IM-CPT-03-13-A-20120219	Total/NA	Water	8270C LL	100074
600-68812-2	WG-1620-IM-CPT-01-13-A-20120219	Total/NA	Water	8270C LL	100074
600-68812-2 MS	WG-1620-IM-CPT-01-13-A-20120219	Total/NA	Water	8270C LL	100074
600-68812-2 MSD	WG-1620-IM-CPT-01-13-A-20120219	Total/NA	Water	8270C LL	100074
600-68812-3	WG-1620-IM-CPT-01-13-B-20120219	Total/NA	Water	8270C LL	100074
600-68812-4	WG-1620-IM-CPT-08-13-A-20120219	Total/NA	Water	8270C LL	100074
600-68812-5	WG-1620-IM-CPT-Dup1-20120219	Total/NA	Water	8270C LL	100074

Analysis Batch: 100424

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-68812-4 - DL	WG-1620-IM-CPT-08-13-A-20120219	Total/NA	Water	8270C LL	100074
600-68812-5 - DL	WG-1620-IM-CPT-Dup1-20120219	Total/NA	Water	8270C LL	100074

TestAmerica Houston

Lab Chronicle

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68812-1

Client Sample ID: WG-1620-IM-CPT-03-13-A-20120219

Lab Sample ID: 600-68812-1

Date Collected: 02/19/13 09:00

Matrix: Water

Date Received: 02/19/13 16:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	100097	02/21/13 19:38	DT	TAL HOU
Total/NA	Prep	3510C			100074	02/21/13 10:48	SMB	TAL HOU
Total/NA	Analysis	8270C LL		1	100320	02/22/13 14:21	JH	TAL HOU

Client Sample ID: WG-1620-IM-CPT-01-13-A-20120219

Lab Sample ID: 600-68812-2

Date Collected: 02/19/13 12:30

Matrix: Water

Date Received: 02/19/13 16:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	100205	02/22/13 13:25	DT	TAL HOU
Total/NA	Prep	3510C			100074	02/21/13 10:48	SMB	TAL HOU
Total/NA	Analysis	8270C LL		1	100320	02/22/13 14:48	JH	TAL HOU

Client Sample ID: WG-1620-IM-CPT-01-13-B-20120219

Lab Sample ID: 600-68812-3

Date Collected: 02/19/13 13:20

Matrix: Water

Date Received: 02/19/13 16:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	100205	02/22/13 13:54	DT	TAL HOU
Total/NA	Prep	3510C			100074	02/21/13 10:48	SMB	TAL HOU
Total/NA	Analysis	8270C LL		1	100320	02/22/13 16:08	JH	TAL HOU

Client Sample ID: WG-1620-IM-CPT-08-13-A-20120219

Lab Sample ID: 600-68812-4

Date Collected: 02/19/13 14:20

Matrix: Water

Date Received: 02/19/13 16:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B	DL	10	100205	02/22/13 19:34	DT	TAL HOU
Total/NA	Analysis	8260B		1	100205	02/22/13 14:22	DT	TAL HOU
Total/NA	Prep	3510C			100074	02/21/13 10:48	SMB	TAL HOU
Total/NA	Analysis	8270C LL		50	100320	02/22/13 16:34	JH	TAL HOU
Total/NA	Prep	3510C	DL		100074	02/21/13 10:48	SMB	TAL HOU
Total/NA	Analysis	8270C LL	DL	500	100424	02/26/13 12:44	TTD	TAL HOU

Client Sample ID: WG-1620-IM-CPT-Dup1-20120219

Lab Sample ID: 600-68812-5

Date Collected: 02/19/13 14:30

Matrix: Water

Date Received: 02/19/13 16:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B	DL	10	100205	02/22/13 20:02	DT	TAL HOU
Total/NA	Analysis	8260B		1	100205	02/22/13 14:51	DT	TAL HOU
Total/NA	Prep	3510C			100074	02/21/13 10:48	SMB	TAL HOU

TestAmerica Houston

Lab Chronicle

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68812-1

Client Sample ID: WG-1620-IM-CPT-Dup1-20120219

Lab Sample ID: 600-68812-5

Date Collected: 02/19/13 14:30

Matrix: Water

Date Received: 02/19/13 16:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8270C LL		50	100320	02/22/13 17:01	JH	TAL HOU
Total/NA	Prep	3510C	DL		100074	02/21/13 10:48	SMB	TAL HOU
Total/NA	Analysis	8270C LL	DL	500	100424	02/26/13 13:12	TTD	TAL HOU

Laboratory References:

TAL HOU = TestAmerica Houston, 6310 Rothway Street, Houston, TX 77040, TEL (713)690-4444

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Certification Summary

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-68812-1

Laboratory: TestAmerica Houston

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Arkansas DEQ	State Program	6	88-0759	08-04-12
Louisiana	NELAP	6	01967	06-30-13
Oklahoma	State Program	6	9503	08-31-13
Texas	NELAP	6	T104704223-10-6-TX	10-31-13
USDA	Federal		P330-08-00217	04-01-14
Utah	NELAP	8	GULF	10-31-13

6310 Rothway Street
 Houston, TX 77040
 Phone (713) 690-4444 Fax (713) 690-5646

Client Information

Company: Pastor, Belting & Wheeler LLC
 Address: 2201 Double Creek Dr Suite 4004
 City: Round Rock
 State, Zip: TX, 78664
 Phone: 512-671-3434(Tel) 512-671-3446(Fax)
 Email: eric.matzner@pbwllc.com
 Project Name: UPRR HWPW
 Site: S50W#

Sampler: C. Sester
 Phone: 512-671-3434
 Lab P/N: Kuddhakar, Sachin G
 E-Mail: sachin.kuddhakar@testamericainc.com

Camera Tracking No(s):
 COC No: 600-19057-7266.2
 Page: 1 of 1
 Job #:

Analysis Requested

Loc: 600
 68812

Preservation Codes:

- A - HCL
- B - NaOH
- C - Zn Acetate
- D - Nitric Acid
- E - NaHSO4
- F - NaOH
- G - Anchor
- H - Ascorbic Acid
- I - Ice
- J - DI Water
- K - EDTA
- L - EDA
- M - Hexane
- N - None
- O - AsNaO2
- P - Na2O4S
- Q - Na2SO3
- R - Na2S2O3
- S - H2SO4
- T - TSP Dodecahydrate
- U - Acetone
- V - MCAA
- W - pH 4.5
- Z - other (specify)

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix (Water, Small, Overstall, Br-Tissue, AAR)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	Total Number of containers	Special Instructions/Note:
W6-1620-IM-CPT-03-13-A-20120219	02.19.13	900	G	Water	X	X	5	
W6-1620-IM-CPT-01-13-A-20120219		1230	G	Water	X	X	5	
W6-1620-IM-CPT-01-13-B-20120219		1320	G	Water	X	X	5	
W6-1620-IM-CPT-01-13-A-20120219		1420	G	Water	X	X	5	
W6-1620-IM-CPT-01-13-B-20120219		1436	G	Water	X	X	5	

Possible Hazard Identification
 Non-Hazard Flammable Skin Irritant Poison B Unknown Radiological
 Deliverable Requested: I, II, III, IV, Other (Specify)

Empty Kit Relinquished by: _____ Date: _____

Relinquished by: _____ Date/Time: 2.19.13 1513
 Relinquished by: _____ Date/Time: 2/19/13 1625

Relinquished by: _____ Date/Time: 2/19/13 1625
 Custody Seal Intact: _____ Custody Seal No.: _____

Special Instructions/OC Requirements:
 Return To Client Disposal By Lab Archive For _____ Months
 Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

Received by: _____ Date/Time: 2/19/13 1513
 Received by: _____ Date/Time: 2/19/13 1625

Received by: _____ Date/Time: 2/19/13 1625
 Method of Shipment: _____
 Cycler Temperature(s) °C and Other Remarks:

Login Sample Receipt Checklist

Client: Pastor, Behling & Wheeler LLC

Job Number: 600-68812-1

Login Number: 68812

List Number: 1

Creator: Capps, Dana

List Source: TestAmerica Houston

Question	Answer	Comment
Radioactivity wasn't checked or is <=/ background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	3.1
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	True	





**CONESTOGA-ROVERS
& ASSOCIATES**

E-Mail Date: April 11, 2013
E-Mail To: Eric Matzner/ Pastor, Behling &
Wheeler, LLC
c.c.: Angela Bown, Jesse Orth
E-Mail and Hard Copy if Requested

**DATA USABILITY SUMMARY
UNION PACIFIC RAILROAD (UPRR)
HOUSTON WOOD PRESERVING WORKS
ENGLEWOOD YARD PAVEMENT RECONSTRUCTION PROJECT
HOUSTON, TEXAS
MARCH 2013**

PREPARED BY:
CONESTOGA-ROVERS & ASSOCIATES
9033 Meridian Way
West Chester, Ohio 45069
Telephone: 513-942-4750
Fax: 513-942-8585
Contact: Angela Bown [eew]
Date: April 11, 2013
www.CRAworld.com

Data Usability Summary

Reviewer:	Angela Bown – Conestoga-Rovers & Associates, Inc.
Contract Laboratory:	TestAmerica, Inc. – Houston, Texas
Project/Area of Interest:	UPRR Houston Wood Preserving Works – Houston, Texas
Description of Data Packages Reviewed:	Soil sample results in data package: 600-69910
Sample Collection Date(s):	March 12, 2013
Intended Use of Data:	To monitor the COCs in soil at the site and to evaluate whether migration of Chemicals of Concern (COC) could result in risk to human or ecological health.

1.0 Scope of Data Usability Summary

Data were reviewed and validated in accordance with Title 30 of the Texas Administrative Code Section 350.54 (30 TAC 350.54) as described in *Review and Reporting of COC Concentration Data*, (RG-366/TRRP-13) and the results of the review/validation are discussed in this Data Usability Summary (DUS). The review included examination of the reported data, the laboratory review checklist (LRC), and field/laboratory quality assurance/quality control (QA/QC) samples collected at the Site. Tables summarizing data qualifications discussed in this DUS can be found in Appendix A.

A sampling and analysis summary is presented in Table 1. This summary includes a cross-reference of field sample identification numbers and location codes. Each sample was assigned a unique field identification number.

Soil samples including quality control samples were analyzed for the parameters outlined in Table 2. The validated sample results are presented in Table 3.

2.0 Laboratory Qualifications

Analytical services were provided by TestAmerica, Inc. (TA) located in Houston, Texas. The laboratory's quality assurance program is consistent with the quality standards outlined in the National Environmental Laboratory Accreditation Program (NELAP). The laboratory was accredited under Texas Certification Number T104704223-10-6-TX at the time the analyses were performed.

3.0 Project Objectives

3.1 Levels of Required Performance (LORP)

Prior to sampling, the LORP for each COC was established for the investigation. Standard available analytical methods were selected and minimal detection limits were sought.

3.2 Sampling/Analytical QA/QC Objectives

Pastor, Behling & Wheeler, LLC designed the QA/QC program to identify contamination resulting from sample collection, sample transport and the analytical process.

- The trip blank is a zero headspace sample container filled by the laboratory with analyte-free water. Trip blanks are submitted and analyzed with the samples requiring volatile organic analyses. The trip blank samples are kept in the same environment in which the field samples are collected. There are no trip blanks associated with this event.
- Field and equipment blanks are sample containers filled in the field with analyte-free water, which has been used to rinse sampling equipment to check effectiveness of the decontamination procedures. There are no field or equipment blanks associated with this event.
- Method blanks of a similar matrix to that of the associated samples are prepared by the laboratory and analyzed to determine if laboratory contaminants are affecting the analytical results. Method blanks are prepared and analyzed with each batch.

Similarly, the QA/QC program was designed to evaluate the quality of the resulting data with respect to bias and precision. First, a laboratory control sample (LCS) or laboratory control sample duplicate (LCSD) was prepared and analyzed with each batch. The recovery ranges established by the laboratory are adopted as the acceptance criteria for the project. Second, a matrix spike/matrix spike duplicate (MS/MSD) was prepared and analyzed with each batch. The recovery ranges and relative percent differences (RPDs) established by the laboratory are adopted as the acceptance criteria for the project. Third, field duplicates were collected and submitted for analysis. The RPD acceptance criterion for the soil field duplicates is 50 percent. This RPD criterion is only used when sample concentrations are above the estimated regions of detection.

4.0 Data Review/Validation Results

4.1 Analytical Results

Analytes with concentrations above the Sample Detection Limits (SDLs) but below the Method Quantitation Limits (MQL) have been qualified as estimated (J) on the analytical tables per the TRRP-13 document.

4.2 LORP

All SDLs and unadjusted MQLs met the LORP for this investigation.

Most Detectability Check Standard (DCS) results supported the laboratory Method Detection Limits (MDL). DCS results for pentachlorophenol and 4-nitrophenol were not provided.

4.3 Preservation and Holding Times

Samples were properly preserved in the field and placed on ice. Samples were shipped with chains of custody, and the paperwork was filled out properly. The samples were delivered to the laboratory on the same day as collection. Because of this, they did not have enough time to reach proper preservation temperature. However, qualification of the sample results was not necessary. All samples were prepared and analyzed within the applicable holding times.

4.4 Sample Containers

Sample containers were certified pre-cleaned glass provided by the laboratory. These containers meet or exceed analyte specifications established in the USEPA *Specifications and Guidance for Contaminant-free Sample Containers*.

4.5 Calibrations

According to the LRCs, instrument tuning and initial calibration and continuing calibration data met the criteria for the selected methods.

4.6 Blanks

Method Blanks: As these were not discrete samples handled in the field, the method blanks are not listed on the sample identification cross-reference list found in Table 1. Results are reported in the data packages on a laboratory batch basis. Most of the laboratory blank results were reported as ND (not detected). Table 4 presents the sample results that were qualified due to laboratory contamination as reflected in the method blanks.

4.7 Internal Standard and Surrogate Recoveries

Recoveries of internal standards and surrogates are addressed in the LRCs of the laboratory data packages. Most surrogate recoveries and all internal standard areas and retention limits were within the acceptance limits. Each individual surrogate compound is expected to meet the laboratory control limits with the exception of semi-volatile organic compound (SVOC) analyses. According to TRRP-13 for SVOC analyses, up to one outlying surrogate in the base/neutral or acid fractions is acceptable as long as the recovery is at least 10 percent. Table 5 presents the sample results that were qualified or rejected due to outlying surrogate recoveries.

4.8 Laboratory Control Samples (LCS)

LCS data for all COCs were reported for each batch. LCS spike recoveries for all COCs were within the project objectives.

4.9 Matrix Spikes and Laboratory Duplicates

Matrix spike/matrix spike duplicates (MS/MSD) were prepared and analyzed with all batches for all requested parameters. The results are reported in the data package on a laboratory batch basis.

Most MS/MSD recoveries and RPDs met acceptance criteria. Table 6 presents the sample results that were qualified or rejected due to outlying MS/MSD recoveries and RPDs.

For metals analyses, analytical precision is evaluated based on the analysis of laboratory duplicate samples. Duplicate samples were prepared and analyzed by the laboratory as specified in Table 1.

Most duplicate analyses performed were acceptable. Table 7 presents the sample results that were qualified due to outlying duplicate results.

4.10 Field Duplicate

Field duplicate samples were collected and analyzed for the target analytes as outlined in Table 1.

Most RPDs were < 50% for soil sample results greater than 5 times the MQL indicating acceptable precision above the estimated regions of detection. Table 8 presents the sample results that were qualified due to variability in the field duplicate results.

4.11 Field Procedures

Pastor, Behling & Wheeler, LLC collected soil samples in accordance with their Standard Operating Procedures (SOP) for sample collection.

4.12 Summary

Based on this assessment of the information provided, the data produced by TestAmerica were found to exhibit acceptable levels of accuracy and precision and may be used with the qualifications noted with the exception of the following:

- TCLP semi-volatile acid compound non-detect data were rejected in sample SO-1620-SB08 (2.25-4.5)-2013031 due to surrogate recovery failure.

APPENDIX A

TABLES

TABLE 1
SAMPLE COLLECTION AND ANALYSIS SUMMARY
UNION PACIFIC RAILROAD (UPRR)
HOUSTON WOOD PRESERVING WORKS
ENGLEWOOD YARD PAVEMENT RECONSTRUCTION PROJECT
HOUSTON, TEXAS
MARCH 2013

Sample Identification	Location	Matrix	Initial Sample Depth (ft. bgs)	Final Sample Depth (ft. bgs)	Collection Date (mm/dd/yyyy)	Collection Time (hr:min)	Analysis/Parameters						Comments
							Select VOCs	Select SVOCs	TCLP SVOCs	Total Arsenic & Lead	TCLP Arsenic & Lead	TPH	
TestAmerica SDG#: 600-69910													
SO-1620-SB12(2-4)-20130312	SB-12	Soil	2	4	03/12/2013	11:45	X	X	X	X	X	X	MS/MSD
SO-1620-SB11(2.5-4)-20130312	SB-11	Soil	2.5	4	03/12/2013	12:30	X	X	X	X	X	X	MS/MSD
SO-1620-SB09(1-4)-20130312	SB-09	Soil	1	4	03/12/2013	14:30	X	X	X	X	X	X	
SO-1620-SB08(2.25-4.5)-2013031	SB-08	Soil	2.25	4.5	03/12/2013	17:20	X	X	X	X	X	X	
SO-1620-SB07(3-5)-20130312	SB-07	Soil	3	5	03/12/2013	17:05	X	X	X	X	X	X	
SO-1620-SB06(2-4)-20130312	SB-06	Soil	2	4	03/12/2013	16:50	X	X	X	X	X	X	
SO-1620-SB05(1-4)-20130312	SB-05	Soil	1	4	03/12/2013	15:00	X	X	X	X	X	X	
SO-1620-SB04(3.5-5)-20130312	SB-04	Soil	3.5	5	03/12/2013	16:30	X	X	X	X	X	X	MS/MSD
SO-1620-SB03(3-5)-20130312	SB-03	Soil	3	5	03/12/2013	17:45	X	X	X	X	X	X	
SO-1620-SB02(3-5)-20130312	SB-02	Soil	3	5	03/12/2013	18:00	X	X	X	X	X	X	
SO-1620-SB01(4-5)-20130312	SB-01	Soil	4	5	03/12/2013	18:15	X	X	X	X	X	X	MS/MSD
SO-1620-DUP-20130312	SB-09	Soil	1	4	03/12/2013	-	X	X	X	X	X	X	Field Duplicate of SO-1620-SB09((1-4)-20130312)

Notes:

- DUP Laboratory duplicate.
- ft. bgs Feet below ground surface.
- MS Matrix spike.
- MSD Matrix spike duplicate.
- SDG Sample delivery group.
- SVOCs Semi-volatile organic compounds.
- TCLP Toxicity characteristics leaching procedure.
- TPH Total petroleum hydrocarbons.
- VOCs Volatile organic compounds.

TABLE 2
SUMMARY OF ANALYTICAL METHODOLOGIES
UNION PACIFIC RAILROAD (UPRR)
HOUSTON WOOD PRESERVING WORKS
ENGLEWOOD YARD PAVEMENT RECONSTRUCTION PROJECT
HOUSTON, TEXAS
MARCH 2013

<i>Parameter</i>	<i>Method</i>
Select VOCs	SW-846 8260 ¹
Select SVOCs	SW-846 8270 ¹
TCLP SVOCs	SW-846 8270 ¹
Total Arsenic & Lead	SW-846 6010 ¹
TCLP Arsenic & Lead	SW-846 6010 ¹
TPH	T1005

Notes:

¹ "Test Methods for Solid Waste/Physical Chemical Methods," SW-846, 3rd Edition, September 1986 (with all subsequent revisions).

SVOCs Semi Volatile Organic Compounds.

TABLE 3

ANALYTICAL RESULTS SUMMARY
SOIL SAMPLING
UNION PACIFIC RAILROAD (UPRR)
HOUSTON WOOD PRESERVING WORKS
ENGLEWOOD YARD PAVEMENT RECONSTRUCTION PROJECT
HOUSTON, TEXAS
MARCH 2013

<i>Sample Location:</i>	<i>SB-01</i>	<i>SB-02</i>	<i>SB-03</i>	<i>SB-04</i>	
<i>Sample ID:</i>	SO-1620-SB01(4-5)-20130312	SO-1620-SB02(3-5)-20130312	SO-1620-SB03(3-5)-20130312	SO-1620-SB04(3.5-5)-20130312	
<i>Sample Date:</i>	3/12/2013	3/12/2013	3/12/2013	3/12/2013	
<i>Sample Depth:</i>	4-5 ft BGS	3-5 ft BGS	3-5 ft BGS	3.5-5 ft BGS	
<i>Parameters</i>	<i>Units</i>				
<i>Volatile Organic Compounds</i>					
1,2-Dichloroethane	mg/kg	<0.00101	<0.00116	<0.00110	<0.00102
Benzene	mg/kg	<0.000706	<0.000810	<0.000772	<0.000711
Chlorobenzene	mg/kg	<0.00108	<0.00123	<0.00118	<0.00108
Ethylbenzene	mg/kg	<0.00114	<0.00131	<0.00125	<0.00115
Methylene chloride	mg/kg	<0.00246	<0.00281	<0.00268	<0.00247
Toluene	mg/kg	<0.00155	<0.00177	<0.00169	<0.00156
Xylenes (total)	mg/kg	<0.00127	<0.00145	<0.00138	<0.00128
<i>Semi-volatile Organic Compounds</i>					
1,2-Diphenylhydrazine	mg/kg	<0.0725	<0.104	<0.0594	<0.0366
2,4-Dimethylphenol	mg/kg	<0.384	<0.550	<0.315	<0.194
2,4-Dinitrotoluene	mg/kg	<0.162	<0.232	<0.132	<0.0815
2,6-Dinitrotoluene	mg/kg	<0.132	<0.189	<0.108	<0.0666
2-Chloronaphthalene	mg/kg	<0.0541	<0.0776	<0.0444	<0.0273
2-Methylnaphthalene	mg/kg	0.404 J	0.432 J	0.236 J	0.191 J
4,6-Dinitro-2-methylphenol	mg/kg	<0.223	<0.319	<0.183	<0.112
4-Nitrophenol	mg/kg	<0.227	<0.326	<0.186	<0.115
Acenaphthene	mg/kg	2.24	2.51	0.254 J	0.205 J
Acenaphthylene	mg/kg	0.160 J	0.558 J	0.160 J	<0.0226
Anthracene	mg/kg	7.29	2.09	0.764	0.0574 J

TABLE 3

**ANALYTICAL RESULTS SUMMARY
SOIL SAMPLING
UNION PACIFIC RAILROAD (UPRR)
HOUSTON WOOD PRESERVING WORKS
ENGLEWOOD YARD PAVEMENT RECONSTRUCTION PROJECT
HOUSTON, TEXAS
MARCH 2013**

<i>Sample Location:</i>	<i>SB-01</i>	<i>SB-02</i>	<i>SB-03</i>	<i>SB-04</i>	
<i>Sample ID:</i>	SO-1620-SB01(4-5)-20130312	SO-1620-SB02(3-5)-20130312	SO-1620-SB03(3-5)-20130312	SO-1620-SB04(3.5-5)-20130312	
<i>Sample Date:</i>	3/12/2013	3/12/2013	3/12/2013	3/12/2013	
<i>Sample Depth:</i>	4-5 ft BGS	3-5 ft BGS	3-5 ft BGS	3.5-5 ft BGS	
Parameters					
Semi-volatile Organic Compounds (continued)					
Benzo(a)anthracene	mg/kg	1.63	4.99	1.35	0.165 J
Benzo(a)pyrene	mg/kg	1.14	5.02	1.87	0.152 J
bis(2-Chloroethoxy)methane	mg/kg	<0.0635	<0.0911	<0.0521	<0.0321
bis(2-Ethylhexyl)phthalate (DEHP)	mg/kg	14.8	<0.344	2.05 J	0.568 J
Chrysene	mg/kg	2.70	9.66	2.15	0.242 J
Dibenzofuran	mg/kg	0.611 J	0.650 J	0.220 J	<0.0402
Di-n-butylphthalate (DBP)	mg/kg	0.221 J	<0.166	0.247 J	<0.0585
Fluoranthene	mg/kg	9.81	23.1	2.24	0.395
Fluorene	mg/kg	2.38	1.67	0.274 J	0.173 J
Naphthalene	mg/kg	<0.0604	0.868 J	0.446 J	0.0810 J
Nitrobenzene	mg/kg	<0.132	<0.190	<0.109	<0.0668
N-Nitrosodiphenylamine	mg/kg	<0.0846	<0.121	<0.0693	<0.0427
Pentachlorophenol	mg/kg	<0.179	<0.257	<0.147	<0.0903
Phenanthrene	mg/kg	8.02	6.86	1.26	0.548
Phenol	mg/kg	<0.190	<0.272	<0.156	<0.0957
Pyrene	mg/kg	8.59	20.2	2.55	0.501
Semi-volatile Organic Compounds - TCLP					
1,4-Dichlorobenzene	µg/L	<1.26	<1.26	<1.26	<1.26
2,4,5-Trichlorophenol	µg/L	<1.26	<1.26	<1.26	<1.26
2,4,6-Trichlorophenol	µg/L	<0.920	<0.920	<0.920	<0.920
2,4-Dinitrotoluene	µg/L	<0.950	<0.950	<0.950	<0.950
2-Methylphenol	µg/L	<1.01	<1.01	<1.01	<1.01

TABLE 3

ANALYTICAL RESULTS SUMMARY
SOIL SAMPLING
UNION PACIFIC RAILROAD (UPRR)
HOUSTON WOOD PRESERVING WORKS
ENGLEWOOD YARD PAVEMENT RECONSTRUCTION PROJECT
HOUSTON, TEXAS
MARCH 2013

<i>Sample Location:</i>	<i>SB-01</i>	<i>SB-02</i>	<i>SB-03</i>	<i>SB-04</i>
<i>Sample ID:</i>	<i>SO-1620-SB01(4-5)-20130312</i>	<i>SO-1620-SB02(3-5)-20130312</i>	<i>SO-1620-SB03(3-5)-20130312</i>	<i>SO-1620-SB04(3.5-5)-20130312</i>
<i>Sample Date:</i>	<i>3/12/2013</i>	<i>3/12/2013</i>	<i>3/12/2013</i>	<i>3/12/2013</i>
<i>Sample Depth:</i>	<i>4-5 ft BGS</i>	<i>3-5 ft BGS</i>	<i>3-5 ft BGS</i>	<i>3.5-5 ft BGS</i>
Parameters				
Semi-volatile Organic Compounds - TCLP (continued)				
3&4-Methylphenol	µg/L	<1.88	<1.88	<1.88
Hexachlorobenzene	µg/L	<0.900	<0.900	<0.900
Hexachlorobutadiene	µg/L	<1.11	<1.11	<1.11
Hexachloroethane	µg/L	<1.16	<1.16	<1.16
Methylphenol (cresol)	µg/L	<1.88	<1.88	<1.88
Nitrobenzene	µg/L	<1.18	<1.18	<1.18
Pentachlorophenol	µg/L	<0.890	<0.890	<0.890
Pyridine	µg/L	<1.04	<1.04	<1.04
Metals				
Arsenic	mg/kg	11.0 JL	12.8 JL	21.7 JL
Lead	mg/kg	890	1850	1780
Metals - TCLP				
Arsenic	mg/L	<0.0328	<0.0412	<0.0328
Lead	mg/L	0.402	0.648	10.5

TABLE 3

ANALYTICAL RESULTS SUMMARY
SOIL SAMPLING
UNION PACIFIC RAILROAD (UPRR)
HOUSTON WOOD PRESERVING WORKS
ENGLEWOOD YARD PAVEMENT RECONSTRUCTION PROJECT
HOUSTON, TEXAS
MARCH 2013

<i>Sample Location:</i>	<i>SB-01</i>	<i>SB-02</i>	<i>SB-03</i>	<i>SB-04</i>
<i>Sample ID:</i>	<i>SO-1620-SB01(4-5)-20130312</i>	<i>SO-1620-SB02(3-5)-20130312</i>	<i>SO-1620-SB03(3-5)-20130312</i>	<i>SO-1620-SB04(3.5-5)-20130312</i>
<i>Sample Date:</i>	<i>3/12/2013</i>	<i>3/12/2013</i>	<i>3/12/2013</i>	<i>3/12/2013</i>
<i>Sample Depth:</i>	<i>4-5 ft BGS</i>	<i>3-5 ft BGS</i>	<i>3-5 ft BGS</i>	<i>3.5-5 ft BGS</i>
<i>Parameters</i>	<i>Units</i>			
<i>Petroleum Products</i>				
Total Petroleum Hydrocarbons (C6-C12)	mg/kg	<4.26	15.0 JH	<4.63
Total Petroleum Hydrocarbons (>C12-C28)	mg/kg	209	384 JH	328
Total Petroleum Hydrocarbons (>C28-C35)	mg/kg	152	220 JH	311
Total Petroleum Hydrocarbons (C6-C35)	mg/kg	360	619 JH	639
				239 JL

TABLE 3

ANALYTICAL RESULTS SUMMARY
SOIL SAMPLING
UNION PACIFIC RAILROAD (UPRR)
HOUSTON WOOD PRESERVING WORKS
ENGLEWOOD YARD PAVEMENT RECONSTRUCTION PROJECT
HOUSTON, TEXAS
MARCH 2013

<i>Sample Location:</i>	<i>SB-05</i>	<i>SB-06</i>	<i>SB-07</i>	<i>SB-08</i>	
<i>Sample ID:</i>	SO-1620-SB05(1-4)-20130312	SO-1620-SB06(2-4)-20130312	SO-1620-SB07(3-5)-20130312	SO-1620-SB08(2.25-4.5)-2013031	
<i>Sample Date:</i>	3/12/2013	3/12/2013	3/12/2013	3/12/2013	
<i>Sample Depth:</i>	1-4 ft BGS	2-4 ft BGS	3-5 ft BGS	2.25-4.5 ft BGS	
<i>Parameters</i>	<i>Units</i>				
<i>Volatile Organic Compounds</i>					
1,2-Dichloroethane	mg/kg	<0.00113	<0.00111	<0.00747	<0.00512
Benzene	mg/kg	<0.000790	<0.000779	0.0554	0.00372 J
Chlorobenzene	mg/kg	<0.00120	<0.00119	<0.00797	<0.00546
Ethylbenzene	mg/kg	<0.00128	<0.00126	0.573	0.0288
Methylene chloride	mg/kg	<0.00275	<0.00271	<0.0182	<0.0124
Toluene	mg/kg	<0.00173	<0.00171	0.379	<0.00784
Xylenes (total)	mg/kg	<0.00142	<0.00140	2.49	0.0394
<i>Semi-volatile Organic Compounds</i>					
1,2-Diphenylhydrazine	mg/kg	<0.0406	<0.200	<0.134	<1.84
2,4-Dimethylphenol	mg/kg	<0.215	<1.06	1.42	<9.73
2,4-Dinitrotoluene	mg/kg	<0.0905	<0.446	<0.299	<4.10
2,6-Dinitrotoluene	mg/kg	<0.0739	<0.365	<0.245	<3.35
2-Chloronaphthalene	mg/kg	<0.0303	<0.150	<0.100	<1.37
2-Methylnaphthalene	mg/kg	0.200 J	0.746 J	65.1	522
4,6-Dinitro-2-methylphenol	mg/kg	<0.125	<0.615	<0.413	<5.65
4-Nitrophenol	mg/kg	<0.127	<0.628	<0.421	<5.76
Acenaphthene	mg/kg	0.639	1.25 J	111	390
Acenaphthylene	mg/kg	0.160 J	0.208 J	3.90	13.6 J
Anthracene	mg/kg	0.943	1.20 J	288	648

TABLE 3

ANALYTICAL RESULTS SUMMARY
SOIL SAMPLING
UNION PACIFIC RAILROAD (UPRR)
HOUSTON WOOD PRESERVING WORKS
ENGLEWOOD YARD PAVEMENT RECONSTRUCTION PROJECT
HOUSTON, TEXAS
MARCH 2013

<i>Sample Location:</i>	<i>SB-05</i>	<i>SB-06</i>	<i>SB-07</i>	<i>SB-08</i>	
<i>Sample ID:</i>	SO-1620-SB05(1-4)-20130312	SO-1620-SB06(2-4)-20130312	SO-1620-SB07(3-5)-20130312	SO-1620-SB08(2.25-4.5)-2013031	
<i>Sample Date:</i>	3/12/2013	3/12/2013	3/12/2013	3/12/2013	
<i>Sample Depth:</i>	1-4 ft BGS	2-4 ft BGS	3-5 ft BGS	2.25-4.5 ft BGS	
<i>Parameters</i>	<i>Units</i>				
<i>Semi-volatile Organic Compounds (continued)</i>					
Benzo(a)anthracene	mg/kg	2.20	2.87	39.9	87.2
Benzo(a)pyrene	mg/kg	2.08	3.53	15.9	27.5
bis(2-Chloroethoxy)methane	mg/kg	<0.0356	<0.175	<0.118	<1.61
bis(2-Ethylhexyl)phthalate (DEHP)	mg/kg	1.73	21.8	<0.445	<6.09
Chrysene	mg/kg	3.14	3.78	46.4	109
Dibenzofuran	mg/kg	0.260 J	0.587 J	51.3	372
Di-n-butylphthalate (DBP)	mg/kg	<0.0649	1.60 J	<0.215	<2.94
Fluoranthene	mg/kg	4.69	6.66	296	534
Fluorene	mg/kg	0.752	1.17 J	136	465
Naphthalene	mg/kg	0.273 J	0.616 J	161	2010
Nitrobenzene	mg/kg	<0.0742	<0.366	<0.246	<3.36
N-Nitrosodiphenylamine	mg/kg	<0.0474	<0.234	<0.157	<2.14
Pentachlorophenol	mg/kg	<0.100	<0.494	<0.332	<4.54
Phenanthrene	mg/kg	3.27	5.09	389	1510
Phenol	mg/kg	<0.106	<0.524	<0.352	<4.81
Pyrene	mg/kg	4.87	7.37	182	318
<i>Semi-volatile Organic Compounds - TCLP</i>					
1,4-Dichlorobenzene	µg/L	<1.26	<1.26	<1.26	<1.26
2,4,5-Trichlorophenol	µg/L	<1.26	<1.26	<1.26	R
2,4,6-Trichlorophenol	µg/L	<0.920	<0.920	<0.920	R
2,4-Dinitrotoluene	µg/L	<0.950	<0.950	<0.950	<0.950
2-Methylphenol	µg/L	<1.01	<1.01	3.05 J	R

TABLE 3

ANALYTICAL RESULTS SUMMARY
SOIL SAMPLING
UNION PACIFIC RAILROAD (UPRR)
HOUSTON WOOD PRESERVING WORKS
ENGLEWOOD YARD PAVEMENT RECONSTRUCTION PROJECT
HOUSTON, TEXAS
MARCH 2013

<i>Sample Location:</i>	<i>SB-05</i>	<i>SB-06</i>	<i>SB-07</i>	<i>SB-08</i>	
<i>Sample ID:</i>	SO-1620-SB05(1-4)-20130312	SO-1620-SB06(2-4)-20130312	SO-1620-SB07(3-5)-20130312	SO-1620-SB08(2.25-4.5)-2013031	
<i>Sample Date:</i>	3/12/2013	3/12/2013	3/12/2013	3/12/2013	
<i>Sample Depth:</i>	1-4 ft BGS	2-4 ft BGS	3-5 ft BGS	2.25-4.5 ft BGS	
<i>Parameters</i>					
<i>Units</i>					
<i>Semi-volatile Organic Compounds - TCLP (continued)</i>					
3&4-Methylphenol	µg/L	<1.88	<1.88	11.3 J	R
Hexachlorobenzene	µg/L	<0.900	<0.900	<0.900	<0.900
Hexachlorobutadiene	µg/L	<1.11	<1.11	<1.11	<1.11
Hexachloroethane	µg/L	<1.16	<1.16	<1.16	<1.16
Methylphenol (cresol)	µg/L	<1.88	<1.88	14.4 J	R
Nitrobenzene	µg/L	<1.18	<1.18	<1.18	<1.18
Pentachlorophenol	µg/L	<0.890	<0.890	<0.890	R
Pyridine	µg/L	<1.04	<1.04	<1.04	<1.04
<i>Metals</i>					
Arsenic	mg/kg	21.4 JL	40.7 JL	40.3 JL	1.35 JL
Lead	mg/kg	1220	2840	1920	17.7
<i>Metals - TCLP</i>					
Arsenic	mg/L	<0.0763	<0.0640	<0.145	<0.0532
Lead	mg/L	2.98	10.2	4.70	0.0341 J

TABLE 3

ANALYTICAL RESULTS SUMMARY
SOIL SAMPLING
UNION PACIFIC RAILROAD (UPRR)
HOUSTON WOOD PRESERVING WORKS
ENGLEWOOD YARD PAVEMENT RECONSTRUCTION PROJECT
HOUSTON, TEXAS
MARCH 2013

<i>Sample Location:</i>	SB-05	SB-06	SB-07	SB-08
<i>Sample ID:</i>	SO-1620-SB05(1-4)-20130312	SO-1620-SB06(2-4)-20130312	SO-1620-SB07(3-5)-20130312	SO-1620-SB08(2.25-4.5)-2013031
<i>Sample Date:</i>	3/12/2013	3/12/2013	3/12/2013	3/12/2013
<i>Sample Depth:</i>	1-4 ft BGS	2-4 ft BGS	3-5 ft BGS	2.25-4.5 ft BGS

*Parameters**Units**Petroleum Products*

Total Petroleum Hydrocarbons (C6-C12)	mg/kg	<4.74	<4.69	296 J	135
Total Petroleum Hydrocarbons (>C12-C28)	mg/kg	<5.06	351 JH	13500	4950
Total Petroleum Hydrocarbons (>C28-C35)	mg/kg	91.9	300 JH	4050	795
Total Petroleum Hydrocarbons (C6-C35)	mg/kg	91.9	651 JH	17900	5880

TABLE 3

ANALYTICAL RESULTS SUMMARY
SOIL SAMPLING
UNION PACIFIC RAILROAD (UPRR)
HOUSTON WOOD PRESERVING WORKS
ENGLEWOOD YARD PAVEMENT RECONSTRUCTION PROJECT
HOUSTON, TEXAS
MARCH 2013

<i>Sample Location:</i>	<i>SB-09</i>	<i>SB-09</i>	<i>SB-11</i>	<i>SB-12</i>	
<i>Sample ID:</i>	<i>SO-1620-SB09(1-4)-20130312</i>	<i>SO-1620-DUP-20130312</i>	<i>SO-1620-SB11(2.5-4)-20130312</i>	<i>SO-1620-SB12(2-4)-20130312</i>	
<i>Sample Date:</i>	<i>3/12/2013</i>	<i>3/12/2013</i>	<i>3/12/2013</i>	<i>3/12/2013</i>	
<i>Sample Depth:</i>	<i>1-4 ft BGS</i>	<i>1-4 ft BGS</i>	<i>2.5-4 ft BGS</i>	<i>2-4 ft BGS</i>	
<i>Parameters</i>	<i>Units</i>	<i>Duplicate</i>			
<i>Volatile Organic Compounds</i>					
1,2-Dichloroethane	mg/kg	<0.00105	<0.00106	<0.00108	<0.00100
Benzene	mg/kg	<0.000738	<0.000743	0.00109 J	<0.000700
Chlorobenzene	mg/kg	<0.00112	<0.00113	<0.00115	<0.00107
Ethylbenzene	mg/kg	<0.00119	<0.00120	0.00214 J	<0.00113
Methylene chloride	mg/kg	<0.00256	<0.00258	<0.00263	<0.00243
Toluene	mg/kg	<0.00162	<0.00163	0.00303 J	<0.00153
Xylenes (total)	mg/kg	<0.00132	<0.00133	0.0116	<0.00126
<i>Semi-volatile Organic Compounds</i>					
1,2-Diphenylhydrazine	mg/kg	<0.0757	<0.0952	<0.194	<0.0360
2,4-Dimethylphenol	mg/kg	<0.401	<0.504	<1.03	<0.190
2,4-Dinitrotoluene	mg/kg	<0.169	<0.212	<0.432	<0.0801
2,6-Dinitrotoluene	mg/kg	<0.138	<0.173	<0.353	<0.0655
2-Chloronaphthalene	mg/kg	<0.0566	<0.0711	<0.145	<0.0269
2-Methylnaphthalene	mg/kg	<0.128	0.220 J	<0.328	0.159 J
4,6-Dinitro-2-methylphenol	mg/kg	<0.233	<0.293	<0.596	<0.111
4-Nitrophenol	mg/kg	<0.238	<0.299	<0.608	<0.113
Acenaphthene	mg/kg	0.131 J	0.224 J	<0.172	0.220 J
Acenaphthylene	mg/kg	0.414 J	0.254 J	<0.120	0.165 J
Anthracene	mg/kg	0.572 J	0.955 J	<0.153	1.27

TABLE 3

**ANALYTICAL RESULTS SUMMARY
SOIL SAMPLING
UNION PACIFIC RAILROAD (UPRR)
HOUSTON WOOD PRESERVING WORKS
ENGLEWOOD YARD PAVEMENT RECONSTRUCTION PROJECT
HOUSTON, TEXAS
MARCH 2013**

<i>Sample Location:</i>	<i>SB-09</i>	<i>SB-09</i>	<i>SB-11</i>	<i>SB-12</i>	
<i>Sample ID:</i>	<i>SO-1620-SB09(1-4)-20130312</i>	<i>SO-1620-DUP-20130312</i>	<i>SO-1620-SB11(2.5-4)-20130312</i>	<i>SO-1620-SB12(2-4)-20130312</i>	
<i>Sample Date:</i>	<i>3/12/2013</i>	<i>3/12/2013</i>	<i>3/12/2013</i>	<i>3/12/2013</i>	
<i>Sample Depth:</i>	<i>1-4 ft BGS</i>	<i>1-4 ft BGS</i>	<i>2.5-4 ft BGS</i>	<i>2-4 ft BGS</i>	
<i>Parameters</i>	<i>Units</i>				
<i>Semi-volatile Organic Compounds (continued)</i>					
Benzo(a)anthracene	mg/kg	0.956 J	1.76 J	2.04	0.372
Benzo(a)pyrene	mg/kg	1.97	2.18	2.54	0.468
bis(2-Chloroethoxy)methane	mg/kg	<0.0664	<0.0835	<0.170	<0.0315
bis(2-Ethylhexyl)phthalate (DEHP)	mg/kg	<0.251 J	10.6 J	7.48 J	<0.119
Chrysene	mg/kg	1.73	2.48	3.05	0.688
Dibenzofuran	mg/kg	<0.0832 J	0.235 J	<0.213	0.205 J
Di-n-butylphthalate (DBP)	mg/kg	<0.121 J	0.476 J	0.992 J	<0.0575
Fluoranthene	mg/kg	2.67	3.24	3.35	1.46
Fluorene	mg/kg	<0.110 J	0.303 J	<0.282	0.269 J
Naphthalene	mg/kg	<0.0631 J	0.389 J	<0.162	<0.0300
Nitrobenzene	mg/kg	<0.138	<0.174	<0.354	<0.0657
N-Nitrosodiphenylamine	mg/kg	<0.0884	<0.111	<0.226	<0.0420
Pentachlorophenol	mg/kg	<0.187	<0.235	<0.479	<0.0888
Phenanthrene	mg/kg	<0.231 J	2.27 J	2.11	1.20
Phenol	mg/kg	<0.198 J	4.08 J	<0.508	<0.0941
Pyrene	mg/kg	5.60 J	3.12 J	4.09	1.28
<i>Semi-volatile Organic Compounds - TCLP</i>					
1,4-Dichlorobenzene	µg/L	<1.26	<1.26	<1.26	<1.26
2,4,5-Trichlorophenol	µg/L	<1.26	<1.26	<1.26	<1.26
2,4,6-Trichlorophenol	µg/L	<0.920	<0.920	<0.920	<0.920
2,4-Dinitrotoluene	µg/L	<0.950	<0.950	<0.950	<0.950
2-Methylphenol	µg/L	<1.01	<1.01	<1.01	<1.01

TABLE 3

ANALYTICAL RESULTS SUMMARY
SOIL SAMPLING
UNION PACIFIC RAILROAD (UPRR)
HOUSTON WOOD PRESERVING WORKS
ENGLEWOOD YARD PAVEMENT RECONSTRUCTION PROJECT
HOUSTON, TEXAS
MARCH 2013

<i>Sample Location:</i>		<i>SB-09</i>	<i>SB-09</i>	<i>SB-11</i>	<i>SB-12</i>
<i>Sample ID:</i>		<i>SO-1620-SB09(1-4)-20130312</i>	<i>SO-1620-DUP-20130312</i>	<i>SO-1620-SB11(2.5-4)-20130312</i>	<i>SO-1620-SB12(2-4)-20130312</i>
<i>Sample Date:</i>		<i>3/12/2013</i>	<i>3/12/2013</i>	<i>3/12/2013</i>	<i>3/12/2013</i>
<i>Sample Depth:</i>		<i>1-4 ft BGS</i>	<i>1-4 ft BGS</i>	<i>2.5-4 ft BGS</i>	<i>2-4 ft BGS</i>
			<i>Duplicate</i>		
<i>Parameters</i>					
<i>Semi-volatile Organic Compounds - TCLP (continued)</i>					
3&4-Methylphenol	µg/L	<1.88	<1.88	<1.88	<1.88
Hexachlorobenzene	µg/L	<0.900	<0.900	<0.900	<0.900
Hexachlorobutadiene	µg/L	<1.11	<1.11	<1.11	<1.11
Hexachloroethane	µg/L	<1.16	<1.16	<1.16	<1.16
Methylphenol (cresol)	µg/L	<1.88	<1.88	<1.88	<1.88
Nitrobenzene	µg/L	<1.18	<1.18	<1.18	<1.18
Pentachlorophenol	µg/L	<0.890	<0.890	<0.890	<0.890
Pyridine	µg/L	<1.04	<1.04	<1.04	<1.04
<i>Metals</i>					
Arsenic	mg/kg	3.04 JL	19.0 JL	22.6 JL	2.29 JL
Lead	mg/kg	67.1 J	2990 J	2400	25.6
<i>Metals - TCLP</i>					
Arsenic	mg/L	<0.0518	<0.0328	<0.0496	<0.0382
Lead	mg/L	3.10	4.40	27.9	1.03

TABLE 3

**ANALYTICAL RESULTS SUMMARY
SOIL SAMPLING
UNION PACIFIC RAILROAD (UPRR)
HOUSTON WOOD PRESERVING WORKS
ENGLEWOOD YARD PAVEMENT RECONSTRUCTION PROJECT
HOUSTON, TEXAS
MARCH 2013**

<i>Sample Location:</i>	<i>SB-09</i>	<i>SB-09</i>	<i>SB-11</i>	<i>SB-12</i>	
<i>Sample ID:</i>	<i>SO-1620-SB09(1-4)-20130312</i>	<i>SO-1620-DUP-20130312</i>	<i>SO-1620-SB11(2.5-4)-20130312</i>	<i>SO-1620-SB12(2-4)-20130312</i>	
<i>Sample Date:</i>	<i>3/12/2013</i>	<i>3/12/2013</i>	<i>3/12/2013</i>	<i>3/12/2013</i>	
<i>Sample Depth:</i>	<i>1-4 ft BGS</i>	<i>1-4 ft BGS</i>	<i>2.5-4 ft BGS</i>	<i>2-4 ft BGS</i>	
<i>Parameters</i>	<i>Units</i>				
<i>Petroleum Products</i>					
Total Petroleum Hydrocarbons (C6-C12)	mg/kg	<4.42	<4.48	<9.11	<4.22
Total Petroleum Hydrocarbons (>C12-C28)	mg/kg	<4.72 J	602 JH	410	<4.51
Total Petroleum Hydrocarbons (>C28-C35)	mg/kg	<4.72 J	795 JH	732	<4.51
Total Petroleum Hydrocarbons (C6-C35)	mg/kg	<8.70 J	1400 JH	1140	<8.31

Notes:

- ft BGS Feet below ground surface.
- J Estimated concentration.
- JH Estimated concentration. High bias.
- JL Estimated concentration. Low bias.
- R Rejected.

TABLE 4

QUALIFIED SAMPLE RESULTS DUE TO ANALYTE CONCENTRATIONS IN THE METHOD BLANKS
UNION PACIFIC RAILROAD (UPRR)
HOUSTON WOOD PRESERVING WORKS
ENGLEWOOD YARD PAVEMENT RECONSTRUCTION PROJECT
HOUSTON, TEXAS
MARCH 2013

<i>Parameter</i>	<i>Analyte</i>	<i>Analysis Date</i>	<i>Blank Result *</i>	<i>Sample ID</i>	<i>Original Result</i>	<i>Qualified Result</i>	<i>Units</i>
Metals	TCLP Arsenic	03/18/13	0.0407	SO-1620-SB02(3-5)-20130312	0.0412 J	0.0412 U	mg/L
				SO-1620-SB04(3.5-5)-20130312	0.0524 J	0.0524 U	mg/L
				SO-1620-SB05(1-4)-20130312	0.0763 J	0.0763 U	mg/L
				SO-1620-SB06(2-4)-20130312	0.0640 J	0.0640 U	mg/L
				SO-1620-SB07(3-5)-20130312	0.145	0.145 U	mg/L
				SO-1620-SB08(2.25-4.5)-2013031	0.0532 J	0.0532 U	mg/L
				SO-1620-SB09(1-4)-20130312	0.0518 J	0.0518 U	mg/L
				SO-1620-SB11(2.5-4)-20130312	0.0496 J	0.0496 U	mg/L
				SO-1620-SB12(2-4)-20130312	0.0382 J	0.0382 U	mg/L

Notes:

- * Blank result adjusted for sample factors where applicable.
- J Estimated.
- U Not detected at the associated reporting limit.
- TCLP Toxicity Characteristics Leaching Procedure.

TABLE 5
QUALIFIED SAMPLE DATA DUE TO OUTLYING OF SURROGATE RECOVERIES
UNION PACIFIC RAILROAD (UPRR)
HOUSTON WOOD PRESERVING WORKS
ENGLEWOOD YARD PAVEMENT RECONSTRUCTION PROJECT
HOUSTON, TEXAS
MARCH 2013

<i>Parameter</i>	<i>Sample ID</i>	<i>Surrogate</i>	<i>Surrogate Recovery (percent)</i>	<i>Control Limits (percent)</i>	<i>Analyte</i>	<i>Qualified Result</i>	<i>Units</i>
TCLP SVOCs	SO-1620-SB08(2.25-4.5)-2013031	2-Fluorophenol	6	13-10	2,4,5-Trichlorophenol	R	µg/L
					2,4,6-Trichlorophenol	R	µg/L
					2-Methylphenol	R	µg/L
					3&4-Methylphenol	R	µg/L
					Methylphenol (cresol)	R	µg/L
					Pentachlorophenol	R	µg/L
TPH	SO-1620-DUP-20130312	o-Terphenyl	142	70-130	Total Petroleum Hydrocarbons (>C12-C28)	602 JH	mg/Kg
					Total Petroleum Hydrocarbons (>C28-C35)	795 JH	mg/Kg
					Total Petroleum Hydrocarbons (C6-C35)	1400 JH	mg/Kg
TPH	SO-1620-SB02(3-5)-20130312	o-Terphenyl	133	70-130	Total Petroleum Hydrocarbons (>C12-C28)	384 JH	mg/Kg
					Total Petroleum Hydrocarbons (>C28-C35)	220 JH	mg/Kg
					Total Petroleum Hydrocarbons (C6-C12)	15.0 JH	mg/Kg
					Total Petroleum Hydrocarbons (C6-C35)	619 JH	mg/Kg
TPH	SO-1620-SB06(2-4)-20130312	o-Terphenyl	134	70-130	Total Petroleum Hydrocarbons (>C12-C28)	351 JH	mg/Kg
					Total Petroleum Hydrocarbons (>C28-C35)	300 JH	mg/Kg
					Total Petroleum Hydrocarbons (C6-C35)	651 JH	mg/Kg

Notes:

- JH Estimated concentration. High bias.
- R Rejected.
- SVOCs Semi-volatile organic compounds.
- TCLP Toxicity characteristics leaching procedure.
- TPH Total petroleum hydrocarbons.

TABLE 6

**QUALIFIED SAMPLE RESULTS DUE TO OUTLYING MATRIX SPIKE/MATRIX SPIKE DUPLICATE RESULTS
UNION PACIFIC RAILROAD (UPRR)
HOUSTON WOOD PRESERVING WORKS
ENGLEWOOD YARD PAVEMENT RECONSTRUCTION PROJECT
HOUSTON, TEXAS
MARCH 2013**

<i>Parameter</i>	<i>Sample ID</i>	<i>Analyte</i>	<i>MS</i>	<i>MSD</i>	<i>RPD</i>	<i>Control Limits</i>		<i>Qualified Result</i>	<i>Units</i>
			<i>% Recovery</i>	<i>% Recovery</i>	<i>(percent)</i>	<i>% Recovery</i>	<i>RPD</i>		
TPH	SO-1620-SB04(3.5-5)-20130312	Total Petroleum Hydrocarbons (C6-C35)	44	44	1	75-125	0-20	239 JL	mg/Kg
		Total Petroleum Hydrocarbons (>C12-C28)	51	54	3	75-125	0-20	107 JL	mg/Kg
Metals	SO-1620-DUP-20130312	Arsenic	43	35	4	75-125	0-20	19.0 JL	mg/Kg
	SO-1620-SB01(4-5)-20130312		11.0 JL	mg/Kg					
	SO-1620-SB02(3-5)-20130312		12.8 JL	mg/Kg					
	SO-1620-SB03(3-5)-20130312		21.7 JL	mg/Kg					
	SO-1620-SB04(3.5-5)-20130312		60.5 JL	mg/Kg					
	SO-1620-SB05(1-4)-20130312		21.4 JL	mg/Kg					
	SO-1620-SB06(2-4)-20130312		40.7 JL	mg/Kg					
	SO-1620-SB07(3-5)-20130312		40.3 JL	mg/Kg					
	SO-1620-SB08(2.25-4.5)-2013031		1.35 JL	mg/Kg					
	SO-1620-SB09(1-4)-20130312		3.04 JL	mg/Kg					
	SO-1620-SB11(2.5-4)-20130312		22.6 JL	mg/Kg					
	SO-1620-SB12(2-4)-20130312		2.29 JL	mg/Kg					

Notes:

- JL Estimated concentration. Low bias.
- MS Matrix spike.
- MSD Matrix spike duplicate.
- RPD Relative percent difference.
- TPH Total Petroleum Hydrocarbons.

TABLE 7

**QUALIFIED SAMPLE DATA DUE TO OUTLYING LABORATORY DUPLICATE RESULTS
UNION PACIFIC RAILROAD (UPRR)
HOUSTON WOOD PRESERVING WORKS
ENGLEWOOD YARD PAVEMENT RECONSTRUCTION PROJECT
HOUSTON, TEXAS
MARCH 2013**

<i>Parameter</i>	<i>Sample ID</i>	<i>Analyte</i>	<i>RPD</i>		<i>Associated Sample IDs</i>	<i>Qualified Result</i>	<i>Units</i>
			<i>RPD</i> (percent)	<i>Control Limit</i> (percent)			
Metals	SO-1620-SB04(3.5-5)-20130312	Arsenic	40	0-20	SO-1620-DUP-20130312	19.0 J	mg/Kg
					SO-1620-SB01(4-5)-20130312	11.0 J	mg/Kg
					SO-1620-SB02(3-5)-20130312	12.8 J	mg/Kg
					SO-1620-SB03(3-5)-20130312	21.7 J	mg/Kg
					SO-1620-SB04(3.5-5)-20130312	60.5 J	mg/Kg
					SO-1620-SB05(1-4)-20130312	21.4 J	mg/Kg
					SO-1620-SB06(2-4)-20130312	40.7 J	mg/Kg
					SO-1620-SB07(3-5)-20130312	40.3 J	mg/Kg
					SO-1620-SB08(2.25-4.5)-2013031	1.35 J	mg/Kg
					SO-1620-SB09(1-4)-20130312	3.04 J	mg/Kg
					SO-1620-SB11(2.5-4)-20130312	22.6 J	mg/Kg
					SO-1620-SB12(2-4)-20130312	2.29 J	mg/Kg

Notes:

- J Estimated.
- RPD Relative percent difference.

TABLE 8
QUALIFIED SAMPLE DATA DUE TO VARIABILITY IN FIELD DUPLICATE RESULTS
UNION PACIFIC RAILROAD (UPRR)
HOUSTON WOOD PRESERVING WORKS
ENGLEWOOD YARD PAVEMENT RECONSTRUCTION PROJECT
HOUSTON, TEXAS
MARCH 2013

<i>Parameter</i>	<i>Analyte</i>	<i>RPD</i>	<i>Sample ID</i>	<i>Qualified Result</i>	<i>Field Duplicate Sample ID</i>	<i>Qualified Result</i>	<i>Units</i>
SVOCs	Acenaphthene	52	SO-1620-SB09(1-4)-20130312	0.131 J	SO-1620-DUP-20130312	0.224 J	mg/kg
	Anthracene	50		0.572 J		0.955 J	mg/kg
SVOCs	Benzo(a)anthracene	59	SO-1620-SB09(1-4)-20130312	0.956 J	SO-1620-DUP-20130312	1.76 J	mg/kg
	bis(2-Ethylhexyl)phthalate (DEHP)	191		0.251 UJ		10.6 J	mg/kg
	Dibenzofuran	95		0.0832 UJ		0.235 J	mg/kg
	Di-n-butylphthalate (DBP)	119		0.121 UJ		0.476 J	mg/kg
	Fluorene	93		0.11 UJ		0.303 J	mg/kg
	Naphthalene	144		0.0631 UJ		0.389 J	mg/kg
	Phenanthrene	163		0.231 UJ		2.27 J	mg/kg
	Phenol	181		0.198 UJ		4.08 J	mg/kg
Metals	Pyrene	57	SO-1620-SB09(1-4)-20130312	5.60 J	SO-1620-DUP-20130312	3.12 J	mg/kg
	Arsenic	145		3.04 J		19.0 J	mg/kg
TPH	Lead	191	SO-1620-SB09(1-4)-20130312	67.1 J	SO-1620-DUP-20130312	2990 J	mg/kg
	Total Petroleum Hydrocarbons (>C12-C28)	197		4.72 UJ		602 J	mg/kg
	Total Petroleum Hydrocarbons (>C28-C35)	198		4.72 UJ		795 J	mg/kg
	Total Petroleum Hydrocarbons (C6-C35)	198		8.7 UJ		1400 J	mg/kg

Notes:

- J Estimated.
- RPD Relative percent difference.
- SVOCs Semi-Volatile Organic Compounds.
- TPH Total Petroleum Hydrocarbons.
- UJ The analyte was not detected above the sample quantitation limit. The reported quantitation limit is an estimated quantity.

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Houston
6310 Rothway Street
Houston, TX 77040
Tel: (713)690-4444

TestAmerica Job ID: 600-69910-1
Client Project/Site: UPRR HWPW

For:
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2201 Double Creek Dr
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Round Rock, Texas 78664

Attn: Mr. Eric Matzner



Authorized for release by:
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The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.



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1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17



Table of Contents

Cover Page	1
Table of Contents	2
TRRP Cover Page	3
TRRP Checklists & DCSs	4
Case Narrative	25
Method Summary	26
Sample Summary	27
Client Sample Results	28
Definitions/Glossary	54
Surrogate Summary	55
QC Sample Results	58
Default Detection Limits	68
QC Association Summary	70
Lab Chronicle	77
Certification Summary	83
Chain of Custody	84
Receipt Checklists	86

Job Number: 600-69910-1
Project Name/Number: UPRR HWPW

This Data Package consists of:

This signature page, the laboratory review checklist, and the following Reportable Data:

- R1 Field Chain-of-Custody Form
- R2 Sample Identification Cross-reference;
- R3 Test Reports (Analytical Data Sheets) for each environmental sample that includes:
 - a) Items consistent with NELAC Chapter 5
 - b) dilution factors,
 - c) preparation methods,
 - d) cleanup methods, and
 - e) if required for the project, tentatively identified compounds (TICs).
- R4 Surrogate Recovery Data including:
 - a) Calculated recovery (%R), and
 - b) The laboratory's surrogate QC limits.
- R5 Test Reports/Summary Forms for Blank Samples;
- R6 Test Reports/Summary Forms for Laboratory Control Samples (LCSs) including:
 - a) LCS spiking amounts,
 - b) Calculated %R for each analyte, and
 - d) The laboratory's LCS QC limits
- R7 Test Reports for Matrix Spike/Matrix Spike Duplicates (MS/MSDs) including:
 - a) Samples associated with the MS/MSD clearly identified,
 - b) MS/MSD spiking amounts,
 - c) Concentration of each MS/MSD analyte measured in the parent and spiked sample,
 - d) Calculated %Rs and relative percent differences (RPDs), and
 - e) The laboratory's MS/MSD QC limits
- R8 Laboratory analytical duplicates (if applicable) recovery and precision, including:
 - a) the amount of analyte measured in the duplicate,
 - b) the calculated RPD, and
 - c) the laboratory's QC limits for analytical duplicates.
- R9 List of method quantitation limit (MQL) and detectability check sample results for each analyte for each method and matrix;
- R10 Other problems or anomalies

The exception report for each "No" or "Not Reviewed (NR)" item in the Laboratory Review Checklist and for each analyte, matrix, and method for which the laboratory does not hold NELAC accreditation under the Texas Laboratory Accreditation Program.

Release Statement: I am responsible for the release of this laboratory data package. This laboratory is NELAC accredited under Texas laboratory Accreditation Program for all the methods, analytes, and matrices reported in this data package except as noted in the Exception Reports. The data have been reviewed and are technically compliant with the requirements of the methods used, except where noted by the laboratory in the Exception Reports. By my signature below, I affirm, to the best of my knowledge, that all problems/anomalies observed by the laboratory have been identified in the Laboratory Review Checklist, and no information affecting the quality of the data has been knowingly withheld.

Cathy Upton
Name (printed)

Data Delivery Analyst
Official Title (printed)


Signature

03/25/2013
Date

Appendix A (cont'd): Laboratory Review Checklist: Reportable Data							
Laboratory Name: TestAmerica-Houston			LRC Date: 03/20/13				
Project Name: UPRR HWPW			Laboratory Job Number: 600-69910				
Reviewer Name: TWR			Prep Batch Number(s): 600-101779, 101763(TCLP), 101546(s)- ICP				
# ¹	A ²	Description	Yes	No	NA ³	NR ⁴	ER# ⁵
R1	OI	Chain-of-custody (C-O-C)					
		Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?		X			1
		Were all departures from standard conditions described in an exception report?	X				
R2	OI	Sample and quality control (QC) identification					
		Are all field sample ID numbers cross-referenced to the laboratory ID numbers?	X				
		Are all laboratory ID numbers cross-referenced to the corresponding QC data?	X				
R3	OI	Test reports					
		Were all samples prepared and analyzed within holding times?	X				
		Other than those results < MQL, were all other raw values bracketed by calibration standards?	X				
		Were calculations checked by a peer or supervisor?	X				
		Were all analyte identifications checked by a peer or supervisor?	X				
		Were sample detection limits reported for all analytes not detected?	X				
		Were all results for soil and sediment samples reported on a dry weight basis?	X				
		Were % moisture (or solids) reported for all soil and sediment samples?	X				
		Were bulk soil/solid samples for volatile analysis extracted with methanol per SW846 Method 5035?			X		
		If required for the project, TICs reported?			X		
R4	O	Surrogate recovery data					
		Were surrogates added prior to extraction?			X		
		Were surrogate percent recoveries in all samples within the laboratory QC limits?			X		
R5	OI	Test reports/summary forms for blank samples					
		Were appropriate type(s) of blanks analyzed?	X				
		Were blanks analyzed at the appropriate frequency?	X				
		Were method blanks taken through the entire analytical process, including preparation and, if applicable, cleanup procedures?	X				
		Were blank concentrations < MQL?	X				2
R6	OI	Laboratory control samples (LCS):					
		Were all COCs included in the LCS?	X				
		Was each LCS taken through the entire analytical procedure, including prep and cleanup steps?	X				
		Were LCSs analyzed at the required frequency?	X				
		Were LCS (and LCSD, if applicable) %Rs within the laboratory QC limits?	X				
		Does the detectability check sample data document the laboratory's capability to detect the COCs at the MDL used to calculate the SDLs?	X				
		Was the LCSD RPD within QC limits?			X		
R7	OI	Matrix spike (MS) and matrix spike duplicate (MSD) data					
		Were the project/method specified analytes included in the MS and MSD?	X				
		Were MS/MSD analyzed at the appropriate frequency?	X				
		Were MS (and MSD, if applicable) %Rs within the laboratory QC limits?		X			3
		Were MS/MSD RPDs within laboratory QC limits?		X			4
R8	OI	Analytical duplicate data					
		Were appropriate analytical duplicates analyzed for each matrix?	X				
		Were analytical duplicates analyzed at the appropriate frequency?	X				
		Were RPDs or relative standard deviations within the laboratory QC limits?		X			5
R9	OI	Method quantitation limits (MQLs):					
		Are the MQLs for each method analyte included in the laboratory data package?	X				
		Do the MQLs correspond to the concentration of the lowest non-zero calibration standard?	X				
		Are unadjusted MQLs and DCSs included in the laboratory data package?	X				
R10	OI	Other problems/anomalies					
		Are all known problems/anomalies/special conditions noted in this LRC and ER?	X				
		Was applicable and available technology used to lower the SDL to minimize the matrix interference affects on the sample results?	X				
		Is the laboratory NELAC-accredited under the Texas Laboratory Accreditation Program for the analytes, matrices and methods associated with this laboratory data package?	X				6

- Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.
- O = organic analyses; I = inorganic analyses (and general chemistry, when applicable);
- NA = Not applicable;
- NR = Not reviewed;
- ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

Appendix A (cont'd): Laboratory Review Checklist: Reportable Data							
Laboratory Name: TestAmerica-Houston			LRC Date: 03/20/13				
Project Name: UPRR HWPW			Laboratory Job Number: 600-69910				
Reviewer Name: TWR			Prep Batch Number(s): 600-101779, 101763(TCLP), 101546(s)- ICP				
# ¹	A ²	Description	Yes	No	NA ³	NR ⁴	ER# ⁵
S1	OI	Initial calibration (ICAL)					
		Were response factors and/or relative response factors for each analyte within QC limits?			X		
		Were percent RSDs or correlation coefficient criteria met?			X		
		Was the number of standards recommended in the method used for all analytes?	X				
		Were all points generated between the lowest and highest standard used to calculate the curve?			X		
		Are ICAL data available for all instruments used?	X				
		Has the initial calibration curve been verified using an appropriate second source standard?	X				
S2	OI	Initial and continuing calibration verification (ICCV and CCV) and continuing calibration					
		Was the CCV analyzed at the method-required frequency?	X				
		Were percent differences for each analyte within the method-required QC limits?	X				
		Was the ICAL curve verified for each analyte?	X				
		Was the absolute value of the analyte concentration in the inorganic CCB < MDL?		X			7
S3	O	Mass spectral tuning:					
		Was the appropriate compound for the method used for tuning?			X		
		Were ion abundance data within the method-required QC limits?			X		
S4	O	Internal standards (IS):					
		Were IS area counts and retention times within the method-required QC limits?			X		
S5	OI	Raw data (NELAC section 5.5.10)					
		Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?	X				
		Were data associated with manual integrations flagged on the raw data?			X		
S6	O	Dual column confirmation					
		Did dual column confirmation results meet the method-required QC?			X		
S7	O	Tentatively identified compounds (TICs):					
		If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?			X		
S8	I	Interference Check Sample (ICS) results:					
		Were percent recoveries within method QC limits?	X				
S9	I	Serial dilutions, post digestion spikes, and method of standard additions					
		Were percent differences, recoveries, and the linearity within the QC limits specified in the method?	X				
S10	OI	Method detection limit (MDL) studies					
		Was a MDL study performed for each reported analyte?	X				
		Is the MDL either adjusted or supported by the analysis of DCSs?	X				
S11	OI	Proficiency test reports:					
		Was the laboratory's performance acceptable on the applicable proficiency tests or evaluation studies?	X				
S12	OI	Standards documentation					
		Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?	X				
S13	OI	Compound/analyte identification procedures					
		Are the procedures for compound/analyte identification documented?	X				
S14	OI	Demonstration of analyst competency (DOC)					
		Was DOC conducted consistent with NELAC Chapter 5?	X				
		Is documentation of the analyst's competency up-to-date and on file?	X				
S15	OI	Verification/validation documentation for methods (NELAC Chapter 5)					
		Are all the methods used to generate the data documented, verified, and validated, where applicable?	X				
S16	OI	Laboratory standard operating procedures (SOPs):					
		Are laboratory SOPs current and on file for each method performed?	X				

- 1 Items identified by the letter "R" should be included in the laboratory data package submitted to the TCEQ in the TRRP-required report(s).
- 2 Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.
- 3 O = organic analyses; I = inorganic analyses (and general chemistry, when applicable).
- 4 NA = Not applicable.
- 5 NR = Not Reviewed.
- 6 ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

Appendix A (cont'd): Laboratory Review Checklist: Exception Reports	
Laboratory Name: TestAmerica-Houston	LRC Date: 03/20/13
Project Name: UPRR HWPW	Laboratory Job Number: 600-69910
Reviewer Name: TWR	Prep Batch Number(s): 600-101779, 101763(TCLP), 101546(s)- ICP
ER #¹	DESCRIPTION
1	See Case Narrative.
2	Arsenic was detected above the MDL, but below the MQL in the leachate blank for batch 101670. The level of detection is below the recommended reporting limit and the appropriate flags have been applied.
3	The arsenic recoveries in samples 69911-8 MS and MSD were below acceptance limits due to matrix interference. The lead recoveries in samples 69911-8 MS and MSD were outside acceptance limits, but were not flagged due to the background sample result being greater than four times the spike added concentration. Method performance is demonstrated by acceptable LCS recoveries.
4	The lead RPD between samples 69911-8 MS and MSD was above acceptance limits due to the non-homogenous nature of the samples.
5	The arsenic RPD between samples 69911-8 and 69911-8 MD was above acceptance limits due to the non-homogenous nature of the samples.
6	The lead SDL was elevated in sample 69910-12 to bring the concentration within the linear range of the instrument.
7	Arsenic was detected above the MDL in the ICB analyzed on 03/18/13 in batch 101898 and the CCBs analyzed at 14:01, 14:52, 15:38 and 16:24. Since the concentrations were below the MQL, no corrective action was required.

ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked on the LRC)

Appendix A (cont'd): Laboratory Review Checklist: Reportable Data							
Laboratory Name: TestAmerica-Houston			LRC Date: 03/22/13				
Project Name: UPRR HWPW			Laboratory Job Number: 600-69910				
Reviewer Name: YX			Prep Batch Number: 600-101554 and 101690-VOA				
# ¹	A ²	Description	Yes	No	NA ³	NR ⁴	ER# ⁵
R1	OI	Chain-of-custody (C-O-C)					
		Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?		X			1
		Were all departures from standard conditions described in an exception report?	X				
R2	OI	Sample and quality control (QC) identification					
		Are all field sample ID numbers cross-referenced to the laboratory ID numbers?	X				
		Are all laboratory ID numbers cross-referenced to the corresponding QC data?	X				
R3	OI	Test reports					
		Were all samples prepared and analyzed within holding times?	X				
		Other than those results < MQL, were all other raw values bracketed by calibration standards?	X				
		Were calculations checked by a peer or supervisor?	X				
		Were all analyte identifications checked by a peer or supervisor?	X				
		Were sample detection limits reported for all analytes not detected?	X				
		Were all results for soil and sediment samples reported on a dry weight basis?	X				
		Were % moisture (or solids) reported for all soil and sediment samples?	X				
		Were bulk soil/solid samples for volatile analysis extracted with methanol per SW846 Method 5035?			X		
		If required for the project, TICs reported?			X		
R4	O	Surrogate recovery data					
		Were surrogates added prior to extraction?	X				
		Were surrogate percent recoveries in all samples within the laboratory QC limits?	X				
R5	OI	Test reports/summary forms for blank samples					
		Were appropriate type(s) of blanks analyzed?	X				
		Were blanks analyzed at the appropriate frequency?	X				
		Were method blanks taken through the entire analytical process, including preparation and, if applicable, cleanup procedures?	X				
		Were blank concentrations < MQL?	X				
R6	OI	Laboratory control samples (LCS):					
		Were all COCs included in the LCS?	X				
		Was each LCS taken through the entire analytical procedure, including prep and cleanup steps?	X				
		Were LCSs analyzed at the required frequency?	X				
		Were LCS (and LCSD, if applicable) %Rs within the laboratory QC limits?	X				
		Does the detectability check sample data document the laboratory's capability to detect the COCs at the MDL used to calculate the SDLs?	X				
		Was the LCSD RPD within QC limits?			X		
R7	OI	Matrix spike (MS) and matrix spike duplicate (MSD) data					
		Were the project/method specified analytes included in the MS and MSD?	X				
		Were MS/MSD analyzed at the appropriate frequency?	X				
		Were MS (and MSD, if applicable) %Rs within the laboratory QC limits?			X		2
		Were MS/MSD RPDs within laboratory QC limits?			X		2
R8	OI	Analytical duplicate data					
		Were appropriate analytical duplicates analyzed for each matrix?			X		
		Were analytical duplicates analyzed at the appropriate frequency?			X		
		Were RPDs or relative standard deviations within the laboratory QC limits?			X		
R9	OI	Method quantitation limits (MQLs):					
		Are the MQLs for each method analyte included in the laboratory data package?	X				
		Do the MQLs correspond to the concentration of the lowest non-zero calibration standard?	X				
		Are unadjusted MQLs and DCSs included in the laboratory data package?	X				
R10	OI	Other problems/anomalies					
		Are all known problems/anomalies/special conditions noted in this LRC and ER?	X				
		Was applicable and available technology used to lower the SDL to minimize the matrix interference affects on the sample results?	X				3
		Is the laboratory NELAC-accredited under the Texas Laboratory Accreditation Program for the analytes, matrices and methods associated with this laboratory data package?	X				

- Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.
- O = organic analyses; I = inorganic analyses (and general chemistry, when applicable);
- NA = Not applicable;
- NR = Not reviewed;
- ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

Appendix A (cont'd): Laboratory Review Checklist: Reportable Data									
Laboratory Name: TestAmerica-Houston					LRC Date: 03/22/13				
Project Name: UPRR HWPW					Laboratory Job Number: 600-69910				
Reviewer Name: YX					Prep Batch Number: 600-101554 and 101690-VOA				
# ¹	A ²	Description	Yes	No	NA ³	NR ⁴	ER# ⁵		
S1	OI	Initial calibration (ICAL)							
		Were response factors and/or relative response factors for each analyte within QC limits?	X						
		Were percent RSDs or correlation coefficient criteria met?	X						
		Was the number of standards recommended in the method used for all analytes?	X						
		Were all points generated between the lowest and highest standard used to calculate the curve?	X						
		Are ICAL data available for all instruments used?	X						
		Has the initial calibration curve been verified using an appropriate second source standard?	X						
S2	OI	Initial and continuing calibration verification (ICCV and CCV) and continuing calibration							
		Was the CCV analyzed at the method-required frequency?	X						
		Were percent differences for each analyte within the method-required QC limits?	X						
		Was the ICAL curve verified for each analyte?	X						
		Was the absolute value of the analyte concentration in the inorganic CCB < MDL?				X			
S3	O	Mass spectral tuning:							
		Was the appropriate compound for the method used for tuning?	X						
		Were ion abundance data within the method-required QC limits?	X						
S4	O	Internal standards (IS):							
		Were IS area counts and retention times within the method-required QC limits?	X						
S5	OI	Raw data (NELAC section 5.5.10)							
		Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?	X						
		Were data associated with manual integrations flagged on the raw data?	X						
S6	O	Dual column confirmation							
		Did dual column confirmation results meet the method-required QC?				X			
S7	O	Tentatively identified compounds (TICs):							
		If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?				X			
S8	I	Interference Check Sample (ICS) results:							
		Were percent recoveries within method QC limits?				X			
S9	I	Serial dilutions, post digestion spikes, and method of standard additions							
		Were percent differences, recoveries, and the linearity within the QC limits specified in the method?				X			
S10	OI	Method detection limit (MDL) studies							
		Was a MDL study performed for each reported analyte?	X						
		Is the MDL either adjusted or supported by the analysis of DCSs?	X						
S11	OI	Proficiency test reports:							
		Was the laboratory's performance acceptable on the applicable proficiency tests or evaluation studies?	X						
S12	OI	Standards documentation							
		Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?	X						
S13	OI	Compound/analyte identification procedures							
		Are the procedures for compound/analyte identification documented?	X						
S14	OI	Demonstration of analyst competency (DOC)							
		Was DOC conducted consistent with NELAC Chapter 5?	X						
		Is documentation of the analyst's competency up-to-date and on file?	X						
S15	OI	Verification/validation documentation for methods (NELAC Chapter 5)							
		Are all the methods used to generate the data documented, verified, and validated, where applicable?	X						
S16	OI	Laboratory standard operating procedures (SOPs):							
		Are laboratory SOPs current and on file for each method performed?	X						

- 1 Items identified by the letter "R" should be included in the laboratory data package submitted to the TCEQ in the TRRP-required report(s).
- 2 Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.
- 3 O = organic analyses; I = inorganic analyses (and general chemistry, when applicable).
- 4 NA = Not applicable.
- 5 NR = Not Reviewed.
- 6 ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

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Appendix A (cont'd): Laboratory Review Checklist: Exception Reports	
Laboratory Name: TestAmerica-Houston	LRC Date: 03/22/13
Project Name: UPRR HWPW	Laboratory Job Number: 600-69910
Reviewer Name: YX	Prep Batch Number: 600-101554 and 101690-VOA
ER #¹	DESCRIPTION
1	See Case Narrative.
2	The laboratory selected samples from other groups to perform as the MS/MSDs.
3	All of the SDLs were elevated in samples 600-69910-4 and 5 due to the high concentrations of target analytes.

ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked on the LRC)

Appendix A (cont'd): Laboratory Review Checklist: Reportable Data							
Laboratory Name: TestAmerica-Houston			LRC Date: 03/20/13				
Project Name: UPRR HWPW			Laboratory Job Number: 600-69910				
Reviewer Name: KP/JOH			Prep Batch Number(s): 600-101777(TCLP), 101590(S)-SV				
# ¹	A ²	Description	Yes	No	NA ³	NR ⁴	ER# ⁵
R1	OI	Chain-of-custody (C-O-C)					
		Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?		X			1
		Were all departures from standard conditions described in an exception report?	X				
R2	OI	Sample and quality control (QC) identification					
		Are all field sample ID numbers cross-referenced to the laboratory ID numbers?	X				
		Are all laboratory ID numbers cross-referenced to the corresponding QC data?	X				
R3	OI	Test reports					
		Were all samples prepared and analyzed within holding times?	X				
		Other than those results < MQL, were all other raw values bracketed by calibration standards?	X				
		Were calculations checked by a peer or supervisor?	X				
		Were all analyte identifications checked by a peer or supervisor?	X				
		Were sample detection limits reported for all analytes not detected?	X				
		Were all results for soil and sediment samples reported on a dry weight basis?	X				
		Were % moisture (or solids) reported for all soil and sediment samples?	X				
		Were bulk soil/solid samples for volatile analysis extracted with methanol per SW846 Method 5035? If required for the project, TICs reported?				X	
R4	O	Surrogate recovery data					
		Were surrogates added prior to extraction?	X				
		Were surrogate percent recoveries in all samples within the laboratory QC limits?		X			2
R5	OI	Test reports/summary forms for blank samples					
		Were appropriate type(s) of blanks analyzed?	X				
		Were blanks analyzed at the appropriate frequency?	X				
		Were method blanks taken through the entire analytical process, including preparation and, if applicable, cleanup procedures? Were blank concentrations < MQL?	X				
R6	OI	Laboratory control samples (LCS):					
		Were all COCs included in the LCS?	X				
		Was each LCS taken through the entire analytical procedure, including prep and cleanup steps?	X				
		Were LCSs analyzed at the required frequency?	X				
		Were LCS (and LCSD, if applicable) %Rs within the laboratory QC limits?	X				
		Does the detectability check sample data document the laboratory's capability to detect the COCs at the MDL used to calculate the SDLs? Was the LCSD RPD within QC limits?	X			X	
R7	OI	Matrix spike (MS) and matrix spike duplicate (MSD) data					
		Were the project/method specified analytes included in the MS and MSD?	X				
		Were MS/MSD analyzed at the appropriate frequency?	X				
		Were MS (and MSD, if applicable) %Rs within the laboratory QC limits? Were MS/MSD RPDs within laboratory QC limits?			X		3
R8	OI	Analytical duplicate data					
		Were appropriate analytical duplicates analyzed for each matrix?			X		
		Were analytical duplicates analyzed at the appropriate frequency? Were RPDs or relative standard deviations within the laboratory QC limits?			X		
R9	OI	Method quantitation limits (MQLs):					
		Are the MQLs for each method analyte included in the laboratory data package?	X				
		Do the MQLs correspond to the concentration of the lowest non-zero calibration standard? Are unadjusted MQLs and DCSs included in the laboratory data package?	X				
R10	OI	Other problems/anomalies					
		Are all known problems/anomalies/special conditions noted in this LRC and ER?	X				
		Was applicable and available technology used to lower the SDL to minimize the matrix interference affects on the sample results? Is the laboratory NELAC-accredited under the Texas Laboratory Accreditation Program for the analytes, matrices and methods associated with this laboratory data package?	X				4

- Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.
- O = organic analyses; I = inorganic analyses (and general chemistry, when applicable);
- NA = Not applicable;
- NR = Not reviewed;
- ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

Appendix A (cont'd): Laboratory Review Checklist: Reportable Data							
Laboratory Name: TestAmerica-Houston				LRC Date: 03/20/13			
Project Name: UPRR HWPW				Laboratory Job Number: 600-69910			
Reviewer Name: KP/JOH				Prep Batch Number(s): 600-101777(TCLP), 101590(S)-SV			
# ¹	A ²	Description	Yes	No	NA ³	NR ⁴	ER# ⁵
S1	OI	Initial calibration (ICAL)					
		Were response factors and/or relative response factors for each analyte within QC limits?	X				
		Were percent RSDs or correlation coefficient criteria met?	X				
		Was the number of standards recommended in the method used for all analytes?	X				
		Were all points generated between the lowest and highest standard used to calculate the curve?	X				
		Are ICAL data available for all instruments used?	X				
		Has the initial calibration curve been verified using an appropriate second source standard?	X				
S2	OI	Initial and continuing calibration verification (ICCV and CCV) and continuing calibration					
		Was the CCV analyzed at the method-required frequency?	X				
		Were percent differences for each analyte within the method-required QC limits?	X				
		Was the ICAL curve verified for each analyte?	X				
		Was the absolute value of the analyte concentration in the inorganic CCB < MDL?			X		
S3	O	Mass spectral tuning:					
		Was the appropriate compound for the method used for tuning?			X		
		Were ion abundance data within the method-required QC limits?			X		
S4	O	Internal standards (IS):					
		Were IS area counts and retention times within the method-required QC limits?			X		
S5	OI	Raw data (NELAC section 5.5.10)					
		Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?	X				
		Were data associated with manual integrations flagged on the raw data?	X				
S6	O	Dual column confirmation					
		Did dual column confirmation results meet the method-required QC?			X		
S7	O	Tentatively identified compounds (TICs):					
		If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?			X		
S8	I	Interference Check Sample (ICS) results:					
		Were percent recoveries within method QC limits?			X		
S9	I	Serial dilutions, post digestion spikes, and method of standard additions					
		Were percent differences, recoveries, and the linearity within the QC limits specified in the method?			X		
S10	OI	Method detection limit (MDL) studies					
		Was a MDL study performed for each reported analyte?	X				
		Is the MDL either adjusted or supported by the analysis of DCSs?	X				
S11	OI	Proficiency test reports:					
		Was the laboratory's performance acceptable on the applicable proficiency tests or evaluation studies?	X				
S12	OI	Standards documentation					
		Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?	X				
S13	OI	Compound/analyte identification procedures					
		Are the procedures for compound/analyte identification documented?	X				
S14	OI	Demonstration of analyst competency (DOC)					
		Was DOC conducted consistent with NELAC Chapter 5?	X				
		Is documentation of the analyst's competency up-to-date and on file?	X				
S15	OI	Verification/validation documentation for methods (NELAC Chapter 5)					
		Are all the methods used to generate the data documented, verified, and validated, where applicable?	X				
S16	OI	Laboratory standard operating procedures (SOPs):					
		Are laboratory SOPs current and on file for each method performed?	X				

- 1 Items identified by the letter "R" should be included in the laboratory data package submitted to the TCEQ in the TRRP-required report(s).
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Appendix A (cont'd): Laboratory Review Checklist: Exception Reports	
Laboratory Name: TestAmerica-Houston	LRC Date: 03/20/13
Project Name: UPRR HWPW	Laboratory Job Number: 600-69910
Reviewer Name: KP/JOH	Prep Batch Number(s): 600-101777(TCLP), 101590(S)-SV
ER #¹	DESCRIPTION
1	See Case Narrative.
2	<p>The 2-Fluorophenol surrogate recovery for the following sample was outside control limits: SO-1620-SB08(2.25-4.5)-20130312 (600-69910-4). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.</p> <p>Due to the level of dilution required for samples 600-69910-1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11 and 12; surrogate recoveries are not reported.</p> <p>Six surrogates are used for this analysis. The laboratory's SOP allows one base one acid of these surrogates to be outside acceptance criteria without performing re-extraction/re-analysis. The associated laboratory control sample (LCS) contained an allowable number of surrogate compounds outside limits (Phenol-d6). These results have been reported and qualified.</p>
3	The laboratory selected samples from other groups to perform as the MS/MSDs.
4	All of the SDLs in samples 600-69910-1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, and 12 were elevated due to the nature of the sample matrix and/or the high concentration of target analytes.

ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked on the LRC)

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Appendix A (cont'd): Laboratory Review Checklist: Reportable Data							
Laboratory Name: TestAmerica-Houston			LRC Date: 03/14/13				
Project Name: UPRR HWPW			Laboratory Job Number: 600-69910-1				
Reviewer Name: RJV			Prep Batch Number(s): 600-101545- TX1005				
# ¹	A ²	Description	Yes	No	NA ³	NR ⁴	ER# ⁵
R1	OI	Chain-of-custody (C-O-C)					
		Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?		X			1
		Were all departures from standard conditions described in an exception report?	X				
R2	OI	Sample and quality control (QC) identification					
		Are all field sample ID numbers cross-referenced to the laboratory ID numbers?	X				
		Are all laboratory ID numbers cross-referenced to the corresponding QC data?	X				
R3	OI	Test reports					
		Were all samples prepared and analyzed within holding times?	X				
		Other than those results < MQL, were all other raw values bracketed by calibration standards?	X				
		Were calculations checked by a peer or supervisor?	X				
		Were all analyte identifications checked by a peer or supervisor?	X				
		Were sample detection limits reported for all analytes not detected?	X				
		Were all results for soil and sediment samples reported on a dry weight basis?	X				
		Were % moisture (or solids) reported for all soil and sediment samples?	X				
		Were bulk soil/solid samples for volatile analysis extracted with methanol per SW846 Method 5035?			X		
		If required for the project, TICs reported?			X		
R4	O	Surrogate recovery data					
		Were surrogates added prior to extraction?	X				
		Were surrogate percent recoveries in all samples within the laboratory QC limits?		X			2
R5	OI	Test reports/summary forms for blank samples					
		Were appropriate type(s) of blanks analyzed?	X				
		Were blanks analyzed at the appropriate frequency?	X				
		Were method blanks taken through the entire analytical process, including preparation and, if applicable, cleanup procedures?	X				
		Were blank concentrations < MQL?	X				
R6	OI	Laboratory control samples (LCS):					
		Were all COCs included in the LCS?	X				
		Was each LCS taken through the entire analytical procedure, including prep and cleanup steps?	X				
		Were LCSs analyzed at the required frequency?	X				
		Were LCS (and LCSD, if applicable) %Rs within the laboratory QC limits?	X				
		Does the detectability check sample data document the laboratory's capability to detect the COCs at the MDL used to calculate the SDLs?	X				
		Was the LCSD RPD within QC limits?			X		
R7	OI	Matrix spike (MS) and matrix spike duplicate (MSD) data					
		Were the project/method specified analytes included in the MS and MSD?	X				
		Were MS/MSD analyzed at the appropriate frequency?	X				
		Were MS (and MSD, if applicable) %Rs within the laboratory QC limits?		X			3
		Were MS/MSD RPDs within laboratory QC limits?	X				
R8	OI	Analytical duplicate data					
		Were appropriate analytical duplicates analyzed for each matrix?			X		
		Were analytical duplicates analyzed at the appropriate frequency?			X		
		Were RPDs or relative standard deviations within the laboratory QC limits?			X		
R9	OI	Method quantitation limits (MQLs):					
		Are the MQLs for each method analyte included in the laboratory data package?	X				
		Do the MQLs correspond to the concentration of the lowest non-zero calibration standard?	X				
		Are unadjusted MQLs and DCSs included in the laboratory data package?	X				
R10	OI	Other problems/anomalies					
		Are all known problems/anomalies/special conditions noted in this LRC and ER?	X				
		Was applicable and available technology used to lower the SDL to minimize the matrix interference affects on the sample results?	X				4
		Is the laboratory NELAC-accredited under the Texas Laboratory Accreditation Program for the analytes, matrices and methods associated with this laboratory data package?	X				

- Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.
- O = organic analyses; I = inorganic analyses (and general chemistry, when applicable);
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- NR = Not reviewed;
- ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

Appendix A (cont'd): Laboratory Review Checklist: Reportable Data									
Laboratory Name: TestAmerica-Houston					LRC Date: 03/14/13				
Project Name: UPRR HWPW					Laboratory Job Number: 600-69910-1				
Reviewer Name: RJV					Prep Batch Number(s): 600-101545- TX1005				
# ¹	A ²	Description	Yes	No	NA ³	NR ⁴	ER# ⁵		
S1	OI	Initial calibration (ICAL)							
		Were response factors and/or relative response factors for each analyte within QC limits?	X						
		Were percent RSDs or correlation coefficient criteria met?	X						
		Was the number of standards recommended in the method used for all analytes?	X						
		Were all points generated between the lowest and highest standard used to calculate the curve?	X						
		Are ICAL data available for all instruments used?	X						
		Has the initial calibration curve been verified using an appropriate second source standard?	X						
S2	OI	Initial and continuing calibration verification (ICCV and CCV) and continuing calibration							
		Was the CCV analyzed at the method-required frequency?	X						
		Were percent differences for each analyte within the method-required QC limits?	X						
		Was the ICAL curve verified for each analyte?	X						
		Was the absolute value of the analyte concentration in the inorganic CCB < MDL?			X				
S3	O	Mass spectral tuning:							
		Was the appropriate compound for the method used for tuning?			X				
		Were ion abundance data within the method-required QC limits?			X				
S4	O	Internal standards (IS):							
		Were IS area counts and retention times within the method-required QC limits?			X				
S5	OI	Raw data (NELAC section 5.5.10)							
		Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?	X						
		Were data associated with manual integrations flagged on the raw data?	X						
S6	O	Dual column confirmation							
		Did dual column confirmation results meet the method-required QC?			X				
S7	O	Tentatively identified compounds (TICs):							
		If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?			X				
S8	I	Interference Check Sample (ICS) results:							
		Were percent recoveries within method QC limits?			X				
S9	I	Serial dilutions, post digestion spikes, and method of standard additions							
		Were percent differences, recoveries, and the linearity within the QC limits specified in the method?			X				
S10	OI	Method detection limit (MDL) studies							
		Was a MDL study performed for each reported analyte?	X						
		Is the MDL either adjusted or supported by the analysis of DCSs?	X						
S11	OI	Proficiency test reports:							
		Was the laboratory's performance acceptable on the applicable proficiency tests or evaluation studies?	X						
S12	OI	Standards documentation							
		Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?	X						
S13	OI	Compound/analyte identification procedures							
		Are the procedures for compound/analyte identification documented?	X						
S14	OI	Demonstration of analyst competency (DOC)							
		Was DOC conducted consistent with NELAC Chapter 5?	X						
		Is documentation of the analyst's competency up-to-date and on file?	X						
S15	OI	Verification/validation documentation for methods (NELAC Chapter 5)							
		Are all the methods used to generate the data documented, verified, and validated, where applicable?	X						
S16	OI	Laboratory standard operating procedures (SOPs):							
		Are laboratory SOPs current and on file for each method performed?	X						

- 1 Items identified by the letter "R" should be included in the laboratory data package submitted to the TCEQ in the TRRP-required report(s).
- 2 Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.
- 3 O = organic analyses; I = inorganic analyses (and general chemistry, when applicable).
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Appendix A (cont'd): Laboratory Review Checklist: Exception Reports	
Laboratory Name: TestAmerica-Houston	LRC Date: 03/14/13
Project Name: UPRR HWPW	Laboratory Job Number: 600-69910-1
Reviewer Name: RJV	Prep Batch Number(s): 600-101545- TX1005
ER #¹	DESCRIPTION
1	See Case Narrative.
2	The surrogate recoveries for the following samples were outside control limits: 600-69910-6, 10, and 12. Evidence of matrix interference is present; therefore, re-extraction and re-analysis were not performed. Due to the level of dilution required for the following samples, surrogate recoveries are not reported: 69910-4 and 5.
3	The matrix spike / matrix spike duplicate (MS/MSD) recoveries associated with batch 101545 were outside control limits: (600-69910-8 MS), (600-69910-8 MSD). Matrix interference is suspected.
4	All of the SDLs were elevated in samples 600-69910-2, 4 and 5 due to the high concentration of target ranges.

ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked on the LRC)

Detection Check Standard

Matrix: Solid
Method: 8260B
Preparation: Wei Shen
Date Analyzed: 10/9/2012
Date Prepared: 10/9/2012
TALs Batches: K28205.D
Units: ug/Kg

Analyte	MDL	DCS Spike	Measured Result	MQL
Dichlorodifluoromethane	1.54	2.5	1.57	5
Chloromethane	1.66	2.5	2.85	10
Vinyl Chloride	0.9	2.5	2.86	10
Bromomethane	0.83	2.5	2.54	10
Chloroethane	1.4	2.5	3.11	10
Trichlorofluoromethane	0.66	2.5	2.92	10
Acrolein	1.39	2.5	17.79	5
1,1-Dichloroethene	1.22	2.5	3.06	5
Trichlorotrifluoromethane	0.66	2.5	3.02	10
Acetone	1.66	2.5	0.026	5
Methyl Iodide	2.5	5	8.55	5
2-Propanol	27.47	2.5	85.83	5
Carbon Disulfide	0.55	2.5	6.35	10
Acetonitrile	1.39	2.5	6.05	10
Allyl chloride	1.39	2.5	5.73	5
Methylene Chloride	2.19	5	2.38	10
Acrylonitrile	5.82	5	21.17	25
trans-1,2-Dichloroethene	1.14	2.5	3.05	5
Methyl tert-butyl ether	1.83	2.5	2.92	5
1,1-Dichloroethane	0.87	2.5	3.11	5
Vinyl Acetate	0.93	2.5	5.79	5
Chloroprene	2.71	5	7.68	5
cis-1,2-Dichloroethene	0.83	2.5	3.22	5
1,2-Dichloroethene (total)	1.9	2.5	6.27	10
2,2-Dichloropropane	1.82	2.5	2.95	5
2-Butanone	1.9	2.5	6.25	5
Propionitrile	2.36	5	9.5	5
Methacrylonitrile	5	5	8.06	5
Bromochloromethane	1.78	2.5	3.03	5
Chloroform	0.66	2.5	3.48	5
1,1,1-Trichloroethane	0.74	2.5	3.13	5
1,1-Dichloropropene	0.65	2.5	3.25	5
Carbon Tetrachloride	1.13	2.5	3.19	5
Isobutyl alcohol	17.16	5	21.72	5
Benzene	0.63	2.5	3.18	5
1,2-Dichloroethane	0.9	2.5	3.35	5
Trichloroethene	1.4	2.5	3.24	5
1,2-Dichloropropane	0.71	2.5	3.01	5
Methyl methacrylate	2.86	5	4.06	10



Methylene Bromide	0.75	2.5	3.02	5
1,4-Dioxane	62.07	250	133.4	500
Bromodichloromethane	0.66	2.5	2.98	5
2-Chloroethyl vinyl ether	0.98	2.5	5.97	10
cis-1,3-Dichloropropene	0.54	2.5	3.02	5
Toluene	1.38	2.5	3.32	5
trans-1,3-Dichloropropene	0.58	2.5	2.96	5
Ethyl methacrylate	1.66	2.5	5.65	5
1,1,2-Trichloroethane	0.73	2.5	2.97	5
1,3-Dichloropropane	0.63	2.5	3.23	5
Tetrachloroethene	1.4	2.5	3.03	5
2-Hexanone	1.01	2.5	5.68	10
Dibromochloromethane	0.94	2.5	2.86	5
1,2-Dibromoethane	6.54	5	4.2	10
Chlorobenzene	0.96	2.5	3.1	5
1,1,1,2-Tetrachloroethane	1.4	2.5	2.99	5
Ethylbenzene	1.02	2.5	3	5
m,p-Xylene	1.52	2.5	6.04	10
o-Xylene	1.13	2.5	3	5
Xylenes (total)	1.13	2.5	9.05	5
Styrene	0.71	2.5	2.97	5
Bromoform	1.37	2.5	2.56	5
Isopropylbenzene	0.92	2.5	2.9	5
trans-1,4-Dichloro-2-butene	1.9	2.5	5.17	5
Bromobenzene	0.99	2.5	3.05	5
n-Propylbenzene	0.95	2.5	2.96	5
2-Chlorotoluene	0.68	2.5	3.07	5
4-Chlorotoluene	0.83	2.5	2.99	5
1,3,5-Trimethylbenzene	1.6	2.5	2.85	5
tert-Butylbenzene	0.95	2.5	2.88	5
1,2,4-Trimethylbenzene	0.92	2.5	2.93	5
sec-Butylbenzene	0.7	2.5	2.94	5
1,3-Dichlorobenzene	0.71	2.5	3.04	5
1,4-Dichlorobenzene	0.66	2.5	3.03	5
1,2-Dichlorobenzene	0.8	2.5	2.97	5
p-Isopropyltoluene	0.63	2.5	2.77	5
n-Butylbenzene	0.58	2.5	2.84	5
1,2,3-Trichloropropane	1.31	2.5	2.82	5
1,2,4-Trichlorobenzene	1.97	2.5	4.09	5
Hexachlorobutadiene	1.13	2.5	5.72	5
1,2,3-Trichlorobenzene	0.62	2.5	3.3	5
Naphthalene	2.37	5	4.44	10

**Quality Control Report
Detection Check Standard**

Matrix: Soil
 Method: 8270C LL
 Preparation: 3550B
 Date Analyzed: 10/18/2012
 Date Prepared: 10/11/2012
 Lab Sample ID: 600-90857_18-a
 Units: ug/Kg

Analyte	MDL	DCS Spike	DCS Result	MQL
Pyridine	3.52	8.35	1.08	16.67
N-Nitrosodimethylamine	30.71	16.7	11.97	16.67
Aniline	2.98	8.35	2.33	16.67
Phenol	4.24	8.35	7.91	16.67
bis(2-Chloroethyl)ether	1.65	8.35	7.29	16.67
2-Chlorophenol	1.97	8.35	7.54	16.67
1,3-Dichlorobenzene	1.54	8.35	7.19	16.67
1,4-Dichlorobenzene	2.25	8.35	6.84	16.67
1,2-Dichlorobenzene	3.02	8.35	7.29	16.67
Benzyl alcohol	5.83	16.7	9.50	16.67
2-Methylphenol	3.23	8.35	6.07	16.67
m&p-Cresols	2.79	8.35	4.59	33.33
bis (2-Chloroisopropyl) ether	8.84	16.7	13.41	16.67
N-Nitroso-di-n-propylamine	2.22	8.35	6.29	16.67
Hexachloroethane	2.31	8.35	8.47	16.67
Nitrobenzene	2.96	8.35	7.35	16.67
Isophorone	5	8.35	6.03	16.67
2-Nitrophenol	3.89	8.35	3.94	16.67
Benzoic acid	32.76	33.4	220.80	83.33
2,4-Dimethylphenol	8.58	16.7	9.79	16.67
bis(2-Chloroethoxy)methane	1.42	8.35	5.19	16.67
2,4-Dichlorophenol	8.58	16.7	9.48	16.67
1,2,4-Trichlorobenzene	2.1	8.35	7.92	16.67
Naphthalene	1.35	8.35	6.35	16.67
4-Chloroaniline	5.82	8.35	3.69	16.67
Hexachlorobutadiene	1.92	8.35	5.91	16.67
4-Chloro-3-methylphenol	15.58	16.7	8.00	16.67
2-Methylnaphthalene	2.74	8.35	5.53	16.67
1-Methylnaphthalene	1.57	8.35	6.53	16.67
Hexachlorocyclopentadiene	4.61	8.35	14.08	16.67
2,4,6-Trichlorophenol	2.68	8.35	5.54	16.67
2,4,5-Trichlorophenol	10.01	16.7	8.68	16.67
2-Chloronaphthalene	1.21	8.35	6.26	16.67
2-Nitroaniline	4.89	8.35	4.10	16.67
Dimethylphthalate	4.89	8.35	5.80	16.67
1,4 Dinitrobenzene	16.67	8.35	14.23	16.67
1,3- Dinitrobenzene	2.96	8.35	13.00	16.67
1,2-Dinitrobenzene	16.67	8.35	4.73	16.67
Acenaphthylene	5	8.35	6.86	16.67

2,6-Dinitrotoluene	2.95	8.35	8.78	16.67
3-Nitroaniline	7.15	8.35	3.09	16.67
Acenaphthene	1.44	8.35	6.03	16.67
Dibenzofuran	1.78	8.35	6.15	16.67
2,4-Dinitrotoluene	3.61	8.35	6.10	16.67
2,3,4,6-Tetrachlorophenol	16.67	16.7	15.95	16.67
Diethylphthalate	8.43	16.7	11.50	16.67
4-Chlorophenyl-phenylether	1.8	8.35	6.79	16.67
Fluorene	2.36	8.35	5.57	16.67
4-Nitroaniline	11.15	16.7	5.63	16.67
4,6-Dinitro-2-Methylphenol	4.98	16.7	15.38	16.67
N-Nitrosodiphenylamine	1.89	8.35	5.94	16.67
Diphenylamine	1.94	8.35	4.69	16.67
1,2-Diphenylhydrazine	1.62	8.35	5.61	16.67
Azobenzene	1.85	8.35	5.14	16.67
4-Bromophenyl-phenylether	2.84	8.35	6.26	16.67
Hexachlorobenzene	1.52	8.35	6.89	16.67
Phenanthrene	4.95	8.35	6.76	16.67
Anthracene	1.28	8.35	6.66	16.67
Carbazole	3.12	8.35	6.16	16.67
Di-n-butylphthalate	2.59	8.35	6.08	16.67
Fluoranthene	3.11	8.35	6.58	16.67
Pyrene	1.83	8.35	7.09	16.67
Butylbenzylphthalate	6.19	16.7	9.35	66.68
3,3'-Dichlorobenzidene	10.16	16.7	6.12	16.67
Benzo(a)anthracene	1.38	8.35	6.93	16.67
bis(2-Ethylhexyl)phthalate	5.37	16.7	10.49	66.68
Chrysene	1.02	8.35	10.06	16.67
Di-n-octylphthalate	1.9	8.35	3.61	66.68
Benzo(b)fluoranthene	1.72	8.35	3.95	16.67
Benzo(k)fluoranthene	1.49	8.35	8.45	16.67
Benzo(a)pyrene	1.61	8.35	5.20	16.67
Indeno(1,2,3-cd)pyrene	3.5	8.35	14.82	16.67
Dibenz(a,h)anthracene	3.63	8.35	2.38	16.67
Benzo(g,h,i)perylene	5.07	16.7	12.37	16.67



**Quality Control Report
Detection Check Standard**

Matrix: Water
 Method: 8270C LL
 Preparation: 3510C
 Date Analyzed: 10/18/2012
 Date Prepared: 10/16/2012
 Lab Sample ID: 600-91246_18-a
 Units: ug/L

Analyte	MDL	DCS Spike	DCS Result	MLQ
Pyridine	0.04	0.25	0.067	0.5
N-Nitrosodimethylamine	0.26	0.25	0.121	0.5
Aniline	0.08	0.25	0.085	0.5
Phenol	0.04	0.25	0.054	0.5
bis(2-Chloroethyl)ether	0.15	0.25	0.149	0.5
2-Chlorophenol	0.13	0.25	0.097	0.5
1,3-Dichlorobenzene	0.17	0.25	0.152	0.5
1,4-Dichlorobenzene	0.13	0.25	0.166	0.5
1,2-Dichlorobenzene	0.17	0.25	0.167	0.5
Benzyl alcohol	0.17	0.25	0.075	0.5
2-Methylphenol	0.12	0.25	0.112	0.5
m&p-Cresols	0.2	0.25	0.053	1
bis (2-Chloroisopropyl) ether	0.4	0.25	0.143	0.5
N-Nitroso-di-n-propylamine	0.1	0.25	0.177	0.5
Hexachloroethane	0.1	0.25	0.185	0.5
Nitrobenzene	0.11	0.25	0.131	0.5
Isophorone	0.11	0.25	0.149	0.5
2-Nitrophenol	0.22	0.5	0.205	0.5
Benzoic acid	2.51	5	6.530	2.5
2,4-Dimethylphenol	0.31	0.5	0.130	0.5
bis(2-Chloroethoxy)methane	0.13	0.25	0.122	0.5
2,4-Dichlorophenol	0.15	0.25	0.068	0.5
1,2,4-Trichlorobenzene	0.12	0.25	0.125	0.5
Naphthalene	0.08	0.25	0.161	0.5
4-Chloroaniline	0.21	0.5	0.232	0.5
Hexachlorobutadiene	0.18	0.25	0.160	0.5
4-Chloro-3-methylphenol	0.17	0.25	0.075	0.5
2-Methylnaphthalene	0.07	0.25	0.128	0.5
1-Methylnaphthalene	0.09	0.25	0.147	0.5
Hexachlorocyclopentadiene	0.13	0.5	0.487	0.5
2,4,6-Trichlorophenol	0.18	0.5	0.062	0.5
2,4,5-Trichlorophenol	0.25	0.5	0.107	0.5
2-Chloronaphthalene	0.08	0.25	0.148	0.5
2-Nitroaniline	0.19	0.5	0.213	0.5
Dimethylphthalate	0.07	0.25	0.145	0.5
1,4 Dinitrobenzene	5	0.25	0.363	0.5
1,3-Dinitrobenzene	0.08	0.25	0.381	0.5
1,2-Dinitrobenzene	0.5	0.25	0.040	0.5
Acenaphthylene	0.06	0.25	0.137	0.5

2,6-Dinitrotoluene	0.08	0.25	0.178	0.5
3-Nitroaniline	0.16	0.5	0.240	0.5
Acenaphthene	0.08	0.25	0.151	0.5
Dibenzofuran	0.08	0.25	0.127	0.5
2,4-Dinitrotoluene	0.13	0.25	0.144	0.5
Diethylphthalate	1.5	0.5	0.431	0.5
4-Chlorophenyl-phenylether	0.1	0.25	0.102	0.5
Fluorene	0.07	0.25	0.107	0.5
4-Nitroaniline	0.25	0.5	0.124	0.5
4,6-Dinitro-2-Methylphenol	0.83	2.5	0.530	1
N-Nitrosodiphenylamine	0.1	0.25	0.176	0.5
Diphenylamine	0.1	0.25	0.099	0.5
1,2-Diphenylhydrazine	0.11	0.25	0.224	0.5
Azobenzene	0.07	0.25	0.117	0.5
4-Bromophenyl-phenylether	0.1	0.25	0.112	0.5
Hexachlorobenzene	0.11	0.25	0.130	0.5
Phenanthrene	0.06	0.25	0.169	0.5
Anthracene	0.05	0.25	0.144	0.5
Carbazole	0.17	0.25	0.140	0.5
Di-n-butylphthalate	0.11	0.25	0.238	0.5
Fluoranthene	0.07	0.25	0.196	0.5
Pyrene	0.11	0.25	0.153	0.5
Butylbenzylphthalate	0.12	0.25	0.238	0.5
3,3'-Dichlorobenzidene	0.5	0.25	0.066	0.5
Benzo(a)anthracene	0.08	0.25	0.175	0.5
bis(2-Ethylhexyl)phthalate	0.37	0.5	0.420	0.5
Chrysene	0.08	0.25	0.212	0.5
Di-n-octylphthalate	0.16	0.25	0.091	0.5
Benzo(b)fluoranthene	0.07	0.25	0.143	0.5
Benzo(k)fluoranthene	0.09	0.25	0.201	0.5
Benzo(a)pyrene	0.08	0.25	0.137	0.5
Indeno(1,2,3-cd)pyrene	0.07	0.25	0.454	0.5
Dibenz(a,h)anthracene	0.08	0.25	0.123	0.5
Benzo(g,h,i)perylene	0.08	0.25	0.112	0.5



Detection Check Standard

Matrix: Soil
Method: TX1005
Preparation: RV
Date Analyzed: 10/22/2012
Date Prepared: 10/15/2012
Data File: 600-91191/3-A
Units: ug/Kg

Analyte	MDL	DCS Spike	Measured Result	MQL
C6-C12	3.8	20	27.03	25
>C12-C28	4.06	20	27.46	25
Total C6-C35	7.48	40	54.49	25

Detection Check Standard

Matrix: Soil
Method: 6010B
Preparation: 3050
Date Analyzed: 11/29/2012
Date Prepared: 11/28/2012
Instrument: Thermo 6500
TALS Batches: 94304,94171(prepare)
Prep/Reagent Factor = 50
Units: mg/kg

Analyte	MDL	DCS Spike	Measured Result	MQL
Aluminum	0.299654	0.5	0.44	25
Antimony	0.231553	0.45	0.475	2.5
Arsenic	0.217923	0.5	0.58	1
Barium	0.011322	0.03	0.03	1
Beryllium	0.014513	0.02	0.02	0.25
Boron	0.385535	0.6	0.885	20
Cadmium	0.025642	0.05	0.055	0.25
Calcium	0.86399	1.5	2.205	100
Chromium	0.050606	0.1	0.11	0.5
Cobalt	0.067622	0.1	0.1	0.5
Copper	0.173703	0.5	0.385	0.5
Iron	2.534007	4	4.285	20
Lead	0.104832	0.2	0.23	0.5
Selenium	0.258884	0.5	0.56	2
Manganese	0.038111	0.05	0.045	1.5
Molybdenum	0.136448	0.35	0.38	0.5
Nickel	0.116599	0.15	0.14	1
Silver	0.118848	0.2	0.21	0.5
Sodium	0.885548	2.4	3.225	100
Strontium	0.00252	0.005	0.985	0.25
Thallium	0.276988	0.7	0.71	1.5
Tin	0.08729	0.15	0.16	1
Titanium	0.014529	0.03	0.02	0.5
Vanadium	0.079068	0.15	0.17	0.5
Zinc	0.108432	0.2	0.315	1.5

Detection Check Standard

Matrix: Water
Method: 200.7/6010
Preparation: 200.7P/3010
Date Analyzed: 12/3/2012
Date Prepared: 11/28/2012
Instrument: Thermo 6500
TALs Batches: 94513, 94244(prepare)
Units: mg/L

Analyte	MDL	DCS Spike	Measured Result	MQL
Aluminum	0.006	0.02	0.0197	0.5
Antimony	0.0063	0.01	0.0106	0.05
Arsenic	0.0033	0.01	0.0071	0.01
Barium	0.0022	0.005	0.0052	0.02
Beryllium	0.00134	0.002	0.0039	0.005
Boron	0.0077	0.02	0.0228	0.2
Cadmium	0.00073	0.001	0.001	0.005
Calcium	0.022	0.05	0.0916	1
Chromium	0.0016	0.002	0.0035	0.01
Cobalt	0.00063	0.001	0.0008	0.01
Copper	0.0014	0.002	0.0005	0.01
Iron	0.087	0.1	0.0965	0.4
Lithium	0.0024	0.005	0.0066	0.2
Lead	0.0029	0.005	0.0053	0.01
Selenium	0.0042	0.01	0.0105	0.04
Manganese	0.00084	0.002	0.0019	0.01
Molybdenum	0.0027	0.005	0.0057	0.01
Nickel	0.00179	0.005	0.0048	0.01
Silver	0.0012	0.0025	0.0026	0.01
Sodium	0.02	0.05	0.381	1
Strontium	0.0005	0.001	0.0015	0.005
Thallium	0.0078	0.02	0.0203	0.03
Tin	0.0028	0.005	0.0053	0.01
Titanium	0.0011	0.002	0.002	0.01
Vanadium	0.0017	0.002	0.0041	0.01
Zinc	0.0022	0.005	0.0058	0.01

Case Narrative

Client: Pastor, Behling & Wheeler LLC
Project/Site: UPRR HWPW

TestAmerica Job ID: 600-69910-1

Job ID: 600-69910-1

Laboratory: TestAmerica Houston

Narrative

Job Narrative 600-69910-1

Comments

No additional comments.

Receipt

The samples were received on 3/12/2013 6:45 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 2 coolers at receipt time were 7.4° C and 13.4° C.

Except:

The samples were received at the laboratory outside the required temperature criteria: . The samples are considered acceptable since they were collected and submitted to the laboratory on the same day and there is evidence that the chilling process had begun.

Metals

Method(s) 6010B: The following sample(s) required filtration to reduce matrix interferences: (600-69910-8 DU), (600-69910-8 MS), (600-69910-8 MSD), SO-1620-DUP-20130312 (600-69910-12), SO-1620-SB01(4-5)-20130312 (600-69910-11), SO-1620-SB02(3-5)-20130312 (600-69910-10), SO-1620-SB03(3-5)-20130312 (600-69910-9), SO-1620-SB04(3.5-5)-20130312 (600-69910-8), SO-1620-SB05(1-4)-20130312 (600-69910-7), SO-1620-SB06(2-4)-20130312 (600-69910-6), SO-1620-SB07(3-5)-20130312 (600-69910-5), SO-1620-SB08(2.25-4.5)-20130312 (600-69910-4), SO-1620-SB09((1-4)-20130312 (600-69910-3), SO-1620-SB11(2.5-4)-20130312 (600-69910-2), SO-1620-SB12(2-4)-20130312 (600-69910-1).

Organic Prep

Method(s) 3550B: Due to the matrix, the following sample(s) could not be concentrated to the final method required volume: SO-1620-DUP-20130312 (600-69910-12), SO-1620-SB01(4-5)-20130312 (600-69910-11), SO-1620-SB02(3-5)-20130312 (600-69910-10), SO-1620-SB03(3-5)-20130312 (600-69910-9), SO-1620-SB04(3.5-5)-20130312 (600-69910-8), SO-1620-SB05(1-4)-20130312 (600-69910-7), SO-1620-SB06(2-4)-20130312 (600-69910-6), SO-1620-SB07(3-5)-20130312 (600-69910-5), SO-1620-SB08(2.25-4.5)-20130312 (600-69910-4), SO-1620-SB09((1-4)-20130312 (600-69910-3), SO-1620-SB11(2.5-4)-20130312 (600-69910-2), SO-1620-SB12(2-4)-20130312 (600-69910-1). The SDLs are elevated proportionately.

Method Summary

Client: Pastor, Behling & Wheeler LLC
Project/Site: UPRR HWPW

TestAmerica Job ID: 600-69910-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL HOU
8270C	Semivolatile Organic Compounds (GC/MS)	SW846	TAL HOU
8270C LL	Semivolatile Organic Compounds by GCMS - Low Levels	SW846	TAL HOU
TX 1005	Texas - Total Petroleum Hydrocarbon (GC)	TCEQ	TAL HOU
6010B	Metals (ICP)	SW846	TAL HOU
Moisture	Percent Moisture	EPA	TAL HOU

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

TCEQ = Texas Commission of Environmental Quality

Laboratory References:

TAL HOU = TestAmerica Houston, 6310 Rothway Street, Houston, TX 77040, TEL (713)690-4444

Sample Summary

Client: Pastor, Behling & Wheeler LLC
Project/Site: UPRR HWPW

TestAmerica Job ID: 600-69910-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
600-69910-1	SO-1620-SB12(2-4)-20130312	Solid	03/12/13 11:45	03/12/13 18:45
600-69910-2	SO-1620-SB11(2.5-4)-20130312	Solid	03/12/13 12:30	03/12/13 18:45
600-69910-3	SO-1620-SB09((1-4)-20130312	Solid	03/12/13 14:30	03/12/13 18:45
600-69910-4	SO-1620-SB08(2.25-4.5)-20130312	Solid	03/12/13 17:20	03/12/13 18:45
600-69910-5	SO-1620-SB07(3-5)-20130312	Solid	03/12/13 17:05	03/12/13 18:45
600-69910-6	SO-1620-SB06(2-4)-20130312	Solid	03/12/13 16:50	03/12/13 18:45
600-69910-7	SO-1620-SB05(1-4)-20130312	Solid	03/12/13 15:00	03/12/13 18:45
600-69910-8	SO-1620-SB04(3.5-5)-20130312	Solid	03/12/13 16:30	03/12/13 18:45
600-69910-9	SO-1620-SB03(3-5)-20130312	Solid	03/12/13 17:45	03/12/13 18:45
600-69910-10	SO-1620-SB02(3-5)-20130312	Solid	03/12/13 18:00	03/12/13 18:45
600-69910-11	SO-1620-SB01(4-5)-20130312	Solid	03/12/13 18:15	03/12/13 18:45
600-69910-12	SO-1620-DUP-20130312	Solid	03/12/13 00:00	03/12/13 18:45

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: UPRR HWPW

TestAmerica Job ID: 600-69910-1

Client Sample ID: SO-1620-SB12(2-4)-20130312

Lab Sample ID: 600-69910-1

Date Collected: 03/12/13 11:45

Matrix: Solid

Date Received: 03/12/13 18:45

Percent Solids: 90.0

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	0.00243	U	0.0111	0.00243	mg/Kg	☼		03/13/13 16:29	1
Benzene	0.000700	U	0.00556	0.000700	mg/Kg	☼		03/13/13 16:29	1
1,2-Dichloroethane	0.00100	U	0.00556	0.00100	mg/Kg	☼		03/13/13 16:29	1
Toluene	0.00153	U	0.00556	0.00153	mg/Kg	☼		03/13/13 16:29	1
Chlorobenzene	0.00107	U	0.00556	0.00107	mg/Kg	☼		03/13/13 16:29	1
Ethylbenzene	0.00113	U	0.00556	0.00113	mg/Kg	☼		03/13/13 16:29	1
Xylenes, Total	0.00126	U	0.00556	0.00126	mg/Kg	☼		03/13/13 16:29	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	88		61 - 130					03/13/13 16:29	1
Dibromofluoromethane	89		68 - 140					03/13/13 16:29	1
Toluene-d8 (Surr)	79		50 - 130					03/13/13 16:29	1
4-Bromofluorobenzene	106		57 - 140					03/13/13 16:29	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.0941	U	0.370	0.0941	mg/Kg	☼	03/13/13 14:56	03/15/13 01:33	10
Nitrobenzene	0.0657	U	0.370	0.0657	mg/Kg	☼	03/13/13 14:56	03/15/13 01:33	10
2,4-Dimethylphenol	0.190	U	0.370	0.190	mg/Kg	☼	03/13/13 14:56	03/15/13 01:33	10
Bis(2-chloroethoxy)methane	0.0315	U	0.370	0.0315	mg/Kg	☼	03/13/13 14:56	03/15/13 01:33	10
Naphthalene	0.0300	U	0.370	0.0300	mg/Kg	☼	03/13/13 14:56	03/15/13 01:33	10
2-Methylnaphthalene	0.159	J	0.370	0.0608	mg/Kg	☼	03/13/13 14:56	03/15/13 01:33	10
2-Chloronaphthalene	0.0269	U	0.370	0.0269	mg/Kg	☼	03/13/13 14:56	03/15/13 01:33	10
Acenaphthylene	0.165	J	0.370	0.0222	mg/Kg	☼	03/13/13 14:56	03/15/13 01:33	10
2,6-Dinitrotoluene	0.0655	U	0.370	0.0655	mg/Kg	☼	03/13/13 14:56	03/15/13 01:33	10
Acenaphthene	0.220	J	0.370	0.0320	mg/Kg	☼	03/13/13 14:56	03/15/13 01:33	10
4-Nitrophenol	0.113	U	0.370	0.113	mg/Kg	☼	03/13/13 14:56	03/15/13 01:33	10
Dibenzofuran	0.205	J	0.370	0.0395	mg/Kg	☼	03/13/13 14:56	03/15/13 01:33	10
2,4-Dinitrotoluene	0.0801	U	0.370	0.0801	mg/Kg	☼	03/13/13 14:56	03/15/13 01:33	10
Fluorene	0.269	J	0.370	0.0524	mg/Kg	☼	03/13/13 14:56	03/15/13 01:33	10
4,6-Dinitro-2-methylphenol	0.111	U	0.370	0.111	mg/Kg	☼	03/13/13 14:56	03/15/13 01:33	10
N-Nitrosodiphenylamine	0.0420	U	0.370	0.0420	mg/Kg	☼	03/13/13 14:56	03/15/13 01:33	10
1,2-Diphenylhydrazine	0.0360	U	0.370	0.0360	mg/Kg	☼	03/13/13 14:56	03/15/13 01:33	10
Pentachlorophenol	0.0888	U	3.71	0.0888	mg/Kg	☼	03/13/13 14:56	03/15/13 01:33	10
Phenanthrene	1.20		0.370	0.110	mg/Kg	☼	03/13/13 14:56	03/15/13 01:33	10
Anthracene	1.27		0.370	0.0284	mg/Kg	☼	03/13/13 14:56	03/15/13 01:33	10
Di-n-butyl phthalate	0.0575	U	1.48	0.0575	mg/Kg	☼	03/13/13 14:56	03/15/13 01:33	10
Fluoranthene	1.46		0.370	0.0690	mg/Kg	☼	03/13/13 14:56	03/15/13 01:33	10
Pyrene	1.28		0.370	0.0406	mg/Kg	☼	03/13/13 14:56	03/15/13 01:33	10
Benzo[a]anthracene	0.372		0.370	0.0306	mg/Kg	☼	03/13/13 14:56	03/15/13 01:33	10
Bis(2-ethylhexyl) phthalate	0.119	U	1.48	0.119	mg/Kg	☼	03/13/13 14:56	03/15/13 01:33	10
Chrysene	0.688		0.370	0.0226	mg/Kg	☼	03/13/13 14:56	03/15/13 01:33	10
Benzo[a]pyrene	0.468		0.370	0.0357	mg/Kg	☼	03/13/13 14:56	03/15/13 01:33	10
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorophenol	0	X	23 - 108				03/13/13 14:56	03/15/13 01:33	10
Phenol-d6	0	X	26 - 108				03/13/13 14:56	03/15/13 01:33	10
Nitrobenzene-d5	0	X	34 - 118				03/13/13 14:56	03/15/13 01:33	10
2-Fluorobiphenyl	0	X	51 - 109				03/13/13 14:56	03/15/13 01:33	10
2,4,6-Tribromophenol	0	X	34 - 122				03/13/13 14:56	03/15/13 01:33	10

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: UPRR HWPW

TestAmerica Job ID: 600-69910-1

Client Sample ID: SO-1620-SB12(2-4)-20130312

Lab Sample ID: 600-69910-1

Date Collected: 03/12/13 11:45

Matrix: Solid

Date Received: 03/12/13 18:45

Percent Solids: 90.0

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Terphenyl-d14	0	X	56 - 123	03/13/13 14:56	03/15/13 01:33	10

Method: 8270C - Semivolatile Organic Compounds (GC/MS) - TCLP

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dichlorobenzene	1.26	U	10.0	1.26	ug/L		03/15/13 13:42	03/18/13 11:50	1
2,4-Dinitrotoluene	0.950	U	10.0	0.950	ug/L		03/15/13 13:42	03/18/13 11:50	1
2,4,5-Trichlorophenol	1.26	U	10.0	1.26	ug/L		03/15/13 13:42	03/18/13 11:50	1
2,4,6-Trichlorophenol	0.920	U	10.0	0.920	ug/L		03/15/13 13:42	03/18/13 11:50	1
2-Methylphenol	1.01	U	10.0	1.01	ug/L		03/15/13 13:42	03/18/13 11:50	1
3 & 4 Methylphenol	1.88	U	20.0	1.88	ug/L		03/15/13 13:42	03/18/13 11:50	1
Hexachlorobenzene	0.900	U	10.0	0.900	ug/L		03/15/13 13:42	03/18/13 11:50	1
Hexachlorobutadiene	1.11	U	10.0	1.11	ug/L		03/15/13 13:42	03/18/13 11:50	1
Hexachloroethane	1.16	U	10.0	1.16	ug/L		03/15/13 13:42	03/18/13 11:50	1
Nitrobenzene	1.18	U	10.0	1.18	ug/L		03/15/13 13:42	03/18/13 11:50	1
Pentachlorophenol	0.890	U	50.0	0.890	ug/L		03/15/13 13:42	03/18/13 11:50	1
Pyridine	1.04	U	10.0	1.04	ug/L		03/15/13 13:42	03/18/13 11:50	1
Total Cresols	1.88	U	50.0	1.88	ug/L		03/15/13 13:42	03/18/13 11:50	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Phenol-d6	26		10 - 94	03/15/13 13:42	03/18/13 11:50	1
Nitrobenzene-d5	84		35 - 114	03/15/13 13:42	03/18/13 11:50	1
2-Fluorophenol	43		13 - 100	03/15/13 13:42	03/18/13 11:50	1
2-Fluorobiphenyl	86		43 - 116	03/15/13 13:42	03/18/13 11:50	1
2,4,6-Tribromophenol	82		10 - 123	03/15/13 13:42	03/18/13 11:50	1
Terphenyl-d14	87		33 - 141	03/15/13 13:42	03/18/13 11:50	1

Method: TX 1005 - Texas - Total Petroleum Hydrocarbon (GC)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C12	4.22	U	11.1	4.22	mg/Kg	☼	03/13/13 09:21	03/13/13 18:16	1
>C12-C28	4.51	U	11.1	4.51	mg/Kg	☼	03/13/13 09:21	03/13/13 18:16	1
>C28-C35	4.51	U	11.1	4.51	mg/Kg	☼	03/13/13 09:21	03/13/13 18:16	1
C6-C35	8.31	U	11.1	8.31	mg/Kg	☼	03/13/13 09:21	03/13/13 18:16	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	93		70 - 130	03/13/13 09:21	03/13/13 18:16	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	2.29		1.10	0.240	mg/Kg	☼	03/13/13 09:28	03/14/13 09:12	1
Lead	25.6		0.550	0.115	mg/Kg	☼	03/13/13 09:28	03/14/13 09:12	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Pb	1.03		0.100	0.0290	mg/L		03/15/13 11:38	03/18/13 14:21	1
As	0.0382	J	0.100	0.0328	mg/L		03/15/13 11:38	03/18/13 14:21	1

General Chemistry

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	10		1.0	1.0	%			03/13/13 14:53	1
Percent Solids	90		1.0	1.0	%			03/13/13 14:53	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: UPRR HWPW

TestAmerica Job ID: 600-69910-1

Client Sample ID: SO-1620-SB11(2.5-4)-20130312

Lab Sample ID: 600-69910-2

Date Collected: 03/12/13 12:30

Matrix: Solid

Date Received: 03/12/13 18:45

Percent Solids: 83.4

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	0.00263	U	0.0120	0.00263	mg/Kg	☼		03/13/13 16:53	1
Benzene	0.00109	J	0.00600	0.000756	mg/Kg	☼		03/13/13 16:53	1
1,2-Dichloroethane	0.00108	U	0.00600	0.00108	mg/Kg	☼		03/13/13 16:53	1
Toluene	0.00303	J	0.00600	0.00166	mg/Kg	☼		03/13/13 16:53	1
Chlorobenzene	0.00115	U	0.00600	0.00115	mg/Kg	☼		03/13/13 16:53	1
Ethylbenzene	0.00214	J	0.00600	0.00122	mg/Kg	☼		03/13/13 16:53	1
Xylenes, Total	0.0116		0.00600	0.00136	mg/Kg	☼		03/13/13 16:53	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	94		61 - 130					03/13/13 16:53	1
Dibromofluoromethane	96		68 - 140					03/13/13 16:53	1
Toluene-d8 (Surr)	85		50 - 130					03/13/13 16:53	1
4-Bromofluorobenzene	110		57 - 140					03/13/13 16:53	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.508	U	2.00	0.508	mg/Kg	☼	03/13/13 14:56	03/15/13 02:00	10
Nitrobenzene	0.354	U	2.00	0.354	mg/Kg	☼	03/13/13 14:56	03/15/13 02:00	10
2,4-Dimethylphenol	1.03	U	2.00	1.03	mg/Kg	☼	03/13/13 14:56	03/15/13 02:00	10
Bis(2-chloroethoxy)methane	0.170	U	2.00	0.170	mg/Kg	☼	03/13/13 14:56	03/15/13 02:00	10
Naphthalene	0.162	U	2.00	0.162	mg/Kg	☼	03/13/13 14:56	03/15/13 02:00	10
2-Methylnaphthalene	0.328	U	2.00	0.328	mg/Kg	☼	03/13/13 14:56	03/15/13 02:00	10
2-Chloronaphthalene	0.145	U	2.00	0.145	mg/Kg	☼	03/13/13 14:56	03/15/13 02:00	10
Acenaphthylene	0.120	U	2.00	0.120	mg/Kg	☼	03/13/13 14:56	03/15/13 02:00	10
2,6-Dinitrotoluene	0.353	U	2.00	0.353	mg/Kg	☼	03/13/13 14:56	03/15/13 02:00	10
Acenaphthene	0.172	U	2.00	0.172	mg/Kg	☼	03/13/13 14:56	03/15/13 02:00	10
4-Nitrophenol	0.608	U	2.00	0.608	mg/Kg	☼	03/13/13 14:56	03/15/13 02:00	10
Dibenzofuran	0.213	U	2.00	0.213	mg/Kg	☼	03/13/13 14:56	03/15/13 02:00	10
2,4-Dinitrotoluene	0.432	U	2.00	0.432	mg/Kg	☼	03/13/13 14:56	03/15/13 02:00	10
Fluorene	0.282	U	2.00	0.282	mg/Kg	☼	03/13/13 14:56	03/15/13 02:00	10
4,6-Dinitro-2-methylphenol	0.596	U	2.00	0.596	mg/Kg	☼	03/13/13 14:56	03/15/13 02:00	10
N-Nitrosodiphenylamine	0.226	U	2.00	0.226	mg/Kg	☼	03/13/13 14:56	03/15/13 02:00	10
1,2-Diphenylhydrazine	0.194	U	2.00	0.194	mg/Kg	☼	03/13/13 14:56	03/15/13 02:00	10
Pentachlorophenol	0.479	U	20.0	0.479	mg/Kg	☼	03/13/13 14:56	03/15/13 02:00	10
Phenanthrene	2.11		2.00	0.592	mg/Kg	☼	03/13/13 14:56	03/15/13 02:00	10
Anthracene	0.153	U	2.00	0.153	mg/Kg	☼	03/13/13 14:56	03/15/13 02:00	10
Di-n-butyl phthalate	0.992	J	7.98	0.310	mg/Kg	☼	03/13/13 14:56	03/15/13 02:00	10
Fluoranthene	3.35		2.00	0.372	mg/Kg	☼	03/13/13 14:56	03/15/13 02:00	10
Pyrene	4.09		2.00	0.219	mg/Kg	☼	03/13/13 14:56	03/15/13 02:00	10
Benzo[a]anthracene	2.04		2.00	0.165	mg/Kg	☼	03/13/13 14:56	03/15/13 02:00	10
Bis(2-ethylhexyl) phthalate	7.48	J	7.98	0.643	mg/Kg	☼	03/13/13 14:56	03/15/13 02:00	10
Chrysene	3.05		2.00	0.122	mg/Kg	☼	03/13/13 14:56	03/15/13 02:00	10
Benzo[a]pyrene	2.54		2.00	0.193	mg/Kg	☼	03/13/13 14:56	03/15/13 02:00	10
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorophenol	0	X	23 - 108				03/13/13 14:56	03/15/13 02:00	10
Phenol-d6	0	X	26 - 108				03/13/13 14:56	03/15/13 02:00	10
Nitrobenzene-d5	0	X	34 - 118				03/13/13 14:56	03/15/13 02:00	10
2-Fluorobiphenyl	0	X	51 - 109				03/13/13 14:56	03/15/13 02:00	10
2,4,6-Tribromophenol	0	X	34 - 122				03/13/13 14:56	03/15/13 02:00	10

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: UPRR HWPW

TestAmerica Job ID: 600-69910-1

Client Sample ID: SO-1620-SB11(2.5-4)-20130312

Lab Sample ID: 600-69910-2

Date Collected: 03/12/13 12:30

Matrix: Solid

Date Received: 03/12/13 18:45

Percent Solids: 83.4

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Terphenyl-d14	0	X	56 - 123	03/13/13 14:56	03/15/13 02:00	10

Method: 8270C - Semivolatile Organic Compounds (GC/MS) - TCLP

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dichlorobenzene	1.26	U	10.0	1.26	ug/L		03/15/13 13:42	03/18/13 14:18	1
2,4-Dinitrotoluene	0.950	U	10.0	0.950	ug/L		03/15/13 13:42	03/18/13 14:18	1
2,4,5-Trichlorophenol	1.26	U	10.0	1.26	ug/L		03/15/13 13:42	03/18/13 14:18	1
2,4,6-Trichlorophenol	0.920	U	10.0	0.920	ug/L		03/15/13 13:42	03/18/13 14:18	1
2-Methylphenol	1.01	U	10.0	1.01	ug/L		03/15/13 13:42	03/18/13 14:18	1
3 & 4 Methylphenol	1.88	U	20.0	1.88	ug/L		03/15/13 13:42	03/18/13 14:18	1
Hexachlorobenzene	0.900	U	10.0	0.900	ug/L		03/15/13 13:42	03/18/13 14:18	1
Hexachlorobutadiene	1.11	U	10.0	1.11	ug/L		03/15/13 13:42	03/18/13 14:18	1
Hexachloroethane	1.16	U	10.0	1.16	ug/L		03/15/13 13:42	03/18/13 14:18	1
Nitrobenzene	1.18	U	10.0	1.18	ug/L		03/15/13 13:42	03/18/13 14:18	1
Pentachlorophenol	0.890	U	50.0	0.890	ug/L		03/15/13 13:42	03/18/13 14:18	1
Pyridine	1.04	U	10.0	1.04	ug/L		03/15/13 13:42	03/18/13 14:18	1
Total Cresols	1.88	U	50.0	1.88	ug/L		03/15/13 13:42	03/18/13 14:18	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Phenol-d6	30		10 - 94	03/15/13 13:42	03/18/13 14:18	1
Nitrobenzene-d5	82		35 - 114	03/15/13 13:42	03/18/13 14:18	1
2-Fluorophenol	49		13 - 100	03/15/13 13:42	03/18/13 14:18	1
2-Fluorobiphenyl	83		43 - 116	03/15/13 13:42	03/18/13 14:18	1
2,4,6-Tribromophenol	77		10 - 123	03/15/13 13:42	03/18/13 14:18	1
Terphenyl-d14	87		33 - 141	03/15/13 13:42	03/18/13 14:18	1

Method: TX 1005 - Texas - Total Petroleum Hydrocarbon (GC)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C12	9.11	U	24.0	9.11	mg/Kg	☼	03/13/13 09:21	03/14/13 13:42	2
>C12-C28	410		24.0	9.73	mg/Kg	☼	03/13/13 09:21	03/14/13 13:42	2
>C28-C35	732		24.0	9.73	mg/Kg	☼	03/13/13 09:21	03/14/13 13:42	2
C6-C35	1140		24.0	17.9	mg/Kg	☼	03/13/13 09:21	03/14/13 13:42	2

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	118		70 - 130	03/13/13 09:21	03/14/13 13:42	2

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	22.6		1.16	0.254	mg/Kg	☼	03/13/13 09:28	03/14/13 09:15	1
Lead	2400		0.582	0.122	mg/Kg	☼	03/13/13 09:28	03/14/13 09:15	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Pb	27.9		0.100	0.0290	mg/L		03/15/13 11:38	03/18/13 15:46	1
As	0.0496	J b	0.100	0.0328	mg/L		03/15/13 11:38	03/18/13 15:46	1

General Chemistry

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	17		1.0	1.0	%			03/13/13 14:53	1
Percent Solids	83		1.0	1.0	%			03/13/13 14:53	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: UPRR HWPW

TestAmerica Job ID: 600-69910-1

Client Sample ID: SO-1620-SB09((1-4)-20130312)

Lab Sample ID: 600-69910-3

Date Collected: 03/12/13 14:30

Matrix: Solid

Date Received: 03/12/13 18:45

Percent Solids: 85.4

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	0.00256	U	0.0117	0.00256	mg/Kg	☼		03/13/13 17:17	1
Benzene	0.000738	U	0.00586	0.000738	mg/Kg	☼		03/13/13 17:17	1
1,2-Dichloroethane	0.00105	U	0.00586	0.00105	mg/Kg	☼		03/13/13 17:17	1
Toluene	0.00162	U	0.00586	0.00162	mg/Kg	☼		03/13/13 17:17	1
Chlorobenzene	0.00112	U	0.00586	0.00112	mg/Kg	☼		03/13/13 17:17	1
Ethylbenzene	0.00119	U	0.00586	0.00119	mg/Kg	☼		03/13/13 17:17	1
Xylenes, Total	0.00132	U	0.00586	0.00132	mg/Kg	☼		03/13/13 17:17	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	91		61 - 130		03/13/13 17:17	1
Dibromofluoromethane	92		68 - 140		03/13/13 17:17	1
Toluene-d8 (Surr)	85		50 - 130		03/13/13 17:17	1
4-Bromofluorobenzene	110		57 - 140		03/13/13 17:17	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.198	U	0.779	0.198	mg/Kg	☼	03/13/13 14:56	03/15/13 02:27	10
Nitrobenzene	0.138	U	0.779	0.138	mg/Kg	☼	03/13/13 14:56	03/15/13 02:27	10
2,4-Dimethylphenol	0.401	U	0.779	0.401	mg/Kg	☼	03/13/13 14:56	03/15/13 02:27	10
Bis(2-chloroethoxy)methane	0.0664	U	0.779	0.0664	mg/Kg	☼	03/13/13 14:56	03/15/13 02:27	10
Naphthalene	0.0631	U	0.779	0.0631	mg/Kg	☼	03/13/13 14:56	03/15/13 02:27	10
2-Methylnaphthalene	0.128	U	0.779	0.128	mg/Kg	☼	03/13/13 14:56	03/15/13 02:27	10
2-Chloronaphthalene	0.0566	U	0.779	0.0566	mg/Kg	☼	03/13/13 14:56	03/15/13 02:27	10
Acenaphthylene	0.414	J	0.779	0.0468	mg/Kg	☼	03/13/13 14:56	03/15/13 02:27	10
2,6-Dinitrotoluene	0.138	U	0.779	0.138	mg/Kg	☼	03/13/13 14:56	03/15/13 02:27	10
Acenaphthene	0.131	J	0.779	0.0673	mg/Kg	☼	03/13/13 14:56	03/15/13 02:27	10
4-Nitrophenol	0.238	U	0.779	0.238	mg/Kg	☼	03/13/13 14:56	03/15/13 02:27	10
Dibenzofuran	0.0832	U	0.779	0.0832	mg/Kg	☼	03/13/13 14:56	03/15/13 02:27	10
2,4-Dinitrotoluene	0.169	U	0.779	0.169	mg/Kg	☼	03/13/13 14:56	03/15/13 02:27	10
Fluorene	0.110	U	0.779	0.110	mg/Kg	☼	03/13/13 14:56	03/15/13 02:27	10
4,6-Dinitro-2-methylphenol	0.233	U	0.779	0.233	mg/Kg	☼	03/13/13 14:56	03/15/13 02:27	10
N-Nitrosodiphenylamine	0.0884	U	0.779	0.0884	mg/Kg	☼	03/13/13 14:56	03/15/13 02:27	10
1,2-Diphenylhydrazine	0.0757	U	0.779	0.0757	mg/Kg	☼	03/13/13 14:56	03/15/13 02:27	10
Pentachlorophenol	0.187	U	7.81	0.187	mg/Kg	☼	03/13/13 14:56	03/15/13 02:27	10
Phenanthrene	0.231	U	0.779	0.231	mg/Kg	☼	03/13/13 14:56	03/15/13 02:27	10
Anthracene	0.572	J	0.779	0.0598	mg/Kg	☼	03/13/13 14:56	03/15/13 02:27	10
Di-n-butyl phthalate	0.121	U	3.12	0.121	mg/Kg	☼	03/13/13 14:56	03/15/13 02:27	10
Fluoranthene	2.67		0.779	0.145	mg/Kg	☼	03/13/13 14:56	03/15/13 02:27	10
Pyrene	5.60		0.779	0.0856	mg/Kg	☼	03/13/13 14:56	03/15/13 02:27	10
Benzo[a]anthracene	0.956		0.779	0.0645	mg/Kg	☼	03/13/13 14:56	03/15/13 02:27	10
Bis(2-ethylhexyl) phthalate	0.251	U	3.12	0.251	mg/Kg	☼	03/13/13 14:56	03/15/13 02:27	10
Chrysene	1.73		0.779	0.0477	mg/Kg	☼	03/13/13 14:56	03/15/13 02:27	10
Benzo[a]pyrene	1.97		0.779	0.0753	mg/Kg	☼	03/13/13 14:56	03/15/13 02:27	10

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	0	X	23 - 108	03/13/13 14:56	03/15/13 02:27	10
Phenol-d6	0	X	26 - 108	03/13/13 14:56	03/15/13 02:27	10
Nitrobenzene-d5	0	X	34 - 118	03/13/13 14:56	03/15/13 02:27	10
2-Fluorobiphenyl	0	X	51 - 109	03/13/13 14:56	03/15/13 02:27	10
2,4,6-Tribromophenol	0	X	34 - 122	03/13/13 14:56	03/15/13 02:27	10

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: UPRR HWPW

TestAmerica Job ID: 600-69910-1

Client Sample ID: SO-1620-SB09((1-4)-20130312)

Lab Sample ID: 600-69910-3

Date Collected: 03/12/13 14:30

Matrix: Solid

Date Received: 03/12/13 18:45

Percent Solids: 85.4

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Terphenyl-d14	0	X	56 - 123	03/13/13 14:56	03/15/13 02:27	10

Method: 8270C - Semivolatile Organic Compounds (GC/MS) - TCLP

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dichlorobenzene	1.26	U	10.0	1.26	ug/L		03/15/13 13:42	03/18/13 12:27	1
2,4-Dinitrotoluene	0.950	U	10.0	0.950	ug/L		03/15/13 13:42	03/18/13 12:27	1
2,4,5-Trichlorophenol	1.26	U	10.0	1.26	ug/L		03/15/13 13:42	03/18/13 12:27	1
2,4,6-Trichlorophenol	0.920	U	10.0	0.920	ug/L		03/15/13 13:42	03/18/13 12:27	1
2-Methylphenol	1.01	U	10.0	1.01	ug/L		03/15/13 13:42	03/18/13 12:27	1
3 & 4 Methylphenol	1.88	U	20.0	1.88	ug/L		03/15/13 13:42	03/18/13 12:27	1
Hexachlorobenzene	0.900	U	10.0	0.900	ug/L		03/15/13 13:42	03/18/13 12:27	1
Hexachlorobutadiene	1.11	U	10.0	1.11	ug/L		03/15/13 13:42	03/18/13 12:27	1
Hexachloroethane	1.16	U	10.0	1.16	ug/L		03/15/13 13:42	03/18/13 12:27	1
Nitrobenzene	1.18	U	10.0	1.18	ug/L		03/15/13 13:42	03/18/13 12:27	1
Pentachlorophenol	0.890	U	50.0	0.890	ug/L		03/15/13 13:42	03/18/13 12:27	1
Pyridine	1.04	U	10.0	1.04	ug/L		03/15/13 13:42	03/18/13 12:27	1
Total Cresols	1.88	U	50.0	1.88	ug/L		03/15/13 13:42	03/18/13 12:27	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Phenol-d6	26		10 - 94	03/15/13 13:42	03/18/13 12:27	1
Nitrobenzene-d5	84		35 - 114	03/15/13 13:42	03/18/13 12:27	1
2-Fluorophenol	43		13 - 100	03/15/13 13:42	03/18/13 12:27	1
2-Fluorobiphenyl	83		43 - 116	03/15/13 13:42	03/18/13 12:27	1
2,4,6-Tribromophenol	76		10 - 123	03/15/13 13:42	03/18/13 12:27	1
Terphenyl-d14	80		33 - 141	03/15/13 13:42	03/18/13 12:27	1

Method: TX 1005 - Texas - Total Petroleum Hydrocarbon (GC)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C12	4.42	U	11.6	4.42	mg/Kg	☼	03/13/13 09:21	03/13/13 19:31	1
>C12-C28	4.72	U	11.6	4.72	mg/Kg	☼	03/13/13 09:21	03/13/13 19:31	1
>C28-C35	4.72	U	11.6	4.72	mg/Kg	☼	03/13/13 09:21	03/13/13 19:31	1
C6-C35	8.70	U	11.6	8.70	mg/Kg	☼	03/13/13 09:21	03/13/13 19:31	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	93		70 - 130	03/13/13 09:21	03/13/13 19:31	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	3.04		1.09	0.239	mg/Kg	☼	03/13/13 09:28	03/14/13 09:17	1
Lead	67.1		0.547	0.115	mg/Kg	☼	03/13/13 09:28	03/14/13 09:17	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Pb	3.10		0.100	0.0290	mg/L		03/15/13 11:38	03/18/13 14:33	1
As	0.0518	J	0.100	0.0328	mg/L		03/15/13 11:38	03/18/13 14:33	1

General Chemistry

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	15		1.0	1.0	%			03/13/13 14:53	1
Percent Solids	85		1.0	1.0	%			03/13/13 14:53	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: UPRR HWPW

TestAmerica Job ID: 600-69910-1

Client Sample ID: SO-1620-SB08(2.25-4.5)-20130312

Lab Sample ID: 600-69910-4

Date Collected: 03/12/13 17:20

Matrix: Solid

Date Received: 03/12/13 18:45

Percent Solids: 88.0

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	0.0124	U	0.0568	0.0124	mg/Kg	☼		03/13/13 19:16	5
Benzene	0.00372	J	0.0284	0.00358	mg/Kg	☼		03/13/13 19:16	5
1,2-Dichloroethane	0.00512	U	0.0284	0.00512	mg/Kg	☼		03/13/13 19:16	5
Toluene	0.00784	U	0.0284	0.00784	mg/Kg	☼		03/13/13 19:16	5
Chlorobenzene	0.00546	U	0.0284	0.00546	mg/Kg	☼		03/13/13 19:16	5
Ethylbenzene	0.0288		0.0284	0.00580	mg/Kg	☼		03/13/13 19:16	5
Xylenes, Total	0.0394		0.0284	0.00642	mg/Kg	☼		03/13/13 19:16	5

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	91		61 - 130		03/13/13 19:16	5
Dibromofluoromethane	86		68 - 140		03/13/13 19:16	5
Toluene-d8 (Surr)	81		50 - 130		03/13/13 19:16	5
4-Bromofluorobenzene	115		57 - 140		03/13/13 19:16	5

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	4.81	U	18.9	4.81	mg/Kg	☼	03/13/13 14:56	03/15/13 15:38	500
Nitrobenzene	3.36	U	18.9	3.36	mg/Kg	☼	03/13/13 14:56	03/15/13 15:38	500
2,4-Dimethylphenol	9.73	U	18.9	9.73	mg/Kg	☼	03/13/13 14:56	03/15/13 15:38	500
Bis(2-chloroethoxy)methane	1.61	U	18.9	1.61	mg/Kg	☼	03/13/13 14:56	03/15/13 15:38	500
2-Methylnaphthalene	522		18.9	3.11	mg/Kg	☼	03/13/13 14:56	03/15/13 15:38	500
2-Chloronaphthalene	1.37	U	18.9	1.37	mg/Kg	☼	03/13/13 14:56	03/15/13 15:38	500
Acenaphthylene	13.6	J	18.9	1.13	mg/Kg	☼	03/13/13 14:56	03/15/13 15:38	500
2,6-Dinitrotoluene	3.35	U	18.9	3.35	mg/Kg	☼	03/13/13 14:56	03/15/13 15:38	500
Acenaphthene	390		18.9	1.63	mg/Kg	☼	03/13/13 14:56	03/15/13 15:38	500
4-Nitrophenol	5.76	U	18.9	5.76	mg/Kg	☼	03/13/13 14:56	03/15/13 15:38	500
Dibenzofuran	372		18.9	2.02	mg/Kg	☼	03/13/13 14:56	03/15/13 15:38	500
2,4-Dinitrotoluene	4.10	U	18.9	4.10	mg/Kg	☼	03/13/13 14:56	03/15/13 15:38	500
Fluorene	465		18.9	2.68	mg/Kg	☼	03/13/13 14:56	03/15/13 15:38	500
4,6-Dinitro-2-methylphenol	5.65	U	18.9	5.65	mg/Kg	☼	03/13/13 14:56	03/15/13 15:38	500
N-Nitrosodiphenylamine	2.14	U	18.9	2.14	mg/Kg	☼	03/13/13 14:56	03/15/13 15:38	500
1,2-Diphenylhydrazine	1.84	U	18.9	1.84	mg/Kg	☼	03/13/13 14:56	03/15/13 15:38	500
Pentachlorophenol	4.54	U	189	4.54	mg/Kg	☼	03/13/13 14:56	03/15/13 15:38	500
Anthracene	648		18.9	1.45	mg/Kg	☼	03/13/13 14:56	03/15/13 15:38	500
Di-n-butyl phthalate	2.94	U	75.7	2.94	mg/Kg	☼	03/13/13 14:56	03/15/13 15:38	500
Fluoranthene	534		18.9	3.53	mg/Kg	☼	03/13/13 14:56	03/15/13 15:38	500
Pyrene	318		18.9	2.08	mg/Kg	☼	03/13/13 14:56	03/15/13 15:38	500
Benzo[a]anthracene	87.2		18.9	1.57	mg/Kg	☼	03/13/13 14:56	03/15/13 15:38	500
Bis(2-ethylhexyl) phthalate	6.09	U	75.7	6.09	mg/Kg	☼	03/13/13 14:56	03/15/13 15:38	500
Chrysene	109		18.9	1.16	mg/Kg	☼	03/13/13 14:56	03/15/13 15:38	500
Benzo[a]pyrene	27.5		18.9	1.83	mg/Kg	☼	03/13/13 14:56	03/15/13 15:38	500

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	0	X	23 - 108	03/13/13 14:56	03/15/13 15:38	500
Phenol-d6	0	X	26 - 108	03/13/13 14:56	03/15/13 15:38	500
Nitrobenzene-d5	0	X	34 - 118	03/13/13 14:56	03/15/13 15:38	500
2-Fluorobiphenyl	0	X	51 - 109	03/13/13 14:56	03/15/13 15:38	500
2,4,6-Tribromophenol	0	X	34 - 122	03/13/13 14:56	03/15/13 15:38	500
Terphenyl-d14	0	X	56 - 123	03/13/13 14:56	03/15/13 15:38	500

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: UPRR HWPW

TestAmerica Job ID: 600-69910-1

Client Sample ID: SO-1620-SB08(2.25-4.5)-20130312

Lab Sample ID: 600-69910-4

Date Collected: 03/12/13 17:20

Matrix: Solid

Date Received: 03/12/13 18:45

Percent Solids: 88.0

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels - DL

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	2010		94.6	7.66	mg/Kg	☼	03/13/13 14:56	03/18/13 17:36	2500
Phenanthrene	1510		94.6	28.1	mg/Kg	☼	03/13/13 14:56	03/18/13 17:36	2500
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorophenol	0	X	23 - 108				03/13/13 14:56	03/18/13 17:36	2500
Phenol-d6	0	X	26 - 108				03/13/13 14:56	03/18/13 17:36	2500
Nitrobenzene-d5	0	X	34 - 118				03/13/13 14:56	03/18/13 17:36	2500
2-Fluorobiphenyl	0	X	51 - 109				03/13/13 14:56	03/18/13 17:36	2500
2,4,6-Tribromophenol	0	X	34 - 122				03/13/13 14:56	03/18/13 17:36	2500
Terphenyl-d14	0	X	56 - 123				03/13/13 14:56	03/18/13 17:36	2500

Method: 8270C - Semivolatile Organic Compounds (GC/MS) - TCLP

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dichlorobenzene	1.26	U	10.0	1.26	ug/L		03/15/13 13:42	03/18/13 13:04	1
2,4-Dinitrotoluene	0.950	U	10.0	0.950	ug/L		03/15/13 13:42	03/18/13 13:04	1
2,4,5-Trichlorophenol	1.26	U	10.0	1.26	ug/L		03/15/13 13:42	03/18/13 13:04	1
2,4,6-Trichlorophenol	0.920	U	10.0	0.920	ug/L		03/15/13 13:42	03/18/13 13:04	1
2-Methylphenol	1.01	U	10.0	1.01	ug/L		03/15/13 13:42	03/18/13 13:04	1
3 & 4 Methylphenol	1.88	U	20.0	1.88	ug/L		03/15/13 13:42	03/18/13 13:04	1
Hexachlorobenzene	0.900	U	10.0	0.900	ug/L		03/15/13 13:42	03/18/13 13:04	1
Hexachlorobutadiene	1.11	U	10.0	1.11	ug/L		03/15/13 13:42	03/18/13 13:04	1
Hexachloroethane	1.16	U	10.0	1.16	ug/L		03/15/13 13:42	03/18/13 13:04	1
Nitrobenzene	1.18	U	10.0	1.18	ug/L		03/15/13 13:42	03/18/13 13:04	1
Pentachlorophenol	0.890	U	50.0	0.890	ug/L		03/15/13 13:42	03/18/13 13:04	1
Pyridine	1.04	U	10.0	1.04	ug/L		03/15/13 13:42	03/18/13 13:04	1
Total Cresols	1.88	U	50.0	1.88	ug/L		03/15/13 13:42	03/18/13 13:04	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Phenol-d6	22		10 - 94				03/15/13 13:42	03/18/13 13:04	1
Nitrobenzene-d5	87		35 - 114				03/15/13 13:42	03/18/13 13:04	1
2-Fluorophenol	6	X	13 - 100				03/15/13 13:42	03/18/13 13:04	1
2-Fluorobiphenyl	79		43 - 116				03/15/13 13:42	03/18/13 13:04	1
2,4,6-Tribromophenol	80		10 - 123				03/15/13 13:42	03/18/13 13:04	1
Terphenyl-d14	80		33 - 141				03/15/13 13:42	03/18/13 13:04	1

Method: TX 1005 - Texas - Total Petroleum Hydrocarbon (GC)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C12	135		90.9	34.6	mg/Kg	☼	03/13/13 09:21	03/14/13 11:11	8
>C12-C28	4950		90.9	36.9	mg/Kg	☼	03/13/13 09:21	03/14/13 11:11	8
>C28-C35	795		90.9	36.9	mg/Kg	☼	03/13/13 09:21	03/14/13 11:11	8
C6-C35	5880		90.9	68.0	mg/Kg	☼	03/13/13 09:21	03/14/13 11:11	8
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl	0	X	70 - 130				03/13/13 09:21	03/14/13 11:11	8

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	1.35		1.10	0.241	mg/Kg	☼	03/13/13 09:28	03/14/13 09:20	1
Lead	17.7		0.552	0.116	mg/Kg	☼	03/13/13 09:28	03/14/13 09:20	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: UPRR HWPW

TestAmerica Job ID: 600-69910-1

Client Sample ID: SO-1620-SB08(2.25-4.5)-20130312

Lab Sample ID: 600-69910-4

Date Collected: 03/12/13 17:20

Matrix: Solid

Date Received: 03/12/13 18:45

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Pb	0.0341	J	0.100	0.0290	mg/L		03/15/13 11:38	03/18/13 14:37	1
As	0.0532	J	0.100	0.0328	mg/L		03/15/13 11:38	03/18/13 14:37	1

General Chemistry

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	12		1.0	1.0	%			03/13/13 14:53	1
Percent Solids	88		1.0	1.0	%			03/13/13 14:53	1

Client Sample ID: SO-1620-SB07(3-5)-20130312

Lab Sample ID: 600-69910-5

Date Collected: 03/12/13 17:05

Matrix: Solid

Date Received: 03/12/13 18:45

Percent Solids: 60.2

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	0.0182	U	0.0830	0.0182	mg/Kg	☼		03/13/13 19:40	5
Benzene	0.0554		0.0415	0.00523	mg/Kg	☼		03/13/13 19:40	5
1,2-Dichloroethane	0.00747	U	0.0415	0.00747	mg/Kg	☼		03/13/13 19:40	5
Toluene	0.379		0.0415	0.0115	mg/Kg	☼		03/13/13 19:40	5
Chlorobenzene	0.00797	U	0.0415	0.00797	mg/Kg	☼		03/13/13 19:40	5
Ethylbenzene	0.573		0.0415	0.00847	mg/Kg	☼		03/13/13 19:40	5
Xylenes, Total	2.49		0.0415	0.00938	mg/Kg	☼		03/13/13 19:40	5
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	90		61 - 130					03/13/13 19:40	5
Dibromofluoromethane	89		68 - 140					03/13/13 19:40	5
Toluene-d8 (Surr)	85		50 - 130					03/13/13 19:40	5
4-Bromofluorobenzene	116		57 - 140					03/13/13 19:40	5

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.352	U	1.38	0.352	mg/Kg	☼	03/13/13 14:56	03/15/13 03:20	10
Nitrobenzene	0.246	U	1.38	0.246	mg/Kg	☼	03/13/13 14:56	03/15/13 03:20	10
2,4-Dimethylphenol	1.42		1.38	0.712	mg/Kg	☼	03/13/13 14:56	03/15/13 03:20	10
Bis(2-chloroethoxy)methane	0.118	U	1.38	0.118	mg/Kg	☼	03/13/13 14:56	03/15/13 03:20	10
2-Methylnaphthalene	65.1		1.38	0.227	mg/Kg	☼	03/13/13 14:56	03/15/13 03:20	10
2-Chloronaphthalene	0.100	U	1.38	0.100	mg/Kg	☼	03/13/13 14:56	03/15/13 03:20	10
Acenaphthylene	3.90		1.38	0.0830	mg/Kg	☼	03/13/13 14:56	03/15/13 03:20	10
2,6-Dinitrotoluene	0.245	U	1.38	0.245	mg/Kg	☼	03/13/13 14:56	03/15/13 03:20	10
4-Nitrophenol	0.421	U	1.38	0.421	mg/Kg	☼	03/13/13 14:56	03/15/13 03:20	10
Dibenzofuran	51.3		1.38	0.148	mg/Kg	☼	03/13/13 14:56	03/15/13 03:20	10
2,4-Dinitrotoluene	0.299	U	1.38	0.299	mg/Kg	☼	03/13/13 14:56	03/15/13 03:20	10
4,6-Dinitro-2-methylphenol	0.413	U	1.38	0.413	mg/Kg	☼	03/13/13 14:56	03/15/13 03:20	10
N-Nitrosodiphenylamine	0.157	U	1.38	0.157	mg/Kg	☼	03/13/13 14:56	03/15/13 03:20	10
1,2-Diphenylhydrazine	0.134	U	1.38	0.134	mg/Kg	☼	03/13/13 14:56	03/15/13 03:20	10
Pentachlorophenol	0.332	U	13.9	0.332	mg/Kg	☼	03/13/13 14:56	03/15/13 03:20	10
Di-n-butyl phthalate	0.215	U	5.53	0.215	mg/Kg	☼	03/13/13 14:56	03/15/13 03:20	10
Benzo[a]anthracene	39.9		1.38	0.114	mg/Kg	☼	03/13/13 14:56	03/15/13 03:20	10
Bis(2-ethylhexyl) phthalate	0.445	U	5.53	0.445	mg/Kg	☼	03/13/13 14:56	03/15/13 03:20	10
Chrysene	46.4		1.38	0.0846	mg/Kg	☼	03/13/13 14:56	03/15/13 03:20	10
Benzo[a]pyrene	15.9		1.38	0.134	mg/Kg	☼	03/13/13 14:56	03/15/13 03:20	10

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: UPRR HWPW

TestAmerica Job ID: 600-69910-1

Client Sample ID: SO-1620-SB07(3-5)-20130312

Lab Sample ID: 600-69910-5

Date Collected: 03/12/13 17:05

Matrix: Solid

Date Received: 03/12/13 18:45

Percent Solids: 60.2

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	0	X	23 - 108	03/13/13 14:56	03/15/13 03:20	10
Phenol-d6	0	X	26 - 108	03/13/13 14:56	03/15/13 03:20	10
Nitrobenzene-d5	0	X	34 - 118	03/13/13 14:56	03/15/13 03:20	10
2-Fluorobiphenyl	0	X	51 - 109	03/13/13 14:56	03/15/13 03:20	10
2,4,6-Tribromophenol	0	X	34 - 122	03/13/13 14:56	03/15/13 03:20	10
Terphenyl-d14	0	X	56 - 123	03/13/13 14:56	03/15/13 03:20	10

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels - DL

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	161		13.8	1.12	mg/Kg	☼	03/13/13 14:56	03/15/13 16:04	100
Acenaphthene	111		13.8	1.19	mg/Kg	☼	03/13/13 14:56	03/15/13 16:04	100
Fluorene	136		13.8	1.96	mg/Kg	☼	03/13/13 14:56	03/15/13 16:04	100
Phenanthrene	389		13.8	4.11	mg/Kg	☼	03/13/13 14:56	03/15/13 16:04	100
Anthracene	288		13.8	1.06	mg/Kg	☼	03/13/13 14:56	03/15/13 16:04	100
Fluoranthene	296		13.8	2.58	mg/Kg	☼	03/13/13 14:56	03/15/13 16:04	100
Pyrene	182		13.8	1.52	mg/Kg	☼	03/13/13 14:56	03/15/13 16:04	100

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	0	X	23 - 108	03/13/13 14:56	03/15/13 16:04	100
Phenol-d6	0	X	26 - 108	03/13/13 14:56	03/15/13 16:04	100
Nitrobenzene-d5	0	X	34 - 118	03/13/13 14:56	03/15/13 16:04	100
2-Fluorobiphenyl	0	X	51 - 109	03/13/13 14:56	03/15/13 16:04	100
2,4,6-Tribromophenol	0	X	34 - 122	03/13/13 14:56	03/15/13 16:04	100
Terphenyl-d14	0	X	56 - 123	03/13/13 14:56	03/15/13 16:04	100

Method: 8270C - Semivolatile Organic Compounds (GC/MS) - TCLP

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dichlorobenzene	1.26	U	10.0	1.26	ug/L		03/15/13 13:42	03/18/13 14:32	1
2,4-Dinitrotoluene	0.950	U	10.0	0.950	ug/L		03/15/13 13:42	03/18/13 14:32	1
2,4,5-Trichlorophenol	1.26	U	10.0	1.26	ug/L		03/15/13 13:42	03/18/13 14:32	1
2,4,6-Trichlorophenol	0.920	U	10.0	0.920	ug/L		03/15/13 13:42	03/18/13 14:32	1
2-Methylphenol	3.05	J	10.0	1.01	ug/L		03/15/13 13:42	03/18/13 14:32	1
3 & 4 Methylphenol	11.3	J	20.0	1.88	ug/L		03/15/13 13:42	03/18/13 14:32	1
Hexachlorobenzene	0.900	U	10.0	0.900	ug/L		03/15/13 13:42	03/18/13 14:32	1
Hexachlorobutadiene	1.11	U	10.0	1.11	ug/L		03/15/13 13:42	03/18/13 14:32	1
Hexachloroethane	1.16	U	10.0	1.16	ug/L		03/15/13 13:42	03/18/13 14:32	1
Nitrobenzene	1.18	U	10.0	1.18	ug/L		03/15/13 13:42	03/18/13 14:32	1
Pentachlorophenol	0.890	U	50.0	0.890	ug/L		03/15/13 13:42	03/18/13 14:32	1
Pyridine	1.04	U	10.0	1.04	ug/L		03/15/13 13:42	03/18/13 14:32	1
Total Cresols	14.4	J	50.0	1.88	ug/L		03/15/13 13:42	03/18/13 14:32	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Phenol-d6	23		10 - 94	03/15/13 13:42	03/18/13 14:32	1
Nitrobenzene-d5	71		35 - 114	03/15/13 13:42	03/18/13 14:32	1
2-Fluorophenol	44		13 - 100	03/15/13 13:42	03/18/13 14:32	1
2-Fluorobiphenyl	84		43 - 116	03/15/13 13:42	03/18/13 14:32	1
2,4,6-Tribromophenol	95		10 - 123	03/15/13 13:42	03/18/13 14:32	1
Terphenyl-d14	86		33 - 141	03/15/13 13:42	03/18/13 14:32	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: UPRR HWPW

TestAmerica Job ID: 600-69910-1

Client Sample ID: SO-1620-SB07(3-5)-20130312

Lab Sample ID: 600-69910-5

Date Collected: 03/12/13 17:05

Matrix: Solid

Date Received: 03/12/13 18:45

Percent Solids: 60.2

Method: TX 1005 - Texas - Total Petroleum Hydrocarbon (GC)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C12	296	J	332	126	mg/Kg	☼	03/13/13 09:21	03/14/13 11:48	20
>C12-C28	13500		332	135	mg/Kg	☼	03/13/13 09:21	03/14/13 11:48	20
>C28-C35	4050		332	135	mg/Kg	☼	03/13/13 09:21	03/14/13 11:48	20
C6-C35	17900		332	248	mg/Kg	☼	03/13/13 09:21	03/14/13 11:48	20
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl	0	X	70 - 130				03/13/13 09:21	03/14/13 11:48	20

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	40.3		1.55	0.338	mg/Kg	☼	03/13/13 09:28	03/14/13 09:22	1
Lead	1920		0.776	0.163	mg/Kg	☼	03/13/13 09:28	03/14/13 09:22	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Pb	4.70		0.100	0.0290	mg/L		03/15/13 11:38	03/18/13 15:58	1
As	0.145	b	0.100	0.0328	mg/L		03/15/13 11:38	03/18/13 15:58	1

General Chemistry

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	40		1.0	1.0	%			03/13/13 14:53	1
Percent Solids	60		1.0	1.0	%			03/13/13 14:53	1

Client Sample ID: SO-1620-SB06(2-4)-20130312

Lab Sample ID: 600-69910-6

Date Collected: 03/12/13 16:50

Matrix: Solid

Date Received: 03/12/13 18:45

Percent Solids: 80.9

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	0.00271	U	0.0124	0.00271	mg/Kg	☼		03/13/13 17:41	1
Benzene	0.000779	U	0.00618	0.000779	mg/Kg	☼		03/13/13 17:41	1
1,2-Dichloroethane	0.00111	U	0.00618	0.00111	mg/Kg	☼		03/13/13 17:41	1
Toluene	0.00171	U	0.00618	0.00171	mg/Kg	☼		03/13/13 17:41	1
Chlorobenzene	0.00119	U	0.00618	0.00119	mg/Kg	☼		03/13/13 17:41	1
Ethylbenzene	0.00126	U	0.00618	0.00126	mg/Kg	☼		03/13/13 17:41	1
Xylenes, Total	0.00140	U	0.00618	0.00140	mg/Kg	☼		03/13/13 17:41	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>1,2</i> -Dichloroethane- <i>d</i> 4 (Surr)	89		61 - 130					03/13/13 17:41	1
<i>Dibromofluoromethane</i>	85		68 - 140					03/13/13 17:41	1
<i>Toluene-d</i> 8 (Surr)	85		50 - 130					03/13/13 17:41	1
<i>4</i> -Bromofluorobenzene	109		57 - 140					03/13/13 17:41	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.524	U	2.06	0.524	mg/Kg	☼	03/13/13 14:56	03/15/13 03:47	10
Nitrobenzene	0.366	U	2.06	0.366	mg/Kg	☼	03/13/13 14:56	03/15/13 03:47	10
2,4-Dimethylphenol	1.06	U	2.06	1.06	mg/Kg	☼	03/13/13 14:56	03/15/13 03:47	10
Bis(2-chloroethoxy)methane	0.175	U	2.06	0.175	mg/Kg	☼	03/13/13 14:56	03/15/13 03:47	10
Naphthalene	0.616	J	2.06	0.167	mg/Kg	☼	03/13/13 14:56	03/15/13 03:47	10
2-Methylnaphthalene	0.746	J	2.06	0.339	mg/Kg	☼	03/13/13 14:56	03/15/13 03:47	10

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: UPRR HWPW

TestAmerica Job ID: 600-69910-1

Client Sample ID: SO-1620-SB06(2-4)-20130312

Lab Sample ID: 600-69910-6

Date Collected: 03/12/13 16:50

Matrix: Solid

Date Received: 03/12/13 18:45

Percent Solids: 80.9

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Chloronaphthalene	0.150	U	2.06	0.150	mg/Kg	☼	03/13/13 14:56	03/15/13 03:47	10
Acenaphthylene	0.208	J	2.06	0.124	mg/Kg	☼	03/13/13 14:56	03/15/13 03:47	10
2,6-Dinitrotoluene	0.365	U	2.06	0.365	mg/Kg	☼	03/13/13 14:56	03/15/13 03:47	10
Acenaphthene	1.25	J	2.06	0.178	mg/Kg	☼	03/13/13 14:56	03/15/13 03:47	10
4-Nitrophenol	0.628	U	2.06	0.628	mg/Kg	☼	03/13/13 14:56	03/15/13 03:47	10
Dibenzofuran	0.587	J	2.06	0.220	mg/Kg	☼	03/13/13 14:56	03/15/13 03:47	10
2,4-Dinitrotoluene	0.446	U	2.06	0.446	mg/Kg	☼	03/13/13 14:56	03/15/13 03:47	10
Fluorene	1.17	J	2.06	0.292	mg/Kg	☼	03/13/13 14:56	03/15/13 03:47	10
4,6-Dinitro-2-methylphenol	0.615	U	2.06	0.615	mg/Kg	☼	03/13/13 14:56	03/15/13 03:47	10
N-Nitrosodiphenylamine	0.234	U	2.06	0.234	mg/Kg	☼	03/13/13 14:56	03/15/13 03:47	10
1,2-Diphenylhydrazine	0.200	U	2.06	0.200	mg/Kg	☼	03/13/13 14:56	03/15/13 03:47	10
Pentachlorophenol	0.494	U	20.6	0.494	mg/Kg	☼	03/13/13 14:56	03/15/13 03:47	10
Phenanthrene	5.09		2.06	0.612	mg/Kg	☼	03/13/13 14:56	03/15/13 03:47	10
Anthracene	1.20	J	2.06	0.158	mg/Kg	☼	03/13/13 14:56	03/15/13 03:47	10
Di-n-butyl phthalate	1.60	J	8.24	0.320	mg/Kg	☼	03/13/13 14:56	03/15/13 03:47	10
Fluoranthene	6.66		2.06	0.384	mg/Kg	☼	03/13/13 14:56	03/15/13 03:47	10
Pyrene	7.37		2.06	0.226	mg/Kg	☼	03/13/13 14:56	03/15/13 03:47	10
Benzo[a]anthracene	2.87		2.06	0.171	mg/Kg	☼	03/13/13 14:56	03/15/13 03:47	10
Bis(2-ethylhexyl) phthalate	21.8		8.24	0.664	mg/Kg	☼	03/13/13 14:56	03/15/13 03:47	10
Chrysene	3.78		2.06	0.126	mg/Kg	☼	03/13/13 14:56	03/15/13 03:47	10
Benzo[a]pyrene	3.53		2.06	0.199	mg/Kg	☼	03/13/13 14:56	03/15/13 03:47	10

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	0	X	23 - 108	03/13/13 14:56	03/15/13 03:47	10
Phenol-d6	0	X	26 - 108	03/13/13 14:56	03/15/13 03:47	10
Nitrobenzene-d5	0	X	34 - 118	03/13/13 14:56	03/15/13 03:47	10
2-Fluorobiphenyl	0	X	51 - 109	03/13/13 14:56	03/15/13 03:47	10
2,4,6-Tribromophenol	0	X	34 - 122	03/13/13 14:56	03/15/13 03:47	10
Terphenyl-d14	0	X	56 - 123	03/13/13 14:56	03/15/13 03:47	10

Method: 8270C - Semivolatile Organic Compounds (GC/MS) - TCLP

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dichlorobenzene	1.26	U	10.0	1.26	ug/L		03/15/13 13:42	03/18/13 15:07	1
2,4-Dinitrotoluene	0.950	U	10.0	0.950	ug/L		03/15/13 13:42	03/18/13 15:07	1
2,4,5-Trichlorophenol	1.26	U	10.0	1.26	ug/L		03/15/13 13:42	03/18/13 15:07	1
2,4,6-Trichlorophenol	0.920	U	10.0	0.920	ug/L		03/15/13 13:42	03/18/13 15:07	1
2-Methylphenol	1.01	U	10.0	1.01	ug/L		03/15/13 13:42	03/18/13 15:07	1
3 & 4 Methylphenol	1.88	U	20.0	1.88	ug/L		03/15/13 13:42	03/18/13 15:07	1
Hexachlorobenzene	0.900	U	10.0	0.900	ug/L		03/15/13 13:42	03/18/13 15:07	1
Hexachlorobutadiene	1.11	U	10.0	1.11	ug/L		03/15/13 13:42	03/18/13 15:07	1
Hexachloroethane	1.16	U	10.0	1.16	ug/L		03/15/13 13:42	03/18/13 15:07	1
Nitrobenzene	1.18	U	10.0	1.18	ug/L		03/15/13 13:42	03/18/13 15:07	1
Pentachlorophenol	0.890	U	50.0	0.890	ug/L		03/15/13 13:42	03/18/13 15:07	1
Pyridine	1.04	U	10.0	1.04	ug/L		03/15/13 13:42	03/18/13 15:07	1
Total Cresols	1.88	U	50.0	1.88	ug/L		03/15/13 13:42	03/18/13 15:07	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Phenol-d6	23		10 - 94	03/15/13 13:42	03/18/13 15:07	1
Nitrobenzene-d5	86		35 - 114	03/15/13 13:42	03/18/13 15:07	1
2-Fluorophenol	46		13 - 100	03/15/13 13:42	03/18/13 15:07	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: UPRR HWPW

TestAmerica Job ID: 600-69910-1

Client Sample ID: SO-1620-SB06(2-4)-20130312

Lab Sample ID: 600-69910-6

Date Collected: 03/12/13 16:50

Matrix: Solid

Date Received: 03/12/13 18:45

Method: 8270C - Semivolatile Organic Compounds (GC/MS) - TCLP (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	96		43 - 116	03/15/13 13:42	03/18/13 15:07	1
2,4,6-Tribromophenol	103		10 - 123	03/15/13 13:42	03/18/13 15:07	1
Terphenyl-d14	97		33 - 141	03/15/13 13:42	03/18/13 15:07	1

Method: TX 1005 - Texas - Total Petroleum Hydrocarbon (GC)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C12	4.69	U	12.3	4.69	mg/Kg	☼	03/13/13 09:21	03/14/13 13:01	1
>C12-C28	351		12.3	5.01	mg/Kg	☼	03/13/13 09:21	03/14/13 13:01	1
>C28-C35	300		12.3	5.01	mg/Kg	☼	03/13/13 09:21	03/14/13 13:01	1
C6-C35	651		12.3	9.22	mg/Kg	☼	03/13/13 09:21	03/14/13 13:01	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	134	X	70 - 130	03/13/13 09:21	03/14/13 13:01	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	40.7		1.20	0.262	mg/Kg	☼	03/13/13 09:28	03/14/13 09:25	1
Lead	2840		0.600	0.126	mg/Kg	☼	03/13/13 09:28	03/14/13 09:25	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Pb	10.2		0.100	0.0290	mg/L		03/15/13 11:38	03/18/13 16:01	1
As	0.0640	J b	0.100	0.0328	mg/L		03/15/13 11:38	03/18/13 16:01	1

General Chemistry

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	19		1.0	1.0	%			03/13/13 14:53	1
Percent Solids	81		1.0	1.0	%			03/13/13 14:53	1

Client Sample ID: SO-1620-SB05(1-4)-20130312

Lab Sample ID: 600-69910-7

Date Collected: 03/12/13 15:00

Matrix: Solid

Date Received: 03/12/13 18:45

Percent Solids: 79.8

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	0.00275	U	0.0125	0.00275	mg/Kg	☼		03/13/13 18:05	1
Benzene	0.000790	U	0.00627	0.000790	mg/Kg	☼		03/13/13 18:05	1
1,2-Dichloroethane	0.00113	U	0.00627	0.00113	mg/Kg	☼		03/13/13 18:05	1
Toluene	0.00173	U	0.00627	0.00173	mg/Kg	☼		03/13/13 18:05	1
Chlorobenzene	0.00120	U	0.00627	0.00120	mg/Kg	☼		03/13/13 18:05	1
Ethylbenzene	0.00128	U	0.00627	0.00128	mg/Kg	☼		03/13/13 18:05	1
Xylenes, Total	0.00142	U	0.00627	0.00142	mg/Kg	☼		03/13/13 18:05	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	89		61 - 130		03/13/13 18:05	1
Dibromofluoromethane	84		68 - 140		03/13/13 18:05	1
Toluene-d8 (Surr)	78		50 - 130		03/13/13 18:05	1
4-Bromofluorobenzene	104		57 - 140		03/13/13 18:05	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: UPRR HWPW

TestAmerica Job ID: 600-69910-1

Client Sample ID: SO-1620-SB05(1-4)-20130312

Lab Sample ID: 600-69910-7

Date Collected: 03/12/13 15:00

Matrix: Solid

Date Received: 03/12/13 18:45

Percent Solids: 79.8

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.106	U	0.418	0.106	mg/Kg	☼	03/13/13 14:56	03/15/13 04:13	10
Nitrobenzene	0.0742	U	0.418	0.0742	mg/Kg	☼	03/13/13 14:56	03/15/13 04:13	10
2,4-Dimethylphenol	0.215	U	0.418	0.215	mg/Kg	☼	03/13/13 14:56	03/15/13 04:13	10
Bis(2-chloroethoxy)methane	0.0356	U	0.418	0.0356	mg/Kg	☼	03/13/13 14:56	03/15/13 04:13	10
Naphthalene	0.273	J	0.418	0.0338	mg/Kg	☼	03/13/13 14:56	03/15/13 04:13	10
2-Methylnaphthalene	0.200	J	0.418	0.0687	mg/Kg	☼	03/13/13 14:56	03/15/13 04:13	10
2-Chloronaphthalene	0.0303	U	0.418	0.0303	mg/Kg	☼	03/13/13 14:56	03/15/13 04:13	10
Acenaphthylene	0.160	J	0.418	0.0251	mg/Kg	☼	03/13/13 14:56	03/15/13 04:13	10
2,6-Dinitrotoluene	0.0739	U	0.418	0.0739	mg/Kg	☼	03/13/13 14:56	03/15/13 04:13	10
Acenaphthene	0.639		0.418	0.0361	mg/Kg	☼	03/13/13 14:56	03/15/13 04:13	10
4-Nitrophenol	0.127	U	0.418	0.127	mg/Kg	☼	03/13/13 14:56	03/15/13 04:13	10
Dibenzofuran	0.260	J	0.418	0.0446	mg/Kg	☼	03/13/13 14:56	03/15/13 04:13	10
2,4-Dinitrotoluene	0.0905	U	0.418	0.0905	mg/Kg	☼	03/13/13 14:56	03/15/13 04:13	10
Fluorene	0.752		0.418	0.0591	mg/Kg	☼	03/13/13 14:56	03/15/13 04:13	10
4,6-Dinitro-2-methylphenol	0.125	U	0.418	0.125	mg/Kg	☼	03/13/13 14:56	03/15/13 04:13	10
N-Nitrosodiphenylamine	0.0474	U	0.418	0.0474	mg/Kg	☼	03/13/13 14:56	03/15/13 04:13	10
1,2-Diphenylhydrazine	0.0406	U	0.418	0.0406	mg/Kg	☼	03/13/13 14:56	03/15/13 04:13	10
Pentachlorophenol	0.100	U	4.18	0.100	mg/Kg	☼	03/13/13 14:56	03/15/13 04:13	10
Phenanthrene	3.27		0.418	0.124	mg/Kg	☼	03/13/13 14:56	03/15/13 04:13	10
Anthracene	0.943		0.418	0.0321	mg/Kg	☼	03/13/13 14:56	03/15/13 04:13	10
Di-n-butyl phthalate	0.0649	U	1.67	0.0649	mg/Kg	☼	03/13/13 14:56	03/15/13 04:13	10
Fluoranthene	4.69		0.418	0.0779	mg/Kg	☼	03/13/13 14:56	03/15/13 04:13	10
Pyrene	4.87		0.418	0.0459	mg/Kg	☼	03/13/13 14:56	03/15/13 04:13	10
Benzo[a]anthracene	2.20		0.418	0.0346	mg/Kg	☼	03/13/13 14:56	03/15/13 04:13	10
Bis(2-ethylhexyl) phthalate	1.73		1.67	0.135	mg/Kg	☼	03/13/13 14:56	03/15/13 04:13	10
Chrysene	3.14		0.418	0.0256	mg/Kg	☼	03/13/13 14:56	03/15/13 04:13	10
Benzo[a]pyrene	2.08		0.418	0.0403	mg/Kg	☼	03/13/13 14:56	03/15/13 04:13	10

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	0	X	23 - 108	03/13/13 14:56	03/15/13 04:13	10
Phenol-d6	0	X	26 - 108	03/13/13 14:56	03/15/13 04:13	10
Nitrobenzene-d5	0	X	34 - 118	03/13/13 14:56	03/15/13 04:13	10
2-Fluorobiphenyl	0	X	51 - 109	03/13/13 14:56	03/15/13 04:13	10
2,4,6-Tribromophenol	0	X	34 - 122	03/13/13 14:56	03/15/13 04:13	10
Terphenyl-d14	0	X	56 - 123	03/13/13 14:56	03/15/13 04:13	10

Method: 8270C - Semivolatile Organic Compounds (GC/MS) - TCLP

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dichlorobenzene	1.26	U	10.0	1.26	ug/L		03/15/13 13:42	03/18/13 15:42	1
2,4-Dinitrotoluene	0.950	U	10.0	0.950	ug/L		03/15/13 13:42	03/18/13 15:42	1
2,4,5-Trichlorophenol	1.26	U	10.0	1.26	ug/L		03/15/13 13:42	03/18/13 15:42	1
2,4,6-Trichlorophenol	0.920	U	10.0	0.920	ug/L		03/15/13 13:42	03/18/13 15:42	1
2-Methylphenol	1.01	U	10.0	1.01	ug/L		03/15/13 13:42	03/18/13 15:42	1
3 & 4 Methylphenol	1.88	U	20.0	1.88	ug/L		03/15/13 13:42	03/18/13 15:42	1
Hexachlorobenzene	0.900	U	10.0	0.900	ug/L		03/15/13 13:42	03/18/13 15:42	1
Hexachlorobutadiene	1.11	U	10.0	1.11	ug/L		03/15/13 13:42	03/18/13 15:42	1
Hexachloroethane	1.16	U	10.0	1.16	ug/L		03/15/13 13:42	03/18/13 15:42	1
Nitrobenzene	1.18	U	10.0	1.18	ug/L		03/15/13 13:42	03/18/13 15:42	1
Pentachlorophenol	0.890	U	50.0	0.890	ug/L		03/15/13 13:42	03/18/13 15:42	1
Pyridine	1.04	U	10.0	1.04	ug/L		03/15/13 13:42	03/18/13 15:42	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: UPRR HWPW

TestAmerica Job ID: 600-69910-1

Client Sample ID: SO-1620-SB05(1-4)-20130312

Lab Sample ID: 600-69910-7

Date Collected: 03/12/13 15:00

Matrix: Solid

Date Received: 03/12/13 18:45

Method: 8270C - Semivolatile Organic Compounds (GC/MS) - TCLP (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Cresols	1.88	U	50.0	1.88	ug/L		03/15/13 13:42	03/18/13 15:42	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Phenol-d6	22		10 - 94				03/15/13 13:42	03/18/13 15:42	1
Nitrobenzene-d5	88		35 - 114				03/15/13 13:42	03/18/13 15:42	1
2-Fluorophenol	45		13 - 100				03/15/13 13:42	03/18/13 15:42	1
2-Fluorobiphenyl	94		43 - 116				03/15/13 13:42	03/18/13 15:42	1
2,4,6-Tribromophenol	98		10 - 123				03/15/13 13:42	03/18/13 15:42	1
Terphenyl-d14	100		33 - 141				03/15/13 13:42	03/18/13 15:42	1

Method: TX 1005 - Texas - Total Petroleum Hydrocarbon (GC)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C12	4.74	U	12.5	4.74	mg/Kg	☼	03/13/13 09:21	03/13/13 22:36	1
>C12-C28	5.06	U	12.5	5.06	mg/Kg	☼	03/13/13 09:21	03/13/13 22:36	1
>C28-C35	91.9		12.5	5.06	mg/Kg	☼	03/13/13 09:21	03/13/13 22:36	1
C6-C35	91.9		12.5	9.33	mg/Kg	☼	03/13/13 09:21	03/13/13 22:36	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl	94		70 - 130				03/13/13 09:21	03/13/13 22:36	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	21.4		1.22	0.265	mg/Kg	☼	03/13/13 09:28	03/14/13 09:28	1
Lead	1220		0.609	0.128	mg/Kg	☼	03/13/13 09:28	03/14/13 09:28	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Pb	2.98		0.100	0.0290	mg/L		03/15/13 11:38	03/18/13 16:05	1
As	0.0763	J b	0.100	0.0328	mg/L		03/15/13 11:38	03/18/13 16:05	1

General Chemistry

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	20		1.0	1.0	%			03/13/13 14:53	1
Percent Solids	80		1.0	1.0	%			03/13/13 14:53	1

Client Sample ID: SO-1620-SB04(3.5-5)-20130312

Lab Sample ID: 600-69910-8

Date Collected: 03/12/13 16:30

Matrix: Solid

Date Received: 03/12/13 18:45

Percent Solids: 88.6

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	0.00247	U	0.0113	0.00247	mg/Kg	☼		03/13/13 18:29	1
Benzene	0.000711	U	0.00565	0.000711	mg/Kg	☼		03/13/13 18:29	1
1,2-Dichloroethane	0.00102	U	0.00565	0.00102	mg/Kg	☼		03/13/13 18:29	1
Toluene	0.00156	U	0.00565	0.00156	mg/Kg	☼		03/13/13 18:29	1
Chlorobenzene	0.00108	U	0.00565	0.00108	mg/Kg	☼		03/13/13 18:29	1
Ethylbenzene	0.00115	U	0.00565	0.00115	mg/Kg	☼		03/13/13 18:29	1
Xylenes, Total	0.00128	U	0.00565	0.00128	mg/Kg	☼		03/13/13 18:29	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	87		61 - 130					03/13/13 18:29	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: UPRR HWPW

TestAmerica Job ID: 600-69910-1

Client Sample ID: SO-1620-SB04(3.5-5)-20130312

Lab Sample ID: 600-69910-8

Date Collected: 03/12/13 16:30

Matrix: Solid

Date Received: 03/12/13 18:45

Percent Solids: 88.6

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Dibromofluoromethane	84		68 - 140		03/13/13 18:29	1
Toluene-d8 (Surr)	78		50 - 130		03/13/13 18:29	1
4-Bromofluorobenzene	105		57 - 140		03/13/13 18:29	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.0957	U	0.376	0.0957	mg/Kg	☼	03/13/13 14:56	03/15/13 04:40	10
Nitrobenzene	0.0668	U	0.376	0.0668	mg/Kg	☼	03/13/13 14:56	03/15/13 04:40	10
2,4-Dimethylphenol	0.194	U	0.376	0.194	mg/Kg	☼	03/13/13 14:56	03/15/13 04:40	10
Bis(2-chloroethoxy)methane	0.0321	U	0.376	0.0321	mg/Kg	☼	03/13/13 14:56	03/15/13 04:40	10
Naphthalene	0.0810	J	0.376	0.0305	mg/Kg	☼	03/13/13 14:56	03/15/13 04:40	10
2-Methylnaphthalene	0.191	J	0.376	0.0619	mg/Kg	☼	03/13/13 14:56	03/15/13 04:40	10
2-Chloronaphthalene	0.0273	U	0.376	0.0273	mg/Kg	☼	03/13/13 14:56	03/15/13 04:40	10
Acenaphthylene	0.0226	U	0.376	0.0226	mg/Kg	☼	03/13/13 14:56	03/15/13 04:40	10
2,6-Dinitrotoluene	0.0666	U	0.376	0.0666	mg/Kg	☼	03/13/13 14:56	03/15/13 04:40	10
Acenaphthene	0.205	J	0.376	0.0325	mg/Kg	☼	03/13/13 14:56	03/15/13 04:40	10
4-Nitrophenol	0.115	U	0.376	0.115	mg/Kg	☼	03/13/13 14:56	03/15/13 04:40	10
Dibenzofuran	0.0402	U	0.376	0.0402	mg/Kg	☼	03/13/13 14:56	03/15/13 04:40	10
2,4-Dinitrotoluene	0.0815	U	0.376	0.0815	mg/Kg	☼	03/13/13 14:56	03/15/13 04:40	10
Fluorene	0.173	J	0.376	0.0533	mg/Kg	☼	03/13/13 14:56	03/15/13 04:40	10
4,6-Dinitro-2-methylphenol	0.112	U	0.376	0.112	mg/Kg	☼	03/13/13 14:56	03/15/13 04:40	10
N-Nitrosodiphenylamine	0.0427	U	0.376	0.0427	mg/Kg	☼	03/13/13 14:56	03/15/13 04:40	10
1,2-Diphenylhydrazine	0.0366	U	0.376	0.0366	mg/Kg	☼	03/13/13 14:56	03/15/13 04:40	10
Pentachlorophenol	0.0903	U	3.77	0.0903	mg/Kg	☼	03/13/13 14:56	03/15/13 04:40	10
Phenanthrene	0.548		0.376	0.112	mg/Kg	☼	03/13/13 14:56	03/15/13 04:40	10
Anthracene	0.0574	J	0.376	0.0289	mg/Kg	☼	03/13/13 14:56	03/15/13 04:40	10
Di-n-butyl phthalate	0.0585	U	1.51	0.0585	mg/Kg	☼	03/13/13 14:56	03/15/13 04:40	10
Fluoranthene	0.395		0.376	0.0702	mg/Kg	☼	03/13/13 14:56	03/15/13 04:40	10
Pyrene	0.501		0.376	0.0413	mg/Kg	☼	03/13/13 14:56	03/15/13 04:40	10
Benzo[a]anthracene	0.165	J	0.376	0.0312	mg/Kg	☼	03/13/13 14:56	03/15/13 04:40	10
Bis(2-ethylhexyl) phthalate	0.568	J	1.51	0.121	mg/Kg	☼	03/13/13 14:56	03/15/13 04:40	10
Chrysene	0.242	J	0.376	0.0230	mg/Kg	☼	03/13/13 14:56	03/15/13 04:40	10
Benzo[a]pyrene	0.152	J	0.376	0.0363	mg/Kg	☼	03/13/13 14:56	03/15/13 04:40	10

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	0	X	23 - 108	03/13/13 14:56	03/15/13 04:40	10
Phenol-d6	0	X	26 - 108	03/13/13 14:56	03/15/13 04:40	10
Nitrobenzene-d5	0	X	34 - 118	03/13/13 14:56	03/15/13 04:40	10
2-Fluorobiphenyl	0	X	51 - 109	03/13/13 14:56	03/15/13 04:40	10
2,4,6-Tribromophenol	0	X	34 - 122	03/13/13 14:56	03/15/13 04:40	10
Terphenyl-d14	0	X	56 - 123	03/13/13 14:56	03/15/13 04:40	10

Method: 8270C - Semivolatile Organic Compounds (GC/MS) - TCLP

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dichlorobenzene	1.26	U	10.0	1.26	ug/L		03/15/13 13:42	03/18/13 16:17	1
2,4-Dinitrotoluene	0.950	U	10.0	0.950	ug/L		03/15/13 13:42	03/18/13 16:17	1
2,4,5-Trichlorophenol	1.26	U	10.0	1.26	ug/L		03/15/13 13:42	03/18/13 16:17	1
2,4,6-Trichlorophenol	0.920	U	10.0	0.920	ug/L		03/15/13 13:42	03/18/13 16:17	1
2-Methylphenol	1.01	U	10.0	1.01	ug/L		03/15/13 13:42	03/18/13 16:17	1
3 & 4 Methylphenol	1.88	U	20.0	1.88	ug/L		03/15/13 13:42	03/18/13 16:17	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: UPRR HWPW

TestAmerica Job ID: 600-69910-1

Client Sample ID: SO-1620-SB04(3.5-5)-20130312

Lab Sample ID: 600-69910-8

Date Collected: 03/12/13 16:30

Matrix: Solid

Date Received: 03/12/13 18:45

Method: 8270C - Semivolatile Organic Compounds (GC/MS) - TCLP (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Hexachlorobenzene	0.900	U	10.0	0.900	ug/L		03/15/13 13:42	03/18/13 16:17	1
Hexachlorobutadiene	1.11	U	10.0	1.11	ug/L		03/15/13 13:42	03/18/13 16:17	1
Hexachloroethane	1.16	U	10.0	1.16	ug/L		03/15/13 13:42	03/18/13 16:17	1
Nitrobenzene	1.18	U	10.0	1.18	ug/L		03/15/13 13:42	03/18/13 16:17	1
Pentachlorophenol	0.890	U	50.0	0.890	ug/L		03/15/13 13:42	03/18/13 16:17	1
Pyridine	1.04	U	10.0	1.04	ug/L		03/15/13 13:42	03/18/13 16:17	1
Total Cresols	1.88	U	50.0	1.88	ug/L		03/15/13 13:42	03/18/13 16:17	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Phenol-d6	20		10 - 94	03/15/13 13:42	03/18/13 16:17	1
Nitrobenzene-d5	87		35 - 114	03/15/13 13:42	03/18/13 16:17	1
2-Fluorophenol	42		13 - 100	03/15/13 13:42	03/18/13 16:17	1
2-Fluorobiphenyl	94		43 - 116	03/15/13 13:42	03/18/13 16:17	1
2,4,6-Tribromophenol	95		10 - 123	03/15/13 13:42	03/18/13 16:17	1
Terphenyl-d14	99		33 - 141	03/15/13 13:42	03/18/13 16:17	1

Method: TX 1005 - Texas - Total Petroleum Hydrocarbon (GC)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C12	4.28	U	11.3	4.28	mg/Kg	☼	03/13/13 09:21	03/13/13 23:13	1
>C12-C28	107		11.3	4.57	mg/Kg	☼	03/13/13 09:21	03/13/13 23:13	1
>C28-C35	131		11.3	4.57	mg/Kg	☼	03/13/13 09:21	03/13/13 23:13	1
C6-C35	239		11.3	8.43	mg/Kg	☼	03/13/13 09:21	03/13/13 23:13	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	96		70 - 130	03/13/13 09:21	03/13/13 23:13	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	60.5		1.05	0.228	mg/Kg	☼	03/13/13 09:28	03/14/13 09:30	1
Lead	449		0.523	0.110	mg/Kg	☼	03/13/13 09:28	03/14/13 09:30	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Pb	0.381		0.100	0.0290	mg/L		03/15/13 11:38	03/18/13 16:09	1
As	0.0524	J b	0.100	0.0328	mg/L		03/15/13 11:38	03/18/13 16:09	1

General Chemistry

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	11		1.0	1.0	%			03/13/13 14:53	1
Percent Solids	89		1.0	1.0	%			03/13/13 14:53	1

Client Sample ID: SO-1620-SB03(3-5)-20130312

Lab Sample ID: 600-69910-9

Date Collected: 03/12/13 17:45

Matrix: Solid

Date Received: 03/12/13 18:45

Percent Solids: 81.7

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	0.00268	U	0.0122	0.00268	mg/Kg	☼		03/14/13 12:00	1
Benzene	0.000772	U	0.00612	0.000772	mg/Kg	☼		03/14/13 12:00	1
1,2-Dichloroethane	0.00110	U	0.00612	0.00110	mg/Kg	☼		03/14/13 12:00	1
Toluene	0.00169	U	0.00612	0.00169	mg/Kg	☼		03/14/13 12:00	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: UPRR HWPW

TestAmerica Job ID: 600-69910-1

Client Sample ID: SO-1620-SB03(3-5)-20130312

Lab Sample ID: 600-69910-9

Date Collected: 03/12/13 17:45

Matrix: Solid

Date Received: 03/12/13 18:45

Percent Solids: 81.7

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Chlorobenzene	0.00118	U	0.00612	0.00118	mg/Kg	☼		03/14/13 12:00	1
Ethylbenzene	0.00125	U	0.00612	0.00125	mg/Kg	☼		03/14/13 12:00	1
Xylenes, Total	0.00138	U	0.00612	0.00138	mg/Kg	☼		03/14/13 12:00	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	79		61 - 130					03/14/13 12:00	1
Dibromofluoromethane	76		68 - 140					03/14/13 12:00	1
Toluene-d8 (Surr)	82		50 - 130					03/14/13 12:00	1
4-Bromofluorobenzene	113		57 - 140					03/14/13 12:00	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.156	U	0.611	0.156	mg/Kg	☼	03/13/13 14:56	03/15/13 05:07	10
Nitrobenzene	0.109	U	0.611	0.109	mg/Kg	☼	03/13/13 14:56	03/15/13 05:07	10
2,4-Dimethylphenol	0.315	U	0.611	0.315	mg/Kg	☼	03/13/13 14:56	03/15/13 05:07	10
Bis(2-chloroethoxy)methane	0.0521	U	0.611	0.0521	mg/Kg	☼	03/13/13 14:56	03/15/13 05:07	10
Naphthalene	0.446	J	0.611	0.0495	mg/Kg	☼	03/13/13 14:56	03/15/13 05:07	10
2-Methylnaphthalene	0.236	J	0.611	0.100	mg/Kg	☼	03/13/13 14:56	03/15/13 05:07	10
2-Chloronaphthalene	0.0444	U	0.611	0.0444	mg/Kg	☼	03/13/13 14:56	03/15/13 05:07	10
Acenaphthylene	0.160	J	0.611	0.0367	mg/Kg	☼	03/13/13 14:56	03/15/13 05:07	10
2,6-Dinitrotoluene	0.108	U	0.611	0.108	mg/Kg	☼	03/13/13 14:56	03/15/13 05:07	10
Acenaphthene	0.254	J	0.611	0.0528	mg/Kg	☼	03/13/13 14:56	03/15/13 05:07	10
4-Nitrophenol	0.186	U	0.611	0.186	mg/Kg	☼	03/13/13 14:56	03/15/13 05:07	10
Dibenzofuran	0.220	J	0.611	0.0653	mg/Kg	☼	03/13/13 14:56	03/15/13 05:07	10
2,4-Dinitrotoluene	0.132	U	0.611	0.132	mg/Kg	☼	03/13/13 14:56	03/15/13 05:07	10
Fluorene	0.274	J	0.611	0.0866	mg/Kg	☼	03/13/13 14:56	03/15/13 05:07	10
4,6-Dinitro-2-methylphenol	0.183	U	0.611	0.183	mg/Kg	☼	03/13/13 14:56	03/15/13 05:07	10
N-Nitrosodiphenylamine	0.0693	U	0.611	0.0693	mg/Kg	☼	03/13/13 14:56	03/15/13 05:07	10
1,2-Diphenylhydrazine	0.0594	U	0.611	0.0594	mg/Kg	☼	03/13/13 14:56	03/15/13 05:07	10
Pentachlorophenol	0.147	U	6.13	0.147	mg/Kg	☼	03/13/13 14:56	03/15/13 05:07	10
Phenanthrene	1.26		0.611	0.182	mg/Kg	☼	03/13/13 14:56	03/15/13 05:07	10
Anthracene	0.764		0.611	0.0469	mg/Kg	☼	03/13/13 14:56	03/15/13 05:07	10
Di-n-butyl phthalate	0.247	J	2.45	0.0950	mg/Kg	☼	03/13/13 14:56	03/15/13 05:07	10
Fluoranthene	2.24		0.611	0.114	mg/Kg	☼	03/13/13 14:56	03/15/13 05:07	10
Pyrene	2.55		0.611	0.0671	mg/Kg	☼	03/13/13 14:56	03/15/13 05:07	10
Benzo[a]anthracene	1.35		0.611	0.0506	mg/Kg	☼	03/13/13 14:56	03/15/13 05:07	10
Bis(2-ethylhexyl) phthalate	2.05	J	2.45	0.197	mg/Kg	☼	03/13/13 14:56	03/15/13 05:07	10
Chrysene	2.15		0.611	0.0374	mg/Kg	☼	03/13/13 14:56	03/15/13 05:07	10
Benzo[a]pyrene	1.87		0.611	0.0591	mg/Kg	☼	03/13/13 14:56	03/15/13 05:07	10
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorophenol	0	X	23 - 108				03/13/13 14:56	03/15/13 05:07	10
Phenol-d6	0	X	26 - 108				03/13/13 14:56	03/15/13 05:07	10
Nitrobenzene-d5	0	X	34 - 118				03/13/13 14:56	03/15/13 05:07	10
2-Fluorobiphenyl	0	X	51 - 109				03/13/13 14:56	03/15/13 05:07	10
2,4,6-Tribromophenol	0	X	34 - 122				03/13/13 14:56	03/15/13 05:07	10
Terphenyl-d14	0	X	56 - 123				03/13/13 14:56	03/15/13 05:07	10

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: UPRR HWPW

TestAmerica Job ID: 600-69910-1

Client Sample ID: SO-1620-SB03(3-5)-20130312

Lab Sample ID: 600-69910-9

Date Collected: 03/12/13 17:45

Matrix: Solid

Date Received: 03/12/13 18:45

Method: 8270C - Semivolatile Organic Compounds (GC/MS) - TCLP

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dichlorobenzene	1.26	U	10.0	1.26	ug/L		03/15/13 13:42	03/18/13 16:52	1
2,4-Dinitrotoluene	0.950	U	10.0	0.950	ug/L		03/15/13 13:42	03/18/13 16:52	1
2,4,5-Trichlorophenol	1.26	U	10.0	1.26	ug/L		03/15/13 13:42	03/18/13 16:52	1
2,4,6-Trichlorophenol	0.920	U	10.0	0.920	ug/L		03/15/13 13:42	03/18/13 16:52	1
2-Methylphenol	1.01	U	10.0	1.01	ug/L		03/15/13 13:42	03/18/13 16:52	1
3 & 4 Methylphenol	1.88	U	20.0	1.88	ug/L		03/15/13 13:42	03/18/13 16:52	1
Hexachlorobenzene	0.900	U	10.0	0.900	ug/L		03/15/13 13:42	03/18/13 16:52	1
Hexachlorobutadiene	1.11	U	10.0	1.11	ug/L		03/15/13 13:42	03/18/13 16:52	1
Hexachloroethane	1.16	U	10.0	1.16	ug/L		03/15/13 13:42	03/18/13 16:52	1
Nitrobenzene	1.18	U	10.0	1.18	ug/L		03/15/13 13:42	03/18/13 16:52	1
Pentachlorophenol	0.890	U	50.0	0.890	ug/L		03/15/13 13:42	03/18/13 16:52	1
Pyridine	1.04	U	10.0	1.04	ug/L		03/15/13 13:42	03/18/13 16:52	1
Total Cresols	1.88	U	50.0	1.88	ug/L		03/15/13 13:42	03/18/13 16:52	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Phenol-d6	26		10 - 94	03/15/13 13:42	03/18/13 16:52	1
Nitrobenzene-d5	86		35 - 114	03/15/13 13:42	03/18/13 16:52	1
2-Fluorophenol	48		13 - 100	03/15/13 13:42	03/18/13 16:52	1
2-Fluorobiphenyl	96		43 - 116	03/15/13 13:42	03/18/13 16:52	1
2,4,6-Tribromophenol	99		10 - 123	03/15/13 13:42	03/18/13 16:52	1
Terphenyl-d14	99		33 - 141	03/15/13 13:42	03/18/13 16:52	1

Method: TX 1005 - Texas - Total Petroleum Hydrocarbon (GC)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C12	4.63	U	12.2	4.63	mg/Kg	☼	03/13/13 09:21	03/14/13 11:11	1
>C12-C28	328		12.2	4.94	mg/Kg	☼	03/13/13 09:21	03/14/13 11:11	1
>C28-C35	311		12.2	4.94	mg/Kg	☼	03/13/13 09:21	03/14/13 11:11	1
C6-C35	639		12.2	9.11	mg/Kg	☼	03/13/13 09:21	03/14/13 11:11	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	128		70 - 130	03/13/13 09:21	03/14/13 11:11	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	21.7		1.17	0.254	mg/Kg	☼	03/13/13 09:28	03/14/13 09:47	1
Lead	1780		0.583	0.122	mg/Kg	☼	03/13/13 09:28	03/14/13 09:47	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Pb	10.5		0.100	0.0290	mg/L		03/15/13 13:46	03/18/13 15:32	1
As	0.0328	U	0.100	0.0328	mg/L		03/15/13 13:46	03/18/13 15:32	1

General Chemistry

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	18		1.0	1.0	%		03/13/13 14:53		1
Percent Solids	82		1.0	1.0	%		03/13/13 14:53		1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: UPRR HWPW

TestAmerica Job ID: 600-69910-1

Client Sample ID: SO-1620-SB02(3-5)-20130312

Lab Sample ID: 600-69910-10

Date Collected: 03/12/13 18:00

Matrix: Solid

Date Received: 03/12/13 18:45

Percent Solids: 77.8

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	0.00281	U	0.0129	0.00281	mg/Kg	☼		03/14/13 12:23	1
Benzene	0.000810	U	0.00643	0.000810	mg/Kg	☼		03/14/13 12:23	1
1,2-Dichloroethane	0.00116	U	0.00643	0.00116	mg/Kg	☼		03/14/13 12:23	1
Toluene	0.00177	U	0.00643	0.00177	mg/Kg	☼		03/14/13 12:23	1
Chlorobenzene	0.00123	U	0.00643	0.00123	mg/Kg	☼		03/14/13 12:23	1
Ethylbenzene	0.00131	U	0.00643	0.00131	mg/Kg	☼		03/14/13 12:23	1
Xylenes, Total	0.00145	U	0.00643	0.00145	mg/Kg	☼		03/14/13 12:23	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	80		61 - 130		03/14/13 12:23	1
Dibromofluoromethane	81		68 - 140		03/14/13 12:23	1
Toluene-d8 (Surr)	81		50 - 130		03/14/13 12:23	1
4-Bromofluorobenzene	118		57 - 140		03/14/13 12:23	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.272	U	1.07	0.272	mg/Kg	☼	03/13/13 14:56	03/15/13 05:33	10
Nitrobenzene	0.190	U	1.07	0.190	mg/Kg	☼	03/13/13 14:56	03/15/13 05:33	10
2,4-Dimethylphenol	0.550	U	1.07	0.550	mg/Kg	☼	03/13/13 14:56	03/15/13 05:33	10
Bis(2-chloroethoxy)methane	0.0911	U	1.07	0.0911	mg/Kg	☼	03/13/13 14:56	03/15/13 05:33	10
Naphthalene	0.868	J	1.07	0.0866	mg/Kg	☼	03/13/13 14:56	03/15/13 05:33	10
2-Methylnaphthalene	0.432	J	1.07	0.176	mg/Kg	☼	03/13/13 14:56	03/15/13 05:33	10
2-Chloronaphthalene	0.0776	U	1.07	0.0776	mg/Kg	☼	03/13/13 14:56	03/15/13 05:33	10
Acenaphthylene	0.558	J	1.07	0.0641	mg/Kg	☼	03/13/13 14:56	03/15/13 05:33	10
2,6-Dinitrotoluene	0.189	U	1.07	0.189	mg/Kg	☼	03/13/13 14:56	03/15/13 05:33	10
Acenaphthene	2.51		1.07	0.0923	mg/Kg	☼	03/13/13 14:56	03/15/13 05:33	10
4-Nitrophenol	0.326	U	1.07	0.326	mg/Kg	☼	03/13/13 14:56	03/15/13 05:33	10
Dibenzofuran	0.650	J	1.07	0.114	mg/Kg	☼	03/13/13 14:56	03/15/13 05:33	10
2,4-Dinitrotoluene	0.232	U	1.07	0.232	mg/Kg	☼	03/13/13 14:56	03/15/13 05:33	10
Fluorene	1.67		1.07	0.151	mg/Kg	☼	03/13/13 14:56	03/15/13 05:33	10
4,6-Dinitro-2-methylphenol	0.319	U	1.07	0.319	mg/Kg	☼	03/13/13 14:56	03/15/13 05:33	10
N-Nitrosodiphenylamine	0.121	U	1.07	0.121	mg/Kg	☼	03/13/13 14:56	03/15/13 05:33	10
1,2-Diphenylhydrazine	0.104	U	1.07	0.104	mg/Kg	☼	03/13/13 14:56	03/15/13 05:33	10
Pentachlorophenol	0.257	U	10.7	0.257	mg/Kg	☼	03/13/13 14:56	03/15/13 05:33	10
Phenanthrene	6.86		1.07	0.317	mg/Kg	☼	03/13/13 14:56	03/15/13 05:33	10
Anthracene	2.09		1.07	0.0821	mg/Kg	☼	03/13/13 14:56	03/15/13 05:33	10
Di-n-butyl phthalate	0.166	U	4.28	0.166	mg/Kg	☼	03/13/13 14:56	03/15/13 05:33	10
Fluoranthene	23.1		1.07	0.199	mg/Kg	☼	03/13/13 14:56	03/15/13 05:33	10
Pyrene	20.2		1.07	0.117	mg/Kg	☼	03/13/13 14:56	03/15/13 05:33	10
Benzo[a]anthracene	4.99		1.07	0.0885	mg/Kg	☼	03/13/13 14:56	03/15/13 05:33	10
Bis(2-ethylhexyl) phthalate	0.344	U	4.28	0.344	mg/Kg	☼	03/13/13 14:56	03/15/13 05:33	10
Chrysene	9.66		1.07	0.0654	mg/Kg	☼	03/13/13 14:56	03/15/13 05:33	10
Benzo[a]pyrene	5.02		1.07	0.103	mg/Kg	☼	03/13/13 14:56	03/15/13 05:33	10

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	0	X	23 - 108	03/13/13 14:56	03/15/13 05:33	10
Phenol-d6	0	X	26 - 108	03/13/13 14:56	03/15/13 05:33	10
Nitrobenzene-d5	0	X	34 - 118	03/13/13 14:56	03/15/13 05:33	10
2-Fluorobiphenyl	0	X	51 - 109	03/13/13 14:56	03/15/13 05:33	10
2,4,6-Tribromophenol	0	X	34 - 122	03/13/13 14:56	03/15/13 05:33	10

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: UPRR HWPW

TestAmerica Job ID: 600-69910-1

Client Sample ID: SO-1620-SB02(3-5)-20130312

Lab Sample ID: 600-69910-10

Date Collected: 03/12/13 18:00

Matrix: Solid

Date Received: 03/12/13 18:45

Percent Solids: 77.8

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Terphenyl-d14	0	X	56 - 123	03/13/13 14:56	03/15/13 05:33	10

Method: 8270C - Semivolatile Organic Compounds (GC/MS) - TCLP

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dichlorobenzene	1.26	U	10.0	1.26	ug/L		03/15/13 13:42	03/18/13 13:40	1
2,4-Dinitrotoluene	0.950	U	10.0	0.950	ug/L		03/15/13 13:42	03/18/13 13:40	1
2,4,5-Trichlorophenol	1.26	U	10.0	1.26	ug/L		03/15/13 13:42	03/18/13 13:40	1
2,4,6-Trichlorophenol	0.920	U	10.0	0.920	ug/L		03/15/13 13:42	03/18/13 13:40	1
2-Methylphenol	1.01	U	10.0	1.01	ug/L		03/15/13 13:42	03/18/13 13:40	1
3 & 4 Methylphenol	1.88	U	20.0	1.88	ug/L		03/15/13 13:42	03/18/13 13:40	1
Hexachlorobenzene	0.900	U	10.0	0.900	ug/L		03/15/13 13:42	03/18/13 13:40	1
Hexachlorobutadiene	1.11	U	10.0	1.11	ug/L		03/15/13 13:42	03/18/13 13:40	1
Hexachloroethane	1.16	U	10.0	1.16	ug/L		03/15/13 13:42	03/18/13 13:40	1
Nitrobenzene	1.18	U	10.0	1.18	ug/L		03/15/13 13:42	03/18/13 13:40	1
Pentachlorophenol	0.890	U	50.0	0.890	ug/L		03/15/13 13:42	03/18/13 13:40	1
Pyridine	1.04	U	10.0	1.04	ug/L		03/15/13 13:42	03/18/13 13:40	1
Total Cresols	1.88	U	50.0	1.88	ug/L		03/15/13 13:42	03/18/13 13:40	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Phenol-d6	25		10 - 94	03/15/13 13:42	03/18/13 13:40	1
Nitrobenzene-d5	78		35 - 114	03/15/13 13:42	03/18/13 13:40	1
2-Fluorophenol	42		13 - 100	03/15/13 13:42	03/18/13 13:40	1
2-Fluorobiphenyl	79		43 - 116	03/15/13 13:42	03/18/13 13:40	1
2,4,6-Tribromophenol	71		10 - 123	03/15/13 13:42	03/18/13 13:40	1
Terphenyl-d14	85		33 - 141	03/15/13 13:42	03/18/13 13:40	1

Method: TX 1005 - Texas - Total Petroleum Hydrocarbon (GC)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C12	15.0		12.9	4.88	mg/Kg	☼	03/13/13 09:21	03/13/13 20:45	1
>C12-C28	384		12.9	5.22	mg/Kg	☼	03/13/13 09:21	03/13/13 20:45	1
>C28-C35	220		12.9	5.22	mg/Kg	☼	03/13/13 09:21	03/13/13 20:45	1
C6-C35	619		12.9	9.61	mg/Kg	☼	03/13/13 09:21	03/13/13 20:45	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	133	X	70 - 130	03/13/13 09:21	03/13/13 20:45	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	12.8		1.27	0.277	mg/Kg	☼	03/13/13 09:28	03/14/13 09:50	1
Lead	1850		0.636	0.133	mg/Kg	☼	03/13/13 09:28	03/14/13 09:50	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Pb	0.648		0.100	0.0290	mg/L		03/15/13 11:38	03/18/13 14:41	1
As	0.0412	J	0.100	0.0328	mg/L		03/15/13 11:38	03/18/13 14:41	1

General Chemistry

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	22		1.0	1.0	%			03/13/13 14:53	1
Percent Solids	78		1.0	1.0	%			03/13/13 14:53	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: UPRR HWPW

TestAmerica Job ID: 600-69910-1

Client Sample ID: SO-1620-SB01(4-5)-20130312

Lab Sample ID: 600-69910-11

Date Collected: 03/12/13 18:15

Matrix: Solid

Date Received: 03/12/13 18:45

Percent Solids: 89.2

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	0.00246	U	0.0112	0.00246	mg/Kg	☼		03/14/13 12:47	1
Benzene	0.000706	U	0.00561	0.000706	mg/Kg	☼		03/14/13 12:47	1
1,2-Dichloroethane	0.00101	U	0.00561	0.00101	mg/Kg	☼		03/14/13 12:47	1
Toluene	0.00155	U	0.00561	0.00155	mg/Kg	☼		03/14/13 12:47	1
Chlorobenzene	0.00108	U	0.00561	0.00108	mg/Kg	☼		03/14/13 12:47	1
Ethylbenzene	0.00114	U	0.00561	0.00114	mg/Kg	☼		03/14/13 12:47	1
Xylenes, Total	0.00127	U	0.00561	0.00127	mg/Kg	☼		03/14/13 12:47	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	86		61 - 130					03/14/13 12:47	1
Dibromofluoromethane	85		68 - 140					03/14/13 12:47	1
Toluene-d8 (Surr)	84		50 - 130					03/14/13 12:47	1
4-Bromofluorobenzene	120		57 - 140					03/14/13 12:47	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.190	U	0.746	0.190	mg/Kg	☼	03/13/13 14:56	03/15/13 14:18	10
Nitrobenzene	0.132	U	0.746	0.132	mg/Kg	☼	03/13/13 14:56	03/15/13 14:18	10
2,4-Dimethylphenol	0.384	U	0.746	0.384	mg/Kg	☼	03/13/13 14:56	03/15/13 14:18	10
Bis(2-chloroethoxy)methane	0.0635	U	0.746	0.0635	mg/Kg	☼	03/13/13 14:56	03/15/13 14:18	10
Naphthalene	0.0604	U	0.746	0.0604	mg/Kg	☼	03/13/13 14:56	03/15/13 14:18	10
2-Methylnaphthalene	0.404	J	0.746	0.123	mg/Kg	☼	03/13/13 14:56	03/15/13 14:18	10
2-Chloronaphthalene	0.0541	U	0.746	0.0541	mg/Kg	☼	03/13/13 14:56	03/15/13 14:18	10
Acenaphthylene	0.160	J	0.746	0.0447	mg/Kg	☼	03/13/13 14:56	03/15/13 14:18	10
2,6-Dinitrotoluene	0.132	U	0.746	0.132	mg/Kg	☼	03/13/13 14:56	03/15/13 14:18	10
Acenaphthene	2.24		0.746	0.0644	mg/Kg	☼	03/13/13 14:56	03/15/13 14:18	10
4-Nitrophenol	0.227	U	0.746	0.227	mg/Kg	☼	03/13/13 14:56	03/15/13 14:18	10
Dibenzofuran	0.611	J	0.746	0.0796	mg/Kg	☼	03/13/13 14:56	03/15/13 14:18	10
2,4-Dinitrotoluene	0.162	U	0.746	0.162	mg/Kg	☼	03/13/13 14:56	03/15/13 14:18	10
Fluorene	2.38		0.746	0.106	mg/Kg	☼	03/13/13 14:56	03/15/13 14:18	10
4,6-Dinitro-2-methylphenol	0.223	U	0.746	0.223	mg/Kg	☼	03/13/13 14:56	03/15/13 14:18	10
N-Nitrosodiphenylamine	0.0846	U	0.746	0.0846	mg/Kg	☼	03/13/13 14:56	03/15/13 14:18	10
1,2-Diphenylhydrazine	0.0725	U	0.746	0.0725	mg/Kg	☼	03/13/13 14:56	03/15/13 14:18	10
Pentachlorophenol	0.179	U	7.47	0.179	mg/Kg	☼	03/13/13 14:56	03/15/13 14:18	10
Phenanthrene	8.02		0.746	0.221	mg/Kg	☼	03/13/13 14:56	03/15/13 14:18	10
Anthracene	7.29		0.746	0.0573	mg/Kg	☼	03/13/13 14:56	03/15/13 14:18	10
Di-n-butyl phthalate	0.221	J	2.98	0.116	mg/Kg	☼	03/13/13 14:56	03/15/13 14:18	10
Fluoranthene	9.81		0.746	0.139	mg/Kg	☼	03/13/13 14:56	03/15/13 14:18	10
Pyrene	8.59		0.746	0.0819	mg/Kg	☼	03/13/13 14:56	03/15/13 14:18	10
Benzo[a]anthracene	1.63		0.746	0.0617	mg/Kg	☼	03/13/13 14:56	03/15/13 14:18	10
Bis(2-ethylhexyl) phthalate	14.8		2.98	0.240	mg/Kg	☼	03/13/13 14:56	03/15/13 14:18	10
Chrysene	2.70		0.746	0.0456	mg/Kg	☼	03/13/13 14:56	03/15/13 14:18	10
Benzo[a]pyrene	1.14		0.746	0.0720	mg/Kg	☼	03/13/13 14:56	03/15/13 14:18	10
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorophenol	0	X	23 - 108				03/13/13 14:56	03/15/13 14:18	10
Phenol-d6	0	X	26 - 108				03/13/13 14:56	03/15/13 14:18	10
Nitrobenzene-d5	0	X	34 - 118				03/13/13 14:56	03/15/13 14:18	10
2-Fluorobiphenyl	0	X	51 - 109				03/13/13 14:56	03/15/13 14:18	10
2,4,6-Tribromophenol	0	X	34 - 122				03/13/13 14:56	03/15/13 14:18	10

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: UPRR HWPW

TestAmerica Job ID: 600-69910-1

Client Sample ID: SO-1620-SB01(4-5)-20130312

Lab Sample ID: 600-69910-11

Date Collected: 03/12/13 18:15

Matrix: Solid

Date Received: 03/12/13 18:45

Percent Solids: 89.2

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Terphenyl-d14	0	X	56 - 123	03/13/13 14:56	03/15/13 14:18	10

Method: 8270C - Semivolatile Organic Compounds (GC/MS) - TCLP

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dichlorobenzene	1.26	U	10.0	1.26	ug/L		03/15/13 13:42	03/18/13 17:27	1
2,4-Dinitrotoluene	0.950	U	10.0	0.950	ug/L		03/15/13 13:42	03/18/13 17:27	1
2,4,5-Trichlorophenol	1.26	U	10.0	1.26	ug/L		03/15/13 13:42	03/18/13 17:27	1
2,4,6-Trichlorophenol	0.920	U	10.0	0.920	ug/L		03/15/13 13:42	03/18/13 17:27	1
2-Methylphenol	1.01	U	10.0	1.01	ug/L		03/15/13 13:42	03/18/13 17:27	1
3 & 4 Methylphenol	1.88	U	20.0	1.88	ug/L		03/15/13 13:42	03/18/13 17:27	1
Hexachlorobenzene	0.900	U	10.0	0.900	ug/L		03/15/13 13:42	03/18/13 17:27	1
Hexachlorobutadiene	1.11	U	10.0	1.11	ug/L		03/15/13 13:42	03/18/13 17:27	1
Hexachloroethane	1.16	U	10.0	1.16	ug/L		03/15/13 13:42	03/18/13 17:27	1
Nitrobenzene	1.18	U	10.0	1.18	ug/L		03/15/13 13:42	03/18/13 17:27	1
Pentachlorophenol	0.890	U	50.0	0.890	ug/L		03/15/13 13:42	03/18/13 17:27	1
Pyridine	1.04	U	10.0	1.04	ug/L		03/15/13 13:42	03/18/13 17:27	1
Total Cresols	1.88	U	50.0	1.88	ug/L		03/15/13 13:42	03/18/13 17:27	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Phenol-d6	20		10 - 94	03/15/13 13:42	03/18/13 17:27	1
Nitrobenzene-d5	84		35 - 114	03/15/13 13:42	03/18/13 17:27	1
2-Fluorophenol	41		13 - 100	03/15/13 13:42	03/18/13 17:27	1
2-Fluorobiphenyl	87		43 - 116	03/15/13 13:42	03/18/13 17:27	1
2,4,6-Tribromophenol	95		10 - 123	03/15/13 13:42	03/18/13 17:27	1
Terphenyl-d14	89		33 - 141	03/15/13 13:42	03/18/13 17:27	1

Method: TX 1005 - Texas - Total Petroleum Hydrocarbon (GC)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C12	4.26	U	11.2	4.26	mg/Kg	☼	03/13/13 09:21	03/13/13 22:00	1
>C12-C28	209		11.2	4.55	mg/Kg	☼	03/13/13 09:21	03/13/13 22:00	1
>C28-C35	152		11.2	4.55	mg/Kg	☼	03/13/13 09:21	03/13/13 22:00	1
C6-C35	360		11.2	8.39	mg/Kg	☼	03/13/13 09:21	03/13/13 22:00	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	109		70 - 130	03/13/13 09:21	03/13/13 22:00	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	11.0		1.08	0.235	mg/Kg	☼	03/13/13 09:28	03/14/13 09:53	1
Lead	890		0.539	0.113	mg/Kg	☼	03/13/13 09:28	03/14/13 09:53	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Pb	0.402		0.100	0.0290	mg/L		03/15/13 13:46	03/18/13 15:34	1
As	0.0328	U	0.100	0.0328	mg/L		03/15/13 13:46	03/18/13 15:34	1

General Chemistry

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	11		1.0	1.0	%			03/13/13 14:53	1
Percent Solids	89		1.0	1.0	%			03/13/13 14:53	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: UPRR HWPW

TestAmerica Job ID: 600-69910-1

Client Sample ID: SO-1620-DUP-20130312

Lab Sample ID: 600-69910-12

Date Collected: 03/12/13 00:00

Matrix: Solid

Date Received: 03/12/13 18:45

Percent Solids: 84.8

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	0.00258	U	0.0118	0.00258	mg/Kg	☼		03/14/13 13:10	1
Benzene	0.000743	U	0.00590	0.000743	mg/Kg	☼		03/14/13 13:10	1
1,2-Dichloroethane	0.00106	U	0.00590	0.00106	mg/Kg	☼		03/14/13 13:10	1
Toluene	0.00163	U	0.00590	0.00163	mg/Kg	☼		03/14/13 13:10	1
Chlorobenzene	0.00113	U	0.00590	0.00113	mg/Kg	☼		03/14/13 13:10	1
Ethylbenzene	0.00120	U	0.00590	0.00120	mg/Kg	☼		03/14/13 13:10	1
Xylenes, Total	0.00133	U	0.00590	0.00133	mg/Kg	☼		03/14/13 13:10	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	85		61 - 130		03/14/13 13:10	1
Dibromofluoromethane	85		68 - 140		03/14/13 13:10	1
Toluene-d8 (Surr)	86		50 - 130		03/14/13 13:10	1
4-Bromofluorobenzene	119		57 - 140		03/14/13 13:10	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	4.08		0.980	0.249	mg/Kg	☼	03/13/13 14:56	03/15/13 14:45	10
Nitrobenzene	0.174	U	0.980	0.174	mg/Kg	☼	03/13/13 14:56	03/15/13 14:45	10
2,4-Dimethylphenol	0.504	U	0.980	0.504	mg/Kg	☼	03/13/13 14:56	03/15/13 14:45	10
Bis(2-chloroethoxy)methane	0.0835	U	0.980	0.0835	mg/Kg	☼	03/13/13 14:56	03/15/13 14:45	10
Naphthalene	0.389	J	0.980	0.0793	mg/Kg	☼	03/13/13 14:56	03/15/13 14:45	10
2-Methylnaphthalene	0.220	J	0.980	0.161	mg/Kg	☼	03/13/13 14:56	03/15/13 14:45	10
2-Chloronaphthalene	0.0711	U	0.980	0.0711	mg/Kg	☼	03/13/13 14:56	03/15/13 14:45	10
Acenaphthylene	0.254	J	0.980	0.0588	mg/Kg	☼	03/13/13 14:56	03/15/13 14:45	10
2,6-Dinitrotoluene	0.173	U	0.980	0.173	mg/Kg	☼	03/13/13 14:56	03/15/13 14:45	10
Acenaphthene	0.224	J	0.980	0.0846	mg/Kg	☼	03/13/13 14:56	03/15/13 14:45	10
4-Nitrophenol	0.299	U	0.980	0.299	mg/Kg	☼	03/13/13 14:56	03/15/13 14:45	10
Dibenzofuran	0.235	J	0.980	0.105	mg/Kg	☼	03/13/13 14:56	03/15/13 14:45	10
2,4-Dinitrotoluene	0.212	U	0.980	0.212	mg/Kg	☼	03/13/13 14:56	03/15/13 14:45	10
Fluorene	0.303	J	0.980	0.139	mg/Kg	☼	03/13/13 14:56	03/15/13 14:45	10
4,6-Dinitro-2-methylphenol	0.293	U	0.980	0.293	mg/Kg	☼	03/13/13 14:56	03/15/13 14:45	10
N-Nitrosodiphenylamine	0.111	U	0.980	0.111	mg/Kg	☼	03/13/13 14:56	03/15/13 14:45	10
1,2-Diphenylhydrazine	0.0952	U	0.980	0.0952	mg/Kg	☼	03/13/13 14:56	03/15/13 14:45	10
Pentachlorophenol	0.235	U	9.82	0.235	mg/Kg	☼	03/13/13 14:56	03/15/13 14:45	10
Phenanthrene	2.27		0.980	0.291	mg/Kg	☼	03/13/13 14:56	03/15/13 14:45	10
Anthracene	0.955	J	0.980	0.0752	mg/Kg	☼	03/13/13 14:56	03/15/13 14:45	10
Di-n-butyl phthalate	0.476	J	3.92	0.152	mg/Kg	☼	03/13/13 14:56	03/15/13 14:45	10
Fluoranthene	3.24		0.980	0.183	mg/Kg	☼	03/13/13 14:56	03/15/13 14:45	10
Pyrene	3.12		0.980	0.108	mg/Kg	☼	03/13/13 14:56	03/15/13 14:45	10
Benzo[a]anthracene	1.76		0.980	0.0811	mg/Kg	☼	03/13/13 14:56	03/15/13 14:45	10
Bis(2-ethylhexyl) phthalate	10.6		3.92	0.316	mg/Kg	☼	03/13/13 14:56	03/15/13 14:45	10
Chrysene	2.48		0.980	0.0600	mg/Kg	☼	03/13/13 14:56	03/15/13 14:45	10
Benzo[a]pyrene	2.18		0.980	0.0946	mg/Kg	☼	03/13/13 14:56	03/15/13 14:45	10

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	0	X	23 - 108	03/13/13 14:56	03/15/13 14:45	10
Phenol-d6	0	X	26 - 108	03/13/13 14:56	03/15/13 14:45	10
Nitrobenzene-d5	0	X	34 - 118	03/13/13 14:56	03/15/13 14:45	10
2-Fluorobiphenyl	0	X	51 - 109	03/13/13 14:56	03/15/13 14:45	10
2,4,6-Tribromophenol	0	X	34 - 122	03/13/13 14:56	03/15/13 14:45	10

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: UPRR HWPW

TestAmerica Job ID: 600-69910-1

Client Sample ID: SO-1620-DUP-20130312

Lab Sample ID: 600-69910-12

Date Collected: 03/12/13 00:00

Matrix: Solid

Date Received: 03/12/13 18:45

Percent Solids: 84.8

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Terphenyl-d14	0	X	56 - 123	03/13/13 14:56	03/15/13 14:45	10

Method: 8270C - Semivolatile Organic Compounds (GC/MS) - TCLP

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dichlorobenzene	1.26	U	10.0	1.26	ug/L		03/15/13 13:42	03/18/13 18:02	1
2,4-Dinitrotoluene	0.950	U	10.0	0.950	ug/L		03/15/13 13:42	03/18/13 18:02	1
2,4,5-Trichlorophenol	1.26	U	10.0	1.26	ug/L		03/15/13 13:42	03/18/13 18:02	1
2,4,6-Trichlorophenol	0.920	U	10.0	0.920	ug/L		03/15/13 13:42	03/18/13 18:02	1
2-Methylphenol	1.01	U	10.0	1.01	ug/L		03/15/13 13:42	03/18/13 18:02	1
3 & 4 Methylphenol	1.88	U	20.0	1.88	ug/L		03/15/13 13:42	03/18/13 18:02	1
Hexachlorobenzene	0.900	U	10.0	0.900	ug/L		03/15/13 13:42	03/18/13 18:02	1
Hexachlorobutadiene	1.11	U	10.0	1.11	ug/L		03/15/13 13:42	03/18/13 18:02	1
Hexachloroethane	1.16	U	10.0	1.16	ug/L		03/15/13 13:42	03/18/13 18:02	1
Nitrobenzene	1.18	U	10.0	1.18	ug/L		03/15/13 13:42	03/18/13 18:02	1
Pentachlorophenol	0.890	U	50.0	0.890	ug/L		03/15/13 13:42	03/18/13 18:02	1
Pyridine	1.04	U	10.0	1.04	ug/L		03/15/13 13:42	03/18/13 18:02	1
Total Cresols	1.88	U	50.0	1.88	ug/L		03/15/13 13:42	03/18/13 18:02	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Phenol-d6	23		10 - 94	03/15/13 13:42	03/18/13 18:02	1
Nitrobenzene-d5	91		35 - 114	03/15/13 13:42	03/18/13 18:02	1
2-Fluorophenol	44		13 - 100	03/15/13 13:42	03/18/13 18:02	1
2-Fluorobiphenyl	94		43 - 116	03/15/13 13:42	03/18/13 18:02	1
2,4,6-Tribromophenol	95		10 - 123	03/15/13 13:42	03/18/13 18:02	1
Terphenyl-d14	99		33 - 141	03/15/13 13:42	03/18/13 18:02	1

Method: TX 1005 - Texas - Total Petroleum Hydrocarbon (GC)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C12	4.48	U	11.8	4.48	mg/Kg	☼	03/13/13 09:21	03/14/13 11:48	1
>C12-C28	602		11.8	4.79	mg/Kg	☼	03/13/13 09:21	03/14/13 11:48	1
>C28-C35	795		11.8	4.79	mg/Kg	☼	03/13/13 09:21	03/14/13 11:48	1
C6-C35	1400		11.8	8.82	mg/Kg	☼	03/13/13 09:21	03/14/13 11:48	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	142	X	70 - 130	03/13/13 09:21	03/14/13 11:48	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	19.0		1.11	0.242	mg/Kg	☼	03/13/13 09:28	03/14/13 09:55	1

Method: 6010B - Metals (ICP) - DL

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	2990		5.56	1.17	mg/Kg	☼	03/13/13 09:28	03/14/13 10:30	10

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Pb	4.40		0.100	0.0290	mg/L		03/15/13 13:46	03/18/13 15:41	1
As	0.0328	U	0.100	0.0328	mg/L		03/15/13 13:46	03/18/13 15:41	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: UPRR HWPW

TestAmerica Job ID: 600-69910-1

Client Sample ID: SO-1620-DUP-20130312

Lab Sample ID: 600-69910-12

Date Collected: 03/12/13 00:00

Matrix: Solid

Date Received: 03/12/13 18:45

General Chemistry

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	15		1.0	1.0	%			03/13/13 14:53	1
Percent Solids	85		1.0	1.0	%			03/13/13 14:53	1

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15
- 16
- 17

Definitions/Glossary

Client: Pastor, Behling & Wheeler LLC
Project/Site: UPRR HWPW

TestAmerica Job ID: 600-69910-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
U	Analyte was not detected at or above the SDL.
J	Result is less than the MQL but greater than or equal to the SDL and the concentration is an estimated value.

GC/MS Semi VOA

Qualifier	Qualifier Description
U	Analyte was not detected at or above the SDL.
X	Surrogate is outside control limits
J	Result is less than the MQL but greater than or equal to the SDL and the concentration is an estimated value.

GC Semi VOA

Qualifier	Qualifier Description
U	Analyte was not detected at or above the SDL.
X	Surrogate is outside control limits
J	Result is less than the MQL but greater than or equal to the SDL and the concentration is an estimated value.
N	MS, MSD: Spike recovery exceeds upper or lower control limits.

Metals

Qualifier	Qualifier Description
J	Result is less than the MQL but greater than or equal to the SDL and the concentration is an estimated value.
U	Analyte was not detected at or above the SDL.
b	The compound was found in the blank and sample
F	Duplicate RPD exceeds the control limit
N	MS, MSD: Spike recovery exceeds upper or lower control limits.
4	MS, MSD: The analyte present in the original sample is 4 times greater than the matrix spike concentration; therefore, control limits are not applicable.
N	RPD of the MS and MSD exceeds the control limits

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Surrogate Summary

Client: Pastor, Behling & Wheeler LLC
 Project/Site: UPRR HWPW

TestAmerica Job ID: 600-69910-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		12DCE (61-130)	DBFM (68-140)	TOL (50-130)	BFB (57-140)
600-69910-1	SO-1620-SB12(2-4)-20130312	88	89	79	106
600-69910-2	SO-1620-SB11(2.5-4)-20130312	94	96	85	110
600-69910-3	SO-1620-SB09((1-4)-20130312	91	92	85	110
600-69910-4	SO-1620-SB08(2.25-4.5)-20130312	91	86	81	115
600-69910-5	SO-1620-SB07(3-5)-20130312	90	89	85	116
600-69910-6	SO-1620-SB06(2-4)-20130312	89	85	85	109
600-69910-7	SO-1620-SB05(1-4)-20130312	89	84	78	104
600-69910-8	SO-1620-SB04(3.5-5)-20130312	87	84	78	105
600-69910-9	SO-1620-SB03(3-5)-20130312	79	76	82	113
600-69910-10	SO-1620-SB02(3-5)-20130312	80	81	81	118
600-69910-11	SO-1620-SB01(4-5)-20130312	86	85	84	120
600-69910-12	SO-1620-DUP-20130312	85	85	86	119
LCS 600-101554/4	Lab Control Sample	87	93	89	116
LCS 600-101690/5	Lab Control Sample	87	93	92	125
MB 600-101554/6	Method Blank	103	95	83	112
MB 600-101690/6	Method Blank	101	90	81	119

Surrogate Legend

12DCE = 1,2-Dichloroethane-d4 (Surr)

DBFM = Dibromofluoromethane

TOL = Toluene-d8 (Surr)

BFB = 4-Bromofluorobenzene

Method: 8270C - Semivolatile Organic Compounds (GC/MS)

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)					
		PHL (10-94)	NBZ (35-114)	2FP (13-100)	FBP (43-116)	TBP (10-123)	TPH (33-141)
LCS 600-101777/2-A	Lab Control Sample	32	85	50	88	94	89
MB 600-101777/1-A	Method Blank	28	87	49	93	92	96

Surrogate Legend

PHL = Phenol-d6

NBZ = Nitrobenzene-d5

2FP = 2-Fluorophenol

FBP = 2-Fluorobiphenyl

TBP = 2,4,6-Tribromophenol

TPH = Terphenyl-d14

Method: 8270C - Semivolatile Organic Compounds (GC/MS)

Matrix: Solid

Prep Type: TCLP

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)					
		PHL (10-94)	NBZ (35-114)	2FP (13-100)	FBP (43-116)	TBP (10-123)	TPH (33-141)
600-69910-1	SO-1620-SB12(2-4)-20130312	26	84	43	86	82	87
600-69910-2	SO-1620-SB11(2.5-4)-20130312	30	82	49	83	77	87
600-69910-3	SO-1620-SB09((1-4)-20130312	26	84	43	83	76	80
600-69910-4	SO-1620-SB08(2.25-4.5)-20130312	22	87	6 X	79	80	80

TestAmerica Houston

Surrogate Summary

Client: Pastor, Behling & Wheeler LLC
 Project/Site: UPRR HWPW

TestAmerica Job ID: 600-69910-1

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Matrix: Solid

Prep Type: TCLP

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)					
		PHL (10-94)	NBZ (35-114)	2FP (13-100)	FBP (43-116)	TBP (10-123)	TPH (33-141)
600-69910-5	SO-1620-SB07(3-5)-20130312	23	71	44	84	95	86
600-69910-6	SO-1620-SB06(2-4)-20130312	23	86	46	96	103	97
600-69910-7	SO-1620-SB05(1-4)-20130312	22	88	45	94	98	100
600-69910-8	SO-1620-SB04(3.5-5)-20130312	20	87	42	94	95	99
600-69910-9	SO-1620-SB03(3-5)-20130312	26	86	48	96	99	99
600-69910-10	SO-1620-SB02(3-5)-20130312	25	78	42	79	71	85
600-69910-11	SO-1620-SB01(4-5)-20130312	20	84	41	87	95	89
600-69910-12	SO-1620-DUP-20130312	23	91	44	94	95	99
LB 600-101668/1-C LB	Method Blank	30	85	50	90	91	95
LB 600-101670/1-D LB	Method Blank	26	79	41	83	85	88

Surrogate Legend

PHL = Phenol-d6
 NBZ = Nitrobenzene-d5
 2FP = 2-Fluorophenol
 FBP = 2-Fluorobiphenyl
 TBP = 2,4,6-Tribromophenol
 TPH = Terphenyl-d14

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)					
		2FP (23-108)	PHL (26-108)	NBZ (34-118)	FBP (51-109)	TBP (34-122)	TPH (56-123)
600-69910-1	SO-1620-SB12(2-4)-20130312	0 X	0 X	0 X	0 X	0 X	0 X
600-69910-2	SO-1620-SB11(2.5-4)-20130312	0 X	0 X	0 X	0 X	0 X	0 X
600-69910-3	SO-1620-SB09((1-4)-20130312	0 X	0 X	0 X	0 X	0 X	0 X
600-69910-4	SO-1620-SB08(2.25-4.5)-20130312	0 X	0 X	0 X	0 X	0 X	0 X
600-69910-4 - DL	SO-1620-SB08(2.25-4.5)-20130312	0 X	0 X	0 X	0 X	0 X	0 X
600-69910-5	SO-1620-SB07(3-5)-20130312	0 X	0 X	0 X	0 X	0 X	0 X
600-69910-5 - DL	SO-1620-SB07(3-5)-20130312	0 X	0 X	0 X	0 X	0 X	0 X
600-69910-6	SO-1620-SB06(2-4)-20130312	0 X	0 X	0 X	0 X	0 X	0 X
600-69910-7	SO-1620-SB05(1-4)-20130312	0 X	0 X	0 X	0 X	0 X	0 X
600-69910-8	SO-1620-SB04(3.5-5)-20130312	0 X	0 X	0 X	0 X	0 X	0 X
600-69910-9	SO-1620-SB03(3-5)-20130312	0 X	0 X	0 X	0 X	0 X	0 X
600-69910-10	SO-1620-SB02(3-5)-20130312	0 X	0 X	0 X	0 X	0 X	0 X
600-69910-11	SO-1620-SB01(4-5)-20130312	0 X	0 X	0 X	0 X	0 X	0 X
600-69910-12	SO-1620-DUP-20130312	0 X	0 X	0 X	0 X	0 X	0 X
LCS 600-101590/2-A	Lab Control Sample	106	114 X	93	93	98	97
MB 600-101590/1-A	Method Blank	100	83	77	86	72	82

Surrogate Legend

2FP = 2-Fluorophenol
 PHL = Phenol-d6
 NBZ = Nitrobenzene-d5
 FBP = 2-Fluorobiphenyl
 TBP = 2,4,6-Tribromophenol
 TPH = Terphenyl-d14

TestAmerica Houston

Surrogate Summary

Client: Pastor, Behling & Wheeler LLC
Project/Site: UPRR HWPW

TestAmerica Job ID: 600-69910-1

Method: TX 1005 - Texas - Total Petroleum Hydrocarbon (GC)

Matrix: Solid

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	OTPH (70-130)
600-69910-1	SO-1620-SB12(2-4)-20130312	93
600-69910-2	SO-1620-SB11(2.5-4)-20130312	118
600-69910-3	SO-1620-SB09((1-4)-20130312	93
600-69910-4	SO-1620-SB08(2.25-4.5)-20130312	0 X
600-69910-5	SO-1620-SB07(3-5)-20130312	0 X
600-69910-6	SO-1620-SB06(2-4)-20130312	134 X
600-69910-7	SO-1620-SB05(1-4)-20130312	94
600-69910-8	SO-1620-SB04(3.5-5)-20130312	96
600-69910-8 MS	SO-1620-SB04(3.5-5)-20130312	100
600-69910-8 MSD	SO-1620-SB04(3.5-5)-20130312	105
600-69910-9	SO-1620-SB03(3-5)-20130312	128
600-69910-10	SO-1620-SB02(3-5)-20130312	133 X
600-69910-11	SO-1620-SB01(4-5)-20130312	109
600-69910-12	SO-1620-DUP-20130312	142 X
LCS 600-101545/2-A	Lab Control Sample	98
MB 600-101545/1-A	Method Blank	87

Surrogate Legend

OTPH = o-Terphenyl

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: UPRR HWPW

TestAmerica Job ID: 600-69910-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 600-101554/6

Matrix: Solid

Analysis Batch: 101554

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB MB		MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Methylene Chloride	0.00219	U	0.0100	0.00219	mg/Kg			03/13/13 10:34	1
Benzene	0.000630	U	0.00500	0.000630	mg/Kg			03/13/13 10:34	1
1,2-Dichloroethane	0.000900	U	0.00500	0.000900	mg/Kg			03/13/13 10:34	1
Toluene	0.00138	U	0.00500	0.00138	mg/Kg			03/13/13 10:34	1
Chlorobenzene	0.000960	U	0.00500	0.000960	mg/Kg			03/13/13 10:34	1
Ethylbenzene	0.00102	U	0.00500	0.00102	mg/Kg			03/13/13 10:34	1
Xylenes, Total	0.00113	U	0.00500	0.00113	mg/Kg			03/13/13 10:34	1

Surrogate	MB MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
1,2-Dichloroethane-d4 (Surr)	103		61 - 130		03/13/13 10:34	1
Dibromofluoromethane	95		68 - 140		03/13/13 10:34	1
Toluene-d8 (Surr)	83		50 - 130		03/13/13 10:34	1
4-Bromofluorobenzene	112		57 - 140		03/13/13 10:34	1

Lab Sample ID: LCS 600-101554/4

Matrix: Solid

Analysis Batch: 101554

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	0.0500	0.04392		mg/Kg		88	66 - 128
1,2-Dichloroethane	0.0500	0.04387		mg/Kg		88	61 - 135
Toluene	0.0500	0.04526		mg/Kg		91	69 - 125
Chlorobenzene	0.0500	0.04824		mg/Kg		96	67 - 126
Ethylbenzene	0.0500	0.04948		mg/Kg		99	64 - 127
Xylenes, Total	0.150	0.1514		mg/Kg		101	65 - 129

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
1,2-Dichloroethane-d4 (Surr)	87		61 - 130
Dibromofluoromethane	93		68 - 140
Toluene-d8 (Surr)	89		50 - 130
4-Bromofluorobenzene	116		57 - 140

Lab Sample ID: MB 600-101690/6

Matrix: Solid

Analysis Batch: 101690

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB MB		MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Methylene Chloride	0.00219	U	0.0100	0.00219	mg/Kg			03/14/13 10:25	1
Benzene	0.000630	U	0.00500	0.000630	mg/Kg			03/14/13 10:25	1
1,2-Dichloroethane	0.000900	U	0.00500	0.000900	mg/Kg			03/14/13 10:25	1
Toluene	0.00138	U	0.00500	0.00138	mg/Kg			03/14/13 10:25	1
Chlorobenzene	0.000960	U	0.00500	0.000960	mg/Kg			03/14/13 10:25	1
Ethylbenzene	0.00102	U	0.00500	0.00102	mg/Kg			03/14/13 10:25	1
Xylenes, Total	0.00113	U	0.00500	0.00113	mg/Kg			03/14/13 10:25	1

TestAmerica Houston

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: UPRR HWPW

TestAmerica Job ID: 600-69910-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 600-101690/6

Matrix: Solid

Analysis Batch: 101690

Client Sample ID: Method Blank

Prep Type: Total/NA

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	101		61 - 130		03/14/13 10:25	1
Dibromofluoromethane	90		68 - 140		03/14/13 10:25	1
Toluene-d8 (Surr)	81		50 - 130		03/14/13 10:25	1
4-Bromofluorobenzene	119		57 - 140		03/14/13 10:25	1

Lab Sample ID: LCS 600-101690/5

Matrix: Solid

Analysis Batch: 101690

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Methylene Chloride	0.0500	0.04318		mg/Kg		86	48 - 144
Benzene	0.0500	0.04697		mg/Kg		94	66 - 128
1,2-Dichloroethane	0.0500	0.04857		mg/Kg		97	61 - 135
Toluene	0.0500	0.05121		mg/Kg		102	69 - 125
Chlorobenzene	0.0500	0.05419		mg/Kg		108	67 - 126
Ethylbenzene	0.0500	0.04941		mg/Kg		99	64 - 127
Xylenes, Total	0.150	0.1589		mg/Kg		106	65 - 129

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	87		61 - 130
Dibromofluoromethane	93		68 - 140
Toluene-d8 (Surr)	92		50 - 130
4-Bromofluorobenzene	125		57 - 140

Method: 8270C - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 600-101777/1-A

Matrix: Solid

Analysis Batch: 101897

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 101777

Analyte	MB Result	MB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dichlorobenzene	1.26	U	10.0	1.26	ug/L		03/15/13 13:42	03/18/13 11:37	1
2,4-Dinitrotoluene	0.950	U	10.0	0.950	ug/L		03/15/13 13:42	03/18/13 11:37	1
2,4,5-Trichlorophenol	1.26	U	10.0	1.26	ug/L		03/15/13 13:42	03/18/13 11:37	1
2,4,6-Trichlorophenol	0.920	U	10.0	0.920	ug/L		03/15/13 13:42	03/18/13 11:37	1
2-Methylphenol	1.01	U	10.0	1.01	ug/L		03/15/13 13:42	03/18/13 11:37	1
3 & 4 Methylphenol	1.88	U	20.0	1.88	ug/L		03/15/13 13:42	03/18/13 11:37	1
Hexachlorobenzene	0.900	U	10.0	0.900	ug/L		03/15/13 13:42	03/18/13 11:37	1
Hexachlorobutadiene	1.11	U	10.0	1.11	ug/L		03/15/13 13:42	03/18/13 11:37	1
Hexachloroethane	1.16	U	10.0	1.16	ug/L		03/15/13 13:42	03/18/13 11:37	1
Nitrobenzene	1.18	U	10.0	1.18	ug/L		03/15/13 13:42	03/18/13 11:37	1
Pentachlorophenol	0.890	U	50.0	0.890	ug/L		03/15/13 13:42	03/18/13 11:37	1
Pyridine	1.04	U	10.0	1.04	ug/L		03/15/13 13:42	03/18/13 11:37	1
Total Cresols	1.88	U	50.0	1.88	ug/L		03/15/13 13:42	03/18/13 11:37	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Phenol-d6	28		10 - 94	03/15/13 13:42	03/18/13 11:37	1

TestAmerica Houston

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: UPRR HWPW

TestAmerica Job ID: 600-69910-1

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 600-101777/1-A
Matrix: Solid
Analysis Batch: 101897

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 101777

Surrogate	MB MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
Nitrobenzene-d5	87		35 - 114	03/15/13 13:42	03/18/13 11:37	1
2-Fluorophenol	49		13 - 100	03/15/13 13:42	03/18/13 11:37	1
2-Fluorobiphenyl	93		43 - 116	03/15/13 13:42	03/18/13 11:37	1
2,4,6-Tribromophenol	92		10 - 123	03/15/13 13:42	03/18/13 11:37	1
Terphenyl-d14	96		33 - 141	03/15/13 13:42	03/18/13 11:37	1

Lab Sample ID: LCS 600-101777/2-A
Matrix: Solid
Analysis Batch: 101897

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 101777

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec.	
							Limits	
1,4-Dichlorobenzene	50.0	40.49		ug/L		81	45 - 124	
2,4-Dinitrotoluene	50.0	39.37		ug/L		79	52 - 139	
2,4,5-Trichlorophenol	50.0	45.20		ug/L		90	38 - 145	
2,4,6-Trichlorophenol	50.0	41.43		ug/L		83	52 - 144	
2-Methylphenol	50.0	33.13		ug/L		66	34 - 109	
3 & 4 Methylphenol	50.0	35.05		ug/L		70	27 - 113	
Hexachlorobenzene	50.0	46.72		ug/L		93	55 - 130	
Hexachlorobutadiene	50.0	42.46		ug/L		85	32 - 143	
Hexachloroethane	50.0	42.05		ug/L		84	49 - 112	
Nitrobenzene	50.0	44.13		ug/L		88	52 - 111	
Pentachlorophenol	50.0	37.18	J	ug/L		74	13 - 127	
Pyridine	50.0	11.06		ug/L		22	10 - 109	
Total Cresols	100	68.18		ug/L		68	21 - 130	

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
Phenol-d6	32		10 - 94
Nitrobenzene-d5	85		35 - 114
2-Fluorophenol	50		13 - 100
2-Fluorobiphenyl	88		43 - 116
2,4,6-Tribromophenol	94		10 - 123
Terphenyl-d14	89		33 - 141

Lab Sample ID: LB 600-101668/1-C LB
Matrix: Solid
Analysis Batch: 101897

Client Sample ID: Method Blank
Prep Type: TCLP
Prep Batch: 101777

Analyte	LB LB		MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
1,4-Dichlorobenzene	1.26	U	10.0	1.26	ug/L		03/15/13 13:42	03/18/13 09:52	1
2,4-Dinitrotoluene	0.950	U	10.0	0.950	ug/L		03/15/13 13:42	03/18/13 09:52	1
2,4,5-Trichlorophenol	1.26	U	10.0	1.26	ug/L		03/15/13 13:42	03/18/13 09:52	1
2,4,6-Trichlorophenol	0.920	U	10.0	0.920	ug/L		03/15/13 13:42	03/18/13 09:52	1
2-Methylphenol	1.01	U	10.0	1.01	ug/L		03/15/13 13:42	03/18/13 09:52	1
3 & 4 Methylphenol	1.88	U	20.0	1.88	ug/L		03/15/13 13:42	03/18/13 09:52	1
Hexachlorobenzene	0.900	U	10.0	0.900	ug/L		03/15/13 13:42	03/18/13 09:52	1
Hexachlorobutadiene	1.11	U	10.0	1.11	ug/L		03/15/13 13:42	03/18/13 09:52	1
Hexachloroethane	1.16	U	10.0	1.16	ug/L		03/15/13 13:42	03/18/13 09:52	1
Nitrobenzene	1.18	U	10.0	1.18	ug/L		03/15/13 13:42	03/18/13 09:52	1

TestAmerica Houston

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: UPRR HWPW

TestAmerica Job ID: 600-69910-1

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LB 600-101668/1-C LB
Matrix: Solid
Analysis Batch: 101897

Client Sample ID: Method Blank
Prep Type: TCLP
Prep Batch: 101777

Analyte	LB LB		MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Pentachlorophenol	0.890	U	50.0	0.890	ug/L		03/15/13 13:42	03/18/13 09:52	1
Pyridine	1.04	U	10.0	1.04	ug/L		03/15/13 13:42	03/18/13 09:52	1
Total Cresols	1.88	U	50.0	1.88	ug/L		03/15/13 13:42	03/18/13 09:52	1

Surrogate	LB LB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
Phenol-d6	30		10 - 94	03/15/13 13:42	03/18/13 09:52	1
Nitrobenzene-d5	85		35 - 114	03/15/13 13:42	03/18/13 09:52	1
2-Fluorophenol	50		13 - 100	03/15/13 13:42	03/18/13 09:52	1
2-Fluorobiphenyl	90		43 - 116	03/15/13 13:42	03/18/13 09:52	1
2,4,6-Tribromophenol	91		10 - 123	03/15/13 13:42	03/18/13 09:52	1
Terphenyl-d14	95		33 - 141	03/15/13 13:42	03/18/13 09:52	1

Lab Sample ID: LB 600-101670/1-D LB
Matrix: Solid
Analysis Batch: 101897

Client Sample ID: Method Blank
Prep Type: TCLP
Prep Batch: 101777

Analyte	LB LB		MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
1,4-Dichlorobenzene	1.26	U	10.0	1.26	ug/L		03/15/13 13:42	03/18/13 10:27	1
2,4-Dinitrotoluene	0.950	U	10.0	0.950	ug/L		03/15/13 13:42	03/18/13 10:27	1
2,4,5-Trichlorophenol	1.26	U	10.0	1.26	ug/L		03/15/13 13:42	03/18/13 10:27	1
2,4,6-Trichlorophenol	0.920	U	10.0	0.920	ug/L		03/15/13 13:42	03/18/13 10:27	1
2-Methylphenol	1.01	U	10.0	1.01	ug/L		03/15/13 13:42	03/18/13 10:27	1
3 & 4 Methylphenol	1.88	U	20.0	1.88	ug/L		03/15/13 13:42	03/18/13 10:27	1
Hexachlorobenzene	0.900	U	10.0	0.900	ug/L		03/15/13 13:42	03/18/13 10:27	1
Hexachlorobutadiene	1.11	U	10.0	1.11	ug/L		03/15/13 13:42	03/18/13 10:27	1
Hexachloroethane	1.16	U	10.0	1.16	ug/L		03/15/13 13:42	03/18/13 10:27	1
Nitrobenzene	1.18	U	10.0	1.18	ug/L		03/15/13 13:42	03/18/13 10:27	1
Pentachlorophenol	0.890	U	50.0	0.890	ug/L		03/15/13 13:42	03/18/13 10:27	1
Pyridine	1.04	U	10.0	1.04	ug/L		03/15/13 13:42	03/18/13 10:27	1
Total Cresols	1.88	U	50.0	1.88	ug/L		03/15/13 13:42	03/18/13 10:27	1

Surrogate	LB LB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
Phenol-d6	26		10 - 94	03/15/13 13:42	03/18/13 10:27	1
Nitrobenzene-d5	79		35 - 114	03/15/13 13:42	03/18/13 10:27	1
2-Fluorophenol	41		13 - 100	03/15/13 13:42	03/18/13 10:27	1
2-Fluorobiphenyl	83		43 - 116	03/15/13 13:42	03/18/13 10:27	1
2,4,6-Tribromophenol	85		10 - 123	03/15/13 13:42	03/18/13 10:27	1
Terphenyl-d14	88		33 - 141	03/15/13 13:42	03/18/13 10:27	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Lab Sample ID: MB 600-101590/1-A
Matrix: Solid
Analysis Batch: 101681

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 101590

Analyte	MB MB		MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Phenol	0.00424	U	0.0167	0.00424	mg/Kg		03/13/13 14:56	03/14/13 11:13	1

TestAmerica Houston

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: UPRR HWPW

TestAmerica Job ID: 600-69910-1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Lab Sample ID: MB 600-101590/1-A
Matrix: Solid
Analysis Batch: 101681

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 101590

Analyte	MB	MB	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Nitrobenzene	0.00296	U	0.0167	0.00296	mg/Kg		03/13/13 14:56	03/14/13 11:13	1
2,4-Dimethylphenol	0.00858	U	0.0167	0.00858	mg/Kg		03/13/13 14:56	03/14/13 11:13	1
Bis(2-chloroethoxy)methane	0.00142	U	0.0167	0.00142	mg/Kg		03/13/13 14:56	03/14/13 11:13	1
Naphthalene	0.00135	U	0.0167	0.00135	mg/Kg		03/13/13 14:56	03/14/13 11:13	1
2-Methylnaphthalene	0.00274	U	0.0167	0.00274	mg/Kg		03/13/13 14:56	03/14/13 11:13	1
2-Chloronaphthalene	0.00121	U	0.0167	0.00121	mg/Kg		03/13/13 14:56	03/14/13 11:13	1
Acenaphthylene	0.00100	U	0.0167	0.00100	mg/Kg		03/13/13 14:56	03/14/13 11:13	1
2,6-Dinitrotoluene	0.00295	U	0.0167	0.00295	mg/Kg		03/13/13 14:56	03/14/13 11:13	1
Acenaphthene	0.00144	U	0.0167	0.00144	mg/Kg		03/13/13 14:56	03/14/13 11:13	1
4-Nitrophenol	0.00508	U	0.0167	0.00508	mg/Kg		03/13/13 14:56	03/14/13 11:13	1
Dibenzofuran	0.00178	U	0.0167	0.00178	mg/Kg		03/13/13 14:56	03/14/13 11:13	1
2,4-Dinitrotoluene	0.00361	U	0.0167	0.00361	mg/Kg		03/13/13 14:56	03/14/13 11:13	1
Fluorene	0.00236	U	0.0167	0.00236	mg/Kg		03/13/13 14:56	03/14/13 11:13	1
4,6-Dinitro-2-methylphenol	0.00498	U	0.0167	0.00498	mg/Kg		03/13/13 14:56	03/14/13 11:13	1
N-Nitrosodiphenylamine	0.00189	U	0.0167	0.00189	mg/Kg		03/13/13 14:56	03/14/13 11:13	1
1,2-Diphenylhydrazine	0.00162	U	0.0167	0.00162	mg/Kg		03/13/13 14:56	03/14/13 11:13	1
Pentachlorophenol	0.00400	U	0.167	0.00400	mg/Kg		03/13/13 14:56	03/14/13 11:13	1
Phenanthrene	0.00495	U	0.0167	0.00495	mg/Kg		03/13/13 14:56	03/14/13 11:13	1
Anthracene	0.00128	U	0.0167	0.00128	mg/Kg		03/13/13 14:56	03/14/13 11:13	1
Di-n-butyl phthalate	0.00259	U	0.0667	0.00259	mg/Kg		03/13/13 14:56	03/14/13 11:13	1
Fluoranthene	0.00311	U	0.0167	0.00311	mg/Kg		03/13/13 14:56	03/14/13 11:13	1
Pyrene	0.00183	U	0.0167	0.00183	mg/Kg		03/13/13 14:56	03/14/13 11:13	1
Benzo[a]anthracene	0.00138	U	0.0167	0.00138	mg/Kg		03/13/13 14:56	03/14/13 11:13	1
Bis(2-ethylhexyl) phthalate	0.00537	U	0.0667	0.00537	mg/Kg		03/13/13 14:56	03/14/13 11:13	1
Chrysene	0.00102	U	0.0167	0.00102	mg/Kg		03/13/13 14:56	03/14/13 11:13	1
Benzo[a]pyrene	0.00161	U	0.0167	0.00161	mg/Kg		03/13/13 14:56	03/14/13 11:13	1

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
2-Fluorophenol	100		23 - 108	03/13/13 14:56	03/14/13 11:13	1
Phenol-d6	83		26 - 108	03/13/13 14:56	03/14/13 11:13	1
Nitrobenzene-d5	77		34 - 118	03/13/13 14:56	03/14/13 11:13	1
2-Fluorobiphenyl	86		51 - 109	03/13/13 14:56	03/14/13 11:13	1
2,4,6-Tribromophenol	72		34 - 122	03/13/13 14:56	03/14/13 11:13	1
Terphenyl-d14	82		56 - 123	03/13/13 14:56	03/14/13 11:13	1

Lab Sample ID: LCS 600-101590/2-A
Matrix: Solid
Analysis Batch: 101681

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 101590

Analyte	Spike Added	LCS	LCS	Unit	D	%Rec	%Rec. Limits
		Result	Qualifier				
Phenol	0.333	0.3450		mg/Kg		103	33 - 122
Nitrobenzene	0.333	0.2934		mg/Kg		88	53 - 123
2,4-Dimethylphenol	0.333	0.3175		mg/Kg		95	36 - 124
Bis(2-chloroethoxy)methane	0.333	0.3284		mg/Kg		99	54 - 114
Naphthalene	0.333	0.3373		mg/Kg		101	52 - 117
2-Methylnaphthalene	0.333	0.2924		mg/Kg		88	54 - 130
2-Chloronaphthalene	0.333	0.2920		mg/Kg		88	50 - 123
Acenaphthylene	0.333	0.3075		mg/Kg		92	51 - 122

TestAmerica Houston

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: UPRR HWPW

TestAmerica Job ID: 600-69910-1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Lab Sample ID: LCS 600-101590/2-A

Matrix: Solid

Analysis Batch: 101681

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 101590

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
2,6-Dinitrotoluene	0.333	0.3221		mg/Kg		97	53 - 116
Acenaphthene	0.333	0.2968		mg/Kg		89	58 - 125
4-Nitrophenol	0.333	0.2430		mg/Kg		73	20 - 132
Dibenzofuran	0.333	0.2956		mg/Kg		89	54 - 119
2,4-Dinitrotoluene	0.333	0.3192		mg/Kg		96	53 - 123
Fluorene	0.333	0.2929		mg/Kg		88	52 - 147
4,6-Dinitro-2-methylphenol	0.333	0.3056		mg/Kg		92	34 - 124
N-Nitrosodiphenylamine	0.333	0.3354		mg/Kg		101	47 - 127
1,2-Diphenylhydrazine	0.333	0.3205		mg/Kg		96	49 - 131
Pentachlorophenol	0.333	0.2441		mg/Kg		73	17 - 124
Phenanthrene	0.333	0.3096		mg/Kg		93	55 - 120
Anthracene	0.333	0.3331		mg/Kg		100	52 - 120
Di-n-butyl phthalate	0.333	0.3241		mg/Kg		97	61 - 124
Fluoranthene	0.333	0.3443		mg/Kg		103	56 - 123
Pyrene	0.333	0.3086		mg/Kg		93	48 - 131
Benzo[a]anthracene	0.333	0.2955		mg/Kg		89	49 - 124
Bis(2-ethylhexyl) phthalate	0.333	0.3249		mg/Kg		97	55 - 136
Chrysene	0.333	0.3186		mg/Kg		96	50 - 123
Benzo[a]pyrene	0.333	0.3054		mg/Kg		92	58 - 123

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
2-Fluorophenol	106		23 - 108
Phenol-d6	114	X	26 - 108
Nitrobenzene-d5	93		34 - 118
2-Fluorobiphenyl	93		51 - 109
2,4,6-Tribromophenol	98		34 - 122
Terphenyl-d14	97		56 - 123

Method: TX 1005 - Texas - Total Petroleum Hydrocarbon (GC)

Lab Sample ID: MB 600-101545/1-A

Matrix: Solid

Analysis Batch: 101675

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 101545

Analyte	MB Result	MB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C12	3.80	U	10.0	3.80	mg/Kg		03/13/13 09:21	03/13/13 15:13	1
>C12-C28	4.06	U	10.0	4.06	mg/Kg		03/13/13 09:21	03/13/13 15:13	1
>C28-C35	4.06	U	10.0	4.06	mg/Kg		03/13/13 09:21	03/13/13 15:13	1
C6-C35	7.48	U	10.0	7.48	mg/Kg		03/13/13 09:21	03/13/13 15:13	1

Surrogate	MB MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
o-Terphenyl	87		70 - 130	03/13/13 09:21	03/13/13 15:13	1

TestAmerica Houston

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: UPRR HWPW

TestAmerica Job ID: 600-69910-1

Method: TX 1005 - Texas - Total Petroleum Hydrocarbon (GC) (Continued)

Lab Sample ID: LCS 600-101545/2-A

Matrix: Solid

Analysis Batch: 101675

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 101545

Analyte	Spike Added	LCS		Unit	D	%Rec	%Rec. Limits
		Result	Qualifier				
C6-C12	250	204.4		mg/Kg		82	75 - 125
>C12-C28	250	220.4		mg/Kg		88	75 - 125
C6-C35	500	424.8		mg/Kg		85	75 - 125
		LCS LCS					
Surrogate	%Recovery	Qualifier	Limits				
<i>o</i> -Terphenyl	98		70 - 130				

Lab Sample ID: 600-69910-8 MS

Matrix: Solid

Analysis Batch: 101675

Client Sample ID: SO-1620-SB04(3.5-5)-20130312

Prep Type: Total/NA

Prep Batch: 101545

Analyte	Sample Result	Sample Qualifier	Spike Added	MS		Unit	D	%Rec	%Rec. Limits
				Result	Qualifier				
C6-C12	4.28	U	282	233.6		mg/Kg	☼	83	75 - 125
>C12-C28	107		282	252.3	N	mg/Kg	☼	51	75 - 125
C6-C35	239		563	485.8	N	mg/Kg	☼	44	75 - 125
		MS MS							
Surrogate	%Recovery	Qualifier	Limits						
<i>o</i> -Terphenyl	100		70 - 130						

Lab Sample ID: 600-69910-8 MSD

Matrix: Solid

Analysis Batch: 101675

Client Sample ID: SO-1620-SB04(3.5-5)-20130312

Prep Type: Total/NA

Prep Batch: 101545

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD		Unit	D	%Rec	%Rec. Limits	RPD	
				Result	Qualifier					RPD	Limit
C6-C12	4.28	U	281	228.2		mg/Kg	☼	81	75 - 125	2	20
>C12-C28	107		281	260.2	N	mg/Kg	☼	54	75 - 125	3	20
C6-C35	239		563	488.4	N	mg/Kg	☼	44	75 - 125	1	20
		MSD MSD									
Surrogate	%Recovery	Qualifier	Limits								
<i>o</i> -Terphenyl	105		70 - 130								

Method: 6010B - Metals (ICP)

Lab Sample ID: MB 600-101546/1-A

Matrix: Solid

Analysis Batch: 101645

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 101546

Analyte	MB		MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Lead	0.105	U	0.500	0.105	mg/Kg		03/13/13 09:28	03/14/13 09:08	1
Arsenic	0.218	U	1.00	0.218	mg/Kg		03/13/13 09:28	03/14/13 09:08	1

TestAmerica Houston

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: UPRR HWPW

TestAmerica Job ID: 600-69910-1

Method: 6010B - Metals (ICP) (Continued)

Lab Sample ID: LCSSRM 600-101546/2-A

Matrix: Solid

Analysis Batch: 101645

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 101546

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec. Limits
Lead	76.9	78.99		mg/Kg		102.7	81.3 - 118.7
Arsenic	168	181.6		mg/Kg		108.1	83.3 - 117.3

Lab Sample ID: 600-69910-8 MS

Matrix: Solid

Analysis Batch: 101645

Client Sample ID: SO-1620-SB04(3.5-5)-20130312

Prep Type: Total/NA

Prep Batch: 101546

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Lead	449		52.8	252.9	4	mg/Kg	☼	-373	75 - 125
Arsenic	60.5		52.8	83.36	N	mg/Kg	☼	43	75 - 125

Lab Sample ID: 600-69910-8 MSD

Matrix: Solid

Analysis Batch: 101645

Client Sample ID: SO-1620-SB04(3.5-5)-20130312

Prep Type: Total/NA

Prep Batch: 101546

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Lead	449		55.3	334.4	4 N	mg/Kg	☼	-208	75 - 125	28	20
Arsenic	60.5		55.3	79.81	N	mg/Kg	☼	35	75 - 125	4	20

Lab Sample ID: 600-69910-8 DU

Matrix: Solid

Analysis Batch: 101645

Client Sample ID: SO-1620-SB04(3.5-5)-20130312

Prep Type: Total/NA

Prep Batch: 101546

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit
Lead	449		464.3		mg/Kg	☼	3	20
Arsenic	60.5		40.22	F	mg/Kg	☼	40	20

Lab Sample ID: MB 600-101763/1-A

Matrix: Solid

Analysis Batch: 101898

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 101763

Analyte	MB Result	MB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Pb	0.00290	U	0.0100	0.00290	mg/L		03/15/13 11:38	03/18/13 14:10	1
As	0.00328	U	0.0100	0.00328	mg/L		03/15/13 11:38	03/18/13 14:10	1

Lab Sample ID: LCS 600-101763/2-A

Matrix: Solid

Analysis Batch: 101898

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 101763

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Pb	1.00	1.008		mg/L		101	80 - 120
As	1.00	1.017		mg/L		102	80 - 120

TestAmerica Houston

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: UPRR HWPW

TestAmerica Job ID: 600-69910-1

Method: 6010B - Metals (ICP) (Continued)

Lab Sample ID: MB 600-101779/1-A
Matrix: Solid
Analysis Batch: 101886

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 101779

Analyte	MB Result	MB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Pb	0.00290	U	0.0100	0.00290	mg/L		03/15/13 13:46	03/18/13 15:18	1
As	0.00328	U	0.0100	0.00328	mg/L		03/15/13 13:46	03/18/13 15:18	1

Lab Sample ID: LCS 600-101779/2-A
Matrix: Solid
Analysis Batch: 101886

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 101779

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Pb	1.00	1.052		mg/L		105	80 - 120
As	1.00	0.9801		mg/L		98	80 - 120

Lab Sample ID: LB 600-101668/1-B LB
Matrix: Solid
Analysis Batch: 101898

Client Sample ID: Method Blank
Prep Type: TCLP
Prep Batch: 101763

Analyte	LB Result	LB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Pb	0.0290	U	0.100	0.0290	mg/L		03/15/13 11:38	03/18/13 14:17	1
As	0.0328	U	0.100	0.0328	mg/L		03/15/13 11:38	03/18/13 14:17	1

Lab Sample ID: LB 600-101670/1-B LB
Matrix: Solid
Analysis Batch: 101898

Client Sample ID: Method Blank
Prep Type: TCLP
Prep Batch: 101763

Analyte	LB Result	LB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Pb	0.0290	U	0.100	0.0290	mg/L		03/15/13 11:38	03/18/13 15:42	1
As	0.04070	J	0.100	0.0328	mg/L		03/15/13 11:38	03/18/13 15:42	1

Lab Sample ID: 600-69910-1 MS
Matrix: Solid
Analysis Batch: 101898

Client Sample ID: SO-1620-SB12(2-4)-20130312
Prep Type: TCLP
Prep Batch: 101763

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Pb	1.03		10.0	11.54		mg/L		105	75 - 125
As	0.0382	J	10.0	10.52		mg/L		105	75 - 125

Lab Sample ID: 600-69910-1 MSD
Matrix: Solid
Analysis Batch: 101898

Client Sample ID: SO-1620-SB12(2-4)-20130312
Prep Type: TCLP
Prep Batch: 101763

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Pb	1.03		10.0	11.69		mg/L		107	75 - 125	1	20
As	0.0382	J	10.0	10.77		mg/L		107	75 - 125	2	20

Lab Sample ID: 600-69910-2 MS
Matrix: Solid
Analysis Batch: 101898

Client Sample ID: SO-1620-SB11(2.5-4)-20130312
Prep Type: TCLP
Prep Batch: 101763

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Pb	27.9		10.0	39.06		mg/L		112	75 - 125

TestAmerica Houston

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: UPRR HWPW

TestAmerica Job ID: 600-69910-1

Method: 6010B - Metals (ICP) (Continued)

Lab Sample ID: 600-69910-2 MS

Matrix: Solid

Analysis Batch: 101898

Client Sample ID: SO-1620-SB11(2.5-4)-20130312

Prep Type: TCLP

Prep Batch: 101763

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec.	
	Result	Qualifier		Result	Qualifier				Limits	
As	0.0496	J b	10.0	10.80		mg/L		108	75 - 125	

Lab Sample ID: 600-69910-2 MSD

Matrix: Solid

Analysis Batch: 101898

Client Sample ID: SO-1620-SB11(2.5-4)-20130312

Prep Type: TCLP

Prep Batch: 101763

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.		RPD	
	Result	Qualifier		Result	Qualifier				Limits	RPD	Limit	
Pb	27.9		10.0	38.31		mg/L		105	75 - 125		2	20
As	0.0496	J b	10.0	10.56		mg/L		105	75 - 125		2	20

Lab Sample ID: LB 600-101670/1-C LB

Matrix: Solid

Analysis Batch: 101886

Client Sample ID: Method Blank

Prep Type: TCLP

Prep Batch: 101779

Analyte	LB	LB	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed		Dil Fac
	Result	Qualifier						Time	Time	
Pb	0.0290	U	0.100	0.0290	mg/L		03/15/13 13:46	03/18/13 15:23		1
As	0.0328	U	0.100	0.0328	mg/L		03/15/13 13:46	03/18/13 15:23		1

Lab Sample ID: 600-69910-11 MS

Matrix: Solid

Analysis Batch: 101886

Client Sample ID: SO-1620-SB01(4-5)-20130312

Prep Type: TCLP

Prep Batch: 101779

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec.	
	Result	Qualifier		Result	Qualifier				Limits	
Pb	0.402		10.0	11.05		mg/L		106	75 - 125	
As	0.0328	U	10.0	10.14		mg/L		101	75 - 125	

Lab Sample ID: 600-69910-11 MSD

Matrix: Solid

Analysis Batch: 101886

Client Sample ID: SO-1620-SB01(4-5)-20130312

Prep Type: TCLP

Prep Batch: 101779

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.		RPD	
	Result	Qualifier		Result	Qualifier				Limits	RPD	Limit	
Pb	0.402		10.0	11.01		mg/L		106	75 - 125		0	20
As	0.0328	U	10.0	10.09		mg/L		101	75 - 125		0	20

Method: Moisture - Percent Moisture

Lab Sample ID: 600-69910-2 DU

Matrix: Solid

Analysis Batch: 101589

Client Sample ID: SO-1620-SB11(2.5-4)-20130312

Prep Type: Total/NA

Analyte	Sample	Sample	DU	DU	Unit	D	RPD	RPD	
	Result	Qualifier		Result				Qualifier	RPD
Percent Moisture	17		17		%		2	20	
Percent Solids	83		83		%		0.3	20	

TestAmerica Houston

Unadjusted Detection Limits

Client: Pastor, Behling & Wheeler LLC
Project/Site: UPRR HWPW

TestAmerica Job ID: 600-69910-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	MQL	MDL	Units	Method
1,2-Dichloroethane	0.00500	0.000900	mg/Kg	8260B
Benzene	0.00500	0.000630	mg/Kg	8260B
Chlorobenzene	0.00500	0.000960	mg/Kg	8260B
Ethylbenzene	0.00500	0.00102	mg/Kg	8260B
Methylene Chloride	0.0100	0.00219	mg/Kg	8260B
Toluene	0.00500	0.00138	mg/Kg	8260B
Xylenes, Total	0.00500	0.00113	mg/Kg	8260B

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	MQL	MDL	Units	Method
1,2-Diphenylhydrazine	0.0167	0.00162	mg/Kg	8270C LL
2,4-Dimethylphenol	0.0167	0.00858	mg/Kg	8270C LL
2,4-Dinitrotoluene	0.0167	0.00361	mg/Kg	8270C LL
2,6-Dinitrotoluene	0.0167	0.00295	mg/Kg	8270C LL
2-Chloronaphthalene	0.0167	0.00121	mg/Kg	8270C LL
2-Methylnaphthalene	0.0167	0.00274	mg/Kg	8270C LL
4,6-Dinitro-2-methylphenol	0.0167	0.00498	mg/Kg	8270C LL
4-Nitrophenol	0.0167	0.00508	mg/Kg	8270C LL
Acenaphthene	0.0167	0.00144	mg/Kg	8270C LL
Acenaphthylene	0.0167	0.00100	mg/Kg	8270C LL
Anthracene	0.0167	0.00128	mg/Kg	8270C LL
Benzo[a]anthracene	0.0167	0.00138	mg/Kg	8270C LL
Benzo[a]pyrene	0.0167	0.00161	mg/Kg	8270C LL
Bis(2-chloroethoxy)methane	0.0167	0.00142	mg/Kg	8270C LL
Bis(2-ethylhexyl) phthalate	0.0667	0.00537	mg/Kg	8270C LL
Chrysene	0.0167	0.00102	mg/Kg	8270C LL
Dibenzofuran	0.0167	0.00178	mg/Kg	8270C LL
Di-n-butyl phthalate	0.0667	0.00259	mg/Kg	8270C LL
Fluoranthene	0.0167	0.00311	mg/Kg	8270C LL
Fluorene	0.0167	0.00236	mg/Kg	8270C LL
Naphthalene	0.0167	0.00135	mg/Kg	8270C LL
Nitrobenzene	0.0167	0.00296	mg/Kg	8270C LL
N-Nitrosodiphenylamine	0.0167	0.00189	mg/Kg	8270C LL
Pentachlorophenol	0.167	0.00400	mg/Kg	8270C LL
Phenanthrene	0.0167	0.00495	mg/Kg	8270C LL
Phenol	0.0167	0.00424	mg/Kg	8270C LL
Pyrene	0.0167	0.00183	mg/Kg	8270C LL

Method: 8270C - Semivolatile Organic Compounds (GC/MS) - TCLP

Analyte	MQL	MDL	Units	Method
1,4-Dichlorobenzene	10.0	1.26	ug/L	8270C
2,4,5-Trichlorophenol	10.0	1.26	ug/L	8270C
2,4,6-Trichlorophenol	10.0	0.920	ug/L	8270C
2,4-Dinitrotoluene	10.0	0.950	ug/L	8270C
2-Methylphenol	10.0	1.01	ug/L	8270C
3 & 4 Methylphenol	20.0	1.88	ug/L	8270C
Hexachlorobenzene	10.0	0.900	ug/L	8270C
Hexachlorobutadiene	10.0	1.11	ug/L	8270C
Hexachloroethane	10.0	1.16	ug/L	8270C
Nitrobenzene	10.0	1.18	ug/L	8270C

TestAmerica Houston

Unadjusted Detection Limits

Client: Pastor, Behling & Wheeler LLC
Project/Site: UPRR HWPW

TestAmerica Job ID: 600-69910-1

Method: 8270C - Semivolatile Organic Compounds (GC/MS) - TCLP (Continued)

Analyte	MQL	MDL	Units	Method
Pentachlorophenol	50.0	0.890	ug/L	8270C
Pyridine	10.0	1.04	ug/L	8270C
Total Cresols	50.0	1.88	ug/L	8270C

Method: TX 1005 - Texas - Total Petroleum Hydrocarbon (GC)

Analyte	MQL	MDL	Units	Method
>C12-C28	10.0	4.06	mg/Kg	TX 1005
>C28-C35	10.0	4.06	mg/Kg	TX 1005
C6-C12	10.0	3.80	mg/Kg	TX 1005
C6-C35	10.0	7.48	mg/Kg	TX 1005

Method: 6010B - Metals (ICP)

Analyte	MQL	MDL	Units	Method
Arsenic	1.00	0.218	mg/Kg	6010B
Lead	0.500	0.105	mg/Kg	6010B

Method: 6010B - Metals (ICP) - TCLP

Analyte	MQL	MDL	Units	Method
As	0.0100	0.00328	mg/L	6010B
Pb	0.0100	0.00290	mg/L	6010B

General Chemistry

Analyte	MQL	MDL	Units	Method
Percent Moisture	1.0	1.0	%	Moisture
Percent Solids	1.0	1.0	%	Moisture

QC Association Summary

Client: Pastor, Behling & Wheeler LLC
 Project/Site: UPRR HWPW

TestAmerica Job ID: 600-69910-1

GC/MS VOA

Analysis Batch: 101554

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-69910-1	SO-1620-SB12(2-4)-20130312	Total/NA	Solid	8260B	
600-69910-2	SO-1620-SB11(2.5-4)-20130312	Total/NA	Solid	8260B	
600-69910-3	SO-1620-SB09((1-4)-20130312	Total/NA	Solid	8260B	
600-69910-4	SO-1620-SB08(2.25-4.5)-20130312	Total/NA	Solid	8260B	
600-69910-5	SO-1620-SB07(3-5)-20130312	Total/NA	Solid	8260B	
600-69910-6	SO-1620-SB06(2-4)-20130312	Total/NA	Solid	8260B	
600-69910-7	SO-1620-SB05(1-4)-20130312	Total/NA	Solid	8260B	
600-69910-8	SO-1620-SB04(3.5-5)-20130312	Total/NA	Solid	8260B	
LCS 600-101554/4	Lab Control Sample	Total/NA	Solid	8260B	
MB 600-101554/6	Method Blank	Total/NA	Solid	8260B	

Analysis Batch: 101690

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-69910-9	SO-1620-SB03(3-5)-20130312	Total/NA	Solid	8260B	
600-69910-10	SO-1620-SB02(3-5)-20130312	Total/NA	Solid	8260B	
600-69910-11	SO-1620-SB01(4-5)-20130312	Total/NA	Solid	8260B	
600-69910-12	SO-1620-DUP-20130312	Total/NA	Solid	8260B	
LCS 600-101690/5	Lab Control Sample	Total/NA	Solid	8260B	
MB 600-101690/6	Method Blank	Total/NA	Solid	8260B	

GC/MS Semi VOA

Prep Batch: 101590

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-69910-1	SO-1620-SB12(2-4)-20130312	Total/NA	Solid	3550B	
600-69910-2	SO-1620-SB11(2.5-4)-20130312	Total/NA	Solid	3550B	
600-69910-3	SO-1620-SB09((1-4)-20130312	Total/NA	Solid	3550B	
600-69910-4	SO-1620-SB08(2.25-4.5)-20130312	Total/NA	Solid	3550B	
600-69910-4 - DL	SO-1620-SB08(2.25-4.5)-20130312	Total/NA	Solid	3550B	
600-69910-5	SO-1620-SB07(3-5)-20130312	Total/NA	Solid	3550B	
600-69910-5 - DL	SO-1620-SB07(3-5)-20130312	Total/NA	Solid	3550B	
600-69910-6	SO-1620-SB06(2-4)-20130312	Total/NA	Solid	3550B	
600-69910-7	SO-1620-SB05(1-4)-20130312	Total/NA	Solid	3550B	
600-69910-8	SO-1620-SB04(3.5-5)-20130312	Total/NA	Solid	3550B	
600-69910-9	SO-1620-SB03(3-5)-20130312	Total/NA	Solid	3550B	
600-69910-10	SO-1620-SB02(3-5)-20130312	Total/NA	Solid	3550B	
600-69910-11	SO-1620-SB01(4-5)-20130312	Total/NA	Solid	3550B	
600-69910-12	SO-1620-DUP-20130312	Total/NA	Solid	3550B	
LCS 600-101590/2-A	Lab Control Sample	Total/NA	Solid	3550B	
MB 600-101590/1-A	Method Blank	Total/NA	Solid	3550B	

Leach Batch: 101668

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-69910-1	SO-1620-SB12(2-4)-20130312	TCLP	Solid	1311	
600-69910-3	SO-1620-SB09((1-4)-20130312	TCLP	Solid	1311	
600-69910-4	SO-1620-SB08(2.25-4.5)-20130312	TCLP	Solid	1311	
600-69910-10	SO-1620-SB02(3-5)-20130312	TCLP	Solid	1311	
LB 600-101668/1-C LB	Method Blank	TCLP	Solid	1311	

TestAmerica Houston

QC Association Summary

Client: Pastor, Behling & Wheeler LLC
 Project/Site: UPRR HWPW

TestAmerica Job ID: 600-69910-1

GC/MS Semi VOA (Continued)

Leach Batch: 101670

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-69910-2	SO-1620-SB11(2.5-4)-20130312	TCLP	Solid	1311	
600-69910-5	SO-1620-SB07(3-5)-20130312	TCLP	Solid	1311	
600-69910-6	SO-1620-SB06(2-4)-20130312	TCLP	Solid	1311	
600-69910-7	SO-1620-SB05(1-4)-20130312	TCLP	Solid	1311	
600-69910-8	SO-1620-SB04(3.5-5)-20130312	TCLP	Solid	1311	
600-69910-9	SO-1620-SB03(3-5)-20130312	TCLP	Solid	1311	
600-69910-11	SO-1620-SB01(4-5)-20130312	TCLP	Solid	1311	
600-69910-12	SO-1620-DUP-20130312	TCLP	Solid	1311	
LB 600-101670/1-D LB	Method Blank	TCLP	Solid	1311	

Analysis Batch: 101681

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 600-101590/2-A	Lab Control Sample	Total/NA	Solid	8270C LL	101590
MB 600-101590/1-A	Method Blank	Total/NA	Solid	8270C LL	101590

Analysis Batch: 101759

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-69910-1	SO-1620-SB12(2-4)-20130312	Total/NA	Solid	8270C LL	101590
600-69910-2	SO-1620-SB11(2.5-4)-20130312	Total/NA	Solid	8270C LL	101590
600-69910-3	SO-1620-SB09((1-4)-20130312	Total/NA	Solid	8270C LL	101590
600-69910-5	SO-1620-SB07(3-5)-20130312	Total/NA	Solid	8270C LL	101590
600-69910-6	SO-1620-SB06(2-4)-20130312	Total/NA	Solid	8270C LL	101590
600-69910-7	SO-1620-SB05(1-4)-20130312	Total/NA	Solid	8270C LL	101590
600-69910-8	SO-1620-SB04(3.5-5)-20130312	Total/NA	Solid	8270C LL	101590
600-69910-9	SO-1620-SB03(3-5)-20130312	Total/NA	Solid	8270C LL	101590
600-69910-10	SO-1620-SB02(3-5)-20130312	Total/NA	Solid	8270C LL	101590

Prep Batch: 101777

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-69910-1	SO-1620-SB12(2-4)-20130312	TCLP	Solid	3510C	101668
600-69910-2	SO-1620-SB11(2.5-4)-20130312	TCLP	Solid	3510C	101670
600-69910-3	SO-1620-SB09((1-4)-20130312	TCLP	Solid	3510C	101668
600-69910-4	SO-1620-SB08(2.25-4.5)-20130312	TCLP	Solid	3510C	101668
600-69910-5	SO-1620-SB07(3-5)-20130312	TCLP	Solid	3510C	101670
600-69910-6	SO-1620-SB06(2-4)-20130312	TCLP	Solid	3510C	101670
600-69910-7	SO-1620-SB05(1-4)-20130312	TCLP	Solid	3510C	101670
600-69910-8	SO-1620-SB04(3.5-5)-20130312	TCLP	Solid	3510C	101670
600-69910-9	SO-1620-SB03(3-5)-20130312	TCLP	Solid	3510C	101670
600-69910-10	SO-1620-SB02(3-5)-20130312	TCLP	Solid	3510C	101668
600-69910-11	SO-1620-SB01(4-5)-20130312	TCLP	Solid	3510C	101670
600-69910-12	SO-1620-DUP-20130312	TCLP	Solid	3510C	101670
LB 600-101668/1-C LB	Method Blank	TCLP	Solid	3510C	101668
LB 600-101670/1-D LB	Method Blank	TCLP	Solid	3510C	101670
LCS 600-101777/2-A	Lab Control Sample	Total/NA	Solid	3510C	
MB 600-101777/1-A	Method Blank	Total/NA	Solid	3510C	

Analysis Batch: 101883

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-69910-4	SO-1620-SB08(2.25-4.5)-20130312	Total/NA	Solid	8270C LL	101590
600-69910-5 - DL	SO-1620-SB07(3-5)-20130312	Total/NA	Solid	8270C LL	101590
600-69910-11	SO-1620-SB01(4-5)-20130312	Total/NA	Solid	8270C LL	101590

TestAmerica Houston

QC Association Summary

Client: Pastor, Behling & Wheeler LLC
 Project/Site: UPRR HWPW

TestAmerica Job ID: 600-69910-1

GC/MS Semi VOA (Continued)

Analysis Batch: 101883 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-69910-12	SO-1620-DUP-20130312	Total/NA	Solid	8270C LL	101590

Analysis Batch: 101897

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-69910-5	SO-1620-SB07(3-5)-20130312	TCLP	Solid	8270C	101777
600-69910-6	SO-1620-SB06(2-4)-20130312	TCLP	Solid	8270C	101777
600-69910-7	SO-1620-SB05(1-4)-20130312	TCLP	Solid	8270C	101777
600-69910-8	SO-1620-SB04(3.5-5)-20130312	TCLP	Solid	8270C	101777
600-69910-9	SO-1620-SB03(3-5)-20130312	TCLP	Solid	8270C	101777
600-69910-11	SO-1620-SB01(4-5)-20130312	TCLP	Solid	8270C	101777
600-69910-12	SO-1620-DUP-20130312	TCLP	Solid	8270C	101777
LB 600-101668/1-C LB	Method Blank	TCLP	Solid	8270C	101777
LB 600-101670/1-D LB	Method Blank	TCLP	Solid	8270C	101777
LCS 600-101777/2-A	Lab Control Sample	Total/NA	Solid	8270C	101777
MB 600-101777/1-A	Method Blank	Total/NA	Solid	8270C	101777

Analysis Batch: 101901

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-69910-1	SO-1620-SB12(2-4)-20130312	TCLP	Solid	8270C	101777
600-69910-2	SO-1620-SB11(2.5-4)-20130312	TCLP	Solid	8270C	101777
600-69910-3	SO-1620-SB09((1-4)-20130312	TCLP	Solid	8270C	101777
600-69910-4	SO-1620-SB08(2.25-4.5)-20130312	TCLP	Solid	8270C	101777
600-69910-10	SO-1620-SB02(3-5)-20130312	TCLP	Solid	8270C	101777

Analysis Batch: 101940

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-69910-4 - DL	SO-1620-SB08(2.25-4.5)-20130312	Total/NA	Solid	8270C LL	101590

GC Semi VOA

Prep Batch: 101545

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-69910-1	SO-1620-SB12(2-4)-20130312	Total/NA	Solid	TX_1005_S_Pre p	
600-69910-2	SO-1620-SB11(2.5-4)-20130312	Total/NA	Solid	TX_1005_S_Pre p	
600-69910-3	SO-1620-SB09((1-4)-20130312	Total/NA	Solid	TX_1005_S_Pre p	
600-69910-4	SO-1620-SB08(2.25-4.5)-20130312	Total/NA	Solid	TX_1005_S_Pre p	
600-69910-5	SO-1620-SB07(3-5)-20130312	Total/NA	Solid	TX_1005_S_Pre p	
600-69910-6	SO-1620-SB06(2-4)-20130312	Total/NA	Solid	TX_1005_S_Pre p	
600-69910-7	SO-1620-SB05(1-4)-20130312	Total/NA	Solid	TX_1005_S_Pre p	
600-69910-8	SO-1620-SB04(3.5-5)-20130312	Total/NA	Solid	TX_1005_S_Pre p	
600-69910-8 MS	SO-1620-SB04(3.5-5)-20130312	Total/NA	Solid	TX_1005_S_Pre p	
600-69910-8 MSD	SO-1620-SB04(3.5-5)-20130312	Total/NA	Solid	TX_1005_S_Pre p	

TestAmerica Houston

QC Association Summary

Client: Pastor, Behling & Wheeler LLC
 Project/Site: UPRR HWPW

TestAmerica Job ID: 600-69910-1

GC Semi VOA (Continued)

Prep Batch: 101545 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-69910-9	SO-1620-SB03(3-5)-20130312	Total/NA	Solid	TX_1005_S_Pre p	
600-69910-10	SO-1620-SB02(3-5)-20130312	Total/NA	Solid	TX_1005_S_Pre p	
600-69910-11	SO-1620-SB01(4-5)-20130312	Total/NA	Solid	TX_1005_S_Pre p	
600-69910-12	SO-1620-DUP-20130312	Total/NA	Solid	TX_1005_S_Pre p	
LCS 600-101545/2-A	Lab Control Sample	Total/NA	Solid	TX_1005_S_Pre p	
MB 600-101545/1-A	Method Blank	Total/NA	Solid	TX_1005_S_Pre p	

Analysis Batch: 101675

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-69910-1	SO-1620-SB12(2-4)-20130312	Total/NA	Solid	TX 1005	101545
600-69910-2	SO-1620-SB11(2.5-4)-20130312	Total/NA	Solid	TX 1005	101545
600-69910-3	SO-1620-SB09((1-4)-20130312	Total/NA	Solid	TX 1005	101545
600-69910-7	SO-1620-SB05(1-4)-20130312	Total/NA	Solid	TX 1005	101545
600-69910-8	SO-1620-SB04(3.5-5)-20130312	Total/NA	Solid	TX 1005	101545
600-69910-8 MS	SO-1620-SB04(3.5-5)-20130312	Total/NA	Solid	TX 1005	101545
600-69910-8 MSD	SO-1620-SB04(3.5-5)-20130312	Total/NA	Solid	TX 1005	101545
600-69910-9	SO-1620-SB03(3-5)-20130312	Total/NA	Solid	TX 1005	101545
600-69910-12	SO-1620-DUP-20130312	Total/NA	Solid	TX 1005	101545
LCS 600-101545/2-A	Lab Control Sample	Total/NA	Solid	TX 1005	101545
MB 600-101545/1-A	Method Blank	Total/NA	Solid	TX 1005	101545

Analysis Batch: 101677

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-69910-4	SO-1620-SB08(2.25-4.5)-20130312	Total/NA	Solid	TX 1005	101545
600-69910-5	SO-1620-SB07(3-5)-20130312	Total/NA	Solid	TX 1005	101545
600-69910-6	SO-1620-SB06(2-4)-20130312	Total/NA	Solid	TX 1005	101545
600-69910-10	SO-1620-SB02(3-5)-20130312	Total/NA	Solid	TX 1005	101545
600-69910-11	SO-1620-SB01(4-5)-20130312	Total/NA	Solid	TX 1005	101545

Metals

Prep Batch: 101546

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-69910-1	SO-1620-SB12(2-4)-20130312	Total/NA	Solid	3050B	
600-69910-2	SO-1620-SB11(2.5-4)-20130312	Total/NA	Solid	3050B	
600-69910-3	SO-1620-SB09((1-4)-20130312	Total/NA	Solid	3050B	
600-69910-4	SO-1620-SB08(2.25-4.5)-20130312	Total/NA	Solid	3050B	
600-69910-5	SO-1620-SB07(3-5)-20130312	Total/NA	Solid	3050B	
600-69910-6	SO-1620-SB06(2-4)-20130312	Total/NA	Solid	3050B	
600-69910-7	SO-1620-SB05(1-4)-20130312	Total/NA	Solid	3050B	
600-69910-8	SO-1620-SB04(3.5-5)-20130312	Total/NA	Solid	3050B	
600-69910-8 DU	SO-1620-SB04(3.5-5)-20130312	Total/NA	Solid	3050B	
600-69910-8 MS	SO-1620-SB04(3.5-5)-20130312	Total/NA	Solid	3050B	
600-69910-8 MSD	SO-1620-SB04(3.5-5)-20130312	Total/NA	Solid	3050B	
600-69910-9	SO-1620-SB03(3-5)-20130312	Total/NA	Solid	3050B	
600-69910-10	SO-1620-SB02(3-5)-20130312	Total/NA	Solid	3050B	

TestAmerica Houston

QC Association Summary

Client: Pastor, Behling & Wheeler LLC
 Project/Site: UPRR HWPW

TestAmerica Job ID: 600-69910-1

Metals (Continued)

Prep Batch: 101546 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-69910-11	SO-1620-SB01(4-5)-20130312	Total/NA	Solid	3050B	
600-69910-12	SO-1620-DUP-20130312	Total/NA	Solid	3050B	
600-69910-12 - DL	SO-1620-DUP-20130312	Total/NA	Solid	3050B	
LCSSRM 600-101546/2-A	Lab Control Sample	Total/NA	Solid	3050B	
MB 600-101546/1-A	Method Blank	Total/NA	Solid	3050B	

Analysis Batch: 101645

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-69910-1	SO-1620-SB12(2-4)-20130312	Total/NA	Solid	6010B	101546
600-69910-2	SO-1620-SB11(2.5-4)-20130312	Total/NA	Solid	6010B	101546
600-69910-3	SO-1620-SB09((1-4)-20130312	Total/NA	Solid	6010B	101546
600-69910-4	SO-1620-SB08(2.25-4.5)-20130312	Total/NA	Solid	6010B	101546
600-69910-5	SO-1620-SB07(3-5)-20130312	Total/NA	Solid	6010B	101546
600-69910-6	SO-1620-SB06(2-4)-20130312	Total/NA	Solid	6010B	101546
600-69910-7	SO-1620-SB05(1-4)-20130312	Total/NA	Solid	6010B	101546
600-69910-8	SO-1620-SB04(3.5-5)-20130312	Total/NA	Solid	6010B	101546
600-69910-8 DU	SO-1620-SB04(3.5-5)-20130312	Total/NA	Solid	6010B	101546
600-69910-8 MS	SO-1620-SB04(3.5-5)-20130312	Total/NA	Solid	6010B	101546
600-69910-8 MSD	SO-1620-SB04(3.5-5)-20130312	Total/NA	Solid	6010B	101546
600-69910-9	SO-1620-SB03(3-5)-20130312	Total/NA	Solid	6010B	101546
600-69910-10	SO-1620-SB02(3-5)-20130312	Total/NA	Solid	6010B	101546
600-69910-11	SO-1620-SB01(4-5)-20130312	Total/NA	Solid	6010B	101546
600-69910-12	SO-1620-DUP-20130312	Total/NA	Solid	6010B	101546
600-69910-12 - DL	SO-1620-DUP-20130312	Total/NA	Solid	6010B	101546
LCSSRM 600-101546/2-A	Lab Control Sample	Total/NA	Solid	6010B	101546
MB 600-101546/1-A	Method Blank	Total/NA	Solid	6010B	101546

Leach Batch: 101668

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-69910-1	SO-1620-SB12(2-4)-20130312	TCLP	Solid	1311	
600-69910-1 MS	SO-1620-SB12(2-4)-20130312	TCLP	Solid	1311	
600-69910-1 MSD	SO-1620-SB12(2-4)-20130312	TCLP	Solid	1311	
600-69910-3	SO-1620-SB09((1-4)-20130312	TCLP	Solid	1311	
600-69910-4	SO-1620-SB08(2.25-4.5)-20130312	TCLP	Solid	1311	
600-69910-10	SO-1620-SB02(3-5)-20130312	TCLP	Solid	1311	
LB 600-101668/1-B LB	Method Blank	TCLP	Solid	1311	

Leach Batch: 101670

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-69910-2	SO-1620-SB11(2.5-4)-20130312	TCLP	Solid	1311	
600-69910-2 MS	SO-1620-SB11(2.5-4)-20130312	TCLP	Solid	1311	
600-69910-2 MSD	SO-1620-SB11(2.5-4)-20130312	TCLP	Solid	1311	
600-69910-5	SO-1620-SB07(3-5)-20130312	TCLP	Solid	1311	
600-69910-6	SO-1620-SB06(2-4)-20130312	TCLP	Solid	1311	
600-69910-7	SO-1620-SB05(1-4)-20130312	TCLP	Solid	1311	
600-69910-8	SO-1620-SB04(3.5-5)-20130312	TCLP	Solid	1311	
600-69910-9	SO-1620-SB03(3-5)-20130312	TCLP	Solid	1311	
600-69910-11	SO-1620-SB01(4-5)-20130312	TCLP	Solid	1311	
600-69910-11 MS	SO-1620-SB01(4-5)-20130312	TCLP	Solid	1311	
600-69910-11 MSD	SO-1620-SB01(4-5)-20130312	TCLP	Solid	1311	
600-69910-12	SO-1620-DUP-20130312	TCLP	Solid	1311	

TestAmerica Houston

QC Association Summary

Client: Pastor, Behling & Wheeler LLC
 Project/Site: UPRR HWPW

TestAmerica Job ID: 600-69910-1

Metals (Continued)

Leach Batch: 101670 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LB 600-101670/1-B LB	Method Blank	TCLP	Solid	1311	
LB 600-101670/1-C LB	Method Blank	TCLP	Solid	1311	

Prep Batch: 101763

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-69910-1	SO-1620-SB12(2-4)-20130312	TCLP	Solid	3010A	101668
600-69910-1 MS	SO-1620-SB12(2-4)-20130312	TCLP	Solid	3010A	101668
600-69910-1 MSD	SO-1620-SB12(2-4)-20130312	TCLP	Solid	3010A	101668
600-69910-2	SO-1620-SB11(2.5-4)-20130312	TCLP	Solid	3010A	101670
600-69910-2 MS	SO-1620-SB11(2.5-4)-20130312	TCLP	Solid	3010A	101670
600-69910-2 MSD	SO-1620-SB11(2.5-4)-20130312	TCLP	Solid	3010A	101670
600-69910-3	SO-1620-SB09((1-4)-20130312	TCLP	Solid	3010A	101668
600-69910-4	SO-1620-SB08(2.25-4.5)-20130312	TCLP	Solid	3010A	101668
600-69910-5	SO-1620-SB07(3-5)-20130312	TCLP	Solid	3010A	101670
600-69910-6	SO-1620-SB06(2-4)-20130312	TCLP	Solid	3010A	101670
600-69910-7	SO-1620-SB05(1-4)-20130312	TCLP	Solid	3010A	101670
600-69910-8	SO-1620-SB04(3.5-5)-20130312	TCLP	Solid	3010A	101670
600-69910-10	SO-1620-SB02(3-5)-20130312	TCLP	Solid	3010A	101668
LB 600-101668/1-B LB	Method Blank	TCLP	Solid	3010A	101668
LB 600-101670/1-B LB	Method Blank	TCLP	Solid	3010A	101670
LCS 600-101763/2-A	Lab Control Sample	Total/NA	Solid	3010A	
MB 600-101763/1-A	Method Blank	Total/NA	Solid	3010A	

Prep Batch: 101779

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-69910-9	SO-1620-SB03(3-5)-20130312	TCLP	Solid	3010A	101670
600-69910-11	SO-1620-SB01(4-5)-20130312	TCLP	Solid	3010A	101670
600-69910-11 MS	SO-1620-SB01(4-5)-20130312	TCLP	Solid	3010A	101670
600-69910-11 MSD	SO-1620-SB01(4-5)-20130312	TCLP	Solid	3010A	101670
600-69910-12	SO-1620-DUP-20130312	TCLP	Solid	3010A	101670
LB 600-101670/1-C LB	Method Blank	TCLP	Solid	3010A	101670
LCS 600-101779/2-A	Lab Control Sample	Total/NA	Solid	3010A	
MB 600-101779/1-A	Method Blank	Total/NA	Solid	3010A	

Analysis Batch: 101886

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-69910-9	SO-1620-SB03(3-5)-20130312	TCLP	Solid	6010B	101779
600-69910-11	SO-1620-SB01(4-5)-20130312	TCLP	Solid	6010B	101779
600-69910-11 MS	SO-1620-SB01(4-5)-20130312	TCLP	Solid	6010B	101779
600-69910-11 MSD	SO-1620-SB01(4-5)-20130312	TCLP	Solid	6010B	101779
600-69910-12	SO-1620-DUP-20130312	TCLP	Solid	6010B	101779
LB 600-101670/1-C LB	Method Blank	TCLP	Solid	6010B	101779
LCS 600-101779/2-A	Lab Control Sample	Total/NA	Solid	6010B	101779
MB 600-101779/1-A	Method Blank	Total/NA	Solid	6010B	101779

Analysis Batch: 101898

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-69910-1	SO-1620-SB12(2-4)-20130312	TCLP	Solid	6010B	101763
600-69910-1 MS	SO-1620-SB12(2-4)-20130312	TCLP	Solid	6010B	101763
600-69910-1 MSD	SO-1620-SB12(2-4)-20130312	TCLP	Solid	6010B	101763
600-69910-2	SO-1620-SB11(2.5-4)-20130312	TCLP	Solid	6010B	101763

TestAmerica Houston

QC Association Summary

Client: Pastor, Behling & Wheeler LLC
Project/Site: UPRR HWPW

TestAmerica Job ID: 600-69910-1

Metals (Continued)

Analysis Batch: 101898 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-69910-2 MS	SO-1620-SB11(2.5-4)-20130312	TCLP	Solid	6010B	101763
600-69910-2 MSD	SO-1620-SB11(2.5-4)-20130312	TCLP	Solid	6010B	101763
600-69910-3	SO-1620-SB09((1-4)-20130312	TCLP	Solid	6010B	101763
600-69910-4	SO-1620-SB08(2.25-4.5)-20130312	TCLP	Solid	6010B	101763
600-69910-5	SO-1620-SB07(3-5)-20130312	TCLP	Solid	6010B	101763
600-69910-6	SO-1620-SB06(2-4)-20130312	TCLP	Solid	6010B	101763
600-69910-7	SO-1620-SB05(1-4)-20130312	TCLP	Solid	6010B	101763
600-69910-8	SO-1620-SB04(3.5-5)-20130312	TCLP	Solid	6010B	101763
600-69910-10	SO-1620-SB02(3-5)-20130312	TCLP	Solid	6010B	101763
LB 600-101668/1-B LB	Method Blank	TCLP	Solid	6010B	101763
LB 600-101670/1-B LB	Method Blank	TCLP	Solid	6010B	101763
LCS 600-101763/2-A	Lab Control Sample	Total/NA	Solid	6010B	101763
MB 600-101763/1-A	Method Blank	Total/NA	Solid	6010B	101763

General Chemistry

Analysis Batch: 101589

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-69910-1	SO-1620-SB12(2-4)-20130312	Total/NA	Solid	Moisture	
600-69910-2	SO-1620-SB11(2.5-4)-20130312	Total/NA	Solid	Moisture	
600-69910-2 DU	SO-1620-SB11(2.5-4)-20130312	Total/NA	Solid	Moisture	
600-69910-3	SO-1620-SB09((1-4)-20130312	Total/NA	Solid	Moisture	
600-69910-4	SO-1620-SB08(2.25-4.5)-20130312	Total/NA	Solid	Moisture	
600-69910-5	SO-1620-SB07(3-5)-20130312	Total/NA	Solid	Moisture	
600-69910-6	SO-1620-SB06(2-4)-20130312	Total/NA	Solid	Moisture	
600-69910-7	SO-1620-SB05(1-4)-20130312	Total/NA	Solid	Moisture	
600-69910-8	SO-1620-SB04(3.5-5)-20130312	Total/NA	Solid	Moisture	
600-69910-9	SO-1620-SB03(3-5)-20130312	Total/NA	Solid	Moisture	
600-69910-10	SO-1620-SB02(3-5)-20130312	Total/NA	Solid	Moisture	
600-69910-11	SO-1620-SB01(4-5)-20130312	Total/NA	Solid	Moisture	
600-69910-12	SO-1620-DUP-20130312	Total/NA	Solid	Moisture	

Lab Chronicle

Client: Pastor, Behling & Wheeler LLC
 Project/Site: UPRR HWPW

TestAmerica Job ID: 600-69910-1

Client Sample ID: SO-1620-SB12(2-4)-20130312

Lab Sample ID: 600-69910-1

Date Collected: 03/12/13 11:45

Matrix: Solid

Date Received: 03/12/13 18:45

Percent Solids: 90.0

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	101554	03/13/13 16:29	WS	TAL HOU
Total/NA	Prep	3550B			101590	03/13/13 14:56	RK	TAL HOU
Total/NA	Analysis	8270C LL		10	101759	03/15/13 01:33	JH	TAL HOU
TCLP	Leach	1311			101668	03/14/13 12:05	CD	TAL HOU
TCLP	Prep	3510C			101777	03/15/13 13:42	LR	TAL HOU
TCLP	Analysis	8270C		1	101901	03/18/13 11:50	KP	TAL HOU
Total/NA	Prep	TX_1005_S_Prep			101545	03/13/13 09:21	NV	TAL HOU
Total/NA	Analysis	TX 1005		1	101675	03/13/13 18:16	RV	TAL HOU
Total/NA	Prep	3050B			101546	03/13/13 09:28	NER	TAL HOU
Total/NA	Analysis	6010B		1	101645	03/14/13 09:12	DCL	TAL HOU
TCLP	Leach	1311			101668	03/14/13 12:05	CD	TAL HOU
TCLP	Prep	3010A			101763	03/15/13 11:38	NER	TAL HOU
TCLP	Analysis	6010B		1	101898	03/18/13 14:21	DCL	TAL HOU
Total/NA	Analysis	Moisture		1	101589	03/13/13 14:53	AS	TAL HOU

Client Sample ID: SO-1620-SB11(2.5-4)-20130312

Lab Sample ID: 600-69910-2

Date Collected: 03/12/13 12:30

Matrix: Solid

Date Received: 03/12/13 18:45

Percent Solids: 83.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	101554	03/13/13 16:53	WS	TAL HOU
Total/NA	Prep	3550B			101590	03/13/13 14:56	RK	TAL HOU
Total/NA	Analysis	8270C LL		10	101759	03/15/13 02:00	JH	TAL HOU
TCLP	Leach	1311			101670	03/14/13 12:11	CD	TAL HOU
TCLP	Prep	3510C			101777	03/15/13 13:42	LR	TAL HOU
TCLP	Analysis	8270C		1	101901	03/18/13 14:18	KP	TAL HOU
Total/NA	Prep	TX_1005_S_Prep			101545	03/13/13 09:21	NV	TAL HOU
Total/NA	Analysis	TX 1005		2	101675	03/14/13 13:42	RV	TAL HOU
Total/NA	Prep	3050B			101546	03/13/13 09:28	NER	TAL HOU
Total/NA	Analysis	6010B		1	101645	03/14/13 09:15	DCL	TAL HOU
TCLP	Leach	1311			101670	03/14/13 12:11	CD	TAL HOU
TCLP	Prep	3010A			101763	03/15/13 11:38	NER	TAL HOU
TCLP	Analysis	6010B		1	101898	03/18/13 15:46	DCL	TAL HOU
Total/NA	Analysis	Moisture		1	101589	03/13/13 14:53	AS	TAL HOU

Client Sample ID: SO-1620-SB09((1-4)-20130312

Lab Sample ID: 600-69910-3

Date Collected: 03/12/13 14:30

Matrix: Solid

Date Received: 03/12/13 18:45

Percent Solids: 85.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	101554	03/13/13 17:17	WS	TAL HOU
Total/NA	Prep	3550B			101590	03/13/13 14:56	RK	TAL HOU
Total/NA	Analysis	8270C LL		10	101759	03/15/13 02:27	JH	TAL HOU

TestAmerica Houston

Lab Chronicle

Client: Pastor, Behling & Wheeler LLC
 Project/Site: UPRR HWPW

TestAmerica Job ID: 600-69910-1

Client Sample ID: SO-1620-SB09((1-4)-20130312

Lab Sample ID: 600-69910-3

Date Collected: 03/12/13 14:30

Matrix: Solid

Date Received: 03/12/13 18:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
TCLP	Leach	1311			101668	03/14/13 12:05	CD	TAL HOU
TCLP	Prep	3510C			101777	03/15/13 13:42	LR	TAL HOU
TCLP	Analysis	8270C		1	101901	03/18/13 12:27	KP	TAL HOU
Total/NA	Prep	TX_1005_S_Prep			101545	03/13/13 09:21	NV	TAL HOU
Total/NA	Analysis	TX 1005		1	101675	03/13/13 19:31	RV	TAL HOU
Total/NA	Prep	3050B			101546	03/13/13 09:28	NER	TAL HOU
Total/NA	Analysis	6010B		1	101645	03/14/13 09:17	DCL	TAL HOU
TCLP	Leach	1311			101668	03/14/13 12:05	CD	TAL HOU
TCLP	Prep	3010A			101763	03/15/13 11:38	NER	TAL HOU
TCLP	Analysis	6010B		1	101898	03/18/13 14:33	DCL	TAL HOU
Total/NA	Analysis	Moisture		1	101589	03/13/13 14:53	AS	TAL HOU

Client Sample ID: SO-1620-SB08(2.25-4.5)-20130312

Lab Sample ID: 600-69910-4

Date Collected: 03/12/13 17:20

Matrix: Solid

Date Received: 03/12/13 18:45

Percent Solids: 88.0

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		5	101554	03/13/13 19:16	WS	TAL HOU
Total/NA	Prep	3550B			101590	03/13/13 14:56	RK	TAL HOU
Total/NA	Analysis	8270C LL		500	101883	03/15/13 15:38	TTD	TAL HOU
TCLP	Leach	1311			101668	03/14/13 12:05	CD	TAL HOU
TCLP	Prep	3510C			101777	03/15/13 13:42	LR	TAL HOU
TCLP	Analysis	8270C		1	101901	03/18/13 13:04	KP	TAL HOU
Total/NA	Prep	3550B	DL		101590	03/13/13 14:56	RK	TAL HOU
Total/NA	Analysis	8270C LL	DL	2500	101940	03/18/13 17:36	TTD	TAL HOU
Total/NA	Prep	TX_1005_S_Prep			101545	03/13/13 09:21	NV	TAL HOU
Total/NA	Analysis	TX 1005		8	101677	03/14/13 11:11	RV	TAL HOU
Total/NA	Prep	3050B			101546	03/13/13 09:28	NER	TAL HOU
Total/NA	Analysis	6010B		1	101645	03/14/13 09:20	DCL	TAL HOU
TCLP	Leach	1311			101668	03/14/13 12:05	CD	TAL HOU
TCLP	Prep	3010A			101763	03/15/13 11:38	NER	TAL HOU
TCLP	Analysis	6010B		1	101898	03/18/13 14:37	DCL	TAL HOU
Total/NA	Analysis	Moisture		1	101589	03/13/13 14:53	AS	TAL HOU

Client Sample ID: SO-1620-SB07(3-5)-20130312

Lab Sample ID: 600-69910-5

Date Collected: 03/12/13 17:05

Matrix: Solid

Date Received: 03/12/13 18:45

Percent Solids: 60.2

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		5	101554	03/13/13 19:40	WS	TAL HOU
Total/NA	Prep	3550B			101590	03/13/13 14:56	RK	TAL HOU
Total/NA	Analysis	8270C LL		10	101759	03/15/13 03:20	JH	TAL HOU
Total/NA	Prep	3550B	DL		101590	03/13/13 14:56	RK	TAL HOU

TestAmerica Houston

Lab Chronicle

Client: Pastor, Behling & Wheeler LLC
 Project/Site: UPRR HWPW

TestAmerica Job ID: 600-69910-1

Client Sample ID: SO-1620-SB07(3-5)-20130312

Lab Sample ID: 600-69910-5

Date Collected: 03/12/13 17:05

Matrix: Solid

Date Received: 03/12/13 18:45

Percent Solids: 60.2

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8270C LL	DL	100	101883	03/15/13 16:04	TTD	TAL HOU
TCLP	Leach	1311			101670	03/14/13 12:11	CD	TAL HOU
TCLP	Prep	3510C			101777	03/15/13 13:42	LR	TAL HOU
TCLP	Analysis	8270C		1	101897	03/18/13 14:32	KP	TAL HOU
Total/NA	Prep	TX_1005_S_Prep			101545	03/13/13 09:21	NV	TAL HOU
Total/NA	Analysis	TX 1005		20	101677	03/14/13 11:48	RV	TAL HOU
Total/NA	Prep	3050B			101546	03/13/13 09:28	NER	TAL HOU
Total/NA	Analysis	6010B		1	101645	03/14/13 09:22	DCL	TAL HOU
TCLP	Leach	1311			101670	03/14/13 12:11	CD	TAL HOU
TCLP	Prep	3010A			101763	03/15/13 11:38	NER	TAL HOU
TCLP	Analysis	6010B		1	101898	03/18/13 15:58	DCL	TAL HOU
Total/NA	Analysis	Moisture		1	101589	03/13/13 14:53	AS	TAL HOU

Client Sample ID: SO-1620-SB06(2-4)-20130312

Lab Sample ID: 600-69910-6

Date Collected: 03/12/13 16:50

Matrix: Solid

Date Received: 03/12/13 18:45

Percent Solids: 80.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	101554	03/13/13 17:41	WS	TAL HOU
Total/NA	Prep	3550B			101590	03/13/13 14:56	RK	TAL HOU
Total/NA	Analysis	8270C LL		10	101759	03/15/13 03:47	JH	TAL HOU
TCLP	Leach	1311			101670	03/14/13 12:11	CD	TAL HOU
TCLP	Prep	3510C			101777	03/15/13 13:42	LR	TAL HOU
TCLP	Analysis	8270C		1	101897	03/18/13 15:07	KP	TAL HOU
Total/NA	Prep	TX_1005_S_Prep			101545	03/13/13 09:21	NV	TAL HOU
Total/NA	Analysis	TX 1005		1	101677	03/14/13 13:01	RV	TAL HOU
Total/NA	Prep	3050B			101546	03/13/13 09:28	NER	TAL HOU
Total/NA	Analysis	6010B		1	101645	03/14/13 09:25	DCL	TAL HOU
TCLP	Leach	1311			101670	03/14/13 12:11	CD	TAL HOU
TCLP	Prep	3010A			101763	03/15/13 11:38	NER	TAL HOU
TCLP	Analysis	6010B		1	101898	03/18/13 16:01	DCL	TAL HOU
Total/NA	Analysis	Moisture		1	101589	03/13/13 14:53	AS	TAL HOU

Client Sample ID: SO-1620-SB05(1-4)-20130312

Lab Sample ID: 600-69910-7

Date Collected: 03/12/13 15:00

Matrix: Solid

Date Received: 03/12/13 18:45

Percent Solids: 79.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	101554	03/13/13 18:05	WS	TAL HOU
Total/NA	Prep	3550B			101590	03/13/13 14:56	RK	TAL HOU
Total/NA	Analysis	8270C LL		10	101759	03/15/13 04:13	JH	TAL HOU
TCLP	Leach	1311			101670	03/14/13 12:11	CD	TAL HOU
TCLP	Prep	3510C			101777	03/15/13 13:42	LR	TAL HOU

TestAmerica Houston

Lab Chronicle

Client: Pastor, Behling & Wheeler LLC
 Project/Site: UPRR HWPW

TestAmerica Job ID: 600-69910-1

Client Sample ID: SO-1620-SB05(1-4)-20130312

Lab Sample ID: 600-69910-7

Date Collected: 03/12/13 15:00

Matrix: Solid

Date Received: 03/12/13 18:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
TCLP	Analysis	8270C		1	101897	03/18/13 15:42	KP	TAL HOU
Total/NA	Prep	TX_1005_S_Prep			101545	03/13/13 09:21	NV	TAL HOU
Total/NA	Analysis	TX 1005		1	101675	03/13/13 22:36	RV	TAL HOU
Total/NA	Prep	3050B			101546	03/13/13 09:28	NER	TAL HOU
Total/NA	Analysis	6010B		1	101645	03/14/13 09:28	DCL	TAL HOU
TCLP	Leach	1311			101670	03/14/13 12:11	CD	TAL HOU
TCLP	Prep	3010A			101763	03/15/13 11:38	NER	TAL HOU
TCLP	Analysis	6010B		1	101898	03/18/13 16:05	DCL	TAL HOU
Total/NA	Analysis	Moisture		1	101589	03/13/13 14:53	AS	TAL HOU

Client Sample ID: SO-1620-SB04(3.5-5)-20130312

Lab Sample ID: 600-69910-8

Date Collected: 03/12/13 16:30

Matrix: Solid

Date Received: 03/12/13 18:45

Percent Solids: 88.6

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	101554	03/13/13 18:29	WS	TAL HOU
Total/NA	Prep	3550B			101590	03/13/13 14:56	RK	TAL HOU
Total/NA	Analysis	8270C LL		10	101759	03/15/13 04:40	JH	TAL HOU
TCLP	Leach	1311			101670	03/14/13 12:11	CD	TAL HOU
TCLP	Prep	3510C			101777	03/15/13 13:42	LR	TAL HOU
TCLP	Analysis	8270C		1	101897	03/18/13 16:17	KP	TAL HOU
Total/NA	Prep	TX_1005_S_Prep			101545	03/13/13 09:21	NV	TAL HOU
Total/NA	Analysis	TX 1005		1	101675	03/13/13 23:13	RV	TAL HOU
Total/NA	Prep	3050B			101546	03/13/13 09:28	NER	TAL HOU
Total/NA	Analysis	6010B		1	101645	03/14/13 09:30	DCL	TAL HOU
TCLP	Leach	1311			101670	03/14/13 12:11	CD	TAL HOU
TCLP	Prep	3010A			101763	03/15/13 11:38	NER	TAL HOU
TCLP	Analysis	6010B		1	101898	03/18/13 16:09	DCL	TAL HOU
Total/NA	Analysis	Moisture		1	101589	03/13/13 14:53	AS	TAL HOU

Client Sample ID: SO-1620-SB03(3-5)-20130312

Lab Sample ID: 600-69910-9

Date Collected: 03/12/13 17:45

Matrix: Solid

Date Received: 03/12/13 18:45

Percent Solids: 81.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	101690	03/14/13 12:00	WS	TAL HOU
Total/NA	Prep	3550B			101590	03/13/13 14:56	RK	TAL HOU
Total/NA	Analysis	8270C LL		10	101759	03/15/13 05:07	JH	TAL HOU
TCLP	Leach	1311			101670	03/14/13 12:11	CD	TAL HOU
TCLP	Prep	3510C			101777	03/15/13 13:42	LR	TAL HOU
TCLP	Analysis	8270C		1	101897	03/18/13 16:52	KP	TAL HOU
Total/NA	Prep	TX_1005_S_Prep			101545	03/13/13 09:21	NV	TAL HOU
Total/NA	Analysis	TX 1005		1	101675	03/14/13 11:11	RV	TAL HOU

TestAmerica Houston

Lab Chronicle

Client: Pastor, Behling & Wheeler LLC
 Project/Site: UPRR HWPW

TestAmerica Job ID: 600-69910-1

Client Sample ID: SO-1620-SB03(3-5)-20130312

Lab Sample ID: 600-69910-9

Date Collected: 03/12/13 17:45

Matrix: Solid

Date Received: 03/12/13 18:45

Percent Solids: 81.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			101546	03/13/13 09:28	NER	TAL HOU
Total/NA	Analysis	6010B		1	101645	03/14/13 09:47	DCL	TAL HOU
TCLP	Leach	1311			101670	03/14/13 12:11	CD	TAL HOU
TCLP	Prep	3010A			101779	03/15/13 13:46	NER	TAL HOU
TCLP	Analysis	6010B		1	101886	03/18/13 15:32	DCL	TAL HOU
Total/NA	Analysis	Moisture		1	101589	03/13/13 14:53	AS	TAL HOU

Client Sample ID: SO-1620-SB02(3-5)-20130312

Lab Sample ID: 600-69910-10

Date Collected: 03/12/13 18:00

Matrix: Solid

Date Received: 03/12/13 18:45

Percent Solids: 77.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	101690	03/14/13 12:23	WS	TAL HOU
Total/NA	Prep	3550B			101590	03/13/13 14:56	RK	TAL HOU
Total/NA	Analysis	8270C LL		10	101759	03/15/13 05:33	JH	TAL HOU
TCLP	Leach	1311			101668	03/14/13 12:05	CD	TAL HOU
TCLP	Prep	3510C			101777	03/15/13 13:42	LR	TAL HOU
TCLP	Analysis	8270C		1	101901	03/18/13 13:40	KP	TAL HOU
Total/NA	Prep	TX_1005_S_Prep			101545	03/13/13 09:21	NV	TAL HOU
Total/NA	Analysis	TX 1005		1	101677	03/13/13 20:45	RV	TAL HOU
Total/NA	Prep	3050B			101546	03/13/13 09:28	NER	TAL HOU
Total/NA	Analysis	6010B		1	101645	03/14/13 09:50	DCL	TAL HOU
TCLP	Leach	1311			101668	03/14/13 12:05	CD	TAL HOU
TCLP	Prep	3010A			101763	03/15/13 11:38	NER	TAL HOU
TCLP	Analysis	6010B		1	101898	03/18/13 14:41	DCL	TAL HOU
Total/NA	Analysis	Moisture		1	101589	03/13/13 14:53	AS	TAL HOU

Client Sample ID: SO-1620-SB01(4-5)-20130312

Lab Sample ID: 600-69910-11

Date Collected: 03/12/13 18:15

Matrix: Solid

Date Received: 03/12/13 18:45

Percent Solids: 89.2

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	101690	03/14/13 12:47	WS	TAL HOU
Total/NA	Prep	3550B			101590	03/13/13 14:56	RK	TAL HOU
Total/NA	Analysis	8270C LL		10	101883	03/15/13 14:18	TTD	TAL HOU
TCLP	Leach	1311			101670	03/14/13 12:11	CD	TAL HOU
TCLP	Prep	3510C			101777	03/15/13 13:42	LR	TAL HOU
TCLP	Analysis	8270C		1	101897	03/18/13 17:27	KP	TAL HOU
Total/NA	Prep	TX_1005_S_Prep			101545	03/13/13 09:21	NV	TAL HOU
Total/NA	Analysis	TX 1005		1	101677	03/13/13 22:00	RV	TAL HOU
Total/NA	Prep	3050B			101546	03/13/13 09:28	NER	TAL HOU
Total/NA	Analysis	6010B		1	101645	03/14/13 09:53	DCL	TAL HOU
TCLP	Leach	1311			101670	03/14/13 12:11	CD	TAL HOU

TestAmerica Houston

Lab Chronicle

Client: Pastor, Behling & Wheeler LLC
 Project/Site: UPRR HWPW

TestAmerica Job ID: 600-69910-1

Client Sample ID: SO-1620-SB01(4-5)-20130312

Lab Sample ID: 600-69910-11

Date Collected: 03/12/13 18:15

Matrix: Solid

Date Received: 03/12/13 18:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
TCLP	Prep	3010A			101779	03/15/13 13:46	NER	TAL HOU
TCLP	Analysis	6010B		1	101886	03/18/13 15:34	DCL	TAL HOU
Total/NA	Analysis	Moisture		1	101589	03/13/13 14:53	AS	TAL HOU

Client Sample ID: SO-1620-DUP-20130312

Lab Sample ID: 600-69910-12

Date Collected: 03/12/13 00:00

Matrix: Solid

Date Received: 03/12/13 18:45

Percent Solids: 84.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	101690	03/14/13 13:10	WS	TAL HOU
Total/NA	Prep	3550B			101590	03/13/13 14:56	RK	TAL HOU
Total/NA	Analysis	8270C LL		10	101883	03/15/13 14:45	TTD	TAL HOU
TCLP	Leach	1311			101670	03/14/13 12:11	CD	TAL HOU
TCLP	Prep	3510C			101777	03/15/13 13:42	LR	TAL HOU
TCLP	Analysis	8270C		1	101897	03/18/13 18:02	KP	TAL HOU
Total/NA	Prep	TX_1005_S_Prep			101545	03/13/13 09:21	NV	TAL HOU
Total/NA	Analysis	TX 1005		1	101675	03/14/13 11:48	RV	TAL HOU
Total/NA	Prep	3050B			101546	03/13/13 09:28	NER	TAL HOU
Total/NA	Analysis	6010B		1	101645	03/14/13 09:55	DCL	TAL HOU
Total/NA	Prep	3050B	DL		101546	03/13/13 09:28	NER	TAL HOU
Total/NA	Analysis	6010B	DL	10	101645	03/14/13 10:30	DCL	TAL HOU
TCLP	Leach	1311			101670	03/14/13 12:11	CD	TAL HOU
TCLP	Prep	3010A			101779	03/15/13 13:46	NER	TAL HOU
TCLP	Analysis	6010B		1	101886	03/18/13 15:41	DCL	TAL HOU
Total/NA	Analysis	Moisture		1	101589	03/13/13 14:53	AS	TAL HOU

Laboratory References:

TAL HOU = TestAmerica Houston, 6310 Rothway Street, Houston, TX 77040, TEL (713)690-4444

Certification Summary

Client: Pastor, Behling & Wheeler LLC
Project/Site: UPRR HWPW

TestAmerica Job ID: 600-69910-1

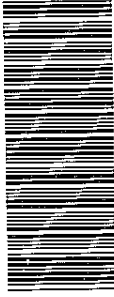
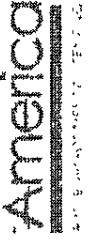
Laboratory: TestAmerica Houston

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Arkansas DEQ	State Program	6	88-0759	08-04-12
Louisiana	NELAP	6	01967	06-30-13
Oklahoma	State Program	6	9503	08-31-13
Texas	NELAP	6	T104704223-10-6-TX	10-31-13
USDA	Federal		P330-08-00217	04-01-14
Utah	NELAP	8	GULF	10-31-13

TestAmerica
 6310 Rothway Street
 Houston, TX 77040
 Phone (713) 690-4444 Fax (713) 690-5646

Chain of Custody Rec



Client Contact: Mr. Eric Matzner
 Company: Pastor, Behling & Wheeler LLC
 Address: 2201 Double Creek Dr Suite 4004
 City: Round Rock
 State, Zip: TX, 78664
 Phone: 512-671-3434(Tel) 512-671-3446(Fax)
 Email: eric.matzner@pbwilc.com
 Project Name: UPRR HWPW
 Site:
 Project #: 80003722
 SOW#:
 Lab PIV: Kudochadkar, Sachin G
 E-Mail: sachin.kudochadkar@testamerica.com
 Sampler: Patrick Ferrell
 Phone: (281)734-3871
 Due Date Requested:
 TAT Requested (days): 48 hr RUSH
 PO #: Purchase Order not required
 WO #:
 Page: 7413.3
 Page of 1
 Job #

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (Water, Solid, On-water, A=Air)	Analysis Requested										Special Instructions/Note:	
					6010B - Pb, As	8280B - Volatiles	8270C - Semivolatiles	TX1005 - TPH	TCLP - SVOC	TCLP - Metals	TCLP - VOC	Field Filtered Sample (Yes or No)	Reference MS/MSD (Yes or No)	Preservation Codes:		
S0-1620-SB12-2(1-3)20120312	03/12/13	11:45	G	Solid	X	X	X	X	X	X	X	X	X	X		
S0-1620-SB11(1-3)20120312		1230		Solid												
S0-1620-SB10(1-3)20120312		1340		Solid												
S0-1620-SB09(1-3)20120312		1430		Solid												
S0-1620-SB08(1-3)20120312		1720		Solid												
S0-1620-SB07(1-3)20130312		1705		Solid												
S0-1620-SB06(1-3)20130312		1650		Solid												
S0-1620-SB05(1-3)20130312		1500		Solid												
S0-1620-SB04(1-3)20130312		1630		Solid												
S0-1620-SB03(1-3)20130312		1745		Solid												
S0-1620-SB02(1-3)20130312	Y	1800	Y	Solid	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y

Possible Hazard Identification
 Non-Hazard Flammable Skin Irritant Poison B Unknown Radiological

Deliverable Requested: I, II, III, IV, Other (specify)

Empty Kit Relinquished by: _____ Date: _____

Relinquished by: P. Ferrell Date/Time: 3/12/13 1845 Company: PBO

Relinquished by: _____ Date/Time: _____ Company: _____

Relinquished by: _____ Date/Time: _____ Company: _____

Custody Seals Intact: _____ Custody Seal No.: _____
 A Yes Δ No

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
 Return To Client Disposal By Lab Archive For _____ Months

Special Instructions/OC Requirements:

Method of Shipment: _____ Date/Time: 03/12/13 1845 Company: PBO

Received by: _____ Date/Time: _____ Company: _____

Received by: _____ Date/Time: _____ Company: _____

Received by: _____ Date/Time: _____ Company: _____

Cooler Temperature(s) °C and Other Remarks:



Chain of Custody Record

Client Information Client Contact: Mr. Eric Matzner Company: Pastor, Behling & Wheeler LLC Address: 2201 Double Creek Dr Suite 4004 City: Round Rock State, Zip: TX, 78664 Phone: 512-671-3434 (Tel) 512-671-3446 (Fax) Email: eric.matzner@pbwllc.com Project Name: UPRR HWPW Site:		Lab P/M: Kutchadkar, Sachin G E-Mail: sachin.kutchadkar@testamerica.com Phone: 281 734 3871 Due Date Requested: 48 hr Rush TAT Requested (days): PO #: Purchase Order not required WO #: Project #: 60003722 SSO #: Carrier Tracking No(s): 600-19512-7413.3 Page: of Job #: Preservation Codes: M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - Na2S2O3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4-6 X - EDTA L - EDA Z - other (specify) Other:	
Analysis Requested 8010B - Pb, As 8260B - Volatiles 8270C - Semivolatiles TX1005 - TPH TCLP - SVOC TCLP - Metals TCLP VOC Total Number of Containers:		Special Instructions/Note: Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return to Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months Special Instructions/QC Requirements:	
Sample Identification 50-1620- ESB01 (1-3) 20130312 50-1620-DUP (1-3) 20130312		Matrix (Water, Solid, Semisolid, Other) Sample Type (C=Comp, G=grab) Sample Time Sample Date Preservation Code: Solid Solid Solid Solid Solid Solid Solid Solid Solid	
Possible Hazard Identification <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological		Empty Kit Relinquished by:	
Relinquished by: P. Ferrell Date/Time: 3/12/13 / 1845 Company: PBW		Received by: [Signature] Date/Time: 03/12/13 / 1845 Company: TAI	
Relinquished by:		Received by:	
Relinquished by:		Received by:	
Custody Seals Intact: Δ Yes Δ No		Cooler Temperature(s) °C and Other Remarks:	



Login Sample Receipt Checklist

Client: Pastor, Behling & Wheeler LLC

Job Number: 600-69910-1

Login Number: 69910

List Source: TestAmerica Houston

List Number: 1

Creator: Pulumbarit, Josh

Question	Answer	Comment
Radioactivity wasn't checked or is <=/ background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	Received same day of collection; chilling process has begun.
Cooler Temperature is recorded.	True	7.4-13.4
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	True	





**CONESTOGA-ROVERS
& ASSOCIATES**

E-Mail Date

September 24, 2013

E-Mail To:

Eric Matzner

c.c.:

Chris G. Knight

E-Mail and Hard Copy if Requested

**DATA USABILITY SUMMARY
SEMIANNUAL GROUND WATER SAMPLING
UNION PACIFIC RAILROAD (UPRR)
1620 - WOOD PRESERVING WORKS
HOUSTON, TEXAS
JULY - AUGUST 2013**

PREPARED BY:

CONESTOGA-ROVERS & ASSOCIATES

13091 Pond Springs Road, Suite A 100

Austin, TX 78729

Telephone: 512-506-8803 Fax: 512-506-8823

Contact: Chris G. Knight

Date: September 24, 2013

www.CRAworld.com

Data Usability Summary

Reviewer:	Chris G. Knight - Conestoga-Rovers & Associates, Inc.
Contract Laboratory:	TestAmerica - Houston, Texas
Project/Area of Interest:	1620 - Wood Preserving Works
Description of Data Packages Reviewed:	Groundwater sample results in TestAmerica data package: J77098, J77257, J22524, and J77584
Sample Collection Date:	July - August 2013
Intended Use of Data:	<i>To determine the concentrations of chemicals of concern (COCs) in the groundwater samples at the site.</i>

1.0 Scope of Data Usability Summary

Data was reviewed and validated in accordance with Title 30 of the Texas Administrative Code Section 350.54 (30 TAC 350.54) as described in *Review and Reporting of COC Concentration Data*, (RG-366/TRRP-13) and the results of the review/validation are discussed in this Data Usability Summary (DUS). The review included examination of the reported data, the laboratory review checklist (LRC), and laboratory quality assurance/quality control (QA/QC) samples. Tables summarizing data qualifications discussed in this DUS can be found in Appendix A.

Groundwater samples and associated field quality control samples were collected at the UPRR-1620 Wood Preserving Works Site in Houston, Texas and submitted for analysis. A sampling and analysis summary is presented in Table 1. The TestAmerica data packages, including the LRC and any associated exception reports, are presented in Appendix B. The data packages include sample identification cross-reference lists. Each sample is assigned a unique field identification number.

2.0 Laboratory Qualifications

Analytical services were provided by TestAmerica located in Houston, Texas. This laboratory's quality assurance program is consistent with the quality standards outlined in the National Environmental Laboratory Accreditation Program (NELAP). TestAmerica held NELAP Certification Number TX (T104704223-10-6-TX) at the time that the analyses were performed.

3.0 Project Objectives

3.1 Levels of Required Performance (LORP)

LORP for COC are intended to ensure laboratory detection limits are below protective concentration levels (PCL). Prior to sampling, the LORP for each organic COC was established for the investigation. Standard available analytical methods were selected and minimal detection limits were sought.

3.2 Sampling/ Analytical QA/QC Objectives

The QA/QC program was designed to identify contamination resulting from sample collection, sample transport and the analytical process.

- Method blanks of a similar matrix to that of the associated samples are prepared by the laboratory and analyzed to determine if laboratory contaminants are affecting the analytical results. Method blanks are prepared and analyzed with each batch.
- The trip blank is a zero headspace sample container filled by the laboratory with analyte-free water. Trip blanks were submitted and analyzed with the samples requiring volatile organic analyses. The trip blank samples were kept in the same environment in which the other field samples were collected.
- Field blanks are sample containers filled in the field with analyte-free water, which evaluates any ambient contamination that may be present during sampling.

Similarly, the QA/QC program was designed to evaluate the quality of the resulting data with respect to bias and precision. First, laboratory control samples (LCS) were prepared and analyzed with each batch. The recovery ranges established by the laboratory are adopted as the acceptance criteria for the project. Second, matrix spike/matrix spike duplicates (MS/MSD) or laboratory duplicates are prepared and analyzed with each batch. The recovery ranges and relative percent differences (RPDs) established by the laboratory are adopted as the acceptance criteria for the project.

4.0 Data Review/Validation Results

4.1 Analytical Results

A summary of the analytical results with qualifiers is reported in Table 3. Analytes with concentrations above the Sample Detection Limits (SDLs) but below the Method Quantitation Limits (MQLs) have been qualified as estimated on the analytical table per the TRRP-13 document and also in the attached copies of the laboratory data packages.

4.2 Preservation and Holding Times

The sample holding time criteria for the analyses are summarized in Table 2. Sample chain of custody documents and analytical reports were used to determine sample holding times. All samples were properly preserved, delivered on ice, and stored by the laboratory at the required temperature (0-6°C).

Most samples were prepared and analyzed within the required holding times. Two semi-volatile organic compounds (SVOCs) samples were extracted outside of established holding time and were qualified as estimated (see Table 4).

4.3 Sample Containers

Sample containers were certified pre-cleaned glass provided by the laboratory. These containers meet or exceed analyte specifications established in the United States Environmental Protection Agency (USEPA) *Specifications and Guidance for Contaminant-free Sample Containers*.

4.4 Calibrations

According to the LRC, initial calibration and continuing calibration data met the criteria for the selected methods.

4.5 Blanks

Method Blanks: The purpose of assessing the results of laboratory method blank analyses is to determine the existence and magnitude of sample contamination introduced during analysis. Laboratory method blanks are prepared from a certified analyte-free matrix and analyzed with the samples. For this study, laboratory method blanks were analyzed at a minimum frequency of one per analytical batch.

Most method blank results were non-detect, indicating that laboratory contamination was not a factor for this investigation. Four methylene chloride method blanks indicated laboratory contamination. All associated sample results were either non-detect or significantly greater in concentration than that detected in the method blank. No further action was required.

Trip Blanks: The trip blanks, which were discrete samples handled in the field, are listed on the sample identification cross-reference table found in the laboratory data packages. Results are reported in the data package with the other project sample results. Most sample results were non-detect below the MQL. Volatile organic compounds (VOCs) were detected in the trip blanks. Samples with similar detections to those found in the trip blanks were qualified as non-detect (see Table 5). The remaining sample results were either non-detect or significantly higher than that of the trip blank. No further action was required.

Field Blanks: The field blanks, which were discrete samples handled in the field, are listed on the sample identification cross-reference table found in the laboratory data packages. Results are reported in the data package with the other project sample results. Most sample results were non-detect below the MQL. SVOCs were detected in the field blanks. Samples with similar detections to those found in the field blanks were qualified as non-detect (see Table 6). The remaining sample results were either non-detect or significantly higher than that of the field blank. No further action was required.

4.6 Internal Standard and Surrogate Recoveries

Recoveries of internal standards are addressed in the LRC of the data packages. All internal standard results associated with the compounds of interest were acceptable per the LRC.

Most surrogate recoveries were acceptable, indicating good analytical efficiency. Sample results associated with outlying recoveries were qualified as estimated (see Table 7).

4.7 Laboratory Control Samples (LCS)

LCS analyses serve as a monitor of the overall performance of all steps in the analysis, including the sample preparation. LCS were analyzed using the same sample preparation, analytical methods, and QA/QC procedures employed for the investigative samples. The laboratory prepared some LCS in duplicate to assess analytical precision. The laboratory established the organic LCS control limits internally.

Most LCS recoveries and RPDs were within the established control limits, indicating acceptable overall laboratory performance. Some high recoveries and RPDs were reported: all associated sample results were non-detect and were not impacted by the indicated high bias and variability.

4.8 Matrix Spike/Matrix Spike Duplicates (MS/MSD)

To evaluate the effects of sample matrices on the preparation, measurement procedures, and accuracy of a particular analysis, samples are spiked in duplicate with a known concentration of the analytes of concern and analyzed as MS/MSD samples. The RPD between the MS and MSD is used to assess analytical precision. The laboratory established the organic MS/MSD control limits internally.

The laboratory performed site-specific MS/MSD analyses internally. Spike recoveries were not assessed for samples having original concentrations significantly greater than the spike concentration (>four times).

Most recoveries and RPDs were acceptable, demonstrating good analytical accuracy and precision. Some high recoveries and RPDs were reported: all associated sample results were non-detect and were not impacted by the indicated high bias and variability. A low SVOC MS recovery was reported for one batch. The sample result for this compound was non-detect and rejected because the MS recovery was less than ten percent (see Table 8).

4.9 Field Duplicate Sample Analysis

To assess the analytical and sampling protocol precision, four field duplicate samples were collected and submitted "blind" to the laboratory, as specified in Table 1. The RPDs associated with these duplicate samples must be less than thirty percent for water samples. If the reported concentration in either the investigative sample or its duplicate is less than five times the reporting limit (RL), the evaluation criteria is one time the RL value for water samples.

Most field duplicate results were within acceptable agreement, demonstrating good sampling and analytical precision. Two of the field duplicates sets showed some SVOC variability. The associated results were qualified as estimated (see Table 9).

4.10 Field Procedures

Pastor, Behling & Wheeling (PB&W) collected the samples in accordance with their Standard Operating Procedures (SOP) for groundwater sample collection.

4.11 Summary

Based on this assessment, the data produced by TestAmerica were found to exhibit acceptable levels of accuracy and precision based on the provided information and may be used with the specific exception and qualifications noted.

APPENDIX A

TABLES

APPENDIX B

LABORATORY DATA

[Not Included with Data Usability Study - CRA-Houston has copies in their office]

TABLE 1
SAMPLE COLLECTION AND ANALYSIS SUMMARY
SEMIANNUAL GROUNDWATER SAMPLING
UNION PACIFIC RAILROAD
1620 WOOD PRESERVING WORKS
HOUSTON, TEXAS
JULY - AUGUST 2013

<i>Sample Identification</i>	<i>Location</i>	<i>Matrix</i>	<i>Collection Date</i> (mm/dd/yyyy)	<i>Collection Time</i> (hr:min)	<i>Analysis/Parameters</i>		<i>Comments</i>
					<i>VOCs</i>	<i>SVOCs</i>	
WG-1620-MW18A-20130729	MW-18A	water	07/29/2013	15:45	X	X	
WG-1620-MW18C-20130729	MW-18C	water	07/29/2013	16:40	X	X	
WG-1620-MW72B-20130729	MW-72B	water	07/29/2013	17:30	X	X	
WG-1620-FB1-20130729	-	water	07/29/2013	17:50	X	X	Field Blank
WG-1620-MW17C-20130730	MW-17C	water	07/30/2013	07:50	X	X	
WG-1620-MW17-20130730	MW-17	water	07/30/2013	08:55	X	X	
WG-1620-MW15B-20130730	MW-15B	water	07/30/2013	09:50	X	X	
WG-1620-MW15C-20130730	MW-15C	water	07/30/2013	10:50	X	X	
WG-1620-MW15A-20130730	MW-15A	water	07/30/2013	11:45	X	X	
WG-1620-FB02-20130730	-	water	07/30/2013	12:05	X	X	Field Blank
WG-1620-MW73B-20130730	MW-73B	water	07/30/2013	13:25	X	X	
WG-1620-MW55A-20130730	MW-55A	water	07/30/2013	14:20	X	X	
WG-1620-MW55B-201300730	MW-55B	water	07/30/2013	15:15	X	X	
WG-1620-MW19C-20130730	MW-19C	water	07/30/2013	16:10	X	X	
WG-1620-MW23C-20130731	MW-23C	water	07/31/2013	07:35	X	X	
WG-1620-MW57B-20130731	MW-57B	water	07/31/2013	08:45	X	X	
WG-1620-MW57A-20130731	MW-57A	water	07/31/2013	09:35	X	X	
WG-1620-MW14-20130731	MW-14	water	07/31/2013	10:45	X	X	
WG-1620-MW13-20130731	MW-13	water	07/31/2013	11:55	X	X	
WG-1620-FB03-20130731	-	water	07/31/2013	12:20	X	X	Field Blank
WG-1620-MW39B-20130731	MW-39B	water	07/31/2013	13:10	X	X	
WG-1620-MW12C-20130731	MW-12C	water	07/31/2013	14:00	X	X	
WG-1620-MW12A-20130731	MW-12A	water	07/31/2013	14:45	X	X	

TABLE 1
SAMPLE COLLECTION AND ANALYSIS SUMMARY
SEMIANNUAL GROUNDWATER SAMPLING
UNION PACIFIC RAILROAD
1620 WOOD PRESERVING WORKS
HOUSTON, TEXAS
JULY - AUGUST 2013

<i>Sample Identification</i>	<i>Location</i>	<i>Matrix</i>	<i>Collection Date</i> <i>(mm/dd/yyyy)</i>	<i>Collection Time</i> <i>(hr:min)</i>	<i>Analysis/Parameters</i>		<i>Comments</i>
					<i>VOCs</i>	<i>SVOCs</i>	
WG-1620-TW41B-20130731	TW-41B	water	07/31/2013	15:35	X	X	
WG-1620-MW40B-20130731	MW-40B	water	07/31/2013	16:50	X	X	
WG-1620-TB01-20130731	-	water	07/31/2013	-	X		Trip Blank
WG-1620-MW42B-20130801	MW-42B	water	08/01/2013	08:00	X	X	
WG-1620-MW05-20130801	MW-05	water	08/01/2013	09:00	X	X	
WG-1620-MW21C-20130801	MW-21C	water	08/01/2013	10:00	X	X	
WG-1620-FD01-20130801	MW-21C	water	08/01/2013	10:00	X	X	Duplicate of MW-21C
WG-1620-P11-20130801	P-11	water	08/01/2013	11:00	X	X	
WG-1620-MW61A-20130801	MW-61A	water	08/01/2013	12:30	X	X	
WG-1620-MW49-A-20130801	MW-49A	water	08/01/2013	13:20	X	X	
WG-1620-MW49B-20130801	MW-49B	water	08/01/2013	14:15	X	X	
WG-1620-FB04-20130801	-	water	08/01/2013	14:30	X	X	Field Blank
WG-1620-MW48C-20130801	MW-48C	water	08/01/2013	15:20	X	X	
WG-1620-MW59B-20130801	MW-59B	water	08/01/2013	16:35	X	X	
WG-1620-MW59A-20130801	MW-59A	water	08/01/2013	17:30	X	X	
WG-1620-MW60A-20130802	MW-60A	water	08/02/2013	08:00	X	X	
WG-1620-FB05-20130802	-	water	08/02/2013	08:45	X	X	Field Blank
WG-1620-MW62B-20130802	MW-62B	water	08/02/2013	10:20	X	X	
WG-1620-TB02-20130802	-	water	08/02/2013	-	X		Trip Blank
WG - 1620 - MW44A - 20130805	MW-44A	water	08/05/2013	13:15	X	X	
WG - 1620 - MW65D - 20130805	MW-65D	water	08/05/2013	14:40	X	X	
WG - 1620 - MW66D - 20130805	MW-66D	water	08/05/2013	15:50	X	X	
WG - 1620 - MW36D - 20130805	MW-36D	water	08/05/2013	17:15	X	X	

TABLE 1
SAMPLE COLLECTION AND ANALYSIS SUMMARY
SEMIANNUAL GROUNDWATER SAMPLING
UNION PACIFIC RAILROAD
1620 WOOD PRESERVING WORKS
HOUSTON, TEXAS
JULY - AUGUST 2013

<i>Sample Identification</i>	<i>Location</i>	<i>Matrix</i>	<i>Collection Date</i> (mm/dd/yyyy)	<i>Collection Time</i> (hr:min)	<i>Analysis/Parameters</i>		<i>Comments</i>
					<i>VOCs</i>	<i>SVOCs</i>	
WG - 1620 - MW59D - 20130805	MW-59D	water	08/05/2013	18:40	X	X	
WG - 1620 - FD02- 20130805	MW-59D	water	08/05/2013	18:40	X	X	Duplicate of MW-59D
WG - 1620 - FB06 - 20130805	-	water	08/05/2013	19:00	X	X	Field Blank
WG - 1620 - MW69A - 20130806	MW-69A	water	08/06/2013	07:50	X	X	
WG - 1620 - MW47C - 21030806	MW-47C	water	08/06/2013	09:00	X	X	
WG - 1620 - MW64A - 20130806	MW-64A	water	08/06/2013	10:15	X	X	
WG - 1620 - MW58A - 20130806	MW-58A	water	08/06/2013	11:10	X	X	
WG - 1620 - MW53C - 20130806	MW-53C	water	08/06/2013	12:25	X	X	
WG - 1620 - MW54C - 20130806	MW-54C	water	08/06/2013	13:25	X	X	
WG - 1620 - MW25A - 20130806	MW-25A	water	08/06/2013	15:15	X	X	
WG - 1620 - MW25C - 20130806	MW-25C	water	08/06/2013	16:10	X	X	
WG - 1620 - MW36B - 20130806	MW-36B	water	08/06/2013	17:10	X	X	
WG - 1620 - MW36A - 20130806	MW-36A	water	08/06/2013	18:00	X	X	
WG - 1620 - FB07 - 20130806	-	water	08/06/2013	18:15	X	X	Field Blank
WG - 1620 - MW28C - 20130807	MW-28C	water	08/07/2013	08:25	X	X	
WG - 1620 - MW28A - 20130807	MW-28A	water	08/07/2013	09:20	X	X	
WG - 1620 - MW63B - 20130807	MW-63B	water	08/07/2013	10:15	X	X	
WG - 1620 - MW33BR - 20130807	MW-33BR	water	08/07/2013	11:10	X	X	
WG - 1620 - MW26A - 20130807	MW-26A	water	08/07/2013	12:05	X	X	
WG - 1620 - MW68C - 20130807	MW-68C	water	08/07/2013	13:30	X	X	
WG-1620-MW71B-20130807	MW-71B	water	08/07/2013	14:20	X	X	
WG-1620-MW32AR-20130807	MW-32AR	water	08/07/2013	16:30	X	X	
WG-1620-MW33A-20130807	MW-33A	water	08/07/2013	17:35	X	X	

TABLE 1
SAMPLE COLLECTION AND ANALYSIS SUMMARY
SEMIANNUAL GROUNDWATER SAMPLING
UNION PACIFIC RAILROAD
1620 WOOD PRESERVING WORKS
HOUSTON, TEXAS
JULY - AUGUST 2013

<i>Sample Identification</i>	<i>Location</i>	<i>Matrix</i>	<i>Collection Date</i> (mm/dd/yyyy)	<i>Collection Time</i> (hr:min)	<i>Analysis/Parameters</i>		<i>Comments</i>
					<i>VOCs</i>	<i>SVOCs</i>	
WG- 1620-FD03-20130807	MW-33A	water	08/07/2013	17:35	X	X	Duplicate of MW-33A
WG-1620-FB08-20130807	-	water	08/07/2013	18:00	X	X	Field Blank
WG - 1620 - TB03 - 20130807	-	water	08/07/2013	-	X		Trip Blank
WG-1620-MW68B-20130808	MW-68B	water	08/08/2013	08:10	X	X	
WG-1620-MW67B-21030808	MW-67B	water	08/08/2013	09:10	X	X	
WG-1620-MW38A-20130808	MW-38A	water	08/08/2013	10:15	X	X	
WG-1620-MW38B-20130808	MW-38B	water	08/08/2013	11:10	X	X	
WG-1620-FB09-20130808	-	water	08/08/2013	11:30	X	X	Field Blank
WG-1620-MW27C-20130808	MW-27C	water	08/08/2013	13:15	X	X	
WG-1620-MW24AR-20130808	MW-24AR	water	08/08/2013	14:20	X	X	
WG-1620-MW24B-0130808	MW-24B	water	08/08/2013	15:15	X	X	
WG-1620-MW24C-20130808	MW-24C	water	08/08/2013	16:05	X	X	
WG-1620-MW35B-20130808	MW-35B	water	08/08/2013	17:15	X	X	
WG-1620-MW35A-20130808	MW-35A	water	08/08/2013	18:10	X	X	
WG-1620-MW51A-20130809	MW-51A	water	08/09/2013	08:30	X	X	
WG-1620-MW50A-20130809	MW-50A	water	08/09/2013	09:40	X	X	
WG-1620-TB04-20130809	-	water	08/09/2013	-	X		Trip Blank

Notes:

VOCs Volatile organic compounds.
SVOCs Semi-volatile organic compounds.

TABLE 2
ANALYTICAL METHODS AND HOLDING TIME CRITERIA
SEMIANNUAL GROUNDWATER SAMPLING
UNION PACIFIC RAILROAD
1620 WOOD PRESERVING WORKS
HOUSTON, TEXAS
JULY - AUGUST 2013

<i>Parameter</i>	<i>Method</i>	<i>Matrix</i>	<i>Holding Time</i>	
			<i>Collection to Extraction (Days)</i>	<i>Collection or Extraction to Analysis (Days)</i>
VOCs	SW-846 8260	Water	-	14
SVOCs	SW-846 8270C	Water	7	40

Notes

- SW-846 "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW-846, Third Edition, 1986, with subsequent revisions.
VOCs Volatile organic compounds.
SVOCs Semi-volatile organic compounds.

TABLE 3

**ANALYTICAL RESULTS SUMMARY
SEMIANNUAL GROUNDWATER SAMPLING
UNION PACIFIC RAILROAD
1620 WOOD PRESERVING WORKS
HOUSTON, TEXAS
JULY - AUGUST 2013**

<i>Sample Location:</i>	MW-05	MW-12A	MW-12C	MW-13
<i>Sample ID:</i>	WG-1620-MW05-20130801	WG-1620-MW12A-20130731	WG-1620-MW12C-20130731	WG-1620-MW13-20130731
<i>Sample Date:</i>	8/1/2013	7/31/2013	7/31/2013	7/31/2013
<i>Parameters</i>	<i>Units</i>			
<i>Volatile Organic Compounds</i>				
1,2-Dichloroethane	mg/L	<0.000140	<0.000140	<0.000140
Benzene	mg/L	<0.0000800	0.0000957 J	<0.0000800
Chlorobenzene	mg/L	<0.000120	<0.000120	<0.000120
Ethylbenzene	mg/L	<0.000110	0.000774 J	<0.000110
Methylene chloride	mg/L	<0.000150	<0.000150	<0.000150
Toluene	mg/L	<0.000150	<0.000166	<0.000150
Vinyl chloride	mg/L	-	-	-
Xylenes (total)	mg/L	<0.000260	0.00217 J	<0.000260
<i>Semi-volatile Organic Compounds</i>				
1,2-Diphenylhydrazine	mg/L	<0.000105	<0.000105	<0.000105
2,4-Dimethylphenol	mg/L	<0.000295	<0.000295	<0.000301
2,4-Dinitrotoluene	mg/L	<0.000124	<0.000124	<0.000126
2,6-Dinitrotoluene	mg/L	<0.0000762	<0.0000762	<0.0000777
2-Chloronaphthalene	mg/L	<0.0000762	<0.0000762	<0.0000777
2-Methylnaphthalene	mg/L	<0.0000667	0.306	0.000129 J
4,6-Dinitro-2-methylphenol	mg/L	<0.000790	<0.000790	<0.000806
4-Nitrophenol	mg/L	<0.000533	<0.000533	<0.000544
Acenaphthene	mg/L	0.000521	0.428	<0.0000762
Acenaphthylene	mg/L	<0.0000571	<0.0000571	0.0000715 J
Anthracene	mg/L	0.000427 J	0.0222	<0.0000476
Benzo(a)anthracene	mg/L	<0.0000762	0.000226 J	<0.0000762
Benzo(a)pyrene	mg/L	<0.0000762	<0.0000762	<0.0000777
bis(2-Chloroethoxy)methane	mg/L	<0.000124	<0.000124	<0.000126
bis(2-Ethylhexyl)phthalate (DEHP)	mg/L	<0.000352	<0.000352	<0.000359
Chrysene	mg/L	<0.0000762	0.000231 J	<0.0000777

TABLE 3

**ANALYTICAL RESULTS SUMMARY
SEMIANNUAL GROUNDWATER SAMPLING
UNION PACIFIC RAILROAD
1620 WOOD PRESERVING WORKS
HOUSTON, TEXAS
JULY - AUGUST 2013**

		<i>Sample Location:</i>	<i>MW-05</i>	<i>MW-12A</i>	<i>MW-12C</i>	<i>MW-13</i>
		<i>Sample ID:</i>	<i>WG-1620-MW05-20130801</i>	<i>WG-1620-MW12A-20130731</i>	<i>WG-1620-MW12C-20130731</i>	<i>WG-1620-MW13-20130731</i>
		<i>Sample Date:</i>	<i>8/1/2013</i>	<i>7/31/2013</i>	<i>7/31/2013</i>	<i>7/31/2013</i>
<i>Parameters</i>	<i>Units</i>					
<i>Semi-volatile Organic Compounds (Continued)</i>						
Dibenzofuran	mg/L	0.0000828 J	0.317	0.0000857 J	<0.0000777	
Di-n-butylphthalate (DBP)	mg/L	<0.000105	<0.000240	<0.000110	<0.000211	
Fluoranthene	mg/L	0.0000761 J	0.0181	<0.0000667	<0.0000680	
Fluorene	mg/L	0.000166 J	0.316	0.000102 J	<0.0000680	
Naphthalene	mg/L	0.000573 J	0.661	0.000585 J	<0.000226	
Nitrobenzene	mg/L	<0.000105	<0.000105	<0.000105	<0.000107	
N-Nitrosodiphenylamine	mg/L	<0.0000952	<0.0000952	<0.0000952	<0.0000971	
Pentachlorophenol	mg/L	<0.000581	<0.000581	<0.000581	<0.000592	
Phenanthrene	mg/L	<0.0000571	0.234	<0.0000571	<0.0000583	
Phenol	mg/L	<0.0000381	<0.0000381	<0.0000381	<0.0000388	
Pyrene	mg/L	0.000154 J	0.00818	<0.000105	<0.000107	

TABLE 3

**ANALYTICAL RESULTS SUMMARY
SEMIANNUAL GROUNDWATER SAMPLING
UNION PACIFIC RAILROAD
1620 WOOD PRESERVING WORKS
HOUSTON, TEXAS
JULY - AUGUST 2013**

<i>Sample Location:</i>	<i>MW-14</i>	<i>MW-15A</i>	<i>MW-15B</i>	<i>MW-15C</i>
<i>Sample ID:</i>	<i>WG-1620-MW14-20130731</i>	<i>WG-1620-MW15A-20130730</i>	<i>WG-1620-MW15B-20130730</i>	<i>WG-1620-MW15C-20130730</i>
<i>Sample Date:</i>	<i>7/31/2013</i>	<i>7/30/2013</i>	<i>7/30/2013</i>	<i>7/30/2013</i>
<i>Parameters</i>	<i>Units</i>			
<i>Volatile Organic Compounds</i>				
1,2-Dichloroethane	mg/L	<0.000140	<0.000140	<0.000140
Benzene	mg/L	<0.0000800	0.00130	0.000484
Chlorobenzene	mg/L	<0.000120	0.000121 J	0.000124 J
Ethylbenzene	mg/L	0.000123 J	0.000799 J	0.00399
Methylene chloride	mg/L	<0.000150	<0.000150	<0.000150
Toluene	mg/L	<0.000150	0.000199 J	0.000155 J
Vinyl chloride	mg/L	-	-	-
Xylenes (total)	mg/L	<0.000260	0.00527	0.00876
<i>Semi-volatile Organic Compounds</i>				
1,2-Diphenylhydrazine	mg/L	<0.000107	<0.000107	<0.000107
2,4-Dimethylphenol	mg/L	<0.000301	<0.000301	<0.000301
2,4-Dinitrotoluene	mg/L	<0.000126	<0.000126	<0.000126
2,6-Dinitrotoluene	mg/L	<0.0000777	<0.0000777	<0.0000777
2-Chloronaphthalene	mg/L	<0.0000777	<0.0000777	<0.0000777
2-Methylnaphthalene	mg/L	0.000304 J	0.124	0.00327
4,6-Dinitro-2-methylphenol	mg/L	<0.000806	<0.000806	<0.000806
4-Nitrophenol	mg/L	R	<0.000544	<0.000544
Acenaphthene	mg/L	0.000549	0.332	0.114
Acenaphthylene	mg/L	<0.0000583	<0.0000583	<0.0000583
Anthracene	mg/L	0.000198 J	0.00850	0.00581
Benzo(a)anthracene	mg/L	<0.0000777	<0.0000777	0.000218 J
Benzo(a)pyrene	mg/L	<0.0000777	<0.0000777	<0.0000777
bis(2-Chloroethoxy)methane	mg/L	<0.000126	<0.000126	<0.000126
bis(2-Ethylhexyl)phthalate (DEHP)	mg/L	<0.000359	<0.000359	<0.000359
Chrysene	mg/L	<0.0000777	<0.0000777	0.000167 J

TABLE 3

**ANALYTICAL RESULTS SUMMARY
SEMIANNUAL GROUNDWATER SAMPLING
UNION PACIFIC RAILROAD
1620 WOOD PRESERVING WORKS
HOUSTON, TEXAS
JULY - AUGUST 2013**

	<i>Sample Location:</i>	<i>MW-14</i>	<i>MW-15A</i>	<i>MW-15B</i>	<i>MW-15C</i>
	<i>Sample ID:</i>	WG-1620-MW14-20130731	WG-1620-MW15A-20130730	WG-1620-MW15B-20130730	WG-1620-MW15C-20130730
	<i>Sample Date:</i>	7/31/2013	7/30/2013	7/30/2013	7/30/2013
<i>Parameters</i>	<i>Units</i>				
<i>Semi-volatile Organic Compounds (Continued)</i>					
Dibenzofuran	mg/L	0.000372 J	0.104	0.0589	0.0141
Di-n-butylphthalate (DBP)	mg/L	<0.000179	0.000187 J	0.000187 J	<0.000107
Fluoranthene	mg/L	0.000274 J	0.00361	0.00615	0.000634
Fluorene	mg/L	<0.0000680	0.139	0.0459	0.00159
Naphthalene	mg/L	0.00216 J	0.526	0.943	<0.00122
Nitrobenzene	mg/L	<0.000107	<0.000107	<0.000107	<0.000107
N-Nitrosodiphenylamine	mg/L	<0.0000971	<0.0000971	<0.0000971	<0.0000971
Pentachlorophenol	mg/L	<0.000592	<0.000592	<0.000592	<0.000592
Phenanthrene	mg/L	0.000662	0.0520	0.0376	0.000354 J
Phenol	mg/L	0.000398 J	<0.0000388	<0.0000388	<0.0000388
Pyrene	mg/L	0.000164 J	0.00154	0.00291	0.000370 J

TABLE 3

**ANALYTICAL RESULTS SUMMARY
SEMIANNUAL GROUNDWATER SAMPLING
UNION PACIFIC RAILROAD
1620 WOOD PRESERVING WORKS
HOUSTON, TEXAS
JULY - AUGUST 2013**

<i>Sample Location:</i>	MW-17	MW-17C	MW-18A	MW-18C	
<i>Sample ID:</i>	WG-1620-MW17-20130730	WG-1620-MW17C-20130730	WG-1620-MW18A-20130729	WG-1620-MW18C-20130729	
<i>Sample Date:</i>	7/30/2013	7/30/2013	7/29/2013	7/29/2013	
<i>Parameters</i>	<i>Units</i>				
<i>Volatile Organic Compounds</i>					
1,2-Dichloroethane	mg/L	<0.0140	<0.00140	0.00405 J	<0.0140
Benzene	mg/L	0.174	0.0162	0.491	1.23
Chlorobenzene	mg/L	<0.0120	<0.00120	<0.00120	<0.0120
Ethylbenzene	mg/L	0.279	0.225	0.398	0.220
Methylene chloride	mg/L	0.115	0.00786 J	0.00976 J	0.0688 J
Toluene	mg/L	0.680	0.00743 J	0.239	0.899
Vinyl chloride	mg/L	-	-	0.0290	<0.0110
Xylenes (total)	mg/L	0.698	0.270	0.991	0.881
<i>Semi-volatile Organic Compounds</i>					
1,2-Diphenylhydrazine	mg/L	<0.00534	<0.0107	<0.0214	<0.00534
2,4-Dimethylphenol	mg/L	3.19	<0.0301	6.29	<0.0150
2,4-Dinitrotoluene	mg/L	<0.00631	<0.0126	<0.0252	<0.00631
2,6-Dinitrotoluene	mg/L	<0.00388	<0.00777	<0.0155	<0.00388
2-Chloronaphthalene	mg/L	<0.00388	<0.00777	<0.0155	<0.00388
2-Methylnaphthalene	mg/L	1.04	0.151	0.819	0.871
4,6-Dinitro-2-methylphenol	mg/L	<0.0403	<0.0806	<0.161	<0.0403
4-Nitrophenol	mg/L	<0.0272	<0.0544	<0.109	<0.0272
Acenaphthene	mg/L	0.353	0.239	0.493	0.265
Acenaphthylene	mg/L	0.0147 J	<0.00583	<0.0117	<0.00291
Anthracene	mg/L	0.0233 J	0.0144 J	0.0204 J	0.0284
Benzo(a)anthracene	mg/L	<0.00388	<0.00777	<0.0155	<0.00388
Benzo(a)pyrene	mg/L	<0.00388	<0.00777	<0.0155	<0.00388
bis(2-Chloroethoxy)methane	mg/L	<0.00631	<0.0126	<0.0252	<0.00631
bis(2-Ethylhexyl)phthalate (DEHP)	mg/L	<0.0180	<0.0359	<0.0718	<0.0180
Chrysene	mg/L	<0.00388	<0.00777	<0.0155	<0.00388

TABLE 3

**ANALYTICAL RESULTS SUMMARY
SEMIANNUAL GROUNDWATER SAMPLING
UNION PACIFIC RAILROAD
1620 WOOD PRESERVING WORKS
HOUSTON, TEXAS
JULY - AUGUST 2013**

	<i>Sample Location:</i>	<i>MW-17</i>	<i>MW-17C</i>	<i>MW-18A</i>	<i>MW-18C</i>
	<i>Sample ID:</i>	<i>WG-1620-MW17-20130730</i>	<i>WG-1620-MW17C-20130730</i>	<i>WG-1620-MW18A-20130729</i>	<i>WG-1620-MW18C-20130729</i>
	<i>Sample Date:</i>	<i>7/30/2013</i>	<i>7/30/2013</i>	<i>7/29/2013</i>	<i>7/29/2013</i>
<i>Parameters</i>	<i>Units</i>				
<i>Semi-volatile Organic Compounds (Continued)</i>					
Dibenzofuran	mg/L	0.253	0.199	0.279	0.225
Di-n-butylphthalate (DBP)	mg/L	<0.00534	<0.0107	<0.0214	<0.00534
Fluoranthene	mg/L	0.00667 J	0.00795 J	<0.0136	0.00865 J
Fluorene	mg/L	0.165	0.103	0.214	0.114
Naphthalene	mg/L	25.8	4.40	11.8	20.9
Nitrobenzene	mg/L	<0.00534	<0.0107	<0.0214	<0.00534
N-Nitrosodiphenylamine	mg/L	<0.00485	<0.00971	<0.0194	<0.00485
Pentachlorophenol	mg/L	<0.0296	<0.0592	<0.118	<0.0296
Phenanthrene	mg/L	0.123	0.120	0.144	0.127
Phenol	mg/L	1.54	<0.00388	<0.00777	0.0205 J
Pyrene	mg/L	<0.00534	<0.0107	<0.0214	<0.00534

TABLE 3

**ANALYTICAL RESULTS SUMMARY
SEMIANNUAL GROUNDWATER SAMPLING
UNION PACIFIC RAILROAD
1620 WOOD PRESERVING WORKS
HOUSTON, TEXAS
JULY - AUGUST 2013**

	<i>Sample Location:</i>	MW-19C	MW-21C	MW-21C	MW-23C
	<i>Sample ID:</i>	WG-1620-MW19C-20130730	WG-1620-MW21C-20130801	WG-1620-FD01-20130801	WG-1620-MW23C-20130731
	<i>Sample Date:</i>	7/30/2013	8/1/2013	8/1/2013 <i>Duplicate</i>	7/31/2013
<i>Parameters</i>	<i>Units</i>				
<i>Volatile Organic Compounds</i>					
1,2-Dichloroethane	mg/L	<0.000140	<0.000140	<0.000140	<0.00140
Benzene	mg/L	0.00427	<0.0000800	<0.0000800	0.0138
Chlorobenzene	mg/L	<0.000120	<0.000120	<0.000120	0.00146 J
Ethylbenzene	mg/L	0.0114	<0.000110	<0.000110	0.185
Methylene chloride	mg/L	<0.000150	<0.000150	<0.000150	<0.00150
Toluene	mg/L	0.0155	<0.000150	<0.000150	0.00819 J
Vinyl chloride	mg/L	<0.000110	-	-	<0.00110
Xylenes (total)	mg/L	0.0197	<0.000260	<0.000260	0.0988
<i>Semi-volatile Organic Compounds</i>					
1,2-Diphenylhydrazine	mg/L	<0.000107	<0.000105 J	0.00732 J	<0.00534
2,4-Dimethylphenol	mg/L	<0.000301	<0.000295	<0.00654	<0.0150
2,4-Dinitrotoluene	mg/L	<0.000126	<0.000124 J	0.00867 J	<0.00631
2,6-Dinitrotoluene	mg/L	<0.0000777	<0.0000762 J	0.00805 J	<0.00388
2-Chloronaphthalene	mg/L	<0.0000777	<0.0000762 J	0.00696 J	<0.00388
2-Methylnaphthalene	mg/L	0.000114 J	<0.0000667 J	0.00686 J	1.16
4,6-Dinitro-2-methylphenol	mg/L	<0.000806	<0.000790 J	0.00371 J	<0.0403
4-Nitrophenol	mg/L	<0.000544	<0.000533 J	0.00667 J	<0.0272
Acenaphthene	mg/L	0.00279	<0.0000762 J	0.00726 J	1.58
Acenaphthylene	mg/L	<0.0000583	<0.0000571 J	0.00735 J	<0.00291
Anthracene	mg/L	0.000269 J	<0.0000476 J	0.00775 J	0.310
Benzo(a)anthracene	mg/L	0.000111 J	<0.0000762 J	0.00807 J	0.0905
Benzo(a)pyrene	mg/L	<0.0000777	<0.0000762 J	0.00775 J	0.0235 J
bis(2-Chloroethoxy)methane	mg/L	<0.000126	<0.000124 J	0.00612 J	<0.00631
bis(2-Ethylhexyl)phthalate (DEHP)	mg/L	0.00120 J	<0.000352 J	0.00875 J	<0.0180
Chrysene	mg/L	<0.0000777	<0.0000762 J	0.00794 J	0.0819

TABLE 3

**ANALYTICAL RESULTS SUMMARY
SEMIANNUAL GROUNDWATER SAMPLING
UNION PACIFIC RAILROAD
1620 WOOD PRESERVING WORKS
HOUSTON, TEXAS
JULY - AUGUST 2013**

	<i>Sample Location:</i>	MW-19C	MW-21C	MW-21C	MW-23C
	<i>Sample ID:</i>	WG-1620-MW19C-20130730	WG-1620-MW21C-20130801	WG-1620-FD01-20130801	WG-1620-MW23C-20130731
	<i>Sample Date:</i>	7/30/2013	8/1/2013	8/1/2013 <i>Duplicate</i>	7/31/2013
<i>Parameters</i>	<i>Units</i>				
<i>Semi-volatile Organic Compounds (Continued)</i>					
Dibenzofuran	mg/L	0.000631	<0.0000762 J	0.00726 J	1.48
Di-n-butylphthalate (DBP)	mg/L	0.000164 J	<0.000105 J	0.00955 J	<0.00534
Fluoranthene	mg/L	0.000309 J	<0.0000667 J	0.00857 J	0.812
Fluorene	mg/L	<0.0000680	<0.0000667 J	0.00746 J	0.874
Naphthalene	mg/L	<0.00196	<0.00210	0.00669 J	13.2
Nitrobenzene	mg/L	<0.000107	<0.000105 J	0.00628 J	<0.00534
N-Nitrosodiphenylamine	mg/L	<0.0000971	<0.0000952 J	0.00846 J	<0.00485
Pentachlorophenol	mg/L	<0.000592	<0.000581 J	0.0126 J	<0.0296
Phenanthrene	mg/L	0.000201 J	0.0000775 J	0.00777 J	2.80
Phenol	mg/L	0.0240	<0.0000381 J	0.00217 J	<0.00194
Pyrene	mg/L	0.000233 J	<0.000105 J	0.00813 J	0.515

TABLE 3

**ANALYTICAL RESULTS SUMMARY
SEMIANNUAL GROUNDWATER SAMPLING
UNION PACIFIC RAILROAD
1620 WOOD PRESERVING WORKS
HOUSTON, TEXAS
JULY - AUGUST 2013**

<i>Sample Location:</i>	MW-24AR	MW-24B	MW-24C	MW-25A
<i>Sample ID:</i>	WG-1620-MW24AR-20130808	WG-1620-MW24B-0130808	WG-1620-MW24C-20130808	WG - 1620 - MW25A - 20130806
<i>Sample Date:</i>	8/8/2013	8/8/2013	8/8/2013	8/6/2013
<i>Parameters</i>	<i>Units</i>			
<i>Volatile Organic Compounds</i>				
1,2-Dichloroethane	mg/L	<0.000140	<0.000140	<0.000140
Benzene	mg/L	<0.0000800	<0.0000800	<0.0000800
Chlorobenzene	mg/L	<0.000120	<0.000120	0.000121 J
Ethylbenzene	mg/L	<0.000110	<0.000110	<0.000110
Methylene chloride	mg/L	<0.000150	<0.000150	<0.000150
Toluene	mg/L	<0.000150	0.0209	<0.000150
Vinyl chloride	mg/L	<0.000110	<0.000110	<0.000110
Xylenes (total)	mg/L	<0.000260	<0.000260	<0.000260
<i>Semi-volatile Organic Compounds</i>				
1,2-Diphenylhydrazine	mg/L	<0.000104 JL	<0.000108	<0.000110
2,4-Dimethylphenol	mg/L	<0.000292 JL	<0.000304	<0.000310
2,4-Dinitrotoluene	mg/L	<0.000123 JL	<0.000127	<0.000130
2,6-Dinitrotoluene	mg/L	<0.0000755 JL	<0.0000784	<0.0000800
2-Chloronaphthalene	mg/L	<0.0000755 JL	<0.0000784	<0.0000800
2-Methylnaphthalene	mg/L	<0.0000660 JL	<0.0000686	<0.0000700
4,6-Dinitro-2-methylphenol	mg/L	<0.000783 JL	<0.000814	<0.000830
4-Nitrophenol	mg/L	<0.000528 JL	<0.000549	<0.000560
Acenaphthene	mg/L	<0.0000755 JL	<0.0000784	0.000345 J
Acenaphthylene	mg/L	<0.0000566 JL	<0.0000588	<0.0000600
Anthracene	mg/L	<0.0000472 JL	<0.0000490	<0.0000500
Benzo(a)anthracene	mg/L	<0.0000755 JL	<0.0000784	<0.0000800
Benzo(a)pyrene	mg/L	<0.0000755 JL	<0.0000784	<0.0000800
bis(2-Chloroethoxy)methane	mg/L	<0.000123 JL	<0.000127	<0.000130
bis(2-Ethylhexyl)phthalate (DEHP)	mg/L	<0.000349 JL	<0.000363	<0.000370
Chrysene	mg/L	<0.0000755 JL	<0.0000784	<0.0000800

TABLE 3

**ANALYTICAL RESULTS SUMMARY
SEMIANNUAL GROUNDWATER SAMPLING
UNION PACIFIC RAILROAD
1620 WOOD PRESERVING WORKS
HOUSTON, TEXAS
JULY - AUGUST 2013**

	<i>Sample Location:</i>	MW-24AR	MW-24B	MW-24C	MW-25A
	<i>Sample ID:</i>	WG-1620-MW24AR-20130808	WG-1620-MW24B-0130808	WG-1620-MW24C-20130808	WG - 1620 - MW25A - 20130806
	<i>Sample Date:</i>	8/8/2013	8/8/2013	8/8/2013	8/6/2013
<i>Parameters</i>	<i>Units</i>				
<i>Semi-volatile Organic Compounds (Continued)</i>					
Dibenzofuran	mg/L	<0.0000755 JL	<0.0000784	<0.0000784	<0.0000800
Di-n-butylphthalate (DBP)	mg/L	0.000168 JL	<0.000108	<0.000108	<0.000110
Fluoranthene	mg/L	<0.0000660 JL	<0.0000686	<0.0000686	<0.0000700
Fluorene	mg/L	<0.0000660 JL	<0.0000686	<0.0000686	<0.0000700
Naphthalene	mg/L	<0.0000755 JL	<0.0000784	<0.0000784	<0.0000800
Nitrobenzene	mg/L	<0.000104 JL	<0.000108	<0.000108	<0.000110
N-Nitrosodiphenylamine	mg/L	<0.0000943 JL	<0.0000980	<0.0000980	<0.000100
Pentachlorophenol	mg/L	<0.000575 JL	<0.000598	<0.000598	<0.000610
Phenanthrene	mg/L	<0.0000566 JL	<0.0000588	<0.0000588	<0.0000600
Phenol	mg/L	<0.0000377 JL	<0.0000392	<0.0000392	<0.0000400
Pyrene	mg/L	<0.000104 JL	<0.000108	<0.000108	0.000124 J

TABLE 3

**ANALYTICAL RESULTS SUMMARY
SEMIANNUAL GROUNDWATER SAMPLING
UNION PACIFIC RAILROAD
1620 WOOD PRESERVING WORKS
HOUSTON, TEXAS
JULY - AUGUST 2013**

<i>Sample Location:</i>	MW-25C	MW-26A	MW-27C	MW-28A
<i>Sample ID:</i>	WG - 1620 - MW25C - 20130806	WG - 1620 - MW26A - 20130807	WG-1620-MW27C-20130808	WG - 1620 - MW28A - 20130807
<i>Sample Date:</i>	8/6/2013	8/7/2013	8/8/2013	8/7/2013
<i>Parameters</i>	<i>Units</i>			
<i>Volatile Organic Compounds</i>				
1,2-Dichloroethane	mg/L	<0.000700	<0.000140	<0.000140
Benzene	mg/L	0.0283	0.00970	<0.0000800
Chlorobenzene	mg/L	<0.000600	0.000297 J	<0.000120
Ethylbenzene	mg/L	0.173	0.000815 J	<0.000110
Methylene chloride	mg/L	<0.000750	<0.000150	<0.000150
Toluene	mg/L	0.204	<0.000291	<0.000150
Vinyl chloride	mg/L	<0.000550	-	-
Xylenes (total)	mg/L	0.575	0.00239 J	<0.000260
<i>Semi-volatile Organic Compounds</i>				
1,2-Diphenylhydrazine	mg/L	<0.0110	<0.000104	<0.000104
2,4-Dimethylphenol	mg/L	<0.0310	<0.000292	<0.000292
2,4-Dinitrotoluene	mg/L	<0.0130	<0.000123	<0.000123
2,6-Dinitrotoluene	mg/L	<0.00800	<0.0000755	<0.0000755
2-Chloronaphthalene	mg/L	<0.00800	<0.0000755	<0.0000755
2-Methylnaphthalene	mg/L	1.32	0.000414 J	<0.0000660
4,6-Dinitro-2-methylphenol	mg/L	<0.0830	<0.000783	<0.000783
4-Nitrophenol	mg/L	<0.0560	<0.000528	<0.000528
Acenaphthene	mg/L	0.381	0.141	<0.0000755
Acenaphthylene	mg/L	<0.00600	<0.0000566	<0.0000566
Anthracene	mg/L	0.0377 J	0.00228	<0.0000472
Benzo(a)anthracene	mg/L	<0.00800	<0.0000755	<0.0000755
Benzo(a)pyrene	mg/L	<0.00800	<0.0000755	<0.0000755
bis(2-Chloroethoxy)methane	mg/L	<0.0130	<0.000123	<0.000123
bis(2-Ethylhexyl)phthalate (DEHP)	mg/L	<0.0370	<0.000349	<0.000349
Chrysene	mg/L	<0.00800	<0.0000755	<0.0000755

TABLE 3

**ANALYTICAL RESULTS SUMMARY
SEMIANNUAL GROUNDWATER SAMPLING
UNION PACIFIC RAILROAD
1620 WOOD PRESERVING WORKS
HOUSTON, TEXAS
JULY - AUGUST 2013**

	<i>Sample Location:</i>	MW-25C	MW-26A	MW-27C	MW-28A
	<i>Sample ID:</i>	WG - 1620 - MW25C - 20130806	WG - 1620 - MW26A - 20130807	WG-1620-MW27C-20130808	WG - 1620 - MW28A - 20130807
	<i>Sample Date:</i>	8/6/2013	8/7/2013	8/8/2013	8/7/2013
<i>Parameters</i>	<i>Units</i>				
<i>Semi-volatile Organic Compounds (Continued)</i>					
Dibenzofuran	mg/L	0.353	0.0151	<0.0000755	<0.0000755
Di-n-butylphthalate (DBP)	mg/L	<0.0110	<0.000104	0.000143 J	<0.000104
Fluoranthene	mg/L	0.0149 J	0.00620	0.000114 J	<0.0000660
Fluorene	mg/L	0.163	0.00611	<0.0000660	<0.0000660
Naphthalene	mg/L	19.7	0.00660	0.000353 J	<0.000173
Nitrobenzene	mg/L	<0.0110	<0.000104	<0.000104	<0.000104
N-Nitrosodiphenylamine	mg/L	<0.0100	<0.0000943	<0.0000943	<0.0000943
Pentachlorophenol	mg/L	<0.0610	<0.000575	<0.000575	<0.000575
Phenanthrene	mg/L	0.187	<0.0000566	0.0000908 J	<0.0000566
Phenol	mg/L	0.120	<0.0000377	<0.0000377	<0.0000377
Pyrene	mg/L	<0.0110	0.00322	<0.000104	0.000246 J

TABLE 3

**ANALYTICAL RESULTS SUMMARY
SEMIANNUAL GROUNDWATER SAMPLING
UNION PACIFIC RAILROAD
1620 WOOD PRESERVING WORKS
HOUSTON, TEXAS
JULY - AUGUST 2013**

	<i>Sample Location:</i>	MW-28C	MW-32AR	MW-33A	MW-33A
	<i>Sample ID:</i>	WG - 1620 - MW28C - 20130807	WG-1620-MW32AR-20130807	WG-1620-MW33A-20130807	WG- 1620-FD03-20130807
	<i>Sample Date:</i>	8/7/2013	8/7/2013	8/7/2013	8/7/2013
					<i>Duplicate</i>
<i>Parameters</i>	<i>Units</i>				
<i>Volatile Organic Compounds</i>					
1,2-Dichloroethane	mg/L	<0.000140	<0.000140	<0.000140	<0.000140
Benzene	mg/L	<0.0000800	0.000475 J	0.165	0.174
Chlorobenzene	mg/L	<0.000120	<0.000120	0.000185 J	0.000189 J
Ethylbenzene	mg/L	<0.000110	0.000296 J	0.109	0.117
Methylene chloride	mg/L	<0.000150	<0.000150	<0.000150	<0.000150
Toluene	mg/L	<0.000150	0.000234 J	0.00639	0.00672
Vinyl chloride	mg/L	-	<0.000110	<0.000110	<0.000110
Xylenes (total)	mg/L	<0.000260	0.000873 J	0.172	0.186
<i>Semi-volatile Organic Compounds</i>					
1,2-Diphenylhydrazine	mg/L	<0.000104	<0.000104	<0.00519	<0.00519
2,4-Dimethylphenol	mg/L	<0.000292	<0.000292	0.888	0.801
2,4-Dinitrotoluene	mg/L	<0.000123	<0.000123	<0.00613	<0.00613
2,6-Dinitrotoluene	mg/L	<0.0000755	<0.0000755	<0.00377	<0.00377
2-Chloronaphthalene	mg/L	<0.0000755	<0.0000755	<0.00377	<0.00377
2-Methylnaphthalene	mg/L	<0.0000660	<0.0000660	0.195	0.160
4,6-Dinitro-2-methylphenol	mg/L	<0.000783	<0.000783	<0.0392	<0.0392
4-Nitrophenol	mg/L	<0.000528	<0.000528	<0.0264	<0.0264
Acenaphthene	mg/L	<0.0000755	0.00625	0.157	0.151
Acenaphthylene	mg/L	<0.0000566	0.000258 J	<0.00283	<0.00283
Anthracene	mg/L	<0.0000472	0.000223 J	0.00490 J	0.00487 J
Benzo(a)anthracene	mg/L	<0.0000755	<0.0000755	<0.00377	<0.00377
Benzo(a)pyrene	mg/L	<0.0000755	<0.0000755	<0.00377	<0.00377
bis(2-Chloroethoxy)methane	mg/L	<0.000123	<0.000123	<0.00613	<0.00613
bis(2-Ethylhexyl)phthalate (DEHP)	mg/L	<0.000349	<0.000349	<0.0175	<0.0175
Chrysene	mg/L	<0.0000755	<0.0000755	<0.00377	<0.00377

TABLE 3

**ANALYTICAL RESULTS SUMMARY
SEMIANNUAL GROUNDWATER SAMPLING
UNION PACIFIC RAILROAD
1620 WOOD PRESERVING WORKS
HOUSTON, TEXAS
JULY - AUGUST 2013**

	<i>Sample Location:</i>	MW-28C	MW-32AR	MW-33A	MW-33A
	<i>Sample ID:</i>	WG - 1620 - MW28C - 20130807	WG-1620-MW32AR-20130807	WG-1620-MW33A-20130807	WG- 1620-FD03-20130807
	<i>Sample Date:</i>	8/7/2013	8/7/2013	8/7/2013	8/7/2013
					<i>Duplicate</i>
<i>Parameters</i>	<i>Units</i>				
<i>Semi-volatile Organic Compounds (Continued)</i>					
Dibenzofuran	mg/L	<0.0000755	0.000515	0.0728	0.0717
Di-n-butylphthalate (DBP)	mg/L	<0.000104	<0.000104	<0.00519	<0.00519
Fluoranthene	mg/L	<0.0000660	0.00102	0.00385 J	0.00435 J
Fluorene	mg/L	<0.0000660	0.00105	0.0668	0.0623
Naphthalene	mg/L	<0.0000755	<0.00297	4.98	4.07
Nitrobenzene	mg/L	<0.000104	<0.000104	<0.00519	<0.00519
N-Nitrosodiphenylamine	mg/L	<0.0000943	<0.0000943	<0.00472	<0.00472
Pentachlorophenol	mg/L	<0.000575	<0.000575	<0.0288	<0.0288
Phenanthrene	mg/L	<0.0000566	0.000112 J	0.0232 J	0.0236
Phenol	mg/L	<0.0000377	<0.0000377	<0.00189	<0.00189
Pyrene	mg/L	<0.000104	0.000617	<0.00519	<0.00519

TABLE 3

**ANALYTICAL RESULTS SUMMARY
SEMIANNUAL GROUNDWATER SAMPLING
UNION PACIFIC RAILROAD
1620 WOOD PRESERVING WORKS
HOUSTON, TEXAS
JULY - AUGUST 2013**

<i>Sample Location:</i>	MW-33BR	MW-35A	MW-35B	MW-36A	
<i>Sample ID:</i>	WG - 1620 - MW33BR - 20130807	WG-1620-MW35A-20130808	WG-1620-MW35B-20130808	WG - 1620 - MW36A - 20130806	
<i>Sample Date:</i>	8/7/2013	8/8/2013	8/8/2013	8/6/2013	
<i>Parameters</i>	<i>Units</i>				
<i>Volatile Organic Compounds</i>					
1,2-Dichloroethane	mg/L	<0.000700	<0.000140	<0.00280	<0.000140
Benzene	mg/L	1.62	<0.0000800	0.0855	<0.0000800
Chlorobenzene	mg/L	<0.000600	<0.000120	<0.00240	<0.000120
Ethylbenzene	mg/L	0.389	<0.000110	0.258	<0.000110
Methylene chloride	mg/L	<0.000750	<0.000150	0.0234	<0.000150
Toluene	mg/L	0.0645	<0.000150	0.00584 J	<0.000150
Vinyl chloride	mg/L	<0.000550	<0.000110	<0.00220	<0.000110
Xylenes (total)	mg/L	0.182	0.000309 J	0.174	<0.000260
<i>Semi-volatile Organic Compounds</i>					
1,2-Diphenylhydrazine	mg/L	<0.00519	<0.000108 JL	<0.00539	<0.000104
2,4-Dimethylphenol	mg/L	<0.0146	<0.000304 JL	<0.0152	<0.000292
2,4-Dinitrotoluene	mg/L	<0.00613	<0.000127 JL	<0.00637	<0.000123
2,6-Dinitrotoluene	mg/L	<0.00377	<0.0000784 JL	<0.00392	<0.0000755
2-Chloronaphthalene	mg/L	<0.00377	<0.0000784 JL	<0.00392	<0.0000755
2-Methylnaphthalene	mg/L	0.198	<0.0000686 JL	0.431	<0.0000660
4,6-Dinitro-2-methylphenol	mg/L	<0.0392	<0.000814 JL	<0.0407	<0.000783
4-Nitrophenol	mg/L	<0.0264	<0.000549 JL	<0.0275	<0.000528
Acenaphthene	mg/L	0.0455	0.0181 JL	0.258	<0.0000755
Acenaphthylene	mg/L	<0.00283	<0.0000588 JL	<0.00294	<0.0000566
Anthracene	mg/L	<0.00236	<0.0000490 JL	0.0202 J	<0.0000472
Benzo(a)anthracene	mg/L	<0.00377	<0.0000784 JL	<0.00392	<0.0000755
Benzo(a)pyrene	mg/L	<0.00377	<0.0000784 JL	<0.00392	<0.0000755
bis(2-Chloroethoxy)methane	mg/L	<0.00613	<0.000127 JL	<0.00637	<0.000123
bis(2-Ethylhexyl)phthalate (DEHP)	mg/L	<0.0175	<0.000363 JL	<0.0181	<0.000349
Chrysene	mg/L	<0.00377	<0.0000784 JL	<0.00392	<0.0000755

TABLE 3

**ANALYTICAL RESULTS SUMMARY
SEMIANNUAL GROUNDWATER SAMPLING
UNION PACIFIC RAILROAD
1620 WOOD PRESERVING WORKS
HOUSTON, TEXAS
JULY - AUGUST 2013**

	<i>Sample Location:</i>	<i>MW-33BR</i>	<i>MW-35A</i>	<i>MW-35B</i>	<i>MW-36A</i>
	<i>Sample ID:</i>	<i>WG - 1620 - MW33BR - 20130807</i>	<i>WG-1620-MW35A-20130808</i>	<i>WG-1620-MW35B-20130808</i>	<i>WG - 1620 - MW36A - 20130806</i>
	<i>Sample Date:</i>	<i>8/7/2013</i>	<i>8/8/2013</i>	<i>8/8/2013</i>	<i>8/6/2013</i>
<i>Parameters</i>	<i>Units</i>				
<i>Semi-volatile Organic Compounds (Continued)</i>					
Dibenzofuran	mg/L	0.0498	0.000141 JL	0.252	<0.0000755
Di-n-butylphthalate (DBP)	mg/L	<0.00519	<0.000108 JL	<0.00539	<0.000391
Fluoranthene	mg/L	<0.00330	0.000365 JL	0.00756 J	<0.0000660
Fluorene	mg/L	0.0181 J	0.00200 JL	0.138	<0.0000660
Naphthalene	mg/L	6.54	0.000557 JL	14.1	<0.0000755
Nitrobenzene	mg/L	<0.00519	<0.000108 JL	<0.00539	<0.000104
N-Nitrosodiphenylamine	mg/L	<0.00472	<0.0000980 JL	<0.00490	<0.0000943
Pentachlorophenol	mg/L	<0.0288	<0.000598 JL	<0.0299	<0.000575
Phenanthrene	mg/L	0.0141 J	<0.0000588 JL	0.142	<0.0000861
Phenol	mg/L	<0.00189	<0.0000392 JL	<0.00196	<0.0000377
Pyrene	mg/L	<0.00519	0.000252 JL	<0.00539	<0.000104

TABLE 3

**ANALYTICAL RESULTS SUMMARY
SEMIANNUAL GROUNDWATER SAMPLING
UNION PACIFIC RAILROAD
1620 WOOD PRESERVING WORKS
HOUSTON, TEXAS
JULY - AUGUST 2013**

<i>Parameters</i>	<i>Units</i>	<i>Sample Location:</i> <i>Sample ID:</i> <i>Sample Date:</i>	<i>MW-36B</i> WG - 1620 - MW36B - 20130806 8/6/2013	<i>MW-36D</i> WG - 1620 - MW36D - 20130805 8/5/2013	<i>MW-38A</i> WG-1620-MW38A-20130808 8/8/2013	<i>MW-38B</i> WG-1620-MW38B-20130808 8/8/2013
<i>Volatile Organic Compounds</i>						
1,2-Dichloroethane	mg/L		<0.000140	<0.000140	<0.000140	<0.000140
Benzene	mg/L		<0.0000800	<0.0000800	<0.0000800	<0.0000800
Chlorobenzene	mg/L		<0.000120	0.000130 J	<0.000120	<0.000120
Ethylbenzene	mg/L		<0.000110	0.000127 J	<0.000110	<0.000110
Methylene chloride	mg/L		<0.000150	<0.000150	<0.000150	<0.000150
Toluene	mg/L		<0.000150	<0.000150	<0.000150	<0.000150
Vinyl chloride	mg/L		<0.000110	-	<0.000110	<0.000110
Xylenes (total)	mg/L		<0.000260	<0.000260	<0.000260	<0.000260
<i>Semi-volatile Organic Compounds</i>						
1,2-Diphenylhydrazine	mg/L		<0.000110	<0.000110	<0.000104	<0.000104
2,4-Dimethylphenol	mg/L		<0.000310	<0.000310	<0.000292	<0.000292
2,4-Dinitrotoluene	mg/L		<0.000130	<0.000130	<0.000123	<0.000123
2,6-Dinitrotoluene	mg/L		<0.0000800	<0.0000800	<0.0000755	<0.0000755
2-Chloronaphthalene	mg/L		<0.0000800	<0.0000800	<0.0000755	<0.0000755
2-Methylnaphthalene	mg/L		<0.0000700	<0.0000700	0.000115 J	<0.0000660
4,6-Dinitro-2-methylphenol	mg/L		<0.000830	<0.000830	<0.000783	<0.000783
4-Nitrophenol	mg/L		<0.000560	<0.000560	<0.000528	<0.000528
Acenaphthene	mg/L		<0.0000800	<0.0000800	0.000638	<0.0000755
Acenaphthylene	mg/L		<0.0000600	<0.0000600	<0.0000566	<0.0000566
Anthracene	mg/L		<0.0000500	<0.0000500	<0.0000472	<0.0000472
Benzo(a)anthracene	mg/L		<0.0000800	<0.0000800	<0.0000755	<0.0000755
Benzo(a)pyrene	mg/L		<0.0000800	<0.0000800	<0.0000755	<0.0000755
bis(2-Chloroethoxy)methane	mg/L		<0.000130	<0.000130	<0.000123	<0.000123
bis(2-Ethylhexyl)phthalate (DEHP)	mg/L		<0.000370	<0.000370	<0.000349	<0.000349
Chrysene	mg/L		<0.0000800	<0.0000800	<0.0000755	<0.0000755

TABLE 3

**ANALYTICAL RESULTS SUMMARY
SEMIANNUAL GROUNDWATER SAMPLING
UNION PACIFIC RAILROAD
1620 WOOD PRESERVING WORKS
HOUSTON, TEXAS
JULY - AUGUST 2013**

<i>Sample Location:</i>	<i>MW-36B</i>	<i>MW-36D</i>	<i>MW-38A</i>	<i>MW-38B</i>
<i>Sample ID:</i>	WG - 1620 - MW36B - 20130806	WG - 1620 - MW36D - 20130805	WG-1620-MW38A-20130808	WG-1620-MW38B-20130808
<i>Sample Date:</i>	8/6/2013	8/5/2013	8/8/2013	8/8/2013
<i>Parameters</i>	<i>Units</i>			
<i>Semi-volatile Organic Compounds (Continued)</i>				
Dibenzofuran	mg/L	<0.0000800	<0.0000800	<0.0000755
Di-n-butylphthalate (DBP)	mg/L	<0.000110	<0.000110	0.000145 J
Fluoranthene	mg/L	<0.0000700	<0.0000700	0.000164 J
Fluorene	mg/L	<0.0000700	<0.0000700	<0.0000660
Naphthalene	mg/L	0.0000895 J	<0.0000800	0.00192 J
Nitrobenzene	mg/L	<0.000110	<0.000110	<0.000104
N-Nitrosodiphenylamine	mg/L	<0.000100	<0.000100	<0.0000943
Pentachlorophenol	mg/L	<0.000610	<0.000610	<0.000575
Phenanthrene	mg/L	<0.0000600	<0.0000600	<0.0000566
Phenol	mg/L	<0.0000400	<0.0000400	<0.0000377
Pyrene	mg/L	<0.000110	<0.000110	0.000176 J

TABLE 3

**ANALYTICAL RESULTS SUMMARY
SEMIANNUAL GROUNDWATER SAMPLING
UNION PACIFIC RAILROAD
1620 WOOD PRESERVING WORKS
HOUSTON, TEXAS
JULY - AUGUST 2013**

<i>Sample Location:</i>	MW-39B	MW-40B	MW-42B	MW-44A
<i>Sample ID:</i>	WG-1620-MW39B-20130731	WG-1620-MW40B-20130731	WG-1620-MW42B-20130801	WG - 1620 - MW44A - 20130805
<i>Sample Date:</i>	7/31/2013	7/31/2013	8/1/2013	8/5/2013
<i>Parameters</i>	<i>Units</i>			
<i>Volatile Organic Compounds</i>				
1,2-Dichloroethane	mg/L	<0.000140	<0.00140	<0.000140
Benzene	mg/L	<0.0000800	0.0115	<0.0000800
Chlorobenzene	mg/L	<0.000120	<0.00120	<0.000120
Ethylbenzene	mg/L	<0.000110	0.0798	<0.000110
Methylene chloride	mg/L	<0.000150	<0.00150	<0.000150
Toluene	mg/L	<0.000150	0.0173	<0.000150
Vinyl chloride	mg/L	-	-	<0.000110
Xylenes (total)	mg/L	<0.000260	0.127	<0.000260
<i>Semi-volatile Organic Compounds</i>				
1,2-Diphenylhydrazine	mg/L	<0.000105	<0.00524	<0.000105
2,4-Dimethylphenol	mg/L	<0.000295	<0.0148	<0.000295
2,4-Dinitrotoluene	mg/L	<0.000124	<0.00619	<0.000124
2,6-Dinitrotoluene	mg/L	<0.0000762	<0.00381	<0.0000762
2-Chloronaphthalene	mg/L	<0.0000762	<0.00381	<0.0000762
2-Methylnaphthalene	mg/L	<0.0000667	0.309	0.000141 J
4,6-Dinitro-2-methylphenol	mg/L	<0.000790	<0.0395	<0.000790
4-Nitrophenol	mg/L	<0.000533	<0.0267	<0.000533
Acenaphthene	mg/L	0.000700	0.350	<0.0000762
Acenaphthylene	mg/L	0.0000676 J	<0.00286	<0.0000571
Anthracene	mg/L	0.000774	0.0190 J	0.000122 J
Benzo(a)anthracene	mg/L	<0.0000762	<0.00381	<0.0000762
Benzo(a)pyrene	mg/L	<0.0000762	<0.00381	<0.0000762
bis(2-Chloroethoxy)methane	mg/L	<0.000124	<0.00619	<0.000124
bis(2-Ethylhexyl)phthalate (DEHP)	mg/L	<0.000352	<0.0176	<0.000352
Chrysene	mg/L	<0.0000762	<0.00381	<0.0000762

TABLE 3

**ANALYTICAL RESULTS SUMMARY
SEMIANNUAL GROUNDWATER SAMPLING
UNION PACIFIC RAILROAD
1620 WOOD PRESERVING WORKS
HOUSTON, TEXAS
JULY - AUGUST 2013**

	<i>Sample Location:</i>	<i>MW-39B</i>	<i>MW-40B</i>	<i>MW-42B</i>	<i>MW-44A</i>
	<i>Sample ID:</i>	WG-1620-MW39B-20130731	WG-1620-MW40B-20130731	WG-1620-MW42B-20130801	WG - 1620 - MW44A - 20130805
	<i>Sample Date:</i>	7/31/2013	7/31/2013	8/1/2013	8/5/2013
<i>Parameters</i>	<i>Units</i>				
<i>Semi-volatile Organic Compounds (Continued)</i>					
Dibenzofuran	mg/L	<0.0000762	0.242	0.000131 J	0.135
Di-n-butylphthalate (DBP)	mg/L	<0.000122	<0.00524	0.000108 J	<0.00110
Fluoranthene	mg/L	0.000418 J	0.0104 J	0.000294 J	0.0137
Fluorene	mg/L	0.000216 J	0.212	0.000134 J	0.172
Naphthalene	mg/L	<0.0000762	7.73	0.00288 J	1.72
Nitrobenzene	mg/L	<0.000105	<0.00524	<0.000105	<0.00110
N-Nitrosodiphenylamine	mg/L	0.000158 J	<0.00476	<0.0000952	<0.00100
Pentachlorophenol	mg/L	<0.000581	<0.0290	<0.000581	<0.00610
Phenanthrene	mg/L	0.0000912 J	0.158	0.000122 J	0.0416
Phenol	mg/L	<0.0000381	<0.00190	<0.0000381	<0.000400
Pyrene	mg/L	0.000655	<0.00524	0.000127 J	0.00732

TABLE 3

**ANALYTICAL RESULTS SUMMARY
SEMIANNUAL GROUNDWATER SAMPLING
UNION PACIFIC RAILROAD
1620 WOOD PRESERVING WORKS
HOUSTON, TEXAS
JULY - AUGUST 2013**

<i>Sample Location:</i>	MW-47C	MW-48C	MW-49A	MW-49B	
<i>Sample ID:</i>	WG - 1620 - MW47C - 21030806	WG-1620-MW48C-20130801	WG-1620-MW49-A-20130801	WG-1620-MW49B-20130801	
<i>Sample Date:</i>	8/6/2013	8/1/2013	8/1/2013	8/1/2013	
<i>Parameters</i>	<i>Units</i>				
<i>Volatile Organic Compounds</i>					
1,2-Dichloroethane	mg/L	<0.000140	<0.000140	<0.00140	<0.00280
Benzene	mg/L	<0.0000800	<0.0000800	0.0940	0.469
Chlorobenzene	mg/L	<0.000120	<0.000120	0.476	0.0103 J
Ethylbenzene	mg/L	<0.000110	<0.000110	0.0499	0.0825
Methylene chloride	mg/L	<0.000150	<0.000150	<0.00150	<0.00300
Toluene	mg/L	<0.000150	<0.000150	0.0347	0.345
Vinyl chloride	mg/L	-	-	<0.00110	<0.00220
Xylenes (total)	mg/L	<0.000260	<0.000260	0.106	0.222
<i>Semi-volatile Organic Compounds</i>					
1,2-Diphenylhydrazine	mg/L	<0.000110	<0.000105	<0.0105	<0.0105
2,4-Dimethylphenol	mg/L	<0.000310	<0.000295	0.903	21.4
2,4-Dinitrotoluene	mg/L	<0.000130	<0.000124	<0.0124	<0.0124
2,6-Dinitrotoluene	mg/L	<0.0000800	<0.0000762	<0.00762	<0.00762
2-Chloronaphthalene	mg/L	<0.0000800	<0.0000762	<0.00762	<0.00762
2-Methylnaphthalene	mg/L	<0.0000700	<0.0000667	0.216	0.223
4,6-Dinitro-2-methylphenol	mg/L	<0.000830	<0.000790	<0.0790	<0.0790
4-Nitrophenol	mg/L	<0.000560	<0.000533	<0.0533	<0.0533
Acenaphthene	mg/L	<0.0000800	<0.0000762	0.126	0.0964
Acenaphthylene	mg/L	<0.0000600	<0.0000571	<0.00571	<0.00571
Anthracene	mg/L	<0.0000500	<0.0000476	0.0119 J	<0.00476
Benzo(a)anthracene	mg/L	<0.0000800	<0.0000762	<0.00762	<0.00762
Benzo(a)pyrene	mg/L	<0.0000800	<0.0000762	<0.00762	<0.00762
bis(2-Chloroethoxy)methane	mg/L	<0.000130	<0.000124	<0.0124	<0.0124
bis(2-Ethylhexyl)phthalate (DEHP)	mg/L	<0.000370	<0.000352	<0.0352	<0.0352
Chrysene	mg/L	<0.0000800	<0.0000762	<0.00762	<0.00762

TABLE 3

**ANALYTICAL RESULTS SUMMARY
SEMIANNUAL GROUNDWATER SAMPLING
UNION PACIFIC RAILROAD
1620 WOOD PRESERVING WORKS
HOUSTON, TEXAS
JULY - AUGUST 2013**

	<i>Sample Location:</i>	<i>MW-47C</i>	<i>MW-48C</i>	<i>MW-49A</i>	<i>MW-49B</i>
	<i>Sample ID:</i>	WG - 1620 - MW47C - 21030806	WG-1620-MW48C-20130801	WG-1620-MW49-A-20130801	WG-1620-MW49B-20130801
	<i>Sample Date:</i>	8/6/2013	8/1/2013	8/1/2013	8/1/2013
<i>Parameters</i>	<i>Units</i>				
<i>Semi-volatile Organic Compounds (Continued)</i>					
Dibenzofuran	mg/L	<0.0000800	<0.0000762	0.0812	<0.00762
Di-n-butylphthalate (DBP)	mg/L	<0.000110	<0.000105	<0.0105	<0.0105
Fluoranthene	mg/L	0.000186 J	0.000134 J	<0.00667	<0.00667
Fluorene	mg/L	<0.0000700	<0.0000667	0.0662	0.0490
Naphthalene	mg/L	<0.0000800	<0.000158	3.30	9.38
Nitrobenzene	mg/L	<0.000110	<0.000105	<0.0105	<0.0105
N-Nitrosodiphenylamine	mg/L	<0.000100	<0.0000952	<0.00952	<0.00952
Pentachlorophenol	mg/L	<0.000610	<0.000581	<0.0581	<0.0581
Phenanthrene	mg/L	<0.0000600	<0.0000571	0.0684	0.0390 J
Phenol	mg/L	<0.0000400	<0.0000381	<0.00381	<0.00381
Pyrene	mg/L	0.000131 J	<0.000105	<0.0105	<0.0105

TABLE 3

**ANALYTICAL RESULTS SUMMARY
SEMIANNUAL GROUNDWATER SAMPLING
UNION PACIFIC RAILROAD
1620 WOOD PRESERVING WORKS
HOUSTON, TEXAS
JULY - AUGUST 2013**

<i>Sample Location:</i>	MW-50A	MW-51A	MW-53C	MW-54C
<i>Sample ID:</i>	WG-1620-MW50A-20130809	WG-1620-MW51A-20130809	WG - 1620 - MW53C - 20130806	WG - 1620 - MW54C - 20130806
<i>Sample Date:</i>	8/9/2013	8/9/2013	8/6/2013	8/6/2013
<i>Parameters</i>	<i>Units</i>			
<i>Volatile Organic Compounds</i>				
1,2-Dichloroethane	mg/L	<0.000140	<0.000140	<0.000140
Benzene	mg/L	<0.0000800	<0.0000800	<0.0000800
Chlorobenzene	mg/L	<0.000120	<0.000120	0.000128 J
Ethylbenzene	mg/L	<0.000110	<0.000110	0.000620 J
Methylene chloride	mg/L	<0.000150	<0.000150	<0.000150
Toluene	mg/L	<0.000150	<0.000150	<0.000150
Vinyl chloride	mg/L	<0.000110	<0.000110	-
Xylenes (total)	mg/L	<0.000260	<0.000260	0.000760 J
<i>Semi-volatile Organic Compounds</i>				
1,2-Diphenylhydrazine	mg/L	<0.000108	<0.000108	<0.000110
2,4-Dimethylphenol	mg/L	<0.000304	<0.000304	<0.000310
2,4-Dinitrotoluene	mg/L	<0.000127	<0.000127	<0.000130
2,6-Dinitrotoluene	mg/L	<0.0000784	<0.0000784	<0.0000800
2-Chloronaphthalene	mg/L	<0.0000784	<0.0000784	<0.0000800
2-Methylnaphthalene	mg/L	<0.0000686	<0.0000686	0.0173
4,6-Dinitro-2-methylphenol	mg/L	<0.000814	<0.000814	<0.000830
4-Nitrophenol	mg/L	<0.000549	<0.000549	<0.000560
Acenaphthene	mg/L	<0.0000784	<0.0000784	0.0749
Acenaphthylene	mg/L	<0.0000588	<0.0000588	<0.0000600
Anthracene	mg/L	<0.0000490	<0.0000490	0.00389
Benzo(a)anthracene	mg/L	<0.0000784	<0.0000784	<0.0000800
Benzo(a)pyrene	mg/L	<0.0000784	<0.0000784	<0.0000800
bis(2-Chloroethoxy)methane	mg/L	<0.000127	<0.000127	<0.000130
bis(2-Ethylhexyl)phthalate (DEHP)	mg/L	0.000409 J	<0.000363	<0.000370
Chrysene	mg/L	<0.0000784	<0.0000784	<0.0000800

TABLE 3

**ANALYTICAL RESULTS SUMMARY
SEMIANNUAL GROUNDWATER SAMPLING
UNION PACIFIC RAILROAD
1620 WOOD PRESERVING WORKS
HOUSTON, TEXAS
JULY - AUGUST 2013**

	<i>Sample Location:</i>	<i>MW-50A</i>	<i>MW-51A</i>	<i>MW-53C</i>	<i>MW-54C</i>
	<i>Sample ID:</i>	WG-1620-MW50A-20130809	WG-1620-MW51A-20130809	WG - 1620 - MW53C - 20130806	WG - 1620 - MW54C - 20130806
	<i>Sample Date:</i>	8/9/2013	8/9/2013	8/6/2013	8/6/2013
<i>Parameters</i>	<i>Units</i>				
<i>Semi-volatile Organic Compounds (Continued)</i>					
Dibenzofuran	mg/L	<0.0000784	<0.0000784	<0.0000800	0.0878
Di-n-butylphthalate (DBP)	mg/L	0.000147 J	0.000110 J	<0.000110	<0.000110
Fluoranthene	mg/L	<0.0000686	<0.0000686	<0.0000700	0.00474
Fluorene	mg/L	<0.0000686	<0.0000686	<0.0000700	0.0409
Naphthalene	mg/L	0.000265 J	<0.0000784	<0.0000800	0.383 J
Nitrobenzene	mg/L	<0.000108	<0.000108	<0.000110	<0.000110
N-Nitrosodiphenylamine	mg/L	<0.0000980	<0.0000980	<0.000100	<0.000100
Pentachlorophenol	mg/L	<0.000598	<0.000598	<0.000610	<0.000610
Phenanthrene	mg/L	<0.0000588	0.0000699 J	<0.0000600	0.0400
Phenol	mg/L	<0.0000392	<0.0000392	<0.0000400	<0.0000400
Pyrene	mg/L	<0.000108	<0.000108	<0.000110	0.00248

TABLE 3

**ANALYTICAL RESULTS SUMMARY
SEMIANNUAL GROUNDWATER SAMPLING
UNION PACIFIC RAILROAD
1620 WOOD PRESERVING WORKS
HOUSTON, TEXAS
JULY - AUGUST 2013**

	<i>Sample Location:</i>	MW-55A	MW-55B	MW-57A	MW-57B
	<i>Sample ID:</i>	WG-1620-MW55A-20130730	WG-1620-MW55B-201300730	WG-1620-MW57A-20130731	WG-1620-MW57B-20130731
	<i>Sample Date:</i>	7/30/2013	7/30/2013	7/31/2013	7/31/2013
<i>Parameters</i>	<i>Units</i>				
<i>Volatile Organic Compounds</i>					
1,2-Dichloroethane	mg/L	<0.0140	<0.0140	<0.00700	<0.0140
Benzene	mg/L	0.145	0.809	0.137	1.49
Chlorobenzene	mg/L	<0.0120	<0.0120	<0.00600	<0.0120
Ethylbenzene	mg/L	0.260	0.173	0.283	0.501
Methylene chloride	mg/L	0.0894 J	0.0517 J	<0.00750	0.0405 J
Toluene	mg/L	0.431	0.782	0.308	1.62
Vinyl chloride	mg/L	<0.0110	<0.0110	<0.00550	-
Xylenes (total)	mg/L	0.584	0.624	0.572	1.40
<i>Semi-volatile Organic Compounds</i>					
1,2-Diphenylhydrazine	mg/L	<0.00534	<0.0534	<0.0267	<0.0267
2,4-Dimethylphenol	mg/L	0.956	25.2	0.994	9.67
2,4-Dinitrotoluene	mg/L	<0.00631	<0.0631	<0.0316	<0.0316
2,6-Dinitrotoluene	mg/L	<0.00388	<0.0388	<0.0194	<0.0194
2-Chloronaphthalene	mg/L	<0.00388	<0.0388	<0.0194	<0.0194
2-Methylnaphthalene	mg/L	0.468	0.868	1.50	1.07
4,6-Dinitro-2-methylphenol	mg/L	<0.0403	<0.403	<0.201	<0.201
4-Nitrophenol	mg/L	<0.0272	<0.272	<0.136	<0.136
Acenaphthene	mg/L	0.207	<0.0388	0.997	0.423
Acenaphthylene	mg/L	<0.00291	<0.0291	<0.0146	<0.0146
Anthracene	mg/L	0.0336	0.0437 J	0.337	0.0493 J
Benzo(a)anthracene	mg/L	<0.00388	<0.0388	0.0521 J	<0.0194
Benzo(a)pyrene	mg/L	<0.00388	<0.0388	<0.0194	<0.0194
bis(2-Chloroethoxy)methane	mg/L	<0.00631	<0.0631	<0.0316	<0.0316
bis(2-Ethylhexyl)phthalate (DEHP)	mg/L	<0.0180	<0.180	<0.0898	<0.0898
Chrysene	mg/L	<0.00388	<0.0388	0.0482 J	<0.0194

TABLE 3

**ANALYTICAL RESULTS SUMMARY
SEMIANNUAL GROUNDWATER SAMPLING
UNION PACIFIC RAILROAD
1620 WOOD PRESERVING WORKS
HOUSTON, TEXAS
JULY - AUGUST 2013**

<i>Sample Location:</i>	MW-55A	MW-55B	MW-57A	MW-57B
<i>Sample ID:</i>	WG-1620-MW55A-20130730	WG-1620-MW55B-201300730	WG-1620-MW57A-20130731	WG-1620-MW57B-20130731
<i>Sample Date:</i>	7/30/2013	7/30/2013	7/31/2013	7/31/2013

<i>Parameters</i>	<i>Units</i>				
<i>Semi-volatile Organic Compounds (Continued)</i>					
Dibenzofuran	mg/L	<0.00388	0.309	0.799	0.322
Di-n-butylphthalate (DBP)	mg/L	<0.00534	<0.0534	<0.0267	<0.0267
Fluoranthene	mg/L	0.0148 J	<0.0340	0.412	0.0301 J
Fluorene	mg/L	0.0996	0.195 J	0.713	0.208
Naphthalene	mg/L	13.8	21.9	13.5	18.1
Nitrobenzene	mg/L	<0.00534	<0.0534	<0.0267	<0.0267
N-Nitrosodiphenylamine	mg/L	<0.00485	<0.0485	<0.0243	<0.0243
Pentachlorophenol	mg/L	<0.0296	<0.296	<0.148	<0.148
Phenanthrene	mg/L	0.0780	0.228 J	1.61	0.242
Phenol	mg/L	<0.00194	103	<0.00971	0.645
Pyrene	mg/L	0.00729 J	<0.0534	0.264	<0.0267

TABLE 3

**ANALYTICAL RESULTS SUMMARY
SEMIANNUAL GROUNDWATER SAMPLING
UNION PACIFIC RAILROAD
1620 WOOD PRESERVING WORKS
HOUSTON, TEXAS
JULY - AUGUST 2013**

	<i>Sample Location:</i>	<i>MW-58A</i>	<i>MW-59A</i>	<i>MW-59B</i>	<i>MW-59D</i>
	<i>Sample ID:</i>	<i>WG - 1620 - MW58A - 20130806</i>	<i>WG-1620-MW59A-20130801</i>	<i>WG-1620-MW59B-20130801</i>	<i>WG - 1620 - MW59D - 20130805</i>
	<i>Sample Date:</i>	<i>8/6/2013</i>	<i>8/1/2013</i>	<i>8/1/2013</i>	<i>8/5/2013</i>
<i>Parameters</i>	<i>Units</i>				
<i>Volatile Organic Compounds</i>					
1,2-Dichloroethane	mg/L	<0.000140	<0.000140	<0.000140	<0.000140
Benzene	mg/L	0.0000807 J	<0.0000800	0.0000981 J	<0.0000800
Chlorobenzene	mg/L	<0.000120	<0.000120	<0.000120	<0.000120
Ethylbenzene	mg/L	<0.000110	<0.000110	<0.000110	<0.000110
Methylene chloride	mg/L	<0.000150	<0.000150	<0.000150	<0.000150
Toluene	mg/L	<0.000150	<0.000150	<0.000150	<0.000150
Vinyl chloride	mg/L	<0.000110	<0.000110	<0.000110	-
Xylenes (total)	mg/L	<0.000260	<0.000260	<0.000260	<0.000260
<i>Semi-volatile Organic Compounds</i>					
1,2-Diphenylhydrazine	mg/L	<0.000110	<0.000108 JL	<0.000105	<0.000110
2,4-Dimethylphenol	mg/L	<0.000310	<0.000304 JL	<0.000295	<0.000310
2,4-Dinitrotoluene	mg/L	<0.000130	<0.000127 JL	<0.000124	<0.000130
2,6-Dinitrotoluene	mg/L	<0.0000800	<0.0000784 JL	<0.0000762	<0.0000800
2-Chloronaphthalene	mg/L	<0.0000800	<0.0000784 JL	<0.0000762	<0.0000800
2-Methylnaphthalene	mg/L	<0.0000700	<0.0000686 JL	<0.0000667	0.000160 J
4,6-Dinitro-2-methylphenol	mg/L	<0.000830	<0.000814 JL	<0.000790	<0.000830
4-Nitrophenol	mg/L	<0.000560	<0.000549 JL	<0.000533	<0.000560
Acenaphthene	mg/L	<0.0000800	<0.0000784 JL	<0.0000762	<0.0000800
Acenaphthylene	mg/L	<0.0000600	<0.0000588 JL	<0.0000571	<0.0000600
Anthracene	mg/L	<0.0000500	0.0000519 JL	<0.0000476	<0.0000500
Benzo(a)anthracene	mg/L	<0.0000800	<0.0000784 JL	<0.0000762	<0.0000800
Benzo(a)pyrene	mg/L	<0.0000800	<0.0000784 JL	<0.0000762	<0.0000800
bis(2-Chloroethoxy)methane	mg/L	<0.000130	<0.000127 JL	<0.000124	<0.000130
bis(2-Ethylhexyl)phthalate (DEHP)	mg/L	<0.000370	<0.000363 JL	<0.000352	0.000805 J
Chrysene	mg/L	<0.0000800	<0.0000784 JL	<0.0000762	<0.0000800

TABLE 3

**ANALYTICAL RESULTS SUMMARY
SEMIANNUAL GROUNDWATER SAMPLING
UNION PACIFIC RAILROAD
1620 WOOD PRESERVING WORKS
HOUSTON, TEXAS
JULY - AUGUST 2013**

	<i>Sample Location:</i>	<i>MW-58A</i>	<i>MW-59A</i>	<i>MW-59B</i>	<i>MW-59D</i>
	<i>Sample ID:</i>	<i>WG - 1620 - MW58A - 20130806</i>	<i>WG-1620-MW59A-20130801</i>	<i>WG-1620-MW59B-20130801</i>	<i>WG - 1620 - MW59D - 20130805</i>
	<i>Sample Date:</i>	<i>8/6/2013</i>	<i>8/1/2013</i>	<i>8/1/2013</i>	<i>8/5/2013</i>
<i>Parameters</i>	<i>Units</i>				
<i>Semi-volatile Organic Compounds (Continued)</i>					
Dibenzofuran	mg/L	<0.0000800	<0.0000784 JL	<0.0000762	<0.0000800
Di-n-butylphthalate (DBP)	mg/L	<0.000110	0.000169 JL	0.000115 J	<0.000110
Fluoranthene	mg/L	<0.0000700	<0.0000686 JL	<0.0000667	<0.0000700
Fluorene	mg/L	<0.0000700	<0.0000686 JL	<0.0000667	<0.0000700
Naphthalene	mg/L	0.000360 J	<0.0000784 JL	<0.000166	0.00226 J
Nitrobenzene	mg/L	<0.000110	<0.000108 JL	<0.000105	<0.000110
N-Nitrosodiphenylamine	mg/L	<0.000100	<0.0000980 JL	<0.0000952	<0.000100
Pentachlorophenol	mg/L	<0.0000610	<0.0000598 JL	<0.0000581	<0.0000610
Phenanthrene	mg/L	<0.0000600	0.0000750 JL	<0.0000571	<0.0000600
Phenol	mg/L	<0.0000400	<0.0000392 JL	<0.0000381	<0.0000400
Pyrene	mg/L	<0.000110	<0.000108 JL	<0.000105	<0.000110

TABLE 3

**ANALYTICAL RESULTS SUMMARY
SEMIANNUAL GROUNDWATER SAMPLING
UNION PACIFIC RAILROAD
1620 WOOD PRESERVING WORKS
HOUSTON, TEXAS
JULY - AUGUST 2013**

<i>Sample Location:</i>	<i>MW-59D</i>	<i>MW-60A</i>	<i>MW-61A</i>	<i>MW-62B</i>	
<i>Sample ID:</i>	WG - 1620 - FD02- 20130805	WG-1620-MW60A-20130802	WG-1620-MW61A-20130801	WG-1620-MW62B-20130802	
<i>Sample Date:</i>	8/5/2013 <i>Duplicate</i>	8/2/2013	8/1/2013	8/2/2013	
<i>Parameters</i>	<i>Units</i>				
<i>Volatile Organic Compounds</i>					
1,2-Dichloroethane	mg/L	<0.000140	<0.000140	<0.000140	<0.000140
Benzene	mg/L	<0.0000800	<0.0000800	<0.0000800	<0.0000800
Chlorobenzene	mg/L	<0.000120	<0.000120	<0.000120	<0.000120
Ethylbenzene	mg/L	<0.000110	<0.000110	<0.000110	<0.000110
Methylene chloride	mg/L	<0.000150	<0.000150	<0.000150	<0.000150
Toluene	mg/L	<0.000150	<0.000150	<0.000150	<0.000150
Vinyl chloride	mg/L	-	<0.000110	<0.000110	-
Xylenes (total)	mg/L	<0.000260	<0.000260	<0.000260	<0.000260
<i>Semi-volatile Organic Compounds</i>					
1,2-Diphenylhydrazine	mg/L	<0.000110	<0.000105	<0.000105	<0.000105
2,4-Dimethylphenol	mg/L	<0.000310	<0.000295	<0.000295	<0.000295
2,4-Dinitrotoluene	mg/L	<0.000130	<0.000124	<0.000124	<0.000124
2,6-Dinitrotoluene	mg/L	<0.0000800	<0.0000762	<0.0000762	<0.0000762
2-Chloronaphthalene	mg/L	<0.0000800	<0.0000762	<0.0000762	<0.0000762
2-Methylnaphthalene	mg/L	<0.0000700 J	<0.0000667	<0.0000667	<0.0000667
4,6-Dinitro-2-methylphenol	mg/L	<0.000830	<0.000790	<0.000790	<0.000790
4-Nitrophenol	mg/L	<0.000560	<0.000533	<0.000533	<0.000533
Acenaphthene	mg/L	<0.0000800	<0.0000762	<0.0000762	<0.0000762
Acenaphthylene	mg/L	<0.0000600	<0.0000571	<0.0000571	<0.0000571
Anthracene	mg/L	<0.0000500	0.0000883 J	<0.0000476	<0.0000476
Benzo(a)anthracene	mg/L	<0.0000800	<0.0000762	<0.0000762	<0.0000762
Benzo(a)pyrene	mg/L	<0.0000800	<0.0000762	<0.0000762	<0.0000762
bis(2-Chloroethoxy)methane	mg/L	<0.000130	<0.000124	<0.000124	<0.000124
bis(2-Ethylhexyl)phthalate (DEHP)	mg/L	0.000812 J	<0.000352	<0.000352	<0.000352
Chrysene	mg/L	<0.0000800	<0.0000762	<0.0000762	<0.0000762

TABLE 3

**ANALYTICAL RESULTS SUMMARY
SEMIANNUAL GROUNDWATER SAMPLING
UNION PACIFIC RAILROAD
1620 WOOD PRESERVING WORKS
HOUSTON, TEXAS
JULY - AUGUST 2013**

	<i>Sample Location:</i>	<i>MW-59D</i>	<i>MW-60A</i>	<i>MW-61A</i>	<i>MW-62B</i>
	<i>Sample ID:</i>	WG - 1620 - FD02- 20130805	WG-1620-MW60A-20130802	WG-1620-MW61A-20130801	WG-1620-MW62B-20130802
	<i>Sample Date:</i>	8/5/2013	8/2/2013	8/1/2013	8/2/2013
		<i>Duplicate</i>			
<i>Parameters</i>	<i>Units</i>				
<i>Semi-volatile Organic Compounds (Continued)</i>					
Dibenzofuran	mg/L	<0.0000800	<0.0000762	<0.0000762	<0.0000762
Di-n-butylphthalate (DBP)	mg/L	<0.000110	<0.000105	<0.000105	0.000107 J
Fluoranthene	mg/L	<0.0000700	<0.0000667	<0.0000667	<0.0000667
Fluorene	mg/L	<0.0000700	<0.0000667	<0.0000667	<0.0000667
Naphthalene	mg/L	<0.0000800 J	<0.0000762	<0.000120	<0.0000762
Nitrobenzene	mg/L	<0.000110	<0.000105	<0.000105	<0.000105
N-Nitrosodiphenylamine	mg/L	<0.000100	<0.0000952	<0.0000952	<0.0000952
Pentachlorophenol	mg/L	<0.000610	<0.000581	<0.000581	<0.000581
Phenanthrene	mg/L	<0.0000600	<0.0000571	0.0000586 J	<0.0000571
Phenol	mg/L	<0.0000400	<0.0000381	<0.0000381	<0.0000381
Pyrene	mg/L	<0.000110	<0.000105	<0.000105	<0.000105

TABLE 3

**ANALYTICAL RESULTS SUMMARY
SEMIANNUAL GROUNDWATER SAMPLING
UNION PACIFIC RAILROAD
1620 WOOD PRESERVING WORKS
HOUSTON, TEXAS
JULY - AUGUST 2013**

<i>Sample Location:</i>	<i>MW-63B</i>	<i>MW-64A</i>	<i>MW-65D</i>	<i>MW-66D</i>
<i>Sample ID:</i>	WG - 1620 - MW63B - 20130807	WG - 1620 - MW64A - 20130806	WG - 1620 - MW65D - 20130805	WG - 1620 - MW66D - 20130805
<i>Sample Date:</i>	8/7/2013	8/6/2013	8/5/2013	8/5/2013
<i>Parameters</i>	<i>Units</i>			
<i>Volatile Organic Compounds</i>				
1,2-Dichloroethane	mg/L	<0.000140	<0.000140	<0.000140
Benzene	mg/L	0.0869	<0.0000800	<0.0000800
Chlorobenzene	mg/L	<0.000120	<0.000120	<0.000120
Ethylbenzene	mg/L	0.0341	<0.000110	<0.000110
Methylene chloride	mg/L	<0.000150	<0.000150	<0.000150
Toluene	mg/L	<0.000434	<0.000150	<0.000150
Vinyl chloride	mg/L	-	-	-
Xylenes (total)	mg/L	0.0113	<0.000260	<0.000260
<i>Semi-volatile Organic Compounds</i>				
1,2-Diphenylhydrazine	mg/L	<0.000104	<0.000110	<0.000108 JL
2,4-Dimethylphenol	mg/L	<0.000292	<0.000310	<0.000304 JL
2,4-Dinitrotoluene	mg/L	<0.000123	<0.000130	<0.000127 JL
2,6-Dinitrotoluene	mg/L	<0.0000755	<0.0000800	<0.0000784 JL
2-Chloronaphthalene	mg/L	<0.0000755	<0.0000800	<0.0000784 JL
2-Methylnaphthalene	mg/L	0.00242	<0.0000700	<0.0000686 JL
4,6-Dinitro-2-methylphenol	mg/L	<0.000783	<0.000830	<0.000814 JL
4-Nitrophenol	mg/L	<0.000528	<0.000560	<0.000549 JL
Acenaphthene	mg/L	0.000833	<0.0000800	<0.0000784 JL
Acenaphthylene	mg/L	<0.0000566	<0.0000600	<0.0000588 JL
Anthracene	mg/L	<0.0000472	<0.0000500	<0.0000490 JL
Benzo(a)anthracene	mg/L	<0.0000755	<0.0000800	<0.0000784 JL
Benzo(a)pyrene	mg/L	<0.0000755	<0.0000800	<0.0000784 JL
bis(2-Chloroethoxy)methane	mg/L	<0.000123	<0.000130	<0.000127 JL
bis(2-Ethylhexyl)phthalate (DEHP)	mg/L	0.000381 J	<0.000370	<0.000363 JL
Chrysene	mg/L	<0.0000755	<0.0000800	<0.0000784 JL

TABLE 3

**ANALYTICAL RESULTS SUMMARY
SEMIANNUAL GROUNDWATER SAMPLING
UNION PACIFIC RAILROAD
1620 WOOD PRESERVING WORKS
HOUSTON, TEXAS
JULY - AUGUST 2013**

	<i>Sample Location:</i>	<i>MW-63B</i>	<i>MW-64A</i>	<i>MW-65D</i>	<i>MW-66D</i>
	<i>Sample ID:</i>	<i>WG - 1620 - MW63B - 20130807</i>	<i>WG - 1620 - MW64A - 20130806</i>	<i>WG - 1620 - MW65D - 20130805</i>	<i>WG - 1620 - MW66D - 20130805</i>
	<i>Sample Date:</i>	<i>8/7/2013</i>	<i>8/6/2013</i>	<i>8/5/2013</i>	<i>8/5/2013</i>
<i>Parameters</i>	<i>Units</i>				
<i>Semi-volatile Organic Compounds (Continued)</i>					
Dibenzofuran	mg/L	0.00104	<0.0000800	<0.0000784 JL	<0.0000800
Di-n-butylphthalate (DBP)	mg/L	<0.000104	<0.000110	0.000148 JL	<0.000110
Fluoranthene	mg/L	<0.0000660	<0.0000700	<0.0000686 JL	<0.0000700
Fluorene	mg/L	0.000349 J	<0.0000700	<0.0000686 JL	<0.0000700
Naphthalene	mg/L	0.146	<0.0000800	<0.0000784 JL	0.0000999 J
Nitrobenzene	mg/L	<0.000104	<0.000110	<0.000108 JL	<0.000110
N-Nitrosodiphenylamine	mg/L	<0.0000943	<0.000100	<0.0000980 JL	<0.000100
Pentachlorophenol	mg/L	<0.000575	<0.000610	<0.000598 JL	<0.000610
Phenanthrene	mg/L	<0.0000566	<0.0000600	0.0000930 JL	<0.0000600
Phenol	mg/L	<0.0000377	<0.0000400	<0.0000392 JL	<0.0000400
Pyrene	mg/L	<0.000104	<0.000110	<0.000108 JL	<0.000110

TABLE 3

**ANALYTICAL RESULTS SUMMARY
SEMIANNUAL GROUNDWATER SAMPLING
UNION PACIFIC RAILROAD
1620 WOOD PRESERVING WORKS
HOUSTON, TEXAS
JULY - AUGUST 2013**

	<i>Sample Location:</i>	<i>MW-67B</i>	<i>MW-68B</i>	<i>MW-68C</i>
	<i>Sample ID:</i>	WG-1620-MW67B-21030808	WG-1620-MW68B-20130808	WG - 1620 - MW68C - 20130807
	<i>Sample Date:</i>	8/8/2013	8/8/2013	8/7/2013
<i>Parameters</i>	<i>Units</i>			
<i>Volatile Organic Compounds</i>				
1,2-Dichloroethane	mg/L	<0.000140	<0.0140	<0.000140
Benzene	mg/L	<0.0000800	2.88	0.00364
Chlorobenzene	mg/L	<0.000120	<0.0120	<0.000120
Ethylbenzene	mg/L	<0.000110	0.550	0.000517 J
Methylene chloride	mg/L	<0.000150	0.101	<0.000150
Toluene	mg/L	<0.000150	0.625	<0.00160
Vinyl chloride	mg/L	<0.000110	<0.0110	-
Xylenes (total)	mg/L	<0.000260	1.28	0.000879 J
<i>Semi-volatile Organic Compounds</i>				
1,2-Diphenylhydrazine	mg/L	<0.000104	<0.00519	<0.000104 JL
2,4-Dimethylphenol	mg/L	<0.000292	<0.0146	<0.000292 JL
2,4-Dinitrotoluene	mg/L	<0.000123	<0.00613	<0.000123 JL
2,6-Dinitrotoluene	mg/L	<0.0000755	<0.00377	<0.0000755 JL
2-Chloronaphthalene	mg/L	<0.0000755	<0.00377	<0.0000755 JL
2-Methylnaphthalene	mg/L	<0.0000660	1.41	0.000301 JL
4,6-Dinitro-2-methylphenol	mg/L	<0.000783	<0.0392	<0.000783 JL
4-Nitrophenol	mg/L	<0.000528	<0.0264	<0.000528 JL
Acenaphthene	mg/L	<0.0000755	0.304	<0.0000755 JL
Acenaphthylene	mg/L	<0.0000566	<0.00283	<0.0000566 JL
Anthracene	mg/L	<0.0000472	0.0230 J	<0.0000472 JL
Benzo(a)anthracene	mg/L	<0.0000755	<0.00377	<0.0000755 JL
Benzo(a)pyrene	mg/L	<0.0000755	<0.00377	<0.0000755 JL
bis(2-Chloroethoxy)methane	mg/L	<0.000123	<0.00613	<0.000123 JL
bis(2-Ethylhexyl)phthalate (DEHP)	mg/L	<0.000349	<0.0175	0.00157 JL
Chrysene	mg/L	<0.0000755	<0.00377	<0.0000755 JL

TABLE 3

**ANALYTICAL RESULTS SUMMARY
SEMIANNUAL GROUNDWATER SAMPLING
UNION PACIFIC RAILROAD
1620 WOOD PRESERVING WORKS
HOUSTON, TEXAS
JULY - AUGUST 2013**

	<i>Sample Location:</i>	<i>MW-67B</i>	<i>MW-68B</i>	<i>MW-68C</i>
	<i>Sample ID:</i>	WG-1620-MW67B-21030808	WG-1620-MW68B-20130808	WG - 1620 - MW68C - 20130807
	<i>Sample Date:</i>	8/8/2013	8/8/2013	8/7/2013
<i>Parameters</i>	<i>Units</i>			
<i>Semi-volatile Organic Compounds (Continued)</i>				
Dibenzofuran	mg/L	<0.0000755	0.325	<0.0000755 JL
Di-n-butylphthalate (DBP)	mg/L	0.000119 J	<0.00519	<0.000104 JL
Fluoranthene	mg/L	<0.0000660	0.00764 J	<0.0000660 JL
Fluorene	mg/L	<0.0000660	0.154	0.000135 JL
Naphthalene	mg/L	0.000433 J	31.2	0.00643 JL
Nitrobenzene	mg/L	<0.000104	<0.00519	<0.000104 JL
N-Nitrosodiphenylamine	mg/L	<0.0000943	<0.00472	<0.0000943 JL
Pentachlorophenol	mg/L	<0.000575	<0.0288	<0.000575 JL
Phenanthrene	mg/L	<0.0000566	0.136	<0.0000566 JL
Phenol	mg/L	<0.0000377	0.0795	<0.0000377 JL
Pyrene	mg/L	<0.000104	<0.00519	<0.000104 JL

TABLE 3

ANALYTICAL RESULTS SUMMARY
SEMIANNUAL GROUNDWATER SAMPLING
UNION PACIFIC RAILROAD
1620 WOOD PRESERVING WORKS
HOUSTON, TEXAS
JULY - AUGUST 2013

	<i>Sample Location:</i>	<i>MW-69A</i>	<i>MW-71B</i>	<i>MW-72B</i>
	<i>Sample ID:</i>	WG - 1620 - MW69A - 20130806	WG-1620-MW71B-20130807	WG-1620-MW72B-20130729
	<i>Sample Date:</i>	8/6/2013	8/7/2013	7/29/2013
<i>Parameters</i>	<i>Units</i>			
<i>Volatile Organic Compounds</i>				
1,2-Dichloroethane	mg/L	<0.000140	<0.000140	<0.0140
Benzene	mg/L	<0.0000800	0.103	1.23
Chlorobenzene	mg/L	<0.000120	<0.000120	<0.0120
Ethylbenzene	mg/L	<0.000110	0.0354	0.332
Methylene chloride	mg/L	<0.000150	<0.000150	0.291
Toluene	mg/L	<0.000150	0.0355	1.12
Vinyl chloride	mg/L	<0.000110	<0.000110	-
Xylenes (total)	mg/L	<0.000260	0.0615	0.928
<i>Semi-volatile Organic Compounds</i>				
1,2-Diphenylhydrazine	mg/L	<0.000110	<0.00519	<0.0267
2,4-Dimethylphenol	mg/L	<0.000310	<0.0146	29.9
2,4-Dinitrotoluene	mg/L	<0.000130	<0.00613	<0.0316
2,6-Dinitrotoluene	mg/L	<0.0000800	<0.00377	<0.0194
2-Chloronaphthalene	mg/L	<0.0000800	<0.00377	<0.0194
2-Methylnaphthalene	mg/L	<0.0000700	0.114	1.19
4,6-Dinitro-2-methylphenol	mg/L	<0.000830	<0.0392	<0.201
4-Nitrophenol	mg/L	<0.000560	<0.0264	<0.136
Acenaphthene	mg/L	<0.0000800	0.0346	0.476
Acenaphthylene	mg/L	<0.0000600	<0.00283	<0.0146
Anthracene	mg/L	<0.0000500	0.00383 J	0.0330 J
Benzo(a)anthracene	mg/L	<0.0000800	<0.00377	<0.0194
Benzo(a)pyrene	mg/L	<0.0000800	<0.00377	<0.0194
bis(2-Chloroethoxy)methane	mg/L	<0.000130	<0.00613	<0.0316
bis(2-Ethylhexyl)phthalate (DEHP)	mg/L	<0.000370	<0.0175	<0.0898
Chrysene	mg/L	<0.0000800	<0.00377	<0.0194

TABLE 3

**ANALYTICAL RESULTS SUMMARY
SEMIANNUAL GROUNDWATER SAMPLING
UNION PACIFIC RAILROAD
1620 WOOD PRESERVING WORKS
HOUSTON, TEXAS
JULY - AUGUST 2013**

	<i>Sample Location:</i>	<i>MW-69A</i>	<i>MW-71B</i>	<i>MW-72B</i>
	<i>Sample ID:</i>	WG - 1620 - MW69A - 20130806	WG-1620-MW71B-20130807	WG-1620-MW72B-20130729
	<i>Sample Date:</i>	8/6/2013	8/7/2013	7/29/2013
<i>Parameters</i>	<i>Units</i>			
<i>Semi-volatile Organic Compounds (Continued)</i>				
Dibenzofuran	mg/L	<0.0000800	0.0292	0.348
Di-n-butylphthalate (DBP)	mg/L	<0.000110	<0.00519	<0.0267
Fluoranthene	mg/L	<0.0000700	<0.00330	<0.0170
Fluorene	mg/L	<0.0000700	0.0127 J	0.224
Naphthalene	mg/L	<0.0000800	2.07	25.0
Nitrobenzene	mg/L	<0.000110	<0.00519	<0.0267
N-Nitrosodiphenylamine	mg/L	<0.000100	<0.00472	<0.0243
Pentachlorophenol	mg/L	<0.000610	<0.0288	<0.148
Phenanthrene	mg/L	<0.0000600	0.0124 J	0.182
Phenol	mg/L	<0.0000400	<0.00189	6.31
Pyrene	mg/L	<0.000110	<0.00519	<0.0267

TABLE 3

ANALYTICAL RESULTS SUMMARY
SEMIANNUAL GROUNDWATER SAMPLING
UNION PACIFIC RAILROAD
1620 WOOD PRESERVING WORKS
HOUSTON, TEXAS
JULY - AUGUST 2013

	<i>Sample Location:</i>	<i>MW-73B</i>	<i>P-11</i>	<i>TW-41B</i>
	<i>Sample ID:</i>	<i>WG-1620-MW73B-20130730</i>	<i>WG-1620-P11-20130801</i>	<i>WG-1620-TW41B-20130731</i>
	<i>Sample Date:</i>	<i>7/30/2013</i>	<i>8/1/2013</i>	<i>7/31/2013</i>
<i>Parameters</i>	<i>Units</i>			
<i>Volatile Organic Compounds</i>				
1,2-Dichloroethane	mg/L	0.000678 J	<0.000140	<0.000140
Benzene	mg/L	0.000156 J	<0.0000800	0.000347 J
Chlorobenzene	mg/L	<0.000120	<0.000120	<0.000120
Ethylbenzene	mg/L	<0.000110	<0.000110	0.00115
Methylene chloride	mg/L	<0.000150	<0.000150	<0.000150
Toluene	mg/L	<0.000150	<0.000150	<0.000279
Vinyl chloride	mg/L	-	-	-
Xylenes (total)	mg/L	<0.000260	<0.000260	0.000386 J
<i>Semi-volatile Organic Compounds</i>				
1,2-Diphenylhydrazine	mg/L	<0.000107	<0.000105	<0.000105
2,4-Dimethylphenol	mg/L	<0.000301	<0.000295	<0.000295
2,4-Dinitrotoluene	mg/L	<0.000126	<0.000124	<0.000124
2,6-Dinitrotoluene	mg/L	<0.0000777	<0.0000762	<0.0000762
2-Chloronaphthalene	mg/L	<0.0000777	<0.0000762	<0.0000762
2-Methylnaphthalene	mg/L	0.0000878 J	<0.0000667	0.000256 J
4,6-Dinitro-2-methylphenol	mg/L	<0.000806	<0.000790	<0.000790
4-Nitrophenol	mg/L	<0.000544	<0.000533	<0.000533
Acenaphthene	mg/L	0.000118 J	<0.0000762	0.0252
Acenaphthylene	mg/L	<0.0000583	<0.0000571	0.000409 J
Anthracene	mg/L	0.000245 J	0.0000997 J	0.00161
Benzo(a)anthracene	mg/L	<0.0000777	<0.0000762	0.0000879 J
Benzo(a)pyrene	mg/L	<0.0000777	<0.0000762	<0.0000762
bis(2-Chloroethoxy)methane	mg/L	<0.000126	<0.000124	<0.000124
bis(2-Ethylhexyl)phthalate (DEHP)	mg/L	<0.000359	0.000593 J	<0.000352
Chrysene	mg/L	<0.0000777	<0.0000762	<0.0000762

TABLE 3

**ANALYTICAL RESULTS SUMMARY
SEMIANNUAL GROUNDWATER SAMPLING
UNION PACIFIC RAILROAD
1620 WOOD PRESERVING WORKS
HOUSTON, TEXAS
JULY - AUGUST 2013**

	<i>Sample Location:</i>	<i>MW-73B</i>	<i>P-11</i>	<i>TW-41B</i>
	<i>Sample ID:</i>	<i>WG-1620-MW73B-20130730</i>	<i>WG-1620-P11-20130801</i>	<i>WG-1620-TW41B-20130731</i>
	<i>Sample Date:</i>	<i>7/30/2013</i>	<i>8/1/2013</i>	<i>7/31/2013</i>
<i>Parameters</i>	<i>Units</i>			
<i>Semi-volatile Organic Compounds (Continued)</i>				
Dibenzofuran	mg/L	<0.0000777	<0.0000762	0.0104
Di-n-butylphthalate (DBP)	mg/L	0.000133 J	<0.000105	<0.000138
Fluoranthene	mg/L	<0.0000680	<0.0000667	0.00153
Fluorene	mg/L	0.0000805 J	<0.0000667	0.00386
Naphthalene	mg/L	<0.000674	<0.0000762	0.00309 J
Nitrobenzene	mg/L	<0.000107	<0.000105	<0.000105
N-Nitrosodiphenylamine	mg/L	<0.0000971	<0.0000952	<0.0000952
Pentachlorophenol	mg/L	<0.000592	<0.000581	<0.000581
Phenanthrene	mg/L	0.000228 J	<0.0000571	0.000659
Phenol	mg/L	<0.0000388	<0.0000381	<0.0000381
Pyrene	mg/L	<0.000107	<0.000105	0.000702

Notes:

- J Estimated concentration.
- JL Estimated concentration; biased low.

TABLE 4

**QUALIFIED SAMPLE RESULTS DUE TO HOLDING TIME EXCEEDANCE
SEMIANNUAL GROUNDWATER SAMPLING
UNION PACIFIC RAILROAD
1620 WOOD PRESERVING WORKS
HOUSTON, TEXAS
JULY - AUGUST 2013**

<i>Parameter</i>	<i>Sample ID</i>	<i>Extraction Holding Time (days)</i>	<i>Extraction Holding Time Criteria (days)</i>	<i>Analyte</i>	<i>Qualified Sample Results</i>	<i>Units</i>
SVOCs	WG - 1620 - MW65D - 20130805	14	7	1,2-Diphenylhydrazine	<0.000108 JL	mg/L
				2,4-Dimethylphenol	<0.000304 JL	mg/L
				2,4-Dinitrotoluene	<0.000127 JL	mg/L
				2,6-Dinitrotoluene	<0.0000784 JL	mg/L
				2-Chloronaphthalene	<0.0000784 JL	mg/L
				2-Methylnaphthalene	<0.0000686 JL	mg/L
				4,6-Dinitro-2-methylphenol	<0.000814 JL	mg/L
				4-Nitrophenol	<0.000549 JL	mg/L
				Acenaphthene	<0.0000784 JL	mg/L
				Acenaphthylene	<0.0000588 JL	mg/L
				Anthracene	<0.0000490 JL	mg/L
				Benzo(a)anthracene	<0.0000784 JL	mg/L
				Benzo(a)pyrene	<0.0000784 JL	mg/L
				bis(2-Chloroethoxy)methane	<0.000127 JL	mg/L
				bis(2-Ethylhexyl)phthalate (DEHP)	<0.000363 JL	mg/L
				Chrysene	<0.0000784 JL	mg/L
				Dibenzofuran	<0.0000784 JL	mg/L
				Di-n-butylphthalate (DBP)	0.000148 JL	mg/L
				Fluoranthene	<0.0000686 JL	mg/L
				Fluorene	<0.0000686 JL	mg/L
				Naphthalene	<0.0000784 JL	mg/L
				Nitrobenzene	<0.000108 JL	mg/L
				N-Nitrosodiphenylamine	<0.0000980 JL	mg/L
				Pentachlorophenol	<0.000598 JL	mg/L
				Phenanthrene	0.0000930 JL	mg/L
				Phenol	<0.0000392 JL	mg/L
				Pyrene	<0.000108 JL	mg/L

TABLE 4

**QUALIFIED SAMPLE RESULTS DUE TO HOLDING TIME EXCEEDANCE
SEMIANNUAL GROUNDWATER SAMPLING
UNION PACIFIC RAILROAD
1620 WOOD PRESERVING WORKS
HOUSTON, TEXAS
JULY - AUGUST 2013**

<i>Parameter</i>	<i>Sample ID</i>	<i>Extraction Holding Time (days)</i>	<i>Extraction Holding Time Criteria (days)</i>	<i>Analyte</i>	<i>Qualified Sample Results</i>	<i>Units</i>
SVOCs	WG-1620-MW59A-20130801	18	7	1,2-Diphenylhydrazine	<0.000108 JL	mg/L
				2,4-Dimethylphenol	<0.000304 JL	mg/L
				2,4-Dinitrotoluene	<0.000127 JL	mg/L
				2,6-Dinitrotoluene	<0.0000784 JL	mg/L
				2-Chloronaphthalene	<0.0000784 JL	mg/L
				2-Methylnaphthalene	<0.0000686 JL	mg/L
				4,6-Dinitro-2-methylphenol	<0.000814 JL	mg/L
				4-Nitrophenol	<0.000549 JL	mg/L
				Acenaphthene	<0.0000784 JL	mg/L
				Acenaphthylene	<0.0000588 JL	mg/L
				Anthracene	0.0000519 JL	mg/L
				Benzo(a)anthracene	<0.0000784 JL	mg/L
				Benzo(a)pyrene	<0.0000784 JL	mg/L
				bis(2-Chloroethoxy)methane	<0.000127 JL	mg/L
				bis(2-Ethylhexyl)phthalate (DEHP)	<0.000363 JL	mg/L
				Chrysene	<0.0000784 JL	mg/L
				Dibenzofuran	<0.0000784 JL	mg/L
				Di-n-butylphthalate (DBP)	0.000169 JL	mg/L
				Fluoranthene	<0.0000686 JL	mg/L
				Fluorene	<0.0000686 JL	mg/L
				Naphthalene	<0.0000784 JL	mg/L
				Nitrobenzene	<0.000108 JL	mg/L
				N-Nitrosodiphenylamine	<0.0000980 JL	mg/L
				Pentachlorophenol	<0.000598 JL	mg/L
				Phenanthrene	0.0000750 JL	mg/L
				Phenol	<0.0000392 JL	mg/L
				Pyrene	<0.000108 JL	mg/L

Notes:

SVOCs Semi-volatile organic compounds.

JL Estimated concentration; biased low.

TABLE 5
QUALIFIED SAMPLE DATA DUE TO ANALYTE CONCENTRATIONS IN THE TRIP BLANKS
SEMIANNUAL GROUNDWATER SAMPLING
UNION PACIFIC RAILROAD
1620 WOOD PRESERVING WORKS
HOUSTON, TEXAS
JULY - AUGUST 2013

<i>Parameter</i>	<i>Blank Date</i>	<i>Analyte</i>	<i>Blank Result</i>	<i>Associated Sample ID</i>	<i>Original Result</i>	<i>Qualified Result</i>	<i>Units</i>
VOCs	7/31/2013	Toluene	0.00167 J	WG-1620-MW12A-20130731 WG-1620-TW41B-20130731	0.000166 J 0.000279 J	<0.000166 <0.000279	mg/L mg/L
VOCs	8/7/2013	Toluene	0.00140	WG - 1620 - MW44A - 20130805 WG - 1620 - MW26A - 20130807 WG - 1620 - MW63B - 20130807 WG - 1620 - MW68C - 20130807	0.000705 J 0.000291 J 0.000434 J 0.00160	<0.000705 <0.000291 <0.000434 <0.00160	mg/L mg/L mg/L mg/L

Notes:

VOCs Volatile organic compounds.

J Estimated concentration.

TABLE 6
QUALIFIED SAMPLE DATA DUE TO ANALYTE CONCENTRATIONS IN THE FIELD BLANKS
SEMIANNUAL GROUNDWATER SAMPLING
UNION PACIFIC RAILROAD
1620 WOOD PRESERVING WORKS
HOUSTON, TEXAS
JULY - AUGUST 2013

<i>Parameter</i>	<i>Field Blank ID</i>	<i>Blank Date</i>	<i>Analyte</i>	<i>Blank Result</i>	<i>Associated Sample ID</i>	<i>Original Result</i>	<i>Qualified Result</i>	<i>Units</i>
SVOCs	WG-1620-FB02-20130730	7/30/2013	Naphthalene	0.0000857 J	WG-1620-MW15C-20130730	0.00122 J	<0.00122	mg/L
					WG-1620-MW19C-20130730	0.00196 J	<0.00196	mg/L
					WG-1620-MW73B-20130730	0.000674 J	<0.000674	mg/L
SVOCs	WG-1620-FB03-20130731	7/31/2013	Di-n-butylphthalate (DBP)	0.000108 J	WG-1620-MW13-20130731	0.000211 J	<0.000211	mg/L
					WG-1620-MW14-20130731	0.000179 J	<0.000179	mg/L
					WG-1620-MW12A-20130731	0.000240 J	<0.000240	mg/L
					WG-1620-MW12C-20130731	0.000110 J	<0.000110	mg/L
					WG-1620-MW39B-20130731	0.000122 J	<0.000122	mg/L
					WG-1620-TW41B-20130731	0.000138 J	<0.000138	mg/L
			Naphthalene	0.0000857 J	WG-1620-MW13-20130731	0.000226 J	<0.000226	mg/L
SVOCs	WG-1620-FB04-20130801	8/1/2013	2,4-Dimethylphenol	0.00156	WG-1620-FD01-20130801	0.00654	<0.00654	mg/L
					Naphthalene	0.00101 J	WG-1620-MW21C-20130801	0.00210 J
			Naphthalene	0.00101 J	WG-1620-MW48C-20130801	0.000158 J	<0.000158	mg/L
					WG-1620-MW59B-20130801	0.000166 J	<0.000166	mg/L
					WG-1620-MW61A-20130801	0.000120 J	<0.000120	mg/L
SVOCs	WG - 1620 - FB07 - 20130806	8/6/2013	Di-n-butylphthalate (DBP)	0.000331 J	WG - 1620 - MW36A - 20130806	0.000391 J	<0.000391	mg/L
			Phenanthrene	0.0000865 J	WG - 1620 - MW36A - 20130806	0.0000861 J	<0.0000861	mg/L
SVOCs	WG-1620-FB08-20130807	8/7/2013	Di-n-butylphthalate (DBP)	0.000119 J	WG - 1620 - MW28C - 20130807	0.000104 J	<0.000104	mg/L
					WG - 1620 - MW63B - 20130807	0.000104 J	<0.000104	mg/L
					WG - 1620 - MW68C - 20130807	0.000104 J	<0.000104	mg/L
					WG-1620-MW32AR-20130807	0.000104 J	<0.000104	mg/L
					Naphthalene	0.000613 J	WG - 1620 - MW28A - 20130807	0.000173 J
			WG-1620-MW32AR-20130807	0.00297 J	<0.00297	mg/L		

Notes:

SVOCs Semi-volatile organic compounds.

J Estimated concentration.

TABLE 7

**QUALIFIED SAMPLE DATA DUE TO OUTLYING OF SURROGATE RECOVERIES
SEMIANNUAL GROUNDWATER SAMPLING
UNION PACIFIC RAILROAD
1620 WOOD PRESERVING WORKS
HOUSTON, TEXAS
JULY - AUGUST 2013**

<i>Parameter</i>	<i>Sample ID</i>	<i>Surrogate</i>	<i>Surrogate Recovery (percent)</i>	<i>Control Limits (percent)</i>	<i>Analyte</i>	<i>Qualified Result</i>	<i>Units</i>
SVOCs	WG - 1620 - MW68C - 20130807	2-Fluorophenol	17	18-120	1,2-Diphenylhydrazine	<0.000104 JL	mg/L
		Phenol-d5	10	12-128	2,4-Dimethylphenol	<0.000292 JL	mg/L
					2,4-Dinitrotoluene	<0.000123 JL	mg/L
					2,6-Dinitrotoluene	<0.0000755 JL	mg/L
					2-Chloronaphthalene	<0.0000755 JL	mg/L
					2-Methylnaphthalene	0.000301 JL	mg/L
					4,6-Dinitro-2-methylphenol	<0.000783 JL	mg/L
					4-Nitrophenol	<0.000528 JL	mg/L
					Acenaphthene	<0.0000755 JL	mg/L
					Acenaphthylene	<0.0000566 JL	mg/L
					Anthracene	<0.0000472 JL	mg/L
					Benzo(a)anthracene	<0.0000755 JL	mg/L
					Benzo(a)pyrene	<0.0000755 JL	mg/L
					bis(2-Chloroethoxy)methane	<0.000123 JL	mg/L
					bis(2-Ethylhexyl)phthalate (DEHP)	0.00157 JL	mg/L
					Chrysene	<0.0000755 JL	mg/L
					Dibenzofuran	<0.0000755 JL	mg/L
					Di-n-butylphthalate (DBP)	<0.000104 JL	mg/L
					Fluoranthene	<0.0000660 JL	mg/L
					Fluorene	0.000135 JL	mg/L
					Naphthalene	0.00643 JL	mg/L
					Nitrobenzene	<0.000104 JL	mg/L
					N-Nitrosodiphenylamine	<0.0000943 JL	mg/L
					Pentachlorophenol	<0.000575 JL	mg/L
					Phenanthrene	<0.0000566 JL	mg/L
					Phenol	<0.0000377 JL	mg/L
					Pyrene	<0.000104 JL	mg/L

TABLE 7

**QUALIFIED SAMPLE DATA DUE TO OUTLYING OF SURROGATE RECOVERIES
SEMIANNUAL GROUNDWATER SAMPLING
UNION PACIFIC RAILROAD
1620 WOOD PRESERVING WORKS
HOUSTON, TEXAS
JULY - AUGUST 2013**

<i>Parameter</i>	<i>Sample ID</i>	<i>Surrogate</i>	<i>Surrogate Recovery (percent)</i>	<i>Control Limits (percent)</i>	<i>Analyte</i>	<i>Qualified Result</i>	<i>Units</i>
SVOCs	WG-1620-MW24AR-20130808	2,4,6-Tribromophenol	3	44-123	1,2-Diphenylhydrazine	<0.000104 JL	mg/L
		2-Fluorophenol	12	18-120	2,4-Dimethylphenol	<0.000292 JL	mg/L
		Phenol-d5	9	12-128	2,4-Dinitrotoluene	<0.000123 JL	mg/L
					2,6-Dinitrotoluene	<0.0000755 JL	mg/L
					2-Chloronaphthalene	<0.0000755 JL	mg/L
					2-Methylnaphthalene	<0.0000660 JL	mg/L
					4,6-Dinitro-2-methylphenol	<0.000783 JL	mg/L
					4-Nitrophenol	<0.000528 JL	mg/L
					Acenaphthene	<0.0000755 JL	mg/L
					Acenaphthylene	<0.0000566 JL	mg/L
					Anthracene	<0.0000472 JL	mg/L
					Benzo(a)anthracene	<0.0000755 JL	mg/L
					Benzo(a)pyrene	<0.0000755 JL	mg/L
					bis(2-Chloroethoxy)methane	<0.000123 JL	mg/L
					bis(2-Ethylhexyl)phthalate (DEHP)	<0.000349 JL	mg/L
					Chrysene	<0.0000755 JL	mg/L
					Dibenzofuran	<0.0000755 JL	mg/L
					Di-n-butylphthalate (DBP)	0.000168 JL	mg/L
					Fluoranthene	<0.0000660 JL	mg/L
					Fluorene	<0.0000660 JL	mg/L
			Naphthalene	<0.0000755 JL	mg/L		
			Nitrobenzene	<0.000104 JL	mg/L		
			N-Nitrosodiphenylamine	<0.0000943 JL	mg/L		
			Pentachlorophenol	<0.000575 JL	mg/L		
			Phenanthrene	<0.0000566 JL	mg/L		
			Phenol	<0.0000377 JL	mg/L		
			Pyrene	<0.000104 JL	mg/L		

TABLE 7

**QUALIFIED SAMPLE DATA DUE TO OUTLYING OF SURROGATE RECOVERIES
SEMIANNUAL GROUNDWATER SAMPLING
UNION PACIFIC RAILROAD
1620 WOOD PRESERVING WORKS
HOUSTON, TEXAS
JULY - AUGUST 2013**

<i>Parameter</i>	<i>Sample ID</i>	<i>Surrogate</i>	<i>Surrogate Recovery (percent)</i>	<i>Control Limits (percent)</i>	<i>Analyte</i>	<i>Qualified Result</i>	<i>Units</i>
SVOCs	WG-1620-MW35A-20130808	2-Fluorobiphenyl	35	43-120	1,2-Diphenylhydrazine	<0.000108 JL	mg/L
		Nitrobenzene-d5	27	47-120	2,4-Dimethylphenol	<0.000304 JL	mg/L
					2,4-Dinitrotoluene	<0.000127 JL	mg/L
					2,6-Dinitrotoluene	<0.0000784 JL	mg/L
					2-Chloronaphthalene	<0.0000784 JL	mg/L
					2-Methylnaphthalene	<0.0000686 JL	mg/L
					4,6-Dinitro-2-methylphenol	<0.000814 JL	mg/L
					4-Nitrophenol	<0.000549 JL	mg/L
					Acenaphthene	0.0181 JL	mg/L
					Acenaphthylene	<0.0000588 JL	mg/L
					Anthracene	<0.0000490 JL	mg/L
					Benzo(a)anthracene	<0.0000784 JL	mg/L
					Benzo(a)pyrene	<0.0000784 JL	mg/L
					bis(2-Chloroethoxy)methane	<0.000127 JL	mg/L
					bis(2-Ethylhexyl)phthalate (DEHP)	<0.000363 JL	mg/L
					Chrysene	<0.0000784 JL	mg/L
					Dibenzofuran	0.000141 JL	mg/L
					Di-n-butylphthalate (DBP)	<0.000108 JL	mg/L
					Fluoranthene	0.000365 JL	mg/L
					Fluorene	0.00200 JL	mg/L
					Naphthalene	0.000557 JL	mg/L
					Nitrobenzene	<0.000108 JL	mg/L
					N-Nitrosodiphenylamine	<0.0000980 JL	mg/L
					Pentachlorophenol	<0.000598 JL	mg/L
					Phenanthrene	<0.0000588 JL	mg/L
					Phenol	<0.0000392 JL	mg/L
					Pyrene	0.000252 JL	mg/L

Notes:

- SVOCs Semi-volatile organic compounds.
JL Estimated concentration; biased low.

TABLE 8

QUALIFIED SAMPLE RESULTS DUE TO OUTLYING MATRIX SPIKE/MATRIX SPIKE DUPLICATE RESULTS
SEMIANNUAL GROUNDWATER SAMPLING
UNION PACIFIC RAILROAD
1620 WOOD PRESERVING WORKS
HOUSTON, TEXAS
JULY - AUGUST 2013

<i>Parameter</i>	<i>Sample ID</i>	<i>Analyte</i>	<i>MS</i>	<i>MSD</i>	<i>RPD</i>	<i>Control Limits</i>		<i>Qualified Result</i>	<i>Units</i>
			<i>% Recovery</i>	<i>% Recovery</i>	<i>(percent)</i>	<i>% Recovery</i>	<i>RPD</i>		
SVOCs	WG-1620-MW14-20130731	4-Nitrophenol	0	27	0	10-100	20	R	

Notes:

- MS Matrix spike.
- MSD Matrix spike duplicate.
- RPD Relative percent difference.
- SVOCs Semi-volatile organic compounds.
- R Rejected.

TABLE 9

QUALIFIED SAMPLE DATA DUE TO VARIABILITY IN FIELD DUPLICATE RESULTS

SEMIANNUAL GROUNDWATER SAMPLING

UNION PACIFIC RAILROAD

1620 WOOD PRESERVING WORKS

HOUSTON, TEXAS

JULY - AUGUST 2013

<i>Parameter</i>	<i>Analyte</i>	<i>RPD/Diff</i>	<i>Sample ID</i>	<i>Qualified Result</i>	<i>Field Duplicate Sample ID</i>	<i>Qualified Result</i>	<i>Units</i>
SVOCs	1,2-Diphenylhydrazine	175	WG-1620-MW21C-20130801	<0.000476 J	WG-1620-FD01-20130801	0.00732 J	mg/L
	2,4-Dinitrotoluene	179		<0.000476 J		0.00867 J	mg/L
	2,6-Dinitrotoluene	177		<0.000476 J		0.00805 J	mg/L
	2-Chloronaphthalene	174		<0.000476 J		0.00696 J	mg/L
	2-Methylnaphthalene	174		<0.000476 J		0.00686 J	mg/L
	4,6-Dinitro-2-methylphenol	118		<0.000952 J		0.00371 J	mg/L
	4-Nitrophenol	150		<0.000952 J		0.00667 J	mg/L
	Acenaphthene	175		<0.000476 J		0.00726 J	mg/L
	Acenaphthylene	175		<0.000476 J		0.00735 J	mg/L
	Anthracene	176		<0.000476 J		0.00775 J	mg/L
	Benzo(a)anthracene	177		<0.000476 J		0.00807 J	mg/L
	Benzo(a)pyrene	176		<0.000476 J		0.00775 J	mg/L
	bis(2-Chloroethoxy)methane	171		<0.000476 J		0.00612 J	mg/L
	bis(2-Ethylhexyl)phthalate (DEHP)	114		<0.00238 J		0.00875 J	mg/L
	Chrysene	177		<0.000476 J		0.00794 J	mg/L
	Dibenzofuran	175		<0.000476 J		0.00726 J	mg/L
	Di-n-butylphthalate (DBP)	120		<0.00238 J		0.00955 J	mg/L
	Fluoranthene	178		<0.000476 J		0.00857 J	mg/L
	Fluorene	176		<0.000476 J		0.00746 J	mg/L
	Naphthalene	33		<0.00476 J		0.00669 J	mg/L
Nitrobenzene	171	<0.000476 J	0.00628 J	mg/L			
N-Nitrosodiphenylamine	178	<0.000476 J	0.00846 J	mg/L			

TABLE 9
QUALIFIED SAMPLE DATA DUE TO VARIABILITY IN FIELD DUPLICATE RESULTS
SEMIANNUAL GROUNDWATER SAMPLING
UNION PACIFIC RAILROAD
1620 WOOD PRESERVING WORKS
HOUSTON, TEXAS
JULY - AUGUST 2013

<i>Parameter</i>	<i>Analyte</i>	<i>RPD/Diff</i>	<i>Sample ID</i>	<i>Qualified Result</i>	<i>Field Duplicate Sample ID</i>	<i>Qualified Result</i>	<i>Units</i>
SVOCs	Pentachlorophenol	171		<0.000952 J		0.0126 J	mg/L
	Phenanthrene	196		0.0000775 J		0.00777 J	mg/L
	Phenol	128		<0.000476 J		0.00217 J	mg/L
	Pyrene	177		<0.000476 J		0.00813 J	mg/L
SVOCs	2-Methylnaphthalene	103	WG - 1620 - MW59D - 20130805	0.000160 J	WG - 1620 - FD02- 20130805	<0.000500 J	mg/L
	Naphthalene	75		0.00226 J		<0.00500 J	mg/L

Notes:

- Diff Difference (i.e. >1X RL for waters).
- RPD Relative percent difference.
- SVOCs Semi-volatile organic compounds.
- J Estimated concentration.

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Houston
6310 Rothway Street
Houston, TX 77040
Tel: (713)690-4444

TestAmerica Job ID: 600-77198-1
Client Project/Site: 1620 UPRR HWPW

For:
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2201 Double Creek Dr
Suite 4004
Round Rock, Texas 78664

Attn: Mr. Eric Matzner



Authorized for release by:
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The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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10

11

12

13

14

15

16

17



Table of Contents

Cover Page	1
Table of Contents	2
TRRP Cover Page	3
TRRP Checklists & DCSs	4
Case Narrative	14
Method Summary	15
Sample Summary	16
Client Sample Results	17
Definitions/Glossary	45
Surrogate Summary	46
QC Sample Results	49
Default Detection Limits	59
QC Association Summary	60
Lab Chronicle	64
Certification Summary	69
Chain of Custody	70
Receipt Checklists	72

Job Number: 600-77198-1
Project Name/Number: 1620 UPRR HWPW

This Data Package- consists of:

This signature page, the laboratory review checklist, and the following Reportable Data:

- R1 Field Chain-of-Custody Form
- R2 Sample Identification Cross-reference;
- R3 Test Reports (Analytical Data Sheets) for each environmental sample that includes:
 - a) Items consistent with NELAC Chapter 5
 - b) dilution factors,
 - c) preparation methods,
 - d) cleanup methods, and
 - e) if required for the project, tentatively identified compounds (TICs).
- R4 Surrogate Recovery Data including:
 - a) Calculated recovery (%R), and
 - b) The laboratory's surrogate QC limits.
- R5 Test Reports/Summary Forms for Blank Samples;
- R6 Test Reports/Summary Forms for Laboratory Control Samples (LCSs) including:
 - a) LCS spiking amounts,
 - b) Calculated %R for each analyte, and
 - d) The laboratory's LCS QC limits
- R7 Test Reports for Matrix Spike/Matrix Spike Duplicates (MS/MSDs) including:
 - a) Samples associated with the MS/MSD clearly identified,
 - b) MS/MSD spiking amounts,
 - c) Concentration of each MS/MSD analyte measured in the parent and spiked sample,
 - d) Calculated %Rs and relative percent differences (RPDs), and
 - e) The laboratory's MS/MSD QC limits
- R8 Laboratory analytical duplicates (if applicable) recovery and precision, including:
 - a) the amount of analyte measured in the duplicate,
 - b) the calculated RPD, and
 - c) the laboratory's QC limits for analytical duplicates.
- R9 List of method quantitation limit (MQL) and detectability check sample results for each analyte for each method and matrix;
- R10 Other problems or anomalies

The exception report for each "No" or "Not Reviewed (NR)" item in the Laboratory Review Checklist and for each analyte, matrix, and method for which the laboratory does not hold NELAC accreditation under the Texas Laboratory Accreditation Program.

Release Statement: I am responsible for the release of this laboratory data package. This laboratory is NELAC accredited under Texas laboratory Accreditation Program for all the methods, analytes, and matrices reported in this data package except as noted in the Exception Reports. The data have been reviewed and are technically compliant with the requirements of the methods used, except where noted by the laboratory in the Exception Reports. By my signature below, I affirm, to the best of my knowledge, that all problems/anomalies observed by the laboratory have been identified in the Laboratory Review Checklist, and no information affecting the quality of the data has been knowingly withheld.

Cathy Upton
Name (printed)
Data Delivery Analyst
Official Title (printed)


Signature

08/27/2013
Date

Appendix A (cont'd): Laboratory Review Checklist: Reportable Data							
Laboratory Name: TestAmerica-Houston			LRC Date: 08/13/13				
Project Name: 1620 UPRR HWPW			Laboratory Job Number: 600-77198				
Reviewer Name: YX			Prep Batch Number: 600-112231, 112263, 112551 and 112681-VOA				
# ¹	A ²	Description	Yes	No	NA ³	NR ⁴	ER# ⁵
R1	OI	Chain-of-custody (C-O-C)					
		Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?	X				
		Were all departures from standard conditions described in an exception report?			X		
R2	OI	Sample and quality control (QC) identification					
		Are all field sample ID numbers cross-referenced to the laboratory ID numbers?	X				
		Are all laboratory ID numbers cross-referenced to the corresponding QC data?	X				
R3	OI	Test reports					
		Were all samples prepared and analyzed within holding times?	X				
		Other than those results < MQL, were all other raw values bracketed by calibration standards?	X				
		Were calculations checked by a peer or supervisor?	X				
		Were all analyte identifications checked by a peer or supervisor?	X				
		Were sample detection limits reported for all analytes not detected?	X				
		Were all results for soil and sediment samples reported on a dry weight basis?			X		
		Were % moisture (or solids) reported for all soil and sediment samples?			X		
		Were bulk soil/solid samples for volatile analysis extracted with methanol per SW846 Method 5035?			X		
		If required for the project, TICs reported?			X		
R4	O	Surrogate recovery data					
		Were surrogates added prior to extraction?	X				
		Were surrogate percent recoveries in all samples within the laboratory QC limits?		X			1
R5	OI	Test reports/summary forms for blank samples					
		Were appropriate type(s) of blanks analyzed?	X				
		Were blanks analyzed at the appropriate frequency?	X				
		Were method blanks taken through the entire analytical process, including preparation and, if applicable, cleanup procedures?	X				
		Were blank concentrations < MQL?		X			2
R6	OI	Laboratory control samples (LCS):					
		Were all COCs included in the LCS?	X				
		Was each LCS taken through the entire analytical procedure, including prep and cleanup steps?	X				
		Were LCSs analyzed at the required frequency?	X				
		Were LCS (and LCSD, if applicable) %Rs within the laboratory QC limits?	X				
		Does the detectability check sample data document the laboratory's capability to detect the COCs at the MDL used to calculate the SDLs?	X				
		Was the LCSD RPD within QC limits?			X		
R7	OI	Matrix spike (MS) and matrix spike duplicate (MSD) data					
		Were the project/method specified analytes included in the MS and MSD?	X				
		Were MS/MSD analyzed at the appropriate frequency?	X				
		Were MS (and MSD, if applicable) %Rs within the laboratory QC limits?	X				
		Were MS/MSD RPDs within laboratory QC limits?		X			3
R8	OI	Analytical duplicate data					
		Were appropriate analytical duplicates analyzed for each matrix?			X		
		Were analytical duplicates analyzed at the appropriate frequency?			X		
		Were RPDs or relative standard deviations within the laboratory QC limits?			X		
R9	OI	Method quantitation limits (MQLs):					
		Are the MQLs for each method analyte included in the laboratory data package?	X				
		Do the MQLs correspond to the concentration of the lowest non-zero calibration standard?	X				
		Are unadjusted MQLs and DCSs included in the laboratory data package?	X				
R10	OI	Other problems/anomalies					
		Are all known problems/anomalies/special conditions noted in this LRC and ER?	X				
		Was applicable and available technology used to lower the SDL to minimize the matrix interference affects on the sample results?	X				4
		Is the laboratory NELAC-accredited under the Texas Laboratory Accreditation Program for the analytes, matrices and methods associated with this laboratory data package?	X				

- Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.
- O = organic analyses; I = inorganic analyses (and general chemistry, when applicable);
- NA = Not applicable;
- NR = Not reviewed;
- ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

Appendix A (cont'd): Laboratory Review Checklist: Reportable Data							
Laboratory Name: TestAmerica-Houston			LRC Date: 08/13/13				
Project Name: 1620 UPRR HWPW			Laboratory Job Number: 600-77198				
Reviewer Name: YX			Prep Batch Number: 600-112231, 112263, 112551 and 112681-VOA				
# ¹	A ²	Description	Yes	No	NA ³	NR ⁴	ER# ⁵
S1	OI	Initial calibration (ICAL)					
		Were response factors and/or relative response factors for each analyte within QC limits?	X				
		Were percent RSDs or correlation coefficient criteria met?	X				
		Was the number of standards recommended in the method used for all analytes?	X				
		Were all points generated between the lowest and highest standard used to calculate the curve?	X				
		Are ICAL data available for all instruments used?	X				
		Has the initial calibration curve been verified using an appropriate second source standard?	X				
S2	OI	Initial and continuing calibration verification (ICCV and CCV) and continuing calibration					
		Was the CCV analyzed at the method-required frequency?	X				
		Were percent differences for each analyte within the method-required QC limits?	X				
		Was the ICAL curve verified for each analyte?	X				
		Was the absolute value of the analyte concentration in the inorganic CCB < MDL?			X		
S3	O	Mass spectral tuning:					
		Was the appropriate compound for the method used for tuning?	X				
		Were ion abundance data within the method-required QC limits?	X				
S4	O	Internal standards (IS):					
		Were IS area counts and retention times within the method-required QC limits?	X				
S5	OI	Raw data (NELAC section 5.5.10)					
		Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?	X				
		Were data associated with manual integrations flagged on the raw data?	X				
S6	O	Dual column confirmation					
		Did dual column confirmation results meet the method-required QC?			X		
S7	O	Tentatively identified compounds (TICs):					
		If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?			X		
S8	I	Interference Check Sample (ICS) results:					
		Were percent recoveries within method QC limits?			X		
S9	I	Serial dilutions, post digestion spikes, and method of standard additions					
		Were percent differences, recoveries, and the linearity within the QC limits specified in the method?			X		
S10	OI	Method detection limit (MDL) studies					
		Was a MDL study performed for each reported analyte?	X				
		Is the MDL either adjusted or supported by the analysis of DCSs?	X				
S11	OI	Proficiency test reports:					
		Was the laboratory's performance acceptable on the applicable proficiency tests or evaluation studies?	X				
S12	OI	Standards documentation					
		Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?	X				
S13	OI	Compound/analyte identification procedures					
		Are the procedures for compound/analyte identification documented?	X				
S14	OI	Demonstration of analyst competency (DOC)					
		Was DOC conducted consistent with NELAC Chapter 5?	X				
		Is documentation of the analyst's competency up-to-date and on file?	X				
S15	OI	Verification/validation documentation for methods (NELAC Chapter 5)					
		Are all the methods used to generate the data documented, verified, and validated, where applicable?	X				
S16	OI	Laboratory standard operating procedures (SOPs):					
		Are laboratory SOPs current and on file for each method performed?	X				

- 1 Items identified by the letter "R" should be included in the laboratory data package submitted to the TCEQ in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.
- 2 O = organic analyses; I = inorganic analyses (and general chemistry, when applicable).
- 3 NA = Not applicable.
- 4 NR = Not Reviewed.
- 5 ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

Appendix A (cont'd): Laboratory Review Checklist: Exception Reports	
Laboratory Name: TestAmerica-Houston	LRC Date: 08/13/13
Project Name: 1620 UPRR HWPW	Laboratory Job Number: 600-77198
Reviewer Name: YX	Prep Batch Number: 600-112231, 112263, 112551 and 112681-VOA
ER #¹	DESCRIPTION
1	Surrogate recovery for the following sample(s) was outside control limits: (600-77198-20 MS). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.
2	Methylene chloride was detected above the MQL in the method blank for batch 600-112263. This analyte is a recognized potential laboratory contaminant and the appropriate flags have been applied to the report.
3	The matrix spike / matrix spike duplicate (MS/MSD) precision associated with batch 600-112263 was outside control limits for vinyl chloride and toluene. Since the recoveries were within acceptance limits and matrix interference is suspected, no corrective action was required.
4	All of the SDLs in samples 600-77198-1, 2, 3, 5, 6, 12, 13, 15, 16 and 17 were elevated due to the high concentration of target analytes and/or the nature of the sample matrix.

ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked on the LRC)

Appendix A (cont'd): Laboratory Review Checklist: Reportable Data							
Laboratory Name: TestAmerica-Houston			LRC Date: 08/20/13				
Project Name: 1620 UPRR HWPW			Laboratory Job Number: 600-77198				
Reviewer Name: TTD			Prep Batch Number(s): 600-112345-SV				
# ¹	A ²	Description	Yes	No	NA ³	NR ⁴	ER# ⁵
R1	OI	Chain-of-custody (C-O-C)					
		Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?	X				
		Were all departures from standard conditions described in an exception report?			X		
R2	OI	Sample and quality control (QC) identification					
		Are all field sample ID numbers cross-referenced to the laboratory ID numbers?	X				
		Are all laboratory ID numbers cross-referenced to the corresponding QC data?	X				
R3	OI	Test reports					
		Were all samples prepared and analyzed within holding times?	X				
		Other than those results < MQL, were all other raw values bracketed by calibration standards?	X				
		Were calculations checked by a peer or supervisor?	X				
		Were all analyte identifications checked by a peer or supervisor?	X				
		Were sample detection limits reported for all analytes not detected?	X				
		Were all results for soil and sediment samples reported on a dry weight basis?			X		
		Were % moisture (or solids) reported for all soil and sediment samples?			X		
		Were bulk soil/solid samples for volatile analysis extracted with methanol per SW846 Method 5035?			X		
		If required for the project, TICs reported?			X		
R4	O	Surrogate recovery data					
		Were surrogates added prior to extraction?	X				
		Were surrogate percent recoveries in all samples within the laboratory QC limits?		X			1
R5	OI	Test reports/summary forms for blank samples					
		Were appropriate type(s) of blanks analyzed?	X				
		Were blanks analyzed at the appropriate frequency?	X				
		Were method blanks taken through the entire analytical process, including preparation and, if applicable, cleanup procedures?	X				
		Were blank concentrations < MQL?	X				
R6	OI	Laboratory control samples (LCS):					
		Were all COCs included in the LCS?	X				
		Was each LCS taken through the entire analytical procedure, including prep and cleanup steps?	X				
		Were LCSs analyzed at the required frequency?	X				
		Were LCS (and LCSD, if applicable) %Rs within the laboratory QC limits?	X				
		Does the detectability check sample data document the laboratory's capability to detect the COCs at the MDL used to calculate the SDLs?	X				
		Was the LCSD RPD within QC limits?			X		
R7	OI	Matrix spike (MS) and matrix spike duplicate (MSD) data					
		Were the project/method specified analytes included in the MS and MSD?	X				
		Were MS/MSD analyzed at the appropriate frequency?	X				
		Were MS (and MSD, if applicable) %Rs within the laboratory QC limits?		X			2
		Were MS/MSD RPDs within laboratory QC limits?		X			2
R8	OI	Analytical duplicate data					
		Were appropriate analytical duplicates analyzed for each matrix?			X		
		Were analytical duplicates analyzed at the appropriate frequency?			X		
		Were RPDs or relative standard deviations within the laboratory QC limits?			X		
R9	OI	Method quantitation limits (MQLs):					
		Are the MQLs for each method analyte included in the laboratory data package?	X				
		Do the MQLs correspond to the concentration of the lowest non-zero calibration standard?	X				
		Are unadjusted MQLs and DCSs included in the laboratory data package?	X				
R10	OI	Other problems/anomalies					
		Are all known problems/anomalies/special conditions noted in this LRC and ER?	X				
		Was applicable and available technology used to lower the SDL to minimize the matrix interference affects on the sample results?	X				3
		Is the laboratory NELAC-accredited under the Texas Laboratory Accreditation Program for the analytes, matrices and methods associated with this laboratory data package?	X				

- Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.
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- NA = Not applicable;
- NR = Not reviewed;
- ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

Appendix A (cont'd): Laboratory Review Checklist: Reportable Data									
Laboratory Name: TestAmerica-Houston					LRC Date: 08/20/13				
Project Name: 1620 UPRR HWPW					Laboratory Job Number: 600-77198				
Reviewer Name: TTD					Prep Batch Number(s): 600-112345-SV				
# ¹	A ²	Description	Yes	No	NA ³	NR ⁴	ER# ⁵		
S1	OI	Initial calibration (ICAL)							
		Were response factors and/or relative response factors for each analyte within QC limits?	X						
		Were percent RSDs or correlation coefficient criteria met?	X						
		Was the number of standards recommended in the method used for all analytes?	X						
		Were all points generated between the lowest and highest standard used to calculate the curve?	X						
		Are ICAL data available for all instruments used?	X						
		Has the initial calibration curve been verified using an appropriate second source standard?	X						
S2	OI	Initial and continuing calibration verification (ICCV and CCV) and continuing calibration							
		Was the CCV analyzed at the method-required frequency?	X						
		Were percent differences for each analyte within the method-required QC limits?		X					4
		Was the ICAL curve verified for each analyte?	X						
		Was the absolute value of the analyte concentration in the inorganic CCB < MDL?			X				
S3	O	Mass spectral tuning:							
		Was the appropriate compound for the method used for tuning?	X						
		Were ion abundance data within the method-required QC limits?	X						
S4	O	Internal standards (IS):							
		Were IS area counts and retention times within the method-required QC limits?	X						
S5	OI	Raw data (NELAC section 5.5.10)							
		Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?	X						
		Were data associated with manual integrations flagged on the raw data?	X						
S6	O	Dual column confirmation							
		Did dual column confirmation results meet the method-required QC?			X				
S7	O	Tentatively identified compounds (TICs):							
		If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?			X				
S8	I	Interference Check Sample (ICS) results:							
		Were percent recoveries within method QC limits?			X				
S9	I	Serial dilutions, post digestion spikes, and method of standard additions							
		Were percent differences, recoveries, and the linearity within the QC limits specified in the method?			X				
S10	OI	Method detection limit (MDL) studies							
		Was a MDL study performed for each reported analyte?	X						
		Is the MDL either adjusted or supported by the analysis of DCSs?	X						
S11	OI	Proficiency test reports:							
		Was the laboratory's performance acceptable on the applicable proficiency tests or evaluation studies?	X						
S12	OI	Standards documentation							
		Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?	X						
S13	OI	Compound/analyte identification procedures							
		Are the procedures for compound/analyte identification documented?	X						
S14	OI	Demonstration of analyst competency (DOC)							
		Was DOC conducted consistent with NELAC Chapter 5?	X						
		Is documentation of the analyst's competency up-to-date and on file?	X						
S15	OI	Verification/validation documentation for methods (NELAC Chapter 5)							
		Are all the methods used to generate the data documented, verified, and validated, where applicable?	X						
S16	OI	Laboratory standard operating procedures (SOPs):							
		Are laboratory SOPs current and on file for each method performed?	X						

- 1 Items identified by the letter "R" should be included in the laboratory data package submitted to the TCEQ in the TRRP-required report(s).
- 2 Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.
- 3 O = organic analyses; I = inorganic analyses (and general chemistry, when applicable).
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Appendix A (cont'd): Laboratory Review Checklist: Exception Reports	
Laboratory Name: TestAmerica-Houston	LRC Date: 08/20/13
Project Name: 1620 UPRR HWPW	Laboratory Job Number: 600-77198
Reviewer Name: TTD	Prep Batch Number(s): 600-112345-SV
ER #¹	DESCRIPTION
1	<p>The surrogate recoveries were biased low for Phenol-d5 in samples 600-77198-7DL, 9DL and 11. The surrogate recoveries were biased low for Phenol-d5 and 2-Fluorophenol in sample 600-77198-19. Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.</p> <p>Due to the high dilution required for samples 600-77198-1, 1DL, 2, 2DL, 3, 3DL, 3DL2, 5, 5DL, 6, 6DL, 7DL2, 9DL2, 12, 12DL, 13, 13DL, 13DL2, 14DL, 15, 15DL, 15DL2, 16, 16DL, 17 and 17DL; surrogate recoveries were not reported or have low recoveries.</p>
2	The matrix spike / matrix spike duplicate (MS/MSD) recoveries for batch 112345 were outside control limits. The associated laboratory control sample (LCS) met acceptance criteria.
3	<p>All of the SDLs in samples 600-77198-1, 2, 3, 5, 6, 12, 13, 15, 16 and 17 were elevated due to the high concentration of target analytes and/or the nature of the sample matrix.</p> <p>The Acenaphthene, Dibenzofuran, Fluorene, Phenanthrene, and Naphthalene SDLs were elevated in sample 600-77198-7 due to the high concentration of these analytes.</p> <p>The Acenaphthene SDL was elevated in sample 600-77198-8 due to the high concentration of this analyte.</p> <p>Various SDLs were elevated in sample 600-77198-9 due to the high concentrations of these analytes.</p> <p>The Phenol SDL was elevated in sample 600-77198-14 due to the high concentration of this analyte.</p>
4	The continuing calibration verifications (CCVs) for analytical batches 112642, 112724, 112762 and 113058 were biased low for 4,6-Dinitro-2-methylphenol (-72.7%) , (-52.3%) , (-64.2%) and (-56.6%). The SOP makes allowance for up to four non-CCC analytes to have a %drift greater than the acceptable limit. The data have been qualified and reported.

ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked on the LRC)

Detection Check Standard

Matrix: Water
Method: 8260B_LL
Preparation: Wei Shen
Date Analyzed: 5/22/2013
Date Prepared: 5/22/2013
TALs Batches: 600-106788
Units: ug/L

Analyte	MDL	DCS Spike	Measured Result	MQL
Chloromethane	0.18	0.5	0.18	2
Vinyl Chloride	0.11	0.5	0.532	2
Bromomethane	0.25	0.5	0.502	2
Chloroethane	0.08	0.5	0.591	2
Trichlorofluoromethane	0.08	0.5	0.464	1
Acrolein	1.63	2.5	2.347	5
1,1-Dichloroethene	0.19	0.5	0.449	1
trans-1,2-Dichloroethene	0.09	0.5	0.481	1
Acetone	0.99	0.5	0.9	2
Methyl Iodide (Iodomethane)	2	0.5	1.013	2
Carbon Disulfide	0.24	0.5	0.913	1
Methylene Chloride	0.15	0.5		1
Acetonitrile	0.27	1.5	0.833	1
Methyl tert-butyl ether	0.12	0.5	0.499	1
Chloroprene (2-Chloro-1,3-butadiene)	0.33	0.5		2
Vinyl Acetate	0.21	0.5		1
cis-1,2-Dichloroethene	0.3	0.5	0.478	1
2-Butanone (MEK)	0.76	0.5		5
1,2-Dichloroethene	0.3	0.5		1
Chlorobromomethane	0.18	0.5	0.504	1
Carbon Tetrachloride	0.15	0.5	0.421	5
Benzene	0.08	0.5	0.467	1
1,2-Dichloroethane	0.14	0.5		1
Trichloroethene	0.13	0.5	0.483	1
1,1,1-Trichloroethane	0.15	0.5	0.45	1
1,1-Dichloroethane	0.11	0.5	0.487	1
1,2-Dichloropropane	0.16	0.5	0.387	1
cis-1,3-Dichloropropene	0.18	0.5	0.321	1
Methylene Bromide (Bromomethane)	0.25	0.25	0.291	1
Methyl methacrylate	0.33	1.5	0.845	1
4-Methyl-2-pentanone	0.45	0.5	0.476	2
Toluene	0.15	0.5	0.471	1
trans-1,3-Dichloropropene	0.21	0.5		1
Ethyl methacrylate	0.26	1.5	1.164	1
1,1,2-Trichloroethane	0.28	0.5	0.507	1
Tetrachloroethene	0.18	0.5	0.429	1
1,3-Dichloropropane	0.22	0.5	0.444	1
Dibromochloromethane	0.16	0.5	0.421	1
1,2-Dibromoethane (Ethylene bromide)	0.18	0.5	0.423	1

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2-Hexanone	0.35	0.5		
Chlorobenzene	0.12	0.5	0.451	1
Ethylbenzene	0.11	0.5	0.433	1
m,p-Xylene	0.17	0.5	0.8	2
o-Xylene	0.12	0.5	0.418	1
Xylenes (total)	0.26	1.5	1.219	3
Styrene	0.07	0.5	0.372	1
Bromoform	0.19	0.5		1
1,1,2,2-Tetrachloroethane	0.22	0.5		1
Chloroform	0.13	0.5	0.442	1
Isopropylbenzene	0.18	0.5	0.431	1
Bromobenzene	0.19	0.25	0.311	1
n-Propylbenzene	0.15	0.5	0.446	1
2-Chlorotoluene	0.13	0.5	0.478	1
4-Chlorotoluene	0.14	0.5	0.405	1
1,3,5-Trimethylbenzene	0.1	0.5	0.421	1
tert-Butylbenzene	0.08	0.5	0.417	1
p-Isopropyltoluene	0.1	0.25	0.231	1
1,2,4-Trimethylbenzene	0.14	0.5	0.411	1
sec-Butylbenzene	0.12	0.5	0.405	1
1,3-Dichlorobenzene	0.13	0.5	0.436	1
1,4-Dichlorobenzene	0.11	0.5	0.444	1
1,2-Dichlorobenzene	0.1	0.5	0.441	1
n-Butylbenzene	0.16	0.25	0.204	1
Hexachlorobutadiene	0.17	0.5		1
Naphthalene	0.32	0.25	0.246	1
1,1,1,2-Tetrachloroethane	0.18	0.5	0.386	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1	0.5	0.494	1
1,1-Dichloropropene	0.21	0.5	0.421	1
4-Isopropyltoluene	0.1	0.5	0.381	1
Acrylonitrile	0.52	3	1.957	2
Dibromomethane	0.52	0.5	0.458	1
Dichlorobromomethane	0.16	0.5	0.364	1

Quality Control Report

Detection Check Standard

Matrix: Water
 Method: 8270C LL
 Preparation: 3510C
 Date Analyzed: 1/3/2013
 Date Prepared: 1/3/2013
 Lab Sample ID: 600-96501/6-A
 Units: ug/L

Analyte	MDL	DCS Spike	DCS Result	MQL
Pyridine	0.04	0.5	0.573	0.5
N-Nitrosodimethylamine	0.26	0.5	0.224	0.5
bis (2-Chloroisopropyl) ether	0.4	0.5	0.353	0.5
Aniline	0.08	0.25	0.082	0.5
Phenol	0.04	0.25	0.0987	0.5
bis(2-Chloroethyl)ether	0.15	0.5	0.389	0.5
2-Chlorophenol	0.13	0.5	0.307	0.5
1,3-Dichlorobenzene	0.17	0.5	0.360	0.5
1,4-Dichlorobenzene	0.13	0.5	0.397	0.5
1,2-Dichlorobenzene	0.17	0.5	0.402	0.5
Benzyl alcohol	0.17	0.5	0.268	0.5
2-Methylphenol (o-cresol)	0.12	0.5	0.291	0.5
3&4-Methylphenol (m&p-Cresols)	0.2	0.5	0.287	1
N-Nitroso-di-n-propylamine	0.1	0.5	0.376	0.5
Hexachloroethane	0.1	0.5	0.384	0.5
Dibenzo(a,h)anthracene	0.08	0.5	0.553	0.5
Indeno(1,2,3-cd)pyrene	0.07	0.5	0.559	0.5
Nitrobenzene	0.11	0.25	0.167	0.5
Isophorone	0.11	0.25	0.158	0.5
2-Nitrophenol	0.22	0.5	0.331	0.5
Benzoic acid	2.51	12.5	6.330	2.5
2,4-Dimethylphenol	0.15	0.5	0.285	0.5
bis(2-Chloroethoxy)methane	0.13	0.5	0.363	0.5
2,4-Dichlorophenol	0.15	0.5	0.285	0.5
1,2,4-Trichlorobenzene	0.12	0.5	0.415	0.5
Naphthalene	0.08	0.25	0.190	0.5
Benzo(a)pyrene	0.08	0.25	0.398	0.5
Hexachlorobutadiene	0.18	0.5	0.418	0.5
4-Chloro-3-methylphenol	0.17	0.5	0.310	0.5
2-Methylnaphthalene	0.07	0.25	0.177	0.5
1-Methylnaphthalene	0.09	0.25	0.194	0.5
Benzo(k)fluoranthene	0.09	0.25	0.161	0.5
Hexachlorocyclopentadiene	0.13	0.5	0.198	0.5
2,4,6-Trichlorophenol	0.18	0.5	0.283	0.5
2,4,5-Trichlorophenol	0.25	0.5	0.305	0.5
2-Chloronaphthalene	0.08	0.25	0.165	0.5
2-Nitroaniline	0.19	0.5	0.482	0.5
1,4-Dinitrobenzene	0.5	0.5	0.282	0.5
1,3-Dinitrobenzene	0.08	0.25	0.124	0.5
1,2-Dinitrobenzene	0.5	0.5	0.413	0.5

Dimethylphthalate	0.07	0.25	0.185	0.5
Acenaphthylene	0.06	0.25	0.183	0.5
2,6-Dinitrotoluene	0.08	0.5	0.314	0.5
Benzo(b)fluoranthene	0.07	0.5	0.590	0.5
Acenaphthene	0.08	0.5	0.375	0.5
Di-n-octylphthalate	0.16	0.5	0.891	0.5
4-Nitrophenol	0.56	2.5	0.881	1
Dibenzofuran	0.08	0.25	0.164	0.5
2,4-Dinitrotoluene	0.13	0.5	0.201	0.5
2,3,4,6-Tetrachlorophenol	0.5	0.5	0.208	0.5
2,3,5,6-Tetrachlorophenol	0.5	0.5	0.200	0.5
Diethylphthalate	1.5	0.5	0.307	0.5
4-Chlorophenyl-phenylether	0.1	0.5	0.351	0.5
Fluorene	0.07	0.25	0.177	0.5
4-Nitroaniline	0.25	0.5	0.238	0.5
Chrysene	0.08	0.25	0.236	0.5
4,6-Dinitro-2-methylphenol	0.83	2.5	1.220	0.5
N-Nitrosodiphenylamine	0.1	0.5	0.737	0.5
Diphenylamine	0.1	0.5	0.121	0.5
1,2-Diphenylhydrazine	0.11	0.25	0.145	0.5
Azobenzene	0.07	0.25	0.143	0.5
4-Bromophenyl-phenylether	0.1	0.5	0.433	0.5
Hexachlorobenzene	0.11	0.25	0.090	0.5
Pentachlorophenol	0.61	2.5	1.400	0.5
Phenanthrene	0.06	0.25	0.182	0.5
Anthracene	0.05	0.25	0.160	0.5
Carbazole	0.17	0.5	0.530	0.5
Di-n-butylphthalate	0.11	0.25	0.187	0.5
Fluoranthene	0.07	0.25	0.178	0.5
Benzdine	0.61	12.5	9.300	0.5
Pyrene	0.11	0.25	0.168	0.5
Butylbenzylphthalate	0.12	0.5	0.631	0.5
3,3'-Dichlorobenzidine	0.18	0.5	0.100	0.5
Benzo(a)anthracene	0.08	0.25	0.192	0.5
bis(2-Ethylhexyl)phthalate	0.37	0.5	0.427	0.5
Benzo(g,h,i)perylene	0.08	0.25	0.137	0.5
4-Chloroaniline	0.21	0.5	0.316	0.5
3-Nitroaniline	0.16	0.5	0.803	0.5

Case Narrative

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-77198-1

Job ID: 600-77198-1

Laboratory: TestAmerica Houston

Narrative

**Job Narrative
600-77198-1**

Comments

No additional comments.

Receipt

The samples were received on 7/31/2013 5:43 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 4 coolers at receipt time were 1.3° C, 2.6° C, 2.7° C and 3.6° C.

Organic Prep

Method(s) 3510C: The following sample(s) formed emulsions during the extraction procedure: (600-77198-18 MS), (600-77198-18 MSD), WG-1620-FB02-20130730 (600-77198-10), WG-1620-FB03-20130731 (600-77198-20), WG-1620-FB1-20130729 (600-77198-4), WG-1620-MW13-20130731 (600-77198-19), WG-1620-MW14-20130731 (600-77198-18), WG-1620-MW15A-20130730 (600-77198-9), WG-1620-MW15B-20130730 (600-77198-7), WG-1620-MW15C-20130730 (600-77198-8), WG-1620-MW17-20130730 (600-77198-6), WG-1620-MW17C-20130730 (600-77198-5), WG-1620-MW18A-20130729 (600-77198-1), WG-1620-MW18C-20130729 (600-77198-2), WG-1620-MW19C-20130730 (600-77198-14), WG-1620-MW23C-20130731 (600-77198-15), WG-1620-MW55A-20130730 (600-77198-12), WG-1620-MW55B-201300730 (600-77198-13), WG-1620-MW57A-20130731 (600-77198-17), WG-1620-MW57B-20130731 (600-77198-16), WG-1620-MW72B-20130729 (600-77198-3), WG-1620-MW73B-20130730 (600-77198-11). The emulsions were broken up using pour backs, centrifuge.

Method Summary

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-77198-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL HOU
8270C LL	Semivolatile Organic Compounds by GCMS - Low Levels	SW846	TAL HOU

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL HOU = TestAmerica Houston, 6310 Rothway Street, Houston, TX 77040, TEL (713)690-4444



Sample Summary

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-77198-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
600-77198-1	WG-1620-MW18A-20130729	Water	07/29/13 15:45	07/31/13 17:43
600-77198-2	WG-1620-MW18C-20130729	Water	07/29/13 16:40	07/31/13 17:43
600-77198-3	WG-1620-MW72B-20130729	Water	07/29/13 17:30	07/31/13 17:43
600-77198-4	WG-1620-FB1-20130729	Water	07/29/13 17:50	07/31/13 17:43
600-77198-5	WG-1620-MW17C-20130730	Water	07/30/13 07:50	07/31/13 17:43
600-77198-6	WG-1620-MW17-20130730	Water	07/30/13 08:55	07/31/13 17:43
600-77198-7	WG-1620-MW15B-20130730	Water	07/30/13 09:50	07/31/13 17:43
600-77198-8	WG-1620-MW15C-20130730	Water	07/30/13 10:50	07/31/13 17:43
600-77198-9	WG-1620-MW15A-20130730	Water	07/30/13 11:45	07/31/13 17:43
600-77198-10	WG-1620-FB02-20130730	Water	07/30/13 12:05	07/31/13 17:43
600-77198-11	WG-1620-MW73B-20130730	Water	07/30/13 13:25	07/31/13 17:43
600-77198-12	WG-1620-MW55A-20130730	Water	07/30/13 14:20	07/31/13 17:43
600-77198-13	WG-1620-MW55B-201300730	Water	07/30/13 15:15	07/31/13 17:43
600-77198-14	WG-1620-MW19C-20130730	Water	07/30/13 16:10	07/31/13 17:43
600-77198-15	WG-1620-MW23C-20130731	Water	07/31/13 07:35	07/31/13 17:43
600-77198-16	WG-1620-MW57B-20130731	Water	07/31/13 08:45	07/31/13 17:43
600-77198-17	WG-1620-MW57A-20130731	Water	07/31/13 09:35	07/31/13 17:43
600-77198-18	WG-1620-MW14-20130731	Water	07/31/13 10:45	07/31/13 17:43
600-77198-19	WG-1620-MW13-20130731	Water	07/31/13 11:55	07/31/13 17:43
600-77198-20	WG-1620-FB03-20130731	Water	07/31/13 12:20	07/31/13 17:43
600-77198-21	WG-1620-TB01-20130731	Water	07/31/13 00:00	07/31/13 17:43

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-77198-1

Client Sample ID: WG-1620-MW18A-20130729

Lab Sample ID: 600-77198-1

Date Collected: 07/29/13 15:45

Matrix: Water

Date Received: 07/31/13 17:43

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	0.0290		0.0200	0.00110	mg/L			08/06/13 23:35	10
Methylene Chloride	0.00976	J	0.0100	0.00150	mg/L			08/06/13 23:35	10
1,2-Dichloroethane	0.00405	J	0.0100	0.00140	mg/L			08/06/13 23:35	10
Toluene	0.239		0.0100	0.00150	mg/L			08/06/13 23:35	10
Chlorobenzene	0.00120	U	0.0100	0.00120	mg/L			08/06/13 23:35	10
Xylenes, Total	0.991		0.0300	0.00260	mg/L			08/06/13 23:35	10

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	118		67 - 139		08/06/13 23:35	10
Dibromofluoromethane	98		62 - 130		08/06/13 23:35	10
Toluene-d8 (Surr)	104		70 - 130		08/06/13 23:35	10
1,2-Dichloroethane-d4 (Surr)	99		50 - 134		08/06/13 23:35	10

Method: 8260B - Volatile Organic Compounds (GC/MS) - DL

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.491		0.100	0.00800	mg/L			08/02/13 19:41	100
Ethylbenzene	0.398		0.100	0.0110	mg/L			08/02/13 19:41	100

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	106		67 - 139		08/02/13 19:41	100
Dibromofluoromethane	98		62 - 130		08/02/13 19:41	100
Toluene-d8 (Surr)	96		70 - 130		08/02/13 19:41	100
1,2-Dichloroethane-d4 (Surr)	106		50 - 134		08/02/13 19:41	100

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.00777	U	0.0971	0.00777	mg/L		08/05/13 09:23	08/09/13 19:04	200
Nitrobenzene	0.0214	U	0.0971	0.0214	mg/L		08/05/13 09:23	08/09/13 19:04	200
Bis(2-chloroethoxy)methane	0.0252	U	0.0971	0.0252	mg/L		08/05/13 09:23	08/09/13 19:04	200
2-Methylnaphthalene	0.819		0.0971	0.0136	mg/L		08/05/13 09:23	08/09/13 19:04	200
2-Chloronaphthalene	0.0155	U	0.0971	0.0155	mg/L		08/05/13 09:23	08/09/13 19:04	200
Acenaphthylene	0.0117	U	0.0971	0.0117	mg/L		08/05/13 09:23	08/09/13 19:04	200
2,6-Dinitrotoluene	0.0155	U	0.0971	0.0155	mg/L		08/05/13 09:23	08/09/13 19:04	200
Acenaphthene	0.493		0.0971	0.0155	mg/L		08/05/13 09:23	08/09/13 19:04	200
4-Nitrophenol	0.109	U	0.194	0.109	mg/L		08/05/13 09:23	08/09/13 19:04	200
Dibenzofuran	0.279		0.0971	0.0155	mg/L		08/05/13 09:23	08/09/13 19:04	200
2,4-Dinitrotoluene	0.0252	U	0.0971	0.0252	mg/L		08/05/13 09:23	08/09/13 19:04	200
Fluorene	0.214		0.0971	0.0136	mg/L		08/05/13 09:23	08/09/13 19:04	200
4,6-Dinitro-2-methylphenol	0.161	U	0.194	0.161	mg/L		08/05/13 09:23	08/09/13 19:04	200
N-Nitrosodiphenylamine	0.0194	U	0.0971	0.0194	mg/L		08/05/13 09:23	08/09/13 19:04	200
1,2-Diphenylhydrazine	0.0214	U	0.0971	0.0214	mg/L		08/05/13 09:23	08/09/13 19:04	200
Pentachlorophenol	0.118	U	0.194	0.118	mg/L		08/05/13 09:23	08/09/13 19:04	200
Phenanthrene	0.144		0.0971	0.0117	mg/L		08/05/13 09:23	08/09/13 19:04	200
Anthracene	0.0204	J	0.0971	0.00971	mg/L		08/05/13 09:23	08/09/13 19:04	200
Di-n-butyl phthalate	0.0214	U	0.485	0.0214	mg/L		08/05/13 09:23	08/09/13 19:04	200
Fluoranthene	0.0136	U	0.0971	0.0136	mg/L		08/05/13 09:23	08/09/13 19:04	200
Pyrene	0.0214	U	0.0971	0.0214	mg/L		08/05/13 09:23	08/09/13 19:04	200
Benzo[a]anthracene	0.0155	U	0.0971	0.0155	mg/L		08/05/13 09:23	08/09/13 19:04	200
Bis(2-ethylhexyl) phthalate	0.0718	U	0.485	0.0718	mg/L		08/05/13 09:23	08/09/13 19:04	200
Chrysene	0.0155	U	0.0971	0.0155	mg/L		08/05/13 09:23	08/09/13 19:04	200

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-77198-1

Client Sample ID: WG-1620-MW18A-20130729

Lab Sample ID: 600-77198-1

Date Collected: 07/29/13 15:45

Matrix: Water

Date Received: 07/31/13 17:43

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]pyrene	0.0155	U	0.0971	0.0155	mg/L		08/05/13 09:23	08/09/13 19:04	200
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	0	X	44 - 123				08/05/13 09:23	08/09/13 19:04	200
2-Fluorobiphenyl	0	X	43 - 120				08/05/13 09:23	08/09/13 19:04	200
2-Fluorophenol	0	X	18 - 120				08/05/13 09:23	08/09/13 19:04	200
Nitrobenzene-d5	0	X	47 - 120				08/05/13 09:23	08/09/13 19:04	200
Terphenyl-d14	0	X	33 - 141				08/05/13 09:23	08/09/13 19:04	200
Phenol-d5 (Surr)	0	X	12 - 128				08/05/13 09:23	08/09/13 19:04	200

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels - DL

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-Dimethylphenol	6.29		0.971	0.602	mg/L		08/05/13 09:23	08/12/13 15:39	2000
Naphthalene	11.8		9.71	0.155	mg/L		08/05/13 09:23	08/12/13 15:39	2000
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	0	X	44 - 123				08/05/13 09:23	08/12/13 15:39	2000
2-Fluorobiphenyl	0	X	43 - 120				08/05/13 09:23	08/12/13 15:39	2000
2-Fluorophenol	0	X	18 - 120				08/05/13 09:23	08/12/13 15:39	2000
Nitrobenzene-d5	0	X	47 - 120				08/05/13 09:23	08/12/13 15:39	2000
Terphenyl-d14	0	X	33 - 141				08/05/13 09:23	08/12/13 15:39	2000
Phenol-d5 (Surr)	0	X	12 - 128				08/05/13 09:23	08/12/13 15:39	2000

Client Sample ID: WG-1620-MW18C-20130729

Lab Sample ID: 600-77198-2

Date Collected: 07/29/13 16:40

Matrix: Water

Date Received: 07/31/13 17:43

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	0.0110	U	0.200	0.0110	mg/L			08/02/13 20:08	100
Methylene Chloride	0.0688	J b	0.100	0.0150	mg/L			08/02/13 20:08	100
Benzene	1.23		0.100	0.00800	mg/L			08/02/13 20:08	100
1,2-Dichloroethane	0.0140	U	0.100	0.0140	mg/L			08/02/13 20:08	100
Toluene	0.899		0.100	0.0150	mg/L			08/02/13 20:08	100
Chlorobenzene	0.0120	U	0.100	0.0120	mg/L			08/02/13 20:08	100
Ethylbenzene	0.220		0.100	0.0110	mg/L			08/02/13 20:08	100
Xylenes, Total	0.881		0.300	0.0260	mg/L			08/02/13 20:08	100
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	101		67 - 139					08/02/13 20:08	100
Dibromofluoromethane	95		62 - 130					08/02/13 20:08	100
Toluene-d8 (Surr)	97		70 - 130					08/02/13 20:08	100
1,2-Dichloroethane-d4 (Surr)	100		50 - 134					08/02/13 20:08	100

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.0205	J	0.0243	0.00194	mg/L		08/05/13 09:23	08/08/13 10:01	50
Nitrobenzene	0.00534	U	0.0243	0.00534	mg/L		08/05/13 09:23	08/08/13 10:01	50
2,4-Dimethylphenol	0.0150	U	0.0243	0.0150	mg/L		08/05/13 09:23	08/08/13 10:01	50
Bis(2-chloroethoxy)methane	0.00631	U	0.0243	0.00631	mg/L		08/05/13 09:23	08/08/13 10:01	50
2-Methylnaphthalene	0.871		0.0243	0.00340	mg/L		08/05/13 09:23	08/08/13 10:01	50

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-77198-1

Client Sample ID: WG-1620-MW18C-20130729

Lab Sample ID: 600-77198-2

Date Collected: 07/29/13 16:40

Matrix: Water

Date Received: 07/31/13 17:43

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Chloronaphthalene	0.00388	U	0.0243	0.00388	mg/L		08/05/13 09:23	08/08/13 10:01	50
Acenaphthylene	0.00291	U	0.0243	0.00291	mg/L		08/05/13 09:23	08/08/13 10:01	50
2,6-Dinitrotoluene	0.00388	U	0.0243	0.00388	mg/L		08/05/13 09:23	08/08/13 10:01	50
Acenaphthene	0.265		0.0243	0.00388	mg/L		08/05/13 09:23	08/08/13 10:01	50
4-Nitrophenol	0.0272	U	0.0485	0.0272	mg/L		08/05/13 09:23	08/08/13 10:01	50
Dibenzofuran	0.225		0.0243	0.00388	mg/L		08/05/13 09:23	08/08/13 10:01	50
2,4-Dinitrotoluene	0.00631	U	0.0243	0.00631	mg/L		08/05/13 09:23	08/08/13 10:01	50
Fluorene	0.114		0.0243	0.00340	mg/L		08/05/13 09:23	08/08/13 10:01	50
4,6-Dinitro-2-methylphenol	0.0403	U	0.0485	0.0403	mg/L		08/05/13 09:23	08/08/13 10:01	50
N-Nitrosodiphenylamine	0.00485	U	0.0243	0.00485	mg/L		08/05/13 09:23	08/08/13 10:01	50
1,2-Diphenylhydrazine	0.00534	U	0.0243	0.00534	mg/L		08/05/13 09:23	08/08/13 10:01	50
Pentachlorophenol	0.0296	U	0.0485	0.0296	mg/L		08/05/13 09:23	08/08/13 10:01	50
Phenanthrene	0.127		0.0243	0.00291	mg/L		08/05/13 09:23	08/08/13 10:01	50
Anthracene	0.0284		0.0243	0.00243	mg/L		08/05/13 09:23	08/08/13 10:01	50
Di-n-butyl phthalate	0.00534	U	0.121	0.00534	mg/L		08/05/13 09:23	08/08/13 10:01	50
Fluoranthene	0.00865	J	0.0243	0.00340	mg/L		08/05/13 09:23	08/08/13 10:01	50
Pyrene	0.00534	U	0.0243	0.00534	mg/L		08/05/13 09:23	08/08/13 10:01	50
Benzo[a]anthracene	0.00388	U	0.0243	0.00388	mg/L		08/05/13 09:23	08/08/13 10:01	50
Bis(2-ethylhexyl) phthalate	0.0180	U	0.121	0.0180	mg/L		08/05/13 09:23	08/08/13 10:01	50
Chrysene	0.00388	U	0.0243	0.00388	mg/L		08/05/13 09:23	08/08/13 10:01	50
Benzo[a]pyrene	0.00388	U	0.0243	0.00388	mg/L		08/05/13 09:23	08/08/13 10:01	50
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	0	X	44 - 123				08/05/13 09:23	08/08/13 10:01	50
2-Fluorobiphenyl	0	X	43 - 120				08/05/13 09:23	08/08/13 10:01	50
2-Fluorophenol	0	X	18 - 120				08/05/13 09:23	08/08/13 10:01	50
Nitrobenzene-d5	0	X	47 - 120				08/05/13 09:23	08/08/13 10:01	50
Terphenyl-d14	0	X	33 - 141				08/05/13 09:23	08/08/13 10:01	50
Phenol-d5 (Surr)	0	X	12 - 128				08/05/13 09:23	08/08/13 10:01	50

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels - DL

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	20.9		12.1	0.194	mg/L		08/05/13 09:23	08/12/13 16:08	2500
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	0	X	44 - 123				08/05/13 09:23	08/12/13 16:08	2500
2-Fluorobiphenyl	0	X	43 - 120				08/05/13 09:23	08/12/13 16:08	2500
2-Fluorophenol	0	X	18 - 120				08/05/13 09:23	08/12/13 16:08	2500
Nitrobenzene-d5	0	X	47 - 120				08/05/13 09:23	08/12/13 16:08	2500
Terphenyl-d14	0	X	33 - 141				08/05/13 09:23	08/12/13 16:08	2500
Phenol-d5 (Surr)	0	X	12 - 128				08/05/13 09:23	08/12/13 16:08	2500

Client Sample ID: WG-1620-MW72B-20130729

Lab Sample ID: 600-77198-3

Date Collected: 07/29/13 17:30

Matrix: Water

Date Received: 07/31/13 17:43

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	0.291	b	0.100	0.0150	mg/L			08/02/13 20:35	100
Benzene	1.23		0.100	0.00800	mg/L			08/02/13 20:35	100

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-77198-1

Client Sample ID: WG-1620-MW72B-20130729

Lab Sample ID: 600-77198-3

Date Collected: 07/29/13 17:30

Matrix: Water

Date Received: 07/31/13 17:43

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane	0.0140	U	0.100	0.0140	mg/L			08/02/13 20:35	100
Toluene	1.12		0.100	0.0150	mg/L			08/02/13 20:35	100
Chlorobenzene	0.0120	U	0.100	0.0120	mg/L			08/02/13 20:35	100
Ethylbenzene	0.332		0.100	0.0110	mg/L			08/02/13 20:35	100
Xylenes, Total	0.928		0.300	0.0260	mg/L			08/02/13 20:35	100
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	109		67 - 139					08/02/13 20:35	100
Dibromofluoromethane	89		62 - 130					08/02/13 20:35	100
Toluene-d8 (Surr)	102		70 - 130					08/02/13 20:35	100
1,2-Dichloroethane-d4 (Surr)	100		50 - 134					08/02/13 20:35	100

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrobenzene	0.0267	U	0.121	0.0267	mg/L		08/05/13 09:23	08/08/13 10:29	250
Bis(2-chloroethoxy)methane	0.0316	U	0.121	0.0316	mg/L		08/05/13 09:23	08/08/13 10:29	250
2-Methylnaphthalene	1.19		0.121	0.0170	mg/L		08/05/13 09:23	08/08/13 10:29	250
2-Chloronaphthalene	0.0194	U	0.121	0.0194	mg/L		08/05/13 09:23	08/08/13 10:29	250
Acenaphthylene	0.0146	U	0.121	0.0146	mg/L		08/05/13 09:23	08/08/13 10:29	250
2,6-Dinitrotoluene	0.0194	U	0.121	0.0194	mg/L		08/05/13 09:23	08/08/13 10:29	250
Acenaphthene	0.476		0.121	0.0194	mg/L		08/05/13 09:23	08/08/13 10:29	250
4-Nitrophenol	0.136	U	0.243	0.136	mg/L		08/05/13 09:23	08/08/13 10:29	250
Dibenzofuran	0.348		0.121	0.0194	mg/L		08/05/13 09:23	08/08/13 10:29	250
2,4-Dinitrotoluene	0.0316	U	0.121	0.0316	mg/L		08/05/13 09:23	08/08/13 10:29	250
Fluorene	0.224		0.121	0.0170	mg/L		08/05/13 09:23	08/08/13 10:29	250
4,6-Dinitro-2-methylphenol	0.201	U	0.243	0.201	mg/L		08/05/13 09:23	08/08/13 10:29	250
N-Nitrosodiphenylamine	0.0243	U	0.121	0.0243	mg/L		08/05/13 09:23	08/08/13 10:29	250
1,2-Diphenylhydrazine	0.0267	U	0.121	0.0267	mg/L		08/05/13 09:23	08/08/13 10:29	250
Pentachlorophenol	0.148	U	0.243	0.148	mg/L		08/05/13 09:23	08/08/13 10:29	250
Phenanthrene	0.182		0.121	0.0146	mg/L		08/05/13 09:23	08/08/13 10:29	250
Anthracene	0.0330	J	0.121	0.0121	mg/L		08/05/13 09:23	08/08/13 10:29	250
Di-n-butyl phthalate	0.0267	U	0.607	0.0267	mg/L		08/05/13 09:23	08/08/13 10:29	250
Fluoranthene	0.0170	U	0.121	0.0170	mg/L		08/05/13 09:23	08/08/13 10:29	250
Pyrene	0.0267	U	0.121	0.0267	mg/L		08/05/13 09:23	08/08/13 10:29	250
Benzo[a]anthracene	0.0194	U	0.121	0.0194	mg/L		08/05/13 09:23	08/08/13 10:29	250
Bis(2-ethylhexyl) phthalate	0.0898	U	0.607	0.0898	mg/L		08/05/13 09:23	08/08/13 10:29	250
Chrysene	0.0194	U	0.121	0.0194	mg/L		08/05/13 09:23	08/08/13 10:29	250
Benzo[a]pyrene	0.0194	U	0.121	0.0194	mg/L		08/05/13 09:23	08/08/13 10:29	250
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	0	X	44 - 123				08/05/13 09:23	08/08/13 10:29	250
2-Fluorobiphenyl	0	X	43 - 120				08/05/13 09:23	08/08/13 10:29	250
2-Fluorophenol	0	X	18 - 120				08/05/13 09:23	08/08/13 10:29	250
Nitrobenzene-d5	0	X	47 - 120				08/05/13 09:23	08/08/13 10:29	250
Terphenyl-d14	0	X	33 - 141				08/05/13 09:23	08/08/13 10:29	250
Phenol-d5 (Surr)	0	X	12 - 128				08/05/13 09:23	08/08/13 10:29	250

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels - DL

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	6.31		0.607	0.0485	mg/L		08/05/13 09:23	08/09/13 20:02	1250

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-77198-1

Client Sample ID: WG-1620-MW72B-20130729

Lab Sample ID: 600-77198-3

Date Collected: 07/29/13 17:30

Matrix: Water

Date Received: 07/31/13 17:43

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels - DL (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	25.0		6.07	0.0971	mg/L		08/05/13 09:23	08/09/13 20:02	1250
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	0	X	44 - 123				08/05/13 09:23	08/09/13 20:02	1250
2-Fluorobiphenyl	0	X	43 - 120				08/05/13 09:23	08/09/13 20:02	1250
2-Fluorophenol	0	X	18 - 120				08/05/13 09:23	08/09/13 20:02	1250
Nitrobenzene-d5	0	X	47 - 120				08/05/13 09:23	08/09/13 20:02	1250
Terphenyl-d14	0	X	33 - 141				08/05/13 09:23	08/09/13 20:02	1250
Phenol-d5 (Surr)	0	X	12 - 128				08/05/13 09:23	08/09/13 20:02	1250

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels - DL2

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-Dimethylphenol	29.9		2.43	1.50	mg/L		08/05/13 09:23	08/09/13 20:30	5000
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	0	X	44 - 123				08/05/13 09:23	08/09/13 20:30	5000
2-Fluorobiphenyl	0	X	43 - 120				08/05/13 09:23	08/09/13 20:30	5000
2-Fluorophenol	0	X	18 - 120				08/05/13 09:23	08/09/13 20:30	5000
Nitrobenzene-d5	0	X	47 - 120				08/05/13 09:23	08/09/13 20:30	5000
Terphenyl-d14	0	X	33 - 141				08/05/13 09:23	08/09/13 20:30	5000
Phenol-d5 (Surr)	0	X	12 - 128				08/05/13 09:23	08/09/13 20:30	5000

Client Sample ID: WG-1620-FB1-20130729

Lab Sample ID: 600-77198-4

Date Collected: 07/29/13 17:50

Matrix: Water

Date Received: 07/31/13 17:43

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			08/02/13 17:19	1
Benzene	0.0000800	U	0.00100	0.0000800	mg/L			08/02/13 17:19	1
1,2-Dichloroethane	0.000273	J	0.00100	0.000140	mg/L			08/02/13 17:19	1
Toluene	0.000150	U	0.00100	0.000150	mg/L			08/02/13 17:19	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			08/02/13 17:19	1
Ethylbenzene	0.000110	U	0.00100	0.000110	mg/L			08/02/13 17:19	1
Xylenes, Total	0.000260	U	0.00300	0.000260	mg/L			08/02/13 17:19	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	84		67 - 139					08/02/13 17:19	1
Dibromofluoromethane	79		62 - 130					08/02/13 17:19	1
Toluene-d8 (Surr)	101		70 - 130					08/02/13 17:19	1
1,2-Dichloroethane-d4 (Surr)	97		50 - 134					08/02/13 17:19	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.0000388	U	0.000485	0.0000388	mg/L		08/05/13 09:23	08/06/13 23:35	1
Nitrobenzene	0.000107	U	0.000485	0.000107	mg/L		08/05/13 09:23	08/06/13 23:35	1
2,4-Dimethylphenol	0.000301	U	0.000485	0.000301	mg/L		08/05/13 09:23	08/06/13 23:35	1
Bis(2-chloroethoxy)methane	0.000126	U	0.000485	0.000126	mg/L		08/05/13 09:23	08/06/13 23:35	1
Naphthalene	0.00196	J	0.00485	0.0000777	mg/L		08/05/13 09:23	08/06/13 23:35	1
2-Methylnaphthalene	0.0000999	J	0.000485	0.0000680	mg/L		08/05/13 09:23	08/06/13 23:35	1
2-Chloronaphthalene	0.0000777	U	0.000485	0.0000777	mg/L		08/05/13 09:23	08/06/13 23:35	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-77198-1

Client Sample ID: WG-1620-FB1-20130729

Lab Sample ID: 600-77198-4

Date Collected: 07/29/13 17:50

Matrix: Water

Date Received: 07/31/13 17:43

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthylene	0.000237	J	0.000485	0.0000583	mg/L		08/05/13 09:23	08/06/13 23:35	1
2,6-Dinitrotoluene	0.0000777	U	0.000485	0.0000777	mg/L		08/05/13 09:23	08/06/13 23:35	1
Acenaphthene	0.0000981	J	0.000485	0.0000777	mg/L		08/05/13 09:23	08/06/13 23:35	1
4-Nitrophenol	0.000544	U	0.000971	0.000544	mg/L		08/05/13 09:23	08/06/13 23:35	1
Dibenzofuran	0.0000778	J	0.000485	0.0000777	mg/L		08/05/13 09:23	08/06/13 23:35	1
2,4-Dinitrotoluene	0.000126	U	0.000485	0.000126	mg/L		08/05/13 09:23	08/06/13 23:35	1
Fluorene	0.0000680	U	0.000485	0.0000680	mg/L		08/05/13 09:23	08/06/13 23:35	1
4,6-Dinitro-2-methylphenol	0.000806	U	0.000971	0.000806	mg/L		08/05/13 09:23	08/06/13 23:35	1
N-Nitrosodiphenylamine	0.0000971	U	0.000485	0.0000971	mg/L		08/05/13 09:23	08/06/13 23:35	1
1,2-Diphenylhydrazine	0.000107	U	0.000485	0.000107	mg/L		08/05/13 09:23	08/06/13 23:35	1
Pentachlorophenol	0.000592	U	0.000971	0.000592	mg/L		08/05/13 09:23	08/06/13 23:35	1
Phenanthrene	0.0000583	U	0.000485	0.0000583	mg/L		08/05/13 09:23	08/06/13 23:35	1
Anthracene	0.0000929	J	0.000485	0.0000485	mg/L		08/05/13 09:23	08/06/13 23:35	1
Di-n-butyl phthalate	0.000125	J	0.00243	0.000107	mg/L		08/05/13 09:23	08/06/13 23:35	1
Fluoranthene	0.0000680	U	0.000485	0.0000680	mg/L		08/05/13 09:23	08/06/13 23:35	1
Pyrene	0.000107	U	0.000485	0.000107	mg/L		08/05/13 09:23	08/06/13 23:35	1
Benzo[a]anthracene	0.0000777	U	0.000485	0.0000777	mg/L		08/05/13 09:23	08/06/13 23:35	1
Bis(2-ethylhexyl) phthalate	0.000359	U	0.00243	0.000359	mg/L		08/05/13 09:23	08/06/13 23:35	1
Chrysene	0.0000777	U	0.000485	0.0000777	mg/L		08/05/13 09:23	08/06/13 23:35	1
Benzo[a]pyrene	0.0000777	U	0.000485	0.0000777	mg/L		08/05/13 09:23	08/06/13 23:35	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	81		44 - 123				08/05/13 09:23	08/06/13 23:35	1
2-Fluorobiphenyl	78		43 - 120				08/05/13 09:23	08/06/13 23:35	1
2-Fluorophenol	39		18 - 120				08/05/13 09:23	08/06/13 23:35	1
Nitrobenzene-d5	70		47 - 120				08/05/13 09:23	08/06/13 23:35	1
Terphenyl-d14	88		33 - 141				08/05/13 09:23	08/06/13 23:35	1
Phenol-d5 (Surr)	17		12 - 128				08/05/13 09:23	08/06/13 23:35	1

Client Sample ID: WG-1620-MW17C-20130730

Lab Sample ID: 600-77198-5

Date Collected: 07/30/13 07:50

Matrix: Water

Date Received: 07/31/13 17:43

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	0.00786	J	0.0100	0.00150	mg/L			08/07/13 00:00	10
Benzene	0.0162		0.0100	0.000800	mg/L			08/07/13 00:00	10
1,2-Dichloroethane	0.00140	U	0.0100	0.00140	mg/L			08/07/13 00:00	10
Toluene	0.00743	J	0.0100	0.00150	mg/L			08/07/13 00:00	10
Chlorobenzene	0.00120	U	0.0100	0.00120	mg/L			08/07/13 00:00	10
Ethylbenzene	0.225		0.0100	0.00110	mg/L			08/07/13 00:00	10
Xylenes, Total	0.270		0.0300	0.00260	mg/L			08/07/13 00:00	10
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	121		67 - 139					08/07/13 00:00	10
Dibromofluoromethane	90		62 - 130					08/07/13 00:00	10
Toluene-d8 (Surr)	105		70 - 130					08/07/13 00:00	10
1,2-Dichloroethane-d4 (Surr)	87		50 - 134					08/07/13 00:00	10

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-77198-1

Client Sample ID: WG-1620-MW17C-20130730

Lab Sample ID: 600-77198-5

Date Collected: 07/30/13 07:50

Matrix: Water

Date Received: 07/31/13 17:43

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.00388	U	0.0485	0.00388	mg/L		08/05/13 09:23	08/12/13 19:00	100
Nitrobenzene	0.0107	U	0.0485	0.0107	mg/L		08/05/13 09:23	08/12/13 19:00	100
2,4-Dimethylphenol	0.0301	U	0.0485	0.0301	mg/L		08/05/13 09:23	08/12/13 19:00	100
Bis(2-chloroethoxy)methane	0.0126	U	0.0485	0.0126	mg/L		08/05/13 09:23	08/12/13 19:00	100
2-Methylnaphthalene	0.151		0.0485	0.00680	mg/L		08/05/13 09:23	08/12/13 19:00	100
2-Chloronaphthalene	0.00777	U	0.0485	0.00777	mg/L		08/05/13 09:23	08/12/13 19:00	100
Acenaphthylene	0.00583	U	0.0485	0.00583	mg/L		08/05/13 09:23	08/12/13 19:00	100
2,6-Dinitrotoluene	0.00777	U	0.0485	0.00777	mg/L		08/05/13 09:23	08/12/13 19:00	100
Acenaphthene	0.239		0.0485	0.00777	mg/L		08/05/13 09:23	08/12/13 19:00	100
4-Nitrophenol	0.0544	U	0.0971	0.0544	mg/L		08/05/13 09:23	08/12/13 19:00	100
Dibenzofuran	0.199		0.0485	0.00777	mg/L		08/05/13 09:23	08/12/13 19:00	100
2,4-Dinitrotoluene	0.0126	U	0.0485	0.0126	mg/L		08/05/13 09:23	08/12/13 19:00	100
Fluorene	0.103		0.0485	0.00680	mg/L		08/05/13 09:23	08/12/13 19:00	100
4,6-Dinitro-2-methylphenol	0.0806	U	0.0971	0.0806	mg/L		08/05/13 09:23	08/12/13 19:00	100
N-Nitrosodiphenylamine	0.00971	U	0.0485	0.00971	mg/L		08/05/13 09:23	08/12/13 19:00	100
1,2-Diphenylhydrazine	0.0107	U	0.0485	0.0107	mg/L		08/05/13 09:23	08/12/13 19:00	100
Pentachlorophenol	0.0592	U	0.0971	0.0592	mg/L		08/05/13 09:23	08/12/13 19:00	100
Phenanthrene	0.120		0.0485	0.00583	mg/L		08/05/13 09:23	08/12/13 19:00	100
Anthracene	0.0144	J	0.0485	0.00485	mg/L		08/05/13 09:23	08/12/13 19:00	100
Di-n-butyl phthalate	0.0107	U	0.243	0.0107	mg/L		08/05/13 09:23	08/12/13 19:00	100
Fluoranthene	0.00795	J	0.0485	0.00680	mg/L		08/05/13 09:23	08/12/13 19:00	100
Pyrene	0.0107	U	0.0485	0.0107	mg/L		08/05/13 09:23	08/12/13 19:00	100
Benzo[a]anthracene	0.00777	U	0.0485	0.00777	mg/L		08/05/13 09:23	08/12/13 19:00	100
Bis(2-ethylhexyl) phthalate	0.0359	U	0.243	0.0359	mg/L		08/05/13 09:23	08/12/13 19:00	100
Chrysene	0.00777	U	0.0485	0.00777	mg/L		08/05/13 09:23	08/12/13 19:00	100
Benzo[a]pyrene	0.00777	U	0.0485	0.00777	mg/L		08/05/13 09:23	08/12/13 19:00	100

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	0	X	44 - 123	08/05/13 09:23	08/12/13 19:00	100
2-Fluorobiphenyl	0	X	43 - 120	08/05/13 09:23	08/12/13 19:00	100
2-Fluorophenol	0	X	18 - 120	08/05/13 09:23	08/12/13 19:00	100
Nitrobenzene-d5	0	X	47 - 120	08/05/13 09:23	08/12/13 19:00	100
Terphenyl-d14	0	X	33 - 141	08/05/13 09:23	08/12/13 19:00	100
Phenol-d5 (Surr)	0	X	12 - 128	08/05/13 09:23	08/12/13 19:00	100

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels - DL

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	4.40		0.971	0.0155	mg/L		08/05/13 09:23	08/13/13 12:21	200

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	0	X	44 - 123	08/05/13 09:23	08/13/13 12:21	200
2-Fluorobiphenyl	0	X	43 - 120	08/05/13 09:23	08/13/13 12:21	200
2-Fluorophenol	0	X	18 - 120	08/05/13 09:23	08/13/13 12:21	200
Nitrobenzene-d5	0	X	47 - 120	08/05/13 09:23	08/13/13 12:21	200
Terphenyl-d14	0	X	33 - 141	08/05/13 09:23	08/13/13 12:21	200
Phenol-d5 (Surr)	0	X	12 - 128	08/05/13 09:23	08/13/13 12:21	200

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-77198-1

Client Sample ID: WG-1620-MW17-20130730

Lab Sample ID: 600-77198-6

Date Collected: 07/30/13 08:55

Matrix: Water

Date Received: 07/31/13 17:43

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	0.115	b	0.100	0.0150	mg/L			08/02/13 21:28	100
Benzene	0.174		0.100	0.00800	mg/L			08/02/13 21:28	100
1,2-Dichloroethane	0.0140	U	0.100	0.0140	mg/L			08/02/13 21:28	100
Toluene	0.680		0.100	0.0150	mg/L			08/02/13 21:28	100
Chlorobenzene	0.0120	U	0.100	0.0120	mg/L			08/02/13 21:28	100
Ethylbenzene	0.279		0.100	0.0110	mg/L			08/02/13 21:28	100
Xylenes, Total	0.698		0.300	0.0260	mg/L			08/02/13 21:28	100

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	106		67 - 139		08/02/13 21:28	100
Dibromofluoromethane	82		62 - 130		08/02/13 21:28	100
Toluene-d8 (Surr)	100		70 - 130		08/02/13 21:28	100
1,2-Dichloroethane-d4 (Surr)	101		50 - 134		08/02/13 21:28	100

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrobenzene	0.00534	U	0.0243	0.00534	mg/L		08/05/13 09:23	08/08/13 10:58	50
Bis(2-chloroethoxy)methane	0.00631	U	0.0243	0.00631	mg/L		08/05/13 09:23	08/08/13 10:58	50
2-Methylnaphthalene	1.04		0.0243	0.00340	mg/L		08/05/13 09:23	08/08/13 10:58	50
2-Chloronaphthalene	0.00388	U	0.0243	0.00388	mg/L		08/05/13 09:23	08/08/13 10:58	50
Acenaphthylene	0.0147	J	0.0243	0.00291	mg/L		08/05/13 09:23	08/08/13 10:58	50
2,6-Dinitrotoluene	0.00388	U	0.0243	0.00388	mg/L		08/05/13 09:23	08/08/13 10:58	50
Acenaphthene	0.353		0.0243	0.00388	mg/L		08/05/13 09:23	08/08/13 10:58	50
4-Nitrophenol	0.0272	U	0.0485	0.0272	mg/L		08/05/13 09:23	08/08/13 10:58	50
Dibenzofuran	0.253		0.0243	0.00388	mg/L		08/05/13 09:23	08/08/13 10:58	50
2,4-Dinitrotoluene	0.00631	U	0.0243	0.00631	mg/L		08/05/13 09:23	08/08/13 10:58	50
Fluorene	0.165		0.0243	0.00340	mg/L		08/05/13 09:23	08/08/13 10:58	50
4,6-Dinitro-2-methylphenol	0.0403	U	0.0485	0.0403	mg/L		08/05/13 09:23	08/08/13 10:58	50
N-Nitrosodiphenylamine	0.00485	U	0.0243	0.00485	mg/L		08/05/13 09:23	08/08/13 10:58	50
1,2-Diphenylhydrazine	0.00534	U	0.0243	0.00534	mg/L		08/05/13 09:23	08/08/13 10:58	50
Pentachlorophenol	0.0296	U	0.0485	0.0296	mg/L		08/05/13 09:23	08/08/13 10:58	50
Phenanthrene	0.123		0.0243	0.00291	mg/L		08/05/13 09:23	08/08/13 10:58	50
Anthracene	0.0233	J	0.0243	0.00243	mg/L		08/05/13 09:23	08/08/13 10:58	50
Di-n-butyl phthalate	0.00534	U	0.121	0.00534	mg/L		08/05/13 09:23	08/08/13 10:58	50
Fluoranthene	0.00667	J	0.0243	0.00340	mg/L		08/05/13 09:23	08/08/13 10:58	50
Pyrene	0.00534	U	0.0243	0.00534	mg/L		08/05/13 09:23	08/08/13 10:58	50
Benzo[a]anthracene	0.00388	U	0.0243	0.00388	mg/L		08/05/13 09:23	08/08/13 10:58	50
Bis(2-ethylhexyl) phthalate	0.0180	U	0.121	0.0180	mg/L		08/05/13 09:23	08/08/13 10:58	50
Chrysene	0.00388	U	0.0243	0.00388	mg/L		08/05/13 09:23	08/08/13 10:58	50
Benzo[a]pyrene	0.00388	U	0.0243	0.00388	mg/L		08/05/13 09:23	08/08/13 10:58	50

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	0	X	44 - 123	08/05/13 09:23	08/08/13 10:58	50
2-Fluorobiphenyl	0	X	43 - 120	08/05/13 09:23	08/08/13 10:58	50
2-Fluorophenol	0	X	18 - 120	08/05/13 09:23	08/08/13 10:58	50
Nitrobenzene-d5	0	X	47 - 120	08/05/13 09:23	08/08/13 10:58	50
Terphenyl-d14	0	X	33 - 141	08/05/13 09:23	08/08/13 10:58	50
Phenol-d5 (Surr)	0	X	12 - 128	08/05/13 09:23	08/08/13 10:58	50

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-77198-1

Client Sample ID: WG-1620-MW17-20130730

Lab Sample ID: 600-77198-6

Date Collected: 07/30/13 08:55

Matrix: Water

Date Received: 07/31/13 17:43

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels - DL

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	1.54		0.243	0.0194	mg/L		08/05/13 09:23	08/09/13 20:59	500
2,4-Dimethylphenol	3.19		0.243	0.150	mg/L		08/05/13 09:23	08/09/13 20:59	500
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	0	X	44 - 123				08/05/13 09:23	08/09/13 20:59	500
2-Fluorobiphenyl	0	X	43 - 120				08/05/13 09:23	08/09/13 20:59	500
2-Fluorophenol	0	X	18 - 120				08/05/13 09:23	08/09/13 20:59	500
Nitrobenzene-d5	0	X	47 - 120				08/05/13 09:23	08/09/13 20:59	500
Terphenyl-d14	0	X	33 - 141				08/05/13 09:23	08/09/13 20:59	500
Phenol-d5 (Surr)	0	X	12 - 128				08/05/13 09:23	08/09/13 20:59	500

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels - DL2

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	25.8		24.3	0.388	mg/L		08/05/13 09:23	08/12/13 16:36	5000
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	0	X	44 - 123				08/05/13 09:23	08/12/13 16:36	5000
2-Fluorobiphenyl	0	X	43 - 120				08/05/13 09:23	08/12/13 16:36	5000
2-Fluorophenol	0	X	18 - 120				08/05/13 09:23	08/12/13 16:36	5000
Nitrobenzene-d5	0	X	47 - 120				08/05/13 09:23	08/12/13 16:36	5000
Terphenyl-d14	0	X	33 - 141				08/05/13 09:23	08/12/13 16:36	5000
Phenol-d5 (Surr)	0	X	12 - 128				08/05/13 09:23	08/12/13 16:36	5000

Client Sample ID: WG-1620-MW15B-20130730

Lab Sample ID: 600-77198-7

Date Collected: 07/30/13 09:50

Matrix: Water

Date Received: 07/31/13 17:43

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			08/07/13 00:26	1
Benzene	0.00484		0.00100	0.0000800	mg/L			08/07/13 00:26	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			08/07/13 00:26	1
Toluene	0.000155	J	0.00100	0.000150	mg/L			08/07/13 00:26	1
Chlorobenzene	0.000124	J	0.00100	0.000120	mg/L			08/07/13 00:26	1
Ethylbenzene	0.00399		0.00100	0.000110	mg/L			08/07/13 00:26	1
Xylenes, Total	0.00876		0.00300	0.000260	mg/L			08/07/13 00:26	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	120		67 - 139					08/07/13 00:26	1
Dibromofluoromethane	89		62 - 130					08/07/13 00:26	1
Toluene-d8 (Surr)	103		70 - 130					08/07/13 00:26	1
1,2-Dichloroethane-d4 (Surr)	85		50 - 134					08/07/13 00:26	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.0000388	U	0.000485	0.0000388	mg/L		08/05/13 09:23	08/07/13 01:00	1
Nitrobenzene	0.000107	U	0.000485	0.000107	mg/L		08/05/13 09:23	08/07/13 01:00	1
2,4-Dimethylphenol	0.000301	U	0.000485	0.000301	mg/L		08/05/13 09:23	08/07/13 01:00	1
Bis(2-chloroethoxy)methane	0.000126	U	0.000485	0.000126	mg/L		08/05/13 09:23	08/07/13 01:00	1
2-Methylnaphthalene	0.00327		0.000485	0.0000680	mg/L		08/05/13 09:23	08/07/13 01:00	1
2-Chloronaphthalene	0.0000777	U	0.000485	0.0000777	mg/L		08/05/13 09:23	08/07/13 01:00	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-77198-1

Client Sample ID: WG-1620-MW15B-20130730

Lab Sample ID: 600-77198-7

Date Collected: 07/30/13 09:50

Matrix: Water

Date Received: 07/31/13 17:43

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthylene	0.0000583	U	0.000485	0.0000583	mg/L		08/05/13 09:23	08/07/13 01:00	1
2,6-Dinitrotoluene	0.0000777	U	0.000485	0.0000777	mg/L		08/05/13 09:23	08/07/13 01:00	1
4-Nitrophenol	0.000544	U	0.000971	0.000544	mg/L		08/05/13 09:23	08/07/13 01:00	1
2,4-Dinitrotoluene	0.000126	U	0.000485	0.000126	mg/L		08/05/13 09:23	08/07/13 01:00	1
4,6-Dinitro-2-methylphenol	0.000806	U	0.000971	0.000806	mg/L		08/05/13 09:23	08/07/13 01:00	1
N-Nitrosodiphenylamine	0.0000971	U	0.000485	0.0000971	mg/L		08/05/13 09:23	08/07/13 01:00	1
1,2-Diphenylhydrazine	0.000107	U	0.000485	0.000107	mg/L		08/05/13 09:23	08/07/13 01:00	1
Pentachlorophenol	0.000592	U	0.000971	0.000592	mg/L		08/05/13 09:23	08/07/13 01:00	1
Anthracene	0.00581		0.000485	0.0000485	mg/L		08/05/13 09:23	08/07/13 01:00	1
Di-n-butyl phthalate	0.000187	J	0.00243	0.000107	mg/L		08/05/13 09:23	08/07/13 01:00	1
Fluoranthene	0.00615		0.000485	0.0000680	mg/L		08/05/13 09:23	08/07/13 01:00	1
Pyrene	0.00291		0.000485	0.000107	mg/L		08/05/13 09:23	08/07/13 01:00	1
Benzo[a]anthracene	0.000218	J	0.000485	0.0000777	mg/L		08/05/13 09:23	08/07/13 01:00	1
Bis(2-ethylhexyl) phthalate	0.000359	U	0.00243	0.000359	mg/L		08/05/13 09:23	08/07/13 01:00	1
Chrysene	0.000167	J	0.000485	0.0000777	mg/L		08/05/13 09:23	08/07/13 01:00	1
Benzo[a]pyrene	0.0000777	U	0.000485	0.0000777	mg/L		08/05/13 09:23	08/07/13 01:00	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	93		44 - 123	08/05/13 09:23	08/07/13 01:00	1
2-Fluorobiphenyl	85		43 - 120	08/05/13 09:23	08/07/13 01:00	1
2-Fluorophenol	45		18 - 120	08/05/13 09:23	08/07/13 01:00	1
Nitrobenzene-d5	83		47 - 120	08/05/13 09:23	08/07/13 01:00	1
Terphenyl-d14	91		33 - 141	08/05/13 09:23	08/07/13 01:00	1
Phenol-d5 (Surr)	22		12 - 128	08/05/13 09:23	08/07/13 01:00	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels - DL

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	0.114		0.00485	0.000777	mg/L		08/05/13 09:23	08/08/13 22:30	10
Dibenzofuran	0.0589		0.00485	0.000777	mg/L		08/05/13 09:23	08/08/13 22:30	10
Fluorene	0.0459		0.00485	0.000680	mg/L		08/05/13 09:23	08/08/13 22:30	10
Phenanthrene	0.0376		0.00485	0.000583	mg/L		08/05/13 09:23	08/08/13 22:30	10

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	106		44 - 123	08/05/13 09:23	08/08/13 22:30	10
2-Fluorobiphenyl	104		43 - 120	08/05/13 09:23	08/08/13 22:30	10
2-Fluorophenol	24		18 - 120	08/05/13 09:23	08/08/13 22:30	10
Nitrobenzene-d5	69		47 - 120	08/05/13 09:23	08/08/13 22:30	10
Terphenyl-d14	106		33 - 141	08/05/13 09:23	08/08/13 22:30	10
Phenol-d5 (Surr)	0	X	12 - 128	08/05/13 09:23	08/08/13 22:30	10

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels - DL2

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	0.943		0.243	0.00388	mg/L		08/05/13 09:23	08/09/13 21:27	50

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	0	X	44 - 123	08/05/13 09:23	08/09/13 21:27	50
2-Fluorobiphenyl	0	X	43 - 120	08/05/13 09:23	08/09/13 21:27	50
2-Fluorophenol	0	X	18 - 120	08/05/13 09:23	08/09/13 21:27	50
Nitrobenzene-d5	0	X	47 - 120	08/05/13 09:23	08/09/13 21:27	50
Terphenyl-d14	0	X	33 - 141	08/05/13 09:23	08/09/13 21:27	50
Phenol-d5 (Surr)	0	X	12 - 128	08/05/13 09:23	08/09/13 21:27	50

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-77198-1

Client Sample ID: WG-1620-MW15C-20130730

Lab Sample ID: 600-77198-8

Date Collected: 07/30/13 10:50

Matrix: Water

Date Received: 07/31/13 17:43

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			08/07/13 00:52	1
Benzene	0.000831	J	0.00100	0.0000800	mg/L			08/07/13 00:52	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			08/07/13 00:52	1
Toluene	0.000263	J	0.00100	0.000150	mg/L			08/07/13 00:52	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			08/07/13 00:52	1
Ethylbenzene	0.000203	J	0.00100	0.000110	mg/L			08/07/13 00:52	1
Xylenes, Total	0.000839	J	0.00300	0.000260	mg/L			08/07/13 00:52	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	122		67 - 139					08/07/13 00:52	1
Dibromofluoromethane	88		62 - 130					08/07/13 00:52	1
Toluene-d8 (Surr)	105		70 - 130					08/07/13 00:52	1
1,2-Dichloroethane-d4 (Surr)	85		50 - 134					08/07/13 00:52	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.0000388	U	0.000485	0.0000388	mg/L		08/05/13 09:23	08/07/13 01:29	1
Nitrobenzene	0.000107	U	0.000485	0.000107	mg/L		08/05/13 09:23	08/07/13 01:29	1
2,4-Dimethylphenol	0.000301	U	0.000485	0.000301	mg/L		08/05/13 09:23	08/07/13 01:29	1
Bis(2-chloroethoxy)methane	0.000126	U	0.000485	0.000126	mg/L		08/05/13 09:23	08/07/13 01:29	1
Naphthalene	0.00122	J	0.00485	0.0000777	mg/L		08/05/13 09:23	08/07/13 01:29	1
2-Methylnaphthalene	0.0000680	U	0.000485	0.0000680	mg/L		08/05/13 09:23	08/07/13 01:29	1
2-Chloronaphthalene	0.0000777	U	0.000485	0.0000777	mg/L		08/05/13 09:23	08/07/13 01:29	1
Acenaphthylene	0.00268		0.000485	0.0000583	mg/L		08/05/13 09:23	08/07/13 01:29	1
2,6-Dinitrotoluene	0.0000777	U	0.000485	0.0000777	mg/L		08/05/13 09:23	08/07/13 01:29	1
4-Nitrophenol	0.000544	U	0.000971	0.000544	mg/L		08/05/13 09:23	08/07/13 01:29	1
Dibenzofuran	0.0141		0.000485	0.0000777	mg/L		08/05/13 09:23	08/07/13 01:29	1
2,4-Dinitrotoluene	0.000126	U	0.000485	0.000126	mg/L		08/05/13 09:23	08/07/13 01:29	1
Fluorene	0.00159		0.000485	0.0000680	mg/L		08/05/13 09:23	08/07/13 01:29	1
4,6-Dinitro-2-methylphenol	0.000806	U	0.000971	0.000806	mg/L		08/05/13 09:23	08/07/13 01:29	1
N-Nitrosodiphenylamine	0.0000971	U	0.000485	0.0000971	mg/L		08/05/13 09:23	08/07/13 01:29	1
1,2-Diphenylhydrazine	0.000107	U	0.000485	0.000107	mg/L		08/05/13 09:23	08/07/13 01:29	1
Pentachlorophenol	0.000592	U	0.000971	0.000592	mg/L		08/05/13 09:23	08/07/13 01:29	1
Phenanthrene	0.000354	J	0.000485	0.0000583	mg/L		08/05/13 09:23	08/07/13 01:29	1
Anthracene	0.000945	J	0.000485	0.0000485	mg/L		08/05/13 09:23	08/07/13 01:29	1
Di-n-butyl phthalate	0.000107	U	0.00243	0.000107	mg/L		08/05/13 09:23	08/07/13 01:29	1
Fluoranthene	0.000634		0.000485	0.0000680	mg/L		08/05/13 09:23	08/07/13 01:29	1
Pyrene	0.000370	J	0.000485	0.000107	mg/L		08/05/13 09:23	08/07/13 01:29	1
Benzo[a]anthracene	0.0000777	U	0.000485	0.0000777	mg/L		08/05/13 09:23	08/07/13 01:29	1
Bis(2-ethylhexyl) phthalate	0.000359	U	0.00243	0.000359	mg/L		08/05/13 09:23	08/07/13 01:29	1
Chrysene	0.0000777	U	0.000485	0.0000777	mg/L		08/05/13 09:23	08/07/13 01:29	1
Benzo[a]pyrene	0.0000777	U	0.000485	0.0000777	mg/L		08/05/13 09:23	08/07/13 01:29	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	94		44 - 123				08/05/13 09:23	08/07/13 01:29	1
2-Fluorobiphenyl	58		43 - 120				08/05/13 09:23	08/07/13 01:29	1
2-Fluorophenol	23		18 - 120				08/05/13 09:23	08/07/13 01:29	1
Nitrobenzene-d5	56		47 - 120				08/05/13 09:23	08/07/13 01:29	1
Terphenyl-d14	78		33 - 141				08/05/13 09:23	08/07/13 01:29	1
Phenol-d5 (Surr)	14		12 - 128				08/05/13 09:23	08/07/13 01:29	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-77198-1

Client Sample ID: WG-1620-MW15C-20130730

Lab Sample ID: 600-77198-8

Date Collected: 07/30/13 10:50

Matrix: Water

Date Received: 07/31/13 17:43

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels - DL

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	0.0574		0.00485	0.000777	mg/L		08/05/13 09:23	08/08/13 15:44	10
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	106		44 - 123				08/05/13 09:23	08/08/13 15:44	10
2-Fluorobiphenyl	73		43 - 120				08/05/13 09:23	08/08/13 15:44	10
2-Fluorophenol	23		18 - 120				08/05/13 09:23	08/08/13 15:44	10
Nitrobenzene-d5	52		47 - 120				08/05/13 09:23	08/08/13 15:44	10
Terphenyl-d14	93		33 - 141				08/05/13 09:23	08/08/13 15:44	10
Phenol-d5 (Surr)	12		12 - 128				08/05/13 09:23	08/08/13 15:44	10

Client Sample ID: WG-1620-MW15A-20130730

Lab Sample ID: 600-77198-9

Date Collected: 07/30/13 11:45

Matrix: Water

Date Received: 07/31/13 17:43

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			08/07/13 01:17	1
Benzene	0.00130		0.00100	0.0000800	mg/L			08/07/13 01:17	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			08/07/13 01:17	1
Toluene	0.000199	J	0.00100	0.000150	mg/L			08/07/13 01:17	1
Chlorobenzene	0.000121	J	0.00100	0.000120	mg/L			08/07/13 01:17	1
Ethylbenzene	0.000799	J	0.00100	0.000110	mg/L			08/07/13 01:17	1
Xylenes, Total	0.00527		0.00300	0.000260	mg/L			08/07/13 01:17	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	124		67 - 139					08/07/13 01:17	1
Dibromofluoromethane	88		62 - 130					08/07/13 01:17	1
Toluene-d8 (Surr)	105		70 - 130					08/07/13 01:17	1
1,2-Dichloroethane-d4 (Surr)	84		50 - 134					08/07/13 01:17	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.0000388	U	0.000485	0.0000388	mg/L		08/05/13 09:23	08/07/13 01:57	1
Nitrobenzene	0.000107	U	0.000485	0.000107	mg/L		08/05/13 09:23	08/07/13 01:57	1
2,4-Dimethylphenol	0.000301	U	0.000485	0.000301	mg/L		08/05/13 09:23	08/07/13 01:57	1
Bis(2-chloroethoxy)methane	0.000126	U	0.000485	0.000126	mg/L		08/05/13 09:23	08/07/13 01:57	1
2-Chloronaphthalene	0.0000777	U	0.000485	0.0000777	mg/L		08/05/13 09:23	08/07/13 01:57	1
Acenaphthylene	0.0000583	U	0.000485	0.0000583	mg/L		08/05/13 09:23	08/07/13 01:57	1
2,6-Dinitrotoluene	0.0000777	U	0.000485	0.0000777	mg/L		08/05/13 09:23	08/07/13 01:57	1
4-Nitrophenol	0.000544	U	0.000971	0.000544	mg/L		08/05/13 09:23	08/07/13 01:57	1
2,4-Dinitrotoluene	0.000126	U	0.000485	0.000126	mg/L		08/05/13 09:23	08/07/13 01:57	1
4,6-Dinitro-2-methylphenol	0.000806	U	0.000971	0.000806	mg/L		08/05/13 09:23	08/07/13 01:57	1
N-Nitrosodiphenylamine	0.0000971	U	0.000485	0.0000971	mg/L		08/05/13 09:23	08/07/13 01:57	1
1,2-Diphenylhydrazine	0.000107	U	0.000485	0.000107	mg/L		08/05/13 09:23	08/07/13 01:57	1
Pentachlorophenol	0.000592	U	0.000971	0.000592	mg/L		08/05/13 09:23	08/07/13 01:57	1
Anthracene	0.00850		0.000485	0.0000485	mg/L		08/05/13 09:23	08/07/13 01:57	1
Di-n-butyl phthalate	0.000187	J	0.00243	0.000107	mg/L		08/05/13 09:23	08/07/13 01:57	1
Fluoranthene	0.00361		0.000485	0.0000680	mg/L		08/05/13 09:23	08/07/13 01:57	1
Pyrene	0.00154		0.000485	0.000107	mg/L		08/05/13 09:23	08/07/13 01:57	1
Benzo[a]anthracene	0.0000777	U	0.000485	0.0000777	mg/L		08/05/13 09:23	08/07/13 01:57	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-77198-1

Client Sample ID: WG-1620-MW15A-20130730

Lab Sample ID: 600-77198-9

Date Collected: 07/30/13 11:45

Matrix: Water

Date Received: 07/31/13 17:43

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	0.000359	U	0.00243	0.000359	mg/L		08/05/13 09:23	08/07/13 01:57	1
Chrysene	0.0000777	U	0.000485	0.0000777	mg/L		08/05/13 09:23	08/07/13 01:57	1
Benzo[a]pyrene	0.0000777	U	0.000485	0.0000777	mg/L		08/05/13 09:23	08/07/13 01:57	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	107		44 - 123				08/05/13 09:23	08/07/13 01:57	1
2-Fluorobiphenyl	81		43 - 120				08/05/13 09:23	08/07/13 01:57	1
2-Fluorophenol	34		18 - 120				08/05/13 09:23	08/07/13 01:57	1
Nitrobenzene-d5	77		47 - 120				08/05/13 09:23	08/07/13 01:57	1
Terphenyl-d14	106		33 - 141				08/05/13 09:23	08/07/13 01:57	1
Phenol-d5 (Surr)	21		12 - 128				08/05/13 09:23	08/07/13 01:57	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels - DL

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylnaphthalene	0.124		0.00485	0.000680	mg/L		08/05/13 09:23	08/08/13 22:58	10
Dibenzofuran	0.104		0.00485	0.000777	mg/L		08/05/13 09:23	08/08/13 22:58	10
Fluorene	0.139		0.00485	0.000680	mg/L		08/05/13 09:23	08/08/13 22:58	10
Phenanthrene	0.0520		0.00485	0.000583	mg/L		08/05/13 09:23	08/08/13 22:58	10
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	117		44 - 123				08/05/13 09:23	08/08/13 22:58	10
2-Fluorobiphenyl	100		43 - 120				08/05/13 09:23	08/08/13 22:58	10
2-Fluorophenol	23		18 - 120				08/05/13 09:23	08/08/13 22:58	10
Nitrobenzene-d5	51		47 - 120				08/05/13 09:23	08/08/13 22:58	10
Terphenyl-d14	108		33 - 141				08/05/13 09:23	08/08/13 22:58	10
Phenol-d5 (Surr)	0	X	12 - 128				08/05/13 09:23	08/08/13 22:58	10

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels - DL2

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	0.526		0.243	0.00388	mg/L		08/05/13 09:23	08/09/13 21:56	50
Acenaphthene	0.332		0.0243	0.00388	mg/L		08/05/13 09:23	08/09/13 21:56	50
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	0	X	44 - 123				08/05/13 09:23	08/09/13 21:56	50
2-Fluorobiphenyl	0	X	43 - 120				08/05/13 09:23	08/09/13 21:56	50
2-Fluorophenol	0	X	18 - 120				08/05/13 09:23	08/09/13 21:56	50
Nitrobenzene-d5	0	X	47 - 120				08/05/13 09:23	08/09/13 21:56	50
Terphenyl-d14	0	X	33 - 141				08/05/13 09:23	08/09/13 21:56	50
Phenol-d5 (Surr)	0	X	12 - 128				08/05/13 09:23	08/09/13 21:56	50

Client Sample ID: WG-1620-FB02-20130730

Lab Sample ID: 600-77198-10

Date Collected: 07/30/13 12:05

Matrix: Water

Date Received: 07/31/13 17:43

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			08/06/13 22:43	1
Benzene	0.0000800	U	0.00100	0.0000800	mg/L			08/06/13 22:43	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			08/06/13 22:43	1
Toluene	0.000150	U	0.00100	0.000150	mg/L			08/06/13 22:43	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			08/06/13 22:43	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-77198-1

Client Sample ID: WG-1620-FB02-20130730

Lab Sample ID: 600-77198-10

Date Collected: 07/30/13 12:05

Matrix: Water

Date Received: 07/31/13 17:43

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	0.000110	U	0.00100	0.000110	mg/L			08/06/13 22:43	1
Xylenes, Total	0.000260	U	0.00300	0.000260	mg/L			08/06/13 22:43	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	132		67 - 139					08/06/13 22:43	1
Dibromofluoromethane	102		62 - 130					08/06/13 22:43	1
Toluene-d8 (Surr)	111		70 - 130					08/06/13 22:43	1
1,2-Dichloroethane-d4 (Surr)	101		50 - 134					08/06/13 22:43	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.0000388	U	0.000485	0.0000388	mg/L		08/05/13 09:23	08/08/13 03:19	1
Nitrobenzene	0.000107	U	0.000485	0.000107	mg/L		08/05/13 09:23	08/08/13 03:19	1
2,4-Dimethylphenol	0.000301	U	0.000485	0.000301	mg/L		08/05/13 09:23	08/08/13 03:19	1
Bis(2-chloroethoxy)methane	0.000126	U	0.000485	0.000126	mg/L		08/05/13 09:23	08/08/13 03:19	1
Naphthalene	0.000447	J	0.00485	0.0000777	mg/L		08/05/13 09:23	08/08/13 03:19	1
2-Methylnaphthalene	0.0000680	U	0.000485	0.0000680	mg/L		08/05/13 09:23	08/08/13 03:19	1
2-Chloronaphthalene	0.0000777	U	0.000485	0.0000777	mg/L		08/05/13 09:23	08/08/13 03:19	1
Acenaphthylene	0.0000583	U	0.000485	0.0000583	mg/L		08/05/13 09:23	08/08/13 03:19	1
2,6-Dinitrotoluene	0.0000777	U	0.000485	0.0000777	mg/L		08/05/13 09:23	08/08/13 03:19	1
Acenaphthene	0.0000777	U	0.000485	0.0000777	mg/L		08/05/13 09:23	08/08/13 03:19	1
4-Nitrophenol	0.000544	U	0.000971	0.000544	mg/L		08/05/13 09:23	08/08/13 03:19	1
Dibenzofuran	0.0000777	U	0.000485	0.0000777	mg/L		08/05/13 09:23	08/08/13 03:19	1
2,4-Dinitrotoluene	0.000126	U	0.000485	0.000126	mg/L		08/05/13 09:23	08/08/13 03:19	1
Fluorene	0.0000680	U	0.000485	0.0000680	mg/L		08/05/13 09:23	08/08/13 03:19	1
4,6-Dinitro-2-methylphenol	0.000806	U	0.000971	0.000806	mg/L		08/05/13 09:23	08/08/13 03:19	1
N-Nitrosodiphenylamine	0.0000971	U	0.000485	0.0000971	mg/L		08/05/13 09:23	08/08/13 03:19	1
1,2-Diphenylhydrazine	0.000107	U	0.000485	0.000107	mg/L		08/05/13 09:23	08/08/13 03:19	1
Pentachlorophenol	0.000592	U	0.000971	0.000592	mg/L		08/05/13 09:23	08/08/13 03:19	1
Phenanthrene	0.0000583	U	0.000485	0.0000583	mg/L		08/05/13 09:23	08/08/13 03:19	1
Anthracene	0.0000485	U	0.000485	0.0000485	mg/L		08/05/13 09:23	08/08/13 03:19	1
Di-n-butyl phthalate	0.000107	U	0.00243	0.000107	mg/L		08/05/13 09:23	08/08/13 03:19	1
Fluoranthene	0.0000680	U	0.000485	0.0000680	mg/L		08/05/13 09:23	08/08/13 03:19	1
Pyrene	0.000107	U	0.000485	0.000107	mg/L		08/05/13 09:23	08/08/13 03:19	1
Benzo[a]anthracene	0.0000777	U	0.000485	0.0000777	mg/L		08/05/13 09:23	08/08/13 03:19	1
Bis(2-ethylhexyl) phthalate	0.000359	U	0.00243	0.000359	mg/L		08/05/13 09:23	08/08/13 03:19	1
Chrysene	0.0000777	U	0.000485	0.0000777	mg/L		08/05/13 09:23	08/08/13 03:19	1
Benzo[a]pyrene	0.0000777	U	0.000485	0.0000777	mg/L		08/05/13 09:23	08/08/13 03:19	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	96		44 - 123				08/05/13 09:23	08/08/13 03:19	1
2-Fluorobiphenyl	89		43 - 120				08/05/13 09:23	08/08/13 03:19	1
2-Fluorophenol	38		18 - 120				08/05/13 09:23	08/08/13 03:19	1
Nitrobenzene-d5	72		47 - 120				08/05/13 09:23	08/08/13 03:19	1
Terphenyl-d14	85		33 - 141				08/05/13 09:23	08/08/13 03:19	1
Phenol-d5 (Surr)	21		12 - 128				08/05/13 09:23	08/08/13 03:19	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-77198-1

Client Sample ID: WG-1620-MW73B-20130730

Lab Sample ID: 600-77198-11

Date Collected: 07/30/13 13:25

Matrix: Water

Date Received: 07/31/13 17:43

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			08/02/13 18:16	1
Benzene	0.000156	J	0.00100	0.0000800	mg/L			08/02/13 18:16	1
1,2-Dichloroethane	0.000678	J	0.00100	0.000140	mg/L			08/02/13 18:16	1
Toluene	0.000150	U	0.00100	0.000150	mg/L			08/02/13 18:16	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			08/02/13 18:16	1
Ethylbenzene	0.000110	U	0.00100	0.000110	mg/L			08/02/13 18:16	1
Xylenes, Total	0.000260	U	0.00300	0.000260	mg/L			08/02/13 18:16	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	98		67 - 139					08/02/13 18:16	1
Dibromofluoromethane	89		62 - 130					08/02/13 18:16	1
Toluene-d8 (Surr)	95		70 - 130					08/02/13 18:16	1
1,2-Dichloroethane-d4 (Surr)	101		50 - 134					08/02/13 18:16	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.0000388	U	0.000485	0.0000388	mg/L		08/05/13 09:23	08/07/13 02:26	1
Nitrobenzene	0.000107	U	0.000485	0.000107	mg/L		08/05/13 09:23	08/07/13 02:26	1
2,4-Dimethylphenol	0.000301	U	0.000485	0.000301	mg/L		08/05/13 09:23	08/07/13 02:26	1
Bis(2-chloroethoxy)methane	0.000126	U	0.000485	0.000126	mg/L		08/05/13 09:23	08/07/13 02:26	1
Naphthalene	0.000674	J	0.00485	0.0000777	mg/L		08/05/13 09:23	08/07/13 02:26	1
2-Methylnaphthalene	0.0000878	J	0.000485	0.0000680	mg/L		08/05/13 09:23	08/07/13 02:26	1
2-Chloronaphthalene	0.0000777	U	0.000485	0.0000777	mg/L		08/05/13 09:23	08/07/13 02:26	1
Acenaphthylene	0.0000583	U	0.000485	0.0000583	mg/L		08/05/13 09:23	08/07/13 02:26	1
2,6-Dinitrotoluene	0.0000777	U	0.000485	0.0000777	mg/L		08/05/13 09:23	08/07/13 02:26	1
Acenaphthene	0.000118	J	0.000485	0.0000777	mg/L		08/05/13 09:23	08/07/13 02:26	1
4-Nitrophenol	0.000544	U	0.000971	0.000544	mg/L		08/05/13 09:23	08/07/13 02:26	1
Dibenzofuran	0.0000777	U	0.000485	0.0000777	mg/L		08/05/13 09:23	08/07/13 02:26	1
2,4-Dinitrotoluene	0.000126	U	0.000485	0.000126	mg/L		08/05/13 09:23	08/07/13 02:26	1
Fluorene	0.0000805	J	0.000485	0.0000680	mg/L		08/05/13 09:23	08/07/13 02:26	1
4,6-Dinitro-2-methylphenol	0.000806	U	0.000971	0.000806	mg/L		08/05/13 09:23	08/07/13 02:26	1
N-Nitrosodiphenylamine	0.0000971	U	0.000485	0.0000971	mg/L		08/05/13 09:23	08/07/13 02:26	1
1,2-Diphenylhydrazine	0.000107	U	0.000485	0.000107	mg/L		08/05/13 09:23	08/07/13 02:26	1
Pentachlorophenol	0.000592	U	0.000971	0.000592	mg/L		08/05/13 09:23	08/07/13 02:26	1
Phenanthrene	0.000228	J	0.000485	0.0000583	mg/L		08/05/13 09:23	08/07/13 02:26	1
Anthracene	0.000245	J	0.000485	0.0000485	mg/L		08/05/13 09:23	08/07/13 02:26	1
Di-n-butyl phthalate	0.000133	J	0.00243	0.000107	mg/L		08/05/13 09:23	08/07/13 02:26	1
Fluoranthene	0.0000680	U	0.000485	0.0000680	mg/L		08/05/13 09:23	08/07/13 02:26	1
Pyrene	0.000107	U	0.000485	0.000107	mg/L		08/05/13 09:23	08/07/13 02:26	1
Benzo[a]anthracene	0.0000777	U	0.000485	0.0000777	mg/L		08/05/13 09:23	08/07/13 02:26	1
Bis(2-ethylhexyl) phthalate	0.000359	U	0.00243	0.000359	mg/L		08/05/13 09:23	08/07/13 02:26	1
Chrysene	0.0000777	U	0.000485	0.0000777	mg/L		08/05/13 09:23	08/07/13 02:26	1
Benzo[a]pyrene	0.0000777	U	0.000485	0.0000777	mg/L		08/05/13 09:23	08/07/13 02:26	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	92		44 - 123				08/05/13 09:23	08/07/13 02:26	1
2-Fluorobiphenyl	80		43 - 120				08/05/13 09:23	08/07/13 02:26	1
2-Fluorophenol	28		18 - 120				08/05/13 09:23	08/07/13 02:26	1
Nitrobenzene-d5	79		47 - 120				08/05/13 09:23	08/07/13 02:26	1
Terphenyl-d14	77		33 - 141				08/05/13 09:23	08/07/13 02:26	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-77198-1

Client Sample ID: WG-1620-MW73B-20130730

Lab Sample ID: 600-77198-11

Date Collected: 07/30/13 13:25

Matrix: Water

Date Received: 07/31/13 17:43

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Phenol-d5 (Surr)	9	X	12 - 128	08/05/13 09:23	08/07/13 02:26	1

Client Sample ID: WG-1620-MW55A-20130730

Lab Sample ID: 600-77198-12

Date Collected: 07/30/13 14:20

Matrix: Water

Date Received: 07/31/13 17:43

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	0.0110	U	0.200	0.0110	mg/L			08/02/13 21:54	100
Methylene Chloride	0.0894	J b	0.100	0.0150	mg/L			08/02/13 21:54	100
Benzene	0.145		0.100	0.00800	mg/L			08/02/13 21:54	100
1,2-Dichloroethane	0.0140	U	0.100	0.0140	mg/L			08/02/13 21:54	100
Toluene	0.431		0.100	0.0150	mg/L			08/02/13 21:54	100
Chlorobenzene	0.0120	U	0.100	0.0120	mg/L			08/02/13 21:54	100
Ethylbenzene	0.260		0.100	0.0110	mg/L			08/02/13 21:54	100
Xylenes, Total	0.584		0.300	0.0260	mg/L			08/02/13 21:54	100

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	108		67 - 139		08/02/13 21:54	100
Dibromofluoromethane	88		62 - 130		08/02/13 21:54	100
Toluene-d8 (Surr)	100		70 - 130		08/02/13 21:54	100
1,2-Dichloroethane-d4 (Surr)	95		50 - 134		08/02/13 21:54	100

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.00194	U	0.0243	0.00194	mg/L		08/05/13 09:23	08/08/13 11:26	50
Nitrobenzene	0.00534	U	0.0243	0.00534	mg/L		08/05/13 09:23	08/08/13 11:26	50
2,4-Dimethylphenol	0.956		0.0243	0.0150	mg/L		08/05/13 09:23	08/08/13 11:26	50
Bis(2-chloroethoxy)methane	0.00631	U	0.0243	0.00631	mg/L		08/05/13 09:23	08/08/13 11:26	50
2-Methylnaphthalene	0.468		0.0243	0.00340	mg/L		08/05/13 09:23	08/08/13 11:26	50
2-Chloronaphthalene	0.00388	U	0.0243	0.00388	mg/L		08/05/13 09:23	08/08/13 11:26	50
Acenaphthylene	0.00291	U	0.0243	0.00291	mg/L		08/05/13 09:23	08/08/13 11:26	50
2,6-Dinitrotoluene	0.00388	U	0.0243	0.00388	mg/L		08/05/13 09:23	08/08/13 11:26	50
Acenaphthene	0.207		0.0243	0.00388	mg/L		08/05/13 09:23	08/08/13 11:26	50
4-Nitrophenol	0.0272	U	0.0485	0.0272	mg/L		08/05/13 09:23	08/08/13 11:26	50
Dibenzofuran	0.00388	U	0.0243	0.00388	mg/L		08/05/13 09:23	08/08/13 11:26	50
2,4-Dinitrotoluene	0.00631	U	0.0243	0.00631	mg/L		08/05/13 09:23	08/08/13 11:26	50
Fluorene	0.0996		0.0243	0.00340	mg/L		08/05/13 09:23	08/08/13 11:26	50
4,6-Dinitro-2-methylphenol	0.0403	U	0.0485	0.0403	mg/L		08/05/13 09:23	08/08/13 11:26	50
N-Nitrosodiphenylamine	0.00485	U	0.0243	0.00485	mg/L		08/05/13 09:23	08/08/13 11:26	50
1,2-Diphenylhydrazine	0.00534	U	0.0243	0.00534	mg/L		08/05/13 09:23	08/08/13 11:26	50
Pentachlorophenol	0.0296	U	0.0485	0.0296	mg/L		08/05/13 09:23	08/08/13 11:26	50
Phenanthrene	0.0780		0.0243	0.00291	mg/L		08/05/13 09:23	08/08/13 11:26	50
Anthracene	0.0336		0.0243	0.00243	mg/L		08/05/13 09:23	08/08/13 11:26	50
Di-n-butyl phthalate	0.00534	U	0.121	0.00534	mg/L		08/05/13 09:23	08/08/13 11:26	50
Fluoranthene	0.0148	J	0.0243	0.00340	mg/L		08/05/13 09:23	08/08/13 11:26	50
Pyrene	0.00729	J	0.0243	0.00534	mg/L		08/05/13 09:23	08/08/13 11:26	50
Benzo[a]anthracene	0.00388	U	0.0243	0.00388	mg/L		08/05/13 09:23	08/08/13 11:26	50
Bis(2-ethylhexyl) phthalate	0.0180	U	0.121	0.0180	mg/L		08/05/13 09:23	08/08/13 11:26	50
Chrysene	0.00388	U	0.0243	0.00388	mg/L		08/05/13 09:23	08/08/13 11:26	50

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-77198-1

Client Sample ID: WG-1620-MW55A-20130730

Lab Sample ID: 600-77198-12

Date Collected: 07/30/13 14:20

Matrix: Water

Date Received: 07/31/13 17:43

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]pyrene	0.00388	U	0.0243	0.00388	mg/L		08/05/13 09:23	08/08/13 11:26	50
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	0	X	44 - 123				08/05/13 09:23	08/08/13 11:26	50
2-Fluorobiphenyl	0	X	43 - 120				08/05/13 09:23	08/08/13 11:26	50
2-Fluorophenol	0	X	18 - 120				08/05/13 09:23	08/08/13 11:26	50
Nitrobenzene-d5	0	X	47 - 120				08/05/13 09:23	08/08/13 11:26	50
Terphenyl-d14	0	X	33 - 141				08/05/13 09:23	08/08/13 11:26	50
Phenol-d5 (Surr)	0	X	12 - 128				08/05/13 09:23	08/08/13 11:26	50

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels - DL

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	13.8		12.1	0.194	mg/L		08/05/13 09:23	08/12/13 17:05	2500
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	0	X	44 - 123				08/05/13 09:23	08/12/13 17:05	2500
2-Fluorobiphenyl	0	X	43 - 120				08/05/13 09:23	08/12/13 17:05	2500
2-Fluorophenol	0	X	18 - 120				08/05/13 09:23	08/12/13 17:05	2500
Nitrobenzene-d5	0	X	47 - 120				08/05/13 09:23	08/12/13 17:05	2500
Terphenyl-d14	0	X	33 - 141				08/05/13 09:23	08/12/13 17:05	2500
Phenol-d5 (Surr)	0	X	12 - 128				08/05/13 09:23	08/12/13 17:05	2500

Client Sample ID: WG-1620-MW55B-201300730

Lab Sample ID: 600-77198-13

Date Collected: 07/30/13 15:15

Matrix: Water

Date Received: 07/31/13 17:43

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	0.0110	U	0.200	0.0110	mg/L			08/02/13 22:20	100
Methylene Chloride	0.0517	J b	0.100	0.0150	mg/L			08/02/13 22:20	100
Benzene	0.809		0.100	0.00800	mg/L			08/02/13 22:20	100
1,2-Dichloroethane	0.0140	U	0.100	0.0140	mg/L			08/02/13 22:20	100
Toluene	0.782		0.100	0.0150	mg/L			08/02/13 22:20	100
Chlorobenzene	0.0120	U	0.100	0.0120	mg/L			08/02/13 22:20	100
Ethylbenzene	0.173		0.100	0.0110	mg/L			08/02/13 22:20	100
Xylenes, Total	0.624		0.300	0.0260	mg/L			08/02/13 22:20	100
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	128		67 - 139					08/02/13 22:20	100
Dibromofluoromethane	87		62 - 130					08/02/13 22:20	100
Toluene-d8 (Surr)	103		70 - 130					08/02/13 22:20	100
1,2-Dichloroethane-d4 (Surr)	96		50 - 134					08/02/13 22:20	100

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrobenzene	0.0534	U	0.243	0.0534	mg/L		08/05/13 09:23	08/08/13 11:55	500
Bis(2-chloroethoxy)methane	0.0631	U	0.243	0.0631	mg/L		08/05/13 09:23	08/08/13 11:55	500
2-Methylnaphthalene	0.868		0.243	0.0340	mg/L		08/05/13 09:23	08/08/13 11:55	500
2-Chloronaphthalene	0.0388	U	0.243	0.0388	mg/L		08/05/13 09:23	08/08/13 11:55	500
Acenaphthylene	0.0291	U	0.243	0.0291	mg/L		08/05/13 09:23	08/08/13 11:55	500
2,6-Dinitrotoluene	0.0388	U	0.243	0.0388	mg/L		08/05/13 09:23	08/08/13 11:55	500

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-77198-1

Client Sample ID: WG-1620-MW55B-201300730

Lab Sample ID: 600-77198-13

Date Collected: 07/30/13 15:15

Matrix: Water

Date Received: 07/31/13 17:43

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	0.0388	U	0.243	0.0388	mg/L		08/05/13 09:23	08/08/13 11:55	500
4-Nitrophenol	0.272	U	0.485	0.272	mg/L		08/05/13 09:23	08/08/13 11:55	500
Dibenzofuran	0.309		0.243	0.0388	mg/L		08/05/13 09:23	08/08/13 11:55	500
2,4-Dinitrotoluene	0.0631	U	0.243	0.0631	mg/L		08/05/13 09:23	08/08/13 11:55	500
Fluorene	0.195	J	0.243	0.0340	mg/L		08/05/13 09:23	08/08/13 11:55	500
4,6-Dinitro-2-methylphenol	0.403	U	0.485	0.403	mg/L		08/05/13 09:23	08/08/13 11:55	500
N-Nitrosodiphenylamine	0.0485	U	0.243	0.0485	mg/L		08/05/13 09:23	08/08/13 11:55	500
1,2-Diphenylhydrazine	0.0534	U	0.243	0.0534	mg/L		08/05/13 09:23	08/08/13 11:55	500
Pentachlorophenol	0.296	U	0.485	0.296	mg/L		08/05/13 09:23	08/08/13 11:55	500
Phenanthrene	0.228	J	0.243	0.0291	mg/L		08/05/13 09:23	08/08/13 11:55	500
Anthracene	0.0437	J	0.243	0.0243	mg/L		08/05/13 09:23	08/08/13 11:55	500
Di-n-butyl phthalate	0.0534	U	1.21	0.0534	mg/L		08/05/13 09:23	08/08/13 11:55	500
Fluoranthene	0.0340	U	0.243	0.0340	mg/L		08/05/13 09:23	08/08/13 11:55	500
Pyrene	0.0534	U	0.243	0.0534	mg/L		08/05/13 09:23	08/08/13 11:55	500
Benzo[a]anthracene	0.0388	U	0.243	0.0388	mg/L		08/05/13 09:23	08/08/13 11:55	500
Bis(2-ethylhexyl) phthalate	0.180	U	1.21	0.180	mg/L		08/05/13 09:23	08/08/13 11:55	500
Chrysene	0.0388	U	0.243	0.0388	mg/L		08/05/13 09:23	08/08/13 11:55	500
Benzo[a]pyrene	0.0388	U	0.243	0.0388	mg/L		08/05/13 09:23	08/08/13 11:55	500

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	0	X	44 - 123	08/05/13 09:23	08/08/13 11:55	500
2-Fluorobiphenyl	0	X	43 - 120	08/05/13 09:23	08/08/13 11:55	500
2-Fluorophenol	0	X	18 - 120	08/05/13 09:23	08/08/13 11:55	500
Nitrobenzene-d5	0	X	47 - 120	08/05/13 09:23	08/08/13 11:55	500
Terphenyl-d14	0	X	33 - 141	08/05/13 09:23	08/08/13 11:55	500
Phenol-d5 (Surr)	0	X	12 - 128	08/05/13 09:23	08/08/13 11:55	500

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels - DL

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-Dimethylphenol	25.2		1.21	0.752	mg/L		08/05/13 09:23	08/09/13 22:53	2500
Naphthalene	21.9		12.1	0.194	mg/L		08/05/13 09:23	08/09/13 22:53	2500

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	0	X	44 - 123	08/05/13 09:23	08/09/13 22:53	2500
2-Fluorobiphenyl	0	X	43 - 120	08/05/13 09:23	08/09/13 22:53	2500
2-Fluorophenol	0	X	18 - 120	08/05/13 09:23	08/09/13 22:53	2500
Nitrobenzene-d5	0	X	47 - 120	08/05/13 09:23	08/09/13 22:53	2500
Terphenyl-d14	0	X	33 - 141	08/05/13 09:23	08/09/13 22:53	2500
Phenol-d5 (Surr)	0	X	12 - 128	08/05/13 09:23	08/09/13 22:53	2500

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels - DL2

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	103		12.1	0.971	mg/L		08/05/13 09:23	08/12/13 17:34	25000

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	0	X	44 - 123	08/05/13 09:23	08/12/13 17:34	25000
2-Fluorobiphenyl	0	X	43 - 120	08/05/13 09:23	08/12/13 17:34	25000
2-Fluorophenol	0	X	18 - 120	08/05/13 09:23	08/12/13 17:34	25000
Nitrobenzene-d5	0	X	47 - 120	08/05/13 09:23	08/12/13 17:34	25000
Terphenyl-d14	0	X	33 - 141	08/05/13 09:23	08/12/13 17:34	25000
Phenol-d5 (Surr)	0	X	12 - 128	08/05/13 09:23	08/12/13 17:34	25000

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-77198-1

Client Sample ID: WG-1620-MW19C-20130730

Lab Sample ID: 600-77198-14

Date Collected: 07/30/13 16:10

Matrix: Water

Date Received: 07/31/13 17:43

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	0.000110	U	0.00200	0.000110	mg/L			08/08/13 14:22	1
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			08/08/13 14:22	1
Benzene	0.00427		0.00100	0.0000800	mg/L			08/08/13 14:22	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			08/08/13 14:22	1
Toluene	0.0155		0.00100	0.000150	mg/L			08/08/13 14:22	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			08/08/13 14:22	1
Ethylbenzene	0.0114		0.00100	0.000110	mg/L			08/08/13 14:22	1
Xylenes, Total	0.0197		0.00300	0.000260	mg/L			08/08/13 14:22	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	122		67 - 139					08/08/13 14:22	1
Dibromofluoromethane	89		62 - 130					08/08/13 14:22	1
Toluene-d8 (Surr)	102		70 - 130					08/08/13 14:22	1
1,2-Dichloroethane-d4 (Surr)	85		50 - 134					08/08/13 14:22	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrobenzene	0.000107	U	0.000485	0.000107	mg/L		08/05/13 09:23	08/07/13 03:51	1
2,4-Dimethylphenol	0.000301	U	0.000485	0.000301	mg/L		08/05/13 09:23	08/07/13 03:51	1
Bis(2-chloroethoxy)methane	0.000126	U	0.000485	0.000126	mg/L		08/05/13 09:23	08/07/13 03:51	1
Naphthalene	0.00196	J	0.00485	0.0000777	mg/L		08/05/13 09:23	08/07/13 03:51	1
2-Methylnaphthalene	0.000114	J	0.000485	0.0000680	mg/L		08/05/13 09:23	08/07/13 03:51	1
2-Chloronaphthalene	0.0000777	U	0.000485	0.0000777	mg/L		08/05/13 09:23	08/07/13 03:51	1
Acenaphthylene	0.0000583	U	0.000485	0.0000583	mg/L		08/05/13 09:23	08/07/13 03:51	1
2,6-Dinitrotoluene	0.0000777	U	0.000485	0.0000777	mg/L		08/05/13 09:23	08/07/13 03:51	1
Acenaphthene	0.00279		0.000485	0.0000777	mg/L		08/05/13 09:23	08/07/13 03:51	1
4-Nitrophenol	0.000544	U	0.000971	0.000544	mg/L		08/05/13 09:23	08/07/13 03:51	1
Dibenzofuran	0.000631		0.000485	0.0000777	mg/L		08/05/13 09:23	08/07/13 03:51	1
2,4-Dinitrotoluene	0.000126	U	0.000485	0.000126	mg/L		08/05/13 09:23	08/07/13 03:51	1
Fluorene	0.0000680	U	0.000485	0.0000680	mg/L		08/05/13 09:23	08/07/13 03:51	1
4,6-Dinitro-2-methylphenol	0.000806	U	0.000971	0.000806	mg/L		08/05/13 09:23	08/07/13 03:51	1
N-Nitrosodiphenylamine	0.0000971	U	0.000485	0.0000971	mg/L		08/05/13 09:23	08/07/13 03:51	1
1,2-Diphenylhydrazine	0.000107	U	0.000485	0.000107	mg/L		08/05/13 09:23	08/07/13 03:51	1
Pentachlorophenol	0.000592	U	0.000971	0.000592	mg/L		08/05/13 09:23	08/07/13 03:51	1
Phenanthrene	0.000201	J	0.000485	0.0000583	mg/L		08/05/13 09:23	08/07/13 03:51	1
Anthracene	0.000269	J	0.000485	0.0000485	mg/L		08/05/13 09:23	08/07/13 03:51	1
Di-n-butyl phthalate	0.000164	J	0.00243	0.000107	mg/L		08/05/13 09:23	08/07/13 03:51	1
Fluoranthene	0.000309	J	0.000485	0.0000680	mg/L		08/05/13 09:23	08/07/13 03:51	1
Pyrene	0.000233	J	0.000485	0.000107	mg/L		08/05/13 09:23	08/07/13 03:51	1
Benzo[a]anthracene	0.000111	J	0.000485	0.0000777	mg/L		08/05/13 09:23	08/07/13 03:51	1
Bis(2-ethylhexyl) phthalate	0.00120	J	0.00243	0.000359	mg/L		08/05/13 09:23	08/07/13 03:51	1
Chrysene	0.0000777	U	0.000485	0.0000777	mg/L		08/05/13 09:23	08/07/13 03:51	1
Benzo[a]pyrene	0.0000777	U	0.000485	0.0000777	mg/L		08/05/13 09:23	08/07/13 03:51	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	98		44 - 123				08/05/13 09:23	08/07/13 03:51	1
2-Fluorobiphenyl	84		43 - 120				08/05/13 09:23	08/07/13 03:51	1
2-Fluorophenol	25		18 - 120				08/05/13 09:23	08/07/13 03:51	1
Nitrobenzene-d5	78		47 - 120				08/05/13 09:23	08/07/13 03:51	1
Terphenyl-d14	73		33 - 141				08/05/13 09:23	08/07/13 03:51	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-77198-1

Client Sample ID: WG-1620-MW19C-20130730

Lab Sample ID: 600-77198-14

Date Collected: 07/30/13 16:10

Matrix: Water

Date Received: 07/31/13 17:43

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Phenol-d5 (Surr)	13		12 - 128	08/05/13 09:23	08/07/13 03:51	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels - DL

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.0240		0.00485	0.000388	mg/L		08/05/13 09:23	08/08/13 23:27	10

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	82		44 - 123	08/05/13 09:23	08/08/13 23:27	10
2-Fluorobiphenyl	85		43 - 120	08/05/13 09:23	08/08/13 23:27	10
2-Fluorophenol	0	X	18 - 120	08/05/13 09:23	08/08/13 23:27	10
Nitrobenzene-d5	92		47 - 120	08/05/13 09:23	08/08/13 23:27	10
Terphenyl-d14	89		33 - 141	08/05/13 09:23	08/08/13 23:27	10
Phenol-d5 (Surr)	0	X	12 - 128	08/05/13 09:23	08/08/13 23:27	10

Client Sample ID: WG-1620-MW23C-20130731

Lab Sample ID: 600-77198-15

Date Collected: 07/31/13 07:35

Matrix: Water

Date Received: 07/31/13 17:43

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	0.00110	U	0.0200	0.00110	mg/L			08/08/13 13:55	10
Methylene Chloride	0.00150	U	0.0100	0.00150	mg/L			08/08/13 13:55	10
Benzene	0.0138		0.0100	0.000800	mg/L			08/08/13 13:55	10
1,2-Dichloroethane	0.00140	U	0.0100	0.00140	mg/L			08/08/13 13:55	10
Toluene	0.00819	J	0.0100	0.00150	mg/L			08/08/13 13:55	10
Chlorobenzene	0.00146	J	0.0100	0.00120	mg/L			08/08/13 13:55	10
Ethylbenzene	0.185		0.0100	0.00110	mg/L			08/08/13 13:55	10
Xylenes, Total	0.0988		0.0300	0.00260	mg/L			08/08/13 13:55	10

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	121		67 - 139		08/08/13 13:55	10
Dibromofluoromethane	75		62 - 130		08/08/13 13:55	10
Toluene-d8 (Surr)	102		70 - 130		08/08/13 13:55	10
1,2-Dichloroethane-d4 (Surr)	73		50 - 134		08/08/13 13:55	10

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.00194	U	0.0243	0.00194	mg/L		08/05/13 09:23	08/08/13 23:55	50
Nitrobenzene	0.00534	U	0.0243	0.00534	mg/L		08/05/13 09:23	08/08/13 23:55	50
2,4-Dimethylphenol	0.0150	U	0.0243	0.0150	mg/L		08/05/13 09:23	08/08/13 23:55	50
Bis(2-chloroethoxy)methane	0.00631	U	0.0243	0.00631	mg/L		08/05/13 09:23	08/08/13 23:55	50
2-Methylnaphthalene	1.16		0.0243	0.00340	mg/L		08/05/13 09:23	08/08/13 23:55	50
2-Chloronaphthalene	0.00388	U	0.0243	0.00388	mg/L		08/05/13 09:23	08/08/13 23:55	50
Acenaphthylene	0.00291	U	0.0243	0.00291	mg/L		08/05/13 09:23	08/08/13 23:55	50
2,6-Dinitrotoluene	0.00388	U	0.0243	0.00388	mg/L		08/05/13 09:23	08/08/13 23:55	50
4-Nitrophenol	0.0272	U	0.0485	0.0272	mg/L		08/05/13 09:23	08/08/13 23:55	50
2,4-Dinitrotoluene	0.00631	U	0.0243	0.00631	mg/L		08/05/13 09:23	08/08/13 23:55	50
Fluorene	0.874		0.0243	0.00340	mg/L		08/05/13 09:23	08/08/13 23:55	50
4,6-Dinitro-2-methylphenol	0.0403	U	0.0485	0.0403	mg/L		08/05/13 09:23	08/08/13 23:55	50
N-Nitrosodiphenylamine	0.00485	U	0.0243	0.00485	mg/L		08/05/13 09:23	08/08/13 23:55	50

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-77198-1

Client Sample ID: WG-1620-MW23C-20130731

Lab Sample ID: 600-77198-15

Date Collected: 07/31/13 07:35

Matrix: Water

Date Received: 07/31/13 17:43

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Diphenylhydrazine	0.00534	U	0.0243	0.00534	mg/L		08/05/13 09:23	08/08/13 23:55	50
Pentachlorophenol	0.0296	U	0.0485	0.0296	mg/L		08/05/13 09:23	08/08/13 23:55	50
Anthracene	0.310		0.0243	0.00243	mg/L		08/05/13 09:23	08/08/13 23:55	50
Di-n-butyl phthalate	0.00534	U	0.121	0.00534	mg/L		08/05/13 09:23	08/08/13 23:55	50
Fluoranthene	0.812		0.0243	0.00340	mg/L		08/05/13 09:23	08/08/13 23:55	50
Pyrene	0.515		0.0243	0.00534	mg/L		08/05/13 09:23	08/08/13 23:55	50
Benzo[a]anthracene	0.0905		0.0243	0.00388	mg/L		08/05/13 09:23	08/08/13 23:55	50
Bis(2-ethylhexyl) phthalate	0.0180	U	0.121	0.0180	mg/L		08/05/13 09:23	08/08/13 23:55	50
Chrysene	0.0819		0.0243	0.00388	mg/L		08/05/13 09:23	08/08/13 23:55	50
Benzo[a]pyrene	0.0235	J	0.0243	0.00388	mg/L		08/05/13 09:23	08/08/13 23:55	50

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	0	X	44 - 123	08/05/13 09:23	08/08/13 23:55	50
2-Fluorobiphenyl	0	X	43 - 120	08/05/13 09:23	08/08/13 23:55	50
2-Fluorophenol	0	X	18 - 120	08/05/13 09:23	08/08/13 23:55	50
Nitrobenzene-d5	0	X	47 - 120	08/05/13 09:23	08/08/13 23:55	50
Terphenyl-d14	0	X	33 - 141	08/05/13 09:23	08/08/13 23:55	50
Phenol-d5 (Surr)	0	X	12 - 128	08/05/13 09:23	08/08/13 23:55	50

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels - DL

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	1.58		0.121	0.0194	mg/L		08/05/13 09:23	08/09/13 23:22	250
Dibenzofuran	1.48		0.121	0.0194	mg/L		08/05/13 09:23	08/09/13 23:22	250
Phenanthrene	2.80		0.121	0.0146	mg/L		08/05/13 09:23	08/09/13 23:22	250

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	0	X	44 - 123	08/05/13 09:23	08/09/13 23:22	250
2-Fluorobiphenyl	0	X	43 - 120	08/05/13 09:23	08/09/13 23:22	250
2-Fluorophenol	0	X	18 - 120	08/05/13 09:23	08/09/13 23:22	250
Nitrobenzene-d5	0	X	47 - 120	08/05/13 09:23	08/09/13 23:22	250
Terphenyl-d14	0	X	33 - 141	08/05/13 09:23	08/09/13 23:22	250
Phenol-d5 (Surr)	0	X	12 - 128	08/05/13 09:23	08/09/13 23:22	250

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels - DL2

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	13.2		12.1	0.194	mg/L		08/05/13 09:23	08/12/13 18:03	2500

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	0	X	44 - 123	08/05/13 09:23	08/12/13 18:03	2500
2-Fluorobiphenyl	0	X	43 - 120	08/05/13 09:23	08/12/13 18:03	2500
2-Fluorophenol	0	X	18 - 120	08/05/13 09:23	08/12/13 18:03	2500
Nitrobenzene-d5	0	X	47 - 120	08/05/13 09:23	08/12/13 18:03	2500
Terphenyl-d14	0	X	33 - 141	08/05/13 09:23	08/12/13 18:03	2500
Phenol-d5 (Surr)	0	X	12 - 128	08/05/13 09:23	08/12/13 18:03	2500

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-77198-1

Client Sample ID: WG-1620-MW57B-20130731

Lab Sample ID: 600-77198-16

Date Collected: 07/31/13 08:45

Matrix: Water

Date Received: 07/31/13 17:43

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	0.0405	J	0.100	0.0150	mg/L			08/08/13 12:07	100
Benzene	1.49		0.100	0.00800	mg/L			08/08/13 12:07	100
1,2-Dichloroethane	0.0140	U	0.100	0.0140	mg/L			08/08/13 12:07	100
Toluene	1.62		0.100	0.0150	mg/L			08/08/13 12:07	100
Chlorobenzene	0.0120	U	0.100	0.0120	mg/L			08/08/13 12:07	100
Ethylbenzene	0.501		0.100	0.0110	mg/L			08/08/13 12:07	100
Xylenes, Total	1.40		0.300	0.0260	mg/L			08/08/13 12:07	100

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	120		67 - 139		08/08/13 12:07	100
Dibromofluoromethane	85		62 - 130		08/08/13 12:07	100
Toluene-d8 (Surr)	105		70 - 130		08/08/13 12:07	100
1,2-Dichloroethane-d4 (Surr)	83		50 - 134		08/08/13 12:07	100

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.645		0.121	0.00971	mg/L		08/05/13 09:23	08/08/13 12:23	250
Nitrobenzene	0.0267	U	0.121	0.0267	mg/L		08/05/13 09:23	08/08/13 12:23	250
Bis(2-chloroethoxy)methane	0.0316	U	0.121	0.0316	mg/L		08/05/13 09:23	08/08/13 12:23	250
2-Methylnaphthalene	1.07		0.121	0.0170	mg/L		08/05/13 09:23	08/08/13 12:23	250
2-Chloronaphthalene	0.0194	U	0.121	0.0194	mg/L		08/05/13 09:23	08/08/13 12:23	250
Acenaphthylene	0.0146	U	0.121	0.0146	mg/L		08/05/13 09:23	08/08/13 12:23	250
2,6-Dinitrotoluene	0.0194	U	0.121	0.0194	mg/L		08/05/13 09:23	08/08/13 12:23	250
Acenaphthene	0.423		0.121	0.0194	mg/L		08/05/13 09:23	08/08/13 12:23	250
4-Nitrophenol	0.136	U	0.243	0.136	mg/L		08/05/13 09:23	08/08/13 12:23	250
Dibenzofuran	0.322		0.121	0.0194	mg/L		08/05/13 09:23	08/08/13 12:23	250
2,4-Dinitrotoluene	0.0316	U	0.121	0.0316	mg/L		08/05/13 09:23	08/08/13 12:23	250
Fluorene	0.208		0.121	0.0170	mg/L		08/05/13 09:23	08/08/13 12:23	250
4,6-Dinitro-2-methylphenol	0.201	U	0.243	0.201	mg/L		08/05/13 09:23	08/08/13 12:23	250
N-Nitrosodiphenylamine	0.0243	U	0.121	0.0243	mg/L		08/05/13 09:23	08/08/13 12:23	250
1,2-Diphenylhydrazine	0.0267	U	0.121	0.0267	mg/L		08/05/13 09:23	08/08/13 12:23	250
Pentachlorophenol	0.148	U	0.243	0.148	mg/L		08/05/13 09:23	08/08/13 12:23	250
Phenanthrene	0.242		0.121	0.0146	mg/L		08/05/13 09:23	08/08/13 12:23	250
Anthracene	0.0493	J	0.121	0.0121	mg/L		08/05/13 09:23	08/08/13 12:23	250
Di-n-butyl phthalate	0.0267	U	0.607	0.0267	mg/L		08/05/13 09:23	08/08/13 12:23	250
Fluoranthene	0.0301	J	0.121	0.0170	mg/L		08/05/13 09:23	08/08/13 12:23	250
Pyrene	0.0267	U	0.121	0.0267	mg/L		08/05/13 09:23	08/08/13 12:23	250
Benzo[a]anthracene	0.0194	U	0.121	0.0194	mg/L		08/05/13 09:23	08/08/13 12:23	250
Bis(2-ethylhexyl) phthalate	0.0898	U	0.607	0.0898	mg/L		08/05/13 09:23	08/08/13 12:23	250
Chrysene	0.0194	U	0.121	0.0194	mg/L		08/05/13 09:23	08/08/13 12:23	250
Benzo[a]pyrene	0.0194	U	0.121	0.0194	mg/L		08/05/13 09:23	08/08/13 12:23	250

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	0	X	44 - 123	08/05/13 09:23	08/08/13 12:23	250
2-Fluorobiphenyl	0	X	43 - 120	08/05/13 09:23	08/08/13 12:23	250
2-Fluorophenol	0	X	18 - 120	08/05/13 09:23	08/08/13 12:23	250
Nitrobenzene-d5	0	X	47 - 120	08/05/13 09:23	08/08/13 12:23	250
Terphenyl-d14	0	X	33 - 141	08/05/13 09:23	08/08/13 12:23	250
Phenol-d5 (Surr)	0	X	12 - 128	08/05/13 09:23	08/08/13 12:23	250

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-77198-1

Client Sample ID: WG-1620-MW57B-20130731

Lab Sample ID: 600-77198-16

Date Collected: 07/31/13 08:45

Matrix: Water

Date Received: 07/31/13 17:43

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels - DL

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-Dimethylphenol	9.67		0.607	0.376	mg/L		08/05/13 09:23	08/09/13 23:50	1250
Naphthalene	18.1		6.07	0.0971	mg/L		08/05/13 09:23	08/09/13 23:50	1250
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	0	X	44 - 123				08/05/13 09:23	08/09/13 23:50	1250
2-Fluorobiphenyl	0	X	43 - 120				08/05/13 09:23	08/09/13 23:50	1250
2-Fluorophenol	0	X	18 - 120				08/05/13 09:23	08/09/13 23:50	1250
Nitrobenzene-d5	0	X	47 - 120				08/05/13 09:23	08/09/13 23:50	1250
Terphenyl-d14	0	X	33 - 141				08/05/13 09:23	08/09/13 23:50	1250
Phenol-d5 (Surr)	0	X	12 - 128				08/05/13 09:23	08/09/13 23:50	1250

Client Sample ID: WG-1620-MW57A-20130731

Lab Sample ID: 600-77198-17

Date Collected: 07/31/13 09:35

Matrix: Water

Date Received: 07/31/13 17:43

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	0.00550	U	0.100	0.00550	mg/L			08/08/13 12:33	50
Methylene Chloride	0.00750	U	0.0500	0.00750	mg/L			08/08/13 12:33	50
Benzene	0.137		0.0500	0.00400	mg/L			08/08/13 12:33	50
1,2-Dichloroethane	0.00700	U	0.0500	0.00700	mg/L			08/08/13 12:33	50
Toluene	0.308		0.0500	0.00750	mg/L			08/08/13 12:33	50
Chlorobenzene	0.00600	U	0.0500	0.00600	mg/L			08/08/13 12:33	50
Ethylbenzene	0.283		0.0500	0.00550	mg/L			08/08/13 12:33	50
Xylenes, Total	0.572		0.150	0.0130	mg/L			08/08/13 12:33	50
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	120		67 - 139					08/08/13 12:33	50
Dibromofluoromethane	84		62 - 130					08/08/13 12:33	50
Toluene-d8 (Surr)	102		70 - 130					08/08/13 12:33	50
1,2-Dichloroethane-d4 (Surr)	82		50 - 134					08/08/13 12:33	50

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.00971	U	0.121	0.00971	mg/L		08/05/13 09:23	08/10/13 00:19	250
Nitrobenzene	0.0267	U	0.121	0.0267	mg/L		08/05/13 09:23	08/10/13 00:19	250
2,4-Dimethylphenol	0.994		0.121	0.0752	mg/L		08/05/13 09:23	08/10/13 00:19	250
Bis(2-chloroethoxy)methane	0.0316	U	0.121	0.0316	mg/L		08/05/13 09:23	08/10/13 00:19	250
2-Methylnaphthalene	1.50		0.121	0.0170	mg/L		08/05/13 09:23	08/10/13 00:19	250
2-Chloronaphthalene	0.0194	U	0.121	0.0194	mg/L		08/05/13 09:23	08/10/13 00:19	250
Acenaphthylene	0.0146	U	0.121	0.0146	mg/L		08/05/13 09:23	08/10/13 00:19	250
2,6-Dinitrotoluene	0.0194	U	0.121	0.0194	mg/L		08/05/13 09:23	08/10/13 00:19	250
Acenaphthene	0.997		0.121	0.0194	mg/L		08/05/13 09:23	08/10/13 00:19	250
4-Nitrophenol	0.136	U	0.243	0.136	mg/L		08/05/13 09:23	08/10/13 00:19	250
Dibenzofuran	0.799		0.121	0.0194	mg/L		08/05/13 09:23	08/10/13 00:19	250
2,4-Dinitrotoluene	0.0316	U	0.121	0.0316	mg/L		08/05/13 09:23	08/10/13 00:19	250
Fluorene	0.713		0.121	0.0170	mg/L		08/05/13 09:23	08/10/13 00:19	250
4,6-Dinitro-2-methylphenol	0.201	U	0.243	0.201	mg/L		08/05/13 09:23	08/10/13 00:19	250
N-Nitrosodiphenylamine	0.0243	U	0.121	0.0243	mg/L		08/05/13 09:23	08/10/13 00:19	250
1,2-Diphenylhydrazine	0.0267	U	0.121	0.0267	mg/L		08/05/13 09:23	08/10/13 00:19	250

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-77198-1

Client Sample ID: WG-1620-MW57A-20130731

Lab Sample ID: 600-77198-17

Date Collected: 07/31/13 09:35

Matrix: Water

Date Received: 07/31/13 17:43

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Pentachlorophenol	0.148	U	0.243	0.148	mg/L		08/05/13 09:23	08/10/13 00:19	250
Phenanthrene	1.61		0.121	0.0146	mg/L		08/05/13 09:23	08/10/13 00:19	250
Anthracene	0.337		0.121	0.0121	mg/L		08/05/13 09:23	08/10/13 00:19	250
Di-n-butyl phthalate	0.0267	U	0.607	0.0267	mg/L		08/05/13 09:23	08/10/13 00:19	250
Fluoranthene	0.412		0.121	0.0170	mg/L		08/05/13 09:23	08/10/13 00:19	250
Pyrene	0.264		0.121	0.0267	mg/L		08/05/13 09:23	08/10/13 00:19	250
Benzo[a]anthracene	0.0521	J	0.121	0.0194	mg/L		08/05/13 09:23	08/10/13 00:19	250
Bis(2-ethylhexyl) phthalate	0.0898	U	0.607	0.0898	mg/L		08/05/13 09:23	08/10/13 00:19	250
Chrysene	0.0482	J	0.121	0.0194	mg/L		08/05/13 09:23	08/10/13 00:19	250
Benzo[a]pyrene	0.0194	U	0.121	0.0194	mg/L		08/05/13 09:23	08/10/13 00:19	250
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	0	X	44 - 123				08/05/13 09:23	08/10/13 00:19	250
2-Fluorobiphenyl	0	X	43 - 120				08/05/13 09:23	08/10/13 00:19	250
2-Fluorophenol	0	X	18 - 120				08/05/13 09:23	08/10/13 00:19	250
Nitrobenzene-d5	0	X	47 - 120				08/05/13 09:23	08/10/13 00:19	250
Terphenyl-d14	0	X	33 - 141				08/05/13 09:23	08/10/13 00:19	250
Phenol-d5 (Surr)	0	X	12 - 128				08/05/13 09:23	08/10/13 00:19	250

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels - DL

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	13.5		12.1	0.194	mg/L		08/05/13 09:23	08/12/13 18:31	2500
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	0	X	44 - 123				08/05/13 09:23	08/12/13 18:31	2500
2-Fluorobiphenyl	0	X	43 - 120				08/05/13 09:23	08/12/13 18:31	2500
2-Fluorophenol	0	X	18 - 120				08/05/13 09:23	08/12/13 18:31	2500
Nitrobenzene-d5	0	X	47 - 120				08/05/13 09:23	08/12/13 18:31	2500
Terphenyl-d14	0	X	33 - 141				08/05/13 09:23	08/12/13 18:31	2500
Phenol-d5 (Surr)	0	X	12 - 128				08/05/13 09:23	08/12/13 18:31	2500

Client Sample ID: WG-1620-MW14-20130731

Lab Sample ID: 600-77198-18

Date Collected: 07/31/13 10:45

Matrix: Water

Date Received: 07/31/13 17:43

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			08/02/13 15:42	1
Benzene	0.0000800	U	0.00100	0.0000800	mg/L			08/02/13 15:42	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			08/02/13 15:42	1
Toluene	0.000150	U	0.00100	0.000150	mg/L			08/02/13 15:42	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			08/02/13 15:42	1
Ethylbenzene	0.000123	J	0.00100	0.000110	mg/L			08/02/13 15:42	1
Xylenes, Total	0.000260	U	0.00300	0.000260	mg/L			08/02/13 15:42	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	100		67 - 139					08/02/13 15:42	1
Dibromofluoromethane	80		62 - 130					08/02/13 15:42	1
Toluene-d8 (Surr)	90		70 - 130					08/02/13 15:42	1
1,2-Dichloroethane-d4 (Surr)	91		50 - 134					08/02/13 15:42	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-77198-1

Client Sample ID: WG-1620-MW14-20130731

Lab Sample ID: 600-77198-18

Date Collected: 07/31/13 10:45

Matrix: Water

Date Received: 07/31/13 17:43

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.000398	J	0.000485	0.0000388	mg/L		08/05/13 09:23	08/06/13 15:03	1
Nitrobenzene	0.000107	U	0.000485	0.000107	mg/L		08/05/13 09:23	08/06/13 15:03	1
2,4-Dimethylphenol	0.000301	U	0.000485	0.000301	mg/L		08/05/13 09:23	08/06/13 15:03	1
Bis(2-chloroethoxy)methane	0.000126	U	0.000485	0.000126	mg/L		08/05/13 09:23	08/06/13 15:03	1
Naphthalene	0.00216	J	0.00485	0.0000777	mg/L		08/05/13 09:23	08/06/13 15:03	1
2-Methylnaphthalene	0.000304	J	0.000485	0.0000680	mg/L		08/05/13 09:23	08/06/13 15:03	1
2-Chloronaphthalene	0.0000777	U	0.000485	0.0000777	mg/L		08/05/13 09:23	08/06/13 15:03	1
Acenaphthylene	0.0000583	U	0.000485	0.0000583	mg/L		08/05/13 09:23	08/06/13 15:03	1
2,6-Dinitrotoluene	0.0000777	U	0.000485	0.0000777	mg/L		08/05/13 09:23	08/06/13 15:03	1
Acenaphthene	0.000549		0.000485	0.0000777	mg/L		08/05/13 09:23	08/06/13 15:03	1
4-Nitrophenol	0.000544	U	0.000971	0.000544	mg/L		08/05/13 09:23	08/06/13 15:03	1
Dibenzofuran	0.000372	J	0.000485	0.0000777	mg/L		08/05/13 09:23	08/06/13 15:03	1
2,4-Dinitrotoluene	0.000126	U	0.000485	0.000126	mg/L		08/05/13 09:23	08/06/13 15:03	1
Fluorene	0.0000680	U	0.000485	0.0000680	mg/L		08/05/13 09:23	08/06/13 15:03	1
4,6-Dinitro-2-methylphenol	0.000806	U	0.000971	0.000806	mg/L		08/05/13 09:23	08/06/13 15:03	1
N-Nitrosodiphenylamine	0.0000971	U	0.000485	0.0000971	mg/L		08/05/13 09:23	08/06/13 15:03	1
1,2-Diphenylhydrazine	0.000107	U	0.000485	0.000107	mg/L		08/05/13 09:23	08/06/13 15:03	1
Pentachlorophenol	0.000592	U	0.000971	0.000592	mg/L		08/05/13 09:23	08/06/13 15:03	1
Phenanthrene	0.000662		0.000485	0.0000583	mg/L		08/05/13 09:23	08/06/13 15:03	1
Anthracene	0.000198	J	0.000485	0.0000485	mg/L		08/05/13 09:23	08/06/13 15:03	1
Di-n-butyl phthalate	0.000179	J	0.00243	0.000107	mg/L		08/05/13 09:23	08/06/13 15:03	1
Fluoranthene	0.000274	J	0.000485	0.0000680	mg/L		08/05/13 09:23	08/06/13 15:03	1
Pyrene	0.000164	J	0.000485	0.000107	mg/L		08/05/13 09:23	08/06/13 15:03	1
Benzo[a]anthracene	0.0000777	U	0.000485	0.0000777	mg/L		08/05/13 09:23	08/06/13 15:03	1
Bis(2-ethylhexyl) phthalate	0.000359	U	0.00243	0.000359	mg/L		08/05/13 09:23	08/06/13 15:03	1
Chrysene	0.0000777	U	0.000485	0.0000777	mg/L		08/05/13 09:23	08/06/13 15:03	1
Benzo[a]pyrene	0.0000777	U	0.000485	0.0000777	mg/L		08/05/13 09:23	08/06/13 15:03	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	90		44 - 123				08/05/13 09:23	08/06/13 15:03	1
2-Fluorobiphenyl	78		43 - 120				08/05/13 09:23	08/06/13 15:03	1
2-Fluorophenol	26		18 - 120				08/05/13 09:23	08/06/13 15:03	1
Nitrobenzene-d5	76		47 - 120				08/05/13 09:23	08/06/13 15:03	1
Terphenyl-d14	89		33 - 141				08/05/13 09:23	08/06/13 15:03	1
Phenol-d5 (Surr)	14		12 - 128				08/05/13 09:23	08/06/13 15:03	1

Client Sample ID: WG-1620-MW13-20130731

Lab Sample ID: 600-77198-19

Date Collected: 07/31/13 11:55

Matrix: Water

Date Received: 07/31/13 17:43

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			08/06/13 23:09	1
Benzene	0.0000800	U	0.00100	0.0000800	mg/L			08/06/13 23:09	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			08/06/13 23:09	1
Toluene	0.000150	U	0.00100	0.000150	mg/L			08/06/13 23:09	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			08/06/13 23:09	1
Ethylbenzene	0.000110	U	0.00100	0.000110	mg/L			08/06/13 23:09	1
Xylenes, Total	0.000260	U	0.00300	0.000260	mg/L			08/06/13 23:09	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-77198-1

Client Sample ID: WG-1620-MW13-20130731

Lab Sample ID: 600-77198-19

Date Collected: 07/31/13 11:55

Matrix: Water

Date Received: 07/31/13 17:43

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	124		67 - 139		08/06/13 23:09	1
Dibromofluoromethane	96		62 - 130		08/06/13 23:09	1
Toluene-d8 (Surr)	102		70 - 130		08/06/13 23:09	1
1,2-Dichloroethane-d4 (Surr)	93		50 - 134		08/06/13 23:09	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.000388	U	0.000485	0.000388	mg/L		08/05/13 09:23	08/08/13 03:47	1
Nitrobenzene	0.000107	U	0.000485	0.000107	mg/L		08/05/13 09:23	08/08/13 03:47	1
2,4-Dimethylphenol	0.000301	U	0.000485	0.000301	mg/L		08/05/13 09:23	08/08/13 03:47	1
Bis(2-chloroethoxy)methane	0.000126	U	0.000485	0.000126	mg/L		08/05/13 09:23	08/08/13 03:47	1
Naphthalene	0.000226	J	0.00485	0.0000777	mg/L		08/05/13 09:23	08/08/13 03:47	1
2-Methylnaphthalene	0.0000680	U	0.000485	0.0000680	mg/L		08/05/13 09:23	08/08/13 03:47	1
2-Chloronaphthalene	0.0000777	U	0.000485	0.0000777	mg/L		08/05/13 09:23	08/08/13 03:47	1
Acenaphthylene	0.0000715	J	0.000485	0.0000583	mg/L		08/05/13 09:23	08/08/13 03:47	1
2,6-Dinitrotoluene	0.0000777	U	0.000485	0.0000777	mg/L		08/05/13 09:23	08/08/13 03:47	1
Acenaphthene	0.0000777	U	0.000485	0.0000777	mg/L		08/05/13 09:23	08/08/13 03:47	1
4-Nitrophenol	0.000544	U	0.000971	0.000544	mg/L		08/05/13 09:23	08/08/13 03:47	1
Dibenzofuran	0.0000777	U	0.000485	0.0000777	mg/L		08/05/13 09:23	08/08/13 03:47	1
2,4-Dinitrotoluene	0.000126	U	0.000485	0.000126	mg/L		08/05/13 09:23	08/08/13 03:47	1
Fluorene	0.0000680	U	0.000485	0.0000680	mg/L		08/05/13 09:23	08/08/13 03:47	1
4,6-Dinitro-2-methylphenol	0.000806	U	0.000971	0.000806	mg/L		08/05/13 09:23	08/08/13 03:47	1
N-Nitrosodiphenylamine	0.0000971	U	0.000485	0.0000971	mg/L		08/05/13 09:23	08/08/13 03:47	1
1,2-Diphenylhydrazine	0.000107	U	0.000485	0.000107	mg/L		08/05/13 09:23	08/08/13 03:47	1
Pentachlorophenol	0.000592	U	0.000971	0.000592	mg/L		08/05/13 09:23	08/08/13 03:47	1
Phenanthrene	0.0000583	U	0.000485	0.0000583	mg/L		08/05/13 09:23	08/08/13 03:47	1
Anthracene	0.000878		0.000485	0.0000485	mg/L		08/05/13 09:23	08/08/13 03:47	1
Di-n-butyl phthalate	0.000211	J	0.00243	0.000107	mg/L		08/05/13 09:23	08/08/13 03:47	1
Fluoranthene	0.0000680	U	0.000485	0.0000680	mg/L		08/05/13 09:23	08/08/13 03:47	1
Pyrene	0.000107	U	0.000485	0.000107	mg/L		08/05/13 09:23	08/08/13 03:47	1
Benzo[a]anthracene	0.0000777	U	0.000485	0.0000777	mg/L		08/05/13 09:23	08/08/13 03:47	1
Bis(2-ethylhexyl) phthalate	0.000359	U	0.00243	0.000359	mg/L		08/05/13 09:23	08/08/13 03:47	1
Chrysene	0.0000777	U	0.000485	0.0000777	mg/L		08/05/13 09:23	08/08/13 03:47	1
Benzo[a]pyrene	0.0000777	U	0.000485	0.0000777	mg/L		08/05/13 09:23	08/08/13 03:47	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	106		44 - 123	08/05/13 09:23	08/08/13 03:47	1
2-Fluorobiphenyl	77		43 - 120	08/05/13 09:23	08/08/13 03:47	1
2-Fluorophenol	21		18 - 120	08/05/13 09:23	08/08/13 03:47	1
Nitrobenzene-d5	58		47 - 120	08/05/13 09:23	08/08/13 03:47	1
Terphenyl-d14	88		33 - 141	08/05/13 09:23	08/08/13 03:47	1
Phenol-d5 (Surr)	8	X	12 - 128	08/05/13 09:23	08/08/13 03:47	1

Client Sample ID: WG-1620-FB03-20130731

Lab Sample ID: 600-77198-20

Date Collected: 07/31/13 12:20

Matrix: Water

Date Received: 07/31/13 17:43

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			08/02/13 15:10	1
Benzene	0.0000800	U	0.00100	0.0000800	mg/L			08/02/13 15:10	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-77198-1

Client Sample ID: WG-1620-FB03-20130731

Lab Sample ID: 600-77198-20

Date Collected: 07/31/13 12:20

Matrix: Water

Date Received: 07/31/13 17:43

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			08/02/13 15:10	1
Toluene	0.000150	U	0.00100	0.000150	mg/L			08/02/13 15:10	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			08/02/13 15:10	1
Ethylbenzene	0.000110	U	0.00100	0.000110	mg/L			08/02/13 15:10	1
Xylenes, Total	0.000260	U	0.00300	0.000260	mg/L			08/02/13 15:10	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	96		67 - 139		08/02/13 15:10	1
Dibromofluoromethane	95		62 - 130		08/02/13 15:10	1
Toluene-d8 (Surr)	105		70 - 130		08/02/13 15:10	1
1,2-Dichloroethane-d4 (Surr)	88		50 - 134		08/02/13 15:10	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.0000388	U	0.000485	0.0000388	mg/L		08/05/13 09:23	08/08/13 04:15	1
Nitrobenzene	0.000107	U	0.000485	0.000107	mg/L		08/05/13 09:23	08/08/13 04:15	1
2,4-Dimethylphenol	0.000301	U	0.000485	0.000301	mg/L		08/05/13 09:23	08/08/13 04:15	1
Bis(2-chloroethoxy)methane	0.000126	U	0.000485	0.000126	mg/L		08/05/13 09:23	08/08/13 04:15	1
Naphthalene	0.0000857	J	0.00485	0.0000777	mg/L		08/05/13 09:23	08/08/13 04:15	1
2-Methylnaphthalene	0.0000680	U	0.000485	0.0000680	mg/L		08/05/13 09:23	08/08/13 04:15	1
2-Chloronaphthalene	0.0000777	U	0.000485	0.0000777	mg/L		08/05/13 09:23	08/08/13 04:15	1
Acenaphthylene	0.0000583	U	0.000485	0.0000583	mg/L		08/05/13 09:23	08/08/13 04:15	1
2,6-Dinitrotoluene	0.0000777	U	0.000485	0.0000777	mg/L		08/05/13 09:23	08/08/13 04:15	1
Acenaphthene	0.0000777	U	0.000485	0.0000777	mg/L		08/05/13 09:23	08/08/13 04:15	1
4-Nitrophenol	0.000544	U	0.000971	0.000544	mg/L		08/05/13 09:23	08/08/13 04:15	1
Dibenzofuran	0.0000777	U	0.000485	0.0000777	mg/L		08/05/13 09:23	08/08/13 04:15	1
2,4-Dinitrotoluene	0.000126	U	0.000485	0.000126	mg/L		08/05/13 09:23	08/08/13 04:15	1
Fluorene	0.0000680	U	0.000485	0.0000680	mg/L		08/05/13 09:23	08/08/13 04:15	1
4,6-Dinitro-2-methylphenol	0.000806	U	0.000971	0.000806	mg/L		08/05/13 09:23	08/08/13 04:15	1
N-Nitrosodiphenylamine	0.0000971	U	0.000485	0.0000971	mg/L		08/05/13 09:23	08/08/13 04:15	1
1,2-Diphenylhydrazine	0.000107	U	0.000485	0.000107	mg/L		08/05/13 09:23	08/08/13 04:15	1
Pentachlorophenol	0.000592	U	0.000971	0.000592	mg/L		08/05/13 09:23	08/08/13 04:15	1
Phenanthrene	0.0000583	U	0.000485	0.0000583	mg/L		08/05/13 09:23	08/08/13 04:15	1
Anthracene	0.0000485	U	0.000485	0.0000485	mg/L		08/05/13 09:23	08/08/13 04:15	1
Di-n-butyl phthalate	0.000108	J	0.00243	0.000107	mg/L		08/05/13 09:23	08/08/13 04:15	1
Fluoranthene	0.0000680	U	0.000485	0.0000680	mg/L		08/05/13 09:23	08/08/13 04:15	1
Pyrene	0.000107	U	0.000485	0.000107	mg/L		08/05/13 09:23	08/08/13 04:15	1
Benzo[a]anthracene	0.0000777	U	0.000485	0.0000777	mg/L		08/05/13 09:23	08/08/13 04:15	1
Bis(2-ethylhexyl) phthalate	0.000359	U	0.00243	0.000359	mg/L		08/05/13 09:23	08/08/13 04:15	1
Chrysene	0.0000777	U	0.000485	0.0000777	mg/L		08/05/13 09:23	08/08/13 04:15	1
Benzo[a]pyrene	0.0000777	U	0.000485	0.0000777	mg/L		08/05/13 09:23	08/08/13 04:15	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	75		44 - 123	08/05/13 09:23	08/08/13 04:15	1
2-Fluorobiphenyl	63		43 - 120	08/05/13 09:23	08/08/13 04:15	1
2-Fluorophenol	31		18 - 120	08/05/13 09:23	08/08/13 04:15	1
Nitrobenzene-d5	54		47 - 120	08/05/13 09:23	08/08/13 04:15	1
Terphenyl-d14	90		33 - 141	08/05/13 09:23	08/08/13 04:15	1
Phenol-d5 (Surr)	17		12 - 128	08/05/13 09:23	08/08/13 04:15	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-77198-1

Client Sample ID: WG-1620-TB01-20130731

Lab Sample ID: 600-77198-21

Date Collected: 07/31/13 00:00

Matrix: Water

Date Received: 07/31/13 17:43

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	0.000110	U	0.00200	0.000110	mg/L			08/06/13 22:17	1
Methylene Chloride	0.000466	J	0.00100	0.000150	mg/L			08/06/13 22:17	1
Benzene	0.0000800	U	0.00100	0.0000800	mg/L			08/06/13 22:17	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			08/06/13 22:17	1
Toluene	0.000150	U	0.00100	0.000150	mg/L			08/06/13 22:17	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			08/06/13 22:17	1
Ethylbenzene	0.000110	U	0.00100	0.000110	mg/L			08/06/13 22:17	1
Xylenes, Total	0.000260	U	0.00300	0.000260	mg/L			08/06/13 22:17	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	130		67 - 139					08/06/13 22:17	1
Dibromofluoromethane	97		62 - 130					08/06/13 22:17	1
Toluene-d8 (Surr)	107		70 - 130					08/06/13 22:17	1
1,2-Dichloroethane-d4 (Surr)	96		50 - 134					08/06/13 22:17	1

Definitions/Glossary

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-77198-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
J	Result is less than the MQL but greater than or equal to the SDL and the concentration is an estimated value.
U	Analyte was not detected at or above the SDL.
b	The compound was found in the blank and sample
X	Surrogate is outside control limits
N	RPD of the MS and MSD exceeds the control limits

GC/MS Semi VOA

Qualifier	Qualifier Description
U	Analyte was not detected at or above the SDL.
X	Surrogate is outside control limits
J	Result is less than the MQL but greater than or equal to the SDL and the concentration is an estimated value.
N	MS, MSD: Spike recovery exceeds upper or lower control limits.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Surrogate Summary

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-77198-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		BFB (67-139)	DBFM (62-130)	TOL (70-130)	12DCE (50-134)
600-77198-1 - DL	WG-1620-MW18A-20130729	106	98	96	106
600-77198-1	WG-1620-MW18A-20130729	118	98	104	99
600-77198-2	WG-1620-MW18C-20130729	101	95	97	100
600-77198-3	WG-1620-MW72B-20130729	109	89	102	100
600-77198-4	WG-1620-FB1-20130729	84	79	101	97
600-77198-5	WG-1620-MW17C-20130730	121	90	105	87
600-77198-6	WG-1620-MW17-20130730	106	82	100	101
600-77198-7	WG-1620-MW15B-20130730	120	89	103	85
600-77198-8	WG-1620-MW15C-20130730	122	88	105	85
600-77198-9	WG-1620-MW15A-20130730	124	88	105	84
600-77198-10	WG-1620-FB02-20130730	132	102	111	101
600-77198-11	WG-1620-MW73B-20130730	98	89	95	101
600-77198-12	WG-1620-MW55A-20130730	108	88	100	95
600-77198-13	WG-1620-MW55B-201300730	128	87	103	96
600-77198-14	WG-1620-MW19C-20130730	122	89	102	85
600-77198-15	WG-1620-MW23C-20130731	121	75	102	73
600-77198-16	WG-1620-MW57B-20130731	120	85	105	83
600-77198-16 MS	WG-1620-MW57B-20130731	120	104	108	100
600-77198-16 MSD	WG-1620-MW57B-20130731	114	93	104	87
600-77198-17	WG-1620-MW57A-20130731	120	84	102	82
600-77198-18	WG-1620-MW14-20130731	100	80	90	91
600-77198-18 MS	WG-1620-MW14-20130731	91	88	87	93
600-77198-18 MSD	WG-1620-MW14-20130731	96	86	91	92
600-77198-19	WG-1620-MW13-20130731	124	96	102	93
600-77198-20	WG-1620-FB03-20130731	96	95	105	88
600-77198-20 MS	WG-1620-FB03-20130731	83	67	141 X	85
600-77198-20 MSD	WG-1620-FB03-20130731	93	86	98	95
600-77198-21	WG-1620-TB01-20130731	130	97	107	96
LCS 600-112231/4	Lab Control Sample	91	85	91	96
LCS 600-112263/3	Lab Control Sample	95	100	90	100
LCS 600-112551/7	Lab Control Sample	123	94	107	91
LCS 600-112681/3	Lab Control Sample	133	94	117	90
MB 600-112231/6	Method Blank	99	85	93	96
MB 600-112263/4	Method Blank	133	71	106	87
MB 600-112551/8	Method Blank	128	95	108	94
MB 600-112681/4	Method Blank	123	80	101	77

Surrogate Legend

- BFB = 4-Bromofluorobenzene
- DBFM = Dibromofluoromethane
- TOL = Toluene-d8 (Surr)
- 12DCE = 1,2-Dichloroethane-d4 (Surr)

Surrogate Summary

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-77198-1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)					
		TBP (44-123)	FBP (43-120)	2FP (18-120)	NBZ (47-120)	TPH (33-141)	PHL (12-128)
600-77198-1	WG-1620-MW18A-20130729	0 X	0 X	0 X	0 X	0 X	0 X
600-77198-1 - DL	WG-1620-MW18A-20130729	0 X	0 X	0 X	0 X	0 X	0 X
600-77198-2	WG-1620-MW18C-20130729	0 X	0 X	0 X	0 X	0 X	0 X
600-77198-2 - DL	WG-1620-MW18C-20130729	0 X	0 X	0 X	0 X	0 X	0 X
600-77198-3	WG-1620-MW72B-20130729	0 X	0 X	0 X	0 X	0 X	0 X
600-77198-3 - DL	WG-1620-MW72B-20130729	0 X	0 X	0 X	0 X	0 X	0 X
600-77198-3 - DL2	WG-1620-MW72B-20130729	0 X	0 X	0 X	0 X	0 X	0 X
600-77198-4	WG-1620-FB1-20130729	81	78	39	70	88	17
600-77198-5	WG-1620-MW17C-20130730	0 X	0 X	0 X	0 X	0 X	0 X
600-77198-5 - DL	WG-1620-MW17C-20130730	0 X	0 X	0 X	0 X	0 X	0 X
600-77198-6	WG-1620-MW17-20130730	0 X	0 X	0 X	0 X	0 X	0 X
600-77198-6 - DL	WG-1620-MW17-20130730	0 X	0 X	0 X	0 X	0 X	0 X
600-77198-6 - DL2	WG-1620-MW17-20130730	0 X	0 X	0 X	0 X	0 X	0 X
600-77198-7	WG-1620-MW15B-20130730	93	85	45	83	91	22
600-77198-7 - DL	WG-1620-MW15B-20130730	106	104	24	69	106	0 X
600-77198-7 - DL2	WG-1620-MW15B-20130730	0 X	0 X	0 X	0 X	0 X	0 X
600-77198-8	WG-1620-MW15C-20130730	94	58	23	56	78	14
600-77198-8 - DL	WG-1620-MW15C-20130730	106	73	23	52	93	12
600-77198-9	WG-1620-MW15A-20130730	107	81	34	77	106	21
600-77198-9 - DL	WG-1620-MW15A-20130730	117	100	23	51	108	0 X
600-77198-9 - DL2	WG-1620-MW15A-20130730	0 X	0 X	0 X	0 X	0 X	0 X
600-77198-10	WG-1620-FB02-20130730	96	89	38	72	85	21
600-77198-11	WG-1620-MW73B-20130730	92	80	28	79	77	9 X
600-77198-12	WG-1620-MW55A-20130730	0 X	0 X	0 X	0 X	0 X	0 X
600-77198-12 - DL	WG-1620-MW55A-20130730	0 X	0 X	0 X	0 X	0 X	0 X
600-77198-13	WG-1620-MW55B-201300730	0 X	0 X	0 X	0 X	0 X	0 X
600-77198-13 - DL	WG-1620-MW55B-201300730	0 X	0 X	0 X	0 X	0 X	0 X
600-77198-13 - DL2	WG-1620-MW55B-201300730	0 X	0 X	0 X	0 X	0 X	0 X
600-77198-14	WG-1620-MW19C-20130730	98	84	25	78	73	13
600-77198-14 - DL	WG-1620-MW19C-20130730	82	85	0 X	92	89	0 X
600-77198-15	WG-1620-MW23C-20130731	0 X	0 X	0 X	0 X	0 X	0 X
600-77198-15 - DL	WG-1620-MW23C-20130731	0 X	0 X	0 X	0 X	0 X	0 X
600-77198-15 - DL2	WG-1620-MW23C-20130731	0 X	0 X	0 X	0 X	0 X	0 X
600-77198-16	WG-1620-MW57B-20130731	0 X	0 X	0 X	0 X	0 X	0 X
600-77198-16 - DL	WG-1620-MW57B-20130731	0 X	0 X	0 X	0 X	0 X	0 X
600-77198-17	WG-1620-MW57A-20130731	0 X	0 X	0 X	0 X	0 X	0 X
600-77198-17 - DL	WG-1620-MW57A-20130731	0 X	0 X	0 X	0 X	0 X	0 X
600-77198-18	WG-1620-MW14-20130731	90	78	26	76	89	14
600-77198-18 MS	WG-1620-MW14-20130731	93	70	38	70	86	26
600-77198-18 MSD	WG-1620-MW14-20130731	95	71	39	75	88	27
600-77198-19	WG-1620-MW13-20130731	106	77	21	58	88	8 X
600-77198-20	WG-1620-FB03-20130731	75	63	31	54	90	17
LCS 600-112345/2-A	Lab Control Sample	95	85	75	85	90	83
MB 600-112345/1-A	Method Blank	61	77	73	70	82	54

Surrogate Legend

TBP = 2,4,6-Tribromophenol
 FBP = 2-Fluorobiphenyl
 2FP = 2-Fluorophenol

Surrogate Summary

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-77198-1

NBZ = Nitrobenzene-d5
TPH = Terphenyl-d14
PHL = Phenol-d5 (Surr)

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QC Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-77198-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 600-112231/6

Matrix: Water

Analysis Batch: 112231

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	0.000110	U	0.00200	0.000110	mg/L			08/02/13 11:54	1
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			08/02/13 11:54	1
Benzene	0.0000800	U	0.00100	0.0000800	mg/L			08/02/13 11:54	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			08/02/13 11:54	1
Toluene	0.000150	U	0.00100	0.000150	mg/L			08/02/13 11:54	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			08/02/13 11:54	1
Ethylbenzene	0.000110	U	0.00100	0.000110	mg/L			08/02/13 11:54	1
Xylenes, Total	0.000260	U	0.00300	0.000260	mg/L			08/02/13 11:54	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	99		67 - 139		08/02/13 11:54	1
Dibromofluoromethane	85		62 - 130		08/02/13 11:54	1
Toluene-d8 (Surr)	93		70 - 130		08/02/13 11:54	1
1,2-Dichloroethane-d4 (Surr)	96		50 - 134		08/02/13 11:54	1

Lab Sample ID: LCS 600-112231/4

Matrix: Water

Analysis Batch: 112231

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Vinyl chloride	0.0100	0.007940		mg/L		79	47 - 146
Methylene Chloride	0.0100	0.008651		mg/L		87	62 - 134
Benzene	0.0100	0.009822		mg/L		98	69 - 131
1,2-Dichloroethane	0.0100	0.01135		mg/L		113	66 - 140
Toluene	0.0100	0.009623		mg/L		96	67 - 130
Chlorobenzene	0.0100	0.009428		mg/L		94	60 - 136
Ethylbenzene	0.0100	0.01006		mg/L		101	68 - 128
Xylenes, Total	0.0300	0.02963		mg/L		99	68 - 132

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene	91		67 - 139
Dibromofluoromethane	85		62 - 130
Toluene-d8 (Surr)	91		70 - 130
1,2-Dichloroethane-d4 (Surr)	96		50 - 134

Lab Sample ID: 600-77198-18 MS

Matrix: Water

Analysis Batch: 112231

Client Sample ID: WG-1620-MW14-20130731

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Vinyl chloride	0.000110		0.0100	0.008386		mg/L		84	60 - 140
Methylene Chloride	0.000150	U	0.0100	0.006660		mg/L		67	60 - 140
Benzene	0.0000800	U	0.0100	0.009743		mg/L		97	65 - 125
1,2-Dichloroethane	0.000140	U	0.0100	0.01091		mg/L		109	60 - 140
Toluene	0.000150	U	0.0100	0.008977		mg/L		90	76 - 125
Chlorobenzene	0.000120	U	0.0100	0.009055		mg/L		91	72 - 122
Ethylbenzene	0.000123	J	0.0100	0.009580		mg/L		95	60 - 140

TestAmerica Houston

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-77198-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 600-77198-18 MS

Matrix: Water

Analysis Batch: 112231

Client Sample ID: WG-1620-MW14-20130731

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Xylenes, Total	0.000260	U	0.0300	0.02835		mg/L		94	60 - 140
Surrogate	%Recovery	MS Qualifier	Limits						
4-Bromofluorobenzene	91		67 - 139						
Dibromofluoromethane	88		62 - 130						
Toluene-d8 (Surr)	87		70 - 130						
1,2-Dichloroethane-d4 (Surr)	93		50 - 134						

Lab Sample ID: 600-77198-18 MSD

Matrix: Water

Analysis Batch: 112231

Client Sample ID: WG-1620-MW14-20130731

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Vinyl chloride	0.000110		0.0100	0.007821		mg/L		78	60 - 140	7	30
Methylene Chloride	0.000150	U	0.0100	0.006803		mg/L		68	60 - 140	2	30
Benzene	0.0000800	U	0.0100	0.009906		mg/L		99	65 - 125	2	30
1,2-Dichloroethane	0.000140	U	0.0100	0.01131		mg/L		113	60 - 140	4	30
Toluene	0.000150	U	0.0100	0.009727		mg/L		97	76 - 125	8	30
Chlorobenzene	0.000120	U	0.0100	0.009584		mg/L		96	72 - 122	6	30
Ethylbenzene	0.000123	J	0.0100	0.01030		mg/L		102	60 - 140	7	30
Xylenes, Total	0.000260	U	0.0300	0.02981		mg/L		99	60 - 140	5	30
Surrogate	%Recovery	MSD Qualifier	Limits								
4-Bromofluorobenzene	96		67 - 139								
Dibromofluoromethane	86		62 - 130								
Toluene-d8 (Surr)	91		70 - 130								
1,2-Dichloroethane-d4 (Surr)	92		50 - 134								

Lab Sample ID: MB 600-112263/4

Matrix: Water

Analysis Batch: 112263

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	0.000110	U	0.00200	0.000110	mg/L			08/02/13 14:42	1
Methylene Chloride	0.001503		0.00100	0.000150	mg/L			08/02/13 14:42	1
Benzene	0.0000800	U	0.00100	0.0000800	mg/L			08/02/13 14:42	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			08/02/13 14:42	1
Toluene	0.000150	U	0.00100	0.000150	mg/L			08/02/13 14:42	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			08/02/13 14:42	1
Ethylbenzene	0.000110	U	0.00100	0.000110	mg/L			08/02/13 14:42	1
Xylenes, Total	0.000260	U	0.00300	0.000260	mg/L			08/02/13 14:42	1
Surrogate	%Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	133		67 - 139					08/02/13 14:42	1
Dibromofluoromethane	71		62 - 130					08/02/13 14:42	1
Toluene-d8 (Surr)	106		70 - 130					08/02/13 14:42	1
1,2-Dichloroethane-d4 (Surr)	87		50 - 134					08/02/13 14:42	1

TestAmerica Houston

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-77198-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 600-112263/3

Matrix: Water

Analysis Batch: 112263

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Vinyl chloride	0.0100	0.008297		mg/L		83	47 - 146
Methylene Chloride	0.0100	0.007588		mg/L		76	62 - 134
Benzene	0.0100	0.008304		mg/L		83	69 - 131
1,2-Dichloroethane	0.0100	0.01112		mg/L		111	66 - 140
Toluene	0.0100	0.008082		mg/L		81	67 - 130
Chlorobenzene	0.0100	0.008754		mg/L		88	60 - 136
Ethylbenzene	0.0100	0.009276		mg/L		93	68 - 128
Xylenes, Total	0.0300	0.02663		mg/L		89	68 - 132

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene	95		67 - 139
Dibromofluoromethane	100		62 - 130
Toluene-d8 (Surr)	90		70 - 130
1,2-Dichloroethane-d4 (Surr)	100		50 - 134

Lab Sample ID: 600-77198-20 MS

Matrix: Water

Analysis Batch: 112263

Client Sample ID: WG-1620-FB03-20130731

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Vinyl chloride	0.000110		0.0100	0.006603		mg/L		66	60 - 140
Methylene Chloride	0.000150	U	0.0100	0.008882		mg/L		89	60 - 140
Benzene	0.0000800	U	0.0100	0.009479		mg/L		95	65 - 125
1,2-Dichloroethane	0.000140	U	0.0100	0.009184		mg/L		92	60 - 140
Toluene	0.000150	U	0.0100	0.01252		mg/L		125	76 - 125
Chlorobenzene	0.000120	U	0.0100	0.008979		mg/L		90	72 - 122
Ethylbenzene	0.000110	U	0.0100	0.009469		mg/L		95	60 - 140
Xylenes, Total	0.000260	U	0.0300	0.02714		mg/L		90	60 - 140

Surrogate	MS %Recovery	MS Qualifier	Limits
4-Bromofluorobenzene	83		67 - 139
Dibromofluoromethane	67		62 - 130
Toluene-d8 (Surr)	141	X	70 - 130
1,2-Dichloroethane-d4 (Surr)	85		50 - 134

Lab Sample ID: 600-77198-20 MSD

Matrix: Water

Analysis Batch: 112263

Client Sample ID: WG-1620-FB03-20130731

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Vinyl chloride	0.000110		0.0100	0.009224	N	mg/L		92	60 - 140	33	30
Methylene Chloride	0.000150	U	0.0100	0.006999		mg/L		70	60 - 140	24	30
Benzene	0.0000800	U	0.0100	0.009200		mg/L		92	65 - 125	3	30
1,2-Dichloroethane	0.000140	U	0.0100	0.01145		mg/L		114	60 - 140	22	30
Toluene	0.000150	U	0.0100	0.009115	N	mg/L		91	76 - 125	32	30
Chlorobenzene	0.000120	U	0.0100	0.008838		mg/L		88	72 - 122	2	30
Ethylbenzene	0.000110	U	0.0100	0.009546		mg/L		95	60 - 140	1	30

TestAmerica Houston

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-77198-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 600-77198-20 MSD

Client Sample ID: WG-1620-FB03-20130731

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 112263

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Xylenes, Total	0.000260	U	0.0300	0.02898		mg/L		97	60 - 140	7	30
Surrogate	%Recovery	MSD Qualifier	Limits								
4-Bromofluorobenzene	93		67 - 139								
Dibromofluoromethane	86		62 - 130								
Toluene-d8 (Surr)	98		70 - 130								
1,2-Dichloroethane-d4 (Surr)	95		50 - 134								

Lab Sample ID: MB 600-112551/8

Client Sample ID: Method Blank

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 112551

Analyte	MB Result	MB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	0.000110	U	0.00200	0.000110	mg/L			08/06/13 19:11	1
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			08/06/13 19:11	1
Benzene	0.0000800	U	0.00100	0.0000800	mg/L			08/06/13 19:11	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			08/06/13 19:11	1
Toluene	0.000150	U	0.00100	0.000150	mg/L			08/06/13 19:11	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			08/06/13 19:11	1
Ethylbenzene	0.000110	U	0.00100	0.000110	mg/L			08/06/13 19:11	1
Xylenes, Total	0.000260	U	0.00300	0.000260	mg/L			08/06/13 19:11	1
Surrogate	%Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	128		67 - 139					08/06/13 19:11	1
Dibromofluoromethane	95		62 - 130					08/06/13 19:11	1
Toluene-d8 (Surr)	108		70 - 130					08/06/13 19:11	1
1,2-Dichloroethane-d4 (Surr)	94		50 - 134					08/06/13 19:11	1

Lab Sample ID: LCS 600-112551/7

Client Sample ID: Lab Control Sample

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 112551

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Vinyl chloride	0.0100	0.01041		mg/L		104	47 - 146
Methylene Chloride	0.0100	0.01120		mg/L		112	62 - 134
Benzene	0.0100	0.01090		mg/L		109	69 - 131
1,2-Dichloroethane	0.0100	0.01022		mg/L		102	66 - 140
Toluene	0.0100	0.01093		mg/L		109	67 - 130
Chlorobenzene	0.0100	0.01009		mg/L		101	60 - 136
Ethylbenzene	0.0100	0.01134		mg/L		113	68 - 128
Xylenes, Total	0.0300	0.03282		mg/L		109	68 - 132
Surrogate	%Recovery	LCS Qualifier	Limits				
4-Bromofluorobenzene	123		67 - 139				
Dibromofluoromethane	94		62 - 130				
Toluene-d8 (Surr)	107		70 - 130				
1,2-Dichloroethane-d4 (Surr)	91		50 - 134				

TestAmerica Houston

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-77198-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 600-112681/4

Matrix: Water

Analysis Batch: 112681

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB MB		MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Vinyl chloride	0.000110	U	0.00200	0.000110	mg/L			08/08/13 11:40	1
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			08/08/13 11:40	1
Benzene	0.0000800	U	0.00100	0.0000800	mg/L			08/08/13 11:40	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			08/08/13 11:40	1
Toluene	0.000150	U	0.00100	0.000150	mg/L			08/08/13 11:40	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			08/08/13 11:40	1
Ethylbenzene	0.000110	U	0.00100	0.000110	mg/L			08/08/13 11:40	1
Xylenes, Total	0.000260	U	0.00300	0.000260	mg/L			08/08/13 11:40	1

Surrogate	MB MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
4-Bromofluorobenzene	123		67 - 139		08/08/13 11:40	1
Dibromofluoromethane	80		62 - 130		08/08/13 11:40	1
Toluene-d8 (Surr)	101		70 - 130		08/08/13 11:40	1
1,2-Dichloroethane-d4 (Surr)	77		50 - 134		08/08/13 11:40	1

Lab Sample ID: LCS 600-112681/3

Matrix: Water

Analysis Batch: 112681

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS LCS		Unit	D	%Rec	%Rec. Limits
		Result	Qualifier				
Vinyl chloride	0.0100	0.01141		mg/L		114	47 - 146
Methylene Chloride	0.0100	0.009526		mg/L		95	62 - 134
Benzene	0.0100	0.01147		mg/L		115	69 - 131
1,2-Dichloroethane	0.0100	0.01041		mg/L		104	66 - 140
Toluene	0.0100	0.01174		mg/L		117	67 - 130
Chlorobenzene	0.0100	0.01093		mg/L		109	60 - 136
Ethylbenzene	0.0100	0.01227		mg/L		123	68 - 128
Xylenes, Total	0.0300	0.03558		mg/L		119	68 - 132

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene	133		67 - 139
Dibromofluoromethane	94		62 - 130
Toluene-d8 (Surr)	117		70 - 130
1,2-Dichloroethane-d4 (Surr)	90		50 - 134

Lab Sample ID: 600-77198-16 MS

Matrix: Water

Analysis Batch: 112681

Client Sample ID: WG-1620-MW57B-20130731

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS MS		Unit	D	%Rec	%Rec. Limits
				Result	Qualifier				
Vinyl chloride	0.0110		1.00	1.285		mg/L		129	60 - 140
Methylene Chloride	0.0405	J	1.00	1.161		mg/L		112	60 - 140
Benzene	1.49		1.00	2.564		mg/L		108	65 - 125
1,2-Dichloroethane	0.0140	U	1.00	1.041		mg/L		104	60 - 140
Toluene	1.62		1.00	2.664		mg/L		105	76 - 125
Chlorobenzene	0.0120	U	1.00	1.050		mg/L		105	72 - 122
Ethylbenzene	0.501		1.00	1.676		mg/L		117	60 - 140

TestAmerica Houston

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-77198-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 600-77198-16 MS

Client Sample ID: WG-1620-MW57B-20130731

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 112681

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Xylenes, Total	1.40		3.00	4.762		mg/L		112	60 - 140
Surrogate	%Recovery	MS Qualifier	MS Limits						
4-Bromofluorobenzene	120		67 - 139						
Dibromofluoromethane	104		62 - 130						
Toluene-d8 (Surr)	108		70 - 130						
1,2-Dichloroethane-d4 (Surr)	100		50 - 134						

Lab Sample ID: 600-77198-16 MSD

Client Sample ID: WG-1620-MW57B-20130731

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 112681

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Vinyl chloride	0.0110		1.00	1.176		mg/L		118	60 - 140	9	30
Methylene Chloride	0.0405	J	1.00	1.049		mg/L		101	60 - 140	10	30
Benzene	1.49		1.00	2.489		mg/L		100	65 - 125	3	30
1,2-Dichloroethane	0.0140	U	1.00	0.9979		mg/L		100	60 - 140	4	30
Toluene	1.62		1.00	2.633		mg/L		102	76 - 125	1	30
Chlorobenzene	0.0120	U	1.00	1.023		mg/L		102	72 - 122	3	30
Ethylbenzene	0.501		1.00	1.652		mg/L		115	60 - 140	1	30
Xylenes, Total	1.40		3.00	4.658		mg/L		109	60 - 140	2	30
Surrogate	%Recovery	MSD Qualifier	MSD Limits								
4-Bromofluorobenzene	114		67 - 139								
Dibromofluoromethane	93		62 - 130								
Toluene-d8 (Surr)	104		70 - 130								
1,2-Dichloroethane-d4 (Surr)	87		50 - 134								

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Lab Sample ID: MB 600-112345/1-A

Client Sample ID: Method Blank

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 112642

Prep Batch: 112345

Analyte	MB Result	MB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.000400	U	0.000500	0.000400	mg/L		08/05/13 09:23	08/06/13 14:04	1
Nitrobenzene	0.000110	U	0.000500	0.000110	mg/L		08/05/13 09:23	08/06/13 14:04	1
2,4-Dimethylphenol	0.000310	U	0.000500	0.000310	mg/L		08/05/13 09:23	08/06/13 14:04	1
Bis(2-chloroethoxy)methane	0.000130	U	0.000500	0.000130	mg/L		08/05/13 09:23	08/06/13 14:04	1
Naphthalene	0.0000800	U	0.000500	0.0000800	mg/L		08/05/13 09:23	08/06/13 14:04	1
2-Methylnaphthalene	0.0000700	U	0.000500	0.0000700	mg/L		08/05/13 09:23	08/06/13 14:04	1
2-Chloronaphthalene	0.0000800	U	0.000500	0.0000800	mg/L		08/05/13 09:23	08/06/13 14:04	1
Acenaphthylene	0.0000600	U	0.000500	0.0000600	mg/L		08/05/13 09:23	08/06/13 14:04	1
2,6-Dinitrotoluene	0.0000800	U	0.000500	0.0000800	mg/L		08/05/13 09:23	08/06/13 14:04	1
Acenaphthene	0.0000800	U	0.000500	0.0000800	mg/L		08/05/13 09:23	08/06/13 14:04	1
4-Nitrophenol	0.000560	U	0.00100	0.000560	mg/L		08/05/13 09:23	08/06/13 14:04	1
Dibenzofuran	0.0000800	U	0.000500	0.0000800	mg/L		08/05/13 09:23	08/06/13 14:04	1

TestAmerica Houston

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-77198-1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Lab Sample ID: MB 600-112345/1-A

Matrix: Water

Analysis Batch: 112642

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 112345

Analyte	MB Result	MB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-Dinitrotoluene	0.000130	U	0.000500	0.000130	mg/L		08/05/13 09:23	08/06/13 14:04	1
Fluorene	0.0000700	U	0.000500	0.0000700	mg/L		08/05/13 09:23	08/06/13 14:04	1
4,6-Dinitro-2-methylphenol	0.000830	U	0.00100	0.000830	mg/L		08/05/13 09:23	08/06/13 14:04	1
N-Nitrosodiphenylamine	0.000100	U	0.000500	0.000100	mg/L		08/05/13 09:23	08/06/13 14:04	1
1,2-Diphenylhydrazine	0.000110	U	0.000500	0.000110	mg/L		08/05/13 09:23	08/06/13 14:04	1
Pentachlorophenol	0.000610	U	0.00100	0.000610	mg/L		08/05/13 09:23	08/06/13 14:04	1
Phenanthrene	0.0000600	U	0.000500	0.0000600	mg/L		08/05/13 09:23	08/06/13 14:04	1
Anthracene	0.0000500	U	0.000500	0.0000500	mg/L		08/05/13 09:23	08/06/13 14:04	1
Di-n-butyl phthalate	0.000110	U	0.00250	0.000110	mg/L		08/05/13 09:23	08/06/13 14:04	1
Fluoranthene	0.0000700	U	0.000500	0.0000700	mg/L		08/05/13 09:23	08/06/13 14:04	1
Pyrene	0.000110	U	0.000500	0.000110	mg/L		08/05/13 09:23	08/06/13 14:04	1
Benzo[a]anthracene	0.0000800	U	0.000500	0.0000800	mg/L		08/05/13 09:23	08/06/13 14:04	1
Bis(2-ethylhexyl) phthalate	0.000370	U	0.00250	0.000370	mg/L		08/05/13 09:23	08/06/13 14:04	1
Chrysene	0.0000800	U	0.000500	0.0000800	mg/L		08/05/13 09:23	08/06/13 14:04	1
Benzo[a]pyrene	0.0000800	U	0.000500	0.0000800	mg/L		08/05/13 09:23	08/06/13 14:04	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	61		44 - 123	08/05/13 09:23	08/06/13 14:04	1
2-Fluorobiphenyl	77		43 - 120	08/05/13 09:23	08/06/13 14:04	1
2-Fluorophenol	73		18 - 120	08/05/13 09:23	08/06/13 14:04	1
Nitrobenzene-d5	70		47 - 120	08/05/13 09:23	08/06/13 14:04	1
Terphenyl-d14	82		33 - 141	08/05/13 09:23	08/06/13 14:04	1
Phenol-d5 (Surr)	54		12 - 128	08/05/13 09:23	08/06/13 14:04	1

Lab Sample ID: LCS 600-112345/2-A

Matrix: Water

Analysis Batch: 112642

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 112345

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Phenol	0.0100	0.007601		mg/L		76	11 - 112
Nitrobenzene	0.0100	0.007554		mg/L		76	42 - 119
2,4-Dimethylphenol	0.0100	0.007676		mg/L		77	36 - 109
Bis(2-chloroethoxy)methane	0.0100	0.007092		mg/L		71	42 - 119
Naphthalene	0.0100	0.007678		mg/L		77	39 - 120
2-Methylnaphthalene	0.0100	0.007678		mg/L		77	40 - 121
2-Chloronaphthalene	0.0100	0.007321		mg/L		73	43 - 120
Acenaphthylene	0.0100	0.007413		mg/L		74	35 - 135
2,6-Dinitrotoluene	0.0100	0.007189		mg/L		72	45 - 122
Acenaphthene	0.0100	0.007188		mg/L		72	47 - 145
4-Nitrophenol	0.0200	0.01504		mg/L		75	14 - 132
Dibenzofuran	0.0100	0.007257		mg/L		73	46 - 123
2,4-Dinitrotoluene	0.0100	0.007728		mg/L		77	43 - 128
Fluorene	0.0100	0.007162		mg/L		72	48 - 127
4,6-Dinitro-2-methylphenol	0.0200	0.004851		mg/L		24	24 - 122
N-Nitrosodiphenylamine	0.0100	0.008514		mg/L		85	43 - 107
1,2-Diphenylhydrazine	0.0100	0.007276		mg/L		73	47 - 117
Pentachlorophenol	0.0200	0.01141		mg/L		57	9 - 147
Phenanthrene	0.0100	0.007832		mg/L		78	52 - 121

TestAmerica Houston

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-77198-1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Lab Sample ID: LCS 600-112345/2-A

Matrix: Water

Analysis Batch: 112642

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 112345

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Anthracene	0.0100	0.008014		mg/L		80	53 - 124
Di-n-butyl phthalate	0.0100	0.009229		mg/L		92	54 - 138
Fluoranthene	0.0100	0.008208		mg/L		82	53 - 127
Pyrene	0.0100	0.008543		mg/L		85	49 - 121
Benzo[a]anthracene	0.0100	0.008139		mg/L		81	53 - 122
Bis(2-ethylhexyl) phthalate	0.0100	0.009351		mg/L		94	47 - 132
Chrysene	0.0100	0.008579		mg/L		86	49 - 124
Benzo[a]pyrene	0.0100	0.007722		mg/L		77	50 - 124

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2,4,6-Tribromophenol	95		44 - 123
2-Fluorobiphenyl	85		43 - 120
2-Fluorophenol	75		18 - 120
Nitrobenzene-d5	85		47 - 120
Terphenyl-d14	90		33 - 141
Phenol-d5 (Surr)	83		12 - 128

Lab Sample ID: 600-77198-18 MS

Matrix: Water

Analysis Batch: 112642

Client Sample ID: WG-1620-MW14-20130731

Prep Type: Total/NA

Prep Batch: 112345

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Phenol	0.000398	J	0.0100	0.002863		mg/L		25	10 - 62
Nitrobenzene	0.000107	U	0.0100	0.006539		mg/L		65	37 - 104
2,4-Dimethylphenol	0.000301	U	0.0100	0.003946		mg/L		39	25 - 85
Bis(2-chloroethoxy)methane	0.000126	U	0.0100	0.006255		mg/L		63	42 - 101
Naphthalene	0.00216	J	0.0100	0.007961		mg/L		58	34 - 99
2-Methylnaphthalene	0.000304	J	0.0100	0.006507		mg/L		62	36 - 111
2-Chloronaphthalene	0.0000777	U	0.0100	0.006269		mg/L		63	42 - 100
Acenaphthylene	0.0000583	U	0.0100	0.006591		mg/L		66	38 - 115
2,6-Dinitrotoluene	0.0000777	U	0.0100	0.09194	N	mg/L		919	47 - 118
Acenaphthene	0.000549		0.0100	0.007127		mg/L		66	46 - 118
4-Nitrophenol	0.000544	U	0.0200	0.000560	U N	mg/L		0	10 - 100
Dibenzofuran	0.000372	J	0.0100	0.006929		mg/L		66	46 - 110
2,4-Dinitrotoluene	0.000126	U	0.0100	0.006781		mg/L		68	41 - 125
Fluorene	0.0000680	U	0.0100	0.006883		mg/L		69	44 - 112
4,6-Dinitro-2-methylphenol	0.000806	U	0.0200	0.006982		mg/L		35	28 - 128
N-Nitrosodiphenylamine	0.0000971	U	0.0100	0.007288		mg/L		73	58 - 142
1,2-Diphenylhydrazine	0.000107	U	0.0100	0.006574		mg/L		66	10 - 130
Pentachlorophenol	0.000592	U	0.0200	0.01565		mg/L		78	45 - 155
Phenanthrene	0.000662		0.0100	0.007595		mg/L		69	41 - 117
Anthracene	0.000198	J	0.0100	0.006736		mg/L		65	35 - 116
Di-n-butyl phthalate	0.000179	J	0.0100	0.008611		mg/L		84	31 - 137
Fluoranthene	0.000274	J	0.0100	0.007664		mg/L		74	14 - 145
Pyrene	0.000164	J	0.0100	0.008221		mg/L		81	28 - 133
Benzo[a]anthracene	0.0000777	U	0.0100	0.007811		mg/L		78	24 - 126
Bis(2-ethylhexyl) phthalate	0.000359	U	0.0100	0.008840		mg/L		88	14 - 123
Chrysene	0.0000777	U	0.0100	0.007420		mg/L		74	23 - 128

TestAmerica Houston

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-77198-1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Lab Sample ID: 600-77198-18 MS

Matrix: Water

Analysis Batch: 112642

Client Sample ID: WG-1620-MW14-20130731

Prep Type: Total/NA

Prep Batch: 112345

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzo[a]pyrene	0.0000777	U	0.0100	0.006309		mg/L		63	60 - 140

Surrogate	MS %Recovery	MS Qualifier	Limits
2,4,6-Tribromophenol	93		44 - 123
2-Fluorobiphenyl	70		43 - 120
2-Fluorophenol	38		18 - 120
Nitrobenzene-d5	70		47 - 120
Terphenyl-d14	86		33 - 141
Phenol-d5 (Surr)	26		12 - 128

Lab Sample ID: 600-77198-18 MSD

Matrix: Water

Analysis Batch: 112642

Client Sample ID: WG-1620-MW14-20130731

Prep Type: Total/NA

Prep Batch: 112345

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Phenol	0.000398	J	0.0100	0.002911		mg/L		25	10 - 62	2	20
Nitrobenzene	0.000107	U	0.0100	0.006879		mg/L		69	37 - 104	5	20
2,4-Dimethylphenol	0.000301	U	0.0100	0.003556		mg/L		36	25 - 85	10	20
Bis(2-chloroethoxy)methane	0.000126	U	0.0100	0.006214		mg/L		62	42 - 101	1	20
Naphthalene	0.00216	J	0.0100	0.008248		mg/L		61	34 - 99	4	20
2-Methylnaphthalene	0.000304	J	0.0100	0.006859		mg/L		66	36 - 111	5	20
2-Chloronaphthalene	0.0000777	U	0.0100	0.006512		mg/L		65	42 - 100	4	20
Acenaphthylene	0.0000583	U	0.0100	0.006853		mg/L		69	38 - 115	4	20
2,6-Dinitrotoluene	0.0000777	U	0.0100	0.09209	N	mg/L		921	47 - 118	0	20
Acenaphthene	0.000549		0.0100	0.007176		mg/L		66	46 - 118	1	20
4-Nitrophenol	0.000544	U	0.0200	0.005320		mg/L		27	10 - 100	NC	20
Dibenzofuran	0.000372	J	0.0100	0.007454		mg/L		71	46 - 110	7	20
2,4-Dinitrotoluene	0.000126	U	0.0100	0.007542		mg/L		75	41 - 125	11	20
Fluorene	0.0000680	U	0.0100	0.007106		mg/L		71	44 - 112	3	20
4,6-Dinitro-2-methylphenol	0.000806	U	0.0200	0.007478		mg/L		37	28 - 128	7	20
N-Nitrosodiphenylamine	0.0000971	U	0.0100	0.007899		mg/L		79	58 - 142	8	20
1,2-Diphenylhydrazine	0.000107	U	0.0100	0.007693		mg/L		77	10 - 130	16	20
Pentachlorophenol	0.000592	U	0.0200	0.01563		mg/L		78	45 - 155	0	20
Phenanthrene	0.000662		0.0100	0.007706		mg/L		70	41 - 117	1	20
Anthracene	0.000198	J	0.0100	0.007163		mg/L		70	35 - 116	6	20
Di-n-butyl phthalate	0.000179	J	0.0100	0.009006		mg/L		88	31 - 137	4	20
Fluoranthene	0.000274	J	0.0100	0.007743		mg/L		75	14 - 145	1	20
Pyrene	0.000164	J	0.0100	0.008537		mg/L		84	28 - 133	4	20
Benzo[a]anthracene	0.0000777	U	0.0100	0.008124		mg/L		81	24 - 126	4	20
Bis(2-ethylhexyl) phthalate	0.000359	U	0.0100	0.009177		mg/L		92	14 - 123	4	20
Chrysene	0.0000777	U	0.0100	0.007742		mg/L		77	23 - 128	4	20
Benzo[a]pyrene	0.0000777	U	0.0100	0.006815		mg/L		68	60 - 140	8	20

Surrogate	MSD %Recovery	MSD Qualifier	Limits
2,4,6-Tribromophenol	95		44 - 123
2-Fluorobiphenyl	71		43 - 120
2-Fluorophenol	39		18 - 120

TestAmerica Houston

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-77198-1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Lab Sample ID: 600-77198-18 MSD

Matrix: Water

Analysis Batch: 112642

Client Sample ID: WG-1620-MW14-20130731

Prep Type: Total/NA

Prep Batch: 112345

<i>Surrogate</i>	<i>MSD MSD</i>		<i>Limits</i>
	<i>%Recovery</i>	<i>Qualifier</i>	
<i>Nitrobenzene-d5</i>	75		47 - 120
<i>Terphenyl-d14</i>	88		33 - 141
<i>Phenol-d5 (Surr)</i>	27		12 - 128

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Unadjusted Detection Limits

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-77198-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	MQL	MDL	Units	Method
1,2-Dichloroethane	0.00100	0.000140	mg/L	8260B
Benzene	0.00100	0.0000800	mg/L	8260B
Chlorobenzene	0.00100	0.000120	mg/L	8260B
Ethylbenzene	0.00100	0.000110	mg/L	8260B
Methylene Chloride	0.00100	0.000150	mg/L	8260B
Toluene	0.00100	0.000150	mg/L	8260B
Vinyl chloride	0.00200	0.000110	mg/L	8260B
Xylenes, Total	0.00300	0.000260	mg/L	8260B

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	MQL	MDL	Units	Method
1,2-Diphenylhydrazine	0.000500	0.000110	mg/L	8270C LL
2,4-Dimethylphenol	0.000500	0.000310	mg/L	8270C LL
2,4-Dinitrotoluene	0.000500	0.000130	mg/L	8270C LL
2,6-Dinitrotoluene	0.000500	0.0000800	mg/L	8270C LL
2-Chloronaphthalene	0.000500	0.0000800	mg/L	8270C LL
2-Methylnaphthalene	0.000500	0.0000700	mg/L	8270C LL
4,6-Dinitro-2-methylphenol	0.00100	0.000830	mg/L	8270C LL
4-Nitrophenol	0.00100	0.000560	mg/L	8270C LL
Acenaphthene	0.000500	0.0000800	mg/L	8270C LL
Acenaphthylene	0.000500	0.0000600	mg/L	8270C LL
Anthracene	0.000500	0.0000500	mg/L	8270C LL
Benzo[a]anthracene	0.000500	0.0000800	mg/L	8270C LL
Benzo[a]pyrene	0.000500	0.0000800	mg/L	8270C LL
Bis(2-chloroethoxy)methane	0.000500	0.000130	mg/L	8270C LL
Bis(2-ethylhexyl) phthalate	0.00250	0.000370	mg/L	8270C LL
Chrysene	0.000500	0.0000800	mg/L	8270C LL
Dibenzofuran	0.000500	0.0000800	mg/L	8270C LL
Di-n-butyl phthalate	0.00250	0.000110	mg/L	8270C LL
Fluoranthene	0.000500	0.0000700	mg/L	8270C LL
Fluorene	0.000500	0.0000700	mg/L	8270C LL
Naphthalene	0.00500	0.0000800	mg/L	8270C LL
Nitrobenzene	0.000500	0.000110	mg/L	8270C LL
N-Nitrosodiphenylamine	0.000500	0.000100	mg/L	8270C LL
Pentachlorophenol	0.00100	0.000610	mg/L	8270C LL
Phenanthrene	0.000500	0.0000600	mg/L	8270C LL
Phenol	0.000500	0.0000400	mg/L	8270C LL
Pyrene	0.000500	0.000110	mg/L	8270C LL

QC Association Summary

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-77198-1

GC/MS VOA

Analysis Batch: 112231

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-77198-18	WG-1620-MW14-20130731	Total/NA	Water	8260B	
600-77198-18 MS	WG-1620-MW14-20130731	Total/NA	Water	8260B	
600-77198-18 MSD	WG-1620-MW14-20130731	Total/NA	Water	8260B	
LCS 600-112231/4	Lab Control Sample	Total/NA	Water	8260B	
MB 600-112231/6	Method Blank	Total/NA	Water	8260B	

Analysis Batch: 112263

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-77198-1 - DL	WG-1620-MW18A-20130729	Total/NA	Water	8260B	
600-77198-2	WG-1620-MW18C-20130729	Total/NA	Water	8260B	
600-77198-3	WG-1620-MW72B-20130729	Total/NA	Water	8260B	
600-77198-4	WG-1620-FB1-20130729	Total/NA	Water	8260B	
600-77198-6	WG-1620-MW17-20130730	Total/NA	Water	8260B	
600-77198-11	WG-1620-MW73B-20130730	Total/NA	Water	8260B	
600-77198-12	WG-1620-MW55A-20130730	Total/NA	Water	8260B	
600-77198-13	WG-1620-MW55B-201300730	Total/NA	Water	8260B	
600-77198-20	WG-1620-FB03-20130731	Total/NA	Water	8260B	
600-77198-20 MS	WG-1620-FB03-20130731	Total/NA	Water	8260B	
600-77198-20 MSD	WG-1620-FB03-20130731	Total/NA	Water	8260B	
LCS 600-112263/3	Lab Control Sample	Total/NA	Water	8260B	
MB 600-112263/4	Method Blank	Total/NA	Water	8260B	

Analysis Batch: 112551

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-77198-1	WG-1620-MW18A-20130729	Total/NA	Water	8260B	
600-77198-5	WG-1620-MW17C-20130730	Total/NA	Water	8260B	
600-77198-7	WG-1620-MW15B-20130730	Total/NA	Water	8260B	
600-77198-8	WG-1620-MW15C-20130730	Total/NA	Water	8260B	
600-77198-9	WG-1620-MW15A-20130730	Total/NA	Water	8260B	
600-77198-10	WG-1620-FB02-20130730	Total/NA	Water	8260B	
600-77198-19	WG-1620-MW13-20130731	Total/NA	Water	8260B	
600-77198-21	WG-1620-TB01-20130731	Total/NA	Water	8260B	
LCS 600-112551/7	Lab Control Sample	Total/NA	Water	8260B	
MB 600-112551/8	Method Blank	Total/NA	Water	8260B	

Analysis Batch: 112681

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-77198-14	WG-1620-MW19C-20130730	Total/NA	Water	8260B	
600-77198-15	WG-1620-MW23C-20130731	Total/NA	Water	8260B	
600-77198-16	WG-1620-MW57B-20130731	Total/NA	Water	8260B	
600-77198-16 MS	WG-1620-MW57B-20130731	Total/NA	Water	8260B	
600-77198-16 MSD	WG-1620-MW57B-20130731	Total/NA	Water	8260B	
600-77198-17	WG-1620-MW57A-20130731	Total/NA	Water	8260B	
LCS 600-112681/3	Lab Control Sample	Total/NA	Water	8260B	
MB 600-112681/4	Method Blank	Total/NA	Water	8260B	

QC Association Summary

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-77198-1

GC/MS Semi VOA

Prep Batch: 112345

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-77198-1	WG-1620-MW18A-20130729	Total/NA	Water	3510C	
600-77198-1 - DL	WG-1620-MW18A-20130729	Total/NA	Water	3510C	
600-77198-2 - DL	WG-1620-MW18C-20130729	Total/NA	Water	3510C	
600-77198-2	WG-1620-MW18C-20130729	Total/NA	Water	3510C	
600-77198-3	WG-1620-MW72B-20130729	Total/NA	Water	3510C	
600-77198-3 - DL2	WG-1620-MW72B-20130729	Total/NA	Water	3510C	
600-77198-3 - DL	WG-1620-MW72B-20130729	Total/NA	Water	3510C	
600-77198-4	WG-1620-FB1-20130729	Total/NA	Water	3510C	
600-77198-5 - DL	WG-1620-MW17C-20130730	Total/NA	Water	3510C	
600-77198-5	WG-1620-MW17C-20130730	Total/NA	Water	3510C	
600-77198-6 - DL2	WG-1620-MW17-20130730	Total/NA	Water	3510C	
600-77198-6	WG-1620-MW17-20130730	Total/NA	Water	3510C	
600-77198-6 - DL	WG-1620-MW17-20130730	Total/NA	Water	3510C	
600-77198-7 - DL	WG-1620-MW15B-20130730	Total/NA	Water	3510C	
600-77198-7	WG-1620-MW15B-20130730	Total/NA	Water	3510C	
600-77198-7 - DL2	WG-1620-MW15B-20130730	Total/NA	Water	3510C	
600-77198-8 - DL	WG-1620-MW15C-20130730	Total/NA	Water	3510C	
600-77198-8	WG-1620-MW15C-20130730	Total/NA	Water	3510C	
600-77198-9 - DL2	WG-1620-MW15A-20130730	Total/NA	Water	3510C	
600-77198-9 - DL	WG-1620-MW15A-20130730	Total/NA	Water	3510C	
600-77198-9	WG-1620-MW15A-20130730	Total/NA	Water	3510C	
600-77198-10	WG-1620-FB02-20130730	Total/NA	Water	3510C	
600-77198-11	WG-1620-MW73B-20130730	Total/NA	Water	3510C	
600-77198-12 - DL	WG-1620-MW55A-20130730	Total/NA	Water	3510C	
600-77198-12	WG-1620-MW55A-20130730	Total/NA	Water	3510C	
600-77198-13 - DL2	WG-1620-MW55B-201300730	Total/NA	Water	3510C	
600-77198-13	WG-1620-MW55B-201300730	Total/NA	Water	3510C	
600-77198-13 - DL	WG-1620-MW55B-201300730	Total/NA	Water	3510C	
600-77198-14	WG-1620-MW19C-20130730	Total/NA	Water	3510C	
600-77198-14 - DL	WG-1620-MW19C-20130730	Total/NA	Water	3510C	
600-77198-15	WG-1620-MW23C-20130731	Total/NA	Water	3510C	
600-77198-15 - DL	WG-1620-MW23C-20130731	Total/NA	Water	3510C	
600-77198-15 - DL2	WG-1620-MW23C-20130731	Total/NA	Water	3510C	
600-77198-16 - DL	WG-1620-MW57B-20130731	Total/NA	Water	3510C	
600-77198-16	WG-1620-MW57B-20130731	Total/NA	Water	3510C	
600-77198-17	WG-1620-MW57A-20130731	Total/NA	Water	3510C	
600-77198-17 - DL	WG-1620-MW57A-20130731	Total/NA	Water	3510C	
600-77198-18	WG-1620-MW14-20130731	Total/NA	Water	3510C	
600-77198-18 MS	WG-1620-MW14-20130731	Total/NA	Water	3510C	
600-77198-18 MSD	WG-1620-MW14-20130731	Total/NA	Water	3510C	
600-77198-19	WG-1620-MW13-20130731	Total/NA	Water	3510C	
600-77198-20	WG-1620-FB03-20130731	Total/NA	Water	3510C	
LCS 600-112345/2-A	Lab Control Sample	Total/NA	Water	3510C	
MB 600-112345/1-A	Method Blank	Total/NA	Water	3510C	

Analysis Batch: 112641

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-77198-4	WG-1620-FB1-20130729	Total/NA	Water	8270C LL	112345
600-77198-7	WG-1620-MW15B-20130730	Total/NA	Water	8270C LL	112345
600-77198-8	WG-1620-MW15C-20130730	Total/NA	Water	8270C LL	112345
600-77198-9	WG-1620-MW15A-20130730	Total/NA	Water	8270C LL	112345

TestAmerica Houston

QC Association Summary

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-77198-1

GC/MS Semi VOA (Continued)

Analysis Batch: 112641 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-77198-11	WG-1620-MW73B-20130730	Total/NA	Water	8270C LL	112345
600-77198-14	WG-1620-MW19C-20130730	Total/NA	Water	8270C LL	112345

Analysis Batch: 112642

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-77198-18	WG-1620-MW14-20130731	Total/NA	Water	8270C LL	112345
600-77198-18 MS	WG-1620-MW14-20130731	Total/NA	Water	8270C LL	112345
600-77198-18 MSD	WG-1620-MW14-20130731	Total/NA	Water	8270C LL	112345
LCS 600-112345/2-A	Lab Control Sample	Total/NA	Water	8270C LL	112345
MB 600-112345/1-A	Method Blank	Total/NA	Water	8270C LL	112345

Analysis Batch: 112714

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-77198-10	WG-1620-FB02-20130730	Total/NA	Water	8270C LL	112345
600-77198-19	WG-1620-MW13-20130731	Total/NA	Water	8270C LL	112345
600-77198-20	WG-1620-FB03-20130731	Total/NA	Water	8270C LL	112345

Analysis Batch: 112724

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-77198-2	WG-1620-MW18C-20130729	Total/NA	Water	8270C LL	112345
600-77198-3	WG-1620-MW72B-20130729	Total/NA	Water	8270C LL	112345
600-77198-6	WG-1620-MW17-20130730	Total/NA	Water	8270C LL	112345
600-77198-8 - DL	WG-1620-MW15C-20130730	Total/NA	Water	8270C LL	112345
600-77198-12	WG-1620-MW55A-20130730	Total/NA	Water	8270C LL	112345
600-77198-13	WG-1620-MW55B-201300730	Total/NA	Water	8270C LL	112345
600-77198-16	WG-1620-MW57B-20130731	Total/NA	Water	8270C LL	112345

Analysis Batch: 112762

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-77198-7 - DL	WG-1620-MW15B-20130730	Total/NA	Water	8270C LL	112345
600-77198-9 - DL	WG-1620-MW15A-20130730	Total/NA	Water	8270C LL	112345
600-77198-14 - DL	WG-1620-MW19C-20130730	Total/NA	Water	8270C LL	112345
600-77198-15	WG-1620-MW23C-20130731	Total/NA	Water	8270C LL	112345

Analysis Batch: 112869

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-77198-1	WG-1620-MW18A-20130729	Total/NA	Water	8270C LL	112345
600-77198-3 - DL	WG-1620-MW72B-20130729	Total/NA	Water	8270C LL	112345
600-77198-3 - DL2	WG-1620-MW72B-20130729	Total/NA	Water	8270C LL	112345
600-77198-6 - DL	WG-1620-MW17-20130730	Total/NA	Water	8270C LL	112345
600-77198-7 - DL2	WG-1620-MW15B-20130730	Total/NA	Water	8270C LL	112345
600-77198-9 - DL2	WG-1620-MW15A-20130730	Total/NA	Water	8270C LL	112345
600-77198-13 - DL	WG-1620-MW55B-201300730	Total/NA	Water	8270C LL	112345
600-77198-15 - DL	WG-1620-MW23C-20130731	Total/NA	Water	8270C LL	112345
600-77198-16 - DL	WG-1620-MW57B-20130731	Total/NA	Water	8270C LL	112345
600-77198-17	WG-1620-MW57A-20130731	Total/NA	Water	8270C LL	112345

Analysis Batch: 112933

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-77198-1 - DL	WG-1620-MW18A-20130729	Total/NA	Water	8270C LL	112345
600-77198-2 - DL	WG-1620-MW18C-20130729	Total/NA	Water	8270C LL	112345

TestAmerica Houston

QC Association Summary

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-77198-1

GC/MS Semi VOA (Continued)

Analysis Batch: 112933 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-77198-5	WG-1620-MW17C-20130730	Total/NA	Water	8270C LL	112345
600-77198-6 - DL2	WG-1620-MW17-20130730	Total/NA	Water	8270C LL	112345
600-77198-12 - DL	WG-1620-MW55A-20130730	Total/NA	Water	8270C LL	112345
600-77198-13 - DL2	WG-1620-MW55B-201300730	Total/NA	Water	8270C LL	112345
600-77198-15 - DL2	WG-1620-MW23C-20130731	Total/NA	Water	8270C LL	112345
600-77198-17 - DL	WG-1620-MW57A-20130731	Total/NA	Water	8270C LL	112345

Analysis Batch: 113058

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-77198-5 - DL	WG-1620-MW17C-20130730	Total/NA	Water	8270C LL	112345

Lab Chronicle

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-77198-1

Client Sample ID: WG-1620-MW18A-20130729

Lab Sample ID: 600-77198-1

Date Collected: 07/29/13 15:45

Matrix: Water

Date Received: 07/31/13 17:43

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B	DL	100	112263	08/02/13 19:41	WS1	TAL HOU
Total/NA	Analysis	8260B		10	112551	08/06/13 23:35	DT1	TAL HOU
Total/NA	Prep	3510C			112345	08/05/13 09:23	SMB	TAL HOU
Total/NA	Analysis	8270C LL		200	112869	08/09/13 19:04	KP1	TAL HOU
Total/NA	Prep	3510C	DL		112345	08/05/13 09:23	SMB	TAL HOU
Total/NA	Analysis	8270C LL	DL	2000	112933	08/12/13 15:39	KP1	TAL HOU

Client Sample ID: WG-1620-MW18C-20130729

Lab Sample ID: 600-77198-2

Date Collected: 07/29/13 16:40

Matrix: Water

Date Received: 07/31/13 17:43

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		100	112263	08/02/13 20:08	WS1	TAL HOU
Total/NA	Prep	3510C			112345	08/05/13 09:23	SMB	TAL HOU
Total/NA	Analysis	8270C LL		50	112724	08/08/13 10:01	KP1	TAL HOU
Total/NA	Prep	3510C	DL		112345	08/05/13 09:23	SMB	TAL HOU
Total/NA	Analysis	8270C LL	DL	2500	112933	08/12/13 16:08	KP1	TAL HOU

Client Sample ID: WG-1620-MW72B-20130729

Lab Sample ID: 600-77198-3

Date Collected: 07/29/13 17:30

Matrix: Water

Date Received: 07/31/13 17:43

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		100	112263	08/02/13 20:35	WS1	TAL HOU
Total/NA	Prep	3510C			112345	08/05/13 09:23	SMB	TAL HOU
Total/NA	Analysis	8270C LL		250	112724	08/08/13 10:29	KP1	TAL HOU
Total/NA	Prep	3510C	DL		112345	08/05/13 09:23	SMB	TAL HOU
Total/NA	Analysis	8270C LL	DL	1250	112869	08/09/13 20:02	KP1	TAL HOU
Total/NA	Prep	3510C	DL2		112345	08/05/13 09:23	SMB	TAL HOU
Total/NA	Analysis	8270C LL	DL2	5000	112869	08/09/13 20:30	KP1	TAL HOU

Client Sample ID: WG-1620-FB1-20130729

Lab Sample ID: 600-77198-4

Date Collected: 07/29/13 17:50

Matrix: Water

Date Received: 07/31/13 17:43

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	112263	08/02/13 17:19	WS1	TAL HOU
Total/NA	Prep	3510C			112345	08/05/13 09:23	SMB	TAL HOU
Total/NA	Analysis	8270C LL		1	112641	08/06/13 23:35	TTD	TAL HOU

TestAmerica Houston

Lab Chronicle

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-77198-1

Client Sample ID: WG-1620-MW17C-20130730

Lab Sample ID: 600-77198-5

Date Collected: 07/30/13 07:50

Matrix: Water

Date Received: 07/31/13 17:43

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		10	112551	08/07/13 00:00	DT1	TAL HOU
Total/NA	Prep	3510C			112345	08/05/13 09:23	SMB	TAL HOU
Total/NA	Analysis	8270C LL		100	112933	08/12/13 19:00	KP1	TAL HOU
Total/NA	Prep	3510C	DL		112345	08/05/13 09:23	SMB	TAL HOU
Total/NA	Analysis	8270C LL	DL	200	113058	08/13/13 12:21	TTD	TAL HOU

Client Sample ID: WG-1620-MW17-20130730

Lab Sample ID: 600-77198-6

Date Collected: 07/30/13 08:55

Matrix: Water

Date Received: 07/31/13 17:43

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		100	112263	08/02/13 21:28	WS1	TAL HOU
Total/NA	Prep	3510C			112345	08/05/13 09:23	SMB	TAL HOU
Total/NA	Analysis	8270C LL		50	112724	08/08/13 10:58	KP1	TAL HOU
Total/NA	Prep	3510C	DL		112345	08/05/13 09:23	SMB	TAL HOU
Total/NA	Analysis	8270C LL	DL	500	112869	08/09/13 20:59	KP1	TAL HOU
Total/NA	Prep	3510C	DL2		112345	08/05/13 09:23	SMB	TAL HOU
Total/NA	Analysis	8270C LL	DL2	5000	112933	08/12/13 16:36	KP1	TAL HOU

Client Sample ID: WG-1620-MW15B-20130730

Lab Sample ID: 600-77198-7

Date Collected: 07/30/13 09:50

Matrix: Water

Date Received: 07/31/13 17:43

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	112551	08/07/13 00:26	DT1	TAL HOU
Total/NA	Prep	3510C			112345	08/05/13 09:23	SMB	TAL HOU
Total/NA	Analysis	8270C LL		1	112641	08/07/13 01:00	TTD	TAL HOU
Total/NA	Prep	3510C	DL		112345	08/05/13 09:23	SMB	TAL HOU
Total/NA	Analysis	8270C LL	DL	10	112762	08/08/13 22:30	KP1	TAL HOU
Total/NA	Prep	3510C	DL2		112345	08/05/13 09:23	SMB	TAL HOU
Total/NA	Analysis	8270C LL	DL2	50	112869	08/09/13 21:27	KP1	TAL HOU

Client Sample ID: WG-1620-MW15C-20130730

Lab Sample ID: 600-77198-8

Date Collected: 07/30/13 10:50

Matrix: Water

Date Received: 07/31/13 17:43

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	112551	08/07/13 00:52	DT1	TAL HOU
Total/NA	Prep	3510C			112345	08/05/13 09:23	SMB	TAL HOU
Total/NA	Analysis	8270C LL		1	112641	08/07/13 01:29	TTD	TAL HOU
Total/NA	Prep	3510C	DL		112345	08/05/13 09:23	SMB	TAL HOU
Total/NA	Analysis	8270C LL	DL	10	112724	08/08/13 15:44	KP1	TAL HOU

TestAmerica Houston

Lab Chronicle

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-77198-1

Client Sample ID: WG-1620-MW15A-20130730

Lab Sample ID: 600-77198-9

Date Collected: 07/30/13 11:45

Matrix: Water

Date Received: 07/31/13 17:43

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	112551	08/07/13 01:17	DT1	TAL HOU
Total/NA	Prep	3510C			112345	08/05/13 09:23	SMB	TAL HOU
Total/NA	Analysis	8270C LL		1	112641	08/07/13 01:57	TTD	TAL HOU
Total/NA	Prep	3510C	DL		112345	08/05/13 09:23	SMB	TAL HOU
Total/NA	Analysis	8270C LL	DL	10	112762	08/08/13 22:58	KP1	TAL HOU
Total/NA	Prep	3510C	DL2		112345	08/05/13 09:23	SMB	TAL HOU
Total/NA	Analysis	8270C LL	DL2	50	112869	08/09/13 21:56	KP1	TAL HOU

Client Sample ID: WG-1620-FB02-20130730

Lab Sample ID: 600-77198-10

Date Collected: 07/30/13 12:05

Matrix: Water

Date Received: 07/31/13 17:43

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	112551	08/06/13 22:43	DT1	TAL HOU
Total/NA	Prep	3510C			112345	08/05/13 09:23	SMB	TAL HOU
Total/NA	Analysis	8270C LL		1	112714	08/08/13 03:19	TTD	TAL HOU

Client Sample ID: WG-1620-MW73B-20130730

Lab Sample ID: 600-77198-11

Date Collected: 07/30/13 13:25

Matrix: Water

Date Received: 07/31/13 17:43

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	112263	08/02/13 18:16	WS1	TAL HOU
Total/NA	Prep	3510C			112345	08/05/13 09:23	SMB	TAL HOU
Total/NA	Analysis	8270C LL		1	112641	08/07/13 02:26	TTD	TAL HOU

Client Sample ID: WG-1620-MW55A-20130730

Lab Sample ID: 600-77198-12

Date Collected: 07/30/13 14:20

Matrix: Water

Date Received: 07/31/13 17:43

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		100	112263	08/02/13 21:54	WS1	TAL HOU
Total/NA	Prep	3510C			112345	08/05/13 09:23	SMB	TAL HOU
Total/NA	Analysis	8270C LL		50	112724	08/08/13 11:26	KP1	TAL HOU
Total/NA	Prep	3510C	DL		112345	08/05/13 09:23	SMB	TAL HOU
Total/NA	Analysis	8270C LL	DL	2500	112933	08/12/13 17:05	KP1	TAL HOU

Lab Chronicle

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-77198-1

Client Sample ID: WG-1620-MW55B-201300730

Lab Sample ID: 600-77198-13

Date Collected: 07/30/13 15:15

Matrix: Water

Date Received: 07/31/13 17:43

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		100	112263	08/02/13 22:20	WS1	TAL HOU
Total/NA	Prep	3510C			112345	08/05/13 09:23	SMB	TAL HOU
Total/NA	Analysis	8270C LL		500	112724	08/08/13 11:55	KP1	TAL HOU
Total/NA	Prep	3510C	DL		112345	08/05/13 09:23	SMB	TAL HOU
Total/NA	Analysis	8270C LL	DL	2500	112869	08/09/13 22:53	KP1	TAL HOU
Total/NA	Prep	3510C	DL2		112345	08/05/13 09:23	SMB	TAL HOU
Total/NA	Analysis	8270C LL	DL2	25000	112933	08/12/13 17:34	KP1	TAL HOU

Client Sample ID: WG-1620-MW19C-20130730

Lab Sample ID: 600-77198-14

Date Collected: 07/30/13 16:10

Matrix: Water

Date Received: 07/31/13 17:43

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	112681	08/08/13 14:22	WS1	TAL HOU
Total/NA	Prep	3510C			112345	08/05/13 09:23	SMB	TAL HOU
Total/NA	Analysis	8270C LL		1	112641	08/07/13 03:51	TTD	TAL HOU
Total/NA	Prep	3510C	DL		112345	08/05/13 09:23	SMB	TAL HOU
Total/NA	Analysis	8270C LL	DL	10	112762	08/08/13 23:27	KP1	TAL HOU

Client Sample ID: WG-1620-MW23C-20130731

Lab Sample ID: 600-77198-15

Date Collected: 07/31/13 07:35

Matrix: Water

Date Received: 07/31/13 17:43

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		10	112681	08/08/13 13:55	WS1	TAL HOU
Total/NA	Prep	3510C			112345	08/05/13 09:23	SMB	TAL HOU
Total/NA	Analysis	8270C LL		50	112762	08/08/13 23:55	KP1	TAL HOU
Total/NA	Prep	3510C	DL		112345	08/05/13 09:23	SMB	TAL HOU
Total/NA	Analysis	8270C LL	DL	250	112869	08/09/13 23:22	KP1	TAL HOU
Total/NA	Prep	3510C	DL2		112345	08/05/13 09:23	SMB	TAL HOU
Total/NA	Analysis	8270C LL	DL2	2500	112933	08/12/13 18:03	KP1	TAL HOU

Client Sample ID: WG-1620-MW57B-20130731

Lab Sample ID: 600-77198-16

Date Collected: 07/31/13 08:45

Matrix: Water

Date Received: 07/31/13 17:43

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		100	112681	08/08/13 12:07	WS1	TAL HOU
Total/NA	Prep	3510C			112345	08/05/13 09:23	SMB	TAL HOU
Total/NA	Analysis	8270C LL		250	112724	08/08/13 12:23	KP1	TAL HOU
Total/NA	Prep	3510C	DL		112345	08/05/13 09:23	SMB	TAL HOU
Total/NA	Analysis	8270C LL	DL	1250	112869	08/09/13 23:50	KP1	TAL HOU

TestAmerica Houston

Lab Chronicle

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-77198-1

Client Sample ID: WG-1620-MW57A-20130731

Lab Sample ID: 600-77198-17

Date Collected: 07/31/13 09:35

Matrix: Water

Date Received: 07/31/13 17:43

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		50	112681	08/08/13 12:33	WS1	TAL HOU
Total/NA	Prep	3510C			112345	08/05/13 09:23	SMB	TAL HOU
Total/NA	Analysis	8270C LL		250	112869	08/10/13 00:19	KP1	TAL HOU
Total/NA	Prep	3510C	DL		112345	08/05/13 09:23	SMB	TAL HOU
Total/NA	Analysis	8270C LL	DL	2500	112933	08/12/13 18:31	KP1	TAL HOU

Client Sample ID: WG-1620-MW14-20130731

Lab Sample ID: 600-77198-18

Date Collected: 07/31/13 10:45

Matrix: Water

Date Received: 07/31/13 17:43

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	112231	08/02/13 15:42	DT1	TAL HOU
Total/NA	Prep	3510C			112345	08/05/13 09:23	SMB	TAL HOU
Total/NA	Analysis	8270C LL		1	112642	08/06/13 15:03	TTD	TAL HOU

Client Sample ID: WG-1620-MW13-20130731

Lab Sample ID: 600-77198-19

Date Collected: 07/31/13 11:55

Matrix: Water

Date Received: 07/31/13 17:43

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	112551	08/06/13 23:09	DT1	TAL HOU
Total/NA	Prep	3510C			112345	08/05/13 09:23	SMB	TAL HOU
Total/NA	Analysis	8270C LL		1	112714	08/08/13 03:47	TTD	TAL HOU

Client Sample ID: WG-1620-FB03-20130731

Lab Sample ID: 600-77198-20

Date Collected: 07/31/13 12:20

Matrix: Water

Date Received: 07/31/13 17:43

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	112263	08/02/13 15:10	WS1	TAL HOU
Total/NA	Prep	3510C			112345	08/05/13 09:23	SMB	TAL HOU
Total/NA	Analysis	8270C LL		1	112714	08/08/13 04:15	TTD	TAL HOU

Client Sample ID: WG-1620-TB01-20130731

Lab Sample ID: 600-77198-21

Date Collected: 07/31/13 00:00

Matrix: Water

Date Received: 07/31/13 17:43

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	112551	08/06/13 22:17	DT1	TAL HOU

Laboratory References:

TAL HOU = TestAmerica Houston, 6310 Rothway Street, Houston, TX 77040, TEL (713)690-4444

TestAmerica Houston

Certification Summary

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-77198-1

Laboratory: TestAmerica Houston

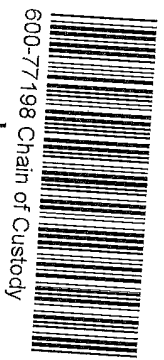
All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Louisiana	NELAP	6	01967	06-30-14
Oklahoma	State Program	6	9503	08-31-13
Texas	NELAP	6	T104704223-10-6-TX	10-31-13
USDA	Federal		P330-08-00217	04-01-14
Utah	NELAP	8	GULF	10-31-13

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TestAmerica Houston
6310 Rothway Street
Houston, TX 77040
Phone (713) 690-4444 Fax (713) 690-5646

Chain of Custody I



TestAmerica

No: 21931-8215.1
Page 1 of 2

8/27/2013

Client Information
 Client Contact: Mr. Eric Matzner
 Company: Pastor, Behling & Wheeler, LLC
 Address: 2201 Double Creek Dr Suite 4004
 City: Round Rock
 State, Zip: TX, 78664
 Phone: 512-671-3434 (Tel) 512-671-3448 (Fax)
 Email: eric.matzner@bwhllc.com
 Project Name: 1620 UPRR HWP/W
 Site: SSO#:
 Sampler: JOHN BEAUVIN
 Lab PM: Kuddhadkar, Sachin G
 E-Mail: sachin.kuddhadkar@testamericainc.com
 Due Date Requested:
 TAT Requested (days):
 PO #: Purchase Order not required
 Project #: 60003722
 SSO#:
 Analysis Requested
 Special Instructions/Note:
 Preservation Codes:
 A - HCL M - Hexane
 B - NaOH N - None
 C - Zn Acetate O - AsN2O2
 D - Nitric Acid P - Na2O4S
 E - NaHSO4 Q - Na2SO3
 F - MeOH R - Na2S2O3
 G - Amchlor S - H2SO4
 H - Ascorbic Acid T - TSP Dodecylhydrate
 I - Ioe U - Acetone
 J - DI Water V - MCAA
 K - EDTA W - pH 4.5
 L - EDA Z - other (specify)
 Other:
 Total Number of containers

Sample Identification	Sample Date	Sample Time	Sample Type (G=Comp, G=grab)	Matrix (W=Water, S=Soil, O=Organic, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8260B_LL - Site Specific List	8270C_LL - Site Specific List	Special Instructions/Note:
WG-1620-MW18A-20130729	7-29-13	1545	G	Water	X	X			
WG-1620-MW18C-20130729		1640	G	Water	X	X			
WG-1620-MW72B-20130729		1730	G	Water	X	X			
WG-1620-FBI-20130729		1750	G	Water	X	X			
WG-1620-MW17C-20130730	7-30-13	0750	G	Water	X	X			
WG-1620-MW17-20130730		0855	G	Water	X	X			
WG-1620-MW15B-20130730		0950	G	Water	X	X			
WG-1620-MW15C-20130730		1050	G	Water	X	X			
WG-1620-MW15A-20130730		1145	G	Water	X	X			
WG-1620-FB02-20130730		1205	G	Water	X	X			
WG-1620-MW73B-20130730		1325	G	Water	X	X			

Possible Hazard Identification
 Non-Hazard Flammable Skin Irritant Poison B Unknown Radiological
 Deliverable Requested: I, II, III, IV, Other (specify):
 Special Instructions/QC Requirements:
 Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
 Return To Client Disposal By Lab Archive For Months
 Method of Shipment:

Empty Refill/flushed by: _____ Date: _____ Time: _____
 Relinquished by: *John Don* Date/Time: 7-31-13 1743 Company: PBW
 Relinquished by: _____ Date/Time: _____ Company: _____
 Relinquished by: _____ Date/Time: _____ Company: _____
 Custody Seals Intact: Yes No Custody Seal No.: _____
 Cooler Temperature(s) °C and Other Remarks:

Client Information
 Client Contact: Mr. Eric Matzner
 Company: Pastor, Beating & Wheeler LLC
 Address: 2201 Double Creek Dr Suite 4004
 City: Round Rock
 State, Zip: TX, 78664
 Phone: 512-671-3434(Tel) 512-671-3446(Fax)
 Email: eric.matzner@pbwllc.com
 Project Name: 1620 UPRR HWPW
 Site:
 Project #: 60003722
 SSOV#:
 Lab P#:
 Kudochadkar, Sachin G
 Email: sachin.kudochadkar@testamericainc.com
 Carrier Tracking No(s):
 COC No: 600-21931-8215-1
 Page 2 of 2
 Job #:

Analysis Requested
 Due Date Requested:
 TAT Requested (days):
 PO #:
 Purchase Order not required
 Field Filtered Sample (Yes or No)
 Perform MS/MSD (Yes or No)
 8260B_LL - Site Specific List
 8270C_LL - Site Specific List
 Preservation Codes:
 A - HCL
 B - NaOH
 C - Zn Acetate
 D - Nitric Acid
 E - NaHSO4
 F - MeOH
 G - Amchlor
 H - Ascorbic Acid
 I - Ice
 J - DI Water
 K - EDTA
 L - EDA
 M - Hexane
 N - None
 O - AsH3O2
 P - Na2CO3
 Q - Na2SO3
 R - Na2S2O3
 S - H2SO4
 T - TSP Dodecahydrate
 U - Acetone
 V - MCAA
 W - pH 4-5
 Z - other (Specify)
 Other:
 Special Instructions/Note:

Sample Identification	Sample Date	Sample Time	Sample Type (G=Comp, G=grab)	Matrix (Speciat, Omeat, Soil, etc.)	Preservation Code:	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8260B_LL - Site Specific List	8270C_LL - Site Specific List	Total Number of containers	Special Instructions/Note:
WG-1620-MW55A-20130730	7-30-13	1420	G	Water		X	X				
WG-1620-MW55B-20130730		1515	G	Water		X	X				
WG-1620-MW19C-20130730		1610	G	Water		X	X				
WG-1620-MW23C-20130731	7-31-13	0735	G	Water		X	X				
WG-1620-MW57B-20130731		0845	G	Water		X	X				
WG-1620-MW57A-20130731		0935	G	Water		X	X				
WG-1620-MW14-20130731		1045	G	Water		X	X				
WG-1620-MW13-20130731		1155	G	Water		X	X				
WG-1620-FB03-20130731		1220	G	Water		X	X				
WG-1620-TB01-20130731			G	Water		X	X				

Possible Hazard Identification
 Non-Hazard Flammable Skin Irritant Poison B Unknown Radiological
 Deliverable Requested: I, II, III, IV, Other (specify)
 Special Instructions/QC Requirements:
 Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
 Return To Client Disposal By Lab Archive For _____ Months
 Empty Kit Requisitioned by:
 Date:
 Method of Shipment:
 Requisitioned by:
 Date/Time:
 Received by:
 Date/Time:
 Requisitioned by:
 Date/Time:
 Received by:
 Date/Time:
 Cooler Temperature(s) °C and Other Remarks:

Chain of Custody
 Requisitioned by: *John Dvor* Date/Time: 7-31-13 1743 Company: *PBW*
 Requisitioned by: *Sachin Kudochadkar* Date/Time: 8/2/13 85749 Company: *TAH*
 Custody Seals Intact: Yes No Custody Seal No.:
 Cooler Temperature(s) °C and Other Remarks:

Login Sample Receipt Checklist

Client: Pastor, Behling & Wheeler LLC

Job Number: 600-77198-1

Login Number: 77198

List Source: TestAmerica Houston

List Number: 1

Creator: Pulumbarit, Josh L

Question	Answer	Comment
Radioactivity wasn't checked or is <=/ background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	3.6 1.3 2.6 2.7
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	True	

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Houston
6310 Rothway Street
Houston, TX 77040
Tel: (713)690-4444

TestAmerica Job ID: 600-77257-1

Client Project/Site: 1620 UPRR HWPW
Revision: 1

For:

Pastor, Behling & Wheeler LLC
2201 Double Creek Dr
Suite 4004
Round Rock, Texas 78664

Attn: Mr. Eric Matzner



Authorized for release by:
9/9/2013 5:20:05 PM

Cathy Upton, Data Delivery Analyst
cathy.upton@testamericainc.com

Designee for

Sachin Kudchadkar, Project Manager II
sachin.kudchadkar@testamericainc.com

LINKS

Review your project
results through
Total Access

Have a Question?



Visit us at:
www.testamericainc.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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12

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16

17



Table of Contents

Cover Page	1
Table of Contents	2
TRRP Cover Page	3
TRRP Checklists & DCSs	4
Case Narrative	14
Method Summary	15
Sample Summary	16
Client Sample Results	17
Definitions/Glossary	42
Surrogate Summary	43
QC Sample Results	45
Default Detection Limits	57
QC Association Summary	58
Lab Chronicle	61
Certification Summary	66
Chain of Custody	67
Receipt Checklists	71

Job Number: 600-77257-1
Project Name/Number: 1620 UPRR HWPW

This Data Package- consists of:

This signature page, the laboratory review checklist, and the following Reportable Data:

- R1 Field Chain-of-Custody Form
- R2 Sample Identification Cross-reference;
- R3 Test Reports (Analytical Data Sheets) for each environmental sample that includes:
 - a) Items consistent with NELAC Chapter 5
 - b) dilution factors,
 - c) preparation methods,
 - d) cleanup methods, and
 - e) if required for the project, tentatively identified compounds (TICs).
- R4 Surrogate Recovery Data including:
 - a) Calculated recovery (%R), and
 - b) The laboratory's surrogate QC limits.
- R5 Test Reports/Summary Forms for Blank Samples;
- R6 Test Reports/Summary Forms for Laboratory Control Samples (LCSs) including:
 - a) LCS spiking amounts,
 - b) Calculated %R for each analyte, and
 - d) The laboratory's LCS QC limits
- R7 Test Reports for Matrix Spike/Matrix Spike Duplicates (MS/MSDs) including:
 - a) Samples associated with the MS/MSD clearly identified,
 - b) MS/MSD spiking amounts,
 - c) Concentration of each MS/MSD analyte measured in the parent and spiked sample,
 - d) Calculated %Rs and relative percent differences (RPDs), and
 - e) The laboratory's MS/MSD QC limits
- R8 Laboratory analytical duplicates (if applicable) recovery and precision, including:
 - a) the amount of analyte measured in the duplicate,
 - b) the calculated RPD, and
 - c) the laboratory's QC limits for analytical duplicates.
- R9 List of method quantitation limit (MQL) and detectability check sample results for each analyte for each method and matrix;
- R10 Other problems or anomalies

The exception report for each "No" or "Not Reviewed (NR)" item in the Laboratory Review Checklist and for each analyte, matrix, and method for which the laboratory does not hold NELAC accreditation under the Texas Laboratory Accreditation Program.

Release Statement: I am responsible for the release of this laboratory data package. This laboratory is NELAC accredited under Texas laboratory Accreditation Program for all the methods, analytes, and matrices reported in this data package except as noted in the Exception Reports. The data have been reviewed and are technically compliant with the requirements of the methods used, except where noted by the laboratory in the Exception Reports. By my signature below, I affirm, to the best of my knowledge, that all problems/anomalies observed by the laboratory have been identified in the Laboratory Review Checklist, and no information affecting the quality of the data has been knowingly withheld.

Cathy Upton
Name (printed)
Data Delivery Analyst
Official Title (printed)


Signature

08/29/2013
Date

Appendix A (cont'd): Laboratory Review Checklist: Reportable Data							
Laboratory Name: TestAmerica-Houston			LRC Date: 08/13/13				
Project Name: 1620 UPRR HWPW			Laboratory Job Number: 600-77257				
Reviewer Name: KV			Prep Batch Number: 600-112405, 112502, and 112632 -VOA				
# ¹	A ²	Description	Yes	No	NA ³	NR ⁴	ER# ⁵
R1	OI	Chain-of-custody (C-O-C)					
		Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?	X				
		Were all departures from standard conditions described in an exception report?			X		
R2	OI	Sample and quality control (QC) identification					
		Are all field sample ID numbers cross-referenced to the laboratory ID numbers?	X				
		Are all laboratory ID numbers cross-referenced to the corresponding QC data?	X				
R3	OI	Test reports					
		Were all samples prepared and analyzed within holding times?	X				
		Other than those results < MQL, were all other raw values bracketed by calibration standards?	X				
		Were calculations checked by a peer or supervisor?	X				
		Were all analyte identifications checked by a peer or supervisor?	X				
		Were sample detection limits reported for all analytes not detected?	X				
		Were all results for soil and sediment samples reported on a dry weight basis?			X		
		Were % moisture (or solids) reported for all soil and sediment samples?			X		
		Were bulk soil/solid samples for volatile analysis extracted with methanol per SW846 Method 5035?			X		
		If required for the project, TICs reported?			X		
R4	O	Surrogate recovery data					
		Were surrogates added prior to extraction?	X				
		Were surrogate percent recoveries in all samples within the laboratory QC limits?	X				
R5	OI	Test reports/summary forms for blank samples					
		Were appropriate type(s) of blanks analyzed?	X				
		Were blanks analyzed at the appropriate frequency?	X				
		Were method blanks taken through the entire analytical process, including preparation and, if applicable, cleanup procedures?	X				
		Were blank concentrations < MQL?	X				
R6	OI	Laboratory control samples (LCS):					
		Were all COCs included in the LCS?	X				
		Was each LCS taken through the entire analytical procedure, including prep and cleanup steps?	X				
		Were LCSs analyzed at the required frequency?	X				
		Were LCS (and LCSD, if applicable) %Rs within the laboratory QC limits?		X			1
		Does the detectability check sample data document the laboratory's capability to detect the COCs at the MDL used to calculate the SDLs?	X				
		Was the LCSD RPD within QC limits?			X		
R7	OI	Matrix spike (MS) and matrix spike duplicate (MSD) data					
		Were the project/method specified analytes included in the MS and MSD?	X				
		Were MS/MSD analyzed at the appropriate frequency?	X				
		Were MS (and MSD, if applicable) %Rs within the laboratory QC limits?		X			2
		Were MS/MSD RPDs within laboratory QC limits?	X				
R8	OI	Analytical duplicate data					
		Were appropriate analytical duplicates analyzed for each matrix?			X		
		Were analytical duplicates analyzed at the appropriate frequency?			X		
		Were RPDs or relative standard deviations within the laboratory QC limits?			X		
R9	OI	Method quantitation limits (MQLs):					
		Are the MQLs for each method analyte included in the laboratory data package?	X				
		Do the MQLs correspond to the concentration of the lowest non-zero calibration standard?	X				
		Are unadjusted MQLs and DCSs included in the laboratory data package?	X				
R10	OI	Other problems/anomalies					
		Are all known problems/anomalies/special conditions noted in this LRC and ER?	X				
		Was applicable and available technology used to lower the SDL to minimize the matrix interference affects on the sample results?	X				3
		Is the laboratory NELAC-accredited under the Texas Laboratory Accreditation Program for the analytes, matrices and methods associated with this laboratory data package?	X				

- Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.
- O = organic analyses; I = inorganic analyses (and general chemistry, when applicable);
- NA = Not applicable;
- NR = Not reviewed;
- ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

Appendix A (cont'd): Laboratory Review Checklist: Reportable Data									
Laboratory Name: TestAmerica-Houston					LRC Date: 08/13/13				
Project Name: 1620 UPRR HWPW					Laboratory Job Number: 600-77257				
Reviewer Name: KV					Prep Batch Number: 600-112405, 112502, and 112632 -VOA				
# ¹	A ²	Description	Yes	No	NA ³	NR ⁴	ER# ⁵		
S1	OI	Initial calibration (ICAL)							
		Were response factors and/or relative response factors for each analyte within QC limits?	X						
		Were percent RSDs or correlation coefficient criteria met?	X						
		Was the number of standards recommended in the method used for all analytes?	X						
		Were all points generated between the lowest and highest standard used to calculate the curve?	X						
		Are ICAL data available for all instruments used?	X						
		Has the initial calibration curve been verified using an appropriate second source standard?	X						
S2	OI	Initial and continuing calibration verification (ICCV and CCV) and continuing calibration							
		Was the CCV analyzed at the method-required frequency?	X						
		Were percent differences for each analyte within the method-required QC limits?	X						
		Was the ICAL curve verified for each analyte?	X						
		Was the absolute value of the analyte concentration in the inorganic CCB < MDL?			X				
S3	O	Mass spectral tuning:							
		Was the appropriate compound for the method used for tuning?	X						
		Were ion abundance data within the method-required QC limits?	X						
S4	O	Internal standards (IS):							
		Were IS area counts and retention times within the method-required QC limits?	X						
S5	OI	Raw data (NELAC section 5.5.10)							
		Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?	X						
		Were data associated with manual integrations flagged on the raw data?	X						
S6	O	Dual column confirmation							
		Did dual column confirmation results meet the method-required QC?			X				
S7	O	Tentatively identified compounds (TICs):							
		If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?			X				
S8	I	Interference Check Sample (ICS) results:							
		Were percent recoveries within method QC limits?			X				
S9	I	Serial dilutions, post digestion spikes, and method of standard additions							
		Were percent differences, recoveries, and the linearity within the QC limits specified in the method?			X				
S10	OI	Method detection limit (MDL) studies							
		Was a MDL study performed for each reported analyte?	X						
		Is the MDL either adjusted or supported by the analysis of DCSs?	X						
S11	OI	Proficiency test reports:							
		Was the laboratory's performance acceptable on the applicable proficiency tests or evaluation studies?	X						
S12	OI	Standards documentation							
		Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?	X						
S13	OI	Compound/analyte identification procedures							
		Are the procedures for compound/analyte identification documented?	X						
S14	OI	Demonstration of analyst competency (DOC)							
		Was DOC conducted consistent with NELAC Chapter 5?	X						
		Is documentation of the analyst's competency up-to-date and on file?	X						
S15	OI	Verification/validation documentation for methods (NELAC Chapter 5)							
		Are all the methods used to generate the data documented, verified, and validated, where applicable?	X						
S16	OI	Laboratory standard operating procedures (SOPs):							
		Are laboratory SOPs current and on file for each method performed?	X						

- 1 Items identified by the letter "R" should be included in the laboratory data package submitted to the TCEQ in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.
- 2 O = organic analyses; I = inorganic analyses (and general chemistry, when applicable).
- 3 NA = Not applicable.
- 4 NR = Not Reviewed.
- 5 ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

Appendix A (cont'd): Laboratory Review Checklist: Exception Reports	
Laboratory Name: TestAmerica-Houston	LRC Date: 08/13/13
Project Name: 1620 UPRR HWPW	Laboratory Job Number: 600-77257
Reviewer Name: KV	Prep Batch Number: 600-112405, 112502, and 112632 -VOA
ER #¹	DESCRIPTION
1	The laboratory control sample (LCS) for batch 112502 recovered outside control limits for the following analyte: 1,2-dichloroethane. This analyte was biased high in the LCS and was not detected in the associated samples; therefore, the data have been reported.
2	The methylene chloride recovery in the matrix spike (MS) for batch 112405 was below the acceptance limits. The associated laboratory control sample (LCS) recovery met acceptance criteria.
3	All of the SDLs were elevated in samples: WG-1620-MW40B-20130731 (600-77257-5), WG-1620-MW49-A-20130801 (600-77257-12), and WG-1620-MW49B-20130801 (600-77257-13) due to the dilutions necessary for analysis.

ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked on the LRC)

Appendix A (cont'd): Laboratory Review Checklist: Reportable Data							
Laboratory Name: TestAmerica-Houston			LRC Date: 08/20/13				
Project Name: 1620 UPRR HWPW			Laboratory Job Number: 600-77257				
Reviewer Name: TTD			Prep Batch Number(s): 600-112538/113163/113428-SV				
# ¹	A ²	Description	Yes	No	NA ³	NR ⁴	ER# ⁵
R1	OI	Chain-of-custody (C-O-C)					
		Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?	X				
		Were all departures from standard conditions described in an exception report?			X		
R2	OI	Sample and quality control (QC) identification					
		Are all field sample ID numbers cross-referenced to the laboratory ID numbers?	X				
		Are all laboratory ID numbers cross-referenced to the corresponding QC data?	X				
R3	OI	Test reports					
		Were all samples prepared and analyzed within holding times?		X			1
		Other than those results < MQL, were all other raw values bracketed by calibration standards?	X				
		Were calculations checked by a peer or supervisor?	X				
		Were all analyte identifications checked by a peer or supervisor?	X				
		Were sample detection limits reported for all analytes not detected?	X				
		Were all results for soil and sediment samples reported on a dry weight basis?			X		
		Were % moisture (or solids) reported for all soil and sediment samples?			X		
		Were bulk soil/solid samples for volatile analysis extracted with methanol per SW846 Method 5035?			X		
		If required for the project, TICs reported?			X		
R4	O	Surrogate recovery data					
		Were surrogates added prior to extraction?	X				
		Were surrogate percent recoveries in all samples within the laboratory QC limits?		X			2
R5	OI	Test reports/summary forms for blank samples					
		Were appropriate type(s) of blanks analyzed?	X				
		Were blanks analyzed at the appropriate frequency?	X				
		Were method blanks taken through the entire analytical process, including preparation and, if applicable, cleanup procedures?	X				
		Were blank concentrations < MQL?	X				
R6	OI	Laboratory control samples (LCS):					
		Were all COCs included in the LCS?	X				
		Was each LCS taken through the entire analytical procedure, including prep and cleanup steps?	X				
		Were LCSs analyzed at the required frequency?	X				
		Were LCS (and LCSD, if applicable) %Rs within the laboratory QC limits?		X			3
		Does the detectability check sample data document the laboratory's capability to detect the COCs at the MDL used to calculate the SDLs?	X				
		Was the LCSD RPD within QC limits?		X			3
R7	OI	Matrix spike (MS) and matrix spike duplicate (MSD) data					
		Were the project/method specified analytes included in the MS and MSD?	X				
		Were MS/MSD analyzed at the appropriate frequency?	X				
		Were MS (and MSD, if applicable) %Rs within the laboratory QC limits?	X				
		Were MS/MSD RPDs within laboratory QC limits?	X				
R8	OI	Analytical duplicate data					
		Were appropriate analytical duplicates analyzed for each matrix?			X		
		Were analytical duplicates analyzed at the appropriate frequency?			X		
		Were RPDs or relative standard deviations within the laboratory QC limits?			X		
R9	OI	Method quantitation limits (MQLs):					
		Are the MQLs for each method analyte included in the laboratory data package?	X				
		Do the MQLs correspond to the concentration of the lowest non-zero calibration standard?	X				
		Are unadjusted MQLs and DCSs included in the laboratory data package?	X				
R10	OI	Other problems/anomalies					
		Are all known problems/anomalies/special conditions noted in this LRC and ER?	X				
		Was applicable and available technology used to lower the SDL to minimize the matrix interference affects on the sample results?	X				4
		Is the laboratory NELAC-accredited under the Texas Laboratory Accreditation Program for the analytes, matrices and methods associated with this laboratory data package?	X				

- Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.
- O = organic analyses; I = inorganic analyses (and general chemistry, when applicable);
- NA = Not applicable;
- NR = Not reviewed;
- ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

Appendix A (cont'd): Laboratory Review Checklist: Reportable Data									
Laboratory Name: TestAmerica-Houston					LRC Date: 08/20/13				
Project Name: 1620 UPRR HWPW					Laboratory Job Number: 600-77257				
Reviewer Name: TTD					Prep Batch Number(s): 600-112538/113163/113428-SV				
# ¹	A ²	Description	Yes	No	NA ³	NR ⁴	ER# ⁵		
S1	OI	Initial calibration (ICAL)							
		Were response factors and/or relative response factors for each analyte within QC limits?	X						
		Were percent RSDs or correlation coefficient criteria met?	X						
		Was the number of standards recommended in the method used for all analytes?	X						
		Were all points generated between the lowest and highest standard used to calculate the curve?	X						
		Are ICAL data available for all instruments used?	X						
		Has the initial calibration curve been verified using an appropriate second source standard?	X						
S2	OI	Initial and continuing calibration verification (ICCV and CCV) and continuing calibration							
		Was the CCV analyzed at the method-required frequency?	X						
		Were percent differences for each analyte within the method-required QC limits?		X				5	
		Was the ICAL curve verified for each analyte?	X						
		Was the absolute value of the analyte concentration in the inorganic CCB < MDL?			X				
S3	O	Mass spectral tuning:							
		Was the appropriate compound for the method used for tuning?	X						
		Were ion abundance data within the method-required QC limits?	X						
S4	O	Internal standards (IS):							
		Were IS area counts and retention times within the method-required QC limits?	X						
S5	OI	Raw data (NELAC section 5.5.10)							
		Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?	X						
		Were data associated with manual integrations flagged on the raw data?	X						
S6	O	Dual column confirmation							
		Did dual column confirmation results meet the method-required QC?			X				
S7	O	Tentatively identified compounds (TICs):							
		If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?			X				
S8	I	Interference Check Sample (ICS) results:							
		Were percent recoveries within method QC limits?			X				
S9	I	Serial dilutions, post digestion spikes, and method of standard additions							
		Were percent differences, recoveries, and the linearity within the QC limits specified in the method?			X				
S10	OI	Method detection limit (MDL) studies							
		Was a MDL study performed for each reported analyte?	X						
		Is the MDL either adjusted or supported by the analysis of DCSs?	X						
S11	OI	Proficiency test reports:							
		Was the laboratory's performance acceptable on the applicable proficiency tests or evaluation studies?	X						
S12	OI	Standards documentation							
		Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?	X						
S13	OI	Compound/analyte identification procedures							
		Are the procedures for compound/analyte identification documented?	X						
S14	OI	Demonstration of analyst competency (DOC)							
		Was DOC conducted consistent with NELAC Chapter 5?	X						
		Is documentation of the analyst's competency up-to-date and on file?	X						
S15	OI	Verification/validation documentation for methods (NELAC Chapter 5)							
		Are all the methods used to generate the data documented, verified, and validated, where applicable?	X						
S16	OI	Laboratory standard operating procedures (SOPs):							
		Are laboratory SOPs current and on file for each method performed?	X						

- 1 Items identified by the letter "R" should be included in the laboratory data package submitted to the TCEQ in the TRRP-required report(s).
- 2 Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.
- 3 O = organic analyses; I = inorganic analyses (and general chemistry, when applicable).
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- 6 ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

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Appendix A (cont'd): Laboratory Review Checklist: Exception Reports	
Laboratory Name: TestAmerica-Houston	LRC Date: 08/20/13
Project Name: 1620 UPRR HWPW	Laboratory Job Number: 600-77257
Reviewer Name: TTD	Prep Batch Number(s): 600-112538/113163/113428-SV
ER #¹	DESCRIPTION
1	<p>Sample 600-77257-9 was inadvertently spiked for target analytes. The sample was re-prepped outside analytical holding time.</p> <p>Re-extraction and reanalysis of the following sample 600-77257-17 was performed outside of the analytical holding time due to surrogate failure of original extraction. The re-extraction and re-analysis surrogate recoveries were all within QC limits.</p>
2	<p>Six surrogates are used for this analysis. The laboratory's SOP allows one acid and one base of these surrogates to be outside acceptance criteria without performing re-extraction/re-analysis. The LCSD for batch 113163 was biased high for 2,4,6-Tribromophenol. The associated MB, LCS, and sample surrogates fell within acceptance criteria; therefore, the data have been reported.</p> <p>The surrogate recovery was biased low for Phenol-d5 in the following samples 600-77257-16 due to sample matrix.</p> <p>Due to the high dilution required for the following samples 600-77257- 3DL, 5, 5DL, 12, 12DL, 13 and 13DL, surrogate recoveries were not reported.</p>
3	<p>The laboratory control sample (LCS) for batch 113163 recovered outside control limits for the following analyte: 4-Nitrophenol. This analyte was biased high in the LCS and was not detected in the associated samples; therefore, the data have been reported.</p> <p>The %RPD of the laboratory control sample (LCS) and laboratory control standard duplicate (LCSD) for preparation batch 113428 recovered outside control limits for the following analytes: 1,2-Diphenylhydrazine.</p>
4	<p>All the SDLs in samples 600-77257-5, 12 and 13 were elevated due to the nature of the sample matrix.</p> <p>Various SDLs were elevated in samples 600-77257-3DL and 4DL due to the high concentration of these analytes.</p>
5	<p>The continuing calibration verification (CCV) for analytical batch 113129 recovered outside control limits for 4,6-Dinitro-2-methylphenol (-61.7). The SOP makes allowance for up to four non-CCC analytes to have a %drift greater than the acceptable limit. The data have been qualified and reported.</p> <p>The continuing calibration verification (CCV) for analytical batch 113153 was biased low for 4,6-Dinitro-2-methylphenol (-56.1). The SOP makes allowance for up to four non-CCC analytes to have a %drift greater than the acceptable limit. The data have been qualified and reported.</p> <p>The continuing calibration verification (CCV) for analytical batch 113230 recovered outside control limits for 4,6-Dinitro-2-methylphenol (-58.5). The SOP makes allowance for up to four non-CCC analytes to have a %drift greater than the acceptable limit. The data have been qualified and reported.</p>

ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked on the LRC)

Detection Check Standard

Matrix: Water
Method: 8260B_LL
Preparation: Wei Shen
Date Analyzed: 5/22/2013
Date Prepared: 5/22/2013
TALs Batches: 600-106788
Units: ug/L

Analyte	MDL	DCS Spike	Measured Result	MQL
Chloromethane	0.18	0.5	0.18	2
Vinyl Chloride	0.11	0.5	0.532	2
Bromomethane	0.25	0.5	0.502	2
Chloroethane	0.08	0.5	0.591	2
Trichlorofluoromethane	0.08	0.5	0.464	1
Acrolein	1.63	2.5	2.347	5
1,1-Dichloroethene	0.19	0.5	0.449	1
trans-1,2-Dichloroethene	0.09	0.5	0.481	1
Acetone	0.99	0.5	0.9	2
Methyl Iodide (Iodomethane)	2	0.5	1.013	2
Carbon Disulfide	0.24	0.5	0.913	1
Methylene Chloride	0.15	0.5		1
Acetonitrile	0.27	1.5	0.833	1
Methyl tert-butyl ether	0.12	0.5	0.499	1
Chloroprene (2-Chloro-1,3-butadiene)	0.33	0.5		2
Vinyl Acetate	0.21	0.5		1
cis-1,2-Dichloroethene	0.3	0.5	0.478	1
2-Butanone (MEK)	0.76	0.5		5
1,2-Dichloroethene	0.3	0.5		1
Chlorobromomethane	0.18	0.5	0.504	1
Carbon Tetrachloride	0.15	0.5	0.421	5
Benzene	0.08	0.5	0.467	1
1,2-Dichloroethane	0.14	0.5		1
Trichloroethene	0.13	0.5	0.483	1
1,1,1-Trichloroethane	0.15	0.5	0.45	1
1,1-Dichloroethane	0.11	0.5	0.487	1
1,2-Dichloropropane	0.16	0.5	0.387	1
cis-1,3-Dichloropropene	0.18	0.5	0.321	1
Methylene Bromide (Bromomethane)	0.25	0.25	0.291	1
Methyl methacrylate	0.33	1.5	0.845	1
4-Methyl-2-pentanone	0.45	0.5	0.476	2
Toluene	0.15	0.5	0.471	1
trans-1,3-Dichloropropene	0.21	0.5		1
Ethyl methacrylate	0.26	1.5	1.164	1
1,1,2-Trichloroethane	0.28	0.5	0.507	1
Tetrachloroethene	0.18	0.5	0.429	1
1,3-Dichloropropane	0.22	0.5	0.444	1
Dibromochloromethane	0.16	0.5	0.421	1
1,2-Dibromoethane (Ethylene bromide)	0.18	0.5	0.423	1



2-Hexanone	0.35	0.5		
Chlorobenzene	0.12	0.5	0.451	1
Ethylbenzene	0.11	0.5	0.433	1
m,p-Xylene	0.17	0.5	0.8	2
o-Xylene	0.12	0.5	0.418	1
Xylenes (total)	0.26	1.5	1.219	3
Styrene	0.07	0.5	0.372	1
Bromoform	0.19	0.5		1
1,1,2,2-Tetrachloroethane	0.22	0.5		1
Chloroform	0.13	0.5	0.442	1
Isopropylbenzene	0.18	0.5	0.431	1
Bromobenzene	0.19	0.25	0.311	1
n-Propylbenzene	0.15	0.5	0.446	1
2-Chlorotoluene	0.13	0.5	0.478	1
4-Chlorotoluene	0.14	0.5	0.405	1
1,3,5-Trimethylbenzene	0.1	0.5	0.421	1
tert-Butylbenzene	0.08	0.5	0.417	1
p-Isopropyltoluene	0.1	0.25	0.231	1
1,2,4-Trimethylbenzene	0.14	0.5	0.411	1
sec-Butylbenzene	0.12	0.5	0.405	1
1,3-Dichlorobenzene	0.13	0.5	0.436	1
1,4-Dichlorobenzene	0.11	0.5	0.444	1
1,2-Dichlorobenzene	0.1	0.5	0.441	1
n-Butylbenzene	0.16	0.25	0.204	1
Hexachlorobutadiene	0.17	0.5		1
Naphthalene	0.32	0.25	0.246	1
1,1,1,2-Tetrachloroethane	0.18	0.5	0.386	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1	0.5	0.494	1
1,1-Dichloropropene	0.21	0.5	0.421	1
4-Isopropyltoluene	0.1	0.5	0.381	1
Acrylonitrile	0.52	3	1.957	2
Dibromomethane	0.52	0.5	0.458	1
Dichlorobromomethane	0.16	0.5	0.364	1

Quality Control Report

Detection Check Standard

Matrix: Water
 Method: 8270C LL
 Preparation: 3510C
 Date Analyzed: 1/3/2013
 Date Prepared: 1/3/2013
 Lab Sample ID: 600-96501/6-A
 Units: ug/L

Analyte	MDL	DCS Spike	DCS Result	MQL
Pyridine	0.04	0.5	0.573	0.5
N-Nitrosodimethylamine	0.26	0.5	0.224	0.5
bis (2-Chloroisopropyl) ether	0.4	0.5	0.353	0.5
Aniline	0.08	0.25	0.082	0.5
Phenol	0.04	0.25	0.0987	0.5
bis(2-Chloroethyl)ether	0.15	0.5	0.389	0.5
2-Chlorophenol	0.13	0.5	0.307	0.5
1,3-Dichlorobenzene	0.17	0.5	0.360	0.5
1,4-Dichlorobenzene	0.13	0.5	0.397	0.5
1,2-Dichlorobenzene	0.17	0.5	0.402	0.5
Benzyl alcohol	0.17	0.5	0.268	0.5
2-Methylphenol (o-cresol)	0.12	0.5	0.291	0.5
3&4-Methylphenol (m&p-Cresols)	0.2	0.5	0.287	1
N-Nitroso-di-n-propylamine	0.1	0.5	0.376	0.5
Hexachloroethane	0.1	0.5	0.384	0.5
Dibenzo(a,h)anthracene	0.08	0.5	0.553	0.5
Indeno(1,2,3-cd)pyrene	0.07	0.5	0.559	0.5
Nitrobenzene	0.11	0.25	0.167	0.5
Isophorone	0.11	0.25	0.158	0.5
2-Nitrophenol	0.22	0.5	0.331	0.5
Benzoic acid	2.51	12.5	6.330	2.5
2,4-Dimethylphenol	0.15	0.5	0.285	0.5
bis(2-Chloroethoxy)methane	0.13	0.5	0.363	0.5
2,4-Dichlorophenol	0.15	0.5	0.285	0.5
1,2,4-Trichlorobenzene	0.12	0.5	0.415	0.5
Naphthalene	0.08	0.25	0.190	0.5
Benzo(a)pyrene	0.08	0.25	0.398	0.5
Hexachlorobutadiene	0.18	0.5	0.418	0.5
4-Chloro-3-methylphenol	0.17	0.5	0.310	0.5
2-Methylnaphthalene	0.07	0.25	0.177	0.5
1-Methylnaphthalene	0.09	0.25	0.194	0.5
Benzo(k)fluoranthene	0.09	0.25	0.161	0.5
Hexachlorocyclopentadiene	0.13	0.5	0.198	0.5
2,4,6-Trichlorophenol	0.18	0.5	0.283	0.5
2,4,5-Trichlorophenol	0.25	0.5	0.305	0.5
2-Chloronaphthalene	0.08	0.25	0.165	0.5
2-Nitroaniline	0.19	0.5	0.482	0.5
1,4-Dinitrobenzene	0.5	0.5	0.282	0.5
1,3-Dinitrobenzene	0.08	0.25	0.124	0.5
1,2-Dinitrobenzene	0.5	0.5	0.413	0.5

Dimethylphthalate	0.07	0.25	0.185	0.5
Acenaphthylene	0.06	0.25	0.183	0.5
2,6-Dinitrotoluene	0.08	0.5	0.314	0.5
Benzo(b)fluoranthene	0.07	0.5	0.590	0.5
Acenaphthene	0.08	0.5	0.375	0.5
Di-n-octylphthalate	0.16	0.5	0.891	0.5
4-Nitrophenol	0.56	2.5	0.881	1
Dibenzofuran	0.08	0.25	0.164	0.5
2,4-Dinitrotoluene	0.13	0.5	0.201	0.5
2,3,4,6-Tetrachlorophenol	0.5	0.5	0.208	0.5
2,3,5,6-Tetrachlorophenol	0.5	0.5	0.200	0.5
Diethylphthalate	1.5	0.5	0.307	0.5
4-Chlorophenyl-phenylether	0.1	0.5	0.351	0.5
Fluorene	0.07	0.25	0.177	0.5
4-Nitroaniline	0.25	0.5	0.238	0.5
Chrysene	0.08	0.25	0.236	0.5
4,6-Dinitro-2-methylphenol	0.83	2.5	1.220	0.5
N-Nitrosodiphenylamine	0.1	0.5	0.737	0.5
Diphenylamine	0.1	0.5	0.121	0.5
1,2-Diphenylhydrazine	0.11	0.25	0.145	0.5
Azobenzene	0.07	0.25	0.143	0.5
4-Bromophenyl-phenylether	0.1	0.5	0.433	0.5
Hexachlorobenzene	0.11	0.25	0.090	0.5
Pentachlorophenol	0.61	2.5	1.400	0.5
Phenanthrene	0.06	0.25	0.182	0.5
Anthracene	0.05	0.25	0.160	0.5
Carbazole	0.17	0.5	0.530	0.5
Di-n-butylphthalate	0.11	0.25	0.187	0.5
Fluoranthene	0.07	0.25	0.178	0.5
Benzdine	0.61	12.5	9.300	0.5
Pyrene	0.11	0.25	0.168	0.5
Butylbenzylphthalate	0.12	0.5	0.631	0.5
3,3'-Dichlorobenzidine	0.18	0.5	0.100	0.5
Benzo(a)anthracene	0.08	0.25	0.192	0.5
bis(2-Ethylhexyl)phthalate	0.37	0.5	0.427	0.5
Benzo(g,h,i)perylene	0.08	0.25	0.137	0.5
4-Chloroaniline	0.21	0.5	0.316	0.5
3-Nitroaniline	0.16	0.5	0.803	0.5

Case Narrative

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-77257-1

Job ID: 600-77257-1

Laboratory: TestAmerica Houston

Narrative

Job Narrative 600-77257-1

Comments

The report was revised on 09/09/13 to reflect a sample ID change requested by the client, see attached letter with the Chain of Custody.

Receipt

The samples were received on 8/2/2013 11:51 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 5 coolers at receipt time were 2.7° C, 3.6° C, 4.4° C, 4.6° C and 5.7° C.

Organic Prep

Method(s) 3510C: The following sample(s) formed emulsions during the extraction procedure: WG-1620-FB04-20130801 (600-77257-14), WG-1620-FB05-20130802 (600-77257-19), WG-1620-FD01-20130801 (600-77257-9), WG-1620-MW05-20130801 (600-77257-7), WG-1620-MW12A-20130731 (600-77257-3), WG-1620-MW12C-20130731 (600-77257-2), WG-1620-MW21C-20130801 (600-77257-8), WG-1620-MW39B-20130731 (600-77257-1), WG-1620-MW40B-20130731 (600-77257-5), WG-1620-MW42B-20130801 (600-77257-6), WG-1620-MW48C-20130801 (600-77257-15), WG-1620-MW49-A-20130801 (600-77257-12), WG-1620-MW49B-20130801 (600-77257-13), WG-1620-MW59A-20130801 (600-77257-17), WG-1620-MW59B-20130801 (600-77257-16), WG-1620-MW60A-20130802 (600-77257-18), WG-1620-MW61A-20130801 (600-77257-11), WG-1620-MW61A-20130801 (600-77257-11 MS), WG-1620-MW61A-20130801 (600-77257-11 MSD), WG-1620-MW62B-20130802 (600-77257-20), WG-1620-P11-20130801 (600-77257-10), WG-1620-TW41B-20130731 (600-77257-4). The emulsions were broken up using pour backs.

Method Summary

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-77257-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL HOU
8270C LL	Semivolatile Organic Compounds by GCMS - Low Levels	SW846	TAL HOU

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL HOU = TestAmerica Houston, 6310 Rothway Street, Houston, TX 77040, TEL (713)690-4444



Sample Summary

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-77257-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
600-77257-1	WG-1620-MW39B-20130731	Water	07/31/13 13:10	08/02/13 11:51
600-77257-2	WG-1620-MW12C-20130731	Water	07/31/13 14:00	08/02/13 11:51
600-77257-3	WG-1620-MW12A-20130731	Water	07/31/13 14:45	08/02/13 11:51
600-77257-4	WG-1620-TW41B-20130731	Water	07/31/13 15:35	08/02/13 11:51
600-77257-5	WG-1620-MW40B-20130731	Water	07/31/13 16:50	08/02/13 11:51
600-77257-6	WG-1620-MW42B-20130801	Water	08/01/13 08:00	08/02/13 11:51
600-77257-7	WG-1620-MW05-20130801	Water	08/01/13 09:00	08/02/13 11:51
600-77257-8	WG-1620-MW21C-20130801	Water	08/01/13 10:00	08/02/13 11:51
600-77257-9	WG-1620-FD01-20130801	Water	08/01/13 10:00	08/02/13 11:51
600-77257-10	WG-1620-P11-20130801	Water	08/01/13 11:00	08/02/13 11:51
600-77257-11	WG-1620-MW61A-20130801	Water	08/01/13 12:30	08/02/13 11:51
600-77257-12	WG-1620-MW49-A-20130801	Water	08/01/13 13:20	08/02/13 11:51
600-77257-13	WG-1620-MW49B-20130801	Water	08/01/13 14:15	08/02/13 11:51
600-77257-14	WG-1620-FB04-20130801	Water	08/01/13 14:30	08/02/13 11:51
600-77257-15	WG-1620-MW48C-20130801	Water	08/01/13 15:20	08/02/13 11:51
600-77257-16	WG-1620-MW59B-20130801	Water	08/01/13 16:35	08/02/13 11:51
600-77257-17	WG-1620-MW59A-20130801	Water	08/01/13 17:30	08/02/13 11:51
600-77257-18	WG-1620-MW60A-20130802	Water	08/02/13 08:00	08/02/13 11:51
600-77257-19	WG-1620-FB05-20130802	Water	08/02/13 08:45	08/02/13 11:51
600-77257-20	WG-1620-MW62B-20130802	Water	08/02/13 10:20	08/02/13 11:51
600-77257-21	WG-1620-TB02-201030802	Water	08/02/13 00:00	08/02/13 11:51

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-77257-1

Client Sample ID: WG-1620-MW39B-20130731

Lab Sample ID: 600-77257-1

Date Collected: 07/31/13 13:10

Matrix: Water

Date Received: 08/02/13 11:51

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			08/05/13 13:42	1
Benzene	0.0000800	U	0.00100	0.0000800	mg/L			08/05/13 13:42	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			08/05/13 13:42	1
Toluene	0.000150	U	0.00100	0.000150	mg/L			08/05/13 13:42	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			08/05/13 13:42	1
Ethylbenzene	0.000110	U	0.00100	0.000110	mg/L			08/05/13 13:42	1
Xylenes, Total	0.000260	U	0.00300	0.000260	mg/L			08/05/13 13:42	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	108		67 - 139					08/05/13 13:42	1
Dibromofluoromethane	94		62 - 130					08/05/13 13:42	1
Toluene-d8 (Surr)	85		70 - 130					08/05/13 13:42	1
1,2-Dichloroethane-d4 (Surr)	109		50 - 134					08/05/13 13:42	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.0000381	U	0.000476	0.0000381	mg/L		08/07/13 08:42	08/13/13 18:19	1
Nitrobenzene	0.000105	U	0.000476	0.000105	mg/L		08/07/13 08:42	08/13/13 18:19	1
2,4-Dimethylphenol	0.000295	U	0.000476	0.000295	mg/L		08/07/13 08:42	08/13/13 18:19	1
Bis(2-chloroethoxy)methane	0.000124	U	0.000476	0.000124	mg/L		08/07/13 08:42	08/13/13 18:19	1
Naphthalene	0.0000762	U	0.00476	0.0000762	mg/L		08/07/13 08:42	08/13/13 18:19	1
2-Methylnaphthalene	0.0000667	U	0.000476	0.0000667	mg/L		08/07/13 08:42	08/13/13 18:19	1
2-Chloronaphthalene	0.0000762	U	0.000476	0.0000762	mg/L		08/07/13 08:42	08/13/13 18:19	1
Acenaphthylene	0.0000676	J	0.000476	0.0000571	mg/L		08/07/13 08:42	08/13/13 18:19	1
2,6-Dinitrotoluene	0.0000762	U	0.000476	0.0000762	mg/L		08/07/13 08:42	08/13/13 18:19	1
Acenaphthene	0.000700		0.000476	0.0000762	mg/L		08/07/13 08:42	08/13/13 18:19	1
4-Nitrophenol	0.000533	U	0.000952	0.000533	mg/L		08/07/13 08:42	08/13/13 18:19	1
Dibenzofuran	0.0000762	U	0.000476	0.0000762	mg/L		08/07/13 08:42	08/13/13 18:19	1
2,4-Dinitrotoluene	0.000124	U	0.000476	0.000124	mg/L		08/07/13 08:42	08/13/13 18:19	1
Fluorene	0.000216	J	0.000476	0.0000667	mg/L		08/07/13 08:42	08/13/13 18:19	1
4,6-Dinitro-2-methylphenol	0.000790	U	0.000952	0.000790	mg/L		08/07/13 08:42	08/13/13 18:19	1
N-Nitrosodiphenylamine	0.000158	J	0.000476	0.0000952	mg/L		08/07/13 08:42	08/13/13 18:19	1
1,2-Diphenylhydrazine	0.000105	U	0.000476	0.000105	mg/L		08/07/13 08:42	08/13/13 18:19	1
Pentachlorophenol	0.000581	U	0.000952	0.000581	mg/L		08/07/13 08:42	08/13/13 18:19	1
Phenanthrene	0.0000912	J	0.000476	0.0000571	mg/L		08/07/13 08:42	08/13/13 18:19	1
Anthracene	0.000774		0.000476	0.0000476	mg/L		08/07/13 08:42	08/13/13 18:19	1
Di-n-butyl phthalate	0.000122	J	0.00238	0.000105	mg/L		08/07/13 08:42	08/13/13 18:19	1
Fluoranthene	0.000418	J	0.000476	0.0000667	mg/L		08/07/13 08:42	08/13/13 18:19	1
Pyrene	0.000655		0.000476	0.000105	mg/L		08/07/13 08:42	08/13/13 18:19	1
Benzo[a]anthracene	0.0000762	U	0.000476	0.0000762	mg/L		08/07/13 08:42	08/13/13 18:19	1
Bis(2-ethylhexyl) phthalate	0.000352	U	0.00238	0.000352	mg/L		08/07/13 08:42	08/13/13 18:19	1
Chrysene	0.0000762	U	0.000476	0.0000762	mg/L		08/07/13 08:42	08/13/13 18:19	1
Benzo[a]pyrene	0.0000762	U	0.000476	0.0000762	mg/L		08/07/13 08:42	08/13/13 18:19	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	102		44 - 123				08/07/13 08:42	08/13/13 18:19	1
2-Fluorobiphenyl	81		43 - 120				08/07/13 08:42	08/13/13 18:19	1
2-Fluorophenol	31		18 - 120				08/07/13 08:42	08/13/13 18:19	1
Nitrobenzene-d5	72		47 - 120				08/07/13 08:42	08/13/13 18:19	1
Terphenyl-d14	91		33 - 141				08/07/13 08:42	08/13/13 18:19	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-77257-1

Client Sample ID: WG-1620-MW39B-20130731

Lab Sample ID: 600-77257-1

Date Collected: 07/31/13 13:10

Matrix: Water

Date Received: 08/02/13 11:51

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Phenol-d5 (Surr)	16		12 - 128	08/07/13 08:42	08/13/13 18:19	1

Client Sample ID: WG-1620-MW12C-20130731

Lab Sample ID: 600-77257-2

Date Collected: 07/31/13 14:00

Matrix: Water

Date Received: 08/02/13 11:51

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			08/05/13 14:11	1
Benzene	0.0000800	U	0.00100	0.0000800	mg/L			08/05/13 14:11	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			08/05/13 14:11	1
Toluene	0.000150	U	0.00100	0.000150	mg/L			08/05/13 14:11	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			08/05/13 14:11	1
Ethylbenzene	0.000110	U	0.00100	0.000110	mg/L			08/05/13 14:11	1
Xylenes, Total	0.000260	U	0.00300	0.000260	mg/L			08/05/13 14:11	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	114		67 - 139		08/05/13 14:11	1
Dibromofluoromethane	89		62 - 130		08/05/13 14:11	1
Toluene-d8 (Surr)	92		70 - 130		08/05/13 14:11	1
1,2-Dichloroethane-d4 (Surr)	104		50 - 134		08/05/13 14:11	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.0000381	U	0.000476	0.0000381	mg/L		08/07/13 08:42	08/13/13 18:49	1
Nitrobenzene	0.000105	U	0.000476	0.000105	mg/L		08/07/13 08:42	08/13/13 18:49	1
2,4-Dimethylphenol	0.000295	U	0.000476	0.000295	mg/L		08/07/13 08:42	08/13/13 18:49	1
Bis(2-chloroethoxy)methane	0.000124	U	0.000476	0.000124	mg/L		08/07/13 08:42	08/13/13 18:49	1
Naphthalene	0.000585	J	0.00476	0.0000762	mg/L		08/07/13 08:42	08/13/13 18:49	1
2-Methylnaphthalene	0.000129	J	0.000476	0.0000667	mg/L		08/07/13 08:42	08/13/13 18:49	1
2-Chloronaphthalene	0.0000762	U	0.000476	0.0000762	mg/L		08/07/13 08:42	08/13/13 18:49	1
Acenaphthylene	0.0000571	U	0.000476	0.0000571	mg/L		08/07/13 08:42	08/13/13 18:49	1
2,6-Dinitrotoluene	0.0000762	U	0.000476	0.0000762	mg/L		08/07/13 08:42	08/13/13 18:49	1
Acenaphthene	0.0000762	U	0.000476	0.0000762	mg/L		08/07/13 08:42	08/13/13 18:49	1
4-Nitrophenol	0.000533	U	0.000952	0.000533	mg/L		08/07/13 08:42	08/13/13 18:49	1
Dibenzofuran	0.0000857	J	0.000476	0.0000762	mg/L		08/07/13 08:42	08/13/13 18:49	1
2,4-Dinitrotoluene	0.000124	U	0.000476	0.000124	mg/L		08/07/13 08:42	08/13/13 18:49	1
Fluorene	0.000102	J	0.000476	0.0000667	mg/L		08/07/13 08:42	08/13/13 18:49	1
4,6-Dinitro-2-methylphenol	0.000790	U	0.000952	0.000790	mg/L		08/07/13 08:42	08/13/13 18:49	1
N-Nitrosodiphenylamine	0.0000952	U	0.000476	0.0000952	mg/L		08/07/13 08:42	08/13/13 18:49	1
1,2-Diphenylhydrazine	0.000105	U	0.000476	0.000105	mg/L		08/07/13 08:42	08/13/13 18:49	1
Pentachlorophenol	0.000581	U	0.000952	0.000581	mg/L		08/07/13 08:42	08/13/13 18:49	1
Phenanthrene	0.0000571	U	0.000476	0.0000571	mg/L		08/07/13 08:42	08/13/13 18:49	1
Anthracene	0.0000476	U	0.000476	0.0000476	mg/L		08/07/13 08:42	08/13/13 18:49	1
Di-n-butyl phthalate	0.000110	J	0.00238	0.000105	mg/L		08/07/13 08:42	08/13/13 18:49	1
Fluoranthene	0.0000667	U	0.000476	0.0000667	mg/L		08/07/13 08:42	08/13/13 18:49	1
Pyrene	0.000105	U	0.000476	0.000105	mg/L		08/07/13 08:42	08/13/13 18:49	1
Benzo[a]anthracene	0.0000762	U	0.000476	0.0000762	mg/L		08/07/13 08:42	08/13/13 18:49	1
Bis(2-ethylhexyl) phthalate	0.000352	U	0.00238	0.000352	mg/L		08/07/13 08:42	08/13/13 18:49	1
Chrysene	0.0000762	U	0.000476	0.0000762	mg/L		08/07/13 08:42	08/13/13 18:49	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-77257-1

Client Sample ID: WG-1620-MW12C-20130731

Lab Sample ID: 600-77257-2

Date Collected: 07/31/13 14:00

Matrix: Water

Date Received: 08/02/13 11:51

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]pyrene	0.0000762	U	0.000476	0.0000762	mg/L		08/07/13 08:42	08/13/13 18:49	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	89		44 - 123				08/07/13 08:42	08/13/13 18:49	1
2-Fluorobiphenyl	64		43 - 120				08/07/13 08:42	08/13/13 18:49	1
2-Fluorophenol	30		18 - 120				08/07/13 08:42	08/13/13 18:49	1
Nitrobenzene-d5	57		47 - 120				08/07/13 08:42	08/13/13 18:49	1
Terphenyl-d14	87		33 - 141				08/07/13 08:42	08/13/13 18:49	1
Phenol-d5 (Surr)	17		12 - 128				08/07/13 08:42	08/13/13 18:49	1

Client Sample ID: WG-1620-MW12A-20130731

Lab Sample ID: 600-77257-3

Date Collected: 07/31/13 14:45

Matrix: Water

Date Received: 08/02/13 11:51

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			08/06/13 19:57	1
Benzene	0.0000957	J	0.00100	0.0000800	mg/L			08/06/13 19:57	1
1,2-Dichloroethane	0.000140	U*	0.00100	0.000140	mg/L			08/06/13 19:57	1
Toluene	0.000166	J	0.00100	0.000150	mg/L			08/06/13 19:57	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			08/06/13 19:57	1
Ethylbenzene	0.000774	J	0.00100	0.000110	mg/L			08/06/13 19:57	1
Xylenes, Total	0.00217	J	0.00300	0.000260	mg/L			08/06/13 19:57	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	96		67 - 139					08/06/13 19:57	1
Dibromofluoromethane	91		62 - 130					08/06/13 19:57	1
Toluene-d8 (Surr)	89		70 - 130					08/06/13 19:57	1
1,2-Dichloroethane-d4 (Surr)	117		50 - 134					08/06/13 19:57	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.0000381	U	0.000476	0.0000381	mg/L		08/07/13 08:42	08/13/13 19:18	1
Nitrobenzene	0.000105	U	0.000476	0.000105	mg/L		08/07/13 08:42	08/13/13 19:18	1
2,4-Dimethylphenol	0.000295	U	0.000476	0.000295	mg/L		08/07/13 08:42	08/13/13 19:18	1
Bis(2-chloroethoxy)methane	0.000124	U	0.000476	0.000124	mg/L		08/07/13 08:42	08/13/13 19:18	1
2-Chloronaphthalene	0.0000762	U	0.000476	0.0000762	mg/L		08/07/13 08:42	08/13/13 19:18	1
Acenaphthylene	0.0000571	U	0.000476	0.0000571	mg/L		08/07/13 08:42	08/13/13 19:18	1
2,6-Dinitrotoluene	0.0000762	U	0.000476	0.0000762	mg/L		08/07/13 08:42	08/13/13 19:18	1
4-Nitrophenol	0.000533	U	0.000952	0.000533	mg/L		08/07/13 08:42	08/13/13 19:18	1
2,4-Dinitrotoluene	0.000124	U	0.000476	0.000124	mg/L		08/07/13 08:42	08/13/13 19:18	1
4,6-Dinitro-2-methylphenol	0.000790	U	0.000952	0.000790	mg/L		08/07/13 08:42	08/13/13 19:18	1
N-Nitrosodiphenylamine	0.0000952	U	0.000476	0.0000952	mg/L		08/07/13 08:42	08/13/13 19:18	1
1,2-Diphenylhydrazine	0.000105	U	0.000476	0.000105	mg/L		08/07/13 08:42	08/13/13 19:18	1
Pentachlorophenol	0.000581	U	0.000952	0.000581	mg/L		08/07/13 08:42	08/13/13 19:18	1
Anthracene	0.0222		0.000476	0.0000476	mg/L		08/07/13 08:42	08/13/13 19:18	1
Di-n-butyl phthalate	0.000240	J	0.00238	0.000105	mg/L		08/07/13 08:42	08/13/13 19:18	1
Fluoranthene	0.0181		0.000476	0.0000667	mg/L		08/07/13 08:42	08/13/13 19:18	1
Pyrene	0.00818		0.000476	0.000105	mg/L		08/07/13 08:42	08/13/13 19:18	1
Benzo[a]anthracene	0.000226	J	0.000476	0.0000762	mg/L		08/07/13 08:42	08/13/13 19:18	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-77257-1

Client Sample ID: WG-1620-MW12A-20130731

Lab Sample ID: 600-77257-3

Date Collected: 07/31/13 14:45

Matrix: Water

Date Received: 08/02/13 11:51

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	0.000352	U	0.00238	0.000352	mg/L		08/07/13 08:42	08/13/13 19:18	1
Chrysene	0.000231	J	0.000476	0.0000762	mg/L		08/07/13 08:42	08/13/13 19:18	1
Benzo[a]pyrene	0.0000762	U	0.000476	0.0000762	mg/L		08/07/13 08:42	08/13/13 19:18	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	112		44 - 123				08/07/13 08:42	08/13/13 19:18	1
2-Fluorobiphenyl	88		43 - 120				08/07/13 08:42	08/13/13 19:18	1
2-Fluorophenol	40		18 - 120				08/07/13 08:42	08/13/13 19:18	1
Nitrobenzene-d5	96		47 - 120				08/07/13 08:42	08/13/13 19:18	1
Terphenyl-d14	93		33 - 141				08/07/13 08:42	08/13/13 19:18	1
Phenol-d5 (Surr)	24		12 - 128				08/07/13 08:42	08/13/13 19:18	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels - DL

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	0.661		0.238	0.00381	mg/L		08/07/13 08:42	08/14/13 19:28	50
2-Methylnaphthalene	0.306		0.0238	0.00333	mg/L		08/07/13 08:42	08/14/13 19:28	50
Acenaphthene	0.428		0.0238	0.00381	mg/L		08/07/13 08:42	08/14/13 19:28	50
Dibenzofuran	0.317		0.0238	0.00381	mg/L		08/07/13 08:42	08/14/13 19:28	50
Fluorene	0.316		0.0238	0.00333	mg/L		08/07/13 08:42	08/14/13 19:28	50
Phenanthrene	0.234		0.0238	0.00286	mg/L		08/07/13 08:42	08/14/13 19:28	50
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	0	X	44 - 123				08/07/13 08:42	08/14/13 19:28	50
2-Fluorobiphenyl	0	X	43 - 120				08/07/13 08:42	08/14/13 19:28	50
2-Fluorophenol	0	X	18 - 120				08/07/13 08:42	08/14/13 19:28	50
Nitrobenzene-d5	0	X	47 - 120				08/07/13 08:42	08/14/13 19:28	50
Terphenyl-d14	0	X	33 - 141				08/07/13 08:42	08/14/13 19:28	50
Phenol-d5 (Surr)	0	X	12 - 128				08/07/13 08:42	08/14/13 19:28	50

Client Sample ID: WG-1620-TW41B-20130731

Lab Sample ID: 600-77257-4

Date Collected: 07/31/13 15:35

Matrix: Water

Date Received: 08/02/13 11:51

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			08/05/13 14:40	1
Benzene	0.000347	J	0.00100	0.0000800	mg/L			08/05/13 14:40	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			08/05/13 14:40	1
Toluene	0.000279	J	0.00100	0.000150	mg/L			08/05/13 14:40	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			08/05/13 14:40	1
Ethylbenzene	0.00115		0.00100	0.000110	mg/L			08/05/13 14:40	1
Xylenes, Total	0.000386	J	0.00300	0.000260	mg/L			08/05/13 14:40	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	101		67 - 139					08/05/13 14:40	1
Dibromofluoromethane	92		62 - 130					08/05/13 14:40	1
Toluene-d8 (Surr)	88		70 - 130					08/05/13 14:40	1
1,2-Dichloroethane-d4 (Surr)	106		50 - 134					08/05/13 14:40	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-77257-1

Client Sample ID: WG-1620-TW41B-20130731

Lab Sample ID: 600-77257-4

Date Collected: 07/31/13 15:35

Matrix: Water

Date Received: 08/02/13 11:51

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.0000381	U	0.000476	0.0000381	mg/L		08/07/13 08:42	08/13/13 19:47	1
Nitrobenzene	0.000105	U	0.000476	0.000105	mg/L		08/07/13 08:42	08/13/13 19:47	1
2,4-Dimethylphenol	0.000295	U	0.000476	0.000295	mg/L		08/07/13 08:42	08/13/13 19:47	1
Bis(2-chloroethoxy)methane	0.000124	U	0.000476	0.000124	mg/L		08/07/13 08:42	08/13/13 19:47	1
Naphthalene	0.00309	J	0.00476	0.0000762	mg/L		08/07/13 08:42	08/13/13 19:47	1
2-Methylnaphthalene	0.000256	J	0.000476	0.0000667	mg/L		08/07/13 08:42	08/13/13 19:47	1
2-Chloronaphthalene	0.0000762	U	0.000476	0.0000762	mg/L		08/07/13 08:42	08/13/13 19:47	1
Acenaphthylene	0.000409	J	0.000476	0.0000571	mg/L		08/07/13 08:42	08/13/13 19:47	1
2,6-Dinitrotoluene	0.0000762	U	0.000476	0.0000762	mg/L		08/07/13 08:42	08/13/13 19:47	1
4-Nitrophenol	0.000533	U	0.000952	0.000533	mg/L		08/07/13 08:42	08/13/13 19:47	1
Dibenzofuran	0.0104		0.000476	0.0000762	mg/L		08/07/13 08:42	08/13/13 19:47	1
2,4-Dinitrotoluene	0.000124	U	0.000476	0.000124	mg/L		08/07/13 08:42	08/13/13 19:47	1
Fluorene	0.00386		0.000476	0.0000667	mg/L		08/07/13 08:42	08/13/13 19:47	1
4,6-Dinitro-2-methylphenol	0.000790	U	0.000952	0.000790	mg/L		08/07/13 08:42	08/13/13 19:47	1
N-Nitrosodiphenylamine	0.0000952	U	0.000476	0.0000952	mg/L		08/07/13 08:42	08/13/13 19:47	1
1,2-Diphenylhydrazine	0.000105	U	0.000476	0.000105	mg/L		08/07/13 08:42	08/13/13 19:47	1
Pentachlorophenol	0.000581	U	0.000952	0.000581	mg/L		08/07/13 08:42	08/13/13 19:47	1
Phenanthrene	0.000659		0.000476	0.0000571	mg/L		08/07/13 08:42	08/13/13 19:47	1
Anthracene	0.00161		0.000476	0.0000476	mg/L		08/07/13 08:42	08/13/13 19:47	1
Di-n-butyl phthalate	0.000138	J	0.00238	0.000105	mg/L		08/07/13 08:42	08/13/13 19:47	1
Fluoranthene	0.00153		0.000476	0.0000667	mg/L		08/07/13 08:42	08/13/13 19:47	1
Pyrene	0.000702		0.000476	0.000105	mg/L		08/07/13 08:42	08/13/13 19:47	1
Benzo[a]anthracene	0.0000879	J	0.000476	0.0000762	mg/L		08/07/13 08:42	08/13/13 19:47	1
Bis(2-ethylhexyl) phthalate	0.000352	U	0.00238	0.000352	mg/L		08/07/13 08:42	08/13/13 19:47	1
Chrysene	0.0000762	U	0.000476	0.0000762	mg/L		08/07/13 08:42	08/13/13 19:47	1
Benzo[a]pyrene	0.0000762	U	0.000476	0.0000762	mg/L		08/07/13 08:42	08/13/13 19:47	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	113		44 - 123	08/07/13 08:42	08/13/13 19:47	1
2-Fluorobiphenyl	92		43 - 120	08/07/13 08:42	08/13/13 19:47	1
2-Fluorophenol	42		18 - 120	08/07/13 08:42	08/13/13 19:47	1
Nitrobenzene-d5	82		47 - 120	08/07/13 08:42	08/13/13 19:47	1
Terphenyl-d14	101		33 - 141	08/07/13 08:42	08/13/13 19:47	1
Phenol-d5 (Surr)	24		12 - 128	08/07/13 08:42	08/13/13 19:47	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels - DL

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	0.0252		0.000952	0.000152	mg/L		08/07/13 08:42	08/15/13 03:06	2

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	104		44 - 123	08/07/13 08:42	08/15/13 03:06	2
2-Fluorobiphenyl	89		43 - 120	08/07/13 08:42	08/15/13 03:06	2
2-Fluorophenol	34		18 - 120	08/07/13 08:42	08/15/13 03:06	2
Nitrobenzene-d5	69		47 - 120	08/07/13 08:42	08/15/13 03:06	2
Terphenyl-d14	94		33 - 141	08/07/13 08:42	08/15/13 03:06	2
Phenol-d5 (Surr)	11	X	12 - 128	08/07/13 08:42	08/15/13 03:06	2

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-77257-1

Client Sample ID: WG-1620-MW40B-20130731

Lab Sample ID: 600-77257-5

Date Collected: 07/31/13 16:50

Matrix: Water

Date Received: 08/02/13 11:51

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	0.00150	U	0.0100	0.00150	mg/L			08/06/13 20:25	10
Benzene	0.0115		0.0100	0.000800	mg/L			08/06/13 20:25	10
1,2-Dichloroethane	0.00140	U *	0.0100	0.00140	mg/L			08/06/13 20:25	10
Toluene	0.0173		0.0100	0.00150	mg/L			08/06/13 20:25	10
Chlorobenzene	0.00120	U	0.0100	0.00120	mg/L			08/06/13 20:25	10
Ethylbenzene	0.0798		0.0100	0.00110	mg/L			08/06/13 20:25	10
Xylenes, Total	0.127		0.0300	0.00260	mg/L			08/06/13 20:25	10

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	99		67 - 139		08/06/13 20:25	10
Dibromofluoromethane	93		62 - 130		08/06/13 20:25	10
Toluene-d8 (Surr)	86		70 - 130		08/06/13 20:25	10
1,2-Dichloroethane-d4 (Surr)	113		50 - 134		08/06/13 20:25	10

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.00190	U	0.0238	0.00190	mg/L		08/07/13 08:42	08/14/13 09:13	50
Nitrobenzene	0.00524	U	0.0238	0.00524	mg/L		08/07/13 08:42	08/14/13 09:13	50
2,4-Dimethylphenol	0.0148	U	0.0238	0.0148	mg/L		08/07/13 08:42	08/14/13 09:13	50
Bis(2-chloroethoxy)methane	0.00619	U	0.0238	0.00619	mg/L		08/07/13 08:42	08/14/13 09:13	50
2-Methylnaphthalene	0.309		0.0238	0.00333	mg/L		08/07/13 08:42	08/14/13 09:13	50
2-Chloronaphthalene	0.00381	U	0.0238	0.00381	mg/L		08/07/13 08:42	08/14/13 09:13	50
Acenaphthylene	0.00286	U	0.0238	0.00286	mg/L		08/07/13 08:42	08/14/13 09:13	50
2,6-Dinitrotoluene	0.00381	U	0.0238	0.00381	mg/L		08/07/13 08:42	08/14/13 09:13	50
Acenaphthene	0.350		0.0238	0.00381	mg/L		08/07/13 08:42	08/14/13 09:13	50
4-Nitrophenol	0.0267	U	0.0476	0.0267	mg/L		08/07/13 08:42	08/14/13 09:13	50
Dibenzofuran	0.242		0.0238	0.00381	mg/L		08/07/13 08:42	08/14/13 09:13	50
2,4-Dinitrotoluene	0.00619	U	0.0238	0.00619	mg/L		08/07/13 08:42	08/14/13 09:13	50
Fluorene	0.212		0.0238	0.00333	mg/L		08/07/13 08:42	08/14/13 09:13	50
4,6-Dinitro-2-methylphenol	0.0395	U	0.0476	0.0395	mg/L		08/07/13 08:42	08/14/13 09:13	50
N-Nitrosodiphenylamine	0.00476	U	0.0238	0.00476	mg/L		08/07/13 08:42	08/14/13 09:13	50
1,2-Diphenylhydrazine	0.00524	U	0.0238	0.00524	mg/L		08/07/13 08:42	08/14/13 09:13	50
Pentachlorophenol	0.0290	U	0.0476	0.0290	mg/L		08/07/13 08:42	08/14/13 09:13	50
Phenanthrene	0.158		0.0238	0.00286	mg/L		08/07/13 08:42	08/14/13 09:13	50
Anthracene	0.0190	J	0.0238	0.00238	mg/L		08/07/13 08:42	08/14/13 09:13	50
Di-n-butyl phthalate	0.00524	U	0.119	0.00524	mg/L		08/07/13 08:42	08/14/13 09:13	50
Fluoranthene	0.0104	J	0.0238	0.00333	mg/L		08/07/13 08:42	08/14/13 09:13	50
Pyrene	0.00524	U	0.0238	0.00524	mg/L		08/07/13 08:42	08/14/13 09:13	50
Benzo[a]anthracene	0.00381	U	0.0238	0.00381	mg/L		08/07/13 08:42	08/14/13 09:13	50
Bis(2-ethylhexyl) phthalate	0.0176	U	0.119	0.0176	mg/L		08/07/13 08:42	08/14/13 09:13	50
Chrysene	0.00381	U	0.0238	0.00381	mg/L		08/07/13 08:42	08/14/13 09:13	50
Benzo[a]pyrene	0.00381	U	0.0238	0.00381	mg/L		08/07/13 08:42	08/14/13 09:13	50

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	0	X	44 - 123	08/07/13 08:42	08/14/13 09:13	50
2-Fluorobiphenyl	0	X	43 - 120	08/07/13 08:42	08/14/13 09:13	50
2-Fluorophenol	0	X	18 - 120	08/07/13 08:42	08/14/13 09:13	50
Nitrobenzene-d5	0	X	47 - 120	08/07/13 08:42	08/14/13 09:13	50
Terphenyl-d14	0	X	33 - 141	08/07/13 08:42	08/14/13 09:13	50
Phenol-d5 (Surr)	0	X	12 - 128	08/07/13 08:42	08/14/13 09:13	50

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-77257-1

Client Sample ID: WG-1620-MW40B-20130731

Lab Sample ID: 600-77257-5

Date Collected: 07/31/13 16:50

Matrix: Water

Date Received: 08/02/13 11:51

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels - DL

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	7.73		2.38	0.0381	mg/L		08/07/13 08:42	08/14/13 19:57	500
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	0	X	44 - 123				08/07/13 08:42	08/14/13 19:57	500
2-Fluorobiphenyl	0	X	43 - 120				08/07/13 08:42	08/14/13 19:57	500
2-Fluorophenol	0	X	18 - 120				08/07/13 08:42	08/14/13 19:57	500
Nitrobenzene-d5	0	X	47 - 120				08/07/13 08:42	08/14/13 19:57	500
Terphenyl-d14	0	X	33 - 141				08/07/13 08:42	08/14/13 19:57	500
Phenol-d5 (Surr)	0	X	12 - 128				08/07/13 08:42	08/14/13 19:57	500

Client Sample ID: WG-1620-MW42B-20130801

Lab Sample ID: 600-77257-6

Date Collected: 08/01/13 08:00

Matrix: Water

Date Received: 08/02/13 11:51

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			08/05/13 15:08	1
Benzene	0.0000800	U	0.00100	0.0000800	mg/L			08/05/13 15:08	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			08/05/13 15:08	1
Toluene	0.000150	U	0.00100	0.000150	mg/L			08/05/13 15:08	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			08/05/13 15:08	1
Ethylbenzene	0.000110	U	0.00100	0.000110	mg/L			08/05/13 15:08	1
Xylenes, Total	0.000260	U	0.00300	0.000260	mg/L			08/05/13 15:08	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	115		67 - 139					08/05/13 15:08	1
Dibromofluoromethane	89		62 - 130					08/05/13 15:08	1
Toluene-d8 (Surr)	84		70 - 130					08/05/13 15:08	1
1,2-Dichloroethane-d4 (Surr)	106		50 - 134					08/05/13 15:08	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.0000381	U	0.000476	0.0000381	mg/L		08/07/13 08:42	08/13/13 20:44	1
Nitrobenzene	0.000105	U	0.000476	0.000105	mg/L		08/07/13 08:42	08/13/13 20:44	1
2,4-Dimethylphenol	0.000295	U	0.000476	0.000295	mg/L		08/07/13 08:42	08/13/13 20:44	1
Bis(2-chloroethoxy)methane	0.000124	U	0.000476	0.000124	mg/L		08/07/13 08:42	08/13/13 20:44	1
Naphthalene	0.00288	J	0.00476	0.0000762	mg/L		08/07/13 08:42	08/13/13 20:44	1
2-Methylnaphthalene	0.000141	J	0.000476	0.0000667	mg/L		08/07/13 08:42	08/13/13 20:44	1
2-Chloronaphthalene	0.0000762	U	0.000476	0.0000762	mg/L		08/07/13 08:42	08/13/13 20:44	1
Acenaphthylene	0.0000571	U	0.000476	0.0000571	mg/L		08/07/13 08:42	08/13/13 20:44	1
2,6-Dinitrotoluene	0.0000762	U	0.000476	0.0000762	mg/L		08/07/13 08:42	08/13/13 20:44	1
Acenaphthene	0.0000762	U	0.000476	0.0000762	mg/L		08/07/13 08:42	08/13/13 20:44	1
4-Nitrophenol	0.000533	U	0.000952	0.000533	mg/L		08/07/13 08:42	08/13/13 20:44	1
Dibenzofuran	0.000131	J	0.000476	0.0000762	mg/L		08/07/13 08:42	08/13/13 20:44	1
2,4-Dinitrotoluene	0.000124	U	0.000476	0.000124	mg/L		08/07/13 08:42	08/13/13 20:44	1
Fluorene	0.000134	J	0.000476	0.0000667	mg/L		08/07/13 08:42	08/13/13 20:44	1
4,6-Dinitro-2-methylphenol	0.000790	U	0.000952	0.000790	mg/L		08/07/13 08:42	08/13/13 20:44	1
N-Nitrosodiphenylamine	0.0000952	U	0.000476	0.0000952	mg/L		08/07/13 08:42	08/13/13 20:44	1
1,2-Diphenylhydrazine	0.000105	U	0.000476	0.000105	mg/L		08/07/13 08:42	08/13/13 20:44	1
Pentachlorophenol	0.000581	U	0.000952	0.000581	mg/L		08/07/13 08:42	08/13/13 20:44	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-77257-1

Client Sample ID: WG-1620-MW42B-20130801

Lab Sample ID: 600-77257-6

Date Collected: 08/01/13 08:00

Matrix: Water

Date Received: 08/02/13 11:51

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenanthrene	0.000122	J	0.000476	0.0000571	mg/L		08/07/13 08:42	08/13/13 20:44	1
Anthracene	0.000122	J	0.000476	0.0000476	mg/L		08/07/13 08:42	08/13/13 20:44	1
Di-n-butyl phthalate	0.000108	J	0.00238	0.000105	mg/L		08/07/13 08:42	08/13/13 20:44	1
Fluoranthene	0.000294	J	0.000476	0.0000667	mg/L		08/07/13 08:42	08/13/13 20:44	1
Pyrene	0.000127	J	0.000476	0.000105	mg/L		08/07/13 08:42	08/13/13 20:44	1
Benzo[a]anthracene	0.0000762	U	0.000476	0.0000762	mg/L		08/07/13 08:42	08/13/13 20:44	1
Bis(2-ethylhexyl) phthalate	0.000352	U	0.00238	0.000352	mg/L		08/07/13 08:42	08/13/13 20:44	1
Chrysene	0.0000762	U	0.000476	0.0000762	mg/L		08/07/13 08:42	08/13/13 20:44	1
Benzo[a]pyrene	0.0000762	U	0.000476	0.0000762	mg/L		08/07/13 08:42	08/13/13 20:44	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	104		44 - 123				08/07/13 08:42	08/13/13 20:44	1
2-Fluorobiphenyl	72		43 - 120				08/07/13 08:42	08/13/13 20:44	1
2-Fluorophenol	27		18 - 120				08/07/13 08:42	08/13/13 20:44	1
Nitrobenzene-d5	60		47 - 120				08/07/13 08:42	08/13/13 20:44	1
Terphenyl-d14	97		33 - 141				08/07/13 08:42	08/13/13 20:44	1
Phenol-d5 (Surr)	13		12 - 128				08/07/13 08:42	08/13/13 20:44	1

Client Sample ID: WG-1620-MW05-20130801

Lab Sample ID: 600-77257-7

Date Collected: 08/01/13 09:00

Matrix: Water

Date Received: 08/02/13 11:51

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			08/05/13 15:37	1
Benzene	0.0000800	U	0.00100	0.0000800	mg/L			08/05/13 15:37	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			08/05/13 15:37	1
Toluene	0.000150	U	0.00100	0.000150	mg/L			08/05/13 15:37	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			08/05/13 15:37	1
Ethylbenzene	0.000110	U	0.00100	0.000110	mg/L			08/05/13 15:37	1
Xylenes, Total	0.000260	U	0.00300	0.000260	mg/L			08/05/13 15:37	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	109		67 - 139					08/05/13 15:37	1
Dibromofluoromethane	91		62 - 130					08/05/13 15:37	1
Toluene-d8 (Surr)	87		70 - 130					08/05/13 15:37	1
1,2-Dichloroethane-d4 (Surr)	106		50 - 134					08/05/13 15:37	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.0000381	U	0.000476	0.0000381	mg/L		08/07/13 08:42	08/13/13 21:13	1
Nitrobenzene	0.000105	U	0.000476	0.000105	mg/L		08/07/13 08:42	08/13/13 21:13	1
2,4-Dimethylphenol	0.000295	U	0.000476	0.000295	mg/L		08/07/13 08:42	08/13/13 21:13	1
Bis(2-chloroethoxy)methane	0.000124	U	0.000476	0.000124	mg/L		08/07/13 08:42	08/13/13 21:13	1
Naphthalene	0.000573	J	0.00476	0.0000762	mg/L		08/07/13 08:42	08/13/13 21:13	1
2-Methylnaphthalene	0.0000667	U	0.000476	0.0000667	mg/L		08/07/13 08:42	08/13/13 21:13	1
2-Chloronaphthalene	0.0000762	U	0.000476	0.0000762	mg/L		08/07/13 08:42	08/13/13 21:13	1
Acenaphthylene	0.0000571	U	0.000476	0.0000571	mg/L		08/07/13 08:42	08/13/13 21:13	1
2,6-Dinitrotoluene	0.0000762	U	0.000476	0.0000762	mg/L		08/07/13 08:42	08/13/13 21:13	1
Acenaphthene	0.000521		0.000476	0.0000762	mg/L		08/07/13 08:42	08/13/13 21:13	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-77257-1

Client Sample ID: WG-1620-MW05-20130801

Lab Sample ID: 600-77257-7

Date Collected: 08/01/13 09:00

Matrix: Water

Date Received: 08/02/13 11:51

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Nitrophenol	0.000533	U	0.000952	0.000533	mg/L		08/07/13 08:42	08/13/13 21:13	1
Dibenzofuran	0.0000828	J	0.000476	0.0000762	mg/L		08/07/13 08:42	08/13/13 21:13	1
2,4-Dinitrotoluene	0.000124	U	0.000476	0.000124	mg/L		08/07/13 08:42	08/13/13 21:13	1
Fluorene	0.000166	J	0.000476	0.0000667	mg/L		08/07/13 08:42	08/13/13 21:13	1
4,6-Dinitro-2-methylphenol	0.000790	U	0.000952	0.000790	mg/L		08/07/13 08:42	08/13/13 21:13	1
N-Nitrosodiphenylamine	0.0000952	U	0.000476	0.0000952	mg/L		08/07/13 08:42	08/13/13 21:13	1
1,2-Diphenylhydrazine	0.000105	U	0.000476	0.000105	mg/L		08/07/13 08:42	08/13/13 21:13	1
Pentachlorophenol	0.000581	U	0.000952	0.000581	mg/L		08/07/13 08:42	08/13/13 21:13	1
Phenanthrene	0.0000571	U	0.000476	0.0000571	mg/L		08/07/13 08:42	08/13/13 21:13	1
Anthracene	0.000427	J	0.000476	0.0000476	mg/L		08/07/13 08:42	08/13/13 21:13	1
Di-n-butyl phthalate	0.000105	U	0.00238	0.000105	mg/L		08/07/13 08:42	08/13/13 21:13	1
Fluoranthene	0.0000761	J	0.000476	0.0000667	mg/L		08/07/13 08:42	08/13/13 21:13	1
Pyrene	0.000154	J	0.000476	0.000105	mg/L		08/07/13 08:42	08/13/13 21:13	1
Benzo[a]anthracene	0.0000762	U	0.000476	0.0000762	mg/L		08/07/13 08:42	08/13/13 21:13	1
Bis(2-ethylhexyl) phthalate	0.000352	U	0.00238	0.000352	mg/L		08/07/13 08:42	08/13/13 21:13	1
Chrysene	0.0000762	U	0.000476	0.0000762	mg/L		08/07/13 08:42	08/13/13 21:13	1
Benzo[a]pyrene	0.0000762	U	0.000476	0.0000762	mg/L		08/07/13 08:42	08/13/13 21:13	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	93		44 - 123				08/07/13 08:42	08/13/13 21:13	1
2-Fluorobiphenyl	69		43 - 120				08/07/13 08:42	08/13/13 21:13	1
2-Fluorophenol	30		18 - 120				08/07/13 08:42	08/13/13 21:13	1
Nitrobenzene-d5	55		47 - 120				08/07/13 08:42	08/13/13 21:13	1
Terphenyl-d14	83		33 - 141				08/07/13 08:42	08/13/13 21:13	1
Phenol-d5 (Surr)	14		12 - 128				08/07/13 08:42	08/13/13 21:13	1

Client Sample ID: WG-1620-MW21C-20130801

Lab Sample ID: 600-77257-8

Date Collected: 08/01/13 10:00

Matrix: Water

Date Received: 08/02/13 11:51

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			08/05/13 18:28	1
Benzene	0.0000800	U	0.00100	0.0000800	mg/L			08/05/13 18:28	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			08/05/13 18:28	1
Toluene	0.000150	U	0.00100	0.000150	mg/L			08/05/13 18:28	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			08/05/13 18:28	1
Ethylbenzene	0.000110	U	0.00100	0.000110	mg/L			08/05/13 18:28	1
Xylenes, Total	0.000260	U	0.00300	0.000260	mg/L			08/05/13 18:28	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	107		67 - 139					08/05/13 18:28	1
Dibromofluoromethane	88		62 - 130					08/05/13 18:28	1
Toluene-d8 (Surr)	89		70 - 130					08/05/13 18:28	1
1,2-Dichloroethane-d4 (Surr)	101		50 - 134					08/05/13 18:28	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.0000381	U	0.000476	0.0000381	mg/L		08/07/13 08:42	08/13/13 21:41	1
Nitrobenzene	0.000105	U	0.000476	0.000105	mg/L		08/07/13 08:42	08/13/13 21:41	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-77257-1

Client Sample ID: WG-1620-MW21C-20130801

Lab Sample ID: 600-77257-8

Date Collected: 08/01/13 10:00

Matrix: Water

Date Received: 08/02/13 11:51

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-Dimethylphenol	0.000295	U	0.000476	0.000295	mg/L		08/07/13 08:42	08/13/13 21:41	1
Bis(2-chloroethoxy)methane	0.000124	U	0.000476	0.000124	mg/L		08/07/13 08:42	08/13/13 21:41	1
Naphthalene	0.000210	J	0.00476	0.0000762	mg/L		08/07/13 08:42	08/13/13 21:41	1
2-Methylnaphthalene	0.0000667	U	0.000476	0.0000667	mg/L		08/07/13 08:42	08/13/13 21:41	1
2-Chloronaphthalene	0.0000762	U	0.000476	0.0000762	mg/L		08/07/13 08:42	08/13/13 21:41	1
Acenaphthylene	0.0000571	U	0.000476	0.0000571	mg/L		08/07/13 08:42	08/13/13 21:41	1
2,6-Dinitrotoluene	0.0000762	U	0.000476	0.0000762	mg/L		08/07/13 08:42	08/13/13 21:41	1
Acenaphthene	0.0000762	U	0.000476	0.0000762	mg/L		08/07/13 08:42	08/13/13 21:41	1
4-Nitrophenol	0.000533	U	0.000952	0.000533	mg/L		08/07/13 08:42	08/13/13 21:41	1
Dibenzofuran	0.0000762	U	0.000476	0.0000762	mg/L		08/07/13 08:42	08/13/13 21:41	1
2,4-Dinitrotoluene	0.000124	U	0.000476	0.000124	mg/L		08/07/13 08:42	08/13/13 21:41	1
Fluorene	0.0000667	U	0.000476	0.0000667	mg/L		08/07/13 08:42	08/13/13 21:41	1
4,6-Dinitro-2-methylphenol	0.000790	U	0.000952	0.000790	mg/L		08/07/13 08:42	08/13/13 21:41	1
N-Nitrosodiphenylamine	0.0000952	U	0.000476	0.0000952	mg/L		08/07/13 08:42	08/13/13 21:41	1
1,2-Diphenylhydrazine	0.000105	U	0.000476	0.000105	mg/L		08/07/13 08:42	08/13/13 21:41	1
Pentachlorophenol	0.000581	U	0.000952	0.000581	mg/L		08/07/13 08:42	08/13/13 21:41	1
Phenanthrene	0.0000775	J	0.000476	0.0000571	mg/L		08/07/13 08:42	08/13/13 21:41	1
Anthracene	0.0000476	U	0.000476	0.0000476	mg/L		08/07/13 08:42	08/13/13 21:41	1
Di-n-butyl phthalate	0.000105	U	0.00238	0.000105	mg/L		08/07/13 08:42	08/13/13 21:41	1
Fluoranthene	0.0000667	U	0.000476	0.0000667	mg/L		08/07/13 08:42	08/13/13 21:41	1
Pyrene	0.000105	U	0.000476	0.000105	mg/L		08/07/13 08:42	08/13/13 21:41	1
Benzo[a]anthracene	0.0000762	U	0.000476	0.0000762	mg/L		08/07/13 08:42	08/13/13 21:41	1
Bis(2-ethylhexyl) phthalate	0.000352	U	0.00238	0.000352	mg/L		08/07/13 08:42	08/13/13 21:41	1
Chrysene	0.0000762	U	0.000476	0.0000762	mg/L		08/07/13 08:42	08/13/13 21:41	1
Benzo[a]pyrene	0.0000762	U	0.000476	0.0000762	mg/L		08/07/13 08:42	08/13/13 21:41	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	74		44 - 123				08/07/13 08:42	08/13/13 21:41	1
2-Fluorobiphenyl	68		43 - 120				08/07/13 08:42	08/13/13 21:41	1
2-Fluorophenol	32		18 - 120				08/07/13 08:42	08/13/13 21:41	1
Nitrobenzene-d5	56		47 - 120				08/07/13 08:42	08/13/13 21:41	1
Terphenyl-d14	92		33 - 141				08/07/13 08:42	08/13/13 21:41	1
Phenol-d5 (Surr)	14		12 - 128				08/07/13 08:42	08/13/13 21:41	1

Client Sample ID: WG-1620-FD01-20130801

Lab Sample ID: 600-77257-9

Date Collected: 08/01/13 10:00

Matrix: Water

Date Received: 08/02/13 11:51

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			08/05/13 18:57	1
Benzene	0.0000800	U	0.00100	0.0000800	mg/L			08/05/13 18:57	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			08/05/13 18:57	1
Toluene	0.000150	U	0.00100	0.000150	mg/L			08/05/13 18:57	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			08/05/13 18:57	1
Ethylbenzene	0.000110	U	0.00100	0.000110	mg/L			08/05/13 18:57	1
Xylenes, Total	0.000260	U	0.00300	0.000260	mg/L			08/05/13 18:57	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	105		67 - 139					08/05/13 18:57	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-77257-1

Client Sample ID: WG-1620-FD01-20130801

Lab Sample ID: 600-77257-9

Date Collected: 08/01/13 10:00

Matrix: Water

Date Received: 08/02/13 11:51

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Dibromofluoromethane	88		62 - 130		08/05/13 18:57	1
Toluene-d8 (Surr)	86		70 - 130		08/05/13 18:57	1
1,2-Dichloroethane-d4 (Surr)	105		50 - 134		08/05/13 18:57	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.00217		0.000476	0.0000381	mg/L		08/07/13 08:42	08/13/13 22:10	1
Phenol	0.0000377	U H	0.000472	0.0000377	mg/L		08/14/13 16:25	08/15/13 10:25	1
Nitrobenzene	0.00628		0.000476	0.000105	mg/L		08/07/13 08:42	08/13/13 22:10	1
Nitrobenzene	0.000104	U H	0.000472	0.000104	mg/L		08/14/13 16:25	08/15/13 10:25	1
2,4-Dimethylphenol	0.00654		0.000476	0.000295	mg/L		08/07/13 08:42	08/13/13 22:10	1
2,4-Dimethylphenol	0.000292	U H	0.000472	0.000292	mg/L		08/14/13 16:25	08/15/13 10:25	1
Bis(2-chloroethoxy)methane	0.00612		0.000476	0.000124	mg/L		08/07/13 08:42	08/13/13 22:10	1
Bis(2-chloroethoxy)methane	0.000123	U H	0.000472	0.000123	mg/L		08/14/13 16:25	08/15/13 10:25	1
Naphthalene	0.00669		0.00476	0.0000762	mg/L		08/07/13 08:42	08/13/13 22:10	1
Naphthalene	0.0000755	U H	0.00472	0.0000755	mg/L		08/14/13 16:25	08/15/13 10:25	1
2-Methylnaphthalene	0.00686		0.000476	0.0000667	mg/L		08/07/13 08:42	08/13/13 22:10	1
2-Methylnaphthalene	0.0000660	U H	0.000472	0.0000660	mg/L		08/14/13 16:25	08/15/13 10:25	1
2-Chloronaphthalene	0.00696		0.000476	0.0000762	mg/L		08/07/13 08:42	08/13/13 22:10	1
2-Chloronaphthalene	0.0000755	U H	0.000472	0.0000755	mg/L		08/14/13 16:25	08/15/13 10:25	1
Acenaphthylene	0.00735		0.000476	0.0000571	mg/L		08/07/13 08:42	08/13/13 22:10	1
Acenaphthylene	0.0000566	U H	0.000472	0.0000566	mg/L		08/14/13 16:25	08/15/13 10:25	1
2,6-Dinitrotoluene	0.00805		0.000476	0.0000762	mg/L		08/07/13 08:42	08/13/13 22:10	1
2,6-Dinitrotoluene	0.0000755	U H	0.000472	0.0000755	mg/L		08/14/13 16:25	08/15/13 10:25	1
Acenaphthene	0.00726		0.000476	0.0000762	mg/L		08/07/13 08:42	08/13/13 22:10	1
Acenaphthene	0.0000755	U H	0.000472	0.0000755	mg/L		08/14/13 16:25	08/15/13 10:25	1
4-Nitrophenol	0.00667		0.000952	0.000533	mg/L		08/07/13 08:42	08/13/13 22:10	1
4-Nitrophenol	0.000528	U H *	0.000943	0.000528	mg/L		08/14/13 16:25	08/15/13 10:25	1
Dibenzofuran	0.00726		0.000476	0.0000762	mg/L		08/07/13 08:42	08/13/13 22:10	1
Dibenzofuran	0.0000755	U H	0.000472	0.0000755	mg/L		08/14/13 16:25	08/15/13 10:25	1
2,4-Dinitrotoluene	0.00867		0.000476	0.000124	mg/L		08/07/13 08:42	08/13/13 22:10	1
2,4-Dinitrotoluene	0.000123	U H	0.000472	0.000123	mg/L		08/14/13 16:25	08/15/13 10:25	1
Fluorene	0.00746		0.000476	0.0000667	mg/L		08/07/13 08:42	08/13/13 22:10	1
Fluorene	0.0000660	U H	0.000472	0.0000660	mg/L		08/14/13 16:25	08/15/13 10:25	1
4,6-Dinitro-2-methylphenol	0.00371		0.000952	0.000790	mg/L		08/07/13 08:42	08/13/13 22:10	1
4,6-Dinitro-2-methylphenol	0.000783	U H	0.000943	0.000783	mg/L		08/14/13 16:25	08/15/13 10:25	1
N-Nitrosodiphenylamine	0.00846		0.000476	0.0000952	mg/L		08/07/13 08:42	08/13/13 22:10	1
N-Nitrosodiphenylamine	0.0000943	U H	0.000472	0.0000943	mg/L		08/14/13 16:25	08/15/13 10:25	1
1,2-Diphenylhydrazine	0.00732		0.000476	0.000105	mg/L		08/07/13 08:42	08/13/13 22:10	1
1,2-Diphenylhydrazine	0.000104	U H	0.000472	0.000104	mg/L		08/14/13 16:25	08/15/13 10:25	1
Pentachlorophenol	0.0126		0.000952	0.000581	mg/L		08/07/13 08:42	08/13/13 22:10	1
Pentachlorophenol	0.000575	U H	0.000943	0.000575	mg/L		08/14/13 16:25	08/15/13 10:25	1
Phenanthrene	0.00777		0.000476	0.0000571	mg/L		08/07/13 08:42	08/13/13 22:10	1
Phenanthrene	0.0000566	U H	0.000472	0.0000566	mg/L		08/14/13 16:25	08/15/13 10:25	1
Anthracene	0.00775		0.000476	0.0000476	mg/L		08/07/13 08:42	08/13/13 22:10	1
Anthracene	0.0000472	U H	0.000472	0.0000472	mg/L		08/14/13 16:25	08/15/13 10:25	1
Di-n-butyl phthalate	0.00955		0.00238	0.000105	mg/L		08/07/13 08:42	08/13/13 22:10	1
Di-n-butyl phthalate	0.000104	U H	0.00236	0.000104	mg/L		08/14/13 16:25	08/15/13 10:25	1
Fluoranthene	0.00857		0.000476	0.0000667	mg/L		08/07/13 08:42	08/13/13 22:10	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-77257-1

Client Sample ID: WG-1620-FD01-20130801

Lab Sample ID: 600-77257-9

Date Collected: 08/01/13 10:00

Matrix: Water

Date Received: 08/02/13 11:51

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoranthene	0.0000660	U H	0.000472	0.0000660	mg/L		08/14/13 16:25	08/15/13 10:25	1
Pyrene	0.00813		0.000476	0.000105	mg/L		08/07/13 08:42	08/13/13 22:10	1
Pyrene	0.000104	U H	0.000472	0.000104	mg/L		08/14/13 16:25	08/15/13 10:25	1
Benzo[a]anthracene	0.00807		0.000476	0.0000762	mg/L		08/07/13 08:42	08/13/13 22:10	1
Benzo[a]anthracene	0.0000755	U H	0.000472	0.0000755	mg/L		08/14/13 16:25	08/15/13 10:25	1
Bis(2-ethylhexyl) phthalate	0.00875		0.00238	0.000352	mg/L		08/07/13 08:42	08/13/13 22:10	1
Bis(2-ethylhexyl) phthalate	0.000349	U H	0.00236	0.000349	mg/L		08/14/13 16:25	08/15/13 10:25	1
Chrysene	0.00794		0.000476	0.0000762	mg/L		08/07/13 08:42	08/13/13 22:10	1
Chrysene	0.0000755	U H	0.000472	0.0000755	mg/L		08/14/13 16:25	08/15/13 10:25	1
Benzo[a]pyrene	0.00775		0.000476	0.0000762	mg/L		08/07/13 08:42	08/13/13 22:10	1
Benzo[a]pyrene	0.0000755	U H	0.000472	0.0000755	mg/L		08/14/13 16:25	08/15/13 10:25	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	61		44 - 123				08/14/13 16:25	08/15/13 10:25	1
2,4,6-Tribromophenol	93		44 - 123				08/07/13 08:42	08/13/13 22:10	1
2-Fluorobiphenyl	80		43 - 120				08/14/13 16:25	08/15/13 10:25	1
2-Fluorobiphenyl	79		43 - 120				08/07/13 08:42	08/13/13 22:10	1
2-Fluorophenol	34		18 - 120				08/14/13 16:25	08/15/13 10:25	1
2-Fluorophenol	33		18 - 120				08/07/13 08:42	08/13/13 22:10	1
Nitrobenzene-d5	65		47 - 120				08/14/13 16:25	08/15/13 10:25	1
Nitrobenzene-d5	71		47 - 120				08/07/13 08:42	08/13/13 22:10	1
Terphenyl-d14	113		33 - 141				08/14/13 16:25	08/15/13 10:25	1
Terphenyl-d14	93		33 - 141				08/07/13 08:42	08/13/13 22:10	1
Phenol-d5 (Surr)	12		12 - 128				08/14/13 16:25	08/15/13 10:25	1
Phenol-d5 (Surr)	20		12 - 128				08/07/13 08:42	08/13/13 22:10	1

Client Sample ID: WG-1620-P11-20130801

Lab Sample ID: 600-77257-10

Date Collected: 08/01/13 11:00

Matrix: Water

Date Received: 08/02/13 11:51

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			08/07/13 21:18	1
Benzene	0.0000800	U	0.00100	0.0000800	mg/L			08/07/13 21:18	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			08/07/13 21:18	1
Toluene	0.000150	U	0.00100	0.000150	mg/L			08/07/13 21:18	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			08/07/13 21:18	1
Ethylbenzene	0.000110	U	0.00100	0.000110	mg/L			08/07/13 21:18	1
Xylenes, Total	0.000260	U	0.00300	0.000260	mg/L			08/07/13 21:18	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	113		67 - 139					08/07/13 21:18	1
Dibromofluoromethane	96		62 - 130					08/07/13 21:18	1
Toluene-d8 (Surr)	92		70 - 130					08/07/13 21:18	1
1,2-Dichloroethane-d4 (Surr)	122		50 - 134					08/07/13 21:18	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.0000381	U	0.000476	0.0000381	mg/L		08/07/13 08:42	08/13/13 22:38	1
Nitrobenzene	0.000105	U	0.000476	0.000105	mg/L		08/07/13 08:42	08/13/13 22:38	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-77257-1

Client Sample ID: WG-1620-P11-20130801

Lab Sample ID: 600-77257-10

Date Collected: 08/01/13 11:00

Matrix: Water

Date Received: 08/02/13 11:51

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-Dimethylphenol	0.000295	U	0.000476	0.000295	mg/L		08/07/13 08:42	08/13/13 22:38	1
Bis(2-chloroethoxy)methane	0.000124	U	0.000476	0.000124	mg/L		08/07/13 08:42	08/13/13 22:38	1
Naphthalene	0.0000762	U	0.00476	0.0000762	mg/L		08/07/13 08:42	08/13/13 22:38	1
2-Methylnaphthalene	0.0000667	U	0.000476	0.0000667	mg/L		08/07/13 08:42	08/13/13 22:38	1
2-Chloronaphthalene	0.0000762	U	0.000476	0.0000762	mg/L		08/07/13 08:42	08/13/13 22:38	1
Acenaphthylene	0.0000571	U	0.000476	0.0000571	mg/L		08/07/13 08:42	08/13/13 22:38	1
2,6-Dinitrotoluene	0.0000762	U	0.000476	0.0000762	mg/L		08/07/13 08:42	08/13/13 22:38	1
Acenaphthene	0.0000762	U	0.000476	0.0000762	mg/L		08/07/13 08:42	08/13/13 22:38	1
4-Nitrophenol	0.000533	U	0.000952	0.000533	mg/L		08/07/13 08:42	08/13/13 22:38	1
Dibenzofuran	0.0000762	U	0.000476	0.0000762	mg/L		08/07/13 08:42	08/13/13 22:38	1
2,4-Dinitrotoluene	0.000124	U	0.000476	0.000124	mg/L		08/07/13 08:42	08/13/13 22:38	1
Fluorene	0.0000667	U	0.000476	0.0000667	mg/L		08/07/13 08:42	08/13/13 22:38	1
4,6-Dinitro-2-methylphenol	0.000790	U	0.000952	0.000790	mg/L		08/07/13 08:42	08/13/13 22:38	1
N-Nitrosodiphenylamine	0.0000952	U	0.000476	0.0000952	mg/L		08/07/13 08:42	08/13/13 22:38	1
1,2-Diphenylhydrazine	0.000105	U	0.000476	0.000105	mg/L		08/07/13 08:42	08/13/13 22:38	1
Pentachlorophenol	0.000581	U	0.000952	0.000581	mg/L		08/07/13 08:42	08/13/13 22:38	1
Phenanthrene	0.0000571	U	0.000476	0.0000571	mg/L		08/07/13 08:42	08/13/13 22:38	1
Anthracene	0.0000997	J	0.000476	0.0000476	mg/L		08/07/13 08:42	08/13/13 22:38	1
Di-n-butyl phthalate	0.000105	U	0.00238	0.000105	mg/L		08/07/13 08:42	08/13/13 22:38	1
Fluoranthene	0.0000667	U	0.000476	0.0000667	mg/L		08/07/13 08:42	08/13/13 22:38	1
Pyrene	0.000105	U	0.000476	0.000105	mg/L		08/07/13 08:42	08/13/13 22:38	1
Benzo[a]anthracene	0.0000762	U	0.000476	0.0000762	mg/L		08/07/13 08:42	08/13/13 22:38	1
Bis(2-ethylhexyl) phthalate	0.000593	J	0.00238	0.000352	mg/L		08/07/13 08:42	08/13/13 22:38	1
Chrysene	0.0000762	U	0.000476	0.0000762	mg/L		08/07/13 08:42	08/13/13 22:38	1
Benzo[a]pyrene	0.0000762	U	0.000476	0.0000762	mg/L		08/07/13 08:42	08/13/13 22:38	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	82		44 - 123				08/07/13 08:42	08/13/13 22:38	1
2-Fluorobiphenyl	65		43 - 120				08/07/13 08:42	08/13/13 22:38	1
2-Fluorophenol	28		18 - 120				08/07/13 08:42	08/13/13 22:38	1
Nitrobenzene-d5	58		47 - 120				08/07/13 08:42	08/13/13 22:38	1
Terphenyl-d14	86		33 - 141				08/07/13 08:42	08/13/13 22:38	1
Phenol-d5 (Surr)	15		12 - 128				08/07/13 08:42	08/13/13 22:38	1

Client Sample ID: WG-1620-MW61A-20130801

Lab Sample ID: 600-77257-11

Date Collected: 08/01/13 12:30

Matrix: Water

Date Received: 08/02/13 11:51

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	0.000110	U	0.00200	0.000110	mg/L			08/05/13 13:14	1
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			08/05/13 13:14	1
Benzene	0.0000800	U	0.00100	0.0000800	mg/L			08/05/13 13:14	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			08/05/13 13:14	1
Toluene	0.000150	U	0.00100	0.000150	mg/L			08/05/13 13:14	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			08/05/13 13:14	1
Ethylbenzene	0.000110	U	0.00100	0.000110	mg/L			08/05/13 13:14	1
Xylenes, Total	0.000260	U	0.00300	0.000260	mg/L			08/05/13 13:14	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-77257-1

Client Sample ID: WG-1620-MW61A-20130801

Lab Sample ID: 600-77257-11

Date Collected: 08/01/13 12:30

Matrix: Water

Date Received: 08/02/13 11:51

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	108		67 - 139		08/05/13 13:14	1
Dibromofluoromethane	91		62 - 130		08/05/13 13:14	1
Toluene-d8 (Surr)	90		70 - 130		08/05/13 13:14	1
1,2-Dichloroethane-d4 (Surr)	106		50 - 134		08/05/13 13:14	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.000381	U	0.000476	0.000381	mg/L		08/07/13 08:42	08/13/13 23:07	1
Nitrobenzene	0.000105	U	0.000476	0.000105	mg/L		08/07/13 08:42	08/13/13 23:07	1
2,4-Dimethylphenol	0.000295	U	0.000476	0.000295	mg/L		08/07/13 08:42	08/13/13 23:07	1
Bis(2-chloroethoxy)methane	0.000124	U	0.000476	0.000124	mg/L		08/07/13 08:42	08/13/13 23:07	1
Naphthalene	0.000120	J	0.00476	0.0000762	mg/L		08/07/13 08:42	08/13/13 23:07	1
2-Methylnaphthalene	0.0000667	U	0.000476	0.0000667	mg/L		08/07/13 08:42	08/13/13 23:07	1
2-Chloronaphthalene	0.0000762	U	0.000476	0.0000762	mg/L		08/07/13 08:42	08/13/13 23:07	1
Acenaphthylene	0.0000571	U	0.000476	0.0000571	mg/L		08/07/13 08:42	08/13/13 23:07	1
2,6-Dinitrotoluene	0.0000762	U	0.000476	0.0000762	mg/L		08/07/13 08:42	08/13/13 23:07	1
Acenaphthene	0.0000762	U	0.000476	0.0000762	mg/L		08/07/13 08:42	08/13/13 23:07	1
4-Nitrophenol	0.000533	U	0.000952	0.000533	mg/L		08/07/13 08:42	08/13/13 23:07	1
Dibenzofuran	0.0000762	U	0.000476	0.0000762	mg/L		08/07/13 08:42	08/13/13 23:07	1
2,4-Dinitrotoluene	0.000124	U	0.000476	0.000124	mg/L		08/07/13 08:42	08/13/13 23:07	1
Fluorene	0.0000667	U	0.000476	0.0000667	mg/L		08/07/13 08:42	08/13/13 23:07	1
4,6-Dinitro-2-methylphenol	0.000790	U	0.000952	0.000790	mg/L		08/07/13 08:42	08/13/13 23:07	1
N-Nitrosodiphenylamine	0.0000952	U	0.000476	0.0000952	mg/L		08/07/13 08:42	08/13/13 23:07	1
1,2-Diphenylhydrazine	0.000105	U	0.000476	0.000105	mg/L		08/07/13 08:42	08/13/13 23:07	1
Pentachlorophenol	0.000581	U	0.000952	0.000581	mg/L		08/07/13 08:42	08/13/13 23:07	1
Phenanthrene	0.0000586	J	0.000476	0.0000571	mg/L		08/07/13 08:42	08/13/13 23:07	1
Anthracene	0.0000476	U	0.000476	0.0000476	mg/L		08/07/13 08:42	08/13/13 23:07	1
Di-n-butyl phthalate	0.000105	U	0.00238	0.000105	mg/L		08/07/13 08:42	08/13/13 23:07	1
Fluoranthene	0.0000667	U	0.000476	0.0000667	mg/L		08/07/13 08:42	08/13/13 23:07	1
Pyrene	0.000105	U	0.000476	0.000105	mg/L		08/07/13 08:42	08/13/13 23:07	1
Benzo[a]anthracene	0.0000762	U	0.000476	0.0000762	mg/L		08/07/13 08:42	08/13/13 23:07	1
Bis(2-ethylhexyl) phthalate	0.000352	U	0.00238	0.000352	mg/L		08/07/13 08:42	08/13/13 23:07	1
Chrysene	0.0000762	U	0.000476	0.0000762	mg/L		08/07/13 08:42	08/13/13 23:07	1
Benzo[a]pyrene	0.0000762	U	0.000476	0.0000762	mg/L		08/07/13 08:42	08/13/13 23:07	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	89		44 - 123	08/07/13 08:42	08/13/13 23:07	1
2-Fluorobiphenyl	80		43 - 120	08/07/13 08:42	08/13/13 23:07	1
2-Fluorophenol	41		18 - 120	08/07/13 08:42	08/13/13 23:07	1
Nitrobenzene-d5	69		47 - 120	08/07/13 08:42	08/13/13 23:07	1
Terphenyl-d14	96		33 - 141	08/07/13 08:42	08/13/13 23:07	1
Phenol-d5 (Surr)	22		12 - 128	08/07/13 08:42	08/13/13 23:07	1

Client Sample ID: WG-1620-MW49-A-20130801

Lab Sample ID: 600-77257-12

Date Collected: 08/01/13 13:20

Matrix: Water

Date Received: 08/02/13 11:51

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	0.00110	U	0.0200	0.00110	mg/L			08/06/13 21:22	10
Methylene Chloride	0.00150	U	0.0100	0.00150	mg/L			08/06/13 21:22	10

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-77257-1

Client Sample ID: WG-1620-MW49-A-20130801

Lab Sample ID: 600-77257-12

Date Collected: 08/01/13 13:20

Matrix: Water

Date Received: 08/02/13 11:51

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.0940		0.0100	0.000800	mg/L			08/06/13 21:22	10
1,2-Dichloroethane	0.00140	U *	0.0100	0.00140	mg/L			08/06/13 21:22	10
Toluene	0.0347		0.0100	0.00150	mg/L			08/06/13 21:22	10
Chlorobenzene	0.476		0.0100	0.00120	mg/L			08/06/13 21:22	10
Ethylbenzene	0.0499		0.0100	0.00110	mg/L			08/06/13 21:22	10
Xylenes, Total	0.106		0.0300	0.00260	mg/L			08/06/13 21:22	10

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	99		67 - 139		08/06/13 21:22	10
Dibromofluoromethane	93		62 - 130		08/06/13 21:22	10
Toluene-d8 (Surr)	90		70 - 130		08/06/13 21:22	10
1,2-Dichloroethane-d4 (Surr)	116		50 - 134		08/06/13 21:22	10

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.00381	U	0.0476	0.00381	mg/L		08/07/13 08:42	08/14/13 09:41	100
Nitrobenzene	0.0105	U	0.0476	0.0105	mg/L		08/07/13 08:42	08/14/13 09:41	100
2,4-Dimethylphenol	0.903		0.0476	0.0295	mg/L		08/07/13 08:42	08/14/13 09:41	100
Bis(2-chloroethoxy)methane	0.0124	U	0.0476	0.0124	mg/L		08/07/13 08:42	08/14/13 09:41	100
2-Methylnaphthalene	0.216		0.0476	0.00667	mg/L		08/07/13 08:42	08/14/13 09:41	100
2-Chloronaphthalene	0.00762	U	0.0476	0.00762	mg/L		08/07/13 08:42	08/14/13 09:41	100
Acenaphthylene	0.00571	U	0.0476	0.00571	mg/L		08/07/13 08:42	08/14/13 09:41	100
2,6-Dinitrotoluene	0.00762	U	0.0476	0.00762	mg/L		08/07/13 08:42	08/14/13 09:41	100
Acenaphthene	0.126		0.0476	0.00762	mg/L		08/07/13 08:42	08/14/13 09:41	100
4-Nitrophenol	0.0533	U	0.0952	0.0533	mg/L		08/07/13 08:42	08/14/13 09:41	100
Dibenzofuran	0.0812		0.0476	0.00762	mg/L		08/07/13 08:42	08/14/13 09:41	100
2,4-Dinitrotoluene	0.0124	U	0.0476	0.0124	mg/L		08/07/13 08:42	08/14/13 09:41	100
Fluorene	0.0662		0.0476	0.00667	mg/L		08/07/13 08:42	08/14/13 09:41	100
4,6-Dinitro-2-methylphenol	0.0790	U	0.0952	0.0790	mg/L		08/07/13 08:42	08/14/13 09:41	100
N-Nitrosodiphenylamine	0.00952	U	0.0476	0.00952	mg/L		08/07/13 08:42	08/14/13 09:41	100
1,2-Diphenylhydrazine	0.0105	U	0.0476	0.0105	mg/L		08/07/13 08:42	08/14/13 09:41	100
Pentachlorophenol	0.0581	U	0.0952	0.0581	mg/L		08/07/13 08:42	08/14/13 09:41	100
Phenanthrene	0.0684		0.0476	0.00571	mg/L		08/07/13 08:42	08/14/13 09:41	100
Anthracene	0.0119	J	0.0476	0.00476	mg/L		08/07/13 08:42	08/14/13 09:41	100
Di-n-butyl phthalate	0.0105	U	0.238	0.0105	mg/L		08/07/13 08:42	08/14/13 09:41	100
Fluoranthene	0.00667	U	0.0476	0.00667	mg/L		08/07/13 08:42	08/14/13 09:41	100
Pyrene	0.0105	U	0.0476	0.0105	mg/L		08/07/13 08:42	08/14/13 09:41	100
Benzo[a]anthracene	0.00762	U	0.0476	0.00762	mg/L		08/07/13 08:42	08/14/13 09:41	100
Bis(2-ethylhexyl) phthalate	0.0352	U	0.238	0.0352	mg/L		08/07/13 08:42	08/14/13 09:41	100
Chrysene	0.00762	U	0.0476	0.00762	mg/L		08/07/13 08:42	08/14/13 09:41	100
Benzo[a]pyrene	0.00762	U	0.0476	0.00762	mg/L		08/07/13 08:42	08/14/13 09:41	100

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	0	X	44 - 123	08/07/13 08:42	08/14/13 09:41	100
2-Fluorobiphenyl	0	X	43 - 120	08/07/13 08:42	08/14/13 09:41	100
2-Fluorophenol	0	X	18 - 120	08/07/13 08:42	08/14/13 09:41	100
Nitrobenzene-d5	0	X	47 - 120	08/07/13 08:42	08/14/13 09:41	100
Terphenyl-d14	0	X	33 - 141	08/07/13 08:42	08/14/13 09:41	100
Phenol-d5 (Surr)	0	X	12 - 128	08/07/13 08:42	08/14/13 09:41	100

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-77257-1

Client Sample ID: WG-1620-MW49-A-20130801

Lab Sample ID: 600-77257-12

Date Collected: 08/01/13 13:20

Matrix: Water

Date Received: 08/02/13 11:51

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels - DL

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	3.30		2.38	0.0381	mg/L		08/07/13 08:42	08/14/13 20:26	500
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	0	X	44 - 123				08/07/13 08:42	08/14/13 20:26	500
2-Fluorobiphenyl	0	X	43 - 120				08/07/13 08:42	08/14/13 20:26	500
2-Fluorophenol	0	X	18 - 120				08/07/13 08:42	08/14/13 20:26	500
Nitrobenzene-d5	0	X	47 - 120				08/07/13 08:42	08/14/13 20:26	500
Terphenyl-d14	0	X	33 - 141				08/07/13 08:42	08/14/13 20:26	500
Phenol-d5 (Surr)	0	X	12 - 128				08/07/13 08:42	08/14/13 20:26	500

Client Sample ID: WG-1620-MW49B-20130801

Lab Sample ID: 600-77257-13

Date Collected: 08/01/13 14:15

Matrix: Water

Date Received: 08/02/13 11:51

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	0.00220	U	0.0400	0.00220	mg/L			08/06/13 21:51	20
Methylene Chloride	0.00300	U	0.0200	0.00300	mg/L			08/06/13 21:51	20
Benzene	0.469		0.0200	0.00160	mg/L			08/06/13 21:51	20
1,2-Dichloroethane	0.00280	U *	0.0200	0.00280	mg/L			08/06/13 21:51	20
Toluene	0.345		0.0200	0.00300	mg/L			08/06/13 21:51	20
Chlorobenzene	0.0103	J	0.0200	0.00240	mg/L			08/06/13 21:51	20
Ethylbenzene	0.0825		0.0200	0.00220	mg/L			08/06/13 21:51	20
Xylenes, Total	0.222		0.0600	0.00520	mg/L			08/06/13 21:51	20
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	97		67 - 139					08/06/13 21:51	20
Dibromofluoromethane	92		62 - 130					08/06/13 21:51	20
Toluene-d8 (Surr)	86		70 - 130					08/06/13 21:51	20
1,2-Dichloroethane-d4 (Surr)	112		50 - 134					08/06/13 21:51	20

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.00381	U	0.0476	0.00381	mg/L		08/07/13 08:42	08/14/13 10:10	100
Nitrobenzene	0.0105	U	0.0476	0.0105	mg/L		08/07/13 08:42	08/14/13 10:10	100
Bis(2-chloroethoxy)methane	0.0124	U	0.0476	0.0124	mg/L		08/07/13 08:42	08/14/13 10:10	100
2-Methylnaphthalene	0.223		0.0476	0.00667	mg/L		08/07/13 08:42	08/14/13 10:10	100
2-Chloronaphthalene	0.00762	U	0.0476	0.00762	mg/L		08/07/13 08:42	08/14/13 10:10	100
Acenaphthylene	0.00571	U	0.0476	0.00571	mg/L		08/07/13 08:42	08/14/13 10:10	100
2,6-Dinitrotoluene	0.00762	U	0.0476	0.00762	mg/L		08/07/13 08:42	08/14/13 10:10	100
Acenaphthene	0.0964		0.0476	0.00762	mg/L		08/07/13 08:42	08/14/13 10:10	100
4-Nitrophenol	0.0533	U	0.0952	0.0533	mg/L		08/07/13 08:42	08/14/13 10:10	100
Dibenzofuran	0.00762	U	0.0476	0.00762	mg/L		08/07/13 08:42	08/14/13 10:10	100
2,4-Dinitrotoluene	0.0124	U	0.0476	0.0124	mg/L		08/07/13 08:42	08/14/13 10:10	100
Fluorene	0.0490		0.0476	0.00667	mg/L		08/07/13 08:42	08/14/13 10:10	100
4,6-Dinitro-2-methylphenol	0.0790	U	0.0952	0.0790	mg/L		08/07/13 08:42	08/14/13 10:10	100
N-Nitrosodiphenylamine	0.00952	U	0.0476	0.00952	mg/L		08/07/13 08:42	08/14/13 10:10	100
1,2-Diphenylhydrazine	0.0105	U	0.0476	0.0105	mg/L		08/07/13 08:42	08/14/13 10:10	100
Pentachlorophenol	0.0581	U	0.0952	0.0581	mg/L		08/07/13 08:42	08/14/13 10:10	100
Phenanthrene	0.0390	J	0.0476	0.00571	mg/L		08/07/13 08:42	08/14/13 10:10	100

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-77257-1

Client Sample ID: WG-1620-MW49B-20130801

Lab Sample ID: 600-77257-13

Date Collected: 08/01/13 14:15

Matrix: Water

Date Received: 08/02/13 11:51

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	0.00476	U	0.0476	0.00476	mg/L		08/07/13 08:42	08/14/13 10:10	100
Di-n-butyl phthalate	0.0105	U	0.238	0.0105	mg/L		08/07/13 08:42	08/14/13 10:10	100
Fluoranthene	0.00667	U	0.0476	0.00667	mg/L		08/07/13 08:42	08/14/13 10:10	100
Pyrene	0.0105	U	0.0476	0.0105	mg/L		08/07/13 08:42	08/14/13 10:10	100
Benzo[a]anthracene	0.00762	U	0.0476	0.00762	mg/L		08/07/13 08:42	08/14/13 10:10	100
Bis(2-ethylhexyl) phthalate	0.0352	U	0.238	0.0352	mg/L		08/07/13 08:42	08/14/13 10:10	100
Chrysene	0.00762	U	0.0476	0.00762	mg/L		08/07/13 08:42	08/14/13 10:10	100
Benzo[a]pyrene	0.00762	U	0.0476	0.00762	mg/L		08/07/13 08:42	08/14/13 10:10	100
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	0	X	44 - 123				08/07/13 08:42	08/14/13 10:10	100
2-Fluorobiphenyl	0	X	43 - 120				08/07/13 08:42	08/14/13 10:10	100
2-Fluorophenol	0	X	18 - 120				08/07/13 08:42	08/14/13 10:10	100
Nitrobenzene-d5	0	X	47 - 120				08/07/13 08:42	08/14/13 10:10	100
Terphenyl-d14	0	X	33 - 141				08/07/13 08:42	08/14/13 10:10	100
Phenol-d5 (Surr)	0	X	12 - 128				08/07/13 08:42	08/14/13 10:10	100

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels - DL

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-Dimethylphenol	21.4		0.476	0.295	mg/L		08/07/13 08:42	08/14/13 20:54	1000
Naphthalene	9.38		4.76	0.0762	mg/L		08/07/13 08:42	08/14/13 20:54	1000
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	0	X	44 - 123				08/07/13 08:42	08/14/13 20:54	1000
2-Fluorobiphenyl	0	X	43 - 120				08/07/13 08:42	08/14/13 20:54	1000
2-Fluorophenol	0	X	18 - 120				08/07/13 08:42	08/14/13 20:54	1000
Nitrobenzene-d5	0	X	47 - 120				08/07/13 08:42	08/14/13 20:54	1000
Terphenyl-d14	0	X	33 - 141				08/07/13 08:42	08/14/13 20:54	1000
Phenol-d5 (Surr)	0	X	12 - 128				08/07/13 08:42	08/14/13 20:54	1000

Client Sample ID: WG-1620-FB04-20130801

Lab Sample ID: 600-77257-14

Date Collected: 08/01/13 14:30

Matrix: Water

Date Received: 08/02/13 11:51

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			08/07/13 19:24	1
Benzene	0.0000800	U	0.00100	0.0000800	mg/L			08/07/13 19:24	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			08/07/13 19:24	1
Toluene	0.000150	U	0.00100	0.000150	mg/L			08/07/13 19:24	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			08/07/13 19:24	1
Ethylbenzene	0.000110	U	0.00100	0.000110	mg/L			08/07/13 19:24	1
Xylenes, Total	0.000260	U	0.00300	0.000260	mg/L			08/07/13 19:24	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	108		67 - 139					08/07/13 19:24	1
Dibromofluoromethane	97		62 - 130					08/07/13 19:24	1
Toluene-d8 (Surr)	95		70 - 130					08/07/13 19:24	1
1,2-Dichloroethane-d4 (Surr)	117		50 - 134					08/07/13 19:24	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-77257-1

Client Sample ID: WG-1620-FB04-20130801

Lab Sample ID: 600-77257-14

Date Collected: 08/01/13 14:30

Matrix: Water

Date Received: 08/02/13 11:51

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.0000381	U	0.000476	0.0000381	mg/L		08/07/13 08:42	08/14/13 01:29	1
Nitrobenzene	0.000105	U	0.000476	0.000105	mg/L		08/07/13 08:42	08/14/13 01:29	1
2,4-Dimethylphenol	0.00156		0.000476	0.000295	mg/L		08/07/13 08:42	08/14/13 01:29	1
Bis(2-chloroethoxy)methane	0.000124	U	0.000476	0.000124	mg/L		08/07/13 08:42	08/14/13 01:29	1
Naphthalene	0.00101	J	0.00476	0.0000762	mg/L		08/07/13 08:42	08/14/13 01:29	1
2-Methylnaphthalene	0.0000667	U	0.000476	0.0000667	mg/L		08/07/13 08:42	08/14/13 01:29	1
2-Chloronaphthalene	0.0000762	U	0.000476	0.0000762	mg/L		08/07/13 08:42	08/14/13 01:29	1
Acenaphthylene	0.0000571	U	0.000476	0.0000571	mg/L		08/07/13 08:42	08/14/13 01:29	1
2,6-Dinitrotoluene	0.0000762	U	0.000476	0.0000762	mg/L		08/07/13 08:42	08/14/13 01:29	1
Acenaphthene	0.0000762	U	0.000476	0.0000762	mg/L		08/07/13 08:42	08/14/13 01:29	1
4-Nitrophenol	0.000533	U	0.000952	0.000533	mg/L		08/07/13 08:42	08/14/13 01:29	1
Dibenzofuran	0.0000762	U	0.000476	0.0000762	mg/L		08/07/13 08:42	08/14/13 01:29	1
2,4-Dinitrotoluene	0.000124	U	0.000476	0.000124	mg/L		08/07/13 08:42	08/14/13 01:29	1
Fluorene	0.0000667	U	0.000476	0.0000667	mg/L		08/07/13 08:42	08/14/13 01:29	1
4,6-Dinitro-2-methylphenol	0.000790	U	0.000952	0.000790	mg/L		08/07/13 08:42	08/14/13 01:29	1
N-Nitrosodiphenylamine	0.0000952	U	0.000476	0.0000952	mg/L		08/07/13 08:42	08/14/13 01:29	1
1,2-Diphenylhydrazine	0.000105	U	0.000476	0.000105	mg/L		08/07/13 08:42	08/14/13 01:29	1
Pentachlorophenol	0.000581	U	0.000952	0.000581	mg/L		08/07/13 08:42	08/14/13 01:29	1
Phenanthrene	0.0000571	U	0.000476	0.0000571	mg/L		08/07/13 08:42	08/14/13 01:29	1
Anthracene	0.0000476	U	0.000476	0.0000476	mg/L		08/07/13 08:42	08/14/13 01:29	1
Di-n-butyl phthalate	0.000105	U	0.00238	0.000105	mg/L		08/07/13 08:42	08/14/13 01:29	1
Fluoranthene	0.0000667	U	0.000476	0.0000667	mg/L		08/07/13 08:42	08/14/13 01:29	1
Pyrene	0.000105	U	0.000476	0.000105	mg/L		08/07/13 08:42	08/14/13 01:29	1
Benzo[a]anthracene	0.0000762	U	0.000476	0.0000762	mg/L		08/07/13 08:42	08/14/13 01:29	1
Bis(2-ethylhexyl) phthalate	0.000352	U	0.00238	0.000352	mg/L		08/07/13 08:42	08/14/13 01:29	1
Chrysene	0.0000762	U	0.000476	0.0000762	mg/L		08/07/13 08:42	08/14/13 01:29	1
Benzo[a]pyrene	0.0000762	U	0.000476	0.0000762	mg/L		08/07/13 08:42	08/14/13 01:29	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	96		44 - 123	08/07/13 08:42	08/14/13 01:29	1
2-Fluorobiphenyl	87		43 - 120	08/07/13 08:42	08/14/13 01:29	1
2-Fluorophenol	31		18 - 120	08/07/13 08:42	08/14/13 01:29	1
Nitrobenzene-d5	72		47 - 120	08/07/13 08:42	08/14/13 01:29	1
Terphenyl-d14	94		33 - 141	08/07/13 08:42	08/14/13 01:29	1
Phenol-d5 (Surr)	14		12 - 128	08/07/13 08:42	08/14/13 01:29	1

Client Sample ID: WG-1620-MW48C-20130801

Lab Sample ID: 600-77257-15

Date Collected: 08/01/13 15:20

Matrix: Water

Date Received: 08/02/13 11:51

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			08/05/13 19:25	1
Benzene	0.0000800	U	0.00100	0.0000800	mg/L			08/05/13 19:25	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			08/05/13 19:25	1
Toluene	0.000150	U	0.00100	0.000150	mg/L			08/05/13 19:25	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			08/05/13 19:25	1
Ethylbenzene	0.000110	U	0.00100	0.000110	mg/L			08/05/13 19:25	1
Xylenes, Total	0.000260	U	0.00300	0.000260	mg/L			08/05/13 19:25	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-77257-1

Client Sample ID: WG-1620-MW48C-20130801

Lab Sample ID: 600-77257-15

Date Collected: 08/01/13 15:20

Matrix: Water

Date Received: 08/02/13 11:51

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	102		67 - 139		08/05/13 19:25	1
Dibromofluoromethane	87		62 - 130		08/05/13 19:25	1
Toluene-d8 (Surr)	89		70 - 130		08/05/13 19:25	1
1,2-Dichloroethane-d4 (Surr)	102		50 - 134		08/05/13 19:25	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.000381	U	0.000476	0.000381	mg/L		08/07/13 08:42	08/14/13 01:57	1
Nitrobenzene	0.000105	U	0.000476	0.000105	mg/L		08/07/13 08:42	08/14/13 01:57	1
2,4-Dimethylphenol	0.000295	U	0.000476	0.000295	mg/L		08/07/13 08:42	08/14/13 01:57	1
Bis(2-chloroethoxy)methane	0.000124	U	0.000476	0.000124	mg/L		08/07/13 08:42	08/14/13 01:57	1
Naphthalene	0.000158	J	0.00476	0.0000762	mg/L		08/07/13 08:42	08/14/13 01:57	1
2-Methylnaphthalene	0.0000667	U	0.000476	0.0000667	mg/L		08/07/13 08:42	08/14/13 01:57	1
2-Chloronaphthalene	0.0000762	U	0.000476	0.0000762	mg/L		08/07/13 08:42	08/14/13 01:57	1
Acenaphthylene	0.0000571	U	0.000476	0.0000571	mg/L		08/07/13 08:42	08/14/13 01:57	1
2,6-Dinitrotoluene	0.0000762	U	0.000476	0.0000762	mg/L		08/07/13 08:42	08/14/13 01:57	1
Acenaphthene	0.0000762	U	0.000476	0.0000762	mg/L		08/07/13 08:42	08/14/13 01:57	1
4-Nitrophenol	0.000533	U	0.000952	0.000533	mg/L		08/07/13 08:42	08/14/13 01:57	1
Dibenzofuran	0.0000762	U	0.000476	0.0000762	mg/L		08/07/13 08:42	08/14/13 01:57	1
2,4-Dinitrotoluene	0.000124	U	0.000476	0.000124	mg/L		08/07/13 08:42	08/14/13 01:57	1
Fluorene	0.0000667	U	0.000476	0.0000667	mg/L		08/07/13 08:42	08/14/13 01:57	1
4,6-Dinitro-2-methylphenol	0.000790	U	0.000952	0.000790	mg/L		08/07/13 08:42	08/14/13 01:57	1
N-Nitrosodiphenylamine	0.0000952	U	0.000476	0.0000952	mg/L		08/07/13 08:42	08/14/13 01:57	1
1,2-Diphenylhydrazine	0.000105	U	0.000476	0.000105	mg/L		08/07/13 08:42	08/14/13 01:57	1
Pentachlorophenol	0.000581	U	0.000952	0.000581	mg/L		08/07/13 08:42	08/14/13 01:57	1
Phenanthrene	0.0000571	U	0.000476	0.0000571	mg/L		08/07/13 08:42	08/14/13 01:57	1
Anthracene	0.0000476	U	0.000476	0.0000476	mg/L		08/07/13 08:42	08/14/13 01:57	1
Di-n-butyl phthalate	0.000105	U	0.00238	0.000105	mg/L		08/07/13 08:42	08/14/13 01:57	1
Fluoranthene	0.000134	J	0.000476	0.0000667	mg/L		08/07/13 08:42	08/14/13 01:57	1
Pyrene	0.000105	U	0.000476	0.000105	mg/L		08/07/13 08:42	08/14/13 01:57	1
Benzo[a]anthracene	0.0000762	U	0.000476	0.0000762	mg/L		08/07/13 08:42	08/14/13 01:57	1
Bis(2-ethylhexyl) phthalate	0.000352	U	0.00238	0.000352	mg/L		08/07/13 08:42	08/14/13 01:57	1
Chrysene	0.0000762	U	0.000476	0.0000762	mg/L		08/07/13 08:42	08/14/13 01:57	1
Benzo[a]pyrene	0.0000762	U	0.000476	0.0000762	mg/L		08/07/13 08:42	08/14/13 01:57	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	70		44 - 123	08/07/13 08:42	08/14/13 01:57	1
2-Fluorobiphenyl	74		43 - 120	08/07/13 08:42	08/14/13 01:57	1
2-Fluorophenol	26		18 - 120	08/07/13 08:42	08/14/13 01:57	1
Nitrobenzene-d5	55		47 - 120	08/07/13 08:42	08/14/13 01:57	1
Terphenyl-d14	97		33 - 141	08/07/13 08:42	08/14/13 01:57	1
Phenol-d5 (Surr)	12		12 - 128	08/07/13 08:42	08/14/13 01:57	1

Client Sample ID: WG-1620-MW59B-20130801

Lab Sample ID: 600-77257-16

Date Collected: 08/01/13 16:35

Matrix: Water

Date Received: 08/02/13 11:51

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	0.000110	U	0.00200	0.000110	mg/L			08/06/13 17:06	1
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			08/06/13 17:06	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-77257-1

Client Sample ID: WG-1620-MW59B-20130801

Lab Sample ID: 600-77257-16

Date Collected: 08/01/13 16:35

Matrix: Water

Date Received: 08/02/13 11:51

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.0000981	J	0.00100	0.0000800	mg/L			08/06/13 17:06	1
1,2-Dichloroethane	0.000140	U *	0.00100	0.000140	mg/L			08/06/13 17:06	1
Toluene	0.000150	U	0.00100	0.000150	mg/L			08/06/13 17:06	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			08/06/13 17:06	1
Ethylbenzene	0.000110	U	0.00100	0.000110	mg/L			08/06/13 17:06	1
Xylenes, Total	0.000260	U	0.00300	0.000260	mg/L			08/06/13 17:06	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	110		67 - 139					08/06/13 17:06	1
Dibromofluoromethane	88		62 - 130					08/06/13 17:06	1
Toluene-d8 (Surr)	93		70 - 130					08/06/13 17:06	1
1,2-Dichloroethane-d4 (Surr)	109		50 - 134					08/06/13 17:06	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.0000381	U	0.000476	0.0000381	mg/L		08/07/13 08:42	08/14/13 02:26	1
Nitrobenzene	0.000105	U	0.000476	0.000105	mg/L		08/07/13 08:42	08/14/13 02:26	1
2,4-Dimethylphenol	0.000295	U	0.000476	0.000295	mg/L		08/07/13 08:42	08/14/13 02:26	1
Bis(2-chloroethoxy)methane	0.000124	U	0.000476	0.000124	mg/L		08/07/13 08:42	08/14/13 02:26	1
Naphthalene	0.000166	J	0.00476	0.0000762	mg/L		08/07/13 08:42	08/14/13 02:26	1
2-Methylnaphthalene	0.0000667	U	0.000476	0.0000667	mg/L		08/07/13 08:42	08/14/13 02:26	1
2-Chloronaphthalene	0.0000762	U	0.000476	0.0000762	mg/L		08/07/13 08:42	08/14/13 02:26	1
Acenaphthylene	0.0000571	U	0.000476	0.0000571	mg/L		08/07/13 08:42	08/14/13 02:26	1
2,6-Dinitrotoluene	0.0000762	U	0.000476	0.0000762	mg/L		08/07/13 08:42	08/14/13 02:26	1
Acenaphthene	0.0000762	U	0.000476	0.0000762	mg/L		08/07/13 08:42	08/14/13 02:26	1
4-Nitrophenol	0.000533	U	0.000952	0.000533	mg/L		08/07/13 08:42	08/14/13 02:26	1
Dibenzofuran	0.0000762	U	0.000476	0.0000762	mg/L		08/07/13 08:42	08/14/13 02:26	1
2,4-Dinitrotoluene	0.000124	U	0.000476	0.000124	mg/L		08/07/13 08:42	08/14/13 02:26	1
Fluorene	0.0000667	U	0.000476	0.0000667	mg/L		08/07/13 08:42	08/14/13 02:26	1
4,6-Dinitro-2-methylphenol	0.000790	U	0.000952	0.000790	mg/L		08/07/13 08:42	08/14/13 02:26	1
N-Nitrosodiphenylamine	0.0000952	U	0.000476	0.0000952	mg/L		08/07/13 08:42	08/14/13 02:26	1
1,2-Diphenylhydrazine	0.000105	U	0.000476	0.000105	mg/L		08/07/13 08:42	08/14/13 02:26	1
Pentachlorophenol	0.000581	U	0.000952	0.000581	mg/L		08/07/13 08:42	08/14/13 02:26	1
Phenanthrene	0.0000571	U	0.000476	0.0000571	mg/L		08/07/13 08:42	08/14/13 02:26	1
Anthracene	0.0000476	U	0.000476	0.0000476	mg/L		08/07/13 08:42	08/14/13 02:26	1
Di-n-butyl phthalate	0.000115	J	0.00238	0.000105	mg/L		08/07/13 08:42	08/14/13 02:26	1
Fluoranthene	0.0000667	U	0.000476	0.0000667	mg/L		08/07/13 08:42	08/14/13 02:26	1
Pyrene	0.000105	U	0.000476	0.000105	mg/L		08/07/13 08:42	08/14/13 02:26	1
Benzo[a]anthracene	0.0000762	U	0.000476	0.0000762	mg/L		08/07/13 08:42	08/14/13 02:26	1
Bis(2-ethylhexyl) phthalate	0.000352	U	0.00238	0.000352	mg/L		08/07/13 08:42	08/14/13 02:26	1
Chrysene	0.0000762	U	0.000476	0.0000762	mg/L		08/07/13 08:42	08/14/13 02:26	1
Benzo[a]pyrene	0.0000762	U	0.000476	0.0000762	mg/L		08/07/13 08:42	08/14/13 02:26	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	69		44 - 123				08/07/13 08:42	08/14/13 02:26	1
2-Fluorobiphenyl	71		43 - 120				08/07/13 08:42	08/14/13 02:26	1
2-Fluorophenol	19		18 - 120				08/07/13 08:42	08/14/13 02:26	1
Nitrobenzene-d5	54		47 - 120				08/07/13 08:42	08/14/13 02:26	1
Terphenyl-d14	90		33 - 141				08/07/13 08:42	08/14/13 02:26	1
Phenol-d5 (Surr)	10	X	12 - 128				08/07/13 08:42	08/14/13 02:26	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-77257-1

Client Sample ID: WG-1620-MW59A-20130801

Lab Sample ID: 600-77257-17

Date Collected: 08/01/13 17:30

Matrix: Water

Date Received: 08/02/13 11:51

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	0.000110	U	0.00200	0.000110	mg/L			08/05/13 19:53	1
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			08/05/13 19:53	1
Benzene	0.0000800	U	0.00100	0.0000800	mg/L			08/05/13 19:53	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			08/05/13 19:53	1
Toluene	0.000150	U	0.00100	0.000150	mg/L			08/05/13 19:53	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			08/05/13 19:53	1
Ethylbenzene	0.000110	U	0.00100	0.000110	mg/L			08/05/13 19:53	1
Xylenes, Total	0.000260	U	0.00300	0.000260	mg/L			08/05/13 19:53	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	104		67 - 139					08/05/13 19:53	1
Dibromofluoromethane	89		62 - 130					08/05/13 19:53	1
Toluene-d8 (Surr)	91		70 - 130					08/05/13 19:53	1
1,2-Dichloroethane-d4 (Surr)	101		50 - 134					08/05/13 19:53	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.0000392	U H	0.000490	0.0000392	mg/L		08/19/13 11:26	08/20/13 12:33	1
Nitrobenzene	0.000108	U H	0.000490	0.000108	mg/L		08/19/13 11:26	08/20/13 12:33	1
2,4-Dimethylphenol	0.000304	U H	0.000490	0.000304	mg/L		08/19/13 11:26	08/20/13 12:33	1
Bis(2-chloroethoxy)methane	0.000127	U H	0.000490	0.000127	mg/L		08/19/13 11:26	08/20/13 12:33	1
Naphthalene	0.0000784	U H	0.00490	0.0000784	mg/L		08/19/13 11:26	08/20/13 12:33	1
2-Methylnaphthalene	0.0000686	U H	0.000490	0.0000686	mg/L		08/19/13 11:26	08/20/13 12:33	1
2-Chloronaphthalene	0.0000784	U H	0.000490	0.0000784	mg/L		08/19/13 11:26	08/20/13 12:33	1
Acenaphthylene	0.0000588	U H	0.000490	0.0000588	mg/L		08/19/13 11:26	08/20/13 12:33	1
2,6-Dinitrotoluene	0.0000784	U H	0.000490	0.0000784	mg/L		08/19/13 11:26	08/20/13 12:33	1
Acenaphthene	0.0000784	U H	0.000490	0.0000784	mg/L		08/19/13 11:26	08/20/13 12:33	1
4-Nitrophenol	0.000549	U H	0.000980	0.000549	mg/L		08/19/13 11:26	08/20/13 12:33	1
Dibenzofuran	0.0000784	U H	0.000490	0.0000784	mg/L		08/19/13 11:26	08/20/13 12:33	1
2,4-Dinitrotoluene	0.000127	U H	0.000490	0.000127	mg/L		08/19/13 11:26	08/20/13 12:33	1
Fluorene	0.0000686	U H	0.000490	0.0000686	mg/L		08/19/13 11:26	08/20/13 12:33	1
4,6-Dinitro-2-methylphenol	0.000814	U H	0.000980	0.000814	mg/L		08/19/13 11:26	08/20/13 12:33	1
N-Nitrosodiphenylamine	0.0000980	U H	0.000490	0.0000980	mg/L		08/19/13 11:26	08/20/13 12:33	1
1,2-Diphenylhydrazine	0.000108	U H *	0.000490	0.000108	mg/L		08/19/13 11:26	08/20/13 12:33	1
Pentachlorophenol	0.000598	U H	0.000980	0.000598	mg/L		08/19/13 11:26	08/20/13 12:33	1
Phenanthrene	0.0000750	J H	0.000490	0.0000588	mg/L		08/19/13 11:26	08/20/13 12:33	1
Anthracene	0.0000519	J H	0.000490	0.0000490	mg/L		08/19/13 11:26	08/20/13 12:33	1
Di-n-butyl phthalate	0.000169	J H	0.00245	0.000108	mg/L		08/19/13 11:26	08/20/13 12:33	1
Fluoranthene	0.0000686	U H	0.000490	0.0000686	mg/L		08/19/13 11:26	08/20/13 12:33	1
Pyrene	0.000108	U H	0.000490	0.000108	mg/L		08/19/13 11:26	08/20/13 12:33	1
Benzo[a]anthracene	0.0000784	U H	0.000490	0.0000784	mg/L		08/19/13 11:26	08/20/13 12:33	1
Bis(2-ethylhexyl) phthalate	0.000363	U H	0.00245	0.000363	mg/L		08/19/13 11:26	08/20/13 12:33	1
Chrysene	0.0000784	U H	0.000490	0.0000784	mg/L		08/19/13 11:26	08/20/13 12:33	1
Benzo[a]pyrene	0.0000784	U H	0.000490	0.0000784	mg/L		08/19/13 11:26	08/20/13 12:33	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	106		44 - 123				08/19/13 11:26	08/20/13 12:33	1
2-Fluorobiphenyl	77		43 - 120				08/19/13 11:26	08/20/13 12:33	1
2-Fluorophenol	32		18 - 120				08/19/13 11:26	08/20/13 12:33	1
Nitrobenzene-d5	66		47 - 120				08/19/13 11:26	08/20/13 12:33	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-77257-1

Client Sample ID: WG-1620-MW59A-20130801

Lab Sample ID: 600-77257-17

Date Collected: 08/01/13 17:30

Matrix: Water

Date Received: 08/02/13 11:51

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Terphenyl-d14	95		33 - 141	08/19/13 11:26	08/20/13 12:33	1
Phenol-d5 (Surr)	18		12 - 128	08/19/13 11:26	08/20/13 12:33	1

Client Sample ID: WG-1620-MW60A-20130802

Lab Sample ID: 600-77257-18

Date Collected: 08/02/13 08:00

Matrix: Water

Date Received: 08/02/13 11:51

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	0.000110	U	0.00200	0.000110	mg/L			08/05/13 20:22	1
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			08/05/13 20:22	1
Benzene	0.0000800	U	0.00100	0.0000800	mg/L			08/05/13 20:22	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			08/05/13 20:22	1
Toluene	0.000150	U	0.00100	0.000150	mg/L			08/05/13 20:22	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			08/05/13 20:22	1
Ethylbenzene	0.000110	U	0.00100	0.000110	mg/L			08/05/13 20:22	1
Xylenes, Total	0.000260	U	0.00300	0.000260	mg/L			08/05/13 20:22	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	103		67 - 139		08/05/13 20:22	1
Dibromofluoromethane	90		62 - 130		08/05/13 20:22	1
Toluene-d8 (Surr)	86		70 - 130		08/05/13 20:22	1
1,2-Dichloroethane-d4 (Surr)	104		50 - 134		08/05/13 20:22	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.0000381	U	0.000476	0.0000381	mg/L		08/07/13 08:42	08/14/13 03:23	1
Nitrobenzene	0.000105	U	0.000476	0.000105	mg/L		08/07/13 08:42	08/14/13 03:23	1
2,4-Dimethylphenol	0.000295	U	0.000476	0.000295	mg/L		08/07/13 08:42	08/14/13 03:23	1
Bis(2-chloroethoxy)methane	0.000124	U	0.000476	0.000124	mg/L		08/07/13 08:42	08/14/13 03:23	1
Naphthalene	0.0000762	U	0.000476	0.0000762	mg/L		08/07/13 08:42	08/14/13 03:23	1
2-Methylnaphthalene	0.0000667	U	0.000476	0.0000667	mg/L		08/07/13 08:42	08/14/13 03:23	1
2-Chloronaphthalene	0.0000762	U	0.000476	0.0000762	mg/L		08/07/13 08:42	08/14/13 03:23	1
Acenaphthylene	0.0000571	U	0.000476	0.0000571	mg/L		08/07/13 08:42	08/14/13 03:23	1
2,6-Dinitrotoluene	0.0000762	U	0.000476	0.0000762	mg/L		08/07/13 08:42	08/14/13 03:23	1
Acenaphthene	0.0000762	U	0.000476	0.0000762	mg/L		08/07/13 08:42	08/14/13 03:23	1
4-Nitrophenol	0.000533	U	0.000952	0.000533	mg/L		08/07/13 08:42	08/14/13 03:23	1
Dibenzofuran	0.0000762	U	0.000476	0.0000762	mg/L		08/07/13 08:42	08/14/13 03:23	1
2,4-Dinitrotoluene	0.000124	U	0.000476	0.000124	mg/L		08/07/13 08:42	08/14/13 03:23	1
Fluorene	0.0000667	U	0.000476	0.0000667	mg/L		08/07/13 08:42	08/14/13 03:23	1
4,6-Dinitro-2-methylphenol	0.000790	U	0.000952	0.000790	mg/L		08/07/13 08:42	08/14/13 03:23	1
N-Nitrosodiphenylamine	0.0000952	U	0.000476	0.0000952	mg/L		08/07/13 08:42	08/14/13 03:23	1
1,2-Diphenylhydrazine	0.000105	U	0.000476	0.000105	mg/L		08/07/13 08:42	08/14/13 03:23	1
Pentachlorophenol	0.000581	U	0.000952	0.000581	mg/L		08/07/13 08:42	08/14/13 03:23	1
Phenanthrene	0.0000571	U	0.000476	0.0000571	mg/L		08/07/13 08:42	08/14/13 03:23	1
Anthracene	0.0000883	J	0.000476	0.0000476	mg/L		08/07/13 08:42	08/14/13 03:23	1
Di-n-butyl phthalate	0.000105	U	0.00238	0.000105	mg/L		08/07/13 08:42	08/14/13 03:23	1
Fluoranthene	0.0000667	U	0.000476	0.0000667	mg/L		08/07/13 08:42	08/14/13 03:23	1
Pyrene	0.000105	U	0.000476	0.000105	mg/L		08/07/13 08:42	08/14/13 03:23	1
Benzo[a]anthracene	0.0000762	U	0.000476	0.0000762	mg/L		08/07/13 08:42	08/14/13 03:23	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-77257-1

Client Sample ID: WG-1620-MW60A-20130802

Lab Sample ID: 600-77257-18

Date Collected: 08/02/13 08:00

Matrix: Water

Date Received: 08/02/13 11:51

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	0.000352	U	0.00238	0.000352	mg/L		08/07/13 08:42	08/14/13 03:23	1
Chrysene	0.0000762	U	0.000476	0.0000762	mg/L		08/07/13 08:42	08/14/13 03:23	1
Benzo[a]pyrene	0.0000762	U	0.000476	0.0000762	mg/L		08/07/13 08:42	08/14/13 03:23	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	80		44 - 123				08/07/13 08:42	08/14/13 03:23	1
2-Fluorobiphenyl	84		43 - 120				08/07/13 08:42	08/14/13 03:23	1
2-Fluorophenol	30		18 - 120				08/07/13 08:42	08/14/13 03:23	1
Nitrobenzene-d5	63		47 - 120				08/07/13 08:42	08/14/13 03:23	1
Terphenyl-d14	99		33 - 141				08/07/13 08:42	08/14/13 03:23	1
Phenol-d5 (Surr)	16		12 - 128				08/07/13 08:42	08/14/13 03:23	1

Client Sample ID: WG-1620-FB05-20130802

Lab Sample ID: 600-77257-19

Date Collected: 08/02/13 08:45

Matrix: Water

Date Received: 08/02/13 11:51

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			08/05/13 20:50	1
Benzene	0.0000800	U	0.00100	0.0000800	mg/L			08/05/13 20:50	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			08/05/13 20:50	1
Toluene	0.000150	U	0.00100	0.000150	mg/L			08/05/13 20:50	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			08/05/13 20:50	1
Ethylbenzene	0.000110	U	0.00100	0.000110	mg/L			08/05/13 20:50	1
Xylenes, Total	0.000260	U	0.00300	0.000260	mg/L			08/05/13 20:50	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	108		67 - 139					08/05/13 20:50	1
Dibromofluoromethane	89		62 - 130					08/05/13 20:50	1
Toluene-d8 (Surr)	85		70 - 130					08/05/13 20:50	1
1,2-Dichloroethane-d4 (Surr)	106		50 - 134					08/05/13 20:50	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.0000381	U	0.000476	0.0000381	mg/L		08/07/13 08:42	08/14/13 03:51	1
Nitrobenzene	0.000105	U	0.000476	0.000105	mg/L		08/07/13 08:42	08/14/13 03:51	1
2,4-Dimethylphenol	0.00165		0.000476	0.000295	mg/L		08/07/13 08:42	08/14/13 03:51	1
Bis(2-chloroethoxy)methane	0.000124	U	0.000476	0.000124	mg/L		08/07/13 08:42	08/14/13 03:51	1
Naphthalene	0.000810	J	0.00476	0.0000762	mg/L		08/07/13 08:42	08/14/13 03:51	1
2-Methylnaphthalene	0.0000667	U	0.000476	0.0000667	mg/L		08/07/13 08:42	08/14/13 03:51	1
2-Chloronaphthalene	0.0000762	U	0.000476	0.0000762	mg/L		08/07/13 08:42	08/14/13 03:51	1
Acenaphthylene	0.0000571	U	0.000476	0.0000571	mg/L		08/07/13 08:42	08/14/13 03:51	1
2,6-Dinitrotoluene	0.0000762	U	0.000476	0.0000762	mg/L		08/07/13 08:42	08/14/13 03:51	1
Acenaphthene	0.0000762	U	0.000476	0.0000762	mg/L		08/07/13 08:42	08/14/13 03:51	1
4-Nitrophenol	0.000533	U	0.000952	0.000533	mg/L		08/07/13 08:42	08/14/13 03:51	1
Dibenzofuran	0.0000762	U	0.000476	0.0000762	mg/L		08/07/13 08:42	08/14/13 03:51	1
2,4-Dinitrotoluene	0.000124	U	0.000476	0.000124	mg/L		08/07/13 08:42	08/14/13 03:51	1
Fluorene	0.0000667	U	0.000476	0.0000667	mg/L		08/07/13 08:42	08/14/13 03:51	1
4,6-Dinitro-2-methylphenol	0.000790	U	0.000952	0.000790	mg/L		08/07/13 08:42	08/14/13 03:51	1
N-Nitrosodiphenylamine	0.0000952	U	0.000476	0.0000952	mg/L		08/07/13 08:42	08/14/13 03:51	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-77257-1

Client Sample ID: WG-1620-FB05-20130802

Lab Sample ID: 600-77257-19

Date Collected: 08/02/13 08:45

Matrix: Water

Date Received: 08/02/13 11:51

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Diphenylhydrazine	0.000105	U	0.000476	0.000105	mg/L		08/07/13 08:42	08/14/13 03:51	1
Pentachlorophenol	0.000581	U	0.000952	0.000581	mg/L		08/07/13 08:42	08/14/13 03:51	1
Phenanthrene	0.0000571	U	0.000476	0.0000571	mg/L		08/07/13 08:42	08/14/13 03:51	1
Anthracene	0.0000476	U	0.000476	0.0000476	mg/L		08/07/13 08:42	08/14/13 03:51	1
Di-n-butyl phthalate	0.000105	U	0.00238	0.000105	mg/L		08/07/13 08:42	08/14/13 03:51	1
Fluoranthene	0.0000667	U	0.000476	0.0000667	mg/L		08/07/13 08:42	08/14/13 03:51	1
Pyrene	0.000105	U	0.000476	0.000105	mg/L		08/07/13 08:42	08/14/13 03:51	1
Benzo[a]anthracene	0.0000762	U	0.000476	0.0000762	mg/L		08/07/13 08:42	08/14/13 03:51	1
Bis(2-ethylhexyl) phthalate	0.000352	U	0.00238	0.000352	mg/L		08/07/13 08:42	08/14/13 03:51	1
Chrysene	0.0000762	U	0.000476	0.0000762	mg/L		08/07/13 08:42	08/14/13 03:51	1
Benzo[a]pyrene	0.0000762	U	0.000476	0.0000762	mg/L		08/07/13 08:42	08/14/13 03:51	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	88		44 - 123				08/07/13 08:42	08/14/13 03:51	1
2-Fluorobiphenyl	81		43 - 120				08/07/13 08:42	08/14/13 03:51	1
2-Fluorophenol	30		18 - 120				08/07/13 08:42	08/14/13 03:51	1
Nitrobenzene-d5	67		47 - 120				08/07/13 08:42	08/14/13 03:51	1
Terphenyl-d14	104		33 - 141				08/07/13 08:42	08/14/13 03:51	1
Phenol-d5 (Surr)	15		12 - 128				08/07/13 08:42	08/14/13 03:51	1

Client Sample ID: WG-1620-MW62B-20130802

Lab Sample ID: 600-77257-20

Date Collected: 08/02/13 10:20

Matrix: Water

Date Received: 08/02/13 11:51

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			08/07/13 20:49	1
Benzene	0.0000800	U	0.00100	0.0000800	mg/L			08/07/13 20:49	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			08/07/13 20:49	1
Toluene	0.000150	U	0.00100	0.000150	mg/L			08/07/13 20:49	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			08/07/13 20:49	1
Ethylbenzene	0.000110	U	0.00100	0.000110	mg/L			08/07/13 20:49	1
Xylenes, Total	0.000260	U	0.00300	0.000260	mg/L			08/07/13 20:49	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	113		67 - 139					08/07/13 20:49	1
Dibromofluoromethane	98		62 - 130					08/07/13 20:49	1
Toluene-d8 (Surr)	91		70 - 130					08/07/13 20:49	1
1,2-Dichloroethane-d4 (Surr)	125		50 - 134					08/07/13 20:49	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.0000381	U	0.000476	0.0000381	mg/L		08/07/13 08:42	08/14/13 04:19	1
Nitrobenzene	0.000105	U	0.000476	0.000105	mg/L		08/07/13 08:42	08/14/13 04:19	1
2,4-Dimethylphenol	0.000295	U	0.000476	0.000295	mg/L		08/07/13 08:42	08/14/13 04:19	1
Bis(2-chloroethoxy)methane	0.000124	U	0.000476	0.000124	mg/L		08/07/13 08:42	08/14/13 04:19	1
Naphthalene	0.0000762	U	0.00476	0.0000762	mg/L		08/07/13 08:42	08/14/13 04:19	1
2-Methylnaphthalene	0.0000667	U	0.000476	0.0000667	mg/L		08/07/13 08:42	08/14/13 04:19	1
2-Chloronaphthalene	0.0000762	U	0.000476	0.0000762	mg/L		08/07/13 08:42	08/14/13 04:19	1
Acenaphthylene	0.0000571	U	0.000476	0.0000571	mg/L		08/07/13 08:42	08/14/13 04:19	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-77257-1

Client Sample ID: WG-1620-MW62B-20130802

Lab Sample ID: 600-77257-20

Date Collected: 08/02/13 10:20

Matrix: Water

Date Received: 08/02/13 11:51

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
2,6-Dinitrotoluene	0.0000762	U	0.000476	0.0000762	mg/L		08/07/13 08:42	08/14/13 04:19	1
Acenaphthene	0.0000762	U	0.000476	0.0000762	mg/L		08/07/13 08:42	08/14/13 04:19	1
4-Nitrophenol	0.000533	U	0.000952	0.000533	mg/L		08/07/13 08:42	08/14/13 04:19	1
Dibenzofuran	0.0000762	U	0.000476	0.0000762	mg/L		08/07/13 08:42	08/14/13 04:19	1
2,4-Dinitrotoluene	0.000124	U	0.000476	0.000124	mg/L		08/07/13 08:42	08/14/13 04:19	1
Fluorene	0.0000667	U	0.000476	0.0000667	mg/L		08/07/13 08:42	08/14/13 04:19	1
4,6-Dinitro-2-methylphenol	0.000790	U	0.000952	0.000790	mg/L		08/07/13 08:42	08/14/13 04:19	1
N-Nitrosodiphenylamine	0.0000952	U	0.000476	0.0000952	mg/L		08/07/13 08:42	08/14/13 04:19	1
1,2-Diphenylhydrazine	0.000105	U	0.000476	0.000105	mg/L		08/07/13 08:42	08/14/13 04:19	1
Pentachlorophenol	0.000581	U	0.000952	0.000581	mg/L		08/07/13 08:42	08/14/13 04:19	1
Phenanthrene	0.0000571	U	0.000476	0.0000571	mg/L		08/07/13 08:42	08/14/13 04:19	1
Anthracene	0.0000476	U	0.000476	0.0000476	mg/L		08/07/13 08:42	08/14/13 04:19	1
Di-n-butyl phthalate	0.000107	J	0.00238	0.000105	mg/L		08/07/13 08:42	08/14/13 04:19	1
Fluoranthene	0.0000667	U	0.000476	0.0000667	mg/L		08/07/13 08:42	08/14/13 04:19	1
Pyrene	0.000105	U	0.000476	0.000105	mg/L		08/07/13 08:42	08/14/13 04:19	1
Benzo[a]anthracene	0.0000762	U	0.000476	0.0000762	mg/L		08/07/13 08:42	08/14/13 04:19	1
Bis(2-ethylhexyl) phthalate	0.000352	U	0.00238	0.000352	mg/L		08/07/13 08:42	08/14/13 04:19	1
Chrysene	0.0000762	U	0.000476	0.0000762	mg/L		08/07/13 08:42	08/14/13 04:19	1
Benzo[a]pyrene	0.0000762	U	0.000476	0.0000762	mg/L		08/07/13 08:42	08/14/13 04:19	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	93		44 - 123	08/07/13 08:42	08/14/13 04:19	1
2-Fluorobiphenyl	70		43 - 120	08/07/13 08:42	08/14/13 04:19	1
2-Fluorophenol	25		18 - 120	08/07/13 08:42	08/14/13 04:19	1
Nitrobenzene-d5	75		47 - 120	08/07/13 08:42	08/14/13 04:19	1
Terphenyl-d14	115		33 - 141	08/07/13 08:42	08/14/13 04:19	1
Phenol-d5 (Surr)	13		12 - 128	08/07/13 08:42	08/14/13 04:19	1

Client Sample ID: WG-1620-TB02-201030802

Lab Sample ID: 600-77257-21

Date Collected: 08/02/13 00:00

Matrix: Water

Date Received: 08/02/13 11:51

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			08/05/13 12:45	1
Benzene	0.0000800	U	0.00100	0.0000800	mg/L			08/05/13 12:45	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			08/05/13 12:45	1
Toluene	0.00167		0.00100	0.000150	mg/L			08/05/13 12:45	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			08/05/13 12:45	1
Ethylbenzene	0.000110	U	0.00100	0.000110	mg/L			08/05/13 12:45	1
Xylenes, Total	0.000260	U	0.00300	0.000260	mg/L			08/05/13 12:45	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	115		67 - 139		08/05/13 12:45	1
Dibromofluoromethane	92		62 - 130		08/05/13 12:45	1
Toluene-d8 (Surr)	86		70 - 130		08/05/13 12:45	1
1,2-Dichloroethane-d4 (Surr)	106		50 - 134		08/05/13 12:45	1

TestAmerica Houston

Definitions/Glossary

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-77257-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
U	Analyte was not detected at or above the SDL.
N	MS, MSD: Spike recovery exceeds upper or lower control limits.
*	LCS or LCSD exceeds the control limits
J	Result is less than the MQL but greater than or equal to the SDL and the concentration is an estimated value.

GC/MS Semi VOA

Qualifier	Qualifier Description
U	Analyte was not detected at or above the SDL.
J	Result is less than the MQL but greater than or equal to the SDL and the concentration is an estimated value.
X	Surrogate is outside control limits
*	RPD of the LCS and LCSD exceeds the control limits
H	Sample was prepped or analyzed beyond the specified holding time
*	LCS or LCSD exceeds the control limits

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Surrogate Summary

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-77257-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		BFB (67-139)	DBFM (62-130)	TOL (70-130)	12DCE (50-134)
600-77257-1	WG-1620-MW39B-20130731	108	94	85	109
600-77257-2	WG-1620-MW12C-20130731	114	89	92	104
600-77257-3	WG-1620-MW12A-20130731	96	91	89	117
600-77257-4	WG-1620-TW41B-20130731	101	92	88	106
600-77257-5	WG-1620-MW40B-20130731	99	93	86	113
600-77257-6	WG-1620-MW42B-20130801	115	89	84	106
600-77257-7	WG-1620-MW05-20130801	109	91	87	106
600-77257-8	WG-1620-MW21C-20130801	107	88	89	101
600-77257-9	WG-1620-FD01-20130801	105	88	86	105
600-77257-10	WG-1620-P11-20130801	113	96	92	122
600-77257-11	WG-1620-MW61A-20130801	108	91	90	106
600-77257-11 MS	WG-1620-MW61A-20130801	96	89	86	100
600-77257-11 MSD	WG-1620-MW61A-20130801	94	88	85	100
600-77257-12	WG-1620-MW49-A-20130801	99	93	90	116
600-77257-13	WG-1620-MW49B-20130801	97	92	86	112
600-77257-14	WG-1620-FB04-20130801	108	97	95	117
600-77257-15	WG-1620-MW48C-20130801	102	87	89	102
600-77257-16	WG-1620-MW59B-20130801	110	88	93	109
600-77257-17	WG-1620-MW59A-20130801	104	89	91	101
600-77257-18	WG-1620-MW60A-20130802	103	90	86	104
600-77257-19	WG-1620-FB05-20130802	108	89	85	106
600-77257-20	WG-1620-MW62B-20130802	113	98	91	125
600-77257-21	WG-1620-TB02-201030802	115	92	86	106
LCS 600-112405/3	Lab Control Sample	102	93	88	104
LCS 600-112502/4	Lab Control Sample	105	98	90	122
LCS 600-112632/4	Lab Control Sample	102	100	93	116
MB 600-112405/4	Method Blank	109	88	91	103
MB 600-112502/6	Method Blank	114	96	90	127
MB 600-112632/6	Method Blank	113	95	97	117

Surrogate Legend

- BFB = 4-Bromofluorobenzene
- DBFM = Dibromofluoromethane
- TOL = Toluene-d8 (Surr)
- 12DCE = 1,2-Dichloroethane-d4 (Surr)

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)					
		TBP (44-123)	FBP (43-120)	2FP (18-120)	NBZ (47-120)	TPH (33-141)	PHL (12-128)
600-77257-1	WG-1620-MW39B-20130731	102	81	31	72	91	16
600-77257-2	WG-1620-MW12C-20130731	89	64	30	57	87	17
600-77257-3	WG-1620-MW12A-20130731	112	88	40	96	93	24
600-77257-3 - DL	WG-1620-MW12A-20130731	0 X	0 X	0 X	0 X	0 X	0 X
600-77257-4	WG-1620-TW41B-20130731	113	92	42	82	101	24
600-77257-4 - DL	WG-1620-TW41B-20130731	104	89	34	69	94	11 X
600-77257-5	WG-1620-MW40B-20130731	0 X	0 X	0 X	0 X	0 X	0 X

TestAmerica Houston

Surrogate Summary

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-77257-1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)					
		TBP (44-123)	FBP (43-120)	2FP (18-120)	NBZ (47-120)	TPH (33-141)	PHL (12-128)
600-77257-5 - DL	WG-1620-MW40B-20130731	0 X	0 X	0 X	0 X	0 X	0 X
600-77257-6	WG-1620-MW42B-20130801	104	72	27	60	97	13
600-77257-7	WG-1620-MW05-20130801	93	69	30	55	83	14
600-77257-8	WG-1620-MW21C-20130801	74	68	32	56	92	14
600-77257-9	WG-1620-FD01-20130801	93	79	33	71	93	20
600-77257-9	WG-1620-FD01-20130801	61	80	34	65	113	12
600-77257-10	WG-1620-P11-20130801	82	65	28	58	86	15
600-77257-11	WG-1620-MW61A-20130801	89	80	41	69	96	22
600-77257-11 MS	WG-1620-MW61A-20130801	112	78	31	75	101	20
600-77257-11 MSD	WG-1620-MW61A-20130801	103	74	32	70	94	18
600-77257-12	WG-1620-MW49-A-20130801	0 X	0 X	0 X	0 X	0 X	0 X
600-77257-12 - DL	WG-1620-MW49-A-20130801	0 X	0 X	0 X	0 X	0 X	0 X
600-77257-13	WG-1620-MW49B-20130801	0 X	0 X	0 X	0 X	0 X	0 X
600-77257-13 - DL	WG-1620-MW49B-20130801	0 X	0 X	0 X	0 X	0 X	0 X
600-77257-14	WG-1620-FB04-20130801	96	87	31	72	94	14
600-77257-15	WG-1620-MW48C-20130801	70	74	26	55	97	12
600-77257-16	WG-1620-MW59B-20130801	69	71	19	54	90	10 X
600-77257-17	WG-1620-MW59A-20130801	106	77	32	66	95	18
600-77257-18	WG-1620-MW60A-20130802	80	84	30	63	99	16
600-77257-19	WG-1620-FB05-20130802	88	81	30	67	104	15
600-77257-20	WG-1620-MW62B-20130802	93	70	25	75	115	13
LCS 600-112538/2-A	Lab Control Sample	98	90	86	85	97	88
LCS 600-113163/2-A	Lab Control Sample	115	105	106	102	112	104
LCS 600-113428/2-A	Lab Control Sample	98	88	70	81	86	73
LCSD 600-113163/3-A	Lab Control Sample Dup	124 X	96	93	92	111	96
LCSD 600-113428/3-A	Lab Control Sample Dup	86	78	68	70	81	66
MB 600-112538/1-A	Method Blank	87	88	85	77	87	77
MB 600-113163/1-A	Method Blank	85	93	102	105	107	88
MB 600-113428/1-A	Method Blank	97	81	73	70	90	66

Surrogate Legend

- TBP = 2,4,6-Tribromophenol
- FBP = 2-Fluorobiphenyl
- 2FP = 2-Fluorophenol
- NBZ = Nitrobenzene-d5
- TPH = Terphenyl-d14
- PHL = Phenol-d5 (Surr)

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-77257-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 600-112405/4

Matrix: Water

Analysis Batch: 112405

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	0.000110	U	0.00200	0.000110	mg/L			08/05/13 12:17	1
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			08/05/13 12:17	1
Benzene	0.0000800	U	0.00100	0.0000800	mg/L			08/05/13 12:17	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			08/05/13 12:17	1
Toluene	0.000150	U	0.00100	0.000150	mg/L			08/05/13 12:17	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			08/05/13 12:17	1
Ethylbenzene	0.000110	U	0.00100	0.000110	mg/L			08/05/13 12:17	1
Xylenes, Total	0.000260	U	0.00300	0.000260	mg/L			08/05/13 12:17	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	109		67 - 139		08/05/13 12:17	1
Dibromofluoromethane	88		62 - 130		08/05/13 12:17	1
Toluene-d8 (Surr)	91		70 - 130		08/05/13 12:17	1
1,2-Dichloroethane-d4 (Surr)	103		50 - 134		08/05/13 12:17	1

Lab Sample ID: LCS 600-112405/3

Matrix: Water

Analysis Batch: 112405

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Vinyl chloride	0.0100	0.007115		mg/L		71	47 - 146
Methylene Chloride	0.0100	0.008095		mg/L		81	62 - 134
Benzene	0.0100	0.009552		mg/L		96	69 - 131
1,2-Dichloroethane	0.0100	0.01303		mg/L		130	66 - 140
Toluene	0.0100	0.009038		mg/L		90	67 - 130
Chlorobenzene	0.0100	0.009007		mg/L		90	60 - 136
Ethylbenzene	0.0100	0.009695		mg/L		97	68 - 128
Xylenes, Total	0.0300	0.02769		mg/L		92	68 - 132

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene	102		67 - 139
Dibromofluoromethane	93		62 - 130
Toluene-d8 (Surr)	88		70 - 130
1,2-Dichloroethane-d4 (Surr)	104		50 - 134

Lab Sample ID: 600-77257-11 MS

Matrix: Water

Analysis Batch: 112405

Client Sample ID: WG-1620-MW61A-20130801

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Vinyl chloride	0.000110	U	0.0100	0.005993		mg/L		60	60 - 140
Methylene Chloride	0.000150	U	0.0100	0.004911	N	mg/L		49	60 - 140
Benzene	0.0000800	U	0.0100	0.007750		mg/L		77	65 - 125
1,2-Dichloroethane	0.000140	U	0.0100	0.009956		mg/L		100	60 - 140
Toluene	0.000150	U	0.0100	0.007619		mg/L		76	76 - 125
Chlorobenzene	0.000120	U	0.0100	0.007438		mg/L		74	72 - 122
Ethylbenzene	0.000110	U	0.0100	0.007869		mg/L		79	60 - 140

TestAmerica Houston

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-77257-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 600-77257-11 MS

Client Sample ID: WG-1620-MW61A-20130801

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 112405

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Xylenes, Total	0.000260	U	0.0300	0.02394		mg/L		80	60 - 140
Surrogate	%Recovery	MS Qualifier	Limits						
4-Bromofluorobenzene	96		67 - 139						
Dibromofluoromethane	89		62 - 130						
Toluene-d8 (Surr)	86		70 - 130						
1,2-Dichloroethane-d4 (Surr)	100		50 - 134						

Lab Sample ID: 600-77257-11 MSD

Client Sample ID: WG-1620-MW61A-20130801

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 112405

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Vinyl chloride	0.000110	U	0.0100	0.007377		mg/L		74	60 - 140	21	30
Methylene Chloride	0.000150	U	0.0100	0.006659		mg/L		67	60 - 140	30	30
Benzene	0.0000800	U	0.0100	0.009625		mg/L		96	65 - 125	22	30
1,2-Dichloroethane	0.000140	U	0.0100	0.01255		mg/L		126	60 - 140	23	30
Toluene	0.000150	U	0.0100	0.009372		mg/L		94	76 - 125	21	30
Chlorobenzene	0.000120	U	0.0100	0.009208		mg/L		92	72 - 122	21	30
Ethylbenzene	0.000110	U	0.0100	0.01018		mg/L		102	60 - 140	26	30
Xylenes, Total	0.000260	U	0.0300	0.02902		mg/L		97	60 - 140	19	30
Surrogate	%Recovery	MSD Qualifier	Limits								
4-Bromofluorobenzene	94		67 - 139								
Dibromofluoromethane	88		62 - 130								
Toluene-d8 (Surr)	85		70 - 130								
1,2-Dichloroethane-d4 (Surr)	100		50 - 134								

Lab Sample ID: MB 600-112502/6

Client Sample ID: Method Blank

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 112502

Analyte	MB Result	MB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	0.000110	U	0.00200	0.000110	mg/L			08/06/13 12:50	1
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			08/06/13 12:50	1
Benzene	0.0000800	U	0.00100	0.0000800	mg/L			08/06/13 12:50	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			08/06/13 12:50	1
Toluene	0.000150	U	0.00100	0.000150	mg/L			08/06/13 12:50	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			08/06/13 12:50	1
Ethylbenzene	0.000110	U	0.00100	0.000110	mg/L			08/06/13 12:50	1
Xylenes, Total	0.000260	U	0.00300	0.000260	mg/L			08/06/13 12:50	1
Surrogate	%Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	114		67 - 139					08/06/13 12:50	1
Dibromofluoromethane	96		62 - 130					08/06/13 12:50	1
Toluene-d8 (Surr)	90		70 - 130					08/06/13 12:50	1
1,2-Dichloroethane-d4 (Surr)	127		50 - 134					08/06/13 12:50	1

TestAmerica Houston

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-77257-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 600-112502/4

Matrix: Water

Analysis Batch: 112502

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Vinyl chloride	0.0100	0.007966		mg/L		80	47 - 146
Methylene Chloride	0.0100	0.007067		mg/L		71	62 - 134
Benzene	0.0100	0.009681		mg/L		97	69 - 131
1,2-Dichloroethane	0.0100	0.01412	*	mg/L		141	66 - 140
Toluene	0.0100	0.008697		mg/L		87	67 - 130
Chlorobenzene	0.0100	0.008362		mg/L		84	60 - 136
Ethylbenzene	0.0100	0.009358		mg/L		94	68 - 128
Xylenes, Total	0.0300	0.02714		mg/L		90	68 - 132

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene	105		67 - 139
Dibromofluoromethane	98		62 - 130
Toluene-d8 (Surr)	90		70 - 130
1,2-Dichloroethane-d4 (Surr)	122		50 - 134

Lab Sample ID: MB 600-112632/6

Matrix: Water

Analysis Batch: 112632

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	0.000110	U	0.00200	0.000110	mg/L			08/07/13 12:16	1
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			08/07/13 12:16	1
Benzene	0.0000800	U	0.00100	0.0000800	mg/L			08/07/13 12:16	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			08/07/13 12:16	1
Toluene	0.000150	U	0.00100	0.000150	mg/L			08/07/13 12:16	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			08/07/13 12:16	1
Ethylbenzene	0.000110	U	0.00100	0.000110	mg/L			08/07/13 12:16	1
Xylenes, Total	0.000260	U	0.00300	0.000260	mg/L			08/07/13 12:16	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	113		67 - 139		08/07/13 12:16	1
Dibromofluoromethane	95		62 - 130		08/07/13 12:16	1
Toluene-d8 (Surr)	97		70 - 130		08/07/13 12:16	1
1,2-Dichloroethane-d4 (Surr)	117		50 - 134		08/07/13 12:16	1

Lab Sample ID: LCS 600-112632/4

Matrix: Water

Analysis Batch: 112632

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Vinyl chloride	0.0100	0.008649		mg/L		86	47 - 146
Methylene Chloride	0.0100	0.008594		mg/L		86	62 - 134
Benzene	0.0100	0.01031		mg/L		103	69 - 131
1,2-Dichloroethane	0.0100	0.01295		mg/L		129	66 - 140
Toluene	0.0100	0.009453		mg/L		95	67 - 130
Chlorobenzene	0.0100	0.008678		mg/L		87	60 - 136
Ethylbenzene	0.0100	0.009932		mg/L		99	68 - 128

TestAmerica Houston

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-77257-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 600-112632/4
 Matrix: Water
 Analysis Batch: 112632

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Xylenes, Total	0.0300	0.02832		mg/L		94	68 - 132

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene	102		67 - 139
Dibromofluoromethane	100		62 - 130
Toluene-d8 (Surr)	93		70 - 130
1,2-Dichloroethane-d4 (Surr)	116		50 - 134

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Lab Sample ID: MB 600-112538/1-A
 Matrix: Water
 Analysis Batch: 113153

Client Sample ID: Method Blank
 Prep Type: Total/NA
 Prep Batch: 112538

Analyte	MB Result	MB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.000400	U	0.000500	0.000400	mg/L		08/07/13 08:42	08/13/13 17:22	1
Nitrobenzene	0.000110	U	0.000500	0.000110	mg/L		08/07/13 08:42	08/13/13 17:22	1
2,4-Dimethylphenol	0.000310	U	0.000500	0.000310	mg/L		08/07/13 08:42	08/13/13 17:22	1
Bis(2-chloroethoxy)methane	0.000130	U	0.000500	0.000130	mg/L		08/07/13 08:42	08/13/13 17:22	1
Naphthalene	0.0000800	U	0.00500	0.0000800	mg/L		08/07/13 08:42	08/13/13 17:22	1
2-Methylnaphthalene	0.0000700	U	0.000500	0.0000700	mg/L		08/07/13 08:42	08/13/13 17:22	1
2-Chloronaphthalene	0.0000800	U	0.000500	0.0000800	mg/L		08/07/13 08:42	08/13/13 17:22	1
Acenaphthylene	0.0000600	U	0.000500	0.0000600	mg/L		08/07/13 08:42	08/13/13 17:22	1
2,6-Dinitrotoluene	0.0000800	U	0.000500	0.0000800	mg/L		08/07/13 08:42	08/13/13 17:22	1
Acenaphthene	0.0000800	U	0.000500	0.0000800	mg/L		08/07/13 08:42	08/13/13 17:22	1
4-Nitrophenol	0.000560	U	0.00100	0.000560	mg/L		08/07/13 08:42	08/13/13 17:22	1
Dibenzofuran	0.0000800	U	0.000500	0.0000800	mg/L		08/07/13 08:42	08/13/13 17:22	1
2,4-Dinitrotoluene	0.000130	U	0.000500	0.000130	mg/L		08/07/13 08:42	08/13/13 17:22	1
Fluorene	0.0000700	U	0.000500	0.0000700	mg/L		08/07/13 08:42	08/13/13 17:22	1
4,6-Dinitro-2-methylphenol	0.000830	U	0.00100	0.000830	mg/L		08/07/13 08:42	08/13/13 17:22	1
N-Nitrosodiphenylamine	0.000100	U	0.000500	0.000100	mg/L		08/07/13 08:42	08/13/13 17:22	1
1,2-Diphenylhydrazine	0.000110	U	0.000500	0.000110	mg/L		08/07/13 08:42	08/13/13 17:22	1
Pentachlorophenol	0.000610	U	0.00100	0.000610	mg/L		08/07/13 08:42	08/13/13 17:22	1
Phenanthrene	0.0000600	U	0.000500	0.0000600	mg/L		08/07/13 08:42	08/13/13 17:22	1
Anthracene	0.0000500	U	0.000500	0.0000500	mg/L		08/07/13 08:42	08/13/13 17:22	1
Di-n-butyl phthalate	0.000110	U	0.00250	0.000110	mg/L		08/07/13 08:42	08/13/13 17:22	1
Fluoranthene	0.0000700	U	0.000500	0.0000700	mg/L		08/07/13 08:42	08/13/13 17:22	1
Pyrene	0.000110	U	0.000500	0.000110	mg/L		08/07/13 08:42	08/13/13 17:22	1
Benzo[a]anthracene	0.0000800	U	0.000500	0.0000800	mg/L		08/07/13 08:42	08/13/13 17:22	1
Bis(2-ethylhexyl) phthalate	0.000370	U	0.00250	0.000370	mg/L		08/07/13 08:42	08/13/13 17:22	1
Chrysene	0.0000800	U	0.000500	0.0000800	mg/L		08/07/13 08:42	08/13/13 17:22	1
Benzo[a]pyrene	0.0000800	U	0.000500	0.0000800	mg/L		08/07/13 08:42	08/13/13 17:22	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	87		44 - 123	08/07/13 08:42	08/13/13 17:22	1
2-Fluorobiphenyl	88		43 - 120	08/07/13 08:42	08/13/13 17:22	1
2-Fluorophenol	85		18 - 120	08/07/13 08:42	08/13/13 17:22	1

TestAmerica Houston

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-77257-1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Lab Sample ID: MB 600-112538/1-A

Matrix: Water

Analysis Batch: 113153

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 112538

Surrogate	MB MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
Nitrobenzene-d5	77		47 - 120	08/07/13 08:42	08/13/13 17:22	1
Terphenyl-d14	87		33 - 141	08/07/13 08:42	08/13/13 17:22	1
Phenol-d5 (Surr)	77		12 - 128	08/07/13 08:42	08/13/13 17:22	1

Lab Sample ID: LCS 600-112538/2-A

Matrix: Water

Analysis Batch: 113153

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 112538

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec.
							Limits
Phenol	0.0100	0.007790		mg/L		78	11 - 112
Nitrobenzene	0.0100	0.007426		mg/L		74	42 - 119
2,4-Dimethylphenol	0.0100	0.007522		mg/L		75	36 - 109
Bis(2-chloroethoxy)methane	0.0100	0.006938		mg/L		69	42 - 119
Naphthalene	0.0100	0.007798		mg/L		78	39 - 120
2-Methylnaphthalene	0.0100	0.007900		mg/L		79	40 - 121
2-Chloronaphthalene	0.0100	0.008036		mg/L		80	43 - 120
Acenaphthylene	0.0100	0.008139		mg/L		81	35 - 135
2,6-Dinitrotoluene	0.0100	0.008372		mg/L		84	45 - 122
Acenaphthene	0.0100	0.008103		mg/L		81	47 - 145
4-Nitrophenol	0.0200	0.02365		mg/L		118	14 - 132
Dibenzofuran	0.0100	0.007969		mg/L		80	46 - 123
2,4-Dinitrotoluene	0.0100	0.008619		mg/L		86	43 - 128
Fluorene	0.0100	0.008068		mg/L		81	48 - 127
4,6-Dinitro-2-methylphenol	0.0200	0.007394		mg/L		37	24 - 122
N-Nitrosodiphenylamine	0.0100	0.008913		mg/L		89	43 - 107
1,2-Diphenylhydrazine	0.0100	0.007979		mg/L		80	47 - 117
Pentachlorophenol	0.0200	0.01552		mg/L		78	9 - 147
Phenanthrene	0.0100	0.007986		mg/L		80	52 - 121
Anthracene	0.0100	0.007914		mg/L		79	53 - 124
Di-n-butyl phthalate	0.0100	0.009803		mg/L		98	54 - 138
Fluoranthene	0.0100	0.008787		mg/L		88	53 - 127
Pyrene	0.0100	0.008872		mg/L		89	49 - 121
Benzo[a]anthracene	0.0100	0.008667		mg/L		87	53 - 122
Bis(2-ethylhexyl) phthalate	0.0100	0.009550		mg/L		95	47 - 132
Chrysene	0.0100	0.008360		mg/L		84	49 - 124
Benzo[a]pyrene	0.0100	0.008153		mg/L		82	50 - 124

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
2,4,6-Tribromophenol	98		44 - 123
2-Fluorobiphenyl	90		43 - 120
2-Fluorophenol	86		18 - 120
Nitrobenzene-d5	85		47 - 120
Terphenyl-d14	97		33 - 141
Phenol-d5 (Surr)	88		12 - 128

TestAmerica Houston

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-77257-1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Lab Sample ID: 600-77257-11 MS

Matrix: Water

Analysis Batch: 113153

Client Sample ID: WG-1620-MW61A-20130801

Prep Type: Total/NA

Prep Batch: 112538

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec. Limits
	Result	Qualifier	Added	Result	Qualifier				
Phenol	0.0000381	U	0.00952	0.001872		mg/L		20	10 - 62
Nitrobenzene	0.000105	U	0.00952	0.006004		mg/L		63	37 - 104
2,4-Dimethylphenol	0.000295	U	0.00952	0.005399		mg/L		57	25 - 85
Bis(2-chloroethoxy)methane	0.000124	U	0.00952	0.005424		mg/L		57	42 - 101
Naphthalene	0.000120	J	0.00952	0.006193		mg/L		64	34 - 99
2-Methylnaphthalene	0.0000667	U	0.00952	0.006234		mg/L		65	36 - 111
2-Chloronaphthalene	0.0000762	U	0.00952	0.006254		mg/L		66	42 - 100
Acenaphthylene	0.0000571	U	0.00952	0.006689		mg/L		70	38 - 115
2,6-Dinitrotoluene	0.0000762	U	0.00952	0.007436		mg/L		78	47 - 118
Acenaphthene	0.0000762	U	0.00952	0.006816		mg/L		72	46 - 118
4-Nitrophenol	0.000533	U	0.0190	0.006169		mg/L		32	10 - 100
Dibenzofuran	0.0000762	U	0.00952	0.006771		mg/L		71	46 - 110
2,4-Dinitrotoluene	0.000124	U	0.00952	0.008836		mg/L		93	41 - 125
Fluorene	0.0000667	U	0.00952	0.007109		mg/L		75	44 - 112
4,6-Dinitro-2-methylphenol	0.000790	U	0.0190	0.007450		mg/L		39	28 - 128
N-Nitrosodiphenylamine	0.0000952	U	0.00952	0.008349		mg/L		88	58 - 142
1,2-Diphenylhydrazine	0.000105	U	0.00952	0.007128		mg/L		75	10 - 130
Pentachlorophenol	0.000581	U	0.0190	0.01491		mg/L		78	45 - 155
Phenanthrene	0.0000586	J	0.00952	0.008011		mg/L		83	41 - 117
Anthracene	0.0000476	U	0.00952	0.007983		mg/L		84	35 - 116
Di-n-butyl phthalate	0.000105	U	0.00952	0.009823		mg/L		103	31 - 137
Fluoranthene	0.0000667	U	0.00952	0.008962		mg/L		94	14 - 145
Pyrene	0.000105	U	0.00952	0.008423		mg/L		88	28 - 133
Benzo[a]anthracene	0.0000762	U	0.00952	0.008271		mg/L		87	24 - 126
Bis(2-ethylhexyl) phthalate	0.000352	U	0.00952	0.007941		mg/L		83	14 - 123
Chrysene	0.0000762	U	0.00952	0.007927		mg/L		83	23 - 128
Benzo[a]pyrene	0.0000762	U	0.00952	0.007444		mg/L		78	60 - 140

Surrogate	MS	MS	Limits
	%Recovery	Qualifier	
2,4,6-Tribromophenol	112		44 - 123
2-Fluorobiphenyl	78		43 - 120
2-Fluorophenol	31		18 - 120
Nitrobenzene-d5	75		47 - 120
Terphenyl-d14	101		33 - 141
Phenol-d5 (Surr)	20		12 - 128

Lab Sample ID: 600-77257-11 MSD

Matrix: Water

Analysis Batch: 113153

Client Sample ID: WG-1620-MW61A-20130801

Prep Type: Total/NA

Prep Batch: 112538

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec. Limits	RPD	
	Result	Qualifier	Added	Result	Qualifier					RPD	Limit
Phenol	0.0000381	U	0.00952	0.001893		mg/L		20	10 - 62	1	20
Nitrobenzene	0.000105	U	0.00952	0.006056		mg/L		64	37 - 104	1	20
2,4-Dimethylphenol	0.000295	U	0.00952	0.005430		mg/L		57	25 - 85	1	20
Bis(2-chloroethoxy)methane	0.000124	U	0.00952	0.005538		mg/L		58	42 - 101	2	20
Naphthalene	0.000120	J	0.00952	0.006145		mg/L		63	34 - 99	1	20
2-Methylnaphthalene	0.0000667	U	0.00952	0.006185		mg/L		65	36 - 111	1	20
2-Chloronaphthalene	0.0000762	U	0.00952	0.006300		mg/L		66	42 - 100	1	20

TestAmerica Houston

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-77257-1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Lab Sample ID: 600-77257-11 MSD

Matrix: Water

Analysis Batch: 113153

Client Sample ID: WG-1620-MW61A-20130801

Prep Type: Total/NA

Prep Batch: 112538

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.	RPD	Limit
	Result	Qualifier	Added	Result	Qualifier				Limits		
Acenaphthylene	0.0000571	U	0.00952	0.006791		mg/L		71	38 - 115	2	20
2,6-Dinitrotoluene	0.0000762	U	0.00952	0.007832		mg/L		82	47 - 118	5	20
Acenaphthene	0.0000762	U	0.00952	0.006692		mg/L		70	46 - 118	2	20
4-Nitrophenol	0.000533	U	0.0190	0.006300		mg/L		33	10 - 100	2	20
Dibenzofuran	0.0000762	U	0.00952	0.006726		mg/L		71	46 - 110	1	20
2,4-Dinitrotoluene	0.000124	U	0.00952	0.008738		mg/L		92	41 - 125	1	20
Fluorene	0.0000667	U	0.00952	0.007146		mg/L		75	44 - 112	1	20
4,6-Dinitro-2-methylphenol	0.000790	U	0.0190	0.007588		mg/L		40	28 - 128	2	20
N-Nitrosodiphenylamine	0.0000952	U	0.00952	0.008233		mg/L		86	58 - 142	1	20
1,2-Diphenylhydrazine	0.000105	U	0.00952	0.007189		mg/L		75	10 - 130	1	20
Pentachlorophenol	0.000581	U	0.0190	0.01583		mg/L		83	45 - 155	6	20
Phenanthrene	0.0000586	J	0.00952	0.007864		mg/L		82	41 - 117	2	20
Anthracene	0.0000476	U	0.00952	0.007876		mg/L		83	35 - 116	1	20
Di-n-butyl phthalate	0.000105	U	0.00952	0.009724		mg/L		102	31 - 137	1	20
Fluoranthene	0.0000667	U	0.00952	0.008853		mg/L		93	14 - 145	1	20
Pyrene	0.000105	U	0.00952	0.008266		mg/L		87	28 - 133	2	20
Benzo[a]anthracene	0.0000762	U	0.00952	0.008333		mg/L		87	24 - 126	1	20
Bis(2-ethylhexyl) phthalate	0.000352	U	0.00952	0.007944		mg/L		83	14 - 123	0	20
Chrysene	0.0000762	U	0.00952	0.007913		mg/L		83	23 - 128	0	20
Benzo[a]pyrene	0.0000762	U	0.00952	0.007327		mg/L		77	60 - 140	2	20

Surrogate	MSD	MSD	Limits
	%Recovery	Qualifier	
2,4,6-Tribromophenol	103		44 - 123
2-Fluorobiphenyl	74		43 - 120
2-Fluorophenol	32		18 - 120
Nitrobenzene-d5	70		47 - 120
Terphenyl-d14	94		33 - 141
Phenol-d5 (Surr)	18		12 - 128

Lab Sample ID: MB 600-113163/1-A

Matrix: Water

Analysis Batch: 113230

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 113163

Analyte	MB	MB	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Phenol	0.0000400	U	0.000500	0.0000400	mg/L		08/14/13 16:25	08/15/13 08:59	1
Nitrobenzene	0.000110	U	0.000500	0.000110	mg/L		08/14/13 16:25	08/15/13 08:59	1
2,4-Dimethylphenol	0.000310	U	0.000500	0.000310	mg/L		08/14/13 16:25	08/15/13 08:59	1
Bis(2-chloroethoxy)methane	0.000130	U	0.000500	0.000130	mg/L		08/14/13 16:25	08/15/13 08:59	1
Naphthalene	0.0000800	U	0.000500	0.0000800	mg/L		08/14/13 16:25	08/15/13 08:59	1
2-Methylnaphthalene	0.0000700	U	0.000500	0.0000700	mg/L		08/14/13 16:25	08/15/13 08:59	1
2-Chloronaphthalene	0.0000800	U	0.000500	0.0000800	mg/L		08/14/13 16:25	08/15/13 08:59	1
Acenaphthylene	0.0000600	U	0.000500	0.0000600	mg/L		08/14/13 16:25	08/15/13 08:59	1
2,6-Dinitrotoluene	0.0000800	U	0.000500	0.0000800	mg/L		08/14/13 16:25	08/15/13 08:59	1
Acenaphthene	0.0000800	U	0.000500	0.0000800	mg/L		08/14/13 16:25	08/15/13 08:59	1
4-Nitrophenol	0.000560	U	0.00100	0.000560	mg/L		08/14/13 16:25	08/15/13 08:59	1
Dibenzofuran	0.0000800	U	0.000500	0.0000800	mg/L		08/14/13 16:25	08/15/13 08:59	1
2,4-Dinitrotoluene	0.000130	U	0.000500	0.000130	mg/L		08/14/13 16:25	08/15/13 08:59	1
Fluorene	0.0000700	U	0.000500	0.0000700	mg/L		08/14/13 16:25	08/15/13 08:59	1

TestAmerica Houston

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-77257-1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Lab Sample ID: MB 600-113163/1-A

Matrix: Water

Analysis Batch: 113230

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 113163

Analyte	MB Result	MB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
4,6-Dinitro-2-methylphenol	0.000830	U	0.00100	0.000830	mg/L		08/14/13 16:25	08/15/13 08:59	1
N-Nitrosodiphenylamine	0.000100	U	0.000500	0.000100	mg/L		08/14/13 16:25	08/15/13 08:59	1
1,2-Diphenylhydrazine	0.000110	U	0.000500	0.000110	mg/L		08/14/13 16:25	08/15/13 08:59	1
Pentachlorophenol	0.000610	U	0.00100	0.000610	mg/L		08/14/13 16:25	08/15/13 08:59	1
Phenanthrene	0.000600	U	0.000500	0.000600	mg/L		08/14/13 16:25	08/15/13 08:59	1
Anthracene	0.000500	U	0.000500	0.000500	mg/L		08/14/13 16:25	08/15/13 08:59	1
Di-n-butyl phthalate	0.000110	U	0.00250	0.000110	mg/L		08/14/13 16:25	08/15/13 08:59	1
Fluoranthene	0.000700	U	0.000500	0.000700	mg/L		08/14/13 16:25	08/15/13 08:59	1
Pyrene	0.000110	U	0.000500	0.000110	mg/L		08/14/13 16:25	08/15/13 08:59	1
Benzo[a]anthracene	0.000800	U	0.000500	0.000800	mg/L		08/14/13 16:25	08/15/13 08:59	1
Bis(2-ethylhexyl) phthalate	0.000370	U	0.00250	0.000370	mg/L		08/14/13 16:25	08/15/13 08:59	1
Chrysene	0.000800	U	0.000500	0.000800	mg/L		08/14/13 16:25	08/15/13 08:59	1
Benzo[a]pyrene	0.000800	U	0.000500	0.000800	mg/L		08/14/13 16:25	08/15/13 08:59	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	85		44 - 123	08/14/13 16:25	08/15/13 08:59	1
2-Fluorobiphenyl	93		43 - 120	08/14/13 16:25	08/15/13 08:59	1
2-Fluorophenol	102		18 - 120	08/14/13 16:25	08/15/13 08:59	1
Nitrobenzene-d5	105		47 - 120	08/14/13 16:25	08/15/13 08:59	1
Terphenyl-d14	107		33 - 141	08/14/13 16:25	08/15/13 08:59	1
Phenol-d5 (Surr)	88		12 - 128	08/14/13 16:25	08/15/13 08:59	1

Lab Sample ID: LCS 600-113163/2-A

Matrix: Water

Analysis Batch: 113230

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 113163

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Phenol	0.0100	0.008998		mg/L		90	11 - 112
Nitrobenzene	0.0100	0.009237		mg/L		92	42 - 119
2,4-Dimethylphenol	0.0100	0.009828		mg/L		98	36 - 109
Bis(2-chloroethoxy)methane	0.0100	0.008355		mg/L		84	42 - 119
Naphthalene	0.0100	0.009022		mg/L		90	39 - 120
2-Methylnaphthalene	0.0100	0.008961		mg/L		90	40 - 121
2-Chloronaphthalene	0.0100	0.009266		mg/L		93	43 - 120
Acenaphthylene	0.0100	0.009453		mg/L		95	35 - 135
2,6-Dinitrotoluene	0.0100	0.009250		mg/L		93	45 - 122
Acenaphthene	0.0100	0.009297		mg/L		93	47 - 145
4-Nitrophenol	0.0200	0.02678	*	mg/L		134	14 - 132
Dibenzofuran	0.0100	0.009389		mg/L		94	46 - 123
2,4-Dinitrotoluene	0.0100	0.009838		mg/L		98	43 - 128
Fluorene	0.0100	0.009157		mg/L		92	48 - 127
4,6-Dinitro-2-methylphenol	0.0200	0.01093		mg/L		55	24 - 122
N-Nitrosodiphenylamine	0.0100	0.009990		mg/L		100	43 - 107
1,2-Diphenylhydrazine	0.0100	0.009426		mg/L		94	47 - 117
Pentachlorophenol	0.0200	0.01536		mg/L		77	9 - 147
Phenanthrene	0.0100	0.008967		mg/L		90	52 - 121
Anthracene	0.0100	0.009324		mg/L		93	53 - 124
Di-n-butyl phthalate	0.0100	0.01045		mg/L		104	54 - 138

TestAmerica Houston

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-77257-1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Lab Sample ID: LCS 600-113163/2-A

Matrix: Water

Analysis Batch: 113230

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 113163

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits	
Fluoranthene	0.0100	0.01015		mg/L		101	53 - 127	
Pyrene	0.0100	0.009779		mg/L		98	49 - 121	
Benzo[a]anthracene	0.0100	0.009617		mg/L		96	53 - 122	
Bis(2-ethylhexyl) phthalate	0.0100	0.01016		mg/L		102	47 - 132	
Chrysene	0.0100	0.009414		mg/L		94	49 - 124	
Benzo[a]pyrene	0.0100	0.008976		mg/L		90	50 - 124	

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
2,4,6-Tribromophenol	115		44 - 123
2-Fluorobiphenyl	105		43 - 120
2-Fluorophenol	106		18 - 120
Nitrobenzene-d5	102		47 - 120
Terphenyl-d14	112		33 - 141
Phenol-d5 (Surr)	104		12 - 128

Lab Sample ID: LCSD 600-113163/3-A

Matrix: Water

Analysis Batch: 113230

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 113163

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits		RPD	
									RPD	Limit
Phenol	0.0100	0.008178		mg/L		82	11 - 112	10	20	
Nitrobenzene	0.0100	0.008522		mg/L		85	42 - 119	8	20	
2,4-Dimethylphenol	0.0100	0.008761		mg/L		88	36 - 109	11	20	
Bis(2-chloroethoxy)methane	0.0100	0.007615		mg/L		76	42 - 119	9	20	
Naphthalene	0.0100	0.008514		mg/L		85	39 - 120	6	20	
2-Methylnaphthalene	0.0100	0.008281		mg/L		83	40 - 121	8	20	
2-Chloronaphthalene	0.0100	0.008334		mg/L		83	43 - 120	11	20	
Acenaphthylene	0.0100	0.008634		mg/L		86	35 - 135	9	20	
2,6-Dinitrotoluene	0.0100	0.008730		mg/L		87	45 - 122	6	20	
Acenaphthene	0.0100	0.008681		mg/L		87	47 - 145	7	20	
4-Nitrophenol	0.0200	0.02581		mg/L		129	14 - 132	4	20	
Dibenzofuran	0.0100	0.008501		mg/L		85	46 - 123	10	20	
2,4-Dinitrotoluene	0.0100	0.009717		mg/L		97	43 - 128	1	20	
Fluorene	0.0100	0.008449		mg/L		84	48 - 127	8	20	
4,6-Dinitro-2-methylphenol	0.0200	0.01070		mg/L		53	24 - 122	2	20	
N-Nitrosodiphenylamine	0.0100	0.009947		mg/L		99	43 - 107	0	20	
1,2-Diphenylhydrazine	0.0100	0.008787		mg/L		88	47 - 117	7	20	
Pentachlorophenol	0.0200	0.01696		mg/L		85	9 - 147	10	20	
Phenanthrene	0.0100	0.008989		mg/L		90	52 - 121	0	20	
Anthracene	0.0100	0.009411		mg/L		94	53 - 124	1	20	
Di-n-butyl phthalate	0.0100	0.01050		mg/L		105	54 - 138	1	20	
Fluoranthene	0.0100	0.01026		mg/L		103	53 - 127	1	20	
Pyrene	0.0100	0.009638		mg/L		96	49 - 121	1	20	
Benzo[a]anthracene	0.0100	0.009360		mg/L		94	53 - 122	3	20	
Bis(2-ethylhexyl) phthalate	0.0100	0.01001		mg/L		100	47 - 132	2	20	
Chrysene	0.0100	0.009377		mg/L		94	49 - 124	0	20	
Benzo[a]pyrene	0.0100	0.008758		mg/L		88	50 - 124	2	20	

TestAmerica Houston

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-77257-1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Lab Sample ID: LCSD 600-113163/3-A

Matrix: Water

Analysis Batch: 113230

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 113163

Surrogate	LCSD		Limits
	%Recovery	Qualifier	
2,4,6-Tribromophenol	124	X	44 - 123
2-Fluorobiphenyl	96		43 - 120
2-Fluorophenol	93		18 - 120
Nitrobenzene-d5	92		47 - 120
Terphenyl-d14	111		33 - 141
Phenol-d5 (Surr)	96		12 - 128

Lab Sample ID: MB 600-113428/1-A

Matrix: Water

Analysis Batch: 113600

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 113428

Analyte	MB		MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Phenol	0.0000400	U	0.000500	0.0000400	mg/L		08/19/13 11:26	08/20/13 11:06	1
Nitrobenzene	0.000110	U	0.000500	0.000110	mg/L		08/19/13 11:26	08/20/13 11:06	1
2,4-Dimethylphenol	0.000310	U	0.000500	0.000310	mg/L		08/19/13 11:26	08/20/13 11:06	1
Bis(2-chloroethoxy)methane	0.000130	U	0.000500	0.000130	mg/L		08/19/13 11:26	08/20/13 11:06	1
Naphthalene	0.0000800	U	0.00500	0.0000800	mg/L		08/19/13 11:26	08/20/13 11:06	1
2-Methylnaphthalene	0.0000700	U	0.000500	0.0000700	mg/L		08/19/13 11:26	08/20/13 11:06	1
2-Chloronaphthalene	0.0000800	U	0.000500	0.0000800	mg/L		08/19/13 11:26	08/20/13 11:06	1
Acenaphthylene	0.0000600	U	0.000500	0.0000600	mg/L		08/19/13 11:26	08/20/13 11:06	1
2,6-Dinitrotoluene	0.0000800	U	0.000500	0.0000800	mg/L		08/19/13 11:26	08/20/13 11:06	1
Acenaphthene	0.0000800	U	0.000500	0.0000800	mg/L		08/19/13 11:26	08/20/13 11:06	1
4-Nitrophenol	0.000560	U	0.00100	0.000560	mg/L		08/19/13 11:26	08/20/13 11:06	1
Dibenzofuran	0.0000800	U	0.000500	0.0000800	mg/L		08/19/13 11:26	08/20/13 11:06	1
2,4-Dinitrotoluene	0.000130	U	0.000500	0.000130	mg/L		08/19/13 11:26	08/20/13 11:06	1
Fluorene	0.0000700	U	0.000500	0.0000700	mg/L		08/19/13 11:26	08/20/13 11:06	1
4,6-Dinitro-2-methylphenol	0.000830	U	0.00100	0.000830	mg/L		08/19/13 11:26	08/20/13 11:06	1
N-Nitrosodiphenylamine	0.000100	U	0.000500	0.000100	mg/L		08/19/13 11:26	08/20/13 11:06	1
1,2-Diphenylhydrazine	0.000110	U	0.000500	0.000110	mg/L		08/19/13 11:26	08/20/13 11:06	1
Pentachlorophenol	0.000610	U	0.00100	0.000610	mg/L		08/19/13 11:26	08/20/13 11:06	1
Phenanthrene	0.0000600	U	0.000500	0.0000600	mg/L		08/19/13 11:26	08/20/13 11:06	1
Anthracene	0.0000500	U	0.000500	0.0000500	mg/L		08/19/13 11:26	08/20/13 11:06	1
Di-n-butyl phthalate	0.000110	U	0.00250	0.000110	mg/L		08/19/13 11:26	08/20/13 11:06	1
Fluoranthene	0.0000700	U	0.000500	0.0000700	mg/L		08/19/13 11:26	08/20/13 11:06	1
Pyrene	0.000110	U	0.000500	0.000110	mg/L		08/19/13 11:26	08/20/13 11:06	1
Benzo[a]anthracene	0.0000800	U	0.000500	0.0000800	mg/L		08/19/13 11:26	08/20/13 11:06	1
Bis(2-ethylhexyl) phthalate	0.000370	U	0.00250	0.000370	mg/L		08/19/13 11:26	08/20/13 11:06	1
Chrysene	0.0000800	U	0.000500	0.0000800	mg/L		08/19/13 11:26	08/20/13 11:06	1
Benzo[a]pyrene	0.0000800	U	0.000500	0.0000800	mg/L		08/19/13 11:26	08/20/13 11:06	1

Surrogate	MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
2,4,6-Tribromophenol	97		44 - 123	08/19/13 11:26	08/20/13 11:06	1
2-Fluorobiphenyl	81		43 - 120	08/19/13 11:26	08/20/13 11:06	1
2-Fluorophenol	73		18 - 120	08/19/13 11:26	08/20/13 11:06	1
Nitrobenzene-d5	70		47 - 120	08/19/13 11:26	08/20/13 11:06	1
Terphenyl-d14	90		33 - 141	08/19/13 11:26	08/20/13 11:06	1
Phenol-d5 (Surr)	66		12 - 128	08/19/13 11:26	08/20/13 11:06	1

TestAmerica Houston

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-77257-1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Lab Sample ID: LCS 600-113428/2-A

Matrix: Water

Analysis Batch: 113600

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 113428

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Phenol	0.0100	0.007199		mg/L		72	11 - 112
Nitrobenzene	0.0100	0.006639		mg/L		66	42 - 119
2,4-Dimethylphenol	0.0100	0.007384		mg/L		74	36 - 109
Bis(2-chloroethoxy)methane	0.0100	0.006296		mg/L		63	42 - 119
Naphthalene	0.0100	0.007522		mg/L		75	39 - 120
2-Methylnaphthalene	0.0100	0.007707		mg/L		77	40 - 121
2-Chloronaphthalene	0.0100	0.007710		mg/L		77	43 - 120
Acenaphthylene	0.0100	0.007929		mg/L		79	35 - 135
2,6-Dinitrotoluene	0.0100	0.007855		mg/L		79	45 - 122
Acenaphthene	0.0100	0.007820		mg/L		78	47 - 145
4-Nitrophenol	0.0200	0.02113		mg/L		106	14 - 132
Dibenzofuran	0.0100	0.007722		mg/L		77	46 - 123
2,4-Dinitrotoluene	0.0100	0.008716		mg/L		87	43 - 128
Fluorene	0.0100	0.008056		mg/L		81	48 - 127
4,6-Dinitro-2-methylphenol	0.0200	0.007997		mg/L		40	24 - 122
N-Nitrosodiphenylamine	0.0100	0.008186		mg/L		82	43 - 107
1,2-Diphenylhydrazine	0.0100	0.008285		mg/L		83	47 - 117
Pentachlorophenol	0.0200	0.01239		mg/L		62	9 - 147
Phenanthrene	0.0100	0.007716		mg/L		77	52 - 121
Anthracene	0.0100	0.007844		mg/L		78	53 - 124
Di-n-butyl phthalate	0.0100	0.008668		mg/L		87	54 - 138
Fluoranthene	0.0100	0.008942		mg/L		89	53 - 127
Pyrene	0.0100	0.007747		mg/L		77	49 - 121
Benzo[a]anthracene	0.0100	0.007985		mg/L		80	53 - 122
Bis(2-ethylhexyl) phthalate	0.0100	0.007983		mg/L		80	47 - 132
Chrysene	0.0100	0.007870		mg/L		79	49 - 124
Benzo[a]pyrene	0.0100	0.007653		mg/L		77	50 - 124

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
2,4,6-Tribromophenol	98		44 - 123
2-Fluorobiphenyl	88		43 - 120
2-Fluorophenol	70		18 - 120
Nitrobenzene-d5	81		47 - 120
Terphenyl-d14	86		33 - 141
Phenol-d5 (Surr)	73		12 - 128

Lab Sample ID: LCSD 600-113428/3-A

Matrix: Water

Analysis Batch: 113600

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 113428

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	
								RPD	Limit
Phenol	0.0100	0.005949		mg/L		59	11 - 112	19	20
Nitrobenzene	0.0100	0.006144		mg/L		61	42 - 119	8	20
2,4-Dimethylphenol	0.0100	0.006718		mg/L		67	36 - 109	9	20
Bis(2-chloroethoxy)methane	0.0100	0.005750		mg/L		58	42 - 119	9	20
Naphthalene	0.0100	0.006763		mg/L		68	39 - 120	11	20
2-Methylnaphthalene	0.0100	0.006903		mg/L		69	40 - 121	11	20
2-Chloronaphthalene	0.0100	0.007018		mg/L		70	43 - 120	9	20

TestAmerica Houston

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-77257-1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Lab Sample ID: LCSD 600-113428/3-A

Matrix: Water

Analysis Batch: 113600

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 113428

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec.		RPD	Limit
							Limits	RPD		
Acenaphthylene	0.0100	0.007037		mg/L		70	35 - 135	12	20	
2,6-Dinitrotoluene	0.0100	0.007618		mg/L		76	45 - 122	3	20	
Acenaphthene	0.0100	0.007290		mg/L		73	47 - 145	7	20	
4-Nitrophenol	0.0200	0.01756		mg/L		88	14 - 132	18	20	
Dibenzofuran	0.0100	0.007153		mg/L		72	46 - 123	8	20	
2,4-Dinitrotoluene	0.0100	0.007762		mg/L		78	43 - 128	12	20	
Fluorene	0.0100	0.007278		mg/L		73	48 - 127	10	20	
4,6-Dinitro-2-methylphenol	0.0200	0.009783		mg/L		49	24 - 122	20	20	
N-Nitrosodiphenylamine	0.0100	0.007859		mg/L		79	43 - 107	4	20	
1,2-Diphenylhydrazine	0.0100	0.006392	*	mg/L		64	47 - 117	26	20	
Pentachlorophenol	0.0200	0.01492		mg/L		75	9 - 147	18	20	
Phenanthrene	0.0100	0.007045		mg/L		70	52 - 121	9	20	
Anthracene	0.0100	0.007466		mg/L		75	53 - 124	5	20	
Di-n-butyl phthalate	0.0100	0.008234		mg/L		82	54 - 138	5	20	
Fluoranthene	0.0100	0.008493		mg/L		85	53 - 127	5	20	
Pyrene	0.0100	0.007113		mg/L		71	49 - 121	9	20	
Benzo[a]anthracene	0.0100	0.007418		mg/L		74	53 - 122	7	20	
Bis(2-ethylhexyl) phthalate	0.0100	0.007474		mg/L		75	47 - 132	7	20	
Chrysene	0.0100	0.006859		mg/L		69	49 - 124	14	20	
Benzo[a]pyrene	0.0100	0.007299		mg/L		73	50 - 124	5	20	

Surrogate	LCSD		Limits
	%Recovery	Qualifier	
2,4,6-Tribromophenol	86		44 - 123
2-Fluorobiphenyl	78		43 - 120
2-Fluorophenol	68		18 - 120
Nitrobenzene-d5	70		47 - 120
Terphenyl-d14	81		33 - 141
Phenol-d5 (Surr)	66		12 - 128

Unadjusted Detection Limits

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-77257-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	MQL	MDL	Units	Method
1,2-Dichloroethane	0.00100	0.000140	mg/L	8260B
Benzene	0.00100	0.0000800	mg/L	8260B
Chlorobenzene	0.00100	0.000120	mg/L	8260B
Ethylbenzene	0.00100	0.000110	mg/L	8260B
Methylene Chloride	0.00100	0.000150	mg/L	8260B
Toluene	0.00100	0.000150	mg/L	8260B
Vinyl chloride	0.00200	0.000110	mg/L	8260B
Xylenes, Total	0.00300	0.000260	mg/L	8260B

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	MQL	MDL	Units	Method
1,2-Diphenylhydrazine	0.000500	0.000110	mg/L	8270C LL
2,4-Dimethylphenol	0.000500	0.000310	mg/L	8270C LL
2,4-Dinitrotoluene	0.000500	0.000130	mg/L	8270C LL
2,6-Dinitrotoluene	0.000500	0.0000800	mg/L	8270C LL
2-Chloronaphthalene	0.000500	0.0000800	mg/L	8270C LL
2-Methylnaphthalene	0.000500	0.0000700	mg/L	8270C LL
4,6-Dinitro-2-methylphenol	0.00100	0.000830	mg/L	8270C LL
4-Nitrophenol	0.00100	0.000560	mg/L	8270C LL
Acenaphthene	0.000500	0.0000800	mg/L	8270C LL
Acenaphthylene	0.000500	0.0000600	mg/L	8270C LL
Anthracene	0.000500	0.0000500	mg/L	8270C LL
Benzo[a]anthracene	0.000500	0.0000800	mg/L	8270C LL
Benzo[a]pyrene	0.000500	0.0000800	mg/L	8270C LL
Bis(2-chloroethoxy)methane	0.000500	0.000130	mg/L	8270C LL
Bis(2-ethylhexyl) phthalate	0.00250	0.000370	mg/L	8270C LL
Chrysene	0.000500	0.0000800	mg/L	8270C LL
Dibenzofuran	0.000500	0.0000800	mg/L	8270C LL
Di-n-butyl phthalate	0.00250	0.000110	mg/L	8270C LL
Fluoranthene	0.000500	0.0000700	mg/L	8270C LL
Fluorene	0.000500	0.0000700	mg/L	8270C LL
Naphthalene	0.00500	0.0000800	mg/L	8270C LL
Nitrobenzene	0.000500	0.000110	mg/L	8270C LL
N-Nitrosodiphenylamine	0.000500	0.000100	mg/L	8270C LL
Pentachlorophenol	0.00100	0.000610	mg/L	8270C LL
Phenanthrene	0.000500	0.0000600	mg/L	8270C LL
Phenol	0.000500	0.0000400	mg/L	8270C LL
Pyrene	0.000500	0.000110	mg/L	8270C LL

QC Association Summary

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-77257-1

GC/MS VOA

Analysis Batch: 112405

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-77257-1	WG-1620-MW39B-20130731	Total/NA	Water	8260B	
600-77257-2	WG-1620-MW12C-20130731	Total/NA	Water	8260B	
600-77257-4	WG-1620-TW41B-20130731	Total/NA	Water	8260B	
600-77257-6	WG-1620-MW42B-20130801	Total/NA	Water	8260B	
600-77257-7	WG-1620-MW05-20130801	Total/NA	Water	8260B	
600-77257-8	WG-1620-MW21C-20130801	Total/NA	Water	8260B	
600-77257-9	WG-1620-FD01-20130801	Total/NA	Water	8260B	
600-77257-11	WG-1620-MW61A-20130801	Total/NA	Water	8260B	
600-77257-11 MS	WG-1620-MW61A-20130801	Total/NA	Water	8260B	
600-77257-11 MSD	WG-1620-MW61A-20130801	Total/NA	Water	8260B	
600-77257-15	WG-1620-MW48C-20130801	Total/NA	Water	8260B	
600-77257-17	WG-1620-MW59A-20130801	Total/NA	Water	8260B	
600-77257-18	WG-1620-MW60A-20130802	Total/NA	Water	8260B	
600-77257-19	WG-1620-FB05-20130802	Total/NA	Water	8260B	
600-77257-21	WG-1620-TB02-201030802	Total/NA	Water	8260B	
LCS 600-112405/3	Lab Control Sample	Total/NA	Water	8260B	
MB 600-112405/4	Method Blank	Total/NA	Water	8260B	

Analysis Batch: 112502

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-77257-3	WG-1620-MW12A-20130731	Total/NA	Water	8260B	
600-77257-5	WG-1620-MW40B-20130731	Total/NA	Water	8260B	
600-77257-12	WG-1620-MW49-A-20130801	Total/NA	Water	8260B	
600-77257-13	WG-1620-MW49B-20130801	Total/NA	Water	8260B	
600-77257-16	WG-1620-MW59B-20130801	Total/NA	Water	8260B	
LCS 600-112502/4	Lab Control Sample	Total/NA	Water	8260B	
MB 600-112502/6	Method Blank	Total/NA	Water	8260B	

Analysis Batch: 112632

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-77257-10	WG-1620-P11-20130801	Total/NA	Water	8260B	
600-77257-14	WG-1620-FB04-20130801	Total/NA	Water	8260B	
600-77257-20	WG-1620-MW62B-20130802	Total/NA	Water	8260B	
LCS 600-112632/4	Lab Control Sample	Total/NA	Water	8260B	
MB 600-112632/6	Method Blank	Total/NA	Water	8260B	

GC/MS Semi VOA

Prep Batch: 112538

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-77257-1	WG-1620-MW39B-20130731	Total/NA	Water	3510C	
600-77257-2	WG-1620-MW12C-20130731	Total/NA	Water	3510C	
600-77257-3 - DL	WG-1620-MW12A-20130731	Total/NA	Water	3510C	
600-77257-3	WG-1620-MW12A-20130731	Total/NA	Water	3510C	
600-77257-4	WG-1620-TW41B-20130731	Total/NA	Water	3510C	
600-77257-4 - DL	WG-1620-TW41B-20130731	Total/NA	Water	3510C	
600-77257-5	WG-1620-MW40B-20130731	Total/NA	Water	3510C	
600-77257-5 - DL	WG-1620-MW40B-20130731	Total/NA	Water	3510C	
600-77257-6	WG-1620-MW42B-20130801	Total/NA	Water	3510C	
600-77257-7	WG-1620-MW05-20130801	Total/NA	Water	3510C	

TestAmerica Houston

QC Association Summary

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-77257-1

GC/MS Semi VOA (Continued)

Prep Batch: 112538 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-77257-8	WG-1620-MW21C-20130801	Total/NA	Water	3510C	
600-77257-9	WG-1620-FD01-20130801	Total/NA	Water	3510C	
600-77257-10	WG-1620-P11-20130801	Total/NA	Water	3510C	
600-77257-11	WG-1620-MW61A-20130801	Total/NA	Water	3510C	
600-77257-11 MS	WG-1620-MW61A-20130801	Total/NA	Water	3510C	
600-77257-11 MSD	WG-1620-MW61A-20130801	Total/NA	Water	3510C	
600-77257-12 - DL	WG-1620-MW49-A-20130801	Total/NA	Water	3510C	
600-77257-12	WG-1620-MW49-A-20130801	Total/NA	Water	3510C	
600-77257-13 - DL	WG-1620-MW49B-20130801	Total/NA	Water	3510C	
600-77257-13	WG-1620-MW49B-20130801	Total/NA	Water	3510C	
600-77257-14	WG-1620-FB04-20130801	Total/NA	Water	3510C	
600-77257-15	WG-1620-MW48C-20130801	Total/NA	Water	3510C	
600-77257-16	WG-1620-MW59B-20130801	Total/NA	Water	3510C	
600-77257-18	WG-1620-MW60A-20130802	Total/NA	Water	3510C	
600-77257-19	WG-1620-FB05-20130802	Total/NA	Water	3510C	
600-77257-20	WG-1620-MW62B-20130802	Total/NA	Water	3510C	
LCS 600-112538/2-A	Lab Control Sample	Total/NA	Water	3510C	
MB 600-112538/1-A	Method Blank	Total/NA	Water	3510C	

Analysis Batch: 113129

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-77257-5	WG-1620-MW40B-20130731	Total/NA	Water	8270C LL	112538
600-77257-12	WG-1620-MW49-A-20130801	Total/NA	Water	8270C LL	112538
600-77257-13	WG-1620-MW49B-20130801	Total/NA	Water	8270C LL	112538

Analysis Batch: 113153

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-77257-1	WG-1620-MW39B-20130731	Total/NA	Water	8270C LL	112538
600-77257-2	WG-1620-MW12C-20130731	Total/NA	Water	8270C LL	112538
600-77257-3	WG-1620-MW12A-20130731	Total/NA	Water	8270C LL	112538
600-77257-4	WG-1620-TW41B-20130731	Total/NA	Water	8270C LL	112538
600-77257-6	WG-1620-MW42B-20130801	Total/NA	Water	8270C LL	112538
600-77257-7	WG-1620-MW05-20130801	Total/NA	Water	8270C LL	112538
600-77257-8	WG-1620-MW21C-20130801	Total/NA	Water	8270C LL	112538
600-77257-9	WG-1620-FD01-20130801	Total/NA	Water	8270C LL	112538
600-77257-10	WG-1620-P11-20130801	Total/NA	Water	8270C LL	112538
600-77257-11	WG-1620-MW61A-20130801	Total/NA	Water	8270C LL	112538
600-77257-11 MS	WG-1620-MW61A-20130801	Total/NA	Water	8270C LL	112538
600-77257-11 MSD	WG-1620-MW61A-20130801	Total/NA	Water	8270C LL	112538
600-77257-14	WG-1620-FB04-20130801	Total/NA	Water	8270C LL	112538
600-77257-15	WG-1620-MW48C-20130801	Total/NA	Water	8270C LL	112538
600-77257-16	WG-1620-MW59B-20130801	Total/NA	Water	8270C LL	112538
600-77257-18	WG-1620-MW60A-20130802	Total/NA	Water	8270C LL	112538
600-77257-19	WG-1620-FB05-20130802	Total/NA	Water	8270C LL	112538
600-77257-20	WG-1620-MW62B-20130802	Total/NA	Water	8270C LL	112538
LCS 600-112538/2-A	Lab Control Sample	Total/NA	Water	8270C LL	112538
MB 600-112538/1-A	Method Blank	Total/NA	Water	8270C LL	112538

Prep Batch: 113163

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-77257-9	WG-1620-FD01-20130801	Total/NA	Water	3510C	

TestAmerica Houston

QC Association Summary

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-77257-1

GC/MS Semi VOA (Continued)

Prep Batch: 113163 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 600-113163/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 600-113163/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	
MB 600-113163/1-A	Method Blank	Total/NA	Water	3510C	

Analysis Batch: 113225

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-77257-3 - DL	WG-1620-MW12A-20130731	Total/NA	Water	8270C LL	112538
600-77257-4 - DL	WG-1620-TW41B-20130731	Total/NA	Water	8270C LL	112538
600-77257-5 - DL	WG-1620-MW40B-20130731	Total/NA	Water	8270C LL	112538
600-77257-12 - DL	WG-1620-MW49-A-20130801	Total/NA	Water	8270C LL	112538
600-77257-13 - DL	WG-1620-MW49B-20130801	Total/NA	Water	8270C LL	112538

Analysis Batch: 113230

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-77257-9	WG-1620-FD01-20130801	Total/NA	Water	8270C LL	113163
LCS 600-113163/2-A	Lab Control Sample	Total/NA	Water	8270C LL	113163
LCSD 600-113163/3-A	Lab Control Sample Dup	Total/NA	Water	8270C LL	113163
MB 600-113163/1-A	Method Blank	Total/NA	Water	8270C LL	113163

Prep Batch: 113428

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-77257-17	WG-1620-MW59A-20130801	Total/NA	Water	3510C	
LCS 600-113428/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 600-113428/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	
MB 600-113428/1-A	Method Blank	Total/NA	Water	3510C	

Analysis Batch: 113600

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-77257-17	WG-1620-MW59A-20130801	Total/NA	Water	8270C LL	113428
LCS 600-113428/2-A	Lab Control Sample	Total/NA	Water	8270C LL	113428
LCSD 600-113428/3-A	Lab Control Sample Dup	Total/NA	Water	8270C LL	113428
MB 600-113428/1-A	Method Blank	Total/NA	Water	8270C LL	113428

Lab Chronicle

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-77257-1

Client Sample ID: WG-1620-MW39B-20130731

Lab Sample ID: 600-77257-1

Date Collected: 07/31/13 13:10

Matrix: Water

Date Received: 08/02/13 11:51

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	112405	08/05/13 13:42	DT1	TAL HOU
Total/NA	Prep	3510C			112538	08/07/13 08:42	SMB	TAL HOU
Total/NA	Analysis	8270C LL		1	113153	08/13/13 18:19	TTD	TAL HOU

Client Sample ID: WG-1620-MW12C-20130731

Lab Sample ID: 600-77257-2

Date Collected: 07/31/13 14:00

Matrix: Water

Date Received: 08/02/13 11:51

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	112405	08/05/13 14:11	DT1	TAL HOU
Total/NA	Prep	3510C			112538	08/07/13 08:42	SMB	TAL HOU
Total/NA	Analysis	8270C LL		1	113153	08/13/13 18:49	TTD	TAL HOU

Client Sample ID: WG-1620-MW12A-20130731

Lab Sample ID: 600-77257-3

Date Collected: 07/31/13 14:45

Matrix: Water

Date Received: 08/02/13 11:51

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	112502	08/06/13 19:57	DT1	TAL HOU
Total/NA	Prep	3510C			112538	08/07/13 08:42	SMB	TAL HOU
Total/NA	Analysis	8270C LL		1	113153	08/13/13 19:18	TTD	TAL HOU
Total/NA	Prep	3510C	DL		112538	08/07/13 08:42	SMB	TAL HOU
Total/NA	Analysis	8270C LL	DL	50	113225	08/14/13 19:28	KP1	TAL HOU

Client Sample ID: WG-1620-TW41B-20130731

Lab Sample ID: 600-77257-4

Date Collected: 07/31/13 15:35

Matrix: Water

Date Received: 08/02/13 11:51

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	112405	08/05/13 14:40	DT1	TAL HOU
Total/NA	Prep	3510C			112538	08/07/13 08:42	SMB	TAL HOU
Total/NA	Analysis	8270C LL		1	113153	08/13/13 19:47	TTD	TAL HOU
Total/NA	Prep	3510C	DL		112538	08/07/13 08:42	SMB	TAL HOU
Total/NA	Analysis	8270C LL	DL	2	113225	08/15/13 03:06	KP1	TAL HOU

Client Sample ID: WG-1620-MW40B-20130731

Lab Sample ID: 600-77257-5

Date Collected: 07/31/13 16:50

Matrix: Water

Date Received: 08/02/13 11:51

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		10	112502	08/06/13 20:25	DT1	TAL HOU
Total/NA	Prep	3510C			112538	08/07/13 08:42	SMB	TAL HOU

TestAmerica Houston

Lab Chronicle

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-77257-1

Client Sample ID: WG-1620-MW40B-20130731

Lab Sample ID: 600-77257-5

Date Collected: 07/31/13 16:50

Matrix: Water

Date Received: 08/02/13 11:51

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8270C LL		50	113129	08/14/13 09:13	KP1	TAL HOU
Total/NA	Prep	3510C	DL		112538	08/07/13 08:42	SMB	TAL HOU
Total/NA	Analysis	8270C LL	DL	500	113225	08/14/13 19:57	KP1	TAL HOU

Client Sample ID: WG-1620-MW42B-20130801

Lab Sample ID: 600-77257-6

Date Collected: 08/01/13 08:00

Matrix: Water

Date Received: 08/02/13 11:51

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	112405	08/05/13 15:08	DT1	TAL HOU
Total/NA	Prep	3510C			112538	08/07/13 08:42	SMB	TAL HOU
Total/NA	Analysis	8270C LL		1	113153	08/13/13 20:44	TTD	TAL HOU

Client Sample ID: WG-1620-MW05-20130801

Lab Sample ID: 600-77257-7

Date Collected: 08/01/13 09:00

Matrix: Water

Date Received: 08/02/13 11:51

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	112405	08/05/13 15:37	DT1	TAL HOU
Total/NA	Prep	3510C			112538	08/07/13 08:42	SMB	TAL HOU
Total/NA	Analysis	8270C LL		1	113153	08/13/13 21:13	TTD	TAL HOU

Client Sample ID: WG-1620-MW21C-20130801

Lab Sample ID: 600-77257-8

Date Collected: 08/01/13 10:00

Matrix: Water

Date Received: 08/02/13 11:51

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	112405	08/05/13 18:28	DT1	TAL HOU
Total/NA	Prep	3510C			112538	08/07/13 08:42	SMB	TAL HOU
Total/NA	Analysis	8270C LL		1	113153	08/13/13 21:41	TTD	TAL HOU

Client Sample ID: WG-1620-FD01-20130801

Lab Sample ID: 600-77257-9

Date Collected: 08/01/13 10:00

Matrix: Water

Date Received: 08/02/13 11:51

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	112405	08/05/13 18:57	DT1	TAL HOU
Total/NA	Prep	3510C			112538	08/07/13 08:42	SMB	TAL HOU
Total/NA	Analysis	8270C LL		1	113153	08/13/13 22:10	TTD	TAL HOU
Total/NA	Prep	3510C			113163	08/14/13 16:25	SMB	TAL HOU
Total/NA	Analysis	8270C LL		1	113230	08/15/13 10:25	KP1	TAL HOU

TestAmerica Houston

Lab Chronicle

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-77257-1

Client Sample ID: WG-1620-P11-20130801

Lab Sample ID: 600-77257-10

Date Collected: 08/01/13 11:00

Matrix: Water

Date Received: 08/02/13 11:51

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	112632	08/07/13 21:18	DT1	TAL HOU
Total/NA	Prep	3510C			112538	08/07/13 08:42	SMB	TAL HOU
Total/NA	Analysis	8270C LL		1	113153	08/13/13 22:38	TTD	TAL HOU

Client Sample ID: WG-1620-MW61A-20130801

Lab Sample ID: 600-77257-11

Date Collected: 08/01/13 12:30

Matrix: Water

Date Received: 08/02/13 11:51

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	112405	08/05/13 13:14	DT1	TAL HOU
Total/NA	Prep	3510C			112538	08/07/13 08:42	SMB	TAL HOU
Total/NA	Analysis	8270C LL		1	113153	08/13/13 23:07	TTD	TAL HOU

Client Sample ID: WG-1620-MW49-A-20130801

Lab Sample ID: 600-77257-12

Date Collected: 08/01/13 13:20

Matrix: Water

Date Received: 08/02/13 11:51

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		10	112502	08/06/13 21:22	DT1	TAL HOU
Total/NA	Prep	3510C			112538	08/07/13 08:42	SMB	TAL HOU
Total/NA	Analysis	8270C LL		100	113129	08/14/13 09:41	KP1	TAL HOU
Total/NA	Prep	3510C	DL		112538	08/07/13 08:42	SMB	TAL HOU
Total/NA	Analysis	8270C LL	DL	500	113225	08/14/13 20:26	KP1	TAL HOU

Client Sample ID: WG-1620-MW49B-20130801

Lab Sample ID: 600-77257-13

Date Collected: 08/01/13 14:15

Matrix: Water

Date Received: 08/02/13 11:51

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		20	112502	08/06/13 21:51	DT1	TAL HOU
Total/NA	Prep	3510C			112538	08/07/13 08:42	SMB	TAL HOU
Total/NA	Analysis	8270C LL		100	113129	08/14/13 10:10	KP1	TAL HOU
Total/NA	Prep	3510C	DL		112538	08/07/13 08:42	SMB	TAL HOU
Total/NA	Analysis	8270C LL	DL	1000	113225	08/14/13 20:54	KP1	TAL HOU

Client Sample ID: WG-1620-FB04-20130801

Lab Sample ID: 600-77257-14

Date Collected: 08/01/13 14:30

Matrix: Water

Date Received: 08/02/13 11:51

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	112632	08/07/13 19:24	DT1	TAL HOU
Total/NA	Prep	3510C			112538	08/07/13 08:42	SMB	TAL HOU

TestAmerica Houston

Lab Chronicle

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-77257-1

Client Sample ID: WG-1620-FB04-20130801

Lab Sample ID: 600-77257-14

Date Collected: 08/01/13 14:30

Matrix: Water

Date Received: 08/02/13 11:51

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8270C LL		1	113153	08/14/13 01:29	TTD	TAL HOU

Client Sample ID: WG-1620-MW48C-20130801

Lab Sample ID: 600-77257-15

Date Collected: 08/01/13 15:20

Matrix: Water

Date Received: 08/02/13 11:51

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	112405	08/05/13 19:25	DT1	TAL HOU
Total/NA	Prep	3510C			112538	08/07/13 08:42	SMB	TAL HOU
Total/NA	Analysis	8270C LL		1	113153	08/14/13 01:57	TTD	TAL HOU

Client Sample ID: WG-1620-MW59B-20130801

Lab Sample ID: 600-77257-16

Date Collected: 08/01/13 16:35

Matrix: Water

Date Received: 08/02/13 11:51

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	112502	08/06/13 17:06	DT1	TAL HOU
Total/NA	Prep	3510C			112538	08/07/13 08:42	SMB	TAL HOU
Total/NA	Analysis	8270C LL		1	113153	08/14/13 02:26	TTD	TAL HOU

Client Sample ID: WG-1620-MW59A-20130801

Lab Sample ID: 600-77257-17

Date Collected: 08/01/13 17:30

Matrix: Water

Date Received: 08/02/13 11:51

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	112405	08/05/13 19:53	DT1	TAL HOU
Total/NA	Prep	3510C			113428	08/19/13 11:26	SMB	TAL HOU
Total/NA	Analysis	8270C LL		1	113600	08/20/13 12:33	TTD	TAL HOU

Client Sample ID: WG-1620-MW60A-20130802

Lab Sample ID: 600-77257-18

Date Collected: 08/02/13 08:00

Matrix: Water

Date Received: 08/02/13 11:51

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	112405	08/05/13 20:22	DT1	TAL HOU
Total/NA	Prep	3510C			112538	08/07/13 08:42	SMB	TAL HOU
Total/NA	Analysis	8270C LL		1	113153	08/14/13 03:23	TTD	TAL HOU

Lab Chronicle

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-77257-1

Client Sample ID: WG-1620-FB05-20130802

Lab Sample ID: 600-77257-19

Date Collected: 08/02/13 08:45

Matrix: Water

Date Received: 08/02/13 11:51

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	112405	08/05/13 20:50	DT1	TAL HOU
Total/NA	Prep	3510C			112538	08/07/13 08:42	SMB	TAL HOU
Total/NA	Analysis	8270C LL		1	113153	08/14/13 03:51	TTD	TAL HOU

Client Sample ID: WG-1620-MW62B-20130802

Lab Sample ID: 600-77257-20

Date Collected: 08/02/13 10:20

Matrix: Water

Date Received: 08/02/13 11:51

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	112632	08/07/13 20:49	DT1	TAL HOU
Total/NA	Prep	3510C			112538	08/07/13 08:42	SMB	TAL HOU
Total/NA	Analysis	8270C LL		1	113153	08/14/13 04:19	TTD	TAL HOU

Client Sample ID: WG-1620-TB02-201030802

Lab Sample ID: 600-77257-21

Date Collected: 08/02/13 00:00

Matrix: Water

Date Received: 08/02/13 11:51

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	112405	08/05/13 12:45	DT1	TAL HOU

Laboratory References:

TAL HOU = TestAmerica Houston, 6310 Rothway Street, Houston, TX 77040, TEL (713)690-4444

Certification Summary

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-77257-1

Laboratory: TestAmerica Houston

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Arkansas DEQ	State Program	6	88-0759	08-04-13 *
Louisiana	NELAP	6	01967	06-30-14
Oklahoma	State Program	6	9503	08-31-13 *
Texas	NELAP	6	T104704223-10-6-TX	10-31-13
USDA	Federal		P330-08-00217	04-01-14
Utah	NELAP	8	GULF	10-31-13

* Expired certification is currently pending renewal and is considered valid.

TestAmerica Houston

TestAmerica Houston

6310 Rothway Street
Houston, TX 77040
Phone (713) 690-4444 Fax (713) 690-5646

Chain of Custody



TestAmerica

Client Information

Company: Pastor, Behling & Wheeler LLC
Address: 2201 Double Creek Dr Suite 4004
City: Round Rock
State, Zip: TX, 78664
Phone: 512-671-3434 (Tel) 512-671-3446 (Fax)
Email: eric.matzner@pbwllc.com
Project Name: 1620 UPRR HWPW
Site: 1620 UPRR HWPW

Sampler: **John Brayton**
Phone: **512-671-3434**
Lab P#: **Kudchadkar, Sachin G**
E-Mail: **sachin.kudchadkar@testamericainc.com**

600-77257 Chain of Custody

No: 21931-8215.1

Page 1 of 3

Analysis Requested

Due Date Requested: _____
TAT Requested (days): _____
Purchase Order not required
PO #: _____
W/O #: _____
Project #: 60003722
SSOW#: _____

Field Filtered Sample (Yes or No) **A**
Perform MS/MSD (Yes or No) **N**
8260B_LL - Site Specific List
8270C_LL - Site Specific List
VINYL CHLORIDE

Preservation Codes:
A - HCL
B - NaOH
C - Zn Acetate
D - Nitric Acid
E - NaHSO4
F - MeOH
G - Amchlor
H - Ascorbic Acid
I - Ice
J - DI Water
K - EDTA
L - EDA
M - Hexane
N - None
O - AsNaO2
P - Na2O4S
Q - Na2SO3
R - Na2S2O3
S - H2SO4
T - TSP Dodecahydrate
U - Acetone
V - MCAA
W - ph 4.5
Z - other (specify)

Sample Identification	Sample Date	Sample Time	Sample Type (G=Comp, G=grab)	Matrix (W=Water, S=Soil, O=Other)	Preservation Code	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	Total Number of containers	Special Instructions/Note
WG-1620-MW39B-20130731	7-31-13	1310	G	Water		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		
WS-1620-MW18C-20130731		1400	G	Water		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		
WS-1620-MW12A-20130731		1445	G	Water		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		
WG-1620-TW41A-20130731		1535	G	Water		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		
WE-1620-MW4DB-20130731		1650	G	Water		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		
WE-1620-MW42B-20130801	8-1-13	0800	G	Water		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		
WE-1620-MW05-20130801		0900	G	Water		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		
WE-1620-MW21C-20130801		1000	G	Water		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		
WE-1620-FDD1-20130801		1000	G	Water		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		
WE-1620-P11-20130801		1100	G	Water		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		
WE-1620-MW61A-20130801		1230	G	Water		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		

Possible Hazard Identification
 Non-Hazard Flammable Skin Irritant Poison B Unknown Radiological

Deliverable Requested: I, II, III, IV, Other (specify) _____

Empty Kit Requisitioned by: _____ **Date:** _____ **Time:** _____

Requisitioned by: *John Brayton* **Date/Time:** 8-2-13 1151 **Company:** PBW

Received by: *Sachin Kudchadkar* **Date/Time:** 8/02/13 1157 **Company:** TATCO

Cooler Temperature(s) °C and Other Remarks: _____

Client Information
Client Contact: Mr. Enc Matzner
Company: Pastor, Behling & Wheeler LLC
Address: 2201 Double Creek Dr Suite 4004
City: Round Rock
State, Zip: TX, 78664
Phone: 512-671-3434 (Tel) 512-671-3446 (Fax)
Email: enc.matzner@pbwllc.com
Project Name: 1620 UPRR HWPW
Site:
Lab P#: **JOHN BEATTON**
Kudchadkar, Sachin G
E-Mail: sachin.kudchadkar@testamericainc.com
Carrier Tracking No(s):
COC No: 600-21931-8215.1
Page: **2**
Page of: **3**
Job #:

Sampler: **JOHN BEATTON**
Phone: **512-671-3434**
Due Date Requested:
TAT Requested (days):
Purchase Order not required
PO #:
W/O #:
Project #: 60003722
SSOW#:
Analysis Requested

Sample Identification	Sample Date	Sample Time	Sample Type (G=Comp, G-grab)	Matrix (Synthetic, Standard, Operational, or Unknown)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	Preservation Codes:
WG-1620-MW61A MS-20130801	8-1-13	1230	G	Water	X	X	A-HCL B-NaOH C-Zn Acetate D-Nitric Acid E-NaHSO4 F-MeOH G-Archlor H-Aseorbic Acid I-Ice J-DI Water K-EDTA L-EDA M-Hexane N-None O-AsNaO2 P-Na2O4S Q-Na2SO3 R-Na2S2O3 S-H2SO4 T-TSP Dodecahydrate U-Acetone V-MCAA W-ph 4.5 Z-other (specify)
WG-1620-MW61A MSD-20130801		1230	G	Water	X	X	
WG-1620-MW49A-20130801		1320	G	Water	X	X	
WG-1620-MW49B-20130801		1415	G	Water	X	X	
WG-1620-FB04-20130801		1430	G	Water	X	X	
WG-1620-MW49C-20130801		1520	G	Water	X	X	
WG-1620-MW59A-20130801		1635	G	Water	X	X	
WG-1620-MW59B-20130801		1730	G	Water	X	X	
WG-1620-MW59A-20130801		1730	G	Water	X	X	
WG-1620-MW59B-20130801		1800	G	Water	X	X	
WG-1620-FB05-20130802		1845	G	Water	X	X	
WG-1620-MW62B-20130802		1020	G	Water	X	X	

Special Instructions/Note: **VINYL CHLORIDE**

Total Number of containers:
Special Instructions/Note:
Preservation Codes:
A-HCL
B-NaOH
C-Zn Acetate
D-Nitric Acid
E-NaHSO4
F-MeOH
G-Archlor
H-Aseorbic Acid
I-Ice
J-DI Water
K-EDTA
L-EDA
M-Hexane
N-None
O-AsNaO2
P-Na2O4S
Q-Na2SO3
R-Na2S2O3
S-H2SO4
T-TSP Dodecahydrate
U-Acetone
V-MCAA
W-ph 4.5
Z-other (specify)

Possible Hazard Identification
 Non-Hazard Flammable Skin Irritant Poison B Unknown Radiological

Deliverable Requested: I, II, III, IV, Other (specify):
Empty Kit Requisitioned by:
Date:
Time:
Method of Shipment:
Requisitioned by: **John Doe**
Date/Time: **8-3-13 1157**
Company: **BBU**
Received by: **Subramant**
Date/Time: **08/02/13 1157**
Company: **TTA**

Custody Seals Intact: Yes No
Custody Seal No.:
Cooler Temperature(s) °C and Other Remarks:

Client Information Client Contact: Mr. Eric Matzner Company: Pastor, Behling & Wheeler LLC Address: 2201 Double Creek Dr Suite 4004 City: Round Rock State Zip: TX, 78664 Phone: 512-671-3434 (Tel) 512-671-3446 (Fax) Email: eric.matzner@pbwllc.com Project Name: 1620 UPRR HWPW Site:		Sampler: DHW BARRY BN Lab PM: Kutchadkar Sachin G E-Mail: sachin.kutchadkar@testamericainc.com Carrier Tracking No(s):		COC No: 600-21931-8215.1 Page: 33 Page of: 33 Job #:	
Due Date Requested: TAT Requested (days): PO #: Purchase Order not required W/O #:		Analysis Requested:		Preservation Codes: A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDTA M - Hexane N - None O - AsNaO2 P - Na2OAS Q - Na2SO3 R - Na2S2O3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4-5 Z - other (specify)	
Sample Identification WG-1620-TR02-20130802 82213 G Matrix (Water, Solid, Organic, A-Alk) Water Water Water Water Water Water Water Water Water Water		Sample Date 8-22-13 Sample Time - Sample Type (C=Comp, G=Grab) G Preservation Code:		Field Filtered Sample (Yes or No) <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Perform MS/MSD (Yes or No) <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No 8260B_LL - Site Specific List 8270C_LL - Site Specific List	
Possible Hazard Identification <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months Special Instructions/QC Requirements:		Total Number of containers Special Instructions/Note:	
Empty Kit Relinquished by: _____ Relinquished by: Juan Dan Date/Time: 8-22-13 11:57 Company: PBW		Date: _____ Time: _____ Received by: _____ Date/Time: 08/22/13 11:57 Company: PAH		Method of Shipment: _____ Received by: _____ Date/Time: _____ Company: _____	
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks:			

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17**Upton, Cathy**

From: Patrick Ferrell [patrick.ferrell@pbwllc.com]
Sent: Thursday, September 05, 2013 1:22 PM
To: Upton, Cathy
Cc: Eric Matzner
Subject: Revisions to Reports 600-77584-1 and
Follow Up Flag: Follow up
Flag Status: Red
Attachments: J77257-1 UDS TRRP Final Report.pdf; J77584-1 UDS TRRP Final Report.pdf

Hi Cathy,

There are a few changes that need to be made to these two reports. The first, 600-77584-1 has MW38A duplicated, but the lab sample with ID 600-77584-9 should read MW38B. The second is in report 600-77257-1. Lab sample with ID 600-77257-4 should read TW41B instead of TW41A. Please let me know if you have any questions.

Thanks,
Patrick

Patrick Ferrell, E.I.T.
Engineer II

Pastor, Behling & Wheeler, LLC
2201 Double Creek Drive, Suite 4004
Round Rock, Texas 78664
Office : 512/671-3434
Cell : 281/734-3871

Login Sample Receipt Checklist

Client: Pastor, Behling & Wheeler LLC

Job Number: 600-77257-1

Login Number: 77257

List Source: TestAmerica Houston

List Number: 1

Creator: Pulumbarit, Josh L

Question	Answer	Comment
Radioactivity wasn't checked or is <=/ background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	4.4 4.6 5.7 3.5 3.6
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	True	

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Houston
6310 Rothway Street
Houston, TX 77040
Tel: (713)690-4444

TestAmerica Job ID: 600-77524-1

Client Project/Site: 1620 UPRR HWPW
Revision: 1

For:

Pastor, Behling & Wheeler LLC
2201 Double Creek Dr
Suite 4004
Round Rock, Texas 78664

Attn: Mr. Eric Matzner



Authorized for release by:
8/29/2013 5:56:09 PM

Cathy Upton, Data Delivery Analyst
(713)690-4444

cathy.upton@testamericainc.com

Designee for

Sachin Kudchadkar, Project Manager II
sachin.kudchadkar@testamericainc.com

LINKS

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Have a Question?



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www.testamericainc.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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- 15
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- 17



Table of Contents

Cover Page	1
Table of Contents	2
TRRP Cover Page	3
TRRP Checklists & DCSs	4
Case Narrative	14
Method Summary	15
Sample Summary	16
Client Sample Results	17
Definitions/Glossary	47
Surrogate Summary	48
QC Sample Results	51
Default Detection Limits	67
QC Association Summary	68
Lab Chronicle	72
Certification Summary	78
Chain of Custody	79
Receipt Checklists	82

Job Number: 600-77524-1
Project Name/Number: 1620 UPRR HWPW

This Data Package- consists of:

This signature page, the laboratory review checklist, and the following Reportable Data:

- R1 Field Chain-of-Custody Form
- R2 Sample Identification Cross-reference;
- R3 Test Reports (Analytical Data Sheets) for each environmental sample that includes:
 - a) Items consistent with NELAC Chapter 5
 - b) dilution factors,
 - c) preparation methods,
 - d) cleanup methods, and
 - e) if required for the project, tentatively identified compounds (TICs).
- R4 Surrogate Recovery Data including:
 - a) Calculated recovery (%R), and
 - b) The laboratory's surrogate QC limits.
- R5 Test Reports/Summary Forms for Blank Samples;
- R6 Test Reports/Summary Forms for Laboratory Control Samples (LCSs) including:
 - a) LCS spiking amounts,
 - b) Calculated %R for each analyte, and
 - d) The laboratory's LCS QC limits
- R7 Test Reports for Matrix Spike/Matrix Spike Duplicates (MS/MSDs) including:
 - a) Samples associated with the MS/MSD clearly identified,
 - b) MS/MSD spiking amounts,
 - c) Concentration of each MS/MSD analyte measured in the parent and spiked sample,
 - d) Calculated %Rs and relative percent differences (RPDs), and
 - e) The laboratory's MS/MSD QC limits
- R8 Laboratory analytical duplicates (if applicable) recovery and precision, including:
 - a) the amount of analyte measured in the duplicate,
 - b) the calculated RPD, and
 - c) the laboratory's QC limits for analytical duplicates.
- R9 List of method quantitation limit (MQL) and detectability check sample results for each analyte for each method and matrix;
- R10 Other problems or anomalies

The exception report for each "No" or "Not Reviewed (NR)" item in the Laboratory Review Checklist and for each analyte, matrix, and method for which the laboratory does not hold NELAC accreditation under the Texas Laboratory Accreditation Program.

Release Statement: I am responsible for the release of this laboratory data package. This laboratory is NELAC accredited under Texas laboratory Accreditation Program for all the methods, analytes, and matrices reported in this data package except as noted in the Exception Reports. The data have been reviewed and are technically compliant with the requirements of the methods used, except where noted by the laboratory in the Exception Reports. By my signature below, I affirm, to the best of my knowledge, that all problems/anomalies observed by the laboratory have been identified in the Laboratory Review Checklist, and no information affecting the quality of the data has been knowingly withheld.

Cathy Upton
Name (printed)

Data Delivery Analyst
Official Title (printed)


Signature

08/29/2013
Date

Appendix A (cont'd): Laboratory Review Checklist: Reportable Data							
Laboratory Name: TestAmerica-Houston			LRC Date: 08/19/13				
Project Name: 1620 UPRR HWPW			Laboratory Job Number: 600-77524				
Reviewer Name: YX			Prep Batch Number: 600-112771, 112842, 113007 and 113144-VOA				
# ¹	A ²	Description	Yes	No	NA ³	NR ⁴	ER# ⁵
R1	OI	Chain-of-custody (C-O-C)					
		Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?		X			1
		Were all departures from standard conditions described in an exception report?	X				
R2	OI	Sample and quality control (QC) identification					
		Are all field sample ID numbers cross-referenced to the laboratory ID numbers?	X				
		Are all laboratory ID numbers cross-referenced to the corresponding QC data?	X				
R3	OI	Test reports					
		Were all samples prepared and analyzed within holding times?	X				
		Other than those results < MQL, were all other raw values bracketed by calibration standards?	X				
		Were calculations checked by a peer or supervisor?	X				
		Were all analyte identifications checked by a peer or supervisor?	X				
		Were sample detection limits reported for all analytes not detected?	X				
		Were all results for soil and sediment samples reported on a dry weight basis?			X		
		Were % moisture (or solids) reported for all soil and sediment samples?			X		
		Were bulk soil/solid samples for volatile analysis extracted with methanol per SW846 Method 5035?			X		
		If required for the project, TICs reported?			X		
R4	O	Surrogate recovery data					
		Were surrogates added prior to extraction?	X				
		Were surrogate percent recoveries in all samples within the laboratory QC limits?	X				
R5	OI	Test reports/summary forms for blank samples					
		Were appropriate type(s) of blanks analyzed?	X				
		Were blanks analyzed at the appropriate frequency?	X				
		Were method blanks taken through the entire analytical process, including preparation and, if applicable, cleanup procedures?	X				
		Were blank concentrations < MQL?	X				
R6	OI	Laboratory control samples (LCS):					
		Were all COCs included in the LCS?	X				
		Was each LCS taken through the entire analytical procedure, including prep and cleanup steps?	X				
		Were LCSs analyzed at the required frequency?	X				
		Were LCS (and LCSD, if applicable) %Rs within the laboratory QC limits?	X				
		Does the detectability check sample data document the laboratory's capability to detect the COCs at the MDL used to calculate the SDLs?	X				
		Was the LCSD RPD within QC limits?			X		
R7	OI	Matrix spike (MS) and matrix spike duplicate (MSD) data					
		Were the project/method specified analytes included in the MS and MSD?	X				
		Were MS/MSD analyzed at the appropriate frequency?	X				
		Were MS (and MSD, if applicable) %Rs within the laboratory QC limits?	X				
		Were MS/MSD RPDs within laboratory QC limits?	X				
R8	OI	Analytical duplicate data					
		Were appropriate analytical duplicates analyzed for each matrix?			X		
		Were analytical duplicates analyzed at the appropriate frequency?			X		
		Were RPDs or relative standard deviations within the laboratory QC limits?			X		
R9	OI	Method quantitation limits (MQLs):					
		Are the MQLs for each method analyte included in the laboratory data package?	X				
		Do the MQLs correspond to the concentration of the lowest non-zero calibration standard?	X				
		Are unadjusted MQLs and DCSs included in the laboratory data package?	X				
R10	OI	Other problems/anomalies					
		Are all known problems/anomalies/special conditions noted in this LRC and ER?	X				
		Was applicable and available technology used to lower the SDL to minimize the matrix interference affects on the sample results?	X				2
		Is the laboratory NELAC-accredited under the Texas Laboratory Accreditation Program for the analytes, matrices and methods associated with this laboratory data package?	X				

- Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.
- O = organic analyses; I = inorganic analyses (and general chemistry, when applicable);
- NA = Not applicable;
- NR = Not reviewed;
- ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

Appendix A (cont'd): Laboratory Review Checklist: Reportable Data							
Laboratory Name: TestAmerica-Houston			LRC Date: 08/19/13				
Project Name: 1620 UPRR HWPW			Laboratory Job Number: 600-77524				
Reviewer Name: YX			Prep Batch Number: 600-112771, 112842, 113007 and 113144-VOA				
# ¹	A ²	Description	Yes	No	NA ³	NR ⁴	ER# ⁵
S1	OI	Initial calibration (ICAL)					
		Were response factors and/or relative response factors for each analyte within QC limits?	X				
		Were percent RSDs or correlation coefficient criteria met?	X				
		Was the number of standards recommended in the method used for all analytes?	X				
		Were all points generated between the lowest and highest standard used to calculate the curve?	X				
		Are ICAL data available for all instruments used?	X				
		Has the initial calibration curve been verified using an appropriate second source standard?	X				
S2	OI	Initial and continuing calibration verification (ICCV and CCV) and continuing calibration					
		Was the CCV analyzed at the method-required frequency?	X				
		Were percent differences for each analyte within the method-required QC limits?	X				
		Was the ICAL curve verified for each analyte?	X				
		Was the absolute value of the analyte concentration in the inorganic CCB < MDL?			X		
S3	O	Mass spectral tuning:					
		Was the appropriate compound for the method used for tuning?	X				
		Were ion abundance data within the method-required QC limits?	X				
S4	O	Internal standards (IS):					
		Were IS area counts and retention times within the method-required QC limits?	X				
S5	OI	Raw data (NELAC section 5.5.10)					
		Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?	X				
		Were data associated with manual integrations flagged on the raw data?	X				
S6	O	Dual column confirmation					
		Did dual column confirmation results meet the method-required QC?			X		
S7	O	Tentatively identified compounds (TICs):					
		If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?			X		
S8	I	Interference Check Sample (ICS) results:					
		Were percent recoveries within method QC limits?			X		
S9	I	Serial dilutions, post digestion spikes, and method of standard additions					
		Were percent differences, recoveries, and the linearity within the QC limits specified in the method?			X		
S10	OI	Method detection limit (MDL) studies					
		Was a MDL study performed for each reported analyte?	X				
		Is the MDL either adjusted or supported by the analysis of DCSs?	X				
S11	OI	Proficiency test reports:					
		Was the laboratory's performance acceptable on the applicable proficiency tests or evaluation studies?	X				
S12	OI	Standards documentation					
		Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?	X				
S13	OI	Compound/analyte identification procedures					
		Are the procedures for compound/analyte identification documented?	X				
S14	OI	Demonstration of analyst competency (DOC)					
		Was DOC conducted consistent with NELAC Chapter 5?	X				
		Is documentation of the analyst's competency up-to-date and on file?	X				
S15	OI	Verification/validation documentation for methods (NELAC Chapter 5)					
		Are all the methods used to generate the data documented, verified, and validated, where applicable?	X				
S16	OI	Laboratory standard operating procedures (SOPs):					
		Are laboratory SOPs current and on file for each method performed?	X				

- 1 Items identified by the letter "R" should be included in the laboratory data package submitted to the TCEQ in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.
- 2 O = organic analyses; I = inorganic analyses (and general chemistry, when applicable).
- 3 NA = Not applicable.
- 4 NR = Not Reviewed.
- 5 ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

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Appendix A (cont'd): Laboratory Review Checklist: Exception Reports	
Laboratory Name: TestAmerica-Houston	LRC Date: 08/19/13
Project Name: 1620 UPRR HWPW	Laboratory Job Number: 600-77524
Reviewer Name: YX	Prep Batch Number: 600-112771, 112842, 113007 and 113144-VOA
ER #¹	DESCRIPTION
1	See Case Narrative.
2	All SDLs were elevated in samples 600-77524-15 and 22 due to the high concentration of target analytes. Benzene SDL was elevated in sample 600-77524-21 due to the high concentration of this analyte.

ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked on the LRC)

Appendix A (cont'd): Laboratory Review Checklist: Reportable Data							
Laboratory Name: TestAmerica-Houston			LRC Date: 08/21/13				
Project Name: 1620 UPRR HWPW			Laboratory Job Number: 600-77524				
Reviewer Name: TTD			Prep Batch Number(s): 600-112861/112992/113428-SV				
# ¹	A ²	Description	Yes	No	NA ³	NR ⁴	ER# ⁵
R1	OI	Chain-of-custody (C-O-C)					
		Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?		X			1
		Were all departures from standard conditions described in an exception report?	X				
R2	OI	Sample and quality control (QC) identification					
		Are all field sample ID numbers cross-referenced to the laboratory ID numbers?	X				
		Are all laboratory ID numbers cross-referenced to the corresponding QC data?	X				
R3	OI	Test reports					
		Were all samples prepared and analyzed within holding times?		X			2
		Other than those results < MQL, were all other raw values bracketed by calibration standards?	X				
		Were calculations checked by a peer or supervisor?	X				
		Were all analyte identifications checked by a peer or supervisor?	X				
		Were sample detection limits reported for all analytes not detected?	X				
		Were all results for soil and sediment samples reported on a dry weight basis?			X		
		Were % moisture (or solids) reported for all soil and sediment samples?			X		
		Were bulk soil/solid samples for volatile analysis extracted with methanol per SW846 Method 5035?			X		
		If required for the project, TICs reported?			X		
R4	O	Surrogate recovery data					
		Were surrogates added prior to extraction?	X				
		Were surrogate percent recoveries in all samples within the laboratory QC limits?		X			3
R5	OI	Test reports/summary forms for blank samples					
		Were appropriate type(s) of blanks analyzed?	X				
		Were blanks analyzed at the appropriate frequency?	X				
		Were method blanks taken through the entire analytical process, including preparation and, if applicable, cleanup procedures?	X				
		Were blank concentrations < MQL?	X				
R6	OI	Laboratory control samples (LCS):					
		Were all COCs included in the LCS?	X				
		Was each LCS taken through the entire analytical procedure, including prep and cleanup steps?	X				
		Were LCSs analyzed at the required frequency?	X				
		Were LCS (and LCSD, if applicable) %Rs within the laboratory QC limits?	X				
		Does the detectability check sample data document the laboratory's capability to detect the COCs at the MDL used to calculate the SDLs?	X				
		Was the LCSD RPD within QC limits?		X			4
R7	OI	Matrix spike (MS) and matrix spike duplicate (MSD) data					
		Were the project/method specified analytes included in the MS and MSD?	X				
		Were MS/MSD analyzed at the appropriate frequency?	X				
		Were MS (and MSD, if applicable) %Rs within the laboratory QC limits?		X			5
		Were MS/MSD RPDs within laboratory QC limits?		X			5
R8	OI	Analytical duplicate data					
		Were appropriate analytical duplicates analyzed for each matrix?			X		
		Were analytical duplicates analyzed at the appropriate frequency?			X		
		Were RPDs or relative standard deviations within the laboratory QC limits?			X		
R9	OI	Method quantitation limits (MQLs):					
		Are the MQLs for each method analyte included in the laboratory data package?	X				
		Do the MQLs correspond to the concentration of the lowest non-zero calibration standard?	X				
		Are unadjusted MQLs and DCSs included in the laboratory data package?	X				
R10	OI	Other problems/anomalies					
		Are all known problems/anomalies/special conditions noted in this LRC and ER?	X				
		Was applicable and available technology used to lower the SDL to minimize the matrix interference affects on the sample results?	X				6
		Is the laboratory NELAC-accredited under the Texas Laboratory Accreditation Program for the analytes, matrices and methods associated with this laboratory data package?	X				

- Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.
- O = organic analyses; I = inorganic analyses (and general chemistry, when applicable);
- NA = Not applicable;
- NR = Not reviewed;
- ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

Appendix A (cont'd): Laboratory Review Checklist: Reportable Data									
Laboratory Name: TestAmerica-Houston					LRC Date: 08/21/13				
Project Name: 1620 UPRR HWPW					Laboratory Job Number: 600-77524				
Reviewer Name: TTD					Prep Batch Number(s): 600-112861/112992/113428-SV				
# ¹	A ²	Description	Yes	No	NA ³	NR ⁴	ER# ⁵		
S1	OI	Initial calibration (ICAL)							
		Were response factors and/or relative response factors for each analyte within QC limits?	X						
		Were percent RSDs or correlation coefficient criteria met?	X						
		Was the number of standards recommended in the method used for all analytes?	X						
		Were all points generated between the lowest and highest standard used to calculate the curve?	X						
		Are ICAL data available for all instruments used?	X						
		Has the initial calibration curve been verified using an appropriate second source standard?	X						
S2	OI	Initial and continuing calibration verification (ICCV and CCV) and continuing calibration							
		Was the CCV analyzed at the method-required frequency?	X						
		Were percent differences for each analyte within the method-required QC limits?		X					7
		Was the ICAL curve verified for each analyte?	X						
		Was the absolute value of the analyte concentration in the inorganic CCB < MDL?			X				
S3	O	Mass spectral tuning:							
		Was the appropriate compound for the method used for tuning?	X						
		Were ion abundance data within the method-required QC limits?	X						
S4	O	Internal standards (IS):							
		Were IS area counts and retention times within the method-required QC limits?	X						
S5	OI	Raw data (NELAC section 5.5.10)							
		Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?	X						
		Were data associated with manual integrations flagged on the raw data?	X						
S6	O	Dual column confirmation							
		Did dual column confirmation results meet the method-required QC?			X				
S7	O	Tentatively identified compounds (TICs):							
		If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?			X				
S8	I	Interference Check Sample (ICS) results:							
		Were percent recoveries within method QC limits?			X				
S9	I	Serial dilutions, post digestion spikes, and method of standard additions							
		Were percent differences, recoveries, and the linearity within the QC limits specified in the method?			X				
S10	OI	Method detection limit (MDL) studies							
		Was a MDL study performed for each reported analyte?	X						
		Is the MDL either adjusted or supported by the analysis of DCSs?	X						
S11	OI	Proficiency test reports:							
		Was the laboratory's performance acceptable on the applicable proficiency tests or evaluation studies?	X						
S12	OI	Standards documentation							
		Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?	X						
S13	OI	Compound/analyte identification procedures							
		Are the procedures for compound/analyte identification documented?	X						
S14	OI	Demonstration of analyst competency (DOC)							
		Was DOC conducted consistent with NELAC Chapter 5?	X						
		Is documentation of the analyst's competency up-to-date and on file?	X						
S15	OI	Verification/validation documentation for methods (NELAC Chapter 5)							
		Are all the methods used to generate the data documented, verified, and validated, where applicable?	X						
S16	OI	Laboratory standard operating procedures (SOPs):							
		Are laboratory SOPs current and on file for each method performed?	X						

- 1 Items identified by the letter "R" should be included in the laboratory data package submitted to the TCEQ in the TRRP-required report(s).
- 2 Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.
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Appendix A (cont'd): Laboratory Review Checklist: Exception Reports	
Laboratory Name: TestAmerica-Houston	LRC Date: 08/21/13
Project Name: 1620 UPRR HWPW	Laboratory Job Number: 600-77524
Reviewer Name: TTD	Prep Batch Number(s): 600-112861/112992/113428-SV
ER #¹	DESCRIPTION
1	See Case Narrative.
2	Re-extraction and reanalysis of the following sample 600-77524-2 was performed outside of the analytical holding time due to surrogate failure during the original extraction. In the re-extraction and re-analysis, surrogates recovered within limits with the exception of Phenol-d5. It was biased low.
3	<p>Six surrogates are used for this analysis. The laboratory's SOP allows one acid and one base of these surrogates to be outside acceptance criteria without performing re-extraction/re-analysis. The matrix spike (MS) for batch 112992 was biased low for Phenol-d5 and Nitrobenzene-d5. These results have been reported and qualified.</p> <p>The surrogate recoveries were biased low for Phenol-d5 in the following samples 600-77524-2, 13DL, 17, 20, 21DL, and 25DL due to sample matrix.</p> <p>The surrogate recoveries were biased low for Phenol-d5 and 2-Fluorophenol in the following sample 600-77524-23 due to sample matrix.</p> <p>Due to the high dilution required for the following samples 600-77524- 1DL, 13DL2, 15, 15DL, 22 and 22DL, surrogate recoveries were not reported.</p>
4	The %RPD of the laboratory control sample (LCS) and laboratory control standard duplicate (LCSD) for preparation batch 113428 recovered outside control limits for the following analytes: 1,2-Diphenylhydrazine.
5	<p>The matrix spike / matrix spike duplicate (MS/MSD) precision for batch 112861 was outside control limits for 4,6-Dinitro-2-methylphenol.</p> <p>The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision several analytes for batch 112992 were outside control limits. The associated laboratory control sample (LCS) recovery met acceptance criteria.</p>
6	<p>All the SDLs in samples 600-77254-1, 15 and 22 were elevated due to the nature of the sample matrix.</p> <p>Various SDLs were elevated in samples 600-77524-1DL, 13DL, 15DL, 21DL, 22DL and 25DL due to the high concentration of these analytes.</p>
7	The continuing calibration verification (CCV) was biased low for 4,6-Dinitro-2-methylphenol (-56.6) in analytical batch 113058, 4,6-Dinitro-2-methylphenol (-61.7) in analytical batch 113129, and 4,6-Dinitro-2-methylphenol (-58.5) in analytical batch 113230. The SOP makes allowance for up to four non-CCC analytes to have a %drift greater than the acceptable limit. The data have been qualified and reported.

ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked on the LRC)

Detection Check Standard

Matrix: Water
Method: 8260B_LL
Preparation: Wei Shen
Date Analyzed: 5/22/2013
Date Prepared: 5/22/2013
TALs Batches: 600-106788
Units: ug/L

Analyte	MDL	DCS Spike	Measured Result	MQL
Chloromethane	0.18	0.5	0.18	2
Vinyl Chloride	0.11	0.5	0.532	2
Bromomethane	0.25	0.5	0.502	2
Chloroethane	0.08	0.5	0.591	2
Trichlorofluoromethane	0.08	0.5	0.464	1
Acrolein	1.63	2.5	2.347	5
1,1-Dichloroethene	0.19	0.5	0.449	1
trans-1,2-Dichloroethene	0.09	0.5	0.481	1
Acetone	0.99	0.5	0.9	2
Methyl Iodide (Iodomethane)	2	0.5	1.013	2
Carbon Disulfide	0.24	0.5	0.913	1
Methylene Chloride	0.15	0.5		1
Acetonitrile	0.27	1.5	0.833	1
Methyl tert-butyl ether	0.12	0.5	0.499	1
Chloroprene (2-Chloro-1,3-butadiene)	0.33	0.5		2
Vinyl Acetate	0.21	0.5		1
cis-1,2-Dichloroethene	0.3	0.5	0.478	1
2-Butanone (MEK)	0.76	0.5		5
1,2-Dichloroethene	0.3	0.5		1
Chlorobromomethane	0.18	0.5	0.504	1
Carbon Tetrachloride	0.15	0.5	0.421	5
Benzene	0.08	0.5	0.467	1
1,2-Dichloroethane	0.14	0.5		1
Trichloroethene	0.13	0.5	0.483	1
1,1,1-Trichloroethane	0.15	0.5	0.45	1
1,1-Dichloroethane	0.11	0.5	0.487	1
1,2-Dichloropropane	0.16	0.5	0.387	1
cis-1,3-Dichloropropene	0.18	0.5	0.321	1
Methylene Bromide (Bromomethane)	0.25	0.25	0.291	1
Methyl methacrylate	0.33	1.5	0.845	1
4-Methyl-2-pentanone	0.45	0.5	0.476	2
Toluene	0.15	0.5	0.471	1
trans-1,3-Dichloropropene	0.21	0.5		1
Ethyl methacrylate	0.26	1.5	1.164	1
1,1,2-Trichloroethane	0.28	0.5	0.507	1
Tetrachloroethene	0.18	0.5	0.429	1
1,3-Dichloropropane	0.22	0.5	0.444	1
Dibromochloromethane	0.16	0.5	0.421	1
1,2-Dibromoethane (Ethylene bromide)	0.18	0.5	0.423	1



2-Hexanone	0.35	0.5		
Chlorobenzene	0.12	0.5	0.451	1
Ethylbenzene	0.11	0.5	0.433	1
m,p-Xylene	0.17	0.5	0.8	2
o-Xylene	0.12	0.5	0.418	1
Xylenes (total)	0.26	1.5	1.219	3
Styrene	0.07	0.5	0.372	1
Bromoform	0.19	0.5		1
1,1,2,2-Tetrachloroethane	0.22	0.5		1
Chloroform	0.13	0.5	0.442	1
Isopropylbenzene	0.18	0.5	0.431	1
Bromobenzene	0.19	0.25	0.311	1
n-Propylbenzene	0.15	0.5	0.446	1
2-Chlorotoluene	0.13	0.5	0.478	1
4-Chlorotoluene	0.14	0.5	0.405	1
1,3,5-Trimethylbenzene	0.1	0.5	0.421	1
tert-Butylbenzene	0.08	0.5	0.417	1
p-Isopropyltoluene	0.1	0.25	0.231	1
1,2,4-Trimethylbenzene	0.14	0.5	0.411	1
sec-Butylbenzene	0.12	0.5	0.405	1
1,3-Dichlorobenzene	0.13	0.5	0.436	1
1,4-Dichlorobenzene	0.11	0.5	0.444	1
1,2-Dichlorobenzene	0.1	0.5	0.441	1
n-Butylbenzene	0.16	0.25	0.204	1
Hexachlorobutadiene	0.17	0.5		1
Naphthalene	0.32	0.25	0.246	1
1,1,1,2-Tetrachloroethane	0.18	0.5	0.386	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1	0.5	0.494	1
1,1-Dichloropropene	0.21	0.5	0.421	1
4-Isopropyltoluene	0.1	0.5	0.381	1
Acrylonitrile	0.52	3	1.957	2
Dibromomethane	0.52	0.5	0.458	1
Dichlorobromomethane	0.16	0.5	0.364	1

Quality Control Report

Detection Check Standard

Matrix: Water
 Method: 8270C LL
 Preparation: 3510C
 Date Analyzed: 1/3/2013
 Date Prepared: 1/3/2013
 Lab Sample ID: 600-96501/6-A
 Units: ug/L

Analyte	MDL	DCS Spike	DCS Result	MQL
Pyridine	0.04	0.5	0.573	0.5
N-Nitrosodimethylamine	0.26	0.5	0.224	0.5
bis (2-Chloroisopropyl) ether	0.4	0.5	0.353	0.5
Aniline	0.08	0.25	0.082	0.5
Phenol	0.04	0.25	0.0987	0.5
bis(2-Chloroethyl)ether	0.15	0.5	0.389	0.5
2-Chlorophenol	0.13	0.5	0.307	0.5
1,3-Dichlorobenzene	0.17	0.5	0.360	0.5
1,4-Dichlorobenzene	0.13	0.5	0.397	0.5
1,2-Dichlorobenzene	0.17	0.5	0.402	0.5
Benzyl alcohol	0.17	0.5	0.268	0.5
2-Methylphenol (o-cresol)	0.12	0.5	0.291	0.5
3&4-Methylphenol (m&p-Cresols)	0.2	0.5	0.287	1
N-Nitroso-di-n-propylamine	0.1	0.5	0.376	0.5
Hexachloroethane	0.1	0.5	0.384	0.5
Dibenzo(a,h)anthracene	0.08	0.5	0.553	0.5
Indeno(1,2,3-cd)pyrene	0.07	0.5	0.559	0.5
Nitrobenzene	0.11	0.25	0.167	0.5
Isophorone	0.11	0.25	0.158	0.5
2-Nitrophenol	0.22	0.5	0.331	0.5
Benzoic acid	2.51	12.5	6.330	2.5
2,4-Dimethylphenol	0.15	0.5	0.285	0.5
bis(2-Chloroethoxy)methane	0.13	0.5	0.363	0.5
2,4-Dichlorophenol	0.15	0.5	0.285	0.5
1,2,4-Trichlorobenzene	0.12	0.5	0.415	0.5
Naphthalene	0.08	0.25	0.190	0.5
Benzo(a)pyrene	0.08	0.25	0.398	0.5
Hexachlorobutadiene	0.18	0.5	0.418	0.5
4-Chloro-3-methylphenol	0.17	0.5	0.310	0.5
2-Methylnaphthalene	0.07	0.25	0.177	0.5
1-Methylnaphthalene	0.09	0.25	0.194	0.5
Benzo(k)fluoranthene	0.09	0.25	0.161	0.5
Hexachlorocyclopentadiene	0.13	0.5	0.198	0.5
2,4,6-Trichlorophenol	0.18	0.5	0.283	0.5
2,4,5-Trichlorophenol	0.25	0.5	0.305	0.5
2-Chloronaphthalene	0.08	0.25	0.165	0.5
2-Nitroaniline	0.19	0.5	0.482	0.5
1,4-Dinitrobenzene	0.5	0.5	0.282	0.5
1,3-Dinitrobenzene	0.08	0.25	0.124	0.5
1,2-Dinitrobenzene	0.5	0.5	0.413	0.5

Dimethylphthalate	0.07	0.25	0.185	0.5
Acenaphthylene	0.06	0.25	0.183	0.5
2,6-Dinitrotoluene	0.08	0.5	0.314	0.5
Benzo(b)fluoranthene	0.07	0.5	0.590	0.5
Acenaphthene	0.08	0.5	0.375	0.5
Di-n-octylphthalate	0.16	0.5	0.891	0.5
4-Nitrophenol	0.56	2.5	0.881	1
Dibenzofuran	0.08	0.25	0.164	0.5
2,4-Dinitrotoluene	0.13	0.5	0.201	0.5
2,3,4,6-Tetrachlorophenol	0.5	0.5	0.208	0.5
2,3,5,6-Tetrachlorophenol	0.5	0.5	0.200	0.5
Diethylphthalate	1.5	0.5	0.307	0.5
4-Chlorophenyl-phenylether	0.1	0.5	0.351	0.5
Fluorene	0.07	0.25	0.177	0.5
4-Nitroaniline	0.25	0.5	0.238	0.5
Chrysene	0.08	0.25	0.236	0.5
4,6-Dinitro-2-methylphenol	0.83	2.5	1.220	0.5
N-Nitrosodiphenylamine	0.1	0.5	0.737	0.5
Diphenylamine	0.1	0.5	0.121	0.5
1,2-Diphenylhydrazine	0.11	0.25	0.145	0.5
Azobenzene	0.07	0.25	0.143	0.5
4-Bromophenyl-phenylether	0.1	0.5	0.433	0.5
Hexachlorobenzene	0.11	0.25	0.090	0.5
Pentachlorophenol	0.61	2.5	1.400	0.5
Phenanthrene	0.06	0.25	0.182	0.5
Anthracene	0.05	0.25	0.160	0.5
Carbazole	0.17	0.5	0.530	0.5
Di-n-butylphthalate	0.11	0.25	0.187	0.5
Fluoranthene	0.07	0.25	0.178	0.5
Benzdine	0.61	12.5	9.300	0.5
Pyrene	0.11	0.25	0.168	0.5
Butylbenzylphthalate	0.12	0.5	0.631	0.5
3,3'-Dichlorobenzidine	0.18	0.5	0.100	0.5
Benzo(a)anthracene	0.08	0.25	0.192	0.5
bis(2-Ethylhexyl)phthalate	0.37	0.5	0.427	0.5
Benzo(g,h,i)perylene	0.08	0.25	0.137	0.5
4-Chloroaniline	0.21	0.5	0.316	0.5
3-Nitroaniline	0.16	0.5	0.803	0.5

Case Narrative

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-77524-1

Job ID: 600-77524-1

Laboratory: TestAmerica Houston

Narrative

Job Narrative
600-77524-1

Comments

The report was revised on 08/29/13 to update the sample IDs for 21, 22 and 23.

Receipt

The samples were received on 8/7/2013 3:02 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 6 coolers at receipt time were 1.2° C, 2.5° C, 2.7° C, 3.7° C, 4.7° C and 5.0° C.

Except:

The following sample(s) was submitted for analysis; however, it was not listed on the Chain-of-Custody (COC): WG - 1620 - MW26A - 20130807.

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15
- 16
- 17

Method Summary

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-77524-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL HOU
8270C LL	Semivolatile Organic Compounds by GCMS - Low Levels	SW846	TAL HOU

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL HOU = TestAmerica Houston, 6310 Rothway Street, Houston, TX 77040, TEL (713)690-4444



Sample Summary

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-77524-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
600-77524-1	WG - 1620 - MW44A - 20130805	Water	08/05/13 13:15	08/08/13 15:02
600-77524-2	WG - 1620 - MW65D - 20130805	Water	08/05/13 14:40	08/08/13 15:02
600-77524-3	WG - 1620 - MW66D - 20130805	Water	08/05/13 15:50	08/08/13 15:02
600-77524-4	WG - 1620 - MW36D - 20130805	Water	08/05/13 17:15	08/08/13 15:02
600-77524-5	WG - 1620 - MW59D - 20130805	Water	08/05/13 18:40	08/08/13 15:02
600-77524-6	WG - 1620 - FD02 - 20130805	Water	08/05/13 18:40	08/08/13 15:02
600-77524-7	WG - 1620 - FB06 - 20130805	Water	08/05/13 19:00	08/08/13 15:02
600-77524-8	WG - 1620 - MW69A - 20130806	Water	08/06/13 07:50	08/08/13 15:02
600-77524-9	WG - 1620 - MW47C - 21030806	Water	08/06/13 09:00	08/08/13 15:02
600-77524-10	WG - 1620 - MW64A - 20130806	Water	08/06/13 10:15	08/08/13 15:02
600-77524-11	WG - 1620 - MW58A - 20130806	Water	08/06/13 11:10	08/08/13 15:02
600-77524-12	WG - 1620 - MW53C - 20130806	Water	08/06/13 12:25	08/08/13 15:02
600-77524-13	WG - 1620 - MW54C - 20130806	Water	08/06/13 13:25	08/08/13 15:02
600-77524-14	WG - 1620 - MW25A - 20130806	Water	08/06/13 15:15	08/08/13 15:02
600-77524-15	WG - 1620 - MW25C - 20130806	Water	08/06/13 16:10	08/08/13 15:02
600-77524-16	WG - 1620 - MW36B - 20130806	Water	08/06/13 17:10	08/08/13 15:02
600-77524-17	WG - 1620 - MW36A - 20130806	Water	08/06/13 18:00	08/08/13 15:02
600-77524-18	WG - 1620 - FB07 - 20130806	Water	08/06/13 18:15	08/08/13 15:02
600-77524-19	WG - 1620 - MW28C - 20130807	Water	08/07/13 08:25	08/08/13 15:02
600-77524-20	WG - 1620 - MW28A - 20130807	Water	08/07/13 09:20	08/08/13 15:02
600-77524-21	WG - 1620 - MW63B - 20130807	Water	08/07/13 10:15	08/08/13 15:02
600-77524-22	WG - 1620 - MW33BR - 20130807	Water	08/07/13 11:10	08/08/13 15:02
600-77524-23	WG - 1620 - MW68C - 20130807	Water	08/07/13 13:30	08/08/13 15:02
600-77524-24	WG - 1620 - TB03 - 20130807	Water	08/07/13 00:00	08/08/13 15:02
600-77524-25	WG - 1620 - MW26A - 20130807	Water	08/07/13 12:05	08/07/13 15:02

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-77524-1

Client Sample ID: WG - 1620 - MW44A - 20130805

Lab Sample ID: 600-77524-1

Date Collected: 08/05/13 13:15

Matrix: Water

Date Received: 08/08/13 15:02

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	0.000110	U	0.00200	0.000110	mg/L			08/14/13 16:09	1
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			08/14/13 16:09	1
Benzene	0.00849		0.00100	0.0000800	mg/L			08/14/13 16:09	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			08/14/13 16:09	1
Toluene	0.000705	J	0.00100	0.000150	mg/L			08/14/13 16:09	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			08/14/13 16:09	1
Ethylbenzene	0.00172		0.00100	0.000110	mg/L			08/14/13 16:09	1
Xylenes, Total	0.0207		0.00300	0.000260	mg/L			08/14/13 16:09	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	104		67 - 139					08/14/13 16:09	1
Dibromofluoromethane	84		62 - 130					08/14/13 16:09	1
Toluene-d8 (Surr)	92		70 - 130					08/14/13 16:09	1
1,2-Dichloroethane-d4 (Surr)	82		50 - 134					08/14/13 16:09	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.000400	U	0.00500	0.000400	mg/L		08/11/13 20:13	08/14/13 11:07	10
Nitrobenzene	0.00110	U	0.00500	0.00110	mg/L		08/11/13 20:13	08/14/13 11:07	10
2,4-Dimethylphenol	0.00310	U	0.00500	0.00310	mg/L		08/11/13 20:13	08/14/13 11:07	10
Bis(2-chloroethoxy)methane	0.00130	U	0.00500	0.00130	mg/L		08/11/13 20:13	08/14/13 11:07	10
2-Methylnaphthalene	0.109		0.00500	0.000700	mg/L		08/11/13 20:13	08/14/13 11:07	10
2-Chloronaphthalene	0.000800	U	0.00500	0.000800	mg/L		08/11/13 20:13	08/14/13 11:07	10
Acenaphthylene	0.000600	U	0.00500	0.000600	mg/L		08/11/13 20:13	08/14/13 11:07	10
2,6-Dinitrotoluene	0.000800	U	0.00500	0.000800	mg/L		08/11/13 20:13	08/14/13 11:07	10
4-Nitrophenol	0.00560	U	0.0100	0.00560	mg/L		08/11/13 20:13	08/14/13 11:07	10
Dibenzofuran	0.135		0.00500	0.000800	mg/L		08/11/13 20:13	08/14/13 11:07	10
2,4-Dinitrotoluene	0.00130	U	0.00500	0.00130	mg/L		08/11/13 20:13	08/14/13 11:07	10
Fluorene	0.172		0.00500	0.000700	mg/L		08/11/13 20:13	08/14/13 11:07	10
4,6-Dinitro-2-methylphenol	0.00830	U	0.0100	0.00830	mg/L		08/11/13 20:13	08/14/13 11:07	10
N-Nitrosodiphenylamine	0.00100	U	0.00500	0.00100	mg/L		08/11/13 20:13	08/14/13 11:07	10
1,2-Diphenylhydrazine	0.00110	U	0.00500	0.00110	mg/L		08/11/13 20:13	08/14/13 11:07	10
Pentachlorophenol	0.00610	U	0.0100	0.00610	mg/L		08/11/13 20:13	08/14/13 11:07	10
Phenanthrene	0.0416		0.00500	0.000600	mg/L		08/11/13 20:13	08/14/13 11:07	10
Anthracene	0.0170		0.00500	0.000500	mg/L		08/11/13 20:13	08/14/13 11:07	10
Di-n-butyl phthalate	0.00110	U	0.0250	0.00110	mg/L		08/11/13 20:13	08/14/13 11:07	10
Fluoranthene	0.0137		0.00500	0.000700	mg/L		08/11/13 20:13	08/14/13 11:07	10
Pyrene	0.00732		0.00500	0.00110	mg/L		08/11/13 20:13	08/14/13 11:07	10
Benzo[a]anthracene	0.000800	U	0.00500	0.000800	mg/L		08/11/13 20:13	08/14/13 11:07	10
Bis(2-ethylhexyl) phthalate	0.00370	U	0.0250	0.00370	mg/L		08/11/13 20:13	08/14/13 11:07	10
Chrysene	0.000800	U	0.00500	0.000800	mg/L		08/11/13 20:13	08/14/13 11:07	10
Benzo[a]pyrene	0.000800	U	0.00500	0.000800	mg/L		08/11/13 20:13	08/14/13 11:07	10
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	102		44 - 123				08/11/13 20:13	08/14/13 11:07	10
2-Fluorobiphenyl	101		43 - 120				08/11/13 20:13	08/14/13 11:07	10
2-Fluorophenol	71		18 - 120				08/11/13 20:13	08/14/13 11:07	10
Nitrobenzene-d5	73		47 - 120				08/11/13 20:13	08/14/13 11:07	10
Terphenyl-d14	98		33 - 141				08/11/13 20:13	08/14/13 11:07	10
Phenol-d5 (Surr)	40		12 - 128				08/11/13 20:13	08/14/13 11:07	10

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-77524-1

Client Sample ID: WG - 1620 - MW44A - 20130805

Lab Sample ID: 600-77524-1

Date Collected: 08/05/13 13:15

Matrix: Water

Date Received: 08/08/13 15:02

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels - DL

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	1.72		0.500	0.00800	mg/L		08/11/13 20:13	08/14/13 19:00	100
Acenaphthene	0.546		0.0500	0.00800	mg/L		08/11/13 20:13	08/14/13 19:00	100
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	0	X	44 - 123				08/11/13 20:13	08/14/13 19:00	100
2-Fluorobiphenyl	0	X	43 - 120				08/11/13 20:13	08/14/13 19:00	100
2-Fluorophenol	0	X	18 - 120				08/11/13 20:13	08/14/13 19:00	100
Nitrobenzene-d5	0	X	47 - 120				08/11/13 20:13	08/14/13 19:00	100
Terphenyl-d14	0	X	33 - 141				08/11/13 20:13	08/14/13 19:00	100
Phenol-d5 (Surr)	0	X	12 - 128				08/11/13 20:13	08/14/13 19:00	100

Client Sample ID: WG - 1620 - MW65D - 20130805

Lab Sample ID: 600-77524-2

Date Collected: 08/05/13 14:40

Matrix: Water

Date Received: 08/08/13 15:02

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			08/09/13 11:23	1
Benzene	0.0000800	U	0.00100	0.0000800	mg/L			08/09/13 11:23	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			08/09/13 11:23	1
Toluene	0.000150	U	0.00100	0.000150	mg/L			08/09/13 11:23	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			08/09/13 11:23	1
Ethylbenzene	0.000110	U	0.00100	0.000110	mg/L			08/09/13 11:23	1
Xylenes, Total	0.000260	U	0.00300	0.000260	mg/L			08/09/13 11:23	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	129		67 - 139					08/09/13 11:23	1
Dibromofluoromethane	89		62 - 130					08/09/13 11:23	1
Toluene-d8 (Surr)	107		70 - 130					08/09/13 11:23	1
1,2-Dichloroethane-d4 (Surr)	85		50 - 134					08/09/13 11:23	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.0000392	U H	0.000490	0.0000392	mg/L		08/19/13 11:26	08/20/13 13:02	1
Nitrobenzene	0.000108	U H	0.000490	0.000108	mg/L		08/19/13 11:26	08/20/13 13:02	1
2,4-Dimethylphenol	0.000304	U H	0.000490	0.000304	mg/L		08/19/13 11:26	08/20/13 13:02	1
Bis(2-chloroethoxy)methane	0.000127	U H	0.000490	0.000127	mg/L		08/19/13 11:26	08/20/13 13:02	1
Naphthalene	0.0000784	U H	0.00490	0.0000784	mg/L		08/19/13 11:26	08/20/13 13:02	1
2-Methylnaphthalene	0.0000686	U H	0.000490	0.0000686	mg/L		08/19/13 11:26	08/20/13 13:02	1
2-Chloronaphthalene	0.0000784	U H	0.000490	0.0000784	mg/L		08/19/13 11:26	08/20/13 13:02	1
Acenaphthylene	0.0000588	U H	0.000490	0.0000588	mg/L		08/19/13 11:26	08/20/13 13:02	1
2,6-Dinitrotoluene	0.0000784	U H	0.000490	0.0000784	mg/L		08/19/13 11:26	08/20/13 13:02	1
Acenaphthene	0.0000784	U H	0.000490	0.0000784	mg/L		08/19/13 11:26	08/20/13 13:02	1
4-Nitrophenol	0.000549	U H	0.000980	0.000549	mg/L		08/19/13 11:26	08/20/13 13:02	1
Dibenzofuran	0.0000784	U H	0.000490	0.0000784	mg/L		08/19/13 11:26	08/20/13 13:02	1
2,4-Dinitrotoluene	0.000127	U H	0.000490	0.000127	mg/L		08/19/13 11:26	08/20/13 13:02	1
Fluorene	0.0000686	U H	0.000490	0.0000686	mg/L		08/19/13 11:26	08/20/13 13:02	1
4,6-Dinitro-2-methylphenol	0.000814	U H	0.000980	0.000814	mg/L		08/19/13 11:26	08/20/13 13:02	1
N-Nitrosodiphenylamine	0.0000980	U H	0.000490	0.0000980	mg/L		08/19/13 11:26	08/20/13 13:02	1
1,2-Diphenylhydrazine	0.000108	U H *	0.000490	0.000108	mg/L		08/19/13 11:26	08/20/13 13:02	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-77524-1

Client Sample ID: WG - 1620 - MW65D - 20130805

Lab Sample ID: 600-77524-2

Date Collected: 08/05/13 14:40

Matrix: Water

Date Received: 08/08/13 15:02

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Pentachlorophenol	0.000598	U H	0.000980	0.000598	mg/L		08/19/13 11:26	08/20/13 13:02	1
Phenanthrene	0.0000930	J H	0.000490	0.0000588	mg/L		08/19/13 11:26	08/20/13 13:02	1
Anthracene	0.0000490	U H	0.000490	0.0000490	mg/L		08/19/13 11:26	08/20/13 13:02	1
Di-n-butyl phthalate	0.000148	J H	0.00245	0.000108	mg/L		08/19/13 11:26	08/20/13 13:02	1
Fluoranthene	0.0000686	U H	0.000490	0.0000686	mg/L		08/19/13 11:26	08/20/13 13:02	1
Pyrene	0.000108	U H	0.000490	0.000108	mg/L		08/19/13 11:26	08/20/13 13:02	1
Benzo[a]anthracene	0.0000784	U H	0.000490	0.0000784	mg/L		08/19/13 11:26	08/20/13 13:02	1
Bis(2-ethylhexyl) phthalate	0.000363	U H	0.00245	0.000363	mg/L		08/19/13 11:26	08/20/13 13:02	1
Chrysene	0.0000784	U H	0.000490	0.0000784	mg/L		08/19/13 11:26	08/20/13 13:02	1
Benzo[a]pyrene	0.0000784	U H	0.000490	0.0000784	mg/L		08/19/13 11:26	08/20/13 13:02	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	105		44 - 123				08/19/13 11:26	08/20/13 13:02	1
2-Fluorobiphenyl	70		43 - 120				08/19/13 11:26	08/20/13 13:02	1
2-Fluorophenol	20		18 - 120				08/19/13 11:26	08/20/13 13:02	1
Nitrobenzene-d5	66		47 - 120				08/19/13 11:26	08/20/13 13:02	1
Terphenyl-d14	88		33 - 141				08/19/13 11:26	08/20/13 13:02	1
Phenol-d5 (Surr)	9 X		12 - 128				08/19/13 11:26	08/20/13 13:02	1

Client Sample ID: WG - 1620 - MW66D - 20130805

Lab Sample ID: 600-77524-3

Date Collected: 08/05/13 15:50

Matrix: Water

Date Received: 08/08/13 15:02

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			08/09/13 11:50	1
Benzene	0.0000800	U	0.00100	0.0000800	mg/L			08/09/13 11:50	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			08/09/13 11:50	1
Toluene	0.000150	U	0.00100	0.000150	mg/L			08/09/13 11:50	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			08/09/13 11:50	1
Ethylbenzene	0.000110	U	0.00100	0.000110	mg/L			08/09/13 11:50	1
Xylenes, Total	0.000260	U	0.00300	0.000260	mg/L			08/09/13 11:50	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	127		67 - 139					08/09/13 11:50	1
Dibromofluoromethane	93		62 - 130					08/09/13 11:50	1
Toluene-d8 (Surr)	105		70 - 130					08/09/13 11:50	1
1,2-Dichloroethane-d4 (Surr)	91		50 - 134					08/09/13 11:50	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.0000400	U	0.000500	0.0000400	mg/L		08/11/13 20:13	08/13/13 12:50	1
Nitrobenzene	0.000110	U	0.000500	0.000110	mg/L		08/11/13 20:13	08/13/13 12:50	1
2,4-Dimethylphenol	0.000310	U	0.000500	0.000310	mg/L		08/11/13 20:13	08/13/13 12:50	1
Bis(2-chloroethoxy)methane	0.000130	U	0.000500	0.000130	mg/L		08/11/13 20:13	08/13/13 12:50	1
Naphthalene	0.0000999	J	0.00500	0.0000800	mg/L		08/11/13 20:13	08/13/13 12:50	1
2-Methylnaphthalene	0.0000700	U	0.000500	0.0000700	mg/L		08/11/13 20:13	08/13/13 12:50	1
2-Chloronaphthalene	0.0000800	U	0.000500	0.0000800	mg/L		08/11/13 20:13	08/13/13 12:50	1
Acenaphthylene	0.0000600	U	0.000500	0.0000600	mg/L		08/11/13 20:13	08/13/13 12:50	1
2,6-Dinitrotoluene	0.0000800	U	0.000500	0.0000800	mg/L		08/11/13 20:13	08/13/13 12:50	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-77524-1

Client Sample ID: WG - 1620 - MW66D - 20130805

Lab Sample ID: 600-77524-3

Date Collected: 08/05/13 15:50

Matrix: Water

Date Received: 08/08/13 15:02

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	0.0000800	U	0.000500	0.0000800	mg/L		08/11/13 20:13	08/13/13 12:50	1
4-Nitrophenol	0.000560	U	0.00100	0.000560	mg/L		08/11/13 20:13	08/13/13 12:50	1
Dibenzofuran	0.0000800	U	0.000500	0.0000800	mg/L		08/11/13 20:13	08/13/13 12:50	1
2,4-Dinitrotoluene	0.000130	U	0.000500	0.000130	mg/L		08/11/13 20:13	08/13/13 12:50	1
Fluorene	0.0000700	U	0.000500	0.0000700	mg/L		08/11/13 20:13	08/13/13 12:50	1
4,6-Dinitro-2-methylphenol	0.000830	U	0.00100	0.000830	mg/L		08/11/13 20:13	08/13/13 12:50	1
N-Nitrosodiphenylamine	0.000100	U	0.000500	0.000100	mg/L		08/11/13 20:13	08/13/13 12:50	1
1,2-Diphenylhydrazine	0.000110	U	0.000500	0.000110	mg/L		08/11/13 20:13	08/13/13 12:50	1
Pentachlorophenol	0.000610	U	0.00100	0.000610	mg/L		08/11/13 20:13	08/13/13 12:50	1
Phenanthrene	0.0000600	U	0.000500	0.0000600	mg/L		08/11/13 20:13	08/13/13 12:50	1
Anthracene	0.0000500	U	0.000500	0.0000500	mg/L		08/11/13 20:13	08/13/13 12:50	1
Di-n-butyl phthalate	0.000110	U	0.00250	0.000110	mg/L		08/11/13 20:13	08/13/13 12:50	1
Fluoranthene	0.0000700	U	0.000500	0.0000700	mg/L		08/11/13 20:13	08/13/13 12:50	1
Pyrene	0.000110	U	0.000500	0.000110	mg/L		08/11/13 20:13	08/13/13 12:50	1
Benzo[a]anthracene	0.0000800	U	0.000500	0.0000800	mg/L		08/11/13 20:13	08/13/13 12:50	1
Bis(2-ethylhexyl) phthalate	0.000370	U	0.00250	0.000370	mg/L		08/11/13 20:13	08/13/13 12:50	1
Chrysene	0.0000800	U	0.000500	0.0000800	mg/L		08/11/13 20:13	08/13/13 12:50	1
Benzo[a]pyrene	0.0000800	U	0.000500	0.0000800	mg/L		08/11/13 20:13	08/13/13 12:50	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	92		44 - 123				08/11/13 20:13	08/13/13 12:50	1
2-Fluorobiphenyl	71		43 - 120				08/11/13 20:13	08/13/13 12:50	1
2-Fluorophenol	49		18 - 120				08/11/13 20:13	08/13/13 12:50	1
Nitrobenzene-d5	61		47 - 120				08/11/13 20:13	08/13/13 12:50	1
Terphenyl-d14	80		33 - 141				08/11/13 20:13	08/13/13 12:50	1
Phenol-d5 (Surr)	33		12 - 128				08/11/13 20:13	08/13/13 12:50	1

Client Sample ID: WG - 1620 - MW36D - 20130805

Lab Sample ID: 600-77524-4

Date Collected: 08/05/13 17:15

Matrix: Water

Date Received: 08/08/13 15:02

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			08/09/13 13:10	1
Benzene	0.0000800	U	0.00100	0.0000800	mg/L			08/09/13 13:10	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			08/09/13 13:10	1
Toluene	0.000150	U	0.00100	0.000150	mg/L			08/09/13 13:10	1
Chlorobenzene	0.000130	J	0.00100	0.000120	mg/L			08/09/13 13:10	1
Ethylbenzene	0.000127	J	0.00100	0.000110	mg/L			08/09/13 13:10	1
Xylenes, Total	0.000260	U	0.00300	0.000260	mg/L			08/09/13 13:10	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	129		67 - 139					08/09/13 13:10	1
Dibromofluoromethane	95		62 - 130					08/09/13 13:10	1
Toluene-d8 (Surr)	107		70 - 130					08/09/13 13:10	1
1,2-Dichloroethane-d4 (Surr)	93		50 - 134					08/09/13 13:10	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.0000400	U	0.000500	0.0000400	mg/L		08/11/13 20:13	08/13/13 13:19	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-77524-1

Client Sample ID: WG - 1620 - MW36D - 20130805

Lab Sample ID: 600-77524-4

Date Collected: 08/05/13 17:15

Matrix: Water

Date Received: 08/08/13 15:02

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrobenzene	0.000110	U	0.000500	0.000110	mg/L		08/11/13 20:13	08/13/13 13:19	1
2,4-Dimethylphenol	0.000310	U	0.000500	0.000310	mg/L		08/11/13 20:13	08/13/13 13:19	1
Bis(2-chloroethoxy)methane	0.000130	U	0.000500	0.000130	mg/L		08/11/13 20:13	08/13/13 13:19	1
Naphthalene	0.0000800	U	0.00500	0.0000800	mg/L		08/11/13 20:13	08/13/13 13:19	1
2-Methylnaphthalene	0.0000700	U	0.000500	0.0000700	mg/L		08/11/13 20:13	08/13/13 13:19	1
2-Chloronaphthalene	0.0000800	U	0.000500	0.0000800	mg/L		08/11/13 20:13	08/13/13 13:19	1
Acenaphthylene	0.0000600	U	0.000500	0.0000600	mg/L		08/11/13 20:13	08/13/13 13:19	1
2,6-Dinitrotoluene	0.0000800	U	0.000500	0.0000800	mg/L		08/11/13 20:13	08/13/13 13:19	1
Acenaphthene	0.0000800	U	0.000500	0.0000800	mg/L		08/11/13 20:13	08/13/13 13:19	1
4-Nitrophenol	0.000560	U	0.00100	0.000560	mg/L		08/11/13 20:13	08/13/13 13:19	1
Dibenzofuran	0.0000800	U	0.000500	0.0000800	mg/L		08/11/13 20:13	08/13/13 13:19	1
2,4-Dinitrotoluene	0.000130	U	0.000500	0.000130	mg/L		08/11/13 20:13	08/13/13 13:19	1
Fluorene	0.0000700	U	0.000500	0.0000700	mg/L		08/11/13 20:13	08/13/13 13:19	1
4,6-Dinitro-2-methylphenol	0.000830	U	0.00100	0.000830	mg/L		08/11/13 20:13	08/13/13 13:19	1
N-Nitrosodiphenylamine	0.000100	U	0.000500	0.000100	mg/L		08/11/13 20:13	08/13/13 13:19	1
1,2-Diphenylhydrazine	0.000110	U	0.000500	0.000110	mg/L		08/11/13 20:13	08/13/13 13:19	1
Pentachlorophenol	0.000610	U	0.00100	0.000610	mg/L		08/11/13 20:13	08/13/13 13:19	1
Phenanthrene	0.0000600	U	0.000500	0.0000600	mg/L		08/11/13 20:13	08/13/13 13:19	1
Anthracene	0.0000500	U	0.000500	0.0000500	mg/L		08/11/13 20:13	08/13/13 13:19	1
Di-n-butyl phthalate	0.000110	U	0.00250	0.000110	mg/L		08/11/13 20:13	08/13/13 13:19	1
Fluoranthene	0.0000700	U	0.000500	0.0000700	mg/L		08/11/13 20:13	08/13/13 13:19	1
Pyrene	0.000110	U	0.000500	0.000110	mg/L		08/11/13 20:13	08/13/13 13:19	1
Benzo[a]anthracene	0.0000800	U	0.000500	0.0000800	mg/L		08/11/13 20:13	08/13/13 13:19	1
Bis(2-ethylhexyl) phthalate	0.000370	U	0.00250	0.000370	mg/L		08/11/13 20:13	08/13/13 13:19	1
Chrysene	0.0000800	U	0.000500	0.0000800	mg/L		08/11/13 20:13	08/13/13 13:19	1
Benzo[a]pyrene	0.0000800	U	0.000500	0.0000800	mg/L		08/11/13 20:13	08/13/13 13:19	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	81		44 - 123				08/11/13 20:13	08/13/13 13:19	1
2-Fluorobiphenyl	72		43 - 120				08/11/13 20:13	08/13/13 13:19	1
2-Fluorophenol	47		18 - 120				08/11/13 20:13	08/13/13 13:19	1
Nitrobenzene-d5	57		47 - 120				08/11/13 20:13	08/13/13 13:19	1
Terphenyl-d14	84		33 - 141				08/11/13 20:13	08/13/13 13:19	1
Phenol-d5 (Surr)	30		12 - 128				08/11/13 20:13	08/13/13 13:19	1

Client Sample ID: WG - 1620 - MW59D - 20130805

Lab Sample ID: 600-77524-5

Date Collected: 08/05/13 18:40

Matrix: Water

Date Received: 08/08/13 15:02

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			08/09/13 13:38	1
Benzene	0.0000800	U	0.00100	0.0000800	mg/L			08/09/13 13:38	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			08/09/13 13:38	1
Toluene	0.000150	U	0.00100	0.000150	mg/L			08/09/13 13:38	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			08/09/13 13:38	1
Ethylbenzene	0.000110	U	0.00100	0.000110	mg/L			08/09/13 13:38	1
Xylenes, Total	0.000260	U	0.00300	0.000260	mg/L			08/09/13 13:38	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-77524-1

Client Sample ID: WG - 1620 - MW59D - 20130805

Lab Sample ID: 600-77524-5

Date Collected: 08/05/13 18:40

Matrix: Water

Date Received: 08/08/13 15:02

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	122		67 - 139		08/09/13 13:38	1
Dibromofluoromethane	89		62 - 130		08/09/13 13:38	1
Toluene-d8 (Surr)	100		70 - 130		08/09/13 13:38	1
1,2-Dichloroethane-d4 (Surr)	87		50 - 134		08/09/13 13:38	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.000400	U	0.000500	0.000400	mg/L		08/11/13 20:13	08/13/13 13:47	1
Nitrobenzene	0.000110	U	0.000500	0.000110	mg/L		08/11/13 20:13	08/13/13 13:47	1
2,4-Dimethylphenol	0.000310	U	0.000500	0.000310	mg/L		08/11/13 20:13	08/13/13 13:47	1
Bis(2-chloroethoxy)methane	0.000130	U	0.000500	0.000130	mg/L		08/11/13 20:13	08/13/13 13:47	1
Naphthalene	0.00226	J	0.00500	0.0000800	mg/L		08/11/13 20:13	08/13/13 13:47	1
2-Methylnaphthalene	0.000160	J	0.000500	0.0000700	mg/L		08/11/13 20:13	08/13/13 13:47	1
2-Chloronaphthalene	0.0000800	U	0.000500	0.0000800	mg/L		08/11/13 20:13	08/13/13 13:47	1
Acenaphthylene	0.0000600	U	0.000500	0.0000600	mg/L		08/11/13 20:13	08/13/13 13:47	1
2,6-Dinitrotoluene	0.0000800	U	0.000500	0.0000800	mg/L		08/11/13 20:13	08/13/13 13:47	1
Acenaphthene	0.0000800	U	0.000500	0.0000800	mg/L		08/11/13 20:13	08/13/13 13:47	1
4-Nitrophenol	0.000560	U	0.00100	0.000560	mg/L		08/11/13 20:13	08/13/13 13:47	1
Dibenzofuran	0.0000800	U	0.000500	0.0000800	mg/L		08/11/13 20:13	08/13/13 13:47	1
2,4-Dinitrotoluene	0.000130	U	0.000500	0.000130	mg/L		08/11/13 20:13	08/13/13 13:47	1
Fluorene	0.0000700	U	0.000500	0.0000700	mg/L		08/11/13 20:13	08/13/13 13:47	1
4,6-Dinitro-2-methylphenol	0.000830	U	0.00100	0.000830	mg/L		08/11/13 20:13	08/13/13 13:47	1
N-Nitrosodiphenylamine	0.000100	U	0.000500	0.000100	mg/L		08/11/13 20:13	08/13/13 13:47	1
1,2-Diphenylhydrazine	0.000110	U	0.000500	0.000110	mg/L		08/11/13 20:13	08/13/13 13:47	1
Pentachlorophenol	0.000610	U	0.00100	0.000610	mg/L		08/11/13 20:13	08/13/13 13:47	1
Phenanthrene	0.0000600	U	0.000500	0.0000600	mg/L		08/11/13 20:13	08/13/13 13:47	1
Anthracene	0.0000500	U	0.000500	0.0000500	mg/L		08/11/13 20:13	08/13/13 13:47	1
Di-n-butyl phthalate	0.000110	U	0.00250	0.000110	mg/L		08/11/13 20:13	08/13/13 13:47	1
Fluoranthene	0.0000700	U	0.000500	0.0000700	mg/L		08/11/13 20:13	08/13/13 13:47	1
Pyrene	0.000110	U	0.000500	0.000110	mg/L		08/11/13 20:13	08/13/13 13:47	1
Benzo[a]anthracene	0.0000800	U	0.000500	0.0000800	mg/L		08/11/13 20:13	08/13/13 13:47	1
Bis(2-ethylhexyl) phthalate	0.000805	J	0.00250	0.000370	mg/L		08/11/13 20:13	08/13/13 13:47	1
Chrysene	0.0000800	U	0.000500	0.0000800	mg/L		08/11/13 20:13	08/13/13 13:47	1
Benzo[a]pyrene	0.0000800	U	0.000500	0.0000800	mg/L		08/11/13 20:13	08/13/13 13:47	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	76		44 - 123	08/11/13 20:13	08/13/13 13:47	1
2-Fluorobiphenyl	60		43 - 120	08/11/13 20:13	08/13/13 13:47	1
2-Fluorophenol	35		18 - 120	08/11/13 20:13	08/13/13 13:47	1
Nitrobenzene-d5	52		47 - 120	08/11/13 20:13	08/13/13 13:47	1
Terphenyl-d14	62		33 - 141	08/11/13 20:13	08/13/13 13:47	1
Phenol-d5 (Surr)	20		12 - 128	08/11/13 20:13	08/13/13 13:47	1

Client Sample ID: WG - 1620 - FD02- 20130805

Lab Sample ID: 600-77524-6

Date Collected: 08/05/13 18:40

Matrix: Water

Date Received: 08/08/13 15:02

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			08/09/13 14:05	1
Benzene	0.0000800	U	0.00100	0.0000800	mg/L			08/09/13 14:05	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-77524-1

Client Sample ID: WG - 1620 - FD02- 20130805

Lab Sample ID: 600-77524-6

Date Collected: 08/05/13 18:40

Matrix: Water

Date Received: 08/08/13 15:02

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			08/09/13 14:05	1
Toluene	0.000150	U	0.00100	0.000150	mg/L			08/09/13 14:05	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			08/09/13 14:05	1
Ethylbenzene	0.000110	U	0.00100	0.000110	mg/L			08/09/13 14:05	1
Xylenes, Total	0.000260	U	0.00300	0.000260	mg/L			08/09/13 14:05	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	127		67 - 139		08/09/13 14:05	1
Dibromofluoromethane	79		62 - 130		08/09/13 14:05	1
Toluene-d8 (Surr)	101		70 - 130		08/09/13 14:05	1
1,2-Dichloroethane-d4 (Surr)	77		50 - 134		08/09/13 14:05	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.0000400	U	0.000500	0.0000400	mg/L		08/11/13 20:13	08/13/13 14:16	1
Nitrobenzene	0.000110	U	0.000500	0.000110	mg/L		08/11/13 20:13	08/13/13 14:16	1
2,4-Dimethylphenol	0.000310	U	0.000500	0.000310	mg/L		08/11/13 20:13	08/13/13 14:16	1
Bis(2-chloroethoxy)methane	0.000130	U	0.000500	0.000130	mg/L		08/11/13 20:13	08/13/13 14:16	1
Naphthalene	0.0000800	U	0.00500	0.0000800	mg/L		08/11/13 20:13	08/13/13 14:16	1
2-Methylnaphthalene	0.0000700	U	0.000500	0.0000700	mg/L		08/11/13 20:13	08/13/13 14:16	1
2-Chloronaphthalene	0.0000800	U	0.000500	0.0000800	mg/L		08/11/13 20:13	08/13/13 14:16	1
Acenaphthylene	0.0000600	U	0.000500	0.0000600	mg/L		08/11/13 20:13	08/13/13 14:16	1
2,6-Dinitrotoluene	0.0000800	U	0.000500	0.0000800	mg/L		08/11/13 20:13	08/13/13 14:16	1
Acenaphthene	0.0000800	U	0.000500	0.0000800	mg/L		08/11/13 20:13	08/13/13 14:16	1
4-Nitrophenol	0.000560	U	0.00100	0.000560	mg/L		08/11/13 20:13	08/13/13 14:16	1
Dibenzofuran	0.0000800	U	0.000500	0.0000800	mg/L		08/11/13 20:13	08/13/13 14:16	1
2,4-Dinitrotoluene	0.000130	U	0.000500	0.000130	mg/L		08/11/13 20:13	08/13/13 14:16	1
Fluorene	0.0000700	U	0.000500	0.0000700	mg/L		08/11/13 20:13	08/13/13 14:16	1
4,6-Dinitro-2-methylphenol	0.000830	U	0.00100	0.000830	mg/L		08/11/13 20:13	08/13/13 14:16	1
N-Nitrosodiphenylamine	0.000100	U	0.000500	0.000100	mg/L		08/11/13 20:13	08/13/13 14:16	1
1,2-Diphenylhydrazine	0.000110	U	0.000500	0.000110	mg/L		08/11/13 20:13	08/13/13 14:16	1
Pentachlorophenol	0.000610	U	0.00100	0.000610	mg/L		08/11/13 20:13	08/13/13 14:16	1
Phenanthrene	0.0000600	U	0.000500	0.0000600	mg/L		08/11/13 20:13	08/13/13 14:16	1
Anthracene	0.0000500	U	0.000500	0.0000500	mg/L		08/11/13 20:13	08/13/13 14:16	1
Di-n-butyl phthalate	0.000110	U	0.00250	0.000110	mg/L		08/11/13 20:13	08/13/13 14:16	1
Fluoranthene	0.0000700	U	0.000500	0.0000700	mg/L		08/11/13 20:13	08/13/13 14:16	1
Pyrene	0.000110	U	0.000500	0.000110	mg/L		08/11/13 20:13	08/13/13 14:16	1
Benzo[a]anthracene	0.0000800	U	0.000500	0.0000800	mg/L		08/11/13 20:13	08/13/13 14:16	1
Bis(2-ethylhexyl) phthalate	0.000812	J	0.00250	0.000370	mg/L		08/11/13 20:13	08/13/13 14:16	1
Chrysene	0.0000800	U	0.000500	0.0000800	mg/L		08/11/13 20:13	08/13/13 14:16	1
Benzo[a]pyrene	0.0000800	U	0.000500	0.0000800	mg/L		08/11/13 20:13	08/13/13 14:16	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	75		44 - 123	08/11/13 20:13	08/13/13 14:16	1
2-Fluorobiphenyl	60		43 - 120	08/11/13 20:13	08/13/13 14:16	1
2-Fluorophenol	39		18 - 120	08/11/13 20:13	08/13/13 14:16	1
Nitrobenzene-d5	52		47 - 120	08/11/13 20:13	08/13/13 14:16	1
Terphenyl-d14	60		33 - 141	08/11/13 20:13	08/13/13 14:16	1
Phenol-d5 (Surr)	28		12 - 128	08/11/13 20:13	08/13/13 14:16	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-77524-1

Client Sample ID: WG - 1620 - FB06 - 20130805

Lab Sample ID: 600-77524-7

Date Collected: 08/05/13 19:00

Matrix: Water

Date Received: 08/08/13 15:02

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			08/09/13 14:33	1
Benzene	0.0000800	U	0.00100	0.0000800	mg/L			08/09/13 14:33	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			08/09/13 14:33	1
Toluene	0.000150	U	0.00100	0.000150	mg/L			08/09/13 14:33	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			08/09/13 14:33	1
Ethylbenzene	0.000110	U	0.00100	0.000110	mg/L			08/09/13 14:33	1
Xylenes, Total	0.000260	U	0.00300	0.000260	mg/L			08/09/13 14:33	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	128		67 - 139		08/09/13 14:33	1
Dibromofluoromethane	94		62 - 130		08/09/13 14:33	1
Toluene-d8 (Surr)	104		70 - 130		08/09/13 14:33	1
1,2-Dichloroethane-d4 (Surr)	93		50 - 134		08/09/13 14:33	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.000400	U	0.000500	0.000400	mg/L		08/11/13 20:13	08/13/13 14:45	1
Nitrobenzene	0.000110	U	0.000500	0.000110	mg/L		08/11/13 20:13	08/13/13 14:45	1
2,4-Dimethylphenol	0.000310	U	0.000500	0.000310	mg/L		08/11/13 20:13	08/13/13 14:45	1
Bis(2-chloroethoxy)methane	0.000130	U	0.000500	0.000130	mg/L		08/11/13 20:13	08/13/13 14:45	1
Naphthalene	0.000800	U	0.00500	0.000800	mg/L		08/11/13 20:13	08/13/13 14:45	1
2-Methylnaphthalene	0.000700	U	0.000500	0.000700	mg/L		08/11/13 20:13	08/13/13 14:45	1
2-Chloronaphthalene	0.000800	U	0.000500	0.000800	mg/L		08/11/13 20:13	08/13/13 14:45	1
Acenaphthylene	0.000600	U	0.000500	0.000600	mg/L		08/11/13 20:13	08/13/13 14:45	1
2,6-Dinitrotoluene	0.000800	U	0.000500	0.000800	mg/L		08/11/13 20:13	08/13/13 14:45	1
Acenaphthene	0.000800	U	0.000500	0.000800	mg/L		08/11/13 20:13	08/13/13 14:45	1
4-Nitrophenol	0.000560	U	0.00100	0.000560	mg/L		08/11/13 20:13	08/13/13 14:45	1
Dibenzofuran	0.000800	U	0.000500	0.000800	mg/L		08/11/13 20:13	08/13/13 14:45	1
2,4-Dinitrotoluene	0.000130	U	0.000500	0.000130	mg/L		08/11/13 20:13	08/13/13 14:45	1
Fluorene	0.000700	U	0.000500	0.000700	mg/L		08/11/13 20:13	08/13/13 14:45	1
4,6-Dinitro-2-methylphenol	0.000830	U	0.00100	0.000830	mg/L		08/11/13 20:13	08/13/13 14:45	1
N-Nitrosodiphenylamine	0.000100	U	0.000500	0.000100	mg/L		08/11/13 20:13	08/13/13 14:45	1
1,2-Diphenylhydrazine	0.000110	U	0.000500	0.000110	mg/L		08/11/13 20:13	08/13/13 14:45	1
Pentachlorophenol	0.000610	U	0.00100	0.000610	mg/L		08/11/13 20:13	08/13/13 14:45	1
Phenanthrene	0.000600	U	0.000500	0.000600	mg/L		08/11/13 20:13	08/13/13 14:45	1
Anthracene	0.000500	U	0.000500	0.000500	mg/L		08/11/13 20:13	08/13/13 14:45	1
Di-n-butyl phthalate	0.000110	U	0.00250	0.000110	mg/L		08/11/13 20:13	08/13/13 14:45	1
Fluoranthene	0.000700	U	0.000500	0.000700	mg/L		08/11/13 20:13	08/13/13 14:45	1
Pyrene	0.000110	U	0.000500	0.000110	mg/L		08/11/13 20:13	08/13/13 14:45	1
Benzo[a]anthracene	0.000800	U	0.000500	0.000800	mg/L		08/11/13 20:13	08/13/13 14:45	1
Bis(2-ethylhexyl) phthalate	0.000370	U	0.00250	0.000370	mg/L		08/11/13 20:13	08/13/13 14:45	1
Chrysene	0.000800	U	0.000500	0.000800	mg/L		08/11/13 20:13	08/13/13 14:45	1
Benzo[a]pyrene	0.000800	U	0.000500	0.000800	mg/L		08/11/13 20:13	08/13/13 14:45	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	82		44 - 123	08/11/13 20:13	08/13/13 14:45	1
2-Fluorobiphenyl	88		43 - 120	08/11/13 20:13	08/13/13 14:45	1
2-Fluorophenol	63		18 - 120	08/11/13 20:13	08/13/13 14:45	1
Nitrobenzene-d5	77		47 - 120	08/11/13 20:13	08/13/13 14:45	1
Terphenyl-d14	96		33 - 141	08/11/13 20:13	08/13/13 14:45	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-77524-1

Client Sample ID: WG - 1620 - FB06 - 20130805

Lab Sample ID: 600-77524-7

Date Collected: 08/05/13 19:00

Matrix: Water

Date Received: 08/08/13 15:02

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Phenol-d5 (Surr)	42		12 - 128	08/11/13 20:13	08/13/13 14:45	1

Client Sample ID: WG - 1620 - MW69A - 20130806

Lab Sample ID: 600-77524-8

Date Collected: 08/06/13 07:50

Matrix: Water

Date Received: 08/08/13 15:02

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	0.000110	U	0.00200	0.000110	mg/L			08/09/13 15:01	1
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			08/09/13 15:01	1
Benzene	0.0000800	U	0.00100	0.0000800	mg/L			08/09/13 15:01	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			08/09/13 15:01	1
Toluene	0.000150	U	0.00100	0.000150	mg/L			08/09/13 15:01	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			08/09/13 15:01	1
Ethylbenzene	0.000110	U	0.00100	0.000110	mg/L			08/09/13 15:01	1
Xylenes, Total	0.000260	U	0.00300	0.000260	mg/L			08/09/13 15:01	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	134		67 - 139		08/09/13 15:01	1
Dibromofluoromethane	98		62 - 130		08/09/13 15:01	1
Toluene-d8 (Surr)	107		70 - 130		08/09/13 15:01	1
1,2-Dichloroethane-d4 (Surr)	97		50 - 134		08/09/13 15:01	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.0000400	U	0.000500	0.0000400	mg/L		08/11/13 20:13	08/13/13 15:14	1
Nitrobenzene	0.000110	U	0.000500	0.000110	mg/L		08/11/13 20:13	08/13/13 15:14	1
2,4-Dimethylphenol	0.000310	U	0.000500	0.000310	mg/L		08/11/13 20:13	08/13/13 15:14	1
Bis(2-chloroethoxy)methane	0.000130	U	0.000500	0.000130	mg/L		08/11/13 20:13	08/13/13 15:14	1
Naphthalene	0.0000800	U	0.00500	0.0000800	mg/L		08/11/13 20:13	08/13/13 15:14	1
2-Methylnaphthalene	0.0000700	U	0.000500	0.0000700	mg/L		08/11/13 20:13	08/13/13 15:14	1
2-Chloronaphthalene	0.0000800	U	0.000500	0.0000800	mg/L		08/11/13 20:13	08/13/13 15:14	1
Acenaphthylene	0.0000600	U	0.000500	0.0000600	mg/L		08/11/13 20:13	08/13/13 15:14	1
2,6-Dinitrotoluene	0.0000800	U	0.000500	0.0000800	mg/L		08/11/13 20:13	08/13/13 15:14	1
Acenaphthene	0.0000800	U	0.000500	0.0000800	mg/L		08/11/13 20:13	08/13/13 15:14	1
4-Nitrophenol	0.000560	U	0.00100	0.000560	mg/L		08/11/13 20:13	08/13/13 15:14	1
Dibenzofuran	0.0000800	U	0.000500	0.0000800	mg/L		08/11/13 20:13	08/13/13 15:14	1
2,4-Dinitrotoluene	0.000130	U	0.000500	0.000130	mg/L		08/11/13 20:13	08/13/13 15:14	1
Fluorene	0.0000700	U	0.000500	0.0000700	mg/L		08/11/13 20:13	08/13/13 15:14	1
4,6-Dinitro-2-methylphenol	0.000830	U	0.00100	0.000830	mg/L		08/11/13 20:13	08/13/13 15:14	1
N-Nitrosodiphenylamine	0.000100	U	0.000500	0.000100	mg/L		08/11/13 20:13	08/13/13 15:14	1
1,2-Diphenylhydrazine	0.000110	U	0.000500	0.000110	mg/L		08/11/13 20:13	08/13/13 15:14	1
Pentachlorophenol	0.000610	U	0.00100	0.000610	mg/L		08/11/13 20:13	08/13/13 15:14	1
Phenanthrene	0.0000600	U	0.000500	0.0000600	mg/L		08/11/13 20:13	08/13/13 15:14	1
Anthracene	0.0000500	U	0.000500	0.0000500	mg/L		08/11/13 20:13	08/13/13 15:14	1
Di-n-butyl phthalate	0.000110	U	0.00250	0.000110	mg/L		08/11/13 20:13	08/13/13 15:14	1
Fluoranthene	0.0000700	U	0.000500	0.0000700	mg/L		08/11/13 20:13	08/13/13 15:14	1
Pyrene	0.000110	U	0.000500	0.000110	mg/L		08/11/13 20:13	08/13/13 15:14	1
Benzo[a]anthracene	0.0000800	U	0.000500	0.0000800	mg/L		08/11/13 20:13	08/13/13 15:14	1
Bis(2-ethylhexyl) phthalate	0.000370	U	0.00250	0.000370	mg/L		08/11/13 20:13	08/13/13 15:14	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-77524-1

Client Sample ID: WG - 1620 - MW69A - 20130806

Lab Sample ID: 600-77524-8

Date Collected: 08/06/13 07:50

Matrix: Water

Date Received: 08/08/13 15:02

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	0.0000800	U	0.000500	0.0000800	mg/L		08/11/13 20:13	08/13/13 15:14	1
Benzo[a]pyrene	0.0000800	U	0.000500	0.0000800	mg/L		08/11/13 20:13	08/13/13 15:14	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	92		44 - 123				08/11/13 20:13	08/13/13 15:14	1
2-Fluorobiphenyl	77		43 - 120				08/11/13 20:13	08/13/13 15:14	1
2-Fluorophenol	43		18 - 120				08/11/13 20:13	08/13/13 15:14	1
Nitrobenzene-d5	66		47 - 120				08/11/13 20:13	08/13/13 15:14	1
Terphenyl-d14	80		33 - 141				08/11/13 20:13	08/13/13 15:14	1
Phenol-d5 (Surr)	30		12 - 128				08/11/13 20:13	08/13/13 15:14	1

Client Sample ID: WG - 1620 - MW47C - 21030806

Lab Sample ID: 600-77524-9

Date Collected: 08/06/13 09:00

Matrix: Water

Date Received: 08/08/13 15:02

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			08/09/13 15:30	1
Benzene	0.0000800	U	0.00100	0.0000800	mg/L			08/09/13 15:30	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			08/09/13 15:30	1
Toluene	0.000150	U	0.00100	0.000150	mg/L			08/09/13 15:30	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			08/09/13 15:30	1
Ethylbenzene	0.000110	U	0.00100	0.000110	mg/L			08/09/13 15:30	1
Xylenes, Total	0.000260	U	0.00300	0.000260	mg/L			08/09/13 15:30	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	132		67 - 139					08/09/13 15:30	1
Dibromofluoromethane	97		62 - 130					08/09/13 15:30	1
Toluene-d8 (Surr)	103		70 - 130					08/09/13 15:30	1
1,2-Dichloroethane-d4 (Surr)	97		50 - 134					08/09/13 15:30	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.0000400	U	0.000500	0.0000400	mg/L		08/11/13 20:13	08/13/13 15:43	1
Nitrobenzene	0.000110	U	0.000500	0.000110	mg/L		08/11/13 20:13	08/13/13 15:43	1
2,4-Dimethylphenol	0.000310	U	0.000500	0.000310	mg/L		08/11/13 20:13	08/13/13 15:43	1
Bis(2-chloroethoxy)methane	0.000130	U	0.000500	0.000130	mg/L		08/11/13 20:13	08/13/13 15:43	1
Naphthalene	0.0000800	U	0.00500	0.0000800	mg/L		08/11/13 20:13	08/13/13 15:43	1
2-Methylnaphthalene	0.0000700	U	0.000500	0.0000700	mg/L		08/11/13 20:13	08/13/13 15:43	1
2-Chloronaphthalene	0.0000800	U	0.000500	0.0000800	mg/L		08/11/13 20:13	08/13/13 15:43	1
Acenaphthylene	0.0000600	U	0.000500	0.0000600	mg/L		08/11/13 20:13	08/13/13 15:43	1
2,6-Dinitrotoluene	0.0000800	U	0.000500	0.0000800	mg/L		08/11/13 20:13	08/13/13 15:43	1
Acenaphthene	0.0000800	U	0.000500	0.0000800	mg/L		08/11/13 20:13	08/13/13 15:43	1
4-Nitrophenol	0.000560	U	0.00100	0.000560	mg/L		08/11/13 20:13	08/13/13 15:43	1
Dibenzofuran	0.0000800	U	0.000500	0.0000800	mg/L		08/11/13 20:13	08/13/13 15:43	1
2,4-Dinitrotoluene	0.000130	U	0.000500	0.000130	mg/L		08/11/13 20:13	08/13/13 15:43	1
Fluorene	0.0000700	U	0.000500	0.0000700	mg/L		08/11/13 20:13	08/13/13 15:43	1
4,6-Dinitro-2-methylphenol	0.000830	U	0.00100	0.000830	mg/L		08/11/13 20:13	08/13/13 15:43	1
N-Nitrosodiphenylamine	0.000100	U	0.000500	0.000100	mg/L		08/11/13 20:13	08/13/13 15:43	1
1,2-Diphenylhydrazine	0.000110	U	0.000500	0.000110	mg/L		08/11/13 20:13	08/13/13 15:43	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-77524-1

Client Sample ID: WG - 1620 - MW47C - 21030806

Lab Sample ID: 600-77524-9

Date Collected: 08/06/13 09:00

Matrix: Water

Date Received: 08/08/13 15:02

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Pentachlorophenol	0.000610	U	0.00100	0.000610	mg/L		08/11/13 20:13	08/13/13 15:43	1
Phenanthrene	0.0000600	U	0.000500	0.0000600	mg/L		08/11/13 20:13	08/13/13 15:43	1
Anthracene	0.0000500	U	0.000500	0.0000500	mg/L		08/11/13 20:13	08/13/13 15:43	1
Di-n-butyl phthalate	0.000110	U	0.00250	0.000110	mg/L		08/11/13 20:13	08/13/13 15:43	1
Fluoranthene	0.000186	J	0.000500	0.0000700	mg/L		08/11/13 20:13	08/13/13 15:43	1
Pyrene	0.000131	J	0.000500	0.000110	mg/L		08/11/13 20:13	08/13/13 15:43	1
Benzo[a]anthracene	0.0000800	U	0.000500	0.0000800	mg/L		08/11/13 20:13	08/13/13 15:43	1
Bis(2-ethylhexyl) phthalate	0.000370	U	0.00250	0.000370	mg/L		08/11/13 20:13	08/13/13 15:43	1
Chrysene	0.0000800	U	0.000500	0.0000800	mg/L		08/11/13 20:13	08/13/13 15:43	1
Benzo[a]pyrene	0.0000800	U	0.000500	0.0000800	mg/L		08/11/13 20:13	08/13/13 15:43	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	88		44 - 123				08/11/13 20:13	08/13/13 15:43	1
2-Fluorobiphenyl	70		43 - 120				08/11/13 20:13	08/13/13 15:43	1
2-Fluorophenol	48		18 - 120				08/11/13 20:13	08/13/13 15:43	1
Nitrobenzene-d5	65		47 - 120				08/11/13 20:13	08/13/13 15:43	1
Terphenyl-d14	83		33 - 141				08/11/13 20:13	08/13/13 15:43	1
Phenol-d5 (Surr)	33		12 - 128				08/11/13 20:13	08/13/13 15:43	1

Client Sample ID: WG - 1620 - MW64A - 20130806

Lab Sample ID: 600-77524-10

Date Collected: 08/06/13 10:15

Matrix: Water

Date Received: 08/08/13 15:02

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			08/09/13 15:59	1
Benzene	0.0000800	U	0.00100	0.0000800	mg/L			08/09/13 15:59	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			08/09/13 15:59	1
Toluene	0.000150	U	0.00100	0.000150	mg/L			08/09/13 15:59	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			08/09/13 15:59	1
Ethylbenzene	0.000110	U	0.00100	0.000110	mg/L			08/09/13 15:59	1
Xylenes, Total	0.000260	U	0.00300	0.000260	mg/L			08/09/13 15:59	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	125		67 - 139					08/09/13 15:59	1
Dibromofluoromethane	94		62 - 130					08/09/13 15:59	1
Toluene-d8 (Surr)	100		70 - 130					08/09/13 15:59	1
1,2-Dichloroethane-d4 (Surr)	94		50 - 134					08/09/13 15:59	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.0000400	U	0.000500	0.0000400	mg/L		08/11/13 20:13	08/14/13 07:19	1
Nitrobenzene	0.000110	U	0.000500	0.000110	mg/L		08/11/13 20:13	08/14/13 07:19	1
2,4-Dimethylphenol	0.000310	U	0.000500	0.000310	mg/L		08/11/13 20:13	08/14/13 07:19	1
Bis(2-chloroethoxy)methane	0.000130	U	0.000500	0.000130	mg/L		08/11/13 20:13	08/14/13 07:19	1
Naphthalene	0.0000800	U	0.00500	0.0000800	mg/L		08/11/13 20:13	08/14/13 07:19	1
2-Methylnaphthalene	0.0000700	U	0.000500	0.0000700	mg/L		08/11/13 20:13	08/14/13 07:19	1
2-Chloronaphthalene	0.0000800	U	0.000500	0.0000800	mg/L		08/11/13 20:13	08/14/13 07:19	1
Acenaphthylene	0.0000600	U	0.000500	0.0000600	mg/L		08/11/13 20:13	08/14/13 07:19	1
2,6-Dinitrotoluene	0.0000800	U	0.000500	0.0000800	mg/L		08/11/13 20:13	08/14/13 07:19	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-77524-1

Client Sample ID: WG - 1620 - MW64A - 20130806

Lab Sample ID: 600-77524-10

Date Collected: 08/06/13 10:15

Matrix: Water

Date Received: 08/08/13 15:02

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	0.0000800	U	0.000500	0.0000800	mg/L		08/11/13 20:13	08/14/13 07:19	1
4-Nitrophenol	0.000560	U	0.00100	0.000560	mg/L		08/11/13 20:13	08/14/13 07:19	1
Dibenzofuran	0.0000800	U	0.000500	0.0000800	mg/L		08/11/13 20:13	08/14/13 07:19	1
2,4-Dinitrotoluene	0.000130	U	0.000500	0.000130	mg/L		08/11/13 20:13	08/14/13 07:19	1
Fluorene	0.0000700	U	0.000500	0.0000700	mg/L		08/11/13 20:13	08/14/13 07:19	1
4,6-Dinitro-2-methylphenol	0.000830	U	0.00100	0.000830	mg/L		08/11/13 20:13	08/14/13 07:19	1
N-Nitrosodiphenylamine	0.000100	U	0.000500	0.000100	mg/L		08/11/13 20:13	08/14/13 07:19	1
1,2-Diphenylhydrazine	0.000110	U	0.000500	0.000110	mg/L		08/11/13 20:13	08/14/13 07:19	1
Pentachlorophenol	0.000610	U	0.00100	0.000610	mg/L		08/11/13 20:13	08/14/13 07:19	1
Phenanthrene	0.0000600	U	0.000500	0.0000600	mg/L		08/11/13 20:13	08/14/13 07:19	1
Anthracene	0.0000500	U	0.000500	0.0000500	mg/L		08/11/13 20:13	08/14/13 07:19	1
Di-n-butyl phthalate	0.000110	U	0.00250	0.000110	mg/L		08/11/13 20:13	08/14/13 07:19	1
Fluoranthene	0.0000700	U	0.000500	0.0000700	mg/L		08/11/13 20:13	08/14/13 07:19	1
Pyrene	0.000110	U	0.000500	0.000110	mg/L		08/11/13 20:13	08/14/13 07:19	1
Benzo[a]anthracene	0.0000800	U	0.000500	0.0000800	mg/L		08/11/13 20:13	08/14/13 07:19	1
Bis(2-ethylhexyl) phthalate	0.000370	U	0.00250	0.000370	mg/L		08/11/13 20:13	08/14/13 07:19	1
Chrysene	0.0000800	U	0.000500	0.0000800	mg/L		08/11/13 20:13	08/14/13 07:19	1
Benzo[a]pyrene	0.0000800	U	0.000500	0.0000800	mg/L		08/11/13 20:13	08/14/13 07:19	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	69		44 - 123				08/11/13 20:13	08/14/13 07:19	1
2-Fluorobiphenyl	78		43 - 120				08/11/13 20:13	08/14/13 07:19	1
2-Fluorophenol	50		18 - 120				08/11/13 20:13	08/14/13 07:19	1
Nitrobenzene-d5	67		47 - 120				08/11/13 20:13	08/14/13 07:19	1
Terphenyl-d14	79		33 - 141				08/11/13 20:13	08/14/13 07:19	1
Phenol-d5 (Surr)	31		12 - 128				08/11/13 20:13	08/14/13 07:19	1

Client Sample ID: WG - 1620 - MW58A - 20130806

Lab Sample ID: 600-77524-11

Date Collected: 08/06/13 11:10

Matrix: Water

Date Received: 08/08/13 15:02

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	0.000110	U	0.00200	0.000110	mg/L			08/09/13 16:28	1
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			08/09/13 16:28	1
Benzene	0.0000807	J	0.00100	0.0000800	mg/L			08/09/13 16:28	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			08/09/13 16:28	1
Toluene	0.000150	U	0.00100	0.000150	mg/L			08/09/13 16:28	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			08/09/13 16:28	1
Ethylbenzene	0.000110	U	0.00100	0.000110	mg/L			08/09/13 16:28	1
Xylenes, Total	0.000260	U	0.00300	0.000260	mg/L			08/09/13 16:28	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	127		67 - 139					08/09/13 16:28	1
Dibromofluoromethane	97		62 - 130					08/09/13 16:28	1
Toluene-d8 (Surr)	101		70 - 130					08/09/13 16:28	1
1,2-Dichloroethane-d4 (Surr)	97		50 - 134					08/09/13 16:28	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-77524-1

Client Sample ID: WG - 1620 - MW58A - 20130806

Lab Sample ID: 600-77524-11

Date Collected: 08/06/13 11:10

Matrix: Water

Date Received: 08/08/13 15:02

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.0000400	U	0.000500	0.0000400	mg/L		08/11/13 20:13	08/14/13 07:48	1
Nitrobenzene	0.000110	U	0.000500	0.000110	mg/L		08/11/13 20:13	08/14/13 07:48	1
2,4-Dimethylphenol	0.000310	U	0.000500	0.000310	mg/L		08/11/13 20:13	08/14/13 07:48	1
Bis(2-chloroethoxy)methane	0.000130	U	0.000500	0.000130	mg/L		08/11/13 20:13	08/14/13 07:48	1
Naphthalene	0.000360	J	0.00500	0.0000800	mg/L		08/11/13 20:13	08/14/13 07:48	1
2-Methylnaphthalene	0.0000700	U	0.000500	0.0000700	mg/L		08/11/13 20:13	08/14/13 07:48	1
2-Chloronaphthalene	0.0000800	U	0.000500	0.0000800	mg/L		08/11/13 20:13	08/14/13 07:48	1
Acenaphthylene	0.0000600	U	0.000500	0.0000600	mg/L		08/11/13 20:13	08/14/13 07:48	1
2,6-Dinitrotoluene	0.0000800	U	0.000500	0.0000800	mg/L		08/11/13 20:13	08/14/13 07:48	1
Acenaphthene	0.0000800	U	0.000500	0.0000800	mg/L		08/11/13 20:13	08/14/13 07:48	1
4-Nitrophenol	0.000560	U	0.00100	0.000560	mg/L		08/11/13 20:13	08/14/13 07:48	1
Dibenzofuran	0.0000800	U	0.000500	0.0000800	mg/L		08/11/13 20:13	08/14/13 07:48	1
2,4-Dinitrotoluene	0.000130	U	0.000500	0.000130	mg/L		08/11/13 20:13	08/14/13 07:48	1
Fluorene	0.0000700	U	0.000500	0.0000700	mg/L		08/11/13 20:13	08/14/13 07:48	1
4,6-Dinitro-2-methylphenol	0.000830	U	0.00100	0.000830	mg/L		08/11/13 20:13	08/14/13 07:48	1
N-Nitrosodiphenylamine	0.000100	U	0.000500	0.000100	mg/L		08/11/13 20:13	08/14/13 07:48	1
1,2-Diphenylhydrazine	0.000110	U	0.000500	0.000110	mg/L		08/11/13 20:13	08/14/13 07:48	1
Pentachlorophenol	0.000610	U	0.00100	0.000610	mg/L		08/11/13 20:13	08/14/13 07:48	1
Phenanthrene	0.0000600	U	0.000500	0.0000600	mg/L		08/11/13 20:13	08/14/13 07:48	1
Anthracene	0.0000500	U	0.000500	0.0000500	mg/L		08/11/13 20:13	08/14/13 07:48	1
Di-n-butyl phthalate	0.000110	U	0.00250	0.000110	mg/L		08/11/13 20:13	08/14/13 07:48	1
Fluoranthene	0.0000700	U	0.000500	0.0000700	mg/L		08/11/13 20:13	08/14/13 07:48	1
Pyrene	0.000110	U	0.000500	0.000110	mg/L		08/11/13 20:13	08/14/13 07:48	1
Benzo[a]anthracene	0.0000800	U	0.000500	0.0000800	mg/L		08/11/13 20:13	08/14/13 07:48	1
Bis(2-ethylhexyl) phthalate	0.000370	U	0.00250	0.000370	mg/L		08/11/13 20:13	08/14/13 07:48	1
Chrysene	0.0000800	U	0.000500	0.0000800	mg/L		08/11/13 20:13	08/14/13 07:48	1
Benzo[a]pyrene	0.0000800	U	0.000500	0.0000800	mg/L		08/11/13 20:13	08/14/13 07:48	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	92		44 - 123	08/11/13 20:13	08/14/13 07:48	1
2-Fluorobiphenyl	73		43 - 120	08/11/13 20:13	08/14/13 07:48	1
2-Fluorophenol	45		18 - 120	08/11/13 20:13	08/14/13 07:48	1
Nitrobenzene-d5	61		47 - 120	08/11/13 20:13	08/14/13 07:48	1
Terphenyl-d14	79		33 - 141	08/11/13 20:13	08/14/13 07:48	1
Phenol-d5 (Surr)	31		12 - 128	08/11/13 20:13	08/14/13 07:48	1

Client Sample ID: WG - 1620 - MW53C - 20130806

Lab Sample ID: 600-77524-12

Date Collected: 08/06/13 12:25

Matrix: Water

Date Received: 08/08/13 15:02

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			08/13/13 17:10	1
Benzene	0.0000800	U	0.00100	0.0000800	mg/L			08/13/13 17:10	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			08/13/13 17:10	1
Toluene	0.000150	U	0.00100	0.000150	mg/L			08/13/13 17:10	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			08/13/13 17:10	1
Ethylbenzene	0.000110	U	0.00100	0.000110	mg/L			08/13/13 17:10	1
Xylenes, Total	0.000260	U	0.00300	0.000260	mg/L			08/13/13 17:10	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-77524-1

Client Sample ID: WG - 1620 - MW53C - 20130806

Lab Sample ID: 600-77524-12

Date Collected: 08/06/13 12:25

Matrix: Water

Date Received: 08/08/13 15:02

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	112		67 - 139		08/13/13 17:10	1
Dibromofluoromethane	99		62 - 130		08/13/13 17:10	1
Toluene-d8 (Surr)	96		70 - 130		08/13/13 17:10	1
1,2-Dichloroethane-d4 (Surr)	101		50 - 134		08/13/13 17:10	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.000400	U	0.000500	0.000400	mg/L		08/11/13 20:13	08/14/13 08:16	1
Nitrobenzene	0.000110	U	0.000500	0.000110	mg/L		08/11/13 20:13	08/14/13 08:16	1
2,4-Dimethylphenol	0.000310	U	0.000500	0.000310	mg/L		08/11/13 20:13	08/14/13 08:16	1
Bis(2-chloroethoxy)methane	0.000130	U	0.000500	0.000130	mg/L		08/11/13 20:13	08/14/13 08:16	1
Naphthalene	0.000800	U	0.00500	0.000800	mg/L		08/11/13 20:13	08/14/13 08:16	1
2-Methylnaphthalene	0.0000700	U	0.000500	0.0000700	mg/L		08/11/13 20:13	08/14/13 08:16	1
2-Chloronaphthalene	0.000800	U	0.000500	0.000800	mg/L		08/11/13 20:13	08/14/13 08:16	1
Acenaphthylene	0.0000600	U	0.000500	0.0000600	mg/L		08/11/13 20:13	08/14/13 08:16	1
2,6-Dinitrotoluene	0.000800	U	0.000500	0.000800	mg/L		08/11/13 20:13	08/14/13 08:16	1
Acenaphthene	0.000800	U	0.000500	0.000800	mg/L		08/11/13 20:13	08/14/13 08:16	1
4-Nitrophenol	0.000560	U	0.00100	0.000560	mg/L		08/11/13 20:13	08/14/13 08:16	1
Dibenzofuran	0.000800	U	0.000500	0.000800	mg/L		08/11/13 20:13	08/14/13 08:16	1
2,4-Dinitrotoluene	0.000130	U	0.000500	0.000130	mg/L		08/11/13 20:13	08/14/13 08:16	1
Fluorene	0.0000700	U	0.000500	0.0000700	mg/L		08/11/13 20:13	08/14/13 08:16	1
4,6-Dinitro-2-methylphenol	0.000830	U	0.00100	0.000830	mg/L		08/11/13 20:13	08/14/13 08:16	1
N-Nitrosodiphenylamine	0.000100	U	0.000500	0.000100	mg/L		08/11/13 20:13	08/14/13 08:16	1
1,2-Diphenylhydrazine	0.000110	U	0.000500	0.000110	mg/L		08/11/13 20:13	08/14/13 08:16	1
Pentachlorophenol	0.000610	U	0.00100	0.000610	mg/L		08/11/13 20:13	08/14/13 08:16	1
Phenanthrene	0.0000600	U	0.000500	0.0000600	mg/L		08/11/13 20:13	08/14/13 08:16	1
Anthracene	0.0000500	U	0.000500	0.0000500	mg/L		08/11/13 20:13	08/14/13 08:16	1
Di-n-butyl phthalate	0.000110	U	0.00250	0.000110	mg/L		08/11/13 20:13	08/14/13 08:16	1
Fluoranthene	0.0000700	U	0.000500	0.0000700	mg/L		08/11/13 20:13	08/14/13 08:16	1
Pyrene	0.000110	U	0.000500	0.000110	mg/L		08/11/13 20:13	08/14/13 08:16	1
Benzo[a]anthracene	0.000800	U	0.000500	0.000800	mg/L		08/11/13 20:13	08/14/13 08:16	1
Bis(2-ethylhexyl) phthalate	0.000370	U	0.00250	0.000370	mg/L		08/11/13 20:13	08/14/13 08:16	1
Chrysene	0.000800	U	0.000500	0.000800	mg/L		08/11/13 20:13	08/14/13 08:16	1
Benzo[a]pyrene	0.000800	U	0.000500	0.000800	mg/L		08/11/13 20:13	08/14/13 08:16	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	84		44 - 123	08/11/13 20:13	08/14/13 08:16	1
2-Fluorobiphenyl	74		43 - 120	08/11/13 20:13	08/14/13 08:16	1
2-Fluorophenol	40		18 - 120	08/11/13 20:13	08/14/13 08:16	1
Nitrobenzene-d5	57		47 - 120	08/11/13 20:13	08/14/13 08:16	1
Terphenyl-d14	84		33 - 141	08/11/13 20:13	08/14/13 08:16	1
Phenol-d5 (Surr)	23		12 - 128	08/11/13 20:13	08/14/13 08:16	1

Client Sample ID: WG - 1620 - MW54C - 20130806

Lab Sample ID: 600-77524-13

Date Collected: 08/06/13 13:25

Matrix: Water

Date Received: 08/08/13 15:02

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			08/10/13 16:37	1
Benzene	0.0000800	U	0.00100	0.0000800	mg/L			08/10/13 16:37	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-77524-1

Client Sample ID: WG - 1620 - MW54C - 20130806

Lab Sample ID: 600-77524-13

Date Collected: 08/06/13 13:25

Matrix: Water

Date Received: 08/08/13 15:02

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			08/10/13 16:37	1
Toluene	0.000150	U	0.00100	0.000150	mg/L			08/10/13 16:37	1
Chlorobenzene	0.000128	J	0.00100	0.000120	mg/L			08/10/13 16:37	1
Ethylbenzene	0.000620	J	0.00100	0.000110	mg/L			08/10/13 16:37	1
Xylenes, Total	0.000760	J	0.00300	0.000260	mg/L			08/10/13 16:37	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	121		67 - 139					08/10/13 16:37	1
Dibromofluoromethane	104		62 - 130					08/10/13 16:37	1
Toluene-d8 (Surr)	103		70 - 130					08/10/13 16:37	1
1,2-Dichloroethane-d4 (Surr)	102		50 - 134					08/10/13 16:37	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.0000400	U	0.000500	0.0000400	mg/L		08/11/13 20:13	08/14/13 17:04	1
Nitrobenzene	0.000110	U	0.000500	0.000110	mg/L		08/11/13 20:13	08/14/13 17:04	1
2,4-Dimethylphenol	0.000310	U	0.000500	0.000310	mg/L		08/11/13 20:13	08/14/13 17:04	1
Bis(2-chloroethoxy)methane	0.000130	U	0.000500	0.000130	mg/L		08/11/13 20:13	08/14/13 17:04	1
2-Methylnaphthalene	0.0173		0.000500	0.0000700	mg/L		08/11/13 20:13	08/14/13 17:04	1
2-Chloronaphthalene	0.0000800	U	0.000500	0.0000800	mg/L		08/11/13 20:13	08/14/13 17:04	1
Acenaphthylene	0.0000600	U	0.000500	0.0000600	mg/L		08/11/13 20:13	08/14/13 17:04	1
2,6-Dinitrotoluene	0.0000800	U	0.000500	0.0000800	mg/L		08/11/13 20:13	08/14/13 17:04	1
4-Nitrophenol	0.000560	U	0.00100	0.000560	mg/L		08/11/13 20:13	08/14/13 17:04	1
2,4-Dinitrotoluene	0.000130	U	0.000500	0.000130	mg/L		08/11/13 20:13	08/14/13 17:04	1
4,6-Dinitro-2-methylphenol	0.000830	U	0.00100	0.000830	mg/L		08/11/13 20:13	08/14/13 17:04	1
N-Nitrosodiphenylamine	0.000100	U	0.000500	0.000100	mg/L		08/11/13 20:13	08/14/13 17:04	1
1,2-Diphenylhydrazine	0.000110	U	0.000500	0.000110	mg/L		08/11/13 20:13	08/14/13 17:04	1
Pentachlorophenol	0.000610	U	0.00100	0.000610	mg/L		08/11/13 20:13	08/14/13 17:04	1
Anthracene	0.00389		0.000500	0.0000500	mg/L		08/11/13 20:13	08/14/13 17:04	1
Di-n-butyl phthalate	0.000110	U	0.00250	0.000110	mg/L		08/11/13 20:13	08/14/13 17:04	1
Fluoranthene	0.00474		0.000500	0.0000700	mg/L		08/11/13 20:13	08/14/13 17:04	1
Pyrene	0.00248		0.000500	0.000110	mg/L		08/11/13 20:13	08/14/13 17:04	1
Benzo[a]anthracene	0.0000800	U	0.000500	0.0000800	mg/L		08/11/13 20:13	08/14/13 17:04	1
Bis(2-ethylhexyl) phthalate	0.000370	U	0.00250	0.000370	mg/L		08/11/13 20:13	08/14/13 17:04	1
Chrysene	0.0000800	U	0.000500	0.0000800	mg/L		08/11/13 20:13	08/14/13 17:04	1
Benzo[a]pyrene	0.0000800	U	0.000500	0.0000800	mg/L		08/11/13 20:13	08/14/13 17:04	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	84		44 - 123				08/11/13 20:13	08/14/13 17:04	1
2-Fluorobiphenyl	73		43 - 120				08/11/13 20:13	08/14/13 17:04	1
2-Fluorophenol	35		18 - 120				08/11/13 20:13	08/14/13 17:04	1
Nitrobenzene-d5	69		47 - 120				08/11/13 20:13	08/14/13 17:04	1
Terphenyl-d14	81		33 - 141				08/11/13 20:13	08/14/13 17:04	1
Phenol-d5 (Surr)	27		12 - 128				08/11/13 20:13	08/14/13 17:04	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels - DL

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	0.0749		0.00500	0.000800	mg/L		08/11/13 20:13	08/15/13 13:17	10
Dibenzofuran	0.0878		0.00500	0.000800	mg/L		08/11/13 20:13	08/15/13 13:17	10
Fluorene	0.0409		0.00500	0.000700	mg/L		08/11/13 20:13	08/15/13 13:17	10

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-77524-1

Client Sample ID: WG - 1620 - MW54C - 20130806

Lab Sample ID: 600-77524-13

Date Collected: 08/06/13 13:25

Matrix: Water

Date Received: 08/08/13 15:02

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels - DL (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenanthrene	0.0400		0.00500	0.000600	mg/L		08/11/13 20:13	08/15/13 13:17	10
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	85		44 - 123				08/11/13 20:13	08/15/13 13:17	10
2-Fluorobiphenyl	94		43 - 120				08/11/13 20:13	08/15/13 13:17	10
2-Fluorophenol	43		18 - 120				08/11/13 20:13	08/15/13 13:17	10
Nitrobenzene-d5	72		47 - 120				08/11/13 20:13	08/15/13 13:17	10
Terphenyl-d14	102		33 - 141				08/11/13 20:13	08/15/13 13:17	10
Phenol-d5 (Surr)	11	X	12 - 128				08/11/13 20:13	08/15/13 13:17	10

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels - DL2

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	0.383	J	0.500	0.00800	mg/L		08/11/13 20:13	08/15/13 17:36	100
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	0	X	44 - 123				08/11/13 20:13	08/15/13 17:36	100
2-Fluorobiphenyl	0	X	43 - 120				08/11/13 20:13	08/15/13 17:36	100
2-Fluorophenol	0	X	18 - 120				08/11/13 20:13	08/15/13 17:36	100
Nitrobenzene-d5	0	X	47 - 120				08/11/13 20:13	08/15/13 17:36	100
Terphenyl-d14	0	X	33 - 141				08/11/13 20:13	08/15/13 17:36	100
Phenol-d5 (Surr)	0	X	12 - 128				08/11/13 20:13	08/15/13 17:36	100

Client Sample ID: WG - 1620 - MW25A - 20130806

Lab Sample ID: 600-77524-14

Date Collected: 08/06/13 15:15

Matrix: Water

Date Received: 08/08/13 15:02

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	0.000110	U	0.00200	0.000110	mg/L			08/13/13 13:30	1
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			08/13/13 13:30	1
Benzene	0.0000800	U	0.00100	0.0000800	mg/L			08/13/13 13:30	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			08/13/13 13:30	1
Toluene	0.000150	U	0.00100	0.000150	mg/L			08/13/13 13:30	1
Chlorobenzene	0.000121	J	0.00100	0.000120	mg/L			08/13/13 13:30	1
Ethylbenzene	0.000110	U	0.00100	0.000110	mg/L			08/13/13 13:30	1
Xylenes, Total	0.000260	U	0.00300	0.000260	mg/L			08/13/13 13:30	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	113		67 - 139					08/13/13 13:30	1
Dibromofluoromethane	96		62 - 130					08/13/13 13:30	1
Toluene-d8 (Surr)	99		70 - 130					08/13/13 13:30	1
1,2-Dichloroethane-d4 (Surr)	100		50 - 134					08/13/13 13:30	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.0000400	U	0.000500	0.0000400	mg/L		08/11/13 20:13	08/14/13 17:34	1
Nitrobenzene	0.000110	U	0.000500	0.000110	mg/L		08/11/13 20:13	08/14/13 17:34	1
2,4-Dimethylphenol	0.000310	U	0.000500	0.000310	mg/L		08/11/13 20:13	08/14/13 17:34	1
Bis(2-chloroethoxy)methane	0.000130	U	0.000500	0.000130	mg/L		08/11/13 20:13	08/14/13 17:34	1
Naphthalene	0.0000800	U	0.00500	0.0000800	mg/L		08/11/13 20:13	08/14/13 17:34	1
2-Methylnaphthalene	0.0000700	U	0.000500	0.0000700	mg/L		08/11/13 20:13	08/14/13 17:34	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-77524-1

Client Sample ID: WG - 1620 - MW25A - 20130806

Lab Sample ID: 600-77524-14

Date Collected: 08/06/13 15:15

Matrix: Water

Date Received: 08/08/13 15:02

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Chloronaphthalene	0.0000800	U	0.000500	0.0000800	mg/L		08/11/13 20:13	08/14/13 17:34	1
Acenaphthylene	0.0000600	U	0.000500	0.0000600	mg/L		08/11/13 20:13	08/14/13 17:34	1
2,6-Dinitrotoluene	0.0000800	U	0.000500	0.0000800	mg/L		08/11/13 20:13	08/14/13 17:34	1
Acenaphthene	0.000345	J	0.000500	0.0000800	mg/L		08/11/13 20:13	08/14/13 17:34	1
4-Nitrophenol	0.000560	U	0.00100	0.000560	mg/L		08/11/13 20:13	08/14/13 17:34	1
Dibenzofuran	0.0000800	U	0.000500	0.0000800	mg/L		08/11/13 20:13	08/14/13 17:34	1
2,4-Dinitrotoluene	0.000130	U	0.000500	0.000130	mg/L		08/11/13 20:13	08/14/13 17:34	1
Fluorene	0.0000700	U	0.000500	0.0000700	mg/L		08/11/13 20:13	08/14/13 17:34	1
4,6-Dinitro-2-methylphenol	0.000830	U	0.00100	0.000830	mg/L		08/11/13 20:13	08/14/13 17:34	1
N-Nitrosodiphenylamine	0.000100	U	0.000500	0.000100	mg/L		08/11/13 20:13	08/14/13 17:34	1
1,2-Diphenylhydrazine	0.000110	U	0.000500	0.000110	mg/L		08/11/13 20:13	08/14/13 17:34	1
Pentachlorophenol	0.000610	U	0.00100	0.000610	mg/L		08/11/13 20:13	08/14/13 17:34	1
Phenanthrene	0.0000600	U	0.000500	0.0000600	mg/L		08/11/13 20:13	08/14/13 17:34	1
Anthracene	0.0000500	U	0.000500	0.0000500	mg/L		08/11/13 20:13	08/14/13 17:34	1
Di-n-butyl phthalate	0.000110	U	0.00250	0.000110	mg/L		08/11/13 20:13	08/14/13 17:34	1
Fluoranthene	0.0000700	U	0.000500	0.0000700	mg/L		08/11/13 20:13	08/14/13 17:34	1
Pyrene	0.000124	J	0.000500	0.000110	mg/L		08/11/13 20:13	08/14/13 17:34	1
Benzo[a]anthracene	0.0000800	U	0.000500	0.0000800	mg/L		08/11/13 20:13	08/14/13 17:34	1
Bis(2-ethylhexyl) phthalate	0.000370	U	0.00250	0.000370	mg/L		08/11/13 20:13	08/14/13 17:34	1
Chrysene	0.0000800	U	0.000500	0.0000800	mg/L		08/11/13 20:13	08/14/13 17:34	1
Benzo[a]pyrene	0.0000800	U	0.000500	0.0000800	mg/L		08/11/13 20:13	08/14/13 17:34	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	77		44 - 123				08/11/13 20:13	08/14/13 17:34	1
2-Fluorobiphenyl	64		43 - 120				08/11/13 20:13	08/14/13 17:34	1
2-Fluorophenol	32		18 - 120				08/11/13 20:13	08/14/13 17:34	1
Nitrobenzene-d5	47		47 - 120				08/11/13 20:13	08/14/13 17:34	1
Terphenyl-d14	75		33 - 141				08/11/13 20:13	08/14/13 17:34	1
Phenol-d5 (Surr)	18		12 - 128				08/11/13 20:13	08/14/13 17:34	1

Client Sample ID: WG - 1620 - MW25C - 20130806

Lab Sample ID: 600-77524-15

Date Collected: 08/06/13 16:10

Matrix: Water

Date Received: 08/08/13 15:02

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	0.000550	U	0.0100	0.000550	mg/L			08/14/13 18:00	5
Methylene Chloride	0.000750	U	0.00500	0.000750	mg/L			08/14/13 18:00	5
Benzene	0.0283		0.00500	0.000400	mg/L			08/14/13 18:00	5
1,2-Dichloroethane	0.000700	U	0.00500	0.000700	mg/L			08/14/13 18:00	5
Chlorobenzene	0.000600	U	0.00500	0.000600	mg/L			08/14/13 18:00	5
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	103		67 - 139					08/14/13 18:00	5
Dibromofluoromethane	86		62 - 130					08/14/13 18:00	5
Toluene-d8 (Surr)	94		70 - 130					08/14/13 18:00	5
1,2-Dichloroethane-d4 (Surr)	82		50 - 134					08/14/13 18:00	5

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-77524-1

Client Sample ID: WG - 1620 - MW25C - 20130806

Lab Sample ID: 600-77524-15

Date Collected: 08/06/13 16:10

Matrix: Water

Date Received: 08/08/13 15:02

Method: 8260B - Volatile Organic Compounds (GC/MS) - DL

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Toluene	0.204		0.100	0.0150	mg/L			08/10/13 21:45	100
Ethylbenzene	0.173		0.100	0.0110	mg/L			08/10/13 21:45	100
Xylenes, Total	0.575		0.300	0.0260	mg/L			08/10/13 21:45	100
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	109		67 - 139					08/10/13 21:45	100
Dibromofluoromethane	98		62 - 130					08/10/13 21:45	100
Toluene-d8 (Surr)	103		70 - 130					08/10/13 21:45	100
1,2-Dichloroethane-d4 (Surr)	96		50 - 134					08/10/13 21:45	100

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.120		0.0500	0.00400	mg/L		08/11/13 20:13	08/14/13 10:39	100
Nitrobenzene	0.0110	U	0.0500	0.0110	mg/L		08/11/13 20:13	08/14/13 10:39	100
2,4-Dimethylphenol	0.0310	U	0.0500	0.0310	mg/L		08/11/13 20:13	08/14/13 10:39	100
Bis(2-chloroethoxy)methane	0.0130	U	0.0500	0.0130	mg/L		08/11/13 20:13	08/14/13 10:39	100
2-Methylnaphthalene	1.32		0.0500	0.00700	mg/L		08/11/13 20:13	08/14/13 10:39	100
2-Chloronaphthalene	0.00800	U	0.0500	0.00800	mg/L		08/11/13 20:13	08/14/13 10:39	100
Acenaphthylene	0.00600	U	0.0500	0.00600	mg/L		08/11/13 20:13	08/14/13 10:39	100
2,6-Dinitrotoluene	0.00800	U	0.0500	0.00800	mg/L		08/11/13 20:13	08/14/13 10:39	100
Acenaphthene	0.381		0.0500	0.00800	mg/L		08/11/13 20:13	08/14/13 10:39	100
4-Nitrophenol	0.0560	U	0.100	0.0560	mg/L		08/11/13 20:13	08/14/13 10:39	100
Dibenzofuran	0.353		0.0500	0.00800	mg/L		08/11/13 20:13	08/14/13 10:39	100
2,4-Dinitrotoluene	0.0130	U	0.0500	0.0130	mg/L		08/11/13 20:13	08/14/13 10:39	100
Fluorene	0.163		0.0500	0.00700	mg/L		08/11/13 20:13	08/14/13 10:39	100
4,6-Dinitro-2-methylphenol	0.0830	U	0.100	0.0830	mg/L		08/11/13 20:13	08/14/13 10:39	100
N-Nitrosodiphenylamine	0.0100	U	0.0500	0.0100	mg/L		08/11/13 20:13	08/14/13 10:39	100
1,2-Diphenylhydrazine	0.0110	U	0.0500	0.0110	mg/L		08/11/13 20:13	08/14/13 10:39	100
Pentachlorophenol	0.0610	U	0.100	0.0610	mg/L		08/11/13 20:13	08/14/13 10:39	100
Phenanthrene	0.187		0.0500	0.00600	mg/L		08/11/13 20:13	08/14/13 10:39	100
Anthracene	0.0377	J	0.0500	0.00500	mg/L		08/11/13 20:13	08/14/13 10:39	100
Di-n-butyl phthalate	0.0110	U	0.250	0.0110	mg/L		08/11/13 20:13	08/14/13 10:39	100
Fluoranthene	0.0149	J	0.0500	0.00700	mg/L		08/11/13 20:13	08/14/13 10:39	100
Pyrene	0.0110	U	0.0500	0.0110	mg/L		08/11/13 20:13	08/14/13 10:39	100
Benzo[a]anthracene	0.00800	U	0.0500	0.00800	mg/L		08/11/13 20:13	08/14/13 10:39	100
Bis(2-ethylhexyl) phthalate	0.0370	U	0.250	0.0370	mg/L		08/11/13 20:13	08/14/13 10:39	100
Chrysene	0.00800	U	0.0500	0.00800	mg/L		08/11/13 20:13	08/14/13 10:39	100
Benzo[a]pyrene	0.00800	U	0.0500	0.00800	mg/L		08/11/13 20:13	08/14/13 10:39	100
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	0	X	44 - 123				08/11/13 20:13	08/14/13 10:39	100
2-Fluorobiphenyl	0	X	43 - 120				08/11/13 20:13	08/14/13 10:39	100
2-Fluorophenol	0	X	18 - 120				08/11/13 20:13	08/14/13 10:39	100
Nitrobenzene-d5	0	X	47 - 120				08/11/13 20:13	08/14/13 10:39	100
Terphenyl-d14	0	X	33 - 141				08/11/13 20:13	08/14/13 10:39	100
Phenol-d5 (Surr)	0	X	12 - 128				08/11/13 20:13	08/14/13 10:39	100

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels - DL

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	19.7		5.00	0.0800	mg/L		08/11/13 20:13	08/14/13 18:03	1000

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-77524-1

Client Sample ID: WG - 1620 - MW25C - 20130806

Lab Sample ID: 600-77524-15

Date Collected: 08/06/13 16:10

Matrix: Water

Date Received: 08/08/13 15:02

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	0	X	44 - 123	08/11/13 20:13	08/14/13 18:03	1000
2-Fluorobiphenyl	0	X	43 - 120	08/11/13 20:13	08/14/13 18:03	1000
2-Fluorophenol	0	X	18 - 120	08/11/13 20:13	08/14/13 18:03	1000
Nitrobenzene-d5	0	X	47 - 120	08/11/13 20:13	08/14/13 18:03	1000
Terphenyl-d14	0	X	33 - 141	08/11/13 20:13	08/14/13 18:03	1000
Phenol-d5 (Surr)	0	X	12 - 128	08/11/13 20:13	08/14/13 18:03	1000

Client Sample ID: WG - 1620 - MW36B - 20130806

Lab Sample ID: 600-77524-16

Date Collected: 08/06/13 17:10

Matrix: Water

Date Received: 08/08/13 15:02

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	0.000110	U	0.00200	0.000110	mg/L			08/13/13 11:16	1
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			08/13/13 11:16	1
Benzene	0.0000800	U	0.00100	0.0000800	mg/L			08/13/13 11:16	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			08/13/13 11:16	1
Toluene	0.000150	U	0.00100	0.000150	mg/L			08/13/13 11:16	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			08/13/13 11:16	1
Ethylbenzene	0.000110	U	0.00100	0.000110	mg/L			08/13/13 11:16	1
Xylenes, Total	0.000260	U	0.00300	0.000260	mg/L			08/13/13 11:16	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	113		67 - 139		08/13/13 11:16	1
Dibromofluoromethane	97		62 - 130		08/13/13 11:16	1
Toluene-d8 (Surr)	96		70 - 130		08/13/13 11:16	1
1,2-Dichloroethane-d4 (Surr)	102		50 - 134		08/13/13 11:16	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.000400	U	0.000500	0.000400	mg/L		08/11/13 20:13	08/14/13 18:31	1
Nitrobenzene	0.000110	U	0.000500	0.000110	mg/L		08/11/13 20:13	08/14/13 18:31	1
2,4-Dimethylphenol	0.000310	U	0.000500	0.000310	mg/L		08/11/13 20:13	08/14/13 18:31	1
Bis(2-chloroethoxy)methane	0.000130	U	0.000500	0.000130	mg/L		08/11/13 20:13	08/14/13 18:31	1
Naphthalene	0.000895	J	0.00500	0.000800	mg/L		08/11/13 20:13	08/14/13 18:31	1
2-Methylnaphthalene	0.0000700	U	0.000500	0.0000700	mg/L		08/11/13 20:13	08/14/13 18:31	1
2-Chloronaphthalene	0.0000800	U	0.000500	0.0000800	mg/L		08/11/13 20:13	08/14/13 18:31	1
Acenaphthylene	0.0000600	U	0.000500	0.0000600	mg/L		08/11/13 20:13	08/14/13 18:31	1
2,6-Dinitrotoluene	0.0000800	U	0.000500	0.0000800	mg/L		08/11/13 20:13	08/14/13 18:31	1
Acenaphthene	0.0000800	U	0.000500	0.0000800	mg/L		08/11/13 20:13	08/14/13 18:31	1
4-Nitrophenol	0.000560	U	0.00100	0.000560	mg/L		08/11/13 20:13	08/14/13 18:31	1
Dibenzofuran	0.0000800	U	0.000500	0.0000800	mg/L		08/11/13 20:13	08/14/13 18:31	1
2,4-Dinitrotoluene	0.000130	U	0.000500	0.000130	mg/L		08/11/13 20:13	08/14/13 18:31	1
Fluorene	0.0000700	U	0.000500	0.0000700	mg/L		08/11/13 20:13	08/14/13 18:31	1
4,6-Dinitro-2-methylphenol	0.000830	U	0.00100	0.000830	mg/L		08/11/13 20:13	08/14/13 18:31	1
N-Nitrosodiphenylamine	0.000100	U	0.000500	0.000100	mg/L		08/11/13 20:13	08/14/13 18:31	1
1,2-Diphenylhydrazine	0.000110	U	0.000500	0.000110	mg/L		08/11/13 20:13	08/14/13 18:31	1
Pentachlorophenol	0.000610	U	0.00100	0.000610	mg/L		08/11/13 20:13	08/14/13 18:31	1
Phenanthrene	0.0000600	U	0.000500	0.0000600	mg/L		08/11/13 20:13	08/14/13 18:31	1
Anthracene	0.0000500	U	0.000500	0.0000500	mg/L		08/11/13 20:13	08/14/13 18:31	1
Di-n-butyl phthalate	0.000110	U	0.00250	0.000110	mg/L		08/11/13 20:13	08/14/13 18:31	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-77524-1

Client Sample ID: WG - 1620 - MW36B - 20130806

Lab Sample ID: 600-77524-16

Date Collected: 08/06/13 17:10

Matrix: Water

Date Received: 08/08/13 15:02

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoranthene	0.0000700	U	0.000500	0.0000700	mg/L		08/11/13 20:13	08/14/13 18:31	1
Pyrene	0.000110	U	0.000500	0.000110	mg/L		08/11/13 20:13	08/14/13 18:31	1
Benzo[a]anthracene	0.0000800	U	0.000500	0.0000800	mg/L		08/11/13 20:13	08/14/13 18:31	1
Bis(2-ethylhexyl) phthalate	0.000370	U	0.00250	0.000370	mg/L		08/11/13 20:13	08/14/13 18:31	1
Chrysene	0.0000800	U	0.000500	0.0000800	mg/L		08/11/13 20:13	08/14/13 18:31	1
Benzo[a]pyrene	0.0000800	U	0.000500	0.0000800	mg/L		08/11/13 20:13	08/14/13 18:31	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	96		44 - 123				08/11/13 20:13	08/14/13 18:31	1
2-Fluorobiphenyl	84		43 - 120				08/11/13 20:13	08/14/13 18:31	1
2-Fluorophenol	45		18 - 120				08/11/13 20:13	08/14/13 18:31	1
Nitrobenzene-d5	65		47 - 120				08/11/13 20:13	08/14/13 18:31	1
Terphenyl-d14	87		33 - 141				08/11/13 20:13	08/14/13 18:31	1
Phenol-d5 (Surr)	22		12 - 128				08/11/13 20:13	08/14/13 18:31	1

Client Sample ID: WG - 1620 - MW36A - 20130806

Lab Sample ID: 600-77524-17

Date Collected: 08/06/13 18:00

Matrix: Water

Date Received: 08/08/13 15:02

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	0.000110	U	0.00200	0.000110	mg/L			08/13/13 11:43	1
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			08/13/13 11:43	1
Benzene	0.0000800	U	0.00100	0.0000800	mg/L			08/13/13 11:43	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			08/13/13 11:43	1
Toluene	0.000150	U	0.00100	0.000150	mg/L			08/13/13 11:43	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			08/13/13 11:43	1
Ethylbenzene	0.000110	U	0.00100	0.000110	mg/L			08/13/13 11:43	1
Xylenes, Total	0.000260	U	0.00300	0.000260	mg/L			08/13/13 11:43	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	107		67 - 139					08/13/13 11:43	1
Dibromofluoromethane	95		62 - 130					08/13/13 11:43	1
Toluene-d8 (Surr)	93		70 - 130					08/13/13 11:43	1
1,2-Dichloroethane-d4 (Surr)	98		50 - 134					08/13/13 11:43	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.0000377	U	0.000472	0.0000377	mg/L		08/13/13 08:37	08/15/13 10:54	1
Nitrobenzene	0.000104	U	0.000472	0.000104	mg/L		08/13/13 08:37	08/15/13 10:54	1
2,4-Dimethylphenol	0.000292	U	0.000472	0.000292	mg/L		08/13/13 08:37	08/15/13 10:54	1
Bis(2-chloroethoxy)methane	0.000123	U	0.000472	0.000123	mg/L		08/13/13 08:37	08/15/13 10:54	1
Naphthalene	0.0000755	U	0.00472	0.0000755	mg/L		08/13/13 08:37	08/15/13 10:54	1
2-Methylnaphthalene	0.0000660	U	0.000472	0.0000660	mg/L		08/13/13 08:37	08/15/13 10:54	1
2-Chloronaphthalene	0.0000755	U	0.000472	0.0000755	mg/L		08/13/13 08:37	08/15/13 10:54	1
Acenaphthylene	0.0000566	U	0.000472	0.0000566	mg/L		08/13/13 08:37	08/15/13 10:54	1
2,6-Dinitrotoluene	0.0000755	U	0.000472	0.0000755	mg/L		08/13/13 08:37	08/15/13 10:54	1
Acenaphthene	0.0000755	U	0.000472	0.0000755	mg/L		08/13/13 08:37	08/15/13 10:54	1
4-Nitrophenol	0.000528	U	0.000943	0.000528	mg/L		08/13/13 08:37	08/15/13 10:54	1
Dibenzofuran	0.0000755	U	0.000472	0.0000755	mg/L		08/13/13 08:37	08/15/13 10:54	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-77524-1

Client Sample ID: WG - 1620 - MW36A - 20130806

Lab Sample ID: 600-77524-17

Date Collected: 08/06/13 18:00

Matrix: Water

Date Received: 08/08/13 15:02

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-Dinitrotoluene	0.000123	U	0.000472	0.000123	mg/L		08/13/13 08:37	08/15/13 10:54	1
Fluorene	0.0000660	U	0.000472	0.0000660	mg/L		08/13/13 08:37	08/15/13 10:54	1
4,6-Dinitro-2-methylphenol	0.000783	U	0.000943	0.000783	mg/L		08/13/13 08:37	08/15/13 10:54	1
N-Nitrosodiphenylamine	0.0000943	U	0.000472	0.0000943	mg/L		08/13/13 08:37	08/15/13 10:54	1
1,2-Diphenylhydrazine	0.000104	U	0.000472	0.000104	mg/L		08/13/13 08:37	08/15/13 10:54	1
Pentachlorophenol	0.000575	U	0.000943	0.000575	mg/L		08/13/13 08:37	08/15/13 10:54	1
Phenanthrene	0.0000861	J	0.000472	0.0000566	mg/L		08/13/13 08:37	08/15/13 10:54	1
Anthracene	0.0000472	U	0.000472	0.0000472	mg/L		08/13/13 08:37	08/15/13 10:54	1
Di-n-butyl phthalate	0.000391	J	0.00236	0.000104	mg/L		08/13/13 08:37	08/15/13 10:54	1
Fluoranthene	0.0000660	U	0.000472	0.0000660	mg/L		08/13/13 08:37	08/15/13 10:54	1
Pyrene	0.000104	U	0.000472	0.000104	mg/L		08/13/13 08:37	08/15/13 10:54	1
Benzo[a]anthracene	0.0000755	U	0.000472	0.0000755	mg/L		08/13/13 08:37	08/15/13 10:54	1
Bis(2-ethylhexyl) phthalate	0.000349	U	0.00236	0.000349	mg/L		08/13/13 08:37	08/15/13 10:54	1
Chrysene	0.0000755	U	0.000472	0.0000755	mg/L		08/13/13 08:37	08/15/13 10:54	1
Benzo[a]pyrene	0.0000755	U	0.000472	0.0000755	mg/L		08/13/13 08:37	08/15/13 10:54	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	68		44 - 123				08/13/13 08:37	08/15/13 10:54	1
2-Fluorobiphenyl	58		43 - 120				08/13/13 08:37	08/15/13 10:54	1
2-Fluorophenol	22		18 - 120				08/13/13 08:37	08/15/13 10:54	1
Nitrobenzene-d5	52		47 - 120				08/13/13 08:37	08/15/13 10:54	1
Terphenyl-d14	86		33 - 141				08/13/13 08:37	08/15/13 10:54	1
Phenol-d5 (Surr)	11	X	12 - 128				08/13/13 08:37	08/15/13 10:54	1

Client Sample ID: WG - 1620 - FB07 - 20130806

Lab Sample ID: 600-77524-18

Date Collected: 08/06/13 18:15

Matrix: Water

Date Received: 08/08/13 15:02

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			08/13/13 13:57	1
Benzene	0.0000800	U	0.00100	0.0000800	mg/L			08/13/13 13:57	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			08/13/13 13:57	1
Toluene	0.000150	U	0.00100	0.000150	mg/L			08/13/13 13:57	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			08/13/13 13:57	1
Ethylbenzene	0.000110	U	0.00100	0.000110	mg/L			08/13/13 13:57	1
Xylenes, Total	0.000260	U	0.00300	0.000260	mg/L			08/13/13 13:57	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	110		67 - 139					08/13/13 13:57	1
Dibromofluoromethane	91		62 - 130					08/13/13 13:57	1
Toluene-d8 (Surr)	95		70 - 130					08/13/13 13:57	1
1,2-Dichloroethane-d4 (Surr)	94		50 - 134					08/13/13 13:57	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.0000377	U	0.000472	0.0000377	mg/L		08/13/13 08:37	08/15/13 03:34	1
Nitrobenzene	0.000104	U	0.000472	0.000104	mg/L		08/13/13 08:37	08/15/13 03:34	1
2,4-Dimethylphenol	0.000292	U	0.000472	0.000292	mg/L		08/13/13 08:37	08/15/13 03:34	1
Bis(2-chloroethoxy)methane	0.000123	U	0.000472	0.000123	mg/L		08/13/13 08:37	08/15/13 03:34	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-77524-1

Client Sample ID: WG - 1620 - FB07 - 20130806

Lab Sample ID: 600-77524-18

Date Collected: 08/06/13 18:15

Matrix: Water

Date Received: 08/08/13 15:02

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	0.0000755	U	0.00472	0.0000755	mg/L		08/13/13 08:37	08/15/13 03:34	1
2-Methylnaphthalene	0.0000660	U	0.000472	0.0000660	mg/L		08/13/13 08:37	08/15/13 03:34	1
2-Chloronaphthalene	0.0000755	U	0.000472	0.0000755	mg/L		08/13/13 08:37	08/15/13 03:34	1
Acenaphthylene	0.0000566	U	0.000472	0.0000566	mg/L		08/13/13 08:37	08/15/13 03:34	1
2,6-Dinitrotoluene	0.0000755	U	0.000472	0.0000755	mg/L		08/13/13 08:37	08/15/13 03:34	1
Acenaphthene	0.0000755	U	0.000472	0.0000755	mg/L		08/13/13 08:37	08/15/13 03:34	1
4-Nitrophenol	0.000528	U	0.000943	0.000528	mg/L		08/13/13 08:37	08/15/13 03:34	1
Dibenzofuran	0.0000755	U	0.000472	0.0000755	mg/L		08/13/13 08:37	08/15/13 03:34	1
2,4-Dinitrotoluene	0.000123	U	0.000472	0.000123	mg/L		08/13/13 08:37	08/15/13 03:34	1
Fluorene	0.0000660	U	0.000472	0.0000660	mg/L		08/13/13 08:37	08/15/13 03:34	1
4,6-Dinitro-2-methylphenol	0.000783	U	0.000943	0.000783	mg/L		08/13/13 08:37	08/15/13 03:34	1
N-Nitrosodiphenylamine	0.0000943	U	0.000472	0.0000943	mg/L		08/13/13 08:37	08/15/13 03:34	1
1,2-Diphenylhydrazine	0.000104	U	0.000472	0.000104	mg/L		08/13/13 08:37	08/15/13 03:34	1
Pentachlorophenol	0.000575	U	0.000943	0.000575	mg/L		08/13/13 08:37	08/15/13 03:34	1
Phenanthrene	0.0000865	J	0.000472	0.0000566	mg/L		08/13/13 08:37	08/15/13 03:34	1
Anthracene	0.0000472	U	0.000472	0.0000472	mg/L		08/13/13 08:37	08/15/13 03:34	1
Di-n-butyl phthalate	0.000331	J	0.00236	0.000104	mg/L		08/13/13 08:37	08/15/13 03:34	1
Fluoranthene	0.0000660	U	0.000472	0.0000660	mg/L		08/13/13 08:37	08/15/13 03:34	1
Pyrene	0.000104	U	0.000472	0.000104	mg/L		08/13/13 08:37	08/15/13 03:34	1
Benzo[a]anthracene	0.0000755	U	0.000472	0.0000755	mg/L		08/13/13 08:37	08/15/13 03:34	1
Bis(2-ethylhexyl) phthalate	0.000349	U	0.00236	0.000349	mg/L		08/13/13 08:37	08/15/13 03:34	1
Chrysene	0.0000755	U	0.000472	0.0000755	mg/L		08/13/13 08:37	08/15/13 03:34	1
Benzo[a]pyrene	0.0000755	U	0.000472	0.0000755	mg/L		08/13/13 08:37	08/15/13 03:34	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	81		44 - 123				08/13/13 08:37	08/15/13 03:34	1
2-Fluorobiphenyl	74		43 - 120				08/13/13 08:37	08/15/13 03:34	1
2-Fluorophenol	30		18 - 120				08/13/13 08:37	08/15/13 03:34	1
Nitrobenzene-d5	73		47 - 120				08/13/13 08:37	08/15/13 03:34	1
Terphenyl-d14	86		33 - 141				08/13/13 08:37	08/15/13 03:34	1
Phenol-d5 (Surr)	15		12 - 128				08/13/13 08:37	08/15/13 03:34	1

Client Sample ID: WG - 1620 - MW28C - 20130807

Lab Sample ID: 600-77524-19

Date Collected: 08/07/13 08:25

Matrix: Water

Date Received: 08/08/13 15:02

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			08/10/13 15:16	1
Benzene	0.0000800	U	0.00100	0.0000800	mg/L			08/10/13 15:16	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			08/10/13 15:16	1
Toluene	0.000150	U	0.00100	0.000150	mg/L			08/10/13 15:16	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			08/10/13 15:16	1
Ethylbenzene	0.000110	U	0.00100	0.000110	mg/L			08/10/13 15:16	1
Xylenes, Total	0.000260	U	0.00300	0.000260	mg/L			08/10/13 15:16	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	134		67 - 139					08/10/13 15:16	1
Dibromofluoromethane	84		62 - 130					08/10/13 15:16	1
Toluene-d8 (Surr)	107		70 - 130					08/10/13 15:16	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-77524-1

Client Sample ID: WG - 1620 - MW28C - 20130807

Lab Sample ID: 600-77524-19

Date Collected: 08/07/13 08:25

Matrix: Water

Date Received: 08/08/13 15:02

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	83		50 - 134		08/10/13 15:16	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.000377	U	0.000472	0.000377	mg/L		08/13/13 08:37	08/15/13 01:40	1
Nitrobenzene	0.000104	U	0.000472	0.000104	mg/L		08/13/13 08:37	08/15/13 01:40	1
2,4-Dimethylphenol	0.000292	U	0.000472	0.000292	mg/L		08/13/13 08:37	08/15/13 01:40	1
Bis(2-chloroethoxy)methane	0.000123	U	0.000472	0.000123	mg/L		08/13/13 08:37	08/15/13 01:40	1
Naphthalene	0.000755	U	0.00472	0.000755	mg/L		08/13/13 08:37	08/15/13 01:40	1
2-Methylnaphthalene	0.000660	U	0.000472	0.000660	mg/L		08/13/13 08:37	08/15/13 01:40	1
2-Chloronaphthalene	0.000755	U	0.000472	0.000755	mg/L		08/13/13 08:37	08/15/13 01:40	1
Acenaphthylene	0.000566	U	0.000472	0.000566	mg/L		08/13/13 08:37	08/15/13 01:40	1
2,6-Dinitrotoluene	0.000755	U	0.000472	0.000755	mg/L		08/13/13 08:37	08/15/13 01:40	1
Acenaphthene	0.000755	U	0.000472	0.000755	mg/L		08/13/13 08:37	08/15/13 01:40	1
4-Nitrophenol	0.000528	U	0.000943	0.000528	mg/L		08/13/13 08:37	08/15/13 01:40	1
Dibenzofuran	0.000755	U	0.000472	0.000755	mg/L		08/13/13 08:37	08/15/13 01:40	1
2,4-Dinitrotoluene	0.000123	U	0.000472	0.000123	mg/L		08/13/13 08:37	08/15/13 01:40	1
Fluorene	0.000660	U	0.000472	0.000660	mg/L		08/13/13 08:37	08/15/13 01:40	1
4,6-Dinitro-2-methylphenol	0.000783	U	0.000943	0.000783	mg/L		08/13/13 08:37	08/15/13 01:40	1
N-Nitrosodiphenylamine	0.000943	U	0.000472	0.000943	mg/L		08/13/13 08:37	08/15/13 01:40	1
1,2-Diphenylhydrazine	0.000104	U	0.000472	0.000104	mg/L		08/13/13 08:37	08/15/13 01:40	1
Pentachlorophenol	0.000575	U	0.000943	0.000575	mg/L		08/13/13 08:37	08/15/13 01:40	1
Phenanthrene	0.000566	U	0.000472	0.000566	mg/L		08/13/13 08:37	08/15/13 01:40	1
Anthracene	0.000472	U	0.000472	0.000472	mg/L		08/13/13 08:37	08/15/13 01:40	1
Di-n-butyl phthalate	0.000485	J	0.00236	0.000104	mg/L		08/13/13 08:37	08/15/13 01:40	1
Fluoranthene	0.000660	U	0.000472	0.000660	mg/L		08/13/13 08:37	08/15/13 01:40	1
Pyrene	0.000104	U	0.000472	0.000104	mg/L		08/13/13 08:37	08/15/13 01:40	1
Benzo[a]anthracene	0.000755	U	0.000472	0.000755	mg/L		08/13/13 08:37	08/15/13 01:40	1
Bis(2-ethylhexyl) phthalate	0.000349	U	0.00236	0.000349	mg/L		08/13/13 08:37	08/15/13 01:40	1
Chrysene	0.000755	U	0.000472	0.000755	mg/L		08/13/13 08:37	08/15/13 01:40	1
Benzo[a]pyrene	0.000755	U	0.000472	0.000755	mg/L		08/13/13 08:37	08/15/13 01:40	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	88		44 - 123	08/13/13 08:37	08/15/13 01:40	1
2-Fluorobiphenyl	70		43 - 120	08/13/13 08:37	08/15/13 01:40	1
2-Fluorophenol	26		18 - 120	08/13/13 08:37	08/15/13 01:40	1
Nitrobenzene-d5	64		47 - 120	08/13/13 08:37	08/15/13 01:40	1
Terphenyl-d14	89		33 - 141	08/13/13 08:37	08/15/13 01:40	1
Phenol-d5 (Surr)	14		12 - 128	08/13/13 08:37	08/15/13 01:40	1

Client Sample ID: WG - 1620 - MW28A - 20130807

Lab Sample ID: 600-77524-20

Date Collected: 08/07/13 09:20

Matrix: Water

Date Received: 08/08/13 15:02

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			08/13/13 17:38	1
Benzene	0.0000800	U	0.00100	0.0000800	mg/L			08/13/13 17:38	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			08/13/13 17:38	1
Toluene	0.000150	U	0.00100	0.000150	mg/L			08/13/13 17:38	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-77524-1

Client Sample ID: WG - 1620 - MW28A - 20130807

Lab Sample ID: 600-77524-20

Date Collected: 08/07/13 09:20

Matrix: Water

Date Received: 08/08/13 15:02

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			08/13/13 17:38	1
Ethylbenzene	0.000110	U	0.00100	0.000110	mg/L			08/13/13 17:38	1
Xylenes, Total	0.000260	U	0.00300	0.000260	mg/L			08/13/13 17:38	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	112		67 - 139					08/13/13 17:38	1
Dibromofluoromethane	100		62 - 130					08/13/13 17:38	1
Toluene-d8 (Surr)	94		70 - 130					08/13/13 17:38	1
1,2-Dichloroethane-d4 (Surr)	106		50 - 134					08/13/13 17:38	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.0000377	U	0.000472	0.0000377	mg/L		08/13/13 08:37	08/15/13 04:03	1
Nitrobenzene	0.000104	U	0.000472	0.000104	mg/L		08/13/13 08:37	08/15/13 04:03	1
2,4-Dimethylphenol	0.000292	U	0.000472	0.000292	mg/L		08/13/13 08:37	08/15/13 04:03	1
Bis(2-chloroethoxy)methane	0.000123	U	0.000472	0.000123	mg/L		08/13/13 08:37	08/15/13 04:03	1
Naphthalene	0.000173	J	0.00472	0.0000755	mg/L		08/13/13 08:37	08/15/13 04:03	1
2-Methylnaphthalene	0.0000660	U	0.000472	0.0000660	mg/L		08/13/13 08:37	08/15/13 04:03	1
2-Chloronaphthalene	0.0000755	U	0.000472	0.0000755	mg/L		08/13/13 08:37	08/15/13 04:03	1
Acenaphthylene	0.0000566	U	0.000472	0.0000566	mg/L		08/13/13 08:37	08/15/13 04:03	1
2,6-Dinitrotoluene	0.0000755	U	0.000472	0.0000755	mg/L		08/13/13 08:37	08/15/13 04:03	1
Acenaphthene	0.000368	J	0.000472	0.0000755	mg/L		08/13/13 08:37	08/15/13 04:03	1
4-Nitrophenol	0.000528	U	0.000943	0.000528	mg/L		08/13/13 08:37	08/15/13 04:03	1
Dibenzofuran	0.0000755	U	0.000472	0.0000755	mg/L		08/13/13 08:37	08/15/13 04:03	1
2,4-Dinitrotoluene	0.000123	U	0.000472	0.000123	mg/L		08/13/13 08:37	08/15/13 04:03	1
Fluorene	0.0000660	U	0.000472	0.0000660	mg/L		08/13/13 08:37	08/15/13 04:03	1
4,6-Dinitro-2-methylphenol	0.000783	U	0.000943	0.000783	mg/L		08/13/13 08:37	08/15/13 04:03	1
N-Nitrosodiphenylamine	0.0000943	U	0.000472	0.0000943	mg/L		08/13/13 08:37	08/15/13 04:03	1
1,2-Diphenylhydrazine	0.000104	U	0.000472	0.000104	mg/L		08/13/13 08:37	08/15/13 04:03	1
Pentachlorophenol	0.000575	U	0.000943	0.000575	mg/L		08/13/13 08:37	08/15/13 04:03	1
Phenanthrene	0.0000566	U	0.000472	0.0000566	mg/L		08/13/13 08:37	08/15/13 04:03	1
Anthracene	0.0000472	U	0.000472	0.0000472	mg/L		08/13/13 08:37	08/15/13 04:03	1
Di-n-butyl phthalate	0.000104	U	0.00236	0.000104	mg/L		08/13/13 08:37	08/15/13 04:03	1
Fluoranthene	0.0000660	U	0.000472	0.0000660	mg/L		08/13/13 08:37	08/15/13 04:03	1
Pyrene	0.000246	J	0.000472	0.000104	mg/L		08/13/13 08:37	08/15/13 04:03	1
Benzo[a]anthracene	0.0000755	U	0.000472	0.0000755	mg/L		08/13/13 08:37	08/15/13 04:03	1
Bis(2-ethylhexyl) phthalate	0.000349	U	0.00236	0.000349	mg/L		08/13/13 08:37	08/15/13 04:03	1
Chrysene	0.0000755	U	0.000472	0.0000755	mg/L		08/13/13 08:37	08/15/13 04:03	1
Benzo[a]pyrene	0.0000755	U	0.000472	0.0000755	mg/L		08/13/13 08:37	08/15/13 04:03	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	89		44 - 123				08/13/13 08:37	08/15/13 04:03	1
2-Fluorobiphenyl	64		43 - 120				08/13/13 08:37	08/15/13 04:03	1
2-Fluorophenol	21		18 - 120				08/13/13 08:37	08/15/13 04:03	1
Nitrobenzene-d5	53		47 - 120				08/13/13 08:37	08/15/13 04:03	1
Terphenyl-d14	88		33 - 141				08/13/13 08:37	08/15/13 04:03	1
Phenol-d5 (Surr)	9	X	12 - 128				08/13/13 08:37	08/15/13 04:03	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-77524-1

Client Sample ID: WG - 1620 - MW63B - 20130807

Lab Sample ID: 600-77524-21

Date Collected: 08/07/13 10:15

Matrix: Water

Date Received: 08/08/13 15:02

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			08/13/13 18:34	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			08/13/13 18:34	1
Toluene	0.000434	J	0.00100	0.000150	mg/L			08/13/13 18:34	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			08/13/13 18:34	1
Ethylbenzene	0.0341		0.00100	0.000110	mg/L			08/13/13 18:34	1
Xylenes, Total	0.0113		0.00300	0.000260	mg/L			08/13/13 18:34	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	115		67 - 139		08/13/13 18:34	1
Dibromofluoromethane	100		62 - 130		08/13/13 18:34	1
Toluene-d8 (Surr)	97		70 - 130		08/13/13 18:34	1
1,2-Dichloroethane-d4 (Surr)	106		50 - 134		08/13/13 18:34	1

Method: 8260B - Volatile Organic Compounds (GC/MS) - DL

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.0869		0.0100	0.000800	mg/L			08/14/13 15:41	10

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	105		67 - 139		08/14/13 15:41	10
Dibromofluoromethane	87		62 - 130		08/14/13 15:41	10
Toluene-d8 (Surr)	93		70 - 130		08/14/13 15:41	10
1,2-Dichloroethane-d4 (Surr)	85		50 - 134		08/14/13 15:41	10

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.0000377	U	0.000472	0.0000377	mg/L		08/13/13 08:37	08/15/13 11:22	1
Nitrobenzene	0.000104	U	0.000472	0.000104	mg/L		08/13/13 08:37	08/15/13 11:22	1
2,4-Dimethylphenol	0.000292	U	0.000472	0.000292	mg/L		08/13/13 08:37	08/15/13 11:22	1
Bis(2-chloroethoxy)methane	0.000123	U	0.000472	0.000123	mg/L		08/13/13 08:37	08/15/13 11:22	1
2-Methylnaphthalene	0.00242		0.000472	0.0000660	mg/L		08/13/13 08:37	08/15/13 11:22	1
2-Chloronaphthalene	0.0000755	U	0.000472	0.0000755	mg/L		08/13/13 08:37	08/15/13 11:22	1
Acenaphthylene	0.0000566	U	0.000472	0.0000566	mg/L		08/13/13 08:37	08/15/13 11:22	1
2,6-Dinitrotoluene	0.0000755	U	0.000472	0.0000755	mg/L		08/13/13 08:37	08/15/13 11:22	1
Acenaphthene	0.000833		0.000472	0.0000755	mg/L		08/13/13 08:37	08/15/13 11:22	1
4-Nitrophenol	0.000528	U	0.000943	0.000528	mg/L		08/13/13 08:37	08/15/13 11:22	1
Dibenzofuran	0.00104		0.000472	0.0000755	mg/L		08/13/13 08:37	08/15/13 11:22	1
2,4-Dinitrotoluene	0.000123	U	0.000472	0.000123	mg/L		08/13/13 08:37	08/15/13 11:22	1
Fluorene	0.000349	J	0.000472	0.0000660	mg/L		08/13/13 08:37	08/15/13 11:22	1
4,6-Dinitro-2-methylphenol	0.000783	U	0.000943	0.000783	mg/L		08/13/13 08:37	08/15/13 11:22	1
N-Nitrosodiphenylamine	0.0000943	U	0.000472	0.0000943	mg/L		08/13/13 08:37	08/15/13 11:22	1
1,2-Diphenylhydrazine	0.000104	U	0.000472	0.000104	mg/L		08/13/13 08:37	08/15/13 11:22	1
Pentachlorophenol	0.000575	U	0.000943	0.000575	mg/L		08/13/13 08:37	08/15/13 11:22	1
Phenanthrene	0.0000566	U	0.000472	0.0000566	mg/L		08/13/13 08:37	08/15/13 11:22	1
Anthracene	0.0000472	U	0.000472	0.0000472	mg/L		08/13/13 08:37	08/15/13 11:22	1
Di-n-butyl phthalate	0.000465	J	0.00236	0.000104	mg/L		08/13/13 08:37	08/15/13 11:22	1
Fluoranthene	0.0000660	U	0.000472	0.0000660	mg/L		08/13/13 08:37	08/15/13 11:22	1
Pyrene	0.000104	U	0.000472	0.000104	mg/L		08/13/13 08:37	08/15/13 11:22	1
Benzo[a]anthracene	0.0000755	U	0.000472	0.0000755	mg/L		08/13/13 08:37	08/15/13 11:22	1
Bis(2-ethylhexyl) phthalate	0.000381	J	0.00236	0.000349	mg/L		08/13/13 08:37	08/15/13 11:22	1
Chrysene	0.0000755	U	0.000472	0.0000755	mg/L		08/13/13 08:37	08/15/13 11:22	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-77524-1

Client Sample ID: WG - 1620 - MW63B - 20130807

Lab Sample ID: 600-77524-21

Date Collected: 08/07/13 10:15

Matrix: Water

Date Received: 08/08/13 15:02

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]pyrene	0.0000755	U	0.000472	0.0000755	mg/L		08/13/13 08:37	08/15/13 11:22	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	117		44 - 123				08/13/13 08:37	08/15/13 11:22	1
2-Fluorobiphenyl	72		43 - 120				08/13/13 08:37	08/15/13 11:22	1
2-Fluorophenol	29		18 - 120				08/13/13 08:37	08/15/13 11:22	1
Nitrobenzene-d5	84		47 - 120				08/13/13 08:37	08/15/13 11:22	1
Terphenyl-d14	99		33 - 141				08/13/13 08:37	08/15/13 11:22	1
Phenol-d5 (Surr)	15		12 - 128				08/13/13 08:37	08/15/13 11:22	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels - DL

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	0.146		0.0472	0.000755	mg/L		08/13/13 08:37	08/15/13 13:46	10
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	103		44 - 123				08/13/13 08:37	08/15/13 13:46	10
2-Fluorobiphenyl	76		43 - 120				08/13/13 08:37	08/15/13 13:46	10
2-Fluorophenol	39		18 - 120				08/13/13 08:37	08/15/13 13:46	10
Nitrobenzene-d5	52		47 - 120				08/13/13 08:37	08/15/13 13:46	10
Terphenyl-d14	122		33 - 141				08/13/13 08:37	08/15/13 13:46	10
Phenol-d5 (Surr)	7 X		12 - 128				08/13/13 08:37	08/15/13 13:46	10

Client Sample ID: WG - 1620 - MW33BR - 20130807

Lab Sample ID: 600-77524-22

Date Collected: 08/07/13 11:10

Matrix: Water

Date Received: 08/08/13 15:02

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	0.000550	U	0.0100	0.000550	mg/L			08/14/13 17:05	5
Methylene Chloride	0.000750	U	0.00500	0.000750	mg/L			08/14/13 17:05	5
1,2-Dichloroethane	0.000700	U	0.00500	0.000700	mg/L			08/14/13 17:05	5
Toluene	0.0645		0.00500	0.000750	mg/L			08/14/13 17:05	5
Chlorobenzene	0.000600	U	0.00500	0.000600	mg/L			08/14/13 17:05	5
Xylenes, Total	0.182		0.0150	0.00130	mg/L			08/14/13 17:05	5
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	102		67 - 139					08/14/13 17:05	5
Dibromofluoromethane	83		62 - 130					08/14/13 17:05	5
Toluene-d8 (Surr)	93		70 - 130					08/14/13 17:05	5
1,2-Dichloroethane-d4 (Surr)	82		50 - 134					08/14/13 17:05	5

Method: 8260B - Volatile Organic Compounds (GC/MS) - DL

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	1.62		0.0500	0.00400	mg/L			08/14/13 17:32	50
Ethylbenzene	0.389		0.0500	0.00550	mg/L			08/14/13 17:32	50
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	104		67 - 139					08/14/13 17:32	50
Dibromofluoromethane	86		62 - 130					08/14/13 17:32	50
Toluene-d8 (Surr)	95		70 - 130					08/14/13 17:32	50
1,2-Dichloroethane-d4 (Surr)	82		50 - 134					08/14/13 17:32	50

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-77524-1

Client Sample ID: WG - 1620 - MW33BR - 20130807

Lab Sample ID: 600-77524-22

Date Collected: 08/07/13 11:10

Matrix: Water

Date Received: 08/08/13 15:02

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.00189	U	0.0236	0.00189	mg/L		08/13/13 08:37	08/15/13 11:51	50
Nitrobenzene	0.00519	U	0.0236	0.00519	mg/L		08/13/13 08:37	08/15/13 11:51	50
2,4-Dimethylphenol	0.0146	U	0.0236	0.0146	mg/L		08/13/13 08:37	08/15/13 11:51	50
Bis(2-chloroethoxy)methane	0.00613	U	0.0236	0.00613	mg/L		08/13/13 08:37	08/15/13 11:51	50
2-Methylnaphthalene	0.198		0.0236	0.00330	mg/L		08/13/13 08:37	08/15/13 11:51	50
2-Chloronaphthalene	0.00377	U	0.0236	0.00377	mg/L		08/13/13 08:37	08/15/13 11:51	50
Acenaphthylene	0.00283	U	0.0236	0.00283	mg/L		08/13/13 08:37	08/15/13 11:51	50
2,6-Dinitrotoluene	0.00377	U	0.0236	0.00377	mg/L		08/13/13 08:37	08/15/13 11:51	50
Acenaphthene	0.0455		0.0236	0.00377	mg/L		08/13/13 08:37	08/15/13 11:51	50
4-Nitrophenol	0.0264	U	0.0472	0.0264	mg/L		08/13/13 08:37	08/15/13 11:51	50
Dibenzofuran	0.0498		0.0236	0.00377	mg/L		08/13/13 08:37	08/15/13 11:51	50
2,4-Dinitrotoluene	0.00613	U	0.0236	0.00613	mg/L		08/13/13 08:37	08/15/13 11:51	50
Fluorene	0.0181	J	0.0236	0.00330	mg/L		08/13/13 08:37	08/15/13 11:51	50
4,6-Dinitro-2-methylphenol	0.0392	U	0.0472	0.0392	mg/L		08/13/13 08:37	08/15/13 11:51	50
N-Nitrosodiphenylamine	0.00472	U	0.0236	0.00472	mg/L		08/13/13 08:37	08/15/13 11:51	50
1,2-Diphenylhydrazine	0.00519	U	0.0236	0.00519	mg/L		08/13/13 08:37	08/15/13 11:51	50
Pentachlorophenol	0.0288	U	0.0472	0.0288	mg/L		08/13/13 08:37	08/15/13 11:51	50
Phenanthrene	0.0141	J	0.0236	0.00283	mg/L		08/13/13 08:37	08/15/13 11:51	50
Anthracene	0.00236	U	0.0236	0.00236	mg/L		08/13/13 08:37	08/15/13 11:51	50
Di-n-butyl phthalate	0.00519	U	0.118	0.00519	mg/L		08/13/13 08:37	08/15/13 11:51	50
Fluoranthene	0.00330	U	0.0236	0.00330	mg/L		08/13/13 08:37	08/15/13 11:51	50
Pyrene	0.00519	U	0.0236	0.00519	mg/L		08/13/13 08:37	08/15/13 11:51	50
Benzo[a]anthracene	0.00377	U	0.0236	0.00377	mg/L		08/13/13 08:37	08/15/13 11:51	50
Bis(2-ethylhexyl) phthalate	0.0175	U	0.118	0.0175	mg/L		08/13/13 08:37	08/15/13 11:51	50
Chrysene	0.00377	U	0.0236	0.00377	mg/L		08/13/13 08:37	08/15/13 11:51	50
Benzo[a]pyrene	0.00377	U	0.0236	0.00377	mg/L		08/13/13 08:37	08/15/13 11:51	50

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	0	X	44 - 123	08/13/13 08:37	08/15/13 11:51	50
2-Fluorobiphenyl	0	X	43 - 120	08/13/13 08:37	08/15/13 11:51	50
2-Fluorophenol	0	X	18 - 120	08/13/13 08:37	08/15/13 11:51	50
Nitrobenzene-d5	0	X	47 - 120	08/13/13 08:37	08/15/13 11:51	50
Terphenyl-d14	0	X	33 - 141	08/13/13 08:37	08/15/13 11:51	50
Phenol-d5 (Surr)	0	X	12 - 128	08/13/13 08:37	08/15/13 11:51	50

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels - DL

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	6.54		2.36	0.0377	mg/L		08/13/13 08:37	08/15/13 14:14	500

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	0	X	44 - 123	08/13/13 08:37	08/15/13 14:14	500
2-Fluorobiphenyl	0	X	43 - 120	08/13/13 08:37	08/15/13 14:14	500
2-Fluorophenol	0	X	18 - 120	08/13/13 08:37	08/15/13 14:14	500
Nitrobenzene-d5	0	X	47 - 120	08/13/13 08:37	08/15/13 14:14	500
Terphenyl-d14	0	X	33 - 141	08/13/13 08:37	08/15/13 14:14	500
Phenol-d5 (Surr)	0	X	12 - 128	08/13/13 08:37	08/15/13 14:14	500

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-77524-1

Client Sample ID: WG - 1620 - MW68C - 20130807

Lab Sample ID: 600-77524-23

Date Collected: 08/07/13 13:30

Matrix: Water

Date Received: 08/08/13 15:02

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			08/13/13 18:06	1
Benzene	0.00364		0.00100	0.0000800	mg/L			08/13/13 18:06	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			08/13/13 18:06	1
Toluene	0.00160		0.00100	0.000150	mg/L			08/13/13 18:06	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			08/13/13 18:06	1
Ethylbenzene	0.000517	J	0.00100	0.000110	mg/L			08/13/13 18:06	1
Xylenes, Total	0.000879	J	0.00300	0.000260	mg/L			08/13/13 18:06	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	114		67 - 139					08/13/13 18:06	1
Dibromofluoromethane	98		62 - 130					08/13/13 18:06	1
Toluene-d8 (Surr)	95		70 - 130					08/13/13 18:06	1
1,2-Dichloroethane-d4 (Surr)	104		50 - 134					08/13/13 18:06	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.0000377	U	0.000472	0.0000377	mg/L		08/13/13 08:37	08/15/13 12:19	1
Nitrobenzene	0.000104	U	0.000472	0.000104	mg/L		08/13/13 08:37	08/15/13 12:19	1
2,4-Dimethylphenol	0.000292	U	0.000472	0.000292	mg/L		08/13/13 08:37	08/15/13 12:19	1
Bis(2-chloroethoxy)methane	0.000123	U	0.000472	0.000123	mg/L		08/13/13 08:37	08/15/13 12:19	1
Naphthalene	0.00643		0.00472	0.0000755	mg/L		08/13/13 08:37	08/15/13 12:19	1
2-Methylnaphthalene	0.000301	J	0.000472	0.0000660	mg/L		08/13/13 08:37	08/15/13 12:19	1
2-Chloronaphthalene	0.0000755	U	0.000472	0.0000755	mg/L		08/13/13 08:37	08/15/13 12:19	1
Acenaphthylene	0.0000566	U	0.000472	0.0000566	mg/L		08/13/13 08:37	08/15/13 12:19	1
2,6-Dinitrotoluene	0.0000755	U	0.000472	0.0000755	mg/L		08/13/13 08:37	08/15/13 12:19	1
Acenaphthene	0.0000755	U	0.000472	0.0000755	mg/L		08/13/13 08:37	08/15/13 12:19	1
4-Nitrophenol	0.000528	U	0.000943	0.000528	mg/L		08/13/13 08:37	08/15/13 12:19	1
Dibenzofuran	0.0000755	U	0.000472	0.0000755	mg/L		08/13/13 08:37	08/15/13 12:19	1
2,4-Dinitrotoluene	0.000123	U	0.000472	0.000123	mg/L		08/13/13 08:37	08/15/13 12:19	1
Fluorene	0.000135	J	0.000472	0.0000660	mg/L		08/13/13 08:37	08/15/13 12:19	1
4,6-Dinitro-2-methylphenol	0.000783	U	0.000943	0.000783	mg/L		08/13/13 08:37	08/15/13 12:19	1
N-Nitrosodiphenylamine	0.0000943	U	0.000472	0.0000943	mg/L		08/13/13 08:37	08/15/13 12:19	1
1,2-Diphenylhydrazine	0.000104	U	0.000472	0.000104	mg/L		08/13/13 08:37	08/15/13 12:19	1
Pentachlorophenol	0.000575	U	0.000943	0.000575	mg/L		08/13/13 08:37	08/15/13 12:19	1
Phenanthrene	0.0000566	U	0.000472	0.0000566	mg/L		08/13/13 08:37	08/15/13 12:19	1
Anthracene	0.0000472	U	0.000472	0.0000472	mg/L		08/13/13 08:37	08/15/13 12:19	1
Di-n-butyl phthalate	0.000142	J	0.00236	0.000104	mg/L		08/13/13 08:37	08/15/13 12:19	1
Fluoranthene	0.0000660	U	0.000472	0.0000660	mg/L		08/13/13 08:37	08/15/13 12:19	1
Pyrene	0.000104	U	0.000472	0.000104	mg/L		08/13/13 08:37	08/15/13 12:19	1
Benzo[a]anthracene	0.0000755	U	0.000472	0.0000755	mg/L		08/13/13 08:37	08/15/13 12:19	1
Bis(2-ethylhexyl) phthalate	0.00157	J	0.00236	0.000349	mg/L		08/13/13 08:37	08/15/13 12:19	1
Chrysene	0.0000755	U	0.000472	0.0000755	mg/L		08/13/13 08:37	08/15/13 12:19	1
Benzo[a]pyrene	0.0000755	U	0.000472	0.0000755	mg/L		08/13/13 08:37	08/15/13 12:19	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	88		44 - 123				08/13/13 08:37	08/15/13 12:19	1
2-Fluorobiphenyl	55		43 - 120				08/13/13 08:37	08/15/13 12:19	1
2-Fluorophenol	17	X	18 - 120				08/13/13 08:37	08/15/13 12:19	1
Nitrobenzene-d5	51		47 - 120				08/13/13 08:37	08/15/13 12:19	1
Terphenyl-d14	94		33 - 141				08/13/13 08:37	08/15/13 12:19	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-77524-1

Client Sample ID: WG - 1620 - MW68C - 20130807

Lab Sample ID: 600-77524-23

Date Collected: 08/07/13 13:30

Matrix: Water

Date Received: 08/08/13 15:02

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Phenol-d5 (Surr)	10	X	12 - 128	08/13/13 08:37	08/15/13 12:19	1

Client Sample ID: WG - 1620 - TB03 - 20130807

Lab Sample ID: 600-77524-24

Date Collected: 08/07/13 00:00

Matrix: Water

Date Received: 08/08/13 15:02

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	0.000110	U	0.00200	0.000110	mg/L			08/13/13 14:24	1
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			08/13/13 14:24	1
Benzene	0.0000800	U	0.00100	0.0000800	mg/L			08/13/13 14:24	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			08/13/13 14:24	1
Toluene	0.00140		0.00100	0.000150	mg/L			08/13/13 14:24	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			08/13/13 14:24	1
Ethylbenzene	0.000110	U	0.00100	0.000110	mg/L			08/13/13 14:24	1
Xylenes, Total	0.000260	U	0.00300	0.000260	mg/L			08/13/13 14:24	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	113		67 - 139		08/13/13 14:24	1
Dibromofluoromethane	90		62 - 130		08/13/13 14:24	1
Toluene-d8 (Surr)	96		70 - 130		08/13/13 14:24	1
1,2-Dichloroethane-d4 (Surr)	94		50 - 134		08/13/13 14:24	1

Client Sample ID: WG - 1620 - MW26A - 20130807

Lab Sample ID: 600-77524-25

Date Collected: 08/07/13 12:05

Matrix: Water

Date Received: 08/07/13 15:02

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			08/14/13 16:37	1
Benzene	0.00970		0.00100	0.0000800	mg/L			08/14/13 16:37	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			08/14/13 16:37	1
Toluene	0.000291	J	0.00100	0.000150	mg/L			08/14/13 16:37	1
Chlorobenzene	0.000297	J	0.00100	0.000120	mg/L			08/14/13 16:37	1
Ethylbenzene	0.000815	J	0.00100	0.000110	mg/L			08/14/13 16:37	1
Xylenes, Total	0.00239	J	0.00300	0.000260	mg/L			08/14/13 16:37	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	100		67 - 139		08/14/13 16:37	1
Dibromofluoromethane	83		62 - 130		08/14/13 16:37	1
Toluene-d8 (Surr)	92		70 - 130		08/14/13 16:37	1
1,2-Dichloroethane-d4 (Surr)	80		50 - 134		08/14/13 16:37	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.0000377	U	0.000472	0.0000377	mg/L		08/13/13 08:37	08/15/13 12:48	1
Nitrobenzene	0.000104	U	0.000472	0.000104	mg/L		08/13/13 08:37	08/15/13 12:48	1
2,4-Dimethylphenol	0.000292	U	0.000472	0.000292	mg/L		08/13/13 08:37	08/15/13 12:48	1
Bis(2-chloroethoxy)methane	0.000123	U	0.000472	0.000123	mg/L		08/13/13 08:37	08/15/13 12:48	1
Naphthalene	0.00660		0.00472	0.0000755	mg/L		08/13/13 08:37	08/15/13 12:48	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-77524-1

Client Sample ID: WG - 1620 - MW26A - 20130807

Lab Sample ID: 600-77524-25

Date Collected: 08/07/13 12:05

Matrix: Water

Date Received: 08/07/13 15:02

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylnaphthalene	0.000414	J	0.000472	0.0000660	mg/L		08/13/13 08:37	08/15/13 12:48	1
2-Chloronaphthalene	0.0000755	U	0.000472	0.0000755	mg/L		08/13/13 08:37	08/15/13 12:48	1
Acenaphthylene	0.0000566	U	0.000472	0.0000566	mg/L		08/13/13 08:37	08/15/13 12:48	1
2,6-Dinitrotoluene	0.0000755	U	0.000472	0.0000755	mg/L		08/13/13 08:37	08/15/13 12:48	1
4-Nitrophenol	0.000528	U	0.000943	0.000528	mg/L		08/13/13 08:37	08/15/13 12:48	1
Dibenzofuran	0.0151		0.000472	0.0000755	mg/L		08/13/13 08:37	08/15/13 12:48	1
2,4-Dinitrotoluene	0.000123	U	0.000472	0.000123	mg/L		08/13/13 08:37	08/15/13 12:48	1
Fluorene	0.00611		0.000472	0.0000660	mg/L		08/13/13 08:37	08/15/13 12:48	1
4,6-Dinitro-2-methylphenol	0.000783	U	0.000943	0.000783	mg/L		08/13/13 08:37	08/15/13 12:48	1
N-Nitrosodiphenylamine	0.0000943	U	0.000472	0.0000943	mg/L		08/13/13 08:37	08/15/13 12:48	1
1,2-Diphenylhydrazine	0.000104	U	0.000472	0.000104	mg/L		08/13/13 08:37	08/15/13 12:48	1
Pentachlorophenol	0.000575	U	0.000943	0.000575	mg/L		08/13/13 08:37	08/15/13 12:48	1
Phenanthrene	0.0000566	U	0.000472	0.0000566	mg/L		08/13/13 08:37	08/15/13 12:48	1
Anthracene	0.00228		0.000472	0.0000472	mg/L		08/13/13 08:37	08/15/13 12:48	1
Di-n-butyl phthalate	0.000104	U	0.00236	0.000104	mg/L		08/13/13 08:37	08/15/13 12:48	1
Fluoranthene	0.00620		0.000472	0.0000660	mg/L		08/13/13 08:37	08/15/13 12:48	1
Pyrene	0.00322		0.000472	0.000104	mg/L		08/13/13 08:37	08/15/13 12:48	1
Benzo[a]anthracene	0.0000755	U	0.000472	0.0000755	mg/L		08/13/13 08:37	08/15/13 12:48	1
Bis(2-ethylhexyl) phthalate	0.000349	U	0.00236	0.000349	mg/L		08/13/13 08:37	08/15/13 12:48	1
Chrysene	0.0000755	U	0.000472	0.0000755	mg/L		08/13/13 08:37	08/15/13 12:48	1
Benzo[a]pyrene	0.0000755	U	0.000472	0.0000755	mg/L		08/13/13 08:37	08/15/13 12:48	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	117		44 - 123				08/13/13 08:37	08/15/13 12:48	1
2-Fluorobiphenyl	82		43 - 120				08/13/13 08:37	08/15/13 12:48	1
2-Fluorophenol	28		18 - 120				08/13/13 08:37	08/15/13 12:48	1
Nitrobenzene-d5	64		47 - 120				08/13/13 08:37	08/15/13 12:48	1
Terphenyl-d14	95		33 - 141				08/13/13 08:37	08/15/13 12:48	1
Phenol-d5 (Surr)	13		12 - 128				08/13/13 08:37	08/15/13 12:48	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels - DL

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	0.141		0.00472	0.000755	mg/L		08/13/13 08:37	08/15/13 17:07	10
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	109		44 - 123				08/13/13 08:37	08/15/13 17:07	10
2-Fluorobiphenyl	90		43 - 120				08/13/13 08:37	08/15/13 17:07	10
2-Fluorophenol	25		18 - 120				08/13/13 08:37	08/15/13 17:07	10
Nitrobenzene-d5	61		47 - 120				08/13/13 08:37	08/15/13 17:07	10
Terphenyl-d14	124		33 - 141				08/13/13 08:37	08/15/13 17:07	10
Phenol-d5 (Surr)	0	X	12 - 128				08/13/13 08:37	08/15/13 17:07	10

Definitions/Glossary

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-77524-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
U	Analyte was not detected at or above the SDL.
J	Result is less than the MQL but greater than or equal to the SDL and the concentration is an estimated value.

GC/MS Semi VOA

Qualifier	Qualifier Description
U	Analyte was not detected at or above the SDL.
X	Surrogate is outside control limits
J	Result is less than the MQL but greater than or equal to the SDL and the concentration is an estimated value.
N	MS, MSD: Spike recovery exceeds upper or lower control limits.
N	RPD of the MS and MSD exceeds the control limits
*	RPD of the LCS and LCSD exceeds the control limits
H	Sample was prepped or analyzed beyond the specified holding time

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Surrogate Summary

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-77524-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		BFB (67-139)	DBFM (62-130)	TOL (70-130)	12DCE (50-134)
600-77524-1	WG - 1620 - MW44A - 20130805	104	84	92	82
600-77524-2	WG - 1620 - MW65D - 20130805	129	89	107	85
600-77524-2MS	WG - 1620 - MW65D - 20130805	116	95	109	88
600-77524-2MSD	WG - 1620 - MW65D - 20130805	116	75	106	72
600-77524-3	WG - 1620 - MW66D - 20130805	127	93	105	91
600-77524-4	WG - 1620 - MW36D - 20130805	129	95	107	93
600-77524-5	WG - 1620 - MW59D - 20130805	122	89	100	87
600-77524-6	WG - 1620 - FD02- 20130805	127	79	101	77
600-77524-7	WG - 1620 - FB06 - 20130805	128	94	104	93
600-77524-8	WG - 1620 - MW69A - 20130806	134	98	107	97
600-77524-9	WG - 1620 - MW47C - 21030806	132	97	103	97
600-77524-10	WG - 1620 - MW64A - 20130806	125	94	100	94
600-77524-11	WG - 1620 - MW58A - 20130806	127	97	101	97
600-77524-12	WG - 1620 - MW53C - 20130806	112	99	96	101
600-77524-13	WG - 1620 - MW54C - 20130806	121	104	103	102
600-77524-14	WG - 1620 - MW25A - 20130806	113	96	99	100
600-77524-15 - DL	WG - 1620 - MW25C - 20130806	109	98	103	96
600-77524-15	WG - 1620 - MW25C - 20130806	103	86	94	82
600-77524-16	WG - 1620 - MW36B - 20130806	113	97	96	102
600-77524-16 MS	WG - 1620 - MW36B - 20130806	107	93	99	94
600-77524-16 MSD	WG - 1620 - MW36B - 20130806	107	88	97	88
600-77524-17	WG - 1620 - MW36A - 20130806	107	95	93	98
600-77524-18	WG - 1620 - FB07 - 20130806	110	91	95	94
600-77524-19	WG - 1620 - MW28C - 20130807	134	84	107	83
600-77524-19 MS	WG - 1620 - MW28C - 20130807	118	102	110	97
600-77524-19 MSD	WG - 1620 - MW28C - 20130807	114	99	106	93
600-77524-20	WG - 1620 - MW28A - 20130807	112	100	94	106
600-77524-21	WG - 1620 - MW63B - 20130807	115	100	97	106
600-77524-21 - DL	WG - 1620 - MW63B - 20130807	105	87	93	85
600-77524-21 MS - DL	WG - 1620 - MW63B - 20130807	106	93	96	85
600-77524-21 MSD - DL	WG - 1620 - MW63B - 20130807	104	80	94	81
600-77524-22	WG - 1620 - MW33BR - 20130807	102	83	93	82
600-77524-22 - DL	WG - 1620 - MW33BR - 20130807	104	86	95	82
600-77524-23	WG - 1620 - MW68C - 20130807	114	98	95	104
600-77524-24	WG - 1620 - TB03 - 20130807	113	90	96	94
600-77524-25	WG - 1620 - MW26A - 20130807	100	83	92	80
LCS 600-112771/5	Lab Control Sample	116	80	112	76
LCS 600-112842/3	Lab Control Sample	119	97	111	94
LCS 600-113007/4	Lab Control Sample	99	77	99	76
LCS 600-113144/3	Lab Control Sample	99	76	103	74
MB 600-112771/3	Method Blank	126	85	102	83
MB 600-112842/13	Method Blank	135	81	102	82
MB 600-113007/6	Method Blank	110	89	94	92
MB 600-113144/4	Method Blank	108	84	97	80

Surrogate Legend

BFB = 4-Bromofluorobenzene
 DBFM = Dibromofluoromethane
 TOL = Toluene-d8 (Surr)

Surrogate Summary

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-77524-1

12DCE = 1,2-Dichloroethane-d4 (Surr)

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)					
		TBP (44-123)	FBP (43-120)	2FP (18-120)	NBZ (47-120)	TPH (33-141)	PHL (12-128)
600-77524-1	WG - 1620 - MW44A - 20130805	102	101	71	73	98	40
600-77524-1 - DL	WG - 1620 - MW44A - 20130805	0 X	0 X	0 X	0 X	0 X	0 X
600-77524-2	WG - 1620 - MW65D - 20130805	105	70	20	66	88	9 X
600-77524-2MS	WG - 1620 - MW65D - 20130805	85	70	52	66	70	40
600-77524-2MSD	WG - 1620 - MW65D - 20130805	87	75	53	71	74	44
600-77524-3	WG - 1620 - MW66D - 20130805	92	71	49	61	80	33
600-77524-4	WG - 1620 - MW36D - 20130805	81	72	47	57	84	30
600-77524-5	WG - 1620 - MW59D - 20130805	76	60	35	52	62	20
600-77524-6	WG - 1620 - FD02 - 20130805	75	60	39	52	60	28
600-77524-7	WG - 1620 - FB06 - 20130805	82	88	63	77	96	42
600-77524-8	WG - 1620 - MW69A - 20130806	92	77	43	66	80	30
600-77524-9	WG - 1620 - MW47C - 21030806	88	70	48	65	83	33
600-77524-10	WG - 1620 - MW64A - 20130806	69	78	50	67	79	31
600-77524-11	WG - 1620 - MW58A - 20130806	92	73	45	61	79	31
600-77524-12	WG - 1620 - MW53C - 20130806	84	74	40	57	84	23
600-77524-13	WG - 1620 - MW54C - 20130806	84	73	35	69	81	27
600-77524-13 - DL	WG - 1620 - MW54C - 20130806	85	94	43	72	102	11 X
600-77524-13 - DL2	WG - 1620 - MW54C - 20130806	0 X	0 X	0 X	0 X	0 X	0 X
600-77524-14	WG - 1620 - MW25A - 20130806	77	64	32	47	75	18
600-77524-15	WG - 1620 - MW25C - 20130806	0 X	0 X	0 X	0 X	0 X	0 X
600-77524-15 - DL	WG - 1620 - MW25C - 20130806	0 X	0 X	0 X	0 X	0 X	0 X
600-77524-16	WG - 1620 - MW36B - 20130806	96	84	45	65	87	22
600-77524-17	WG - 1620 - MW36A - 20130806	68	58	22	52	86	11 X
600-77524-18	WG - 1620 - FB07 - 20130806	81	74	30	73	86	15
600-77524-19	WG - 1620 - MW28C - 20130807	88	70	26	64	89	14
600-77524-19 MS	WG - 1620 - MW28C - 20130807	91	44	18	43 X	87	10 X
600-77524-19 MSD	WG - 1620 - MW28C - 20130807	105	68	25	68	91	18
600-77524-20	WG - 1620 - MW28A - 20130807	89	64	21	53	88	9 X
600-77524-21	WG - 1620 - MW63B - 20130807	117	72	29	84	99	15
600-77524-21 - DL	WG - 1620 - MW63B - 20130807	103	76	39	52	122	7 X
600-77524-22	WG - 1620 - MW33BR - 20130807	0 X	0 X	0 X	0 X	0 X	0 X
600-77524-22 - DL	WG - 1620 - MW33BR - 20130807	0 X	0 X	0 X	0 X	0 X	0 X
600-77524-23	WG - 1620 - MW68C - 20130807	88	55	17 X	51	94	10 X
600-77524-25	WG - 1620 - MW26A - 20130807	117	82	28	64	95	13
600-77524-25 - DL	WG - 1620 - MW26A - 20130807	109	90	25	61	124	0 X
LCS 600-112861/2-A	Lab Control Sample	85	77	67	69	79	63
LCS 600-112992/2-A	Lab Control Sample	81	77	81	75	81	78
LCS 600-113428/2-A	Lab Control Sample	98	88	70	81	86	73
LCSD 600-113428/3-A	Lab Control Sample Dup	86	78	68	70	81	66
MB 600-112861/1-A	Method Blank	77	90	76	74	89	65
MB 600-112992/1-A	Method Blank	63	80	88	79	88	83
MB 600-113428/1-A	Method Blank	97	81	73	70	90	66

Surrogate Legend

TBP = 2,4,6-Tribromophenol
 FBP = 2-Fluorobiphenyl
 2FP = 2-Fluorophenol

Surrogate Summary

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-77524-1

NBZ = Nitrobenzene-d5
TPH = Terphenyl-d14
PHL = Phenol-d5 (Surr)

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15
- 16
- 17

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-77524-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 600-112771/3

Matrix: Water

Analysis Batch: 112771

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	0.000110	U	0.00200	0.000110	mg/L			08/09/13 10:23	1
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			08/09/13 10:23	1
Benzene	0.0000800	U	0.00100	0.0000800	mg/L			08/09/13 10:23	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			08/09/13 10:23	1
Toluene	0.000150	U	0.00100	0.000150	mg/L			08/09/13 10:23	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			08/09/13 10:23	1
Ethylbenzene	0.000110	U	0.00100	0.000110	mg/L			08/09/13 10:23	1
Xylenes, Total	0.000260	U	0.00300	0.000260	mg/L			08/09/13 10:23	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	126		67 - 139		08/09/13 10:23	1
Dibromofluoromethane	85		62 - 130		08/09/13 10:23	1
Toluene-d8 (Surr)	102		70 - 130		08/09/13 10:23	1
1,2-Dichloroethane-d4 (Surr)	83		50 - 134		08/09/13 10:23	1

Lab Sample ID: LCS 600-112771/5

Matrix: Water

Analysis Batch: 112771

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Vinyl chloride	0.0100	0.009638		mg/L		96	47 - 146
Methylene Chloride	0.0100	0.008032		mg/L		80	62 - 134
Benzene	0.0100	0.01100		mg/L		110	69 - 131
1,2-Dichloroethane	0.0100	0.01054		mg/L		105	66 - 140
Toluene	0.0100	0.01121		mg/L		112	67 - 130
Chlorobenzene	0.0100	0.01043		mg/L		104	60 - 136
Ethylbenzene	0.0100	0.01155		mg/L		115	68 - 128
Xylenes, Total	0.0300	0.03380		mg/L		113	68 - 132

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene	116		67 - 139
Dibromofluoromethane	80		62 - 130
Toluene-d8 (Surr)	112		70 - 130
1,2-Dichloroethane-d4 (Surr)	76		50 - 134

Lab Sample ID: 600-77524-2MS

Matrix: Water

Analysis Batch: 112771

Client Sample ID: WG - 1620 - MW65D - 20130805

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Vinyl chloride	0.000110		0.0100	0.01125		mg/L		113	60 - 140
Methylene Chloride	0.000150	U	0.0100	0.008920		mg/L		89	60 - 140
Benzene	0.0000800	U	0.0100	0.01128		mg/L		113	65 - 125
1,2-Dichloroethane	0.000140	U	0.0100	0.01044		mg/L		104	60 - 140
Toluene	0.000150	U	0.0100	0.01144		mg/L		114	76 - 125
Chlorobenzene	0.000120	U	0.0100	0.01037		mg/L		104	72 - 122
Ethylbenzene	0.000110	U	0.0100	0.01187		mg/L		119	60 - 140

TestAmerica Houston

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-77524-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 600-77524-2MS

Client Sample ID: WG - 1620 - MW65D - 20130805

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 112771

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Xylenes, Total	0.000260	U	0.0300	0.03452		mg/L		115	60 - 140
Surrogate	%Recovery	MS Qualifier	Limits						
4-Bromofluorobenzene	116		67 - 139						
Dibromofluoromethane	95		62 - 130						
Toluene-d8 (Surr)	109		70 - 130						
1,2-Dichloroethane-d4 (Surr)	88		50 - 134						

Lab Sample ID: 600-77524-2MSD

Client Sample ID: WG - 1620 - MW65D - 20130805

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 112771

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Vinyl chloride	0.000110		0.0100	0.009462		mg/L		95	60 - 140	17	30
Methylene Chloride	0.000150	U	0.0100	0.006990		mg/L		70	60 - 140	24	30
Benzene	0.0000800	U	0.0100	0.01081		mg/L		108	65 - 125	4	30
1,2-Dichloroethane	0.000140	U	0.0100	0.01062		mg/L		106	60 - 140	2	30
Toluene	0.000150	U	0.0100	0.01106		mg/L		111	76 - 125	3	30
Chlorobenzene	0.000120	U	0.0100	0.01022		mg/L		102	72 - 122	1	30
Ethylbenzene	0.000110	U	0.0100	0.01148		mg/L		115	60 - 140	3	30
Xylenes, Total	0.000260	U	0.0300	0.03334		mg/L		111	60 - 140	3	30
Surrogate	%Recovery	MSD Qualifier	Limits								
4-Bromofluorobenzene	116		67 - 139								
Dibromofluoromethane	75		62 - 130								
Toluene-d8 (Surr)	106		70 - 130								
1,2-Dichloroethane-d4 (Surr)	72		50 - 134								

Lab Sample ID: MB 600-112842/13

Client Sample ID: Method Blank

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 112842

Analyte	MB Result	MB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	0.000110	U	0.00200	0.000110	mg/L			08/10/13 14:50	1
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			08/10/13 14:50	1
Benzene	0.0000800	U	0.00100	0.0000800	mg/L			08/10/13 14:50	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			08/10/13 14:50	1
Toluene	0.000150	U	0.00100	0.000150	mg/L			08/10/13 14:50	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			08/10/13 14:50	1
Ethylbenzene	0.000110	U	0.00100	0.000110	mg/L			08/10/13 14:50	1
Xylenes, Total	0.000260	U	0.00300	0.000260	mg/L			08/10/13 14:50	1
Surrogate	%Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	135		67 - 139					08/10/13 14:50	1
Dibromofluoromethane	81		62 - 130					08/10/13 14:50	1
Toluene-d8 (Surr)	102		70 - 130					08/10/13 14:50	1
1,2-Dichloroethane-d4 (Surr)	82		50 - 134					08/10/13 14:50	1

TestAmerica Houston

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-77524-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 600-112842/3

Matrix: Water

Analysis Batch: 112842

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Vinyl chloride	0.0100	0.01096		mg/L		110	47 - 146
Methylene Chloride	0.0100	0.008828		mg/L		88	62 - 134
Benzene	0.0100	0.01105		mg/L		111	69 - 131
1,2-Dichloroethane	0.0100	0.01103		mg/L		110	66 - 140
Toluene	0.0100	0.01086		mg/L		109	67 - 130
Chlorobenzene	0.0100	0.01017		mg/L		102	60 - 136
Ethylbenzene	0.0100	0.01135		mg/L		113	68 - 128
Xylenes, Total	0.0300	0.03304		mg/L		110	68 - 132

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene	119		67 - 139
Dibromofluoromethane	97		62 - 130
Toluene-d8 (Surr)	111		70 - 130
1,2-Dichloroethane-d4 (Surr)	94		50 - 134

Lab Sample ID: 600-77524-19 MS

Matrix: Water

Analysis Batch: 112842

Client Sample ID: WG - 1620 - MW28C - 20130807

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Vinyl chloride	0.000110		0.0100	0.01135		mg/L		114	60 - 140
Methylene Chloride	0.000150	U	0.0100	0.008752		mg/L		88	60 - 140
Benzene	0.0000800	U	0.0100	0.01081		mg/L		108	65 - 125
1,2-Dichloroethane	0.000140	U	0.0100	0.01071		mg/L		107	60 - 140
Toluene	0.000150	U	0.0100	0.01081		mg/L		108	76 - 125
Chlorobenzene	0.000120	U	0.0100	0.009759		mg/L		98	72 - 122
Ethylbenzene	0.000110	U	0.0100	0.01115		mg/L		112	60 - 140
Xylenes, Total	0.000260	U	0.0300	0.03252		mg/L		108	60 - 140

Surrogate	MS %Recovery	MS Qualifier	Limits
4-Bromofluorobenzene	118		67 - 139
Dibromofluoromethane	102		62 - 130
Toluene-d8 (Surr)	110		70 - 130
1,2-Dichloroethane-d4 (Surr)	97		50 - 134

Lab Sample ID: 600-77524-19 MSD

Matrix: Water

Analysis Batch: 112842

Client Sample ID: WG - 1620 - MW28C - 20130807

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Vinyl chloride	0.000110		0.0100	0.01244		mg/L		124	60 - 140	9	30
Methylene Chloride	0.000150	U	0.0100	0.009226		mg/L		92	60 - 140	5	30
Benzene	0.0000800	U	0.0100	0.01094		mg/L		109	65 - 125	1	30
1,2-Dichloroethane	0.000140	U	0.0100	0.01079		mg/L		108	60 - 140	1	30
Toluene	0.000150	U	0.0100	0.01118		mg/L		112	76 - 125	3	30
Chlorobenzene	0.000120	U	0.0100	0.01025		mg/L		102	72 - 122	5	30
Ethylbenzene	0.000110	U	0.0100	0.01138		mg/L		114	60 - 140	2	30

TestAmerica Houston

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-77524-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 600-77524-19 MSD

Client Sample ID: WG - 1620 - MW28C - 20130807

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 112842

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Xylenes, Total	0.000260	U	0.0300	0.03350		mg/L		112	60 - 140	3	30
Surrogate	%Recovery	MSD Qualifier	Limits								
4-Bromofluorobenzene	114		67 - 139								
Dibromofluoromethane	99		62 - 130								
Toluene-d8 (Surr)	106		70 - 130								
1,2-Dichloroethane-d4 (Surr)	93		50 - 134								

Lab Sample ID: MB 600-113007/6

Client Sample ID: Method Blank

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 113007

Analyte	MB Result	MB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	0.000110	U	0.00200	0.000110	mg/L			08/13/13 10:50	1
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			08/13/13 10:50	1
Benzene	0.0000800	U	0.00100	0.0000800	mg/L			08/13/13 10:50	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			08/13/13 10:50	1
Toluene	0.000150	U	0.00100	0.000150	mg/L			08/13/13 10:50	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			08/13/13 10:50	1
Ethylbenzene	0.000110	U	0.00100	0.000110	mg/L			08/13/13 10:50	1
Xylenes, Total	0.000260	U	0.00300	0.000260	mg/L			08/13/13 10:50	1
Surrogate	%Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	110		67 - 139					08/13/13 10:50	1
Dibromofluoromethane	89		62 - 130					08/13/13 10:50	1
Toluene-d8 (Surr)	94		70 - 130					08/13/13 10:50	1
1,2-Dichloroethane-d4 (Surr)	92		50 - 134					08/13/13 10:50	1

Lab Sample ID: LCS 600-113007/4

Client Sample ID: Lab Control Sample

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 113007

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Vinyl chloride	0.0100	0.009841		mg/L		98	47 - 146
Methylene Chloride	0.0100	0.007169		mg/L		72	62 - 134
Benzene	0.0100	0.01068		mg/L		107	69 - 131
1,2-Dichloroethane	0.0100	0.01142		mg/L		114	66 - 140
Toluene	0.0100	0.01051		mg/L		105	67 - 130
Chlorobenzene	0.0100	0.009907		mg/L		99	60 - 136
Ethylbenzene	0.0100	0.01113		mg/L		111	68 - 128
Xylenes, Total	0.0300	0.03249		mg/L		108	68 - 132
Surrogate	%Recovery	LCS Qualifier	Limits				
4-Bromofluorobenzene	99		67 - 139				
Dibromofluoromethane	77		62 - 130				
Toluene-d8 (Surr)	99		70 - 130				
1,2-Dichloroethane-d4 (Surr)	76		50 - 134				

TestAmerica Houston

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-77524-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 600-77524-16 MS

Matrix: Water

Analysis Batch: 113007

Client Sample ID: WG - 1620 - MW36B - 20130806

Prep Type: Total/NA

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec.	Limits
	Result	Qualifier		Result	Qualifier					
Vinyl chloride	0.000110	U	0.0100	0.01288		mg/L		129	60 - 140	
Methylene Chloride	0.000150	U	0.0100	0.009026		mg/L		90	60 - 140	
Benzene	0.0000800	U	0.0100	0.01132		mg/L		113	65 - 125	
1,2-Dichloroethane	0.000140	U	0.0100	0.01259		mg/L		126	60 - 140	
Toluene	0.000150	U	0.0100	0.01115		mg/L		111	76 - 125	
Chlorobenzene	0.000120	U	0.0100	0.01060		mg/L		106	72 - 122	
Ethylbenzene	0.000110	U	0.0100	0.01175		mg/L		118	60 - 140	
Xylenes, Total	0.000260	U	0.0300	0.03458		mg/L		115	60 - 140	

Surrogate	MS	MS	Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene	107		67 - 139
Dibromofluoromethane	93		62 - 130
Toluene-d8 (Surr)	99		70 - 130
1,2-Dichloroethane-d4 (Surr)	94		50 - 134

Lab Sample ID: 600-77524-16 MSD

Matrix: Water

Analysis Batch: 113007

Client Sample ID: WG - 1620 - MW36B - 20130806

Prep Type: Total/NA

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.	Limits	RPD	Limit
	Result	Qualifier		Result	Qualifier							
Vinyl chloride	0.000110		0.0100	0.01243		mg/L		124	60 - 140	4	30	
Methylene Chloride	0.000150		0.0100	0.008686		mg/L		87	60 - 140	4	30	
Benzene	0.0000800		0.0100	0.01087		mg/L		109	65 - 125	4	30	
1,2-Dichloroethane	0.000140		0.0100	0.01191		mg/L		119	60 - 140	6	30	
Toluene	0.000150		0.0100	0.01104		mg/L		110	76 - 125	1	30	
Chlorobenzene	0.000120		0.0100	0.01035		mg/L		103	72 - 122	2	30	
Ethylbenzene	0.000110		0.0100	0.01159		mg/L		116	60 - 140	1	30	
Xylenes, Total	0.000260		0.0300	0.03400		mg/L		113	60 - 140	2	30	

Surrogate	MSD	MSD	Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene	107		67 - 139
Dibromofluoromethane	88		62 - 130
Toluene-d8 (Surr)	97		70 - 130
1,2-Dichloroethane-d4 (Surr)	88		50 - 134

Lab Sample ID: MB 600-113144/4

Matrix: Water

Analysis Batch: 113144

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB	MB	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Vinyl chloride	0.000110	U	0.00200	0.000110	mg/L			08/14/13 12:59	1
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			08/14/13 12:59	1
Benzene	0.0000800	U	0.00100	0.0000800	mg/L			08/14/13 12:59	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			08/14/13 12:59	1
Toluene	0.000150	U	0.00100	0.000150	mg/L			08/14/13 12:59	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			08/14/13 12:59	1
Ethylbenzene	0.000110	U	0.00100	0.000110	mg/L			08/14/13 12:59	1

TestAmerica Houston

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-77524-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 600-113144/4

Matrix: Water

Analysis Batch: 113144

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Xylenes, Total	0.000260	U	0.00300	0.000260	mg/L			08/14/13 12:59	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	108		67 - 139		08/14/13 12:59	1
Dibromofluoromethane	84		62 - 130		08/14/13 12:59	1
Toluene-d8 (Surr)	97		70 - 130		08/14/13 12:59	1
1,2-Dichloroethane-d4 (Surr)	80		50 - 134		08/14/13 12:59	1

Lab Sample ID: LCS 600-113144/3

Matrix: Water

Analysis Batch: 113144

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Vinyl chloride	0.0100	0.01125		mg/L		113	47 - 146
Methylene Chloride	0.0100	0.008736		mg/L		87	62 - 134
Benzene	0.0100	0.01059		mg/L		106	69 - 131
1,2-Dichloroethane	0.0100	0.01009		mg/L		101	66 - 140
Toluene	0.0100	0.01123		mg/L		112	67 - 130
Chlorobenzene	0.0100	0.01060		mg/L		106	60 - 136
Ethylbenzene	0.0100	0.01194		mg/L		119	68 - 128
Xylenes, Total	0.0300	0.03486		mg/L		116	68 - 132

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene	99		67 - 139
Dibromofluoromethane	76		62 - 130
Toluene-d8 (Surr)	103		70 - 130
1,2-Dichloroethane-d4 (Surr)	74		50 - 134

Method: 8260B - Volatile Organic Compounds (GC/MS) - DL

Lab Sample ID: 600-77524-21 MS

Matrix: Water

Analysis Batch: 113144

Client Sample ID: WG - 1620 - MW63B - 20130807

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Vinyl chloride - DL	0.00110		0.100	0.1008		mg/L		101	60 - 140
Methylene Chloride - DL	0.00150		0.100	0.08603		mg/L		86	60 - 140
Benzene - DL	0.0869		0.100	0.1855		mg/L		99	65 - 125
1,2-Dichloroethane - DL	0.00140		0.100	0.09998		mg/L		100	60 - 140
Toluene - DL	0.00150		0.100	0.1013		mg/L		101	76 - 125
Chlorobenzene - DL	0.00120		0.100	0.09521		mg/L		95	72 - 122
Ethylbenzene - DL	0.0323		0.100	0.1413		mg/L		109	60 - 140
Xylenes, Total - DL	0.0119		0.300	0.3181		mg/L		102	60 - 140

Surrogate	MS %Recovery	MS Qualifier	Limits
4-Bromofluorobenzene - DL	106		67 - 139
Dibromofluoromethane - DL	93		62 - 130

TestAmerica Houston

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-77524-1

Method: 8260B - Volatile Organic Compounds (GC/MS) - DL (Continued)

Lab Sample ID: 600-77524-21 MS

Matrix: Water

Analysis Batch: 113144

Client Sample ID: WG - 1620 - MW63B - 20130807

Prep Type: Total/NA

Surrogate	MS MS		Limits
	%Recovery	Qualifier	
Toluene-d8 (Surr) - DL	96		70 - 130
1,2-Dichloroethane-d4 (Surr) - DL	85		50 - 134

Lab Sample ID: 600-77524-21 MSD

Matrix: Water

Analysis Batch: 113144

Client Sample ID: WG - 1620 - MW63B - 20130807

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD MSD		Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
				Result	Qualifier						
Vinyl chloride - DL	0.00110		0.100	0.1025		mg/L		103	60 - 140	2	30
Methylene Chloride - DL	0.00150		0.100	0.08438		mg/L		84	60 - 140	2	30
Benzene - DL	0.0869		0.100	0.1825		mg/L		96	65 - 125	2	30
1,2-Dichloroethane - DL	0.00140		0.100	0.1021		mg/L		102	60 - 140	2	30
Toluene - DL	0.00150		0.100	0.1008		mg/L		101	76 - 125	0	30
Chlorobenzene - DL	0.00120		0.100	0.09589		mg/L		96	72 - 122	1	30
Ethylbenzene - DL	0.0323		0.100	0.1403		mg/L		108	60 - 140	1	30
Xylenes, Total - DL	0.0119		0.300	0.3198		mg/L		103	60 - 140	1	30

Surrogate	MSD MSD		Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene - DL	104		67 - 139
Dibromofluoromethane - DL	80		62 - 130
Toluene-d8 (Surr) - DL	94		70 - 130
1,2-Dichloroethane-d4 (Surr) - DL	81		50 - 134

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Lab Sample ID: MB 600-112861/1-A

Matrix: Water

Analysis Batch: 113058

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 112861

Analyte	MB MB		MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Phenol	0.0000400	U	0.000500	0.0000400	mg/L		08/11/13 20:13	08/13/13 08:04	1
Nitrobenzene	0.000110	U	0.000500	0.000110	mg/L		08/11/13 20:13	08/13/13 08:04	1
2,4-Dimethylphenol	0.000310	U	0.000500	0.000310	mg/L		08/11/13 20:13	08/13/13 08:04	1
Bis(2-chloroethoxy)methane	0.000130	U	0.000500	0.000130	mg/L		08/11/13 20:13	08/13/13 08:04	1
Naphthalene	0.0000800	U	0.00500	0.0000800	mg/L		08/11/13 20:13	08/13/13 08:04	1
2-Methylnaphthalene	0.0000700	U	0.000500	0.0000700	mg/L		08/11/13 20:13	08/13/13 08:04	1
2-Chloronaphthalene	0.0000800	U	0.000500	0.0000800	mg/L		08/11/13 20:13	08/13/13 08:04	1
Acenaphthylene	0.0000600	U	0.000500	0.0000600	mg/L		08/11/13 20:13	08/13/13 08:04	1
2,6-Dinitrotoluene	0.0000800	U	0.000500	0.0000800	mg/L		08/11/13 20:13	08/13/13 08:04	1
Acenaphthene	0.0000800	U	0.000500	0.0000800	mg/L		08/11/13 20:13	08/13/13 08:04	1
4-Nitrophenol	0.000560	U	0.00100	0.000560	mg/L		08/11/13 20:13	08/13/13 08:04	1
Dibenzofuran	0.0000800	U	0.000500	0.0000800	mg/L		08/11/13 20:13	08/13/13 08:04	1
2,4-Dinitrotoluene	0.000130	U	0.000500	0.000130	mg/L		08/11/13 20:13	08/13/13 08:04	1
Fluorene	0.0000700	U	0.000500	0.0000700	mg/L		08/11/13 20:13	08/13/13 08:04	1
4,6-Dinitro-2-methylphenol	0.000830	U	0.00100	0.000830	mg/L		08/11/13 20:13	08/13/13 08:04	1
N-Nitrosodiphenylamine	0.000100	U	0.000500	0.000100	mg/L		08/11/13 20:13	08/13/13 08:04	1

TestAmerica Houston

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-77524-1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Lab Sample ID: MB 600-112861/1-A

Matrix: Water

Analysis Batch: 113058

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 112861

Analyte	MB Result	MB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Diphenylhydrazine	0.000110	U	0.000500	0.000110	mg/L		08/11/13 20:13	08/13/13 08:04	1
Pentachlorophenol	0.000610	U	0.00100	0.000610	mg/L		08/11/13 20:13	08/13/13 08:04	1
Phenanthrene	0.000600	U	0.000500	0.000600	mg/L		08/11/13 20:13	08/13/13 08:04	1
Anthracene	0.000500	U	0.000500	0.000500	mg/L		08/11/13 20:13	08/13/13 08:04	1
Di-n-butyl phthalate	0.000110	U	0.00250	0.000110	mg/L		08/11/13 20:13	08/13/13 08:04	1
Fluoranthene	0.000700	U	0.000500	0.000700	mg/L		08/11/13 20:13	08/13/13 08:04	1
Pyrene	0.000110	U	0.000500	0.000110	mg/L		08/11/13 20:13	08/13/13 08:04	1
Benzo[a]anthracene	0.000800	U	0.000500	0.000800	mg/L		08/11/13 20:13	08/13/13 08:04	1
Bis(2-ethylhexyl) phthalate	0.000370	U	0.00250	0.000370	mg/L		08/11/13 20:13	08/13/13 08:04	1
Chrysene	0.000800	U	0.000500	0.000800	mg/L		08/11/13 20:13	08/13/13 08:04	1
Benzo[a]pyrene	0.000800	U	0.000500	0.000800	mg/L		08/11/13 20:13	08/13/13 08:04	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	77		44 - 123	08/11/13 20:13	08/13/13 08:04	1
2-Fluorobiphenyl	90		43 - 120	08/11/13 20:13	08/13/13 08:04	1
2-Fluorophenol	76		18 - 120	08/11/13 20:13	08/13/13 08:04	1
Nitrobenzene-d5	74		47 - 120	08/11/13 20:13	08/13/13 08:04	1
Terphenyl-d14	89		33 - 141	08/11/13 20:13	08/13/13 08:04	1
Phenol-d5 (Surr)	65		12 - 128	08/11/13 20:13	08/13/13 08:04	1

Lab Sample ID: LCS 600-112861/2-A

Matrix: Water

Analysis Batch: 113058

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 112861

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Phenol	0.0100	0.005452		mg/L		55	11 - 112
Nitrobenzene	0.0100	0.006274		mg/L		63	42 - 119
2,4-Dimethylphenol	0.0100	0.006175		mg/L		62	36 - 109
Bis(2-chloroethoxy)methane	0.0100	0.005982		mg/L		60	42 - 119
Naphthalene	0.0100	0.006685		mg/L		67	39 - 120
2-Methylnaphthalene	0.0100	0.006690		mg/L		67	40 - 121
2-Chloronaphthalene	0.0100	0.006848		mg/L		68	43 - 120
Acenaphthylene	0.0100	0.006979		mg/L		70	35 - 135
2,6-Dinitrotoluene	0.0100	0.006942		mg/L		69	45 - 122
Acenaphthene	0.0100	0.006971		mg/L		70	47 - 145
4-Nitrophenol	0.0200	0.01745		mg/L		87	14 - 132
Dibenzofuran	0.0100	0.006901		mg/L		69	46 - 123
2,4-Dinitrotoluene	0.0100	0.007631		mg/L		76	43 - 128
Fluorene	0.0100	0.006912		mg/L		69	48 - 127
4,6-Dinitro-2-methylphenol	0.0200	0.005850		mg/L		29	24 - 122
N-Nitrosodiphenylamine	0.0100	0.007701		mg/L		77	43 - 107
1,2-Diphenylhydrazine	0.0100	0.006645		mg/L		66	47 - 117
Pentachlorophenol	0.0200	0.01099		mg/L		55	9 - 147
Phenanthrene	0.0100	0.006893		mg/L		69	52 - 121
Anthracene	0.0100	0.006870		mg/L		69	53 - 124
Di-n-butyl phthalate	0.0100	0.008273		mg/L		83	54 - 138
Fluoranthene	0.0100	0.007560		mg/L		76	53 - 127
Pyrene	0.0100	0.007362		mg/L		74	49 - 121

TestAmerica Houston

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-77524-1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Lab Sample ID: LCS 600-112861/2-A

Matrix: Water

Analysis Batch: 113058

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 112861

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzo[a]anthracene	0.0100	0.007326		mg/L		73	53 - 122
Bis(2-ethylhexyl) phthalate	0.0100	0.008126		mg/L		81	47 - 132
Chrysene	0.0100	0.006982		mg/L		70	49 - 124
Benzo[a]pyrene	0.0100	0.006878		mg/L		69	50 - 124

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2,4,6-Tribromophenol	85		44 - 123
2-Fluorobiphenyl	77		43 - 120
2-Fluorophenol	67		18 - 120
Nitrobenzene-d5	69		47 - 120
Terphenyl-d14	79		33 - 141
Phenol-d5 (Surr)	63		12 - 128

Lab Sample ID: 600-77524-2MS

Matrix: Water

Analysis Batch: 113058

Client Sample ID: WG - 1620 - MW65D - 20130805

Prep Type: Total/NA

Prep Batch: 112861

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Phenol	0.000400		0.0200	0.007387		mg/L		37	10 - 62
Nitrobenzene	0.000110		0.0200	0.01177		mg/L		59	37 - 104
2,4-Dimethylphenol	0.000310		0.0200	0.01040		mg/L		52	25 - 85
Bis(2-chloroethoxy)methane	0.000130		0.0200	0.01111		mg/L		56	42 - 101
Naphthalene	0.000164		0.0200	0.01322		mg/L		65	34 - 99
2-Methylnaphthalene	0.0000700		0.0200	0.01269		mg/L		63	36 - 111
2-Chloronaphthalene	0.0000800		0.0200	0.01281		mg/L		64	42 - 100
Acenaphthylene	0.0000600		0.0200	0.01312		mg/L		66	38 - 115
2,6-Dinitrotoluene	0.0000800		0.0200	0.01351		mg/L		68	47 - 118
Acenaphthene	0.000207		0.0200	0.01324		mg/L		65	46 - 118
4-Nitrophenol	0.000560		0.0400	0.02372		mg/L		59	10 - 100
Dibenzofuran	0.0000800		0.0200	0.01282		mg/L		64	46 - 110
2,4-Dinitrotoluene	0.000130		0.0200	0.01448		mg/L		72	41 - 125
Fluorene	0.000102		0.0200	0.01289		mg/L		64	44 - 112
4,6-Dinitro-2-methylphenol	0.000830		0.0400	0.01125		mg/L		28	28 - 128
N-Nitrosodiphenylamine	0.000100		0.0200	0.01418		mg/L		71	58 - 142
1,2-Diphenylhydrazine	0.000110		0.0200	0.01245		mg/L		62	10 - 130
Pentachlorophenol	0.000610		0.0400	0.02419		mg/L		60	45 - 155
Phenanthrene	0.0000600		0.0200	0.01301		mg/L		65	41 - 117
Anthracene	0.0000500		0.0200	0.01301		mg/L		65	35 - 116
Di-n-butyl phthalate	0.000110		0.0200	0.01560		mg/L		78	31 - 137
Fluoranthene	0.0000700		0.0200	0.01399		mg/L		70	14 - 145
Pyrene	0.000110		0.0200	0.01354		mg/L		68	28 - 133
Benzo[a]anthracene	0.0000800		0.0200	0.01305		mg/L		65	24 - 126
Bis(2-ethylhexyl) phthalate	0.000370		0.0200	0.01425		mg/L		71	14 - 123
Chrysene	0.0000800		0.0200	0.01262		mg/L		63	23 - 128
Benzo[a]pyrene	0.0000800		0.0200	0.01199		mg/L		60	60 - 140

TestAmerica Houston

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-77524-1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Lab Sample ID: 600-77524-2MS

Matrix: Water

Analysis Batch: 113058

Client Sample ID: WG - 1620 - MW65D - 20130805

Prep Type: Total/NA

Prep Batch: 112861

Surrogate	MS MS		Limits
	%Recovery	Qualifier	
2,4,6-Tribromophenol	85		44 - 123
2-Fluorobiphenyl	70		43 - 120
2-Fluorophenol	52		18 - 120
Nitrobenzene-d5	66		47 - 120
Terphenyl-d14	70		33 - 141
Phenol-d5 (Surr)	40		12 - 128

Lab Sample ID: 600-77524-2MSD

Matrix: Water

Analysis Batch: 113058

Client Sample ID: WG - 1620 - MW65D - 20130805

Prep Type: Total/NA

Prep Batch: 112861

Analyte	Sample	Sample	Spike	MSD		Unit	D	%Rec	%Rec.		RPD	
	Result	Qualifier		Result	Qualifier				Limits	RPD	Limit	
Phenol	0.0000400		0.0200	0.007824		mg/L		39	10 - 62	6	20	
Nitrobenzene	0.000110		0.0200	0.01307		mg/L		65	37 - 104	10	20	
2,4-Dimethylphenol	0.000310		0.0200	0.01130		mg/L		57	25 - 85	8	20	
Bis(2-chloroethoxy)methane	0.000130		0.0200	0.01241		mg/L		62	42 - 101	11	20	
Naphthalene	0.000164		0.0200	0.01434		mg/L		71	34 - 99	8	20	
2-Methylnaphthalene	0.0000700		0.0200	0.01376		mg/L		69	36 - 111	8	20	
2-Chloronaphthalene	0.0000800		0.0200	0.01389		mg/L		69	42 - 100	8	20	
Acenaphthylene	0.0000600		0.0200	0.01409		mg/L		70	38 - 115	7	20	
2,6-Dinitrotoluene	0.0000800		0.0200	0.01408		mg/L		70	47 - 118	4	20	
Acenaphthene	0.000207		0.0200	0.01425		mg/L		70	46 - 118	7	20	
4-Nitrophenol	0.000560		0.0400	0.02532		mg/L		63	10 - 100	7	20	
Dibenzofuran	0.0000800		0.0200	0.01383		mg/L		69	46 - 110	8	20	
2,4-Dinitrotoluene	0.000130		0.0200	0.01537		mg/L		77	41 - 125	6	20	
Fluorene	0.000102		0.0200	0.01364		mg/L		68	44 - 112	6	20	
4,6-Dinitro-2-methylphenol	0.000830		0.0400	0.01437	N	mg/L		36	28 - 128	24	20	
N-Nitrosodiphenylamine	0.000100		0.0200	0.01551		mg/L		78	58 - 142	9	20	
1,2-Diphenylhydrazine	0.000110		0.0200	0.01350		mg/L		68	10 - 130	8	20	
Pentachlorophenol	0.000610		0.0400	0.02651		mg/L		66	45 - 155	9	20	
Phenanthrene	0.0000600		0.0200	0.01426		mg/L		71	41 - 117	9	20	
Anthracene	0.0000500		0.0200	0.01425		mg/L		71	35 - 116	9	20	
Di-n-butyl phthalate	0.000110		0.0200	0.01712		mg/L		86	31 - 137	9	20	
Fluoranthene	0.0000700		0.0200	0.01528		mg/L		76	14 - 145	9	20	
Pyrene	0.000110		0.0200	0.01445		mg/L		72	28 - 133	7	20	
Benzo[a]anthracene	0.0000800		0.0200	0.01401		mg/L		70	24 - 126	7	20	
Bis(2-ethylhexyl) phthalate	0.000370		0.0200	0.01515		mg/L		76	14 - 123	6	20	
Chrysene	0.0000800		0.0200	0.01327		mg/L		66	23 - 128	5	20	
Benzo[a]pyrene	0.0000800		0.0200	0.01267		mg/L		63	60 - 140	6	20	

Surrogate	MSD MSD		Limits
	%Recovery	Qualifier	
2,4,6-Tribromophenol	87		44 - 123
2-Fluorobiphenyl	75		43 - 120
2-Fluorophenol	53		18 - 120
Nitrobenzene-d5	71		47 - 120
Terphenyl-d14	74		33 - 141
Phenol-d5 (Surr)	44		12 - 128

TestAmerica Houston

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-77524-1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Lab Sample ID: MB 600-112992/1-A

Matrix: Water

Analysis Batch: 113225

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 112992

Analyte	MB Result	MB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.000400	U	0.000500	0.000400	mg/L		08/13/13 08:37	08/15/13 00:43	1
Nitrobenzene	0.000110	U	0.000500	0.000110	mg/L		08/13/13 08:37	08/15/13 00:43	1
2,4-Dimethylphenol	0.000310	U	0.000500	0.000310	mg/L		08/13/13 08:37	08/15/13 00:43	1
Bis(2-chloroethoxy)methane	0.000130	U	0.000500	0.000130	mg/L		08/13/13 08:37	08/15/13 00:43	1
Naphthalene	0.000800	U	0.00500	0.000800	mg/L		08/13/13 08:37	08/15/13 00:43	1
2-Methylnaphthalene	0.0000700	U	0.000500	0.0000700	mg/L		08/13/13 08:37	08/15/13 00:43	1
2-Chloronaphthalene	0.0000800	U	0.000500	0.0000800	mg/L		08/13/13 08:37	08/15/13 00:43	1
Acenaphthylene	0.0000600	U	0.000500	0.0000600	mg/L		08/13/13 08:37	08/15/13 00:43	1
2,6-Dinitrotoluene	0.0000800	U	0.000500	0.0000800	mg/L		08/13/13 08:37	08/15/13 00:43	1
Acenaphthene	0.0000800	U	0.000500	0.0000800	mg/L		08/13/13 08:37	08/15/13 00:43	1
4-Nitrophenol	0.000560	U	0.00100	0.000560	mg/L		08/13/13 08:37	08/15/13 00:43	1
Dibenzofuran	0.0000800	U	0.000500	0.0000800	mg/L		08/13/13 08:37	08/15/13 00:43	1
2,4-Dinitrotoluene	0.000130	U	0.000500	0.000130	mg/L		08/13/13 08:37	08/15/13 00:43	1
Fluorene	0.0000700	U	0.000500	0.0000700	mg/L		08/13/13 08:37	08/15/13 00:43	1
4,6-Dinitro-2-methylphenol	0.000830	U	0.00100	0.000830	mg/L		08/13/13 08:37	08/15/13 00:43	1
N-Nitrosodiphenylamine	0.000100	U	0.000500	0.000100	mg/L		08/13/13 08:37	08/15/13 00:43	1
1,2-Diphenylhydrazine	0.000110	U	0.000500	0.000110	mg/L		08/13/13 08:37	08/15/13 00:43	1
Pentachlorophenol	0.000610	U	0.00100	0.000610	mg/L		08/13/13 08:37	08/15/13 00:43	1
Phenanthrene	0.0000600	U	0.000500	0.0000600	mg/L		08/13/13 08:37	08/15/13 00:43	1
Anthracene	0.0000500	U	0.000500	0.0000500	mg/L		08/13/13 08:37	08/15/13 00:43	1
Di-n-butyl phthalate	0.000110	U	0.00250	0.000110	mg/L		08/13/13 08:37	08/15/13 00:43	1
Fluoranthene	0.0000700	U	0.000500	0.0000700	mg/L		08/13/13 08:37	08/15/13 00:43	1
Pyrene	0.000110	U	0.000500	0.000110	mg/L		08/13/13 08:37	08/15/13 00:43	1
Benzo[a]anthracene	0.0000800	U	0.000500	0.0000800	mg/L		08/13/13 08:37	08/15/13 00:43	1
Bis(2-ethylhexyl) phthalate	0.000370	U	0.00250	0.000370	mg/L		08/13/13 08:37	08/15/13 00:43	1
Chrysene	0.0000800	U	0.000500	0.0000800	mg/L		08/13/13 08:37	08/15/13 00:43	1
Benzo[a]pyrene	0.0000800	U	0.000500	0.0000800	mg/L		08/13/13 08:37	08/15/13 00:43	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	63		44 - 123	08/13/13 08:37	08/15/13 00:43	1
2-Fluorobiphenyl	80		43 - 120	08/13/13 08:37	08/15/13 00:43	1
2-Fluorophenol	88		18 - 120	08/13/13 08:37	08/15/13 00:43	1
Nitrobenzene-d5	79		47 - 120	08/13/13 08:37	08/15/13 00:43	1
Terphenyl-d14	88		33 - 141	08/13/13 08:37	08/15/13 00:43	1
Phenol-d5 (Surr)	83		12 - 128	08/13/13 08:37	08/15/13 00:43	1

Lab Sample ID: LCS 600-112992/2-A

Matrix: Water

Analysis Batch: 113225

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 112992

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Phenol	0.0100	0.006852		mg/L		69	11 - 112
Nitrobenzene	0.0100	0.006664		mg/L		67	42 - 119
2,4-Dimethylphenol	0.0100	0.006854		mg/L		69	36 - 109
Bis(2-chloroethoxy)methane	0.0100	0.006087		mg/L		61	42 - 119
Naphthalene	0.0100	0.006728		mg/L		67	39 - 120
2-Methylnaphthalene	0.0100	0.006649		mg/L		66	40 - 121
2-Chloronaphthalene	0.0100	0.006804		mg/L		68	43 - 120

TestAmerica Houston

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-77524-1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Lab Sample ID: LCS 600-112992/2-A

Matrix: Water

Analysis Batch: 113225

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 112992

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acenaphthylene	0.0100	0.006962		mg/L		70	35 - 135
2,6-Dinitrotoluene	0.0100	0.007135		mg/L		71	45 - 122
Acenaphthene	0.0100	0.006907		mg/L		69	47 - 145
4-Nitrophenol	0.0200	0.01951		mg/L		98	14 - 132
Dibenzofuran	0.0100	0.006764		mg/L		68	46 - 123
2,4-Dinitrotoluene	0.0100	0.007526		mg/L		75	43 - 128
Fluorene	0.0100	0.006778		mg/L		68	48 - 127
4,6-Dinitro-2-methylphenol	0.0200	0.008784		mg/L		44	24 - 122
N-Nitrosodiphenylamine	0.0100	0.007652		mg/L		77	43 - 107
1,2-Diphenylhydrazine	0.0100	0.006561		mg/L		66	47 - 117
Pentachlorophenol	0.0200	0.01263		mg/L		63	9 - 147
Phenanthrene	0.0100	0.006852		mg/L		69	52 - 121
Anthracene	0.0100	0.007043		mg/L		70	53 - 124
Di-n-butyl phthalate	0.0100	0.008115		mg/L		81	54 - 138
Fluoranthene	0.0100	0.007739		mg/L		77	53 - 127
Pyrene	0.0100	0.007138		mg/L		71	49 - 121
Benzo[a]anthracene	0.0100	0.006867		mg/L		69	53 - 122
Bis(2-ethylhexyl) phthalate	0.0100	0.007572		mg/L		76	47 - 132
Chrysene	0.0100	0.007060		mg/L		71	49 - 124
Benzo[a]pyrene	0.0100	0.006484		mg/L		65	50 - 124

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
2,4,6-Tribromophenol	81		44 - 123
2-Fluorobiphenyl	77		43 - 120
2-Fluorophenol	81		18 - 120
Nitrobenzene-d5	75		47 - 120
Terphenyl-d14	81		33 - 141
Phenol-d5 (Surr)	78		12 - 128

Lab Sample ID: 600-77524-19 MS

Matrix: Water

Analysis Batch: 113225

Client Sample ID: WG - 1620 - MW28C - 20130807

Prep Type: Total/NA

Prep Batch: 112992

Analyte	Sample Result	Sample Qualifier	Spike Added	MS MS		Unit	D	%Rec	%Rec. Limits
				Result	Qualifier				
Phenol	0.0000377	U	0.00943	0.001145		mg/L		12	10 - 62
Nitrobenzene	0.000104	U	0.00943	0.003903		mg/L		41	37 - 104
2,4-Dimethylphenol	0.000292	U	0.00943	0.003632		mg/L		38	25 - 85
Bis(2-chloroethoxy)methane	0.000123	U	0.00943	0.003326	N	mg/L		35	42 - 101
Naphthalene	0.0000755	U	0.00943	0.003824	J	mg/L		41	34 - 99
2-Methylnaphthalene	0.0000660	U	0.00943	0.003827		mg/L		41	36 - 111
2-Chloronaphthalene	0.0000755	U	0.00943	0.003729	N	mg/L		40	42 - 100
Acenaphthylene	0.0000566	U	0.00943	0.004017		mg/L		43	38 - 115
2,6-Dinitrotoluene	0.0000755	U	0.00943	0.005943		mg/L		63	47 - 118
Acenaphthene	0.0000755	U	0.00943	0.003999	N	mg/L		42	46 - 118
4-Nitrophenol	0.000528	U	0.0189	0.006120		mg/L		32	10 - 100
Dibenzofuran	0.0000755	U	0.00943	0.004370		mg/L		46	46 - 110
2,4-Dinitrotoluene	0.000123	U	0.00943	0.007582		mg/L		80	41 - 125
Fluorene	0.0000660	U	0.00943	0.005136		mg/L		54	44 - 112

TestAmerica Houston

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-77524-1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Lab Sample ID: 600-77524-19 MS

Matrix: Water

Analysis Batch: 113225

Client Sample ID: WG - 1620 - MW28C - 20130807

Prep Type: Total/NA

Prep Batch: 112992

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec. Limits
	Result	Qualifier	Added	Result	Qualifier				
4,6-Dinitro-2-methylphenol	0.000783	U	0.0189	0.009234		mg/L		49	28 - 128
N-Nitrosodiphenylamine	0.0000943	U	0.00943	0.007557		mg/L		80	58 - 142
1,2-Diphenylhydrazine	0.000104	U	0.00943	0.005529		mg/L		59	10 - 130
Pentachlorophenol	0.000575	U	0.0189	0.01509		mg/L		80	45 - 155
Phenanthrene	0.000566	U	0.00943	0.007159		mg/L		76	41 - 117
Anthracene	0.000472	U	0.00943	0.007142		mg/L		76	35 - 116
Di-n-butyl phthalate	0.000485	J	0.00943	0.009224		mg/L		93	31 - 137
Fluoranthene	0.000660	U	0.00943	0.008470		mg/L		90	14 - 145
Pyrene	0.000104	U	0.00943	0.007798		mg/L		83	28 - 133
Benzo[a]anthracene	0.000755	U	0.00943	0.007588		mg/L		80	24 - 126
Bis(2-ethylhexyl) phthalate	0.000349	U	0.00943	0.006317		mg/L		67	14 - 123
Chrysene	0.000755	U	0.00943	0.007116		mg/L		75	23 - 128
Benzo[a]pyrene	0.000755	U	0.00943	0.006481		mg/L		69	60 - 140

Surrogate	MS %Recovery	MS Qualifier	MS Limits
2,4,6-Tribromophenol	91		44 - 123
2-Fluorobiphenyl	44		43 - 120
2-Fluorophenol	18		18 - 120
Nitrobenzene-d5	43	X	47 - 120
Terphenyl-d14	87		33 - 141
Phenol-d5 (Surr)	10	X	12 - 128

Lab Sample ID: 600-77524-19 MSD

Matrix: Water

Analysis Batch: 113225

Client Sample ID: WG - 1620 - MW28C - 20130807

Prep Type: Total/NA

Prep Batch: 112992

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
	Result	Qualifier	Added	Result	Qualifier						
Phenol	0.0000377	U	0.00943	0.001808	N	mg/L		19	10 - 62	45	20
Nitrobenzene	0.000104	U	0.00943	0.005911	N	mg/L		63	37 - 104	41	20
2,4-Dimethylphenol	0.000292	U	0.00943	0.005703	N	mg/L		60	25 - 85	44	20
Bis(2-chloroethoxy)methane	0.000123	U	0.00943	0.005398	N	mg/L		57	42 - 101	47	20
Naphthalene	0.000755	U	0.00943	0.005977	N	mg/L		63	34 - 99	44	20
2-Methylnaphthalene	0.000660	U	0.00943	0.005826	N	mg/L		62	36 - 111	41	20
2-Chloronaphthalene	0.000755	U	0.00943	0.005953	N	mg/L		63	42 - 100	46	20
Acenaphthylene	0.000566	U	0.00943	0.006275	N	mg/L		67	38 - 115	44	20
2,6-Dinitrotoluene	0.000755	U	0.00943	0.007044		mg/L		75	47 - 118	17	20
Acenaphthene	0.000755	U	0.00943	0.006487	N	mg/L		69	46 - 118	47	20
4-Nitrophenol	0.000528	U	0.0189	0.004863	N	mg/L		26	10 - 100	23	20
Dibenzofuran	0.000755	U	0.00943	0.006472	N	mg/L		69	46 - 110	39	20
2,4-Dinitrotoluene	0.000123	U	0.00943	0.008164		mg/L		87	41 - 125	7	20
Fluorene	0.000660	U	0.00943	0.006922	N	mg/L		73	44 - 112	30	20
4,6-Dinitro-2-methylphenol	0.000783	U	0.0189	0.008810		mg/L		47	28 - 128	5	20
N-Nitrosodiphenylamine	0.0000943	U	0.00943	0.008050		mg/L		85	58 - 142	6	20
1,2-Diphenylhydrazine	0.000104	U	0.00943	0.006928	N	mg/L		73	10 - 130	22	20
Pentachlorophenol	0.000575	U	0.0189	0.01450		mg/L		77	45 - 155	4	20
Phenanthrene	0.000566	U	0.00943	0.007464		mg/L		79	41 - 117	4	20
Anthracene	0.000472	U	0.00943	0.007566		mg/L		80	35 - 116	6	20
Di-n-butyl phthalate	0.000485	J	0.00943	0.009336		mg/L		94	31 - 137	1	20

TestAmerica Houston

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-77524-1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Lab Sample ID: 600-77524-19 MSD

Matrix: Water

Analysis Batch: 113225

Client Sample ID: WG - 1620 - MW28C - 20130807

Prep Type: Total/NA

Prep Batch: 112992

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.	RPD	Limit
	Result	Qualifier	Added	Result	Qualifier				Limits		
Fluoranthene	0.0000660	U	0.00943	0.008345		mg/L		88	14 - 145	1	20
Pyrene	0.000104	U	0.00943	0.008019		mg/L		85	28 - 133	3	20
Benzo[a]anthracene	0.0000755	U	0.00943	0.007929		mg/L		84	24 - 126	4	20
Bis(2-ethylhexyl) phthalate	0.000349	U	0.00943	0.007231		mg/L		77	14 - 123	14	20
Chrysene	0.0000755	U	0.00943	0.007283		mg/L		77	23 - 128	2	20
Benzo[a]pyrene	0.0000755	U	0.00943	0.006820		mg/L		72	60 - 140	5	20

Surrogate	MSD	MSD	Limits
	%Recovery	Qualifier	
2,4,6-Tribromophenol	105		44 - 123
2-Fluorobiphenyl	68		43 - 120
2-Fluorophenol	25		18 - 120
Nitrobenzene-d5	68		47 - 120
Terphenyl-d14	91		33 - 141
Phenol-d5 (Surr)	18		12 - 128

Lab Sample ID: MB 600-113428/1-A

Matrix: Water

Analysis Batch: 113600

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 113428

Analyte	MB	MB	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Phenol	0.0000400	U	0.000500	0.0000400	mg/L		08/19/13 11:26	08/20/13 11:06	1
Nitrobenzene	0.000110	U	0.000500	0.000110	mg/L		08/19/13 11:26	08/20/13 11:06	1
2,4-Dimethylphenol	0.000310	U	0.000500	0.000310	mg/L		08/19/13 11:26	08/20/13 11:06	1
Bis(2-chloroethoxy)methane	0.000130	U	0.000500	0.000130	mg/L		08/19/13 11:26	08/20/13 11:06	1
Naphthalene	0.0000800	U	0.000500	0.0000800	mg/L		08/19/13 11:26	08/20/13 11:06	1
2-Methylnaphthalene	0.0000700	U	0.000500	0.0000700	mg/L		08/19/13 11:26	08/20/13 11:06	1
2-Chloronaphthalene	0.0000800	U	0.000500	0.0000800	mg/L		08/19/13 11:26	08/20/13 11:06	1
Acenaphthylene	0.0000600	U	0.000500	0.0000600	mg/L		08/19/13 11:26	08/20/13 11:06	1
2,6-Dinitrotoluene	0.0000800	U	0.000500	0.0000800	mg/L		08/19/13 11:26	08/20/13 11:06	1
Acenaphthene	0.0000800	U	0.000500	0.0000800	mg/L		08/19/13 11:26	08/20/13 11:06	1
4-Nitrophenol	0.000560	U	0.00100	0.000560	mg/L		08/19/13 11:26	08/20/13 11:06	1
Dibenzofuran	0.0000800	U	0.000500	0.0000800	mg/L		08/19/13 11:26	08/20/13 11:06	1
2,4-Dinitrotoluene	0.000130	U	0.000500	0.000130	mg/L		08/19/13 11:26	08/20/13 11:06	1
Fluorene	0.0000700	U	0.000500	0.0000700	mg/L		08/19/13 11:26	08/20/13 11:06	1
4,6-Dinitro-2-methylphenol	0.000830	U	0.00100	0.000830	mg/L		08/19/13 11:26	08/20/13 11:06	1
N-Nitrosodiphenylamine	0.000100	U	0.000500	0.000100	mg/L		08/19/13 11:26	08/20/13 11:06	1
1,2-Diphenylhydrazine	0.000110	U	0.000500	0.000110	mg/L		08/19/13 11:26	08/20/13 11:06	1
Pentachlorophenol	0.000610	U	0.00100	0.000610	mg/L		08/19/13 11:26	08/20/13 11:06	1
Phenanthrene	0.0000600	U	0.000500	0.0000600	mg/L		08/19/13 11:26	08/20/13 11:06	1
Anthracene	0.0000500	U	0.000500	0.0000500	mg/L		08/19/13 11:26	08/20/13 11:06	1
Di-n-butyl phthalate	0.000110	U	0.00250	0.000110	mg/L		08/19/13 11:26	08/20/13 11:06	1
Fluoranthene	0.0000700	U	0.000500	0.0000700	mg/L		08/19/13 11:26	08/20/13 11:06	1
Pyrene	0.000110	U	0.000500	0.000110	mg/L		08/19/13 11:26	08/20/13 11:06	1
Benzo[a]anthracene	0.0000800	U	0.000500	0.0000800	mg/L		08/19/13 11:26	08/20/13 11:06	1
Bis(2-ethylhexyl) phthalate	0.000370	U	0.00250	0.000370	mg/L		08/19/13 11:26	08/20/13 11:06	1
Chrysene	0.0000800	U	0.000500	0.0000800	mg/L		08/19/13 11:26	08/20/13 11:06	1
Benzo[a]pyrene	0.0000800	U	0.000500	0.0000800	mg/L		08/19/13 11:26	08/20/13 11:06	1

TestAmerica Houston

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-77524-1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Lab Sample ID: MB 600-113428/1-A
Matrix: Water
Analysis Batch: 113600

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 113428

Surrogate	MB MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
2,4,6-Tribromophenol	97		44 - 123	08/19/13 11:26	08/20/13 11:06	1
2-Fluorobiphenyl	81		43 - 120	08/19/13 11:26	08/20/13 11:06	1
2-Fluorophenol	73		18 - 120	08/19/13 11:26	08/20/13 11:06	1
Nitrobenzene-d5	70		47 - 120	08/19/13 11:26	08/20/13 11:06	1
Terphenyl-d14	90		33 - 141	08/19/13 11:26	08/20/13 11:06	1
Phenol-d5 (Surr)	66		12 - 128	08/19/13 11:26	08/20/13 11:06	1

Lab Sample ID: LCS 600-113428/2-A
Matrix: Water
Analysis Batch: 113600

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 113428

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrobenzene	0.0100	0.006639		mg/L		66	42 - 119
2,4-Dimethylphenol	0.0100	0.007384		mg/L		74	36 - 109
Bis(2-chloroethoxy)methane	0.0100	0.006296		mg/L		63	42 - 119
Naphthalene	0.0100	0.007522		mg/L		75	39 - 120
2-Methylnaphthalene	0.0100	0.007707		mg/L		77	40 - 121
2-Chloronaphthalene	0.0100	0.007710		mg/L		77	43 - 120
Acenaphthylene	0.0100	0.007929		mg/L		79	35 - 135
2,6-Dinitrotoluene	0.0100	0.007855		mg/L		79	45 - 122
Acenaphthene	0.0100	0.007820		mg/L		78	47 - 145
4-Nitrophenol	0.0200	0.02113		mg/L		106	14 - 132
Dibenzofuran	0.0100	0.007722		mg/L		77	46 - 123
2,4-Dinitrotoluene	0.0100	0.008716		mg/L		87	43 - 128
Fluorene	0.0100	0.008056		mg/L		81	48 - 127
4,6-Dinitro-2-methylphenol	0.0200	0.007997		mg/L		40	24 - 122
N-Nitrosodiphenylamine	0.0100	0.008186		mg/L		82	43 - 107
1,2-Diphenylhydrazine	0.0100	0.008285		mg/L		83	47 - 117
Pentachlorophenol	0.0200	0.01239		mg/L		62	9 - 147
Phenanthrene	0.0100	0.007716		mg/L		77	52 - 121
Anthracene	0.0100	0.007844		mg/L		78	53 - 124
Di-n-butyl phthalate	0.0100	0.008668		mg/L		87	54 - 138
Fluoranthene	0.0100	0.008942		mg/L		89	53 - 127
Pyrene	0.0100	0.007747		mg/L		77	49 - 121
Benzo[a]anthracene	0.0100	0.007985		mg/L		80	53 - 122
Bis(2-ethylhexyl) phthalate	0.0100	0.007983		mg/L		80	47 - 132
Chrysene	0.0100	0.007870		mg/L		79	49 - 124
Benzo[a]pyrene	0.0100	0.007653		mg/L		77	50 - 124

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
2,4,6-Tribromophenol	98		44 - 123
2-Fluorobiphenyl	88		43 - 120
2-Fluorophenol	70		18 - 120
Nitrobenzene-d5	81		47 - 120
Terphenyl-d14	86		33 - 141
Phenol-d5 (Surr)	73		12 - 128

TestAmerica Houston

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-77524-1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Lab Sample ID: LCSD 600-113428/3-A

Matrix: Water

Analysis Batch: 113600

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 113428

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Phenol	0.0100	0.005949		mg/L		59	11 - 112	19	20
Nitrobenzene	0.0100	0.006144		mg/L		61	42 - 119	8	20
2,4-Dimethylphenol	0.0100	0.006718		mg/L		67	36 - 109	9	20
Bis(2-chloroethoxy)methane	0.0100	0.005750		mg/L		58	42 - 119	9	20
Naphthalene	0.0100	0.006763		mg/L		68	39 - 120	11	20
2-Methylnaphthalene	0.0100	0.006903		mg/L		69	40 - 121	11	20
2-Chloronaphthalene	0.0100	0.007018		mg/L		70	43 - 120	9	20
Acenaphthylene	0.0100	0.007037		mg/L		70	35 - 135	12	20
2,6-Dinitrotoluene	0.0100	0.007618		mg/L		76	45 - 122	3	20
Acenaphthene	0.0100	0.007290		mg/L		73	47 - 145	7	20
4-Nitrophenol	0.0200	0.01756		mg/L		88	14 - 132	18	20
Dibenzofuran	0.0100	0.007153		mg/L		72	46 - 123	8	20
2,4-Dinitrotoluene	0.0100	0.007762		mg/L		78	43 - 128	12	20
Fluorene	0.0100	0.007278		mg/L		73	48 - 127	10	20
4,6-Dinitro-2-methylphenol	0.0200	0.009783		mg/L		49	24 - 122	20	20
N-Nitrosodiphenylamine	0.0100	0.007859		mg/L		79	43 - 107	4	20
1,2-Diphenylhydrazine	0.0100	0.006392	*	mg/L		64	47 - 117	26	20
Pentachlorophenol	0.0200	0.01492		mg/L		75	9 - 147	18	20
Phenanthrene	0.0100	0.007045		mg/L		70	52 - 121	9	20
Anthracene	0.0100	0.007466		mg/L		75	53 - 124	5	20
Di-n-butyl phthalate	0.0100	0.008234		mg/L		82	54 - 138	5	20
Fluoranthene	0.0100	0.008493		mg/L		85	53 - 127	5	20
Pyrene	0.0100	0.007113		mg/L		71	49 - 121	9	20
Benzo[a]anthracene	0.0100	0.007418		mg/L		74	53 - 122	7	20
Bis(2-ethylhexyl) phthalate	0.0100	0.007474		mg/L		75	47 - 132	7	20
Chrysene	0.0100	0.006859		mg/L		69	49 - 124	14	20
Benzo[a]pyrene	0.0100	0.007299		mg/L		73	50 - 124	5	20

Surrogate	LCSD %Recovery	LCSD Qualifier	LCSD Limits
2,4,6-Tribromophenol	86		44 - 123
2-Fluorobiphenyl	78		43 - 120
2-Fluorophenol	68		18 - 120
Nitrobenzene-d5	70		47 - 120
Terphenyl-d14	81		33 - 141
Phenol-d5 (Surr)	66		12 - 128

Unadjusted Detection Limits

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-77524-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	MQL	MDL	Units	Method
1,2-Dichloroethane	0.00100	0.000140	mg/L	8260B
Benzene	0.00100	0.0000800	mg/L	8260B
Chlorobenzene	0.00100	0.000120	mg/L	8260B
Ethylbenzene	0.00100	0.000110	mg/L	8260B
Methylene Chloride	0.00100	0.000150	mg/L	8260B
Toluene	0.00100	0.000150	mg/L	8260B
Vinyl chloride	0.00200	0.000110	mg/L	8260B
Xylenes, Total	0.00300	0.000260	mg/L	8260B

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	MQL	MDL	Units	Method
1,2-Diphenylhydrazine	0.000500	0.000110	mg/L	8270C LL
2,4-Dimethylphenol	0.000500	0.000310	mg/L	8270C LL
2,4-Dinitrotoluene	0.000500	0.000130	mg/L	8270C LL
2,6-Dinitrotoluene	0.000500	0.0000800	mg/L	8270C LL
2-Chloronaphthalene	0.000500	0.0000800	mg/L	8270C LL
2-Methylnaphthalene	0.000500	0.0000700	mg/L	8270C LL
4,6-Dinitro-2-methylphenol	0.00100	0.000830	mg/L	8270C LL
4-Nitrophenol	0.00100	0.000560	mg/L	8270C LL
Acenaphthene	0.000500	0.0000800	mg/L	8270C LL
Acenaphthylene	0.000500	0.0000600	mg/L	8270C LL
Anthracene	0.000500	0.0000500	mg/L	8270C LL
Benzo[a]anthracene	0.000500	0.0000800	mg/L	8270C LL
Benzo[a]pyrene	0.000500	0.0000800	mg/L	8270C LL
Bis(2-chloroethoxy)methane	0.000500	0.000130	mg/L	8270C LL
Bis(2-ethylhexyl) phthalate	0.00250	0.000370	mg/L	8270C LL
Chrysene	0.000500	0.0000800	mg/L	8270C LL
Dibenzofuran	0.000500	0.0000800	mg/L	8270C LL
Di-n-butyl phthalate	0.00250	0.000110	mg/L	8270C LL
Fluoranthene	0.000500	0.0000700	mg/L	8270C LL
Fluorene	0.000500	0.0000700	mg/L	8270C LL
Naphthalene	0.00500	0.0000800	mg/L	8270C LL
Nitrobenzene	0.000500	0.000110	mg/L	8270C LL
N-Nitrosodiphenylamine	0.000500	0.000100	mg/L	8270C LL
Pentachlorophenol	0.00100	0.000610	mg/L	8270C LL
Phenanthrene	0.000500	0.0000600	mg/L	8270C LL
Phenol	0.000500	0.0000400	mg/L	8270C LL
Pyrene	0.000500	0.000110	mg/L	8270C LL

QC Association Summary

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-77524-1

GC/MS VOA

Analysis Batch: 112771

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-77524-2	WG - 1620 - MW65D - 20130805	Total/NA	Water	8260B	
600-77524-2MS	WG - 1620 - MW65D - 20130805	Total/NA	Water	8260B	
600-77524-2MSD	WG - 1620 - MW65D - 20130805	Total/NA	Water	8260B	
600-77524-3	WG - 1620 - MW66D - 20130805	Total/NA	Water	8260B	
600-77524-4	WG - 1620 - MW36D - 20130805	Total/NA	Water	8260B	
600-77524-5	WG - 1620 - MW59D - 20130805	Total/NA	Water	8260B	
600-77524-6	WG - 1620 - FD02- 20130805	Total/NA	Water	8260B	
600-77524-7	WG - 1620 - FB06 - 20130805	Total/NA	Water	8260B	
600-77524-8	WG - 1620 - MW69A - 20130806	Total/NA	Water	8260B	
600-77524-9	WG - 1620 - MW47C - 21030806	Total/NA	Water	8260B	
600-77524-10	WG - 1620 - MW64A - 20130806	Total/NA	Water	8260B	
600-77524-11	WG - 1620 - MW58A - 20130806	Total/NA	Water	8260B	
LCS 600-112771/5	Lab Control Sample	Total/NA	Water	8260B	
MB 600-112771/3	Method Blank	Total/NA	Water	8260B	

Analysis Batch: 112842

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-77524-13	WG - 1620 - MW54C - 20130806	Total/NA	Water	8260B	
600-77524-15 - DL	WG - 1620 - MW25C - 20130806	Total/NA	Water	8260B	
600-77524-19	WG - 1620 - MW28C - 20130807	Total/NA	Water	8260B	
600-77524-19 MS	WG - 1620 - MW28C - 20130807	Total/NA	Water	8260B	
600-77524-19 MSD	WG - 1620 - MW28C - 20130807	Total/NA	Water	8260B	
LCS 600-112842/3	Lab Control Sample	Total/NA	Water	8260B	
MB 600-112842/13	Method Blank	Total/NA	Water	8260B	

Analysis Batch: 113007

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-77524-12	WG - 1620 - MW53C - 20130806	Total/NA	Water	8260B	
600-77524-14	WG - 1620 - MW25A - 20130806	Total/NA	Water	8260B	
600-77524-16	WG - 1620 - MW36B - 20130806	Total/NA	Water	8260B	
600-77524-16 MS	WG - 1620 - MW36B - 20130806	Total/NA	Water	8260B	
600-77524-16 MSD	WG - 1620 - MW36B - 20130806	Total/NA	Water	8260B	
600-77524-17	WG - 1620 - MW36A - 20130806	Total/NA	Water	8260B	
600-77524-18	WG - 1620 - FB07 - 20130806	Total/NA	Water	8260B	
600-77524-20	WG - 1620 - MW28A - 20130807	Total/NA	Water	8260B	
600-77524-21	WG - 1620 - MW63B - 20130807	Total/NA	Water	8260B	
600-77524-23	WG - 1620 - MW68C - 20130807	Total/NA	Water	8260B	
600-77524-24	WG - 1620 - TB03 - 20130807	Total/NA	Water	8260B	
LCS 600-113007/4	Lab Control Sample	Total/NA	Water	8260B	
MB 600-113007/6	Method Blank	Total/NA	Water	8260B	

Analysis Batch: 113144

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-77524-1	WG - 1620 - MW44A - 20130805	Total/NA	Water	8260B	
600-77524-15	WG - 1620 - MW25C - 20130806	Total/NA	Water	8260B	
600-77524-21 - DL	WG - 1620 - MW63B - 20130807	Total/NA	Water	8260B	
600-77524-21 MS - DL	WG - 1620 - MW63B - 20130807	Total/NA	Water	8260B	
600-77524-21 MSD - DL	WG - 1620 - MW63B - 20130807	Total/NA	Water	8260B	
600-77524-22	WG - 1620 - MW33BR - 20130807	Total/NA	Water	8260B	
600-77524-22 - DL	WG - 1620 - MW33BR - 20130807	Total/NA	Water	8260B	
600-77524-25	WG - 1620 - MW26A - 20130807	Total/NA	Water	8260B	

TestAmerica Houston

QC Association Summary

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-77524-1

GC/MS VOA (Continued)

Analysis Batch: 113144 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 600-113144/3	Lab Control Sample	Total/NA	Water	8260B	
MB 600-113144/4	Method Blank	Total/NA	Water	8260B	

GC/MS Semi VOA

Prep Batch: 112861

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-77524-1 - DL	WG - 1620 - MW44A - 20130805	Total/NA	Water	3510C	
600-77524-1	WG - 1620 - MW44A - 20130805	Total/NA	Water	3510C	
600-77524-2MS	WG - 1620 - MW65D - 20130805	Total/NA	Water	3510C	
600-77524-2MSD	WG - 1620 - MW65D - 20130805	Total/NA	Water	3510C	
600-77524-3	WG - 1620 - MW66D - 20130805	Total/NA	Water	3510C	
600-77524-4	WG - 1620 - MW36D - 20130805	Total/NA	Water	3510C	
600-77524-5	WG - 1620 - MW59D - 20130805	Total/NA	Water	3510C	
600-77524-6	WG - 1620 - FD02 - 20130805	Total/NA	Water	3510C	
600-77524-7	WG - 1620 - FB06 - 20130805	Total/NA	Water	3510C	
600-77524-8	WG - 1620 - MW69A - 20130806	Total/NA	Water	3510C	
600-77524-9	WG - 1620 - MW47C - 21030806	Total/NA	Water	3510C	
600-77524-10	WG - 1620 - MW64A - 20130806	Total/NA	Water	3510C	
600-77524-11	WG - 1620 - MW58A - 20130806	Total/NA	Water	3510C	
600-77524-12	WG - 1620 - MW53C - 20130806	Total/NA	Water	3510C	
600-77524-13 - DL2	WG - 1620 - MW54C - 20130806	Total/NA	Water	3510C	
600-77524-13	WG - 1620 - MW54C - 20130806	Total/NA	Water	3510C	
600-77524-13 - DL	WG - 1620 - MW54C - 20130806	Total/NA	Water	3510C	
600-77524-14	WG - 1620 - MW25A - 20130806	Total/NA	Water	3510C	
600-77524-15	WG - 1620 - MW25C - 20130806	Total/NA	Water	3510C	
600-77524-15 - DL	WG - 1620 - MW25C - 20130806	Total/NA	Water	3510C	
600-77524-16	WG - 1620 - MW36B - 20130806	Total/NA	Water	3510C	
LCS 600-112861/2-A	Lab Control Sample	Total/NA	Water	3510C	
MB 600-112861/1-A	Method Blank	Total/NA	Water	3510C	

Prep Batch: 112992

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-77524-17	WG - 1620 - MW36A - 20130806	Total/NA	Water	3510C	
600-77524-18	WG - 1620 - FB07 - 20130806	Total/NA	Water	3510C	
600-77524-19	WG - 1620 - MW28C - 20130807	Total/NA	Water	3510C	
600-77524-19 MS	WG - 1620 - MW28C - 20130807	Total/NA	Water	3510C	
600-77524-19 MSD	WG - 1620 - MW28C - 20130807	Total/NA	Water	3510C	
600-77524-20	WG - 1620 - MW28A - 20130807	Total/NA	Water	3510C	
600-77524-21 - DL	WG - 1620 - MW63B - 20130807	Total/NA	Water	3510C	
600-77524-21	WG - 1620 - MW63B - 20130807	Total/NA	Water	3510C	
600-77524-22	WG - 1620 - MW33BR - 20130807	Total/NA	Water	3510C	
600-77524-22 - DL	WG - 1620 - MW33BR - 20130807	Total/NA	Water	3510C	
600-77524-23	WG - 1620 - MW68C - 20130807	Total/NA	Water	3510C	
600-77524-25 - DL	WG - 1620 - MW26A - 20130807	Total/NA	Water	3510C	
600-77524-25	WG - 1620 - MW26A - 20130807	Total/NA	Water	3510C	
LCS 600-112992/2-A	Lab Control Sample	Total/NA	Water	3510C	
MB 600-112992/1-A	Method Blank	Total/NA	Water	3510C	

QC Association Summary

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-77524-1

GC/MS Semi VOA (Continued)

Analysis Batch: 113058

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-77524-2MS	WG - 1620 - MW65D - 20130805	Total/NA	Water	8270C LL	112861
600-77524-2MSD	WG - 1620 - MW65D - 20130805	Total/NA	Water	8270C LL	112861
600-77524-3	WG - 1620 - MW66D - 20130805	Total/NA	Water	8270C LL	112861
600-77524-4	WG - 1620 - MW36D - 20130805	Total/NA	Water	8270C LL	112861
600-77524-5	WG - 1620 - MW59D - 20130805	Total/NA	Water	8270C LL	112861
600-77524-6	WG - 1620 - FD02- 20130805	Total/NA	Water	8270C LL	112861
600-77524-7	WG - 1620 - FB06 - 20130805	Total/NA	Water	8270C LL	112861
600-77524-8	WG - 1620 - MW69A - 20130806	Total/NA	Water	8270C LL	112861
600-77524-9	WG - 1620 - MW47C - 21030806	Total/NA	Water	8270C LL	112861
LCS 600-112861/2-A	Lab Control Sample	Total/NA	Water	8270C LL	112861
MB 600-112861/1-A	Method Blank	Total/NA	Water	8270C LL	112861

Analysis Batch: 113129

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-77524-1	WG - 1620 - MW44A - 20130805	Total/NA	Water	8270C LL	112861
600-77524-10	WG - 1620 - MW64A - 20130806	Total/NA	Water	8270C LL	112861
600-77524-11	WG - 1620 - MW58A - 20130806	Total/NA	Water	8270C LL	112861
600-77524-12	WG - 1620 - MW53C - 20130806	Total/NA	Water	8270C LL	112861
600-77524-15	WG - 1620 - MW25C - 20130806	Total/NA	Water	8270C LL	112861

Analysis Batch: 113225

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-77524-1 - DL	WG - 1620 - MW44A - 20130805	Total/NA	Water	8270C LL	112861
600-77524-13	WG - 1620 - MW54C - 20130806	Total/NA	Water	8270C LL	112861
600-77524-14	WG - 1620 - MW25A - 20130806	Total/NA	Water	8270C LL	112861
600-77524-15 - DL	WG - 1620 - MW25C - 20130806	Total/NA	Water	8270C LL	112861
600-77524-16	WG - 1620 - MW36B - 20130806	Total/NA	Water	8270C LL	112861
600-77524-18	WG - 1620 - FB07 - 20130806	Total/NA	Water	8270C LL	112992
600-77524-19	WG - 1620 - MW28C - 20130807	Total/NA	Water	8270C LL	112992
600-77524-19 MS	WG - 1620 - MW28C - 20130807	Total/NA	Water	8270C LL	112992
600-77524-19 MSD	WG - 1620 - MW28C - 20130807	Total/NA	Water	8270C LL	112992
600-77524-20	WG - 1620 - MW28A - 20130807	Total/NA	Water	8270C LL	112992
LCS 600-112992/2-A	Lab Control Sample	Total/NA	Water	8270C LL	112992
MB 600-112992/1-A	Method Blank	Total/NA	Water	8270C LL	112992

Analysis Batch: 113230

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-77524-13 - DL	WG - 1620 - MW54C - 20130806	Total/NA	Water	8270C LL	112861
600-77524-17	WG - 1620 - MW36A - 20130806	Total/NA	Water	8270C LL	112992
600-77524-21	WG - 1620 - MW63B - 20130807	Total/NA	Water	8270C LL	112992
600-77524-21 - DL	WG - 1620 - MW63B - 20130807	Total/NA	Water	8270C LL	112992
600-77524-22	WG - 1620 - MW33BR - 20130807	Total/NA	Water	8270C LL	112992
600-77524-22 - DL	WG - 1620 - MW33BR - 20130807	Total/NA	Water	8270C LL	112992
600-77524-23	WG - 1620 - MW68C - 20130807	Total/NA	Water	8270C LL	112992
600-77524-25	WG - 1620 - MW26A - 20130807	Total/NA	Water	8270C LL	112992

Analysis Batch: 113306

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-77524-13 - DL2	WG - 1620 - MW54C - 20130806	Total/NA	Water	8270C LL	112861
600-77524-25 - DL	WG - 1620 - MW26A - 20130807	Total/NA	Water	8270C LL	112992

TestAmerica Houston

QC Association Summary

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-77524-1

GC/MS Semi VOA (Continued)

Prep Batch: 113428

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-77524-2	WG - 1620 - MW65D - 20130805	Total/NA	Water	3510C	
LCS 600-113428/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 600-113428/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	
MB 600-113428/1-A	Method Blank	Total/NA	Water	3510C	

Analysis Batch: 113600

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-77524-2	WG - 1620 - MW65D - 20130805	Total/NA	Water	8270C LL	113428
LCS 600-113428/2-A	Lab Control Sample	Total/NA	Water	8270C LL	113428
LCSD 600-113428/3-A	Lab Control Sample Dup	Total/NA	Water	8270C LL	113428
MB 600-113428/1-A	Method Blank	Total/NA	Water	8270C LL	113428

Lab Chronicle

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-77524-1

Client Sample ID: WG - 1620 - MW44A - 20130805

Lab Sample ID: 600-77524-1

Date Collected: 08/05/13 13:15

Matrix: Water

Date Received: 08/08/13 15:02

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	113144	08/14/13 16:09	YX1	TAL HOU
Total/NA	Prep	3510C			112861	08/11/13 20:13	LMB	TAL HOU
Total/NA	Analysis	8270C LL		10	113129	08/14/13 11:07	KP1	TAL HOU
Total/NA	Prep	3510C	DL		112861	08/11/13 20:13	LMB	TAL HOU
Total/NA	Analysis	8270C LL	DL	100	113225	08/14/13 19:00	KP1	TAL HOU

Client Sample ID: WG - 1620 - MW65D - 20130805

Lab Sample ID: 600-77524-2

Date Collected: 08/05/13 14:40

Matrix: Water

Date Received: 08/08/13 15:02

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	112771	08/09/13 11:23	WS1	TAL HOU
Total/NA	Prep	3510C			113428	08/19/13 11:26	SMB	TAL HOU
Total/NA	Analysis	8270C LL		1	113600	08/20/13 13:02	TTD	TAL HOU

Client Sample ID: WG - 1620 - MW66D - 20130805

Lab Sample ID: 600-77524-3

Date Collected: 08/05/13 15:50

Matrix: Water

Date Received: 08/08/13 15:02

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	112771	08/09/13 11:50	WS1	TAL HOU
Total/NA	Prep	3510C			112861	08/11/13 20:13	LMB	TAL HOU
Total/NA	Analysis	8270C LL		1	113058	08/13/13 12:50	TTD	TAL HOU

Client Sample ID: WG - 1620 - MW36D - 20130805

Lab Sample ID: 600-77524-4

Date Collected: 08/05/13 17:15

Matrix: Water

Date Received: 08/08/13 15:02

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	112771	08/09/13 13:10	WS1	TAL HOU
Total/NA	Prep	3510C			112861	08/11/13 20:13	LMB	TAL HOU
Total/NA	Analysis	8270C LL		1	113058	08/13/13 13:19	TTD	TAL HOU

Client Sample ID: WG - 1620 - MW59D - 20130805

Lab Sample ID: 600-77524-5

Date Collected: 08/05/13 18:40

Matrix: Water

Date Received: 08/08/13 15:02

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	112771	08/09/13 13:38	WS1	TAL HOU
Total/NA	Prep	3510C			112861	08/11/13 20:13	LMB	TAL HOU
Total/NA	Analysis	8270C LL		1	113058	08/13/13 13:47	TTD	TAL HOU

TestAmerica Houston

Lab Chronicle

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-77524-1

Client Sample ID: WG - 1620 - FD02- 20130805

Lab Sample ID: 600-77524-6

Date Collected: 08/05/13 18:40

Matrix: Water

Date Received: 08/08/13 15:02

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	112771	08/09/13 14:05	WS1	TAL HOU
Total/NA	Prep	3510C			112861	08/11/13 20:13	LMB	TAL HOU
Total/NA	Analysis	8270C LL		1	113058	08/13/13 14:16	TTD	TAL HOU

Client Sample ID: WG - 1620 - FB06 - 20130805

Lab Sample ID: 600-77524-7

Date Collected: 08/05/13 19:00

Matrix: Water

Date Received: 08/08/13 15:02

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	112771	08/09/13 14:33	WS1	TAL HOU
Total/NA	Prep	3510C			112861	08/11/13 20:13	LMB	TAL HOU
Total/NA	Analysis	8270C LL		1	113058	08/13/13 14:45	TTD	TAL HOU

Client Sample ID: WG - 1620 - MW69A - 20130806

Lab Sample ID: 600-77524-8

Date Collected: 08/06/13 07:50

Matrix: Water

Date Received: 08/08/13 15:02

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	112771	08/09/13 15:01	WS1	TAL HOU
Total/NA	Prep	3510C			112861	08/11/13 20:13	LMB	TAL HOU
Total/NA	Analysis	8270C LL		1	113058	08/13/13 15:14	TTD	TAL HOU

Client Sample ID: WG - 1620 - MW47C - 21030806

Lab Sample ID: 600-77524-9

Date Collected: 08/06/13 09:00

Matrix: Water

Date Received: 08/08/13 15:02

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	112771	08/09/13 15:30	WS1	TAL HOU
Total/NA	Prep	3510C			112861	08/11/13 20:13	LMB	TAL HOU
Total/NA	Analysis	8270C LL		1	113058	08/13/13 15:43	TTD	TAL HOU

Client Sample ID: WG - 1620 - MW64A - 20130806

Lab Sample ID: 600-77524-10

Date Collected: 08/06/13 10:15

Matrix: Water

Date Received: 08/08/13 15:02

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	112771	08/09/13 15:59	WS1	TAL HOU
Total/NA	Prep	3510C			112861	08/11/13 20:13	LMB	TAL HOU
Total/NA	Analysis	8270C LL		1	113129	08/14/13 07:19	KP1	TAL HOU

Lab Chronicle

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-77524-1

Client Sample ID: WG - 1620 - MW58A - 20130806

Lab Sample ID: 600-77524-11

Date Collected: 08/06/13 11:10

Matrix: Water

Date Received: 08/08/13 15:02

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	112771	08/09/13 16:28	WS1	TAL HOU
Total/NA	Prep	3510C			112861	08/11/13 20:13	LMB	TAL HOU
Total/NA	Analysis	8270C LL		1	113129	08/14/13 07:48	KP1	TAL HOU

Client Sample ID: WG - 1620 - MW53C - 20130806

Lab Sample ID: 600-77524-12

Date Collected: 08/06/13 12:25

Matrix: Water

Date Received: 08/08/13 15:02

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	113007	08/13/13 17:10	WS1	TAL HOU
Total/NA	Prep	3510C			112861	08/11/13 20:13	LMB	TAL HOU
Total/NA	Analysis	8270C LL		1	113129	08/14/13 08:16	KP1	TAL HOU

Client Sample ID: WG - 1620 - MW54C - 20130806

Lab Sample ID: 600-77524-13

Date Collected: 08/06/13 13:25

Matrix: Water

Date Received: 08/08/13 15:02

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	112842	08/10/13 16:37	WS1	TAL HOU
Total/NA	Prep	3510C			112861	08/11/13 20:13	LMB	TAL HOU
Total/NA	Analysis	8270C LL		1	113225	08/14/13 17:04	KP1	TAL HOU
Total/NA	Prep	3510C	DL		112861	08/11/13 20:13	LMB	TAL HOU
Total/NA	Analysis	8270C LL	DL	10	113230	08/15/13 13:17	KP1	TAL HOU
Total/NA	Prep	3510C	DL2		112861	08/11/13 20:13	LMB	TAL HOU
Total/NA	Analysis	8270C LL	DL2	100	113306	08/15/13 17:36	KP1	TAL HOU

Client Sample ID: WG - 1620 - MW25A - 20130806

Lab Sample ID: 600-77524-14

Date Collected: 08/06/13 15:15

Matrix: Water

Date Received: 08/08/13 15:02

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	113007	08/13/13 13:30	WS1	TAL HOU
Total/NA	Prep	3510C			112861	08/11/13 20:13	LMB	TAL HOU
Total/NA	Analysis	8270C LL		1	113225	08/14/13 17:34	KP1	TAL HOU

Client Sample ID: WG - 1620 - MW25C - 20130806

Lab Sample ID: 600-77524-15

Date Collected: 08/06/13 16:10

Matrix: Water

Date Received: 08/08/13 15:02

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B	DL	100	112842	08/10/13 21:45	WS1	TAL HOU
Total/NA	Analysis	8260B		5	113144	08/14/13 18:00	YX1	TAL HOU

TestAmerica Houston

Lab Chronicle

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-77524-1

Client Sample ID: WG - 1620 - MW25C - 20130806

Lab Sample ID: 600-77524-15

Date Collected: 08/06/13 16:10

Matrix: Water

Date Received: 08/08/13 15:02

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			112861	08/11/13 20:13	LMB	TAL HOU
Total/NA	Analysis	8270C LL		100	113129	08/14/13 10:39	KP1	TAL HOU
Total/NA	Prep	3510C	DL		112861	08/11/13 20:13	LMB	TAL HOU
Total/NA	Analysis	8270C LL	DL	1000	113225	08/14/13 18:03	KP1	TAL HOU

Client Sample ID: WG - 1620 - MW36B - 20130806

Lab Sample ID: 600-77524-16

Date Collected: 08/06/13 17:10

Matrix: Water

Date Received: 08/08/13 15:02

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	113007	08/13/13 11:16	WS1	TAL HOU
Total/NA	Prep	3510C			112861	08/11/13 20:13	LMB	TAL HOU
Total/NA	Analysis	8270C LL		1	113225	08/14/13 18:31	KP1	TAL HOU

Client Sample ID: WG - 1620 - MW36A - 20130806

Lab Sample ID: 600-77524-17

Date Collected: 08/06/13 18:00

Matrix: Water

Date Received: 08/08/13 15:02

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	113007	08/13/13 11:43	WS1	TAL HOU
Total/NA	Prep	3510C			112992	08/13/13 08:37	SMB	TAL HOU
Total/NA	Analysis	8270C LL		1	113230	08/15/13 10:54	KP1	TAL HOU

Client Sample ID: WG - 1620 - FB07 - 20130806

Lab Sample ID: 600-77524-18

Date Collected: 08/06/13 18:15

Matrix: Water

Date Received: 08/08/13 15:02

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	113007	08/13/13 13:57	WS1	TAL HOU
Total/NA	Prep	3510C			112992	08/13/13 08:37	SMB	TAL HOU
Total/NA	Analysis	8270C LL		1	113225	08/15/13 03:34	KP1	TAL HOU

Client Sample ID: WG - 1620 - MW28C - 20130807

Lab Sample ID: 600-77524-19

Date Collected: 08/07/13 08:25

Matrix: Water

Date Received: 08/08/13 15:02

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	112842	08/10/13 15:16	WS1	TAL HOU
Total/NA	Prep	3510C			112992	08/13/13 08:37	SMB	TAL HOU
Total/NA	Analysis	8270C LL		1	113225	08/15/13 01:40	KP1	TAL HOU

TestAmerica Houston

Lab Chronicle

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-77524-1

Client Sample ID: WG - 1620 - MW28A - 20130807

Lab Sample ID: 600-77524-20

Date Collected: 08/07/13 09:20

Matrix: Water

Date Received: 08/08/13 15:02

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	113007	08/13/13 17:38	WS1	TAL HOU
Total/NA	Prep	3510C			112992	08/13/13 08:37	SMB	TAL HOU
Total/NA	Analysis	8270C LL		1	113225	08/15/13 04:03	KP1	TAL HOU

Client Sample ID: WG - 1620 - MW63B - 20130807

Lab Sample ID: 600-77524-21

Date Collected: 08/07/13 10:15

Matrix: Water

Date Received: 08/08/13 15:02

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	113007	08/13/13 18:34	WS1	TAL HOU
Total/NA	Analysis	8260B	DL	10	113144	08/14/13 15:41	YX1	TAL HOU
Total/NA	Prep	3510C			112992	08/13/13 08:37	SMB	TAL HOU
Total/NA	Analysis	8270C LL		1	113230	08/15/13 11:22	KP1	TAL HOU
Total/NA	Prep	3510C	DL		112992	08/13/13 08:37	SMB	TAL HOU
Total/NA	Analysis	8270C LL	DL	10	113230	08/15/13 13:46	KP1	TAL HOU

Client Sample ID: WG - 1620 - MW33BR - 20130807

Lab Sample ID: 600-77524-22

Date Collected: 08/07/13 11:10

Matrix: Water

Date Received: 08/08/13 15:02

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		5	113144	08/14/13 17:05	YX1	TAL HOU
Total/NA	Analysis	8260B	DL	50	113144	08/14/13 17:32	YX1	TAL HOU
Total/NA	Prep	3510C			112992	08/13/13 08:37	SMB	TAL HOU
Total/NA	Analysis	8270C LL		50	113230	08/15/13 11:51	KP1	TAL HOU
Total/NA	Prep	3510C	DL		112992	08/13/13 08:37	SMB	TAL HOU
Total/NA	Analysis	8270C LL	DL	500	113230	08/15/13 14:14	KP1	TAL HOU

Client Sample ID: WG - 1620 - MW68C - 20130807

Lab Sample ID: 600-77524-23

Date Collected: 08/07/13 13:30

Matrix: Water

Date Received: 08/08/13 15:02

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	113007	08/13/13 18:06	WS1	TAL HOU
Total/NA	Prep	3510C			112992	08/13/13 08:37	SMB	TAL HOU
Total/NA	Analysis	8270C LL		1	113230	08/15/13 12:19	KP1	TAL HOU

Lab Chronicle

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-77524-1

Client Sample ID: WG - 1620 - TB03 - 20130807

Lab Sample ID: 600-77524-24

Date Collected: 08/07/13 00:00

Matrix: Water

Date Received: 08/08/13 15:02

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	113007	08/13/13 14:24	WS1	TAL HOU

Client Sample ID: WG - 1620 - MW26A - 20130807

Lab Sample ID: 600-77524-25

Date Collected: 08/07/13 12:05

Matrix: Water

Date Received: 08/07/13 15:02

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	113144	08/14/13 16:37	YX1	TAL HOU
Total/NA	Prep	3510C			112992	08/13/13 08:37	SMB	TAL HOU
Total/NA	Analysis	8270C LL		1	113230	08/15/13 12:48	KP1	TAL HOU
Total/NA	Prep	3510C	DL		112992	08/13/13 08:37	SMB	TAL HOU
Total/NA	Analysis	8270C LL	DL	10	113306	08/15/13 17:07	KP1	TAL HOU

Laboratory References:

TAL HOU = TestAmerica Houston, 6310 Rothway Street, Houston, TX 77040, TEL (713)690-4444



Certification Summary

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-77524-1

Laboratory: TestAmerica Houston

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Louisiana	NELAP	6	01967	06-30-14
Oklahoma	State Program	6	9503	08-31-13
Texas	NELAP	6	T104704223-10-6-TX	10-31-13
USDA	Federal		P330-08-00217	04-01-14
Utah	NELAP	8	GULF	10-31-13

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6310 Rothway Street
Houston, TX 77040
Phone (713) 690-4444 Fax (713) 690-5646

Chain of Custody



estAmerica

Client Information
Client Contact: Mr. Eric Matzner
Company: Pastor, Behling & Wheeler LLC
Address: 2201 Double Creek Dr Suite 4004
City: Round Rock
State Zip: TX, 78664
Phone: 512-671-3434(Tel) 512-671-3446(Fax)
Email: eric.matzner@pbwllc.com
Project Name: 1620 UPRR HWPW
Site: SSOV#:
Sampler: **John Brennan**
Phone: 512-671-3434
Lab P#: Kuchackkar Sachin G
E-Mail: sachin.kuchackkar@testamericainc.com
C No: 0-21931-8215.1
Page 1 of 3

Analysis Requested
Due Date Requested:
TAT Requested (days):
PO #:
Purchase Order not required
W/O #:
Field Filtered Sample (Yes or No)
Perform MS/MSD (Yes or No)
8260B_LL - Site Specific List
8270C_LL - Site Specific List
VINYL CHLORIDE

Sample Identification	Sample Date	Sample Time	Sample Type (G=grab)	Matrix (W=water, S=solid, O=water/oil, B=bitumen, A=air)	Preservation Code:	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8260B_LL - Site Specific List	8270C_LL - Site Specific List	Total Number of containers	Special Instructions/Note:
WG-1620-MW49A-20130805	8-5-13	1315	G	Water		X	N				
WG-1620-MW15TD-20130805		1440	G	Water		X	X				
WG-1620-MW15DMS-20130805		1440	G	Water		X	X				
WG-1620-MW15DMSD-20130805		1440	G	Water		X	X				
WG-1620-MW15D-20130805		1550	G	Water		X	X				
WG-1620-MW3LD-20130805		1715	G	Water		X	X				
WG-1620-MW59D-20130805		1840	G	Water		X	X				
WG-1620-FD02-20130805		1840	G	Water		X	X				
WG-1620-FB06-20130805		1900	G	Water		X	X				
WG-1620-MW19A-20130805	8-6-13	0750	G	Water		X	X				
WG-1620-MW47C-20130805		0905	G	Water		X	X				

Preservation Codes:
A-HCl M-Hexane
B-NaOH N-None
C-Zn Acetate O-AsNaO2
D-Nitric Acid P-As2O4S
E-NaHSO4 Q-As2SO3
F-MeOH R-As2S2SO3
G-Arnonitor S-H2SO4
H-Ascorbic Acid T-TSP Dodecylhydrate
I-Ice U-Acetone
J-DI Water V-MCAA
K-EDTA W-pH 4-5
L-EDA Z-other (specify)
Other:
Job #:
C No: 0-21931-8215.1
Page 1 of 3

Deliverable Requested: Non-Hazard Flammable Skin Irritant Poison B Unknown Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
 Return To Client Disposal By Lab Archive For _____ Months

Empty Kyr Relinquished by: _____ Date: _____ Time: _____ Method of Shipment: _____

Relinquished by: *Eric Brennan* Date/Time: 8-7-13 1502 Company: PBW

Relinquished by: _____ Date/Time: _____ Company: _____

Relinquished by: _____ Date/Time: _____ Company: _____

Custody Seals Intact: Yes No **Custody Seal No.:** _____

Received by: *Sachin Kuchackkar* Date/Time: 08/07/13 1502 Company: THAS

Received by: _____ Date/Time: _____ Company: _____

Cooler Temperature(s) °C and Other Remarks: _____

Client Information

Client Contact:
Mr. Eric Matzner

Company:
Pastor, Behling & Wheeler LLC

Address:
2201 Double Creek Dr Suite 4004

City:
Round Rock

State, Zip:
TX, 78664

Phone:
512-671-3434(Tel) 512-671-3446(Fax)

Email:
eric.matzner@jbwillc.com

Project Name:
1620 UPRR HWPV

Site:
SSOM#:

Sampler:
John Beaumont
Phone: 92670-3434

Lab PM:
Kudchadkar, Sachin G
E-Mail: sachin.kudchadkar@testamericainc.com

Carrier Tracking No(s):

COC No:
600-21931-8215.1
Page: 23
Page of: 23

Analysis Requested

Due Date Requested:
TAT Requested (days):

PO #:
Purchase Order not required

WO #:

Project #:
60003722

SSOM#:

Sample Identification

Sample ID	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=ore, M=metal, B=bitumen, A=air)	Preservation Code:	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	Total Number of containers	Special Instructions/Note:
WE-1620-MW14A-20130822	8-6-13	1015	G	Water					
WE-1620-MW58A-20130822		1110	G	Water					
WE-1620-MW53C-20130822		1225	G	Water					
WE-1620-MW54C-20130822		1325	G	Water					
WE-1620-MW25A-20130822		1515	G	Water					
WE-1620-MW25C-20130822		1610	G	Water					
WE-1620-MW36B-20130822		1710	G	Water					
WE-1620-MW36A-20130822		1800	G	Water					
WE-1620-FB07-20130822		1815	G	Water					
WE-1620-MW28C-20130822	8-7-13	0825	G	Water					
WE-1620-MW28CMS-20130822	8-7-13	0825	G	Water					

Possible Hazard Identification

Non-Hazard Flammable Skin Irritant Poison B Unknown Radiological

Deliverable Requested: I, II, III, IV, Other (specify)

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

Return To Client Disposal By Lab Archive For Months

Empty Kit Relinquished by: _____ Date: _____

Relinquished by: *[Signature]* Date/Time: 8-7-13 Company: PSW

Relinquished by: _____ Date/Time: _____ Company: _____

Custody Seals Intact: Yes No Custody Seal No.: _____

Cooler Temperature(s) °C and Other Remarks: _____

6310 Rothway Street
Houston, TX 77040
Phone (713) 690-4444 Fax (713) 690-5646

Chain of Custody Record

Client Information
 Client Contact: Mr. Eric Matzner
 Company: Pastor, Behling & Wheeler LLC
 Address: 2201 Double Creek Dr Suite 4004
 City: Round Rock
 State, Zip: TX, 78664
 Phone: 512-671-3434(Tel) 512-671-3446(Fax)
 Email: eric.matzner@pbwllc.com
 Project Name: 1620 UPRR HMPV
 Site: SSONW#:
 Project #: 60003722
 SSONW#:
 Sampler: JOHN BEAUDRY
 Lab P#: Kutchadkar, Sachin G
 E-mail: sachin.kutchadkar@testamericainc.com
 Carrier Tracking No(s):
 COC No: 600-21931-8215.1
 Page: 3 of 3
 Job #:

Analysis Requested
 Due Date Requested:
 TAT Requested (days):
 Purchase Order not required
 WO #:
 Field Filtered Sample (Yes or No)
 Perform MS/MSD (Yes or No)
 8260B_LL - Site Specific List
 8270C_LL - Site Specific List
 VINYL CHLORIDE

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=water/oil, G=grab)	Preservation Code:	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8260B_LL - Site Specific List	8270C_LL - Site Specific List	Total Number of containers	Special Instructions/Note:
WG-1620 - PW28CMSD-20130807	8-7-13	0825	G	Water							
WG-1620 - MW28A-20130807		0930	G	Water							
WG-1620 - MW28B-20130807		1015	G	Water							
WG-1620 - MW33BR-20130807		1110	G	Water							
WG-1620 - MW68C-20130807		1330	G	Water							
WG-1620 - TB03-20130807		-	-	Water							

Possible Hazard Identification
 Non-Hazard Flammable Skin Irritant Poison B Unknown Radiological
 Deliverable Requested: I, II, III, IV, Other (specify)
 Empty Kit Relinquished by:
 Relinquished by: [Signature]
 Date/Time: 8-7-13 1502
 Company: PBW
 Relinquished by: [Signature]
 Date/Time: 08/07/10 1502
 Company: 74460
 Custody Seals Intact: Yes No
 Custody Seal No.:
 Cooler Temperature(s) °C and Other Remarks:

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
 Return To Client Disposal By Lab Archive For _____ Months
 Special Instructions/QC Requirements:
 Method of Shipment:
 Received by: [Signature]
 Date/Time: 08/07/10 1502
 Company: 74460
 Received by: [Signature]
 Date/Time: 08/07/10 1502
 Company: 74460

Login Sample Receipt Checklist

Client: Pastor, Behling & Wheeler LLC

Job Number: 600-77524-1

Login Number: 77524

List Source: TestAmerica Houston

List Number: 1

Creator: Pulumbarit, Josh L

Question	Answer	Comment
Radioactivity wasn't checked or is <=/ background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	5.0 4.7 2.5 2.7 3.7 1.2
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	True	

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Houston
6310 Rothway Street
Houston, TX 77040
Tel: (713)690-4444

TestAmerica Job ID: 600-77584-1

Client Project/Site: 1620 UPRR HWPW
Revision: 1

For:

Pastor, Behling & Wheeler LLC
2201 Double Creek Dr
Suite 4004
Round Rock, Texas 78664

Attn: Mr. Eric Matzner



Authorized for release by:
9/9/2013 5:38:14 PM

Cathy Upton, Data Delivery Analyst
cathy.upton@testamericainc.com

Designee for

Sachin Kudchadkar, Project Manager II
sachin.kudchadkar@testamericainc.com

LINKS

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The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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11

12

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14

15

16

17



Table of Contents

Cover Page	1
Table of Contents	2
TRRP Cover Page	3
TRRP Checklists & DCSs	4
Case Narrative	14
Method Summary	15
Sample Summary	16
Client Sample Results	17
Definitions/Glossary	40
Surrogate Summary	41
QC Sample Results	43
Default Detection Limits	51
QC Association Summary	52
Lab Chronicle	55
Certification Summary	59
Chain of Custody	60
Receipt Checklists	62

Job Number: 600-77584-1
Project Name/Number: 1620 UPRR HWPW

This Data Package- consists of:

This signature page, the laboratory review checklist, and the following Reportable Data:

- R1 Field Chain-of-Custody Form
- R2 Sample Identification Cross-reference;
- R3 Test Reports (Analytical Data Sheets) for each environmental sample that includes:
 - a) Items consistent with NELAC Chapter 5
 - b) dilution factors,
 - c) preparation methods,
 - d) cleanup methods, and
 - e) if required for the project, tentatively identified compounds (TICs).
- R4 Surrogate Recovery Data including:
 - a) Calculated recovery (%R), and
 - b) The laboratory's surrogate QC limits.
- R5 Test Reports/Summary Forms for Blank Samples;
- R6 Test Reports/Summary Forms for Laboratory Control Samples (LCSs) including:
 - a) LCS spiking amounts,
 - b) Calculated %R for each analyte, and
 - d) The laboratory's LCS QC limits
- R7 Test Reports for Matrix Spike/Matrix Spike Duplicates (MS/MSDs) including:
 - a) Samples associated with the MS/MSD clearly identified,
 - b) MS/MSD spiking amounts,
 - c) Concentration of each MS/MSD analyte measured in the parent and spiked sample,
 - d) Calculated %Rs and relative percent differences (RPDs), and
 - e) The laboratory's MS/MSD QC limits
- R8 Laboratory analytical duplicates (if applicable) recovery and precision, including:
 - a) the amount of analyte measured in the duplicate,
 - b) the calculated RPD, and
 - c) the laboratory's QC limits for analytical duplicates.
- R9 List of method quantitation limit (MQL) and detectability check sample results for each analyte for each method and matrix;
- R10 Other problems or anomalies

The exception report for each "No" or "Not Reviewed (NR)" item in the Laboratory Review Checklist and for each analyte, matrix, and method for which the laboratory does not hold NELAC accreditation under the Texas Laboratory Accreditation Program.

Release Statement: I am responsible for the release of this laboratory data package. This laboratory is NELAC accredited under Texas laboratory Accreditation Program for all the methods, analytes, and matrices reported in this data package except as noted in the Exception Reports. The data have been reviewed and are technically compliant with the requirements of the methods used, except where noted by the laboratory in the Exception Reports. By my signature below, I affirm, to the best of my knowledge, that all problems/anomalies observed by the laboratory have been identified in the Laboratory Review Checklist, and no information affecting the quality of the data has been knowingly withheld.

Cathy Upton
Name (printed)
Data Delivery Analyst
Official Title (printed)


Signature

08/29/2013
Date

Appendix A (cont'd): Laboratory Review Checklist: Reportable Data							
Laboratory Name: TestAmerica-Houston		LRC Date: 08/22/13					
Project Name: 1620 UPRR HWPW		Laboratory Job Number: 600-77584					
Reviewer Name: YX		Prep Batch Number: 600-113144, 113250, 113520, 113533 and 113710-VOA					
# ¹	A ²	Description	Yes	No	NA ³	NR ⁴	ER# ⁵
R1	OI	Chain-of-custody (C-O-C)					
		Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?	X				
		Were all departures from standard conditions described in an exception report?			X		
R2	OI	Sample and quality control (QC) identification					
		Are all field sample ID numbers cross-referenced to the laboratory ID numbers?	X				
		Are all laboratory ID numbers cross-referenced to the corresponding QC data?	X				
R3	OI	Test reports					
		Were all samples prepared and analyzed within holding times?	X				
		Other than those results < MQL, were all other raw values bracketed by calibration standards?	X				
		Were calculations checked by a peer or supervisor?	X				
		Were all analyte identifications checked by a peer or supervisor?	X				
		Were sample detection limits reported for all analytes not detected?	X				
		Were all results for soil and sediment samples reported on a dry weight basis?			X		
		Were % moisture (or solids) reported for all soil and sediment samples?			X		
		Were bulk soil/solid samples for volatile analysis extracted with methanol per SW846 Method 5035? If required for the project, TICs reported?			X		
R4	O	Surrogate recovery data					
		Were surrogates added prior to extraction? Were surrogate percent recoveries in all samples within the laboratory QC limits?	X		X		1
R5	OI	Test reports/summary forms for blank samples					
		Were appropriate type(s) of blanks analyzed?	X				
		Were blanks analyzed at the appropriate frequency?	X				
		Were method blanks taken through the entire analytical process, including preparation and, if applicable, cleanup procedures? Were blank concentrations < MQL?	X				2
R6	OI	Laboratory control samples (LCS):					
		Were all COCs included in the LCS?	X				
		Was each LCS taken through the entire analytical procedure, including prep and cleanup steps?	X				
		Were LCSs analyzed at the required frequency?	X				
		Were LCS (and LCSD, if applicable) %Rs within the laboratory QC limits? Does the detectability check sample data document the laboratory's capability to detect the COCs at the MDL used to calculate the SDLs? Was the LCSD RPD within QC limits?	X			X	
R7	OI	Matrix spike (MS) and matrix spike duplicate (MSD) data					
		Were the project/method specified analytes included in the MS and MSD?	X				
		Were MS/MSD analyzed at the appropriate frequency?	X				
		Were MS (and MSD, if applicable) %Rs within the laboratory QC limits? Were MS/MSD RPDs within laboratory QC limits?	X		X		3
R8	OI	Analytical duplicate data					
		Were appropriate analytical duplicates analyzed for each matrix?			X		
		Were analytical duplicates analyzed at the appropriate frequency? Were RPDs or relative standard deviations within the laboratory QC limits?			X		
R9	OI	Method quantitation limits (MQLs):					
		Are the MQLs for each method analyte included in the laboratory data package?	X				
		Do the MQLs correspond to the concentration of the lowest non-zero calibration standard? Are unadjusted MQLs and DCSs included in the laboratory data package?	X				
R10	OI	Other problems/anomalies					
		Are all known problems/anomalies/special conditions noted in this LRC and ER? Was applicable and available technology used to lower the SDL to minimize the matrix interference affects on the sample results?	X				4
		Is the laboratory NELAC-accredited under the Texas Laboratory Accreditation Program for the analytes, matrices and methods associated with this laboratory data package?	X				

- Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.
- O = organic analyses; I = inorganic analyses (and general chemistry, when applicable);
- NA = Not applicable;
- NR = Not reviewed;
- ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

Appendix A (cont'd): Laboratory Review Checklist: Reportable Data							
Laboratory Name: TestAmerica-Houston			LRC Date: 08/22/13				
Project Name: 1620 UPRR HWPW			Laboratory Job Number: 600-77584				
Reviewer Name: YX			Prep Batch Number: 600-113144, 113250, 113520, 113533 and 113710-VOA				
# ¹	A ²	Description	Yes	No	NA ³	NR ⁴	ER# ⁵
S1	OI	Initial calibration (ICAL)					
		Were response factors and/or relative response factors for each analyte within QC limits?	X				
		Were percent RSDs or correlation coefficient criteria met?	X				
		Was the number of standards recommended in the method used for all analytes?	X				
		Were all points generated between the lowest and highest standard used to calculate the curve?	X				
		Are ICAL data available for all instruments used?	X				
		Has the initial calibration curve been verified using an appropriate second source standard?	X				
S2	OI	Initial and continuing calibration verification (ICCV and CCV) and continuing calibration					
		Was the CCV analyzed at the method-required frequency?	X				
		Were percent differences for each analyte within the method-required QC limits?	X				
		Was the ICAL curve verified for each analyte?	X				
		Was the absolute value of the analyte concentration in the inorganic CCB < MDL?			X		
S3	O	Mass spectral tuning:					
		Was the appropriate compound for the method used for tuning?	X				
		Were ion abundance data within the method-required QC limits?	X				
S4	O	Internal standards (IS):					
		Were IS area counts and retention times within the method-required QC limits?	X				
S5	OI	Raw data (NELAC section 5.5.10)					
		Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?	X				
		Were data associated with manual integrations flagged on the raw data?	X				
S6	O	Dual column confirmation					
		Did dual column confirmation results meet the method-required QC?			X		
S7	O	Tentatively identified compounds (TICs):					
		If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?			X		
S8	I	Interference Check Sample (ICS) results:					
		Were percent recoveries within method QC limits?			X		
S9	I	Serial dilutions, post digestion spikes, and method of standard additions					
		Were percent differences, recoveries, and the linearity within the QC limits specified in the method?			X		
S10	OI	Method detection limit (MDL) studies					
		Was a MDL study performed for each reported analyte?	X				
		Is the MDL either adjusted or supported by the analysis of DCSs?	X				
S11	OI	Proficiency test reports:					
		Was the laboratory's performance acceptable on the applicable proficiency tests or evaluation studies?	X				
S12	OI	Standards documentation					
		Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?	X				
S13	OI	Compound/analyte identification procedures					
		Are the procedures for compound/analyte identification documented?	X				
S14	OI	Demonstration of analyst competency (DOC)					
		Was DOC conducted consistent with NELAC Chapter 5?	X				
		Is documentation of the analyst's competency up-to-date and on file?	X				
S15	OI	Verification/validation documentation for methods (NELAC Chapter 5)					
		Are all the methods used to generate the data documented, verified, and validated, where applicable?	X				
S16	OI	Laboratory standard operating procedures (SOPs):					
		Are laboratory SOPs current and on file for each method performed?	X				

- 1 Items identified by the letter "R" should be included in the laboratory data package submitted to the TCEQ in the TRRP-required report(s).
- 2 Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.
- 3 O = organic analyses; I = inorganic analyses (and general chemistry, when applicable).
- 4 NA = Not applicable.
- 5 NR = Not Reviewed.
- 6 ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

Appendix A (cont'd): Laboratory Review Checklist: Exception Reports	
Laboratory Name: TestAmerica-Houston	LRC Date: 08/22/13
Project Name: 1620 UPRR HWPW	Laboratory Job Number: 600-77584
Reviewer Name: YX	Prep Batch Number: 600-113144, 113250, 113520, 113533 and 113710-VOA
ER #¹	DESCRIPTION
1	1,2-Dichloroethane D4 recovery for the following sample(s) was outside control limits high: WG-1620-MW68B-20130808 (600-77584-6). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.
2	Methylene chloride was detected above the MDL, but below the MQL in the method blanks for batches 600-113520, 113533 and 113710. The level of detection is below the recommended reporting limits and the appropriate flags have been applied to the report.
3	The matrix spike / matrix spike duplicate (MS/MSD) recoveries associated with batch 600-113250 were outside control limits. Matrix interference is suspected.
4	Benzene and Xylene, Total SDLs were elevated in sample 600-77584-1 due to the high concentration of these analytes. Benzene Ethylbenzene and Xylene, Total SDLs were elevated in samples 600-77584-3 and 4 due to the high concentration of these analytes. All of the SDLs in samples 600-77584-6 and 15 were elevated due to sample matrix.

ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked on the LRC)

Appendix A (cont'd): Laboratory Review Checklist: Reportable Data							
Laboratory Name: TestAmerica-Houston			LRC Date: 08/21/13				
Project Name: 1620 UPRR HWPW			Laboratory Job Number: 600-77584				
Reviewer Name: TTD			Prep Batch Number(s): 600-112992/113163-SV				
# ¹	A ²	Description	Yes	No	NA ³	NR ⁴	ER# ⁵
R1	OI	Chain-of-custody (C-O-C)					
		Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?		X			1
		Were all departures from standard conditions described in an exception report?	X				
R2	OI	Sample and quality control (QC) identification					
		Are all field sample ID numbers cross-referenced to the laboratory ID numbers?	X				
		Are all laboratory ID numbers cross-referenced to the corresponding QC data?	X				
R3	OI	Test reports					
		Were all samples prepared and analyzed within holding times?	X				
		Other than those results < MQL, were all other raw values bracketed by calibration standards?	X				
		Were calculations checked by a peer or supervisor?	X				
		Were all analyte identifications checked by a peer or supervisor?	X				
		Were sample detection limits reported for all analytes not detected?	X				
		Were all results for soil and sediment samples reported on a dry weight basis?			X		
		Were % moisture (or solids) reported for all soil and sediment samples?			X		
		Were bulk soil/solid samples for volatile analysis extracted with methanol per SW846 Method 5035?			X		
		If required for the project, TICs reported?			X		
R4	O	Surrogate recovery data					
		Were surrogates added prior to extraction?	X				
		Were surrogate percent recoveries in all samples within the laboratory QC limits?		X			2
R5	OI	Test reports/summary forms for blank samples					
		Were appropriate type(s) of blanks analyzed?	X				
		Were blanks analyzed at the appropriate frequency?	X				
		Were method blanks taken through the entire analytical process, including preparation and, if applicable, cleanup procedures?	X				
		Were blank concentrations < MQL?	X				
R6	OI	Laboratory control samples (LCS):					
		Were all COCs included in the LCS?	X				
		Was each LCS taken through the entire analytical procedure, including prep and cleanup steps?	X				
		Were LCSs analyzed at the required frequency?	X				
		Were LCS (and LCSD, if applicable) %Rs within the laboratory QC limits?		X			3
		Does the detectability check sample data document the laboratory's capability to detect the COCs at the MDL used to calculate the SDLs?	X				
		Was the LCSD RPD within QC limits?	X				
R7	OI	Matrix spike (MS) and matrix spike duplicate (MSD) data					
		Were the project/method specified analytes included in the MS and MSD?	X				
		Were MS/MSD analyzed at the appropriate frequency?	X				
		Were MS (and MSD, if applicable) %Rs within the laboratory QC limits?			X		4
		Were MS/MSD RPDs within laboratory QC limits?			X		4
R8	OI	Analytical duplicate data					
		Were appropriate analytical duplicates analyzed for each matrix?			X		
		Were analytical duplicates analyzed at the appropriate frequency?			X		
		Were RPDs or relative standard deviations within the laboratory QC limits?			X		
R9	OI	Method quantitation limits (MQLs):					
		Are the MQLs for each method analyte included in the laboratory data package?	X				
		Do the MQLs correspond to the concentration of the lowest non-zero calibration standard?	X				
		Are unadjusted MQLs and DCSs included in the laboratory data package?	X				
R10	OI	Other problems/anomalies					
		Are all known problems/anomalies/special conditions noted in this LRC and ER?	X				
		Was applicable and available technology used to lower the SDL to minimize the matrix interference affects on the sample results?	X				5
		Is the laboratory NELAC-accredited under the Texas Laboratory Accreditation Program for the analytes, matrices and methods associated with this laboratory data package?	X				

- Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.
- O = organic analyses; I = inorganic analyses (and general chemistry, when applicable);
- NA = Not applicable;
- NR = Not reviewed;
- ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

Appendix A (cont'd): Laboratory Review Checklist: Reportable Data									
Laboratory Name: TestAmerica-Houston					LRC Date: 08/21/13				
Project Name: 1620 UPRR HWPW					Laboratory Job Number: 600-77584				
Reviewer Name: TTD					Prep Batch Number(s): 600-112992/113163-SV				
# ¹	A ²	Description	Yes	No	NA ³	NR ⁴	ER# ⁵		
S1	OI	Initial calibration (ICAL)							
		Were response factors and/or relative response factors for each analyte within QC limits?	X						
		Were percent RSDs or correlation coefficient criteria met?	X						
		Was the number of standards recommended in the method used for all analytes?	X						
		Were all points generated between the lowest and highest standard used to calculate the curve?	X						
		Are ICAL data available for all instruments used?	X						
		Has the initial calibration curve been verified using an appropriate second source standard?	X						
S2	OI	Initial and continuing calibration verification (ICCV and CCV) and continuing calibration							
		Was the CCV analyzed at the method-required frequency?	X						
		Were percent differences for each analyte within the method-required QC limits?		X					6
		Was the ICAL curve verified for each analyte?	X						
		Was the absolute value of the analyte concentration in the inorganic CCB < MDL?			X				
S3	O	Mass spectral tuning:							
		Was the appropriate compound for the method used for tuning?	X						
		Were ion abundance data within the method-required QC limits?	X						
S4	O	Internal standards (IS):							
		Were IS area counts and retention times within the method-required QC limits?	X						
S5	OI	Raw data (NELAC section 5.5.10)							
		Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?	X						
		Were data associated with manual integrations flagged on the raw data?	X						
S6	O	Dual column confirmation							
		Did dual column confirmation results meet the method-required QC?			X				
S7	O	Tentatively identified compounds (TICs):							
		If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?			X				
S8	I	Interference Check Sample (ICS) results:							
		Were percent recoveries within method QC limits?			X				
S9	I	Serial dilutions, post digestion spikes, and method of standard additions							
		Were percent differences, recoveries, and the linearity within the QC limits specified in the method?			X				
S10	OI	Method detection limit (MDL) studies							
		Was a MDL study performed for each reported analyte?	X						
		Is the MDL either adjusted or supported by the analysis of DCSs?	X						
S11	OI	Proficiency test reports:							
		Was the laboratory's performance acceptable on the applicable proficiency tests or evaluation studies?	X						
S12	OI	Standards documentation							
		Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?	X						
S13	OI	Compound/analyte identification procedures							
		Are the procedures for compound/analyte identification documented?	X						
S14	OI	Demonstration of analyst competency (DOC)							
		Was DOC conducted consistent with NELAC Chapter 5?	X						
		Is documentation of the analyst's competency up-to-date and on file?	X						
S15	OI	Verification/validation documentation for methods (NELAC Chapter 5)							
		Are all the methods used to generate the data documented, verified, and validated, where applicable?	X						
S16	OI	Laboratory standard operating procedures (SOPs):							
		Are laboratory SOPs current and on file for each method performed?	X						

- 1 Items identified by the letter "R" should be included in the laboratory data package submitted to the TCEQ in the TRRP-required report(s).
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Appendix A (cont'd): Laboratory Review Checklist: Exception Reports	
Laboratory Name: TestAmerica-Houston	LRC Date: 08/21/13
Project Name: 1620 UPRR HWPW	Laboratory Job Number: 600-77584
Reviewer Name: TTD	Prep Batch Number(s): 600-112992/113163-SV
ER #¹	DESCRIPTION
1	See Case Narrative.
2	<p>Six surrogates are used for this analysis. The laboratory's SOP allows one base and one acid of these surrogates to be outside acceptance criteria without performing re-extraction/re-analysis. The surrogate recoveries for Nitrobenzene-d5 in samples 600-77584-5 and 600-77584-10 were biased low. The surrogate recovery for 2,4,6-Tribromophenol in sample 600-77584-17 was biased low. The surrogate recovery for 2,4,6-Tribromophenol in the associated LCSD was biased high. These results have been reported and qualified.</p> <p>Three surrogate compounds, 2,4,6-Tribromophenol, Phenol-d5 and 2-Fluorophenol, were biased low in the following sample 600-77584-12. There was insufficient sample remaining to perform re-extraction and/or re-analysis; therefore, the data have been reported and qualified.</p> <p>Two base surrogate compounds, 2-Fluorobiphenyl and Nitrobenzene-d5, were biased low for sample 600-77584-16. There was insufficient sample remaining to perform re-extraction and/or re-analysis; therefore, the data have been reported and qualified.</p> <p>Due to the high dilution required for samples 600-77584- 1, 3, 4, 6, and 15; surrogate recoveries are not reported.</p>
3	The laboratory control sample (LCS) for prep batch 113163 recovered outside control limits for 4-Nitrophenol. This analyte was biased high in the LCS and was not detected in the associated samples; therefore, the data have been reported.
4	The laboratory selected samples from other groups to perform as the MS/MSDs.
5	Various SDLs were elevated in samples 600-77524-1, 13, 15, 22 and 25 due to sample matrix or the high concentration of those analytes.
6	The continuing calibration verification (CCV) was biased low for 4,6-Dinitro-2-methylphenol (-56.6%) for analytical batch, 4,6-Dinitro-2-methylphenol (-61.7%) for analytical batch 113129, and 4,6-Dinitro-2-methylphenol (-58.5%) for analytical batch 113230. The SOP makes allowance for up to four non-CCC analytes to have a %drift greater than the acceptable limit. The data have been reported.

ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked on the LRC)

Detection Check Standard

Matrix: Water
Method: 8260B_LL
Preparation: Wei Shen
Date Analyzed: 5/22/2013
Date Prepared: 5/22/2013
TALs Batches: 600-106788
Units: ug/L

Analyte	MDL	DCS Spike	Measured Result	MQL
Chloromethane	0.18	0.5	0.18	2
Vinyl Chloride	0.11	0.5	0.532	2
Bromomethane	0.25	0.5	0.502	2
Chloroethane	0.08	0.5	0.591	2
Trichlorofluoromethane	0.08	0.5	0.464	1
Acrolein	1.63	2.5	2.347	5
1,1-Dichloroethene	0.19	0.5	0.449	1
trans-1,2-Dichloroethene	0.09	0.5	0.481	1
Acetone	0.99	0.5	0.9	2
Methyl Iodide (Iodomethane)	2	0.5	1.013	2
Carbon Disulfide	0.24	0.5	0.913	1
Methylene Chloride	0.15	0.5		1
Acetonitrile	0.27	1.5	0.833	1
Methyl tert-butyl ether	0.12	0.5	0.499	1
Chloroprene (2-Chloro-1,3-butadiene)	0.33	0.5		2
Vinyl Acetate	0.21	0.5		1
cis-1,2-Dichloroethene	0.3	0.5	0.478	1
2-Butanone (MEK)	0.76	0.5		5
1,2-Dichloroethene	0.3	0.5		1
Chlorobromomethane	0.18	0.5	0.504	1
Carbon Tetrachloride	0.15	0.5	0.421	5
Benzene	0.08	0.5	0.467	1
1,2-Dichloroethane	0.14	0.5		1
Trichloroethene	0.13	0.5	0.483	1
1,1,1-Trichloroethane	0.15	0.5	0.45	1
1,1-Dichloroethane	0.11	0.5	0.487	1
1,2-Dichloropropane	0.16	0.5	0.387	1
cis-1,3-Dichloropropene	0.18	0.5	0.321	1
Methylene Bromide (Bromomethane)	0.25	0.25	0.291	1
Methyl methacrylate	0.33	1.5	0.845	1
4-Methyl-2-pentanone	0.45	0.5	0.476	2
Toluene	0.15	0.5	0.471	1
trans-1,3-Dichloropropene	0.21	0.5		1
Ethyl methacrylate	0.26	1.5	1.164	1
1,1,2-Trichloroethane	0.28	0.5	0.507	1
Tetrachloroethene	0.18	0.5	0.429	1
1,3-Dichloropropane	0.22	0.5	0.444	1
Dibromochloromethane	0.16	0.5	0.421	1
1,2-Dibromoethane (Ethylene bromide)	0.18	0.5	0.423	1



2-Hexanone	0.35	0.5		
Chlorobenzene	0.12	0.5	0.451	1
Ethylbenzene	0.11	0.5	0.433	1
m,p-Xylene	0.17	0.5	0.8	2
o-Xylene	0.12	0.5	0.418	1
Xylenes (total)	0.26	1.5	1.219	3
Styrene	0.07	0.5	0.372	1
Bromoform	0.19	0.5		1
1,1,2,2-Tetrachloroethane	0.22	0.5		1
Chloroform	0.13	0.5	0.442	1
Isopropylbenzene	0.18	0.5	0.431	1
Bromobenzene	0.19	0.25	0.311	1
n-Propylbenzene	0.15	0.5	0.446	1
2-Chlorotoluene	0.13	0.5	0.478	1
4-Chlorotoluene	0.14	0.5	0.405	1
1,3,5-Trimethylbenzene	0.1	0.5	0.421	1
tert-Butylbenzene	0.08	0.5	0.417	1
p-Isopropyltoluene	0.1	0.25	0.231	1
1,2,4-Trimethylbenzene	0.14	0.5	0.411	1
sec-Butylbenzene	0.12	0.5	0.405	1
1,3-Dichlorobenzene	0.13	0.5	0.436	1
1,4-Dichlorobenzene	0.11	0.5	0.444	1
1,2-Dichlorobenzene	0.1	0.5	0.441	1
n-Butylbenzene	0.16	0.25	0.204	1
Hexachlorobutadiene	0.17	0.5		1
Naphthalene	0.32	0.25	0.246	1
1,1,1,2-Tetrachloroethane	0.18	0.5	0.386	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1	0.5	0.494	1
1,1-Dichloropropene	0.21	0.5	0.421	1
4-Isopropyltoluene	0.1	0.5	0.381	1
Acrylonitrile	0.52	3	1.957	2
Dibromomethane	0.52	0.5	0.458	1
Dichlorobromomethane	0.16	0.5	0.364	1

Quality Control Report

Detection Check Standard

Matrix: Water
 Method: 8270C LL
 Preparation: 3510C
 Date Analyzed: 1/3/2013
 Date Prepared: 1/3/2013
 Lab Sample ID: 600-96501/6-A
 Units: ug/L

Analyte	MDL	DCS Spike	DCS Result	MLQ
Pyridine	0.04	0.5	0.573	0.5
N-Nitrosodimethylamine	0.26	0.5	0.224	0.5
bis (2-Chloroisopropyl) ether	0.4	0.5	0.353	0.5
Aniline	0.08	0.25	0.082	0.5
Phenol	0.04	0.25	0.0987	0.5
bis(2-Chloroethyl)ether	0.15	0.5	0.389	0.5
2-Chlorophenol	0.13	0.5	0.307	0.5
1,3-Dichlorobenzene	0.17	0.5	0.360	0.5
1,4-Dichlorobenzene	0.13	0.5	0.397	0.5
1,2-Dichlorobenzene	0.17	0.5	0.402	0.5
Benzyl alcohol	0.17	0.5	0.268	0.5
2-Methylphenol (o-cresol)	0.12	0.5	0.291	0.5
3&4-Methylphenol (m&p-Cresols)	0.2	0.5	0.287	1
N-Nitroso-di-n-propylamine	0.1	0.5	0.376	0.5
Hexachloroethane	0.1	0.5	0.384	0.5
Dibenzo(a,h)anthracene	0.08	0.5	0.553	0.5
Indeno(1,2,3-cd)pyrene	0.07	0.5	0.559	0.5
Nitrobenzene	0.11	0.25	0.167	0.5
Isophorone	0.11	0.25	0.158	0.5
2-Nitrophenol	0.22	0.5	0.331	0.5
Benzoic acid	2.51	12.5	6.330	2.5
2,4-Dimethylphenol	0.15	0.5	0.285	0.5
bis(2-Chloroethoxy)methane	0.13	0.5	0.363	0.5
2,4-Dichlorophenol	0.15	0.5	0.285	0.5
1,2,4-Trichlorobenzene	0.12	0.5	0.415	0.5
Naphthalene	0.08	0.25	0.190	0.5
Benzo(a)pyrene	0.08	0.25	0.398	0.5
Hexachlorobutadiene	0.18	0.5	0.418	0.5
4-Chloro-3-methylphenol	0.17	0.5	0.310	0.5
2-Methylnaphthalene	0.07	0.25	0.177	0.5
1-Methylnaphthalene	0.09	0.25	0.194	0.5
Benzo(k)fluoranthene	0.09	0.25	0.161	0.5
Hexachlorocyclopentadiene	0.13	0.5	0.198	0.5
2,4,6-Trichlorophenol	0.18	0.5	0.283	0.5
2,4,5-Trichlorophenol	0.25	0.5	0.305	0.5
2-Chloronaphthalene	0.08	0.25	0.165	0.5
2-Nitroaniline	0.19	0.5	0.482	0.5
1,4-Dinitrobenzene	0.5	0.5	0.282	0.5
1,3-Dinitrobenzene	0.08	0.25	0.124	0.5
1,2-Dinitrobenzene	0.5	0.5	0.413	0.5

Dimethylphthalate	0.07	0.25	0.185	0.5
Acenaphthylene	0.06	0.25	0.183	0.5
2,6-Dinitrotoluene	0.08	0.5	0.314	0.5
Benzo(b)fluoranthene	0.07	0.5	0.590	0.5
Acenaphthene	0.08	0.5	0.375	0.5
Di-n-octylphthalate	0.16	0.5	0.891	0.5
4-Nitrophenol	0.56	2.5	0.881	1
Dibenzofuran	0.08	0.25	0.164	0.5
2,4-Dinitrotoluene	0.13	0.5	0.201	0.5
2,3,4,6-Tetrachlorophenol	0.5	0.5	0.208	0.5
2,3,5,6-Tetrachlorophenol	0.5	0.5	0.200	0.5
Diethylphthalate	1.5	0.5	0.307	0.5
4-Chlorophenyl-phenylether	0.1	0.5	0.351	0.5
Fluorene	0.07	0.25	0.177	0.5
4-Nitroaniline	0.25	0.5	0.238	0.5
Chrysene	0.08	0.25	0.236	0.5
4,6-Dinitro-2-methylphenol	0.83	2.5	1.220	0.5
N-Nitrosodiphenylamine	0.1	0.5	0.737	0.5
Diphenylamine	0.1	0.5	0.121	0.5
1,2-Diphenylhydrazine	0.11	0.25	0.145	0.5
Azobenzene	0.07	0.25	0.143	0.5
4-Bromophenyl-phenylether	0.1	0.5	0.433	0.5
Hexachlorobenzene	0.11	0.25	0.090	0.5
Pentachlorophenol	0.61	2.5	1.400	0.5
Phenanthrene	0.06	0.25	0.182	0.5
Anthracene	0.05	0.25	0.160	0.5
Carbazole	0.17	0.5	0.530	0.5
Di-n-butylphthalate	0.11	0.25	0.187	0.5
Fluoranthene	0.07	0.25	0.178	0.5
Benzdine	0.61	12.5	9.300	0.5
Pyrene	0.11	0.25	0.168	0.5
Butylbenzylphthalate	0.12	0.5	0.631	0.5
3,3'-Dichlorobenzidine	0.18	0.5	0.100	0.5
Benzo(a)anthracene	0.08	0.25	0.192	0.5
bis(2-Ethylhexyl)phthalate	0.37	0.5	0.427	0.5
Benzo(g,h,i)perylene	0.08	0.25	0.137	0.5
4-Chloroaniline	0.21	0.5	0.316	0.5
3-Nitroaniline	0.16	0.5	0.803	0.5

Case Narrative

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-77584-1

Job ID: 600-77584-1

Laboratory: TestAmerica Houston

Narrative

Job Narrative
600-77584-1

Comments

No additional comments.

Receipt

The samples were received on 8/9/2013 11:47 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 4 coolers at receipt time were 2.8° C, 3.7° C, 3.7° C and 4.8° C.

Except:

One or more containers for the following sample(s) was received broken or leaking: WG - 1620 - MW35A - 20130808. One amber 1L was received broken.

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Method Summary

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-77584-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL HOU
8270C LL	Semivolatile Organic Compounds by GCMS - Low Levels	SW846	TAL HOU

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL HOU = TestAmerica Houston, 6310 Rothway Street, Houston, TX 77040, TEL (713)690-4444



Sample Summary

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-77584-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
600-77584-1	WG-1620-MW71B-20130807	Water	08/07/13 14:20	08/09/13 11:47
600-77584-2	WG-1620-MW32AR-20130807	Water	08/07/13 16:30	08/09/13 11:47
600-77584-3	WG-1620-MW33A-20130807	Water	08/07/13 17:35	08/09/13 11:47
600-77584-4	WG-1620-FD03-20130807	Water	08/07/13 17:35	08/09/13 11:47
600-77584-5	WG-1620-FB08-20130807	Water	08/07/13 18:00	08/09/13 11:47
600-77584-6	WG-1620-MW68B-20130808	Water	08/08/13 08:10	08/09/13 11:47
600-77584-7	WG-1620-MW67B-21030808	Water	08/08/13 09:10	08/09/13 11:47
600-77584-8	WG-1620-MW38A-20130808	Water	08/08/13 10:15	08/09/13 11:47
600-77584-9	WG-1620-MW38B-20130808	Water	08/08/13 11:10	08/09/13 11:47
600-77584-10	WG-1620-FB09-20130808	Water	08/08/13 11:30	08/09/13 11:47
600-77584-11	WG-1620-MW27C-20130808	Water	08/08/13 13:15	08/09/13 11:47
600-77584-12	WG-1620-MW24AR-20130808	Water	08/08/13 14:20	08/09/13 11:47
600-77584-13	WG-1620-MW24B-0130808	Water	08/08/13 15:15	08/09/13 11:47
600-77584-14	WG-1620-MW24C-20130808	Water	08/08/13 16:05	08/09/13 11:47
600-77584-15	WG-1620-MW35B-20130808	Water	08/08/13 17:15	08/09/13 11:47
600-77584-16	WG-1620-MW35A-20130808	Water	08/08/13 18:10	08/09/13 11:47
600-77584-17	WG-1620-MW51A-20130809	Water	08/09/13 08:30	08/09/13 11:47
600-77584-18	WG-1620-MW50A-20130809	Water	08/09/13 09:40	08/09/13 11:47
600-77584-19	WG-1620-TB04-20130809	Water	08/09/13 00:00	08/09/13 11:47

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-77584-1

Client Sample ID: WG-1620-MW71B-20130807

Lab Sample ID: 600-77584-1

Date Collected: 08/07/13 14:20

Matrix: Water

Date Received: 08/09/13 11:47

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	0.000110	U	0.00200	0.000110	mg/L			08/14/13 19:46	1
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			08/14/13 19:46	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			08/14/13 19:46	1
Toluene	0.0355		0.00100	0.000150	mg/L			08/14/13 19:46	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			08/14/13 19:46	1
Ethylbenzene	0.0354		0.00100	0.000110	mg/L			08/14/13 19:46	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	106		67 - 139		08/14/13 19:46	1
Dibromofluoromethane	81		62 - 130		08/14/13 19:46	1
Toluene-d8 (Surr)	96		70 - 130		08/14/13 19:46	1
1,2-Dichloroethane-d4 (Surr)	78		50 - 134		08/14/13 19:46	1

Method: 8260B - Volatile Organic Compounds (GC/MS) - DL

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.103		0.00500	0.000400	mg/L			08/15/13 14:04	5
Xylenes, Total	0.0615		0.0150	0.00130	mg/L			08/15/13 14:04	5

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	103		67 - 139		08/15/13 14:04	5
Dibromofluoromethane	84		62 - 130		08/15/13 14:04	5
Toluene-d8 (Surr)	95		70 - 130		08/15/13 14:04	5
1,2-Dichloroethane-d4 (Surr)	83		50 - 134		08/15/13 14:04	5

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.00189	U	0.0236	0.00189	mg/L		08/13/13 08:37	08/16/13 12:45	50
Nitrobenzene	0.00519	U	0.0236	0.00519	mg/L		08/13/13 08:37	08/16/13 12:45	50
2,4-Dimethylphenol	0.0146	U	0.0236	0.0146	mg/L		08/13/13 08:37	08/16/13 12:45	50
Bis(2-chloroethoxy)methane	0.00613	U	0.0236	0.00613	mg/L		08/13/13 08:37	08/16/13 12:45	50
2-Methylnaphthalene	0.114		0.0236	0.00330	mg/L		08/13/13 08:37	08/16/13 12:45	50
2-Chloronaphthalene	0.00377	U	0.0236	0.00377	mg/L		08/13/13 08:37	08/16/13 12:45	50
Acenaphthylene	0.00283	U	0.0236	0.00283	mg/L		08/13/13 08:37	08/16/13 12:45	50
2,6-Dinitrotoluene	0.00377	U	0.0236	0.00377	mg/L		08/13/13 08:37	08/16/13 12:45	50
Acenaphthene	0.0346		0.0236	0.00377	mg/L		08/13/13 08:37	08/16/13 12:45	50
4-Nitrophenol	0.0264	U	0.0472	0.0264	mg/L		08/13/13 08:37	08/16/13 12:45	50
Dibenzofuran	0.0292		0.0236	0.00377	mg/L		08/13/13 08:37	08/16/13 12:45	50
2,4-Dinitrotoluene	0.00613	U	0.0236	0.00613	mg/L		08/13/13 08:37	08/16/13 12:45	50
Fluorene	0.0127	J	0.0236	0.00330	mg/L		08/13/13 08:37	08/16/13 12:45	50
4,6-Dinitro-2-methylphenol	0.0392	U	0.0472	0.0392	mg/L		08/13/13 08:37	08/16/13 12:45	50
N-Nitrosodiphenylamine	0.00472	U	0.0236	0.00472	mg/L		08/13/13 08:37	08/16/13 12:45	50
1,2-Diphenylhydrazine	0.00519	U	0.0236	0.00519	mg/L		08/13/13 08:37	08/16/13 12:45	50
Pentachlorophenol	0.0288	U	0.0472	0.0288	mg/L		08/13/13 08:37	08/16/13 12:45	50
Phenanthrene	0.0124	J	0.0236	0.00283	mg/L		08/13/13 08:37	08/16/13 12:45	50
Anthracene	0.00383	J	0.0236	0.00236	mg/L		08/13/13 08:37	08/16/13 12:45	50
Di-n-butyl phthalate	0.00519	U	0.118	0.00519	mg/L		08/13/13 08:37	08/16/13 12:45	50
Fluoranthene	0.00330	U	0.0236	0.00330	mg/L		08/13/13 08:37	08/16/13 12:45	50
Pyrene	0.00519	U	0.0236	0.00519	mg/L		08/13/13 08:37	08/16/13 12:45	50
Benzo[a]anthracene	0.00377	U	0.0236	0.00377	mg/L		08/13/13 08:37	08/16/13 12:45	50
Bis(2-ethylhexyl) phthalate	0.0175	U	0.118	0.0175	mg/L		08/13/13 08:37	08/16/13 12:45	50

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-77584-1

Client Sample ID: WG-1620-MW71B-20130807

Lab Sample ID: 600-77584-1

Date Collected: 08/07/13 14:20

Matrix: Water

Date Received: 08/09/13 11:47

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	0.00377	U	0.0236	0.00377	mg/L		08/13/13 08:37	08/16/13 12:45	50
Benzo[a]pyrene	0.00377	U	0.0236	0.00377	mg/L		08/13/13 08:37	08/16/13 12:45	50
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	0	X	44 - 123				08/13/13 08:37	08/16/13 12:45	50
2-Fluorobiphenyl	0	X	43 - 120				08/13/13 08:37	08/16/13 12:45	50
2-Fluorophenol	0	X	18 - 120				08/13/13 08:37	08/16/13 12:45	50
Nitrobenzene-d5	0	X	47 - 120				08/13/13 08:37	08/16/13 12:45	50
Terphenyl-d14	0	X	33 - 141				08/13/13 08:37	08/16/13 12:45	50
Phenol-d5 (Surr)	0	X	12 - 128				08/13/13 08:37	08/16/13 12:45	50

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels - DL

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	2.07		1.18	0.0189	mg/L		08/13/13 08:37	08/19/13 12:59	250
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	0	X	44 - 123				08/13/13 08:37	08/19/13 12:59	250
2-Fluorobiphenyl	0	X	43 - 120				08/13/13 08:37	08/19/13 12:59	250
2-Fluorophenol	0	X	18 - 120				08/13/13 08:37	08/19/13 12:59	250
Nitrobenzene-d5	0	X	47 - 120				08/13/13 08:37	08/19/13 12:59	250
Terphenyl-d14	0	X	33 - 141				08/13/13 08:37	08/19/13 12:59	250
Phenol-d5 (Surr)	0	X	12 - 128				08/13/13 08:37	08/19/13 12:59	250

Client Sample ID: WG-1620-MW32AR-20130807

Lab Sample ID: 600-77584-2

Date Collected: 08/07/13 16:30

Matrix: Water

Date Received: 08/09/13 11:47

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	0.000110	U	0.00200	0.000110	mg/L			08/14/13 20:12	1
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			08/14/13 20:12	1
Benzene	0.000475	J	0.00100	0.0000800	mg/L			08/14/13 20:12	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			08/14/13 20:12	1
Toluene	0.000234	J	0.00100	0.000150	mg/L			08/14/13 20:12	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			08/14/13 20:12	1
Ethylbenzene	0.000296	J	0.00100	0.000110	mg/L			08/14/13 20:12	1
Xylenes, Total	0.000873	J	0.00300	0.000260	mg/L			08/14/13 20:12	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	107		67 - 139					08/14/13 20:12	1
Dibromofluoromethane	82		62 - 130					08/14/13 20:12	1
Toluene-d8 (Surr)	96		70 - 130					08/14/13 20:12	1
1,2-Dichloroethane-d4 (Surr)	79		50 - 134					08/14/13 20:12	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.0000377	U	0.000472	0.0000377	mg/L		08/13/13 08:37	08/16/13 13:14	1
Nitrobenzene	0.000104	U	0.000472	0.000104	mg/L		08/13/13 08:37	08/16/13 13:14	1
2,4-Dimethylphenol	0.000292	U	0.000472	0.000292	mg/L		08/13/13 08:37	08/16/13 13:14	1
Bis(2-chloroethoxy)methane	0.000123	U	0.000472	0.000123	mg/L		08/13/13 08:37	08/16/13 13:14	1
Naphthalene	0.00297	J	0.00472	0.0000755	mg/L		08/13/13 08:37	08/16/13 13:14	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-77584-1

Client Sample ID: WG-1620-MW32AR-20130807

Lab Sample ID: 600-77584-2

Date Collected: 08/07/13 16:30

Matrix: Water

Date Received: 08/09/13 11:47

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylnaphthalene	0.0000660	U	0.000472	0.0000660	mg/L		08/13/13 08:37	08/16/13 13:14	1
2-Chloronaphthalene	0.0000755	U	0.000472	0.0000755	mg/L		08/13/13 08:37	08/16/13 13:14	1
Acenaphthylene	0.000258	J	0.000472	0.0000566	mg/L		08/13/13 08:37	08/16/13 13:14	1
2,6-Dinitrotoluene	0.0000755	U	0.000472	0.0000755	mg/L		08/13/13 08:37	08/16/13 13:14	1
Acenaphthene	0.00625		0.000472	0.0000755	mg/L		08/13/13 08:37	08/16/13 13:14	1
4-Nitrophenol	0.000528	U	0.000943	0.000528	mg/L		08/13/13 08:37	08/16/13 13:14	1
Dibenzofuran	0.000515		0.000472	0.0000755	mg/L		08/13/13 08:37	08/16/13 13:14	1
2,4-Dinitrotoluene	0.000123	U	0.000472	0.000123	mg/L		08/13/13 08:37	08/16/13 13:14	1
Fluorene	0.00105		0.000472	0.0000660	mg/L		08/13/13 08:37	08/16/13 13:14	1
4,6-Dinitro-2-methylphenol	0.000783	U	0.000943	0.000783	mg/L		08/13/13 08:37	08/16/13 13:14	1
N-Nitrosodiphenylamine	0.0000943	U	0.000472	0.0000943	mg/L		08/13/13 08:37	08/16/13 13:14	1
1,2-Diphenylhydrazine	0.000104	U	0.000472	0.000104	mg/L		08/13/13 08:37	08/16/13 13:14	1
Pentachlorophenol	0.000575	U	0.000943	0.000575	mg/L		08/13/13 08:37	08/16/13 13:14	1
Phenanthrene	0.000112	J	0.000472	0.0000566	mg/L		08/13/13 08:37	08/16/13 13:14	1
Anthracene	0.000223	J	0.000472	0.0000472	mg/L		08/13/13 08:37	08/16/13 13:14	1
Di-n-butyl phthalate	0.000120	J	0.00236	0.000104	mg/L		08/13/13 08:37	08/16/13 13:14	1
Fluoranthene	0.00102		0.000472	0.0000660	mg/L		08/13/13 08:37	08/16/13 13:14	1
Pyrene	0.000617		0.000472	0.000104	mg/L		08/13/13 08:37	08/16/13 13:14	1
Benzo[a]anthracene	0.0000755	U	0.000472	0.0000755	mg/L		08/13/13 08:37	08/16/13 13:14	1
Bis(2-ethylhexyl) phthalate	0.000349	U	0.00236	0.000349	mg/L		08/13/13 08:37	08/16/13 13:14	1
Chrysene	0.0000755	U	0.000472	0.0000755	mg/L		08/13/13 08:37	08/16/13 13:14	1
Benzo[a]pyrene	0.0000755	U	0.000472	0.0000755	mg/L		08/13/13 08:37	08/16/13 13:14	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	109		44 - 123				08/13/13 08:37	08/16/13 13:14	1
2-Fluorobiphenyl	79		43 - 120				08/13/13 08:37	08/16/13 13:14	1
2-Fluorophenol	29		18 - 120				08/13/13 08:37	08/16/13 13:14	1
Nitrobenzene-d5	64		47 - 120				08/13/13 08:37	08/16/13 13:14	1
Terphenyl-d14	97		33 - 141				08/13/13 08:37	08/16/13 13:14	1
Phenol-d5 (Surr)	14		12 - 128				08/13/13 08:37	08/16/13 13:14	1

Client Sample ID: WG-1620-MW33A-20130807

Lab Sample ID: 600-77584-3

Date Collected: 08/07/13 17:35

Matrix: Water

Date Received: 08/09/13 11:47

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	0.000110	U	0.00200	0.000110	mg/L			08/15/13 14:31	1
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			08/15/13 14:31	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			08/15/13 14:31	1
Toluene	0.00639		0.00100	0.000150	mg/L			08/15/13 14:31	1
Chlorobenzene	0.000185	J	0.00100	0.000120	mg/L			08/15/13 14:31	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	103		67 - 139					08/15/13 14:31	1
Dibromofluoromethane	80		62 - 130					08/15/13 14:31	1
Toluene-d8 (Surr)	91		70 - 130					08/15/13 14:31	1
1,2-Dichloroethane-d4 (Surr)	80		50 - 134					08/15/13 14:31	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-77584-1

Client Sample ID: WG-1620-MW33A-20130807

Lab Sample ID: 600-77584-3

Date Collected: 08/07/13 17:35

Matrix: Water

Date Received: 08/09/13 11:47

Method: 8260B - Volatile Organic Compounds (GC/MS) - DL

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.165		0.0500	0.00400	mg/L			08/14/13 21:03	50
Ethylbenzene	0.109		0.0500	0.00550	mg/L			08/14/13 21:03	50
Xylenes, Total	0.172		0.150	0.0130	mg/L			08/14/13 21:03	50
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	104		67 - 139				08/14/13 21:03	08/14/13 21:03	50
Dibromofluoromethane	79		62 - 130				08/14/13 21:03	08/14/13 21:03	50
Toluene-d8 (Surr)	93		70 - 130				08/14/13 21:03	08/14/13 21:03	50
1,2-Dichloroethane-d4 (Surr)	77		50 - 134				08/14/13 21:03	08/14/13 21:03	50

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.00189	U	0.0236	0.00189	mg/L		08/13/13 08:37	08/19/13 10:00	50
Nitrobenzene	0.00519	U	0.0236	0.00519	mg/L		08/13/13 08:37	08/19/13 10:00	50
2,4-Dimethylphenol	0.888		0.0236	0.0146	mg/L		08/13/13 08:37	08/19/13 10:00	50
Bis(2-chloroethoxy)methane	0.00613	U	0.0236	0.00613	mg/L		08/13/13 08:37	08/19/13 10:00	50
2-Methylnaphthalene	0.195		0.0236	0.00330	mg/L		08/13/13 08:37	08/19/13 10:00	50
2-Chloronaphthalene	0.00377	U	0.0236	0.00377	mg/L		08/13/13 08:37	08/19/13 10:00	50
Acenaphthylene	0.00283	U	0.0236	0.00283	mg/L		08/13/13 08:37	08/19/13 10:00	50
2,6-Dinitrotoluene	0.00377	U	0.0236	0.00377	mg/L		08/13/13 08:37	08/19/13 10:00	50
Acenaphthene	0.157		0.0236	0.00377	mg/L		08/13/13 08:37	08/19/13 10:00	50
4-Nitrophenol	0.0264	U	0.0472	0.0264	mg/L		08/13/13 08:37	08/19/13 10:00	50
Dibenzofuran	0.0728		0.0236	0.00377	mg/L		08/13/13 08:37	08/19/13 10:00	50
2,4-Dinitrotoluene	0.00613	U	0.0236	0.00613	mg/L		08/13/13 08:37	08/19/13 10:00	50
Fluorene	0.0668		0.0236	0.00330	mg/L		08/13/13 08:37	08/19/13 10:00	50
4,6-Dinitro-2-methylphenol	0.0392	U	0.0472	0.0392	mg/L		08/13/13 08:37	08/19/13 10:00	50
N-Nitrosodiphenylamine	0.00472	U	0.0236	0.00472	mg/L		08/13/13 08:37	08/19/13 10:00	50
1,2-Diphenylhydrazine	0.00519	U	0.0236	0.00519	mg/L		08/13/13 08:37	08/19/13 10:00	50
Pentachlorophenol	0.0288	U	0.0472	0.0288	mg/L		08/13/13 08:37	08/19/13 10:00	50
Phenanthrene	0.0232	J	0.0236	0.00283	mg/L		08/13/13 08:37	08/19/13 10:00	50
Anthracene	0.00490	J	0.0236	0.00236	mg/L		08/13/13 08:37	08/19/13 10:00	50
Di-n-butyl phthalate	0.00519	U	0.118	0.00519	mg/L		08/13/13 08:37	08/19/13 10:00	50
Fluoranthene	0.00385	J	0.0236	0.00330	mg/L		08/13/13 08:37	08/19/13 10:00	50
Pyrene	0.00519	U	0.0236	0.00519	mg/L		08/13/13 08:37	08/19/13 10:00	50
Benzo[a]anthracene	0.00377	U	0.0236	0.00377	mg/L		08/13/13 08:37	08/19/13 10:00	50
Bis(2-ethylhexyl) phthalate	0.0175	U	0.118	0.0175	mg/L		08/13/13 08:37	08/19/13 10:00	50
Chrysene	0.00377	U	0.0236	0.00377	mg/L		08/13/13 08:37	08/19/13 10:00	50
Benzo[a]pyrene	0.00377	U	0.0236	0.00377	mg/L		08/13/13 08:37	08/19/13 10:00	50
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	0	X	44 - 123				08/13/13 08:37	08/19/13 10:00	50
2-Fluorobiphenyl	0	X	43 - 120				08/13/13 08:37	08/19/13 10:00	50
2-Fluorophenol	0	X	18 - 120				08/13/13 08:37	08/19/13 10:00	50
Nitrobenzene-d5	0	X	47 - 120				08/13/13 08:37	08/19/13 10:00	50
Terphenyl-d14	0	X	33 - 141				08/13/13 08:37	08/19/13 10:00	50
Phenol-d5 (Surr)	0	X	12 - 128				08/13/13 08:37	08/19/13 10:00	50

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels - DL

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	4.98		2.36	0.0377	mg/L		08/13/13 08:37	08/19/13 13:58	500

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-77584-1

Client Sample ID: WG-1620-MW33A-20130807

Lab Sample ID: 600-77584-3

Date Collected: 08/07/13 17:35

Matrix: Water

Date Received: 08/09/13 11:47

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	0	X	44 - 123	08/13/13 08:37	08/19/13 13:58	500
2-Fluorobiphenyl	0	X	43 - 120	08/13/13 08:37	08/19/13 13:58	500
2-Fluorophenol	0	X	18 - 120	08/13/13 08:37	08/19/13 13:58	500
Nitrobenzene-d5	0	X	47 - 120	08/13/13 08:37	08/19/13 13:58	500
Terphenyl-d14	0	X	33 - 141	08/13/13 08:37	08/19/13 13:58	500
Phenol-d5 (Surr)	0	X	12 - 128	08/13/13 08:37	08/19/13 13:58	500

Client Sample ID: WG- 1620-FD03-20130807

Lab Sample ID: 600-77584-4

Date Collected: 08/07/13 17:35

Matrix: Water

Date Received: 08/09/13 11:47

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	0.000110	U	0.00200	0.000110	mg/L			08/15/13 15:08	1
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			08/15/13 15:08	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			08/15/13 15:08	1
Toluene	0.00672		0.00100	0.000150	mg/L			08/15/13 15:08	1
Chlorobenzene	0.000189	J	0.00100	0.000120	mg/L			08/15/13 15:08	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	106		67 - 139		08/15/13 15:08	1
Dibromofluoromethane	69		62 - 130		08/15/13 15:08	1
Toluene-d8 (Surr)	92		70 - 130		08/15/13 15:08	1
1,2-Dichloroethane-d4 (Surr)	69		50 - 134		08/15/13 15:08	1

Method: 8260B - Volatile Organic Compounds (GC/MS) - DL

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.174		0.0500	0.00400	mg/L			08/14/13 21:28	50
Ethylbenzene	0.117		0.0500	0.00550	mg/L			08/14/13 21:28	50
Xylenes, Total	0.186		0.150	0.0130	mg/L			08/14/13 21:28	50

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	111		67 - 139		08/14/13 21:28	50
Dibromofluoromethane	82		62 - 130		08/14/13 21:28	50
Toluene-d8 (Surr)	98		70 - 130		08/14/13 21:28	50
1,2-Dichloroethane-d4 (Surr)	78		50 - 134		08/14/13 21:28	50

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.00189	U	0.0236	0.00189	mg/L		08/13/13 08:37	08/19/13 10:29	50
Nitrobenzene	0.00519	U	0.0236	0.00519	mg/L		08/13/13 08:37	08/19/13 10:29	50
2,4-Dimethylphenol	0.801		0.0236	0.0146	mg/L		08/13/13 08:37	08/19/13 10:29	50
Bis(2-chloroethoxy)methane	0.00613	U	0.0236	0.00613	mg/L		08/13/13 08:37	08/19/13 10:29	50
2-Methylnaphthalene	0.160		0.0236	0.00330	mg/L		08/13/13 08:37	08/19/13 10:29	50
2-Chloronaphthalene	0.00377	U	0.0236	0.00377	mg/L		08/13/13 08:37	08/19/13 10:29	50
Acenaphthylene	0.00283	U	0.0236	0.00283	mg/L		08/13/13 08:37	08/19/13 10:29	50
2,6-Dinitrotoluene	0.00377	U	0.0236	0.00377	mg/L		08/13/13 08:37	08/19/13 10:29	50
Acenaphthene	0.151		0.0236	0.00377	mg/L		08/13/13 08:37	08/19/13 10:29	50
4-Nitrophenol	0.0264	U	0.0472	0.0264	mg/L		08/13/13 08:37	08/19/13 10:29	50
Dibenzofuran	0.0717		0.0236	0.00377	mg/L		08/13/13 08:37	08/19/13 10:29	50
2,4-Dinitrotoluene	0.00613	U	0.0236	0.00613	mg/L		08/13/13 08:37	08/19/13 10:29	50

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-77584-1

Client Sample ID: WG- 1620-FD03-20130807

Lab Sample ID: 600-77584-4

Date Collected: 08/07/13 17:35

Matrix: Water

Date Received: 08/09/13 11:47

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluorene	0.0623		0.0236	0.00330	mg/L		08/13/13 08:37	08/19/13 10:29	50
4,6-Dinitro-2-methylphenol	0.0392	U	0.0472	0.0392	mg/L		08/13/13 08:37	08/19/13 10:29	50
N-Nitrosodiphenylamine	0.00472	U	0.0236	0.00472	mg/L		08/13/13 08:37	08/19/13 10:29	50
1,2-Diphenylhydrazine	0.00519	U	0.0236	0.00519	mg/L		08/13/13 08:37	08/19/13 10:29	50
Pentachlorophenol	0.0288	U	0.0472	0.0288	mg/L		08/13/13 08:37	08/19/13 10:29	50
Phenanthrene	0.0236		0.0236	0.00283	mg/L		08/13/13 08:37	08/19/13 10:29	50
Anthracene	0.00487	J	0.0236	0.00236	mg/L		08/13/13 08:37	08/19/13 10:29	50
Di-n-butyl phthalate	0.00519	U	0.118	0.00519	mg/L		08/13/13 08:37	08/19/13 10:29	50
Fluoranthene	0.00435	J	0.0236	0.00330	mg/L		08/13/13 08:37	08/19/13 10:29	50
Pyrene	0.00519	U	0.0236	0.00519	mg/L		08/13/13 08:37	08/19/13 10:29	50
Benzo[a]anthracene	0.00377	U	0.0236	0.00377	mg/L		08/13/13 08:37	08/19/13 10:29	50
Bis(2-ethylhexyl) phthalate	0.0175	U	0.118	0.0175	mg/L		08/13/13 08:37	08/19/13 10:29	50
Chrysene	0.00377	U	0.0236	0.00377	mg/L		08/13/13 08:37	08/19/13 10:29	50
Benzo[a]pyrene	0.00377	U	0.0236	0.00377	mg/L		08/13/13 08:37	08/19/13 10:29	50

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	0	X	44 - 123	08/13/13 08:37	08/19/13 10:29	50
2-Fluorobiphenyl	0	X	43 - 120	08/13/13 08:37	08/19/13 10:29	50
2-Fluorophenol	0	X	18 - 120	08/13/13 08:37	08/19/13 10:29	50
Nitrobenzene-d5	0	X	47 - 120	08/13/13 08:37	08/19/13 10:29	50
Terphenyl-d14	0	X	33 - 141	08/13/13 08:37	08/19/13 10:29	50
Phenol-d5 (Surr)	0	X	12 - 128	08/13/13 08:37	08/19/13 10:29	50

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels - DL

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	4.07		2.36	0.0377	mg/L		08/13/13 08:37	08/19/13 14:27	500

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	0	X	44 - 123	08/13/13 08:37	08/19/13 14:27	500
2-Fluorobiphenyl	0	X	43 - 120	08/13/13 08:37	08/19/13 14:27	500
2-Fluorophenol	0	X	18 - 120	08/13/13 08:37	08/19/13 14:27	500
Nitrobenzene-d5	0	X	47 - 120	08/13/13 08:37	08/19/13 14:27	500
Terphenyl-d14	0	X	33 - 141	08/13/13 08:37	08/19/13 14:27	500
Phenol-d5 (Surr)	0	X	12 - 128	08/13/13 08:37	08/19/13 14:27	500

Client Sample ID: WG-1620-FB08-20130807

Lab Sample ID: 600-77584-5

Date Collected: 08/07/13 18:00

Matrix: Water

Date Received: 08/09/13 11:47

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	0.000110	U	0.00200	0.000110	mg/L			08/14/13 20:38	1
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			08/14/13 20:38	1
Benzene	0.0000800	U	0.00100	0.0000800	mg/L			08/14/13 20:38	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			08/14/13 20:38	1
Toluene	0.000150	U	0.00100	0.000150	mg/L			08/14/13 20:38	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			08/14/13 20:38	1
Ethylbenzene	0.000110	U	0.00100	0.000110	mg/L			08/14/13 20:38	1
Xylenes, Total	0.000260	U	0.00300	0.000260	mg/L			08/14/13 20:38	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-77584-1

Client Sample ID: WG-1620-FB08-20130807

Lab Sample ID: 600-77584-5

Date Collected: 08/07/13 18:00

Matrix: Water

Date Received: 08/09/13 11:47

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	106		67 - 139		08/14/13 20:38	1
Dibromofluoromethane	78		62 - 130		08/14/13 20:38	1
Toluene-d8 (Surr)	94		70 - 130		08/14/13 20:38	1
1,2-Dichloroethane-d4 (Surr)	73		50 - 134		08/14/13 20:38	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.000377	U	0.000472	0.000377	mg/L		08/13/13 08:37	08/16/13 14:42	1
Nitrobenzene	0.000104	U	0.000472	0.000104	mg/L		08/13/13 08:37	08/16/13 14:42	1
2,4-Dimethylphenol	0.000292	U	0.000472	0.000292	mg/L		08/13/13 08:37	08/16/13 14:42	1
Bis(2-chloroethoxy)methane	0.000123	U	0.000472	0.000123	mg/L		08/13/13 08:37	08/16/13 14:42	1
Naphthalene	0.000613	J	0.00472	0.0000755	mg/L		08/13/13 08:37	08/16/13 14:42	1
2-Methylnaphthalene	0.0000660	U	0.000472	0.0000660	mg/L		08/13/13 08:37	08/16/13 14:42	1
2-Chloronaphthalene	0.0000755	U	0.000472	0.0000755	mg/L		08/13/13 08:37	08/16/13 14:42	1
Acenaphthylene	0.0000566	U	0.000472	0.0000566	mg/L		08/13/13 08:37	08/16/13 14:42	1
2,6-Dinitrotoluene	0.0000755	U	0.000472	0.0000755	mg/L		08/13/13 08:37	08/16/13 14:42	1
Acenaphthene	0.0000755	U	0.000472	0.0000755	mg/L		08/13/13 08:37	08/16/13 14:42	1
4-Nitrophenol	0.000528	U	0.000943	0.000528	mg/L		08/13/13 08:37	08/16/13 14:42	1
Dibenzofuran	0.0000755	U	0.000472	0.0000755	mg/L		08/13/13 08:37	08/16/13 14:42	1
2,4-Dinitrotoluene	0.000123	U	0.000472	0.000123	mg/L		08/13/13 08:37	08/16/13 14:42	1
Fluorene	0.0000660	U	0.000472	0.0000660	mg/L		08/13/13 08:37	08/16/13 14:42	1
4,6-Dinitro-2-methylphenol	0.000783	U	0.000943	0.000783	mg/L		08/13/13 08:37	08/16/13 14:42	1
N-Nitrosodiphenylamine	0.0000943	U	0.000472	0.0000943	mg/L		08/13/13 08:37	08/16/13 14:42	1
1,2-Diphenylhydrazine	0.000104	U	0.000472	0.000104	mg/L		08/13/13 08:37	08/16/13 14:42	1
Pentachlorophenol	0.000575	U	0.000943	0.000575	mg/L		08/13/13 08:37	08/16/13 14:42	1
Phenanthrene	0.0000566	U	0.000472	0.0000566	mg/L		08/13/13 08:37	08/16/13 14:42	1
Anthracene	0.0000472	U	0.000472	0.0000472	mg/L		08/13/13 08:37	08/16/13 14:42	1
Di-n-butyl phthalate	0.000119	J	0.00236	0.000104	mg/L		08/13/13 08:37	08/16/13 14:42	1
Fluoranthene	0.0000660	U	0.000472	0.0000660	mg/L		08/13/13 08:37	08/16/13 14:42	1
Pyrene	0.000104	U	0.000472	0.000104	mg/L		08/13/13 08:37	08/16/13 14:42	1
Benzo[a]anthracene	0.0000755	U	0.000472	0.0000755	mg/L		08/13/13 08:37	08/16/13 14:42	1
Bis(2-ethylhexyl) phthalate	0.000349	U	0.00236	0.000349	mg/L		08/13/13 08:37	08/16/13 14:42	1
Chrysene	0.0000755	U	0.000472	0.0000755	mg/L		08/13/13 08:37	08/16/13 14:42	1
Benzo[a]pyrene	0.0000755	U	0.000472	0.0000755	mg/L		08/13/13 08:37	08/16/13 14:42	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	67		44 - 123	08/13/13 08:37	08/16/13 14:42	1
2-Fluorobiphenyl	66		43 - 120	08/13/13 08:37	08/16/13 14:42	1
2-Fluorophenol	31		18 - 120	08/13/13 08:37	08/16/13 14:42	1
Nitrobenzene-d5	40	X	47 - 120	08/13/13 08:37	08/16/13 14:42	1
Terphenyl-d14	91		33 - 141	08/13/13 08:37	08/16/13 14:42	1
Phenol-d5 (Surr)	16		12 - 128	08/13/13 08:37	08/16/13 14:42	1

Client Sample ID: WG-1620-MW68B-20130808

Lab Sample ID: 600-77584-6

Date Collected: 08/08/13 08:10

Matrix: Water

Date Received: 08/09/13 11:47

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	0.0110	U	0.200	0.0110	mg/L			08/21/13 16:42	100
Methylene Chloride	0.101	b	0.100	0.0150	mg/L			08/21/13 16:42	100

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-77584-1

Client Sample ID: WG-1620-MW68B-20130808

Lab Sample ID: 600-77584-6

Date Collected: 08/08/13 08:10

Matrix: Water

Date Received: 08/09/13 11:47

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	2.88		0.100	0.00800	mg/L			08/21/13 16:42	100
1,2-Dichloroethane	0.0140	U	0.100	0.0140	mg/L			08/21/13 16:42	100
Toluene	0.625		0.100	0.0150	mg/L			08/21/13 16:42	100
Chlorobenzene	0.0120	U	0.100	0.0120	mg/L			08/21/13 16:42	100
Ethylbenzene	0.550		0.100	0.0110	mg/L			08/21/13 16:42	100
Xylenes, Total	1.28		0.300	0.0260	mg/L			08/21/13 16:42	100

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	79		67 - 139		08/21/13 16:42	100
Dibromofluoromethane	122		62 - 130		08/21/13 16:42	100
Toluene-d8 (Surr)	98		70 - 130		08/21/13 16:42	100
1,2-Dichloroethane-d4 (Surr)	140	X	50 - 134		08/21/13 16:42	100

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.0795		0.0236	0.00189	mg/L		08/13/13 08:37	08/19/13 11:00	50
Nitrobenzene	0.00519	U	0.0236	0.00519	mg/L		08/13/13 08:37	08/19/13 11:00	50
2,4-Dimethylphenol	0.0146	U	0.0236	0.0146	mg/L		08/13/13 08:37	08/19/13 11:00	50
Bis(2-chloroethoxy)methane	0.00613	U	0.0236	0.00613	mg/L		08/13/13 08:37	08/19/13 11:00	50
2-Chloronaphthalene	0.00377	U	0.0236	0.00377	mg/L		08/13/13 08:37	08/19/13 11:00	50
Acenaphthylene	0.00283	U	0.0236	0.00283	mg/L		08/13/13 08:37	08/19/13 11:00	50
2,6-Dinitrotoluene	0.00377	U	0.0236	0.00377	mg/L		08/13/13 08:37	08/19/13 11:00	50
Acenaphthene	0.304		0.0236	0.00377	mg/L		08/13/13 08:37	08/19/13 11:00	50
4-Nitrophenol	0.0264	U	0.0472	0.0264	mg/L		08/13/13 08:37	08/19/13 11:00	50
Dibenzofuran	0.325		0.0236	0.00377	mg/L		08/13/13 08:37	08/19/13 11:00	50
2,4-Dinitrotoluene	0.00613	U	0.0236	0.00613	mg/L		08/13/13 08:37	08/19/13 11:00	50
Fluorene	0.154		0.0236	0.00330	mg/L		08/13/13 08:37	08/19/13 11:00	50
4,6-Dinitro-2-methylphenol	0.0392	U	0.0472	0.0392	mg/L		08/13/13 08:37	08/19/13 11:00	50
N-Nitrosodiphenylamine	0.00472	U	0.0236	0.00472	mg/L		08/13/13 08:37	08/19/13 11:00	50
1,2-Diphenylhydrazine	0.00519	U	0.0236	0.00519	mg/L		08/13/13 08:37	08/19/13 11:00	50
Pentachlorophenol	0.0288	U	0.0472	0.0288	mg/L		08/13/13 08:37	08/19/13 11:00	50
Phenanthrene	0.136		0.0236	0.00283	mg/L		08/13/13 08:37	08/19/13 11:00	50
Anthracene	0.0230	J	0.0236	0.00236	mg/L		08/13/13 08:37	08/19/13 11:00	50
Di-n-butyl phthalate	0.00519	U	0.118	0.00519	mg/L		08/13/13 08:37	08/19/13 11:00	50
Fluoranthene	0.00764	J	0.0236	0.00330	mg/L		08/13/13 08:37	08/19/13 11:00	50
Pyrene	0.00519	U	0.0236	0.00519	mg/L		08/13/13 08:37	08/19/13 11:00	50
Benzo[a]anthracene	0.00377	U	0.0236	0.00377	mg/L		08/13/13 08:37	08/19/13 11:00	50
Bis(2-ethylhexyl) phthalate	0.0175	U	0.118	0.0175	mg/L		08/13/13 08:37	08/19/13 11:00	50
Chrysene	0.00377	U	0.0236	0.00377	mg/L		08/13/13 08:37	08/19/13 11:00	50
Benzo[a]pyrene	0.00377	U	0.0236	0.00377	mg/L		08/13/13 08:37	08/19/13 11:00	50

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	0	X	44 - 123	08/13/13 08:37	08/19/13 11:00	50
2-Fluorobiphenyl	0	X	43 - 120	08/13/13 08:37	08/19/13 11:00	50
2-Fluorophenol	0	X	18 - 120	08/13/13 08:37	08/19/13 11:00	50
Nitrobenzene-d5	0	X	47 - 120	08/13/13 08:37	08/19/13 11:00	50
Terphenyl-d14	0	X	33 - 141	08/13/13 08:37	08/19/13 11:00	50
Phenol-d5 (Surr)	0	X	12 - 128	08/13/13 08:37	08/19/13 11:00	50

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-77584-1

Client Sample ID: WG-1620-MW68B-20130808

Lab Sample ID: 600-77584-6

Date Collected: 08/08/13 08:10

Matrix: Water

Date Received: 08/09/13 11:47

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels - DL

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	31.2		11.8	0.189	mg/L		08/13/13 08:37	08/19/13 16:53	2500
2-Methylnaphthalene	1.41		1.18	0.165	mg/L		08/13/13 08:37	08/19/13 16:53	2500
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	0	X	44 - 123				08/13/13 08:37	08/19/13 16:53	2500
2-Fluorobiphenyl	0	X	43 - 120				08/13/13 08:37	08/19/13 16:53	2500
2-Fluorophenol	0	X	18 - 120				08/13/13 08:37	08/19/13 16:53	2500
Nitrobenzene-d5	0	X	47 - 120				08/13/13 08:37	08/19/13 16:53	2500
Terphenyl-d14	0	X	33 - 141				08/13/13 08:37	08/19/13 16:53	2500
Phenol-d5 (Surr)	0	X	12 - 128				08/13/13 08:37	08/19/13 16:53	2500

Client Sample ID: WG-1620-MW67B-21030808

Lab Sample ID: 600-77584-7

Date Collected: 08/08/13 09:10

Matrix: Water

Date Received: 08/09/13 11:47

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	0.000110	U	0.00200	0.000110	mg/L			08/15/13 15:40	1
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			08/15/13 15:40	1
Benzene	0.0000800	U	0.00100	0.0000800	mg/L			08/15/13 15:40	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			08/15/13 15:40	1
Toluene	0.000150	U	0.00100	0.000150	mg/L			08/15/13 15:40	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			08/15/13 15:40	1
Ethylbenzene	0.000110	U	0.00100	0.000110	mg/L			08/15/13 15:40	1
Xylenes, Total	0.000260	U	0.00300	0.000260	mg/L			08/15/13 15:40	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	104		67 - 139					08/15/13 15:40	1
Dibromofluoromethane	84		62 - 130					08/15/13 15:40	1
Toluene-d8 (Surr)	90		70 - 130					08/15/13 15:40	1
1,2-Dichloroethane-d4 (Surr)	82		50 - 134					08/15/13 15:40	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.0000377	U	0.000472	0.0000377	mg/L		08/13/13 08:37	08/16/13 15:43	1
Nitrobenzene	0.000104	U	0.000472	0.000104	mg/L		08/13/13 08:37	08/16/13 15:43	1
2,4-Dimethylphenol	0.000292	U	0.000472	0.000292	mg/L		08/13/13 08:37	08/16/13 15:43	1
Bis(2-chloroethoxy)methane	0.000123	U	0.000472	0.000123	mg/L		08/13/13 08:37	08/16/13 15:43	1
Naphthalene	0.000433	J	0.00472	0.0000755	mg/L		08/13/13 08:37	08/16/13 15:43	1
2-Methylnaphthalene	0.0000660	U	0.000472	0.0000660	mg/L		08/13/13 08:37	08/16/13 15:43	1
2-Chloronaphthalene	0.0000755	U	0.000472	0.0000755	mg/L		08/13/13 08:37	08/16/13 15:43	1
Acenaphthylene	0.0000566	U	0.000472	0.0000566	mg/L		08/13/13 08:37	08/16/13 15:43	1
2,6-Dinitrotoluene	0.0000755	U	0.000472	0.0000755	mg/L		08/13/13 08:37	08/16/13 15:43	1
Acenaphthene	0.0000755	U	0.000472	0.0000755	mg/L		08/13/13 08:37	08/16/13 15:43	1
4-Nitrophenol	0.000528	U	0.000943	0.000528	mg/L		08/13/13 08:37	08/16/13 15:43	1
Dibenzofuran	0.0000755	U	0.000472	0.0000755	mg/L		08/13/13 08:37	08/16/13 15:43	1
2,4-Dinitrotoluene	0.000123	U	0.000472	0.000123	mg/L		08/13/13 08:37	08/16/13 15:43	1
Fluorene	0.0000660	U	0.000472	0.0000660	mg/L		08/13/13 08:37	08/16/13 15:43	1
4,6-Dinitro-2-methylphenol	0.000783	U	0.000943	0.000783	mg/L		08/13/13 08:37	08/16/13 15:43	1
N-Nitrosodiphenylamine	0.0000943	U	0.000472	0.0000943	mg/L		08/13/13 08:37	08/16/13 15:43	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-77584-1

Client Sample ID: WG-1620-MW67B-21030808

Lab Sample ID: 600-77584-7

Date Collected: 08/08/13 09:10

Matrix: Water

Date Received: 08/09/13 11:47

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Diphenylhydrazine	0.000104	U	0.000472	0.000104	mg/L		08/13/13 08:37	08/16/13 15:43	1
Pentachlorophenol	0.000575	U	0.000943	0.000575	mg/L		08/13/13 08:37	08/16/13 15:43	1
Phenanthrene	0.0000566	U	0.000472	0.0000566	mg/L		08/13/13 08:37	08/16/13 15:43	1
Anthracene	0.0000472	U	0.000472	0.0000472	mg/L		08/13/13 08:37	08/16/13 15:43	1
Di-n-butyl phthalate	0.000119	J	0.00236	0.000104	mg/L		08/13/13 08:37	08/16/13 15:43	1
Fluoranthene	0.0000660	U	0.000472	0.0000660	mg/L		08/13/13 08:37	08/16/13 15:43	1
Pyrene	0.000104	U	0.000472	0.000104	mg/L		08/13/13 08:37	08/16/13 15:43	1
Benzo[a]anthracene	0.0000755	U	0.000472	0.0000755	mg/L		08/13/13 08:37	08/16/13 15:43	1
Bis(2-ethylhexyl) phthalate	0.000349	U	0.00236	0.000349	mg/L		08/13/13 08:37	08/16/13 15:43	1
Chrysene	0.0000755	U	0.000472	0.0000755	mg/L		08/13/13 08:37	08/16/13 15:43	1
Benzo[a]pyrene	0.0000755	U	0.000472	0.0000755	mg/L		08/13/13 08:37	08/16/13 15:43	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	58		44 - 123				08/13/13 08:37	08/16/13 15:43	1
2-Fluorobiphenyl	54		43 - 120				08/13/13 08:37	08/16/13 15:43	1
2-Fluorophenol	24		18 - 120				08/13/13 08:37	08/16/13 15:43	1
Nitrobenzene-d5	55		47 - 120				08/13/13 08:37	08/16/13 15:43	1
Terphenyl-d14	91		33 - 141				08/13/13 08:37	08/16/13 15:43	1
Phenol-d5 (Surr)	14		12 - 128				08/13/13 08:37	08/16/13 15:43	1

Client Sample ID: WG-1620-MW38A-20130808

Lab Sample ID: 600-77584-8

Date Collected: 08/08/13 10:15

Matrix: Water

Date Received: 08/09/13 11:47

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	0.000110	U	0.00200	0.000110	mg/L			08/15/13 20:59	1
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			08/15/13 20:59	1
Benzene	0.0000800	U	0.00100	0.0000800	mg/L			08/15/13 20:59	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			08/15/13 20:59	1
Toluene	0.000150	U	0.00100	0.000150	mg/L			08/15/13 20:59	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			08/15/13 20:59	1
Ethylbenzene	0.000110	U	0.00100	0.000110	mg/L			08/15/13 20:59	1
Xylenes, Total	0.000260	U	0.00300	0.000260	mg/L			08/15/13 20:59	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	103		67 - 139					08/15/13 20:59	1
Dibromofluoromethane	81		62 - 130					08/15/13 20:59	1
Toluene-d8 (Surr)	89		70 - 130					08/15/13 20:59	1
1,2-Dichloroethane-d4 (Surr)	77		50 - 134					08/15/13 20:59	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.0000377	U	0.000472	0.0000377	mg/L		08/13/13 08:37	08/16/13 16:13	1
Nitrobenzene	0.000104	U	0.000472	0.000104	mg/L		08/13/13 08:37	08/16/13 16:13	1
2,4-Dimethylphenol	0.000292	U	0.000472	0.000292	mg/L		08/13/13 08:37	08/16/13 16:13	1
Bis(2-chloroethoxy)methane	0.000123	U	0.000472	0.000123	mg/L		08/13/13 08:37	08/16/13 16:13	1
Naphthalene	0.00192	J	0.00472	0.0000755	mg/L		08/13/13 08:37	08/16/13 16:13	1
2-Methylnaphthalene	0.000115	J	0.000472	0.0000660	mg/L		08/13/13 08:37	08/16/13 16:13	1
2-Chloronaphthalene	0.0000755	U	0.000472	0.0000755	mg/L		08/13/13 08:37	08/16/13 16:13	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-77584-1

Client Sample ID: WG-1620-MW38A-20130808

Lab Sample ID: 600-77584-8

Date Collected: 08/08/13 10:15

Matrix: Water

Date Received: 08/09/13 11:47

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthylene	0.0000566	U	0.000472	0.0000566	mg/L		08/13/13 08:37	08/16/13 16:13	1
2,6-Dinitrotoluene	0.0000755	U	0.000472	0.0000755	mg/L		08/13/13 08:37	08/16/13 16:13	1
Acenaphthene	0.000638		0.000472	0.0000755	mg/L		08/13/13 08:37	08/16/13 16:13	1
4-Nitrophenol	0.000528	U	0.000943	0.000528	mg/L		08/13/13 08:37	08/16/13 16:13	1
Dibenzofuran	0.0000755	U	0.000472	0.0000755	mg/L		08/13/13 08:37	08/16/13 16:13	1
2,4-Dinitrotoluene	0.000123	U	0.000472	0.000123	mg/L		08/13/13 08:37	08/16/13 16:13	1
Fluorene	0.0000660	U	0.000472	0.0000660	mg/L		08/13/13 08:37	08/16/13 16:13	1
4,6-Dinitro-2-methylphenol	0.000783	U	0.000943	0.000783	mg/L		08/13/13 08:37	08/16/13 16:13	1
N-Nitrosodiphenylamine	0.0000943	U	0.000472	0.0000943	mg/L		08/13/13 08:37	08/16/13 16:13	1
1,2-Diphenylhydrazine	0.000104	U	0.000472	0.000104	mg/L		08/13/13 08:37	08/16/13 16:13	1
Pentachlorophenol	0.000575	U	0.000943	0.000575	mg/L		08/13/13 08:37	08/16/13 16:13	1
Phenanthrene	0.0000566	U	0.000472	0.0000566	mg/L		08/13/13 08:37	08/16/13 16:13	1
Anthracene	0.0000472	U	0.000472	0.0000472	mg/L		08/13/13 08:37	08/16/13 16:13	1
Di-n-butyl phthalate	0.000145	J	0.00236	0.000104	mg/L		08/13/13 08:37	08/16/13 16:13	1
Fluoranthene	0.000164	J	0.000472	0.0000660	mg/L		08/13/13 08:37	08/16/13 16:13	1
Pyrene	0.000176	J	0.000472	0.000104	mg/L		08/13/13 08:37	08/16/13 16:13	1
Benzo[a]anthracene	0.0000755	U	0.000472	0.0000755	mg/L		08/13/13 08:37	08/16/13 16:13	1
Bis(2-ethylhexyl) phthalate	0.000349	U	0.00236	0.000349	mg/L		08/13/13 08:37	08/16/13 16:13	1
Chrysene	0.0000755	U	0.000472	0.0000755	mg/L		08/13/13 08:37	08/16/13 16:13	1
Benzo[a]pyrene	0.0000755	U	0.000472	0.0000755	mg/L		08/13/13 08:37	08/16/13 16:13	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	116		44 - 123				08/13/13 08:37	08/16/13 16:13	1
2-Fluorobiphenyl	69		43 - 120				08/13/13 08:37	08/16/13 16:13	1
2-Fluorophenol	30		18 - 120				08/13/13 08:37	08/16/13 16:13	1
Nitrobenzene-d5	67		47 - 120				08/13/13 08:37	08/16/13 16:13	1
Terphenyl-d14	93		33 - 141				08/13/13 08:37	08/16/13 16:13	1
Phenol-d5 (Surr)	16		12 - 128				08/13/13 08:37	08/16/13 16:13	1

Client Sample ID: WG-1620-MW38B-20130808

Lab Sample ID: 600-77584-9

Date Collected: 08/08/13 11:10

Matrix: Water

Date Received: 08/09/13 11:47

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	0.000110	U	0.00200	0.000110	mg/L			08/21/13 14:55	1
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			08/21/13 14:55	1
Benzene	0.0000800	U	0.00100	0.0000800	mg/L			08/21/13 14:55	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			08/21/13 14:55	1
Toluene	0.000150	U	0.00100	0.000150	mg/L			08/21/13 14:55	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			08/21/13 14:55	1
Ethylbenzene	0.000110	U	0.00100	0.000110	mg/L			08/21/13 14:55	1
Xylenes, Total	0.000260	U	0.00300	0.000260	mg/L			08/21/13 14:55	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	86		67 - 139					08/21/13 14:55	1
Dibromofluoromethane	108		62 - 130					08/21/13 14:55	1
Toluene-d8 (Surr)	99		70 - 130					08/21/13 14:55	1
1,2-Dichloroethane-d4 (Surr)	121		50 - 134					08/21/13 14:55	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-77584-1

Client Sample ID: WG-1620-MW38B-20130808

Lab Sample ID: 600-77584-9

Date Collected: 08/08/13 11:10

Matrix: Water

Date Received: 08/09/13 11:47

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.0000377	U	0.000472	0.0000377	mg/L		08/13/13 08:37	08/16/13 16:44	1
Nitrobenzene	0.000104	U	0.000472	0.000104	mg/L		08/13/13 08:37	08/16/13 16:44	1
2,4-Dimethylphenol	0.000292	U	0.000472	0.000292	mg/L		08/13/13 08:37	08/16/13 16:44	1
Bis(2-chloroethoxy)methane	0.000123	U	0.000472	0.000123	mg/L		08/13/13 08:37	08/16/13 16:44	1
Naphthalene	0.0000755	U	0.00472	0.0000755	mg/L		08/13/13 08:37	08/16/13 16:44	1
2-Methylnaphthalene	0.0000660	U	0.000472	0.0000660	mg/L		08/13/13 08:37	08/16/13 16:44	1
2-Chloronaphthalene	0.0000755	U	0.000472	0.0000755	mg/L		08/13/13 08:37	08/16/13 16:44	1
Acenaphthylene	0.0000566	U	0.000472	0.0000566	mg/L		08/13/13 08:37	08/16/13 16:44	1
2,6-Dinitrotoluene	0.0000755	U	0.000472	0.0000755	mg/L		08/13/13 08:37	08/16/13 16:44	1
Acenaphthene	0.0000755	U	0.000472	0.0000755	mg/L		08/13/13 08:37	08/16/13 16:44	1
4-Nitrophenol	0.000528	U	0.000943	0.000528	mg/L		08/13/13 08:37	08/16/13 16:44	1
Dibenzofuran	0.0000755	U	0.000472	0.0000755	mg/L		08/13/13 08:37	08/16/13 16:44	1
2,4-Dinitrotoluene	0.000123	U	0.000472	0.000123	mg/L		08/13/13 08:37	08/16/13 16:44	1
Fluorene	0.0000660	U	0.000472	0.0000660	mg/L		08/13/13 08:37	08/16/13 16:44	1
4,6-Dinitro-2-methylphenol	0.000783	U	0.000943	0.000783	mg/L		08/13/13 08:37	08/16/13 16:44	1
N-Nitrosodiphenylamine	0.0000943	U	0.000472	0.0000943	mg/L		08/13/13 08:37	08/16/13 16:44	1
1,2-Diphenylhydrazine	0.000104	U	0.000472	0.000104	mg/L		08/13/13 08:37	08/16/13 16:44	1
Pentachlorophenol	0.000575	U	0.000943	0.000575	mg/L		08/13/13 08:37	08/16/13 16:44	1
Phenanthrene	0.0000566	U	0.000472	0.0000566	mg/L		08/13/13 08:37	08/16/13 16:44	1
Anthracene	0.0000472	U	0.000472	0.0000472	mg/L		08/13/13 08:37	08/16/13 16:44	1
Di-n-butyl phthalate	0.000104	U	0.00236	0.000104	mg/L		08/13/13 08:37	08/16/13 16:44	1
Fluoranthene	0.0000660	U	0.000472	0.0000660	mg/L		08/13/13 08:37	08/16/13 16:44	1
Pyrene	0.000104	U	0.000472	0.000104	mg/L		08/13/13 08:37	08/16/13 16:44	1
Benzo[a]anthracene	0.0000755	U	0.000472	0.0000755	mg/L		08/13/13 08:37	08/16/13 16:44	1
Bis(2-ethylhexyl) phthalate	0.000349	U	0.00236	0.000349	mg/L		08/13/13 08:37	08/16/13 16:44	1
Chrysene	0.0000755	U	0.000472	0.0000755	mg/L		08/13/13 08:37	08/16/13 16:44	1
Benzo[a]pyrene	0.0000755	U	0.000472	0.0000755	mg/L		08/13/13 08:37	08/16/13 16:44	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	98		44 - 123				08/13/13 08:37	08/16/13 16:44	1
2-Fluorobiphenyl	77		43 - 120				08/13/13 08:37	08/16/13 16:44	1
2-Fluorophenol	32		18 - 120				08/13/13 08:37	08/16/13 16:44	1
Nitrobenzene-d5	74		47 - 120				08/13/13 08:37	08/16/13 16:44	1
Terphenyl-d14	89		33 - 141				08/13/13 08:37	08/16/13 16:44	1
Phenol-d5 (Surr)	16		12 - 128				08/13/13 08:37	08/16/13 16:44	1

Client Sample ID: WG-1620-FB09-20130808

Lab Sample ID: 600-77584-10

Date Collected: 08/08/13 11:30

Matrix: Water

Date Received: 08/09/13 11:47

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	0.000110	U	0.00200	0.000110	mg/L			08/15/13 18:49	1
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			08/15/13 18:49	1
Benzene	0.0000800	U	0.00100	0.0000800	mg/L			08/15/13 18:49	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			08/15/13 18:49	1
Toluene	0.000150	U	0.00100	0.000150	mg/L			08/15/13 18:49	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			08/15/13 18:49	1
Ethylbenzene	0.000110	U	0.00100	0.000110	mg/L			08/15/13 18:49	1
Xylenes, Total	0.000260	U	0.00300	0.000260	mg/L			08/15/13 18:49	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-77584-1

Client Sample ID: WG-1620-FB09-20130808

Lab Sample ID: 600-77584-10

Date Collected: 08/08/13 11:30

Matrix: Water

Date Received: 08/09/13 11:47

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	112		67 - 139		08/15/13 18:49	1
Dibromofluoromethane	88		62 - 130		08/15/13 18:49	1
Toluene-d8 (Surr)	96		70 - 130		08/15/13 18:49	1
1,2-Dichloroethane-d4 (Surr)	84		50 - 134		08/15/13 18:49	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.000377	U	0.000472	0.000377	mg/L		08/13/13 08:37	08/19/13 11:30	1
Nitrobenzene	0.000104	U	0.000472	0.000104	mg/L		08/13/13 08:37	08/19/13 11:30	1
2,4-Dimethylphenol	0.000292	U	0.000472	0.000292	mg/L		08/13/13 08:37	08/19/13 11:30	1
Bis(2-chloroethoxy)methane	0.000123	U	0.000472	0.000123	mg/L		08/13/13 08:37	08/19/13 11:30	1
Naphthalene	0.000755	U	0.00472	0.000755	mg/L		08/13/13 08:37	08/19/13 11:30	1
2-Methylnaphthalene	0.000660	U	0.000472	0.000660	mg/L		08/13/13 08:37	08/19/13 11:30	1
2-Chloronaphthalene	0.000755	U	0.000472	0.000755	mg/L		08/13/13 08:37	08/19/13 11:30	1
Acenaphthylene	0.000566	U	0.000472	0.000566	mg/L		08/13/13 08:37	08/19/13 11:30	1
2,6-Dinitrotoluene	0.000755	U	0.000472	0.000755	mg/L		08/13/13 08:37	08/19/13 11:30	1
Acenaphthene	0.000755	U	0.000472	0.000755	mg/L		08/13/13 08:37	08/19/13 11:30	1
4-Nitrophenol	0.000528	U	0.000943	0.000528	mg/L		08/13/13 08:37	08/19/13 11:30	1
Dibenzofuran	0.000755	U	0.000472	0.000755	mg/L		08/13/13 08:37	08/19/13 11:30	1
2,4-Dinitrotoluene	0.000123	U	0.000472	0.000123	mg/L		08/13/13 08:37	08/19/13 11:30	1
Fluorene	0.000660	U	0.000472	0.000660	mg/L		08/13/13 08:37	08/19/13 11:30	1
4,6-Dinitro-2-methylphenol	0.000783	U	0.000943	0.000783	mg/L		08/13/13 08:37	08/19/13 11:30	1
N-Nitrosodiphenylamine	0.000943	U	0.000472	0.000943	mg/L		08/13/13 08:37	08/19/13 11:30	1
1,2-Diphenylhydrazine	0.000104	U	0.000472	0.000104	mg/L		08/13/13 08:37	08/19/13 11:30	1
Pentachlorophenol	0.000575	U	0.000943	0.000575	mg/L		08/13/13 08:37	08/19/13 11:30	1
Phenanthrene	0.000566	U	0.000472	0.000566	mg/L		08/13/13 08:37	08/19/13 11:30	1
Anthracene	0.000472	U	0.000472	0.000472	mg/L		08/13/13 08:37	08/19/13 11:30	1
Di-n-butyl phthalate	0.000104	U	0.00236	0.000104	mg/L		08/13/13 08:37	08/19/13 11:30	1
Fluoranthene	0.000660	U	0.000472	0.000660	mg/L		08/13/13 08:37	08/19/13 11:30	1
Pyrene	0.000104	U	0.000472	0.000104	mg/L		08/13/13 08:37	08/19/13 11:30	1
Benzo[a]anthracene	0.000755	U	0.000472	0.000755	mg/L		08/13/13 08:37	08/19/13 11:30	1
Bis(2-ethylhexyl) phthalate	0.000349	U	0.00236	0.000349	mg/L		08/13/13 08:37	08/19/13 11:30	1
Chrysene	0.000755	U	0.000472	0.000755	mg/L		08/13/13 08:37	08/19/13 11:30	1
Benzo[a]pyrene	0.000755	U	0.000472	0.000755	mg/L		08/13/13 08:37	08/19/13 11:30	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	55		44 - 123	08/13/13 08:37	08/19/13 11:30	1
2-Fluorobiphenyl	49		43 - 120	08/13/13 08:37	08/19/13 11:30	1
2-Fluorophenol	30		18 - 120	08/13/13 08:37	08/19/13 11:30	1
Nitrobenzene-d5	44	X	47 - 120	08/13/13 08:37	08/19/13 11:30	1
Terphenyl-d14	60		33 - 141	08/13/13 08:37	08/19/13 11:30	1
Phenol-d5 (Surr)	14		12 - 128	08/13/13 08:37	08/19/13 11:30	1

Client Sample ID: WG-1620-MW27C-20130808

Lab Sample ID: 600-77584-11

Date Collected: 08/08/13 13:15

Matrix: Water

Date Received: 08/09/13 11:47

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	0.000110	U	0.00200	0.000110	mg/L			08/15/13 19:15	1
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			08/15/13 19:15	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-77584-1

Client Sample ID: WG-1620-MW27C-20130808

Lab Sample ID: 600-77584-11

Date Collected: 08/08/13 13:15

Matrix: Water

Date Received: 08/09/13 11:47

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.0000800	U	0.00100	0.0000800	mg/L			08/15/13 19:15	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			08/15/13 19:15	1
Toluene	0.000150	U	0.00100	0.000150	mg/L			08/15/13 19:15	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			08/15/13 19:15	1
Ethylbenzene	0.000110	U	0.00100	0.000110	mg/L			08/15/13 19:15	1
Xylenes, Total	0.000260	U	0.00300	0.000260	mg/L			08/15/13 19:15	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	107		67 - 139		08/15/13 19:15	1
Dibromofluoromethane	91		62 - 130		08/15/13 19:15	1
Toluene-d8 (Surr)	94		70 - 130		08/15/13 19:15	1
1,2-Dichloroethane-d4 (Surr)	87		50 - 134		08/15/13 19:15	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.0000377	U	0.000472	0.0000377	mg/L		08/13/13 08:37	08/19/13 15:26	1
Nitrobenzene	0.000104	U	0.000472	0.000104	mg/L		08/13/13 08:37	08/19/13 15:26	1
2,4-Dimethylphenol	0.000292	U	0.000472	0.000292	mg/L		08/13/13 08:37	08/19/13 15:26	1
Bis(2-chloroethoxy)methane	0.000123	U	0.000472	0.000123	mg/L		08/13/13 08:37	08/19/13 15:26	1
Naphthalene	0.000353	J	0.00472	0.0000755	mg/L		08/13/13 08:37	08/19/13 15:26	1
2-Methylnaphthalene	0.0000660	U	0.000472	0.0000660	mg/L		08/13/13 08:37	08/19/13 15:26	1
2-Chloronaphthalene	0.0000755	U	0.000472	0.0000755	mg/L		08/13/13 08:37	08/19/13 15:26	1
Acenaphthylene	0.0000566	U	0.000472	0.0000566	mg/L		08/13/13 08:37	08/19/13 15:26	1
2,6-Dinitrotoluene	0.0000755	U	0.000472	0.0000755	mg/L		08/13/13 08:37	08/19/13 15:26	1
Acenaphthene	0.0000755	U	0.000472	0.0000755	mg/L		08/13/13 08:37	08/19/13 15:26	1
4-Nitrophenol	0.000528	U	0.000943	0.000528	mg/L		08/13/13 08:37	08/19/13 15:26	1
Dibenzofuran	0.0000755	U	0.000472	0.0000755	mg/L		08/13/13 08:37	08/19/13 15:26	1
2,4-Dinitrotoluene	0.000123	U	0.000472	0.000123	mg/L		08/13/13 08:37	08/19/13 15:26	1
Fluorene	0.0000660	U	0.000472	0.0000660	mg/L		08/13/13 08:37	08/19/13 15:26	1
4,6-Dinitro-2-methylphenol	0.000783	U	0.000943	0.000783	mg/L		08/13/13 08:37	08/19/13 15:26	1
N-Nitrosodiphenylamine	0.0000943	U	0.000472	0.0000943	mg/L		08/13/13 08:37	08/19/13 15:26	1
1,2-Diphenylhydrazine	0.000104	U	0.000472	0.000104	mg/L		08/13/13 08:37	08/19/13 15:26	1
Pentachlorophenol	0.000575	U	0.000943	0.000575	mg/L		08/13/13 08:37	08/19/13 15:26	1
Phenanthrene	0.0000908	J	0.000472	0.0000566	mg/L		08/13/13 08:37	08/19/13 15:26	1
Anthracene	0.0000472	U	0.000472	0.0000472	mg/L		08/13/13 08:37	08/19/13 15:26	1
Di-n-butyl phthalate	0.000143	J	0.00236	0.000104	mg/L		08/13/13 08:37	08/19/13 15:26	1
Fluoranthene	0.000114	J	0.000472	0.0000660	mg/L		08/13/13 08:37	08/19/13 15:26	1
Pyrene	0.000104	U	0.000472	0.000104	mg/L		08/13/13 08:37	08/19/13 15:26	1
Benzo[a]anthracene	0.0000755	U	0.000472	0.0000755	mg/L		08/13/13 08:37	08/19/13 15:26	1
Bis(2-ethylhexyl) phthalate	0.000349	U	0.00236	0.000349	mg/L		08/13/13 08:37	08/19/13 15:26	1
Chrysene	0.0000755	U	0.000472	0.0000755	mg/L		08/13/13 08:37	08/19/13 15:26	1
Benzo[a]pyrene	0.0000755	U	0.000472	0.0000755	mg/L		08/13/13 08:37	08/19/13 15:26	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	98		44 - 123	08/13/13 08:37	08/19/13 15:26	1
2-Fluorobiphenyl	75		43 - 120	08/13/13 08:37	08/19/13 15:26	1
2-Fluorophenol	32		18 - 120	08/13/13 08:37	08/19/13 15:26	1
Nitrobenzene-d5	71		47 - 120	08/13/13 08:37	08/19/13 15:26	1
Terphenyl-d14	93		33 - 141	08/13/13 08:37	08/19/13 15:26	1
Phenol-d5 (Surr)	18		12 - 128	08/13/13 08:37	08/19/13 15:26	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-77584-1

Client Sample ID: WG-1620-MW24AR-20130808

Lab Sample ID: 600-77584-12

Date Collected: 08/08/13 14:20

Matrix: Water

Date Received: 08/09/13 11:47

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	0.000110	U	0.00200	0.000110	mg/L			08/15/13 19:41	1
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			08/15/13 19:41	1
Benzene	0.0000800	U	0.00100	0.0000800	mg/L			08/15/13 19:41	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			08/15/13 19:41	1
Toluene	0.000150	U	0.00100	0.000150	mg/L			08/15/13 19:41	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			08/15/13 19:41	1
Ethylbenzene	0.000110	U	0.00100	0.000110	mg/L			08/15/13 19:41	1
Xylenes, Total	0.000260	U	0.00300	0.000260	mg/L			08/15/13 19:41	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	109		67 - 139					08/15/13 19:41	1
Dibromofluoromethane	87		62 - 130					08/15/13 19:41	1
Toluene-d8 (Surr)	95		70 - 130					08/15/13 19:41	1
1,2-Dichloroethane-d4 (Surr)	84		50 - 134					08/15/13 19:41	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.0000377	U	0.000472	0.0000377	mg/L		08/13/13 08:37	08/19/13 15:55	1
Nitrobenzene	0.000104	U	0.000472	0.000104	mg/L		08/13/13 08:37	08/19/13 15:55	1
2,4-Dimethylphenol	0.000292	U	0.000472	0.000292	mg/L		08/13/13 08:37	08/19/13 15:55	1
Bis(2-chloroethoxy)methane	0.000123	U	0.000472	0.000123	mg/L		08/13/13 08:37	08/19/13 15:55	1
Naphthalene	0.0000755	U	0.00472	0.0000755	mg/L		08/13/13 08:37	08/19/13 15:55	1
2-Methylnaphthalene	0.0000660	U	0.000472	0.0000660	mg/L		08/13/13 08:37	08/19/13 15:55	1
2-Chloronaphthalene	0.0000755	U	0.000472	0.0000755	mg/L		08/13/13 08:37	08/19/13 15:55	1
Acenaphthylene	0.0000566	U	0.000472	0.0000566	mg/L		08/13/13 08:37	08/19/13 15:55	1
2,6-Dinitrotoluene	0.0000755	U	0.000472	0.0000755	mg/L		08/13/13 08:37	08/19/13 15:55	1
Acenaphthene	0.0000755	U	0.000472	0.0000755	mg/L		08/13/13 08:37	08/19/13 15:55	1
4-Nitrophenol	0.000528	U	0.000943	0.000528	mg/L		08/13/13 08:37	08/19/13 15:55	1
Dibenzofuran	0.0000755	U	0.000472	0.0000755	mg/L		08/13/13 08:37	08/19/13 15:55	1
2,4-Dinitrotoluene	0.000123	U	0.000472	0.000123	mg/L		08/13/13 08:37	08/19/13 15:55	1
Fluorene	0.0000660	U	0.000472	0.0000660	mg/L		08/13/13 08:37	08/19/13 15:55	1
4,6-Dinitro-2-methylphenol	0.000783	U	0.000943	0.000783	mg/L		08/13/13 08:37	08/19/13 15:55	1
N-Nitrosodiphenylamine	0.0000943	U	0.000472	0.0000943	mg/L		08/13/13 08:37	08/19/13 15:55	1
1,2-Diphenylhydrazine	0.000104	U	0.000472	0.000104	mg/L		08/13/13 08:37	08/19/13 15:55	1
Pentachlorophenol	0.000575	U	0.000943	0.000575	mg/L		08/13/13 08:37	08/19/13 15:55	1
Phenanthrene	0.0000566	U	0.000472	0.0000566	mg/L		08/13/13 08:37	08/19/13 15:55	1
Anthracene	0.0000472	U	0.000472	0.0000472	mg/L		08/13/13 08:37	08/19/13 15:55	1
Di-n-butyl phthalate	0.000168	J	0.00236	0.000104	mg/L		08/13/13 08:37	08/19/13 15:55	1
Fluoranthene	0.0000660	U	0.000472	0.0000660	mg/L		08/13/13 08:37	08/19/13 15:55	1
Pyrene	0.000104	U	0.000472	0.000104	mg/L		08/13/13 08:37	08/19/13 15:55	1
Benzo[a]anthracene	0.0000755	U	0.000472	0.0000755	mg/L		08/13/13 08:37	08/19/13 15:55	1
Bis(2-ethylhexyl) phthalate	0.000349	U	0.00236	0.000349	mg/L		08/13/13 08:37	08/19/13 15:55	1
Chrysene	0.0000755	U	0.000472	0.0000755	mg/L		08/13/13 08:37	08/19/13 15:55	1
Benzo[a]pyrene	0.0000755	U	0.000472	0.0000755	mg/L		08/13/13 08:37	08/19/13 15:55	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	3	X	44 - 123				08/13/13 08:37	08/19/13 15:55	1
2-Fluorobiphenyl	77		43 - 120				08/13/13 08:37	08/19/13 15:55	1
2-Fluorophenol	12	X	18 - 120				08/13/13 08:37	08/19/13 15:55	1
Nitrobenzene-d5	78		47 - 120				08/13/13 08:37	08/19/13 15:55	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-77584-1

Client Sample ID: WG-1620-MW24AR-20130808

Lab Sample ID: 600-77584-12

Date Collected: 08/08/13 14:20

Matrix: Water

Date Received: 08/09/13 11:47

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Terphenyl-d14	92		33 - 141	08/13/13 08:37	08/19/13 15:55	1
Phenol-d5 (Surr)	9	X	12 - 128	08/13/13 08:37	08/19/13 15:55	1

Client Sample ID: WG-1620-MW24B-0130808

Lab Sample ID: 600-77584-13

Date Collected: 08/08/13 15:15

Matrix: Water

Date Received: 08/09/13 11:47

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	0.000110	U	0.00200	0.000110	mg/L			08/20/13 20:09	1
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			08/20/13 20:09	1
Benzene	0.0000800	U	0.00100	0.0000800	mg/L			08/20/13 20:09	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			08/20/13 20:09	1
Toluene	0.0209		0.00100	0.000150	mg/L			08/20/13 20:09	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			08/20/13 20:09	1
Ethylbenzene	0.000110	U	0.00100	0.000110	mg/L			08/20/13 20:09	1
Xylenes, Total	0.000260	U	0.00300	0.000260	mg/L			08/20/13 20:09	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	91		67 - 139		08/20/13 20:09	1
Dibromofluoromethane	102		62 - 130		08/20/13 20:09	1
Toluene-d8 (Surr)	105		70 - 130		08/20/13 20:09	1
1,2-Dichloroethane-d4 (Surr)	109		50 - 134		08/20/13 20:09	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.0000392	U	0.000490	0.0000392	mg/L		08/14/13 16:25	08/16/13 00:15	1
Nitrobenzene	0.000108	U	0.000490	0.000108	mg/L		08/14/13 16:25	08/16/13 00:15	1
2,4-Dimethylphenol	0.000304	U	0.000490	0.000304	mg/L		08/14/13 16:25	08/16/13 00:15	1
Bis(2-chloroethoxy)methane	0.000127	U	0.000490	0.000127	mg/L		08/14/13 16:25	08/16/13 00:15	1
Naphthalene	0.0000784	U	0.00490	0.0000784	mg/L		08/14/13 16:25	08/16/13 00:15	1
2-Methylnaphthalene	0.0000686	U	0.000490	0.0000686	mg/L		08/14/13 16:25	08/16/13 00:15	1
2-Chloronaphthalene	0.0000784	U	0.000490	0.0000784	mg/L		08/14/13 16:25	08/16/13 00:15	1
Acenaphthylene	0.0000588	U	0.000490	0.0000588	mg/L		08/14/13 16:25	08/16/13 00:15	1
2,6-Dinitrotoluene	0.0000784	U	0.000490	0.0000784	mg/L		08/14/13 16:25	08/16/13 00:15	1
Acenaphthene	0.0000784	U	0.000490	0.0000784	mg/L		08/14/13 16:25	08/16/13 00:15	1
4-Nitrophenol	0.000549	U *	0.000980	0.000549	mg/L		08/14/13 16:25	08/16/13 00:15	1
Dibenzofuran	0.0000784	U	0.000490	0.0000784	mg/L		08/14/13 16:25	08/16/13 00:15	1
2,4-Dinitrotoluene	0.000127	U	0.000490	0.000127	mg/L		08/14/13 16:25	08/16/13 00:15	1
Fluorene	0.0000686	U	0.000490	0.0000686	mg/L		08/14/13 16:25	08/16/13 00:15	1
4,6-Dinitro-2-methylphenol	0.0000814	U	0.000980	0.0000814	mg/L		08/14/13 16:25	08/16/13 00:15	1
N-Nitrosodiphenylamine	0.0000980	U	0.000490	0.0000980	mg/L		08/14/13 16:25	08/16/13 00:15	1
1,2-Diphenylhydrazine	0.000108	U	0.000490	0.000108	mg/L		08/14/13 16:25	08/16/13 00:15	1
Pentachlorophenol	0.000598	U	0.000980	0.000598	mg/L		08/14/13 16:25	08/16/13 00:15	1
Phenanthrene	0.0000588	U	0.000490	0.0000588	mg/L		08/14/13 16:25	08/16/13 00:15	1
Anthracene	0.0000490	U	0.000490	0.0000490	mg/L		08/14/13 16:25	08/16/13 00:15	1
Di-n-butyl phthalate	0.000108	U	0.00245	0.000108	mg/L		08/14/13 16:25	08/16/13 00:15	1
Fluoranthene	0.0000686	U	0.000490	0.0000686	mg/L		08/14/13 16:25	08/16/13 00:15	1
Pyrene	0.000108	U	0.000490	0.000108	mg/L		08/14/13 16:25	08/16/13 00:15	1
Benzo[a]anthracene	0.0000784	U	0.000490	0.0000784	mg/L		08/14/13 16:25	08/16/13 00:15	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-77584-1

Client Sample ID: WG-1620-MW24B-0130808

Lab Sample ID: 600-77584-13

Date Collected: 08/08/13 15:15

Matrix: Water

Date Received: 08/09/13 11:47

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	0.000363	U	0.00245	0.000363	mg/L		08/14/13 16:25	08/16/13 00:15	1
Chrysene	0.0000784	U	0.000490	0.0000784	mg/L		08/14/13 16:25	08/16/13 00:15	1
Benzo[a]pyrene	0.0000784	U	0.000490	0.0000784	mg/L		08/14/13 16:25	08/16/13 00:15	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	110		44 - 123				08/14/13 16:25	08/16/13 00:15	1
2-Fluorobiphenyl	88		43 - 120				08/14/13 16:25	08/16/13 00:15	1
2-Fluorophenol	36		18 - 120				08/14/13 16:25	08/16/13 00:15	1
Nitrobenzene-d5	63		47 - 120				08/14/13 16:25	08/16/13 00:15	1
Terphenyl-d14	100		33 - 141				08/14/13 16:25	08/16/13 00:15	1
Phenol-d5 (Surr)	15		12 - 128				08/14/13 16:25	08/16/13 00:15	1

Client Sample ID: WG-1620-MW24C-20130808

Lab Sample ID: 600-77584-14

Date Collected: 08/08/13 16:05

Matrix: Water

Date Received: 08/09/13 11:47

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	0.000110	U	0.00200	0.000110	mg/L			08/15/13 20:07	1
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			08/15/13 20:07	1
Benzene	0.0000800	U	0.00100	0.0000800	mg/L			08/15/13 20:07	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			08/15/13 20:07	1
Toluene	0.000150	U	0.00100	0.000150	mg/L			08/15/13 20:07	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			08/15/13 20:07	1
Ethylbenzene	0.000110	U	0.00100	0.000110	mg/L			08/15/13 20:07	1
Xylenes, Total	0.000260	U	0.00300	0.000260	mg/L			08/15/13 20:07	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	108		67 - 139					08/15/13 20:07	1
Dibromofluoromethane	88		62 - 130					08/15/13 20:07	1
Toluene-d8 (Surr)	95		70 - 130					08/15/13 20:07	1
1,2-Dichloroethane-d4 (Surr)	87		50 - 134					08/15/13 20:07	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.0000392	U	0.000490	0.0000392	mg/L		08/14/13 16:25	08/16/13 00:44	1
Nitrobenzene	0.000108	U	0.000490	0.000108	mg/L		08/14/13 16:25	08/16/13 00:44	1
2,4-Dimethylphenol	0.000304	U	0.000490	0.000304	mg/L		08/14/13 16:25	08/16/13 00:44	1
Bis(2-chloroethoxy)methane	0.000127	U	0.000490	0.000127	mg/L		08/14/13 16:25	08/16/13 00:44	1
Naphthalene	0.0000784	U	0.00490	0.0000784	mg/L		08/14/13 16:25	08/16/13 00:44	1
2-Methylnaphthalene	0.0000686	U	0.000490	0.0000686	mg/L		08/14/13 16:25	08/16/13 00:44	1
2-Chloronaphthalene	0.0000784	U	0.000490	0.0000784	mg/L		08/14/13 16:25	08/16/13 00:44	1
Acenaphthylene	0.0000588	U	0.000490	0.0000588	mg/L		08/14/13 16:25	08/16/13 00:44	1
2,6-Dinitrotoluene	0.0000784	U	0.000490	0.0000784	mg/L		08/14/13 16:25	08/16/13 00:44	1
Acenaphthene	0.0000784	U	0.000490	0.0000784	mg/L		08/14/13 16:25	08/16/13 00:44	1
4-Nitrophenol	0.000549	U*	0.000980	0.000549	mg/L		08/14/13 16:25	08/16/13 00:44	1
Dibenzofuran	0.0000784	U	0.000490	0.0000784	mg/L		08/14/13 16:25	08/16/13 00:44	1
2,4-Dinitrotoluene	0.000127	U	0.000490	0.000127	mg/L		08/14/13 16:25	08/16/13 00:44	1
Fluorene	0.0000686	U	0.000490	0.0000686	mg/L		08/14/13 16:25	08/16/13 00:44	1
4,6-Dinitro-2-methylphenol	0.000814	U	0.000980	0.000814	mg/L		08/14/13 16:25	08/16/13 00:44	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-77584-1

Client Sample ID: WG-1620-MW24C-20130808

Lab Sample ID: 600-77584-14

Date Collected: 08/08/13 16:05

Matrix: Water

Date Received: 08/09/13 11:47

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Nitrosodiphenylamine	0.0000980	U	0.000490	0.0000980	mg/L		08/14/13 16:25	08/16/13 00:44	1
1,2-Diphenylhydrazine	0.000108	U	0.000490	0.000108	mg/L		08/14/13 16:25	08/16/13 00:44	1
Pentachlorophenol	0.000598	U	0.000980	0.000598	mg/L		08/14/13 16:25	08/16/13 00:44	1
Phenanthrene	0.0000588	U	0.000490	0.0000588	mg/L		08/14/13 16:25	08/16/13 00:44	1
Anthracene	0.0000490	U	0.000490	0.0000490	mg/L		08/14/13 16:25	08/16/13 00:44	1
Di-n-butyl phthalate	0.000108	U	0.00245	0.000108	mg/L		08/14/13 16:25	08/16/13 00:44	1
Fluoranthene	0.0000686	U	0.000490	0.0000686	mg/L		08/14/13 16:25	08/16/13 00:44	1
Pyrene	0.000108	U	0.000490	0.000108	mg/L		08/14/13 16:25	08/16/13 00:44	1
Benzo[a]anthracene	0.0000784	U	0.000490	0.0000784	mg/L		08/14/13 16:25	08/16/13 00:44	1
Bis(2-ethylhexyl) phthalate	0.000363	U	0.00245	0.000363	mg/L		08/14/13 16:25	08/16/13 00:44	1
Chrysene	0.0000784	U	0.000490	0.0000784	mg/L		08/14/13 16:25	08/16/13 00:44	1
Benzo[a]pyrene	0.0000784	U	0.000490	0.0000784	mg/L		08/14/13 16:25	08/16/13 00:44	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	56		44 - 123				08/14/13 16:25	08/16/13 00:44	1
2-Fluorobiphenyl	53		43 - 120				08/14/13 16:25	08/16/13 00:44	1
2-Fluorophenol	40		18 - 120				08/14/13 16:25	08/16/13 00:44	1
Nitrobenzene-d5	48		47 - 120				08/14/13 16:25	08/16/13 00:44	1
Terphenyl-d14	64		33 - 141				08/14/13 16:25	08/16/13 00:44	1
Phenol-d5 (Surr)	18		12 - 128				08/14/13 16:25	08/16/13 00:44	1

Client Sample ID: WG-1620-MW35B-20130808

Lab Sample ID: 600-77584-15

Date Collected: 08/08/13 17:15

Matrix: Water

Date Received: 08/09/13 11:47

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	0.00220	U	0.0400	0.00220	mg/L			08/21/13 17:16	20
Methylene Chloride	0.0234	b	0.0200	0.00300	mg/L			08/21/13 17:16	20
Benzene	0.0855		0.0200	0.00160	mg/L			08/21/13 17:16	20
1,2-Dichloroethane	0.00280	U	0.0200	0.00280	mg/L			08/21/13 17:16	20
Toluene	0.00584	J	0.0200	0.00300	mg/L			08/21/13 17:16	20
Chlorobenzene	0.00240	U	0.0200	0.00240	mg/L			08/21/13 17:16	20
Ethylbenzene	0.258		0.0200	0.00220	mg/L			08/21/13 17:16	20
Xylenes, Total	0.174		0.0600	0.00520	mg/L			08/21/13 17:16	20
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	80		67 - 139					08/21/13 17:16	20
Dibromofluoromethane	86		62 - 130					08/21/13 17:16	20
Toluene-d8 (Surr)	98		70 - 130					08/21/13 17:16	20
1,2-Dichloroethane-d4 (Surr)	124		50 - 134					08/21/13 17:16	20

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.00196	U	0.0245	0.00196	mg/L		08/14/13 16:25	08/19/13 09:30	50
Nitrobenzene	0.00539	U	0.0245	0.00539	mg/L		08/14/13 16:25	08/19/13 09:30	50
2,4-Dimethylphenol	0.0152	U	0.0245	0.0152	mg/L		08/14/13 16:25	08/19/13 09:30	50
Bis(2-chloroethoxy)methane	0.00637	U	0.0245	0.00637	mg/L		08/14/13 16:25	08/19/13 09:30	50
2-Methylnaphthalene	0.431		0.0245	0.00343	mg/L		08/14/13 16:25	08/19/13 09:30	50
2-Chloronaphthalene	0.00392	U	0.0245	0.00392	mg/L		08/14/13 16:25	08/19/13 09:30	50

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-77584-1

Client Sample ID: WG-1620-MW35B-20130808

Lab Sample ID: 600-77584-15

Date Collected: 08/08/13 17:15

Matrix: Water

Date Received: 08/09/13 11:47

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthylene	0.00294	U	0.0245	0.00294	mg/L		08/14/13 16:25	08/19/13 09:30	50
2,6-Dinitrotoluene	0.00392	U	0.0245	0.00392	mg/L		08/14/13 16:25	08/19/13 09:30	50
Acenaphthene	0.258		0.0245	0.00392	mg/L		08/14/13 16:25	08/19/13 09:30	50
4-Nitrophenol	0.0275	U *	0.0490	0.0275	mg/L		08/14/13 16:25	08/19/13 09:30	50
Dibenzofuran	0.252		0.0245	0.00392	mg/L		08/14/13 16:25	08/19/13 09:30	50
2,4-Dinitrotoluene	0.00637	U	0.0245	0.00637	mg/L		08/14/13 16:25	08/19/13 09:30	50
Fluorene	0.138		0.0245	0.00343	mg/L		08/14/13 16:25	08/19/13 09:30	50
4,6-Dinitro-2-methylphenol	0.0407	U	0.0490	0.0407	mg/L		08/14/13 16:25	08/19/13 09:30	50
N-Nitrosodiphenylamine	0.00490	U	0.0245	0.00490	mg/L		08/14/13 16:25	08/19/13 09:30	50
1,2-Diphenylhydrazine	0.00539	U	0.0245	0.00539	mg/L		08/14/13 16:25	08/19/13 09:30	50
Pentachlorophenol	0.0299	U	0.0490	0.0299	mg/L		08/14/13 16:25	08/19/13 09:30	50
Phenanthrene	0.142		0.0245	0.00294	mg/L		08/14/13 16:25	08/19/13 09:30	50
Anthracene	0.0202	J	0.0245	0.00245	mg/L		08/14/13 16:25	08/19/13 09:30	50
Di-n-butyl phthalate	0.00539	U	0.123	0.00539	mg/L		08/14/13 16:25	08/19/13 09:30	50
Fluoranthene	0.00756	J	0.0245	0.00343	mg/L		08/14/13 16:25	08/19/13 09:30	50
Pyrene	0.00539	U	0.0245	0.00539	mg/L		08/14/13 16:25	08/19/13 09:30	50
Benzo[a]anthracene	0.00392	U	0.0245	0.00392	mg/L		08/14/13 16:25	08/19/13 09:30	50
Bis(2-ethylhexyl) phthalate	0.0181	U	0.123	0.0181	mg/L		08/14/13 16:25	08/19/13 09:30	50
Chrysene	0.00392	U	0.0245	0.00392	mg/L		08/14/13 16:25	08/19/13 09:30	50
Benzo[a]pyrene	0.00392	U	0.0245	0.00392	mg/L		08/14/13 16:25	08/19/13 09:30	50

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	0	X	44 - 123	08/14/13 16:25	08/19/13 09:30	50
2-Fluorobiphenyl	0	X	43 - 120	08/14/13 16:25	08/19/13 09:30	50
2-Fluorophenol	0	X	18 - 120	08/14/13 16:25	08/19/13 09:30	50
Nitrobenzene-d5	0	X	47 - 120	08/14/13 16:25	08/19/13 09:30	50
Terphenyl-d14	0	X	33 - 141	08/14/13 16:25	08/19/13 09:30	50
Phenol-d5 (Surr)	0	X	12 - 128	08/14/13 16:25	08/19/13 09:30	50

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels - DL

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	14.1		4.90	0.0784	mg/L		08/14/13 16:25	08/19/13 17:22	1000

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	0	X	44 - 123	08/14/13 16:25	08/19/13 17:22	1000
2-Fluorobiphenyl	0	X	43 - 120	08/14/13 16:25	08/19/13 17:22	1000
2-Fluorophenol	0	X	18 - 120	08/14/13 16:25	08/19/13 17:22	1000
Nitrobenzene-d5	0	X	47 - 120	08/14/13 16:25	08/19/13 17:22	1000
Terphenyl-d14	0	X	33 - 141	08/14/13 16:25	08/19/13 17:22	1000
Phenol-d5 (Surr)	0	X	12 - 128	08/14/13 16:25	08/19/13 17:22	1000

Client Sample ID: WG-1620-MW35A-20130808

Lab Sample ID: 600-77584-16

Date Collected: 08/08/13 18:10

Matrix: Water

Date Received: 08/09/13 11:47

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	0.000110	U	0.00200	0.000110	mg/L			08/15/13 20:33	1
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			08/15/13 20:33	1
Benzene	0.0000800	U	0.00100	0.0000800	mg/L			08/15/13 20:33	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-77584-1

Client Sample ID: WG-1620-MW35A-20130808

Lab Sample ID: 600-77584-16

Date Collected: 08/08/13 18:10

Matrix: Water

Date Received: 08/09/13 11:47

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			08/15/13 20:33	1
Toluene	0.000150	U	0.00100	0.000150	mg/L			08/15/13 20:33	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			08/15/13 20:33	1
Ethylbenzene	0.000110	U	0.00100	0.000110	mg/L			08/15/13 20:33	1
Xylenes, Total	0.000309	J	0.00300	0.000260	mg/L			08/15/13 20:33	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	110		67 - 139		08/15/13 20:33	1
Dibromofluoromethane	88		62 - 130		08/15/13 20:33	1
Toluene-d8 (Surr)	97		70 - 130		08/15/13 20:33	1
1,2-Dichloroethane-d4 (Surr)	85		50 - 134		08/15/13 20:33	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.0000392	U	0.000490	0.0000392	mg/L		08/14/13 16:25	08/16/13 01:41	1
Nitrobenzene	0.000108	U	0.000490	0.000108	mg/L		08/14/13 16:25	08/16/13 01:41	1
2,4-Dimethylphenol	0.000304	U	0.000490	0.000304	mg/L		08/14/13 16:25	08/16/13 01:41	1
Bis(2-chloroethoxy)methane	0.000127	U	0.000490	0.000127	mg/L		08/14/13 16:25	08/16/13 01:41	1
Naphthalene	0.000557	J	0.00490	0.0000784	mg/L		08/14/13 16:25	08/16/13 01:41	1
2-Methylnaphthalene	0.0000686	U	0.000490	0.0000686	mg/L		08/14/13 16:25	08/16/13 01:41	1
2-Chloronaphthalene	0.0000784	U	0.000490	0.0000784	mg/L		08/14/13 16:25	08/16/13 01:41	1
Acenaphthylene	0.0000588	U	0.000490	0.0000588	mg/L		08/14/13 16:25	08/16/13 01:41	1
2,6-Dinitrotoluene	0.0000784	U	0.000490	0.0000784	mg/L		08/14/13 16:25	08/16/13 01:41	1
Acenaphthene	0.0181		0.000490	0.0000784	mg/L		08/14/13 16:25	08/16/13 01:41	1
4-Nitrophenol	0.000549	U *	0.000980	0.000549	mg/L		08/14/13 16:25	08/16/13 01:41	1
Dibenzofuran	0.000141	J	0.000490	0.0000784	mg/L		08/14/13 16:25	08/16/13 01:41	1
2,4-Dinitrotoluene	0.000127	U	0.000490	0.000127	mg/L		08/14/13 16:25	08/16/13 01:41	1
Fluorene	0.00200		0.000490	0.0000686	mg/L		08/14/13 16:25	08/16/13 01:41	1
4,6-Dinitro-2-methylphenol	0.000814	U	0.000980	0.000814	mg/L		08/14/13 16:25	08/16/13 01:41	1
N-Nitrosodiphenylamine	0.0000980	U	0.000490	0.0000980	mg/L		08/14/13 16:25	08/16/13 01:41	1
1,2-Diphenylhydrazine	0.000108	U	0.000490	0.000108	mg/L		08/14/13 16:25	08/16/13 01:41	1
Pentachlorophenol	0.000598	U	0.000980	0.000598	mg/L		08/14/13 16:25	08/16/13 01:41	1
Phenanthrene	0.0000588	U	0.000490	0.0000588	mg/L		08/14/13 16:25	08/16/13 01:41	1
Anthracene	0.0000490	U	0.000490	0.0000490	mg/L		08/14/13 16:25	08/16/13 01:41	1
Di-n-butyl phthalate	0.000108	U	0.00245	0.000108	mg/L		08/14/13 16:25	08/16/13 01:41	1
Fluoranthene	0.000365	J	0.000490	0.0000686	mg/L		08/14/13 16:25	08/16/13 01:41	1
Pyrene	0.000252	J	0.000490	0.000108	mg/L		08/14/13 16:25	08/16/13 01:41	1
Benzo[a]anthracene	0.0000784	U	0.000490	0.0000784	mg/L		08/14/13 16:25	08/16/13 01:41	1
Bis(2-ethylhexyl) phthalate	0.000363	U	0.00245	0.000363	mg/L		08/14/13 16:25	08/16/13 01:41	1
Chrysene	0.0000784	U	0.000490	0.0000784	mg/L		08/14/13 16:25	08/16/13 01:41	1
Benzo[a]pyrene	0.0000784	U	0.000490	0.0000784	mg/L		08/14/13 16:25	08/16/13 01:41	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	51		44 - 123	08/14/13 16:25	08/16/13 01:41	1
2-Fluorobiphenyl	35	X	43 - 120	08/14/13 16:25	08/16/13 01:41	1
2-Fluorophenol	38		18 - 120	08/14/13 16:25	08/16/13 01:41	1
Nitrobenzene-d5	27	X	47 - 120	08/14/13 16:25	08/16/13 01:41	1
Terphenyl-d14	61		33 - 141	08/14/13 16:25	08/16/13 01:41	1
Phenol-d5 (Surr)	20		12 - 128	08/14/13 16:25	08/16/13 01:41	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-77584-1

Client Sample ID: WG-1620-MW51A-20130809

Lab Sample ID: 600-77584-17

Date Collected: 08/09/13 08:30

Matrix: Water

Date Received: 08/09/13 11:47

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	0.000110	U	0.00200	0.000110	mg/L			08/15/13 21:25	1
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			08/15/13 21:25	1
Benzene	0.0000800	U	0.00100	0.0000800	mg/L			08/15/13 21:25	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			08/15/13 21:25	1
Toluene	0.000150	U	0.00100	0.000150	mg/L			08/15/13 21:25	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			08/15/13 21:25	1
Ethylbenzene	0.000110	U	0.00100	0.000110	mg/L			08/15/13 21:25	1
Xylenes, Total	0.000260	U	0.00300	0.000260	mg/L			08/15/13 21:25	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	81		67 - 139					08/15/13 21:25	1
Dibromofluoromethane	65		62 - 130					08/15/13 21:25	1
Toluene-d8 (Surr)	71		70 - 130					08/15/13 21:25	1
1,2-Dichloroethane-d4 (Surr)	63		50 - 134					08/15/13 21:25	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.0000392	U	0.000490	0.0000392	mg/L		08/14/13 16:25	08/16/13 10:50	1
Nitrobenzene	0.000108	U	0.000490	0.000108	mg/L		08/14/13 16:25	08/16/13 10:50	1
2,4-Dimethylphenol	0.000304	U	0.000490	0.000304	mg/L		08/14/13 16:25	08/16/13 10:50	1
Bis(2-chloroethoxy)methane	0.000127	U	0.000490	0.000127	mg/L		08/14/13 16:25	08/16/13 10:50	1
Naphthalene	0.0000784	U	0.00490	0.0000784	mg/L		08/14/13 16:25	08/16/13 10:50	1
2-Methylnaphthalene	0.0000686	U	0.000490	0.0000686	mg/L		08/14/13 16:25	08/16/13 10:50	1
2-Chloronaphthalene	0.0000784	U	0.000490	0.0000784	mg/L		08/14/13 16:25	08/16/13 10:50	1
Acenaphthylene	0.0000588	U	0.000490	0.0000588	mg/L		08/14/13 16:25	08/16/13 10:50	1
2,6-Dinitrotoluene	0.0000784	U	0.000490	0.0000784	mg/L		08/14/13 16:25	08/16/13 10:50	1
Acenaphthene	0.0000784	U	0.000490	0.0000784	mg/L		08/14/13 16:25	08/16/13 10:50	1
4-Nitrophenol	0.000549	U *	0.000980	0.000549	mg/L		08/14/13 16:25	08/16/13 10:50	1
Dibenzofuran	0.0000784	U	0.000490	0.0000784	mg/L		08/14/13 16:25	08/16/13 10:50	1
2,4-Dinitrotoluene	0.000127	U	0.000490	0.000127	mg/L		08/14/13 16:25	08/16/13 10:50	1
Fluorene	0.0000686	U	0.000490	0.0000686	mg/L		08/14/13 16:25	08/16/13 10:50	1
4,6-Dinitro-2-methylphenol	0.000814	U	0.000980	0.000814	mg/L		08/14/13 16:25	08/16/13 10:50	1
N-Nitrosodiphenylamine	0.0000980	U	0.000490	0.0000980	mg/L		08/14/13 16:25	08/16/13 10:50	1
1,2-Diphenylhydrazine	0.000108	U	0.000490	0.000108	mg/L		08/14/13 16:25	08/16/13 10:50	1
Pentachlorophenol	0.000598	U	0.000980	0.000598	mg/L		08/14/13 16:25	08/16/13 10:50	1
Phenanthrene	0.0000699	J	0.000490	0.0000588	mg/L		08/14/13 16:25	08/16/13 10:50	1
Anthracene	0.0000490	U	0.000490	0.0000490	mg/L		08/14/13 16:25	08/16/13 10:50	1
Di-n-butyl phthalate	0.000110	J	0.00245	0.000108	mg/L		08/14/13 16:25	08/16/13 10:50	1
Fluoranthene	0.0000686	U	0.000490	0.0000686	mg/L		08/14/13 16:25	08/16/13 10:50	1
Pyrene	0.000108	U	0.000490	0.000108	mg/L		08/14/13 16:25	08/16/13 10:50	1
Benzo[a]anthracene	0.0000784	U	0.000490	0.0000784	mg/L		08/14/13 16:25	08/16/13 10:50	1
Bis(2-ethylhexyl) phthalate	0.000363	U	0.00245	0.000363	mg/L		08/14/13 16:25	08/16/13 10:50	1
Chrysene	0.0000784	U	0.000490	0.0000784	mg/L		08/14/13 16:25	08/16/13 10:50	1
Benzo[a]pyrene	0.0000784	U	0.000490	0.0000784	mg/L		08/14/13 16:25	08/16/13 10:50	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	38	X	44 - 123				08/14/13 16:25	08/16/13 10:50	1
2-Fluorobiphenyl	89		43 - 120				08/14/13 16:25	08/16/13 10:50	1
2-Fluorophenol	23		18 - 120				08/14/13 16:25	08/16/13 10:50	1
Nitrobenzene-d5	70		47 - 120				08/14/13 16:25	08/16/13 10:50	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-77584-1

Client Sample ID: WG-1620-MW51A-20130809

Lab Sample ID: 600-77584-17

Date Collected: 08/09/13 08:30

Matrix: Water

Date Received: 08/09/13 11:47

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Terphenyl-d14	90		33 - 141	08/14/13 16:25	08/16/13 10:50	1
Phenol-d5 (Surr)	15		12 - 128	08/14/13 16:25	08/16/13 10:50	1

Client Sample ID: WG-1620-MW50A-20130809

Lab Sample ID: 600-77584-18

Date Collected: 08/09/13 09:40

Matrix: Water

Date Received: 08/09/13 11:47

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	0.000110	U	0.00200	0.000110	mg/L			08/15/13 21:51	1
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			08/15/13 21:51	1
Benzene	0.0000800	U	0.00100	0.0000800	mg/L			08/15/13 21:51	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			08/15/13 21:51	1
Toluene	0.000150	U	0.00100	0.000150	mg/L			08/15/13 21:51	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			08/15/13 21:51	1
Ethylbenzene	0.000110	U	0.00100	0.000110	mg/L			08/15/13 21:51	1
Xylenes, Total	0.000260	U	0.00300	0.000260	mg/L			08/15/13 21:51	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	95		67 - 139		08/15/13 21:51	1
Dibromofluoromethane	76		62 - 130		08/15/13 21:51	1
Toluene-d8 (Surr)	84		70 - 130		08/15/13 21:51	1
1,2-Dichloroethane-d4 (Surr)	75		50 - 134		08/15/13 21:51	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.0000392	U	0.000490	0.0000392	mg/L		08/14/13 16:25	08/16/13 11:18	1
Nitrobenzene	0.000108	U	0.000490	0.000108	mg/L		08/14/13 16:25	08/16/13 11:18	1
2,4-Dimethylphenol	0.000304	U	0.000490	0.000304	mg/L		08/14/13 16:25	08/16/13 11:18	1
Bis(2-chloroethoxy)methane	0.000127	U	0.000490	0.000127	mg/L		08/14/13 16:25	08/16/13 11:18	1
Naphthalene	0.000265	J	0.00490	0.0000784	mg/L		08/14/13 16:25	08/16/13 11:18	1
2-Methylnaphthalene	0.0000686	U	0.000490	0.0000686	mg/L		08/14/13 16:25	08/16/13 11:18	1
2-Chloronaphthalene	0.0000784	U	0.000490	0.0000784	mg/L		08/14/13 16:25	08/16/13 11:18	1
Acenaphthylene	0.0000588	U	0.000490	0.0000588	mg/L		08/14/13 16:25	08/16/13 11:18	1
2,6-Dinitrotoluene	0.0000784	U	0.000490	0.0000784	mg/L		08/14/13 16:25	08/16/13 11:18	1
Acenaphthene	0.0000784	U	0.000490	0.0000784	mg/L		08/14/13 16:25	08/16/13 11:18	1
4-Nitrophenol	0.000549	U *	0.000980	0.000549	mg/L		08/14/13 16:25	08/16/13 11:18	1
Dibenzofuran	0.0000784	U	0.000490	0.0000784	mg/L		08/14/13 16:25	08/16/13 11:18	1
2,4-Dinitrotoluene	0.000127	U	0.000490	0.000127	mg/L		08/14/13 16:25	08/16/13 11:18	1
Fluorene	0.0000686	U	0.000490	0.0000686	mg/L		08/14/13 16:25	08/16/13 11:18	1
4,6-Dinitro-2-methylphenol	0.0000814	U	0.000980	0.0000814	mg/L		08/14/13 16:25	08/16/13 11:18	1
N-Nitrosodiphenylamine	0.0000980	U	0.000490	0.0000980	mg/L		08/14/13 16:25	08/16/13 11:18	1
1,2-Diphenylhydrazine	0.000108	U	0.000490	0.000108	mg/L		08/14/13 16:25	08/16/13 11:18	1
Pentachlorophenol	0.000598	U	0.000980	0.000598	mg/L		08/14/13 16:25	08/16/13 11:18	1
Phenanthrene	0.0000588	U	0.000490	0.0000588	mg/L		08/14/13 16:25	08/16/13 11:18	1
Anthracene	0.0000490	U	0.000490	0.0000490	mg/L		08/14/13 16:25	08/16/13 11:18	1
Di-n-butyl phthalate	0.000147	J	0.00245	0.000108	mg/L		08/14/13 16:25	08/16/13 11:18	1
Fluoranthene	0.0000686	U	0.000490	0.0000686	mg/L		08/14/13 16:25	08/16/13 11:18	1
Pyrene	0.000108	U	0.000490	0.000108	mg/L		08/14/13 16:25	08/16/13 11:18	1
Benzo[a]anthracene	0.0000784	U	0.000490	0.0000784	mg/L		08/14/13 16:25	08/16/13 11:18	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-77584-1

Client Sample ID: WG-1620-MW50A-20130809

Lab Sample ID: 600-77584-18

Date Collected: 08/09/13 09:40

Matrix: Water

Date Received: 08/09/13 11:47

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	0.000409	J	0.00245	0.000363	mg/L		08/14/13 16:25	08/16/13 11:18	1
Chrysene	0.0000784	U	0.000490	0.0000784	mg/L		08/14/13 16:25	08/16/13 11:18	1
Benzo[a]pyrene	0.0000784	U	0.000490	0.0000784	mg/L		08/14/13 16:25	08/16/13 11:18	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	47		44 - 123				08/14/13 16:25	08/16/13 11:18	1
2-Fluorobiphenyl	79		43 - 120				08/14/13 16:25	08/16/13 11:18	1
2-Fluorophenol	25		18 - 120				08/14/13 16:25	08/16/13 11:18	1
Nitrobenzene-d5	61		47 - 120				08/14/13 16:25	08/16/13 11:18	1
Terphenyl-d14	91		33 - 141				08/14/13 16:25	08/16/13 11:18	1
Phenol-d5 (Surr)	16		12 - 128				08/14/13 16:25	08/16/13 11:18	1

Client Sample ID: WG-1620-TB04-20130809

Lab Sample ID: 600-77584-19

Date Collected: 08/09/13 00:00

Matrix: Water

Date Received: 08/09/13 11:47

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	0.000110	U	0.00200	0.000110	mg/L			08/19/13 23:21	1
Methylene Chloride	0.000296	J b	0.00100	0.000150	mg/L			08/19/13 23:21	1
Benzene	0.0000800	U	0.00100	0.0000800	mg/L			08/19/13 23:21	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			08/19/13 23:21	1
Toluene	0.000150	U	0.00100	0.000150	mg/L			08/19/13 23:21	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			08/19/13 23:21	1
Ethylbenzene	0.000110	U	0.00100	0.000110	mg/L			08/19/13 23:21	1
Xylenes, Total	0.000260	U	0.00300	0.000260	mg/L			08/19/13 23:21	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	101		67 - 139					08/19/13 23:21	1
Dibromofluoromethane	73		62 - 130					08/19/13 23:21	1
Toluene-d8 (Surr)	84		70 - 130					08/19/13 23:21	1
1,2-Dichloroethane-d4 (Surr)	75		50 - 134					08/19/13 23:21	1

Definitions/Glossary

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-77584-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
U	Analyte was not detected at or above the SDL.
N	MS, MSD: Spike recovery exceeds upper or lower control limits.
b	The compound was found in the blank and sample
J	Result is less than the MQL but greater than or equal to the SDL and the concentration is an estimated value.
X	Surrogate is outside control limits

GC/MS Semi VOA

Qualifier	Qualifier Description
U	Analyte was not detected at or above the SDL.
X	Surrogate is outside control limits
J	Result is less than the MQL but greater than or equal to the SDL and the concentration is an estimated value.
*	LCS or LCSD exceeds the control limits

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Surrogate Summary

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-77584-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		BFB (67-139)	DBFM (62-130)	TOL (70-130)	12DCE (50-134)
600-77584-1	WG-1620-MW71B-20130807	106	81	96	78
600-77584-1 - DL	WG-1620-MW71B-20130807	103	84	95	83
600-77584-1 MS - DL	WG-1620-MW71B-20130807	95	103	95	95
600-77584-1 MSD - DL	WG-1620-MW71B-20130807	96	83	95	81
600-77584-2	WG-1620-MW32AR-20130807	107	82	96	79
600-77584-3 - DL	WG-1620-MW33A-20130807	104	79	93	77
600-77584-3	WG-1620-MW33A-20130807	103	80	91	80
600-77584-4 - DL	WG-1620-FD03-20130807	111	82	98	78
600-77584-4	WG-1620-FD03-20130807	106	69	92	69
600-77584-5	WG-1620-FB08-20130807	106	78	94	73
600-77584-6	WG-1620-MW68B-20130808	79	122	98	140 X
600-77584-7	WG-1620-MW67B-21030808	104	84	90	82
600-77584-8	WG-1620-MW38A-20130808	103	81	89	77
600-77584-9	WG-1620-MW38B-20130808	86	108	99	121
600-77584-10	WG-1620-FB09-20130808	112	88	96	84
600-77584-11	WG-1620-MW27C-20130808	107	91	94	87
600-77584-12	WG-1620-MW24AR-20130808	109	87	95	84
600-77584-13	WG-1620-MW24B-0130808	91	102	105	109
600-77584-14	WG-1620-MW24C-20130808	108	88	95	87
600-77584-15	WG-1620-MW35B-20130808	80	86	98	124
600-77584-16	WG-1620-MW35A-20130808	110	88	97	85
600-77584-17	WG-1620-MW51A-20130809	81	65	71	63
600-77584-18	WG-1620-MW50A-20130809	95	76	84	75
600-77584-19	WG-1620-TB04-20130809	101	73	84	75
LCS 600-113144/3	Lab Control Sample	99	76	103	74
LCS 600-113250/3	Lab Control Sample	109	89	106	88
LCS 600-113520/3	Lab Control Sample	89	90	85	91
LCS 600-113533/5	Lab Control Sample	97	95	72	95
LCS 600-113710/3	Lab Control Sample	78	98	86	105
MB 600-113144/4	Method Blank	108	84	97	80
MB 600-113250/4	Method Blank	107	82	93	81
MB 600-113520/4	Method Blank	96	90	82	95
MB 600-113533/4	Method Blank	105	88	79	92
MB 600-113710/4	Method Blank	84	108	96	123

Surrogate Legend

- BFB = 4-Bromofluorobenzene
- DBFM = Dibromofluoromethane
- TOL = Toluene-d8 (Surr)
- 12DCE = 1,2-Dichloroethane-d4 (Surr)

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)					
		TBP (44-123)	FBP (43-120)	2FP (18-120)	NBZ (47-120)	TPH (33-141)	PHL (12-128)
600-77584-1	WG-1620-MW71B-20130807	0 X	0 X	0 X	0 X	0 X	0 X
600-77584-1 - DL	WG-1620-MW71B-20130807	0 X	0 X	0 X	0 X	0 X	0 X

TestAmerica Houston

Surrogate Summary

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-77584-1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)					
		TBP (44-123)	FBP (43-120)	2FP (18-120)	NBZ (47-120)	TPH (33-141)	PHL (12-128)
600-77584-2	WG-1620-MW32AR-20130807	109	79	29	64	97	14
600-77584-3	WG-1620-MW33A-20130807	0 X	0 X	0 X	0 X	0 X	0 X
600-77584-3 - DL	WG-1620-MW33A-20130807	0 X	0 X	0 X	0 X	0 X	0 X
600-77584-4	WG-1620-FD03-20130807	0 X	0 X	0 X	0 X	0 X	0 X
600-77584-4 - DL	WG-1620-FD03-20130807	0 X	0 X	0 X	0 X	0 X	0 X
600-77584-5	WG-1620-FB08-20130807	67	66	31	40 X	91	16
600-77584-6 - DL	WG-1620-MW68B-20130808	0 X	0 X	0 X	0 X	0 X	0 X
600-77584-6	WG-1620-MW68B-20130808	0 X	0 X	0 X	0 X	0 X	0 X
600-77584-7	WG-1620-MW67B-21030808	58	54	24	55	91	14
600-77584-8	WG-1620-MW38A-20130808	116	69	30	67	93	16
600-77584-9	WG-1620-MW38B-20130808	98	77	32	74	89	16
600-77584-10	WG-1620-FB09-20130808	55	49	30	44 X	60	14
600-77584-11	WG-1620-MW27C-20130808	98	75	32	71	93	18
600-77584-12	WG-1620-MW24AR-20130808	3 X	77	12 X	78	92	9 X
600-77584-13	WG-1620-MW24B-0130808	110	88	36	63	100	15
600-77584-14	WG-1620-MW24C-20130808	56	53	40	48	64	18
600-77584-15 - DL	WG-1620-MW35B-20130808	0 X	0 X	0 X	0 X	0 X	0 X
600-77584-15	WG-1620-MW35B-20130808	0 X	0 X	0 X	0 X	0 X	0 X
600-77584-16	WG-1620-MW35A-20130808	51	35 X	38	27 X	61	20
600-77584-17	WG-1620-MW51A-20130809	38 X	89	23	70	90	15
600-77584-18	WG-1620-MW50A-20130809	47	79	25	61	91	16
LCS 600-113163/2-A	Lab Control Sample	115	105	106	102	112	104
LCS D 600-113163/3-A	Lab Control Sample Dup	124 X	96	93	92	111	96
MB 600-113163/1-A	Method Blank	85	93	102	105	107	88

Surrogate Legend

- TBP = 2,4,6-Tribromophenol
- FBP = 2-Fluorobiphenyl
- 2FP = 2-Fluorophenol
- NBZ = Nitrobenzene-d5
- TPH = Terphenyl-d14
- PHL = Phenol-d5 (Surr)

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-77584-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 600-113144/4

Matrix: Water

Analysis Batch: 113144

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	0.000110	U	0.00200	0.000110	mg/L			08/14/13 12:59	1
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			08/14/13 12:59	1
Benzene	0.0000800	U	0.00100	0.0000800	mg/L			08/14/13 12:59	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			08/14/13 12:59	1
Toluene	0.000150	U	0.00100	0.000150	mg/L			08/14/13 12:59	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			08/14/13 12:59	1
Ethylbenzene	0.000110	U	0.00100	0.000110	mg/L			08/14/13 12:59	1
Xylenes, Total	0.000260	U	0.00300	0.000260	mg/L			08/14/13 12:59	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	108		67 - 139		08/14/13 12:59	1
Dibromofluoromethane	84		62 - 130		08/14/13 12:59	1
Toluene-d8 (Surr)	97		70 - 130		08/14/13 12:59	1
1,2-Dichloroethane-d4 (Surr)	80		50 - 134		08/14/13 12:59	1

Lab Sample ID: LCS 600-113144/3

Matrix: Water

Analysis Batch: 113144

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Vinyl chloride	0.0100	0.01125		mg/L		113	47 - 146
Methylene Chloride	0.0100	0.008736		mg/L		87	62 - 134
Benzene	0.0100	0.01059		mg/L		106	69 - 131
1,2-Dichloroethane	0.0100	0.01009		mg/L		101	66 - 140
Toluene	0.0100	0.01123		mg/L		112	67 - 130
Chlorobenzene	0.0100	0.01060		mg/L		106	60 - 136
Ethylbenzene	0.0100	0.01194		mg/L		119	68 - 128
Xylenes, Total	0.0300	0.03486		mg/L		116	68 - 132

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene	99		67 - 139
Dibromofluoromethane	76		62 - 130
Toluene-d8 (Surr)	103		70 - 130
1,2-Dichloroethane-d4 (Surr)	74		50 - 134

Lab Sample ID: MB 600-113250/4

Matrix: Water

Analysis Batch: 113250

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	0.000110	U	0.00200	0.000110	mg/L			08/15/13 12:25	1
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			08/15/13 12:25	1
Benzene	0.0000800	U	0.00100	0.0000800	mg/L			08/15/13 12:25	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			08/15/13 12:25	1
Toluene	0.000150	U	0.00100	0.000150	mg/L			08/15/13 12:25	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			08/15/13 12:25	1
Ethylbenzene	0.000110	U	0.00100	0.000110	mg/L			08/15/13 12:25	1

TestAmerica Houston

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-77584-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 600-113250/4

Matrix: Water

Analysis Batch: 113250

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Xylenes, Total	0.000260	U	0.00300	0.000260	mg/L			08/15/13 12:25	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	107		67 - 139		08/15/13 12:25	1
Dibromofluoromethane	82		62 - 130		08/15/13 12:25	1
Toluene-d8 (Surr)	93		70 - 130		08/15/13 12:25	1
1,2-Dichloroethane-d4 (Surr)	81		50 - 134		08/15/13 12:25	1

Lab Sample ID: LCS 600-113250/3

Matrix: Water

Analysis Batch: 113250

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Vinyl chloride	0.0100	0.01221		mg/L		122	47 - 146
Methylene Chloride	0.0100	0.009802		mg/L		98	62 - 134
Benzene	0.0100	0.01022		mg/L		102	69 - 131
1,2-Dichloroethane	0.0100	0.01088		mg/L		109	66 - 140
Toluene	0.0100	0.01085		mg/L		108	67 - 130
Chlorobenzene	0.0100	0.01039		mg/L		104	60 - 136
Ethylbenzene	0.0100	0.01143		mg/L		114	68 - 128
Xylenes, Total	0.0300	0.03363		mg/L		112	68 - 132

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene	109		67 - 139
Dibromofluoromethane	89		62 - 130
Toluene-d8 (Surr)	106		70 - 130
1,2-Dichloroethane-d4 (Surr)	88		50 - 134

Lab Sample ID: MB 600-113520/4

Matrix: Water

Analysis Batch: 113520

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	0.000110	U	0.00200	0.000110	mg/L			08/19/13 16:55	1
Methylene Chloride	0.0008700	J	0.00100	0.000150	mg/L			08/19/13 16:55	1
Benzene	0.0000800	U	0.00100	0.0000800	mg/L			08/19/13 16:55	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			08/19/13 16:55	1
Toluene	0.000150	U	0.00100	0.000150	mg/L			08/19/13 16:55	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			08/19/13 16:55	1
Ethylbenzene	0.000110	U	0.00100	0.000110	mg/L			08/19/13 16:55	1
Xylenes, Total	0.000260	U	0.00300	0.000260	mg/L			08/19/13 16:55	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	96		67 - 139		08/19/13 16:55	1
Dibromofluoromethane	90		62 - 130		08/19/13 16:55	1
Toluene-d8 (Surr)	82		70 - 130		08/19/13 16:55	1
1,2-Dichloroethane-d4 (Surr)	95		50 - 134		08/19/13 16:55	1

TestAmerica Houston

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-77584-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 600-113520/3

Matrix: Water

Analysis Batch: 113520

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Vinyl chloride	0.0100	0.01226		mg/L		123	47 - 146
Methylene Chloride	0.0100	0.009781		mg/L		98	62 - 134
Benzene	0.0100	0.009929		mg/L		99	69 - 131
1,2-Dichloroethane	0.0100	0.01335		mg/L		133	66 - 140
Toluene	0.0100	0.01018		mg/L		102	67 - 130
Chlorobenzene	0.0100	0.01027		mg/L		103	60 - 136
Ethylbenzene	0.0100	0.01094		mg/L		109	68 - 128
Xylenes, Total	0.0300	0.03227		mg/L		108	68 - 132

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene	89		67 - 139
Dibromofluoromethane	90		62 - 130
Toluene-d8 (Surr)	85		70 - 130
1,2-Dichloroethane-d4 (Surr)	91		50 - 134

Lab Sample ID: MB 600-113533/4

Matrix: Water

Analysis Batch: 113533

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	0.000110	U	0.00200	0.000110	mg/L			08/20/13 12:04	1
Methylene Chloride	0.0009719	J	0.00100	0.000150	mg/L			08/20/13 12:04	1
Benzene	0.0000800	U	0.00100	0.0000800	mg/L			08/20/13 12:04	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			08/20/13 12:04	1
Toluene	0.000150	U	0.00100	0.000150	mg/L			08/20/13 12:04	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			08/20/13 12:04	1
Ethylbenzene	0.000110	U	0.00100	0.000110	mg/L			08/20/13 12:04	1
Xylenes, Total	0.000260	U	0.00300	0.000260	mg/L			08/20/13 12:04	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	105		67 - 139		08/20/13 12:04	1
Dibromofluoromethane	88		62 - 130		08/20/13 12:04	1
Toluene-d8 (Surr)	79		70 - 130		08/20/13 12:04	1
1,2-Dichloroethane-d4 (Surr)	92		50 - 134		08/20/13 12:04	1

Lab Sample ID: LCS 600-113533/5

Matrix: Water

Analysis Batch: 113533

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Vinyl chloride	0.0100	0.01416		mg/L		142	47 - 146
Methylene Chloride	0.0100	0.01151		mg/L		115	62 - 134
Benzene	0.0100	0.01035		mg/L		104	69 - 131
1,2-Dichloroethane	0.0100	0.01316		mg/L		132	66 - 140
Toluene	0.0100	0.008920		mg/L		89	67 - 130
Chlorobenzene	0.0100	0.008630		mg/L		86	60 - 136
Ethylbenzene	0.0100	0.009521		mg/L		95	68 - 128

TestAmerica Houston

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-77584-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 600-113533/5

Matrix: Water

Analysis Batch: 113533

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Xylenes, Total	0.0300	0.02792		mg/L		93	68 - 132

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene	97		67 - 139
Dibromofluoromethane	95		62 - 130
Toluene-d8 (Surr)	72		70 - 130
1,2-Dichloroethane-d4 (Surr)	95		50 - 134

Lab Sample ID: MB 600-113710/4

Matrix: Water

Analysis Batch: 113710

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	0.000110	U	0.00200	0.000110	mg/L			08/21/13 14:19	1
Methylene Chloride	0.0009419	J	0.00100	0.000150	mg/L			08/21/13 14:19	1
Benzene	0.0000800	U	0.00100	0.0000800	mg/L			08/21/13 14:19	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			08/21/13 14:19	1
Toluene	0.000150	U	0.00100	0.000150	mg/L			08/21/13 14:19	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			08/21/13 14:19	1
Ethylbenzene	0.000110	U	0.00100	0.000110	mg/L			08/21/13 14:19	1
Xylenes, Total	0.000260	U	0.00300	0.000260	mg/L			08/21/13 14:19	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	84		67 - 139		08/21/13 14:19	1
Dibromofluoromethane	108		62 - 130		08/21/13 14:19	1
Toluene-d8 (Surr)	96		70 - 130		08/21/13 14:19	1
1,2-Dichloroethane-d4 (Surr)	123		50 - 134		08/21/13 14:19	1

Lab Sample ID: LCS 600-113710/3

Matrix: Water

Analysis Batch: 113710

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Vinyl chloride	0.0100	0.01153		mg/L		115	47 - 146
Methylene Chloride	0.0100	0.01163		mg/L		116	62 - 134
Benzene	0.0100	0.009915		mg/L		99	69 - 131
1,2-Dichloroethane	0.0100	0.01306		mg/L		131	66 - 140
Toluene	0.0100	0.007826		mg/L		78	67 - 130
Chlorobenzene	0.0100	0.007758		mg/L		78	60 - 136
Ethylbenzene	0.0100	0.008433		mg/L		84	68 - 128
Xylenes, Total	0.0300	0.02451		mg/L		82	68 - 132

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene	78		67 - 139
Dibromofluoromethane	98		62 - 130
Toluene-d8 (Surr)	86		70 - 130
1,2-Dichloroethane-d4 (Surr)	105		50 - 134

TestAmerica Houston

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-77584-1

Method: 8260B - Volatile Organic Compounds (GC/MS) - DL

Lab Sample ID: 600-77584-1 MS

Matrix: Water

Analysis Batch: 113250

Client Sample ID: WG-1620-MW71B-20130807

Prep Type: Total/NA

Analyte	Sample	Sample	Spike	MS MS		Unit	D	%Rec	%Rec.	Limits
	Result	Qualifier		Result	Qualifier					
Vinyl chloride - DL	0.000550		0.0500	0.07124	N	mg/L		142	60 - 140	
Methylene Chloride - DL	0.00150		0.0500	0.05045		mg/L		100	60 - 140	
Benzene - DL	0.103		0.0500	0.1444	N	mg/L		247	65 - 125	
1,2-Dichloroethane - DL	0.000700		0.0500	0.04963		mg/L		99	60 - 140	
Toluene - DL	0.0345		0.0500	0.08445	N	mg/L		155	76 - 125	
Chlorobenzene - DL	0.000650		0.0500	0.04830		mg/L		96	72 - 122	
Ethylbenzene - DL	0.0346		0.0500	0.08721	N	mg/L		161	60 - 140	
Xylenes, Total - DL	0.0615		0.150	0.2163		mg/L		136	60 - 140	

Surrogate	MS MS		Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene - DL	95		67 - 139
Dibromofluoromethane - DL	103		62 - 130
Toluene-d8 (Surr) - DL	95		70 - 130
1,2-Dichloroethane-d4 (Surr) - DL	95		50 - 134

Lab Sample ID: 600-77584-1 MSD

Matrix: Water

Analysis Batch: 113250

Client Sample ID: WG-1620-MW71B-20130807

Prep Type: Total/NA

Analyte	Sample	Sample	Spike	MSD MSD		Unit	D	%Rec	%Rec.	Limits	RPD	RPD
	Result	Qualifier		Result	Qualifier						Limit	
Vinyl chloride - DL	0.000550		0.0500	0.06559		mg/L		131	60 - 140	8	30	
Methylene Chloride - DL	0.00150		0.0500	0.04598		mg/L		91	60 - 140	9	30	
Benzene - DL	0.103		0.0500	0.1552	N	mg/L		269	65 - 125	7	30	
1,2-Dichloroethane - DL	0.000700		0.0500	0.05648		mg/L		113	60 - 140	13	30	
Toluene - DL	0.0345		0.0500	0.09020	N	mg/L		167	76 - 125	7	30	
Chlorobenzene - DL	0.000650		0.0500	0.05337		mg/L		106	72 - 122	10	30	
Ethylbenzene - DL	0.0346		0.0500	0.09368	N	mg/L		174	60 - 140	7	30	
Xylenes, Total - DL	0.0615		0.150	0.2339	N	mg/L		148	60 - 140	8	30	

Surrogate	MSD MSD		Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene - DL	96		67 - 139
Dibromofluoromethane - DL	83		62 - 130
Toluene-d8 (Surr) - DL	95		70 - 130
1,2-Dichloroethane-d4 (Surr) - DL	81		50 - 134

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Lab Sample ID: MB 600-113163/1-A

Matrix: Water

Analysis Batch: 113230

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 113163

Analyte	MB MB		MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Phenol	0.0000400	U	0.000500	0.0000400	mg/L		08/14/13 16:25	08/15/13 08:59	1
Nitrobenzene	0.000110	U	0.000500	0.000110	mg/L		08/14/13 16:25	08/15/13 08:59	1
2,4-Dimethylphenol	0.000310	U	0.000500	0.000310	mg/L		08/14/13 16:25	08/15/13 08:59	1
Bis(2-chloroethoxy)methane	0.000130	U	0.000500	0.000130	mg/L		08/14/13 16:25	08/15/13 08:59	1

TestAmerica Houston

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-77584-1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Lab Sample ID: MB 600-113163/1-A

Matrix: Water

Analysis Batch: 113230

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 113163

Analyte	MB	MB	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Naphthalene	0.0000800	U	0.00500	0.0000800	mg/L		08/14/13 16:25	08/15/13 08:59	1
2-Methylnaphthalene	0.0000700	U	0.000500	0.0000700	mg/L		08/14/13 16:25	08/15/13 08:59	1
2-Chloronaphthalene	0.0000800	U	0.000500	0.0000800	mg/L		08/14/13 16:25	08/15/13 08:59	1
Acenaphthylene	0.0000600	U	0.000500	0.0000600	mg/L		08/14/13 16:25	08/15/13 08:59	1
2,6-Dinitrotoluene	0.0000800	U	0.000500	0.0000800	mg/L		08/14/13 16:25	08/15/13 08:59	1
Acenaphthene	0.0000800	U	0.000500	0.0000800	mg/L		08/14/13 16:25	08/15/13 08:59	1
4-Nitrophenol	0.000560	U	0.00100	0.000560	mg/L		08/14/13 16:25	08/15/13 08:59	1
Dibenzofuran	0.0000800	U	0.000500	0.0000800	mg/L		08/14/13 16:25	08/15/13 08:59	1
2,4-Dinitrotoluene	0.000130	U	0.000500	0.000130	mg/L		08/14/13 16:25	08/15/13 08:59	1
Fluorene	0.0000700	U	0.000500	0.0000700	mg/L		08/14/13 16:25	08/15/13 08:59	1
4,6-Dinitro-2-methylphenol	0.000830	U	0.00100	0.000830	mg/L		08/14/13 16:25	08/15/13 08:59	1
N-Nitrosodiphenylamine	0.000100	U	0.000500	0.000100	mg/L		08/14/13 16:25	08/15/13 08:59	1
1,2-Diphenylhydrazine	0.000110	U	0.000500	0.000110	mg/L		08/14/13 16:25	08/15/13 08:59	1
Pentachlorophenol	0.000610	U	0.00100	0.000610	mg/L		08/14/13 16:25	08/15/13 08:59	1
Phenanthrene	0.0000600	U	0.000500	0.0000600	mg/L		08/14/13 16:25	08/15/13 08:59	1
Anthracene	0.0000500	U	0.000500	0.0000500	mg/L		08/14/13 16:25	08/15/13 08:59	1
Di-n-butyl phthalate	0.000110	U	0.00250	0.000110	mg/L		08/14/13 16:25	08/15/13 08:59	1
Fluoranthene	0.0000700	U	0.000500	0.0000700	mg/L		08/14/13 16:25	08/15/13 08:59	1
Pyrene	0.000110	U	0.000500	0.000110	mg/L		08/14/13 16:25	08/15/13 08:59	1
Benzo[a]anthracene	0.0000800	U	0.000500	0.0000800	mg/L		08/14/13 16:25	08/15/13 08:59	1
Bis(2-ethylhexyl) phthalate	0.000370	U	0.00250	0.000370	mg/L		08/14/13 16:25	08/15/13 08:59	1
Chrysene	0.0000800	U	0.000500	0.0000800	mg/L		08/14/13 16:25	08/15/13 08:59	1
Benzo[a]pyrene	0.0000800	U	0.000500	0.0000800	mg/L		08/14/13 16:25	08/15/13 08:59	1

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
2,4,6-Tribromophenol	85		44 - 123	08/14/13 16:25	08/15/13 08:59	1
2-Fluorobiphenyl	93		43 - 120	08/14/13 16:25	08/15/13 08:59	1
2-Fluorophenol	102		18 - 120	08/14/13 16:25	08/15/13 08:59	1
Nitrobenzene-d5	105		47 - 120	08/14/13 16:25	08/15/13 08:59	1
Terphenyl-d14	107		33 - 141	08/14/13 16:25	08/15/13 08:59	1
Phenol-d5 (Surr)	88		12 - 128	08/14/13 16:25	08/15/13 08:59	1

Lab Sample ID: LCS 600-113163/2-A

Matrix: Water

Analysis Batch: 113230

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 113163

Analyte	Spike Added	LCS	LCS	Unit	D	%Rec	%Rec. Limits
		Result	Qualifier				
Phenol	0.0100	0.008998		mg/L		90	11 - 112
Nitrobenzene	0.0100	0.009237		mg/L		92	42 - 119
2,4-Dimethylphenol	0.0100	0.009828		mg/L		98	36 - 109
Bis(2-chloroethoxy)methane	0.0100	0.008355		mg/L		84	42 - 119
Naphthalene	0.0100	0.009022		mg/L		90	39 - 120
2-Methylnaphthalene	0.0100	0.008961		mg/L		90	40 - 121
2-Chloronaphthalene	0.0100	0.009266		mg/L		93	43 - 120
Acenaphthylene	0.0100	0.009453		mg/L		95	35 - 135
2,6-Dinitrotoluene	0.0100	0.009250		mg/L		93	45 - 122
Acenaphthene	0.0100	0.009297		mg/L		93	47 - 145
4-Nitrophenol	0.0200	0.02678	*	mg/L		134	14 - 132

TestAmerica Houston

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-77584-1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Lab Sample ID: LCS 600-113163/2-A

Matrix: Water

Analysis Batch: 113230

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 113163

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits	
Dibenzofuran	0.0100	0.009389		mg/L		94	46 - 123	
2,4-Dinitrotoluene	0.0100	0.009838		mg/L		98	43 - 128	
Fluorene	0.0100	0.009157		mg/L		92	48 - 127	
4,6-Dinitro-2-methylphenol	0.0200	0.01093		mg/L		55	24 - 122	
N-Nitrosodiphenylamine	0.0100	0.009990		mg/L		100	43 - 107	
1,2-Diphenylhydrazine	0.0100	0.009426		mg/L		94	47 - 117	
Pentachlorophenol	0.0200	0.01536		mg/L		77	9 - 147	
Phenanthrene	0.0100	0.008967		mg/L		90	52 - 121	
Anthracene	0.0100	0.009324		mg/L		93	53 - 124	
Di-n-butyl phthalate	0.0100	0.01045		mg/L		104	54 - 138	
Fluoranthene	0.0100	0.01015		mg/L		101	53 - 127	
Pyrene	0.0100	0.009779		mg/L		98	49 - 121	
Benzo[a]anthracene	0.0100	0.009617		mg/L		96	53 - 122	
Bis(2-ethylhexyl) phthalate	0.0100	0.01016		mg/L		102	47 - 132	
Chrysene	0.0100	0.009414		mg/L		94	49 - 124	
Benzo[a]pyrene	0.0100	0.008976		mg/L		90	50 - 124	

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
2,4,6-Tribromophenol	115		44 - 123
2-Fluorobiphenyl	105		43 - 120
2-Fluorophenol	106		18 - 120
Nitrobenzene-d5	102		47 - 120
Terphenyl-d14	112		33 - 141
Phenol-d5 (Surr)	104		12 - 128

Lab Sample ID: LCSD 600-113163/3-A

Matrix: Water

Analysis Batch: 113230

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 113163

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits		RPD	
									RPD	Limit
Phenol	0.0100	0.008178		mg/L		82	11 - 112	10	20	
Nitrobenzene	0.0100	0.008522		mg/L		85	42 - 119	8	20	
2,4-Dimethylphenol	0.0100	0.008761		mg/L		88	36 - 109	11	20	
Bis(2-chloroethoxy)methane	0.0100	0.007615		mg/L		76	42 - 119	9	20	
Naphthalene	0.0100	0.008514		mg/L		85	39 - 120	6	20	
2-Methylnaphthalene	0.0100	0.008281		mg/L		83	40 - 121	8	20	
2-Chloronaphthalene	0.0100	0.008334		mg/L		83	43 - 120	11	20	
Acenaphthylene	0.0100	0.008634		mg/L		86	35 - 135	9	20	
2,6-Dinitrotoluene	0.0100	0.008730		mg/L		87	45 - 122	6	20	
Acenaphthene	0.0100	0.008681		mg/L		87	47 - 145	7	20	
4-Nitrophenol	0.0200	0.02581		mg/L		129	14 - 132	4	20	
Dibenzofuran	0.0100	0.008501		mg/L		85	46 - 123	10	20	
2,4-Dinitrotoluene	0.0100	0.009717		mg/L		97	43 - 128	1	20	
Fluorene	0.0100	0.008449		mg/L		84	48 - 127	8	20	
4,6-Dinitro-2-methylphenol	0.0200	0.01070		mg/L		53	24 - 122	2	20	
N-Nitrosodiphenylamine	0.0100	0.009947		mg/L		99	43 - 107	0	20	
1,2-Diphenylhydrazine	0.0100	0.008787		mg/L		88	47 - 117	7	20	
Pentachlorophenol	0.0200	0.01696		mg/L		85	9 - 147	10	20	

TestAmerica Houston

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-77584-1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Lab Sample ID: LCSD 600-113163/3-A

Matrix: Water

Analysis Batch: 113230

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 113163

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec.		RPD	
							Limits	RPD	RPD	Limit
Phenanthrene	0.0100	0.008989		mg/L		90	52 - 121	0	20	
Anthracene	0.0100	0.009411		mg/L		94	53 - 124	1	20	
Di-n-butyl phthalate	0.0100	0.01050		mg/L		105	54 - 138	1	20	
Fluoranthene	0.0100	0.01026		mg/L		103	53 - 127	1	20	
Pyrene	0.0100	0.009638		mg/L		96	49 - 121	1	20	
Benzo[a]anthracene	0.0100	0.009360		mg/L		94	53 - 122	3	20	
Bis(2-ethylhexyl) phthalate	0.0100	0.01001		mg/L		100	47 - 132	2	20	
Chrysene	0.0100	0.009377		mg/L		94	49 - 124	0	20	
Benzo[a]pyrene	0.0100	0.008758		mg/L		88	50 - 124	2	20	

Surrogate	LCSD		Limits
	%Recovery	Qualifier	
2,4,6-Tribromophenol	124	X	44 - 123
2-Fluorobiphenyl	96		43 - 120
2-Fluorophenol	93		18 - 120
Nitrobenzene-d5	92		47 - 120
Terphenyl-d14	111		33 - 141
Phenol-d5 (Surr)	96		12 - 128

Unadjusted Detection Limits

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-77584-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	MQL	MDL	Units	Method
1,2-Dichloroethane	0.00100	0.000140	mg/L	8260B
Benzene	0.00100	0.0000800	mg/L	8260B
Chlorobenzene	0.00100	0.000120	mg/L	8260B
Ethylbenzene	0.00100	0.000110	mg/L	8260B
Methylene Chloride	0.00100	0.000150	mg/L	8260B
Toluene	0.00100	0.000150	mg/L	8260B
Vinyl chloride	0.00200	0.000110	mg/L	8260B
Xylenes, Total	0.00300	0.000260	mg/L	8260B

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	MQL	MDL	Units	Method
1,2-Diphenylhydrazine	0.000500	0.000110	mg/L	8270C LL
2,4-Dimethylphenol	0.000500	0.000310	mg/L	8270C LL
2,4-Dinitrotoluene	0.000500	0.000130	mg/L	8270C LL
2,6-Dinitrotoluene	0.000500	0.0000800	mg/L	8270C LL
2-Chloronaphthalene	0.000500	0.0000800	mg/L	8270C LL
2-Methylnaphthalene	0.000500	0.0000700	mg/L	8270C LL
4,6-Dinitro-2-methylphenol	0.00100	0.000830	mg/L	8270C LL
4-Nitrophenol	0.00100	0.000560	mg/L	8270C LL
Acenaphthene	0.000500	0.0000800	mg/L	8270C LL
Acenaphthylene	0.000500	0.0000600	mg/L	8270C LL
Anthracene	0.000500	0.0000500	mg/L	8270C LL
Benzo[a]anthracene	0.000500	0.0000800	mg/L	8270C LL
Benzo[a]pyrene	0.000500	0.0000800	mg/L	8270C LL
Bis(2-chloroethoxy)methane	0.000500	0.000130	mg/L	8270C LL
Bis(2-ethylhexyl) phthalate	0.00250	0.000370	mg/L	8270C LL
Chrysene	0.000500	0.0000800	mg/L	8270C LL
Dibenzofuran	0.000500	0.0000800	mg/L	8270C LL
Di-n-butyl phthalate	0.00250	0.000110	mg/L	8270C LL
Fluoranthene	0.000500	0.0000700	mg/L	8270C LL
Fluorene	0.000500	0.0000700	mg/L	8270C LL
Naphthalene	0.00500	0.0000800	mg/L	8270C LL
Nitrobenzene	0.000500	0.000110	mg/L	8270C LL
N-Nitrosodiphenylamine	0.000500	0.000100	mg/L	8270C LL
Pentachlorophenol	0.00100	0.000610	mg/L	8270C LL
Phenanthrene	0.000500	0.0000600	mg/L	8270C LL
Phenol	0.000500	0.0000400	mg/L	8270C LL
Pyrene	0.000500	0.000110	mg/L	8270C LL

QC Association Summary

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-77584-1

GC/MS VOA

Analysis Batch: 113144

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-77584-1	WG-1620-MW71B-20130807	Total/NA	Water	8260B	
600-77584-2	WG-1620-MW32AR-20130807	Total/NA	Water	8260B	
600-77584-3 - DL	WG-1620-MW33A-20130807	Total/NA	Water	8260B	
600-77584-4 - DL	WG-1620-FD03-20130807	Total/NA	Water	8260B	
600-77584-5	WG-1620-FB08-20130807	Total/NA	Water	8260B	
LCS 600-113144/3	Lab Control Sample	Total/NA	Water	8260B	
MB 600-113144/4	Method Blank	Total/NA	Water	8260B	

Analysis Batch: 113250

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-77584-1 - DL	WG-1620-MW71B-20130807	Total/NA	Water	8260B	
600-77584-1 MS - DL	WG-1620-MW71B-20130807	Total/NA	Water	8260B	
600-77584-1 MSD - DL	WG-1620-MW71B-20130807	Total/NA	Water	8260B	
600-77584-3	WG-1620-MW33A-20130807	Total/NA	Water	8260B	
600-77584-4	WG-1620-FD03-20130807	Total/NA	Water	8260B	
600-77584-7	WG-1620-MW67B-21030808	Total/NA	Water	8260B	
600-77584-8	WG-1620-MW38A-20130808	Total/NA	Water	8260B	
600-77584-10	WG-1620-FB09-20130808	Total/NA	Water	8260B	
600-77584-11	WG-1620-MW27C-20130808	Total/NA	Water	8260B	
600-77584-12	WG-1620-MW24AR-20130808	Total/NA	Water	8260B	
600-77584-14	WG-1620-MW24C-20130808	Total/NA	Water	8260B	
600-77584-16	WG-1620-MW35A-20130808	Total/NA	Water	8260B	
600-77584-17	WG-1620-MW51A-20130809	Total/NA	Water	8260B	
600-77584-18	WG-1620-MW50A-20130809	Total/NA	Water	8260B	
LCS 600-113250/3	Lab Control Sample	Total/NA	Water	8260B	
MB 600-113250/4	Method Blank	Total/NA	Water	8260B	

Analysis Batch: 113520

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-77584-19	WG-1620-TB04-20130809	Total/NA	Water	8260B	
LCS 600-113520/3	Lab Control Sample	Total/NA	Water	8260B	
MB 600-113520/4	Method Blank	Total/NA	Water	8260B	

Analysis Batch: 113533

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-77584-13	WG-1620-MW24B-0130808	Total/NA	Water	8260B	
LCS 600-113533/5	Lab Control Sample	Total/NA	Water	8260B	
MB 600-113533/4	Method Blank	Total/NA	Water	8260B	

Analysis Batch: 113710

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-77584-6	WG-1620-MW68B-20130808	Total/NA	Water	8260B	
600-77584-9	WG-1620-MW38B-20130808	Total/NA	Water	8260B	
600-77584-15	WG-1620-MW35B-20130808	Total/NA	Water	8260B	
LCS 600-113710/3	Lab Control Sample	Total/NA	Water	8260B	
MB 600-113710/4	Method Blank	Total/NA	Water	8260B	

QC Association Summary

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-77584-1

GC/MS Semi VOA

Prep Batch: 112992

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-77584-1	WG-1620-MW71B-20130807	Total/NA	Water	3510C	
600-77584-1 - DL	WG-1620-MW71B-20130807	Total/NA	Water	3510C	
600-77584-2	WG-1620-MW32AR-20130807	Total/NA	Water	3510C	
600-77584-3	WG-1620-MW33A-20130807	Total/NA	Water	3510C	
600-77584-3 - DL	WG-1620-MW33A-20130807	Total/NA	Water	3510C	
600-77584-4	WG-1620-FD03-20130807	Total/NA	Water	3510C	
600-77584-4 - DL	WG-1620-FD03-20130807	Total/NA	Water	3510C	
600-77584-5	WG-1620-FB08-20130807	Total/NA	Water	3510C	
600-77584-6 - DL	WG-1620-MW68B-20130808	Total/NA	Water	3510C	
600-77584-6	WG-1620-MW68B-20130808	Total/NA	Water	3510C	
600-77584-7	WG-1620-MW67B-21030808	Total/NA	Water	3510C	
600-77584-8	WG-1620-MW38A-20130808	Total/NA	Water	3510C	
600-77584-9	WG-1620-MW38B-20130808	Total/NA	Water	3510C	
600-77584-10	WG-1620-FB09-20130808	Total/NA	Water	3510C	
600-77584-11	WG-1620-MW27C-20130808	Total/NA	Water	3510C	
600-77584-12	WG-1620-MW24AR-20130808	Total/NA	Water	3510C	

Prep Batch: 113163

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-77584-13	WG-1620-MW24B-0130808	Total/NA	Water	3510C	
600-77584-14	WG-1620-MW24C-20130808	Total/NA	Water	3510C	
600-77584-15 - DL	WG-1620-MW35B-20130808	Total/NA	Water	3510C	
600-77584-15	WG-1620-MW35B-20130808	Total/NA	Water	3510C	
600-77584-16	WG-1620-MW35A-20130808	Total/NA	Water	3510C	
600-77584-17	WG-1620-MW51A-20130809	Total/NA	Water	3510C	
600-77584-18	WG-1620-MW50A-20130809	Total/NA	Water	3510C	
LCS 600-113163/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 600-113163/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	
MB 600-113163/1-A	Method Blank	Total/NA	Water	3510C	

Analysis Batch: 113230

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 600-113163/2-A	Lab Control Sample	Total/NA	Water	8270C LL	113163
LCSD 600-113163/3-A	Lab Control Sample Dup	Total/NA	Water	8270C LL	113163
MB 600-113163/1-A	Method Blank	Total/NA	Water	8270C LL	113163

Analysis Batch: 113306

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-77584-13	WG-1620-MW24B-0130808	Total/NA	Water	8270C LL	113163
600-77584-14	WG-1620-MW24C-20130808	Total/NA	Water	8270C LL	113163
600-77584-16	WG-1620-MW35A-20130808	Total/NA	Water	8270C LL	113163

Analysis Batch: 113390

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-77584-1	WG-1620-MW71B-20130807	Total/NA	Water	8270C LL	112992
600-77584-2	WG-1620-MW32AR-20130807	Total/NA	Water	8270C LL	112992
600-77584-5	WG-1620-FB08-20130807	Total/NA	Water	8270C LL	112992
600-77584-7	WG-1620-MW67B-21030808	Total/NA	Water	8270C LL	112992
600-77584-8	WG-1620-MW38A-20130808	Total/NA	Water	8270C LL	112992
600-77584-9	WG-1620-MW38B-20130808	Total/NA	Water	8270C LL	112992
600-77584-17	WG-1620-MW51A-20130809	Total/NA	Water	8270C LL	113163

TestAmerica Houston

QC Association Summary

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-77584-1

GC/MS Semi VOA (Continued)

Analysis Batch: 113390 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-77584-18	WG-1620-MW50A-20130809	Total/NA	Water	8270C LL	113163

Analysis Batch: 113448

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-77584-1 - DL	WG-1620-MW71B-20130807	Total/NA	Water	8270C LL	112992
600-77584-3	WG-1620-MW33A-20130807	Total/NA	Water	8270C LL	112992
600-77584-3 - DL	WG-1620-MW33A-20130807	Total/NA	Water	8270C LL	112992
600-77584-4	WG-1620-FD03-20130807	Total/NA	Water	8270C LL	112992
600-77584-4 - DL	WG-1620-FD03-20130807	Total/NA	Water	8270C LL	112992
600-77584-6	WG-1620-MW68B-20130808	Total/NA	Water	8270C LL	112992
600-77584-6 - DL	WG-1620-MW68B-20130808	Total/NA	Water	8270C LL	112992
600-77584-10	WG-1620-FB09-20130808	Total/NA	Water	8270C LL	112992
600-77584-11	WG-1620-MW27C-20130808	Total/NA	Water	8270C LL	112992
600-77584-12	WG-1620-MW24AR-20130808	Total/NA	Water	8270C LL	112992
600-77584-15	WG-1620-MW35B-20130808	Total/NA	Water	8270C LL	113163
600-77584-15 - DL	WG-1620-MW35B-20130808	Total/NA	Water	8270C LL	113163

Lab Chronicle

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-77584-1

Client Sample ID: WG-1620-MW71B-20130807

Lab Sample ID: 600-77584-1

Date Collected: 08/07/13 14:20

Matrix: Water

Date Received: 08/09/13 11:47

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	113144	08/14/13 19:46	YX1	TAL HOU
Total/NA	Analysis	8260B	DL	5	113250	08/15/13 14:04	WS1	TAL HOU
Total/NA	Prep	3510C			112992	08/13/13 08:37	SMB	TAL HOU
Total/NA	Analysis	8270C LL		50	113390	08/16/13 12:45	TTD	TAL HOU
Total/NA	Prep	3510C	DL		112992	08/13/13 08:37	SMB	TAL HOU
Total/NA	Analysis	8270C LL	DL	250	113448	08/19/13 12:59	TTD	TAL HOU

Client Sample ID: WG-1620-MW32AR-20130807

Lab Sample ID: 600-77584-2

Date Collected: 08/07/13 16:30

Matrix: Water

Date Received: 08/09/13 11:47

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	113144	08/14/13 20:12	YX1	TAL HOU
Total/NA	Prep	3510C			112992	08/13/13 08:37	SMB	TAL HOU
Total/NA	Analysis	8270C LL		1	113390	08/16/13 13:14	TTD	TAL HOU

Client Sample ID: WG-1620-MW33A-20130807

Lab Sample ID: 600-77584-3

Date Collected: 08/07/13 17:35

Matrix: Water

Date Received: 08/09/13 11:47

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B	DL	50	113144	08/14/13 21:03	YX1	TAL HOU
Total/NA	Analysis	8260B		1	113250	08/15/13 14:31	WS1	TAL HOU
Total/NA	Prep	3510C			112992	08/13/13 08:37	SMB	TAL HOU
Total/NA	Analysis	8270C LL		50	113448	08/19/13 10:00	TTD	TAL HOU
Total/NA	Prep	3510C	DL		112992	08/13/13 08:37	SMB	TAL HOU
Total/NA	Analysis	8270C LL	DL	500	113448	08/19/13 13:58	TTD	TAL HOU

Client Sample ID: WG-1620-FD03-20130807

Lab Sample ID: 600-77584-4

Date Collected: 08/07/13 17:35

Matrix: Water

Date Received: 08/09/13 11:47

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B	DL	50	113144	08/14/13 21:28	YX1	TAL HOU
Total/NA	Analysis	8260B		1	113250	08/15/13 15:08	WS1	TAL HOU
Total/NA	Prep	3510C			112992	08/13/13 08:37	SMB	TAL HOU
Total/NA	Analysis	8270C LL		50	113448	08/19/13 10:29	TTD	TAL HOU
Total/NA	Prep	3510C	DL		112992	08/13/13 08:37	SMB	TAL HOU
Total/NA	Analysis	8270C LL	DL	500	113448	08/19/13 14:27	TTD	TAL HOU

Lab Chronicle

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-77584-1

Client Sample ID: WG-1620-FB08-20130807

Lab Sample ID: 600-77584-5

Date Collected: 08/07/13 18:00

Matrix: Water

Date Received: 08/09/13 11:47

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	113144	08/14/13 20:38	YX1	TAL HOU
Total/NA	Prep	3510C			112992	08/13/13 08:37	SMB	TAL HOU
Total/NA	Analysis	8270C LL		1	113390	08/16/13 14:42	TTD	TAL HOU

Client Sample ID: WG-1620-MW68B-20130808

Lab Sample ID: 600-77584-6

Date Collected: 08/08/13 08:10

Matrix: Water

Date Received: 08/09/13 11:47

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		100	113710	08/21/13 16:42	YX1	TAL HOU
Total/NA	Prep	3510C	DL		112992	08/13/13 08:37	SMB	TAL HOU
Total/NA	Analysis	8270C LL	DL	2500	113448	08/19/13 16:53	TTD	TAL HOU
Total/NA	Prep	3510C			112992	08/13/13 08:37	SMB	TAL HOU
Total/NA	Analysis	8270C LL		50	113448	08/19/13 11:00	TTD	TAL HOU

Client Sample ID: WG-1620-MW67B-21030808

Lab Sample ID: 600-77584-7

Date Collected: 08/08/13 09:10

Matrix: Water

Date Received: 08/09/13 11:47

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	113250	08/15/13 15:40	WS1	TAL HOU
Total/NA	Prep	3510C			112992	08/13/13 08:37	SMB	TAL HOU
Total/NA	Analysis	8270C LL		1	113390	08/16/13 15:43	TTD	TAL HOU

Client Sample ID: WG-1620-MW38A-20130808

Lab Sample ID: 600-77584-8

Date Collected: 08/08/13 10:15

Matrix: Water

Date Received: 08/09/13 11:47

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	113250	08/15/13 20:59	WS1	TAL HOU
Total/NA	Prep	3510C			112992	08/13/13 08:37	SMB	TAL HOU
Total/NA	Analysis	8270C LL		1	113390	08/16/13 16:13	TTD	TAL HOU

Client Sample ID: WG-1620-MW38B-20130808

Lab Sample ID: 600-77584-9

Date Collected: 08/08/13 11:10

Matrix: Water

Date Received: 08/09/13 11:47

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	113710	08/21/13 14:55	YX1	TAL HOU
Total/NA	Prep	3510C			112992	08/13/13 08:37	SMB	TAL HOU
Total/NA	Analysis	8270C LL		1	113390	08/16/13 16:44	TTD	TAL HOU

TestAmerica Houston

Lab Chronicle

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-77584-1

Client Sample ID: WG-1620-FB09-20130808

Lab Sample ID: 600-77584-10

Date Collected: 08/08/13 11:30

Matrix: Water

Date Received: 08/09/13 11:47

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	113250	08/15/13 18:49	WS1	TAL HOU
Total/NA	Prep	3510C			112992	08/13/13 08:37	SMB	TAL HOU
Total/NA	Analysis	8270C LL		1	113448	08/19/13 11:30	TTD	TAL HOU

Client Sample ID: WG-1620-MW27C-20130808

Lab Sample ID: 600-77584-11

Date Collected: 08/08/13 13:15

Matrix: Water

Date Received: 08/09/13 11:47

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	113250	08/15/13 19:15	WS1	TAL HOU
Total/NA	Prep	3510C			112992	08/13/13 08:37	SMB	TAL HOU
Total/NA	Analysis	8270C LL		1	113448	08/19/13 15:26	TTD	TAL HOU

Client Sample ID: WG-1620-MW24AR-20130808

Lab Sample ID: 600-77584-12

Date Collected: 08/08/13 14:20

Matrix: Water

Date Received: 08/09/13 11:47

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	113250	08/15/13 19:41	WS1	TAL HOU
Total/NA	Prep	3510C			112992	08/13/13 08:37	SMB	TAL HOU
Total/NA	Analysis	8270C LL		1	113448	08/19/13 15:55	TTD	TAL HOU

Client Sample ID: WG-1620-MW24B-0130808

Lab Sample ID: 600-77584-13

Date Collected: 08/08/13 15:15

Matrix: Water

Date Received: 08/09/13 11:47

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	113533	08/20/13 20:09	WS1	TAL HOU
Total/NA	Prep	3510C			113163	08/14/13 16:25	SMB	TAL HOU
Total/NA	Analysis	8270C LL		1	113306	08/16/13 00:15	KP1	TAL HOU

Client Sample ID: WG-1620-MW24C-20130808

Lab Sample ID: 600-77584-14

Date Collected: 08/08/13 16:05

Matrix: Water

Date Received: 08/09/13 11:47

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	113250	08/15/13 20:07	WS1	TAL HOU
Total/NA	Prep	3510C			113163	08/14/13 16:25	SMB	TAL HOU
Total/NA	Analysis	8270C LL		1	113306	08/16/13 00:44	KP1	TAL HOU

TestAmerica Houston

Lab Chronicle

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-77584-1

Client Sample ID: WG-1620-MW35B-20130808

Lab Sample ID: 600-77584-15

Date Collected: 08/08/13 17:15

Matrix: Water

Date Received: 08/09/13 11:47

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		20	113710	08/21/13 17:16	YX1	TAL HOU
Total/NA	Prep	3510C	DL		113163	08/14/13 16:25	SMB	TAL HOU
Total/NA	Analysis	8270C LL	DL	1000	113448	08/19/13 17:22	TTD	TAL HOU
Total/NA	Prep	3510C			113163	08/14/13 16:25	SMB	TAL HOU
Total/NA	Analysis	8270C LL		50	113448	08/19/13 09:30	TTD	TAL HOU

Client Sample ID: WG-1620-MW35A-20130808

Lab Sample ID: 600-77584-16

Date Collected: 08/08/13 18:10

Matrix: Water

Date Received: 08/09/13 11:47

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	113250	08/15/13 20:33	WS1	TAL HOU
Total/NA	Prep	3510C			113163	08/14/13 16:25	SMB	TAL HOU
Total/NA	Analysis	8270C LL		1	113306	08/16/13 01:41	KP1	TAL HOU

Client Sample ID: WG-1620-MW51A-20130809

Lab Sample ID: 600-77584-17

Date Collected: 08/09/13 08:30

Matrix: Water

Date Received: 08/09/13 11:47

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	113250	08/15/13 21:25	WS1	TAL HOU
Total/NA	Prep	3510C			113163	08/14/13 16:25	SMB	TAL HOU
Total/NA	Analysis	8270C LL		1	113390	08/16/13 10:50	TTD	TAL HOU

Client Sample ID: WG-1620-MW50A-20130809

Lab Sample ID: 600-77584-18

Date Collected: 08/09/13 09:40

Matrix: Water

Date Received: 08/09/13 11:47

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	113250	08/15/13 21:51	WS1	TAL HOU
Total/NA	Prep	3510C			113163	08/14/13 16:25	SMB	TAL HOU
Total/NA	Analysis	8270C LL		1	113390	08/16/13 11:18	TTD	TAL HOU

Client Sample ID: WG-1620-TB04-20130809

Lab Sample ID: 600-77584-19

Date Collected: 08/09/13 00:00

Matrix: Water

Date Received: 08/09/13 11:47

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	113520	08/19/13 23:21	WS1	TAL HOU

Laboratory References:

TAL HOU = TestAmerica Houston, 6310 Rothway Street, Houston, TX 77040, TEL (713)690-4444

TestAmerica Houston

Certification Summary

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-77584-1

Laboratory: TestAmerica Houston

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Arkansas DEQ	State Program	6	88-0759	08-04-13 *
Louisiana	NELAP	6	01967	06-30-14
Oklahoma	State Program	6	9503	08-31-13 *
Texas	NELAP	6	T104704223-10-6-TX	10-31-13
USDA	Federal		P330-08-00217	04-01-14
Utah	NELAP	8	GULF	10-31-13

* Expired certification is currently pending renewal and is considered valid.

TestAmerica Houston

TestAmerica Houston

6310 Rothway Street
Houston, TX 77040
Phone (713) 690-4444 Fax (713) 690-5646

Chain of Custody



estAmerica

No: 21931-8215.1

Client Information			Sampler: JOHN BRAVON			Lab PM: Kudchadkar, Sachin G					
Client Contact: Mr. Eric Matzner			Phone: 512-671-3434			E-Mail: sachin.kudchadkar@testamericainc.com					
Company: Pastor, Behling & Wheeler LLC			Due Date Requested:			Analysis Requested					
Address: 2201 Double Creek Dr Suite 4004			TAT Requested (days):			600-77584 Chain of Custody					
City: Round Rock											
State, Zip: TX, 78664											
Phone: 512-671-3434(TEL) 512-671-3446(FAX)			PO #: Purchase Order not required								
Email: eric.matzner@pbwllc.com			WO #:								
Project Name: 1620 UPRR HMPW			Project #: 60003722								
Site: 1620 UPRR HMPW			SSOW#:								
Sample Identification				Sample Date		Sample Time		Sample Type (C=Comp, G=grab)		Matrix (W=Water, S=solid, O=soil, B=Soil, A=Asst)	
WG-1620-MW71B-20130807				8-7-13		1420		G		Water	
WG-1620-MW32AR-20130807						1630		G		Water	
WG-1620-MW33A-20130807						1735		G		Water	
WG-1620-FD03-20130807						1735		G		Water	
WG-1620-FB08-20130807						1800		G		Water	
WG-1620-MW68B-20130808				8-8-13		0810		G		Water	
WG-1620-MW67B-20130808						0910		G		Water	
WG-1620-MW38A-20130808						1015		G		Water	
WG-1620-MW38B-20130808						1110		G		Water	
WG-1620-FB09-20130808						1130		G		Water	
WG-1620-MW27C-20130808						1315		G		Water	
Possible Hazard Identification											
<input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological											
Deliverable Requested: I, II, III, IV, Other (Specify)											
<input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months											
<input type="checkbox"/> Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)											
Special Instructions/OC Requirements:											
Empty Kit Relinquished by:						Date:					
Relinquished by:			Date/Time:			Received by:			Date/Time:		
Relinquished by:			Date/Time:			Received by:			Date/Time:		
Relinquished by:			Date/Time:			Received by:			Date/Time:		
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No			Custody Seal No.:			Cooler Temperature(s) °C and Other Remarks:					

Client Information	Client Contact: Mr. Eric Matzner	Company: Pastor, Behling & Wheeler LLC	Address: 2201 Double Creek Dr Suite 4004	City: Round Rock	State, Zip: TX, 78664	Phone: 512-671-3434(Tel) 512-671-3446(Fax)	Email: eric.matzner@dbwillc.com	Project Name: 1620 UPRR HMPW	Site:
Sampler: <i>John Beaton</i>	Lab P/N: Kuchhadkar, Sachin G	Carrier Tracking No(s):	Due Date Requested:	TRAT Requested (days):	PO #:	Project #: 60003722	SSOW#:	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)
Phone: 512-671-3434	E-Mail: sachin.kuchhadkar@testamerica.com							<input checked="" type="checkbox"/> A	<input checked="" type="checkbox"/> N

Sample Identification	Sample Date	Sample Time	Sample Type (G=Comp, G=grab)	Matrix (W=Water, S=soil, O=ore/rock, L=leachate, A=air)	Preservation Code:	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	Carrier Tracking No(s)	COC No:	Page #
WG-1620-MW24AR-20130808	8-8-13	1420	G	Water					600-21931-8215.1	Page 2 of 2
WG-1620-MW24B-20130808		1515	G	Water						
WG-1620-MW24C-20130808		1605	G	Water						
WG-1620-MW35B-20130808		1715	G	Water						
WG-1620-MW35A-20130808		1810	G	Water						
WG-1620-MW51A-20130809	8-9-13	0830	G	Water						
WG-1620-MW50A-20130809		0940	G	Water						
WG-1620-TB04-20130809			G	Water						
				Water						
				Water						
				Water						

Possible Hazard Identification	<input type="checkbox"/> Non-Hazard	<input type="checkbox"/> Flammable	<input type="checkbox"/> Skin Irritant	<input type="checkbox"/> Poison B	<input type="checkbox"/> Unknown	<input type="checkbox"/> Radiological
Deliverable Requested: I, II, III, IV, Other (specify)						
Empty Kit Requisitioned by:	Date:	Time:	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)			
Requisitioned by: <i>John Beaton</i>	Date/Time: 8/8-13	1447	<input type="checkbox"/> Return To Client	<input type="checkbox"/> Disposal By Lab	<input type="checkbox"/> Archive For	Months
Requisitioned by:	Date/Time:	Company:	Special Instructions/OC Requirements:			
Requisitioned by:	Date/Time:	Company:				
Custody Seals Intact: A Yes A No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:				

Login Sample Receipt Checklist

Client: Pastor, Behling & Wheeler LLC

Job Number: 600-77584-1

Login Number: 77584

List Source: TestAmerica Houston

List Number: 1

Creator: Pulumbarit, Josh L

Question	Answer	Comment
Radioactivity wasn't checked or is <=/ background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	2.8 5.7 4.8 3.7
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	True	





**CONESTOGA-ROVERS
& ASSOCIATES**

E-Mail Date: October 21, 2014
E-Mail To: Eric Matzner, Jesse Orth
c.c.: Julie Lidstone; Chris G. Knight

**DATA USABILITY SUMMARY
SEMIANNUAL GROUNDWATER MONITORING
UNION PACIFIC RAILROAD (UPRR)
1620 – WOOD PRESERVING WORKS
HOUSTON, TEXAS
JANUARY 2014**

PREPARED BY:
CONESTOGA-ROVERS & ASSOCIATES
13091 Pond Springs Road
Austin, Texas 78729
Telephone: 512-506-8803
Contact: Chris G. Knight [eew] *CK*
Date: October 21, 2014
www.CRAworld.com

Data Usability Summary

Reviewer:	Chris G. Knight – Conestoga-Rovers & Associates, Inc.
Contract Laboratory:	TestAmerica Laboratories, Inc., Houston, Texas
Project/Area of Interest:	1620 – Wood Preserving Works located in Houston, Texas
Description of Data Packages Reviewed:	Groundwater sample results in data packages: 600-85569-1, 600-85750-1, 600-85976-1, 600-86091-1, & 600-86398-1
Sample Collection Date(s):	January 2014
Intended Use of Data:	<i>To support the semiannual groundwater monitoring at the site by providing current concentrations of chemicals of concern (COCs).</i>

1.0 Scope of Data Usability Summary

Data were reviewed and validated in accordance with Title 30 of the Texas Administrative Code Section 350.54 (30 TAC 350.54) as described in *Review and Reporting of COC Concentration Data*, (RG-366/TRRP-13) and the results of the review/validation are discussed in this Data Usability Summary (DUS). The review included examination of the reported data, the laboratory review checklist (LRC), and field/laboratory quality assurance/quality control (QA/QC) samples collected at the site. Tables summarizing data qualifications discussed in this DUS can be found in Appendix A.

A sampling and analysis summary is presented in Appendix A, Table 1. This summary includes a cross-reference of field sample identification numbers and location identification. Each sample is assigned a unique field identification number.

The validated sample results are presented in Appendix A, Table 2. A summary of the analytical methodology is presented in Appendix A, Table 3. The laboratory's data packages, including the LRC and any associated exception reports, are presented in Appendix B. Each data package includes a cross-reference list of field sample identifications to laboratory sample designations.

2.0 Laboratory Qualifications

Analytical services were provided by TestAmerica Laboratories, Inc. located in Houston, Texas. This laboratory's quality assurance program is consistent with the quality standards outlined in the National Environmental Laboratory Accreditation Program (NELAP). This laboratory was accredited under Texas Certification number # T104704223 at the time the analysis was performed and the certificate is included in Appendix C.

3.0 Project Objectives

3.1 Sampling/Analytical QA/QC Objectives

The QA/QC program was designed to identify contamination resulting from the sampling, sample transport and analytical process.

- Method blanks of a matrix similar to that of the associated samples are prepared by the laboratory and analyzed to determine if laboratory contaminants are affecting the analytical results. Method blanks are prepared and analyzed on a batch basis.
- The trip blank is a zero headspace sample container filled by the laboratory with analyte-free water and is transported to the sampling site and back to the laboratory with the field samples without exposure to sampling procedures. The trip blank samples were kept in the same environment in which the other field samples were collected and are used to assess contamination during shipping and storage.
- The field blank consists of analyte-free water poured over or through decontaminated field equipment prior to the collection of field samples and is used to assess the adequacy of the decontamination process.

Similarly, the QA/QC program was designed to evaluate the quality of the resulting data with respect to bias and precision. First, laboratory control samples (LCS) were prepared and analyzed on a batch basis. The recovery ranges established by the laboratory are adopted as the acceptance criteria for the project. Second, matrix spike/matrix spike duplicate (MS/MSD) analyses were performed on a batch basis. The recovery ranges and relative percent differences (RPDs) established by the laboratory are adopted as the acceptance criteria for the project. Third, field duplicates were collected and submitted for analysis. The RPDs associated with these duplicate samples must be less than 30 percent for water samples. The above RPDs are only used when sample concentrations are above the estimated regions of detection.

4.0 Data Review/Validation Results

4.1 Analytical Results

A summary of the analytical results with qualifiers applied is reported in Appendix A, Table 2. Analytes with concentrations above the sample detection limits (SDL) but below the method quantitation limits (MQL) have been qualified as J (estimated) on the analytical table per the TRRP-13 document and also in the attached copy of the laboratory data packages.

4.2 Preservation and Holding Times

Samples were preserved in the field and cooled to 4°C ($\pm 2^\circ\text{C}$). All samples were shipped on ice. Samples were shipped with chains of custody and the paperwork was filled out properly. All samples were prepared and analyzed within the applicable holding times.

4.3 Sample Containers

Sample containers used were certified pre-cleaned glass containers provided by the laboratory. These containers meet or exceed analyte specifications established in the United States Environmental Protection Agency (USEPA) *Specifications and Guidance for Contaminant-free Sample Containers*.

4.4 Calibrations

According to the LRC, initial calibration and continuing calibration data met the criteria for the selected methods.

4.5 Blanks

Method Blanks: As these were not discrete samples handled in the field, method blanks are not listed on the sample identification cross-reference list found in the data packages. Results are reported in the data package on a laboratory batch basis. All of the laboratory blank results were non-detect or below the MQL with the following exceptions (see Appendix A, Table 4):

- i. Several method blanks yielded detected results for semi-volatile organic compounds (SVOCs) analysis. Associated sample results with comparable concentrations were qualified as non-detect

Trip Blanks: As these were discrete samples handled in the field, the trip blanks are listed on the sample identification cross-reference list found in the laboratory data packages. Results are reported in the data packages with the other project sample results. All target compounds were non-detect, indicating cross-contamination during transport and storage was not an issue.

Field blanks: These are discrete samples handled in the field, and are listed on the sample identification cross-reference list found in the laboratory data packages. Results are reported in the data package with the other project sample results. All results were non-detect for the analytes of interest with the following exceptions (see Appendix A, Table 5):

- i. Low concentrations of semi-volatile organic compounds (SVOCs) were found in the field blanks. All associated samples with similar concentrations were qualified as non-detect.

4.6 Internal Standard and Surrogate Recoveries

Recoveries of internal standards for SVOCs are addressed in the LRC of the data packages. All internal standard recoveries associated with the compounds of interest were acceptable per the LRC.

Surrogate results are reported with the other project sample results in the data package. According to the Texas Commission of Environmental Quality (TCEQ) Regulatory Guidelines, one outlying surrogate is acceptable for methods with multiple surrogate spike compounds.

Surrogate recoveries for all samples were within laboratory acceptance criteria and the guidance in TRRP-13, indicating good analytical efficiency with the following exceptions (see Appendix A, Table 6):

- i. Several SVOCs results were reported with outlying associated surrogate recoveries due to interferences. No further action was required.
- ii. One SVOCs results were reported with recoveries less than ten percent. Associated detected sample results were qualified as estimated; biased low. Associated non-detect sample results were rejected.

4.7 Laboratory Control Samples (LCS)/Laboratory Control Sample Duplicates (LCSD)

LCS or LCS/LCSD were reported for all COCs. These results are reported in the data packages on a laboratory batch basis. LCS spike recoveries for all parameters were within the project objectives with the following exceptions (see Appendix A, Table 7 and Table 8):

- i. Some high recoveries and RPDs were reported for VOCs analysis. Associated non-detect sample results were not impacted by the indicated high bias and variability. No further action was required.
- ii. Some high recoveries and RPDs were reported for SVOCs analysis. Associated non-detect sample results were not impacted by the indicated high bias and variability. No further action was required. Associated detected sample results were qualified as estimated; biased high.

4.8 Matrix Spikes/Matrix Spike Duplicates (MS/MSD)

MS/MSD analyses were prepared and analyzed for all parameters. These results are reported in the data package on a laboratory batch basis.

For this investigation, to ensure that the site-specific groundwater matrices were represented in the quality control check, site samples were chosen for MS/MSD analyses as specified in Appendix A, Table 1. All recoveries and/or RPD met QC criteria with the following exceptions:

- i. Some outlying recoveries and RPDs were reported for VOCs and SVOCs due to matrix interference. No further action was required.

4.9 Field Duplicates

Field samples were collected in duplicate and submitted as indicated in Table 1. All results showed good comparability outside of the estimated region of detection, demonstrating acceptable sampling and analytical precision with the following exception (see Appendix A, Table 9):

- i. SVOCs results did show some variability. The associated results were qualified as estimated.

4.10 Field Procedures

Pastor, Behling & Wheeler (PB&W) collected groundwater samples in accordance with their Standard Operating Procedures (SOP) for groundwater sample collection.

4.11 Summary

The analytical data in this report are usable for the purpose of providing current concentrations of COCs in groundwater at the site and may be used with the qualifications and exceptions noted.

Qualifications of the data as discussed in this report are summarized in Appendix A.

APPENDIX A

TABLES

TABLE 1
SAMPLE COLLECTION AND ANALYSIS SUMMARY
SEMIANNUAL GROUNDWATER MONITORING
UNION PACIFIC RAILROAD (UPRR) - 1620 WOOD PRESERVING WORKS
HOUSTON, TEXAS
JANUARY 2014

Sample Identification	Location	Matrix	Collection Date (mm/dd/yyyy)	Collection Time (hr:min)	Analysis/Parameters		Comments
					VOCs	SVOCs	
WG-1620-MW18A-20140113	MW-18A	water	01/13/2014	14:15	X	X	
WG-1620-MW18C-20140113	MW-18C	water	01/13/2014	15:00	X	X	
WG-1620-MW17C-20140113	MW-17C	water	01/13/2014	16:00	X	X	
WG-1620-MW17-20140113	MW-17	water	01/13/2014	16:50	X	X	
WG-1620-FB1-20140113	-	water	01/13/2014	17:15	X	X	Field Blank
WG-1620-MW15A-20140114	MW-15A	water	01/14/2014	07:45	X	X	
WG-1620-MW15C-20140114	MW-15C	water	01/14/2014	08:40	X	X	
WG-1620-MW15B-20140114	MW-15B	water	01/14/2014	09:20	X	X	
WG-1620-MW14-20140114	MW-14	water	01/14/2014	10:15	X	X	
WG-1620-MW13-20140114	MW-13	water	01/14/2014	11:15	X	X	
WG-1620-MW39B-20140114	MW-39B	water	01/14/2014	12:10	X	X	
WG-1620-MW12C-20140114	MW-12C	water	01/14/2014	13:25	X	X	
WG-1620-MW12A-20140114	MW-12A	water	01/14/2014	14:25	X	X	
WG-1620-MW40B-20140114	MW-40B	water	01/14/2014	15:25	X	X	
WG-1620-MW55A-20140114	MW-55A	water	01/14/2014	16:25	X	X	
WG-1620-MW55B-20140114	MW-55B	water	01/14/2014	17:20	X	X	
WG-1620-FB2-20140114	-	water	01/14/2014	17:45	X	X	Field Blank
WG-1620-MW19C-20140115	MW-19C	water	01/15/2014	07:40	X	X	
WG-1620-MW73B-20140115	MW-73B	water	01/15/2014	08:35	X	X	
WG-1620-MW57B-20140115	MW-57B	water	01/15/2014	09:25	X	X	
WG-1620-MW57A-20140115	MW-57A	water	01/15/2014	10:20	X	X	
WG-1620-MW72B-20140115	MW-72B	water	01/15/2014	11:20	X	X	
WG-1620-MW23C-20140115	MW-23C	water	01/15/2014	12:15	X	X	
WG-1620-MW05-20140115	MW-05	water	01/15/2014	15:05	X	X	
WG-1620-P11-20140115	P-11	water	01/15/2014	16:05	X	X	
WG-1620-MW60A-20140115	MW-60A	water	01/15/2014	17:10	X	X	MS/MSD-P
WG-1620-FB3-20140115	-	water	01/15/2014	17:25	X	X	Field Blank
WG-1620-MW42B-20140115	MW-42B	water	01/15/2014	18:20	X	X	
WG-1620-TB1-20140115	-	water	01/15/2014	-	X		Trip Blank
WG-1620-MW48C-20140116	MW-48C	water	01/16/2014	08:10	X	X	
WG-1620-MW59B-20140116	MW-59B	water	01/16/2014	09:00	X	X	
WG-1620-MW59A-20140116	MW-59A	water	01/16/2014	10:00	X	X	
WG-1620-MW49A-20140116	MW-49A	water	01/16/2014	11:00	X	X	
WG-1620-MW49B-20140116	MW-49B	water	01/16/2014	12:00	X	X	
WG-1620-MW21C-20140116	MW-21C	water	01/16/2014	14:00	X	X	
WG-1620-DUP1-20140116	MW-21C	water	01/16/2014	14:00	X	X	Field duplicate of MW-21C
WG-1620-TW41B-20140116	TW-41B	water	01/16/2014	15:05	X	X	
WG-1620-MW36B-20140116	MW-36B	water	01/16/2014	16:15	X	X	
WG-1620-MW36A-20140116	MW-36A	water	01/16/2014	17:15	X	X	
WG-1620-FB4-20140116	-	water	01/16/2014	17:30	X	X	Field Blank
WG-1620-MW44A-20140117	MW-44A	water	01/17/2014	07:50	X	X	MS/MSD-P
WG-1620-MW47C-20140117	MW-47C	water	01/17/2014	09:10	X	X	
WG-1620-FB5-20140117	-	water	01/17/2014	09:45	X	X	Field Blank
WG-1620-TB2-20140117	-	water	01/17/2014	-	X		Trip Blank

TABLE 1

**SAMPLE COLLECTION AND ANALYSIS SUMMARY
SEMIANNUAL GROUNDWATER MONITORING
UNION PACIFIC RAILROAD (UPRR) - 1620 WOOD PRESERVING WORKS
HOUSTON, TEXAS
JANUARY 2014**

Sample Identification	Location	Matrix	Collection Date (mm/dd/yyyy)	Collection Time (hr:min)	Analysis/Parameters		Comments
					VOCs	SVOCs	
WG-1620-MW32AR-20140121	MW-32AR	water	01/21/2014	10:05	X	X	
WG-1620-MW32B-20140121	MW-32B	water	01/21/2014	10:50	X	X	
WG-1620-MW38A-20140121	MW-38A	water	01/21/2014	12:00	X	X	
WG-1620-MW38B-20140121	MW-38B	water	01/21/2014	14:00	X	X	
WG-1620-MW33BR-20140121	MW-33BR	water	01/21/2014	15:15	X	X	
WG-1620-MW36D-20140121	MW-36D	water	01/21/2014	16:30	X	X	
WG-1620-MW65D-20140121	MW-65D	water	01/21/2014	17:30	X	X	
WG-1620-FB6-20140121	-	water	01/21/2014	17:45	X	X	Field Blank
WG-1620-MW53C-20140122	MW-53C	water	01/22/2014	08:10	X	X	
WG-1620-MW25C-20140122	MW-25C	water	01/22/2014	09:10	X	X	
WG-1620-MW25A-20140122	MW-25A	water	01/22/2014	10:00	X	X	
WG-1620-MW28A-20140122	MW-28A	water	01/22/2014	11:00	X	X	
WG-1620-MW28C-20140122	MW-28C	water	01/22/2014	12:00	X	X	MS/MSD
WG-1620-MW63B-20140122	MW-63B	water	01/22/2014	13:45	X	X	
WG-1620-MW26A-20140122	MW-26A	water	01/22/2014	14:45	X	X	
WG-1620-MW68B-20140122	MW-68B	water	01/22/2014	15:45	X	X	
WG-1620-DUP2-20140122	MW-68B	water	01/22/2014	15:45	X	X	Field duplicate of MW-68B
WG-1620-MW68C-20140122	MW-68C	water	01/22/2014	16:30	X	X	
WG-1620-MW70B-20140122	MW-70B	water	01/22/2014	17:20	X	X	
WG-1620-FB7-20140122	-	water	01/22/2014	17:40	X	X	Field Blank
WG-1620-TB3-20140122	-	water	01/22/2014	-	X		Trip Blank
WG-1620-MW54C-20140123	MW-54C	water	01/23/2014	08:45	X	X	
WG-1620-MW59D-20140123	MW-59D	water	01/23/2014	10:00	X	X	
WG-1620-DUP3-20140123	MW-59D	water	01/23/2014	10:00	X	X	Field duplicate of MW-59D
WG-1620-MW61A-20140123	MW-61A	water	01/23/2014	11:15	X	X	MS/MSD
WG-1620-MW22B-20140123	MW-22B	water	01/23/2014	12:20	X	X	
WG-1620-MW22A-20140123	MW-22A	water	01/23/2014	14:00	X	X	
WG-1620-MW-24AR-20140123	MW-24AR	water	01/23/2014	15:05	X	X	
WG-1620-MW-67B-20140123	MW-67B	water	01/23/2014	16:30	X	X	MS/MSD
WG-1620-DUP4-20140123	MW-33A	water	01/23/2014	17:30	X	X	Field duplicate of MW-33A
WG-1620-MW33A-20140123	MW-33A	water	01/23/2014	17:30	X	X	
WG-1620-FB8-20140123	-	water	01/23/2014	17:45	X	X	Field Blank
WG-1620-MW35A-20140124	MW-35A	water	01/24/2014	07:40	X	X	
WG-1620-MW35B-20140124	MW-35B	water	01/24/2014	08:35	X	X	
WG-1620-MW71B-20140124	MW-71B	water	01/24/2014	09:35	X	X	
WG-1620-MW27C-20140124	MW-27C	water	01/24/2014	10:40	X	X	
WG-1620-MW69A-20140124	MW-69A	water	01/24/2014	11:40	X	X	
WG-1620-FB9-20140124	-	water	01/24/2014	11:50	X	X	Field Blank
WG-1620-TB4-20140124	-	water	01/24/2014	-	X		Trip Blank
WG-1620-MW64A-20140129	MW-64A	water	01/29/2014	07:50	X	X	
WG-1620-MW62B-20140129	MW-62B	water	01/29/2014	09:00	X	X	
WG-1620-MW58A-20140129	MW-58A	water	01/29/2014	09:50	X	X	
WG-1620-MW51A-20140129	MW-51A	water	01/29/2014	11:10	X	X	
WG-1620-MW50A-20140129	MW-50A	water	01/29/2014	13:05	X	X	

TABLE 1

SAMPLE COLLECTION AND ANALYSIS SUMMARY
SEMIANNUAL GROUNDWATER MONITORING
UNION PACIFIC RAILROAD (UPRR) - 1620 WOOD PRESERVING WORKS
HOUSTON, TEXAS
JANUARY 2014

<i>Sample Identification</i>	<i>Location</i>	<i>Matrix</i>	<i>Collection Date</i> <i>(mm/dd/yyyy)</i>	<i>Collection Time</i> <i>(hr:min)</i>	<u><i>Analysis/Parameters</i></u>		<i>Comments</i>
					<i>VOCs</i>	<i>SVOCs</i>	
WG-1620-MW75B-20140129	MW-75B	water	01/29/2014	14:00	X	X	
WG-1620-MW74B-20140129	MW-74B	water	01/29/2014	15:00	X	X	
WG-1620-MW66D-20140129	MW-66D	water	01/29/2014	16:25	X	X	
WG-1620-FB10-20140129	-	water	01/29/2014	16:45	X	X	Field Blank
WG-1620-TB-20140129	-	water	01/29/2014	-	X		Trip Blank

Notes

- VOCs - Volatile Organic Compounds
 SVOCs - Semi-volatile Organic Compounds
 MS/MSD - Matrix Spike and/or Matrix Spike Duplicate
 MS/MSD-P - Matrix Spike and/or Matrix Spike Duplicate (partial parameters)

TABLE 2

ANALYTICAL RESULTS SUMMARY
SEMIANNUAL GROUNDWATER MONITORING
UNION PACIFIC RAILROAD (UPRR) - 1620 WOOD PRESERVING WORKS
HOUSTON, TEXAS
JANUARY 2014

<i>Sample Location:</i>		<i>MW-05</i>	<i>MW-12A</i>	<i>MW-12C</i>	<i>MW-13</i>	<i>MW-14</i>	<i>MW-15A</i>
<i>Sample ID:</i>		<i>WG-1620-MW05-20140115</i>	<i>WG-1620-MW12A-20140114</i>	<i>WG-1620-MW12C-20140114</i>	<i>WG-1620-MW13-20140114</i>	<i>WG-1620-MW14-20140114</i>	<i>WG-1620-MW15A-20140114</i>
<i>Sample Date:</i>		<i>1/15/2014</i>	<i>1/14/2014</i>	<i>1/14/2014</i>	<i>1/14/2014</i>	<i>1/14/2014</i>	<i>1/14/2014</i>
<i>Parameters</i>	<i>Units</i>						
<i>Volatile Organic Compounds</i>							
1,2-Dichloroethane	mg/L	<0.000200	<0.000140	<0.000140	<0.000140	<0.000140	<0.000140
Benzene	mg/L	<0.000200	0.000480 J	<0.0000800	<0.0000800	<0.0000800	0.00106
Chlorobenzene	mg/L	<0.000180	<0.000120	<0.000120	0.000401 J	<0.000120	<0.000120
Ethylbenzene	mg/L	<0.000190	0.000257 J	<0.000110	<0.000110	<0.000110	0.000627 J
Methylene chloride	mg/L	<0.000220	<0.000150	<0.000150	<0.000150	<0.000150	<0.000150
Toluene	mg/L	<0.000170	<0.000150	<0.000150	<0.000150	<0.000150	0.000340 J
Vinyl chloride	mg/L	-	-	-	-	-	-
Xylenes (total)	mg/L	<0.000580	0.00145 J	<0.000260	<0.000260	<0.000260	0.00337
<i>Semi-volatile Organic Compounds</i>							
1,2-Diphenylhydrazine	mg/L	<0.000104	<0.00529	<0.000106	<0.000212	<0.000106	<0.00529
2,4-Dimethylphenol	mg/L	<0.000292	<0.0149	<0.000298	<0.000596	<0.000298	<0.0149
2,4-Dinitrotoluene	mg/L	<0.000123	<0.00625	<0.000125	<0.000250	<0.000125	<0.00625
2,6-Dinitrotoluene	mg/L	<0.0000755	<0.00385	<0.0000769	<0.000154	<0.0000769	<0.00385
2-Chloronaphthalene	mg/L	<0.0000755	<0.00385	<0.0000769	<0.000154	<0.0000769	<0.00385
2-Methylnaphthalene	mg/L	0.000187 J	0.0386	0.000164 J	0.000141 J	0.000321 J	0.0475
4,6-Dinitro-2-methylphenol	mg/L	<0.000783	<0.0399	<0.000798	<0.00160	<0.000798	<0.0399
4-Nitrophenol	mg/L	<0.000528	<0.0269	<0.000538	<0.00108	<0.000538	<0.0269
Acenaphthene	mg/L	0.000194 J	0.342	<0.0000769	<0.000154	0.000943	0.300
Acenaphthylene	mg/L	<0.0000566	<0.00288	<0.0000577	<0.000115	<0.0000577	<0.00288
Anthracene	mg/L	0.000411 J	0.0325	<0.0000481	<0.00118	<0.000179	0.0111 J
Benzo(a)anthracene	mg/L	<0.0000755	<0.00385	<0.0000769	<0.000154	<0.0000769	<0.00385
Benzo(a)pyrene	mg/L	<0.0000755	<0.00385	<0.0000769	<0.000154	<0.0000769	<0.00385
bis(2-Chloroethoxy)methane	mg/L	<0.000123	<0.00625	<0.000125	<0.000250	<0.000125	<0.00625
bis(2-Ethylhexyl)phthalate (DEHP)	mg/L	<0.000349	<0.0178	<0.000356	<0.000712	<0.000356	<0.0178
Chrysene	mg/L	<0.0000755	<0.00385	<0.0000769	<0.000154	<0.0000769	<0.00385
Dibenzofuran	mg/L	0.000162 J	0.220	0.0000979 J	<0.000154	0.000443 J	0.0693
Di-n-butylphthalate (DBP)	mg/L	<0.000104	<0.00529	<0.000106	<0.000212	<0.000106	<0.00529
Fluoranthene	mg/L	<0.0000660	0.0180 J	<0.0000673	<0.000135	0.0000744 J	<0.00337
Fluorene	mg/L	0.000176 J	0.245	<0.0000673	<0.000135	0.0000800 J	0.114
Naphthalene	mg/L	0.000969 J	0.0338 J	<0.000853	<0.00126	<0.00183	0.326
Nitrobenzene	mg/L	<0.000104	<0.00529	<0.000106	<0.000212	<0.000106	<0.00529
N-Nitrosodiphenylamine	mg/L	<0.0000943	<0.00481	<0.0000962	<0.000192	<0.0000962	<0.00481
Pentachlorophenol	mg/L	<0.000575	<0.0293	<0.000587	<0.00117	<0.000587	<0.0293
Phenanthrene	mg/L	0.000507	0.192	<0.000872	<0.000115	<0.000591	0.0375
Phenol	mg/L	<0.0000377	<0.00192	<0.0000385	<0.0000769	<0.0000385	<0.00192
Pyrene	mg/L	<0.000104	0.00759 J	<0.000106	<0.000212	<0.000106	<0.00529

TABLE 2

ANALYTICAL RESULTS SUMMARY
SEMIANNUAL GROUNDWATER MONITORING
UNION PACIFIC RAILROAD (UPRR) - 1620 WOOD PRESERVING WORKS
HOUSTON, TEXAS
JANUARY 2014

<i>Sample Location:</i>	<i>MW-15B</i>	<i>MW-15C</i>	<i>MW-17</i>	<i>MW-17C</i>	<i>MW-18A</i>	<i>MW-18C</i>	
<i>Sample ID:</i>	WG-1620-MW15B-20140114	WG-1620-MW15C-20140114	WG-1620-MW17-20140113	WG-1620-MW17C-20140113	WG-1620-MW18A-20140113	WG-1620-MW18C-20140113	
<i>Sample Date:</i>	1/14/2014	1/14/2014	1/13/2014	1/13/2014	1/13/2014	1/13/2014	
<i>Parameters</i>	<i>Units</i>						
<i>Volatile Organic Compounds</i>							
1,2-Dichloroethane	mg/L	<0.000140	<0.000140	<0.00700	<0.000700	<0.0140	<0.00700
Benzene	mg/L	0.00101	0.000863 J	0.324	0.00939	0.239	1.51
Chlorobenzene	mg/L	<0.000120	<0.000120	<0.00600	<0.000600	<0.0120	<0.00600
Ethylbenzene	mg/L	0.000190 J	0.000275 J	0.251	0.123	0.637	0.245
Methylene chloride	mg/L	<0.000150	<0.000150	<0.00750	<0.000750	<0.0150	<0.00750
Toluene	mg/L	<0.000150	0.000305 J	0.931	0.00471 J	0.0731 J	1.07
Vinyl chloride	mg/L	-	-	-	-	<0.0110	<0.00550
Xylenes (total)	mg/L	0.000876 J	0.000581 J	0.724	0.141	1.27	1.02
<i>Semi-volatile Organic Compounds</i>							
1,2-Diphenylhydrazine	mg/L	<0.00106	<0.00106	<0.0529	<0.0106	<0.0106	<0.0106
2,4-Dimethylphenol	mg/L	<0.00298	<0.00298	6.75	<0.0298	2.95	<0.0298
2,4-Dinitrotoluene	mg/L	<0.00125	<0.00125	<0.0625	<0.0125	<0.0125	<0.0125
2,6-Dinitrotoluene	mg/L	<0.000769	<0.000769	<0.0385	<0.00769	<0.00769	<0.00769
2-Chloronaphthalene	mg/L	<0.000769	<0.000769	<0.0385	<0.00769	<0.00769	<0.00769
2-Methylnaphthalene	mg/L	0.00325 J	<0.000673	0.857	0.144	0.996	1.06
4,6-Dinitro-2-methylphenol	mg/L	<0.00798	<0.00798	<0.399	<0.0798	<0.0798	<0.0798
4-Nitrophenol	mg/L	<0.00538	<0.00538	<0.269	<0.0538	<0.0538	<0.0538
Acenaphthene	mg/L	0.134	0.0912	0.315	0.218	0.553	0.317
Acenaphthylene	mg/L	0.00148 J	<0.000577	<0.0288	<0.00577	<0.00577	<0.00577
Anthracene	mg/L	0.00665	<0.000481	0.0278 J	0.0156 J	0.0226 J	0.0414 J
Benzo(a)anthracene	mg/L	0.000868 J	<0.000769	<0.0385	<0.00769	<0.00769	<0.00769
Benzo(a)pyrene	mg/L	<0.000769	<0.000769	<0.0385	<0.00769	<0.00769	<0.00769
bis(2-Chloroethoxy)methane	mg/L	<0.00125	<0.00125	<0.0625	<0.0125	<0.0125	<0.0125
bis(2-Ethylhexyl)phthalate (DEHP)	mg/L	<0.00356	<0.00356	<0.178	0.0491 J	<0.0356	<0.0356
Chrysene	mg/L	<0.000769	<0.000769	<0.0385	<0.00769	<0.00769	<0.00769
Dibenzofuran	mg/L	0.0509	0.0317	0.211 J	0.184	0.326	0.276
Di-n-butylphthalate (DBP)	mg/L	<0.00106	<0.00106	<0.0529	<0.0106	<0.0106	<0.0106
Fluoranthene	mg/L	0.0131	0.00158 J	<0.0337	0.00707 J	<0.00673	0.0191 J
Fluorene	mg/L	0.0443	0.00224 J	0.160 J	0.0907	0.268	<0.00673
Naphthalene	mg/L	0.248	<0.00182	21.3	6.24	11.4	20.3
Nitrobenzene	mg/L	<0.00106	<0.00106	<0.0529	<0.0106	<0.0106	<0.0106
N-Nitrosodiphenylamine	mg/L	<0.000962	<0.000962	<0.0481	<0.00962	<0.00962	<0.00962
Pentachlorophenol	mg/L	<0.00587	<0.00587	<0.293	<0.0587	<0.0587	0.188
Phenanthrene	mg/L	0.0257	<0.000577	0.0993 J	0.110	0.190	0.177
Phenol	mg/L	0.00141 J	<0.000385	6.46	<0.00385	<0.00385	0.0184 J
Pyrene	mg/L	0.00569	<0.00106	<0.0529	<0.0106	<0.0106	<0.0106

TABLE 2

ANALYTICAL RESULTS SUMMARY
SEMIANNUAL GROUNDWATER MONITORING
UNION PACIFIC RAILROAD (UPRR) - 1620 WOOD PRESERVING WORKS
HOUSTON, TEXAS
JANUARY 2014

<i>Sample Location:</i>	<i>MW-19C</i>	<i>MW-21C</i>	<i>MW-21C</i>	<i>MW-22A</i>	<i>MW-22B</i>	<i>MW-23C</i>
<i>Sample ID:</i>	WG-1620-MW19C-20140115	WG-1620-MW21C-20140116	WG-1620-DUP1-20140116	WG-1620-MW22A-20140123	WG-1620-MW22B-20140123	WG-1620-MW23C-20140115
<i>Sample Date:</i>	1/15/2014	1/16/2014	1/16/2014 <i>Duplicate</i>	1/23/2014	1/23/2014	1/15/2014
<i>Parameters</i>	<i>Units</i>					
<i>Volatile Organic Compounds</i>						
1,2-Dichloroethane	mg/L	<0.000140	<0.000200	<0.000200	<0.000200	<0.000200
Benzene	mg/L	0.000280 J	<0.000200	<0.000200	0.000304 J	0.0126
Chlorobenzene	mg/L	<0.000120	<0.000180	<0.000180	<0.000180	<0.000180
Ethylbenzene	mg/L	0.000966 J	<0.000190	<0.000190	0.000549	0.165
Methylene chloride	mg/L	<0.000150	<0.000220	<0.000220	<0.000220	<0.000220
Toluene	mg/L	0.00136	<0.000170	<0.000170	0.000307 J	0.00728
Vinyl chloride	mg/L	<0.000110	-	-	-	<0.000180
Xylenes (total)	mg/L	0.00207 J	<0.000580	<0.000580	0.000834 J	0.0959
<i>Semi-volatile Organic Compounds</i>						
1,2-Diphenylhydrazine	mg/L	<0.000212	<0.000104	<0.000104	<0.000108	<0.0259
2,4-Dimethylphenol	mg/L	<0.000596	<0.000292	<0.000292	<0.000304	<0.0731
2,4-Dinitrotoluene	mg/L	<0.000250	<0.000123	<0.000123	<0.000127	<0.0307
2,6-Dinitrotoluene	mg/L	<0.000154	<0.0000755	<0.0000755	<0.0000784	<0.0189
2-Chloronaphthalene	mg/L	<0.000154	<0.0000755	<0.0000755	<0.0000784	<0.0189
2-Methylnaphthalene	mg/L	0.00142	<0.000157	<0.000187	<0.0000686	4.52
4,6-Dinitro-2-methylphenol	mg/L	<0.00160	<0.000783	<0.000783	<0.000814	<0.196
4-Nitrophenol	mg/L	<0.00108	<0.000528	<0.000528	<0.000549	<0.132
Acenaphthene	mg/L	<0.000154	<0.000254 J	0.000413 J	0.00557	7.79
Acenaphthylene	mg/L	<0.000115	<0.0000566	<0.0000566	0.000742	<0.0142
Anthracene	mg/L	<0.0000962	0.000243 J	0.000518 J	<0.000939	1.49
Benzo(a)anthracene	mg/L	<0.000154	0.000129 J	0.000137 J	<0.0000784	0.500
Benzo(a)pyrene	mg/L	<0.000154	<0.0000755	<0.0000755	<0.0000784	0.119
bis(2-Chloroethoxy)methane	mg/L	<0.000250	<0.000123	<0.000123	<0.000127	<0.0307
bis(2-Ethylhexyl)phthalate (DEHP)	mg/L	<0.000712	<0.000349	<0.000349	<0.000363	<0.0873
Chrysene	mg/L	<0.000154	0.0000812 J	0.000132 J	<0.0000784	0.476
Dibenzofuran	mg/L	0.00116	<0.000258	<0.000456	0.00100	5.45
Di-n-butylphthalate (DBP)	mg/L	<0.000212	<0.000104	<0.000104	<0.000866	<0.0259
Fluoranthene	mg/L	0.00223	0.000528 J	0.000866 J	0.000362 J	4.42
Fluorene	mg/L	0.000296 J	0.000291 J	0.000705 J	0.000468 J	3.78
Naphthalene	mg/L	0.0383	0.000523 J	<0.000421	<0.00340	43.8
Nitrobenzene	mg/L	<0.000212	<0.000104	<0.000104	<0.000108	<0.0259
N-Nitrosodiphenylamine	mg/L	<0.000192	<0.0000943	<0.0000943	<0.0000980	<0.0236
Pentachlorophenol	mg/L	<0.00117	<0.000575	<0.000575	<0.000598	<0.144
Phenanthrene	mg/L	<0.000265	0.00128 J	0.00242 J	<0.000478	18.2
Phenol	mg/L	0.000724 J	<0.0000377	<0.0000377	<0.0000392	<0.00943
Pyrene	mg/L	0.00191	0.000355 J	0.000508 J	<0.000108	3.04

TABLE 2

ANALYTICAL RESULTS SUMMARY
SEMIANNUAL GROUNDWATER MONITORING
UNION PACIFIC RAILROAD (UPRR) - 1620 WOOD PRESERVING WORKS
HOUSTON, TEXAS
JANUARY 2014

<i>Sample Location:</i>	<i>MW-24AR</i>	<i>MW-25A</i>	<i>MW-25C</i>	<i>MW-26A</i>	<i>MW-27C</i>	<i>MW-28A</i>
<i>Sample ID:</i>	WG-1620-MW-24AR-20140123	WG-1620-MW25A-20140122	WG-1620-MW25C-20140122	WG-1620-MW26A-20140122	WG-1620-MW27C-20140124	WG-1620-MW28A-20140122
<i>Sample Date:</i>	1/23/2014	1/22/2014	1/22/2014	1/22/2014	1/24/2014	1/22/2014
<i>Parameters</i>	<i>Units</i>					
<i>Volatile Organic Compounds</i>						
1,2-Dichloroethane	mg/L	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200
Benzene	mg/L	<0.000200	<0.000200	0.0220	0.000434 J	<0.000200
Chlorobenzene	mg/L	<0.000180	<0.000180	0.000340 J	<0.000180	<0.000180
Ethylbenzene	mg/L	<0.000190	<0.000190	0.320	<0.000190	<0.000190
Methylene chloride	mg/L	<0.000220	<0.000220	<0.000220	<0.000220	<0.000220
Toluene	mg/L	<0.000170	<0.000170	0.261	<0.000170	<0.000170
Vinyl chloride	mg/L	-	<0.000180	<0.000180	-	-
Xylenes (total)	mg/L	<0.000580	<0.000580	1.01	<0.000580	<0.000580
<i>Semi-volatile Organic Compounds</i>						
1,2-Diphenylhydrazine	mg/L	<0.000105	<0.000105	<0.0105	<0.000110	<0.000105
2,4-Dimethylphenol	mg/L	<0.000295	<0.000295	0.372	<0.000310	<0.000295
2,4-Dinitrotoluene	mg/L	<0.000124	<0.000124	<0.0124	<0.000130	<0.000124
2,6-Dinitrotoluene	mg/L	<0.0000762	<0.0000762	<0.00762	<0.0000800	<0.0000762
2-Chloronaphthalene	mg/L	<0.0000762	<0.0000762	<0.00762	<0.0000800	<0.0000762
2-Methylnaphthalene	mg/L	0.0000924 J	<0.0000667	1.46	<0.0000700	<0.0000667
4,6-Dinitro-2-methylphenol	mg/L	<0.000790	<0.000790	<0.00790	<0.000830	<0.000790
4-Nitrophenol	mg/L	<0.000533	<0.000533	<0.0533	<0.000560	<0.000533
Acenaphthene	mg/L	0.000146 J	0.00356	0.416	0.0699	<0.0000766
Acenaphthylene	mg/L	<0.0000571	0.000542	<0.00571	<0.0000600	<0.0000571
Anthracene	mg/L	<0.000452	<0.0000476	0.0372 J	0.00136	0.000431 J
Benzo(a)anthracene	mg/L	<0.0000762	<0.0000762	<0.00762	<0.0000800	<0.0000766
Benzo(a)pyrene	mg/L	<0.0000762	<0.0000762	<0.00762	<0.0000800	<0.0000766
bis(2-Chloroethoxy)methane	mg/L	<0.000124	<0.000124	<0.0124	<0.000130	<0.000124
bis(2-Ethylhexyl)phthalate (DEHP)	mg/L	0.000767 J	<0.000352	<0.0352	<0.000370	<0.000352
Chrysene	mg/L	<0.0000762	<0.0000762	<0.00762	<0.0000800	<0.0000766
Dibenzofuran	mg/L	0.000164 J	<0.0000762	<0.00762	<0.0000800	<0.0000766
Di-n-butylphthalate (DBP)	mg/L	<0.000837	<0.000105	<0.0105	<0.000110	<0.000851
Fluoranthene	mg/L	0.000224 J	0.00106	0.0180 J	0.00306	0.0000881 J
Fluorene	mg/L	0.000137 J	<0.0000667	<0.00667	0.00310	<0.0000670
Naphthalene	mg/L	<0.000744	<0.000217	19.0	<0.000924	<0.000953
Nitrobenzene	mg/L	<0.000105	<0.000105	<0.0105	<0.000110	<0.000105
N-Nitrosodiphenylamine	mg/L	<0.0000952	<0.0000952	<0.00952	<0.000100	<0.0000952
Pentachlorophenol	mg/L	<0.000581	<0.000581	<0.0581	<0.000610	<0.000584
Phenanthrene	mg/L	<0.000691	<0.0000571	0.222	0.000147 J	<0.000406
Phenol	mg/L	<0.0000381	<0.0000381	<0.00381	<0.0000400	<0.0000383
Pyrene	mg/L	0.000172 J	0.000585	<0.0105	0.00159	<0.000105

TABLE 2

ANALYTICAL RESULTS SUMMARY
SEMIANNUAL GROUNDWATER MONITORING
UNION PACIFIC RAILROAD (UPRR) - 1620 WOOD PRESERVING WORKS
HOUSTON, TEXAS
JANUARY 2014

<i>Sample Location:</i>	<i>MW-28C</i>	<i>MW-32AR</i>	<i>MW-32B</i>	<i>MW-33A</i>	<i>MW-33A</i>	<i>MW-33BR</i>
<i>Sample ID:</i>	<i>WG-1620-MW28C-20140122</i>	<i>WG-1620-MW32AR-20140121</i>	<i>WG-1620-MW32B-20140121</i>	<i>WG-1620-MW33A-20140123</i>	<i>WG-1620-DUP4-20140123</i>	<i>WG-1620-MW33BR-20140121</i>
<i>Sample Date:</i>	<i>1/22/2014</i>	<i>1/21/2014</i>	<i>1/21/2014</i>	<i>1/23/2014</i>	<i>1/23/2014</i>	<i>1/21/2014</i>
<i>Parameters</i>	<i>Duplicate</i>					
<i>Parameters</i>	<i>Units</i>					
<i>Volatile Organic Compounds</i>						
1,2-Dichloroethane	mg/L	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200
Benzene	mg/L	<0.000200	<0.000200	0.239	0.223	0.837
Chlorobenzene	mg/L	<0.000180	<0.000180	<0.000180	0.000214 J	<0.000180
Ethylbenzene	mg/L	<0.000190	<0.000190	0.254	0.135	0.128
Methylene chloride	mg/L	<0.000220	<0.000220	<0.000220	<0.000220	<0.000220
Toluene	mg/L	<0.000170	<0.000170	0.541	0.230	0.0942
Vinyl chloride	mg/L	-	-	-	-	<0.000180
Xylenes (total)	mg/L	<0.000580	<0.000580	0.749	0.188	0.128
<i>Semi-volatile Organic Compounds</i>						
1,2-Diphenylhydrazine	mg/L	<0.000110	<0.000104	<0.00104	<0.104	<0.000529
2,4-Dimethylphenol	mg/L	<0.000310	<0.000292	0.178	1.44	<0.00149
2,4-Dinitrotoluene	mg/L	<0.000130	<0.000123	<0.00123	<0.123	<0.000625
2,6-Dinitrotoluene	mg/L	<0.0000800	<0.0000755	<0.000755	<0.0755	<0.000385
2-Chloronaphthalene	mg/L	<0.0000800	<0.0000755	<0.000755	<0.0755	<0.000385
2-Methylnaphthalene	mg/L	0.0000741 J	0.000210 J	0.137	0.263 J	0.0558
4,6-Dinitro-2-methylphenol	mg/L	<0.000830	<0.000783	<0.00783	<0.783	<0.00399
4-Nitrophenol	mg/L	<0.000560	<0.000528	<0.00528	<0.528	<0.00269
Acenaphthene	mg/L	<0.0000800	0.0105	0.0427	0.288 J	0.0625
Acenaphthylene	mg/L	<0.0000600	<0.000317	<0.000566	<0.0566	<0.000679
Anthracene	mg/L	<0.0000500	0.000444 J	0.144	<0.0472	<0.0481
Benzo(a)anthracene	mg/L	<0.0000800	<0.0000755	0.0195	<0.0755	<0.0769
Benzo(a)pyrene	mg/L	<0.0000800	<0.0000755	0.00649	<0.0755	<0.0769
bis(2-Chloroethoxy)methane	mg/L	<0.000130	<0.000123	<0.00123	<0.123	<0.000625
bis(2-Ethylhexyl)phthalate (DEHP)	mg/L	<0.000370	<0.000349	<0.00349	<0.349	<0.00178
Chrysene	mg/L	<0.0000800	0.0000774 J	0.0180	<0.0755	<0.0769
Dibenzofuran	mg/L	<0.0000800	0.000664	0.0428	0.148 J	0.0769
Di-n-butylphthalate (DBP)	mg/L	<0.000110	<0.000104	<0.00104	<0.104	<0.000529
Fluoranthene	mg/L	<0.0000700	0.00124	0.121	0.0703 J	0.0107 J
Fluorene	mg/L	<0.0000700	0.00317	0.0282	0.145 J	0.0287
Naphthalene	mg/L	<0.000596	0.00870	2.17 J	5.82	1.68 J
Nitrobenzene	mg/L	<0.000110	<0.000104	<0.00104	<0.104	<0.000529
N-Nitrosodiphenylamine	mg/L	<0.000100	<0.0000943	<0.000943	<0.0943	<0.000481
Pentachlorophenol	mg/L	<0.000610	<0.000575	<0.00575	<0.575	<0.00293
Phenanthrene	mg/L	0.0000739 J	0.000101 J	0.0548	0.180 J	0.0238
Phenol	mg/L	<0.0000400	<0.0000377	0.0357	0.203 JH	<0.000192
Pyrene	mg/L	<0.000110	0.000625	0.0841	<0.104	0.000734 J

TABLE 2

ANALYTICAL RESULTS SUMMARY
SEMIANNUAL GROUNDWATER MONITORING
UNION PACIFIC RAILROAD (UPRR) - 1620 WOOD PRESERVING WORKS
HOUSTON, TEXAS
JANUARY 2014

<i>Sample Location:</i>	<i>MW-35A</i>	<i>MW-35B</i>	<i>MW-36A</i>	<i>MW-36B</i>	<i>MW-36D</i>	<i>MW-38A</i>
<i>Sample ID:</i>	<i>WG-1620-MW35A-20140124</i>	<i>WG-1620-MW35B-20140124</i>	<i>WG-1620-MW36A-20140116</i>	<i>WG-1620-MW36B-20140116</i>	<i>WG-1620-MW36D-20140121</i>	<i>WG-1620-MW38A-20140121</i>
<i>Sample Date:</i>	<i>1/24/2014</i>	<i>1/24/2014</i>	<i>1/16/2014</i>	<i>1/16/2014</i>	<i>1/21/2014</i>	<i>1/21/2014</i>
<i>Parameters</i>	<i>Units</i>					
<i>Volatile Organic Compounds</i>						
1,2-Dichloroethane	mg/L	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200
Benzene	mg/L	0.000367 J	0.0664	<0.000200	<0.000200	<0.000200
Chlorobenzene	mg/L	<0.000180	0.000241 J	<0.000180	<0.000180	<0.000180
Ethylbenzene	mg/L	<0.000190	0.187	<0.000190	<0.000190	<0.000190
Methylene chloride	mg/L	<0.000220	<0.000220	<0.000220	<0.000220	<0.000220
Toluene	mg/L	<0.000170	0.00429	<0.000170	<0.000170	<0.000170
Vinyl chloride	mg/L	-	-	<0.000180	-	-
Xylenes (total)	mg/L	<0.000580	0.132	<0.000580	<0.000580	<0.000580
<i>Semi-volatile Organic Compounds</i>						
1,2-Diphenylhydrazine	mg/L	<0.000104	<0.106	<0.000104	<0.000104	<0.000105
2,4-Dimethylphenol	mg/L	<0.000292	<0.298	<0.000292	<0.000292	<0.000295
2,4-Dinitrotoluene	mg/L	<0.000123	<0.125	<0.000123	<0.000123	<0.000124
2,6-Dinitrotoluene	mg/L	<0.0000755	<0.0769	<0.0000755	<0.0000755	<0.0000762
2-Chloronaphthalene	mg/L	<0.0000755	<0.0769	<0.0000755	<0.0000755	<0.0000762
2-Methylnaphthalene	mg/L	0.000350 J	0.534	<0.0000660	<0.000271	<0.0000667
4,6-Dinitro-2-methylphenol	mg/L	<0.000783	<0.798	<0.000783	<0.000783	<0.000790
4-Nitrophenol	mg/L	<0.000528	<0.538	<0.000528	<0.000528	<0.000533
Acenaphthene	mg/L	0.0551	0.305 J	<0.0000867	0.000463 J	<0.0000762
Acenaphthylene	mg/L	0.000754	<0.0577	<0.0000566	<0.0000566	<0.0000571
Anthracene	mg/L	0.00111	<0.0481	<0.0000472	0.000350 J	0.000103 J
Benzo(a)anthracene	mg/L	<0.0000755	<0.0769	<0.0000755	0.000120 J	<0.0000762
Benzo(a)pyrene	mg/L	<0.0000755	<0.0769	<0.0000755	<0.0000755	<0.0000762
bis(2-Chloroethoxy)methane	mg/L	<0.000123	<0.125	<0.000123	<0.000123	<0.000124
bis(2-Ethylhexyl)phthalate (DEHP)	mg/L	<0.000349	<0.356	<0.000349	0.000440 J	<0.000352
Chrysene	mg/L	<0.0000755	<0.0769	<0.0000755	0.000146 J	<0.0000762
Dibenzofuran	mg/L	0.00177	0.256 J	<0.0000755	<0.000409	<0.0000762
Di-n-butylphthalate (DBP)	mg/L	<0.000838	<0.106	<0.000104	<0.000104	<0.000105
Fluoranthene	mg/L	0.000484	0.0698 J	<0.0000660	0.000756	<0.0000667
Fluorene	mg/L	0.0149	0.167 J	<0.0000660	0.000434 J	<0.0000667
Naphthalene	mg/L	0.00968	13.1	<0.0000755	0.000825 J	<0.000146
Nitrobenzene	mg/L	<0.000104	<0.106	<0.000104	<0.000104	<0.000105
N-Nitrosodiphenylamine	mg/L	<0.0000943	<0.0962	<0.0000943	<0.0000943	<0.0000952
Pentachlorophenol	mg/L	<0.000575	<0.587	<0.000575	<0.000575	<0.000581
Phenanthrene	mg/L	<0.000848	0.270 J	<0.000201	0.00183	<0.0000571
Phenol	mg/L	<0.0000377	0.129 JH	<0.0000377	<0.0000377	<0.0000381
Pyrene	mg/L	0.000376 J	<0.106	0.000155 J	0.000460 J	<0.000105

TABLE 2

ANALYTICAL RESULTS SUMMARY
SEMIANNUAL GROUNDWATER MONITORING
UNION PACIFIC RAILROAD (UPRR) - 1620 WOOD PRESERVING WORKS
HOUSTON, TEXAS
JANUARY 2014

<i>Sample Location:</i>	<i>MW-38B</i>	<i>MW-39B</i>	<i>MW-40B</i>	<i>MW-42B</i>	<i>MW-44A</i>	<i>MW-47C</i>
<i>Sample ID:</i>	WG-1620-MW38B-20140121	WG-1620-MW39B-20140114	WG-1620-MW40B-20140114	WG-1620-MW42B-20140115	WG-1620-MW44A-20140117	WG-1620-MW47C-20140117
<i>Sample Date:</i>	1/21/2014	1/14/2014	1/14/2014	1/15/2014	1/17/2014	1/17/2014
<i>Parameters</i>	<i>Units</i>					
<i>Volatile Organic Compounds</i>						
1,2-Dichloroethane	mg/L	<0.000200	<0.000140	<0.000700	<0.000200	<0.000200
Benzene	mg/L	<0.000200	<0.0000800	0.0109	<0.000200	0.00727
Chlorobenzene	mg/L	<0.000180	<0.000120	<0.000600	<0.000180	<0.000180
Ethylbenzene	mg/L	<0.000190	<0.000110	0.0840	<0.000190	0.000670
Methylene chloride	mg/L	<0.000220	<0.000150	<0.000750	<0.000220	<0.000220
Toluene	mg/L	<0.000170	<0.000150	0.0147	<0.000170	0.000418 J
Vinyl chloride	mg/L	-	-	-	-	<0.000180
Xylenes (total)	mg/L	<0.000580	<0.000260	0.120	<0.000580	0.00805
<i>Semi-volatile Organic Compounds</i>						
1,2-Diphenylhydrazine	mg/L	<0.000105	<0.00106	<0.0212	<0.000104	<0.000106
2,4-Dimethylphenol	mg/L	<0.000295	<0.00298	<0.0596	0.000916 JH	<0.000298
2,4-Dinitrotoluene	mg/L	<0.000124	<0.00125	<0.0250	<0.000123	<0.000125
2,6-Dinitrotoluene	mg/L	<0.0000762	<0.000769	<0.0154	<0.0000755	<0.0000769
2-Chloronaphthalene	mg/L	<0.0000762	<0.000769	<0.0154	<0.0000755	<0.0000769
2-Methylnaphthalene	mg/L	0.000137 J	<0.000673	0.350	0.000317 J	0.0106
4,6-Dinitro-2-methylphenol	mg/L	<0.000790	<0.00798	<0.160	<0.000783	<0.000798
4-Nitrophenol	mg/L	<0.000533	<0.00538	<0.108	<0.000528	<0.000538
Acenaphthene	mg/L	0.0000786 J	0.00115 J	0.402	0.000355 J	0.394
Acenaphthylene	mg/L	<0.0000571	<0.000577	<0.0115	<0.0000566	<0.0000577
Anthracene	mg/L	0.000141 J	<0.00101	0.0247 J	0.000465 J	0.0170
Benzo(a)anthracene	mg/L	<0.0000762	<0.000769	<0.0154	<0.0000755	<0.0000769
Benzo(a)pyrene	mg/L	<0.0000762	<0.000769	<0.0154	<0.0000755	<0.0000769
bis(2-Chloroethoxy)methane	mg/L	<0.000124	<0.00125	<0.0250	<0.000123	<0.000125
bis(2-Ethylhexyl)phthalate (DEHP)	mg/L	<0.000352	<0.00356	<0.0712	<0.000349	<0.000356
Chrysene	mg/L	<0.0000762	<0.000769	<0.0154	<0.0000755	<0.0000769
Dibenzofuran	mg/L	0.0000923 J	<0.000769	0.252	0.000205 J	0.107
Di-n-butylphthalate (DBP)	mg/L	<0.000105	<0.00106	<0.0212	<0.000104	<0.000106
Fluoranthene	mg/L	0.000101 J	<0.000673	<0.0135	0.000339 J	0.0154
Fluorene	mg/L	0.0000778 J	<0.000673	0.217	0.000198 J	0.178
Naphthalene	mg/L	0.000466 J	<0.000769	6.07	0.00242 J	0.235 J
Nitrobenzene	mg/L	<0.000105	<0.00106	<0.0212	<0.000104	<0.000106
N-Nitrosodiphenylamine	mg/L	<0.0000952	<0.000962	<0.0192	<0.0000943	<0.0000962
Pentachlorophenol	mg/L	<0.000581	<0.00587	<0.117	<0.000575	<0.000587
Phenanthrene	mg/L	0.000304 J	<0.000577	0.197	0.000501	0.0438
Phenol	mg/L	<0.0000381	<0.000385	<0.00769	<0.0000377	<0.0000385
Pyrene	mg/L	<0.000105	<0.00106	<0.0212	0.000234 J	0.00830

TABLE 2

**ANALYTICAL RESULTS SUMMARY
SEMIANNUAL GROUNDWATER MONITORING
UNION PACIFIC RAILROAD (UPRR) - 1620 WOOD PRESERVING WORKS
HOUSTON, TEXAS
JANUARY 2014**

<i>Sample Location:</i>	<i>MW-48C</i>	<i>MW-49A</i>	<i>MW-49B</i>	<i>MW-50A</i>	<i>MW-51A</i>	<i>MW-53C</i>
<i>Sample ID:</i>	WG-1620-MW48C-20140116	WG-1620-MW49A-20140116	WG-1620-MW49B-20140116	WG-1620-MW50A-20140129	WG-1620-MW51A-20140129	WG-1620-MW53C-20140122
<i>Sample Date:</i>	1/16/2014	1/16/2014	1/16/2014	1/29/2014	1/29/2014	1/22/2014
<i>Parameters</i>	<i>Units</i>					
<i>Volatile Organic Compounds</i>						
1,2-Dichloroethane	mg/L	<0.000200	<0.000200	<0.000200	<0.000140	<0.000200
Benzene	mg/L	<0.000200	0.0565	0.0691	<0.000800	<0.000200
Chlorobenzene	mg/L	<0.000180	0.304	<0.000180	<0.000120	<0.000180
Ethylbenzene	mg/L	<0.000190	0.0331	0.0425	<0.000110	<0.000190
Methylene chloride	mg/L	<0.000220	<0.000220	<0.000220	<0.000150	<0.000220
Toluene	mg/L	<0.000170	0.0296	0.0910	<0.000150	<0.000170
Vinyl chloride	mg/L	<0.000180	<0.000180	<0.000180	-	-
Xylenes (total)	mg/L	<0.000580	0.0699	0.112	<0.000260	<0.000580
<i>Semi-volatile Organic Compounds</i>						
1,2-Diphenylhydrazine	mg/L	<0.000104	<0.00519	<0.0259	<0.000104	<0.000524
2,4-Dimethylphenol	mg/L	<0.000292	2.10 JH	4.96 JH	<0.000292	<0.00148
2,4-Dinitrotoluene	mg/L	<0.000123	<0.00613	<0.0307	<0.000123	<0.000619
2,6-Dinitrotoluene	mg/L	<0.0000755	<0.00377	<0.0189	<0.0000755	<0.000381
2-Chloronaphthalene	mg/L	<0.0000755	<0.00377	<0.0189	<0.0000755	<0.000381
2-Methylnaphthalene	mg/L	<0.0000660	0.267	0.691	0.000264 J	0.000358 J
4,6-Dinitro-2-methylphenol	mg/L	<0.000783	<0.0392	<0.196	<0.000783	<0.00395
4-Nitrophenol	mg/L	<0.000528	<0.0264	<0.132	<0.000528	<0.00267
Acenaphthene	mg/L	<0.0000755	0.180	0.622	<0.0000755	0.000856 J
Acenaphthylene	mg/L	<0.0000566	0.00528 J	<0.0142	<0.0000566	<0.000286
Anthracene	mg/L	<0.0000472	0.0132 J	0.221	<0.0000472	<0.000238
Benzo(a)anthracene	mg/L	<0.0000755	<0.00377	0.0671 J	<0.0000755	<0.000381
Benzo(a)pyrene	mg/L	<0.0000755	<0.00377	<0.0189	<0.0000755	<0.000381
bis(2-Chloroethoxy)methane	mg/L	<0.000123	<0.00613	<0.0307	<0.000123	<0.000619
bis(2-Ethylhexyl)phthalate (DEHP)	mg/L	<0.000349	<0.0175	<0.0873	<0.000349	0.00121
Chrysene	mg/L	<0.0000755	<0.00377	0.0737 J	<0.0000755	<0.000381
Dibenzofuran	mg/L	<0.0000755	0.0902	0.484	0.000134 J	<0.000381
Di-n-butylphthalate (DBP)	mg/L	<0.000104	<0.00519	<0.0259	<0.000104	<0.000524
Fluoranthene	mg/L	0.000153 J	0.00521 J	0.415	<0.0000660	<0.000333
Fluorene	mg/L	<0.0000660	0.0864	0.464	<0.0000660	0.000355 J
Naphthalene	mg/L	<0.0000755	5.86	6.75	0.00129	<0.00212
Nitrobenzene	mg/L	<0.000104	<0.00519	<0.0259	<0.000104	<0.000524
N-Nitrosodiphenylamine	mg/L	<0.0000943	<0.00472	<0.0236	<0.0000943	<0.000476
Pentachlorophenol	mg/L	<0.0000575	<0.0288	<0.144	<0.0000575	<0.00290
Phenanthrene	mg/L	<0.0000566	0.0564	1.29	0.0000703 J	0.000939 J
Phenol	mg/L	<0.0000377	<0.00189	0.0445 J	<0.0000377	<0.000190
Pyrene	mg/L	<0.000104	<0.00519	0.262	<0.000104	<0.000524

TABLE 2

ANALYTICAL RESULTS SUMMARY
SEMIANNUAL GROUNDWATER MONITORING
UNION PACIFIC RAILROAD (UPRR) - 1620 WOOD PRESERVING WORKS
HOUSTON, TEXAS
JANUARY 2014

<i>Sample Location:</i>	<i>MW-54C</i>	<i>MW-55A</i>	<i>MW-55B</i>	<i>MW-57A</i>	<i>MW-57B</i>	<i>MW-58A</i>
<i>Sample ID:</i>	WG-1620-MW54C-20140123	WG-1620-MW55A-20140114	WG-1620-MW55B-20140114	WG-1620-MW57A-20140115	WG-1620-MW57B-20140115	WG-1620-MW58A-20140129
<i>Sample Date:</i>	1/23/2014	1/14/2014	1/14/2014	1/15/2014	1/15/2014	1/29/2014
<i>Parameters</i>	<i>Units</i>					
<i>Volatile Organic Compounds</i>						
1,2-Dichloroethane	mg/L	<0.000200	<0.00700	<0.00700	<0.000200	<0.000140
Benzene	mg/L	<0.000200	0.0715	0.648	0.109	<0.000800
Chlorobenzene	mg/L	<0.000180	<0.00600	<0.00600	0.000465 J	<0.000120
Ethylbenzene	mg/L	0.000527	0.200	0.134	0.198	<0.000110
Methylene chloride	mg/L	<0.000220	<0.00750	<0.00750	<0.000220	<0.000150
Toluene	mg/L	<0.000170	0.311	0.597	0.198	<0.000150
Vinyl chloride	mg/L	-	-	-	0.00154	<0.000110
Xylenes (total)	mg/L	0.000620 J	0.486	0.481	0.454	<0.000260
<i>Semi-volatile Organic Compounds</i>						
1,2-Diphenylhydrazine	mg/L	<0.000104	<0.0529	<0.529	<0.0259	<0.000104
2,4-Dimethylphenol	mg/L	<0.000292	0.519	44.2	7.91 JH	<0.000292
2,4-Dinitrotoluene	mg/L	<0.000123	<0.0625	<0.625	<0.0307	<0.000123
2,6-Dinitrotoluene	mg/L	<0.0000755	<0.0385	<0.385	<0.0189	<0.0000755
2-Chloronaphthalene	mg/L	<0.0000755	<0.0385	<0.385	<0.0189	<0.0000755
2-Methylnaphthalene	mg/L	0.0176	0.463	0.901 J	8.24	<0.0000660
4,6-Dinitro-2-methylphenol	mg/L	<0.000783	<0.399	<3.99	<0.196	<0.000783
4-Nitrophenol	mg/L	<0.000528	<0.269	<2.69	<0.132	<0.000528
Acenaphthene	mg/L	0.0620	0.251	<0.385	5.69	<0.0000755
Acenaphthylene	mg/L	0.00105	<0.0288	<0.288	<0.0142	<0.0000566
Anthracene	mg/L	0.00445	0.0830 J	<0.240	2.02	0.0844 J
Benzo(a)anthracene	mg/L	0.0000993 J	<0.0385	<0.385	0.361	<0.0000755
Benzo(a)pyrene	mg/L	<0.0000755	<0.0385	<0.385	0.0962 J	<0.0000755
bis(2-Chloroethoxy)methane	mg/L	<0.000123	<0.0625	<0.625	<0.0307	<0.000123
bis(2-Ethylhexyl)phthalate (DEHP)	mg/L	<0.000349	<0.178	<1.78	<0.0873	<0.000349
Chrysene	mg/L	0.0000758 J	<0.0385	<0.385	0.360	<0.0000755
Dibenzofuran	mg/L	0.0695	0.150 J	<0.385	4.69	<0.0000755
Di-n-butylphthalate (DBP)	mg/L	<0.000824	<0.0529	<0.529	<0.0259	<0.000104
Fluoranthene	mg/L	0.00575	0.0595 J	<0.337	3.19	<0.0000660
Fluorene	mg/L	0.0321	0.172 J	<0.337	4.16	<0.0000660
Naphthalene	mg/L	0.315 J	11.7	24.3	56.9	<0.0000755
Nitrobenzene	mg/L	<0.000104	<0.0529	<0.529	<0.0259	<0.000104
N-Nitrosodiphenylamine	mg/L	<0.0000943	<0.0481	<0.481	<0.0236	<0.0000943
Pentachlorophenol	mg/L	<0.000575	<0.293	<2.93	<0.144	<0.000575
Phenanthrene	mg/L	0.0420	0.174 J	<0.288	13.1	<0.0000566
Phenol	mg/L	<0.0000377	<0.0192	454	<0.00943	<0.0000377
Pyrene	mg/L	0.00373	<0.0529	<0.529	2.29	<0.000104

TABLE 2

ANALYTICAL RESULTS SUMMARY
SEMIANNUAL GROUNDWATER MONITORING
UNION PACIFIC RAILROAD (UPRR) - 1620 WOOD PRESERVING WORKS
HOUSTON, TEXAS
JANUARY 2014

<i>Sample Location:</i>	<i>MW-59A</i>	<i>MW-59B</i>	<i>MW-59D</i>	<i>MW-59D</i>	<i>MW-60A</i>	<i>MW-61A</i>
<i>Sample ID:</i>	<i>WG-1620-MW59A-20140116</i>	<i>WG-1620-MW59B-20140116</i>	<i>WG-1620-MW59D-20140123</i>	<i>WG-1620-DUP3-20140123</i>	<i>WG-1620-MW60A-20140115</i>	<i>WG-1620-MW61A-20140123</i>
<i>Sample Date:</i>	<i>1/16/2014</i>	<i>1/16/2014</i>	<i>1/23/2014</i>	<i>1/23/2014</i> <i>Duplicate</i>	<i>1/15/2014</i>	<i>1/23/2014</i>
<i>Parameters</i>	<i>Units</i>					
<i>Volatile Organic Compounds</i>						
1,2-Dichloroethane	mg/L	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200
Benzene	mg/L	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200
Chlorobenzene	mg/L	<0.000180	<0.000180	<0.000180	<0.000180	<0.000180
Ethylbenzene	mg/L	<0.000190	<0.000190	<0.000190	<0.000190	<0.000190
Methylene chloride	mg/L	<0.000220	<0.000220	<0.000220	<0.000220	<0.000220
Toluene	mg/L	<0.000170	<0.000170	<0.000170	<0.000170	<0.000170
Vinyl chloride	mg/L	<0.000180	<0.000180	-	<0.000180	<0.000180
Xylenes (total)	mg/L	<0.000580	<0.000580	<0.000580	<0.000580	<0.000580
<i>Semi-volatile Organic Compounds</i>						
1,2-Diphenylhydrazine	mg/L	<0.000104	<0.000104	<0.000104	<0.000104	<0.000104
2,4-Dimethylphenol	mg/L	<0.000292	<0.000292	<0.000292	<0.000292	<0.000292
2,4-Dinitrotoluene	mg/L	<0.000123	<0.000123	<0.000123	<0.000123	<0.000123
2,6-Dinitrotoluene	mg/L	<0.0000755	<0.0000755	<0.0000755	<0.0000755	<0.0000755
2-Chloronaphthalene	mg/L	<0.0000755	<0.0000755	<0.0000755	<0.0000755	<0.0000755
2-Methylnaphthalene	mg/L	<0.0000902	<0.0000660	<0.0000660	0.000143 J	<0.0000660
4,6-Dinitro-2-methylphenol	mg/L	<0.000783	<0.000783	<0.000783	<0.000783	<0.000783
4-Nitrophenol	mg/L	<0.000528	<0.000528	<0.000528	<0.000528	<0.000528
Acenaphthene	mg/L	<0.0000831	<0.0000755	<0.0000755	0.000157 J	<0.0000755
Acenaphthylene	mg/L	<0.0000566	<0.0000566	<0.0000566	<0.0000566	<0.0000566
Anthracene	mg/L	0.000119 J	<0.0000472	<0.000425	0.000158 J	<0.000434
Benzo(a)anthracene	mg/L	<0.0000755	<0.0000755	<0.0000755	<0.0000755	<0.0000755
Benzo(a)pyrene	mg/L	<0.0000755	<0.0000755	<0.0000755	<0.0000755	<0.0000755
bis(2-Chloroethoxy)methane	mg/L	<0.000123	<0.000123	<0.000123	<0.000123	<0.000123
bis(2-Ethylhexyl)phthalate (DEHP)	mg/L	<0.000349	<0.000349	0.000425 J	0.000364 J	0.00163 J
Chrysene	mg/L	<0.0000755	<0.0000755	<0.0000755	<0.0000755	<0.0000755
Dibenzofuran	mg/L	<0.000136	<0.0000755	<0.0000755	0.000145 J	<0.0000755
Di-n-butylphthalate (DBP)	mg/L	0.000178 J	0.000105 J	<0.000825	<0.000827	<0.000827
Fluoranthene	mg/L	0.000199 J	<0.0000660	0.0000789 J	0.0000894 J	0.0000806 J
Fluorene	mg/L	0.000176 J	<0.0000660	<0.0000660	0.000162 J	<0.0000660
Naphthalene	mg/L	<0.000381	<0.000172	<0.000727	<0.000796	0.000668 J
Nitrobenzene	mg/L	<0.000104	<0.000104	<0.000104	<0.000104	<0.000104
N-Nitrosodiphenylamine	mg/L	<0.0000943	<0.0000943	<0.0000943	<0.0000943	<0.0000943
Pentachlorophenol	mg/L	<0.000575	<0.000575	<0.000575	<0.000575	<0.000575
Phenanthrene	mg/L	<0.000587	<0.000112	<0.000455	<0.000464	0.000345 J
Phenol	mg/L	<0.0000377	<0.0000377	<0.0000377	<0.0000377	<0.0000377
Pyrene	mg/L	0.000120 J	<0.000104	<0.000104	<0.000104	<0.000104

TABLE 2

ANALYTICAL RESULTS SUMMARY
SEMIANNUAL GROUNDWATER MONITORING
UNION PACIFIC RAILROAD (UPRR) - 1620 WOOD PRESERVING WORKS
HOUSTON, TEXAS
JANUARY 2014

<i>Sample Location:</i>		<i>MW-62B</i>	<i>MW-63B</i>	<i>MW-64A</i>	<i>MW-65D</i>	<i>MW-66D</i>	<i>MW-67B</i>
<i>Sample ID:</i>		WG-1620-MW62B-20140129	WG-1620-MW63B-20140122	WG-1620-MW64A-20140129	WG-1620-MW65D-20140121	WG-1620-MW66D-20140129	WG-1620-MW-67B-20140123
<i>Sample Date:</i>		1/29/2014	1/22/2014	1/29/2014	1/21/2014	1/29/2014	1/23/2014
<i>Parameters</i>	<i>Units</i>						
<i>Volatile Organic Compounds</i>							
1,2-Dichloroethane	mg/L	<0.000140	<0.000200	<0.000140	<0.000200	<0.000140	<0.000200
Benzene	mg/L	<0.0000800	0.0762	0.000154 J	<0.000200	<0.0000800	<0.000200
Chlorobenzene	mg/L	<0.000120	<0.000180	<0.000120	<0.000180	<0.000120	<0.000180
Ethylbenzene	mg/L	<0.000110	0.0418	<0.000110	<0.000190	<0.000110	<0.000190
Methylene chloride	mg/L	<0.000150	<0.000220	<0.000150	<0.000220	<0.000150	<0.000220
Toluene	mg/L	<0.000150	0.000399 J	<0.000150	<0.000170	<0.000150	<0.000170
Vinyl chloride	mg/L	-	-	-	-	-	-
Xylenes (total)	mg/L	<0.000260	0.0156	<0.000260	<0.000580	<0.000260	<0.000580
<i>Semi-volatile Organic Compounds</i>							
1,2-Diphenylhydrazine	mg/L	<0.000104	<0.00109	<0.000104	<0.000104	<0.000104	<0.000106
2,4-Dimethylphenol	mg/L	<0.000292	<0.00307	<0.000292	<0.000292	<0.000292	<0.000298
2,4-Dinitrotoluene	mg/L	<0.000123	<0.00129	<0.000123	<0.000123	<0.000123	<0.000125
2,6-Dinitrotoluene	mg/L	<0.0000755	<0.000792	<0.0000755	<0.0000755	<0.0000755	<0.0000769
2-Chloronaphthalene	mg/L	<0.0000755	<0.000792	<0.0000755	<0.0000755	<0.0000755	<0.0000769
2-Methylnaphthalene	mg/L	<0.0000660	0.00756	<0.0000660	0.0000808 J	<0.0000660	<0.0000673
4,6-Dinitro-2-methylphenol	mg/L	<0.000783	<0.00822	<0.000783	<0.000783	<0.000783	<0.000798
4-Nitrophenol	mg/L	<0.000528	<0.00554	<0.000528	<0.000528	<0.000528	<0.000538
Acenaphthene	mg/L	<0.0000755	0.00274 J	<0.0000755	<0.0000755	0.000145 J	<0.0000769
Acenaphthylene	mg/L	<0.0000566	<0.000594	<0.0000566	<0.0000566	<0.0000566	<0.0000577
Anthracene	mg/L	<0.0000472	<0.000495	<0.0000472	0.0000574 J	<0.0000472	<0.0000424
Benzo(a)anthracene	mg/L	<0.0000755	<0.000792	<0.0000755	<0.0000755	<0.0000755	<0.0000769
Benzo(a)pyrene	mg/L	<0.0000755	<0.000792	<0.0000755	<0.0000755	<0.0000755	<0.0000769
bis(2-Chloroethoxy)methane	mg/L	<0.000123	<0.00129	<0.000123	<0.000123	<0.000123	<0.000125
bis(2-Ethylhexyl)phthalate (DEHP)	mg/L	<0.000349	<0.00366	<0.000349	<0.000349	<0.000349	<0.000356
Chrysene	mg/L	<0.0000755	<0.000792	<0.0000755	<0.0000755	<0.0000755	<0.0000769
Dibenzofuran	mg/L	<0.0000755	0.00200 J	<0.0000755	<0.0000755	<0.0000755	<0.0000769
Di-n-butylphthalate (DBP)	mg/L	<0.000104	<0.00109	0.000117 J	<0.000104	<0.000104	<0.0000834
Fluoranthene	mg/L	<0.0000660	<0.000693	<0.0000660	0.000117 J	<0.0000660	<0.0000673
Fluorene	mg/L	<0.0000660	0.00102 J	<0.0000660	<0.0000660	<0.0000660	<0.0000673
Naphthalene	mg/L	<0.0000755	0.374	<0.0000755	0.000529 J	0.000367 J	<0.0000711
Nitrobenzene	mg/L	<0.000104	<0.00109	<0.000104	<0.000104	<0.000104	<0.000106
N-Nitrosodiphenylamine	mg/L	<0.0000943	<0.000990	<0.0000943	<0.0000943	<0.0000943	<0.0000962
Pentachlorophenol	mg/L	<0.000575	<0.00604	<0.000575	<0.000575	<0.000575	<0.000587
Phenanthrene	mg/L	<0.0000566	0.00133 J	<0.0000566	0.000294 J	0.000132 J	<0.0000377
Phenol	mg/L	<0.0000377	0.000889 J	<0.0000377	<0.0000377	<0.0000377	<0.0000385
Pyrene	mg/L	<0.000104	<0.00109	<0.000104	<0.000104	<0.000104	<0.000106

TABLE 2

ANALYTICAL RESULTS SUMMARY
SEMIANNUAL GROUNDWATER MONITORING
UNION PACIFIC RAILROAD (UPRR) - 1620 WOOD PRESERVING WORKS
HOUSTON, TEXAS
JANUARY 2014

<i>Sample Location:</i>		<i>MW-68B</i>	<i>MW-68B</i>	<i>MW-68C</i>	<i>MW-69A</i>	<i>MW-70B</i>	<i>MW-71B</i>
<i>Sample ID:</i>		WG-1620-MW68B-20140122	WG-1620-DUP2-20140122	WG-1620-MW68C-20140122	WG-1620-MW69A-20140124	WG-1620-MW70B-20140122	WG-1620-MW71B-20140124
<i>Sample Date:</i>		1/22/2014	1/22/2014 <i>Duplicate</i>	1/22/2014	1/24/2014	1/22/2014	1/24/2014
<i>Parameters</i>	<i>Units</i>						
<i>Volatile Organic Compounds</i>							
1,2-Dichloroethane	mg/L	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200
Benzene	mg/L	1.50	1.51	0.00225	<0.000200	2.39	0.0390
Chlorobenzene	mg/L	0.000454 J	0.000468 J	<0.000180	<0.000180	0.000715	<0.000180
Ethylbenzene	mg/L	0.364	0.363	0.000240 J	<0.000190	0.621	0.00793
Methylene chloride	mg/L	<0.000220	<0.000220	<0.000220	<0.000220	<0.000220	<0.000220
Toluene	mg/L	0.329	0.329	0.000590	<0.000170	2.31	0.00918
Vinyl chloride	mg/L	-	-	-	<0.000180	-	-
Xylenes (total)	mg/L	0.857	0.862	<0.000580	<0.000580	1.68	0.0202
<i>Semi-volatile Organic Compounds</i>							
1,2-Diphenylhydrazine	mg/L	<0.0105	<0.0105	<0.000105	<0.000106	<0.0157	<0.000106
2,4-Dimethylphenol	mg/L	0.536	0.457 J	0.000454 J	<0.000298	72.0	0.0225
2,4-Dinitrotoluene	mg/L	<0.0124	<0.0124	<0.000124	<0.000125	<0.0186	<0.000125
2,6-Dinitrotoluene	mg/L	<0.00762	<0.00762	<0.0000762	<0.0000769	<0.0114	<0.0000769
2-Chloronaphthalene	mg/L	<0.00762	<0.00762	<0.0000762	<0.0000769	<0.0114	<0.0000769
2-Methylnaphthalene	mg/L	1.10	1.19	0.00331	<0.0000673	1.40	0.0476
4,6-Dinitro-2-methylphenol	mg/L	<0.00790	<0.00790	<0.000790	<0.000798	<0.119	<0.000798
4-Nitrophenol	mg/L	<0.0533	<0.0533	<0.000533	<0.000538	<0.0800	<0.000538
Acenaphthene	mg/L	0.263	0.260	0.00183	<0.0000769	0.454	0.0212
Acenaphthylene	mg/L	<0.00571	<0.00571	<0.0000571	<0.0000577	<0.00857	0.00122
Anthracene	mg/L	0.0428 J	0.0292 J	0.00106	0.000497	0.0423 J	0.00198
Benzo(a)anthracene	mg/L	0.0123 J	<0.00762 J	0.000276 J	<0.0000769	<0.0114	<0.0000769
Benzo(a)pyrene	mg/L	<0.00762	<0.00762	0.000171 J	<0.0000769	<0.0114	<0.0000769
bis(2-Chloroethoxy)methane	mg/L	<0.0124	<0.0124	<0.000124	<0.000125	<0.0186	<0.000125
bis(2-Ethylhexyl)phthalate (DEHP)	mg/L	<0.0352	<0.0352	<0.000352	<0.000356	<0.0529	<0.000356
Chrysene	mg/L	0.00806 J	0.00976 J	0.000301 J	<0.0000769	<0.0114	<0.0000769
Dibenzofuran	mg/L	0.284	0.276	0.00192	<0.0000769	0.355	0.0175
Di-n-butylphthalate (DBP)	mg/L	<0.0105	<0.0105	<0.000105	<0.000855	<0.0157	<0.000850
Fluoranthene	mg/L	0.0520	0.0357 J	0.00233	<0.0000673	0.0105 J	0.000712
Fluorene	mg/L	0.149	0.143	0.00167	<0.0000673	0.217	0.0104
Naphthalene	mg/L	17.0	17.6	0.0112	<0.000713	30.1	0.504
Nitrobenzene	mg/L	<0.0105	<0.0105	<0.000105	<0.000106	<0.0157	<0.000106
N-Nitrosodiphenylamine	mg/L	<0.00952	<0.00952	<0.0000952	<0.0000962	<0.0143	<0.0000962
Pentachlorophenol	mg/L	<0.0581	<0.0581	<0.000581	<0.000587	<0.0871	<0.000587
Phenanthrene	mg/L	0.263	0.196	0.00585	<0.000390	0.175	0.00677
Phenol	mg/L	0.0862	0.0929	<0.0000381	<0.0000385	3.86	<0.0000385
Pyrene	mg/L	0.0341 J	0.0227 J	0.00140	<0.000106	<0.0157	0.000353 J

TABLE 2

ANALYTICAL RESULTS SUMMARY
SEMIANNUAL GROUNDWATER MONITORING
UNION PACIFIC RAILROAD (UPRR) - 1620 WOOD PRESERVING WORKS
HOUSTON, TEXAS
JANUARY 2014

<i>Sample Location:</i>	<i>MW-72B</i>	<i>MW-73B</i>	<i>MW-74B</i>	<i>MW-75B</i>	<i>P-11</i>	<i>TW-41B</i>
<i>Sample ID:</i>	WG-1620-MW72B-20140115	WG-1620-MW73B-20140115	WG-1620-MW74B-20140129	WG-1620-MW75B-20140129	WG-1620-P11-20140115	WG-1620-TW41B-20140116
<i>Sample Date:</i>	1/15/2014	1/15/2014	1/29/2014	1/29/2014	1/15/2014	1/16/2014
<i>Parameters</i>	<i>Units</i>					
<i>Volatile Organic Compounds</i>						
1,2-Dichloroethane	mg/L	<0.000200	<0.000200	<0.000700	<0.000700	<0.000200
Benzene	mg/L	0.932	<0.000200	0.795	0.502	0.000207 J
Chlorobenzene	mg/L	0.000290 J	<0.000180	<0.000600	<0.000600	<0.000180
Ethylbenzene	mg/L	0.224	0.000437 J	0.203	0.0773	0.000253 J
Methylene chloride	mg/L	<0.000220	<0.000220	<0.000750	<0.000750	<0.000220
Toluene	mg/L	0.724	0.000575	0.774	0.328	<0.000170
Vinyl chloride	mg/L	-	-	-	-	-
Xylenes (total)	mg/L	0.661	0.00133 J	0.553	0.276	<0.000580
<i>Semi-volatile Organic Compounds</i>						
1,2-Diphenylhydrazine	mg/L	<0.156	<0.000104	<0.208	<0.0519	<0.000104
2,4-Dimethylphenol	mg/L	182 JH	0.000946 JH	525	6.35	<0.000292
2,4-Dinitrotoluene	mg/L	<0.184	<0.000123	<0.245	<0.0613	<0.000123
2,6-Dinitrotoluene	mg/L	<0.113	<0.0000755	<0.151	<0.0377	<0.0000755
2-Chloronaphthalene	mg/L	<0.113	<0.0000755	<0.151	<0.0377	<0.0000755
2-Methylnaphthalene	mg/L	3.37	0.0161	5.52	3.18	0.000257 J
4,6-Dinitro-2-methylphenol	mg/L	<1.17	<0.000783	<1.57	<0.392	<0.000783
4-Nitrophenol	mg/L	<0.792	<0.000528	<1.06	<0.264	<0.000528
Acenaphthene	mg/L	1.60	0.0112	2.40	2.57	0.00951
Acenaphthylene	mg/L	<0.0849	<0.0000566	<0.113	0.0672 J	<0.0000566
Anthracene	mg/L	0.179 J	0.00462	0.282 J	0.605	0.000930
Benzo(a)anthracene	mg/L	<0.113	0.00131	<0.151	0.0667 J	<0.0000755
Benzo(a)pyrene	mg/L	<0.113	0.000390 J	<0.151	<0.0377	<0.0000755
bis(2-Chloroethoxy)methane	mg/L	<0.184	<0.000123	<0.245	<0.0613	<0.000123
bis(2-Ethylhexyl)phthalate (DEHP)	mg/L	<0.524	0.00150 J	<0.698	<0.175	0.00403
Chrysene	mg/L	<0.113	0.00119	<0.151	0.0704 J	<0.0000755
Dibenzofuran	mg/L	1.21	0.0102	1.84	1.56	0.00103
Di-n-butylphthalate (DBP)	mg/L	<0.156	0.000169 J	<0.208	<0.0519	<0.000104
Fluoranthene	mg/L	<0.0991	0.00937	<0.132	0.708	0.000206 J
Fluorene	mg/L	0.700 J	0.00951	1.34	1.59	0.00264
Naphthalene	mg/L	82.8	0.0906	139	27.1	0.0554
Nitrobenzene	mg/L	<0.156	<0.000104	<0.208	<0.0519	<0.000104
N-Nitrosodiphenylamine	mg/L	<0.142	<0.0000943	<0.189	<0.0472	<0.0000943
Pentachlorophenol	mg/L	<0.863	<0.000575	<1.15	<0.288	<0.000575
Phenanthrene	mg/L	0.760	0.0348	1.28	2.13	0.00189
Phenol	mg/L	31.4	0.000522	420	0.108 J	<0.0000377
Pyrene	mg/L	<0.156	0.00725	<0.208	0.416	0.000274 J

Notes:

J - Estimated concentration
 JH - Estimated concentration; biased high
 JL - Estimated concentration; biased low
 R - Rejected

TABLE 3
ANALYTICAL METHODS AND HOLDING TIME CRITERIA
SEMIANNUAL GROUNDWATER MONITORING
UNION PACIFIC RAILROAD (UPRR) - 1620 WOOD PRESERVING WORKS
HOUSTON, TEXAS
JANUARY 2014

<i>Parameter</i>	<i>Method</i>	<i>Matrix</i>	<i>Holding Time</i>	
			<i>Collection to Extraction (Days)</i>	<i>Extraction to Analysis (Days)</i>
VOCs	SW-846 8260B	Water	-	14
SVOCs	SW-846 8270C LL	Water	7	40

Notes

- SW-846 - "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW-846, Third Edition, 1986, with subsequent revisions
VOCs - Volatile Organic Compounds
SVOCs - Semi-volatile Organic Compounds

TABLE 4

QUALIFIED SAMPLE RESULTS DUE TO ANALYTE CONCENTRATIONS IN THE METHOD BLANKS
SEMIANNUAL GROUNDWATER MONITORING
UNION PACIFIC RAILROAD (UPRR) - 1620 WOOD PRESERVING WORKS
HOUSTON, TEXAS
JANUARY 2014

<i>Parameter</i>	<i>Analyte</i>	<i>Analysis Date</i>	<i>Blank Result *</i>	<i>Sample ID</i>	<i>Original Result</i>	<i>Qualified Result</i>	<i>Units</i>
SVOCs	Anthracene	1/30/2014	0.0004426 J	WG-1620-MW13-20140114	0.00118	<0.00118	mg/L
	Anthracene	1/28/2014		WG-1620-MW14-20140114	0.000179 J	<0.000179	mg/L
	Anthracene	1/28/2014		WG-1620-MW39B-20140114	0.00101 J	<0.00101	mg/L
SVOCs	Naphthalene	1/28/2014	0.0007696 J	WG-1620-MW12C-20140114	0.000853 J	<0.000853	mg/L
	Naphthalene	1/30/2014		WG-1620-MW13-20140114	0.00126 J	<0.00126	mg/L
	Naphthalene	1/28/2014		WG-1620-MW14-20140114	0.00183 J	<0.00183	mg/L
	Naphthalene	1/28/2014		WG-1620-MW15C-20140114	0.00182 J	<0.00182	mg/L
SVOCs	Naphthalene	2/1/2014	0.0002811 J	WG-1620-FB6-20140121	0.0000799 J	<0.0000799	mg/L
	Naphthalene	2/1/2014		WG-1620-FB7-20140122	0.000476 J	<0.000476	mg/L
	Naphthalene	2/1/2014		WG-1620-MW25A-20140122	0.000217 J	<0.000217	mg/L
	Naphthalene	2/1/2014		WG-1620-MW26A-20140122	0.000924 J	<0.000924	mg/L
	Naphthalene	2/1/2014		WG-1620-MW28A-20140122	0.000400 J	<0.000400	mg/L
	Naphthalene	2/1/2014		WG-1620-MW28C-20140122	0.000596 J	<0.000596	mg/L
SVOCs	Phenanthrene	1/28/2014	0.0003871 J	WG-1620-MW12C-20140114	0.0000872 J	<0.0000872	mg/L
	Phenanthrene	1/28/2014		WG-1620-MW14-20140114	0.000591	<0.000591	mg/L
	Phenanthrene	1/30/2014		WG-1620-MW19C-20140115	0.000265 J	<0.000265	mg/L

Notes

SVOCs - Semi-volatile Organic Compounds

J - Estimated concentration

TABLE 5

**QUALIFIED SAMPLE DATA DUE TO ANALYTE CONCENTRATIONS IN THE FIELD BLANKS
SEMIANNUAL GROUNDWATER MONITORING
UNION PACIFIC RAILROAD (UPRR) - 1620 WOOD PRESERVING WORKS
HOUSTON, TEXAS
JANUARY 2014**

<i>Parameter</i>	<i>Field Blank ID</i>	<i>Blank Date</i>	<i>Analyte</i>	<i>Blank Result</i>	<i>Associated Sample ID</i>	<i>Original Result</i>	<i>Qualified Result</i>	<i>Units</i>
SVOCs	WG-1620-FB4-20140116	01/16/14	2-Methylnaphthalene	0.000200 J	WG-1620-DUP1-20140116	0.000187 J	<0.000187	mg/L
					WG-1620-MW21C-20140116	0.000157 J	<0.000157	mg/L
					WG-1620-MW59A-20140116	0.0000902 J	<0.0000902	mg/L
					WG-1620-TW41B-20140116	0.0000846 J	<0.0000846	mg/L
			Acenaphthene	0.0000782 J	WG-1620-MW36B-20140116	0.000271 J	<0.000271	mg/L
					WG-1620-MW21C-20140116	0.000254 J	<0.000254	mg/L
					WG-1620-MW59A-20140116	0.0000831 J	<0.0000831	mg/L
					WG-1620-MW36A-20140116	0.0000867 J	<0.0000867	mg/L
			Dibenzofuran	0.000153 J	WG-1620-DUP1-20140116	0.000456 J	<0.000456	mg/L
					WG-1620-MW21C-20140116	0.000258 J	<0.000258	mg/L
					WG-1620-MW59A-20140116	0.000136 J	<0.000136	mg/L
					WG-1620-MW36B-20140116	0.000409 J	<0.000409	mg/L
			Naphthalene	0.000979 J	WG-1620-DUP1-20140116	0.000421 J	<0.000421	mg/L
					WG-1620-MW59A-20140116	0.000381 J	<0.000381	mg/L
					WG-1620-MW59B-20140116	0.000172 J	<0.000172	mg/L
					WG-1620-TW41B-20140116	0.000259 J	<0.000259	mg/L
Phenanthrene	0.000136 J	WG-1620-MW59A-20140116	0.000587	<0.000587	mg/L			
		WG-1620-MW59B-20140116	0.000112 J	<0.000112	mg/L			
		WG-1620-TW41B-20140116	0.000176 J	<0.000176	mg/L			
		WG-1620-MW36A-20140116	0.000201 J	<0.000201	mg/L			
SVOCs	WG-1620-FB6-20140121	1/21/2014	Acenaphthylene	0.00158	WG-1620-MW32AR-20140121	0.000317 J	<0.000317	mg/L
					WG-1620-MW33BR-20140121	0.000679 J	<0.000679	mg/L
			Naphthalene	0.0000799 J	WG-1620-MW38A-20140121	0.000146 J	<0.000146	mg/L
SVOCs	WG-1620-FB7-20140122	1/22/2014	Naphthalene		WG-1620-MW53C-20140122	0.00212 J	<0.00212	mg/L

TABLE 5

QUALIFIED SAMPLE DATA DUE TO ANALYTE CONCENTRATIONS IN THE FIELD BLANKS
SEMIANNUAL GROUNDWATER MONITORING
UNION PACIFIC RAILROAD (UPRR) - 1620 WOOD PRESERVING WORKS
HOUSTON, TEXAS
JANUARY 2014

<i>Parameter</i>	<i>Field Blank ID</i>	<i>Blank Date</i>	<i>Analyte</i>	<i>Blank Result</i>	<i>Associated Sample ID</i>	<i>Original Result</i>	<i>Qualified Result</i>	<i>Units</i>
SVOCs	WG-1620-FB8-20140123	1/23/2014	Anthracene	0.000419 J	WG-1620-MW59D-20140123	0.000425 J	<0.000425	mg/L
					WG-1620-MW22A-20140123	0.000939	<0.000939	mg/L
					WG-1620-MW22B-20140123	0.00146	<0.00146	mg/L
			Anthracene	0.000419 J	WG-1620-MW-24AR-20140123	0.000452 J	<0.000452	mg/L
					WG-1620-MW61A-20140123	0.000434 J	<0.000434	mg/L
					WG-1620-MW-67B-20140123	0.000424 J	<0.000424	mg/L
			Di-n-butylphthalate (DBP)	0.000830 J	WG-1620-MW22A-20140123	0.000866 J	<0.000866	mg/L
					WG-1620-MW22B-20140123	0.000873 J	<0.000873	mg/L
					WG-1620-MW-24AR-20140123	0.000837 J	<0.000837	mg/L
					WG-1620-MW54C-20140123	0.000824 J	<0.000824	mg/L
					WG-1620-DUP3-20140123	0.000827 J	<0.000827	mg/L
					WG-1620-MW59D-20140123	0.000825 J	<0.000825	mg/L
					WG-1620-MW61A-20140123	0.000827 J	<0.000827	mg/L
					WG-1620-MW-67B-20140123	0.000834 J	<0.000834	mg/L
					Naphthalene	0.000887 J	WG-1620-MW22A-20140123	0.00340 J
			WG-1620-MW-24AR-20140123	0.000744 J			<0.000744	mg/L
			WG-1620-DUP3-20140123	0.000796 J			<0.000796	mg/L
			WG-1620-MW59D-20140123	0.000727 J			<0.000727	mg/L
			WG-1620-MW61A-20140123	0.000668 J			<0.000668	mg/L
			WG-1620-MW-67B-20140123	0.000711 J			<0.000711	mg/L
			Phenanthrene	0.000376 J	WG-1620-MW22A-20140123	0.000478 J	<0.000478	mg/L
					WG-1620-MW22B-20140123	0.000562	<0.000562	mg/L
					WG-1620-MW-24AR-20140123	0.000691	<0.000691	mg/L
					WG-1620-DUP3-20140123	0.000464 J	<0.000464	mg/L
WG-1620-MW59D-20140123	0.000455 J	<0.000455			mg/L			
WG-1620-MW61A-20140123	0.000460 J	<0.000460			mg/L			
WG-1620-MW-67B-20140123	0.000377 J	<0.000377			mg/L			

TABLE 5

QUALIFIED SAMPLE DATA DUE TO ANALYTE CONCENTRATIONS IN THE FIELD BLANKS
SEMIANNUAL GROUNDWATER MONITORING
UNION PACIFIC RAILROAD (UPRR) - 1620 WOOD PRESERVING WORKS
HOUSTON, TEXAS
JANUARY 2014

<i>Parameter</i>	<i>Field Blank ID</i>	<i>Blank Date</i>	<i>Analyte</i>	<i>Blank Result</i>	<i>Associated Sample ID</i>	<i>Original Result</i>	<i>Qualified Result</i>	<i>Units</i>		
SVOCs	WG-1620-FB9-20140124	1/24/2014	Di-n-butylphthalate (DBP)	0.000854 J	WG-1620-MW27C-20140124	0.000851 J	<0.000851	mg/L		
					WG-1620-MW35A-20140124	0.000838 J	<0.000838	mg/L		
						WG-1620-MW69A-20140124	0.000855 J	<0.000855	mg/L	
					0.000854 J	WG-1620-MW71B-20140124	0.000850 J	<0.000850	mg/L	
					Naphthalene	0.000693 J	WG-1620-MW27C-20140124	0.000953 J	<0.000953	mg/L
						WG-1620-MW69A-20140124	0.000713 J	<0.000713	mg/L	
					Phenanthrene	0.000387 J	WG-1620-MW27C-20140124	0.000406 J	<0.000406	mg/L
							WG-1620-MW35A-20140124	0.000848	<0.000848	mg/L
							WG-1620-MW69A-20140124	0.000390 J	<0.000390	mg/L

Notes:

SVOCs - Semi-volatile Organic Compounds

J - Estimated concentration

TABLE 6

QUALIFIED SAMPLE DATA DUE TO OUTLYING OF SURROGATE RECOVERIES
SEMIANNUAL GROUNDWATER MONITORING
UNION PACIFIC RAILROAD (UPRR) - 1620 WOOD PRESERVING WORKS
HOUSTON, TEXAS
JANUARY 2014

<i>Parameter</i>	<i>Sample ID</i>	<i>Surrogate</i>	<i>Surrogate Recovery (percent)</i>	<i>Control Limits (percent)</i>	<i>Analyte</i>	<i>Qualified Result</i>	<i>Units</i>
SVOCs	WG-1620-MW47C-20140117	2,4,6-Tribromophenol	2	44-123	1,2-Diphenylhydrazine	R	
		2-Fluorophenol	0	18-120	2,4-Dimethylphenol	R	
		Phenol-d5	1	12-128	2,4-Dinitrotoluene	R	
					2,6-Dinitrotoluene	R	
					2-Chloronaphthalene	R	
		2-Methylnaphthalene	R				
		4,6-Dinitro-2-methylphenol	R				
		4-Nitrophenol	R				
		Acenaphthene	R				
		Acenaphthylene	R				
		Anthracene	R				
		Benzo(a)anthracene	R				
		Benzo(a)pyrene	R				
		bis(2-Chloroethoxy)methane	R				
		bis(2-Ethylhexyl)phthalate (DEHP)	R				
		Chrysene	R				
		Dibenzofuran	R				
		Di-n-butylphthalate (DBP)	R				
		Fluoranthene	0.0000718	JL	mg/L		
		Fluorene	R				
Naphthalene	0.000297	JL	mg/L				
Nitrobenzene	R						
N-Nitrosodiphenylamine	R						
Pentachlorophenol	R						
Phenanthrene	0.000185	JL	mg/L				
Phenol	R						
Pyrene	R						

Notes:

- SVOCs - Semi-volatile Organic Compounds
R - Rejected
JL - Estimated concentration; biased low

TABLE 7

QUALIFIED SAMPLE RESULTS DUE TO OUTLYING LABORATORY CONTROL SAMPLE RESULTS
 SEMIANNUAL GROUNDWATER MONITORING
 UNION PACIFIC RAILROAD (UPRR) - 1620 WOOD PRESERVING WORKS
 HOUSTON, TEXAS
 JANUARY 2014

<i>Parameter</i>	<i>Analyte</i>	<i>LCS Date</i>	<i>LCS (percent)</i>	<i>Control Limits (percent)</i>	<i>Associated Sample ID</i>	<i>Qualified Results</i>	<i>Units</i>
SVOCs	Phenol	2/4/2014	118	11-112	WG-1620-MW35B-20140124	0.129 JH	mg/L
					WG-1620-DUP4-20140123	0.108 JH	mg/L
					WG-1620-MW33A-20140123	0.203 JH	mg/L

Notes:

- LCS -Laboratory Control Sample
- SVOCs - Semi-volatile Organic Compounds
- JH - Estimated concentration; biased high

TABLE 8

QUALIFIED SAMPLE RESULTS DUE TO OUTLYING LABORATORY CONTROL SAMPLE/LABORATORY CONTROL SAMPLE DUPLICATE RESULTS
 SEMIANNUAL GROUNDWATER MONITORING
 UNION PACIFIC RAILROAD (UPRR) - 1620 WOOD PRESERVING WORKS
 HOUSTON, TEXAS
 JANUARY 2014

Parameter	Analyte	LCS Date	LCS % Recovery	LCSD % Recovery	RPD (percent)	Control Limits		Associated Sample ID	Qualified Result	Units
						% Recovery	RPD			
SVOCs	2,4-Dimethylphenol	1/28/2014	121	117	4	36-109	20	WG-1620-MW42B-20140115	0.000916 JH	mg/L
								WG-1620-MW73B-20140115	0.000946 JH	mg/L
								WG-1620-MW49A-20140116	2.10 JH	mg/L
								WG-1620-MW49B-20140116	4.96 JH	mg/L
								WG-1620-MW57A-20140115	7.91 JH	mg/L
								WG-1620-MW57B-20140115	19.8 JH	mg/L
								WG-1620-MW72B-20140115	182 JH	mg/L

Notes

- LCS -Laboratory Control Sample
- LCSD -Laboratory Control Sample Duplicate
- RPD -Relative Percent Difference
- SVOCs - Semi-volatile Organic Compounds
- JH - Estimated concentration; biased high

TABLE 9
QUALIFIED SAMPLE DATA DUE TO VARIABILITY IN FIELD DUPLICATE RESULTS
SEMIANNUAL GROUNDWATER MONITORING
UNION PACIFIC RAILROAD (UPRR) - 1620 WOOD PRESERVING WORKS
HOUSTON, TEXAS
JANUARY 2014

<i>Parameter</i>	<i>Analyte</i>	<i>RPD/Diff</i>	<i>Sample ID</i>	<i>Qualified Result</i>	<i>Field Duplicate Sample ID</i>	<i>Qualified Result</i>	<i>Units</i>
SVOCs	Acenaphthene	47	WG-1620-MW21C-20140116	<0.000254 J	WG-1620-DUP1-20140116	0.000413 J	mg/L
	Anthracene	72		0.000243 J		0.000518 J	mg/L
	Chrysene	47		0.0000812 J		0.000132 J	mg/L
	Dibenzofuran	55		0.000258 J		0.000456 J	mg/L
	Fluoranthene	48		0.000528 J		0.000866 J	mg/L
	Fluorene	83		0.000291 J		0.000705 J	mg/L
	Phenanthrene	61		0.00128 J		0.00242 J	mg/L
	Pyrene	35		0.000355 J		0.000508 J	mg/L
SVOCs	benzo(a)anthracen	46	WG-1620-MW68B-20140122	0.0123 J	WG-1620-DUP2-20140122	<0.00762 J	mg/L
	Pyrene	40		0.0341 J		0.0227 J	mg/L
		200				0.0341 J	mg/L
SVOCs	Fluorene	42	WG-1620-MW33A-20140123	0.145 J	WG-1620-DUP4-20140123	0.0939 J	mg/L
	Phenol	61		0.203 J		0.108 J	mg/L

Notes:

- Diff - Difference (i.e. >1X RL for waters)
- RPD - Relative Percent Difference
- SVOCs - Semi-volatile Organic Compounds
- J - Estimated concentration

APPENDIX B

LABORATORY DATA

[Available Upon Request]

APPENDIX C
LABORATORY NELAP CERTIFICATE



Texas Commission on Environmental Quality



NELAP - Recognized Laboratory Fields of Accreditation

TestAmerica Laboratories, Inc. - Houston

6310 Rothway Drive
Houston, TX 77040-5056

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Expiration Date: 10/31/2014
Issue Date: 11/1/2013

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Matrix: *Non-Potable Water*

Method	Analyte	AB	Analyte ID	Method ID
EPA 1010	Ignitability	TX	1780	10116606
EPA 110.2	Color	TX	1605	10005604
EPA 120.1	Conductivity	TX	1610	10006403
EPA 130.2	Total hardness as CaCO ₃	TX	1755	10007202
EPA 1311	TCLP	TX	849	10118806
EPA 1312	SPLP	TX	850	10119003
EPA 150.1	pH	TX	1900	10008409
EPA 160.1	Residue-filterable (TDS)	TX	1955	10009208
EPA 160.2	Residue-nonfilterable (TSS)	TX	1960	10009606
EPA 160.3	Residue-total (total solids)	TX	1950	10010001
EPA 1664		AB	Analyte ID	Method ID



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Matrix: *Non-Potable Water*

n-Hexane Extractable Material (HEM) (O&G)	TX	1803	10127807
Silica Gel Treated n-Hexane Extractable Material (SGT-HEM)	TX	10220	10127807

Method EPA 180.1

Analyte	AB	Analyte ID	Method ID
Turbidity	TX	2055	10011606

Method EPA 200.7

Analyte	AB	Analyte ID	Method ID
Aluminum	TX	1000	10013806
Antimony	TX	1005	10013806
Arsenic	TX	1010	10013806
Barium	TX	1015	10013806
Beryllium	TX	1020	10013806
Boron	TX	1025	10013806
Cadmium	TX	1030	10013806
Calcium	TX	1035	10013806
Chromium	TX	1040	10013806
Cobalt	TX	1050	10013806
Copper	TX	1055	10013806
Iron	TX	1070	10013806
Lead	TX	1075	10013806
Magnesium	TX	1085	10013806
Manganese	TX	1090	10013806
Molybdenum	TX	1100	10013806
Nickel	TX	1105	10013806
Potassium	TX	1125	10013806
Selenium	TX	1140	10013806
Silver	TX	1150	10013806
Sodium	TX	1155	10013806
Strontium	TX	1160	10013806
Thallium	TX	1165	10013806
Tin	TX	1175	10013806



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Matrix: *Non-Potable Water*

Titanium	TX	1180	10013806
Vanadium	TX	1185	10013806
Zinc	TX	1190	10013806
Method EPA 245.1			
Analyte	AB	Analyte ID	Method ID
Mercury	TX	1095	10036609
Method EPA 300.0			
Analyte	AB	Analyte ID	Method ID
Bromide	TX	1540	10053006
Chloride	TX	1575	10053006
Fluoride	TX	1730	10053006
Nitrate as N	TX	1810	10053006
Nitrate-nitrite	TX	1820	10053006
Nitrite as N	TX	1840	10053006
Sulfate	TX	2000	10053006
Method EPA 305.1			
Analyte	AB	Analyte ID	Method ID
Acidity, as CaCO ₃	TX	1500	10054203
Method EPA 310.1			
Analyte	AB	Analyte ID	Method ID
Alkalinity as CaCO ₃	TX	1505	10054805
Method EPA 330.4			
Analyte	AB	Analyte ID	Method ID
Total residual chlorine	TX	1940	10059208
Method EPA 335.1			
Analyte	AB	Analyte ID	Method ID
Amenable cyanide	TX	1510	10060001
Method EPA 335.4			
Analyte	AB	Analyte ID	Method ID
Total cyanide	TX	1645	10061402



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Matrix: *Non-Potable Water*

Method	Analyte	AB	Analyte ID	Method ID
Method EPA 350.1				
	Ammonia as N	TX	1515	10063408
Method EPA 351.2				
	Kjeldahl nitrogen - total (TKN)	TX	1795	10065200
Method EPA 353.2				
	Nitrate as N	TX	1810	10067400
	Nitrate-nitrite	TX	1820	10067400
Method EPA 365.2				
	Orthophosphate as P	TX	1870	10070403
	Phosphorus	TX	1910	10070403
Method EPA 377.1				
	Sulfite	TX	2015	10075000
Method EPA 405.1				
	Biochemical oxygen demand (BOD)	TX	1530	10075602
Method EPA 415.1				
	Total Organic Carbon (TOC)	TX	2040	10078407
Method EPA 420.4				
	Total phenolics	TX	1905	10080203
Method EPA 425.1				
	Surfactants - MBAS	TX	2025	10080601
Method EPA 6010				
	Aluminum	TX	1000	10155609



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Matrix: *Non-Potable Water*

Antimony	TX	1005	10155609
Arsenic	TX	1010	10155609
Barium	TX	1015	10155609
Beryllium	TX	1020	10155609
Boron	TX	1025	10155609
Cadmium	TX	1030	10155609
Calcium	TX	1035	10155609
Chromium	TX	1040	10155609
Cobalt	TX	1050	10155609
Copper	TX	1055	10155609
Iron	TX	1070	10155609
Lead	TX	1075	10155609
Magnesium	TX	1085	10155609
Manganese	TX	1090	10155609
Molybdenum	TX	1100	10155609
Nickel	TX	1105	10155609
Potassium	TX	1125	10155609
Selenium	TX	1140	10155609
Silver	TX	1150	10155609
Sodium	TX	1155	10155609
Strontium	TX	1160	10155609
Thallium	TX	1165	10155609
Tin	TX	1175	10155609
Titanium	TX	1180	10155609
Vanadium	TX	1185	10155609
Zinc	TX	1190	10155609

Method EPA 602

Analyte	AB	Analyte ID	Method ID
Benzene	TX	4375	10102202
Ethylbenzene	TX	4765	10102202



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Matrix: *Non-Potable Water*

m+p-xylene	TX	5240	10102202
o-Xylene	TX	5250	10102202
Toluene	TX	5140	10102202
Xylene (total)	TX	5260	10102202

Method EPA 608

Analyte	AB	Analyte ID	Method ID
4,4'-DDD	TX	7355	10103603
4,4'-DDE	TX	7360	10103603
4,4'-DDT	TX	7365	10103603
Aldrin	TX	7025	10103603
alpha-BHC (alpha-Hexachlorocyclohexane)	TX	7110	10103603
alpha-Chlordane	TX	7240	10103603
Aroclor-1016 (PCB-1016)	TX	8880	10103603
Aroclor-1221 (PCB-1221)	TX	8885	10103603
Aroclor-1232 (PCB-1232)	TX	8890	10103603
Aroclor-1242 (PCB-1242)	TX	8895	10103603
Aroclor-1248 (PCB-1248)	TX	8900	10103603
Aroclor-1254 (PCB-1254)	TX	8905	10103603
Aroclor-1260 (PCB-1260)	TX	8910	10103603
beta-BHC (beta-Hexachlorocyclohexane)	TX	7115	10103603
Chlordane (tech.)	TX	7250	10103603
delta-BHC (delta-Hexachlorocyclohexane)	TX	7105	10103603
Dieldrin	TX	7470	10103603
Endosulfan I	TX	7510	10103603
Endosulfan II	TX	7515	10103603
Endosulfan sulfate	TX	7520	10103603
Endrin	TX	7540	10103603
Endrin aldehyde	TX	7530	10103603
gamma-BHC (Lindane, gamma-Hexachlorocyclohexane)	TX	7120	10103603
gamma-Chlordane	TX	7245	10103603



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Matrix: *Non-Potable Water*

Heptachlor	TX	7685	10103603
Heptachlor epoxide	TX	7690	10103603
Methoxychlor	TX	7810	10103603
Toxaphene (Chlorinated camphene)	TX	8250	10103603

Method EPA 615

Analyte	AB	Analyte ID	Method ID
2,4,5-T	TX	8655	10105609
2,4-D	TX	8545	10105609
2,4-DB	TX	8560	10105609
Dalapon	TX	8555	10105609
Dicamba	TX	8595	10105609
Dichloroprop (Dichloroprop, Weedone)	TX	8605	10105609
Dinoseb (2-sec-butyl-4,6-dinitrophenol, DNBP)	TX	8620	10105609
MCPA	TX	7775	10105609
MCPP	TX	7780	10105609
Silvex (2,4,5-TP)	TX	8650	10105609

Method EPA 624

Analyte	AB	Analyte ID	Method ID
1,1,1-Trichloroethane	TX	5160	10107207
1,1,2,2-Tetrachloroethane	TX	5110	10107207
1,1,2-Trichloroethane	TX	5165	10107207
1,1-Dichloroethane	TX	4630	10107207
1,1-Dichloroethylene	TX	4640	10107207
1,2-Dibromoethane (EDB, Ethylene dibromide)	TX	4585	10107207
1,2-Dichlorobenzene	TX	4610	10107207
1,2-Dichloroethane (Ethylene dichloride)	TX	4635	10107207
1,2-Dichloropropane	TX	4655	10107207
1,3-Dichlorobenzene	TX	4615	10107207
1,4-Dichlorobenzene	TX	4620	10107207
2-Butanone (Methyl ethyl ketone, MEK)	TX	4410	10107207
2-Chloroethyl vinyl ether	TX	4500	10107207



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Matrix: *Non-Potable Water*

Acetone (2-Propanone)	TX	4315	10107207
Acrolein (Propenal)	TX	4325	10107207
Acrylonitrile	TX	4340	10107207
Benzene	TX	4375	10107207
Bromodichloromethane	TX	4395	10107207
Bromoform	TX	4400	10107207
Carbon tetrachloride	TX	4455	10107207
Chlorobenzene	TX	4475	10107207
Chlorodibromomethane	TX	4575	10107207
Chloroethane (Ethyl chloride)	TX	4485	10107207
Chloroform	TX	4505	10107207
cis-1,3-Dichloropropene	TX	4680	10107207
Ethylbenzene	TX	4765	10107207
m+p-xylene	TX	5240	10107207
Methyl chloride (Chloromethane)	TX	4960	10107207
Methyl tert-butyl ether (MTBE)	TX	5000	10107207
Methylene chloride (Dichloromethane)	TX	4975	10107207
o-Xylene	TX	5250	10107207
Tetrachloroethylene (Perchloroethylene)	TX	5115	10107207
Toluene	TX	5140	10107207
trans-1,2-Dichloroethylene	TX	4700	10107207
trans-1,3-Dichloropropylene	TX	4685	10107207
Trichloroethene (Trichloroethylene)	TX	5170	10107207
Trichlorofluoromethane (Fluorotrichloromethane, Freon 11)	TX	5175	10107207
Vinyl chloride	TX	5235	10107207
Xylene (total)	TX	5260	10107207

Method EPA 625

Analyte	AB	Analyte ID	Method ID
1,2,4,5-Tetrachlorobenzene	TX	6715	10107401
1,2,4-Trichlorobenzene	TX	5155	10107401



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Issue Date: 11/1/2013

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Matrix: *Non-Potable Water*

1,2-Dichlorobenzene	TX	4610	10107401
1,3-Dichlorobenzene	TX	4615	10107401
1,4-Dichlorobenzene	TX	4620	10107401
2,3,4,6-Tetrachlorophenol	TX	6735	10107401
2,4,5-Trichlorophenol	TX	6835	10107401
2,4,6-Trichlorophenol	TX	6840	10107401
2,4-Dichlorophenol	TX	6000	10107401
2,4-Dimethylphenol	TX	6130	10107401
2,4-Dinitrophenol	TX	6175	10107401
2,4-Dinitrotoluene (2,4-DNT)	TX	6185	10107401
2,6-Dinitrotoluene (2,6-DNT)	TX	6190	10107401
2-Chloronaphthalene	TX	5795	10107401
2-Chlorophenol	TX	5800	10107401
2-Methyl-4,6-dinitrophenol (4,6-Dinitro-2-methylphenol)	TX	6360	10107401
2-Methylphenol (o-Cresol)	TX	6400	10107401
2-Nitrophenol	TX	6490	10107401
3,3'-Dichlorobenzidine	TX	5945	10107401
4-Bromophenyl phenyl ether (BDE-3)	TX	5660	10107401
4-Chloro-3-methylphenol	TX	5700	10107401
4-Chlorophenyl phenylether	TX	5825	10107401
4-Methylphenol (p-Cresol)	TX	6410	10107401
4-Nitrophenol	TX	6500	10107401
Acenaphthene	TX	5500	10107401
Acenaphthylene	TX	5505	10107401
Anthracene	TX	5555	10107401
Benzidine	TX	5595	10107401
Benzo(a)anthracene	TX	5575	10107401
Benzo(a)pyrene	TX	5580	10107401
Benzo(b)fluoranthene	TX	5585	10107401
Benzo(g,h,i)perylene	TX	5590	10107401



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NELAP - Recognized Laboratory Fields of Accreditation

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Certificate: T104704223-13-11

Expiration Date: 10/31/2014

Issue Date: 11/1/2013

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Matrix: *Non-Potable Water*

Benzo(k)fluoranthene	TX	5600	10107401
bis(2-Chloroethoxy)methane	TX	5760	10107401
bis(2-Chloroethyl) ether	TX	5765	10107401
bis(2-Chloroisopropyl) ether	TX	5780	10107401
bis(2-Ethylhexyl) phthalate (DEHP)	TX	6255	10107401
Butyl benzyl phthalate	TX	5670	10107401
Chrysene	TX	5855	10107401
Dibenz(a,h) anthracene	TX	5895	10107401
Diethyl phthalate	TX	6070	10107401
Dimethyl phthalate	TX	6135	10107401
Di-n-butyl phthalate	TX	5925	10107401
Di-n-octyl phthalate	TX	6200	10107401
Fluoranthene	TX	6265	10107401
Fluorene	TX	6270	10107401
Hexachlorobenzene	TX	6275	10107401
Hexachlorobutadiene	TX	4835	10107401
Hexachlorocyclopentadiene	TX	6285	10107401
Hexachloroethane	TX	4840	10107401
Indeno(1,2,3-cd) pyrene	TX	6315	10107401
Isophorone	TX	6320	10107401
Naphthalene	TX	5005	10107401
Nitrobenzene	TX	5015	10107401
n-Nitrosodiethylamine	TX	6525	10107401
n-Nitrosodimethylamine	TX	6530	10107401
n-Nitrosodi-n-butylamine	TX	5025	10107401
n-Nitrosodi-n-propylamine	TX	6545	10107401
n-Nitrosodiphenylamine	TX	6535	10107401
Pentachlorophenol	TX	6605	10107401
Phenanthrene	TX	6615	10107401
Phenol	TX	6625	10107401



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Matrix: *Non-Potable Water*

Pyrene	TX	6665	10107401
Pyridine	TX	5095	10107401
Method EPA 7196			
Analyte	AB	Analyte ID	Method ID
Chromium (VI)	TX	1045	10162400
Method EPA 7470			
Analyte	AB	Analyte ID	Method ID
Mercury	TX	1095	10165807
Method EPA 8015			
Analyte	AB	Analyte ID	Method ID
Allyl alcohol	TX	4350	10173601
Diesel range organics (DRO)	TX	9369	10173601
Ethanol	TX	4750	10173601
Ethylene glycol	TX	4785	10173601
Gasoline range organics (GRO)	TX	9408	10173601
Isobutyl alcohol (2-Methyl-1-propanol)	TX	4875	10173601
Isopropanol	TX	4885	10173601
Methanol	TX	4930	10173601
n-Butyl alcohol (1-Butanol, n-Butanol)	TX	4425	10173601
n-Propanol (1-Propanol)	TX	5055	10173601
Method EPA 8021			
Analyte	AB	Analyte ID	Method ID
Benzene	TX	4375	10174808
Ethylbenzene	TX	4765	10174808
m+p-xylene	TX	5240	10174808
Methyl tert-butyl ether (MTBE)	TX	5000	10174808
o-Xylene	TX	5250	10174808
Toluene	TX	5140	10174808
Xylene (total)	TX	5260	10174808
Method EPA 8081			
Analyte	AB	Analyte ID	Method ID



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Matrix: *Non-Potable Water*

4,4'-DDD	TX	7355	10178606
4,4'-DDE	TX	7360	10178606
4,4'-DDT	TX	7365	10178606
Aldrin	TX	7025	10178606
alpha-BHC (alpha-Hexachlorocyclohexane)	TX	7110	10178606
alpha-Chlordane	TX	7240	10178606
beta-BHC (beta-Hexachlorocyclohexane)	TX	7115	10178606
Chlordane (tech.)	TX	7250	10178606
delta-BHC (delta-Hexachlorocyclohexane)	TX	7105	10178606
Dieldrin	TX	7470	10178606
Endosulfan I	TX	7510	10178606
Endosulfan II	TX	7515	10178606
Endosulfan sulfate	TX	7520	10178606
Endrin	TX	7540	10178606
Endrin aldehyde	TX	7530	10178606
Endrin ketone	TX	7535	10178606
gamma-BHC (Lindane, gamma-Hexachlorocyclohexane)	TX	7120	10178606
gamma-Chlordane	TX	7245	10178606
Heptachlor	TX	7685	10178606
Heptachlor epoxide	TX	7690	10178606
Methoxychlor	TX	7810	10178606
Toxaphene (Chlorinated camphene)	TX	8250	10178606

Method EPA 8082

Analyte	AB	Analyte ID	Method ID
Aroclor-1016 (PCB-1016)	TX	8880	10179007
Aroclor-1221 (PCB-1221)	TX	8885	10179007
Aroclor-1232 (PCB-1232)	TX	8890	10179007
Aroclor-1242 (PCB-1242)	TX	8895	10179007
Aroclor-1248 (PCB-1248)	TX	8900	10179007
Aroclor-1254 (PCB-1254)	TX	8905	10179007



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Matrix: Non-Potable Water

Aroclor-1260 (PCB-1260)	TX	8910	10179007
PCBs (total)	TX	8870	10179007
Method EPA 8151			
Analyte	AB	Analyte ID	Method ID
2,4,5-T	TX	8655	10183207
2,4-D	TX	8545	10183207
2,4-DB	TX	8560	10183207
Dalapon	TX	8555	10183207
Dicamba	TX	8595	10183207
Dichloroprop (Dichloroprop, Weedone)	TX	8605	10183207
Dinoseb (2-sec-butyl-4,6-dinitrophenol, DNBP)	TX	8620	10183207
MCPA	TX	7775	10183207
MCPP	TX	7780	10183207
Silvex (2,4,5-TP)	TX	8650	10183207
Method EPA 8260			
Analyte	AB	Analyte ID	Method ID
1,1,1,2-Tetrachloroethane	TX	5105	10184802
1,1,1-Trichloroethane	TX	5160	10184802
1,1,2,2-Tetrachloroethane	TX	5110	10184802
1,1,2-Trichloroethane	TX	5165	10184802
1,1-Dichloroethane	TX	4630	10184802
1,1-Dichloroethylene	TX	4640	10184802
1,1-Dichloropropene	TX	4670	10184802
1,2,3-Trichlorobenzene	TX	5150	10184802
1,2,3-Trichloropropane	TX	5180	10184802
1,2,4-Trichlorobenzene	TX	5155	10184802
1,2,4-Trimethylbenzene	TX	5210	10184802
1,2-Dibromoethane (EDB, Ethylene dibromide)	TX	4585	10184802
1,2-Dichlorobenzene	TX	4610	10184802
1,2-Dichloroethane (Ethylene dichloride)	TX	4635	10184802
1,2-Dichloropropane	TX	4655	10184802



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Matrix: *Non-Potable Water*

1,3,5-Trimethylbenzene	TX	5215	10184802
1,3-Dichlorobenzene	TX	4615	10184802
1,3-Dichloropropane	TX	4660	10184802
1,4-Dichlorobenzene	TX	4620	10184802
1,4-Dioxane (1,4-Diethyleneoxide)	TX	4735	10184802
2,2-Dichloropropane	TX	4665	10184802
2-Butanone (Methyl ethyl ketone, MEK)	TX	4410	10184802
2-Chloroethyl vinyl ether	TX	4500	10184802
2-Chlorotoluene	TX	4535	10184802
2-Hexanone (MBK)	TX	4860	10184802
2-Nitropropane	TX	5020	10184802
2-Propanol	TX	5065	10184802
4-Chlorotoluene	TX	4540	10184802
4-Isopropyltoluene (p-Cymene)	TX	4915	10184802
4-Methyl-2-pentanone (MIBK)	TX	4995	10184802
Acetone (2-Propanone)	TX	4315	10184802
Acetonitrile	TX	4320	10184802
Acrolein (Propenal)	TX	4325	10184802
Acrylonitrile	TX	4340	10184802
Allyl chloride (3-Chloropropene)	TX	4355	10184802
Benzene	TX	4375	10184802
Benzyl chloride	TX	5635	10184802
Bromobenzene	TX	4385	10184802
Bromochloromethane	TX	4390	10184802
Bromodichloromethane	TX	4395	10184802
Bromoform	TX	4400	10184802
Carbon disulfide	TX	4450	10184802
Carbon tetrachloride	TX	4455	10184802
Chlorobenzene	TX	4475	10184802
Chlorodibromomethane	TX	4575	10184802



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Matrix: *Non-Potable Water*

Chloroethane (Ethyl chloride)	TX	4485	10184802
Chloroform	TX	4505	10184802
Chloroprene (2-Chloro-1,3-butadiene)	TX	4525	10184802
cis-1,2-Dichloroethylene	TX	4645	10184802
cis-1,3-Dichloropropene	TX	4680	10184802
Dibromofluoromethane	TX	4590	10184802
Dibromomethane (Methylene bromide)	TX	4595	10184802
Dichlorodifluoromethane (Freon-12)	TX	4625	10184802
Diethyl ether	TX	4725	10184802
Epichlorohydrin (1-Chloro-2,3-epoxypropane)	TX	4745	10184802
Ethyl acetate	TX	4755	10184802
Ethyl methacrylate	TX	4810	10184802
Ethylbenzene	TX	4765	10184802
Ethylene oxide	TX	4795	10184802
Hexachlorobutadiene	TX	4835	10184802
Iodomethane (Methyl iodide)	TX	4870	10184802
Isobutyl alcohol (2-Methyl-1-propanol)	TX	4875	10184802
Isopropylbenzene (Cumene)	TX	4900	10184802
m+p-xylene	TX	5240	10184802
Methacrylonitrile	TX	4925	10184802
Methyl acrylate	TX	4945	10184802
Methyl chloride (Chloromethane)	TX	4960	10184802
Methyl methacrylate	TX	4990	10184802
Methyl tert-butyl ether (MTBE)	TX	5000	10184802
Methylene chloride (Dichloromethane)	TX	4975	10184802
Naphthalene	TX	5005	10184802
n-Butyl alcohol (1-Butanol, n-Butanol)	TX	4425	10184802
n-Butylbenzene	TX	4435	10184802
n-Propylbenzene	TX	5090	10184802
sec-Butylbenzene	TX	4440	10184802



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Matrix: *Non-Potable Water*

Styrene	TX	5100	10184802
tert-Butyl alcohol	TX	4420	10184802
tert-Butylbenzene	TX	4445	10184802
Tetrachloroethylene (Perchloroethylene)	TX	5115	10184802
Toluene	TX	5140	10184802
trans-1,2-Dichloroethylene	TX	4700	10184802
trans-1,3-Dichloropropylene	TX	4685	10184802
trans-1,4-Dichloro-2-butene	TX	4605	10184802
Trichloroethene (Trichloroethylene)	TX	5170	10184802
Trichlorofluoromethane (Fluorotrichloromethane, Freon 11)	TX	5175	10184802
Vinyl acetate	TX	5225	10184802
Vinyl chloride	TX	5235	10184802
Xylene (total)	TX	5260	10184802

Method EPA 8270

Analyte	AB	Analyte ID	Method ID
1,2,4,5-Tetrachlorobenzene	TX	6715	10185805
1,2,4-Trichlorobenzene	TX	5155	10185805
1,2-Dichlorobenzene	TX	4610	10185805
1,2-Dinitrobenzene	TX	6155	10185805
1,2-Diphenylhydrazine	TX	6220	10185805
1,3,5-Trinitrobenzene (1,3,5-TNB)	TX	6885	10185805
1,3-Dichlorobenzene	TX	4615	10185805
1,3-Dinitrobenzene (1,3-DNB)	TX	6160	10185805
1,4-Dichlorobenzene	TX	4620	10185805
1,4-Dinitrobenzene	TX	6165	10185805
1,4-Naphthoquinone	TX	6420	10185805
1,4-Phenylenediamine	TX	6630	10185805
1-Chloronaphthalene	TX	5790	10185805
1-Naphthylamine	TX	6425	10185805
2,3,4,6-Tetrachlorophenol	TX	6735	10185805



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Matrix: *Non-Potable Water*

2,4,5-Trichlorophenol	TX	6835	10185805
2,4,6-Trichlorophenol	TX	6840	10185805
2,4-Diaminotoluene	TX	5880	10185805
2,4-Dichlorophenol	TX	6000	10185805
2,4-Dimethylphenol	TX	6130	10185805
2,4-Dinitrophenol	TX	6175	10185805
2,4-Dinitrotoluene (2,4-DNT)	TX	6185	10185805
2,6-Dichlorophenol	TX	6005	10185805
2,6-Dinitrotoluene (2,6-DNT)	TX	6190	10185805
2-Acetylamino fluorene	TX	5515	10185805
2-Chloronaphthalene	TX	5795	10185805
2-Chlorophenol	TX	5800	10185805
2-Methyl-4,6-dinitrophenol (4,6-Dinitro-2-methylphenol)	TX	6360	10185805
2-Methylaniline (o-Toluidine)	TX	5145	10185805
2-Methylnaphthalene	TX	6385	10185805
2-Methylphenol (o-Cresol)	TX	6400	10185805
2-Naphthylamine	TX	6430	10185805
2-Nitroaniline	TX	6460	10185805
2-Nitrophenol	TX	6490	10185805
2-Picoline (2-Methylpyridine)	TX	5050	10185805
3,3'-Dichlorobenzidine	TX	5945	10185805
3,3'-Dimethoxybenzidine	TX	6100	10185805
3,3'-Dimethylbenzidine	TX	6120	10185805
3-Methylcholanthrene	TX	6355	10185805
3-Methylphenol (m-Cresol)	TX	6405	10185805
3-Nitroaniline	TX	6465	10185805
4-Aminobiphenyl	TX	5540	10185805
4-Bromophenyl phenyl ether (BDE-3)	TX	5660	10185805
4-Chloro-3-methylphenol	TX	5700	10185805
4-Chloroaniline	TX	5745	10185805



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Matrix: *Non-Potable Water*

4-Chlorophenyl phenylether	TX	5825	10185805
4-Dimethyl aminoazobenzene	TX	6105	10185805
4-Methylphenol (p-Cresol)	TX	6410	10185805
4-Nitroaniline	TX	6470	10185805
4-Nitrophenol	TX	6500	10185805
5-Nitro-o-toluidine	TX	6570	10185805
7,12-Dimethylbenz(a) anthracene	TX	6115	10185805
a-a-Dimethylphenethylamine	TX	6125	10185805
Acenaphthene	TX	5500	10185805
Acenaphthylene	TX	5505	10185805
Acetophenone	TX	5510	10185805
Aniline	TX	5545	10185805
Anthracene	TX	5555	10185805
Azobenzene	TX	5562	10185805
Benzidine	TX	5595	10185805
Benzo(a)anthracene	TX	5575	10185805
Benzo(a)pyrene	TX	5580	10185805
Benzo(b)fluoranthene	TX	5585	10185805
Benzo(g,h,i)perylene	TX	5590	10185805
Benzo(k)fluoranthene	TX	5600	10185805
Benzoic acid	TX	5610	10185805
Benzyl alcohol	TX	5630	10185805
Biphenyl	TX	5640	10185805
bis(2-Chloroethoxy)methane	TX	5760	10185805
bis(2-Chloroethyl) ether	TX	5765	10185805
bis(2-Chloroisopropyl) ether	TX	5780	10185805
bis(2-Ethylhexyl) phthalate (DEHP)	TX	6255	10185805
Butyl benzyl phthalate	TX	5670	10185805
Carbazole	TX	5680	10185805
Chlorobenzilate	TX	7260	10185805



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Matrix: *Non-Potable Water*

Chrysene	TX	5855	10185805
Diallate	TX	7405	10185805
Dibenz(a,h) anthracene	TX	5895	10185805
Dibenz(a,j) acridine	TX	5900	10185805
Dibenzo(a,e) pyrene	TX	5890	10185805
Dibenzofuran	TX	5905	10185805
Diethyl phthalate	TX	6070	10185805
Dimethoate	TX	7475	10185805
Dimethyl phthalate	TX	6135	10185805
Di-n-butyl phthalate	TX	5925	10185805
Di-n-octyl phthalate	TX	6200	10185805
Diphenylamine	TX	6205	10185805
Disulfoton	TX	8625	10185805
Ethyl methanesulfonate	TX	6260	10185805
Fluoranthene	TX	6265	10185805
Fluorene	TX	6270	10185805
Hexachlorobenzene	TX	6275	10185805
Hexachlorobutadiene	TX	4835	10185805
Hexachlorocyclopentadiene	TX	6285	10185805
Hexachloroethane	TX	4840	10185805
Hexachloropropene	TX	6295	10185805
Indeno(1,2,3-cd) pyrene	TX	6315	10185805
Isodrin	TX	7725	10185805
Isophorone	TX	6320	10185805
Isosafrole	TX	6325	10185805
Methyl methanesulfonate	TX	6375	10185805
Methyl parathion (Parathion, methyl)	TX	7825	10185805
Naphthalene	TX	5005	10185805
Nitrobenzene	TX	5015	10185805
Nitroquinoline-1-oxide	TX	6515	10185805



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Matrix: Non-Potable Water

n-Nitrosodiethylamine	TX	6525	10185805
n-Nitrosodimethylamine	TX	6530	10185805
n-Nitrosodi-n-butylamine	TX	5025	10185805
n-Nitrosodi-n-propylamine	TX	6545	10185805
n-Nitrosodiphenylamine	TX	6535	10185805
n-Nitrosomethylethylamine	TX	6550	10185805
n-Nitrosomorpholine	TX	6555	10185805
n-Nitrosopiperidine	TX	6560	10185805
n-Nitrosopyrrolidine	TX	6565	10185805
o,o,o-Triethyl phosphorothioate	TX	8290	10185805
Parathion, ethyl	TX	7955	10185805
Pentachlorobenzene	TX	6590	10185805
Pentachloronitrobenzene (PCNB)	TX	6600	10185805
Pentachlorophenol	TX	6605	10185805
Phenacetin	TX	6610	10185805
Phenanthrene	TX	6615	10185805
Phenol	TX	6625	10185805
Phorate	TX	7985	10185805
Pronamide (Kerb)	TX	6650	10185805
Pyrene	TX	6665	10185805
Pyridine	TX	5095	10185805
Safrole	TX	6685	10185805
Thionazin (Zinophos)	TX	8235	10185805

Method EPA 8315

Analyte	AB	Analyte ID	Method ID
Formaldehyde	TX	4815	10188008

Method EPA 9012

Analyte	AB	Analyte ID	Method ID
Amenable cyanide	TX	1510	10193405
Total Cyanide	TX	1635	10193405



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Matrix: *Non-Potable Water*

Method EPA 9034			
Analyte	AB	Analyte ID	Method ID
Sulfide	TX	2005	10196006
Method EPA 9040			
Analyte	AB	Analyte ID	Method ID
pH	TX	1900	10197203
Method EPA 9050			
Analyte	AB	Analyte ID	Method ID
Conductivity	TX	1610	10198808
Method EPA 9056			
Analyte	AB	Analyte ID	Method ID
Bromide	TX	1540	10199209
Chloride	TX	1575	10199209
Fluoride	TX	1730	10199209
Nitrate as N	TX	1810	10199209
Nitrate-nitrite	TX	1820	10199209
Nitrite as N	TX	1840	10199209
Sulfate	TX	2000	10199209
Method EPA 9060			
Analyte	AB	Analyte ID	Method ID
Total Organic Carbon (TOC)	TX	2040	10200201
Method EPA 9066			
Analyte	AB	Analyte ID	Method ID
Total phenolics	TX	1905	10200609
Method EPA RSK 175			
Analyte	AB	Analyte ID	Method ID
Ethane	TX	4747	10212905
Ethene	TX	4752	10212905
Methane	TX	4926	10212905
Method HACH 8000			
Analyte	AB	Analyte ID	Method ID



Texas Commission on Environmental Quality



NELAP - Recognized Laboratory Fields of Accreditation

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Matrix: *Non-Potable Water*

Chemical oxygen demand (COD)	TX	1565	60003001
Method HACH 8507			
Analyte Nitrite as N	AB TX	Analyte ID 1840	Method ID 60004208
Method SM 2120 B			
Analyte Color	AB TX	Analyte ID 1605	Method ID 20223807
Method SM 2130 B			
Analyte Turbidity	AB TX	Analyte ID 2055	Method ID 20042200
Method SM 2310 B (4a)			
Analyte Acidity, as CaCO ₃	AB TX	Analyte ID 1500	Method ID 20002806
Method SM 2320 B			
Analyte Alkalinity as CaCO ₃	AB TX	Analyte ID 1505	Method ID 20045005
Method SM 2340 B			
Analyte Total hardness as CaCO ₃	AB TX	Analyte ID 1755	Method ID 20046008
Method SM 2510 B			
Analyte Conductivity	AB TX	Analyte ID 1610	Method ID 20048004
Method SM 2540 B			
Analyte Residue-total (total solids)	AB TX	Analyte ID 1950	Method ID 20004608
Method SM 2540 C			
Analyte Residue-filterable (TDS)	AB TX	Analyte ID 1955	Method ID 20049803
Method SM 2540 D			
Analyte Residue-nonfilterable (TSS)	AB TX	Analyte ID 1960	Method ID 20004802



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Matrix: *Non-Potable Water*

Method SM 3500-Cr D			
Analyte Chromium (VI)	AB TX	Analyte ID 1045	Method ID 20009001
Method SM 4500-Cl F			
Analyte Total residual chlorine	AB TX	Analyte ID 1940	Method ID 20080482
Method SM 4500-CN ⁻ G			
Analyte Amenable cyanide	AB TX	Analyte ID 1510	Method ID 20021607
Method SM 4500-H+ B			
Analyte pH	AB TX	Analyte ID 1900	Method ID 20104603
Method SM 4500-NH3 G			
Analyte Ammonia as N	AB TX	Analyte ID 1515	Method ID 20023205
Method SM 4500-O G			
Analyte Oxygen, dissolved	AB TX	Analyte ID 1880	Method ID 20025405
Method SM 4500-P E			
Analyte Orthophosphate as P	AB TX	Analyte ID 1870	Method ID 20025803
Phosphorus	TX	1910	20025803
Method SM 4500-S2 ⁻ D			
Analyte Sulfide	AB TX	Analyte ID 2005	Method ID 20125400
Method SM 4500-S2 ⁻ E			
Analyte Sulfide	AB TX	Analyte ID 2005	Method ID 20026408
Method SM 4500-SO3 ⁻ B			
Analyte Sulfite	AB TX	Analyte ID 2015	Method ID 20026806



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Matrix: *Non-Potable Water*

Method SM 5210 B

Analyte	AB	Analyte ID	Method ID
Biochemical oxygen demand (BOD)	TX	1530	20027401
Carbonaceous BOD, CBOD	TX	1555	20027401

Method SM 5310 D

Analyte	AB	Analyte ID	Method ID
Total Organic Carbon (TOC)	TX	2040	20139202

Method SM 5540 C

Analyte	AB	Analyte ID	Method ID
Surfactants - MBAS	TX	2025	20144405

Method TCEQ 1005

Analyte	AB	Analyte ID	Method ID
Total Petroleum Hydrocarbons (TPH)	TX	2050	90019208



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Matrix: *Solid & Chemical Materials*

Method EPA 1010			
Analyte	AB	Analyte ID	Method ID
Ignitability	TX	1780	10116606
Method EPA 1311			
Analyte	AB	Analyte ID	Method ID
TCLP	TX	849	10118806
Method EPA 1312			
Analyte	AB	Analyte ID	Method ID
SPLP	TX	850	10119003
Method EPA 300.0			
Analyte	AB	Analyte ID	Method ID
Bromide	TX	1540	10053006
Chloride	TX	1575	10053006
Fluoride	TX	1730	10053006
Nitrate as N	TX	1810	10053006
Nitrate-nitrite	TX	1820	10053006
Nitrite as N	TX	1840	10053006
Orthophosphate as P	TX	1870	10053006
Sulfate	TX	2000	10053006
Method EPA 350.1			
Analyte	AB	Analyte ID	Method ID
Ammonia as N	TX	1515	10063408
Method EPA 353.2			
Analyte	AB	Analyte ID	Method ID
Nitrate-nitrite	TX	1820	10067604
Method EPA 365.2			
Analyte	AB	Analyte ID	Method ID
Phosphorus	TX	1910	10070403
Method EPA 6010			
Analyte	AB	Analyte ID	Method ID
Aluminum	TX	1000	10155609



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Matrix: *Solid & Chemical Materials*

Antimony	TX	1005	10155609
Arsenic	TX	1010	10155609
Barium	TX	1015	10155609
Beryllium	TX	1020	10155609
Boron	TX	1025	10155609
Cadmium	TX	1030	10155609
Calcium	TX	1035	10155609
Chromium	TX	1040	10155609
Cobalt	TX	1050	10155609
Copper	TX	1055	10155609
Iron	TX	1070	10155609
Lead	TX	1075	10155609
Magnesium	TX	1085	10155609
Manganese	TX	1090	10155609
Molybdenum	TX	1100	10155609
Nickel	TX	1105	10155609
Potassium	TX	1125	10155609
Selenium	TX	1140	10155609
Silica as SiO ₂	TX	1990	10155609
Silver	TX	1150	10155609
Sodium	TX	1155	10155609
Strontium	TX	1160	10155609
Thallium	TX	1165	10155609
Tin	TX	1175	10155609
Titanium	TX	1180	10155609
Vanadium	TX	1185	10155609
Zinc	TX	1190	10155609

Method EPA 7471

Analyte	AB	Analyte ID	Method ID
Mercury	TX	1095	10166208



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Matrix: *Solid & Chemical Materials*

Method EPA 8015

Analyte	AB	Analyte ID	Method ID
Allyl alcohol	TX	4350	10173601
Diesel range organics (DRO)	TX	9369	10173601
Ethanol	TX	4750	10173601
Ethylene glycol	TX	4785	10173601
Gasoline range organics (GRO)	TX	9408	10173601
Isobutyl alcohol (2-Methyl-1-propanol)	TX	4875	10173601
Isopropyl alcohol (2-Propanol, Isopropanol)	TX	4895	10173601
Methanol	TX	4930	10173601
n-Butyl alcohol (1-Butanol, n-Butanol)	TX	4425	10173601
n-Propanol (1-Propanol)	TX	5055	10173601

Method EPA 8021

Analyte	AB	Analyte ID	Method ID
Benzene	TX	4375	10174808
m+p-xylene	TX	5240	10174808
Methyl tert-butyl ether (MTBE)	TX	5000	10174808
o-Xylene	TX	5250	10174808
Toluene	TX	5140	10174808
Xylene (total)	TX	5260	10174808

Method EPA 8081

Analyte	AB	Analyte ID	Method ID
4,4'-DDD	TX	7355	10178606
4,4'-DDE	TX	7360	10178606
4,4'-DDT	TX	7365	10178606
Aldrin	TX	7025	10178606
alpha-BHC (alpha-Hexachlorocyclohexane)	TX	7110	10178606
alpha-Chlordane	TX	7240	10178606
beta-BHC (beta-Hexachlorocyclohexane)	TX	7115	10178606
delta-BHC (delta-Hexachlorocyclohexane)	TX	7105	10178606
Dieldrin	TX	7470	10178606



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Matrix: *Solid & Chemical Materials*

Endosulfan I	TX	7510	10178606
Endosulfan II	TX	7515	10178606
Endosulfan sulfate	TX	7520	10178606
Endrin	TX	7540	10178606
Endrin aldehyde	TX	7530	10178606
Endrin ketone	TX	7535	10178606
gamma-BHC (Lindane, gamma-Hexachlorocyclohexane)	TX	7120	10178606
gamma-Chlordane	TX	7245	10178606
Heptachlor	TX	7685	10178606
Heptachlor epoxide	TX	7690	10178606
Methoxychlor	TX	7810	10178606
Toxaphene (Chlorinated camphene)	TX	8250	10178606

Method EPA 8082

Analyte	AB	Analyte ID	Method ID
Aroclor-1016 (PCB-1016)	TX	8880	10179007
Aroclor-1221 (PCB-1221)	TX	8885	10179007
Aroclor-1232 (PCB-1232)	TX	8890	10179007
Aroclor-1242 (PCB-1242)	TX	8895	10179007
Aroclor-1248 (PCB-1248)	TX	8900	10179007
Aroclor-1254 (PCB-1254)	TX	8905	10179007
Aroclor-1260 (PCB-1260)	TX	8910	10179007
PCBs (total)	TX	8870	10179007

Method EPA 8151

Analyte	AB	Analyte ID	Method ID
2,4-D	TX	8545	10183207
2,4-DB	TX	8560	10183207
Dalapon	TX	8555	10183207
Dicamba	TX	8595	10183207
Dichloroprop (Dichloroprop, Weedone)	TX	8605	10183207
Dinoseb (2-sec-butyl-4,6-dinitrophenol, DNBP)	TX	8620	10183207
MCPA	TX	7775	10183207



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Matrix: *Solid & Chemical Materials*

MCPP	TX	7780	10183207
Silvex (2,4,5-TP)	TX	8650	10183207
Method EPA 8260			
Analyte	AB	Analyte ID	Method ID
1,1,1,2-Tetrachloroethane	TX	5105	10184802
1,1,1-Trichloroethane	TX	5160	10184802
1,1,2,2-Tetrachloroethane	TX	5110	10184802
1,1,2-Trichloroethane	TX	5165	10184802
1,1-Dichloroethane	TX	4630	10184802
1,1-Dichloroethylene	TX	4640	10184802
1,1-Dichloropropene	TX	4670	10184802
1,2,3-Trichlorobenzene	TX	5150	10184802
1,2,3-Trichloropropane	TX	5180	10184802
1,2,4-Trichlorobenzene	TX	5155	10184802
1,2,4-Trimethylbenzene	TX	5210	10184802
1,2-Dibromo-3-chloropropane (DBCP)	TX	4570	10184802
1,2-Dibromoethane (EDB, Ethylene dibromide)	TX	4585	10184802
1,2-Dichlorobenzene	TX	4610	10184802
1,2-Dichloroethane (Ethylene dichloride)	TX	4635	10184802
1,2-Dichloropropane	TX	4655	10184802
1,3,5-Trimethylbenzene	TX	5215	10184802
1,3-Dichlorobenzene	TX	4615	10184802
1,3-Dichloropropane	TX	4660	10184802
1,4-Dichlorobenzene	TX	4620	10184802
1,4-Dioxane (1,4-Diethyleneoxide)	TX	4735	10184802
2,2-Dichloropropane	TX	4665	10184802
2-Butanone (Methyl ethyl ketone, MEK)	TX	4410	10184802
2-Chloroethyl vinyl ether	TX	4500	10184802
2-Chlorotoluene	TX	4535	10184802
2-Hexanone (MBK)	TX	4860	10184802



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Matrix: Solid & Chemical Materials

2-Propanol	TX	5065	10184802
4-Chlorotoluene	TX	4540	10184802
4-Isopropyltoluene (p-Cymene)	TX	4915	10184802
4-Methyl-2-pentanone (MIBK)	TX	4995	10184802
Acetone (2-Propanone)	TX	4315	10184802
Acetonitrile	TX	4320	10184802
Acrolein (Propenal)	TX	4325	10184802
Acrylonitrile	TX	4340	10184802
Benzene	TX	4375	10184802
Benzyl chloride	TX	5635	10184802
Bromobenzene	TX	4385	10184802
Bromochloromethane	TX	4390	10184802
Bromodichloromethane	TX	4395	10184802
Bromoform	TX	4400	10184802
Carbon disulfide	TX	4450	10184802
Carbon tetrachloride	TX	4455	10184802
Chlorobenzene	TX	4475	10184802
Chlorodibromomethane	TX	4575	10184802
Chloroethane (Ethyl chloride)	TX	4485	10184802
Chloroform	TX	4505	10184802
Chloroprene (2-Chloro-1,3-butadiene)	TX	4525	10184802
cis-1,2-Dichloroethylene	TX	4645	10184802
cis-1,3-Dichloropropene	TX	4680	10184802
Dibromofluoromethane	TX	4590	10184802
Dibromomethane (Methylene bromide)	TX	4595	10184802
Dichlorodifluoromethane (Freon-12)	TX	4625	10184802
Ethyl acetate	TX	4755	10184802
Ethyl methacrylate	TX	4810	10184802
Ethylbenzene	TX	4765	10184802
Ethylene oxide	TX	4795	10184802



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Matrix: Solid & Chemical Materials

Hexachlorobutadiene	TX	4835	10184802
Iodomethane (Methyl iodide)	TX	4870	10184802
Isobutyl alcohol (2-Methyl-1-propanol)	TX	4875	10184802
Isopropylbenzene (Cumene)	TX	4900	10184802
m+p-xylene	TX	5240	10184802
Methacrylonitrile	TX	4925	10184802
Methyl acrylate	TX	4945	10184802
Methyl bromide (Bromomethane)	TX	4950	10184802
Methyl chloride (Chloromethane)	TX	4960	10184802
Methyl methacrylate	TX	4990	10184802
Methyl tert-butyl ether (MTBE)	TX	5000	10184802
Methylene chloride (Dichloromethane)	TX	4975	10184802
Naphthalene	TX	5005	10184802
n-Butyl alcohol (1-Butanol, n-Butanol)	TX	4425	10184802
n-Butylbenzene	TX	4435	10184802
n-Propylbenzene	TX	5090	10184802
o-Xylene	TX	5250	10184802
sec-Butylbenzene	TX	4440	10184802
Styrene	TX	5100	10184802
tert-Butyl alcohol	TX	4420	10184802
tert-Butylbenzene	TX	4445	10184802
Tetrachloroethylene (Perchloroethylene)	TX	5115	10184802
Toluene	TX	5140	10184802
trans-1,2-Dichloroethylene	TX	4700	10184802
trans-1,3-Dichloropropylene	TX	4685	10184802
trans-1,4-Dichloro-2-butene	TX	4605	10184802
Trichloroethene (Trichloroethylene)	TX	5170	10184802
Trichlorofluoromethane (Fluorotrichloromethane, Freon 11)	TX	5175	10184802
Vinyl acetate	TX	5225	10184802
Vinyl chloride	TX	5235	10184802



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Matrix: *Solid & Chemical Materials*

Method	AB	Analyte ID	Method ID
Xylene (total)	TX	5260	10184802
Method EPA 8270			
Analyte	AB	Analyte ID	Method ID
1,2,4,5-Tetrachlorobenzene	TX	6715	10185805
1,2,4-Trichlorobenzene	TX	5155	10185805
1,2-Dichlorobenzene	TX	4610	10185805
1,2-Dinitrobenzene	TX	6155	10185805
1,2-Diphenylhydrazine	TX	6220	10185805
1,3,5-Trinitrobenzene (1,3,5-TNB)	TX	6885	10185805
1,3-Dichlorobenzene	TX	4615	10185805
1,3-Dinitrobenzene (1,3-DNB)	TX	6160	10185805
1,4-Dichlorobenzene	TX	4620	10185805
1,4-Dinitrobenzene	TX	6165	10185805
1,4-Naphthoquinone	TX	6420	10185805
1,4-Phenylenediamine	TX	6630	10185805
1-Chloronaphthalene	TX	5790	10185805
1-Naphthylamine	TX	6425	10185805
2,3,4,6-Tetrachlorophenol	TX	6735	10185805
2,4,5-Trichlorophenol	TX	6835	10185805
2,4,6-Trichlorophenol	TX	6840	10185805
2,4-Diaminotoluene	TX	5880	10185805
2,4-Dichlorophenol	TX	6000	10185805
2,4-Dimethylphenol	TX	6130	10185805
2,4-Dinitrophenol	TX	6175	10185805
2,4-Dinitrotoluene (2,4-DNT)	TX	6185	10185805
2,6-Dichlorophenol	TX	6005	10185805
2,6-Dinitrotoluene (2,6-DNT)	TX	6190	10185805
2-Acetylaminofluorene	TX	5515	10185805
2-Chloronaphthalene	TX	5795	10185805
2-Chlorophenol	TX	5800	10185805



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Matrix: *Solid & Chemical Materials*

2-Methyl-4,6-dinitrophenol (4,6-Dinitro-2-methylphenol)	TX	6360	10185805
2-Methylaniline (o-Toluidine)	TX	5145	10185805
2-Methylnaphthalene	TX	6385	10185805
2-Methylphenol (o-Cresol)	TX	6400	10185805
2-Naphthylamine	TX	6430	10185805
2-Nitroaniline	TX	6460	10185805
2-Nitrophenol	TX	6490	10185805
2-Picoline (2-Methylpyridine)	TX	5050	10185805
3,3'-Dichlorobenzidine	TX	5945	10185805
3,3'-Dimethoxybenzidine	TX	6100	10185805
3,3'-Dimethylbenzidine	TX	6120	10185805
3-Methylcholanthrene	TX	6355	10185805
3-Methylphenol (m-Cresol)	TX	6405	10185805
3-Nitroaniline	TX	6465	10185805
4-Aminobiphenyl	TX	5540	10185805
4-Bromophenyl phenyl ether (BDE-3)	TX	5660	10185805
4-Chloro-3-methylphenol	TX	5700	10185805
4-Chloroaniline	TX	5745	10185805
4-Chlorophenyl phenylether	TX	5825	10185805
4-Methylphenol (p-Cresol)	TX	6410	10185805
4-Nitroaniline	TX	6470	10185805
4-Nitrophenol	TX	6500	10185805
5-Nitro-o-toluidine	TX	6570	10185805
7,12-Dimethylbenz(a) anthracene	TX	6115	10185805
Acenaphthene	TX	5500	10185805
Acenaphthylene	TX	5505	10185805
Acetophenone	TX	5510	10185805
Aniline	TX	5545	10185805
Anthracene	TX	5555	10185805
Azobenzene	TX	5562	10185805



Texas Commission on Environmental Quality



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Matrix: Solid & Chemical Materials

Benzenethiol (Thiophenol)	TX	6750	10185805
Benzidine	TX	5595	10185805
Benzo(a)anthracene	TX	5575	10185805
Benzo(a)pyrene	TX	5580	10185805
Benzo(b)fluoranthene	TX	5585	10185805
Benzo(g,h,i)perylene	TX	5590	10185805
Benzo(k)fluoranthene	TX	5600	10185805
Benzoic acid	TX	5610	10185805
Benzyl alcohol	TX	5630	10185805
Biphenyl	TX	5640	10185805
bis(2-Chloroethoxy)methane	TX	5760	10185805
bis(2-Chloroethyl) ether	TX	5765	10185805
bis(2-Chloroisopropyl) ether	TX	5780	10185805
bis(2-Ethylhexyl) phthalate (DEHP)	TX	6255	10185805
Butyl benzyl phthalate	TX	5670	10185805
Caprolactam	TX	7180	10185805
Carbazole	TX	5680	10185805
Chlorobenzilate	TX	7260	10185805
Chrysene	TX	5855	10185805
Diallate	TX	7405	10185805
Dibenz(a,h) anthracene	TX	5895	10185805
Dibenzofuran	TX	5905	10185805
Diethyl phthalate	TX	6070	10185805
Dimethoate	TX	7475	10185805
Dimethyl phthalate	TX	6135	10185805
Di-n-butyl phthalate	TX	5925	10185805
Di-n-octyl phthalate	TX	6200	10185805
Diphenylamine	TX	6205	10185805
Disulfoton	TX	8625	10185805
Ethyl methanesulfonate	TX	6260	10185805



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Matrix: *Solid & Chemical Materials*

Fluoranthene	TX	6265	10185805
Fluorene	TX	6270	10185805
Hexachlorobenzene	TX	6275	10185805
Hexachlorobutadiene	TX	4835	10185805
Hexachlorocyclopentadiene	TX	6285	10185805
Hexachloroethane	TX	4840	10185805
Hexachlorophene	TX	6290	10185805
Indeno(1,2,3-cd) pyrene	TX	6315	10185805
Isodrin	TX	7725	10185805
Isophorone	TX	6320	10185805
Isosafrole	TX	6325	10185805
Methyl methanesulfonate	TX	6375	10185805
Methyl parathion (Parathion, methyl)	TX	7825	10185805
Methylphenols, total	TX	10313	10185805
Naphthalene	TX	5005	10185805
Nitrobenzene	TX	5015	10185805
Nitroquinoline-1-oxide	TX	6515	10185805
n-Nitrosodiethylamine	TX	6525	10185805
n-Nitrosodimethylamine	TX	6530	10185805
n-Nitrosodi-n-butylamine	TX	5025	10185805
n-Nitrosodi-n-propylamine	TX	6545	10185805
n-Nitrosodiphenylamine	TX	6535	10185805
n-Nitrosomethylethylamine	TX	6550	10185805
n-Nitrosomorpholine	TX	6555	10185805
n-Nitrosopiperidine	TX	6560	10185805
n-Nitrosopyrrolidine	TX	6565	10185805
o,o,o-Triethyl phosphorothioate	TX	8290	10185805
Parathion, ethyl	TX	7955	10185805
Pentachlorobenzene	TX	6590	10185805
Pentachloronitrobenzene (PCNB)	TX	6600	10185805



Texas Commission on Environmental Quality



NELAP - Recognized Laboratory Fields of Accreditation

TestAmerica Laboratories, Inc. - Houston

6310 Rothway Drive
Houston, TX 77040-5056

Certificate: T104704223-13-11
Expiration Date: 10/31/2014
Issue Date: 11/1/2013

These fields of accreditation supercede all previous fields. The Texas Commission on Environmental Quality urges customers to verify the laboratory's current accreditation status for particular methods and analyses.

Matrix: *Solid & Chemical Materials*

Pentachlorophenol	TX	6605	10185805
Phenacetin	TX	6610	10185805
Phenanthrene	TX	6615	10185805
Phenol	TX	6625	10185805
Phorate	TX	7985	10185805
Pronamide (Kerb)	TX	6650	10185805
Pyrene	TX	6665	10185805
Pyridine	TX	5095	10185805
Safrole	TX	6685	10185805
Thionazin (Zinophos)	TX	8235	10185805
Toluene diisocyanate	TX	6775	10185805
Method EPA 9012			
Analyte	AB	Analyte ID	Method ID
Amenable cyanide	TX	1510	10193405
Total Cyanide	TX	1635	10193405
Method EPA 9034			
Analyte	AB	Analyte ID	Method ID
Sulfide	TX	2005	10196006
Method EPA 9040			
Analyte	AB	Analyte ID	Method ID
Corrosivity	TX	1615	10197203
pH	TX	1900	10197203
Method EPA 9045			
Analyte	AB	Analyte ID	Method ID
pH	TX	1900	10198400
Method EPA 9050			
Analyte	AB	Analyte ID	Method ID
Conductivity	TX	1610	10198808
Method EPA 9056			
Analyte	AB	Analyte ID	Method ID
Bromide	TX	1540	10199209



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Matrix: *Solid & Chemical Materials*

Chloride	TX	1575	10199209
Fluoride	TX	1730	10199209
Nitrate as N	TX	1810	10199209
Nitrate-nitrite	TX	1820	10199209
Nitrite as N	TX	1840	10199209
Orthophosphate as P	TX	1870	10199209
Sulfate	TX	2000	10199209
Method EPA 9060			
Analyte	AB	Analyte ID	Method ID
Total Organic Carbon (TOC)	TX	2040	10200201
Method EPA 9066			
Analyte	AB	Analyte ID	Method ID
Total phenolics	TX	1905	10200609
Method EPA 9071			
Analyte	AB	Analyte ID	Method ID
Silica Gel Treated n-Hexane Extractable Material (SGT-HEM)	TX	10220	10201806
Method EPA 9095			
Analyte	AB	Analyte ID	Method ID
Paint Filter Liquids Test	TX	10312	10204203
Method SSA/ASA Part 3:34			
Analyte	AB	Analyte ID	Method ID
Carbon, organic (Walkley-Black)	TX	10340	SSA/ASA Pt 3:34
Method TCEQ 1005			
Analyte	AB	Analyte ID	Method ID
Total Petroleum Hydrocarbons (TPH)	TX	2050	90019208

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Houston
6310 Rothway Street
Houston, TX 77040
Tel: (713)690-4444

TestAmerica Job ID: 600-85569-1

Client Project/Site: 1620 UPRR HWPW

For:

Pastor, Behling & Wheeler LLC
2201 Double Creek Dr
Suite 4004
Round Rock, Texas 78664

Attn: Mr. Eric Matzner



Authorized for release by:

2/3/2014 4:30:39 PM

Sophia Shah, Project Management Assistant I
sophia.shah@testamericainc.com

Designee for

Sachin Kudchadkar, Senior Project Manager
(713)690-4444

sachin.kudchadkar@testamericainc.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.



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1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

16



Table of Contents

Cover Page	1
Table of Contents	2
TRRP Checklists & DCSs	3
Case Narrative	12
Method Summary	13
Sample Summary	14
Client Sample Results	15
Definitions/Glossary	38
Surrogate Summary	39
QC Sample Results	41
Default Detection Limits	46
QC Association Summary	47
Lab Chronicle	50
Certification Summary	54
Chain of Custody	55
Receipt Checklists	57

Appendix A

Laboratory Data Package Cover Page - Page 1 of 4

This data package is for TestAmerica Houston job number 600-85569-1 and consists of:

- R1 - Field chain-of-custody documentation;
- R2 - Sample identification cross-reference;
- R3 - Test reports (analytical data sheets) for each environmental sample that includes:
 - a. Items consistent with NELAC Chapter 5,
 - b. dilution factors,
 - c. preparation methods,
 - d. cleanup methods, and
 - e. if required for the project, tentatively identified compounds (TICs).
- R4 - Surrogate recovery data including:
 - a. Calculated recovery (%R), and
 - b. The laboratory's surrogate QC limits.
- R5 - Test reports/summary forms for blank samples;
- R6 - Test reports/summary forms for laboratory control samples (LCSs) including:
 - a. LCS spiking amounts,
 - b. Calculated %R for each analyte, and
 - c. The laboratory's LCS QC limits.
- R7 - Test reports for project matrix spike/matrix spike duplicates (MS/MSDs) including:
 - a. Samples associated with the MS/MSD clearly identified,
 - b. MS/MSD spiking amounts,
 - c. Concentration of each MS/MSD analyte measured in the parent and spiked samples,
 - d. Calculated %Rs and relative percent differences (RPDs), and
 - e. The laboratory's MS/MSD QC limits
- R8 - Laboratory analytical duplicate (if applicable) recovery and precision:
 - a. The amount of analyte measured in the duplicate,
 - b. The calculated RPD, and
 - c. The laboratory's QC limits for analytical duplicates.
- R9 - List of method quantitation limits (MQLs) and detectability check sample results for each analyte for each method and matrix.
- R10 - Other problems or anomalies.

The Exception Report for each "No" or "Not Reviewed (NR)" item in Laboratory Review Checklist and for each analyte, matrix, and method for which the laboratory does not hold NELAC accreditation under the Texas Laboratory Accreditation Program.

Release Statement: I am responsible for the release of this laboratory data package. This laboratory is NELAC accredited under the Texas Laboratory Accreditation Program for all the methods, analytes, and matrices reported in this data package except as noted in the Exception Reports. The data have been reviewed and are technically compliant with the requirements of the methods used, except where noted by the laboratory in the Exception Reports. By my signature below, I affirm to the best of my knowledge all problems/anomalies observed by the laboratory have been identified in the Laboratory Review Checklist, and no information affecting the quality of the data has been knowingly withheld.

Sophia Shah
Name (printed)



Signature

2/3/2014
Date

Project Management Assistant
Official Title (printed)

Laboratory Review Checklist: Reportable Data - Page 2 of 4

Laboratory Name:	TestAmerica Houston	LRC Date:	2/3/2014
Project Name:	1620 UPRR HWPW	Laboratory Job Number:	600-85569-1
Reviewer Name:	Sachin G Kudchadkar		

# ¹	A ²	Description	Yes	No	NA ³	NR ⁴	ER# ⁵
R1	OI	Chain-of-custody (C-O-C)					
		Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?		X			R01A
		Were all departures from standard conditions described in an exception report?	X				
R2	OI	Sample and quality control (QC) identification					
		Are all field sample ID numbers cross-referenced to the laboratory ID numbers?	X				
		Are all laboratory ID numbers cross-referenced to the corresponding QC data?	X				
R3	OI	Test reports					
		Were all samples prepared and analyzed within holding times?	X				
		Other than those results < MQL, were all other raw values bracketed by calibration standards?	X				
		Were calculations checked by a peer or supervisor?	X				
		Were all analyte identifications checked by a peer or supervisor?	X				
		Were sample detection limits reported for all analytes not detected?	X				
		Were all results for soil and sediment samples reported on a dry weight basis?			X		
		Were % moisture (or solids) reported for all soil and sediment samples?			X		
		Were bulk soils/solids samples for volatile analysis extracted with methanol per SW846 Method 5035?			X		
		If required for the project, are TICs reported?			X		
R4	O	Surrogate recovery data					
		Were surrogates added prior to extraction?	X				
		Were surrogate percent recoveries in all samples within the laboratory QC limits?		X			R04B
R5	OI	Test reports/summary forms for blank samples					
		Were appropriate type(s) of blanks analyzed?	X				
		Were blanks analyzed at the appropriate frequency?	X				
		Were method blanks taken through the entire analytical process, including preparation and, if applicable, cleanup procedures?	X				
		Were blank concentrations < MQL?	X				R05D
R6	OI	Laboratory control samples (LCS):					
		Were all COCs included in the LCS?	X				
		Was each LCS taken through the entire analytical procedure, including prep and cleanup steps?	X				
		Were LCSs analyzed at the required frequency?	X				
		Were LCS (and LCSD, if applicable) %Rs within the laboratory QC limits?		X			R06D
		Does the detectability check sample data document the laboratory's capability to detect the COCs at the MDL used to calculate the SDLs?	X				
		Was the LCSD RPD within QC limits?			X		
R7	OI	Matrix spike (MS) and matrix spike duplicate (MSD) data					
		Were the project/method specified analytes included in the MS and MSD?			X		
		Were MS/MSD analyzed at the appropriate frequency?			X		
		Were MS (and MSD, if applicable) %Rs within the laboratory QC limits?			X		
		Were MS/MSD RPDs within laboratory QC limits?			X		
R8	OI	Analytical duplicate data					
		Were appropriate analytical duplicates analyzed for each matrix?			X		
		Were analytical duplicates analyzed at the appropriate frequency?			X		
		Were RPDs or relative standard deviations within the laboratory QC limits?			X		
R9	OI	Method quantitation limits (MQLs):					
		Are the MQLs for each method analyte included in the laboratory data package?	X				
		Do the MQLs correspond to the concentration of the lowest non-zero calibration standard?	X				
		Are unadjusted MQLs and DCSs included in the laboratory data package?	X				
R10	OI	Other problems/anomalies					
		Are all known problems/anomalies/special conditions noted in this LRC and ER?	X				
		Was applicable and available technology used to lower the SDL to minimize the matrix interference effects on the sample results?		X			R10B
		Is the laboratory NELAC-accredited under the Texas Laboratory Accreditation Program for the analytes, matrices and methods associated with this laboratory data package?	X				

- Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.
- O = organic analyses; I = inorganic analyses (and general chemistry, when applicable);
- NA = Not applicable;
- NR = Not reviewed;
- ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

Laboratory Review checklist: Supporting Data - Page 3 of 4

Laboratory Name:	TestAmerica Houston	LRC Date:	2/3/2014
Project Name:	1620 UPRR HWPW	Laboratory Job Number:	600-85569-1
Reviewer Name:	Sachin G Kudchadkar		

# ¹	A ²	Description	Yes	No	NA ³	NR ⁴	ER# ⁵
S1	OI	Initial calibration (ICAL)					
		Were response factors and/or relative response factors for each analyte within QC limits?	X				
		Were percent RSDs or correlation coefficient criteria met?	X				
		Was the number of standards recommended in the method used for all analytes?	X				
		Were all points generated between the lowest and highest standard used to calculate the curve?	X				
		Are ICAL data available for all instruments used?	X				
		Has the initial calibration curve been verified using an appropriate second source standard?	X				
S2	OI	Initial and continuing calibration verification (ICV and CCV) and continuing calibration blank (CCB):					
		Was the CCV analyzed at the method-required frequency?	X				
		Were percent differences for each analyte within the method-required QC limits?	X				
		Was the ICAL curve verified for each analyte?			X		
		Was the absolute value of the analyte concentration in the inorganic CCB < MDL?			X		
S3	O	Mass spectral tuning					
		Was the appropriate compound for the method used for tuning?	X				
		Were ion abundance data within the method-required QC limits?	X				
S4	O	Internal standards (IS)					
		Were IS area counts and retention times within the method-required QC limits?		X			S04A
S5	OI	Raw data (NELAC Section 5.5.10)					
		Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?	X				
		Were data associated with manual integrations flagged on the raw data?	X				
S6	O	Dual column confirmation					
		Did dual column confirmation results meet the method-required QC?			X		
S7	O	Tentatively identified compounds (TICs)					
		If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?			X		
S8	I	Interference Check Sample (ICS) results					
		Were percent recoveries within method QC limits?			X		
S9	I	Serial dilutions, post digestion spikes, and method of standard additions					
		Were percent differences, recoveries, and the linearity within the QC limits specified in the method?			X		
S10	OI	Method detection limit (MDL) studies					
		Was a MDL study performed for each reported analyte?	X				
		Is the MDL either adjusted or supported by the analysis of DCSS?	X				
S11	OI	Proficiency test reports					
		Was the laboratory's performance acceptable on the applicable proficiency tests or evaluation studies?	X				
S12	OI	Standards documentation					
		Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?	X				
S13	OI	Compound/analyte identification procedures					
		Are the procedures for compound/analyte identification documented?	X				
S14	OI	Demonstration of analyst competency (DOC)					
		Was DOC conducted consistent with NELAC Chapter 5?	X				
		Is documentation of the analyst's competency up-to-date and on file?	X				
S15	OI	Verification/validation documentation for methods (NELAC Chapter 5)					
		Are all the methods used to generate the data documented, verified, and validated, where applicable?	X				
S16	OI	Laboratory standard operating procedures (SOPs)					
		Are laboratory SOPs current and on file for each method performed?	X				
<p>1. Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.</p> <p>2. O = organic analyses; I = inorganic analyses (and general chemistry, when applicable);</p> <p>3. NA = Not applicable;</p> <p>4. NR = Not reviewed;</p> <p>5. ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).</p>							

Laboratory Review Checklist: Exception Reports - Page 4 of 4

Laboratory Name:	TestAmerica Houston	LRC Date:	2/3/2014
Project Name:	1620 UPRR HWPW	Laboratory Job Number:	600-85569-1
Reviewer Name:	Sachin G Kudchadkar		

ER # ¹	Description
R01A	The Chain of Custody was received without a specified TAT listed.
R04B	Method 8270C LL: Surrogate recovery for the following sample(s) was outside control limits: 600-85569-7, 600-85569-8 and 600-85569-10. Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed. Method 8270C LL: The following sample(s) required a dilution due to the nature of the sample matrix: 600-85569-1, 600-85569-2, 600-85569-3, 600-85569-4, 600-85569-6, 600-85569-13, 600-85569-14, 600-85569-15, and 600-85569-16. Because of this dilution, the surrogate spike concentration in the sample was reduced to a level where the recovery calculation does not provide useful information.
R05D	Method 8270C LL: The method blank for batch 125105 contained Di-n-butyl phthalate, Naphthalene, Anthracene, and Phenanthrene above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed.
R06D	Method 8260B: The laboratory control sample (LCS) for batch 600-125294 recovered outside control limits for the following analytes: toluene. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.
R10B	Method 8260B: The following sample(s) was diluted due to the nature of the sample matrix: 600-85569-1, 600-85569-2, 600-85569-3, 600-85569-4, 600-85569-14, 600-85569-15, and 600-85569-16. Elevated reporting limits (RLs) are provided. Method 8270C LL: The following sample(s) was diluted due to the nature of the sample matrix: 600-85569-1, 600-85569-2, 600-85569-3, 600-85569-4, 600-85569-6, 600-85569-7, 600-85569-8, 600-85569-10, 600-85569-11, 600-85569-13, 600-85569-14, 600-85569-15, 600-85569-16, and 600-85569-18. Elevated reporting limits (RLs) are provided.
S04A	Method 8270C LL: Internal standard responses were outside of acceptance limits for the following sample(s): 600-85569-10. Sample was analyzed at 1x and 2x dilution with similar results. The sample(s) shows evidence of matrix interference.
<ol style="list-style-type: none"> Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period. O = organic analyses; I = inorganic analyses (and general chemistry, when applicable); NA = Not applicable; NR = Not reviewed; ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked). 	

Matrix: Water
Method: 8260B_LL
Date Analyzed: 12/10/2013
TALS Batch: 122598
Units: ug/L

Analyte	MDL	DCS Spike	Measured Result	MQL
1,1,1,2-Tetrachloroethane	0.180	0.500	0.411	1
1,1,1-Trichloroethane	0.150	0.500	0.475	1
1,1,2,2-Tetrachloroethane	0.220	0.500	0.515	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.000	0.250	0.276	1
1,1,2-Trichloroethane	0.280	0.500	0.507	1
1,1-Dichloroethane	0.110	0.250	0.300	1
1,1-Dichloroethene	0.190	0.500	0.439	1
1,1-Dichloropropene	0.210	0.500	0.431	1
1,2,3-Trichlorobenzene	0.570	0.500	0.950	1
1,2,3-Trichloropropane	0.290	0.500	0.568	1
1,2,3-Trimethylbenzene	0.130	0.500	0.449	1
1,2,4-Trichlorobenzene	0.310	0.500	0.713	1
1,2,4-Trimethylbenzene	0.140	0.500	0.434	1
1,2-Dibromo-3-Chloropropane	0.810	0.500	0.665	1
1,2-Dichlorobenzene	0.100	0.250	0.349	1
1,2-Dichloroethane	0.140	0.500	0.500	1
1,2-Dichloroethene, Total	0.300	1.000	0.970	1
1,2-Dichloropropane	0.160	0.500	0.474	1
1,3,5-Trichlorobenzene	1.000	0.500	0.578	1
1,3,5-Trimethylbenzene	0.100	0.250	0.262	1
1,3-Dichlorobenzene	0.130	0.500	0.530	1
1,3-Dichloropropane	0.220	0.500	0.531	1
1,4-Dichlorobenzene	0.110	0.250	0.336	1
1,4-Dioxane	30.790	10.000	11.352	50
1-Chlorohexane	0.260	0.250	0.279	1
2,2-Dichloropropane	0.130	0.500	0.452	1
2-Butanone (MEK)	0.760	1.000	0.963	2
2-Chloro-1,3-butadiene	0.330	0.500	0.406	1
2-Chloroethyl vinyl ether	0.500	1.000	0.798	2
2-Chlorotoluene	0.130	0.500	0.439	1
2-Hexanone	0.350	1.000	0.789	2
3-Chloro-1-propene	0.240	0.500	0.425	2
4-Chlorotoluene	0.140	0.500	0.490	1
4-Isopropyltoluene	0.100	0.250	0.279	1
4-Methyl-2-pentanone (MIBK)	0.450	1.000	0.931	2
Acetone	0.990	1.000	1.452	5
Acrolein	1.630	2.500	2.455	5
Acrylonitrile	0.520	2.500	2.614	5
Benzene	0.080	0.250	0.304	1
Benzyl chloride	0.240	0.500	0.977	1
Bromobenzene	0.190	0.500	0.523	1
Bromoform	0.190	0.500	0.410	1
Bromomethane	0.250	0.500	0.468	2
Butadiene	0.210	0.500	0.496	1
Carbon disulfide	0.240	0.500	0.478	2
Carbon tetrachloride	0.150	0.500	0.378	1
Chlorobenzene	0.120	0.250	0.317	1
Chlorobromomethane	0.180	0.500	0.480	1

DCS = Detection Check Standard
 MQL = Method Quantitation Limit

Matrix: Water
Method: 8260B_LL
Date Analyzed: 12/10/2013
TALS Batch: 122598
Units: ug/L

Analyte	MDL	DCS Spike	Measured Result	MQL
Chlorodibromomethane	0.150	0.500	0.403	1
Chloroethane	0.080	0.250	0.313	2
Chloroform	0.130	0.500	0.471	1
Chloromethane	0.180	0.500	0.516	2
cis-1,2-Dichloroethene	0.060	0.250	0.324	1
cis-1,3-Dichloropropene	0.180	0.500	0.371	1
Cyclohexane	0.160	0.500	0.410	1
Cyclohexanone	8.640	25.000	30.305	50
Dibromomethane	0.520	0.500	0.962	1
Dichlorobromomethane	0.160	0.500	0.403	1
Dichlorodifluoromethane	0.120	0.250	0.245	1
Dichlorofluoromethane	1.000	0.500	0.472	1
Ethyl acetate	0.410	1.000	1.448	2
Ethyl acrylate	0.340	0.500	0.640	2
Ethyl ether	0.150	0.500	0.480	1
Ethyl methacrylate	0.260	0.500	0.415	2
Ethylbenzene	0.110	0.250	0.006	1
Ethylene Dibromide	0.180	0.500	0.474	1
Hexachlorobutadiene	0.170	0.500	0.620	1
Hexane	0.160	0.500	0.404	1
Iodomethane	0.158	0.500	0.484	2
Isobutyl alcohol	3.320	12.500	13.826	10
Isooctane	0.330	0.500	1.097	1
Isopropyl alcohol	3.720	5.000	5.417	10
Isopropyl ether	0.090	0.250	0.271	1
Isopropylbenzene	0.180	0.500	0.427	1
Methyl acetate	0.550	1.250	1.371	2
Methyl methacrylate	0.330	1.000	0.835	1
Methyl tert-butyl ether	0.120	0.250	0.287	1
Methylcyclohexane	0.100	0.250	0.292	1
Methylene Chloride	0.150	0.500	0.488	5
m-Xylene & p-Xylene	0.170	0.500	0.442	1
Naphthalene	0.320	0.500	0.776	2
n-Butyl acetate	0.190	0.500	0.384	1
n-Butylbenzene	0.160	0.500	0.423	1
N-Propylbenzene	0.150	0.500	0.418	1
o-Xylene	0.120	0.250	0.265	1
Propionitrile	0.660	2.500	2.335	2
sec-Butylbenzene	0.120	0.250	0.266	1
Styrene	0.070	0.250	0.230	1
tert-Butylbenzene	0.080	0.250	0.290	1
Tetrachloroethene	0.130	0.500	0.598	1
Toluene	0.150	0.500	0.503	1
trans-1,2-Dichloroethene	0.090	0.250	0.287	1
trans-1,3-Dichloropropene	0.210	0.500	0.763	1
Trichloroethene	0.180	0.500	0.481	1
Trichlorofluoromethane	0.080	0.250	0.234	1
Trihalomethanes, Total	1.000	2.000	1.680	5

DCS = Detection Check Standard
MQL = Method Quantitation Limit

Matrix: Water
Method: 8260B_LL
Date Analyzed: 12/10/2013
TALS Batch: 122598
Units: ug/L

Analyte	MDL	DCS Spike	Measured Result	MQL
Vinyl acetate	0.210	0.500	0.428	2
Vinyl chloride	0.110	0.250	0.293	2
Xylenes, Total	0.260	1.000	0.900	1



Matrix: Water
Method: 8270C
Prep Method: 3510C
Date Analyzed: 1/10/2014
Job #: 600-85250
TALS Batch: 124708
Units: ug/L

Analyte	MDL	DCS Spike	Measured Result	MQL
1,1'-Biphenyl	1.120	2.500	2.599	10
1,2,4,5-Tetrachlorobenzene	1.680	2.500	2.619	10
1,2,4-Trichlorobenzene	1.140	2.500	2.512	10
1,2-Dichlorobenzene	1.090	2.500	2.475	10
1,2-Dinitrobenzene	1.020	2.500	2.003	10
1,2-Diphenylhydrazine	0.900	2.500	2.890	10
1,3-Dichlorobenzene	1.150	2.500	2.580	10
1,3-Dinitrobenzene	3.470	5.000	4.860	10
1,4-Dichlorobenzene	1.260	2.500	2.580	10
1-Methylnaphthalene	0.530	2.500	2.645	10
2,2'-oxybis[1-chloropropane]	1.700	2.500	2.849	10
2,3,4,6-Tetrachlorophenol	0.830	2.500	1.973	10
2,4,5-Trichlorophenol	1.260	2.500	2.284	10
2,4,6-Trichlorophenol	0.920	2.500	2.319	10
2,4-Dichlorophenol	1.540	2.500	2.415	10
2,4-Dimethylphenol	1.340	2.500	2.781	10
2,4-Dinitrophenol	0.890	5.000	8.242	50
2,4-Dinitrotoluene	0.950	2.500	2.491	10
2,6-Dimethylphenol	1.030	2.500	2.249	10
2,6-Dinitrotoluene	0.640	2.500	2.481	10
2-Chloronaphthalene	1.000	2.500	2.695	10
2-Chlorophenol	0.670	2.500	2.420	10
2-Methylnaphthalene	1.100	2.500	2.692	10
2-Methylphenol	1.010	2.500	2.530	10
2-Nitroaniline	1.130	2.500	2.804	50
2-Nitrophenol	0.630	2.500	2.493	10
3 & 4 Methylphenol	1.880	2.500	2.655	20
3,3'-Dichlorobenzidine	0.580	2.500	4.823	20
3-Nitroaniline	0.510	2.500	2.477	50
4,6-Dinitro-2-methylphenol	1.880	5.000	3.164	50
4-Bromophenyl phenyl ether	0.680	2.500	2.519	10
4-Chloro-3-methylphenol	0.820	2.500	2.796	10
4-Chloroaniline	0.980	2.500	2.228	10
4-Chlorophenyl phenyl ether	0.790	2.500	2.875	10
4-Nitroaniline	1.010	2.500	2.276	50
4-Nitrophenol	0.990	5.000	3.057	50
Acenaphthene	0.530	2.500	2.607	10
Acenaphthylene	0.900	2.500	2.580	10
Acetophenone	1.020	2.500	2.738	10
Aniline	1.620	2.500	1.999	10
Anthracene	0.670	2.500	2.528	10
Azobenzene	10	2.500	2.890	10
Benzidine	0.610	25.000	2.670	50
Benzo[a]anthracene	0.580	2.500	2.537	10
Benzo[a]pyrene	0.570	2.500	2.311	10
Benzo[b]fluoranthene	1.050	2.500	2.564	10

DCS = Detection Check Standard
MQL = Method Quantitation Limit

Matrix: Water
Method: 8270C
Prep Method: 3510C
Date Analyzed: 1/10/2014
Job #: 600-85250
TALS Batch: 124708
Units: ug/L

Analyte	MDL	DCS Spike	Measured Result	MQL
Benzo[g,h,i]perylene	0.830	2.500	2.142	10
Benzo[k]fluoranthene	0.930	2.500	2.470	10
Benzoic acid	2.510	5.000	2.420	50
Benzyl alcohol	1.180	2.500	2.395	10
Bis(2-chloroethoxy)methane	1.240	2.500	2.776	10
Bis(2-chloroethyl)ether	1.190	2.500	2.577	10
Bis(2-ethylhexyl) phthalate	0.520	2.500	2.735	10
Butyl benzyl phthalate	0.610	2.500	2.781	10
Caprolactam	2.320	5.000	4.190	10
Carbazole	1.140	2.500	2.630	10
Chrysene	0.600	2.500	2.639	10
Dibenz(a,h)anthracene	0.720	2.500	2.244	10
Dibenzofuran	0.990	2.500	2.671	10
Diethyl phthalate	1.140	2.500	2.795	10
Dimethyl phthalate	0.520	2.500	2.597	10
Di-n-butyl phthalate	1.040	2.500	2.836	10
Di-n-octyl phthalate	0.690	2.500	2.335	10
Fluoranthene	0.520	2.500	2.616	10
Fluorene	1.420	2.500	2.748	10
Hexachlorobenzene	0.900	2.500	2.763	10
Hexachlorobutadiene	1.110	2.500	2.591	10
Hexachlorocyclopentadiene	0.580	2.500	1.623	10
Hexachloroethane	1.160	2.500	2.427	10
Indeno[1,2,3-cd]pyrene	0.670	2.500	1.627	10
Isophorone	0.730	2.500	2.806	10
Naphthalene	0.510	2.500	2.664	10
Nitrobenzene	1.180	2.500	3.061	10
N-Nitrosodimethylamine	1.930	2.500	1.988	10
N-Nitrosodi-n-propylamine	0.660	2.500	2.808	10
N-Nitrosodiphenylamine	1.030	2.500	2.590	10
Pentachlorophenol	0.890	5.000	2.274	50
Phenanthrene	0.790	2.500	2.579	10
Phenol	0.950	2.500	2.010	10
Pyrene	1.120	2.500	2.619	10
Pyridine	1.040	2.500	0.536	10
Total Cresols	1.880	5.000	5.200	50

Case Narrative

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-85569-1

Job ID: 600-85569-1

Laboratory: TestAmerica Houston

Narrative

Job Narrative
600-85569-1

Comments

No additional comments.

Receipt

The samples were received on 1/15/2014 3:55 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 4 coolers at receipt time were 1.5° C, 1.9° C, 3.2° C and 3.5° C.

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Method Summary

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-85569-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL HOU
8270C LL	Semivolatile Organic Compounds by GCMS - Low Levels	SW846	TAL HOU

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL HOU = TestAmerica Houston, 6310 Rothway Street, Houston, TX 77040, TEL (713)690-4444



Sample Summary

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-85569-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
600-85569-1	WG-1620-MW18A-20140113	Water	01/13/14 14:15	01/15/14 15:55
600-85569-2	WG-1620-MW18C-20140113	Water	01/13/14 15:00	01/15/14 15:55
600-85569-3	WG-1620-MW17C-20140113	Water	01/13/14 16:00	01/15/14 15:55
600-85569-4	WG-1620-MW17-20140113	Water	01/13/14 16:50	01/15/14 15:55
600-85569-5	WG-1620-FB1-20140113	Water	01/13/14 17:15	01/15/14 15:55
600-85569-6	WG-1620-MW15A-20140114	Water	01/14/14 07:45	01/15/14 15:55
600-85569-7	WG-1620-MW15C-20140114	Water	01/14/14 08:40	01/15/14 15:55
600-85569-8	WG-1620-MW15B-20140114	Water	01/14/14 09:20	01/15/14 15:55
600-85569-9	WG-1620-MW14-20140114	Water	01/14/14 10:15	01/15/14 15:55
600-85569-10	WG-1620-MW13-20140114	Water	01/14/14 11:15	01/15/14 15:55
600-85569-11	WG-1620-MW39B-20140114	Water	01/14/14 12:10	01/15/14 15:55
600-85569-12	WG-1620-MW12C-20140114	Water	01/14/14 13:25	01/15/14 15:55
600-85569-13	WG-1620-MW12A-20140114	Water	01/14/14 14:25	01/15/14 15:55
600-85569-14	WG-1620-MW40B-20140114	Water	01/14/14 15:25	01/15/14 15:55
600-85569-15	WG-1620-MW55A-20140114	Water	01/14/14 16:25	01/15/14 15:55
600-85569-16	WG-1620-MW55B-20140114	Water	01/14/14 17:20	01/15/14 15:55
600-85569-17	WG-1620-FB2-20140114	Water	01/14/14 17:45	01/15/14 15:55
600-85569-18	WG-1620-MW19C-20140115	Water	01/15/14 07:40	01/15/14 15:55
600-85569-19	WG-1620-TB1-20140115	Water	01/15/14 00:00	01/15/14 15:55

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-85569-1

Client Sample ID: WG-1620-MW18A-20140113

Lab Sample ID: 600-85569-1

Date Collected: 01/13/14 14:15

Matrix: Water

Date Received: 01/15/14 15:55

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	0.0110	U	0.200	0.0110	mg/L			01/19/14 18:48	100
Methylene Chloride	0.0150	U	0.100	0.0150	mg/L			01/19/14 18:48	100
Benzene	0.239		0.100	0.00800	mg/L			01/19/14 18:48	100
1,2-Dichloroethane	0.0140	U	0.100	0.0140	mg/L			01/19/14 18:48	100
Toluene	0.0731	J	0.100	0.0150	mg/L			01/19/14 18:48	100
Chlorobenzene	0.0120	U	0.100	0.0120	mg/L			01/19/14 18:48	100
Ethylbenzene	0.637		0.100	0.0110	mg/L			01/19/14 18:48	100
Xylenes, Total	1.27		0.300	0.0260	mg/L			01/19/14 18:48	100
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	102		67 - 139					01/19/14 18:48	100
Dibromofluoromethane	83		62 - 130					01/19/14 18:48	100
Toluene-d8 (Surr)	93		70 - 130					01/19/14 18:48	100
1,2-Dichloroethane-d4 (Surr)	90		50 - 134					01/19/14 18:48	100

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.00385	U	0.0481	0.00385	mg/L		01/16/14 11:52	01/28/14 17:49	100
Nitrobenzene	0.0106	U	0.0481	0.0106	mg/L		01/16/14 11:52	01/28/14 17:49	100
Bis(2-chloroethoxy)methane	0.0125	U	0.0481	0.0125	mg/L		01/16/14 11:52	01/28/14 17:49	100
2-Methylnaphthalene	0.996		0.0481	0.00673	mg/L		01/16/14 11:52	01/28/14 17:49	100
2-Chloronaphthalene	0.00769	U	0.0481	0.00769	mg/L		01/16/14 11:52	01/28/14 17:49	100
Acenaphthylene	0.00577	U	0.0481	0.00577	mg/L		01/16/14 11:52	01/28/14 17:49	100
2,6-Dinitrotoluene	0.00769	U	0.0481	0.00769	mg/L		01/16/14 11:52	01/28/14 17:49	100
Acenaphthene	0.553		0.0481	0.00769	mg/L		01/16/14 11:52	01/28/14 17:49	100
4-Nitrophenol	0.0538	U	0.0962	0.0538	mg/L		01/16/14 11:52	01/28/14 17:49	100
Dibenzofuran	0.326		0.0481	0.00769	mg/L		01/16/14 11:52	01/28/14 17:49	100
2,4-Dinitrotoluene	0.0125	U	0.0481	0.0125	mg/L		01/16/14 11:52	01/28/14 17:49	100
Fluorene	0.268		0.0481	0.00673	mg/L		01/16/14 11:52	01/28/14 17:49	100
4,6-Dinitro-2-methylphenol	0.0798	U	0.0962	0.0798	mg/L		01/16/14 11:52	01/28/14 17:49	100
N-Nitrosodiphenylamine	0.00962	U	0.0481	0.00962	mg/L		01/16/14 11:52	01/28/14 17:49	100
1,2-Diphenylhydrazine	0.0106	U	0.0481	0.0106	mg/L		01/16/14 11:52	01/28/14 17:49	100
Pentachlorophenol	0.0587	U	0.0962	0.0587	mg/L		01/16/14 11:52	01/28/14 17:49	100
Phenanthrene	0.190	b	0.0481	0.00577	mg/L		01/16/14 11:52	01/28/14 17:49	100
Anthracene	0.0226	J b	0.0481	0.00481	mg/L		01/16/14 11:52	01/28/14 17:49	100
Di-n-butyl phthalate	0.0106	U	0.240	0.0106	mg/L		01/16/14 11:52	01/28/14 17:49	100
Fluoranthene	0.00673	U	0.0481	0.00673	mg/L		01/16/14 11:52	01/28/14 17:49	100
Pyrene	0.0106	U	0.0481	0.0106	mg/L		01/16/14 11:52	01/28/14 17:49	100
Benzo[a]anthracene	0.00769	U	0.0481	0.00769	mg/L		01/16/14 11:52	01/28/14 17:49	100
Bis(2-ethylhexyl) phthalate	0.0356	U	0.240	0.0356	mg/L		01/16/14 11:52	01/28/14 17:49	100
Chrysene	0.00769	U	0.0481	0.00769	mg/L		01/16/14 11:52	01/28/14 17:49	100
Benzo[a]pyrene	0.00769	U	0.0481	0.00769	mg/L		01/16/14 11:52	01/28/14 17:49	100
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	0	X	44 - 123				01/16/14 11:52	01/28/14 17:49	100
2-Fluorobiphenyl	0	X	43 - 120				01/16/14 11:52	01/28/14 17:49	100
2-Fluorophenol	0	X	18 - 120				01/16/14 11:52	01/28/14 17:49	100
Nitrobenzene-d5	0	X	47 - 120				01/16/14 11:52	01/28/14 17:49	100
Terphenyl-d14	0	X	33 - 141				01/16/14 11:52	01/28/14 17:49	100
Phenol-d5 (Surr)	0	X	12 - 128				01/16/14 11:52	01/28/14 17:49	100

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-85569-1

Client Sample ID: WG-1620-MW18A-20140113

Lab Sample ID: 600-85569-1

Date Collected: 01/13/14 14:15

Matrix: Water

Date Received: 01/15/14 15:55

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels - DL

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-Dimethylphenol	2.95		0.481	0.298	mg/L		01/16/14 11:52	01/30/14 03:16	1000
Naphthalene	11.4	b	4.81	0.0769	mg/L		01/16/14 11:52	01/30/14 03:16	1000
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	0	X	44 - 123				01/16/14 11:52	01/30/14 03:16	1000
2-Fluorobiphenyl	0	X	43 - 120				01/16/14 11:52	01/30/14 03:16	1000
2-Fluorophenol	0	X	18 - 120				01/16/14 11:52	01/30/14 03:16	1000
Nitrobenzene-d5	0	X	47 - 120				01/16/14 11:52	01/30/14 03:16	1000
Terphenyl-d14	0	X	33 - 141				01/16/14 11:52	01/30/14 03:16	1000
Phenol-d5 (Surr)	0	X	12 - 128				01/16/14 11:52	01/30/14 03:16	1000

Client Sample ID: WG-1620-MW18C-20140113

Lab Sample ID: 600-85569-2

Date Collected: 01/13/14 15:00

Matrix: Water

Date Received: 01/15/14 15:55

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	0.00550	U	0.100	0.00550	mg/L			01/19/14 19:14	50
Methylene Chloride	0.00750	U	0.0500	0.00750	mg/L			01/19/14 19:14	50
1,2-Dichloroethane	0.00700	U	0.0500	0.00700	mg/L			01/19/14 19:14	50
Toluene	1.07		0.0500	0.00750	mg/L			01/19/14 19:14	50
Chlorobenzene	0.00600	U	0.0500	0.00600	mg/L			01/19/14 19:14	50
Ethylbenzene	0.245		0.0500	0.00550	mg/L			01/19/14 19:14	50
Xylenes, Total	1.02		0.150	0.0130	mg/L			01/19/14 19:14	50
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	98		67 - 139					01/19/14 19:14	50
Dibromofluoromethane	83		62 - 130					01/19/14 19:14	50
Toluene-d8 (Surr)	91		70 - 130					01/19/14 19:14	50
1,2-Dichloroethane-d4 (Surr)	91		50 - 134					01/19/14 19:14	50

Method: 8260B - Volatile Organic Compounds (GC/MS) - DL

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	1.51		0.100	0.00800	mg/L			01/20/14 21:45	100
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	94		67 - 139					01/20/14 21:45	100
Dibromofluoromethane	89		62 - 130					01/20/14 21:45	100
Toluene-d8 (Surr)	98		70 - 130					01/20/14 21:45	100
1,2-Dichloroethane-d4 (Surr)	98		50 - 134					01/20/14 21:45	100

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.0184	J	0.0481	0.00385	mg/L		01/16/14 11:52	01/28/14 18:15	100
Nitrobenzene	0.0106	U	0.0481	0.0106	mg/L		01/16/14 11:52	01/28/14 18:15	100
2,4-Dimethylphenol	0.0298	U	0.0481	0.0298	mg/L		01/16/14 11:52	01/28/14 18:15	100
Bis(2-chloroethoxy)methane	0.0125	U	0.0481	0.0125	mg/L		01/16/14 11:52	01/28/14 18:15	100
2-Methylnaphthalene	1.06		0.0481	0.00673	mg/L		01/16/14 11:52	01/28/14 18:15	100
2-Chloronaphthalene	0.00769	U	0.0481	0.00769	mg/L		01/16/14 11:52	01/28/14 18:15	100
Acenaphthylene	0.00577	U	0.0481	0.00577	mg/L		01/16/14 11:52	01/28/14 18:15	100
2,6-Dinitrotoluene	0.00769	U	0.0481	0.00769	mg/L		01/16/14 11:52	01/28/14 18:15	100

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-85569-1

Client Sample ID: WG-1620-MW18C-20140113

Lab Sample ID: 600-85569-2

Date Collected: 01/13/14 15:00

Matrix: Water

Date Received: 01/15/14 15:55

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	0.317		0.0481	0.00769	mg/L		01/16/14 11:52	01/28/14 18:15	100
4-Nitrophenol	0.0538	U	0.0962	0.0538	mg/L		01/16/14 11:52	01/28/14 18:15	100
Dibenzofuran	0.276		0.0481	0.00769	mg/L		01/16/14 11:52	01/28/14 18:15	100
2,4-Dinitrotoluene	0.0125	U	0.0481	0.0125	mg/L		01/16/14 11:52	01/28/14 18:15	100
Fluorene	0.00673	U	0.0481	0.00673	mg/L		01/16/14 11:52	01/28/14 18:15	100
4,6-Dinitro-2-methylphenol	0.0798	U	0.0962	0.0798	mg/L		01/16/14 11:52	01/28/14 18:15	100
N-Nitrosodiphenylamine	0.00962	U	0.0481	0.00962	mg/L		01/16/14 11:52	01/28/14 18:15	100
1,2-Diphenylhydrazine	0.0106	U	0.0481	0.0106	mg/L		01/16/14 11:52	01/28/14 18:15	100
Pentachlorophenol	0.188		0.0962	0.0587	mg/L		01/16/14 11:52	01/28/14 18:15	100
Phenanthrene	0.177	b	0.0481	0.00577	mg/L		01/16/14 11:52	01/28/14 18:15	100
Anthracene	0.0414	J b	0.0481	0.00481	mg/L		01/16/14 11:52	01/28/14 18:15	100
Di-n-butyl phthalate	0.0106	U	0.240	0.0106	mg/L		01/16/14 11:52	01/28/14 18:15	100
Fluoranthene	0.0191	J	0.0481	0.00673	mg/L		01/16/14 11:52	01/28/14 18:15	100
Pyrene	0.0106	U	0.0481	0.0106	mg/L		01/16/14 11:52	01/28/14 18:15	100
Benzo[a]anthracene	0.00769	U	0.0481	0.00769	mg/L		01/16/14 11:52	01/28/14 18:15	100
Bis(2-ethylhexyl) phthalate	0.0356	U	0.240	0.0356	mg/L		01/16/14 11:52	01/28/14 18:15	100
Chrysene	0.00769	U	0.0481	0.00769	mg/L		01/16/14 11:52	01/28/14 18:15	100
Benzo[a]pyrene	0.00769	U	0.0481	0.00769	mg/L		01/16/14 11:52	01/28/14 18:15	100
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	0	X	44 - 123				01/16/14 11:52	01/28/14 18:15	100
2-Fluorobiphenyl	0	X	43 - 120				01/16/14 11:52	01/28/14 18:15	100
2-Fluorophenol	0	X	18 - 120				01/16/14 11:52	01/28/14 18:15	100
Nitrobenzene-d5	0	X	47 - 120				01/16/14 11:52	01/28/14 18:15	100
Terphenyl-d14	0	X	33 - 141				01/16/14 11:52	01/28/14 18:15	100
Phenol-d5 (Surr)	0	X	12 - 128				01/16/14 11:52	01/28/14 18:15	100

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels - DL2

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	20.3	b	9.62	0.154	mg/L		01/16/14 11:52	01/30/14 13:22	2000
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	0	X	44 - 123				01/16/14 11:52	01/30/14 13:22	2000
2-Fluorobiphenyl	0	X	43 - 120				01/16/14 11:52	01/30/14 13:22	2000
2-Fluorophenol	0	X	18 - 120				01/16/14 11:52	01/30/14 13:22	2000
Nitrobenzene-d5	0	X	47 - 120				01/16/14 11:52	01/30/14 13:22	2000
Terphenyl-d14	0	X	33 - 141				01/16/14 11:52	01/30/14 13:22	2000
Phenol-d5 (Surr)	0	X	12 - 128				01/16/14 11:52	01/30/14 13:22	2000

Client Sample ID: WG-1620-MW17C-20140113

Lab Sample ID: 600-85569-3

Date Collected: 01/13/14 16:00

Matrix: Water

Date Received: 01/15/14 15:55

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	0.000750	U	0.00500	0.000750	mg/L			01/19/14 17:57	5
Benzene	0.00939		0.00500	0.000400	mg/L			01/19/14 17:57	5
1,2-Dichloroethane	0.000700	U	0.00500	0.000700	mg/L			01/19/14 17:57	5
Toluene	0.00471	J	0.00500	0.000750	mg/L			01/19/14 17:57	5
Chlorobenzene	0.000600	U	0.00500	0.000600	mg/L			01/19/14 17:57	5

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-85569-1

Client Sample ID: WG-1620-MW17C-20140113

Lab Sample ID: 600-85569-3

Date Collected: 01/13/14 16:00

Matrix: Water

Date Received: 01/15/14 15:55

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	0.123		0.00500	0.000550	mg/L			01/19/14 17:57	5
Xylenes, Total	0.141		0.0150	0.00130	mg/L			01/19/14 17:57	5
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	103		67 - 139					01/19/14 17:57	5
Dibromofluoromethane	88		62 - 130					01/19/14 17:57	5
Toluene-d8 (Surr)	97		70 - 130					01/19/14 17:57	5
1,2-Dichloroethane-d4 (Surr)	96		50 - 134					01/19/14 17:57	5

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.00385	U	0.0481	0.00385	mg/L		01/16/14 11:52	01/28/14 18:42	100
Nitrobenzene	0.0106	U	0.0481	0.0106	mg/L		01/16/14 11:52	01/28/14 18:42	100
2,4-Dimethylphenol	0.0298	U	0.0481	0.0298	mg/L		01/16/14 11:52	01/28/14 18:42	100
Bis(2-chloroethoxy)methane	0.0125	U	0.0481	0.0125	mg/L		01/16/14 11:52	01/28/14 18:42	100
2-Methylnaphthalene	0.144		0.0481	0.00673	mg/L		01/16/14 11:52	01/28/14 18:42	100
2-Chloronaphthalene	0.00769	U	0.0481	0.00769	mg/L		01/16/14 11:52	01/28/14 18:42	100
Acenaphthylene	0.00577	U	0.0481	0.00577	mg/L		01/16/14 11:52	01/28/14 18:42	100
2,6-Dinitrotoluene	0.00769	U	0.0481	0.00769	mg/L		01/16/14 11:52	01/28/14 18:42	100
Acenaphthene	0.218		0.0481	0.00769	mg/L		01/16/14 11:52	01/28/14 18:42	100
4-Nitrophenol	0.0538	U	0.0962	0.0538	mg/L		01/16/14 11:52	01/28/14 18:42	100
Dibenzofuran	0.184		0.0481	0.00769	mg/L		01/16/14 11:52	01/28/14 18:42	100
2,4-Dinitrotoluene	0.0125	U	0.0481	0.0125	mg/L		01/16/14 11:52	01/28/14 18:42	100
Fluorene	0.0907		0.0481	0.00673	mg/L		01/16/14 11:52	01/28/14 18:42	100
4,6-Dinitro-2-methylphenol	0.0798	U	0.0962	0.0798	mg/L		01/16/14 11:52	01/28/14 18:42	100
N-Nitrosodiphenylamine	0.00962	U	0.0481	0.00962	mg/L		01/16/14 11:52	01/28/14 18:42	100
1,2-Diphenylhydrazine	0.0106	U	0.0481	0.0106	mg/L		01/16/14 11:52	01/28/14 18:42	100
Pentachlorophenol	0.0587	U	0.0962	0.0587	mg/L		01/16/14 11:52	01/28/14 18:42	100
Phenanthrene	0.110	b	0.0481	0.00577	mg/L		01/16/14 11:52	01/28/14 18:42	100
Anthracene	0.0156	J b	0.0481	0.00481	mg/L		01/16/14 11:52	01/28/14 18:42	100
Di-n-butyl phthalate	0.0106	U	0.240	0.0106	mg/L		01/16/14 11:52	01/28/14 18:42	100
Fluoranthene	0.00707	J	0.0481	0.00673	mg/L		01/16/14 11:52	01/28/14 18:42	100
Pyrene	0.0106	U	0.0481	0.0106	mg/L		01/16/14 11:52	01/28/14 18:42	100
Benzo[a]anthracene	0.00769	U	0.0481	0.00769	mg/L		01/16/14 11:52	01/28/14 18:42	100
Bis(2-ethylhexyl) phthalate	0.0491	J	0.240	0.0356	mg/L		01/16/14 11:52	01/28/14 18:42	100
Chrysene	0.00769	U	0.0481	0.00769	mg/L		01/16/14 11:52	01/28/14 18:42	100
Benzo[a]pyrene	0.00769	U	0.0481	0.00769	mg/L		01/16/14 11:52	01/28/14 18:42	100
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	0	X	44 - 123				01/16/14 11:52	01/28/14 18:42	100
2-Fluorobiphenyl	0	X	43 - 120				01/16/14 11:52	01/28/14 18:42	100
2-Fluorophenol	0	X	18 - 120				01/16/14 11:52	01/28/14 18:42	100
Nitrobenzene-d5	0	X	47 - 120				01/16/14 11:52	01/28/14 18:42	100
Terphenyl-d14	0	X	33 - 141				01/16/14 11:52	01/28/14 18:42	100
Phenol-d5 (Surr)	0	X	12 - 128				01/16/14 11:52	01/28/14 18:42	100

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels - DL

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	6.24	b	2.40	0.0385	mg/L		01/16/14 11:52	01/30/14 04:07	500

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-85569-1

Client Sample ID: WG-1620-MW17C-20140113

Lab Sample ID: 600-85569-3

Date Collected: 01/13/14 16:00

Matrix: Water

Date Received: 01/15/14 15:55

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	0	X	44 - 123	01/16/14 11:52	01/30/14 04:07	500
2-Fluorobiphenyl	0	X	43 - 120	01/16/14 11:52	01/30/14 04:07	500
2-Fluorophenol	0	X	18 - 120	01/16/14 11:52	01/30/14 04:07	500
Nitrobenzene-d5	0	X	47 - 120	01/16/14 11:52	01/30/14 04:07	500
Terphenyl-d14	0	X	33 - 141	01/16/14 11:52	01/30/14 04:07	500
Phenol-d5 (Surr)	0	X	12 - 128	01/16/14 11:52	01/30/14 04:07	500

Client Sample ID: WG-1620-MW17-20140113

Lab Sample ID: 600-85569-4

Date Collected: 01/13/14 16:50

Matrix: Water

Date Received: 01/15/14 15:55

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	0.00750	U	0.0500	0.00750	mg/L			01/19/14 19:40	50
Benzene	0.324		0.0500	0.00400	mg/L			01/19/14 19:40	50
1,2-Dichloroethane	0.00700	U	0.0500	0.00700	mg/L			01/19/14 19:40	50
Toluene	0.931		0.0500	0.00750	mg/L			01/19/14 19:40	50
Chlorobenzene	0.00600	U	0.0500	0.00600	mg/L			01/19/14 19:40	50
Ethylbenzene	0.251		0.0500	0.00550	mg/L			01/19/14 19:40	50
Xylenes, Total	0.724		0.150	0.0130	mg/L			01/19/14 19:40	50

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	104		67 - 139		01/19/14 19:40	50
Dibromofluoromethane	90		62 - 130		01/19/14 19:40	50
Toluene-d8 (Surr)	97		70 - 130		01/19/14 19:40	50
1,2-Dichloroethane-d4 (Surr)	96		50 - 134		01/19/14 19:40	50

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	6.46		0.240	0.0192	mg/L		01/16/14 11:52	01/28/14 19:08	500
Nitrobenzene	0.0529	U	0.240	0.0529	mg/L		01/16/14 11:52	01/28/14 19:08	500
2,4-Dimethylphenol	6.75		0.240	0.149	mg/L		01/16/14 11:52	01/28/14 19:08	500
Bis(2-chloroethoxy)methane	0.0625	U	0.240	0.0625	mg/L		01/16/14 11:52	01/28/14 19:08	500
2-Methylnaphthalene	0.857		0.240	0.0337	mg/L		01/16/14 11:52	01/28/14 19:08	500
2-Chloronaphthalene	0.0385	U	0.240	0.0385	mg/L		01/16/14 11:52	01/28/14 19:08	500
Acenaphthylene	0.0288	U	0.240	0.0288	mg/L		01/16/14 11:52	01/28/14 19:08	500
2,6-Dinitrotoluene	0.0385	U	0.240	0.0385	mg/L		01/16/14 11:52	01/28/14 19:08	500
Acenaphthene	0.315		0.240	0.0385	mg/L		01/16/14 11:52	01/28/14 19:08	500
4-Nitrophenol	0.269	U	0.481	0.269	mg/L		01/16/14 11:52	01/28/14 19:08	500
Dibenzofuran	0.211	J	0.240	0.0385	mg/L		01/16/14 11:52	01/28/14 19:08	500
2,4-Dinitrotoluene	0.0625	U	0.240	0.0625	mg/L		01/16/14 11:52	01/28/14 19:08	500
Fluorene	0.160	J	0.240	0.0337	mg/L		01/16/14 11:52	01/28/14 19:08	500
4,6-Dinitro-2-methylphenol	0.399	U	0.481	0.399	mg/L		01/16/14 11:52	01/28/14 19:08	500
N-Nitrosodiphenylamine	0.0481	U	0.240	0.0481	mg/L		01/16/14 11:52	01/28/14 19:08	500
1,2-Diphenylhydrazine	0.0529	U	0.240	0.0529	mg/L		01/16/14 11:52	01/28/14 19:08	500
Pentachlorophenol	0.293	U	0.481	0.293	mg/L		01/16/14 11:52	01/28/14 19:08	500
Phenanthrene	0.0993	J b	0.240	0.0288	mg/L		01/16/14 11:52	01/28/14 19:08	500
Anthracene	0.0278	J b	0.240	0.0240	mg/L		01/16/14 11:52	01/28/14 19:08	500
Di-n-butyl phthalate	0.0529	U	1.20	0.0529	mg/L		01/16/14 11:52	01/28/14 19:08	500
Fluoranthene	0.0337	U	0.240	0.0337	mg/L		01/16/14 11:52	01/28/14 19:08	500
Pyrene	0.0529	U	0.240	0.0529	mg/L		01/16/14 11:52	01/28/14 19:08	500

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-85569-1

Client Sample ID: WG-1620-MW17-20140113

Lab Sample ID: 600-85569-4

Date Collected: 01/13/14 16:50

Matrix: Water

Date Received: 01/15/14 15:55

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]anthracene	0.0385	U	0.240	0.0385	mg/L		01/16/14 11:52	01/28/14 19:08	500
Bis(2-ethylhexyl) phthalate	0.178	U	1.20	0.178	mg/L		01/16/14 11:52	01/28/14 19:08	500
Chrysene	0.0385	U	0.240	0.0385	mg/L		01/16/14 11:52	01/28/14 19:08	500
Benzo[a]pyrene	0.0385	U	0.240	0.0385	mg/L		01/16/14 11:52	01/28/14 19:08	500
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	0	X	44 - 123				01/16/14 11:52	01/28/14 19:08	500
2-Fluorobiphenyl	0	X	43 - 120				01/16/14 11:52	01/28/14 19:08	500
2-Fluorophenol	0	X	18 - 120				01/16/14 11:52	01/28/14 19:08	500
Nitrobenzene-d5	0	X	47 - 120				01/16/14 11:52	01/28/14 19:08	500
Terphenyl-d14	0	X	33 - 141				01/16/14 11:52	01/28/14 19:08	500
Phenol-d5 (Surr)	0	X	12 - 128				01/16/14 11:52	01/28/14 19:08	500

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels - DL

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	21.3	b	12.0	0.192	mg/L		01/16/14 11:52	01/30/14 04:33	2500
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	0	X	44 - 123				01/16/14 11:52	01/30/14 04:33	2500
2-Fluorobiphenyl	0	X	43 - 120				01/16/14 11:52	01/30/14 04:33	2500
2-Fluorophenol	0	X	18 - 120				01/16/14 11:52	01/30/14 04:33	2500
Nitrobenzene-d5	0	X	47 - 120				01/16/14 11:52	01/30/14 04:33	2500
Terphenyl-d14	0	X	33 - 141				01/16/14 11:52	01/30/14 04:33	2500
Phenol-d5 (Surr)	0	X	12 - 128				01/16/14 11:52	01/30/14 04:33	2500

Client Sample ID: WG-1620-FB1-20140113

Lab Sample ID: 600-85569-5

Date Collected: 01/13/14 17:15

Matrix: Water

Date Received: 01/15/14 15:55

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	0.000110	U	0.00200	0.000110	mg/L			01/17/14 15:58	1
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			01/17/14 15:58	1
Benzene	0.0000800	U	0.00100	0.0000800	mg/L			01/17/14 15:58	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			01/17/14 15:58	1
Toluene	0.000150	U	0.00100	0.000150	mg/L			01/17/14 15:58	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			01/17/14 15:58	1
Ethylbenzene	0.000110	U	0.00100	0.000110	mg/L			01/17/14 15:58	1
Xylenes, Total	0.000260	U	0.00300	0.000260	mg/L			01/17/14 15:58	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	96		67 - 139					01/17/14 15:58	1
Dibromofluoromethane	86		62 - 130					01/17/14 15:58	1
Toluene-d8 (Surr)	91		70 - 130					01/17/14 15:58	1
1,2-Dichloroethane-d4 (Surr)	95		50 - 134					01/17/14 15:58	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.000356	J	0.000481	0.0000385	mg/L		01/16/14 11:52	01/28/14 14:52	1
Nitrobenzene	0.000106	U	0.000481	0.000106	mg/L		01/16/14 11:52	01/28/14 14:52	1
2,4-Dimethylphenol	0.000298	U	0.000481	0.000298	mg/L		01/16/14 11:52	01/28/14 14:52	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-85569-1

Client Sample ID: WG-1620-FB1-20140113

Lab Sample ID: 600-85569-5

Date Collected: 01/13/14 17:15

Matrix: Water

Date Received: 01/15/14 15:55

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-chloroethoxy)methane	0.000125	U	0.000481	0.000125	mg/L		01/16/14 11:52	01/28/14 14:52	1
Naphthalene	0.00179	J b	0.00481	0.0000769	mg/L		01/16/14 11:52	01/28/14 14:52	1
2-Methylnaphthalene	0.0000919	J	0.000481	0.0000673	mg/L		01/16/14 11:52	01/28/14 14:52	1
2-Chloronaphthalene	0.0000769	U	0.000481	0.0000769	mg/L		01/16/14 11:52	01/28/14 14:52	1
Acenaphthylene	0.0000577	U	0.000481	0.0000577	mg/L		01/16/14 11:52	01/28/14 14:52	1
2,6-Dinitrotoluene	0.0000769	U	0.000481	0.0000769	mg/L		01/16/14 11:52	01/28/14 14:52	1
Acenaphthene	0.000104	J	0.000481	0.0000769	mg/L		01/16/14 11:52	01/28/14 14:52	1
4-Nitrophenol	0.000538	U	0.000962	0.000538	mg/L		01/16/14 11:52	01/28/14 14:52	1
Dibenzofuran	0.0000769	U	0.000481	0.0000769	mg/L		01/16/14 11:52	01/28/14 14:52	1
2,4-Dinitrotoluene	0.000125	U	0.000481	0.000125	mg/L		01/16/14 11:52	01/28/14 14:52	1
Fluorene	0.0000673	U	0.000481	0.0000673	mg/L		01/16/14 11:52	01/28/14 14:52	1
4,6-Dinitro-2-methylphenol	0.000798	U	0.000962	0.000798	mg/L		01/16/14 11:52	01/28/14 14:52	1
N-Nitrosodiphenylamine	0.0000962	U	0.000481	0.0000962	mg/L		01/16/14 11:52	01/28/14 14:52	1
1,2-Diphenylhydrazine	0.000106	U	0.000481	0.000106	mg/L		01/16/14 11:52	01/28/14 14:52	1
Pentachlorophenol	0.000587	U	0.000962	0.000587	mg/L		01/16/14 11:52	01/28/14 14:52	1
Phenanthrene	0.0000577	U	0.000481	0.0000577	mg/L		01/16/14 11:52	01/28/14 14:52	1
Anthracene	0.0000481	U	0.000481	0.0000481	mg/L		01/16/14 11:52	01/28/14 14:52	1
Di-n-butyl phthalate	0.000136	J b	0.00240	0.000106	mg/L		01/16/14 11:52	01/28/14 14:52	1
Fluoranthene	0.0000673	U	0.000481	0.0000673	mg/L		01/16/14 11:52	01/28/14 14:52	1
Pyrene	0.000106	U	0.000481	0.000106	mg/L		01/16/14 11:52	01/28/14 14:52	1
Benzo[a]anthracene	0.0000769	U	0.000481	0.0000769	mg/L		01/16/14 11:52	01/28/14 14:52	1
Bis(2-ethylhexyl) phthalate	0.000356	U	0.00240	0.000356	mg/L		01/16/14 11:52	01/28/14 14:52	1
Chrysene	0.0000769	U	0.000481	0.0000769	mg/L		01/16/14 11:52	01/28/14 14:52	1
Benzo[a]pyrene	0.0000769	U	0.000481	0.0000769	mg/L		01/16/14 11:52	01/28/14 14:52	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>2,4,6-Tribromophenol</i>	46		44 - 123				01/16/14 11:52	01/28/14 14:52	1
<i>2-Fluorobiphenyl</i>	88		43 - 120				01/16/14 11:52	01/28/14 14:52	1
<i>2-Fluorophenol</i>	23		18 - 120				01/16/14 11:52	01/28/14 14:52	1
<i>Nitrobenzene-d5</i>	95		47 - 120				01/16/14 11:52	01/28/14 14:52	1
<i>Terphenyl-d14</i>	100		33 - 141				01/16/14 11:52	01/28/14 14:52	1
<i>Phenol-d5 (Surr)</i>	19		12 - 128				01/16/14 11:52	01/28/14 14:52	1

Client Sample ID: WG-1620-MW15A-20140114

Lab Sample ID: 600-85569-6

Date Collected: 01/14/14 07:45

Matrix: Water

Date Received: 01/15/14 15:55

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			01/19/14 17:32	1
Benzene	0.00106		0.00100	0.0000800	mg/L			01/19/14 17:32	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			01/19/14 17:32	1
Toluene	0.000340	J	0.00100	0.000150	mg/L			01/19/14 17:32	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			01/19/14 17:32	1
Ethylbenzene	0.000627	J	0.00100	0.000110	mg/L			01/19/14 17:32	1
Xylenes, Total	0.00337		0.00300	0.000260	mg/L			01/19/14 17:32	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>4-Bromofluorobenzene</i>	100		67 - 139					01/19/14 17:32	1
<i>Dibromofluoromethane</i>	89		62 - 130					01/19/14 17:32	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-85569-1

Client Sample ID: WG-1620-MW15A-20140114

Lab Sample ID: 600-85569-6

Date Collected: 01/14/14 07:45

Matrix: Water

Date Received: 01/15/14 15:55

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	94		70 - 130		01/19/14 17:32	1
1,2-Dichloroethane-d4 (Surr)	96		50 - 134		01/19/14 17:32	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.00192	U	0.0240	0.00192	mg/L		01/16/14 11:52	01/28/14 19:34	50
Nitrobenzene	0.00529	U	0.0240	0.00529	mg/L		01/16/14 11:52	01/28/14 19:34	50
2,4-Dimethylphenol	0.0149	U	0.0240	0.0149	mg/L		01/16/14 11:52	01/28/14 19:34	50
Bis(2-chloroethoxy)methane	0.00625	U	0.0240	0.00625	mg/L		01/16/14 11:52	01/28/14 19:34	50
Naphthalene	0.326	b	0.240	0.00385	mg/L		01/16/14 11:52	01/28/14 19:34	50
2-Methylnaphthalene	0.0475		0.0240	0.00337	mg/L		01/16/14 11:52	01/28/14 19:34	50
2-Chloronaphthalene	0.00385	U	0.0240	0.00385	mg/L		01/16/14 11:52	01/28/14 19:34	50
Acenaphthylene	0.00288	U	0.0240	0.00288	mg/L		01/16/14 11:52	01/28/14 19:34	50
2,6-Dinitrotoluene	0.00385	U	0.0240	0.00385	mg/L		01/16/14 11:52	01/28/14 19:34	50
Acenaphthene	0.300		0.0240	0.00385	mg/L		01/16/14 11:52	01/28/14 19:34	50
4-Nitrophenol	0.0269	U	0.0481	0.0269	mg/L		01/16/14 11:52	01/28/14 19:34	50
Dibenzofuran	0.0693		0.0240	0.00385	mg/L		01/16/14 11:52	01/28/14 19:34	50
2,4-Dinitrotoluene	0.00625	U	0.0240	0.00625	mg/L		01/16/14 11:52	01/28/14 19:34	50
Fluorene	0.114		0.0240	0.00337	mg/L		01/16/14 11:52	01/28/14 19:34	50
4,6-Dinitro-2-methylphenol	0.0399	U	0.0481	0.0399	mg/L		01/16/14 11:52	01/28/14 19:34	50
N-Nitrosodiphenylamine	0.00481	U	0.0240	0.00481	mg/L		01/16/14 11:52	01/28/14 19:34	50
1,2-Diphenylhydrazine	0.00529	U	0.0240	0.00529	mg/L		01/16/14 11:52	01/28/14 19:34	50
Pentachlorophenol	0.0293	U	0.0481	0.0293	mg/L		01/16/14 11:52	01/28/14 19:34	50
Phenanthrene	0.0375	b	0.0240	0.00288	mg/L		01/16/14 11:52	01/28/14 19:34	50
Anthracene	0.0111	J b	0.0240	0.00240	mg/L		01/16/14 11:52	01/28/14 19:34	50
Di-n-butyl phthalate	0.00529	U	0.120	0.00529	mg/L		01/16/14 11:52	01/28/14 19:34	50
Fluoranthene	0.00337	U	0.0240	0.00337	mg/L		01/16/14 11:52	01/28/14 19:34	50
Pyrene	0.00529	U	0.0240	0.00529	mg/L		01/16/14 11:52	01/28/14 19:34	50
Benzo[a]anthracene	0.00385	U	0.0240	0.00385	mg/L		01/16/14 11:52	01/28/14 19:34	50
Bis(2-ethylhexyl) phthalate	0.0178	U	0.120	0.0178	mg/L		01/16/14 11:52	01/28/14 19:34	50
Chrysene	0.00385	U	0.0240	0.00385	mg/L		01/16/14 11:52	01/28/14 19:34	50
Benzo[a]pyrene	0.00385	U	0.0240	0.00385	mg/L		01/16/14 11:52	01/28/14 19:34	50

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	0	X	44 - 123	01/16/14 11:52	01/28/14 19:34	50
2-Fluorobiphenyl	0	X	43 - 120	01/16/14 11:52	01/28/14 19:34	50
2-Fluorophenol	0	X	18 - 120	01/16/14 11:52	01/28/14 19:34	50
Nitrobenzene-d5	0	X	47 - 120	01/16/14 11:52	01/28/14 19:34	50
Terphenyl-d14	0	X	33 - 141	01/16/14 11:52	01/28/14 19:34	50
Phenol-d5 (Surr)	0	X	12 - 128	01/16/14 11:52	01/28/14 19:34	50

Client Sample ID: WG-1620-MW15C-20140114

Lab Sample ID: 600-85569-7

Date Collected: 01/14/14 08:40

Matrix: Water

Date Received: 01/15/14 15:55

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			01/17/14 19:50	1
Benzene	0.000863	J	0.00100	0.0000800	mg/L			01/17/14 19:50	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			01/17/14 19:50	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-85569-1

Client Sample ID: WG-1620-MW15C-20140114

Lab Sample ID: 600-85569-7

Date Collected: 01/14/14 08:40

Matrix: Water

Date Received: 01/15/14 15:55

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Toluene	0.000305	J	0.00100	0.000150	mg/L			01/17/14 19:50	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			01/17/14 19:50	1
Ethylbenzene	0.000275	J	0.00100	0.000110	mg/L			01/17/14 19:50	1
Xylenes, Total	0.000581	J	0.00300	0.000260	mg/L			01/17/14 19:50	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	103		67 - 139					01/17/14 19:50	1
Dibromofluoromethane	88		62 - 130					01/17/14 19:50	1
Toluene-d8 (Surr)	96		70 - 130					01/17/14 19:50	1
1,2-Dichloroethane-d4 (Surr)	96		50 - 134					01/17/14 19:50	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.000385	U	0.00481	0.000385	mg/L		01/16/14 11:52	01/28/14 20:00	10
Nitrobenzene	0.00106	U	0.00481	0.00106	mg/L		01/16/14 11:52	01/28/14 20:00	10
2,4-Dimethylphenol	0.00298	U	0.00481	0.00298	mg/L		01/16/14 11:52	01/28/14 20:00	10
Bis(2-chloroethoxy)methane	0.00125	U	0.00481	0.00125	mg/L		01/16/14 11:52	01/28/14 20:00	10
Naphthalene	0.00182	J b	0.0481	0.000769	mg/L		01/16/14 11:52	01/28/14 20:00	10
2-Methylnaphthalene	0.000673	U	0.00481	0.000673	mg/L		01/16/14 11:52	01/28/14 20:00	10
2-Chloronaphthalene	0.000769	U	0.00481	0.000769	mg/L		01/16/14 11:52	01/28/14 20:00	10
Acenaphthylene	0.000577	U	0.00481	0.000577	mg/L		01/16/14 11:52	01/28/14 20:00	10
2,6-Dinitrotoluene	0.000769	U	0.00481	0.000769	mg/L		01/16/14 11:52	01/28/14 20:00	10
Acenaphthene	0.0912		0.00481	0.000769	mg/L		01/16/14 11:52	01/28/14 20:00	10
4-Nitrophenol	0.00538	U	0.00962	0.00538	mg/L		01/16/14 11:52	01/28/14 20:00	10
Dibenzofuran	0.0317		0.00481	0.000769	mg/L		01/16/14 11:52	01/28/14 20:00	10
2,4-Dinitrotoluene	0.00125	U	0.00481	0.00125	mg/L		01/16/14 11:52	01/28/14 20:00	10
Fluorene	0.00224	J	0.00481	0.000673	mg/L		01/16/14 11:52	01/28/14 20:00	10
4,6-Dinitro-2-methylphenol	0.00798	U	0.00962	0.00798	mg/L		01/16/14 11:52	01/28/14 20:00	10
N-Nitrosodiphenylamine	0.000962	U	0.00481	0.000962	mg/L		01/16/14 11:52	01/28/14 20:00	10
1,2-Diphenylhydrazine	0.00106	U	0.00481	0.00106	mg/L		01/16/14 11:52	01/28/14 20:00	10
Pentachlorophenol	0.00587	U	0.00962	0.00587	mg/L		01/16/14 11:52	01/28/14 20:00	10
Phenanthrene	0.000577	U	0.00481	0.000577	mg/L		01/16/14 11:52	01/28/14 20:00	10
Anthracene	0.000481	U	0.00481	0.000481	mg/L		01/16/14 11:52	01/28/14 20:00	10
Di-n-butyl phthalate	0.00106	U	0.0240	0.00106	mg/L		01/16/14 11:52	01/28/14 20:00	10
Fluoranthene	0.00158	J	0.00481	0.000673	mg/L		01/16/14 11:52	01/28/14 20:00	10
Pyrene	0.00106	U	0.00481	0.00106	mg/L		01/16/14 11:52	01/28/14 20:00	10
Benzo[a]anthracene	0.000769	U	0.00481	0.000769	mg/L		01/16/14 11:52	01/28/14 20:00	10
Bis(2-ethylhexyl) phthalate	0.00356	U	0.0240	0.00356	mg/L		01/16/14 11:52	01/28/14 20:00	10
Chrysene	0.000769	U	0.00481	0.000769	mg/L		01/16/14 11:52	01/28/14 20:00	10
Benzo[a]pyrene	0.000769	U	0.00481	0.000769	mg/L		01/16/14 11:52	01/28/14 20:00	10
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	124	X	44 - 123				01/16/14 11:52	01/28/14 20:00	10
2-Fluorobiphenyl	93		43 - 120				01/16/14 11:52	01/28/14 20:00	10
2-Fluorophenol	37		18 - 120				01/16/14 11:52	01/28/14 20:00	10
Nitrobenzene-d5	105		47 - 120				01/16/14 11:52	01/28/14 20:00	10
Terphenyl-d14	122		33 - 141				01/16/14 11:52	01/28/14 20:00	10
Phenol-d5 (Surr)	17		12 - 128				01/16/14 11:52	01/28/14 20:00	10

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-85569-1

Client Sample ID: WG-1620-MW15B-20140114

Lab Sample ID: 600-85569-8

Date Collected: 01/14/14 09:20

Matrix: Water

Date Received: 01/15/14 15:55

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			01/17/14 16:24	1
Benzene	0.00101		0.00100	0.0000800	mg/L			01/17/14 16:24	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			01/17/14 16:24	1
Toluene	0.000150	U	0.00100	0.000150	mg/L			01/17/14 16:24	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			01/17/14 16:24	1
Ethylbenzene	0.000190	J	0.00100	0.000110	mg/L			01/17/14 16:24	1
Xylenes, Total	0.000876	J	0.00300	0.000260	mg/L			01/17/14 16:24	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	97		67 - 139					01/17/14 16:24	1
Dibromofluoromethane	88		62 - 130					01/17/14 16:24	1
Toluene-d8 (Surr)	90		70 - 130					01/17/14 16:24	1
1,2-Dichloroethane-d4 (Surr)	95		50 - 134					01/17/14 16:24	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.00141	J	0.00481	0.000385	mg/L		01/16/14 11:52	01/28/14 20:25	10
Nitrobenzene	0.00106	U	0.00481	0.00106	mg/L		01/16/14 11:52	01/28/14 20:25	10
2,4-Dimethylphenol	0.00298	U	0.00481	0.00298	mg/L		01/16/14 11:52	01/28/14 20:25	10
Bis(2-chloroethoxy)methane	0.00125	U	0.00481	0.00125	mg/L		01/16/14 11:52	01/28/14 20:25	10
2-Methylnaphthalene	0.00325	J	0.00481	0.000673	mg/L		01/16/14 11:52	01/28/14 20:25	10
2-Chloronaphthalene	0.000769	U	0.00481	0.000769	mg/L		01/16/14 11:52	01/28/14 20:25	10
Acenaphthylene	0.00148	J	0.00481	0.000577	mg/L		01/16/14 11:52	01/28/14 20:25	10
2,6-Dinitrotoluene	0.000769	U	0.00481	0.000769	mg/L		01/16/14 11:52	01/28/14 20:25	10
Acenaphthene	0.134		0.00481	0.000769	mg/L		01/16/14 11:52	01/28/14 20:25	10
4-Nitrophenol	0.00538	U	0.00962	0.00538	mg/L		01/16/14 11:52	01/28/14 20:25	10
Dibenzofuran	0.0509		0.00481	0.000769	mg/L		01/16/14 11:52	01/28/14 20:25	10
2,4-Dinitrotoluene	0.00125	U	0.00481	0.00125	mg/L		01/16/14 11:52	01/28/14 20:25	10
Fluorene	0.0443		0.00481	0.000673	mg/L		01/16/14 11:52	01/28/14 20:25	10
4,6-Dinitro-2-methylphenol	0.00798	U	0.00962	0.00798	mg/L		01/16/14 11:52	01/28/14 20:25	10
N-Nitrosodiphenylamine	0.000962	U	0.00481	0.000962	mg/L		01/16/14 11:52	01/28/14 20:25	10
1,2-Diphenylhydrazine	0.00106	U	0.00481	0.00106	mg/L		01/16/14 11:52	01/28/14 20:25	10
Pentachlorophenol	0.00587	U	0.00962	0.00587	mg/L		01/16/14 11:52	01/28/14 20:25	10
Phenanthrene	0.0257	b	0.00481	0.000577	mg/L		01/16/14 11:52	01/28/14 20:25	10
Anthracene	0.00665	b	0.00481	0.000481	mg/L		01/16/14 11:52	01/28/14 20:25	10
Di-n-butyl phthalate	0.00106	U	0.0240	0.00106	mg/L		01/16/14 11:52	01/28/14 20:25	10
Fluoranthene	0.0131		0.00481	0.000673	mg/L		01/16/14 11:52	01/28/14 20:25	10
Pyrene	0.00569		0.00481	0.00106	mg/L		01/16/14 11:52	01/28/14 20:25	10
Benzo[a]anthracene	0.000868	J	0.00481	0.000769	mg/L		01/16/14 11:52	01/28/14 20:25	10
Bis(2-ethylhexyl) phthalate	0.00356	U	0.0240	0.00356	mg/L		01/16/14 11:52	01/28/14 20:25	10
Chrysene	0.000769	U	0.00481	0.000769	mg/L		01/16/14 11:52	01/28/14 20:25	10
Benzo[a]pyrene	0.000769	U	0.00481	0.000769	mg/L		01/16/14 11:52	01/28/14 20:25	10
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	115		44 - 123				01/16/14 11:52	01/28/14 20:25	10
2-Fluorobiphenyl	109		43 - 120				01/16/14 11:52	01/28/14 20:25	10
2-Fluorophenol	36		18 - 120				01/16/14 11:52	01/28/14 20:25	10
Nitrobenzene-d5	105		47 - 120				01/16/14 11:52	01/28/14 20:25	10
Terphenyl-d14	106		33 - 141				01/16/14 11:52	01/28/14 20:25	10
Phenol-d5 (Surr)	23		12 - 128				01/16/14 11:52	01/28/14 20:25	10

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-85569-1

Client Sample ID: WG-1620-MW15B-20140114

Lab Sample ID: 600-85569-8

Date Collected: 01/14/14 09:20

Matrix: Water

Date Received: 01/15/14 15:55

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels - DL

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	0.248	b	0.0962	0.00154	mg/L		01/16/14 11:52	01/30/14 04:59	20
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	124	X	44 - 123				01/16/14 11:52	01/30/14 04:59	20
2-Fluorobiphenyl	102		43 - 120				01/16/14 11:52	01/30/14 04:59	20
2-Fluorophenol	35		18 - 120				01/16/14 11:52	01/30/14 04:59	20
Nitrobenzene-d5	78		47 - 120				01/16/14 11:52	01/30/14 04:59	20
Terphenyl-d14	88		33 - 141				01/16/14 11:52	01/30/14 04:59	20
Phenol-d5 (Surr)	13		12 - 128				01/16/14 11:52	01/30/14 04:59	20

Client Sample ID: WG-1620-MW14-20140114

Lab Sample ID: 600-85569-9

Date Collected: 01/14/14 10:15

Matrix: Water

Date Received: 01/15/14 15:55

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			01/17/14 16:50	1
Benzene	0.0000800	U	0.00100	0.0000800	mg/L			01/17/14 16:50	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			01/17/14 16:50	1
Toluene	0.000150	U	0.00100	0.000150	mg/L			01/17/14 16:50	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			01/17/14 16:50	1
Ethylbenzene	0.000110	U	0.00100	0.000110	mg/L			01/17/14 16:50	1
Xylenes, Total	0.000260	U	0.00300	0.000260	mg/L			01/17/14 16:50	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	104		67 - 139					01/17/14 16:50	1
Dibromofluoromethane	89		62 - 130					01/17/14 16:50	1
Toluene-d8 (Surr)	97		70 - 130					01/17/14 16:50	1
1,2-Dichloroethane-d4 (Surr)	97		50 - 134					01/17/14 16:50	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.0000385	U	0.000481	0.0000385	mg/L		01/16/14 11:52	01/28/14 15:18	1
Nitrobenzene	0.000106	U	0.000481	0.000106	mg/L		01/16/14 11:52	01/28/14 15:18	1
2,4-Dimethylphenol	0.000298	U	0.000481	0.000298	mg/L		01/16/14 11:52	01/28/14 15:18	1
Bis(2-chloroethoxy)methane	0.000125	U	0.000481	0.000125	mg/L		01/16/14 11:52	01/28/14 15:18	1
Naphthalene	0.00183	J b	0.00481	0.0000769	mg/L		01/16/14 11:52	01/28/14 15:18	1
2-Methylnaphthalene	0.000321	J	0.000481	0.0000673	mg/L		01/16/14 11:52	01/28/14 15:18	1
2-Chloronaphthalene	0.0000769	U	0.000481	0.0000769	mg/L		01/16/14 11:52	01/28/14 15:18	1
Acenaphthylene	0.0000577	U	0.000481	0.0000577	mg/L		01/16/14 11:52	01/28/14 15:18	1
2,6-Dinitrotoluene	0.0000769	U	0.000481	0.0000769	mg/L		01/16/14 11:52	01/28/14 15:18	1
Acenaphthene	0.000943		0.000481	0.0000769	mg/L		01/16/14 11:52	01/28/14 15:18	1
4-Nitrophenol	0.000538	U	0.000962	0.000538	mg/L		01/16/14 11:52	01/28/14 15:18	1
Dibenzofuran	0.000443	J	0.000481	0.0000769	mg/L		01/16/14 11:52	01/28/14 15:18	1
2,4-Dinitrotoluene	0.000125	U	0.000481	0.000125	mg/L		01/16/14 11:52	01/28/14 15:18	1
Fluorene	0.0000800	J	0.000481	0.0000673	mg/L		01/16/14 11:52	01/28/14 15:18	1
4,6-Dinitro-2-methylphenol	0.000798	U	0.000962	0.000798	mg/L		01/16/14 11:52	01/28/14 15:18	1
N-Nitrosodiphenylamine	0.0000962	U	0.000481	0.0000962	mg/L		01/16/14 11:52	01/28/14 15:18	1
1,2-Diphenylhydrazine	0.000106	U	0.000481	0.000106	mg/L		01/16/14 11:52	01/28/14 15:18	1
Pentachlorophenol	0.000587	U	0.000962	0.000587	mg/L		01/16/14 11:52	01/28/14 15:18	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-85569-1

Client Sample ID: WG-1620-MW14-20140114

Lab Sample ID: 600-85569-9

Date Collected: 01/14/14 10:15

Matrix: Water

Date Received: 01/15/14 15:55

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenanthrene	0.000591	b	0.000481	0.0000577	mg/L		01/16/14 11:52	01/28/14 15:18	1
Anthracene	0.000179	J b	0.000481	0.0000481	mg/L		01/16/14 11:52	01/28/14 15:18	1
Di-n-butyl phthalate	0.000106	U	0.00240	0.000106	mg/L		01/16/14 11:52	01/28/14 15:18	1
Fluoranthene	0.0000744	J	0.000481	0.0000673	mg/L		01/16/14 11:52	01/28/14 15:18	1
Pyrene	0.000106	U	0.000481	0.000106	mg/L		01/16/14 11:52	01/28/14 15:18	1
Benzo[a]anthracene	0.0000769	U	0.000481	0.0000769	mg/L		01/16/14 11:52	01/28/14 15:18	1
Bis(2-ethylhexyl) phthalate	0.000356	U	0.00240	0.000356	mg/L		01/16/14 11:52	01/28/14 15:18	1
Chrysene	0.0000769	U	0.000481	0.0000769	mg/L		01/16/14 11:52	01/28/14 15:18	1
Benzo[a]pyrene	0.0000769	U	0.000481	0.0000769	mg/L		01/16/14 11:52	01/28/14 15:18	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	90		44 - 123				01/16/14 11:52	01/28/14 15:18	1
2-Fluorobiphenyl	80		43 - 120				01/16/14 11:52	01/28/14 15:18	1
2-Fluorophenol	33		18 - 120				01/16/14 11:52	01/28/14 15:18	1
Nitrobenzene-d5	75		47 - 120				01/16/14 11:52	01/28/14 15:18	1
Terphenyl-d14	107		33 - 141				01/16/14 11:52	01/28/14 15:18	1
Phenol-d5 (Surr)	21		12 - 128				01/16/14 11:52	01/28/14 15:18	1

Client Sample ID: WG-1620-MW13-20140114

Lab Sample ID: 600-85569-10

Date Collected: 01/14/14 11:15

Matrix: Water

Date Received: 01/15/14 15:55

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			01/18/14 11:43	1
Benzene	0.0000800	U	0.00100	0.0000800	mg/L			01/18/14 11:43	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			01/18/14 11:43	1
Toluene	0.000150	U	0.00100	0.000150	mg/L			01/18/14 11:43	1
Chlorobenzene	0.000401	J	0.00100	0.000120	mg/L			01/18/14 11:43	1
Ethylbenzene	0.000110	U	0.00100	0.000110	mg/L			01/18/14 11:43	1
Xylenes, Total	0.000260	U	0.00300	0.000260	mg/L			01/18/14 11:43	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	105		67 - 139					01/18/14 11:43	1
Dibromofluoromethane	93		62 - 130					01/18/14 11:43	1
Toluene-d8 (Surr)	97		70 - 130					01/18/14 11:43	1
1,2-Dichloroethane-d4 (Surr)	100		50 - 134					01/18/14 11:43	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.0000769	U	0.000962	0.0000769	mg/L		01/16/14 11:52	01/30/14 05:25	2
Nitrobenzene	0.000212	U	0.000962	0.000212	mg/L		01/16/14 11:52	01/30/14 05:25	2
2,4-Dimethylphenol	0.000596	U	0.000962	0.000596	mg/L		01/16/14 11:52	01/30/14 05:25	2
Bis(2-chloroethoxy)methane	0.000250	U	0.000962	0.000250	mg/L		01/16/14 11:52	01/30/14 05:25	2
Naphthalene	0.00126	J b	0.00962	0.000154	mg/L		01/16/14 11:52	01/30/14 05:25	2
2-Methylnaphthalene	0.000141	J	0.000962	0.000135	mg/L		01/16/14 11:52	01/30/14 05:25	2
2-Chloronaphthalene	0.000154	U	0.000962	0.000154	mg/L		01/16/14 11:52	01/30/14 05:25	2
Acenaphthylene	0.000115	U	0.000962	0.000115	mg/L		01/16/14 11:52	01/30/14 05:25	2
2,6-Dinitrotoluene	0.000154	U	0.000962	0.000154	mg/L		01/16/14 11:52	01/30/14 05:25	2
Acenaphthene	0.000154	U	0.000962	0.000154	mg/L		01/16/14 11:52	01/30/14 05:25	2

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-85569-1

Client Sample ID: WG-1620-MW13-20140114

Lab Sample ID: 600-85569-10

Date Collected: 01/14/14 11:15

Matrix: Water

Date Received: 01/15/14 15:55

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Nitrophenol	0.00108	U	0.00192	0.00108	mg/L		01/16/14 11:52	01/30/14 05:25	2
Dibenzofuran	0.000154	U	0.000962	0.000154	mg/L		01/16/14 11:52	01/30/14 05:25	2
2,4-Dinitrotoluene	0.000250	U	0.000962	0.000250	mg/L		01/16/14 11:52	01/30/14 05:25	2
Fluorene	0.000135	U	0.000962	0.000135	mg/L		01/16/14 11:52	01/30/14 05:25	2
4,6-Dinitro-2-methylphenol	0.00160	U	0.00192	0.00160	mg/L		01/16/14 11:52	01/30/14 05:25	2
N-Nitrosodiphenylamine	0.000192	U	0.000962	0.000192	mg/L		01/16/14 11:52	01/30/14 05:25	2
1,2-Diphenylhydrazine	0.000212	U	0.000962	0.000212	mg/L		01/16/14 11:52	01/30/14 05:25	2
Pentachlorophenol	0.00117	U	0.00192	0.00117	mg/L		01/16/14 11:52	01/30/14 05:25	2
Phenanthrene	0.000115	U	0.000962	0.000115	mg/L		01/16/14 11:52	01/30/14 05:25	2
Anthracene	0.00118	b	0.000962	0.000962	mg/L		01/16/14 11:52	01/30/14 05:25	2
Di-n-butyl phthalate	0.000212	U	0.00481	0.000212	mg/L		01/16/14 11:52	01/30/14 05:25	2
Fluoranthene	0.000135	U	0.000962	0.000135	mg/L		01/16/14 11:52	01/30/14 05:25	2
Pyrene	0.000212	U	0.000962	0.000212	mg/L		01/16/14 11:52	01/30/14 05:25	2
Benzo[a]anthracene	0.000154	U	0.000962	0.000154	mg/L		01/16/14 11:52	01/30/14 05:25	2
Bis(2-ethylhexyl) phthalate	0.000712	U	0.00481	0.000712	mg/L		01/16/14 11:52	01/30/14 05:25	2
Chrysene	0.000154	U	0.000962	0.000154	mg/L		01/16/14 11:52	01/30/14 05:25	2
Benzo[a]pyrene	0.000154	U *	0.000962	0.000154	mg/L		01/16/14 11:52	01/30/14 05:25	2
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	20	X	44 - 123				01/16/14 11:52	01/30/14 05:25	2
2-Fluorobiphenyl	87		43 - 120				01/16/14 11:52	01/30/14 05:25	2
2-Fluorophenol	14	X	18 - 120				01/16/14 11:52	01/30/14 05:25	2
Nitrobenzene-d5	73		47 - 120				01/16/14 11:52	01/30/14 05:25	2
Terphenyl-d14	103		33 - 141				01/16/14 11:52	01/30/14 05:25	2
Phenol-d5 (Surr)	12		12 - 128				01/16/14 11:52	01/30/14 05:25	2

Client Sample ID: WG-1620-MW39B-20140114

Lab Sample ID: 600-85569-11

Date Collected: 01/14/14 12:10

Matrix: Water

Date Received: 01/15/14 15:55

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			01/17/14 17:41	1
Benzene	0.0000800	U	0.00100	0.0000800	mg/L			01/17/14 17:41	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			01/17/14 17:41	1
Toluene	0.000150	U	0.00100	0.000150	mg/L			01/17/14 17:41	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			01/17/14 17:41	1
Ethylbenzene	0.000110	U	0.00100	0.000110	mg/L			01/17/14 17:41	1
Xylenes, Total	0.000260	U	0.00300	0.000260	mg/L			01/17/14 17:41	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	97		67 - 139					01/17/14 17:41	1
Dibromofluoromethane	88		62 - 130					01/17/14 17:41	1
Toluene-d8 (Surr)	91		70 - 130					01/17/14 17:41	1
1,2-Dichloroethane-d4 (Surr)	97		50 - 134					01/17/14 17:41	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.000385	U	0.00481	0.000385	mg/L		01/16/14 11:52	01/28/14 20:51	10
Nitrobenzene	0.00106	U	0.00481	0.00106	mg/L		01/16/14 11:52	01/28/14 20:51	10

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-85569-1

Client Sample ID: WG-1620-MW39B-20140114

Lab Sample ID: 600-85569-11

Date Collected: 01/14/14 12:10

Matrix: Water

Date Received: 01/15/14 15:55

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-Dimethylphenol	0.00298	U	0.00481	0.00298	mg/L		01/16/14 11:52	01/28/14 20:51	10
Bis(2-chloroethoxy)methane	0.00125	U	0.00481	0.00125	mg/L		01/16/14 11:52	01/28/14 20:51	10
Naphthalene	0.000769	U	0.0481	0.000769	mg/L		01/16/14 11:52	01/28/14 20:51	10
2-Methylnaphthalene	0.000673	U	0.00481	0.000673	mg/L		01/16/14 11:52	01/28/14 20:51	10
2-Chloronaphthalene	0.000769	U	0.00481	0.000769	mg/L		01/16/14 11:52	01/28/14 20:51	10
Acenaphthylene	0.000577	U	0.00481	0.000577	mg/L		01/16/14 11:52	01/28/14 20:51	10
2,6-Dinitrotoluene	0.000769	U	0.00481	0.000769	mg/L		01/16/14 11:52	01/28/14 20:51	10
Acenaphthene	0.00115	J	0.00481	0.000769	mg/L		01/16/14 11:52	01/28/14 20:51	10
4-Nitrophenol	0.00538	U	0.00962	0.00538	mg/L		01/16/14 11:52	01/28/14 20:51	10
Dibenzofuran	0.000769	U	0.00481	0.000769	mg/L		01/16/14 11:52	01/28/14 20:51	10
2,4-Dinitrotoluene	0.00125	U	0.00481	0.00125	mg/L		01/16/14 11:52	01/28/14 20:51	10
Fluorene	0.000673	U	0.00481	0.000673	mg/L		01/16/14 11:52	01/28/14 20:51	10
4,6-Dinitro-2-methylphenol	0.00798	U	0.00962	0.00798	mg/L		01/16/14 11:52	01/28/14 20:51	10
N-Nitrosodiphenylamine	0.000962	U	0.00481	0.000962	mg/L		01/16/14 11:52	01/28/14 20:51	10
1,2-Diphenylhydrazine	0.00106	U	0.00481	0.00106	mg/L		01/16/14 11:52	01/28/14 20:51	10
Pentachlorophenol	0.00587	U	0.00962	0.00587	mg/L		01/16/14 11:52	01/28/14 20:51	10
Phenanthrene	0.000577	U	0.00481	0.000577	mg/L		01/16/14 11:52	01/28/14 20:51	10
Anthracene	0.00101	J b	0.00481	0.000481	mg/L		01/16/14 11:52	01/28/14 20:51	10
Di-n-butyl phthalate	0.00106	U	0.0240	0.00106	mg/L		01/16/14 11:52	01/28/14 20:51	10
Fluoranthene	0.000673	U	0.00481	0.000673	mg/L		01/16/14 11:52	01/28/14 20:51	10
Pyrene	0.00106	U	0.00481	0.00106	mg/L		01/16/14 11:52	01/28/14 20:51	10
Benzo[a]anthracene	0.000769	U	0.00481	0.000769	mg/L		01/16/14 11:52	01/28/14 20:51	10
Bis(2-ethylhexyl) phthalate	0.00356	U	0.0240	0.00356	mg/L		01/16/14 11:52	01/28/14 20:51	10
Chrysene	0.000769	U	0.00481	0.000769	mg/L		01/16/14 11:52	01/28/14 20:51	10
Benzo[a]pyrene	0.000769	U	0.00481	0.000769	mg/L		01/16/14 11:52	01/28/14 20:51	10

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	90		44 - 123	01/16/14 11:52	01/28/14 20:51	10
2-Fluorobiphenyl	110		43 - 120	01/16/14 11:52	01/28/14 20:51	10
2-Fluorophenol	78		18 - 120	01/16/14 11:52	01/28/14 20:51	10
Nitrobenzene-d5	90		47 - 120	01/16/14 11:52	01/28/14 20:51	10
Terphenyl-d14	111		33 - 141	01/16/14 11:52	01/28/14 20:51	10
Phenol-d5 (Surr)	36		12 - 128	01/16/14 11:52	01/28/14 20:51	10

Client Sample ID: WG-1620-MW12C-20140114

Lab Sample ID: 600-85569-12

Date Collected: 01/14/14 13:25

Matrix: Water

Date Received: 01/15/14 15:55

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			01/17/14 18:07	1
Benzene	0.0000800	U	0.00100	0.0000800	mg/L			01/17/14 18:07	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			01/17/14 18:07	1
Toluene	0.000150	U	0.00100	0.000150	mg/L			01/17/14 18:07	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			01/17/14 18:07	1
Ethylbenzene	0.000110	U	0.00100	0.000110	mg/L			01/17/14 18:07	1
Xylenes, Total	0.000260	U	0.00300	0.000260	mg/L			01/17/14 18:07	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	100		67 - 139		01/17/14 18:07	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-85569-1

Client Sample ID: WG-1620-MW12C-20140114

Lab Sample ID: 600-85569-12

Date Collected: 01/14/14 13:25

Matrix: Water

Date Received: 01/15/14 15:55

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Dibromofluoromethane	90		62 - 130		01/17/14 18:07	1
Toluene-d8 (Surr)	94		70 - 130		01/17/14 18:07	1
1,2-Dichloroethane-d4 (Surr)	97		50 - 134		01/17/14 18:07	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.000385	U	0.000481	0.000385	mg/L		01/16/14 11:52	01/28/14 16:11	1
Nitrobenzene	0.000106	U	0.000481	0.000106	mg/L		01/16/14 11:52	01/28/14 16:11	1
2,4-Dimethylphenol	0.000298	U	0.000481	0.000298	mg/L		01/16/14 11:52	01/28/14 16:11	1
Bis(2-chloroethoxy)methane	0.000125	U	0.000481	0.000125	mg/L		01/16/14 11:52	01/28/14 16:11	1
Naphthalene	0.000853	J b	0.00481	0.0000769	mg/L		01/16/14 11:52	01/28/14 16:11	1
2-Methylnaphthalene	0.000164	J	0.000481	0.0000673	mg/L		01/16/14 11:52	01/28/14 16:11	1
2-Chloronaphthalene	0.0000769	U	0.000481	0.0000769	mg/L		01/16/14 11:52	01/28/14 16:11	1
Acenaphthylene	0.0000577	U	0.000481	0.0000577	mg/L		01/16/14 11:52	01/28/14 16:11	1
2,6-Dinitrotoluene	0.0000769	U	0.000481	0.0000769	mg/L		01/16/14 11:52	01/28/14 16:11	1
Acenaphthene	0.0000769	U	0.000481	0.0000769	mg/L		01/16/14 11:52	01/28/14 16:11	1
4-Nitrophenol	0.000538	U	0.000962	0.000538	mg/L		01/16/14 11:52	01/28/14 16:11	1
Dibenzofuran	0.0000979	J	0.000481	0.0000769	mg/L		01/16/14 11:52	01/28/14 16:11	1
2,4-Dinitrotoluene	0.000125	U	0.000481	0.000125	mg/L		01/16/14 11:52	01/28/14 16:11	1
Fluorene	0.0000673	U	0.000481	0.0000673	mg/L		01/16/14 11:52	01/28/14 16:11	1
4,6-Dinitro-2-methylphenol	0.000798	U	0.000962	0.000798	mg/L		01/16/14 11:52	01/28/14 16:11	1
N-Nitrosodiphenylamine	0.0000962	U	0.000481	0.0000962	mg/L		01/16/14 11:52	01/28/14 16:11	1
1,2-Diphenylhydrazine	0.000106	U	0.000481	0.000106	mg/L		01/16/14 11:52	01/28/14 16:11	1
Pentachlorophenol	0.000587	U	0.000962	0.000587	mg/L		01/16/14 11:52	01/28/14 16:11	1
Phenanthrene	0.0000872	J b	0.000481	0.0000577	mg/L		01/16/14 11:52	01/28/14 16:11	1
Anthracene	0.0000481	U	0.000481	0.0000481	mg/L		01/16/14 11:52	01/28/14 16:11	1
Di-n-butyl phthalate	0.000106	U	0.00240	0.000106	mg/L		01/16/14 11:52	01/28/14 16:11	1
Fluoranthene	0.0000673	U	0.000481	0.0000673	mg/L		01/16/14 11:52	01/28/14 16:11	1
Pyrene	0.000106	U	0.000481	0.000106	mg/L		01/16/14 11:52	01/28/14 16:11	1
Benzo[a]anthracene	0.0000769	U	0.000481	0.0000769	mg/L		01/16/14 11:52	01/28/14 16:11	1
Bis(2-ethylhexyl) phthalate	0.000356	U	0.00240	0.000356	mg/L		01/16/14 11:52	01/28/14 16:11	1
Chrysene	0.0000769	U	0.000481	0.0000769	mg/L		01/16/14 11:52	01/28/14 16:11	1
Benzo[a]pyrene	0.0000769	U	0.000481	0.0000769	mg/L		01/16/14 11:52	01/28/14 16:11	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	82		44 - 123	01/16/14 11:52	01/28/14 16:11	1
2-Fluorobiphenyl	95		43 - 120	01/16/14 11:52	01/28/14 16:11	1
2-Fluorophenol	51		18 - 120	01/16/14 11:52	01/28/14 16:11	1
Nitrobenzene-d5	98		47 - 120	01/16/14 11:52	01/28/14 16:11	1
Terphenyl-d14	107		33 - 141	01/16/14 11:52	01/28/14 16:11	1
Phenol-d5 (Surr)	45		12 - 128	01/16/14 11:52	01/28/14 16:11	1

Client Sample ID: WG-1620-MW12A-20140114

Lab Sample ID: 600-85569-13

Date Collected: 01/14/14 14:25

Matrix: Water

Date Received: 01/15/14 15:55

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			01/17/14 18:33	1
Benzene	0.000480	J	0.00100	0.0000800	mg/L			01/17/14 18:33	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-85569-1

Client Sample ID: WG-1620-MW12A-20140114

Lab Sample ID: 600-85569-13

Date Collected: 01/14/14 14:25

Matrix: Water

Date Received: 01/15/14 15:55

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			01/17/14 18:33	1
Toluene	0.000150	U	0.00100	0.000150	mg/L			01/17/14 18:33	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			01/17/14 18:33	1
Ethylbenzene	0.000257	J	0.00100	0.000110	mg/L			01/17/14 18:33	1
Xylenes, Total	0.00145	J	0.00300	0.000260	mg/L			01/17/14 18:33	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	106		67 - 139		01/17/14 18:33	1
Dibromofluoromethane	94		62 - 130		01/17/14 18:33	1
Toluene-d8 (Surr)	98		70 - 130		01/17/14 18:33	1
1,2-Dichloroethane-d4 (Surr)	103		50 - 134		01/17/14 18:33	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.00192	U	0.0240	0.00192	mg/L		01/16/14 11:52	01/28/14 21:17	50
Nitrobenzene	0.00529	U	0.0240	0.00529	mg/L		01/16/14 11:52	01/28/14 21:17	50
2,4-Dimethylphenol	0.0149	U	0.0240	0.0149	mg/L		01/16/14 11:52	01/28/14 21:17	50
Bis(2-chloroethoxy)methane	0.00625	U	0.0240	0.00625	mg/L		01/16/14 11:52	01/28/14 21:17	50
Naphthalene	0.0338	J b	0.240	0.00385	mg/L		01/16/14 11:52	01/28/14 21:17	50
2-Methylnaphthalene	0.0386		0.0240	0.00337	mg/L		01/16/14 11:52	01/28/14 21:17	50
2-Chloronaphthalene	0.00385	U	0.0240	0.00385	mg/L		01/16/14 11:52	01/28/14 21:17	50
Acenaphthylene	0.00288	U	0.0240	0.00288	mg/L		01/16/14 11:52	01/28/14 21:17	50
2,6-Dinitrotoluene	0.00385	U	0.0240	0.00385	mg/L		01/16/14 11:52	01/28/14 21:17	50
Acenaphthene	0.342		0.0240	0.00385	mg/L		01/16/14 11:52	01/28/14 21:17	50
4-Nitrophenol	0.0269	U	0.0481	0.0269	mg/L		01/16/14 11:52	01/28/14 21:17	50
Dibenzofuran	0.220		0.0240	0.00385	mg/L		01/16/14 11:52	01/28/14 21:17	50
2,4-Dinitrotoluene	0.00625	U	0.0240	0.00625	mg/L		01/16/14 11:52	01/28/14 21:17	50
Fluorene	0.245		0.0240	0.00337	mg/L		01/16/14 11:52	01/28/14 21:17	50
4,6-Dinitro-2-methylphenol	0.0399	U	0.0481	0.0399	mg/L		01/16/14 11:52	01/28/14 21:17	50
N-Nitrosodiphenylamine	0.00481	U	0.0240	0.00481	mg/L		01/16/14 11:52	01/28/14 21:17	50
1,2-Diphenylhydrazine	0.00529	U	0.0240	0.00529	mg/L		01/16/14 11:52	01/28/14 21:17	50
Pentachlorophenol	0.0293	U	0.0481	0.0293	mg/L		01/16/14 11:52	01/28/14 21:17	50
Phenanthrene	0.192	b	0.0240	0.00288	mg/L		01/16/14 11:52	01/28/14 21:17	50
Anthracene	0.0325	b	0.0240	0.00240	mg/L		01/16/14 11:52	01/28/14 21:17	50
Di-n-butyl phthalate	0.00529	U	0.120	0.00529	mg/L		01/16/14 11:52	01/28/14 21:17	50
Fluoranthene	0.0180	J	0.0240	0.00337	mg/L		01/16/14 11:52	01/28/14 21:17	50
Pyrene	0.00759	J	0.0240	0.00529	mg/L		01/16/14 11:52	01/28/14 21:17	50
Benzo[a]anthracene	0.00385	U	0.0240	0.00385	mg/L		01/16/14 11:52	01/28/14 21:17	50
Bis(2-ethylhexyl) phthalate	0.0178	U	0.120	0.0178	mg/L		01/16/14 11:52	01/28/14 21:17	50
Chrysene	0.00385	U	0.0240	0.00385	mg/L		01/16/14 11:52	01/28/14 21:17	50
Benzo[a]pyrene	0.00385	U	0.0240	0.00385	mg/L		01/16/14 11:52	01/28/14 21:17	50

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	0	X	44 - 123	01/16/14 11:52	01/28/14 21:17	50
2-Fluorobiphenyl	0	X	43 - 120	01/16/14 11:52	01/28/14 21:17	50
2-Fluorophenol	0	X	18 - 120	01/16/14 11:52	01/28/14 21:17	50
Nitrobenzene-d5	0	X	47 - 120	01/16/14 11:52	01/28/14 21:17	50
Terphenyl-d14	0	X	33 - 141	01/16/14 11:52	01/28/14 21:17	50
Phenol-d5 (Surr)	0	X	12 - 128	01/16/14 11:52	01/28/14 21:17	50

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-85569-1

Client Sample ID: WG-1620-MW40B-20140114

Lab Sample ID: 600-85569-14

Date Collected: 01/14/14 15:25

Matrix: Water

Date Received: 01/15/14 15:55

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	0.000750	U	0.00500	0.000750	mg/L			01/19/14 18:23	5
Benzene	0.0109		0.00500	0.000400	mg/L			01/19/14 18:23	5
1,2-Dichloroethane	0.000700	U	0.00500	0.000700	mg/L			01/19/14 18:23	5
Toluene	0.0147		0.00500	0.000750	mg/L			01/19/14 18:23	5
Chlorobenzene	0.000600	U	0.00500	0.000600	mg/L			01/19/14 18:23	5
Ethylbenzene	0.0840		0.00500	0.000550	mg/L			01/19/14 18:23	5
Xylenes, Total	0.120		0.0150	0.00130	mg/L			01/19/14 18:23	5

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	101		67 - 139		01/19/14 18:23	5
Dibromofluoromethane	84		62 - 130		01/19/14 18:23	5
Toluene-d8 (Surr)	93		70 - 130		01/19/14 18:23	5
1,2-Dichloroethane-d4 (Surr)	91		50 - 134		01/19/14 18:23	5

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.00769	U	0.0962	0.00769	mg/L		01/16/14 11:52	01/30/14 05:51	200
Nitrobenzene	0.0212	U	0.0962	0.0212	mg/L		01/16/14 11:52	01/30/14 05:51	200
2,4-Dimethylphenol	0.0596	U	0.0962	0.0596	mg/L		01/16/14 11:52	01/30/14 05:51	200
Bis(2-chloroethoxy)methane	0.0250	U	0.0962	0.0250	mg/L		01/16/14 11:52	01/30/14 05:51	200
2-Methylnaphthalene	0.350		0.0962	0.0135	mg/L		01/16/14 11:52	01/30/14 05:51	200
2-Chloronaphthalene	0.0154	U	0.0962	0.0154	mg/L		01/16/14 11:52	01/30/14 05:51	200
Acenaphthylene	0.0115	U	0.0962	0.0115	mg/L		01/16/14 11:52	01/30/14 05:51	200
2,6-Dinitrotoluene	0.0154	U	0.0962	0.0154	mg/L		01/16/14 11:52	01/30/14 05:51	200
Acenaphthene	0.402		0.0962	0.0154	mg/L		01/16/14 11:52	01/30/14 05:51	200
4-Nitrophenol	0.108	U	0.192	0.108	mg/L		01/16/14 11:52	01/30/14 05:51	200
Dibenzofuran	0.252		0.0962	0.0154	mg/L		01/16/14 11:52	01/30/14 05:51	200
2,4-Dinitrotoluene	0.0250	U	0.0962	0.0250	mg/L		01/16/14 11:52	01/30/14 05:51	200
Fluorene	0.217		0.0962	0.0135	mg/L		01/16/14 11:52	01/30/14 05:51	200
4,6-Dinitro-2-methylphenol	0.160	U	0.192	0.160	mg/L		01/16/14 11:52	01/30/14 05:51	200
N-Nitrosodiphenylamine	0.0192	U	0.0962	0.0192	mg/L		01/16/14 11:52	01/30/14 05:51	200
1,2-Diphenylhydrazine	0.0212	U	0.0962	0.0212	mg/L		01/16/14 11:52	01/30/14 05:51	200
Pentachlorophenol	0.117	U	0.192	0.117	mg/L		01/16/14 11:52	01/30/14 05:51	200
Phenanthrene	0.197	b	0.0962	0.0115	mg/L		01/16/14 11:52	01/30/14 05:51	200
Anthracene	0.0247	J b	0.0962	0.00962	mg/L		01/16/14 11:52	01/30/14 05:51	200
Di-n-butyl phthalate	0.0212	U	0.481	0.0212	mg/L		01/16/14 11:52	01/30/14 05:51	200
Fluoranthene	0.0135	U	0.0962	0.0135	mg/L		01/16/14 11:52	01/30/14 05:51	200
Pyrene	0.0212	U	0.0962	0.0212	mg/L		01/16/14 11:52	01/30/14 05:51	200
Benzo[a]anthracene	0.0154	U	0.0962	0.0154	mg/L		01/16/14 11:52	01/30/14 05:51	200
Bis(2-ethylhexyl) phthalate	0.0712	U	0.481	0.0712	mg/L		01/16/14 11:52	01/30/14 05:51	200
Chrysene	0.0154	U	0.0962	0.0154	mg/L		01/16/14 11:52	01/30/14 05:51	200
Benzo[a]pyrene	0.0154	U	0.0962	0.0154	mg/L		01/16/14 11:52	01/30/14 05:51	200

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	0	X	44 - 123	01/16/14 11:52	01/30/14 05:51	200
2-Fluorobiphenyl	0	X	43 - 120	01/16/14 11:52	01/30/14 05:51	200
2-Fluorophenol	0	X	18 - 120	01/16/14 11:52	01/30/14 05:51	200
Nitrobenzene-d5	0	X	47 - 120	01/16/14 11:52	01/30/14 05:51	200
Terphenyl-d14	0	X	33 - 141	01/16/14 11:52	01/30/14 05:51	200
Phenol-d5 (Surr)	0	X	12 - 128	01/16/14 11:52	01/30/14 05:51	200

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-85569-1

Client Sample ID: WG-1620-MW40B-20140114

Lab Sample ID: 600-85569-14

Date Collected: 01/14/14 15:25

Matrix: Water

Date Received: 01/15/14 15:55

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels - DL

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	6.07	b	1.92	0.0308	mg/L		01/16/14 11:52	01/30/14 15:31	400
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	0	X	44 - 123				01/16/14 11:52	01/30/14 15:31	400
2-Fluorobiphenyl	0	X	43 - 120				01/16/14 11:52	01/30/14 15:31	400
2-Fluorophenol	0	X	18 - 120				01/16/14 11:52	01/30/14 15:31	400
Nitrobenzene-d5	0	X	47 - 120				01/16/14 11:52	01/30/14 15:31	400
Terphenyl-d14	0	X	33 - 141				01/16/14 11:52	01/30/14 15:31	400
Phenol-d5 (Surr)	0	X	12 - 128				01/16/14 11:52	01/30/14 15:31	400

Client Sample ID: WG-1620-MW55A-20140114

Lab Sample ID: 600-85569-15

Date Collected: 01/14/14 16:25

Matrix: Water

Date Received: 01/15/14 15:55

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	0.00750	U	0.0500	0.00750	mg/L			01/19/14 20:05	50
Benzene	0.0715		0.0500	0.00400	mg/L			01/19/14 20:05	50
1,2-Dichloroethane	0.00700	U	0.0500	0.00700	mg/L			01/19/14 20:05	50
Toluene	0.311		0.0500	0.00750	mg/L			01/19/14 20:05	50
Chlorobenzene	0.00600	U	0.0500	0.00600	mg/L			01/19/14 20:05	50
Ethylbenzene	0.200		0.0500	0.00550	mg/L			01/19/14 20:05	50
Xylenes, Total	0.486		0.150	0.0130	mg/L			01/19/14 20:05	50
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	103		67 - 139					01/19/14 20:05	50
Dibromofluoromethane	89		62 - 130					01/19/14 20:05	50
Toluene-d8 (Surr)	96		70 - 130					01/19/14 20:05	50
1,2-Dichloroethane-d4 (Surr)	98		50 - 134					01/19/14 20:05	50

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.0192	U	0.240	0.0192	mg/L		01/16/14 11:52	01/30/14 06:17	500
Nitrobenzene	0.0529	U	0.240	0.0529	mg/L		01/16/14 11:52	01/30/14 06:17	500
2,4-Dimethylphenol	0.519		0.240	0.149	mg/L		01/16/14 11:52	01/30/14 06:17	500
Bis(2-chloroethoxy)methane	0.0625	U	0.240	0.0625	mg/L		01/16/14 11:52	01/30/14 06:17	500
Naphthalene	11.7	b	2.40	0.0385	mg/L		01/16/14 11:52	01/30/14 06:17	500
2-Methylnaphthalene	0.463		0.240	0.0337	mg/L		01/16/14 11:52	01/30/14 06:17	500
2-Chloronaphthalene	0.0385	U	0.240	0.0385	mg/L		01/16/14 11:52	01/30/14 06:17	500
Acenaphthylene	0.0288	U	0.240	0.0288	mg/L		01/16/14 11:52	01/30/14 06:17	500
2,6-Dinitrotoluene	0.0385	U	0.240	0.0385	mg/L		01/16/14 11:52	01/30/14 06:17	500
Acenaphthene	0.251		0.240	0.0385	mg/L		01/16/14 11:52	01/30/14 06:17	500
4-Nitrophenol	0.269	U	0.481	0.269	mg/L		01/16/14 11:52	01/30/14 06:17	500
Dibenzofuran	0.150	J	0.240	0.0385	mg/L		01/16/14 11:52	01/30/14 06:17	500
2,4-Dinitrotoluene	0.0625	U	0.240	0.0625	mg/L		01/16/14 11:52	01/30/14 06:17	500
Fluorene	0.172	J	0.240	0.0337	mg/L		01/16/14 11:52	01/30/14 06:17	500
4,6-Dinitro-2-methylphenol	0.399	U	0.481	0.399	mg/L		01/16/14 11:52	01/30/14 06:17	500
N-Nitrosodiphenylamine	0.0481	U	0.240	0.0481	mg/L		01/16/14 11:52	01/30/14 06:17	500
1,2-Diphenylhydrazine	0.0529	U	0.240	0.0529	mg/L		01/16/14 11:52	01/30/14 06:17	500
Pentachlorophenol	0.293	U	0.481	0.293	mg/L		01/16/14 11:52	01/30/14 06:17	500

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-85569-1

Client Sample ID: WG-1620-MW55A-20140114

Lab Sample ID: 600-85569-15

Date Collected: 01/14/14 16:25

Matrix: Water

Date Received: 01/15/14 15:55

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenanthrene	0.174	J b	0.240	0.0288	mg/L		01/16/14 11:52	01/30/14 06:17	500
Anthracene	0.0830	J b	0.240	0.0240	mg/L		01/16/14 11:52	01/30/14 06:17	500
Di-n-butyl phthalate	0.0529	U	1.20	0.0529	mg/L		01/16/14 11:52	01/30/14 06:17	500
Fluoranthene	0.0595	J	0.240	0.0337	mg/L		01/16/14 11:52	01/30/14 06:17	500
Pyrene	0.0529	U	0.240	0.0529	mg/L		01/16/14 11:52	01/30/14 06:17	500
Benzo[a]anthracene	0.0385	U	0.240	0.0385	mg/L		01/16/14 11:52	01/30/14 06:17	500
Bis(2-ethylhexyl) phthalate	0.178	U	1.20	0.178	mg/L		01/16/14 11:52	01/30/14 06:17	500
Chrysene	0.0385	U	0.240	0.0385	mg/L		01/16/14 11:52	01/30/14 06:17	500
Benzo[a]pyrene	0.0385	U	0.240	0.0385	mg/L		01/16/14 11:52	01/30/14 06:17	500
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	0	X	44 - 123				01/16/14 11:52	01/30/14 06:17	500
2-Fluorobiphenyl	0	X	43 - 120				01/16/14 11:52	01/30/14 06:17	500
2-Fluorophenol	0	X	18 - 120				01/16/14 11:52	01/30/14 06:17	500
Nitrobenzene-d5	0	X	47 - 120				01/16/14 11:52	01/30/14 06:17	500
Terphenyl-d14	0	X	33 - 141				01/16/14 11:52	01/30/14 06:17	500
Phenol-d5 (Surr)	0	X	12 - 128				01/16/14 11:52	01/30/14 06:17	500

Client Sample ID: WG-1620-MW55B-20140114

Lab Sample ID: 600-85569-16

Date Collected: 01/14/14 17:20

Matrix: Water

Date Received: 01/15/14 15:55

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	0.00750	U	0.0500	0.00750	mg/L			01/19/14 20:31	50
Benzene	0.648		0.0500	0.00400	mg/L			01/19/14 20:31	50
1,2-Dichloroethane	0.00700	U	0.0500	0.00700	mg/L			01/19/14 20:31	50
Toluene	0.597		0.0500	0.00750	mg/L			01/19/14 20:31	50
Chlorobenzene	0.00600	U	0.0500	0.00600	mg/L			01/19/14 20:31	50
Ethylbenzene	0.134		0.0500	0.00550	mg/L			01/19/14 20:31	50
Xylenes, Total	0.481		0.150	0.0130	mg/L			01/19/14 20:31	50
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	101		67 - 139					01/19/14 20:31	50
Dibromofluoromethane	86		62 - 130					01/19/14 20:31	50
Toluene-d8 (Surr)	94		70 - 130					01/19/14 20:31	50
1,2-Dichloroethane-d4 (Surr)	93		50 - 134					01/19/14 20:31	50

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrobenzene	0.529	U	2.40	0.529	mg/L		01/16/14 11:52	01/28/14 22:35	1000
2,4-Dimethylphenol	44.2		2.40	1.49	mg/L		01/16/14 11:52	01/28/14 22:35	1000
Bis(2-chloroethoxy)methane	0.625	U	2.40	0.625	mg/L		01/16/14 11:52	01/28/14 22:35	1000
Naphthalene	24.3	b	24.0	0.385	mg/L		01/16/14 11:52	01/28/14 22:35	1000
2-Methylnaphthalene	0.901	J	2.40	0.337	mg/L		01/16/14 11:52	01/28/14 22:35	1000
2-Chloronaphthalene	0.385	U	2.40	0.385	mg/L		01/16/14 11:52	01/28/14 22:35	1000
Acenaphthylene	0.288	U	2.40	0.288	mg/L		01/16/14 11:52	01/28/14 22:35	1000
2,6-Dinitrotoluene	0.385	U	2.40	0.385	mg/L		01/16/14 11:52	01/28/14 22:35	1000
Acenaphthene	0.385	U	2.40	0.385	mg/L		01/16/14 11:52	01/28/14 22:35	1000
4-Nitrophenol	2.69	U	4.81	2.69	mg/L		01/16/14 11:52	01/28/14 22:35	1000

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-85569-1

Client Sample ID: WG-1620-MW55B-20140114

Lab Sample ID: 600-85569-16

Date Collected: 01/14/14 17:20

Matrix: Water

Date Received: 01/15/14 15:55

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Dibenzofuran	0.385	U	2.40	0.385	mg/L		01/16/14 11:52	01/28/14 22:35	1000
2,4-Dinitrotoluene	0.625	U	2.40	0.625	mg/L		01/16/14 11:52	01/28/14 22:35	1000
Fluorene	0.337	U	2.40	0.337	mg/L		01/16/14 11:52	01/28/14 22:35	1000
4,6-Dinitro-2-methylphenol	3.99	U	4.81	3.99	mg/L		01/16/14 11:52	01/28/14 22:35	1000
N-Nitrosodiphenylamine	0.481	U	2.40	0.481	mg/L		01/16/14 11:52	01/28/14 22:35	1000
1,2-Diphenylhydrazine	0.529	U	2.40	0.529	mg/L		01/16/14 11:52	01/28/14 22:35	1000
Pentachlorophenol	2.93	U	4.81	2.93	mg/L		01/16/14 11:52	01/28/14 22:35	1000
Phenanthrene	0.288	U	2.40	0.288	mg/L		01/16/14 11:52	01/28/14 22:35	1000
Anthracene	0.240	U	2.40	0.240	mg/L		01/16/14 11:52	01/28/14 22:35	1000
Di-n-butyl phthalate	0.529	U	12.0	0.529	mg/L		01/16/14 11:52	01/28/14 22:35	1000
Fluoranthene	0.337	U	2.40	0.337	mg/L		01/16/14 11:52	01/28/14 22:35	1000
Pyrene	0.529	U	2.40	0.529	mg/L		01/16/14 11:52	01/28/14 22:35	1000
Benzo[a]anthracene	0.385	U	2.40	0.385	mg/L		01/16/14 11:52	01/28/14 22:35	1000
Bis(2-ethylhexyl) phthalate	1.78	U	12.0	1.78	mg/L		01/16/14 11:52	01/28/14 22:35	1000
Chrysene	0.385	U	2.40	0.385	mg/L		01/16/14 11:52	01/28/14 22:35	1000
Benzo[a]pyrene	0.385	U	2.40	0.385	mg/L		01/16/14 11:52	01/28/14 22:35	1000

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	0	X	44 - 123	01/16/14 11:52	01/28/14 22:35	1000
2-Fluorobiphenyl	0	X	43 - 120	01/16/14 11:52	01/28/14 22:35	1000
2-Fluorophenol	0	X	18 - 120	01/16/14 11:52	01/28/14 22:35	1000
Nitrobenzene-d5	0	X	47 - 120	01/16/14 11:52	01/28/14 22:35	1000
Terphenyl-d14	0	X	33 - 141	01/16/14 11:52	01/28/14 22:35	1000
Phenol-d5 (Surr)	0	X	12 - 128	01/16/14 11:52	01/28/14 22:35	1000

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels - DL

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	454		24.0	1.92	mg/L		01/16/14 11:52	01/30/14 06:43	10000

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	0	X	44 - 123	01/16/14 11:52	01/30/14 06:43	10000
2-Fluorobiphenyl	0	X	43 - 120	01/16/14 11:52	01/30/14 06:43	10000
2-Fluorophenol	0	X	18 - 120	01/16/14 11:52	01/30/14 06:43	10000
Nitrobenzene-d5	0	X	47 - 120	01/16/14 11:52	01/30/14 06:43	10000
Terphenyl-d14	0	X	33 - 141	01/16/14 11:52	01/30/14 06:43	10000
Phenol-d5 (Surr)	0	X	12 - 128	01/16/14 11:52	01/30/14 06:43	10000

Client Sample ID: WG-1620-FB2-20140114

Lab Sample ID: 600-85569-17

Date Collected: 01/14/14 17:45

Matrix: Water

Date Received: 01/15/14 15:55

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	0.000110	U	0.00200	0.000110	mg/L			01/17/14 18:58	1
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			01/17/14 18:58	1
Benzene	0.0000800	U	0.00100	0.0000800	mg/L			01/17/14 18:58	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			01/17/14 18:58	1
Toluene	0.000150	U	0.00100	0.000150	mg/L			01/17/14 18:58	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			01/17/14 18:58	1
Ethylbenzene	0.000110	U	0.00100	0.000110	mg/L			01/17/14 18:58	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-85569-1

Client Sample ID: WG-1620-FB2-20140114

Lab Sample ID: 600-85569-17

Date Collected: 01/14/14 17:45

Matrix: Water

Date Received: 01/15/14 15:55

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Xylenes, Total	0.000260	U	0.00300	0.000260	mg/L			01/17/14 18:58	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	94		67 - 139				01/17/14 18:58	01/17/14 18:58	1
Dibromofluoromethane	84		62 - 130				01/17/14 18:58	01/17/14 18:58	1
Toluene-d8 (Surr)	92		70 - 130				01/17/14 18:58	01/17/14 18:58	1
1,2-Dichloroethane-d4 (Surr)	91		50 - 134				01/17/14 18:58	01/17/14 18:58	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.0000385	U	0.000481	0.0000385	mg/L		01/16/14 11:52	01/28/14 16:37	1
Nitrobenzene	0.000106	U	0.000481	0.000106	mg/L		01/16/14 11:52	01/28/14 16:37	1
2,4-Dimethylphenol	0.000298	U	0.000481	0.000298	mg/L		01/16/14 11:52	01/28/14 16:37	1
Bis(2-chloroethoxy)methane	0.000125	U	0.000481	0.000125	mg/L		01/16/14 11:52	01/28/14 16:37	1
Naphthalene	0.000582	J b	0.00481	0.0000769	mg/L		01/16/14 11:52	01/28/14 16:37	1
2-Methylnaphthalene	0.0000673	U	0.000481	0.0000673	mg/L		01/16/14 11:52	01/28/14 16:37	1
2-Chloronaphthalene	0.0000769	U	0.000481	0.0000769	mg/L		01/16/14 11:52	01/28/14 16:37	1
Acenaphthylene	0.0000577	U	0.000481	0.0000577	mg/L		01/16/14 11:52	01/28/14 16:37	1
2,6-Dinitrotoluene	0.0000769	U	0.000481	0.0000769	mg/L		01/16/14 11:52	01/28/14 16:37	1
Acenaphthene	0.0000769	U	0.000481	0.0000769	mg/L		01/16/14 11:52	01/28/14 16:37	1
4-Nitrophenol	0.000538	U	0.000962	0.000538	mg/L		01/16/14 11:52	01/28/14 16:37	1
Dibenzofuran	0.0000769	U	0.000481	0.0000769	mg/L		01/16/14 11:52	01/28/14 16:37	1
2,4-Dinitrotoluene	0.000125	U	0.000481	0.000125	mg/L		01/16/14 11:52	01/28/14 16:37	1
Fluorene	0.0000673	U	0.000481	0.0000673	mg/L		01/16/14 11:52	01/28/14 16:37	1
4,6-Dinitro-2-methylphenol	0.000798	U	0.000962	0.000798	mg/L		01/16/14 11:52	01/28/14 16:37	1
N-Nitrosodiphenylamine	0.0000962	U	0.000481	0.0000962	mg/L		01/16/14 11:52	01/28/14 16:37	1
1,2-Diphenylhydrazine	0.000106	U	0.000481	0.000106	mg/L		01/16/14 11:52	01/28/14 16:37	1
Pentachlorophenol	0.000587	U	0.000962	0.000587	mg/L		01/16/14 11:52	01/28/14 16:37	1
Phenanthrene	0.0000577	U	0.000481	0.0000577	mg/L		01/16/14 11:52	01/28/14 16:37	1
Anthracene	0.0000481	U	0.000481	0.0000481	mg/L		01/16/14 11:52	01/28/14 16:37	1
Di-n-butyl phthalate	0.000106	U	0.00240	0.000106	mg/L		01/16/14 11:52	01/28/14 16:37	1
Fluoranthene	0.0000673	U	0.000481	0.0000673	mg/L		01/16/14 11:52	01/28/14 16:37	1
Pyrene	0.000106	U	0.000481	0.000106	mg/L		01/16/14 11:52	01/28/14 16:37	1
Benzo[a]anthracene	0.0000769	U	0.000481	0.0000769	mg/L		01/16/14 11:52	01/28/14 16:37	1
Bis(2-ethylhexyl) phthalate	0.000356	U	0.00240	0.000356	mg/L		01/16/14 11:52	01/28/14 16:37	1
Chrysene	0.0000769	U	0.000481	0.0000769	mg/L		01/16/14 11:52	01/28/14 16:37	1
Benzo[a]pyrene	0.0000769	U	0.000481	0.0000769	mg/L		01/16/14 11:52	01/28/14 16:37	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	67		44 - 123				01/16/14 11:52	01/28/14 16:37	1
2-Fluorobiphenyl	92		43 - 120				01/16/14 11:52	01/28/14 16:37	1
2-Fluorophenol	50		18 - 120				01/16/14 11:52	01/28/14 16:37	1
Nitrobenzene-d5	102		47 - 120				01/16/14 11:52	01/28/14 16:37	1
Terphenyl-d14	100		33 - 141				01/16/14 11:52	01/28/14 16:37	1
Phenol-d5 (Surr)	46		12 - 128				01/16/14 11:52	01/28/14 16:37	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-85569-1

Client Sample ID: WG-1620-MW19C-20140115

Lab Sample ID: 600-85569-18

Date Collected: 01/15/14 07:40

Matrix: Water

Date Received: 01/15/14 15:55

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	0.000110	U	0.00200	0.000110	mg/L			01/17/14 19:24	1
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			01/17/14 19:24	1
Benzene	0.000280	J	0.00100	0.0000800	mg/L			01/17/14 19:24	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			01/17/14 19:24	1
Toluene	0.00136		0.00100	0.000150	mg/L			01/17/14 19:24	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			01/17/14 19:24	1
Ethylbenzene	0.000966	J	0.00100	0.000110	mg/L			01/17/14 19:24	1
Xylenes, Total	0.00207	J	0.00300	0.000260	mg/L			01/17/14 19:24	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	102		67 - 139					01/17/14 19:24	1
Dibromofluoromethane	87		62 - 130					01/17/14 19:24	1
Toluene-d8 (Surr)	97		70 - 130					01/17/14 19:24	1
1,2-Dichloroethane-d4 (Surr)	93		50 - 134					01/17/14 19:24	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.000724	J	0.000962	0.0000769	mg/L		01/16/14 11:52	01/30/14 07:09	2
Nitrobenzene	0.000212	U	0.000962	0.000212	mg/L		01/16/14 11:52	01/30/14 07:09	2
2,4-Dimethylphenol	0.000596	U	0.000962	0.000596	mg/L		01/16/14 11:52	01/30/14 07:09	2
Bis(2-chloroethoxy)methane	0.000250	U	0.000962	0.000250	mg/L		01/16/14 11:52	01/30/14 07:09	2
Naphthalene	0.0383	b	0.00962	0.000154	mg/L		01/16/14 11:52	01/30/14 07:09	2
2-Methylnaphthalene	0.00142		0.000962	0.000135	mg/L		01/16/14 11:52	01/30/14 07:09	2
2-Chloronaphthalene	0.000154	U	0.000962	0.000154	mg/L		01/16/14 11:52	01/30/14 07:09	2
Acenaphthylene	0.000115	U	0.000962	0.000115	mg/L		01/16/14 11:52	01/30/14 07:09	2
2,6-Dinitrotoluene	0.000154	U	0.000962	0.000154	mg/L		01/16/14 11:52	01/30/14 07:09	2
Acenaphthene	0.000154	U	0.000962	0.000154	mg/L		01/16/14 11:52	01/30/14 07:09	2
4-Nitrophenol	0.00108	U	0.00192	0.00108	mg/L		01/16/14 11:52	01/30/14 07:09	2
Dibenzofuran	0.00116		0.000962	0.000154	mg/L		01/16/14 11:52	01/30/14 07:09	2
2,4-Dinitrotoluene	0.000250	U	0.000962	0.000250	mg/L		01/16/14 11:52	01/30/14 07:09	2
Fluorene	0.000296	J	0.000962	0.000135	mg/L		01/16/14 11:52	01/30/14 07:09	2
4,6-Dinitro-2-methylphenol	0.00160	U	0.00192	0.00160	mg/L		01/16/14 11:52	01/30/14 07:09	2
N-Nitrosodiphenylamine	0.000192	U	0.000962	0.000192	mg/L		01/16/14 11:52	01/30/14 07:09	2
1,2-Diphenylhydrazine	0.000212	U	0.000962	0.000212	mg/L		01/16/14 11:52	01/30/14 07:09	2
Pentachlorophenol	0.00117	U	0.00192	0.00117	mg/L		01/16/14 11:52	01/30/14 07:09	2
Phenanthrene	0.000265	J b	0.000962	0.000115	mg/L		01/16/14 11:52	01/30/14 07:09	2
Anthracene	0.0000962	U	0.000962	0.0000962	mg/L		01/16/14 11:52	01/30/14 07:09	2
Di-n-butyl phthalate	0.000212	U	0.00481	0.000212	mg/L		01/16/14 11:52	01/30/14 07:09	2
Fluoranthene	0.00223		0.000962	0.000135	mg/L		01/16/14 11:52	01/30/14 07:09	2
Pyrene	0.00191		0.000962	0.000212	mg/L		01/16/14 11:52	01/30/14 07:09	2
Benzo[a]anthracene	0.000154	U	0.000962	0.000154	mg/L		01/16/14 11:52	01/30/14 07:09	2
Bis(2-ethylhexyl) phthalate	0.000712	U	0.00481	0.000712	mg/L		01/16/14 11:52	01/30/14 07:09	2
Chrysene	0.000154	U	0.000962	0.000154	mg/L		01/16/14 11:52	01/30/14 07:09	2
Benzo[a]pyrene	0.000154	U	0.000962	0.000154	mg/L		01/16/14 11:52	01/30/14 07:09	2
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	82		44 - 123				01/16/14 11:52	01/30/14 07:09	2
2-Fluorobiphenyl	94		43 - 120				01/16/14 11:52	01/30/14 07:09	2
2-Fluorophenol	64		18 - 120				01/16/14 11:52	01/30/14 07:09	2
Nitrobenzene-d5	87		47 - 120				01/16/14 11:52	01/30/14 07:09	2

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-85569-1

Client Sample ID: WG-1620-MW19C-20140115

Lab Sample ID: 600-85569-18

Date Collected: 01/15/14 07:40

Matrix: Water

Date Received: 01/15/14 15:55

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Terphenyl-d14	103		33 - 141	01/16/14 11:52	01/30/14 07:09	2
Phenol-d5 (Surr)	48		12 - 128	01/16/14 11:52	01/30/14 07:09	2

Client Sample ID: WG-1620-TB1-20140115

Lab Sample ID: 600-85569-19

Date Collected: 01/15/14 00:00

Matrix: Water

Date Received: 01/15/14 15:55

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	0.000110	U	0.00200	0.000110	mg/L			01/17/14 13:50	1
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			01/17/14 13:50	1
Benzene	0.0000800	U	0.00100	0.0000800	mg/L			01/17/14 13:50	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			01/17/14 13:50	1
Toluene	0.000150	U	0.00100	0.000150	mg/L			01/17/14 13:50	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			01/17/14 13:50	1
Ethylbenzene	0.000110	U	0.00100	0.000110	mg/L			01/17/14 13:50	1
Xylenes, Total	0.000260	U	0.00300	0.000260	mg/L			01/17/14 13:50	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	98		67 - 139		01/17/14 13:50	1
Dibromofluoromethane	88		62 - 130		01/17/14 13:50	1
Toluene-d8 (Surr)	91		70 - 130		01/17/14 13:50	1
1,2-Dichloroethane-d4 (Surr)	96		50 - 134		01/17/14 13:50	1

Definitions/Glossary

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-85569-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
U	Analyte was not detected at or above the SDL.
J	Result is less than the MQL but greater than or equal to the SDL and the concentration is an estimated value.

GC/MS Semi VOA

Qualifier	Qualifier Description
U	Analyte was not detected at or above the SDL.
X	Surrogate is outside control limits
b	The compound was found in the blank and sample
J	Result is less than the MQL but greater than or equal to the SDL and the concentration is an estimated value.
*	ISTD response or retention time outside acceptable limits

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Surrogate Summary

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-85569-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		BFB (67-139)	DBFM (62-130)	TOL (70-130)	12DCE (50-134)
600-85569-1	WG-1620-MW18A-20140113	102	83	93	90
600-85569-2	WG-1620-MW18C-20140113	98	83	91	91
600-85569-2 - DL	WG-1620-MW18C-20140113	94	89	98	98
600-85569-3	WG-1620-MW17C-20140113	103	88	97	96
600-85569-4	WG-1620-MW17-20140113	104	90	97	96
600-85569-5	WG-1620-FB1-20140113	96	86	91	95
600-85569-6	WG-1620-MW15A-20140114	100	89	94	96
600-85569-7	WG-1620-MW15C-20140114	103	88	96	96
600-85569-8	WG-1620-MW15B-20140114	97	88	90	95
600-85569-9	WG-1620-MW14-20140114	104	89	97	97
600-85569-10	WG-1620-MW13-20140114	105	93	97	100
600-85569-11	WG-1620-MW39B-20140114	97	88	91	97
600-85569-12	WG-1620-MW12C-20140114	100	90	94	97
600-85569-13	WG-1620-MW12A-20140114	106	94	98	103
600-85569-14	WG-1620-MW40B-20140114	101	84	93	91
600-85569-15	WG-1620-MW55A-20140114	103	89	96	98
600-85569-16	WG-1620-MW55B-20140114	101	86	94	93
600-85569-17	WG-1620-FB2-20140114	94	84	92	91
600-85569-18	WG-1620-MW19C-20140115	102	87	97	93
600-85569-19	WG-1620-TB1-20140115	98	88	91	96
LCS 600-125269/3	Lab Control Sample	100	90	90	97
LCS 600-125294/3	Lab Control Sample	112	96	98	99
LCS 600-125406/3	Lab Control Sample	102	93	93	100
LCS 600-125484/3	Lab Control Sample	102	90	91	96
MB 600-125269/4	Method Blank	98	89	92	97
MB 600-125294/4	Method Blank	106	93	98	102
MB 600-125406/4	Method Blank	102	92	95	101
MB 600-125484/4	Method Blank	97	87	93	93

Surrogate Legend

- BFB = 4-Bromofluorobenzene
- DBFM = Dibromofluoromethane
- TOL = Toluene-d8 (Surr)
- 12DCE = 1,2-Dichloroethane-d4 (Surr)

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)					
		TBP (44-123)	FBP (43-120)	2FP (18-120)	NBZ (47-120)	TPH (33-141)	PHL (12-128)
600-85569-1	WG-1620-MW18A-20140113	0 X	0 X	0 X	0 X	0 X	0 X
600-85569-1 - DL	WG-1620-MW18A-20140113	0 X	0 X	0 X	0 X	0 X	0 X
600-85569-2	WG-1620-MW18C-20140113	0 X	0 X	0 X	0 X	0 X	0 X
600-85569-2 - DL2	WG-1620-MW18C-20140113	0 X	0 X	0 X	0 X	0 X	0 X
600-85569-3	WG-1620-MW17C-20140113	0 X	0 X	0 X	0 X	0 X	0 X
600-85569-3 - DL	WG-1620-MW17C-20140113	0 X	0 X	0 X	0 X	0 X	0 X
600-85569-4	WG-1620-MW17-20140113	0 X	0 X	0 X	0 X	0 X	0 X
600-85569-4 - DL	WG-1620-MW17-20140113	0 X	0 X	0 X	0 X	0 X	0 X

TestAmerica Houston

Surrogate Summary

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-85569-1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)					
		TBP (44-123)	FBP (43-120)	2FP (18-120)	NBZ (47-120)	TPH (33-141)	PHL (12-128)
600-85569-5	WG-1620-FB1-20140113	46	88	23	95	100	19
600-85569-6	WG-1620-MW15A-20140114	0 X	0 X	0 X	0 X	0 X	0 X
600-85569-7	WG-1620-MW15C-20140114	124 X	93	37	105	122	17
600-85569-8	WG-1620-MW15B-20140114	115	109	36	105	106	23
600-85569-8 - DL	WG-1620-MW15B-20140114	124 X	102	35	78	88	13
600-85569-9	WG-1620-MW14-20140114	90	80	33	75	107	21
600-85569-10	WG-1620-MW13-20140114	20 X	87	14 X	73	103	12
600-85569-11	WG-1620-MW39B-20140114	90	110	78	90	111	36
600-85569-12	WG-1620-MW12C-20140114	82	95	51	98	107	45
600-85569-13	WG-1620-MW12A-20140114	0 X	0 X	0 X	0 X	0 X	0 X
600-85569-14	WG-1620-MW40B-20140114	0 X	0 X	0 X	0 X	0 X	0 X
600-85569-14 - DL	WG-1620-MW40B-20140114	0 X	0 X	0 X	0 X	0 X	0 X
600-85569-15	WG-1620-MW55A-20140114	0 X	0 X	0 X	0 X	0 X	0 X
600-85569-16	WG-1620-MW55B-20140114	0 X	0 X	0 X	0 X	0 X	0 X
600-85569-16 - DL	WG-1620-MW55B-20140114	0 X	0 X	0 X	0 X	0 X	0 X
600-85569-17	WG-1620-FB2-20140114	67	92	50	102	100	46
600-85569-18	WG-1620-MW19C-20140115	82	94	64	87	103	48
LCS 600-125105/2-A	Lab Control Sample	101	103	61	100	113	46
MB 600-125105/1-A	Method Blank	69	104	59	98	110	40

Surrogate Legend

- TBP = 2,4,6-Tribromophenol
- FBP = 2-Fluorobiphenyl
- 2FP = 2-Fluorophenol
- NBZ = Nitrobenzene-d5
- TPH = Terphenyl-d14
- PHL = Phenol-d5 (Surr)

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-85569-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 600-125269/4

Matrix: Water

Analysis Batch: 125269

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	0.000110	U	0.00200	0.000110	mg/L			01/17/14 11:20	1
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			01/17/14 11:20	1
Benzene	0.0000800	U	0.00100	0.0000800	mg/L			01/17/14 11:20	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			01/17/14 11:20	1
Toluene	0.000150	U	0.00100	0.000150	mg/L			01/17/14 11:20	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			01/17/14 11:20	1
Ethylbenzene	0.000110	U	0.00100	0.000110	mg/L			01/17/14 11:20	1
Xylenes, Total	0.000260	U	0.00300	0.000260	mg/L			01/17/14 11:20	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	98		67 - 139		01/17/14 11:20	1
Dibromofluoromethane	89		62 - 130		01/17/14 11:20	1
Toluene-d8 (Surr)	92		70 - 130		01/17/14 11:20	1
1,2-Dichloroethane-d4 (Surr)	97		50 - 134		01/17/14 11:20	1

Lab Sample ID: LCS 600-125269/3

Matrix: Water

Analysis Batch: 125269

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Vinyl chloride	0.0100	0.009560		mg/L		96	33 - 150
Methylene Chloride	0.0100	0.01018		mg/L		102	55 - 147
Benzene	0.0100	0.009743		mg/L		97	80 - 126
1,2-Dichloroethane	0.0100	0.01074		mg/L		107	67 - 134
Toluene	0.0100	0.01032		mg/L		103	78 - 120
Chlorobenzene	0.0100	0.01019		mg/L		102	69 - 120
Ethylbenzene	0.0100	0.01022		mg/L		102	79 - 120
Xylenes, Total	0.0200	0.02022		mg/L		101	76 - 120

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene	100		67 - 139
Dibromofluoromethane	90		62 - 130
Toluene-d8 (Surr)	90		70 - 130
1,2-Dichloroethane-d4 (Surr)	97		50 - 134

Lab Sample ID: MB 600-125294/4

Matrix: Water

Analysis Batch: 125294

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	0.000110	U	0.00200	0.000110	mg/L			01/18/14 10:05	1
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			01/18/14 10:05	1
Benzene	0.0000800	U	0.00100	0.0000800	mg/L			01/18/14 10:05	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			01/18/14 10:05	1
Toluene	0.000150	U	0.00100	0.000150	mg/L			01/18/14 10:05	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			01/18/14 10:05	1
Ethylbenzene	0.000110	U	0.00100	0.000110	mg/L			01/18/14 10:05	1

TestAmerica Houston

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-85569-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 600-125294/4

Matrix: Water

Analysis Batch: 125294

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Xylenes, Total	0.000260	U	0.00300	0.000260	mg/L			01/18/14 10:05	1
Surrogate	%Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	106		67 - 139					01/18/14 10:05	1
Dibromofluoromethane	93		62 - 130					01/18/14 10:05	1
Toluene-d8 (Surr)	98		70 - 130					01/18/14 10:05	1
1,2-Dichloroethane-d4 (Surr)	102		50 - 134					01/18/14 10:05	1

Lab Sample ID: LCS 600-125294/3

Matrix: Water

Analysis Batch: 125294

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Vinyl chloride	0.0100	0.009949		mg/L		99	33 - 150
Methylene Chloride	0.0100	0.01111		mg/L		111	55 - 147
Benzene	0.0100	0.01125		mg/L		112	70 - 130
1,2-Dichloroethane	0.0100	0.01133		mg/L		113	67 - 134
Toluene	0.0100	0.01262		mg/L		126	70 - 130
Chlorobenzene	0.0100	0.01113		mg/L		111	69 - 130
Ethylbenzene	0.0100	0.01166		mg/L		117	70 - 130
Xylenes, Total	0.0200	0.02272		mg/L		114	70 - 130
Surrogate	%Recovery	LCS Qualifier	Limits				
4-Bromofluorobenzene	112		67 - 139				
Dibromofluoromethane	96		62 - 130				
Toluene-d8 (Surr)	98		70 - 130				
1,2-Dichloroethane-d4 (Surr)	99		50 - 134				

Lab Sample ID: MB 600-125406/4

Matrix: Water

Analysis Batch: 125406

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	0.000110	U	0.00200	0.000110	mg/L			01/19/14 11:14	1
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			01/19/14 11:14	1
Benzene	0.0000800	U	0.00100	0.0000800	mg/L			01/19/14 11:14	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			01/19/14 11:14	1
Toluene	0.000150	U	0.00100	0.000150	mg/L			01/19/14 11:14	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			01/19/14 11:14	1
Ethylbenzene	0.000110	U	0.00100	0.000110	mg/L			01/19/14 11:14	1
Xylenes, Total	0.000260	U	0.00300	0.000260	mg/L			01/19/14 11:14	1
Surrogate	%Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	102		67 - 139					01/19/14 11:14	1
Dibromofluoromethane	92		62 - 130					01/19/14 11:14	1
Toluene-d8 (Surr)	95		70 - 130					01/19/14 11:14	1
1,2-Dichloroethane-d4 (Surr)	101		50 - 134					01/19/14 11:14	1

TestAmerica Houston

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-85569-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 600-125406/3

Matrix: Water

Analysis Batch: 125406

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Vinyl chloride	0.0100	0.01045		mg/L		104	33 - 150
Methylene Chloride	0.0100	0.01067		mg/L		107	55 - 147
Benzene	0.0100	0.01120		mg/L		112	70 - 130
1,2-Dichloroethane	0.0100	0.01200		mg/L		120	67 - 134
Toluene	0.0100	0.01184		mg/L		118	70 - 130
Chlorobenzene	0.0100	0.01139		mg/L		114	69 - 130
Ethylbenzene	0.0100	0.01158		mg/L		116	70 - 130
Xylenes, Total	0.0200	0.02290		mg/L		115	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene	102		67 - 139
Dibromofluoromethane	93		62 - 130
Toluene-d8 (Surr)	93		70 - 130
1,2-Dichloroethane-d4 (Surr)	100		50 - 134

Lab Sample ID: MB 600-125484/4

Matrix: Water

Analysis Batch: 125484

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	0.000110	U	0.00200	0.000110	mg/L			01/20/14 12:45	1
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			01/20/14 12:45	1
Benzene	0.0000800	U	0.00100	0.0000800	mg/L			01/20/14 12:45	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			01/20/14 12:45	1
Toluene	0.000150	U	0.00100	0.000150	mg/L			01/20/14 12:45	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			01/20/14 12:45	1
Ethylbenzene	0.000110	U	0.00100	0.000110	mg/L			01/20/14 12:45	1
Xylenes, Total	0.000260	U	0.00300	0.000260	mg/L			01/20/14 12:45	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	97		67 - 139		01/20/14 12:45	1
Dibromofluoromethane	87		62 - 130		01/20/14 12:45	1
Toluene-d8 (Surr)	93		70 - 130		01/20/14 12:45	1
1,2-Dichloroethane-d4 (Surr)	93		50 - 134		01/20/14 12:45	1

Lab Sample ID: LCS 600-125484/3

Matrix: Water

Analysis Batch: 125484

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Vinyl chloride	0.0100	0.009259		mg/L		93	33 - 150
Methylene Chloride	0.0100	0.009314		mg/L		93	55 - 147
Benzene	0.0100	0.009341		mg/L		93	70 - 130
1,2-Dichloroethane	0.0100	0.01017		mg/L		102	67 - 134
Toluene	0.0100	0.009737		mg/L		97	70 - 130
Chlorobenzene	0.0100	0.009417		mg/L		94	69 - 130
Ethylbenzene	0.0100	0.009480		mg/L		95	70 - 130

TestAmerica Houston

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-85569-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 600-125484/3

Matrix: Water

Analysis Batch: 125484

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Xylenes, Total	0.0200	0.01881		mg/L		94	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene	102		67 - 139
Dibromofluoromethane	90		62 - 130
Toluene-d8 (Surr)	91		70 - 130
1,2-Dichloroethane-d4 (Surr)	96		50 - 134

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Lab Sample ID: MB 600-125105/1-A

Matrix: Water

Analysis Batch: 126124

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 125105

Analyte	MB Result	MB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.0000400	U	0.000500	0.0000400	mg/L		01/16/14 11:52	01/23/14 19:12	1
Nitrobenzene	0.000110	U	0.000500	0.000110	mg/L		01/16/14 11:52	01/23/14 19:12	1
2,4-Dimethylphenol	0.000310	U	0.000500	0.000310	mg/L		01/16/14 11:52	01/23/14 19:12	1
Bis(2-chloroethoxy)methane	0.000130	U	0.000500	0.000130	mg/L		01/16/14 11:52	01/23/14 19:12	1
Naphthalene	0.0007696	J	0.00500	0.0000800	mg/L		01/16/14 11:52	01/23/14 19:12	1
2-Methylnaphthalene	0.0000700	U	0.000500	0.0000700	mg/L		01/16/14 11:52	01/23/14 19:12	1
2-Chloronaphthalene	0.0000800	U	0.000500	0.0000800	mg/L		01/16/14 11:52	01/23/14 19:12	1
Acenaphthylene	0.0000600	U	0.000500	0.0000600	mg/L		01/16/14 11:52	01/23/14 19:12	1
2,6-Dinitrotoluene	0.0000800	U	0.000500	0.0000800	mg/L		01/16/14 11:52	01/23/14 19:12	1
Acenaphthene	0.0000800	U	0.000500	0.0000800	mg/L		01/16/14 11:52	01/23/14 19:12	1
4-Nitrophenol	0.000560	U	0.00100	0.000560	mg/L		01/16/14 11:52	01/23/14 19:12	1
Dibenzofuran	0.0000800	U	0.000500	0.0000800	mg/L		01/16/14 11:52	01/23/14 19:12	1
2,4-Dinitrotoluene	0.000130	U	0.000500	0.000130	mg/L		01/16/14 11:52	01/23/14 19:12	1
Fluorene	0.0000700	U	0.000500	0.0000700	mg/L		01/16/14 11:52	01/23/14 19:12	1
4,6-Dinitro-2-methylphenol	0.000830	U	0.00100	0.000830	mg/L		01/16/14 11:52	01/23/14 19:12	1
N-Nitrosodiphenylamine	0.000100	U	0.000500	0.000100	mg/L		01/16/14 11:52	01/23/14 19:12	1
1,2-Diphenylhydrazine	0.000110	U	0.000500	0.000110	mg/L		01/16/14 11:52	01/23/14 19:12	1
Pentachlorophenol	0.000610	U	0.00100	0.000610	mg/L		01/16/14 11:52	01/23/14 19:12	1
Phenanthrene	0.0003871	J	0.000500	0.0000600	mg/L		01/16/14 11:52	01/23/14 19:12	1
Anthracene	0.0004426	J	0.000500	0.0000500	mg/L		01/16/14 11:52	01/23/14 19:12	1
Di-n-butyl phthalate	0.0008657	J	0.00250	0.000110	mg/L		01/16/14 11:52	01/23/14 19:12	1
Fluoranthene	0.0000700	U	0.000500	0.0000700	mg/L		01/16/14 11:52	01/23/14 19:12	1
Pyrene	0.000110	U	0.000500	0.000110	mg/L		01/16/14 11:52	01/23/14 19:12	1
Benzo[a]anthracene	0.0000800	U	0.000500	0.0000800	mg/L		01/16/14 11:52	01/23/14 19:12	1
Bis(2-ethylhexyl) phthalate	0.000370	U	0.00250	0.000370	mg/L		01/16/14 11:52	01/23/14 19:12	1
Chrysene	0.0000800	U	0.000500	0.0000800	mg/L		01/16/14 11:52	01/23/14 19:12	1
Benzo[a]pyrene	0.0000800	U	0.000500	0.0000800	mg/L		01/16/14 11:52	01/23/14 19:12	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	69		44 - 123	01/16/14 11:52	01/23/14 19:12	1
2-Fluorobiphenyl	104		43 - 120	01/16/14 11:52	01/23/14 19:12	1
2-Fluorophenol	59		18 - 120	01/16/14 11:52	01/23/14 19:12	1

TestAmerica Houston

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-85569-1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Lab Sample ID: MB 600-125105/1-A

Matrix: Water

Analysis Batch: 126124

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 125105

Surrogate	MB MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
Nitrobenzene-d5	98		47 - 120	01/16/14 11:52	01/23/14 19:12	1
Terphenyl-d14	110		33 - 141	01/16/14 11:52	01/23/14 19:12	1
Phenol-d5 (Surr)	40		12 - 128	01/16/14 11:52	01/23/14 19:12	1

Lab Sample ID: LCS 600-125105/2-A

Matrix: Water

Analysis Batch: 126124

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 125105

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec.
							Limits
Phenol	0.0100	0.004659		mg/L		47	11 - 112
Nitrobenzene	0.0100	0.009615		mg/L		96	42 - 119
2,4-Dimethylphenol	0.0100	0.004644		mg/L		46	36 - 109
Bis(2-chloroethoxy)methane	0.0100	0.009535		mg/L		95	42 - 119
Naphthalene	0.0100	0.009165		mg/L		92	39 - 120
2-Methylnaphthalene	0.0100	0.009424		mg/L		94	40 - 121
2-Chloronaphthalene	0.0100	0.009683		mg/L		97	43 - 120
Acenaphthylene	0.0100	0.009145		mg/L		91	35 - 135
2,6-Dinitrotoluene	0.0100	0.01047		mg/L		105	45 - 122
Acenaphthene	0.0100	0.009579		mg/L		96	47 - 145
4-Nitrophenol	0.0200	0.008078		mg/L		40	14 - 132
Dibenzofuran	0.0100	0.009520		mg/L		95	46 - 123
2,4-Dinitrotoluene	0.0100	0.01016		mg/L		102	43 - 128
Fluorene	0.0100	0.009525		mg/L		95	48 - 127
4,6-Dinitro-2-methylphenol	0.0200	0.01860		mg/L		93	24 - 122
N-Nitrosodiphenylamine	0.0100	0.009459		mg/L		95	43 - 107
1,2-Diphenylhydrazine	0.0100	0.009751		mg/L		98	47 - 117
Pentachlorophenol	0.0200	0.01817		mg/L		91	9 - 147
Phenanthrene	0.0100	0.009599		mg/L		96	52 - 121
Anthracene	0.0100	0.009320		mg/L		93	53 - 124
Di-n-butyl phthalate	0.0100	0.01026		mg/L		103	54 - 138
Fluoranthene	0.0100	0.01002		mg/L		100	53 - 127
Pyrene	0.0100	0.01026		mg/L		103	49 - 121
Benzo[a]anthracene	0.0100	0.01028		mg/L		103	53 - 122
Bis(2-ethylhexyl) phthalate	0.0100	0.01045		mg/L		104	47 - 132
Chrysene	0.0100	0.01004		mg/L		100	49 - 124
Benzo[a]pyrene	0.0100	0.01043		mg/L		104	50 - 124

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
2,4,6-Tribromophenol	101		44 - 123
2-Fluorobiphenyl	103		43 - 120
2-Fluorophenol	61		18 - 120
Nitrobenzene-d5	100		47 - 120
Terphenyl-d14	113		33 - 141
Phenol-d5 (Surr)	46		12 - 128

TestAmerica Houston

Unadjusted Detection Limits

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-85569-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	MQL	MDL	Units	Method
1,2-Dichloroethane	0.00100	0.000140	mg/L	8260B
Benzene	0.00100	0.0000800	mg/L	8260B
Chlorobenzene	0.00100	0.000120	mg/L	8260B
Ethylbenzene	0.00100	0.000110	mg/L	8260B
Methylene Chloride	0.00100	0.000150	mg/L	8260B
Toluene	0.00100	0.000150	mg/L	8260B
Vinyl chloride	0.00200	0.000110	mg/L	8260B
Xylenes, Total	0.00300	0.000260	mg/L	8260B

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	MQL	MDL	Units	Method
1,2-Diphenylhydrazine	0.000500	0.000110	mg/L	8270C LL
2,4-Dimethylphenol	0.000500	0.000310	mg/L	8270C LL
2,4-Dinitrotoluene	0.000500	0.000130	mg/L	8270C LL
2,6-Dinitrotoluene	0.000500	0.0000800	mg/L	8270C LL
2-Chloronaphthalene	0.000500	0.0000800	mg/L	8270C LL
2-Methylnaphthalene	0.000500	0.0000700	mg/L	8270C LL
4,6-Dinitro-2-methylphenol	0.00100	0.000830	mg/L	8270C LL
4-Nitrophenol	0.00100	0.000560	mg/L	8270C LL
Acenaphthene	0.000500	0.0000800	mg/L	8270C LL
Acenaphthylene	0.000500	0.0000600	mg/L	8270C LL
Anthracene	0.000500	0.0000500	mg/L	8270C LL
Benzo[a]anthracene	0.000500	0.0000800	mg/L	8270C LL
Benzo[a]pyrene	0.000500	0.0000800	mg/L	8270C LL
Bis(2-chloroethoxy)methane	0.000500	0.000130	mg/L	8270C LL
Bis(2-ethylhexyl) phthalate	0.00250	0.000370	mg/L	8270C LL
Chrysene	0.000500	0.0000800	mg/L	8270C LL
Dibenzofuran	0.000500	0.0000800	mg/L	8270C LL
Di-n-butyl phthalate	0.00250	0.000110	mg/L	8270C LL
Fluoranthene	0.000500	0.0000700	mg/L	8270C LL
Fluorene	0.000500	0.0000700	mg/L	8270C LL
Naphthalene	0.00500	0.0000800	mg/L	8270C LL
Nitrobenzene	0.000500	0.000110	mg/L	8270C LL
N-Nitrosodiphenylamine	0.000500	0.000100	mg/L	8270C LL
Pentachlorophenol	0.00100	0.000610	mg/L	8270C LL
Phenanthrene	0.000500	0.0000600	mg/L	8270C LL
Phenol	0.000500	0.0000400	mg/L	8270C LL
Pyrene	0.000500	0.000110	mg/L	8270C LL

QC Association Summary

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-85569-1

GC/MS VOA

Analysis Batch: 125269

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-85569-5	WG-1620-FB1-20140113	Total/NA	Water	8260B	
600-85569-7	WG-1620-MW15C-20140114	Total/NA	Water	8260B	
600-85569-8	WG-1620-MW15B-20140114	Total/NA	Water	8260B	
600-85569-9	WG-1620-MW14-20140114	Total/NA	Water	8260B	
600-85569-11	WG-1620-MW39B-20140114	Total/NA	Water	8260B	
600-85569-12	WG-1620-MW12C-20140114	Total/NA	Water	8260B	
600-85569-13	WG-1620-MW12A-20140114	Total/NA	Water	8260B	
600-85569-17	WG-1620-FB2-20140114	Total/NA	Water	8260B	
600-85569-18	WG-1620-MW19C-20140115	Total/NA	Water	8260B	
600-85569-19	WG-1620-TB1-20140115	Total/NA	Water	8260B	
LCS 600-125269/3	Lab Control Sample	Total/NA	Water	8260B	
MB 600-125269/4	Method Blank	Total/NA	Water	8260B	

Analysis Batch: 125294

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-85569-10	WG-1620-MW13-20140114	Total/NA	Water	8260B	
LCS 600-125294/3	Lab Control Sample	Total/NA	Water	8260B	
MB 600-125294/4	Method Blank	Total/NA	Water	8260B	

Analysis Batch: 125406

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-85569-1	WG-1620-MW18A-20140113	Total/NA	Water	8260B	
600-85569-2	WG-1620-MW18C-20140113	Total/NA	Water	8260B	
600-85569-3	WG-1620-MW17C-20140113	Total/NA	Water	8260B	
600-85569-4	WG-1620-MW17-20140113	Total/NA	Water	8260B	
600-85569-6	WG-1620-MW15A-20140114	Total/NA	Water	8260B	
600-85569-14	WG-1620-MW40B-20140114	Total/NA	Water	8260B	
600-85569-15	WG-1620-MW55A-20140114	Total/NA	Water	8260B	
600-85569-16	WG-1620-MW55B-20140114	Total/NA	Water	8260B	
LCS 600-125406/3	Lab Control Sample	Total/NA	Water	8260B	
MB 600-125406/4	Method Blank	Total/NA	Water	8260B	

Analysis Batch: 125484

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-85569-2 - DL	WG-1620-MW18C-20140113	Total/NA	Water	8260B	
LCS 600-125484/3	Lab Control Sample	Total/NA	Water	8260B	
MB 600-125484/4	Method Blank	Total/NA	Water	8260B	

GC/MS Semi VOA

Prep Batch: 125105

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-85569-1 - DL	WG-1620-MW18A-20140113	Total/NA	Water	3510C	
600-85569-1	WG-1620-MW18A-20140113	Total/NA	Water	3510C	
600-85569-2	WG-1620-MW18C-20140113	Total/NA	Water	3510C	
600-85569-2 - DL2	WG-1620-MW18C-20140113	Total/NA	Water	3510C	
600-85569-3	WG-1620-MW17C-20140113	Total/NA	Water	3510C	
600-85569-3 - DL	WG-1620-MW17C-20140113	Total/NA	Water	3510C	
600-85569-4	WG-1620-MW17-20140113	Total/NA	Water	3510C	
600-85569-4 - DL	WG-1620-MW17-20140113	Total/NA	Water	3510C	

TestAmerica Houston

QC Association Summary

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-85569-1

GC/MS Semi VOA (Continued)

Prep Batch: 125105 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-85569-5	WG-1620-FB1-20140113	Total/NA	Water	3510C	
600-85569-6	WG-1620-MW15A-20140114	Total/NA	Water	3510C	
600-85569-7	WG-1620-MW15C-20140114	Total/NA	Water	3510C	
600-85569-8 - DL	WG-1620-MW15B-20140114	Total/NA	Water	3510C	
600-85569-8	WG-1620-MW15B-20140114	Total/NA	Water	3510C	
600-85569-9	WG-1620-MW14-20140114	Total/NA	Water	3510C	
600-85569-10	WG-1620-MW13-20140114	Total/NA	Water	3510C	
600-85569-11	WG-1620-MW39B-20140114	Total/NA	Water	3510C	
600-85569-12	WG-1620-MW12C-20140114	Total/NA	Water	3510C	
600-85569-13	WG-1620-MW12A-20140114	Total/NA	Water	3510C	
600-85569-14	WG-1620-MW40B-20140114	Total/NA	Water	3510C	
600-85569-14 - DL	WG-1620-MW40B-20140114	Total/NA	Water	3510C	
600-85569-15	WG-1620-MW55A-20140114	Total/NA	Water	3510C	
600-85569-16 - DL	WG-1620-MW55B-20140114	Total/NA	Water	3510C	
600-85569-16	WG-1620-MW55B-20140114	Total/NA	Water	3510C	
600-85569-17	WG-1620-FB2-20140114	Total/NA	Water	3510C	
600-85569-18	WG-1620-MW19C-20140115	Total/NA	Water	3510C	
LCS 600-125105/2-A	Lab Control Sample	Total/NA	Water	3510C	
MB 600-125105/1-A	Method Blank	Total/NA	Water	3510C	

Analysis Batch: 126113

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-85569-1	WG-1620-MW18A-20140113	Total/NA	Water	8270C LL	125105
600-85569-2	WG-1620-MW18C-20140113	Total/NA	Water	8270C LL	125105
600-85569-3	WG-1620-MW17C-20140113	Total/NA	Water	8270C LL	125105
600-85569-4	WG-1620-MW17-20140113	Total/NA	Water	8270C LL	125105
600-85569-5	WG-1620-FB1-20140113	Total/NA	Water	8270C LL	125105
600-85569-6	WG-1620-MW15A-20140114	Total/NA	Water	8270C LL	125105
600-85569-7	WG-1620-MW15C-20140114	Total/NA	Water	8270C LL	125105
600-85569-8	WG-1620-MW15B-20140114	Total/NA	Water	8270C LL	125105
600-85569-9	WG-1620-MW14-20140114	Total/NA	Water	8270C LL	125105
600-85569-11	WG-1620-MW39B-20140114	Total/NA	Water	8270C LL	125105
600-85569-12	WG-1620-MW12C-20140114	Total/NA	Water	8270C LL	125105
600-85569-13	WG-1620-MW12A-20140114	Total/NA	Water	8270C LL	125105
600-85569-16	WG-1620-MW55B-20140114	Total/NA	Water	8270C LL	125105
600-85569-17	WG-1620-FB2-20140114	Total/NA	Water	8270C LL	125105

Analysis Batch: 126124

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 600-125105/2-A	Lab Control Sample	Total/NA	Water	8270C LL	125105
MB 600-125105/1-A	Method Blank	Total/NA	Water	8270C LL	125105

Analysis Batch: 126210

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-85569-1 - DL	WG-1620-MW18A-20140113	Total/NA	Water	8270C LL	125105
600-85569-3 - DL	WG-1620-MW17C-20140113	Total/NA	Water	8270C LL	125105
600-85569-4 - DL	WG-1620-MW17-20140113	Total/NA	Water	8270C LL	125105
600-85569-8 - DL	WG-1620-MW15B-20140114	Total/NA	Water	8270C LL	125105
600-85569-10	WG-1620-MW13-20140114	Total/NA	Water	8270C LL	125105
600-85569-14	WG-1620-MW40B-20140114	Total/NA	Water	8270C LL	125105
600-85569-15	WG-1620-MW55A-20140114	Total/NA	Water	8270C LL	125105

TestAmerica Houston

QC Association Summary

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-85569-1

GC/MS Semi VOA (Continued)

Analysis Batch: 126210 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-85569-16 - DL	WG-1620-MW55B-20140114	Total/NA	Water	8270C LL	125105
600-85569-18	WG-1620-MW19C-20140115	Total/NA	Water	8270C LL	125105

Analysis Batch: 126281

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-85569-2 - DL2	WG-1620-MW18C-20140113	Total/NA	Water	8270C LL	125105
600-85569-14 - DL	WG-1620-MW40B-20140114	Total/NA	Water	8270C LL	125105



Lab Chronicle

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-85569-1

Client Sample ID: WG-1620-MW18A-20140113

Lab Sample ID: 600-85569-1

Date Collected: 01/13/14 14:15

Matrix: Water

Date Received: 01/15/14 15:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		100	125406	01/19/14 18:48	YX1	TAL HOU
Total/NA	Prep	3510C			125105	01/16/14 11:52	RLK	TAL HOU
Total/NA	Analysis	8270C LL		100	126113	01/28/14 17:49	TTD	TAL HOU
Total/NA	Prep	3510C	DL		125105	01/16/14 11:52	RLK	TAL HOU
Total/NA	Analysis	8270C LL	DL	1000	126210	01/30/14 03:16	TTD	TAL HOU

Client Sample ID: WG-1620-MW18C-20140113

Lab Sample ID: 600-85569-2

Date Collected: 01/13/14 15:00

Matrix: Water

Date Received: 01/15/14 15:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		50	125406	01/19/14 19:14	YX1	TAL HOU
Total/NA	Analysis	8260B	DL	100	125484	01/20/14 21:45	WS1	TAL HOU
Total/NA	Prep	3510C			125105	01/16/14 11:52	RLK	TAL HOU
Total/NA	Analysis	8270C LL		100	126113	01/28/14 18:15	TTD	TAL HOU
Total/NA	Prep	3510C	DL2		125105	01/16/14 11:52	RLK	TAL HOU
Total/NA	Analysis	8270C LL	DL2	2000	126281	01/30/14 13:22	TTD	TAL HOU

Client Sample ID: WG-1620-MW17C-20140113

Lab Sample ID: 600-85569-3

Date Collected: 01/13/14 16:00

Matrix: Water

Date Received: 01/15/14 15:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		5	125406	01/19/14 17:57	YX1	TAL HOU
Total/NA	Prep	3510C			125105	01/16/14 11:52	RLK	TAL HOU
Total/NA	Analysis	8270C LL		100	126113	01/28/14 18:42	TTD	TAL HOU
Total/NA	Prep	3510C	DL		125105	01/16/14 11:52	RLK	TAL HOU
Total/NA	Analysis	8270C LL	DL	500	126210	01/30/14 04:07	TTD	TAL HOU

Client Sample ID: WG-1620-MW17-20140113

Lab Sample ID: 600-85569-4

Date Collected: 01/13/14 16:50

Matrix: Water

Date Received: 01/15/14 15:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		50	125406	01/19/14 19:40	YX1	TAL HOU
Total/NA	Prep	3510C			125105	01/16/14 11:52	RLK	TAL HOU
Total/NA	Analysis	8270C LL		500	126113	01/28/14 19:08	TTD	TAL HOU
Total/NA	Prep	3510C	DL		125105	01/16/14 11:52	RLK	TAL HOU
Total/NA	Analysis	8270C LL	DL	2500	126210	01/30/14 04:33	TTD	TAL HOU

Lab Chronicle

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-85569-1

Client Sample ID: WG-1620-FB1-20140113

Lab Sample ID: 600-85569-5

Date Collected: 01/13/14 17:15

Matrix: Water

Date Received: 01/15/14 15:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	125269	01/17/14 15:58	WS1	TAL HOU
Total/NA	Prep	3510C			125105	01/16/14 11:52	RLK	TAL HOU
Total/NA	Analysis	8270C LL		1	126113	01/28/14 14:52	TTD	TAL HOU

Client Sample ID: WG-1620-MW15A-20140114

Lab Sample ID: 600-85569-6

Date Collected: 01/14/14 07:45

Matrix: Water

Date Received: 01/15/14 15:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	125406	01/19/14 17:32	YX1	TAL HOU
Total/NA	Prep	3510C			125105	01/16/14 11:52	RLK	TAL HOU
Total/NA	Analysis	8270C LL		50	126113	01/28/14 19:34	TTD	TAL HOU

Client Sample ID: WG-1620-MW15C-20140114

Lab Sample ID: 600-85569-7

Date Collected: 01/14/14 08:40

Matrix: Water

Date Received: 01/15/14 15:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	125269	01/17/14 19:50	WS1	TAL HOU
Total/NA	Prep	3510C			125105	01/16/14 11:52	RLK	TAL HOU
Total/NA	Analysis	8270C LL		10	126113	01/28/14 20:00	TTD	TAL HOU

Client Sample ID: WG-1620-MW15B-20140114

Lab Sample ID: 600-85569-8

Date Collected: 01/14/14 09:20

Matrix: Water

Date Received: 01/15/14 15:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	125269	01/17/14 16:24	WS1	TAL HOU
Total/NA	Prep	3510C			125105	01/16/14 11:52	RLK	TAL HOU
Total/NA	Analysis	8270C LL		10	126113	01/28/14 20:25	TTD	TAL HOU
Total/NA	Prep	3510C	DL		125105	01/16/14 11:52	RLK	TAL HOU
Total/NA	Analysis	8270C LL	DL	20	126210	01/30/14 04:59	TTD	TAL HOU

Client Sample ID: WG-1620-MW14-20140114

Lab Sample ID: 600-85569-9

Date Collected: 01/14/14 10:15

Matrix: Water

Date Received: 01/15/14 15:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	125269	01/17/14 16:50	WS1	TAL HOU
Total/NA	Prep	3510C			125105	01/16/14 11:52	RLK	TAL HOU
Total/NA	Analysis	8270C LL		1	126113	01/28/14 15:18	TTD	TAL HOU

TestAmerica Houston

Lab Chronicle

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-85569-1

Client Sample ID: WG-1620-MW13-20140114

Lab Sample ID: 600-85569-10

Date Collected: 01/14/14 11:15

Matrix: Water

Date Received: 01/15/14 15:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	125294	01/18/14 11:43	WS1	TAL HOU
Total/NA	Prep	3510C			125105	01/16/14 11:52	RLK	TAL HOU
Total/NA	Analysis	8270C LL		2	126210	01/30/14 05:25	TTD	TAL HOU

Client Sample ID: WG-1620-MW39B-20140114

Lab Sample ID: 600-85569-11

Date Collected: 01/14/14 12:10

Matrix: Water

Date Received: 01/15/14 15:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	125269	01/17/14 17:41	WS1	TAL HOU
Total/NA	Prep	3510C			125105	01/16/14 11:52	RLK	TAL HOU
Total/NA	Analysis	8270C LL		10	126113	01/28/14 20:51	TTD	TAL HOU

Client Sample ID: WG-1620-MW12C-20140114

Lab Sample ID: 600-85569-12

Date Collected: 01/14/14 13:25

Matrix: Water

Date Received: 01/15/14 15:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	125269	01/17/14 18:07	WS1	TAL HOU
Total/NA	Prep	3510C			125105	01/16/14 11:52	RLK	TAL HOU
Total/NA	Analysis	8270C LL		1	126113	01/28/14 16:11	TTD	TAL HOU

Client Sample ID: WG-1620-MW12A-20140114

Lab Sample ID: 600-85569-13

Date Collected: 01/14/14 14:25

Matrix: Water

Date Received: 01/15/14 15:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	125269	01/17/14 18:33	WS1	TAL HOU
Total/NA	Prep	3510C			125105	01/16/14 11:52	RLK	TAL HOU
Total/NA	Analysis	8270C LL		50	126113	01/28/14 21:17	TTD	TAL HOU

Client Sample ID: WG-1620-MW40B-20140114

Lab Sample ID: 600-85569-14

Date Collected: 01/14/14 15:25

Matrix: Water

Date Received: 01/15/14 15:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		5	125406	01/19/14 18:23	YX1	TAL HOU
Total/NA	Prep	3510C			125105	01/16/14 11:52	RLK	TAL HOU
Total/NA	Analysis	8270C LL		200	126210	01/30/14 05:51	TTD	TAL HOU
Total/NA	Prep	3510C	DL		125105	01/16/14 11:52	RLK	TAL HOU
Total/NA	Analysis	8270C LL	DL	400	126281	01/30/14 15:31	TTD	TAL HOU

TestAmerica Houston

Lab Chronicle

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-85569-1

Client Sample ID: WG-1620-MW55A-20140114

Lab Sample ID: 600-85569-15

Date Collected: 01/14/14 16:25

Matrix: Water

Date Received: 01/15/14 15:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		50	125406	01/19/14 20:05	YX1	TAL HOU
Total/NA	Prep	3510C			125105	01/16/14 11:52	RLK	TAL HOU
Total/NA	Analysis	8270C LL		500	126210	01/30/14 06:17	TTD	TAL HOU

Client Sample ID: WG-1620-MW55B-20140114

Lab Sample ID: 600-85569-16

Date Collected: 01/14/14 17:20

Matrix: Water

Date Received: 01/15/14 15:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		50	125406	01/19/14 20:31	YX1	TAL HOU
Total/NA	Prep	3510C			125105	01/16/14 11:52	RLK	TAL HOU
Total/NA	Analysis	8270C LL		1000	126113	01/28/14 22:35	TTD	TAL HOU
Total/NA	Prep	3510C	DL		125105	01/16/14 11:52	RLK	TAL HOU
Total/NA	Analysis	8270C LL	DL	10000	126210	01/30/14 06:43	TTD	TAL HOU

Client Sample ID: WG-1620-FB2-20140114

Lab Sample ID: 600-85569-17

Date Collected: 01/14/14 17:45

Matrix: Water

Date Received: 01/15/14 15:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	125269	01/17/14 18:58	WS1	TAL HOU
Total/NA	Prep	3510C			125105	01/16/14 11:52	RLK	TAL HOU
Total/NA	Analysis	8270C LL		1	126113	01/28/14 16:37	TTD	TAL HOU

Client Sample ID: WG-1620-MW19C-20140115

Lab Sample ID: 600-85569-18

Date Collected: 01/15/14 07:40

Matrix: Water

Date Received: 01/15/14 15:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	125269	01/17/14 19:24	WS1	TAL HOU
Total/NA	Prep	3510C			125105	01/16/14 11:52	RLK	TAL HOU
Total/NA	Analysis	8270C LL		2	126210	01/30/14 07:09	TTD	TAL HOU

Client Sample ID: WG-1620-TB1-20140115

Lab Sample ID: 600-85569-19

Date Collected: 01/15/14 00:00

Matrix: Water

Date Received: 01/15/14 15:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	125269	01/17/14 13:50	WS1	TAL HOU

Laboratory References:

TAL HOU = TestAmerica Houston, 6310 Rothway Street, Houston, TX 77040, TEL (713)690-4444

TestAmerica Houston

Certification Summary

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-85569-1

Laboratory: TestAmerica Houston

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Arkansas DEQ	State Program	6	88-0759	08-04-14
Louisiana	NELAP	6	30643	06-30-14
Oklahoma	State Program	6	1309	08-31-14
Texas	NELAP	6	T104704223	10-31-14
USDA	Federal		P330-08-00217	04-01-14
Utah	NELAP	8	TX00083	10-31-14

TestAmerica Houston
 6310 Rothway Street
 Houston, TX 77040
 Phone (713) 690-4444 Fax (713) 690-5646

Chain of Custody Record

Lab PM: Kuchhadkar, Sachin G
 Camer Tracking No(s): 600-25645-9048.10
 Page: 1 of 2
 Job #: 7

Client Information
 Sampler: JOHN BRAYDN
 Phone: 512-671-3434
 E-Mail: sachin.kuchhadkar@testamericainc.com

Due Date Requested:
 TAT Requested (days):
 PO #: Purchase Order not required
 WO #:
 Project #: 60003722
 SSO #:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=oil, etc.)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	Analysis Requested		Special Instructions/Note:
							8260B LL - (MOD) 8260B-Volatiles	8270C LL - (MOD) 8270C	
WG-1620-MW18A-20140113	1-13-14	1415	G	Water	X	X			Total Number of containers 600-85569 Chain of Custody
WG-1620-MW18C-20140113		1500	G	Water	X	X			
WG-1620-MW17C-20140113		1600	G	Water	X	X			
WG-1620-MW17-20140113		1650	G	Water	X	X			
WG-1620-FB1-20140113	1-14-14	1715	G	Water	X	X			
WG-1620-MW15C-20140114		0745	G	Water	X	X			
WG-1620-MW15B-20140114		0840	G	Water	X	X			
WG-1620-MW14-20140114		0920	G	Water	X	X			
WG-1620-MW13-20140114		1015	G	Water	X	X			
WG-1620-MW39B-20140114		1115	G	Water	X	X			
		1210	G	Water	X	X			

Possible Hazard Identification
 Non-Hazard Flammable Skin Irritant Poison B Unknown Radiological

Deliverable Requested: I, II, III, IV, Other (specify)

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
 Return To Client Disposal By Lab Archive For _____ Months

Special Instructions/QC Requirements:

Empty Kit Requisitioned by: _____ Date: _____

Requisitioned by: *John Braydn* Date/Time: 1-15-14 1376 Company: PBW

Requisitioned by: _____ Date/Time: _____ Company: _____

Requisitioned by: _____ Date/Time: _____ Company: _____

Custody Seals Intact: Yes No

Custody Seal No.: _____

Cooler Temperature(s) °C and Other Remarks:



TestAmerica Houston

6310 Redway Street
Houston, TX 77040
Phone (713) 690-4444 Fax (713) 690-5646

Chain of Custody Record

Client Information			Lab PM: KUDCHADKAR, Sachin G			Carrier Tracking No(s):			COC No: 600-25645-9048.10								
Client Contact: Mr. Eric Matzner			Phone: 512-671-3434			E-Mail: sachin.kudchadkar@testamericainc.com			Page 2 of 2								
Company: Pastor, Behling & Wheeler LLC			Due Date Requested:			Analysis Requested			Job #								
Address: 2201 Double Creek Dr Suite 4004			TAT Requested (days):			Performs MS/MSD (Yes or No)			Total Number of Containers								
City: Round Rock			PO #:			8250B LL - (MOD) 8250B - Volatiles			Preservation Codes:								
State, Zip: TX, 78664			Purchase Order not required			8270C LL - (MOD) 8270C			M - Hexane N - None O - ASNaO2 P - Na2O4S Q - Na2SO3 R - NaHSO4 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - ph 4-5 Z - other (specify)								
Phone: 512-671-3434(Tel) 512-671-3446(Fax)			Project #:			Field Filtered Sample (Yes or No)			Other:								
Email: eric.matzner@pbwllc.com			60003722			<input checked="" type="checkbox"/> A <input checked="" type="checkbox"/> N											
Project Name: 1620 UPRR HWPW			SSOW#			<input checked="" type="checkbox"/> X											
Site:			Sample Date			Sample Time			Sample Type (C=comp, G=grab)								
Sample Identification			Preservation Code:			Matrix (W=water, S=solid, O=waste/oli, I=Issue, A=Air)			Special Instructions/Note:								
WG-1620-MW12C-20140114			1-14-14			1325			G			Water					
WG-1620-MW12A-20140114						1425			G			Water					
WG-1620-MW40B-20140114						1525			G			Water					
WG-1620-MW55A-20140114						1625			G			Water					
WG-1620-MW55B-20140114						1720			G			Water					
WG-1620-FB2-20140114						1745			G			Water					
WG-1620-MW19C-20140115			1-15-14			0740			G			Water					
WG-1620-TB1-20140115						-			-			Water					
												Water					
												Water					
												Water					
												Water					
												Water					
												Water					
<p>Possible Hazard Identification <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological</p>												<p>Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months</p>					
Deliverable Requested: I, II, III, IV, Other (specify)												Special Instructions/QC Requirements:					
Empty Kit Requisitioned by:												Method of Shipment:					
Relinquished by: <i>Eric Matzner</i>												Date/Time: 1/15/14 1336					
Requisitioned by: <i>John Beaton</i>												Date/Time: 1/15/14 1336					
Relinquished by: <i>Eric Matzner</i>												Date/Time: _____					
Relinquished by: _____												Date/Time: _____					
Custody Seals Intact: _____												Cooler Temperature(s) °C and Other Remarks:					



Login Sample Receipt Checklist

Client: Pastor, Behling & Wheeler LLC

Job Number: 600-85569-1

Login Number: 85569

List Source: TestAmerica Houston

List Number: 1

Creator: Allen, Jodi L

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	N/A	Lab does not accept radioactive samples.
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	2.5, 2.1, 3.8, 4.1
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	Check done at department level as required.



TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Houston
6310 Rothway Street
Houston, TX 77040
Tel: (713)690-4444

TestAmerica Job ID: 600-85750-1

Client Project/Site: 1620 UPRR HWPW

For:

Pastor, Behling & Wheeler LLC
2201 Double Creek Dr
Suite 4004
Round Rock, Texas 78664

Attn: Mr. Eric Matzner



Authorized for release by:

2/20/2014 1:55:44 PM

Sophia Shah, Project Management Assistant I
sophia.shah@testamericainc.com

Designee for

Sachin Kudchadkar, Senior Project Manager
(713)690-4444

sachin.kudchadkar@testamericainc.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.



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www.testamericainc.com

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15
- 16



Table of Contents

Cover Page	1
Table of Contents	2
TRRP Checklists & DCSs	3
Case Narrative	12
Method Summary	13
Sample Summary	14
Client Sample Results	15
Definitions/Glossary	46
Surrogate Summary	47
QC Sample Results	50
Default Detection Limits	67
QC Association Summary	68
Lab Chronicle	72
Certification Summary	78
Chain of Custody	80
Receipt Checklists	83

Appendix A

Laboratory Data Package Cover Page - Page 1 of 4

This data package is for TestAmerica Houston job number 600-85750-1 and consists of:

- R1 - Field chain-of-custody documentation;
- R2 - Sample identification cross-reference;
- R3 - Test reports (analytical data sheets) for each environmental sample that includes:
 - a. Items consistent with NELAC Chapter 5,
 - b. dilution factors,
 - c. preparation methods,
 - d. cleanup methods, and
 - e. if required for the project, tentatively identified compounds (TICs).
- R4 - Surrogate recovery data including:
 - a. Calculated recovery (%R), and
 - b. The laboratory's surrogate QC limits.
- R5 - Test reports/summary forms for blank samples;
- R6 - Test reports/summary forms for laboratory control samples (LCSs) including:
 - a. LCS spiking amounts,
 - b. Calculated %R for each analyte, and
 - c. The laboratory's LCS QC limits.
- R7 - Test reports for project matrix spike/matrix spike duplicates (MS/MSDs) including:
 - a. Samples associated with the MS/MSD clearly identified,
 - b. MS/MSD spiking amounts,
 - c. Concentration of each MS/MSD analyte measured in the parent and spiked samples,
 - d. Calculated %Rs and relative percent differences (RPDs), and
 - e. The laboratory's MS/MSD QC limits
- R8 - Laboratory analytical duplicate (if applicable) recovery and precision:
 - a. The amount of analyte measured in the duplicate,
 - b. The calculated RPD, and
 - c. The laboratory's QC limits for analytical duplicates.
- R9 - List of method quantitation limits (MQLs) and detectability check sample results for each analyte for each method and matrix.
- R10 - Other problems or anomalies.

The Exception Report for each "No" or "Not Reviewed (NR)" item in Laboratory Review Checklist and for each analyte, matrix, and method for which the laboratory does not hold NELAC accreditation under the Texas Laboratory Accreditation Program.

Release Statement: I am responsible for the release of this laboratory data package. This laboratory is NELAC accredited under the Texas Laboratory Accreditation Program for all the methods, analytes, and matrices reported in this data package except as noted in the Exception Reports. The data have been reviewed and are technically compliant with the requirements of the methods used, except where noted by the laboratory in the Exception Reports. By my signature below, I affirm to the best of my knowledge all problems/anomalies observed by the laboratory have been identified in the Laboratory Review Checklist, and no information affecting the quality of the data has been knowingly withheld.

Sophia Shah

Name (printed)



Signature

2/19/2014

Date

Project Management Assistant

Official Title (printed)

Laboratory Review Checklist: Reportable Data - Page 2 of 4

Laboratory Name:	TestAmerica Houston	LRC Date:	2/19/2014
Project Name:	1620 UPRR HWPW	Laboratory Job Number:	600-85750-1
Reviewer Name:	Sachin G Kudchadkar		

# ¹	A ²	Description	Yes	No	NA ³	NR ⁴	ER# ⁵
R1	OI	Chain-of-custody (C-O-C)					
		Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?	X				
		Were all departures from standard conditions described in an exception report?	X				
R2	OI	Sample and quality control (QC) identification					
		Are all field sample ID numbers cross-referenced to the laboratory ID numbers?	X				
		Are all laboratory ID numbers cross-referenced to the corresponding QC data?	X				
R3	OI	Test reports					
		Were all samples prepared and analyzed within holding times?	X				
		Other than those results < MQL, were all other raw values bracketed by calibration standards?	X				
		Were calculations checked by a peer or supervisor?	X				
		Were all analyte identifications checked by a peer or supervisor?	X				
		Were sample detection limits reported for all analytes not detected?	X				
		Were all results for soil and sediment samples reported on a dry weight basis?			X		
		Were % moisture (or solids) reported for all soil and sediment samples?			X		
		Were bulk soils/solids samples for volatile analysis extracted with methanol per SW846 Method 5035?			X		
		If required for the project, are TICs reported?			X		
R4	O	Surrogate recovery data					
		Were surrogates added prior to extraction?	X				
		Were surrogate percent recoveries in all samples within the laboratory QC limits?		X			R04B
R5	OI	Test reports/summary forms for blank samples					
		Were appropriate type(s) of blanks analyzed?	X				
		Were blanks analyzed at the appropriate frequency?	X				
		Were method blanks taken through the entire analytical process, including preparation and, if applicable, cleanup procedures?	X				
		Were blank concentrations < MQL?	X				
R6	OI	Laboratory control samples (LCS):					
		Were all COCs included in the LCS?	X				
		Was each LCS taken through the entire analytical procedure, including prep and cleanup steps?	X				
		Were LCSs analyzed at the required frequency?	X				
		Were LCS (and LCSD, if applicable) %Rs within the laboratory QC limits?		X			R06D
		Does the detectability check sample data document the laboratory's capability to detect the COCs at the MDL used to calculate the SDLs?	X				
		Was the LCSD RPD within QC limits?	X				
R7	OI	Matrix spike (MS) and matrix spike duplicate (MSD) data					
		Were the project/method specified analytes included in the MS and MSD?	X				
		Were MS/MSD analyzed at the appropriate frequency?	X				
		Were MS (and MSD, if applicable) %Rs within the laboratory QC limits?		X			R07C
		Were MS/MSD RPDs within laboratory QC limits?		X			R07D
R8	OI	Analytical duplicate data					
		Were appropriate analytical duplicates analyzed for each matrix?			X		
		Were analytical duplicates analyzed at the appropriate frequency?			X		
		Were RPDs or relative standard deviations within the laboratory QC limits?			X		
R9	OI	Method quantitation limits (MQLs):					
		Are the MQLs for each method analyte included in the laboratory data package?	X				
		Do the MQLs correspond to the concentration of the lowest non-zero calibration standard?	X				
		Are unadjusted MQLs and DCSs included in the laboratory data package?	X				
R10	OI	Other problems/anomalies					
		Are all known problems/anomalies/special conditions noted in this LRC and ER?	X				
		Was applicable and available technology used to lower the SDL to minimize the matrix interference effects on the sample results?		X			R10B
		Is the laboratory NELAC-accredited under the Texas Laboratory Accreditation Program for the analytes, matrices and methods associated with this laboratory data package?	X				

- Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.
- O = organic analyses; I = inorganic analyses (and general chemistry, when applicable);
- NA = Not applicable;
- NR = Not reviewed;
- ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

Laboratory Review checklist: Supporting Data - Page 3 of 4

Laboratory Name:	TestAmerica Houston	LRC Date:	2/19/2014
Project Name:	1620 UPRR HWPW	Laboratory Job Number:	600-85750-1
Reviewer Name:	Sachin G Kudchadkar		

# ¹	A ²	Description	Yes	No	NA ³	NR ⁴	ER# ⁵
S1	OI	Initial calibration (ICAL)					
		Were response factors and/or relative response factors for each analyte within QC limits?	X				
		Were percent RSDs or correlation coefficient criteria met?	X				
		Was the number of standards recommended in the method used for all analytes?	X				
		Were all points generated between the lowest and highest standard used to calculate the curve?	X				
		Are ICAL data available for all instruments used?	X				
		Has the initial calibration curve been verified using an appropriate second source standard?	X				
S2	OI	Initial and continuing calibration verification (ICV and CCV) and continuing calibration blank (CCB):					
		Was the CCV analyzed at the method-required frequency?	X				
		Were percent differences for each analyte within the method-required QC limits?	X				
		Was the ICAL curve verified for each analyte?	X				
		Was the absolute value of the analyte concentration in the inorganic CCB < MDL?			X		
S3	O	Mass spectral tuning					
		Was the appropriate compound for the method used for tuning?	X				
		Were ion abundance data within the method-required QC limits?	X				
S4	O	Internal standards (IS)					
		Were IS area counts and retention times within the method-required QC limits?	X				
S5	OI	Raw data (NELAC Section 5.5.10)					
		Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?	X				
		Were data associated with manual integrations flagged on the raw data?	X				
S6	O	Dual column confirmation					
		Did dual column confirmation results meet the method-required QC?			X		
S7	O	Tentatively identified compounds (TICs)					
		If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?			X		
S8	I	Interference Check Sample (ICS) results					
		Were percent recoveries within method QC limits?			X		
S9	I	Serial dilutions, post digestion spikes, and method of standard additions					
		Were percent differences, recoveries, and the linearity within the QC limits specified in the method?			X		
S10	OI	Method detection limit (MDL) studies					
		Was a MDL study performed for each reported analyte?	X				
		Is the MDL either adjusted or supported by the analysis of DCSS?	X				
S11	OI	Proficiency test reports					
		Was the laboratory's performance acceptable on the applicable proficiency tests or evaluation studies?	X				
S12	OI	Standards documentation					
		Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?	X				
S13	OI	Compound/analyte identification procedures					
		Are the procedures for compound/analyte identification documented?	X				
S14	OI	Demonstration of analyst competency (DOC)					
		Was DOC conducted consistent with NELAC Chapter 5?	X				
		Is documentation of the analyst's competency up-to-date and on file?	X				
S15	OI	Verification/validation documentation for methods (NELAC Chapter 5)					
		Are all the methods used to generate the data documented, verified, and validated, where applicable?	X				
S16	OI	Laboratory standard operating procedures (SOPs)					
		Are laboratory SOPs current and on file for each method performed?	X				

- Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.
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- NA = Not applicable;
- NR = Not reviewed;
- ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

Laboratory Review Checklist: Exception Reports - Page 4 of 4

Laboratory Name:	TestAmerica Houston	LRC Date:	2/19/2014
Project Name:	1620 UPRR HWPW	Laboratory Job Number:	600-85750-1
Reviewer Name:	Sachin G Kudchadkar		

ER # ¹	Description
R04B	Method 8270C LL: The following sample(s) required a dilution due to the nature of the sample matrix: 600-85750-2, 600-85750-3, 600-85750-4, 600-85750-5, 600-85750-14, 600-85750-15, and 600-85750-22. Because of this dilution, the surrogate spike concentration in the sample was reduced to a level where the recovery calculation does not provide useful information.
R06D	<p>Method 8260B: The laboratory control sample (LCS) and / or laboratory control sample duplicate (LCSD) for batch 137855 recovered outside control limits for the following analytes: methylene chloride. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.</p> <p>Method 8260B: The laboratory control sample (LCS) and / or laboratory control sample duplicate (LCSD) for batch 137857 recovered outside control limits for the following analytes: vinyl chloride. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.</p> <p>Method 8260B: The laboratory control sample (LCS) and / or laboratory control sample duplicate (LCSD) for batch 137940 recovered outside control limits for the following analytes: vinyl chloride. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.</p> <p>Method 8270C LL: The laboratory control sample (LCS) and / or laboratory control sample duplicate (LCSD) for 125443 recovered outside control limits for the following analytes: Phenol, 2,4-Dimethylphenol and N-Nitrosodiphenylamine in the LCS, and 2,4-Dimethylphenol and N-Nitrosodiphenylamine in the LCSD. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.</p> <p>Method 8270C LL: The laboratory control sample (LCS) for batch 125813 recovered outside control limits for the following analytes: Phenol, Benzo(a)anthracene, N-Nitrosodiphenylamine, and Benzo(a)Pyrene. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.</p>
R07C	Method 8270C LL: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for batch 125813 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) was high and/or within acceptance limits for these analytes.
R07D	Method 8270C LL: 600-85750-24 MSD failed the RPD criteria for the following analyte(s): Phenol. Matrix interference is suspected.
R10B	<p>Method 8270C LL: The following sample(s) was diluted due to the nature of the sample matrix: 600-85750-2, 600-85750-3, 600-85750-4, 600-85750-5, 600-85750-14, and 600-85750-15. Elevated reporting limits (RLs) are provided.</p> <p>Method 8270C LL: The following sample(s) was diluted to bring the concentration of target analytes within the calibration range: 600-85750-1, 600-85750-2, 600-85750-3, 600-85750-4, 600-85750-5, 600-85750-8, 600-85750-14, 600-85750-15, 600-85750-22. Elevated reporting limits (RLs) are provided.</p>
	<ol style="list-style-type: none"> Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period. O = organic analyses; I = inorganic analyses (and general chemistry, when applicable); NA = Not applicable; NR = Not reviewed; ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

Matrix: Water
Method: 8260B_LL
Date Analyzed: 12/10/2013
TALS Batch: 122598
Units: ug/L

Analyte	MDL	DCS Spike	Measured Result	MQL
1,1,1,2-Tetrachloroethane	0.180	0.500	0.411	1
1,1,1-Trichloroethane	0.150	0.500	0.475	1
1,1,2,2-Tetrachloroethane	0.220	0.500	0.515	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.000	0.250	0.276	1
1,1,2-Trichloroethane	0.280	0.500	0.507	1
1,1-Dichloroethane	0.110	0.250	0.300	1
1,1-Dichloroethene	0.190	0.500	0.439	1
1,1-Dichloropropene	0.210	0.500	0.431	1
1,2,3-Trichlorobenzene	0.570	0.500	0.950	1
1,2,3-Trichloropropane	0.290	0.500	0.568	1
1,2,3-Trimethylbenzene	0.130	0.500	0.449	1
1,2,4-Trichlorobenzene	0.310	0.500	0.713	1
1,2,4-Trimethylbenzene	0.140	0.500	0.434	1
1,2-Dibromo-3-Chloropropane	0.810	0.500	0.665	1
1,2-Dichlorobenzene	0.100	0.250	0.349	1
1,2-Dichloroethane	0.140	0.500	0.500	1
1,2-Dichloroethene, Total	0.300	1.000	0.970	1
1,2-Dichloropropane	0.160	0.500	0.474	1
1,3,5-Trichlorobenzene	1.000	0.500	0.578	1
1,3,5-Trimethylbenzene	0.100	0.250	0.262	1
1,3-Dichlorobenzene	0.130	0.500	0.530	1
1,3-Dichloropropane	0.220	0.500	0.531	1
1,4-Dichlorobenzene	0.110	0.250	0.336	1
1,4-Dioxane	30.790	10.000	11.352	50
1-Chlorohexane	0.260	0.250	0.279	1
2,2-Dichloropropane	0.130	0.500	0.452	1
2-Butanone (MEK)	0.760	1.000	0.963	2
2-Chloro-1,3-butadiene	0.330	0.500	0.406	1
2-Chloroethyl vinyl ether	0.500	1.000	0.798	2
2-Chlorotoluene	0.130	0.500	0.439	1
2-Hexanone	0.350	1.000	0.789	2
3-Chloro-1-propene	0.240	0.500	0.425	2
4-Chlorotoluene	0.140	0.500	0.490	1
4-Isopropyltoluene	0.100	0.250	0.279	1
4-Methyl-2-pentanone (MIBK)	0.450	1.000	0.931	2
Acetone	0.990	1.000	1.452	5
Acrolein	1.630	2.500	2.455	5
Acrylonitrile	0.520	2.500	2.614	5
Benzene	0.080	0.250	0.304	1
Benzyl chloride	0.240	0.500	0.977	1
Bromobenzene	0.190	0.500	0.523	1
Bromoform	0.190	0.500	0.410	1
Bromomethane	0.250	0.500	0.468	2
Butadiene	0.210	0.500	0.496	1
Carbon disulfide	0.240	0.500	0.478	2
Carbon tetrachloride	0.150	0.500	0.378	1
Chlorobenzene	0.120	0.250	0.317	1
Chlorobromomethane	0.180	0.500	0.480	1

DCS = Detection Check Standard
MQL = Method Quantitation Limit

Matrix: Water
Method: 8260B_LL
Date Analyzed: 12/10/2013
TALS Batch: 122598
Units: ug/L

Analyte	MDL	DCS Spike	Measured Result	MQL
Chlorodibromomethane	0.150	0.500	0.403	1
Chloroethane	0.080	0.250	0.313	2
Chloroform	0.130	0.500	0.471	1
Chloromethane	0.180	0.500	0.516	2
cis-1,2-Dichloroethene	0.060	0.250	0.324	1
cis-1,3-Dichloropropene	0.180	0.500	0.371	1
Cyclohexane	0.160	0.500	0.410	1
Cyclohexanone	8.640	25.000	30.305	50
Dibromomethane	0.520	0.500	0.962	1
Dichlorobromomethane	0.160	0.500	0.403	1
Dichlorodifluoromethane	0.120	0.250	0.245	1
Dichlorofluoromethane	1.000	0.500	0.472	1
Ethyl acetate	0.410	1.000	1.448	2
Ethyl acrylate	0.340	0.500	0.640	2
Ethyl ether	0.150	0.500	0.480	1
Ethyl methacrylate	0.260	0.500	0.415	2
Ethylbenzene	0.110	0.250	0.006	1
Ethylene Dibromide	0.180	0.500	0.474	1
Hexachlorobutadiene	0.170	0.500	0.620	1
Hexane	0.160	0.500	0.404	1
Iodomethane	0.158	0.500	0.484	2
Isobutyl alcohol	3.320	12.500	13.826	10
Isooctane	0.330	0.500	1.097	1
Isopropyl alcohol	3.720	5.000	5.417	10
Isopropyl ether	0.090	0.250	0.271	1
Isopropylbenzene	0.180	0.500	0.427	1
Methyl acetate	0.550	1.250	1.371	2
Methyl methacrylate	0.330	1.000	0.835	1
Methyl tert-butyl ether	0.120	0.250	0.287	1
Methylcyclohexane	0.100	0.250	0.292	1
Methylene Chloride	0.150	0.500	0.488	5
m-Xylene & p-Xylene	0.170	0.500	0.442	1
Naphthalene	0.320	0.500	0.776	2
n-Butyl acetate	0.190	0.500	0.384	1
n-Butylbenzene	0.160	0.500	0.423	1
N-Propylbenzene	0.150	0.500	0.418	1
o-Xylene	0.120	0.250	0.265	1
Propionitrile	0.660	2.500	2.335	2
sec-Butylbenzene	0.120	0.250	0.266	1
Styrene	0.070	0.250	0.230	1
tert-Butylbenzene	0.080	0.250	0.290	1
Tetrachloroethene	0.130	0.500	0.598	1
Toluene	0.150	0.500	0.503	1
trans-1,2-Dichloroethene	0.090	0.250	0.287	1
trans-1,3-Dichloropropene	0.210	0.500	0.763	1
Trichloroethene	0.180	0.500	0.481	1
Trichlorofluoromethane	0.080	0.250	0.234	1
Trihalomethanes, Total	1.000	2.000	1.680	5

DCS = Detection Check Standard
 MQL = Method Quantitation Limit

Matrix: Water
Method: 8260B_LL
Date Analyzed: 12/10/2013
TALS Batch: 122598
Units: ug/L

Analyte	MDL	DCS Spike	Measured Result	MQL
Vinyl acetate	0.210	0.500	0.428	2
Vinyl chloride	0.110	0.250	0.293	2
Xylenes, Total	0.260	1.000	0.900	1



Matrix: Water
Method: 8270C_LL
Prep Method: 3510C_LL
Date Analyzed: 1/14/2014
Job #: 600-85250
TALS Batch: 124915
Units: ug/L

Analyte	MDL	DCS Spike	Measured Result	MQL
1,1'-Biphenyl	0.100	0.250	0.169	1
1,2,4,5-Tetrachlorobenzene	0.100	0.250	0.177	1.5
1,2,4-Trichlorobenzene	0.120	0.250	0.175	2
1,2-Dichlorobenzene	0.170	0.250	0.169	1.75
1,2-Dinitrobenzene	0.500	0.500	0.518	5
1,2-Diphenylhydrazine	0.110	0.250	0.145	2
1,3-Dichlorobenzene	0.170	0.250	0.156	1.5
1,3-Dinitrobenzene	0.080	0.500	0.432	1
1,4-Dichlorobenzene	0.130	0.250	0.185	2
1-Methylnaphthalene	0.090	0.250	0.194	2
2,2'-oxybis[1-chloropropane]	0.400	0.250	0.107	1.5
2,3,4,6-Tetrachlorophenol	0.500	0.250	0.506	1
2,4,5-Trichlorophenol	0.250	0.250	0.099	2
2,4,6-Trichlorophenol	0.180	0.250	0.118	2
2,4-Dichlorophenol	0.150	0.250	0.110	2.5
2,4-Dimethylphenol	0.310	0.250	0.088	2.5
2,4-Dinitrophenol	0.390	2.000	3.540	5
2,4-Dinitrotoluene	0.130	0.250	0.509	1.5
2,6-Dinitrotoluene	0.080	0.250	0.359	1
2-Chloronaphthalene	0.080	0.500	0.481	1.5
2-Chlorophenol	0.130	0.250	0.159	2
2-Methylnaphthalene	0.070	0.250	0.183	1.5
2-Methylphenol	0.120	0.250	0.159	1.5
2-Nitroaniline	0.190	0.250	0.340	2.5
2-Nitrophenol	0.220	0.250	0.479	1
3 & 4 Methylphenol	0.200	0.250	0.134	1
3,3'-Dichlorobenzidine	0.180	0.250	0.254	10
3-Nitroaniline	0.160	0.500	0.199	2.5
4,6-Dinitro-2-methylphenol	0.830	0.500	2.340	2.5
4-Bromophenyl phenyl ether	0.100	0.250	0.094	1.5
4-Chloro-3-methylphenol	0.170	0.250	0.077	1
4-Chloroaniline	0.210	0.250	0.126	1
4-Chlorophenyl phenyl ether	0.100	0.250	0.177	1.5
4-Nitroaniline	0.250	0.250	0.112	2.5
4-Nitrophenol	0.560	1.000	0.272	2.5
Acenaphthene	0.080	0.250	0.169	1
Acenaphthylene	0.060	0.500	0.517	1
Acetophenone	0.150	0.250	0.144	1.5
Aniline	0.080	0.250	0.095	1.5
Anthracene	0.050	0.250	0.171	1
Azobenzene	0.070	0.250	0.136	1.5
Benzidine	0.061	2.500	3.750	10
Benzo[a]anthracene	0.080	0.250	0.173	2
Benzo[a]pyrene	0.080	0.250	0.146	1.5
Benzo[b]fluoranthene	0.070	0.250	0.161	2
Benzo[g,h,i]perylene	0.080	0.250	0.159	2.5

DCS = Detection Check Standard
MQL = Method Quantitation Limit

Matrix: Water
Method: 8270C_LL
Prep Method: 3510C_LL
Date Analyzed: 1/14/2014
Job #: 600-85250
TALS Batch: 124915
Units: ug/L

Analyte	MDL	DCS Spike	Measured Result	MQL
Benzo[k]fluoranthene	0.090	0.250	0.162	2
Benzoic acid	2.510	2.500	5.980	10
Benzyl alcohol	0.170	0.250	0.083	5.5
Bis(2-chloroethoxy)methane	0.130	0.250	0.167	1.5
Bis(2-chloroethyl)ether	0.150	0.250	0.150	1.5
Bis(2-ethylhexyl) phthalate	0.370	0.250	0.445	2.5
Butyl benzyl phthalate	0.120	0.250	0.266	2.5
Caprolactam	1.000	0.500	0.079	1
Carbazole	0.170	0.500	0.480	6.25
Chrysene	0.080	0.250	0.167	1.5
Dibenz(a,h)anthracene	0.080	0.250	0.112	2.5
Dibenzofuran	0.080	0.250	0.159	1.5
Diethyl phthalate	1.500	0.250	0.510	2.5
Dimethyl phthalate	0.070	0.250	0.153	2.5
Di-n-butyl phthalate	0.110	0.250	0.186	2.5
Di-n-octyl phthalate	0.160	0.250	0.441	5
Fluoranthene	0.070	0.250	0.155	2.5
Fluorene	0.070	0.250	0.155	1.5
Hexachlorobenzene	0.110	0.250	0.181	1.5
Hexachlorobutadiene	0.180	0.250	0.187	2
Hexachlorocyclopentadiene	0.130	0.250	0.748	1.5
Hexachloroethane	0.100	0.250	0.169	2
Indeno[1,2,3-cd]pyrene	0.070	0.250	0.417	2
Isophorone	0.110	0.250	0.151	1.5
Methyl Phenols, Total	0.200	0.500	0.160	1
Naphthalene	0.080	0.250	0.808	5
Nitrobenzene	0.110	0.250	0.152	1.5
N-Nitrosodimethylamine	0.260	0.250	0.129	2
N-Nitrosodi-n-propylamine	0.100	0.250	0.151	2.5
Pentachlorophenol	0.610	2.000	0.713	2.5
Phenanthrene	0.060	0.500	0.516	1.5
Phenol	0.040	0.500	0.224	1.5
Pyrene	0.110	0.250	0.169	2
Pyridine	0.040	0.500	0.215	4

Case Narrative

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-85750-1

Job ID: 600-85750-1

Laboratory: TestAmerica Houston

Narrative

Job Narrative
600-85750-1

Comments

No additional comments.

Receipt

The samples were received on 1/17/2014 12:19 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 5 coolers at receipt time were 1.3° C, 1.5° C, 3.2° C, 3.7° C and 3.9° C.

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Method Summary

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-85750-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL NSH
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL HOU
8270C LL	Semivolatile Organic Compounds by GCMS - Low Levels	SW846	TAL HOU

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL HOU = TestAmerica Houston, 6310 Rothway Street, Houston, TX 77040, TEL (713)690-4444

TAL NSH = TestAmerica Nashville, 2960 Foster Creighton Drive, Nashville, TN 37204, TEL (615)726-0177

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Sample Summary

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-85750-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
600-85750-1	WG-1620-MW73B-20140115	Water	01/15/14 08:35	01/17/14 12:19
600-85750-2	WG-1620-MW57B-20140115	Water	01/15/14 09:25	01/17/14 12:19
600-85750-3	WG-1620-MW57A-20140115	Water	01/15/14 10:20	01/17/14 12:19
600-85750-4	WG-1620-MW72B-20140115	Water	01/15/14 11:20	01/17/14 12:19
600-85750-5	WG-1620-MW23C-20140115	Water	01/15/14 12:15	01/17/14 12:19
600-85750-6	WG-1620-MW42B-20140115	Water	01/15/14 18:20	01/17/14 12:19
600-85750-7	WG-1620-MW05-20140115	Water	01/15/14 15:05	01/17/14 12:19
600-85750-8	WG-1620-P11-20140115	Water	01/15/14 16:05	01/17/14 12:19
600-85750-9	WG-1620-MW60A-20140115	Water	01/15/14 17:10	01/17/14 12:19
600-85750-10	WG-1620-FB3-20140115	Water	01/15/14 17:25	01/17/14 12:19
600-85750-11	WG-1620-MW48C-20140116	Water	01/16/14 08:10	01/17/14 12:19
600-85750-12	WG-1620-MW59B-20140116	Water	01/16/14 09:00	01/17/14 12:19
600-85750-13	WG-1620-MW59A-20140116	Water	01/16/14 10:00	01/17/14 12:19
600-85750-14	WG-1620-MW49A-20140116	Water	01/16/14 11:00	01/17/14 12:19
600-85750-15	WG-1620-MW49B-20140116	Water	01/16/14 12:00	01/17/14 12:19
600-85750-16	WG-1620-MW21C-20140116	Water	01/16/14 14:00	01/17/14 12:19
600-85750-17	WG-1620-DUP1-20140116	Water	01/16/14 14:00	01/17/14 12:19
600-85750-18	WG-1620-TW41B-20140116	Water	01/16/14 15:05	01/17/14 12:19
600-85750-19	WG-1620-MW36B-20140116	Water	01/16/14 16:15	01/17/14 12:19
600-85750-20	WG-1620-MW36A-20140116	Water	01/16/14 17:15	01/17/14 12:19
600-85750-21	WG-1620-FB4-20140116	Water	01/16/14 17:30	01/17/14 12:19
600-85750-22	WG-1620-MW44A-20140117	Water	01/17/14 07:50	01/17/14 12:19
600-85750-23	WG-1620-MW47C-20140117	Water	01/17/14 09:10	01/17/14 12:19
600-85750-24	WG-1620-FB5-20140117	Water	01/17/14 09:45	01/17/14 12:19
600-85750-25	WG-1620-TB2-20140117	Water	01/17/14 00:00	01/17/14 12:19

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-85750-1

Client Sample ID: WG-1620-MW73B-20140115

Lab Sample ID: 600-85750-1

Date Collected: 01/15/14 08:35

Matrix: Water

Date Received: 01/17/14 12:19

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane	0.200	U	0.500	0.200	ug/L			01/28/14 00:27	1
Benzene	0.200	U	0.500	0.200	ug/L			01/28/14 00:27	1
Chlorobenzene	0.180	U	0.500	0.180	ug/L			01/28/14 00:27	1
Ethylbenzene	0.437	J	0.500	0.190	ug/L			01/28/14 00:27	1
Methylene Chloride	0.220	U	5.00	0.220	ug/L			01/28/14 00:27	1
Toluene	0.575		0.500	0.170	ug/L			01/28/14 00:27	1
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			01/19/14 17:07	1
Benzene	0.000150	J	0.00100	0.0000800	mg/L			01/19/14 17:07	1
Xylenes, Total	1.33	J	1.50	0.580	ug/L			01/28/14 00:27	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			01/19/14 17:07	1
Toluene	0.000576	J	0.00100	0.000150	mg/L			01/19/14 17:07	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			01/19/14 17:07	1
Ethylbenzene	0.000431	J	0.00100	0.000110	mg/L			01/19/14 17:07	1
Xylenes, Total	0.00139	J	0.00300	0.000260	mg/L			01/19/14 17:07	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	101		70 - 130					01/28/14 00:27	1
Dibromofluoromethane (Surr)	99		70 - 130					01/28/14 00:27	1
Toluene-d8 (Surr)	106		70 - 130					01/28/14 00:27	1
1,2-Dichloroethane-d4 (Surr)	99		70 - 130					01/28/14 00:27	1
4-Bromofluorobenzene	100		67 - 139					01/19/14 17:07	1
Dibromofluoromethane	93		62 - 130					01/19/14 17:07	1
Toluene-d8 (Surr)	95		70 - 130					01/19/14 17:07	1
1,2-Dichloroethane-d4 (Surr)	100		50 - 134					01/19/14 17:07	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.000522	*	0.000472	0.0000377	mg/L		01/21/14 09:09	01/28/14 02:15	1
Nitrobenzene	0.000104	U	0.000472	0.000104	mg/L		01/21/14 09:09	01/28/14 02:15	1
2,4-Dimethylphenol	0.000946	*	0.000472	0.000292	mg/L		01/21/14 09:09	01/28/14 02:15	1
Bis(2-chloroethoxy)methane	0.000123	U	0.000472	0.000123	mg/L		01/21/14 09:09	01/28/14 02:15	1
2-Methylnaphthalene	0.0161		0.000472	0.0000660	mg/L		01/21/14 09:09	01/28/14 02:15	1
2-Chloronaphthalene	0.0000755	U	0.000472	0.0000755	mg/L		01/21/14 09:09	01/28/14 02:15	1
Acenaphthylene	0.0000566	U	0.000472	0.0000566	mg/L		01/21/14 09:09	01/28/14 02:15	1
2,6-Dinitrotoluene	0.0000755	U	0.000472	0.0000755	mg/L		01/21/14 09:09	01/28/14 02:15	1
Acenaphthene	0.0112		0.000472	0.0000755	mg/L		01/21/14 09:09	01/28/14 02:15	1
4-Nitrophenol	0.000528	U	0.000943	0.000528	mg/L		01/21/14 09:09	01/28/14 02:15	1
Dibenzofuran	0.0102		0.000472	0.0000755	mg/L		01/21/14 09:09	01/28/14 02:15	1
2,4-Dinitrotoluene	0.000123	U	0.000472	0.000123	mg/L		01/21/14 09:09	01/28/14 02:15	1
Fluorene	0.00951		0.000472	0.0000660	mg/L		01/21/14 09:09	01/28/14 02:15	1
4,6-Dinitro-2-methylphenol	0.000783	U	0.000943	0.000783	mg/L		01/21/14 09:09	01/28/14 02:15	1
N-Nitrosodiphenylamine	0.0000943	U *	0.000472	0.0000943	mg/L		01/21/14 09:09	01/28/14 02:15	1
1,2-Diphenylhydrazine	0.000104	U	0.000472	0.000104	mg/L		01/21/14 09:09	01/28/14 02:15	1
Pentachlorophenol	0.000575	U	0.000943	0.000575	mg/L		01/21/14 09:09	01/28/14 02:15	1
Anthracene	0.00462		0.000472	0.0000472	mg/L		01/21/14 09:09	01/28/14 02:15	1
Di-n-butyl phthalate	0.000169	J	0.00236	0.000104	mg/L		01/21/14 09:09	01/28/14 02:15	1
Fluoranthene	0.00937		0.000472	0.0000660	mg/L		01/21/14 09:09	01/28/14 02:15	1
Pyrene	0.00725		0.000472	0.000104	mg/L		01/21/14 09:09	01/28/14 02:15	1
Benzo[a]anthracene	0.00131		0.000472	0.0000755	mg/L		01/21/14 09:09	01/28/14 02:15	1
Bis(2-ethylhexyl) phthalate	0.00150	J	0.00236	0.000349	mg/L		01/21/14 09:09	01/28/14 02:15	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-85750-1

Client Sample ID: WG-1620-MW73B-20140115

Lab Sample ID: 600-85750-1

Date Collected: 01/15/14 08:35

Matrix: Water

Date Received: 01/17/14 12:19

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	0.00119		0.000472	0.0000755	mg/L		01/21/14 09:09	01/28/14 02:15	1
Benzo[a]pyrene	0.000390	J	0.000472	0.0000755	mg/L		01/21/14 09:09	01/28/14 02:15	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	90		44 - 123				01/21/14 09:09	01/28/14 02:15	1
2-Fluorobiphenyl	96		43 - 120				01/21/14 09:09	01/28/14 02:15	1
2-Fluorophenol	35		18 - 120				01/21/14 09:09	01/28/14 02:15	1
Nitrobenzene-d5	98		47 - 120				01/21/14 09:09	01/28/14 02:15	1
Terphenyl-d14	117		33 - 141				01/21/14 09:09	01/28/14 02:15	1
Phenol-d5 (Surr)	22		12 - 128				01/21/14 09:09	01/28/14 02:15	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels - DL

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	0.0906		0.0472	0.000755	mg/L		01/21/14 09:09	01/29/14 22:57	10
Phenanthrene	0.0348		0.00472	0.000566	mg/L		01/21/14 09:09	01/29/14 22:57	10
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	98		44 - 123				01/21/14 09:09	01/29/14 22:57	10
2-Fluorobiphenyl	104		43 - 120				01/21/14 09:09	01/29/14 22:57	10
2-Fluorophenol	43		18 - 120				01/21/14 09:09	01/29/14 22:57	10
Nitrobenzene-d5	91		47 - 120				01/21/14 09:09	01/29/14 22:57	10
Terphenyl-d14	115		33 - 141				01/21/14 09:09	01/29/14 22:57	10
Phenol-d5 (Surr)	21		12 - 128				01/21/14 09:09	01/29/14 22:57	10

Client Sample ID: WG-1620-MW57B-20140115

Lab Sample ID: 600-85750-2

Date Collected: 01/15/14 09:25

Matrix: Water

Date Received: 01/17/14 12:19

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane	0.200	U	0.500	0.200	ug/L			01/28/14 17:42	1
Benzene	716		5.00	2.00	ug/L			01/28/14 17:30	10
Chlorobenzene	0.180	U	0.500	0.180	ug/L			01/28/14 17:42	1
Ethylbenzene	174		0.500	0.190	ug/L			01/28/14 17:42	1
Methylene Chloride	0.220	U	5.00	0.220	ug/L			01/28/14 17:42	1
Toluene	630		5.00	1.70	ug/L			01/28/14 17:30	10
Xylenes, Total	574		15.0	5.80	ug/L			01/28/14 17:30	10
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	103		70 - 130					01/28/14 17:30	10
4-Bromofluorobenzene (Surr)	89		70 - 130					01/28/14 17:42	1
Dibromofluoromethane (Surr)	100		70 - 130					01/28/14 17:30	10
Dibromofluoromethane (Surr)	91		70 - 130					01/28/14 17:42	1
Toluene-d8 (Surr)	99		70 - 130					01/28/14 17:30	10
Toluene-d8 (Surr)	98		70 - 130					01/28/14 17:42	1
1,2-Dichloroethane-d4 (Surr)	110		70 - 130					01/28/14 17:30	10
1,2-Dichloroethane-d4 (Surr)	101		70 - 130					01/28/14 17:42	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	1.00	*	0.236	0.0189	mg/L		01/21/14 09:09	01/28/14 02:40	500

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-85750-1

Client Sample ID: WG-1620-MW57B-20140115

Lab Sample ID: 600-85750-2

Date Collected: 01/15/14 09:25

Matrix: Water

Date Received: 01/17/14 12:19

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrobenzene	0.0519	U	0.236	0.0519	mg/L		01/21/14 09:09	01/28/14 02:40	500
Bis(2-chloroethoxy)methane	0.0613	U	0.236	0.0613	mg/L		01/21/14 09:09	01/28/14 02:40	500
Naphthalene	10.6		2.36	0.0377	mg/L		01/21/14 09:09	01/28/14 02:40	500
2-Methylnaphthalene	0.892		0.236	0.0330	mg/L		01/21/14 09:09	01/28/14 02:40	500
2-Chloronaphthalene	0.0377	U	0.236	0.0377	mg/L		01/21/14 09:09	01/28/14 02:40	500
Acenaphthylene	0.0283	U	0.236	0.0283	mg/L		01/21/14 09:09	01/28/14 02:40	500
2,6-Dinitrotoluene	0.0377	U	0.236	0.0377	mg/L		01/21/14 09:09	01/28/14 02:40	500
Acenaphthene	0.524		0.236	0.0377	mg/L		01/21/14 09:09	01/28/14 02:40	500
4-Nitrophenol	0.264	U	0.472	0.264	mg/L		01/21/14 09:09	01/28/14 02:40	500
Dibenzofuran	0.392		0.236	0.0377	mg/L		01/21/14 09:09	01/28/14 02:40	500
2,4-Dinitrotoluene	0.0613	U	0.236	0.0613	mg/L		01/21/14 09:09	01/28/14 02:40	500
Fluorene	0.298		0.236	0.0330	mg/L		01/21/14 09:09	01/28/14 02:40	500
4,6-Dinitro-2-methylphenol	0.392	U	0.472	0.392	mg/L		01/21/14 09:09	01/28/14 02:40	500
N-Nitrosodiphenylamine	0.0472	U *	0.236	0.0472	mg/L		01/21/14 09:09	01/28/14 02:40	500
1,2-Diphenylhydrazine	0.0519	U	0.236	0.0519	mg/L		01/21/14 09:09	01/28/14 02:40	500
Pentachlorophenol	0.288	U	0.472	0.288	mg/L		01/21/14 09:09	01/28/14 02:40	500
Phenanthrene	0.456		0.236	0.0283	mg/L		01/21/14 09:09	01/28/14 02:40	500
Anthracene	0.0844	J	0.236	0.0236	mg/L		01/21/14 09:09	01/28/14 02:40	500
Di-n-butyl phthalate	0.0519	U	1.18	0.0519	mg/L		01/21/14 09:09	01/28/14 02:40	500
Fluoranthene	0.0752	J	0.236	0.0330	mg/L		01/21/14 09:09	01/28/14 02:40	500
Pyrene	0.0519	U	0.236	0.0519	mg/L		01/21/14 09:09	01/28/14 02:40	500
Benzo[a]anthracene	0.0377	U	0.236	0.0377	mg/L		01/21/14 09:09	01/28/14 02:40	500
Bis(2-ethylhexyl) phthalate	0.175	U	1.18	0.175	mg/L		01/21/14 09:09	01/28/14 02:40	500
Chrysene	0.0377	U	0.236	0.0377	mg/L		01/21/14 09:09	01/28/14 02:40	500
Benzo[a]pyrene	0.0377	U	0.236	0.0377	mg/L		01/21/14 09:09	01/28/14 02:40	500

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	0	X	44 - 123	01/21/14 09:09	01/28/14 02:40	500
2-Fluorobiphenyl	0	X	43 - 120	01/21/14 09:09	01/28/14 02:40	500
2-Fluorophenol	0	X	18 - 120	01/21/14 09:09	01/28/14 02:40	500
Nitrobenzene-d5	0	X	47 - 120	01/21/14 09:09	01/28/14 02:40	500
Terphenyl-d14	0	X	33 - 141	01/21/14 09:09	01/28/14 02:40	500
Phenol-d5 (Surr)	0	X	12 - 128	01/21/14 09:09	01/28/14 02:40	500

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels - DL

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-Dimethylphenol	19.8	*	1.18	0.731	mg/L		01/21/14 09:09	01/29/14 23:23	2500

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	0	X	44 - 123	01/21/14 09:09	01/29/14 23:23	2500
2-Fluorobiphenyl	0	X	43 - 120	01/21/14 09:09	01/29/14 23:23	2500
2-Fluorophenol	0	X	18 - 120	01/21/14 09:09	01/29/14 23:23	2500
Nitrobenzene-d5	0	X	47 - 120	01/21/14 09:09	01/29/14 23:23	2500
Terphenyl-d14	0	X	33 - 141	01/21/14 09:09	01/29/14 23:23	2500
Phenol-d5 (Surr)	0	X	12 - 128	01/21/14 09:09	01/29/14 23:23	2500

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-85750-1

Client Sample ID: WG-1620-MW57A-20140115

Lab Sample ID: 600-85750-3

Date Collected: 01/15/14 10:20

Matrix: Water

Date Received: 01/17/14 12:19

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane	0.200	U	0.500	0.200	ug/L			01/28/14 18:09	1
Benzene	109		0.500	0.200	ug/L			01/28/14 18:09	1
Chlorobenzene	0.465	J	0.500	0.180	ug/L			01/28/14 18:09	1
Ethylbenzene	198		0.500	0.190	ug/L			01/28/14 18:09	1
Methylene Chloride	0.220	U	5.00	0.220	ug/L			01/28/14 18:09	1
Toluene	198		0.500	0.170	ug/L			01/28/14 18:09	1
Vinyl chloride	1.54		0.500	0.180	ug/L			01/28/14 18:09	1
Xylenes, Total	454		7.50	2.90	ug/L			01/28/14 17:55	5
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	103		70 - 130					01/28/14 17:55	5
4-Bromofluorobenzene (Surr)	92		70 - 130					01/28/14 18:09	1
Dibromofluoromethane (Surr)	99		70 - 130					01/28/14 17:55	5
Dibromofluoromethane (Surr)	91		70 - 130					01/28/14 18:09	1
Toluene-d8 (Surr)	100		70 - 130					01/28/14 17:55	5
Toluene-d8 (Surr)	99		70 - 130					01/28/14 18:09	1
1,2-Dichloroethane-d4 (Surr)	111		70 - 130					01/28/14 17:55	5
1,2-Dichloroethane-d4 (Surr)	99		70 - 130					01/28/14 18:09	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.00943	U *	0.118	0.00943	mg/L		01/21/14 09:09	01/28/14 03:06	250
Nitrobenzene	0.0259	U	0.118	0.0259	mg/L		01/21/14 09:09	01/28/14 03:06	250
Bis(2-chloroethoxy)methane	0.0307	U	0.118	0.0307	mg/L		01/21/14 09:09	01/28/14 03:06	250
2-Methylnaphthalene	8.24		0.118	0.0165	mg/L		01/21/14 09:09	01/28/14 03:06	250
2-Chloronaphthalene	0.0189	U	0.118	0.0189	mg/L		01/21/14 09:09	01/28/14 03:06	250
Acenaphthylene	0.0142	U	0.118	0.0142	mg/L		01/21/14 09:09	01/28/14 03:06	250
2,6-Dinitrotoluene	0.0189	U	0.118	0.0189	mg/L		01/21/14 09:09	01/28/14 03:06	250
Acenaphthene	5.69		0.118	0.0189	mg/L		01/21/14 09:09	01/28/14 03:06	250
4-Nitrophenol	0.132	U	0.236	0.132	mg/L		01/21/14 09:09	01/28/14 03:06	250
Dibenzofuran	4.69		0.118	0.0189	mg/L		01/21/14 09:09	01/28/14 03:06	250
2,4-Dinitrotoluene	0.0307	U	0.118	0.0307	mg/L		01/21/14 09:09	01/28/14 03:06	250
Fluorene	4.16		0.118	0.0165	mg/L		01/21/14 09:09	01/28/14 03:06	250
4,6-Dinitro-2-methylphenol	0.196	U	0.236	0.196	mg/L		01/21/14 09:09	01/28/14 03:06	250
N-Nitrosodiphenylamine	0.0236	U *	0.118	0.0236	mg/L		01/21/14 09:09	01/28/14 03:06	250
1,2-Diphenylhydrazine	0.0259	U	0.118	0.0259	mg/L		01/21/14 09:09	01/28/14 03:06	250
Pentachlorophenol	0.144	U	0.236	0.144	mg/L		01/21/14 09:09	01/28/14 03:06	250
Anthracene	2.02		0.118	0.0118	mg/L		01/21/14 09:09	01/28/14 03:06	250
Di-n-butyl phthalate	0.0259	U	0.590	0.0259	mg/L		01/21/14 09:09	01/28/14 03:06	250
Fluoranthene	3.19		0.118	0.0165	mg/L		01/21/14 09:09	01/28/14 03:06	250
Pyrene	2.29		0.118	0.0259	mg/L		01/21/14 09:09	01/28/14 03:06	250
Benzo[a]anthracene	0.361		0.118	0.0189	mg/L		01/21/14 09:09	01/28/14 03:06	250
Bis(2-ethylhexyl) phthalate	0.0873	U	0.590	0.0873	mg/L		01/21/14 09:09	01/28/14 03:06	250
Chrysene	0.360		0.118	0.0189	mg/L		01/21/14 09:09	01/28/14 03:06	250
Benzo[a]pyrene	0.0962	J	0.118	0.0189	mg/L		01/21/14 09:09	01/28/14 03:06	250
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	0	X	44 - 123				01/21/14 09:09	01/28/14 03:06	250
2-Fluorobiphenyl	0	X	43 - 120				01/21/14 09:09	01/28/14 03:06	250
2-Fluorophenol	0	X	18 - 120				01/21/14 09:09	01/28/14 03:06	250

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-85750-1

Client Sample ID: WG-1620-MW57A-20140115

Lab Sample ID: 600-85750-3

Date Collected: 01/15/14 10:20

Matrix: Water

Date Received: 01/17/14 12:19

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5	0	X	47 - 120	01/21/14 09:09	01/28/14 03:06	250
Terphenyl-d14	0	X	33 - 141	01/21/14 09:09	01/28/14 03:06	250
Phenol-d5 (Surr)	0	X	12 - 128	01/21/14 09:09	01/28/14 03:06	250

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels - DL

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-Dimethylphenol	7.91	*	1.18	0.731	mg/L		01/21/14 09:09	01/29/14 23:49	2500
Naphthalene	56.9		11.8	0.189	mg/L		01/21/14 09:09	01/29/14 23:49	2500
Phenanthrene	13.1		1.18	0.142	mg/L		01/21/14 09:09	01/29/14 23:49	2500

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	0	X	44 - 123	01/21/14 09:09	01/29/14 23:49	2500
2-Fluorobiphenyl	0	X	43 - 120	01/21/14 09:09	01/29/14 23:49	2500
2-Fluorophenol	0	X	18 - 120	01/21/14 09:09	01/29/14 23:49	2500
Nitrobenzene-d5	0	X	47 - 120	01/21/14 09:09	01/29/14 23:49	2500
Terphenyl-d14	0	X	33 - 141	01/21/14 09:09	01/29/14 23:49	2500
Phenol-d5 (Surr)	0	X	12 - 128	01/21/14 09:09	01/29/14 23:49	2500

Client Sample ID: WG-1620-MW72B-20140115

Lab Sample ID: 600-85750-4

Date Collected: 01/15/14 11:20

Matrix: Water

Date Received: 01/17/14 12:19

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane	0.200	U	0.500	0.200	ug/L			01/28/14 01:43	1
Benzene	932		5.00	2.00	ug/L			01/28/14 16:38	10
Chlorobenzene	0.290	J	0.500	0.180	ug/L			01/28/14 01:43	1
Ethylbenzene	224		5.00	1.90	ug/L			01/28/14 16:38	10
Methylene Chloride	0.220	U	5.00	0.220	ug/L			01/28/14 01:43	1
Toluene	724		5.00	1.70	ug/L			01/28/14 16:38	10
Xylenes, Total	661		15.0	5.80	ug/L			01/28/14 16:38	10

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	101		70 - 130		01/28/14 01:43	1
4-Bromofluorobenzene (Surr)	105		70 - 130		01/28/14 16:38	10
Dibromofluoromethane (Surr)	97		70 - 130		01/28/14 01:43	1
Dibromofluoromethane (Surr)	99		70 - 130		01/28/14 16:38	10
Toluene-d8 (Surr)	103		70 - 130		01/28/14 01:43	1
Toluene-d8 (Surr)	99		70 - 130		01/28/14 16:38	10
1,2-Dichloroethane-d4 (Surr)	103		70 - 130		01/28/14 01:43	1
1,2-Dichloroethane-d4 (Surr)	110		70 - 130		01/28/14 16:38	10

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	31.4	*	0.708	0.0566	mg/L		01/21/14 09:09	01/28/14 03:31	1000
Nitrobenzene	0.156	U	0.708	0.156	mg/L		01/21/14 09:09	01/28/14 03:31	1000
Bis(2-chloroethoxy)methane	0.184	U	0.708	0.184	mg/L		01/21/14 09:09	01/28/14 03:31	1000
2-Methylnaphthalene	3.37		0.708	0.0991	mg/L		01/21/14 09:09	01/28/14 03:31	1000
2-Chloronaphthalene	0.113	U	0.708	0.113	mg/L		01/21/14 09:09	01/28/14 03:31	1000
Acenaphthylene	0.0849	U	0.708	0.0849	mg/L		01/21/14 09:09	01/28/14 03:31	1000

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-85750-1

Client Sample ID: WG-1620-MW72B-20140115

Lab Sample ID: 600-85750-4

Date Collected: 01/15/14 11:20

Matrix: Water

Date Received: 01/17/14 12:19

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
2,6-Dinitrotoluene	0.113	U	0.708	0.113	mg/L		01/21/14 09:09	01/28/14 03:31	1000
Acenaphthene	1.60		0.708	0.113	mg/L		01/21/14 09:09	01/28/14 03:31	1000
4-Nitrophenol	0.792	U	1.42	0.792	mg/L		01/21/14 09:09	01/28/14 03:31	1000
Dibenzofuran	1.21		0.708	0.113	mg/L		01/21/14 09:09	01/28/14 03:31	1000
2,4-Dinitrotoluene	0.184	U	0.708	0.184	mg/L		01/21/14 09:09	01/28/14 03:31	1000
Fluorene	0.700	J	0.708	0.0991	mg/L		01/21/14 09:09	01/28/14 03:31	1000
4,6-Dinitro-2-methylphenol	1.17	U	1.42	1.17	mg/L		01/21/14 09:09	01/28/14 03:31	1000
N-Nitrosodiphenylamine	0.142	U *	0.708	0.142	mg/L		01/21/14 09:09	01/28/14 03:31	1000
1,2-Diphenylhydrazine	0.156	U	0.708	0.156	mg/L		01/21/14 09:09	01/28/14 03:31	1000
Pentachlorophenol	0.863	U	1.42	0.863	mg/L		01/21/14 09:09	01/28/14 03:31	1000
Phenanthrene	0.760		0.708	0.0849	mg/L		01/21/14 09:09	01/28/14 03:31	1000
Anthracene	0.179	J	0.708	0.0708	mg/L		01/21/14 09:09	01/28/14 03:31	1000
Di-n-butyl phthalate	0.156	U	3.54	0.156	mg/L		01/21/14 09:09	01/28/14 03:31	1000
Fluoranthene	0.0991	U	0.708	0.0991	mg/L		01/21/14 09:09	01/28/14 03:31	1000
Pyrene	0.156	U	0.708	0.156	mg/L		01/21/14 09:09	01/28/14 03:31	1000
Benzo[a]anthracene	0.113	U	0.708	0.113	mg/L		01/21/14 09:09	01/28/14 03:31	1000
Bis(2-ethylhexyl) phthalate	0.524	U	3.54	0.524	mg/L		01/21/14 09:09	01/28/14 03:31	1000
Chrysene	0.113	U	0.708	0.113	mg/L		01/21/14 09:09	01/28/14 03:31	1000
Benzo[a]pyrene	0.113	U	0.708	0.113	mg/L		01/21/14 09:09	01/28/14 03:31	1000

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	0	X	44 - 123	01/21/14 09:09	01/28/14 03:31	1000
2-Fluorobiphenyl	0	X	43 - 120	01/21/14 09:09	01/28/14 03:31	1000
2-Fluorophenol	0	X	18 - 120	01/21/14 09:09	01/28/14 03:31	1000
Nitrobenzene-d5	0	X	47 - 120	01/21/14 09:09	01/28/14 03:31	1000
Terphenyl-d14	0	X	33 - 141	01/21/14 09:09	01/28/14 03:31	1000
Phenol-d5 (Surr)	0	X	12 - 128	01/21/14 09:09	01/28/14 03:31	1000

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels - DL

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-Dimethylphenol	182	*	7.08	4.39	mg/L		01/21/14 09:09	01/30/14 00:15	10000
Naphthalene	82.8		70.8	1.13	mg/L		01/21/14 09:09	01/30/14 00:15	10000

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	0	X	44 - 123	01/21/14 09:09	01/30/14 00:15	10000
2-Fluorobiphenyl	0	X	43 - 120	01/21/14 09:09	01/30/14 00:15	10000
2-Fluorophenol	0	X	18 - 120	01/21/14 09:09	01/30/14 00:15	10000
Nitrobenzene-d5	0	X	47 - 120	01/21/14 09:09	01/30/14 00:15	10000
Terphenyl-d14	0	X	33 - 141	01/21/14 09:09	01/30/14 00:15	10000
Phenol-d5 (Surr)	0	X	12 - 128	01/21/14 09:09	01/30/14 00:15	10000

Client Sample ID: WG-1620-MW23C-20140115

Lab Sample ID: 600-85750-5

Date Collected: 01/15/14 12:15

Matrix: Water

Date Received: 01/17/14 12:19

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane	0.200	U	0.500	0.200	ug/L			01/28/14 16:13	1
Benzene	12.6		0.500	0.200	ug/L			01/28/14 16:13	1
Chlorobenzene	0.180	U	0.500	0.180	ug/L			01/28/14 16:13	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-85750-1

Client Sample ID: WG-1620-MW23C-20140115

Lab Sample ID: 600-85750-5

Date Collected: 01/15/14 12:15

Matrix: Water

Date Received: 01/17/14 12:19

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	165		0.500	0.190	ug/L			01/28/14 16:13	1
Methylene Chloride	0.220	U	5.00	0.220	ug/L			01/28/14 16:13	1
Toluene	7.28		0.500	0.170	ug/L			01/28/14 16:13	1
Vinyl chloride	0.180	U *	0.500	0.180	ug/L			01/28/14 16:13	1
Xylenes, Total	95.9		1.50	0.580	ug/L			01/28/14 16:13	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	106		70 - 130					01/28/14 16:13	1
Dibromofluoromethane (Surr)	100		70 - 130					01/28/14 16:13	1
Toluene-d8 (Surr)	96		70 - 130					01/28/14 16:13	1
1,2-Dichloroethane-d4 (Surr)	109		70 - 130					01/28/14 16:13	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.00943	U *	0.118	0.00943	mg/L		01/21/14 09:09	01/28/14 03:56	250
Nitrobenzene	0.0259	U	0.118	0.0259	mg/L		01/21/14 09:09	01/28/14 03:56	250
2,4-Dimethylphenol	0.0731	U *	0.118	0.0731	mg/L		01/21/14 09:09	01/28/14 03:56	250
Bis(2-chloroethoxy)methane	0.0307	U	0.118	0.0307	mg/L		01/21/14 09:09	01/28/14 03:56	250
2-Methylnaphthalene	4.52		0.118	0.0165	mg/L		01/21/14 09:09	01/28/14 03:56	250
2-Chloronaphthalene	0.0189	U	0.118	0.0189	mg/L		01/21/14 09:09	01/28/14 03:56	250
Acenaphthylene	0.0142	U	0.118	0.0142	mg/L		01/21/14 09:09	01/28/14 03:56	250
2,6-Dinitrotoluene	0.0189	U	0.118	0.0189	mg/L		01/21/14 09:09	01/28/14 03:56	250
4-Nitrophenol	0.132	U	0.236	0.132	mg/L		01/21/14 09:09	01/28/14 03:56	250
Dibenzofuran	5.45		0.118	0.0189	mg/L		01/21/14 09:09	01/28/14 03:56	250
2,4-Dinitrotoluene	0.0307	U	0.118	0.0307	mg/L		01/21/14 09:09	01/28/14 03:56	250
Fluorene	3.78		0.118	0.0165	mg/L		01/21/14 09:09	01/28/14 03:56	250
4,6-Dinitro-2-methylphenol	0.196	U	0.236	0.196	mg/L		01/21/14 09:09	01/28/14 03:56	250
N-Nitrosodiphenylamine	0.0236	U *	0.118	0.0236	mg/L		01/21/14 09:09	01/28/14 03:56	250
1,2-Diphenylhydrazine	0.0259	U	0.118	0.0259	mg/L		01/21/14 09:09	01/28/14 03:56	250
Pentachlorophenol	0.144	U	0.236	0.144	mg/L		01/21/14 09:09	01/28/14 03:56	250
Anthracene	1.49		0.118	0.0118	mg/L		01/21/14 09:09	01/28/14 03:56	250
Di-n-butyl phthalate	0.0259	U	0.590	0.0259	mg/L		01/21/14 09:09	01/28/14 03:56	250
Fluoranthene	4.42		0.118	0.0165	mg/L		01/21/14 09:09	01/28/14 03:56	250
Pyrene	3.04		0.118	0.0259	mg/L		01/21/14 09:09	01/28/14 03:56	250
Benzo[a]anthracene	0.500		0.118	0.0189	mg/L		01/21/14 09:09	01/28/14 03:56	250
Bis(2-ethylhexyl) phthalate	0.0873	U	0.590	0.0873	mg/L		01/21/14 09:09	01/28/14 03:56	250
Chrysene	0.476		0.118	0.0189	mg/L		01/21/14 09:09	01/28/14 03:56	250
Benzo[a]pyrene	0.119		0.118	0.0189	mg/L		01/21/14 09:09	01/28/14 03:56	250
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	0	X	44 - 123				01/21/14 09:09	01/28/14 03:56	250
2-Fluorobiphenyl	0	X	43 - 120				01/21/14 09:09	01/28/14 03:56	250
2-Fluorophenol	0	X	18 - 120				01/21/14 09:09	01/28/14 03:56	250
Nitrobenzene-d5	0	X	47 - 120				01/21/14 09:09	01/28/14 03:56	250
Terphenyl-d14	0	X	33 - 141				01/21/14 09:09	01/28/14 03:56	250
Phenol-d5 (Surr)	0	X	12 - 128				01/21/14 09:09	01/28/14 03:56	250

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels - DL

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	43.8		11.8	0.189	mg/L		01/21/14 09:09	01/30/14 00:41	2500

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-85750-1

Client Sample ID: WG-1620-MW23C-20140115

Lab Sample ID: 600-85750-5

Date Collected: 01/15/14 12:15

Matrix: Water

Date Received: 01/17/14 12:19

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels - DL (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	7.79		1.18	0.189	mg/L		01/21/14 09:09	01/30/14 00:41	2500
Phenanthrene	18.2		1.18	0.142	mg/L		01/21/14 09:09	01/30/14 00:41	2500
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	0	X	44 - 123				01/21/14 09:09	01/30/14 00:41	2500
2-Fluorobiphenyl	0	X	43 - 120				01/21/14 09:09	01/30/14 00:41	2500
2-Fluorophenol	0	X	18 - 120				01/21/14 09:09	01/30/14 00:41	2500
Nitrobenzene-d5	0	X	47 - 120				01/21/14 09:09	01/30/14 00:41	2500
Terphenyl-d14	0	X	33 - 141				01/21/14 09:09	01/30/14 00:41	2500
Phenol-d5 (Surr)	0	X	12 - 128				01/21/14 09:09	01/30/14 00:41	2500

Client Sample ID: WG-1620-MW42B-20140115

Lab Sample ID: 600-85750-6

Date Collected: 01/15/14 18:20

Matrix: Water

Date Received: 01/17/14 12:19

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane	0.200	U	0.500	0.200	ug/L			01/28/14 02:33	1
Benzene	0.200	U	0.500	0.200	ug/L			01/28/14 02:33	1
Chlorobenzene	0.180	U	0.500	0.180	ug/L			01/28/14 02:33	1
Ethylbenzene	0.190	U	0.500	0.190	ug/L			01/28/14 02:33	1
Methylene Chloride	0.220	U	5.00	0.220	ug/L			01/28/14 02:33	1
Toluene	0.170	U	0.500	0.170	ug/L			01/28/14 02:33	1
Xylenes, Total	0.580	U	1.50	0.580	ug/L			01/28/14 02:33	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	105		70 - 130					01/28/14 02:33	1
Dibromofluoromethane (Surr)	99		70 - 130					01/28/14 02:33	1
Toluene-d8 (Surr)	103		70 - 130					01/28/14 02:33	1
1,2-Dichloroethane-d4 (Surr)	100		70 - 130					01/28/14 02:33	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.0000377	U *	0.000472	0.0000377	mg/L		01/21/14 09:09	01/28/14 23:27	1
Nitrobenzene	0.000104	U	0.000472	0.000104	mg/L		01/21/14 09:09	01/28/14 23:27	1
2,4-Dimethylphenol	0.000916	*	0.000472	0.000292	mg/L		01/21/14 09:09	01/28/14 23:27	1
Bis(2-chloroethoxy)methane	0.000123	U	0.000472	0.000123	mg/L		01/21/14 09:09	01/28/14 23:27	1
Naphthalene	0.00242	J	0.00472	0.0000755	mg/L		01/21/14 09:09	01/28/14 23:27	1
2-Methylnaphthalene	0.000317	J	0.000472	0.0000660	mg/L		01/21/14 09:09	01/28/14 23:27	1
2-Chloronaphthalene	0.0000755	U	0.000472	0.0000755	mg/L		01/21/14 09:09	01/28/14 23:27	1
Acenaphthylene	0.0000566	U	0.000472	0.0000566	mg/L		01/21/14 09:09	01/28/14 23:27	1
2,6-Dinitrotoluene	0.0000755	U	0.000472	0.0000755	mg/L		01/21/14 09:09	01/28/14 23:27	1
Acenaphthene	0.000355	J	0.000472	0.0000755	mg/L		01/21/14 09:09	01/28/14 23:27	1
4-Nitrophenol	0.000528	U	0.000943	0.000528	mg/L		01/21/14 09:09	01/28/14 23:27	1
Dibenzofuran	0.000205	J	0.000472	0.0000755	mg/L		01/21/14 09:09	01/28/14 23:27	1
2,4-Dinitrotoluene	0.000123	U	0.000472	0.000123	mg/L		01/21/14 09:09	01/28/14 23:27	1
Fluorene	0.000198	J	0.000472	0.0000660	mg/L		01/21/14 09:09	01/28/14 23:27	1
4,6-Dinitro-2-methylphenol	0.000783	U	0.000943	0.000783	mg/L		01/21/14 09:09	01/28/14 23:27	1
N-Nitrosodiphenylamine	0.0000943	U *	0.000472	0.0000943	mg/L		01/21/14 09:09	01/28/14 23:27	1
1,2-Diphenylhydrazine	0.000104	U	0.000472	0.000104	mg/L		01/21/14 09:09	01/28/14 23:27	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-85750-1

Client Sample ID: WG-1620-MW42B-20140115

Lab Sample ID: 600-85750-6

Date Collected: 01/15/14 18:20

Matrix: Water

Date Received: 01/17/14 12:19

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Pentachlorophenol	0.000575	U	0.000943	0.000575	mg/L		01/21/14 09:09	01/28/14 23:27	1
Phenanthrene	0.000501		0.000472	0.000566	mg/L		01/21/14 09:09	01/28/14 23:27	1
Anthracene	0.000465	J	0.000472	0.000472	mg/L		01/21/14 09:09	01/28/14 23:27	1
Di-n-butyl phthalate	0.000104	U	0.00236	0.000104	mg/L		01/21/14 09:09	01/28/14 23:27	1
Fluoranthene	0.000339	J	0.000472	0.000660	mg/L		01/21/14 09:09	01/28/14 23:27	1
Pyrene	0.000234	J	0.000472	0.000104	mg/L		01/21/14 09:09	01/28/14 23:27	1
Benzo[a]anthracene	0.0000755	U	0.000472	0.0000755	mg/L		01/21/14 09:09	01/28/14 23:27	1
Bis(2-ethylhexyl) phthalate	0.000349	U	0.00236	0.000349	mg/L		01/21/14 09:09	01/28/14 23:27	1
Chrysene	0.0000755	U	0.000472	0.0000755	mg/L		01/21/14 09:09	01/28/14 23:27	1
Benzo[a]pyrene	0.0000755	U	0.000472	0.0000755	mg/L		01/21/14 09:09	01/28/14 23:27	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	72		44 - 123				01/21/14 09:09	01/28/14 23:27	1
2-Fluorobiphenyl	66		43 - 120				01/21/14 09:09	01/28/14 23:27	1
2-Fluorophenol	30		18 - 120				01/21/14 09:09	01/28/14 23:27	1
Nitrobenzene-d5	76		47 - 120				01/21/14 09:09	01/28/14 23:27	1
Terphenyl-d14	79		33 - 141				01/21/14 09:09	01/28/14 23:27	1
Phenol-d5 (Surr)	19		12 - 128				01/21/14 09:09	01/28/14 23:27	1

Client Sample ID: WG-1620-MW05-20140115

Lab Sample ID: 600-85750-7

Date Collected: 01/15/14 15:05

Matrix: Water

Date Received: 01/17/14 12:19

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane	0.200	U	0.500	0.200	ug/L			01/28/14 02:58	1
Benzene	0.200	U	0.500	0.200	ug/L			01/28/14 02:58	1
Chlorobenzene	0.180	U	0.500	0.180	ug/L			01/28/14 02:58	1
Ethylbenzene	0.190	U	0.500	0.190	ug/L			01/28/14 02:58	1
Methylene Chloride	0.220	U	5.00	0.220	ug/L			01/28/14 02:58	1
Toluene	0.170	U	0.500	0.170	ug/L			01/28/14 02:58	1
Xylenes, Total	0.580	U	1.50	0.580	ug/L			01/28/14 02:58	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	101		70 - 130					01/28/14 02:58	1
Dibromofluoromethane (Surr)	96		70 - 130					01/28/14 02:58	1
Toluene-d8 (Surr)	104		70 - 130					01/28/14 02:58	1
1,2-Dichloroethane-d4 (Surr)	98		70 - 130					01/28/14 02:58	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.0000377	U *	0.000472	0.0000377	mg/L		01/21/14 09:09	01/28/14 04:47	1
Nitrobenzene	0.000104	U	0.000472	0.000104	mg/L		01/21/14 09:09	01/28/14 04:47	1
2,4-Dimethylphenol	0.000292	U *	0.000472	0.000292	mg/L		01/21/14 09:09	01/28/14 04:47	1
Bis(2-chloroethoxy)methane	0.000123	U	0.000472	0.000123	mg/L		01/21/14 09:09	01/28/14 04:47	1
Naphthalene	0.000969	J	0.00472	0.0000755	mg/L		01/21/14 09:09	01/28/14 04:47	1
2-Methylnaphthalene	0.000187	J	0.000472	0.000660	mg/L		01/21/14 09:09	01/28/14 04:47	1
2-Chloronaphthalene	0.0000755	U	0.000472	0.0000755	mg/L		01/21/14 09:09	01/28/14 04:47	1
Acenaphthylene	0.0000566	U	0.000472	0.0000566	mg/L		01/21/14 09:09	01/28/14 04:47	1
2,6-Dinitrotoluene	0.0000755	U	0.000472	0.0000755	mg/L		01/21/14 09:09	01/28/14 04:47	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-85750-1

Client Sample ID: WG-1620-MW05-20140115

Lab Sample ID: 600-85750-7

Date Collected: 01/15/14 15:05

Matrix: Water

Date Received: 01/17/14 12:19

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	0.000194	J	0.000472	0.0000755	mg/L		01/21/14 09:09	01/28/14 04:47	1
4-Nitrophenol	0.000528	U	0.000943	0.000528	mg/L		01/21/14 09:09	01/28/14 04:47	1
Dibenzofuran	0.000162	J	0.000472	0.0000755	mg/L		01/21/14 09:09	01/28/14 04:47	1
2,4-Dinitrotoluene	0.000123	U	0.000472	0.000123	mg/L		01/21/14 09:09	01/28/14 04:47	1
Fluorene	0.000176	J	0.000472	0.0000660	mg/L		01/21/14 09:09	01/28/14 04:47	1
4,6-Dinitro-2-methylphenol	0.000783	U	0.000943	0.000783	mg/L		01/21/14 09:09	01/28/14 04:47	1
N-Nitrosodiphenylamine	0.0000943	U *	0.000472	0.0000943	mg/L		01/21/14 09:09	01/28/14 04:47	1
1,2-Diphenylhydrazine	0.000104	U	0.000472	0.000104	mg/L		01/21/14 09:09	01/28/14 04:47	1
Pentachlorophenol	0.000575	U	0.000943	0.000575	mg/L		01/21/14 09:09	01/28/14 04:47	1
Phenanthrene	0.000507		0.000472	0.0000566	mg/L		01/21/14 09:09	01/28/14 04:47	1
Anthracene	0.000411	J	0.000472	0.0000472	mg/L		01/21/14 09:09	01/28/14 04:47	1
Di-n-butyl phthalate	0.000104	U	0.00236	0.000104	mg/L		01/21/14 09:09	01/28/14 04:47	1
Fluoranthene	0.0000660	U	0.000472	0.0000660	mg/L		01/21/14 09:09	01/28/14 04:47	1
Pyrene	0.000104	U	0.000472	0.000104	mg/L		01/21/14 09:09	01/28/14 04:47	1
Benzo[a]anthracene	0.0000755	U	0.000472	0.0000755	mg/L		01/21/14 09:09	01/28/14 04:47	1
Bis(2-ethylhexyl) phthalate	0.000349	U	0.00236	0.000349	mg/L		01/21/14 09:09	01/28/14 04:47	1
Chrysene	0.0000755	U	0.000472	0.0000755	mg/L		01/21/14 09:09	01/28/14 04:47	1
Benzo[a]pyrene	0.0000755	U	0.000472	0.0000755	mg/L		01/21/14 09:09	01/28/14 04:47	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	71		44 - 123				01/21/14 09:09	01/28/14 04:47	1
2-Fluorobiphenyl	87		43 - 120				01/21/14 09:09	01/28/14 04:47	1
2-Fluorophenol	33		18 - 120				01/21/14 09:09	01/28/14 04:47	1
Nitrobenzene-d5	82		47 - 120				01/21/14 09:09	01/28/14 04:47	1
Terphenyl-d14	124		33 - 141				01/21/14 09:09	01/28/14 04:47	1
Phenol-d5 (Surr)	22		12 - 128				01/21/14 09:09	01/28/14 04:47	1

Client Sample ID: WG-1620-P11-20140115

Lab Sample ID: 600-85750-8

Date Collected: 01/15/14 16:05

Matrix: Water

Date Received: 01/17/14 12:19

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane	0.200	U	0.500	0.200	ug/L			01/28/14 03:23	1
Benzene	0.207	J	0.500	0.200	ug/L			01/28/14 03:23	1
Chlorobenzene	0.180	U	0.500	0.180	ug/L			01/28/14 03:23	1
Ethylbenzene	0.253	J	0.500	0.190	ug/L			01/28/14 03:23	1
Methylene Chloride	0.220	U	5.00	0.220	ug/L			01/28/14 03:23	1
Toluene	0.170	U	0.500	0.170	ug/L			01/28/14 03:23	1
Xylenes, Total	0.580	U	1.50	0.580	ug/L			01/28/14 03:23	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	104		70 - 130					01/28/14 03:23	1
Dibromofluoromethane (Surr)	95		70 - 130					01/28/14 03:23	1
Toluene-d8 (Surr)	106		70 - 130					01/28/14 03:23	1
1,2-Dichloroethane-d4 (Surr)	97		70 - 130					01/28/14 03:23	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.0000377	U *	0.000472	0.0000377	mg/L		01/21/14 09:09	01/28/14 05:12	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-85750-1

Client Sample ID: WG-1620-P11-20140115

Lab Sample ID: 600-85750-8

Date Collected: 01/15/14 16:05

Matrix: Water

Date Received: 01/17/14 12:19

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrobenzene	0.000104	U	0.000472	0.000104	mg/L		01/21/14 09:09	01/28/14 05:12	1
2,4-Dimethylphenol	0.000292	U *	0.000472	0.000292	mg/L		01/21/14 09:09	01/28/14 05:12	1
Bis(2-chloroethoxy)methane	0.000123	U	0.000472	0.000123	mg/L		01/21/14 09:09	01/28/14 05:12	1
2-Methylnaphthalene	0.000257	J	0.000472	0.0000660	mg/L		01/21/14 09:09	01/28/14 05:12	1
2-Chloronaphthalene	0.0000755	U	0.000472	0.0000755	mg/L		01/21/14 09:09	01/28/14 05:12	1
Acenaphthylene	0.0000566	U	0.000472	0.0000566	mg/L		01/21/14 09:09	01/28/14 05:12	1
2,6-Dinitrotoluene	0.0000755	U	0.000472	0.0000755	mg/L		01/21/14 09:09	01/28/14 05:12	1
Acenaphthene	0.00951		0.000472	0.0000755	mg/L		01/21/14 09:09	01/28/14 05:12	1
4-Nitrophenol	0.000528	U	0.000943	0.000528	mg/L		01/21/14 09:09	01/28/14 05:12	1
Dibenzofuran	0.00103		0.000472	0.0000755	mg/L		01/21/14 09:09	01/28/14 05:12	1
2,4-Dinitrotoluene	0.000123	U	0.000472	0.000123	mg/L		01/21/14 09:09	01/28/14 05:12	1
Fluorene	0.00264		0.000472	0.0000660	mg/L		01/21/14 09:09	01/28/14 05:12	1
4,6-Dinitro-2-methylphenol	0.000783	U	0.000943	0.000783	mg/L		01/21/14 09:09	01/28/14 05:12	1
N-Nitrosodiphenylamine	0.0000943	U *	0.000472	0.0000943	mg/L		01/21/14 09:09	01/28/14 05:12	1
1,2-Diphenylhydrazine	0.000104	U	0.000472	0.000104	mg/L		01/21/14 09:09	01/28/14 05:12	1
Pentachlorophenol	0.000575	U	0.000943	0.000575	mg/L		01/21/14 09:09	01/28/14 05:12	1
Phenanthrene	0.00189		0.000472	0.0000566	mg/L		01/21/14 09:09	01/28/14 05:12	1
Anthracene	0.000503		0.000472	0.0000472	mg/L		01/21/14 09:09	01/28/14 05:12	1
Di-n-butyl phthalate	0.000104	U	0.00236	0.000104	mg/L		01/21/14 09:09	01/28/14 05:12	1
Fluoranthene	0.000287	J	0.000472	0.0000660	mg/L		01/21/14 09:09	01/28/14 05:12	1
Pyrene	0.000274	J	0.000472	0.000104	mg/L		01/21/14 09:09	01/28/14 05:12	1
Benzo[a]anthracene	0.0000755	U	0.000472	0.0000755	mg/L		01/21/14 09:09	01/28/14 05:12	1
Bis(2-ethylhexyl) phthalate	0.00403		0.00236	0.000349	mg/L		01/21/14 09:09	01/28/14 05:12	1
Chrysene	0.0000755	U	0.000472	0.0000755	mg/L		01/21/14 09:09	01/28/14 05:12	1
Benzo[a]pyrene	0.0000755	U	0.000472	0.0000755	mg/L		01/21/14 09:09	01/28/14 05:12	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	95		44 - 123	01/21/14 09:09	01/28/14 05:12	1
2-Fluorobiphenyl	89		43 - 120	01/21/14 09:09	01/28/14 05:12	1
2-Fluorophenol	34		18 - 120	01/21/14 09:09	01/28/14 05:12	1
Nitrobenzene-d5	85		47 - 120	01/21/14 09:09	01/28/14 05:12	1
Terphenyl-d14	118		33 - 141	01/21/14 09:09	01/28/14 05:12	1
Phenol-d5 (Surr)	24		12 - 128	01/21/14 09:09	01/28/14 05:12	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels - DL

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	0.0554		0.0236	0.000377	mg/L		01/21/14 09:09	01/30/14 01:07	5

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	101		44 - 123	01/21/14 09:09	01/30/14 01:07	5
2-Fluorobiphenyl	102		43 - 120	01/21/14 09:09	01/30/14 01:07	5
2-Fluorophenol	40		18 - 120	01/21/14 09:09	01/30/14 01:07	5
Nitrobenzene-d5	70		47 - 120	01/21/14 09:09	01/30/14 01:07	5
Terphenyl-d14	112		33 - 141	01/21/14 09:09	01/30/14 01:07	5
Phenol-d5 (Surr)	22		12 - 128	01/21/14 09:09	01/30/14 01:07	5

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-85750-1

Client Sample ID: WG-1620-MW60A-20140115

Lab Sample ID: 600-85750-9

Date Collected: 01/15/14 17:10

Matrix: Water

Date Received: 01/17/14 12:19

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane	0.200	U	0.500	0.200	ug/L			01/28/14 03:48	1
Benzene	0.200	U	0.500	0.200	ug/L			01/28/14 03:48	1
Chlorobenzene	0.180	U	0.500	0.180	ug/L			01/28/14 03:48	1
Ethylbenzene	0.190	U	0.500	0.190	ug/L			01/28/14 03:48	1
Methylene Chloride	0.220	U	5.00	0.220	ug/L			01/28/14 03:48	1
Toluene	0.170	U	0.500	0.170	ug/L			01/28/14 03:48	1
Vinyl chloride	0.180	U *	0.500	0.180	ug/L			01/28/14 03:48	1
Xylenes, Total	0.580	U	1.50	0.580	ug/L			01/28/14 03:48	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	108		70 - 130					01/28/14 03:48	1
Dibromofluoromethane (Surr)	96		70 - 130					01/28/14 03:48	1
Toluene-d8 (Surr)	104		70 - 130					01/28/14 03:48	1
1,2-Dichloroethane-d4 (Surr)	95		70 - 130					01/28/14 03:48	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.000377	U *	0.000472	0.000377	mg/L		01/21/14 09:09	01/24/14 15:26	1
Nitrobenzene	0.000104	U	0.000472	0.000104	mg/L		01/21/14 09:09	01/24/14 15:26	1
2,4-Dimethylphenol	0.000292	U *	0.000472	0.000292	mg/L		01/21/14 09:09	01/24/14 15:26	1
Bis(2-chloroethoxy)methane	0.000123	U	0.000472	0.000123	mg/L		01/21/14 09:09	01/24/14 15:26	1
Naphthalene	0.000668	J	0.00472	0.0000755	mg/L		01/21/14 09:09	01/24/14 15:26	1
2-Methylnaphthalene	0.000143	J	0.000472	0.0000660	mg/L		01/21/14 09:09	01/24/14 15:26	1
2-Chloronaphthalene	0.000755	U	0.000472	0.0000755	mg/L		01/21/14 09:09	01/24/14 15:26	1
Acenaphthylene	0.000566	U	0.000472	0.0000566	mg/L		01/21/14 09:09	01/24/14 15:26	1
2,6-Dinitrotoluene	0.000755	U	0.000472	0.0000755	mg/L		01/21/14 09:09	01/24/14 15:26	1
Acenaphthene	0.000157	J	0.000472	0.0000755	mg/L		01/21/14 09:09	01/24/14 15:26	1
4-Nitrophenol	0.000528	U	0.000943	0.000528	mg/L		01/21/14 09:09	01/24/14 15:26	1
Dibenzofuran	0.000145	J	0.000472	0.0000755	mg/L		01/21/14 09:09	01/24/14 15:26	1
2,4-Dinitrotoluene	0.000123	U	0.000472	0.000123	mg/L		01/21/14 09:09	01/24/14 15:26	1
Fluorene	0.000162	J	0.000472	0.0000660	mg/L		01/21/14 09:09	01/24/14 15:26	1
4,6-Dinitro-2-methylphenol	0.000783	U	0.000943	0.000783	mg/L		01/21/14 09:09	01/24/14 15:26	1
N-Nitrosodiphenylamine	0.0000943	U *	0.000472	0.0000943	mg/L		01/21/14 09:09	01/24/14 15:26	1
1,2-Diphenylhydrazine	0.000104	U	0.000472	0.000104	mg/L		01/21/14 09:09	01/24/14 15:26	1
Pentachlorophenol	0.000575	U	0.000943	0.000575	mg/L		01/21/14 09:09	01/24/14 15:26	1
Phenanthrene	0.000345	J	0.000472	0.0000566	mg/L		01/21/14 09:09	01/24/14 15:26	1
Anthracene	0.000158	J	0.000472	0.0000472	mg/L		01/21/14 09:09	01/24/14 15:26	1
Di-n-butyl phthalate	0.000104	U	0.00236	0.000104	mg/L		01/21/14 09:09	01/24/14 15:26	1
Fluoranthene	0.0000894	J	0.000472	0.0000660	mg/L		01/21/14 09:09	01/24/14 15:26	1
Pyrene	0.000104	U	0.000472	0.000104	mg/L		01/21/14 09:09	01/24/14 15:26	1
Benzo[a]anthracene	0.0000755	U	0.000472	0.0000755	mg/L		01/21/14 09:09	01/24/14 15:26	1
Bis(2-ethylhexyl) phthalate	0.000349	U	0.00236	0.000349	mg/L		01/21/14 09:09	01/24/14 15:26	1
Chrysene	0.0000755	U	0.000472	0.0000755	mg/L		01/21/14 09:09	01/24/14 15:26	1
Benzo[a]pyrene	0.0000755	U	0.000472	0.0000755	mg/L		01/21/14 09:09	01/24/14 15:26	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	63		44 - 123				01/21/14 09:09	01/24/14 15:26	1
2-Fluorobiphenyl	69		43 - 120				01/21/14 09:09	01/24/14 15:26	1
2-Fluorophenol	30		18 - 120				01/21/14 09:09	01/24/14 15:26	1
Nitrobenzene-d5	69		47 - 120				01/21/14 09:09	01/24/14 15:26	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-85750-1

Client Sample ID: WG-1620-MW60A-20140115

Lab Sample ID: 600-85750-9

Date Collected: 01/15/14 17:10

Matrix: Water

Date Received: 01/17/14 12:19

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Terphenyl-d14	79		33 - 141	01/21/14 09:09	01/24/14 15:26	1
Phenol-d5 (Surr)	19		12 - 128	01/21/14 09:09	01/24/14 15:26	1

Client Sample ID: WG-1620-FB3-20140115

Lab Sample ID: 600-85750-10

Date Collected: 01/15/14 17:25

Matrix: Water

Date Received: 01/17/14 12:19

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane	0.200	U	0.500	0.200	ug/L			01/28/14 14:04	1
Benzene	0.200	U	0.500	0.200	ug/L			01/28/14 14:04	1
Chlorobenzene	0.180	U	0.500	0.180	ug/L			01/28/14 14:04	1
Ethylbenzene	0.190	U	0.500	0.190	ug/L			01/28/14 14:04	1
Methylene Chloride	0.220	U	5.00	0.220	ug/L			01/28/14 14:04	1
Toluene	0.170	U	0.500	0.170	ug/L			01/28/14 14:04	1
Xylenes, Total	0.580	U	1.50	0.580	ug/L			01/28/14 14:04	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	103		70 - 130		01/28/14 14:04	1
Dibromofluoromethane (Surr)	103		70 - 130		01/28/14 14:04	1
Toluene-d8 (Surr)	99		70 - 130		01/28/14 14:04	1
1,2-Dichloroethane-d4 (Surr)	112		70 - 130		01/28/14 14:04	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.0000377	U *	0.000472	0.0000377	mg/L		01/21/14 09:09	01/24/14 15:52	1
Nitrobenzene	0.000104	U	0.000472	0.000104	mg/L		01/21/14 09:09	01/24/14 15:52	1
2,4-Dimethylphenol	0.000292	U *	0.000472	0.000292	mg/L		01/21/14 09:09	01/24/14 15:52	1
Bis(2-chloroethoxy)methane	0.000123	U	0.000472	0.000123	mg/L		01/21/14 09:09	01/24/14 15:52	1
Naphthalene	0.0000918	J	0.00472	0.0000755	mg/L		01/21/14 09:09	01/24/14 15:52	1
2-Methylnaphthalene	0.0000660	U	0.000472	0.0000660	mg/L		01/21/14 09:09	01/24/14 15:52	1
2-Chloronaphthalene	0.0000755	U	0.000472	0.0000755	mg/L		01/21/14 09:09	01/24/14 15:52	1
Acenaphthylene	0.0000566	U	0.000472	0.0000566	mg/L		01/21/14 09:09	01/24/14 15:52	1
2,6-Dinitrotoluene	0.0000755	U	0.000472	0.0000755	mg/L		01/21/14 09:09	01/24/14 15:52	1
Acenaphthene	0.0000755	U	0.000472	0.0000755	mg/L		01/21/14 09:09	01/24/14 15:52	1
4-Nitrophenol	0.000528	U	0.000943	0.000528	mg/L		01/21/14 09:09	01/24/14 15:52	1
Dibenzofuran	0.0000755	U	0.000472	0.0000755	mg/L		01/21/14 09:09	01/24/14 15:52	1
2,4-Dinitrotoluene	0.000123	U	0.000472	0.000123	mg/L		01/21/14 09:09	01/24/14 15:52	1
Fluorene	0.0000660	U	0.000472	0.0000660	mg/L		01/21/14 09:09	01/24/14 15:52	1
4,6-Dinitro-2-methylphenol	0.000783	U	0.000943	0.000783	mg/L		01/21/14 09:09	01/24/14 15:52	1
N-Nitrosodiphenylamine	0.0000943	U *	0.000472	0.0000943	mg/L		01/21/14 09:09	01/24/14 15:52	1
1,2-Diphenylhydrazine	0.000104	U	0.000472	0.000104	mg/L		01/21/14 09:09	01/24/14 15:52	1
Pentachlorophenol	0.000575	U	0.000943	0.000575	mg/L		01/21/14 09:09	01/24/14 15:52	1
Phenanthrene	0.0000566	U	0.000472	0.0000566	mg/L		01/21/14 09:09	01/24/14 15:52	1
Anthracene	0.0000472	U	0.000472	0.0000472	mg/L		01/21/14 09:09	01/24/14 15:52	1
Di-n-butyl phthalate	0.000104	U	0.00236	0.000104	mg/L		01/21/14 09:09	01/24/14 15:52	1
Fluoranthene	0.0000660	U	0.000472	0.0000660	mg/L		01/21/14 09:09	01/24/14 15:52	1
Pyrene	0.000104	U	0.000472	0.000104	mg/L		01/21/14 09:09	01/24/14 15:52	1
Benzo[a]anthracene	0.0000755	U	0.000472	0.0000755	mg/L		01/21/14 09:09	01/24/14 15:52	1
Bis(2-ethylhexyl) phthalate	0.000349	U	0.00236	0.000349	mg/L		01/21/14 09:09	01/24/14 15:52	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-85750-1

Client Sample ID: WG-1620-FB3-20140115

Lab Sample ID: 600-85750-10

Date Collected: 01/15/14 17:25

Matrix: Water

Date Received: 01/17/14 12:19

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	0.0000755	U	0.000472	0.0000755	mg/L		01/21/14 09:09	01/24/14 15:52	1
Benzo[a]pyrene	0.0000755	U	0.000472	0.0000755	mg/L		01/21/14 09:09	01/24/14 15:52	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	99		44 - 123				01/21/14 09:09	01/24/14 15:52	1
2-Fluorobiphenyl	101		43 - 120				01/21/14 09:09	01/24/14 15:52	1
2-Fluorophenol	48		18 - 120				01/21/14 09:09	01/24/14 15:52	1
Nitrobenzene-d5	106		47 - 120				01/21/14 09:09	01/24/14 15:52	1
Terphenyl-d14	133		33 - 141				01/21/14 09:09	01/24/14 15:52	1
Phenol-d5 (Surr)	27		12 - 128				01/21/14 09:09	01/24/14 15:52	1

Client Sample ID: WG-1620-MW48C-20140116

Lab Sample ID: 600-85750-11

Date Collected: 01/16/14 08:10

Matrix: Water

Date Received: 01/17/14 12:19

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane	0.200	U	0.500	0.200	ug/L			01/28/14 04:14	1
Benzene	0.200	U	0.500	0.200	ug/L			01/28/14 04:14	1
Chlorobenzene	0.180	U	0.500	0.180	ug/L			01/28/14 04:14	1
Ethylbenzene	0.190	U	0.500	0.190	ug/L			01/28/14 04:14	1
Methylene Chloride	0.220	U	5.00	0.220	ug/L			01/28/14 04:14	1
Toluene	0.170	U	0.500	0.170	ug/L			01/28/14 04:14	1
Vinyl chloride	0.180	U *	0.500	0.180	ug/L			01/28/14 04:14	1
Xylenes, Total	0.580	U	1.50	0.580	ug/L			01/28/14 04:14	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	107		70 - 130					01/28/14 04:14	1
Dibromofluoromethane (Surr)	97		70 - 130					01/28/14 04:14	1
Toluene-d8 (Surr)	107		70 - 130					01/28/14 04:14	1
1,2-Dichloroethane-d4 (Surr)	94		70 - 130					01/28/14 04:14	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.0000377	U *	0.000472	0.0000377	mg/L		01/21/14 09:09	01/24/14 16:18	1
Nitrobenzene	0.000104	U	0.000472	0.000104	mg/L		01/21/14 09:09	01/24/14 16:18	1
2,4-Dimethylphenol	0.000292	U *	0.000472	0.000292	mg/L		01/21/14 09:09	01/24/14 16:18	1
Bis(2-chloroethoxy)methane	0.000123	U	0.000472	0.000123	mg/L		01/21/14 09:09	01/24/14 16:18	1
Naphthalene	0.0000755	U	0.00472	0.0000755	mg/L		01/21/14 09:09	01/24/14 16:18	1
2-Methylnaphthalene	0.0000660	U	0.000472	0.0000660	mg/L		01/21/14 09:09	01/24/14 16:18	1
2-Chloronaphthalene	0.0000755	U	0.000472	0.0000755	mg/L		01/21/14 09:09	01/24/14 16:18	1
Acenaphthylene	0.0000566	U	0.000472	0.0000566	mg/L		01/21/14 09:09	01/24/14 16:18	1
2,6-Dinitrotoluene	0.0000755	U	0.000472	0.0000755	mg/L		01/21/14 09:09	01/24/14 16:18	1
Acenaphthene	0.0000755	U	0.000472	0.0000755	mg/L		01/21/14 09:09	01/24/14 16:18	1
4-Nitrophenol	0.000528	U	0.000943	0.000528	mg/L		01/21/14 09:09	01/24/14 16:18	1
Dibenzofuran	0.0000755	U	0.000472	0.0000755	mg/L		01/21/14 09:09	01/24/14 16:18	1
2,4-Dinitrotoluene	0.000123	U	0.000472	0.000123	mg/L		01/21/14 09:09	01/24/14 16:18	1
Fluorene	0.0000660	U	0.000472	0.0000660	mg/L		01/21/14 09:09	01/24/14 16:18	1
4,6-Dinitro-2-methylphenol	0.000783	U	0.000943	0.000783	mg/L		01/21/14 09:09	01/24/14 16:18	1
N-Nitrosodiphenylamine	0.0000943	U *	0.000472	0.0000943	mg/L		01/21/14 09:09	01/24/14 16:18	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-85750-1

Client Sample ID: WG-1620-MW48C-20140116

Lab Sample ID: 600-85750-11

Date Collected: 01/16/14 08:10

Matrix: Water

Date Received: 01/17/14 12:19

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Diphenylhydrazine	0.000104	U	0.000472	0.000104	mg/L		01/21/14 09:09	01/24/14 16:18	1
Pentachlorophenol	0.000575	U	0.000943	0.000575	mg/L		01/21/14 09:09	01/24/14 16:18	1
Phenanthrene	0.0000566	U	0.000472	0.0000566	mg/L		01/21/14 09:09	01/24/14 16:18	1
Anthracene	0.0000472	U	0.000472	0.0000472	mg/L		01/21/14 09:09	01/24/14 16:18	1
Di-n-butyl phthalate	0.000104	U	0.00236	0.000104	mg/L		01/21/14 09:09	01/24/14 16:18	1
Fluoranthene	0.000153	J	0.000472	0.0000660	mg/L		01/21/14 09:09	01/24/14 16:18	1
Pyrene	0.000104	U	0.000472	0.000104	mg/L		01/21/14 09:09	01/24/14 16:18	1
Benzo[a]anthracene	0.0000755	U	0.000472	0.0000755	mg/L		01/21/14 09:09	01/24/14 16:18	1
Bis(2-ethylhexyl) phthalate	0.000349	U	0.00236	0.000349	mg/L		01/21/14 09:09	01/24/14 16:18	1
Chrysene	0.0000755	U	0.000472	0.0000755	mg/L		01/21/14 09:09	01/24/14 16:18	1
Benzo[a]pyrene	0.0000755	U	0.000472	0.0000755	mg/L		01/21/14 09:09	01/24/14 16:18	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	49		44 - 123				01/21/14 09:09	01/24/14 16:18	1
2-Fluorobiphenyl	53		43 - 120				01/21/14 09:09	01/24/14 16:18	1
2-Fluorophenol	24		18 - 120				01/21/14 09:09	01/24/14 16:18	1
Nitrobenzene-d5	48		47 - 120				01/21/14 09:09	01/24/14 16:18	1
Terphenyl-d14	68		33 - 141				01/21/14 09:09	01/24/14 16:18	1
Phenol-d5 (Surr)	13		12 - 128				01/21/14 09:09	01/24/14 16:18	1

Client Sample ID: WG-1620-MW59B-20140116

Lab Sample ID: 600-85750-12

Date Collected: 01/16/14 09:00

Matrix: Water

Date Received: 01/17/14 12:19

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane	0.200	U	0.500	0.200	ug/L			01/28/14 04:39	1
Benzene	0.200	U	0.500	0.200	ug/L			01/28/14 04:39	1
Chlorobenzene	0.180	U	0.500	0.180	ug/L			01/28/14 04:39	1
Ethylbenzene	0.190	U	0.500	0.190	ug/L			01/28/14 04:39	1
Methylene Chloride	0.220	U	5.00	0.220	ug/L			01/28/14 04:39	1
Toluene	0.170	U	0.500	0.170	ug/L			01/28/14 04:39	1
Vinyl chloride	0.180	U*	0.500	0.180	ug/L			01/28/14 04:39	1
Xylenes, Total	0.580	U	1.50	0.580	ug/L			01/28/14 04:39	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	107		70 - 130					01/28/14 04:39	1
Dibromofluoromethane (Surr)	94		70 - 130					01/28/14 04:39	1
Toluene-d8 (Surr)	109		70 - 130					01/28/14 04:39	1
1,2-Dichloroethane-d4 (Surr)	94		70 - 130					01/28/14 04:39	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.0000377	U*	0.000472	0.0000377	mg/L		01/21/14 09:09	01/24/14 16:44	1
Nitrobenzene	0.000104	U	0.000472	0.000104	mg/L		01/21/14 09:09	01/24/14 16:44	1
2,4-Dimethylphenol	0.000292	U*	0.000472	0.000292	mg/L		01/21/14 09:09	01/24/14 16:44	1
Bis(2-chloroethoxy)methane	0.000123	U	0.000472	0.000123	mg/L		01/21/14 09:09	01/24/14 16:44	1
Naphthalene	0.000172	J	0.00472	0.0000755	mg/L		01/21/14 09:09	01/24/14 16:44	1
2-Methylnaphthalene	0.0000660	U	0.000472	0.0000660	mg/L		01/21/14 09:09	01/24/14 16:44	1
2-Chloronaphthalene	0.0000755	U	0.000472	0.0000755	mg/L		01/21/14 09:09	01/24/14 16:44	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-85750-1

Client Sample ID: WG-1620-MW59B-20140116

Lab Sample ID: 600-85750-12

Date Collected: 01/16/14 09:00

Matrix: Water

Date Received: 01/17/14 12:19

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthylene	0.0000566	U	0.000472	0.0000566	mg/L		01/21/14 09:09	01/24/14 16:44	1
2,6-Dinitrotoluene	0.0000755	U	0.000472	0.0000755	mg/L		01/21/14 09:09	01/24/14 16:44	1
Acenaphthene	0.0000755	U	0.000472	0.0000755	mg/L		01/21/14 09:09	01/24/14 16:44	1
4-Nitrophenol	0.000528	U	0.000943	0.000528	mg/L		01/21/14 09:09	01/24/14 16:44	1
Dibenzofuran	0.0000755	U	0.000472	0.0000755	mg/L		01/21/14 09:09	01/24/14 16:44	1
2,4-Dinitrotoluene	0.000123	U	0.000472	0.000123	mg/L		01/21/14 09:09	01/24/14 16:44	1
Fluorene	0.0000660	U	0.000472	0.0000660	mg/L		01/21/14 09:09	01/24/14 16:44	1
4,6-Dinitro-2-methylphenol	0.000783	U	0.000943	0.000783	mg/L		01/21/14 09:09	01/24/14 16:44	1
N-Nitrosodiphenylamine	0.0000943	U *	0.000472	0.0000943	mg/L		01/21/14 09:09	01/24/14 16:44	1
1,2-Diphenylhydrazine	0.000104	U	0.000472	0.000104	mg/L		01/21/14 09:09	01/24/14 16:44	1
Pentachlorophenol	0.000575	U	0.000943	0.000575	mg/L		01/21/14 09:09	01/24/14 16:44	1
Phenanthrene	0.000112	J	0.000472	0.0000566	mg/L		01/21/14 09:09	01/24/14 16:44	1
Anthracene	0.0000472	U	0.000472	0.0000472	mg/L		01/21/14 09:09	01/24/14 16:44	1
Di-n-butyl phthalate	0.000105	J	0.00236	0.000104	mg/L		01/21/14 09:09	01/24/14 16:44	1
Fluoranthene	0.0000660	U	0.000472	0.0000660	mg/L		01/21/14 09:09	01/24/14 16:44	1
Pyrene	0.000104	U	0.000472	0.000104	mg/L		01/21/14 09:09	01/24/14 16:44	1
Benzo[a]anthracene	0.0000755	U	0.000472	0.0000755	mg/L		01/21/14 09:09	01/24/14 16:44	1
Bis(2-ethylhexyl) phthalate	0.000349	U	0.00236	0.000349	mg/L		01/21/14 09:09	01/24/14 16:44	1
Chrysene	0.0000755	U	0.000472	0.0000755	mg/L		01/21/14 09:09	01/24/14 16:44	1
Benzo[a]pyrene	0.0000755	U	0.000472	0.0000755	mg/L		01/21/14 09:09	01/24/14 16:44	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	109		44 - 123				01/21/14 09:09	01/24/14 16:44	1
2-Fluorobiphenyl	94		43 - 120				01/21/14 09:09	01/24/14 16:44	1
2-Fluorophenol	43		18 - 120				01/21/14 09:09	01/24/14 16:44	1
Nitrobenzene-d5	90		47 - 120				01/21/14 09:09	01/24/14 16:44	1
Terphenyl-d14	127		33 - 141				01/21/14 09:09	01/24/14 16:44	1
Phenol-d5 (Surr)	21		12 - 128				01/21/14 09:09	01/24/14 16:44	1

Client Sample ID: WG-1620-MW59A-20140116

Lab Sample ID: 600-85750-13

Date Collected: 01/16/14 10:00

Matrix: Water

Date Received: 01/17/14 12:19

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane	0.200	U	0.500	0.200	ug/L			01/28/14 05:04	1
Benzene	0.200	U	0.500	0.200	ug/L			01/28/14 05:04	1
Chlorobenzene	0.180	U	0.500	0.180	ug/L			01/28/14 05:04	1
Ethylbenzene	0.190	U	0.500	0.190	ug/L			01/28/14 05:04	1
Methylene Chloride	0.220	U	5.00	0.220	ug/L			01/28/14 05:04	1
Toluene	0.170	U	0.500	0.170	ug/L			01/28/14 05:04	1
Vinyl chloride	0.180	U *	0.500	0.180	ug/L			01/28/14 05:04	1
Xylenes, Total	0.580	U	1.50	0.580	ug/L			01/28/14 05:04	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	105		70 - 130					01/28/14 05:04	1
Dibromofluoromethane (Surr)	95		70 - 130					01/28/14 05:04	1
Toluene-d8 (Surr)	105		70 - 130					01/28/14 05:04	1
1,2-Dichloroethane-d4 (Surr)	92		70 - 130					01/28/14 05:04	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-85750-1

Client Sample ID: WG-1620-MW59A-20140116

Lab Sample ID: 600-85750-13

Date Collected: 01/16/14 10:00

Matrix: Water

Date Received: 01/17/14 12:19

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.0000377	U *	0.000472	0.0000377	mg/L		01/21/14 09:09	01/24/14 17:10	1
Nitrobenzene	0.000104	U	0.000472	0.000104	mg/L		01/21/14 09:09	01/24/14 17:10	1
2,4-Dimethylphenol	0.000292	U *	0.000472	0.000292	mg/L		01/21/14 09:09	01/24/14 17:10	1
Bis(2-chloroethoxy)methane	0.000123	U	0.000472	0.000123	mg/L		01/21/14 09:09	01/24/14 17:10	1
Naphthalene	0.000381	J	0.00472	0.0000755	mg/L		01/21/14 09:09	01/24/14 17:10	1
2-Methylnaphthalene	0.0000902	J	0.000472	0.0000660	mg/L		01/21/14 09:09	01/24/14 17:10	1
2-Chloronaphthalene	0.0000755	U	0.000472	0.0000755	mg/L		01/21/14 09:09	01/24/14 17:10	1
Acenaphthylene	0.0000566	U	0.000472	0.0000566	mg/L		01/21/14 09:09	01/24/14 17:10	1
2,6-Dinitrotoluene	0.0000755	U	0.000472	0.0000755	mg/L		01/21/14 09:09	01/24/14 17:10	1
Acenaphthene	0.0000831	J	0.000472	0.0000755	mg/L		01/21/14 09:09	01/24/14 17:10	1
4-Nitrophenol	0.000528	U	0.000943	0.000528	mg/L		01/21/14 09:09	01/24/14 17:10	1
Dibenzofuran	0.000136	J	0.000472	0.0000755	mg/L		01/21/14 09:09	01/24/14 17:10	1
2,4-Dinitrotoluene	0.000123	U	0.000472	0.000123	mg/L		01/21/14 09:09	01/24/14 17:10	1
Fluorene	0.000176	J	0.000472	0.0000660	mg/L		01/21/14 09:09	01/24/14 17:10	1
4,6-Dinitro-2-methylphenol	0.000783	U	0.000943	0.000783	mg/L		01/21/14 09:09	01/24/14 17:10	1
N-Nitrosodiphenylamine	0.0000943	U *	0.000472	0.0000943	mg/L		01/21/14 09:09	01/24/14 17:10	1
1,2-Diphenylhydrazine	0.000104	U	0.000472	0.000104	mg/L		01/21/14 09:09	01/24/14 17:10	1
Pentachlorophenol	0.000575	U	0.000943	0.000575	mg/L		01/21/14 09:09	01/24/14 17:10	1
Phenanthrene	0.000587		0.000472	0.0000566	mg/L		01/21/14 09:09	01/24/14 17:10	1
Anthracene	0.000119	J	0.000472	0.0000472	mg/L		01/21/14 09:09	01/24/14 17:10	1
Di-n-butyl phthalate	0.000178	J	0.00236	0.000104	mg/L		01/21/14 09:09	01/24/14 17:10	1
Fluoranthene	0.000199	J	0.000472	0.0000660	mg/L		01/21/14 09:09	01/24/14 17:10	1
Pyrene	0.000120	J	0.000472	0.000104	mg/L		01/21/14 09:09	01/24/14 17:10	1
Benzo[a]anthracene	0.0000755	U	0.000472	0.0000755	mg/L		01/21/14 09:09	01/24/14 17:10	1
Bis(2-ethylhexyl) phthalate	0.000349	U	0.00236	0.000349	mg/L		01/21/14 09:09	01/24/14 17:10	1
Chrysene	0.0000755	U	0.000472	0.0000755	mg/L		01/21/14 09:09	01/24/14 17:10	1
Benzo[a]pyrene	0.0000755	U	0.000472	0.0000755	mg/L		01/21/14 09:09	01/24/14 17:10	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	80		44 - 123				01/21/14 09:09	01/24/14 17:10	1
2-Fluorobiphenyl	99		43 - 120				01/21/14 09:09	01/24/14 17:10	1
2-Fluorophenol	43		18 - 120				01/21/14 09:09	01/24/14 17:10	1
Nitrobenzene-d5	103		47 - 120				01/21/14 09:09	01/24/14 17:10	1
Terphenyl-d14	132		33 - 141				01/21/14 09:09	01/24/14 17:10	1
Phenol-d5 (Surr)	25		12 - 128				01/21/14 09:09	01/24/14 17:10	1

Client Sample ID: WG-1620-MW49A-20140116

Lab Sample ID: 600-85750-14

Date Collected: 01/16/14 11:00

Matrix: Water

Date Received: 01/17/14 12:19

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane	0.200	U	0.500	0.200	ug/L			01/28/14 05:29	1
Benzene	56.5		0.500	0.200	ug/L			01/28/14 05:29	1
Chlorobenzene	304		2.50	0.900	ug/L			01/28/14 17:04	5
Ethylbenzene	33.1		0.500	0.190	ug/L			01/28/14 05:29	1
Methylene Chloride	0.220	U	5.00	0.220	ug/L			01/28/14 05:29	1
Toluene	29.6		0.500	0.170	ug/L			01/28/14 05:29	1
Vinyl chloride	0.180	U *	0.500	0.180	ug/L			01/28/14 05:29	1
Xylenes, Total	69.9		1.50	0.580	ug/L			01/28/14 05:29	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-85750-1

Client Sample ID: WG-1620-MW49A-20140116

Lab Sample ID: 600-85750-14

Date Collected: 01/16/14 11:00

Matrix: Water

Date Received: 01/17/14 12:19

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	104		70 - 130		01/28/14 05:29	1
4-Bromofluorobenzene (Surr)	101		70 - 130		01/28/14 17:04	5
Dibromofluoromethane (Surr)	94		70 - 130		01/28/14 05:29	1
Dibromofluoromethane (Surr)	99		70 - 130		01/28/14 17:04	5
Toluene-d8 (Surr)	106		70 - 130		01/28/14 05:29	1
Toluene-d8 (Surr)	98		70 - 130		01/28/14 17:04	5
1,2-Dichloroethane-d4 (Surr)	94		70 - 130		01/28/14 05:29	1
1,2-Dichloroethane-d4 (Surr)	113		70 - 130		01/28/14 17:04	5

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.00189	U *	0.0236	0.00189	mg/L		01/21/14 09:09	01/28/14 05:37	50
Nitrobenzene	0.00519	U	0.0236	0.00519	mg/L		01/21/14 09:09	01/28/14 05:37	50
Bis(2-chloroethoxy)methane	0.00613	U	0.0236	0.00613	mg/L		01/21/14 09:09	01/28/14 05:37	50
2-Methylnaphthalene	0.267		0.0236	0.00330	mg/L		01/21/14 09:09	01/28/14 05:37	50
2-Chloronaphthalene	0.00377	U	0.0236	0.00377	mg/L		01/21/14 09:09	01/28/14 05:37	50
Acenaphthylene	0.00528	J	0.0236	0.00283	mg/L		01/21/14 09:09	01/28/14 05:37	50
2,6-Dinitrotoluene	0.00377	U	0.0236	0.00377	mg/L		01/21/14 09:09	01/28/14 05:37	50
Acenaphthene	0.180		0.0236	0.00377	mg/L		01/21/14 09:09	01/28/14 05:37	50
4-Nitrophenol	0.0264	U	0.0472	0.0264	mg/L		01/21/14 09:09	01/28/14 05:37	50
Dibenzofuran	0.0902		0.0236	0.00377	mg/L		01/21/14 09:09	01/28/14 05:37	50
2,4-Dinitrotoluene	0.00613	U	0.0236	0.00613	mg/L		01/21/14 09:09	01/28/14 05:37	50
Fluorene	0.0864		0.0236	0.00330	mg/L		01/21/14 09:09	01/28/14 05:37	50
4,6-Dinitro-2-methylphenol	0.0392	U	0.0472	0.0392	mg/L		01/21/14 09:09	01/28/14 05:37	50
N-Nitrosodiphenylamine	0.00472	U *	0.0236	0.00472	mg/L		01/21/14 09:09	01/28/14 05:37	50
1,2-Diphenylhydrazine	0.00519	U	0.0236	0.00519	mg/L		01/21/14 09:09	01/28/14 05:37	50
Pentachlorophenol	0.0288	U	0.0472	0.0288	mg/L		01/21/14 09:09	01/28/14 05:37	50
Phenanthrene	0.0564		0.0236	0.00283	mg/L		01/21/14 09:09	01/28/14 05:37	50
Anthracene	0.0132	J	0.0236	0.00236	mg/L		01/21/14 09:09	01/28/14 05:37	50
Di-n-butyl phthalate	0.00519	U	0.118	0.00519	mg/L		01/21/14 09:09	01/28/14 05:37	50
Fluoranthene	0.00521	J	0.0236	0.00330	mg/L		01/21/14 09:09	01/28/14 05:37	50
Pyrene	0.00519	U	0.0236	0.00519	mg/L		01/21/14 09:09	01/28/14 05:37	50
Benzo[a]anthracene	0.00377	U	0.0236	0.00377	mg/L		01/21/14 09:09	01/28/14 05:37	50
Bis(2-ethylhexyl) phthalate	0.0175	U	0.118	0.0175	mg/L		01/21/14 09:09	01/28/14 05:37	50
Chrysene	0.00377	U	0.0236	0.00377	mg/L		01/21/14 09:09	01/28/14 05:37	50
Benzo[a]pyrene	0.00377	U	0.0236	0.00377	mg/L		01/21/14 09:09	01/28/14 05:37	50

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	0	X	44 - 123	01/21/14 09:09	01/28/14 05:37	50
2-Fluorobiphenyl	0	X	43 - 120	01/21/14 09:09	01/28/14 05:37	50
2-Fluorophenol	0	X	18 - 120	01/21/14 09:09	01/28/14 05:37	50
Nitrobenzene-d5	0	X	47 - 120	01/21/14 09:09	01/28/14 05:37	50
Terphenyl-d14	0	X	33 - 141	01/21/14 09:09	01/28/14 05:37	50
Phenol-d5 (Surr)	0	X	12 - 128	01/21/14 09:09	01/28/14 05:37	50

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels - DL

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-Dimethylphenol	2.10	*	0.236	0.146	mg/L		01/21/14 09:09	01/30/14 01:33	500
Naphthalene	5.86		2.36	0.0377	mg/L		01/21/14 09:09	01/30/14 01:33	500

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-85750-1

Client Sample ID: WG-1620-MW49A-20140116

Lab Sample ID: 600-85750-14

Date Collected: 01/16/14 11:00

Matrix: Water

Date Received: 01/17/14 12:19

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	0	X	44 - 123	01/21/14 09:09	01/30/14 01:33	500
2-Fluorobiphenyl	0	X	43 - 120	01/21/14 09:09	01/30/14 01:33	500
2-Fluorophenol	0	X	18 - 120	01/21/14 09:09	01/30/14 01:33	500
Nitrobenzene-d5	0	X	47 - 120	01/21/14 09:09	01/30/14 01:33	500
Terphenyl-d14	0	X	33 - 141	01/21/14 09:09	01/30/14 01:33	500
Phenol-d5 (Surr)	0	X	12 - 128	01/21/14 09:09	01/30/14 01:33	500

Client Sample ID: WG-1620-MW49B-20140116

Lab Sample ID: 600-85750-15

Date Collected: 01/16/14 12:00

Matrix: Water

Date Received: 01/17/14 12:19

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane	0.200	U	0.500	0.200	ug/L			01/28/14 15:47	1
Benzene	69.1		0.500	0.200	ug/L			01/28/14 15:47	1
Chlorobenzene	0.180	U	0.500	0.180	ug/L			01/28/14 15:47	1
Ethylbenzene	42.5		0.500	0.190	ug/L			01/28/14 15:47	1
Methylene Chloride	0.220	U	5.00	0.220	ug/L			01/28/14 15:47	1
Toluene	91.0		0.500	0.170	ug/L			01/28/14 15:47	1
Vinyl chloride	0.180	U *	0.500	0.180	ug/L			01/28/14 15:47	1
Xylenes, Total	112		1.50	0.580	ug/L			01/28/14 15:47	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	102		70 - 130		01/28/14 15:47	1
Dibromofluoromethane (Surr)	99		70 - 130		01/28/14 15:47	1
Toluene-d8 (Surr)	101		70 - 130		01/28/14 15:47	1
1,2-Dichloroethane-d4 (Surr)	107		70 - 130		01/28/14 15:47	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.0445	J *	0.118	0.00943	mg/L		01/21/14 09:09	01/28/14 06:03	250
Nitrobenzene	0.0259	U	0.118	0.0259	mg/L		01/21/14 09:09	01/28/14 06:03	250
2,4-Dimethylphenol	4.96	*	0.118	0.0731	mg/L		01/21/14 09:09	01/28/14 06:03	250
Bis(2-chloroethoxy)methane	0.0307	U	0.118	0.0307	mg/L		01/21/14 09:09	01/28/14 06:03	250
2-Methylnaphthalene	0.691		0.118	0.0165	mg/L		01/21/14 09:09	01/28/14 06:03	250
2-Chloronaphthalene	0.0189	U	0.118	0.0189	mg/L		01/21/14 09:09	01/28/14 06:03	250
Acenaphthylene	0.0142	U	0.118	0.0142	mg/L		01/21/14 09:09	01/28/14 06:03	250
2,6-Dinitrotoluene	0.0189	U	0.118	0.0189	mg/L		01/21/14 09:09	01/28/14 06:03	250
Acenaphthene	0.622		0.118	0.0189	mg/L		01/21/14 09:09	01/28/14 06:03	250
4-Nitrophenol	0.132	U	0.236	0.132	mg/L		01/21/14 09:09	01/28/14 06:03	250
Dibenzofuran	0.484		0.118	0.0189	mg/L		01/21/14 09:09	01/28/14 06:03	250
2,4-Dinitrotoluene	0.0307	U	0.118	0.0307	mg/L		01/21/14 09:09	01/28/14 06:03	250
Fluorene	0.464		0.118	0.0165	mg/L		01/21/14 09:09	01/28/14 06:03	250
4,6-Dinitro-2-methylphenol	0.196	U	0.236	0.196	mg/L		01/21/14 09:09	01/28/14 06:03	250
N-Nitrosodiphenylamine	0.0236	U *	0.118	0.0236	mg/L		01/21/14 09:09	01/28/14 06:03	250
1,2-Diphenylhydrazine	0.0259	U	0.118	0.0259	mg/L		01/21/14 09:09	01/28/14 06:03	250
Pentachlorophenol	0.144	U	0.236	0.144	mg/L		01/21/14 09:09	01/28/14 06:03	250
Phenanthrene	1.29		0.118	0.0142	mg/L		01/21/14 09:09	01/28/14 06:03	250
Anthracene	0.221		0.118	0.0118	mg/L		01/21/14 09:09	01/28/14 06:03	250
Di-n-butyl phthalate	0.0259	U	0.590	0.0259	mg/L		01/21/14 09:09	01/28/14 06:03	250
Fluoranthene	0.415		0.118	0.0165	mg/L		01/21/14 09:09	01/28/14 06:03	250

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-85750-1

Client Sample ID: WG-1620-MW49B-20140116

Lab Sample ID: 600-85750-15

Date Collected: 01/16/14 12:00

Matrix: Water

Date Received: 01/17/14 12:19

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Pyrene	0.262		0.118	0.0259	mg/L		01/21/14 09:09	01/28/14 06:03	250
Benzo[a]anthracene	0.0671	J	0.118	0.0189	mg/L		01/21/14 09:09	01/28/14 06:03	250
Bis(2-ethylhexyl) phthalate	0.0873	U	0.590	0.0873	mg/L		01/21/14 09:09	01/28/14 06:03	250
Chrysene	0.0737	J	0.118	0.0189	mg/L		01/21/14 09:09	01/28/14 06:03	250
Benzo[a]pyrene	0.0189	U	0.118	0.0189	mg/L		01/21/14 09:09	01/28/14 06:03	250
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	0	X	44 - 123				01/21/14 09:09	01/28/14 06:03	250
2-Fluorobiphenyl	0	X	43 - 120				01/21/14 09:09	01/28/14 06:03	250
2-Fluorophenol	0	X	18 - 120				01/21/14 09:09	01/28/14 06:03	250
Nitrobenzene-d5	0	X	47 - 120				01/21/14 09:09	01/28/14 06:03	250
Terphenyl-d14	0	X	33 - 141				01/21/14 09:09	01/28/14 06:03	250
Phenol-d5 (Surr)	0	X	12 - 128				01/21/14 09:09	01/28/14 06:03	250

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels - DL

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	6.75		5.90	0.0943	mg/L		01/21/14 09:09	01/30/14 01:58	1250
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	0	X	44 - 123				01/21/14 09:09	01/30/14 01:58	1250
2-Fluorobiphenyl	0	X	43 - 120				01/21/14 09:09	01/30/14 01:58	1250
2-Fluorophenol	0	X	18 - 120				01/21/14 09:09	01/30/14 01:58	1250
Nitrobenzene-d5	0	X	47 - 120				01/21/14 09:09	01/30/14 01:58	1250
Terphenyl-d14	0	X	33 - 141				01/21/14 09:09	01/30/14 01:58	1250
Phenol-d5 (Surr)	0	X	12 - 128				01/21/14 09:09	01/30/14 01:58	1250

Client Sample ID: WG-1620-MW21C-20140116

Lab Sample ID: 600-85750-16

Date Collected: 01/16/14 14:00

Matrix: Water

Date Received: 01/17/14 12:19

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane	0.200	U	0.500	0.200	ug/L			01/28/14 06:19	1
Benzene	0.200	U	0.500	0.200	ug/L			01/28/14 06:19	1
Chlorobenzene	0.180	U	0.500	0.180	ug/L			01/28/14 06:19	1
Ethylbenzene	0.190	U	0.500	0.190	ug/L			01/28/14 06:19	1
Methylene Chloride	0.220	U	5.00	0.220	ug/L			01/28/14 06:19	1
Toluene	0.170	U	0.500	0.170	ug/L			01/28/14 06:19	1
Xylenes, Total	0.580	U	1.50	0.580	ug/L			01/28/14 06:19	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	107		70 - 130					01/28/14 06:19	1
Dibromofluoromethane (Surr)	94		70 - 130					01/28/14 06:19	1
Toluene-d8 (Surr)	108		70 - 130					01/28/14 06:19	1
1,2-Dichloroethane-d4 (Surr)	92		70 - 130					01/28/14 06:19	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.0000377	U *	0.000472	0.0000377	mg/L		01/21/14 20:52	01/24/14 18:28	1
Nitrobenzene	0.000104	U	0.000472	0.000104	mg/L		01/21/14 20:52	01/24/14 18:28	1
2,4-Dimethylphenol	0.000292	U *	0.000472	0.000292	mg/L		01/21/14 20:52	01/24/14 18:28	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-85750-1

Client Sample ID: WG-1620-MW21C-20140116

Lab Sample ID: 600-85750-16

Date Collected: 01/16/14 14:00

Matrix: Water

Date Received: 01/17/14 12:19

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-chloroethoxy)methane	0.000123	U	0.000472	0.000123	mg/L		01/21/14 20:52	01/24/14 18:28	1
Naphthalene	0.000523	J	0.00472	0.0000755	mg/L		01/21/14 20:52	01/24/14 18:28	1
2-Methylnaphthalene	0.000157	J	0.000472	0.0000660	mg/L		01/21/14 20:52	01/24/14 18:28	1
2-Chloronaphthalene	0.0000755	U	0.000472	0.0000755	mg/L		01/21/14 20:52	01/24/14 18:28	1
Acenaphthylene	0.0000566	U	0.000472	0.0000566	mg/L		01/21/14 20:52	01/24/14 18:28	1
2,6-Dinitrotoluene	0.0000755	U	0.000472	0.0000755	mg/L		01/21/14 20:52	01/24/14 18:28	1
Acenaphthene	0.000254	J	0.000472	0.0000755	mg/L		01/21/14 20:52	01/24/14 18:28	1
4-Nitrophenol	0.000528	U	0.000943	0.000528	mg/L		01/21/14 20:52	01/24/14 18:28	1
Dibenzofuran	0.000258	J	0.000472	0.0000755	mg/L		01/21/14 20:52	01/24/14 18:28	1
2,4-Dinitrotoluene	0.000123	U	0.000472	0.000123	mg/L		01/21/14 20:52	01/24/14 18:28	1
Fluorene	0.000291	J	0.000472	0.0000660	mg/L		01/21/14 20:52	01/24/14 18:28	1
4,6-Dinitro-2-methylphenol	0.000783	U	0.000943	0.000783	mg/L		01/21/14 20:52	01/24/14 18:28	1
N-Nitrosodiphenylamine	0.0000943	U *	0.000472	0.0000943	mg/L		01/21/14 20:52	01/24/14 18:28	1
1,2-Diphenylhydrazine	0.000104	U	0.000472	0.000104	mg/L		01/21/14 20:52	01/24/14 18:28	1
Pentachlorophenol	0.000575	U	0.000943	0.000575	mg/L		01/21/14 20:52	01/24/14 18:28	1
Phenanthrene	0.00128		0.000472	0.0000566	mg/L		01/21/14 20:52	01/24/14 18:28	1
Anthracene	0.000243	J	0.000472	0.0000472	mg/L		01/21/14 20:52	01/24/14 18:28	1
Di-n-butyl phthalate	0.000104	U	0.00236	0.000104	mg/L		01/21/14 20:52	01/24/14 18:28	1
Fluoranthene	0.000528		0.000472	0.0000660	mg/L		01/21/14 20:52	01/24/14 18:28	1
Pyrene	0.000355	J	0.000472	0.000104	mg/L		01/21/14 20:52	01/24/14 18:28	1
Benzo[a]anthracene	0.000129	J	0.000472	0.0000755	mg/L		01/21/14 20:52	01/24/14 18:28	1
Bis(2-ethylhexyl) phthalate	0.000349	U	0.00236	0.000349	mg/L		01/21/14 20:52	01/24/14 18:28	1
Chrysene	0.0000812	J	0.000472	0.0000755	mg/L		01/21/14 20:52	01/24/14 18:28	1
Benzo[a]pyrene	0.0000755	U	0.000472	0.0000755	mg/L		01/21/14 20:52	01/24/14 18:28	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	88		44 - 123				01/21/14 20:52	01/24/14 18:28	1
2-Fluorobiphenyl	89		43 - 120				01/21/14 20:52	01/24/14 18:28	1
2-Fluorophenol	32		18 - 120				01/21/14 20:52	01/24/14 18:28	1
Nitrobenzene-d5	97		47 - 120				01/21/14 20:52	01/24/14 18:28	1
Terphenyl-d14	117		33 - 141				01/21/14 20:52	01/24/14 18:28	1
Phenol-d5 (Surr)	17		12 - 128				01/21/14 20:52	01/24/14 18:28	1

Client Sample ID: WG-1620-DUP1-20140116

Lab Sample ID: 600-85750-17

Date Collected: 01/16/14 14:00

Matrix: Water

Date Received: 01/17/14 12:19

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane	0.200	U	0.500	0.200	ug/L			01/28/14 06:44	1
Benzene	0.200	U	0.500	0.200	ug/L			01/28/14 06:44	1
Chlorobenzene	0.180	U	0.500	0.180	ug/L			01/28/14 06:44	1
Ethylbenzene	0.190	U	0.500	0.190	ug/L			01/28/14 06:44	1
Methylene Chloride	0.220	U	5.00	0.220	ug/L			01/28/14 06:44	1
Toluene	0.170	U	0.500	0.170	ug/L			01/28/14 06:44	1
Xylenes, Total	0.580	U	1.50	0.580	ug/L			01/28/14 06:44	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	106		70 - 130					01/28/14 06:44	1
Dibromofluoromethane (Surr)	94		70 - 130					01/28/14 06:44	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-85750-1

Client Sample ID: WG-1620-DUP1-20140116

Lab Sample ID: 600-85750-17

Date Collected: 01/16/14 14:00

Matrix: Water

Date Received: 01/17/14 12:19

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	108		70 - 130		01/28/14 06:44	1
1,2-Dichloroethane-d4 (Surr)	91		70 - 130		01/28/14 06:44	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.000377	U*	0.000472	0.000377	mg/L		01/21/14 20:52	01/24/14 18:54	1
Nitrobenzene	0.000104	U	0.000472	0.000104	mg/L		01/21/14 20:52	01/24/14 18:54	1
2,4-Dimethylphenol	0.000292	U*	0.000472	0.000292	mg/L		01/21/14 20:52	01/24/14 18:54	1
Bis(2-chloroethoxy)methane	0.000123	U	0.000472	0.000123	mg/L		01/21/14 20:52	01/24/14 18:54	1
Naphthalene	0.000421	J	0.00472	0.0000755	mg/L		01/21/14 20:52	01/24/14 18:54	1
2-Methylnaphthalene	0.000187	J	0.000472	0.0000660	mg/L		01/21/14 20:52	01/24/14 18:54	1
2-Chloronaphthalene	0.000755	U	0.000472	0.000755	mg/L		01/21/14 20:52	01/24/14 18:54	1
Acenaphthylene	0.000566	U	0.000472	0.000566	mg/L		01/21/14 20:52	01/24/14 18:54	1
2,6-Dinitrotoluene	0.000755	U	0.000472	0.000755	mg/L		01/21/14 20:52	01/24/14 18:54	1
Acenaphthene	0.000413	J	0.000472	0.000755	mg/L		01/21/14 20:52	01/24/14 18:54	1
4-Nitrophenol	0.000528	U	0.000943	0.000528	mg/L		01/21/14 20:52	01/24/14 18:54	1
Dibenzofuran	0.000456	J	0.000472	0.000755	mg/L		01/21/14 20:52	01/24/14 18:54	1
2,4-Dinitrotoluene	0.000123	U	0.000472	0.000123	mg/L		01/21/14 20:52	01/24/14 18:54	1
Fluorene	0.000705		0.000472	0.000660	mg/L		01/21/14 20:52	01/24/14 18:54	1
4,6-Dinitro-2-methylphenol	0.000783	U	0.000943	0.000783	mg/L		01/21/14 20:52	01/24/14 18:54	1
N-Nitrosodiphenylamine	0.0000943	U*	0.000472	0.0000943	mg/L		01/21/14 20:52	01/24/14 18:54	1
1,2-Diphenylhydrazine	0.000104	U	0.000472	0.000104	mg/L		01/21/14 20:52	01/24/14 18:54	1
Pentachlorophenol	0.000575	U	0.000943	0.000575	mg/L		01/21/14 20:52	01/24/14 18:54	1
Phenanthrene	0.00242		0.000472	0.000566	mg/L		01/21/14 20:52	01/24/14 18:54	1
Anthracene	0.000518		0.000472	0.000472	mg/L		01/21/14 20:52	01/24/14 18:54	1
Di-n-butyl phthalate	0.000104	U	0.00236	0.000104	mg/L		01/21/14 20:52	01/24/14 18:54	1
Fluoranthene	0.000866		0.000472	0.000660	mg/L		01/21/14 20:52	01/24/14 18:54	1
Pyrene	0.000508		0.000472	0.000104	mg/L		01/21/14 20:52	01/24/14 18:54	1
Benzo[a]anthracene	0.000137	J	0.000472	0.000755	mg/L		01/21/14 20:52	01/24/14 18:54	1
Bis(2-ethylhexyl) phthalate	0.000349	U	0.00236	0.000349	mg/L		01/21/14 20:52	01/24/14 18:54	1
Chrysene	0.000132	J	0.000472	0.000755	mg/L		01/21/14 20:52	01/24/14 18:54	1
Benzo[a]pyrene	0.000755	U	0.000472	0.000755	mg/L		01/21/14 20:52	01/24/14 18:54	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	82		44 - 123	01/21/14 20:52	01/24/14 18:54	1
2-Fluorobiphenyl	92		43 - 120	01/21/14 20:52	01/24/14 18:54	1
2-Fluorophenol	32		18 - 120	01/21/14 20:52	01/24/14 18:54	1
Nitrobenzene-d5	93		47 - 120	01/21/14 20:52	01/24/14 18:54	1
Terphenyl-d14	111		33 - 141	01/21/14 20:52	01/24/14 18:54	1
Phenol-d5 (Surr)	17		12 - 128	01/21/14 20:52	01/24/14 18:54	1

Client Sample ID: WG-1620-TW41B-20140116

Lab Sample ID: 600-85750-18

Date Collected: 01/16/14 15:05

Matrix: Water

Date Received: 01/17/14 12:19

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane	0.200	U	0.500	0.200	ug/L			01/28/14 07:09	1
Benzene	0.200	U	0.500	0.200	ug/L			01/28/14 07:09	1
Chlorobenzene	0.180	U	0.500	0.180	ug/L			01/28/14 07:09	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-85750-1

Client Sample ID: WG-1620-TW41B-20140116

Lab Sample ID: 600-85750-18

Date Collected: 01/16/14 15:05

Matrix: Water

Date Received: 01/17/14 12:19

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	0.190	U	0.500	0.190	ug/L			01/28/14 07:09	1
Methylene Chloride	0.220	U	5.00	0.220	ug/L			01/28/14 07:09	1
Toluene	0.170	U	0.500	0.170	ug/L			01/28/14 07:09	1
Xylenes, Total	0.580	U	1.50	0.580	ug/L			01/28/14 07:09	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	107		70 - 130					01/28/14 07:09	1
Dibromofluoromethane (Surr)	94		70 - 130					01/28/14 07:09	1
Toluene-d8 (Surr)	109		70 - 130					01/28/14 07:09	1
1,2-Dichloroethane-d4 (Surr)	94		70 - 130					01/28/14 07:09	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.0000377	U *	0.000472	0.0000377	mg/L		01/21/14 20:52	01/24/14 19:20	1
Nitrobenzene	0.000104	U	0.000472	0.000104	mg/L		01/21/14 20:52	01/24/14 19:20	1
2,4-Dimethylphenol	0.000292	U *	0.000472	0.000292	mg/L		01/21/14 20:52	01/24/14 19:20	1
Bis(2-chloroethoxy)methane	0.000123	U	0.000472	0.000123	mg/L		01/21/14 20:52	01/24/14 19:20	1
Naphthalene	0.000259	J	0.00472	0.0000755	mg/L		01/21/14 20:52	01/24/14 19:20	1
2-Methylnaphthalene	0.000846	J	0.000472	0.0000660	mg/L		01/21/14 20:52	01/24/14 19:20	1
2-Chloronaphthalene	0.000755	U	0.000472	0.0000755	mg/L		01/21/14 20:52	01/24/14 19:20	1
Acenaphthylene	0.000926	J	0.000472	0.0000566	mg/L		01/21/14 20:52	01/24/14 19:20	1
2,6-Dinitrotoluene	0.000755	U	0.000472	0.0000755	mg/L		01/21/14 20:52	01/24/14 19:20	1
Acenaphthene	0.000755	U	0.000472	0.0000755	mg/L		01/21/14 20:52	01/24/14 19:20	1
4-Nitrophenol	0.000528	U	0.000943	0.000528	mg/L		01/21/14 20:52	01/24/14 19:20	1
Dibenzofuran	0.000755	U	0.000472	0.0000755	mg/L		01/21/14 20:52	01/24/14 19:20	1
2,4-Dinitrotoluene	0.000123	U	0.000472	0.000123	mg/L		01/21/14 20:52	01/24/14 19:20	1
Fluorene	0.0000660	U	0.000472	0.0000660	mg/L		01/21/14 20:52	01/24/14 19:20	1
4,6-Dinitro-2-methylphenol	0.000783	U	0.000943	0.000783	mg/L		01/21/14 20:52	01/24/14 19:20	1
N-Nitrosodiphenylamine	0.0000943	U *	0.000472	0.0000943	mg/L		01/21/14 20:52	01/24/14 19:20	1
1,2-Diphenylhydrazine	0.000104	U	0.000472	0.000104	mg/L		01/21/14 20:52	01/24/14 19:20	1
Pentachlorophenol	0.000575	U	0.000943	0.000575	mg/L		01/21/14 20:52	01/24/14 19:20	1
Phenanthrene	0.000176	J	0.000472	0.0000566	mg/L		01/21/14 20:52	01/24/14 19:20	1
Anthracene	0.000930		0.000472	0.0000472	mg/L		01/21/14 20:52	01/24/14 19:20	1
Di-n-butyl phthalate	0.000116	J	0.00236	0.000104	mg/L		01/21/14 20:52	01/24/14 19:20	1
Fluoranthene	0.000206	J	0.000472	0.0000660	mg/L		01/21/14 20:52	01/24/14 19:20	1
Pyrene	0.000223	J	0.000472	0.000104	mg/L		01/21/14 20:52	01/24/14 19:20	1
Benzo[a]anthracene	0.0000755	U	0.000472	0.0000755	mg/L		01/21/14 20:52	01/24/14 19:20	1
Bis(2-ethylhexyl) phthalate	0.000349	U	0.00236	0.000349	mg/L		01/21/14 20:52	01/24/14 19:20	1
Chrysene	0.0000755	U	0.000472	0.0000755	mg/L		01/21/14 20:52	01/24/14 19:20	1
Benzo[a]pyrene	0.0000755	U	0.000472	0.0000755	mg/L		01/21/14 20:52	01/24/14 19:20	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	94		44 - 123				01/21/14 20:52	01/24/14 19:20	1
2-Fluorobiphenyl	100		43 - 120				01/21/14 20:52	01/24/14 19:20	1
2-Fluorophenol	35		18 - 120				01/21/14 20:52	01/24/14 19:20	1
Nitrobenzene-d5	109		47 - 120				01/21/14 20:52	01/24/14 19:20	1
Terphenyl-d14	127		33 - 141				01/21/14 20:52	01/24/14 19:20	1
Phenol-d5 (Surr)	20		12 - 128				01/21/14 20:52	01/24/14 19:20	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-85750-1

Client Sample ID: WG-1620-MW36B-20140116

Lab Sample ID: 600-85750-19

Date Collected: 01/16/14 16:15

Matrix: Water

Date Received: 01/17/14 12:19

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane	0.200	U	0.500	0.200	ug/L			01/28/14 07:35	1
Benzene	0.200	U	0.500	0.200	ug/L			01/28/14 07:35	1
Chlorobenzene	0.180	U	0.500	0.180	ug/L			01/28/14 07:35	1
Ethylbenzene	0.190	U	0.500	0.190	ug/L			01/28/14 07:35	1
Methylene Chloride	0.220	U	5.00	0.220	ug/L			01/28/14 07:35	1
Toluene	0.170	U	0.500	0.170	ug/L			01/28/14 07:35	1
Vinyl chloride	0.180	U *	0.500	0.180	ug/L			01/28/14 07:35	1
Xylenes, Total	0.580	U	1.50	0.580	ug/L			01/28/14 07:35	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	103		70 - 130					01/28/14 07:35	1
Dibromofluoromethane (Surr)	94		70 - 130					01/28/14 07:35	1
Toluene-d8 (Surr)	108		70 - 130					01/28/14 07:35	1
1,2-Dichloroethane-d4 (Surr)	92		70 - 130					01/28/14 07:35	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.000377	U	0.000472	0.000377	mg/L		01/23/14 19:10	01/28/14 13:33	1
Nitrobenzene	0.000104	U	0.000472	0.000104	mg/L		01/23/14 19:10	01/28/14 13:33	1
2,4-Dimethylphenol	0.000292	U	0.000472	0.000292	mg/L		01/23/14 19:10	01/28/14 13:33	1
Bis(2-chloroethoxy)methane	0.000123	U	0.000472	0.000123	mg/L		01/23/14 19:10	01/28/14 13:33	1
Naphthalene	0.000825	J	0.00472	0.0000755	mg/L		01/23/14 19:10	01/28/14 13:33	1
2-Methylnaphthalene	0.000271	J	0.000472	0.0000660	mg/L		01/23/14 19:10	01/28/14 13:33	1
2-Chloronaphthalene	0.000755	U	0.000472	0.0000755	mg/L		01/23/14 19:10	01/28/14 13:33	1
Acenaphthylene	0.0000566	U	0.000472	0.0000566	mg/L		01/23/14 19:10	01/28/14 13:33	1
2,6-Dinitrotoluene	0.0000755	U	0.000472	0.0000755	mg/L		01/23/14 19:10	01/28/14 13:33	1
Acenaphthene	0.000463	J	0.000472	0.0000755	mg/L		01/23/14 19:10	01/28/14 13:33	1
4-Nitrophenol	0.000528	U	0.000943	0.000528	mg/L		01/23/14 19:10	01/28/14 13:33	1
Dibenzofuran	0.000409	J	0.000472	0.0000755	mg/L		01/23/14 19:10	01/28/14 13:33	1
2,4-Dinitrotoluene	0.000123	U	0.000472	0.000123	mg/L		01/23/14 19:10	01/28/14 13:33	1
Fluorene	0.000434	J	0.000472	0.0000660	mg/L		01/23/14 19:10	01/28/14 13:33	1
4,6-Dinitro-2-methylphenol	0.000783	U	0.000943	0.000783	mg/L		01/23/14 19:10	01/28/14 13:33	1
N-Nitrosodiphenylamine	0.0000943	U	0.000472	0.0000943	mg/L		01/23/14 19:10	01/28/14 13:33	1
1,2-Diphenylhydrazine	0.000104	U	0.000472	0.000104	mg/L		01/23/14 19:10	01/28/14 13:33	1
Pentachlorophenol	0.000575	U	0.000943	0.000575	mg/L		01/23/14 19:10	01/28/14 13:33	1
Phenanthrene	0.00183		0.000472	0.0000566	mg/L		01/23/14 19:10	01/28/14 13:33	1
Anthracene	0.000350	J	0.000472	0.0000472	mg/L		01/23/14 19:10	01/28/14 13:33	1
Di-n-butyl phthalate	0.000104	U	0.00236	0.000104	mg/L		01/23/14 19:10	01/28/14 13:33	1
Fluoranthene	0.000756		0.000472	0.0000660	mg/L		01/23/14 19:10	01/28/14 13:33	1
Pyrene	0.000460	J	0.000472	0.000104	mg/L		01/23/14 19:10	01/28/14 13:33	1
Benzo[a]anthracene	0.000120	J	0.000472	0.0000755	mg/L		01/23/14 19:10	01/28/14 13:33	1
Bis(2-ethylhexyl) phthalate	0.000440	J	0.00236	0.000349	mg/L		01/23/14 19:10	01/28/14 13:33	1
Chrysene	0.000146	J	0.000472	0.0000755	mg/L		01/23/14 19:10	01/28/14 13:33	1
Benzo[a]pyrene	0.0000755	U	0.000472	0.0000755	mg/L		01/23/14 19:10	01/28/14 13:33	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	82		44 - 123				01/23/14 19:10	01/28/14 13:33	1
2-Fluorobiphenyl	93		43 - 120				01/23/14 19:10	01/28/14 13:33	1
2-Fluorophenol	31		18 - 120				01/23/14 19:10	01/28/14 13:33	1
Nitrobenzene-d5	87		47 - 120				01/23/14 19:10	01/28/14 13:33	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-85750-1

Client Sample ID: WG-1620-MW36B-20140116

Lab Sample ID: 600-85750-19

Date Collected: 01/16/14 16:15

Matrix: Water

Date Received: 01/17/14 12:19

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Terphenyl-d14	103		33 - 141	01/23/14 19:10	01/28/14 13:33	1
Phenol-d5 (Surr)	17		12 - 128	01/23/14 19:10	01/28/14 13:33	1

Client Sample ID: WG-1620-MW36A-20140116

Lab Sample ID: 600-85750-20

Date Collected: 01/16/14 17:15

Matrix: Water

Date Received: 01/17/14 12:19

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane	0.200	U	0.500	0.200	ug/L			01/28/14 09:49	1
Benzene	0.200	U	0.500	0.200	ug/L			01/28/14 09:49	1
Chlorobenzene	0.180	U	0.500	0.180	ug/L			01/28/14 09:49	1
Ethylbenzene	0.190	U	0.500	0.190	ug/L			01/28/14 09:49	1
Methylene Chloride	0.220	U *	5.00	0.220	ug/L			01/28/14 09:49	1
Toluene	0.170	U	0.500	0.170	ug/L			01/28/14 09:49	1
Vinyl chloride	0.180	U	0.500	0.180	ug/L			01/28/14 09:49	1
Xylenes, Total	0.580	U	1.50	0.580	ug/L			01/28/14 09:49	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	96		70 - 130		01/28/14 09:49	1
Dibromofluoromethane (Surr)	92		70 - 130		01/28/14 09:49	1
Toluene-d8 (Surr)	98		70 - 130		01/28/14 09:49	1
1,2-Dichloroethane-d4 (Surr)	83		70 - 130		01/28/14 09:49	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.0000377	U	0.000472	0.0000377	mg/L		01/23/14 19:10	01/27/14 21:24	1
Nitrobenzene	0.000104	U	0.000472	0.000104	mg/L		01/23/14 19:10	01/27/14 21:24	1
2,4-Dimethylphenol	0.000292	U	0.000472	0.000292	mg/L		01/23/14 19:10	01/27/14 21:24	1
Bis(2-chloroethoxy)methane	0.000123	U	0.000472	0.000123	mg/L		01/23/14 19:10	01/27/14 21:24	1
Naphthalene	0.0000755	U	0.00472	0.0000755	mg/L		01/23/14 19:10	01/27/14 21:24	1
2-Methylnaphthalene	0.0000660	U	0.000472	0.0000660	mg/L		01/23/14 19:10	01/27/14 21:24	1
2-Chloronaphthalene	0.0000755	U	0.000472	0.0000755	mg/L		01/23/14 19:10	01/27/14 21:24	1
Acenaphthylene	0.0000566	U	0.000472	0.0000566	mg/L		01/23/14 19:10	01/27/14 21:24	1
2,6-Dinitrotoluene	0.0000755	U	0.000472	0.0000755	mg/L		01/23/14 19:10	01/27/14 21:24	1
Acenaphthene	0.0000867	J	0.000472	0.0000755	mg/L		01/23/14 19:10	01/27/14 21:24	1
4-Nitrophenol	0.000528	U	0.000943	0.000528	mg/L		01/23/14 19:10	01/27/14 21:24	1
Dibenzofuran	0.0000755	U	0.000472	0.0000755	mg/L		01/23/14 19:10	01/27/14 21:24	1
2,4-Dinitrotoluene	0.000123	U	0.000472	0.000123	mg/L		01/23/14 19:10	01/27/14 21:24	1
Fluorene	0.0000660	U	0.000472	0.0000660	mg/L		01/23/14 19:10	01/27/14 21:24	1
4,6-Dinitro-2-methylphenol	0.000783	U	0.000943	0.000783	mg/L		01/23/14 19:10	01/27/14 21:24	1
N-Nitrosodiphenylamine	0.0000943	U	0.000472	0.0000943	mg/L		01/23/14 19:10	01/27/14 21:24	1
1,2-Diphenylhydrazine	0.000104	U	0.000472	0.000104	mg/L		01/23/14 19:10	01/27/14 21:24	1
Pentachlorophenol	0.000575	U	0.000943	0.000575	mg/L		01/23/14 19:10	01/27/14 21:24	1
Phenanthrene	0.000201	J	0.000472	0.0000566	mg/L		01/23/14 19:10	01/27/14 21:24	1
Anthracene	0.0000472	U	0.000472	0.0000472	mg/L		01/23/14 19:10	01/27/14 21:24	1
Di-n-butyl phthalate	0.000104	U	0.00236	0.000104	mg/L		01/23/14 19:10	01/27/14 21:24	1
Fluoranthene	0.0000660	U	0.000472	0.0000660	mg/L		01/23/14 19:10	01/27/14 21:24	1
Pyrene	0.000155	J	0.000472	0.000104	mg/L		01/23/14 19:10	01/27/14 21:24	1
Benzo[a]anthracene	0.0000755	U	0.000472	0.0000755	mg/L		01/23/14 19:10	01/27/14 21:24	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-85750-1

Client Sample ID: WG-1620-MW36A-20140116

Lab Sample ID: 600-85750-20

Date Collected: 01/16/14 17:15

Matrix: Water

Date Received: 01/17/14 12:19

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	0.000349	U	0.00236	0.000349	mg/L		01/23/14 19:10	01/27/14 21:24	1
Chrysene	0.0000755	U	0.000472	0.0000755	mg/L		01/23/14 19:10	01/27/14 21:24	1
Benzo[a]pyrene	0.0000755	U	0.000472	0.0000755	mg/L		01/23/14 19:10	01/27/14 21:24	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	58		44 - 123				01/23/14 19:10	01/27/14 21:24	1
2-Fluorobiphenyl	97		43 - 120				01/23/14 19:10	01/27/14 21:24	1
2-Fluorophenol	38		18 - 120				01/23/14 19:10	01/27/14 21:24	1
Nitrobenzene-d5	96		47 - 120				01/23/14 19:10	01/27/14 21:24	1
Terphenyl-d14	133		33 - 141				01/23/14 19:10	01/27/14 21:24	1
Phenol-d5 (Surr)	18		12 - 128				01/23/14 19:10	01/27/14 21:24	1

Client Sample ID: WG-1620-FB4-20140116

Lab Sample ID: 600-85750-21

Date Collected: 01/16/14 17:30

Matrix: Water

Date Received: 01/17/14 12:19

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane	0.200	U	0.500	0.200	ug/L			01/28/14 13:38	1
Benzene	0.200	U	0.500	0.200	ug/L			01/28/14 13:38	1
Chlorobenzene	0.180	U	0.500	0.180	ug/L			01/28/14 13:38	1
Ethylbenzene	0.190	U	0.500	0.190	ug/L			01/28/14 13:38	1
Methylene Chloride	0.220	U	5.00	0.220	ug/L			01/28/14 13:38	1
Toluene	0.170	U	0.500	0.170	ug/L			01/28/14 13:38	1
Xylenes, Total	0.580	U	1.50	0.580	ug/L			01/28/14 13:38	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	101		70 - 130					01/28/14 13:38	1
Dibromofluoromethane (Surr)	101		70 - 130					01/28/14 13:38	1
Toluene-d8 (Surr)	103		70 - 130					01/28/14 13:38	1
1,2-Dichloroethane-d4 (Surr)	110		70 - 130					01/28/14 13:38	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.0000385	U	0.000481	0.0000385	mg/L		01/23/14 19:10	01/28/14 13:59	1
Nitrobenzene	0.000106	U	0.000481	0.000106	mg/L		01/23/14 19:10	01/28/14 13:59	1
2,4-Dimethylphenol	0.000298	U	0.000481	0.000298	mg/L		01/23/14 19:10	01/28/14 13:59	1
Bis(2-chloroethoxy)methane	0.000125	U	0.000481	0.000125	mg/L		01/23/14 19:10	01/28/14 13:59	1
Naphthalene	0.000979	J	0.00481	0.0000769	mg/L		01/23/14 19:10	01/28/14 13:59	1
2-Methylnaphthalene	0.000200	J	0.000481	0.0000673	mg/L		01/23/14 19:10	01/28/14 13:59	1
2-Chloronaphthalene	0.0000769	U	0.000481	0.0000769	mg/L		01/23/14 19:10	01/28/14 13:59	1
Acenaphthylene	0.0000577	U	0.000481	0.0000577	mg/L		01/23/14 19:10	01/28/14 13:59	1
2,6-Dinitrotoluene	0.0000769	U	0.000481	0.0000769	mg/L		01/23/14 19:10	01/28/14 13:59	1
Acenaphthene	0.0000782	J	0.000481	0.0000769	mg/L		01/23/14 19:10	01/28/14 13:59	1
4-Nitrophenol	0.000538	U	0.000962	0.000538	mg/L		01/23/14 19:10	01/28/14 13:59	1
Dibenzofuran	0.000153	J	0.000481	0.0000769	mg/L		01/23/14 19:10	01/28/14 13:59	1
2,4-Dinitrotoluene	0.000125	U	0.000481	0.000125	mg/L		01/23/14 19:10	01/28/14 13:59	1
Fluorene	0.0000673	U	0.000481	0.0000673	mg/L		01/23/14 19:10	01/28/14 13:59	1
4,6-Dinitro-2-methylphenol	0.000798	U	0.000962	0.000798	mg/L		01/23/14 19:10	01/28/14 13:59	1
N-Nitrosodiphenylamine	0.0000962	U	0.000481	0.0000962	mg/L		01/23/14 19:10	01/28/14 13:59	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-85750-1

Client Sample ID: WG-1620-FB4-20140116

Lab Sample ID: 600-85750-21

Date Collected: 01/16/14 17:30

Matrix: Water

Date Received: 01/17/14 12:19

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Diphenylhydrazine	0.000106	U	0.000481	0.000106	mg/L		01/23/14 19:10	01/28/14 13:59	1
Pentachlorophenol	0.000587	U	0.000962	0.000587	mg/L		01/23/14 19:10	01/28/14 13:59	1
Phenanthrene	0.000136	J	0.000481	0.0000577	mg/L		01/23/14 19:10	01/28/14 13:59	1
Anthracene	0.0000481	U	0.000481	0.0000481	mg/L		01/23/14 19:10	01/28/14 13:59	1
Di-n-butyl phthalate	0.000106	U	0.00240	0.000106	mg/L		01/23/14 19:10	01/28/14 13:59	1
Fluoranthene	0.0000673	U	0.000481	0.0000673	mg/L		01/23/14 19:10	01/28/14 13:59	1
Pyrene	0.000106	U	0.000481	0.000106	mg/L		01/23/14 19:10	01/28/14 13:59	1
Benzo[a]anthracene	0.0000769	U	0.000481	0.0000769	mg/L		01/23/14 19:10	01/28/14 13:59	1
Bis(2-ethylhexyl) phthalate	0.000356	U	0.00240	0.000356	mg/L		01/23/14 19:10	01/28/14 13:59	1
Chrysene	0.0000769	U	0.000481	0.0000769	mg/L		01/23/14 19:10	01/28/14 13:59	1
Benzo[a]pyrene	0.0000769	U	0.000481	0.0000769	mg/L		01/23/14 19:10	01/28/14 13:59	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	48		44 - 123				01/23/14 19:10	01/28/14 13:59	1
2-Fluorobiphenyl	99		43 - 120				01/23/14 19:10	01/28/14 13:59	1
2-Fluorophenol	23		18 - 120				01/23/14 19:10	01/28/14 13:59	1
Nitrobenzene-d5	105		47 - 120				01/23/14 19:10	01/28/14 13:59	1
Terphenyl-d14	98		33 - 141				01/23/14 19:10	01/28/14 13:59	1
Phenol-d5 (Surr)	14		12 - 128				01/23/14 19:10	01/28/14 13:59	1

Client Sample ID: WG-1620-MW44A-20140117

Lab Sample ID: 600-85750-22

Date Collected: 01/17/14 07:50

Matrix: Water

Date Received: 01/17/14 12:19

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane	0.200	U	0.500	0.200	ug/L			01/28/14 14:55	1
Benzene	7.27		0.500	0.200	ug/L			01/28/14 14:55	1
Chlorobenzene	0.180	U	0.500	0.180	ug/L			01/28/14 14:55	1
Ethylbenzene	0.670		0.500	0.190	ug/L			01/28/14 14:55	1
Methylene Chloride	0.220	U	5.00	0.220	ug/L			01/28/14 14:55	1
Toluene	0.418	J	0.500	0.170	ug/L			01/28/14 14:55	1
Vinyl chloride	0.180	U *	0.500	0.180	ug/L			01/28/14 14:55	1
Xylenes, Total	8.05		1.50	0.580	ug/L			01/28/14 14:55	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	101		70 - 130					01/28/14 14:55	1
Dibromofluoromethane (Surr)	100		70 - 130					01/28/14 14:55	1
Toluene-d8 (Surr)	100		70 - 130					01/28/14 14:55	1
1,2-Dichloroethane-d4 (Surr)	110		70 - 130					01/28/14 14:55	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.0000385	U	0.000481	0.0000385	mg/L		01/23/14 19:10	01/28/14 14:25	1
Nitrobenzene	0.000106	U	0.000481	0.000106	mg/L		01/23/14 19:10	01/28/14 14:25	1
2,4-Dimethylphenol	0.000298	U	0.000481	0.000298	mg/L		01/23/14 19:10	01/28/14 14:25	1
Bis(2-chloroethoxy)methane	0.000125	U	0.000481	0.000125	mg/L		01/23/14 19:10	01/28/14 14:25	1
2-Methylnaphthalene	0.0106		0.000481	0.0000673	mg/L		01/23/14 19:10	01/28/14 14:25	1
2-Chloronaphthalene	0.0000769	U	0.000481	0.0000769	mg/L		01/23/14 19:10	01/28/14 14:25	1
Acenaphthylene	0.0000577	U	0.000481	0.0000577	mg/L		01/23/14 19:10	01/28/14 14:25	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-85750-1

Client Sample ID: WG-1620-MW44A-20140117

Lab Sample ID: 600-85750-22

Date Collected: 01/17/14 07:50

Matrix: Water

Date Received: 01/17/14 12:19

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
2,6-Dinitrotoluene	0.0000769	U	0.000481	0.0000769	mg/L		01/23/14 19:10	01/28/14 14:25	1
4-Nitrophenol	0.000538	U	0.000962	0.000538	mg/L		01/23/14 19:10	01/28/14 14:25	1
2,4-Dinitrotoluene	0.000125	U	0.000481	0.000125	mg/L		01/23/14 19:10	01/28/14 14:25	1
4,6-Dinitro-2-methylphenol	0.000798	U	0.000962	0.000798	mg/L		01/23/14 19:10	01/28/14 14:25	1
N-Nitrosodiphenylamine	0.0000962	U	0.000481	0.0000962	mg/L		01/23/14 19:10	01/28/14 14:25	1
1,2-Diphenylhydrazine	0.000106	U	0.000481	0.000106	mg/L		01/23/14 19:10	01/28/14 14:25	1
Pentachlorophenol	0.000587	U	0.000962	0.000587	mg/L		01/23/14 19:10	01/28/14 14:25	1
Anthracene	0.0170		0.000481	0.0000481	mg/L		01/23/14 19:10	01/28/14 14:25	1
Di-n-butyl phthalate	0.000106	U	0.00240	0.000106	mg/L		01/23/14 19:10	01/28/14 14:25	1
Fluoranthene	0.0154		0.000481	0.0000673	mg/L		01/23/14 19:10	01/28/14 14:25	1
Pyrene	0.00830		0.000481	0.000106	mg/L		01/23/14 19:10	01/28/14 14:25	1
Benzo[a]anthracene	0.0000769	U	0.000481	0.0000769	mg/L		01/23/14 19:10	01/28/14 14:25	1
Bis(2-ethylhexyl) phthalate	0.000356	U	0.00240	0.000356	mg/L		01/23/14 19:10	01/28/14 14:25	1
Chrysene	0.0000769	U	0.000481	0.0000769	mg/L		01/23/14 19:10	01/28/14 14:25	1
Benzo[a]pyrene	0.0000769	U	0.000481	0.0000769	mg/L		01/23/14 19:10	01/28/14 14:25	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	116		44 - 123				01/23/14 19:10	01/28/14 14:25	1
2-Fluorobiphenyl	93		43 - 120				01/23/14 19:10	01/28/14 14:25	1
2-Fluorophenol	31		18 - 120				01/23/14 19:10	01/28/14 14:25	1
Nitrobenzene-d5	110		47 - 120				01/23/14 19:10	01/28/14 14:25	1
Terphenyl-d14	114		33 - 141				01/23/14 19:10	01/28/14 14:25	1
Phenol-d5 (Surr)	17		12 - 128				01/23/14 19:10	01/28/14 14:25	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels - DL

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	0.235	J	0.240	0.00385	mg/L		01/23/14 19:10	01/30/14 02:24	50
Acenaphthene	0.394		0.0240	0.00385	mg/L		01/23/14 19:10	01/30/14 02:24	50
Dibenzofuran	0.107		0.0240	0.00385	mg/L		01/23/14 19:10	01/30/14 02:24	50
Fluorene	0.178		0.0240	0.00337	mg/L		01/23/14 19:10	01/30/14 02:24	50
Phenanthrene	0.0438		0.0240	0.00288	mg/L		01/23/14 19:10	01/30/14 02:24	50
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	0	X	44 - 123				01/23/14 19:10	01/30/14 02:24	50
2-Fluorobiphenyl	0	X	43 - 120				01/23/14 19:10	01/30/14 02:24	50
2-Fluorophenol	0	X	18 - 120				01/23/14 19:10	01/30/14 02:24	50
Nitrobenzene-d5	0	X	47 - 120				01/23/14 19:10	01/30/14 02:24	50
Terphenyl-d14	0	X	33 - 141				01/23/14 19:10	01/30/14 02:24	50
Phenol-d5 (Surr)	0	X	12 - 128				01/23/14 19:10	01/30/14 02:24	50

Client Sample ID: WG-1620-MW47C-20140117

Lab Sample ID: 600-85750-23

Date Collected: 01/17/14 09:10

Matrix: Water

Date Received: 01/17/14 12:19

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane	0.200	U	0.500	0.200	ug/L			01/28/14 14:30	1
Benzene	0.200	U	0.500	0.200	ug/L			01/28/14 14:30	1
Chlorobenzene	0.180	U	0.500	0.180	ug/L			01/28/14 14:30	1
Ethylbenzene	0.190	U	0.500	0.190	ug/L			01/28/14 14:30	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-85750-1

Client Sample ID: WG-1620-MW47C-20140117

Lab Sample ID: 600-85750-23

Date Collected: 01/17/14 09:10

Matrix: Water

Date Received: 01/17/14 12:19

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	0.220	U	5.00	0.220	ug/L			01/28/14 14:30	1
Toluene	0.170	U	0.500	0.170	ug/L			01/28/14 14:30	1
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			01/23/14 12:24	1
Benzene	0.0000800	U	0.00100	0.0000800	mg/L			01/23/14 12:24	1
Xylenes, Total	0.580	U	1.50	0.580	ug/L			01/28/14 14:30	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			01/23/14 12:24	1
Toluene	0.000150	U	0.00100	0.000150	mg/L			01/23/14 12:24	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			01/23/14 12:24	1
Ethylbenzene	0.000110	U	0.00100	0.000110	mg/L			01/23/14 12:24	1
Xylenes, Total	0.000260	U	0.00300	0.000260	mg/L			01/23/14 12:24	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	104		70 - 130		01/28/14 14:30	1
Dibromofluoromethane (Surr)	97		70 - 130		01/28/14 14:30	1
Toluene-d8 (Surr)	97		70 - 130		01/28/14 14:30	1
1,2-Dichloroethane-d4 (Surr)	109		70 - 130		01/28/14 14:30	1
4-Bromofluorobenzene	94		67 - 139		01/23/14 12:24	1
Dibromofluoromethane	95		62 - 130		01/23/14 12:24	1
Toluene-d8 (Surr)	91		70 - 130		01/23/14 12:24	1
1,2-Dichloroethane-d4 (Surr)	104		50 - 134		01/23/14 12:24	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.0000377	U *	0.000472	0.0000377	mg/L		01/24/14 15:13	01/30/14 16:22	1
Nitrobenzene	0.000104	U	0.000472	0.000104	mg/L		01/24/14 15:13	01/30/14 16:22	1
2,4-Dimethylphenol	0.000292	U	0.000472	0.000292	mg/L		01/24/14 15:13	01/30/14 16:22	1
Bis(2-chloroethoxy)methane	0.000123	U	0.000472	0.000123	mg/L		01/24/14 15:13	01/30/14 16:22	1
Naphthalene	0.000297	J	0.00472	0.0000755	mg/L		01/24/14 15:13	01/30/14 16:22	1
2-Methylnaphthalene	0.0000660	U	0.000472	0.0000660	mg/L		01/24/14 15:13	01/30/14 16:22	1
2-Chloronaphthalene	0.0000755	U	0.000472	0.0000755	mg/L		01/24/14 15:13	01/30/14 16:22	1
Acenaphthylene	0.0000566	U	0.000472	0.0000566	mg/L		01/24/14 15:13	01/30/14 16:22	1
2,6-Dinitrotoluene	0.0000755	U	0.000472	0.0000755	mg/L		01/24/14 15:13	01/30/14 16:22	1
Acenaphthene	0.0000755	U	0.000472	0.0000755	mg/L		01/24/14 15:13	01/30/14 16:22	1
4-Nitrophenol	0.000528	U	0.000943	0.000528	mg/L		01/24/14 15:13	01/30/14 16:22	1
Dibenzofuran	0.0000755	U	0.000472	0.0000755	mg/L		01/24/14 15:13	01/30/14 16:22	1
2,4-Dinitrotoluene	0.000123	U	0.000472	0.000123	mg/L		01/24/14 15:13	01/30/14 16:22	1
Fluorene	0.0000660	U	0.000472	0.0000660	mg/L		01/24/14 15:13	01/30/14 16:22	1
4,6-Dinitro-2-methylphenol	0.000783	U	0.000943	0.000783	mg/L		01/24/14 15:13	01/30/14 16:22	1
N-Nitrosodiphenylamine	0.0000943	U *	0.000472	0.0000943	mg/L		01/24/14 15:13	01/30/14 16:22	1
1,2-Diphenylhydrazine	0.000104	U	0.000472	0.000104	mg/L		01/24/14 15:13	01/30/14 16:22	1
Pentachlorophenol	0.000575	U	0.000943	0.000575	mg/L		01/24/14 15:13	01/30/14 16:22	1
Phenanthrene	0.000185	J	0.000472	0.0000566	mg/L		01/24/14 15:13	01/30/14 16:22	1
Anthracene	0.0000472	U	0.000472	0.0000472	mg/L		01/24/14 15:13	01/30/14 16:22	1
Di-n-butyl phthalate	0.000104	U	0.00236	0.000104	mg/L		01/24/14 15:13	01/30/14 16:22	1
Fluoranthene	0.0000718	J	0.000472	0.0000660	mg/L		01/24/14 15:13	01/30/14 16:22	1
Pyrene	0.000104	U	0.000472	0.000104	mg/L		01/24/14 15:13	01/30/14 16:22	1
Benzo[a]anthracene	0.0000755	U *	0.000472	0.0000755	mg/L		01/24/14 15:13	01/30/14 16:22	1
Bis(2-ethylhexyl) phthalate	0.000349	U	0.00236	0.000349	mg/L		01/24/14 15:13	01/30/14 16:22	1
Chrysene	0.0000755	U	0.000472	0.0000755	mg/L		01/24/14 15:13	01/30/14 16:22	1
Benzo[a]pyrene	0.0000755	U *	0.000472	0.0000755	mg/L		01/24/14 15:13	01/30/14 16:22	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-85750-1

Client Sample ID: WG-1620-MW47C-20140117

Lab Sample ID: 600-85750-23

Date Collected: 01/17/14 09:10

Matrix: Water

Date Received: 01/17/14 12:19

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	2	X	44 - 123	01/24/14 15:13	01/30/14 16:22	1
2-Fluorobiphenyl	71		43 - 120	01/24/14 15:13	01/30/14 16:22	1
2-Fluorophenol	0	X	18 - 120	01/24/14 15:13	01/30/14 16:22	1
Nitrobenzene-d5	64		47 - 120	01/24/14 15:13	01/30/14 16:22	1
Terphenyl-d14	88		33 - 141	01/24/14 15:13	01/30/14 16:22	1
Phenol-d5 (Surr)	1	X	12 - 128	01/24/14 15:13	01/30/14 16:22	1

Client Sample ID: WG-1620-FB5-20140117

Lab Sample ID: 600-85750-24

Date Collected: 01/17/14 09:45

Matrix: Water

Date Received: 01/17/14 12:19

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	0.000110	U	0.00200	0.000110	mg/L			01/23/14 11:59	1
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			01/23/14 11:59	1
Benzene	0.0000800	U	0.00100	0.0000800	mg/L			01/23/14 11:59	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			01/23/14 11:59	1
Toluene	0.000150	U	0.00100	0.000150	mg/L			01/23/14 11:59	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			01/23/14 11:59	1
Ethylbenzene	0.000110	U	0.00100	0.000110	mg/L			01/23/14 11:59	1
Xylenes, Total	0.000260	U	0.00300	0.000260	mg/L			01/23/14 11:59	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	98		67 - 139		01/23/14 11:59	1
Dibromofluoromethane	98		62 - 130		01/23/14 11:59	1
Toluene-d8 (Surr)	93		70 - 130		01/23/14 11:59	1
1,2-Dichloroethane-d4 (Surr)	106		50 - 134		01/23/14 11:59	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.0000377	U*	0.000472	0.0000377	mg/L		01/24/14 15:13	01/30/14 16:48	1
Nitrobenzene	0.000104	U	0.000472	0.000104	mg/L		01/24/14 15:13	01/30/14 16:48	1
2,4-Dimethylphenol	0.000292	U	0.000472	0.000292	mg/L		01/24/14 15:13	01/30/14 16:48	1
Bis(2-chloroethoxy)methane	0.000123	U	0.000472	0.000123	mg/L		01/24/14 15:13	01/30/14 16:48	1
Naphthalene	0.0000755	U	0.00472	0.0000755	mg/L		01/24/14 15:13	01/30/14 16:48	1
2-Methylnaphthalene	0.0000660	U	0.000472	0.0000660	mg/L		01/24/14 15:13	01/30/14 16:48	1
2-Chloronaphthalene	0.0000755	U	0.000472	0.0000755	mg/L		01/24/14 15:13	01/30/14 16:48	1
Acenaphthylene	0.0000566	U	0.000472	0.0000566	mg/L		01/24/14 15:13	01/30/14 16:48	1
2,6-Dinitrotoluene	0.0000755	U	0.000472	0.0000755	mg/L		01/24/14 15:13	01/30/14 16:48	1
Acenaphthene	0.0000755	U	0.000472	0.0000755	mg/L		01/24/14 15:13	01/30/14 16:48	1
4-Nitrophenol	0.000528	U	0.000943	0.000528	mg/L		01/24/14 15:13	01/30/14 16:48	1
Dibenzofuran	0.0000755	U	0.000472	0.0000755	mg/L		01/24/14 15:13	01/30/14 16:48	1
2,4-Dinitrotoluene	0.000123	U	0.000472	0.000123	mg/L		01/24/14 15:13	01/30/14 16:48	1
Fluorene	0.0000660	U	0.000472	0.0000660	mg/L		01/24/14 15:13	01/30/14 16:48	1
4,6-Dinitro-2-methylphenol	0.000783	U	0.000943	0.000783	mg/L		01/24/14 15:13	01/30/14 16:48	1
N-Nitrosodiphenylamine	0.0000943	U*	0.000472	0.0000943	mg/L		01/24/14 15:13	01/30/14 16:48	1
1,2-Diphenylhydrazine	0.000104	U	0.000472	0.000104	mg/L		01/24/14 15:13	01/30/14 16:48	1
Pentachlorophenol	0.000575	U	0.000943	0.000575	mg/L		01/24/14 15:13	01/30/14 16:48	1
Phenanthrene	0.0000566	U	0.000472	0.0000566	mg/L		01/24/14 15:13	01/30/14 16:48	1
Anthracene	0.0000472	U	0.000472	0.0000472	mg/L		01/24/14 15:13	01/30/14 16:48	1
Di-n-butyl phthalate	0.000104	U	0.00236	0.000104	mg/L		01/24/14 15:13	01/30/14 16:48	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-85750-1

Client Sample ID: WG-1620-FB5-20140117

Lab Sample ID: 600-85750-24

Date Collected: 01/17/14 09:45

Matrix: Water

Date Received: 01/17/14 12:19

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoranthene	0.0000660	U	0.000472	0.0000660	mg/L		01/24/14 15:13	01/30/14 16:48	1
Pyrene	0.000104	U	0.000472	0.000104	mg/L		01/24/14 15:13	01/30/14 16:48	1
Benzo[a]anthracene	0.0000755	U *	0.000472	0.0000755	mg/L		01/24/14 15:13	01/30/14 16:48	1
Bis(2-ethylhexyl) phthalate	0.000349	U	0.00236	0.000349	mg/L		01/24/14 15:13	01/30/14 16:48	1
Chrysene	0.0000755	U	0.000472	0.0000755	mg/L		01/24/14 15:13	01/30/14 16:48	1
Benzo[a]pyrene	0.0000755	U *	0.000472	0.0000755	mg/L		01/24/14 15:13	01/30/14 16:48	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	48		44 - 123				01/24/14 15:13	01/30/14 16:48	1
2-Fluorobiphenyl	82		43 - 120				01/24/14 15:13	01/30/14 16:48	1
2-Fluorophenol	26		18 - 120				01/24/14 15:13	01/30/14 16:48	1
Nitrobenzene-d5	85		47 - 120				01/24/14 15:13	01/30/14 16:48	1
Terphenyl-d14	92		33 - 141				01/24/14 15:13	01/30/14 16:48	1
Phenol-d5 (Surr)	21		12 - 128				01/24/14 15:13	01/30/14 16:48	1

Client Sample ID: WG-1620-TB2-20140117

Lab Sample ID: 600-85750-25

Date Collected: 01/17/14 00:00

Matrix: Water

Date Received: 01/17/14 12:19

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane	0.200	U	0.500	0.200	ug/L			01/28/14 13:13	1
Benzene	0.200	U	0.500	0.200	ug/L			01/28/14 13:13	1
Chlorobenzene	0.180	U	0.500	0.180	ug/L			01/28/14 13:13	1
Ethylbenzene	0.190	U	0.500	0.190	ug/L			01/28/14 13:13	1
Methylene Chloride	0.220	U	5.00	0.220	ug/L			01/28/14 13:13	1
Toluene	0.170	U	0.500	0.170	ug/L			01/28/14 13:13	1
Vinyl chloride	0.180	U *	0.500	0.180	ug/L			01/28/14 13:13	1
Xylenes, Total	0.580	U	1.50	0.580	ug/L			01/28/14 13:13	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	101		70 - 130					01/28/14 13:13	1
Dibromofluoromethane (Surr)	99		70 - 130					01/28/14 13:13	1
Toluene-d8 (Surr)	100		70 - 130					01/28/14 13:13	1
1,2-Dichloroethane-d4 (Surr)	109		70 - 130					01/28/14 13:13	1

Definitions/Glossary

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-85750-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
U	Analyte was not detected at or above the SDL.
J	Result is less than the MQL but greater than or equal to the SDL and the concentration is an estimated value.
*	LCS or LCSD exceeds the control limits

GC/MS Semi VOA

Qualifier	Qualifier Description
U	Analyte was not detected at or above the SDL.
*	LCS or LCSD exceeds the control limits
J	Result is less than the MQL but greater than or equal to the SDL and the concentration is an estimated value.
X	Surrogate is outside control limits
N	MS, MSD: Spike recovery exceeds upper or lower control limits.
N	RPD of the MS and MSD exceeds the control limits

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Surrogate Summary

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-85750-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		BFB (70-130)	DBFM (70-130)	TOL (70-130)	12DCE (70-130)
600-85750-1	WG-1620-MW73B-20140115	101	99	106	99
600-85750-2	WG-1620-MW57B-20140115	103	100	99	110
600-85750-2	WG-1620-MW57B-20140115	89	91	98	101
600-85750-3	WG-1620-MW57A-20140115	103	99	100	111
600-85750-3	WG-1620-MW57A-20140115	92	91	99	99
600-85750-4	WG-1620-MW72B-20140115	101	97	103	103
600-85750-4	WG-1620-MW72B-20140115	105	99	99	110
600-85750-5	WG-1620-MW23C-20140115	106	100	96	109
600-85750-6	WG-1620-MW42B-20140115	105	99	103	100
600-85750-7	WG-1620-MW05-20140115	101	96	104	98
600-85750-8	WG-1620-P11-20140115	104	95	106	97
600-85750-9	WG-1620-MW60A-20140115	108	96	104	95
600-85750-9 MS	WG-1620-MW60A-20140115	107	94	106	88
600-85750-9 MSD	WG-1620-MW60A-20140115	103	97	107	93
600-85750-10	WG-1620-FB3-20140115	103	103	99	112
600-85750-11	WG-1620-MW48C-20140116	107	97	107	94
600-85750-12	WG-1620-MW59B-20140116	107	94	109	94
600-85750-13	WG-1620-MW59A-20140116	105	95	105	92
600-85750-14	WG-1620-MW49A-20140116	104	94	106	94
600-85750-14	WG-1620-MW49A-20140116	101	99	98	113
600-85750-15	WG-1620-MW49B-20140116	102	99	101	107
600-85750-16	WG-1620-MW21C-20140116	107	94	108	92
600-85750-17	WG-1620-DUP1-20140116	106	94	108	91
600-85750-18	WG-1620-TW41B-20140116	107	94	109	94
600-85750-19	WG-1620-MW36B-20140116	103	94	108	92
600-85750-20	WG-1620-MW36A-20140116	96	92	98	83
600-85750-21	WG-1620-FB4-20140116	101	101	103	110
600-85750-22	WG-1620-MW44A-20140117	101	100	100	110
600-85750-22 MS	WG-1620-MW44A-20140117	104	97	101	106
600-85750-22 MSD	WG-1620-MW44A-20140117	104	101	100	107
600-85750-23	WG-1620-MW47C-20140117	104	97	97	109
600-85750-25	WG-1620-TB2-20140117	101	99	100	109
LCS 490-137855/3	Lab Control Sample	95	94	99	83
LCS 490-137857/3	Lab Control Sample	101	100	103	99
LCS 490-137940/3	Lab Control Sample	104	93	102	91
LCS 490-137972/3	Lab Control Sample	95	93	101	97
LCSD 490-137855/4	Lab Control Sample Dup	96	93	99	82
LCSD 490-137857/4	Lab Control Sample Dup	103	100	103	99
LCSD 490-137940/4	Lab Control Sample Dup	101	102	98	108
LCSD 490-137972/4	Lab Control Sample Dup	94	94	101	95
MB 490-137855/7	Method Blank	94	96	99	86
MB 490-137857/7	Method Blank	101	98	104	98
MB 490-137940/7	Method Blank	103	102	98	112
MB 490-137972/7	Method Blank	92	95	99	103

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane (Surr)
TOL = Toluene-d8 (Surr)

TestAmerica Houston

Surrogate Summary

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-85750-1

12DCE = 1,2-Dichloroethane-d4 (Surr)

Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		TOL (70-130)	BFB (67-139)	DBFM (62-130)	12DCE (50-134)
600-85750-1	WG-1620-MW73B-20140115	95	100	93	100
600-85750-23	WG-1620-MW47C-20140117	91	94	95	104
600-85750-24	WG-1620-FB5-20140117	93	98	98	106
600-85750-24 MS	WG-1620-FB5-20140117	85	103	93	102
600-85750-24 MSD	WG-1620-FB5-20140117	87	102	92	101
LCS 600-125406/3	Lab Control Sample	93	102	93	100
LCS 600-125698/3	Lab Control Sample	86	99	89	94
MB 600-125406/4	Method Blank	95	102	92	101
MB 600-125698/4	Method Blank	90	99	93	102

Surrogate Legend

TOL = Toluene-d8 (Surr)
 BFB = 4-Bromofluorobenzene
 DBFM = Dibromofluoromethane
 12DCE = 1,2-Dichloroethane-d4 (Surr)

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)					
		TBP (44-123)	FBP (43-120)	2FP (18-120)	NBZ (47-120)	TPH (33-141)	PHL (12-128)
600-85750-1	WG-1620-MW73B-20140115	90	96	35	98	117	22
600-85750-1 - DL	WG-1620-MW73B-20140115	98	104	43	91	115	21
600-85750-2	WG-1620-MW57B-20140115	0 X	0 X	0 X	0 X	0 X	0 X
600-85750-2 - DL	WG-1620-MW57B-20140115	0 X	0 X	0 X	0 X	0 X	0 X
600-85750-3	WG-1620-MW57A-20140115	0 X	0 X	0 X	0 X	0 X	0 X
600-85750-3 - DL	WG-1620-MW57A-20140115	0 X	0 X	0 X	0 X	0 X	0 X
600-85750-4	WG-1620-MW72B-20140115	0 X	0 X	0 X	0 X	0 X	0 X
600-85750-4 - DL	WG-1620-MW72B-20140115	0 X	0 X	0 X	0 X	0 X	0 X
600-85750-5	WG-1620-MW23C-20140115	0 X	0 X	0 X	0 X	0 X	0 X
600-85750-5 - DL	WG-1620-MW23C-20140115	0 X	0 X	0 X	0 X	0 X	0 X
600-85750-6	WG-1620-MW42B-20140115	72	66	30	76	79	19
600-85750-7	WG-1620-MW05-20140115	71	87	33	82	124	22
600-85750-8	WG-1620-P11-20140115	95	89	34	85	118	24
600-85750-8 - DL	WG-1620-P11-20140115	101	102	40	70	112	22
600-85750-9	WG-1620-MW60A-20140115	63	69	30	69	79	19
600-85750-10	WG-1620-FB3-20140115	99	101	48	106	133	27
600-85750-11	WG-1620-MW48C-20140116	49	53	24	48	68	13
600-85750-12	WG-1620-MW59B-20140116	109	94	43	90	127	21
600-85750-13	WG-1620-MW59A-20140116	80	99	43	103	132	25
600-85750-14	WG-1620-MW49A-20140116	0 X	0 X	0 X	0 X	0 X	0 X
600-85750-14 - DL	WG-1620-MW49A-20140116	0 X	0 X	0 X	0 X	0 X	0 X
600-85750-15	WG-1620-MW49B-20140116	0 X	0 X	0 X	0 X	0 X	0 X
600-85750-15 - DL	WG-1620-MW49B-20140116	0 X	0 X	0 X	0 X	0 X	0 X
600-85750-16	WG-1620-MW21C-20140116	88	89	32	97	117	17
600-85750-17	WG-1620-DUP1-20140116	82	92	32	93	111	17

TestAmerica Houston

Surrogate Summary

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-85750-1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)					
		TBP (44-123)	FBP (43-120)	2FP (18-120)	NBZ (47-120)	TPH (33-141)	PHL (12-128)
600-85750-18	WG-1620-TW41B-20140116	94	100	35	109	127	20
600-85750-19	WG-1620-MW36B-20140116	82	93	31	87	103	17
600-85750-20	WG-1620-MW36A-20140116	58	97	38	96	133	18
600-85750-21	WG-1620-FB4-20140116	48	99	23	105	98	14
600-85750-22	WG-1620-MW44A-20140117	116	93	31	110	114	17
600-85750-22 - DL	WG-1620-MW44A-20140117	0 X	0 X	0 X	0 X	0 X	0 X
600-85750-23	WG-1620-MW47C-20140117	2 X	71	0 X	64	88	1 X
600-85750-24	WG-1620-FB5-20140117	48	82	26	85	92	21
600-85750-24 MS	WG-1620-FB5-20140117	24 X	111	13 X	117	162 X	34
600-85750-24 MSD	WG-1620-FB5-20140117	18 X	126 X	6 X	127 X	165 X	18
LCS 600-125443/2-A	Lab Control Sample	88	103	91	107	111	97
LCS 600-125745/2-A	Lab Control Sample	81	84	83	95	92	94
LCS 600-125813/2-A	Lab Control Sample	114	100	108	104	120	103
LCSD 600-125443/3-A	Lab Control Sample Dup	100	104	90	108	115	109
MB 600-125443/1-A	Method Blank	78	102	102	104	116	105
MB 600-125745/1-A	Method Blank	64	99	83	96	106	90
MB 600-125813/1-A	Method Blank	77	103	97	102	112	104

Surrogate Legend

TBP = 2,4,6-Tribromophenol
 FBP = 2-Fluorobiphenyl
 2FP = 2-Fluorophenol
 NBZ = Nitrobenzene-d5
 TPH = Terphenyl-d14
 PHL = Phenol-d5 (Surr)

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-85750-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 600-125406/4

Matrix: Water

Analysis Batch: 125406

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	0.000110	U	0.00200	0.000110	mg/L			01/19/14 11:14	1
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			01/19/14 11:14	1
Benzene	0.0000800	U	0.00100	0.0000800	mg/L			01/19/14 11:14	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			01/19/14 11:14	1
Toluene	0.000150	U	0.00100	0.000150	mg/L			01/19/14 11:14	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			01/19/14 11:14	1
Ethylbenzene	0.000110	U	0.00100	0.000110	mg/L			01/19/14 11:14	1
Xylenes, Total	0.000260	U	0.00300	0.000260	mg/L			01/19/14 11:14	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	102		67 - 139		01/19/14 11:14	1
Dibromofluoromethane	92		62 - 130		01/19/14 11:14	1
Toluene-d8 (Surr)	95		70 - 130		01/19/14 11:14	1
1,2-Dichloroethane-d4 (Surr)	101		50 - 134		01/19/14 11:14	1

Lab Sample ID: LCS 600-125406/3

Matrix: Water

Analysis Batch: 125406

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Vinyl chloride	0.0100	0.01045		mg/L		104	33 - 150
Methylene Chloride	0.0100	0.01067		mg/L		107	55 - 147
Benzene	0.0100	0.01120		mg/L		112	80 - 126
1,2-Dichloroethane	0.0100	0.01200		mg/L		120	67 - 134
Toluene	0.0100	0.01184		mg/L		118	78 - 120
Chlorobenzene	0.0100	0.01139		mg/L		114	69 - 120
Ethylbenzene	0.0100	0.01158		mg/L		116	79 - 120
Xylenes, Total	0.0200	0.02290		mg/L		115	76 - 120

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene	102		67 - 139
Dibromofluoromethane	93		62 - 130
Toluene-d8 (Surr)	93		70 - 130
1,2-Dichloroethane-d4 (Surr)	100		50 - 134

Lab Sample ID: MB 600-125698/4

Matrix: Water

Analysis Batch: 125698

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	0.000110	U	0.00200	0.000110	mg/L			01/23/14 11:35	1
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			01/23/14 11:35	1
Benzene	0.0000800	U	0.00100	0.0000800	mg/L			01/23/14 11:35	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			01/23/14 11:35	1
Toluene	0.000150	U	0.00100	0.000150	mg/L			01/23/14 11:35	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			01/23/14 11:35	1
Ethylbenzene	0.000110	U	0.00100	0.000110	mg/L			01/23/14 11:35	1

TestAmerica Houston

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-85750-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 600-125698/4

Matrix: Water

Analysis Batch: 125698

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Xylenes, Total	0.000260	U	0.00300	0.000260	mg/L			01/23/14 11:35	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	99		67 - 139		01/23/14 11:35	1
Dibromofluoromethane	93		62 - 130		01/23/14 11:35	1
Toluene-d8 (Surr)	90		70 - 130		01/23/14 11:35	1
1,2-Dichloroethane-d4 (Surr)	102		50 - 134		01/23/14 11:35	1

Lab Sample ID: LCS 600-125698/3

Matrix: Water

Analysis Batch: 125698

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Vinyl chloride	0.0100	0.008755		mg/L		88	33 - 150
Methylene Chloride	0.0100	0.008967		mg/L		90	55 - 147
Benzene	0.0100	0.009189		mg/L		92	70 - 130
1,2-Dichloroethane	0.0100	0.01006		mg/L		101	67 - 134
Toluene	0.0100	0.009400		mg/L		94	70 - 130
Chlorobenzene	0.0100	0.009021		mg/L		90	69 - 130
Ethylbenzene	0.0100	0.009070		mg/L		91	70 - 130
Xylenes, Total	0.0200	0.01829		mg/L		91	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene	99		67 - 139
Dibromofluoromethane	89		62 - 130
Toluene-d8 (Surr)	86		70 - 130
1,2-Dichloroethane-d4 (Surr)	94		50 - 134

Lab Sample ID: 600-85750-24 MS

Matrix: Water

Analysis Batch: 125698

Client Sample ID: WG-1620-FB5-20140117

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Vinyl chloride	0.000110	U	0.0100	0.008883		mg/L		89	33 - 150
Methylene Chloride	0.000150	U	0.0100	0.008863		mg/L		89	55 - 147
Benzene	0.0000800	U	0.0100	0.009294		mg/L		93	70 - 130
1,2-Dichloroethane	0.000140	U	0.0100	0.01059		mg/L		106	67 - 134
Toluene	0.000150	U	0.0100	0.009227		mg/L		92	70 - 130
Chlorobenzene	0.000120	U	0.0100	0.008855		mg/L		89	69 - 130
Ethylbenzene	0.000110	U	0.0100	0.008777		mg/L		88	70 - 130
Xylenes, Total	0.000260	U	0.0200	0.01758		mg/L		88	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
4-Bromofluorobenzene	103		67 - 139
Dibromofluoromethane	93		62 - 130
Toluene-d8 (Surr)	85		70 - 130
1,2-Dichloroethane-d4 (Surr)	102		50 - 134

TestAmerica Houston

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-85750-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 600-85750-24 MSD

Matrix: Water

Analysis Batch: 125698

Client Sample ID: WG-1620-FB5-20140117

Prep Type: Total/NA

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.	RPD	Limit
	Result	Qualifier		Result	Qualifier				Limits		
Vinyl chloride	0.000110	U	0.0100	0.009423		mg/L		94	33 - 150	6	30
Methylene Chloride	0.000150	U	0.0100	0.009545		mg/L		95	55 - 147	7	30
Benzene	0.0000800	U	0.0100	0.009884		mg/L		99	70 - 130	6	30
1,2-Dichloroethane	0.000140	U	0.0100	0.01116		mg/L		112	67 - 134	5	30
Toluene	0.000150	U	0.0100	0.009851		mg/L		99	70 - 130	7	30
Chlorobenzene	0.000120	U	0.0100	0.009473		mg/L		95	69 - 130	7	30
Ethylbenzene	0.000110	U	0.0100	0.009418		mg/L		94	70 - 130	7	30
Xylenes, Total	0.000260	U	0.0200	0.01888		mg/L		94	70 - 130	7	30

Surrogate	MSD	MSD	Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene	102		67 - 139
Dibromofluoromethane	92		62 - 130
Toluene-d8 (Surr)	87		70 - 130
1,2-Dichloroethane-d4 (Surr)	101		50 - 134

Lab Sample ID: MB 490-137855/7

Matrix: Water

Analysis Batch: 137855

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB	MB	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
1,2-Dichloroethane	0.200	U	0.500	0.200	ug/L			01/28/14 02:20	1
Benzene	0.200	U	0.500	0.200	ug/L			01/28/14 02:20	1
Chlorobenzene	0.180	U	0.500	0.180	ug/L			01/28/14 02:20	1
Ethylbenzene	0.190	U	0.500	0.190	ug/L			01/28/14 02:20	1
Methylene Chloride	0.220	U	5.00	0.220	ug/L			01/28/14 02:20	1
Toluene	0.170	U	0.500	0.170	ug/L			01/28/14 02:20	1
Vinyl chloride	0.180	U	0.500	0.180	ug/L			01/28/14 02:20	1
Xylenes, Total	0.580	U	1.50	0.580	ug/L			01/28/14 02:20	1

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
4-Bromofluorobenzene (Surr)	94		70 - 130		01/28/14 02:20	1
Dibromofluoromethane (Surr)	96		70 - 130		01/28/14 02:20	1
Toluene-d8 (Surr)	99		70 - 130		01/28/14 02:20	1
1,2-Dichloroethane-d4 (Surr)	86		70 - 130		01/28/14 02:20	1

Lab Sample ID: LCS 490-137855/3

Matrix: Water

Analysis Batch: 137855

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike	LCS	LCS	Unit	D	%Rec	%Rec.
		Result	Qualifier				Limits
1,2-Dichloroethane	50.0	45.21		ug/L		90	77 - 121
Benzene	50.0	54.20		ug/L		108	80 - 121
Chlorobenzene	50.0	50.47		ug/L		101	80 - 120
Ethylbenzene	50.0	53.63		ug/L		107	80 - 130
Methylene Chloride	50.0	63.65	*	ug/L		127	79 - 123
Toluene	50.0	52.28		ug/L		105	80 - 126
Vinyl chloride	50.0	58.14		ug/L		116	68 - 120

TestAmerica Houston

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-85750-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 490-137855/3

Matrix: Water

Analysis Batch: 137855

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Xylenes, Total	100	106.3		ug/L		106	80 - 132

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	95		70 - 130
Dibromofluoromethane (Surr)	94		70 - 130
Toluene-d8 (Surr)	99		70 - 130
1,2-Dichloroethane-d4 (Surr)	83		70 - 130

Lab Sample ID: LCSD 490-137855/4

Matrix: Water

Analysis Batch: 137855

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,2-Dichloroethane	50.0	45.59		ug/L		91	77 - 121	1	17
Benzene	50.0	55.40		ug/L		111	80 - 121	2	17
Chlorobenzene	50.0	50.96		ug/L		102	80 - 120	1	14
Ethylbenzene	50.0	54.66		ug/L		109	80 - 130	2	15
Methylene Chloride	50.0	65.29 *		ug/L		131	79 - 123	3	17
Toluene	50.0	52.94		ug/L		106	80 - 126	1	15
Vinyl chloride	50.0	59.88		ug/L		120	68 - 120	3	17
Xylenes, Total	100	107.9		ug/L		108	80 - 132	1	15

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	96		70 - 130
Dibromofluoromethane (Surr)	93		70 - 130
Toluene-d8 (Surr)	99		70 - 130
1,2-Dichloroethane-d4 (Surr)	82		70 - 130

Lab Sample ID: MB 490-137857/7

Matrix: Water

Analysis Batch: 137857

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	MLQ (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane	0.200	U	0.500	0.200	ug/L			01/28/14 00:02	1
Benzene	0.200	U	0.500	0.200	ug/L			01/28/14 00:02	1
Chlorobenzene	0.180	U	0.500	0.180	ug/L			01/28/14 00:02	1
Ethylbenzene	0.190	U	0.500	0.190	ug/L			01/28/14 00:02	1
Methylene Chloride	0.220	U	5.00	0.220	ug/L			01/28/14 00:02	1
Toluene	0.170	U	0.500	0.170	ug/L			01/28/14 00:02	1
Vinyl chloride	0.180	U	0.500	0.180	ug/L			01/28/14 00:02	1
Xylenes, Total	0.580	U	1.50	0.580	ug/L			01/28/14 00:02	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	101		70 - 130		01/28/14 00:02	1
Dibromofluoromethane (Surr)	98		70 - 130		01/28/14 00:02	1
Toluene-d8 (Surr)	104		70 - 130		01/28/14 00:02	1
1,2-Dichloroethane-d4 (Surr)	98		70 - 130		01/28/14 00:02	1

TestAmerica Houston

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-85750-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 490-137857/3

Matrix: Water

Analysis Batch: 137857

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2-Dichloroethane	50.0	57.57		ug/L		115	77 - 121
Benzene	50.0	55.97		ug/L		112	80 - 121
Chlorobenzene	50.0	56.12		ug/L		112	80 - 120
Ethylbenzene	50.0	57.81		ug/L		116	80 - 130
Methylene Chloride	50.0	51.80		ug/L		104	79 - 123
Toluene	50.0	54.03		ug/L		108	80 - 126
Vinyl chloride	50.0	60.17		ug/L		120	68 - 120
Xylenes, Total	100	112.2		ug/L		112	80 - 132

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	101		70 - 130
Dibromofluoromethane (Surr)	100		70 - 130
Toluene-d8 (Surr)	103		70 - 130
1,2-Dichloroethane-d4 (Surr)	99		70 - 130

Lab Sample ID: LCSD 490-137857/4

Matrix: Water

Analysis Batch: 137857

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
1,2-Dichloroethane	50.0	57.60		ug/L		115	77 - 121	0	17
Benzene	50.0	56.51		ug/L		113	80 - 121	1	17
Chlorobenzene	50.0	56.20		ug/L		112	80 - 120	0	14
Ethylbenzene	50.0	57.66		ug/L		115	80 - 130	0	15
Methylene Chloride	50.0	52.94		ug/L		106	79 - 123	2	17
Toluene	50.0	55.01		ug/L		110	80 - 126	2	15
Vinyl chloride	50.0	61.14	*	ug/L		122	68 - 120	2	17
Xylenes, Total	100	112.9		ug/L		113	80 - 132	1	15

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	103		70 - 130
Dibromofluoromethane (Surr)	100		70 - 130
Toluene-d8 (Surr)	103		70 - 130
1,2-Dichloroethane-d4 (Surr)	99		70 - 130

Lab Sample ID: 600-85750-9 MS

Matrix: Water

Analysis Batch: 137857

Client Sample ID: WG-1620-MW60A-20140115

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2-Dichloroethane	0.200	U	50.0	46.11		ug/L		92	64 - 136
Benzene	0.200	U	50.0	52.89		ug/L		106	75 - 133
Chlorobenzene	0.180	U	50.0	51.90		ug/L		104	80 - 129
Ethylbenzene	0.190	U	50.0	57.20		ug/L		114	79 - 139
Methylene Chloride	0.220	U	50.0	45.43		ug/L		91	64 - 139
Toluene	0.170	U	50.0	53.96		ug/L		108	75 - 136
Vinyl chloride	0.180	U*	50.0	59.90		ug/L		120	56 - 129

TestAmerica Houston

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-85750-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 600-85750-9 MS

Matrix: Water

Analysis Batch: 137857

Client Sample ID: WG-1620-MW60A-20140115

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Xylenes, Total	0.580	U	100	109.0		ug/L		109	74 - 141
Surrogate	%Recovery	MS Qualifier	MS Limits						
4-Bromofluorobenzene (Surr)	107		70 - 130						
Dibromofluoromethane (Surr)	94		70 - 130						
Toluene-d8 (Surr)	106		70 - 130						
1,2-Dichloroethane-d4 (Surr)	88		70 - 130						

Lab Sample ID: 600-85750-9 MSD

Matrix: Water

Analysis Batch: 137857

Client Sample ID: WG-1620-MW60A-20140115

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,2-Dichloroethane	0.200	U	50.0	50.35		ug/L		101	64 - 136	9	17
Benzene	0.200	U	50.0	54.86		ug/L		110	75 - 133	4	17
Chlorobenzene	0.180	U	50.0	54.15		ug/L		108	80 - 129	4	14
Ethylbenzene	0.190	U	50.0	58.74		ug/L		117	79 - 139	3	15
Methylene Chloride	0.220	U	50.0	46.55		ug/L		93	64 - 139	2	17
Toluene	0.170	U	50.0	55.03		ug/L		110	75 - 136	2	15
Vinyl chloride	0.180	U*	50.0	60.80		ug/L		122	56 - 129	2	17
Xylenes, Total	0.580	U	100	113.1		ug/L		113	74 - 141	4	15
Surrogate	%Recovery	MSD Qualifier	MSD Limits								
4-Bromofluorobenzene (Surr)	103		70 - 130								
Dibromofluoromethane (Surr)	97		70 - 130								
Toluene-d8 (Surr)	107		70 - 130								
1,2-Dichloroethane-d4 (Surr)	93		70 - 130								

Lab Sample ID: MB 490-137940/7

Matrix: Water

Analysis Batch: 137940

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	MLQ (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane	0.200	U	0.500	0.200	ug/L			01/28/14 12:47	1
Benzene	0.200	U	0.500	0.200	ug/L			01/28/14 12:47	1
Chlorobenzene	0.180	U	0.500	0.180	ug/L			01/28/14 12:47	1
Ethylbenzene	0.190	U	0.500	0.190	ug/L			01/28/14 12:47	1
Methylene Chloride	0.220	U	5.00	0.220	ug/L			01/28/14 12:47	1
Toluene	0.170	U	0.500	0.170	ug/L			01/28/14 12:47	1
Vinyl chloride	0.180	U	0.500	0.180	ug/L			01/28/14 12:47	1
Xylenes, Total	0.580	U	1.50	0.580	ug/L			01/28/14 12:47	1
Surrogate	%Recovery	MB Qualifier	MB Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	103		70 - 130					01/28/14 12:47	1
Dibromofluoromethane (Surr)	102		70 - 130					01/28/14 12:47	1
Toluene-d8 (Surr)	98		70 - 130					01/28/14 12:47	1
1,2-Dichloroethane-d4 (Surr)	112		70 - 130					01/28/14 12:47	1

TestAmerica Houston

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-85750-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 490-137940/3

Matrix: Water

Analysis Batch: 137940

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2-Dichloroethane	50.0	55.79		ug/L		112	77 - 121
Benzene	50.0	57.25		ug/L		115	80 - 121
Chlorobenzene	50.0	58.25		ug/L		116	80 - 120
Ethylbenzene	50.0	61.34		ug/L		123	80 - 130
Methylene Chloride	50.0	51.49		ug/L		103	79 - 123
Toluene	50.0	56.26		ug/L		113	80 - 126
Vinyl chloride	50.0	62.94	*	ug/L		126	68 - 120
Xylenes, Total	100	119.2		ug/L		119	80 - 132

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	104		70 - 130
Dibromofluoromethane (Surr)	93		70 - 130
Toluene-d8 (Surr)	102		70 - 130
1,2-Dichloroethane-d4 (Surr)	91		70 - 130

Lab Sample ID: LCSD 490-137940/4

Matrix: Water

Analysis Batch: 137940

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
1,2-Dichloroethane	50.0	60.70		ug/L		121	77 - 121	8	17
Benzene	50.0	53.87		ug/L		108	80 - 121	6	17
Chlorobenzene	50.0	53.99		ug/L		108	80 - 120	8	14
Ethylbenzene	50.0	54.42		ug/L		109	80 - 130	12	15
Methylene Chloride	50.0	52.03		ug/L		104	79 - 123	1	17
Toluene	50.0	50.05		ug/L		100	80 - 126	12	15
Vinyl chloride	50.0	58.40		ug/L		117	68 - 120	7	17
Xylenes, Total	100	107.8		ug/L		108	80 - 132	10	15

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	101		70 - 130
Dibromofluoromethane (Surr)	102		70 - 130
Toluene-d8 (Surr)	98		70 - 130
1,2-Dichloroethane-d4 (Surr)	108		70 - 130

Lab Sample ID: 600-85750-22 MS

Matrix: Water

Analysis Batch: 137940

Client Sample ID: WG-1620-MW44A-20140117

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2-Dichloroethane	0.200	U	50.0	57.47		ug/L		115	64 - 136
Benzene	7.27		50.0	59.90		ug/L		105	75 - 133
Chlorobenzene	0.180	U	50.0	53.05		ug/L		106	80 - 129
Ethylbenzene	0.670		50.0	55.64		ug/L		110	79 - 139
Methylene Chloride	0.220	U	50.0	48.03		ug/L		96	64 - 139
Toluene	0.418	J	50.0	51.39		ug/L		102	75 - 136
Vinyl chloride	0.180	U*	50.0	49.94		ug/L		100	56 - 129

TestAmerica Houston

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-85750-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 600-85750-22 MS

Client Sample ID: WG-1620-MW44A-20140117

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 137940

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Xylenes, Total	8.05		100	117.1		ug/L		109	74 - 141
Surrogate	%Recovery	MS Qualifier	Limits						
4-Bromofluorobenzene (Surr)	104		70 - 130						
Dibromofluoromethane (Surr)	97		70 - 130						
Toluene-d8 (Surr)	101		70 - 130						
1,2-Dichloroethane-d4 (Surr)	106		70 - 130						

Lab Sample ID: 600-85750-22 MSD

Client Sample ID: WG-1620-MW44A-20140117

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 137940

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,2-Dichloroethane	0.200	U	50.0	56.45		ug/L		113	64 - 136	2	17
Benzene	7.27		50.0	58.92		ug/L		103	75 - 133	2	17
Chlorobenzene	0.180	U	50.0	52.99		ug/L		106	80 - 129	0	14
Ethylbenzene	0.670		50.0	55.26		ug/L		109	79 - 139	1	15
Methylene Chloride	0.220	U	50.0	47.70		ug/L		95	64 - 139	1	17
Toluene	0.418	J	50.0	50.81		ug/L		101	75 - 136	1	15
Vinyl chloride	0.180	U*	50.0	51.41		ug/L		103	56 - 129	3	17
Xylenes, Total	8.05		100	115.7		ug/L		108	74 - 141	1	15
Surrogate	%Recovery	MSD Qualifier	Limits								
4-Bromofluorobenzene (Surr)	104		70 - 130								
Dibromofluoromethane (Surr)	101		70 - 130								
Toluene-d8 (Surr)	100		70 - 130								
1,2-Dichloroethane-d4 (Surr)	107		70 - 130								

Lab Sample ID: MB 490-137972/7

Client Sample ID: Method Blank

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 137972

Analyte	MB Result	MB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane	0.200	U	0.500	0.200	ug/L			01/28/14 15:25	1
Benzene	0.200	U	0.500	0.200	ug/L			01/28/14 15:25	1
Chlorobenzene	0.180	U	0.500	0.180	ug/L			01/28/14 15:25	1
Ethylbenzene	0.190	U	0.500	0.190	ug/L			01/28/14 15:25	1
Methylene Chloride	0.220	U	5.00	0.220	ug/L			01/28/14 15:25	1
Toluene	0.170	U	0.500	0.170	ug/L			01/28/14 15:25	1
Vinyl chloride	0.180	U	0.500	0.180	ug/L			01/28/14 15:25	1
Xylenes, Total	0.580	U	1.50	0.580	ug/L			01/28/14 15:25	1
Surrogate	%Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	92		70 - 130					01/28/14 15:25	1
Dibromofluoromethane (Surr)	95		70 - 130					01/28/14 15:25	1
Toluene-d8 (Surr)	99		70 - 130					01/28/14 15:25	1
1,2-Dichloroethane-d4 (Surr)	103		70 - 130					01/28/14 15:25	1

TestAmerica Houston

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-85750-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 490-137972/3

Matrix: Water

Analysis Batch: 137972

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2-Dichloroethane	50.0	47.16		ug/L		94	77 - 121
Benzene	50.0	49.48		ug/L		99	80 - 121
Chlorobenzene	50.0	50.04		ug/L		100	80 - 120
Ethylbenzene	50.0	51.60		ug/L		103	80 - 130
Methylene Chloride	50.0	52.10		ug/L		104	79 - 123
Toluene	50.0	50.20		ug/L		100	80 - 126
Vinyl chloride	50.0	57.15		ug/L		114	68 - 120
Xylenes, Total	100	102.5		ug/L		102	80 - 132

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	95		70 - 130
Dibromofluoromethane (Surr)	93		70 - 130
Toluene-d8 (Surr)	101		70 - 130
1,2-Dichloroethane-d4 (Surr)	97		70 - 130

Lab Sample ID: LCSD 490-137972/4

Matrix: Water

Analysis Batch: 137972

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,2-Dichloroethane	50.0	46.35		ug/L		93	77 - 121	2	17
Benzene	50.0	48.47		ug/L		97	80 - 121	2	17
Chlorobenzene	50.0	49.78		ug/L		100	80 - 120	1	14
Ethylbenzene	50.0	51.11		ug/L		102	80 - 130	1	15
Methylene Chloride	50.0	51.84		ug/L		104	79 - 123	1	17
Toluene	50.0	49.62		ug/L		99	80 - 126	1	15
Vinyl chloride	50.0	55.39		ug/L		111	68 - 120	3	17
Xylenes, Total	100	102.1		ug/L		102	80 - 132	0	15

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	94		70 - 130
Dibromofluoromethane (Surr)	94		70 - 130
Toluene-d8 (Surr)	101		70 - 130
1,2-Dichloroethane-d4 (Surr)	95		70 - 130

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Lab Sample ID: MB 600-125443/1-A

Matrix: Water

Analysis Batch: 125638

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 125443

Analyte	MB Result	MB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.0000400	U	0.000500	0.0000400	mg/L		01/21/14 09:09	01/22/14 17:12	1
Nitrobenzene	0.000110	U	0.000500	0.000110	mg/L		01/21/14 09:09	01/22/14 17:12	1
2,4-Dimethylphenol	0.000310	U	0.000500	0.000310	mg/L		01/21/14 09:09	01/22/14 17:12	1
Bis(2-chloroethoxy)methane	0.000130	U	0.000500	0.000130	mg/L		01/21/14 09:09	01/22/14 17:12	1
Naphthalene	0.0000800	U	0.000500	0.0000800	mg/L		01/21/14 09:09	01/22/14 17:12	1

TestAmerica Houston

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-85750-1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Lab Sample ID: MB 600-125443/1-A

Matrix: Water

Analysis Batch: 125638

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 125443

Analyte	MB	MB	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
2-Methylnaphthalene	0.0000700	U	0.000500	0.0000700	mg/L		01/21/14 09:09	01/22/14 17:12	1
2-Chloronaphthalene	0.0000800	U	0.000500	0.0000800	mg/L		01/21/14 09:09	01/22/14 17:12	1
Acenaphthylene	0.0000600	U	0.000500	0.0000600	mg/L		01/21/14 09:09	01/22/14 17:12	1
2,6-Dinitrotoluene	0.0000800	U	0.000500	0.0000800	mg/L		01/21/14 09:09	01/22/14 17:12	1
Acenaphthene	0.0000800	U	0.000500	0.0000800	mg/L		01/21/14 09:09	01/22/14 17:12	1
4-Nitrophenol	0.000560	U	0.00100	0.000560	mg/L		01/21/14 09:09	01/22/14 17:12	1
Dibenzofuran	0.0000800	U	0.000500	0.0000800	mg/L		01/21/14 09:09	01/22/14 17:12	1
2,4-Dinitrotoluene	0.000130	U	0.000500	0.000130	mg/L		01/21/14 09:09	01/22/14 17:12	1
Fluorene	0.0000700	U	0.000500	0.0000700	mg/L		01/21/14 09:09	01/22/14 17:12	1
4,6-Dinitro-2-methylphenol	0.000830	U	0.00100	0.000830	mg/L		01/21/14 09:09	01/22/14 17:12	1
N-Nitrosodiphenylamine	0.000100	U	0.000500	0.000100	mg/L		01/21/14 09:09	01/22/14 17:12	1
1,2-Diphenylhydrazine	0.000110	U	0.000500	0.000110	mg/L		01/21/14 09:09	01/22/14 17:12	1
Pentachlorophenol	0.000610	U	0.00100	0.000610	mg/L		01/21/14 09:09	01/22/14 17:12	1
Phenanthrene	0.0000600	U	0.000500	0.0000600	mg/L		01/21/14 09:09	01/22/14 17:12	1
Anthracene	0.0000500	U	0.000500	0.0000500	mg/L		01/21/14 09:09	01/22/14 17:12	1
Di-n-butyl phthalate	0.000110	U	0.00250	0.000110	mg/L		01/21/14 09:09	01/22/14 17:12	1
Fluoranthene	0.0000700	U	0.000500	0.0000700	mg/L		01/21/14 09:09	01/22/14 17:12	1
Pyrene	0.000110	U	0.000500	0.000110	mg/L		01/21/14 09:09	01/22/14 17:12	1
Benzo[a]anthracene	0.0000800	U	0.000500	0.0000800	mg/L		01/21/14 09:09	01/22/14 17:12	1
Bis(2-ethylhexyl) phthalate	0.000370	U	0.00250	0.000370	mg/L		01/21/14 09:09	01/22/14 17:12	1
Chrysene	0.0000800	U	0.000500	0.0000800	mg/L		01/21/14 09:09	01/22/14 17:12	1
Benzo[a]pyrene	0.0000800	U	0.000500	0.0000800	mg/L		01/21/14 09:09	01/22/14 17:12	1

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
2,4,6-Tribromophenol	78		44 - 123	01/21/14 09:09	01/22/14 17:12	1
2-Fluorobiphenyl	102		43 - 120	01/21/14 09:09	01/22/14 17:12	1
2-Fluorophenol	102		18 - 120	01/21/14 09:09	01/22/14 17:12	1
Nitrobenzene-d5	104		47 - 120	01/21/14 09:09	01/22/14 17:12	1
Terphenyl-d14	116		33 - 141	01/21/14 09:09	01/22/14 17:12	1
Phenol-d5 (Surr)	105		12 - 128	01/21/14 09:09	01/22/14 17:12	1

Lab Sample ID: LCS 600-125443/2-A

Matrix: Water

Analysis Batch: 125638

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 125443

Analyte	Spike Added	LCS	LCS	Unit	D	%Rec	%Rec. Limits
		Result	Qualifier				
Phenol	0.0100	0.01176	*	mg/L		118	11 - 112
Nitrobenzene	0.0100	0.01095		mg/L		110	42 - 119
2,4-Dimethylphenol	0.0100	0.01213	*	mg/L		121	36 - 109
Bis(2-chloroethoxy)methane	0.0100	0.01074		mg/L		107	42 - 119
Naphthalene	0.0100	0.01109		mg/L		111	39 - 120
2-Methylnaphthalene	0.0100	0.01086		mg/L		109	40 - 121
2-Chloronaphthalene	0.0100	0.01055		mg/L		105	43 - 120
Acenaphthylene	0.0100	0.01080		mg/L		108	35 - 135
2,6-Dinitrotoluene	0.0100	0.01020		mg/L		102	45 - 122
Acenaphthene	0.0100	0.01063		mg/L		106	47 - 145
4-Nitrophenol	0.0200	0.01921		mg/L		96	14 - 132
Dibenzofuran	0.0100	0.01110		mg/L		111	46 - 123

TestAmerica Houston

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-85750-1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Lab Sample ID: LCS 600-125443/2-A

Matrix: Water

Analysis Batch: 125638

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 125443

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
2,4-Dinitrotoluene	0.0100	0.01072		mg/L		107	43 - 128
Fluorene	0.0100	0.01086		mg/L		109	48 - 127
4,6-Dinitro-2-methylphenol	0.0200	0.02054		mg/L		103	24 - 122
N-Nitrosodiphenylamine	0.0100	0.01163	*	mg/L		116	43 - 107
1,2-Diphenylhydrazine	0.0100	0.01140		mg/L		114	47 - 117
Pentachlorophenol	0.0200	0.01835		mg/L		92	9 - 147
Phenanthrene	0.0100	0.01120		mg/L		112	52 - 121
Anthracene	0.0100	0.01134		mg/L		113	53 - 124
Di-n-butyl phthalate	0.0100	0.01219		mg/L		122	54 - 138
Fluoranthene	0.0100	0.01162		mg/L		116	53 - 127
Pyrene	0.0100	0.01169		mg/L		117	49 - 121
Benzo[a]anthracene	0.0100	0.01176		mg/L		118	53 - 122
Bis(2-ethylhexyl) phthalate	0.0100	0.01147		mg/L		115	47 - 132
Chrysene	0.0100	0.01082		mg/L		108	49 - 124
Benzo[a]pyrene	0.0100	0.01229		mg/L		123	50 - 124

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2,4,6-Tribromophenol	88		44 - 123
2-Fluorobiphenyl	103		43 - 120
2-Fluorophenol	91		18 - 120
Nitrobenzene-d5	107		47 - 120
Terphenyl-d14	111		33 - 141
Phenol-d5 (Surr)	97		12 - 128

Lab Sample ID: LCSD 600-125443/3-A

Matrix: Water

Analysis Batch: 125638

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 125443

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Phenol	0.0100	0.01061		mg/L		106	11 - 112	10	20
Nitrobenzene	0.0100	0.01022		mg/L		102	42 - 119	7	20
2,4-Dimethylphenol	0.0100	0.01168	*	mg/L		117	36 - 109	4	20
Bis(2-chloroethoxy)methane	0.0100	0.01041		mg/L		104	42 - 119	3	20
Naphthalene	0.0100	0.01034		mg/L		103	39 - 120	7	20
2-Methylnaphthalene	0.0100	0.01033		mg/L		103	40 - 121	5	20
2-Chloronaphthalene	0.0100	0.01054		mg/L		105	43 - 120	0	20
Acenaphthylene	0.0100	0.01100		mg/L		110	35 - 135	2	20
2,6-Dinitrotoluene	0.0100	0.01092		mg/L		109	45 - 122	7	20
Acenaphthene	0.0100	0.01068		mg/L		107	47 - 145	0	20
4-Nitrophenol	0.0200	0.01976		mg/L		99	14 - 132	3	20
Dibenzofuran	0.0100	0.01081		mg/L		108	46 - 123	3	20
2,4-Dinitrotoluene	0.0100	0.01082		mg/L		108	43 - 128	1	20
Fluorene	0.0100	0.01066		mg/L		107	48 - 127	2	20
4,6-Dinitro-2-methylphenol	0.0200	0.01986		mg/L		99	24 - 122	3	20
N-Nitrosodiphenylamine	0.0100	0.01139	*	mg/L		114	43 - 107	2	20
1,2-Diphenylhydrazine	0.0100	0.01087		mg/L		109	47 - 117	5	20
Pentachlorophenol	0.0200	0.01819		mg/L		91	9 - 147	1	20
Phenanthrene	0.0100	0.01080		mg/L		108	52 - 121	4	20

TestAmerica Houston

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-85750-1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Lab Sample ID: LCSD 600-125443/3-A

Matrix: Water

Analysis Batch: 125638

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 125443

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Anthracene	0.0100	0.01109		mg/L		111	53 - 124	2	20
Di-n-butyl phthalate	0.0100	0.01171		mg/L		117	54 - 138	4	20
Fluoranthene	0.0100	0.01141		mg/L		114	53 - 127	2	20
Pyrene	0.0100	0.01129		mg/L		113	49 - 121	3	20
Benzo[a]anthracene	0.0100	0.01142		mg/L		114	53 - 122	3	20
Bis(2-ethylhexyl) phthalate	0.0100	0.01118		mg/L		112	47 - 132	3	20
Chrysene	0.0100	0.01115		mg/L		111	49 - 124	3	20
Benzo[a]pyrene	0.0100	0.01181		mg/L		118	50 - 124	4	20

Surrogate	LCSD %Recovery	LCSD Qualifier	LCSD Limits
2,4,6-Tribromophenol	100		44 - 123
2-Fluorobiphenyl	104		43 - 120
2-Fluorophenol	90		18 - 120
Nitrobenzene-d5	108		47 - 120
Terphenyl-d14	115		33 - 141
Phenol-d5 (Surr)	109		12 - 128

Lab Sample ID: MB 600-125745/1-A

Matrix: Water

Analysis Batch: 125939

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 125745

Analyte	MB Result	MB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.000400	U	0.000500	0.000400	mg/L		01/23/14 19:10	01/27/14 11:38	1
Nitrobenzene	0.000110	U	0.000500	0.000110	mg/L		01/23/14 19:10	01/27/14 11:38	1
2,4-Dimethylphenol	0.000310	U	0.000500	0.000310	mg/L		01/23/14 19:10	01/27/14 11:38	1
Bis(2-chloroethoxy)methane	0.000130	U	0.000500	0.000130	mg/L		01/23/14 19:10	01/27/14 11:38	1
Naphthalene	0.0000800	U	0.000500	0.0000800	mg/L		01/23/14 19:10	01/27/14 11:38	1
2-Methylnaphthalene	0.0000700	U	0.000500	0.0000700	mg/L		01/23/14 19:10	01/27/14 11:38	1
2-Chloronaphthalene	0.0000800	U	0.000500	0.0000800	mg/L		01/23/14 19:10	01/27/14 11:38	1
Acenaphthylene	0.0000600	U	0.000500	0.0000600	mg/L		01/23/14 19:10	01/27/14 11:38	1
2,6-Dinitrotoluene	0.0000800	U	0.000500	0.0000800	mg/L		01/23/14 19:10	01/27/14 11:38	1
Acenaphthene	0.0000800	U	0.000500	0.0000800	mg/L		01/23/14 19:10	01/27/14 11:38	1
4-Nitrophenol	0.000560	U	0.00100	0.000560	mg/L		01/23/14 19:10	01/27/14 11:38	1
Dibenzofuran	0.0000800	U	0.000500	0.0000800	mg/L		01/23/14 19:10	01/27/14 11:38	1
2,4-Dinitrotoluene	0.000130	U	0.000500	0.000130	mg/L		01/23/14 19:10	01/27/14 11:38	1
Fluorene	0.0000700	U	0.000500	0.0000700	mg/L		01/23/14 19:10	01/27/14 11:38	1
4,6-Dinitro-2-methylphenol	0.000830	U	0.00100	0.000830	mg/L		01/23/14 19:10	01/27/14 11:38	1
N-Nitrosodiphenylamine	0.000100	U	0.000500	0.000100	mg/L		01/23/14 19:10	01/27/14 11:38	1
1,2-Diphenylhydrazine	0.000110	U	0.000500	0.000110	mg/L		01/23/14 19:10	01/27/14 11:38	1
Pentachlorophenol	0.000610	U	0.00100	0.000610	mg/L		01/23/14 19:10	01/27/14 11:38	1
Phenanthrene	0.0000600	U	0.000500	0.0000600	mg/L		01/23/14 19:10	01/27/14 11:38	1
Anthracene	0.0000500	U	0.000500	0.0000500	mg/L		01/23/14 19:10	01/27/14 11:38	1
Di-n-butyl phthalate	0.000110	U	0.00250	0.000110	mg/L		01/23/14 19:10	01/27/14 11:38	1
Fluoranthene	0.0000700	U	0.000500	0.0000700	mg/L		01/23/14 19:10	01/27/14 11:38	1
Pyrene	0.000110	U	0.000500	0.000110	mg/L		01/23/14 19:10	01/27/14 11:38	1
Benzo[a]anthracene	0.0000800	U	0.000500	0.0000800	mg/L		01/23/14 19:10	01/27/14 11:38	1
Bis(2-ethylhexyl) phthalate	0.000370	U	0.00250	0.000370	mg/L		01/23/14 19:10	01/27/14 11:38	1
Chrysene	0.0000800	U	0.000500	0.0000800	mg/L		01/23/14 19:10	01/27/14 11:38	1

TestAmerica Houston

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-85750-1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Lab Sample ID: MB 600-125745/1-A

Matrix: Water

Analysis Batch: 125939

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 125745

Analyte	MB Result	MB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]pyrene	0.0000800	U	0.000500	0.0000800	mg/L		01/23/14 19:10	01/27/14 11:38	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	64		44 - 123	01/23/14 19:10	01/27/14 11:38	1
2-Fluorobiphenyl	99		43 - 120	01/23/14 19:10	01/27/14 11:38	1
2-Fluorophenol	83		18 - 120	01/23/14 19:10	01/27/14 11:38	1
Nitrobenzene-d5	96		47 - 120	01/23/14 19:10	01/27/14 11:38	1
Terphenyl-d14	106		33 - 141	01/23/14 19:10	01/27/14 11:38	1
Phenol-d5 (Surr)	90		12 - 128	01/23/14 19:10	01/27/14 11:38	1

Lab Sample ID: LCS 600-125745/2-A

Matrix: Water

Analysis Batch: 125939

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 125745

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Phenol	0.0100	0.008302		mg/L		83	11 - 112
Nitrobenzene	0.0100	0.009516		mg/L		95	42 - 119
2,4-Dimethylphenol	0.0100	0.009812		mg/L		98	36 - 109
Bis(2-chloroethoxy)methane	0.0100	0.009240		mg/L		92	42 - 119
Naphthalene	0.0100	0.008760		mg/L		88	39 - 120
2-Methylnaphthalene	0.0100	0.008693		mg/L		87	40 - 121
2-Chloronaphthalene	0.0100	0.008647		mg/L		86	43 - 120
Acenaphthylene	0.0100	0.009110		mg/L		91	35 - 135
2,6-Dinitrotoluene	0.0100	0.008732		mg/L		87	45 - 122
Acenaphthene	0.0100	0.008918		mg/L		89	47 - 145
4-Nitrophenol	0.0200	0.01722		mg/L		86	14 - 132
Dibenzofuran	0.0100	0.008966		mg/L		90	46 - 123
2,4-Dinitrotoluene	0.0100	0.007075		mg/L		71	43 - 128
Fluorene	0.0100	0.008601		mg/L		86	48 - 127
4,6-Dinitro-2-methylphenol	0.0200	0.01629		mg/L		81	24 - 122
N-Nitrosodiphenylamine	0.0100	0.009717		mg/L		97	43 - 107
1,2-Diphenylhydrazine	0.0100	0.01030		mg/L		103	47 - 117
Pentachlorophenol	0.0200	0.01605		mg/L		80	9 - 147
Phenanthrene	0.0100	0.008868		mg/L		89	52 - 121
Anthracene	0.0100	0.009030		mg/L		90	53 - 124
Di-n-butyl phthalate	0.0100	0.01020		mg/L		102	54 - 138
Fluoranthene	0.0100	0.009790		mg/L		98	53 - 127
Pyrene	0.0100	0.009228		mg/L		92	49 - 121
Benzo[a]anthracene	0.0100	0.01011		mg/L		101	53 - 122
Bis(2-ethylhexyl) phthalate	0.0100	0.008923		mg/L		89	47 - 132
Chrysene	0.0100	0.008643		mg/L		86	49 - 124
Benzo[a]pyrene	0.0100	0.009958		mg/L		100	50 - 124

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2,4,6-Tribromophenol	81		44 - 123
2-Fluorobiphenyl	84		43 - 120
2-Fluorophenol	83		18 - 120

TestAmerica Houston

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-85750-1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Lab Sample ID: LCS 600-125745/2-A
Matrix: Water
Analysis Batch: 125939

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 125745

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
Nitrobenzene-d5	95		47 - 120
Terphenyl-d14	92		33 - 141
Phenol-d5 (Surr)	94		12 - 128

Lab Sample ID: MB 600-125813/1-A
Matrix: Water
Analysis Batch: 126281

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 125813

Analyte	MB MB		MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Phenol	0.0000400	U	0.000500	0.0000400	mg/L		01/24/14 15:13	01/30/14 11:39	1
Nitrobenzene	0.000110	U	0.000500	0.000110	mg/L		01/24/14 15:13	01/30/14 11:39	1
2,4-Dimethylphenol	0.000310	U	0.000500	0.000310	mg/L		01/24/14 15:13	01/30/14 11:39	1
Bis(2-chloroethoxy)methane	0.000130	U	0.000500	0.000130	mg/L		01/24/14 15:13	01/30/14 11:39	1
Naphthalene	0.0000800	U	0.000500	0.0000800	mg/L		01/24/14 15:13	01/30/14 11:39	1
2-Methylnaphthalene	0.0000700	U	0.000500	0.0000700	mg/L		01/24/14 15:13	01/30/14 11:39	1
2-Chloronaphthalene	0.0000800	U	0.000500	0.0000800	mg/L		01/24/14 15:13	01/30/14 11:39	1
Acenaphthylene	0.0000600	U	0.000500	0.0000600	mg/L		01/24/14 15:13	01/30/14 11:39	1
2,6-Dinitrotoluene	0.0000800	U	0.000500	0.0000800	mg/L		01/24/14 15:13	01/30/14 11:39	1
Acenaphthene	0.0000800	U	0.000500	0.0000800	mg/L		01/24/14 15:13	01/30/14 11:39	1
4-Nitrophenol	0.000560	U	0.00100	0.000560	mg/L		01/24/14 15:13	01/30/14 11:39	1
Dibenzofuran	0.0000800	U	0.000500	0.0000800	mg/L		01/24/14 15:13	01/30/14 11:39	1
2,4-Dinitrotoluene	0.000130	U	0.000500	0.000130	mg/L		01/24/14 15:13	01/30/14 11:39	1
Fluorene	0.0000700	U	0.000500	0.0000700	mg/L		01/24/14 15:13	01/30/14 11:39	1
4,6-Dinitro-2-methylphenol	0.000830	U	0.00100	0.000830	mg/L		01/24/14 15:13	01/30/14 11:39	1
N-Nitrosodiphenylamine	0.000100	U	0.000500	0.000100	mg/L		01/24/14 15:13	01/30/14 11:39	1
1,2-Diphenylhydrazine	0.000110	U	0.000500	0.000110	mg/L		01/24/14 15:13	01/30/14 11:39	1
Pentachlorophenol	0.000610	U	0.00100	0.000610	mg/L		01/24/14 15:13	01/30/14 11:39	1
Phenanthrene	0.0000600	U	0.000500	0.0000600	mg/L		01/24/14 15:13	01/30/14 11:39	1
Anthracene	0.0000500	U	0.000500	0.0000500	mg/L		01/24/14 15:13	01/30/14 11:39	1
Di-n-butyl phthalate	0.000110	U	0.00250	0.000110	mg/L		01/24/14 15:13	01/30/14 11:39	1
Fluoranthene	0.0000700	U	0.000500	0.0000700	mg/L		01/24/14 15:13	01/30/14 11:39	1
Pyrene	0.000110	U	0.000500	0.000110	mg/L		01/24/14 15:13	01/30/14 11:39	1
Benzo[a]anthracene	0.0000800	U	0.000500	0.0000800	mg/L		01/24/14 15:13	01/30/14 11:39	1
Bis(2-ethylhexyl) phthalate	0.000370	U	0.00250	0.000370	mg/L		01/24/14 15:13	01/30/14 11:39	1
Chrysene	0.0000800	U	0.000500	0.0000800	mg/L		01/24/14 15:13	01/30/14 11:39	1
Benzo[a]pyrene	0.0000800	U	0.000500	0.0000800	mg/L		01/24/14 15:13	01/30/14 11:39	1

Surrogate	MB MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
2,4,6-Tribromophenol	77		44 - 123	01/24/14 15:13	01/30/14 11:39	1
2-Fluorobiphenyl	103		43 - 120	01/24/14 15:13	01/30/14 11:39	1
2-Fluorophenol	97		18 - 120	01/24/14 15:13	01/30/14 11:39	1
Nitrobenzene-d5	102		47 - 120	01/24/14 15:13	01/30/14 11:39	1
Terphenyl-d14	112		33 - 141	01/24/14 15:13	01/30/14 11:39	1
Phenol-d5 (Surr)	104		12 - 128	01/24/14 15:13	01/30/14 11:39	1

TestAmerica Houston

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-85750-1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Lab Sample ID: LCS 600-125813/2-A

Matrix: Water

Analysis Batch: 126281

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 125813

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Phenol	0.0100	0.01217	*	mg/L		122	11 - 112
Nitrobenzene	0.0100	0.01058		mg/L		106	42 - 119
2,4-Dimethylphenol	0.0100	0.01035		mg/L		104	36 - 109
Bis(2-chloroethoxy)methane	0.0100	0.01065		mg/L		106	42 - 119
Naphthalene	0.0100	0.01051		mg/L		105	39 - 120
2-Methylnaphthalene	0.0100	0.01023		mg/L		102	40 - 121
2-Chloronaphthalene	0.0100	0.01016		mg/L		102	43 - 120
Acenaphthylene	0.0100	0.01069		mg/L		107	35 - 135
2,6-Dinitrotoluene	0.0100	0.01139		mg/L		114	45 - 122
Acenaphthene	0.0100	0.01010		mg/L		101	47 - 145
4-Nitrophenol	0.0200	0.02272		mg/L		114	14 - 132
Dibenzofuran	0.0100	0.01065		mg/L		107	46 - 123
2,4-Dinitrotoluene	0.0100	0.01183		mg/L		118	43 - 128
Fluorene	0.0100	0.01088		mg/L		109	48 - 127
4,6-Dinitro-2-methylphenol	0.0200	0.02074		mg/L		104	24 - 122
N-Nitrosodiphenylamine	0.0100	0.01123	*	mg/L		112	43 - 107
1,2-Diphenylhydrazine	0.0100	0.01168		mg/L		117	47 - 117
Pentachlorophenol	0.0200	0.02112		mg/L		106	9 - 147
Phenanthrene	0.0100	0.01149		mg/L		115	52 - 121
Anthracene	0.0100	0.01204		mg/L		120	53 - 124
Di-n-butyl phthalate	0.0100	0.01261		mg/L		126	54 - 138
Fluoranthene	0.0100	0.01223		mg/L		122	53 - 127
Pyrene	0.0100	0.01183		mg/L		118	49 - 121
Benzo[a]anthracene	0.0100	0.01234	*	mg/L		123	53 - 122
Bis(2-ethylhexyl) phthalate	0.0100	0.01132		mg/L		113	47 - 132
Chrysene	0.0100	0.01183		mg/L		118	49 - 124
Benzo[a]pyrene	0.0100	0.01274	*	mg/L		127	50 - 124

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2,4,6-Tribromophenol	114		44 - 123
2-Fluorobiphenyl	100		43 - 120
2-Fluorophenol	108		18 - 120
Nitrobenzene-d5	104		47 - 120
Terphenyl-d14	120		33 - 141
Phenol-d5 (Surr)	103		12 - 128

Lab Sample ID: 600-85750-24 MS

Matrix: Water

Analysis Batch: 126281

Client Sample ID: WG-1620-FB5-20140117

Prep Type: Total/NA

Prep Batch: 125813

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Phenol	0.0000377	U *	0.0189	0.003831		mg/L		20	10 - 62
Nitrobenzene	0.000104	U	0.0189	0.01170		mg/L		62	37 - 104
2,4-Dimethylphenol	0.000292	U	0.0189	0.01157		mg/L		61	25 - 85
Bis(2-chloroethoxy)methane	0.000123	U	0.0189	0.01162		mg/L		62	42 - 101
Naphthalene	0.0000755	U	0.0189	0.01127		mg/L		60	34 - 99
2-Methylnaphthalene	0.0000660	U	0.0189	0.01075		mg/L		57	36 - 111
2-Chloronaphthalene	0.0000755	U	0.0189	0.01132		mg/L		60	42 - 100

TestAmerica Houston

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-85750-1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Lab Sample ID: 600-85750-24 MS

Matrix: Water

Analysis Batch: 126281

Client Sample ID: WG-1620-FB5-20140117

Prep Type: Total/NA

Prep Batch: 125813

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec. Limits
	Result	Qualifier	Added	Result	Qualifier				
Acenaphthylene	0.0000566	U	0.0189	0.01209		mg/L		64	38 - 115
2,6-Dinitrotoluene	0.0000755	U	0.0189	0.01787		mg/L		95	47 - 118
Acenaphthene	0.0000755	U	0.0189	0.01147		mg/L		61	46 - 118
4-Nitrophenol	0.000528	U	0.0377	0.001081	N	mg/L		3	10 - 100
Dibenzofuran	0.0000755	U	0.0189	0.01199		mg/L		64	46 - 110
2,4-Dinitrotoluene	0.000123	U	0.0189	0.01430		mg/L		76	41 - 125
Fluorene	0.0000660	U	0.0189	0.01266		mg/L		67	44 - 112
4,6-Dinitro-2-methylphenol	0.000783	U	0.0377	0.002357	N	mg/L		6	28 - 128
N-Nitrosodiphenylamine	0.0000943	U *	0.0189	0.01386		mg/L		73	58 - 142
1,2-Diphenylhydrazine	0.000104	U	0.0189	0.01353		mg/L		72	10 - 130
Pentachlorophenol	0.000575	U	0.0377	0.002165	N	mg/L		6	45 - 155
Phenanthrene	0.0000566	U	0.0189	0.01379		mg/L		73	41 - 117
Anthracene	0.0000472	U	0.0189	0.01396		mg/L		74	35 - 116
Di-n-butyl phthalate	0.000104	U	0.0189	0.01700		mg/L		90	31 - 137
Fluoranthene	0.0000660	U	0.0189	0.01646		mg/L		87	14 - 145
Pyrene	0.000104	U	0.0189	0.01528		mg/L		81	28 - 133
Benzo[a]anthracene	0.0000755	U *	0.0189	0.01638		mg/L		87	24 - 126
Bis(2-ethylhexyl) phthalate	0.000349	U	0.0189	0.01531		mg/L		81	14 - 123
Chrysene	0.0000755	U	0.0189	0.01504		mg/L		80	23 - 128
Benzo[a]pyrene	0.0000755	U *	0.0189	0.01692		mg/L		90	60 - 140

Surrogate	MS	MS	Limits
	%Recovery	Qualifier	
2,4,6-Tribromophenol	24	X	44 - 123
2-Fluorobiphenyl	111		43 - 120
2-Fluorophenol	13	X	18 - 120
Nitrobenzene-d5	117		47 - 120
Terphenyl-d14	162	X	33 - 141
Phenol-d5 (Surr)	34		12 - 128

Lab Sample ID: 600-85750-24 MSD

Matrix: Water

Analysis Batch: 126281

Client Sample ID: WG-1620-FB5-20140117

Prep Type: Total/NA

Prep Batch: 125813

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec. Limits	RPD	Limit
	Result	Qualifier	Added	Result	Qualifier						
Phenol	0.0000377	U *	0.0189	0.001931	N	mg/L		10	10 - 62	66	20
Nitrobenzene	0.000104	U	0.0189	0.01199		mg/L		64	37 - 104	2	20
2,4-Dimethylphenol	0.000292	U	0.0189	0.01007		mg/L		53	25 - 85	14	20
Bis(2-chloroethoxy)methane	0.000123	U	0.0189	0.01228		mg/L		65	42 - 101	6	20
Naphthalene	0.0000755	U	0.0189	0.01165		mg/L		62	34 - 99	3	20
2-Methylnaphthalene	0.0000660	U	0.0189	0.01174		mg/L		62	36 - 111	9	20
2-Chloronaphthalene	0.0000755	U	0.0189	0.01233		mg/L		65	42 - 100	9	20
Acenaphthylene	0.0000566	U	0.0189	0.01304		mg/L		69	38 - 115	8	20
2,6-Dinitrotoluene	0.0000755	U	0.0189	0.01868		mg/L		99	47 - 118	4	20
Acenaphthene	0.0000755	U	0.0189	0.01224		mg/L		65	46 - 118	7	20
4-Nitrophenol	0.000528	U	0.0377	0.000528	U N	mg/L		0	10 - 100	NC	20
Dibenzofuran	0.0000755	U	0.0189	0.01298		mg/L		69	46 - 110	8	20
2,4-Dinitrotoluene	0.000123	U	0.0189	0.01494		mg/L		79	41 - 125	4	20
Fluorene	0.0000660	U	0.0189	0.01338		mg/L		71	44 - 112	5	20

TestAmerica Houston

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-85750-1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Lab Sample ID: 600-85750-24 MSD

Client Sample ID: WG-1620-FB5-20140117

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 126281

Prep Batch: 125813

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.	RPD	Limit
	Result	Qualifier	Added	Result	Qualifier				Limits		
4,6-Dinitro-2-methylphenol	0.000783	U	0.0377	0.002423	N	mg/L		6	28 - 128	3	20
N-Nitrosodiphenylamine	0.0000943	U *	0.0189	0.01424		mg/L		75	58 - 142	3	20
1,2-Diphenylhydrazine	0.000104	U	0.0189	0.01386		mg/L		73	10 - 130	2	20
Pentachlorophenol	0.000575	U	0.0377	0.002249	N	mg/L		6	45 - 155	4	20
Phenanthrene	0.0000566	U	0.0189	0.01346		mg/L		71	41 - 117	2	20
Anthracene	0.0000472	U	0.0189	0.01419		mg/L		75	35 - 116	2	20
Di-n-butyl phthalate	0.000104	U	0.0189	0.01570		mg/L		83	31 - 137	8	20
Fluoranthene	0.0000660	U	0.0189	0.01553		mg/L		82	14 - 145	6	20
Pyrene	0.000104	U	0.0189	0.01433		mg/L		76	28 - 133	6	20
Benzo[a]anthracene	0.0000755	U *	0.0189	0.01565		mg/L		83	24 - 126	5	20
Bis(2-ethylhexyl) phthalate	0.000349	U	0.0189	0.01466		mg/L		78	14 - 123	4	20
Chrysene	0.0000755	U	0.0189	0.01462		mg/L		77	23 - 128	3	20
Benzo[a]pyrene	0.0000755	U *	0.0189	0.01596		mg/L		85	60 - 140	6	20

Surrogate	MSD	MSD	Limits
	%Recovery	Qualifier	
2,4,6-Tribromophenol	18	X	44 - 123
2-Fluorobiphenyl	126	X	43 - 120
2-Fluorophenol	6	X	18 - 120
Nitrobenzene-d5	127	X	47 - 120
Terphenyl-d14	165	X	33 - 141
Phenol-d5 (Surr)	18		12 - 128

Unadjusted Detection Limits

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-85750-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	ML	MDL	Units	Method
1,2-Dichloroethane	0.500	0.200	ug/L	8260B
1,2-Dichloroethane	0.00100	0.000140	mg/L	8260B
Benzene	0.500	0.200	ug/L	8260B
Benzene	0.00100	0.0000800	mg/L	8260B
Chlorobenzene	0.500	0.180	ug/L	8260B
Chlorobenzene	0.00100	0.000120	mg/L	8260B
Ethylbenzene	0.500	0.190	ug/L	8260B
Ethylbenzene	0.00100	0.000110	mg/L	8260B
Methylene Chloride	5.00	0.220	ug/L	8260B
Methylene Chloride	0.00100	0.000150	mg/L	8260B
Toluene	0.500	0.170	ug/L	8260B
Toluene	0.00100	0.000150	mg/L	8260B
Vinyl chloride	0.500	0.180	ug/L	8260B
Vinyl chloride	0.00200	0.000110	mg/L	8260B
Xylenes, Total	1.50	0.580	ug/L	8260B
Xylenes, Total	0.00300	0.000260	mg/L	8260B

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	ML	MDL	Units	Method
1,2-Diphenylhydrazine	0.000500	0.000110	mg/L	8270C LL
2,4-Dimethylphenol	0.000500	0.000310	mg/L	8270C LL
2,4-Dinitrotoluene	0.000500	0.000130	mg/L	8270C LL
2,6-Dinitrotoluene	0.000500	0.0000800	mg/L	8270C LL
2-Chloronaphthalene	0.000500	0.0000800	mg/L	8270C LL
2-Methylnaphthalene	0.000500	0.0000700	mg/L	8270C LL
4,6-Dinitro-2-methylphenol	0.00100	0.000830	mg/L	8270C LL
4-Nitrophenol	0.00100	0.000560	mg/L	8270C LL
Acenaphthene	0.000500	0.0000800	mg/L	8270C LL
Acenaphthylene	0.000500	0.0000600	mg/L	8270C LL
Anthracene	0.000500	0.0000500	mg/L	8270C LL
Benzo[a]anthracene	0.000500	0.0000800	mg/L	8270C LL
Benzo[a]pyrene	0.000500	0.0000800	mg/L	8270C LL
Bis(2-chloroethoxy)methane	0.000500	0.000130	mg/L	8270C LL
Bis(2-ethylhexyl) phthalate	0.00250	0.000370	mg/L	8270C LL
Chrysene	0.000500	0.0000800	mg/L	8270C LL
Dibenzofuran	0.000500	0.0000800	mg/L	8270C LL
Di-n-butyl phthalate	0.00250	0.000110	mg/L	8270C LL
Fluoranthene	0.000500	0.0000700	mg/L	8270C LL
Fluorene	0.000500	0.0000700	mg/L	8270C LL
Naphthalene	0.00500	0.0000800	mg/L	8270C LL
Nitrobenzene	0.000500	0.000110	mg/L	8270C LL
N-Nitrosodiphenylamine	0.000500	0.000100	mg/L	8270C LL
Pentachlorophenol	0.00100	0.000610	mg/L	8270C LL
Phenanthrene	0.000500	0.0000600	mg/L	8270C LL
Phenol	0.000500	0.0000400	mg/L	8270C LL
Pyrene	0.000500	0.000110	mg/L	8270C LL

TestAmerica Houston

QC Association Summary

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-85750-1

GC/MS VOA

Analysis Batch: 125406

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-85750-1	WG-1620-MW73B-20140115	Total/NA	Water	8260B	
LCS 600-125406/3	Lab Control Sample	Total/NA	Water	8260B	
MB 600-125406/4	Method Blank	Total/NA	Water	8260B	

Analysis Batch: 125698

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-85750-23	WG-1620-MW47C-20140117	Total/NA	Water	8260B	
600-85750-24	WG-1620-FB5-20140117	Total/NA	Water	8260B	
600-85750-24 MS	WG-1620-FB5-20140117	Total/NA	Water	8260B	
600-85750-24 MSD	WG-1620-FB5-20140117	Total/NA	Water	8260B	
LCS 600-125698/3	Lab Control Sample	Total/NA	Water	8260B	
MB 600-125698/4	Method Blank	Total/NA	Water	8260B	

Analysis Batch: 137855

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-85750-20	WG-1620-MW36A-20140116	Total/NA	Water	8260B	
LCS 490-137855/3	Lab Control Sample	Total/NA	Water	8260B	
LCSD 490-137855/4	Lab Control Sample Dup	Total/NA	Water	8260B	
MB 490-137855/7	Method Blank	Total/NA	Water	8260B	

Analysis Batch: 137857

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-85750-1	WG-1620-MW73B-20140115	Total/NA	Water	8260B	
600-85750-4	WG-1620-MW72B-20140115	Total/NA	Water	8260B	
600-85750-6	WG-1620-MW42B-20140115	Total/NA	Water	8260B	
600-85750-7	WG-1620-MW05-20140115	Total/NA	Water	8260B	
600-85750-8	WG-1620-P11-20140115	Total/NA	Water	8260B	
600-85750-9	WG-1620-MW60A-20140115	Total/NA	Water	8260B	
600-85750-9 MS	WG-1620-MW60A-20140115	Total/NA	Water	8260B	
600-85750-9 MSD	WG-1620-MW60A-20140115	Total/NA	Water	8260B	
600-85750-11	WG-1620-MW48C-20140116	Total/NA	Water	8260B	
600-85750-12	WG-1620-MW59B-20140116	Total/NA	Water	8260B	
600-85750-13	WG-1620-MW59A-20140116	Total/NA	Water	8260B	
600-85750-14	WG-1620-MW49A-20140116	Total/NA	Water	8260B	
600-85750-16	WG-1620-MW21C-20140116	Total/NA	Water	8260B	
600-85750-17	WG-1620-DUP1-20140116	Total/NA	Water	8260B	
600-85750-18	WG-1620-TW41B-20140116	Total/NA	Water	8260B	
600-85750-19	WG-1620-MW36B-20140116	Total/NA	Water	8260B	
LCS 490-137857/3	Lab Control Sample	Total/NA	Water	8260B	
LCSD 490-137857/4	Lab Control Sample Dup	Total/NA	Water	8260B	
MB 490-137857/7	Method Blank	Total/NA	Water	8260B	

Analysis Batch: 137940

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-85750-2	WG-1620-MW57B-20140115	Total/NA	Water	8260B	
600-85750-3	WG-1620-MW57A-20140115	Total/NA	Water	8260B	
600-85750-4	WG-1620-MW72B-20140115	Total/NA	Water	8260B	
600-85750-5	WG-1620-MW23C-20140115	Total/NA	Water	8260B	
600-85750-10	WG-1620-FB3-20140115	Total/NA	Water	8260B	
600-85750-14	WG-1620-MW49A-20140116	Total/NA	Water	8260B	
600-85750-15	WG-1620-MW49B-20140116	Total/NA	Water	8260B	

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QC Association Summary

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-85750-1

GC/MS VOA (Continued)

Analysis Batch: 137940 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-85750-21	WG-1620-FB4-20140116	Total/NA	Water	8260B	
600-85750-22	WG-1620-MW44A-20140117	Total/NA	Water	8260B	
600-85750-22 MS	WG-1620-MW44A-20140117	Total/NA	Water	8260B	
600-85750-22 MSD	WG-1620-MW44A-20140117	Total/NA	Water	8260B	
600-85750-23	WG-1620-MW47C-20140117	Total/NA	Water	8260B	
600-85750-25	WG-1620-TB2-20140117	Total/NA	Water	8260B	
LCS 490-137940/3	Lab Control Sample	Total/NA	Water	8260B	
LCSD 490-137940/4	Lab Control Sample Dup	Total/NA	Water	8260B	
MB 490-137940/7	Method Blank	Total/NA	Water	8260B	

Analysis Batch: 137972

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-85750-2	WG-1620-MW57B-20140115	Total/NA	Water	8260B	
600-85750-3	WG-1620-MW57A-20140115	Total/NA	Water	8260B	
LCS 490-137972/3	Lab Control Sample	Total/NA	Water	8260B	
LCSD 490-137972/4	Lab Control Sample Dup	Total/NA	Water	8260B	
MB 490-137972/7	Method Blank	Total/NA	Water	8260B	

GC/MS Semi VOA

Prep Batch: 125443

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-85750-1	WG-1620-MW73B-20140115	Total/NA	Water	3510C	
600-85750-1 - DL	WG-1620-MW73B-20140115	Total/NA	Water	3510C	
600-85750-2 - DL	WG-1620-MW57B-20140115	Total/NA	Water	3510C	
600-85750-2	WG-1620-MW57B-20140115	Total/NA	Water	3510C	
600-85750-3	WG-1620-MW57A-20140115	Total/NA	Water	3510C	
600-85750-3 - DL	WG-1620-MW57A-20140115	Total/NA	Water	3510C	
600-85750-4 - DL	WG-1620-MW72B-20140115	Total/NA	Water	3510C	
600-85750-4	WG-1620-MW72B-20140115	Total/NA	Water	3510C	
600-85750-5	WG-1620-MW23C-20140115	Total/NA	Water	3510C	
600-85750-5 - DL	WG-1620-MW23C-20140115	Total/NA	Water	3510C	
600-85750-6	WG-1620-MW42B-20140115	Total/NA	Water	3510C	
600-85750-7	WG-1620-MW05-20140115	Total/NA	Water	3510C	
600-85750-8 - DL	WG-1620-P11-20140115	Total/NA	Water	3510C	
600-85750-8	WG-1620-P11-20140115	Total/NA	Water	3510C	
600-85750-9	WG-1620-MW60A-20140115	Total/NA	Water	3510C	
600-85750-10	WG-1620-FB3-20140115	Total/NA	Water	3510C	
600-85750-11	WG-1620-MW48C-20140116	Total/NA	Water	3510C	
600-85750-12	WG-1620-MW59B-20140116	Total/NA	Water	3510C	
600-85750-13	WG-1620-MW59A-20140116	Total/NA	Water	3510C	
600-85750-14 - DL	WG-1620-MW49A-20140116	Total/NA	Water	3510C	
600-85750-14	WG-1620-MW49A-20140116	Total/NA	Water	3510C	
600-85750-15 - DL	WG-1620-MW49B-20140116	Total/NA	Water	3510C	
600-85750-15	WG-1620-MW49B-20140116	Total/NA	Water	3510C	
600-85750-16	WG-1620-MW21C-20140116	Total/NA	Water	3510C	
600-85750-17	WG-1620-DUP1-20140116	Total/NA	Water	3510C	
600-85750-18	WG-1620-TW41B-20140116	Total/NA	Water	3510C	
LCS 600-125443/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 600-125443/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	

TestAmerica Houston

QC Association Summary

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-85750-1

GC/MS Semi VOA (Continued)

Prep Batch: 125443 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 600-125443/1-A	Method Blank	Total/NA	Water	3510C	

Analysis Batch: 125638

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 600-125443/2-A	Lab Control Sample	Total/NA	Water	8270C LL	125443
LCS 600-125443/3-A	Lab Control Sample Dup	Total/NA	Water	8270C LL	125443
MB 600-125443/1-A	Method Blank	Total/NA	Water	8270C LL	125443

Prep Batch: 125745

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-85750-19	WG-1620-MW36B-20140116	Total/NA	Water	3510C	
600-85750-20	WG-1620-MW36A-20140116	Total/NA	Water	3510C	
600-85750-21	WG-1620-FB4-20140116	Total/NA	Water	3510C	
600-85750-22	WG-1620-MW44A-20140117	Total/NA	Water	3510C	
600-85750-22 - DL	WG-1620-MW44A-20140117	Total/NA	Water	3510C	
LCS 600-125745/2-A	Lab Control Sample	Total/NA	Water	3510C	
MB 600-125745/1-A	Method Blank	Total/NA	Water	3510C	

Prep Batch: 125813

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-85750-23	WG-1620-MW47C-20140117	Total/NA	Water	3510C	
600-85750-24	WG-1620-FB5-20140117	Total/NA	Water	3510C	
600-85750-24 MS	WG-1620-FB5-20140117	Total/NA	Water	3510C	
600-85750-24 MSD	WG-1620-FB5-20140117	Total/NA	Water	3510C	
LCS 600-125813/2-A	Lab Control Sample	Total/NA	Water	3510C	
MB 600-125813/1-A	Method Blank	Total/NA	Water	3510C	

Analysis Batch: 125939

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-85750-20	WG-1620-MW36A-20140116	Total/NA	Water	8270C LL	125745
LCS 600-125745/2-A	Lab Control Sample	Total/NA	Water	8270C LL	125745
MB 600-125745/1-A	Method Blank	Total/NA	Water	8270C LL	125745

Analysis Batch: 125990

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-85750-9	WG-1620-MW60A-20140115	Total/NA	Water	8270C LL	125443
600-85750-10	WG-1620-FB3-20140115	Total/NA	Water	8270C LL	125443
600-85750-11	WG-1620-MW48C-20140116	Total/NA	Water	8270C LL	125443
600-85750-12	WG-1620-MW59B-20140116	Total/NA	Water	8270C LL	125443
600-85750-13	WG-1620-MW59A-20140116	Total/NA	Water	8270C LL	125443
600-85750-16	WG-1620-MW21C-20140116	Total/NA	Water	8270C LL	125443
600-85750-17	WG-1620-DUP1-20140116	Total/NA	Water	8270C LL	125443
600-85750-18	WG-1620-TW41B-20140116	Total/NA	Water	8270C LL	125443

Analysis Batch: 126106

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-85750-1	WG-1620-MW73B-20140115	Total/NA	Water	8270C LL	125443
600-85750-2	WG-1620-MW57B-20140115	Total/NA	Water	8270C LL	125443
600-85750-3	WG-1620-MW57A-20140115	Total/NA	Water	8270C LL	125443
600-85750-4	WG-1620-MW72B-20140115	Total/NA	Water	8270C LL	125443
600-85750-5	WG-1620-MW23C-20140115	Total/NA	Water	8270C LL	125443

TestAmerica Houston

QC Association Summary

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-85750-1

GC/MS Semi VOA (Continued)

Analysis Batch: 126106 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-85750-7	WG-1620-MW05-20140115	Total/NA	Water	8270C LL	125443
600-85750-8	WG-1620-P11-20140115	Total/NA	Water	8270C LL	125443
600-85750-14	WG-1620-MW49A-20140116	Total/NA	Water	8270C LL	125443
600-85750-15	WG-1620-MW49B-20140116	Total/NA	Water	8270C LL	125443

Analysis Batch: 126113

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-85750-6	WG-1620-MW42B-20140115	Total/NA	Water	8270C LL	125443
600-85750-19	WG-1620-MW36B-20140116	Total/NA	Water	8270C LL	125745
600-85750-21	WG-1620-FB4-20140116	Total/NA	Water	8270C LL	125745
600-85750-22	WG-1620-MW44A-20140117	Total/NA	Water	8270C LL	125745

Analysis Batch: 126210

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-85750-1 - DL	WG-1620-MW73B-20140115	Total/NA	Water	8270C LL	125443
600-85750-2 - DL	WG-1620-MW57B-20140115	Total/NA	Water	8270C LL	125443
600-85750-3 - DL	WG-1620-MW57A-20140115	Total/NA	Water	8270C LL	125443
600-85750-4 - DL	WG-1620-MW72B-20140115	Total/NA	Water	8270C LL	125443
600-85750-5 - DL	WG-1620-MW23C-20140115	Total/NA	Water	8270C LL	125443
600-85750-8 - DL	WG-1620-P11-20140115	Total/NA	Water	8270C LL	125443
600-85750-14 - DL	WG-1620-MW49A-20140116	Total/NA	Water	8270C LL	125443
600-85750-15 - DL	WG-1620-MW49B-20140116	Total/NA	Water	8270C LL	125443
600-85750-22 - DL	WG-1620-MW44A-20140117	Total/NA	Water	8270C LL	125745

Analysis Batch: 126281

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-85750-23	WG-1620-MW47C-20140117	Total/NA	Water	8270C LL	125813
600-85750-24	WG-1620-FB5-20140117	Total/NA	Water	8270C LL	125813
600-85750-24 MS	WG-1620-FB5-20140117	Total/NA	Water	8270C LL	125813
600-85750-24 MSD	WG-1620-FB5-20140117	Total/NA	Water	8270C LL	125813
LCS 600-125813/2-A	Lab Control Sample	Total/NA	Water	8270C LL	125813
MB 600-125813/1-A	Method Blank	Total/NA	Water	8270C LL	125813

Lab Chronicle

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-85750-1

Client Sample ID: WG-1620-MW73B-20140115

Lab Sample ID: 600-85750-1

Date Collected: 01/15/14 08:35

Matrix: Water

Date Received: 01/17/14 12:19

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	137857	01/28/14 00:27	EML	TAL NSH
Total/NA	Analysis	8260B		1	125406	01/19/14 17:07	YX1	TAL HOU
Total/NA	Prep	3510C			125443	01/21/14 09:09	SMB	TAL HOU
Total/NA	Analysis	8270C LL		1	126106	01/28/14 02:15	TTD	TAL HOU
Total/NA	Prep	3510C	DL		125443	01/21/14 09:09	SMB	TAL HOU
Total/NA	Analysis	8270C LL	DL	10	126210	01/29/14 22:57	TTD	TAL HOU

Client Sample ID: WG-1620-MW57B-20140115

Lab Sample ID: 600-85750-2

Date Collected: 01/15/14 09:25

Matrix: Water

Date Received: 01/17/14 12:19

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		10	137940	01/28/14 17:30	EML	TAL NSH
Total/NA	Analysis	8260B		1	137972	01/28/14 17:42	EML	TAL NSH
Total/NA	Prep	3510C			125443	01/21/14 09:09	SMB	TAL HOU
Total/NA	Analysis	8270C LL		500	126106	01/28/14 02:40	TTD	TAL HOU
Total/NA	Prep	3510C	DL		125443	01/21/14 09:09	SMB	TAL HOU
Total/NA	Analysis	8270C LL	DL	2500	126210	01/29/14 23:23	TTD	TAL HOU

Client Sample ID: WG-1620-MW57A-20140115

Lab Sample ID: 600-85750-3

Date Collected: 01/15/14 10:20

Matrix: Water

Date Received: 01/17/14 12:19

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		5	137940	01/28/14 17:55	EML	TAL NSH
Total/NA	Analysis	8260B		1	137972	01/28/14 18:09	EML	TAL NSH
Total/NA	Prep	3510C			125443	01/21/14 09:09	SMB	TAL HOU
Total/NA	Analysis	8270C LL		250	126106	01/28/14 03:06	TTD	TAL HOU
Total/NA	Prep	3510C	DL		125443	01/21/14 09:09	SMB	TAL HOU
Total/NA	Analysis	8270C LL	DL	2500	126210	01/29/14 23:49	TTD	TAL HOU

Client Sample ID: WG-1620-MW72B-20140115

Lab Sample ID: 600-85750-4

Date Collected: 01/15/14 11:20

Matrix: Water

Date Received: 01/17/14 12:19

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	137857	01/28/14 01:43	EML	TAL NSH
Total/NA	Analysis	8260B		10	137940	01/28/14 16:38	EML	TAL NSH
Total/NA	Prep	3510C			125443	01/21/14 09:09	SMB	TAL HOU
Total/NA	Analysis	8270C LL		1000	126106	01/28/14 03:31	TTD	TAL HOU
Total/NA	Prep	3510C	DL		125443	01/21/14 09:09	SMB	TAL HOU
Total/NA	Analysis	8270C LL	DL	10000	126210	01/30/14 00:15	TTD	TAL HOU

TestAmerica Houston

Lab Chronicle

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-85750-1

Client Sample ID: WG-1620-MW23C-20140115

Lab Sample ID: 600-85750-5

Date Collected: 01/15/14 12:15

Matrix: Water

Date Received: 01/17/14 12:19

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	137940	01/28/14 16:13	EML	TAL NSH
Total/NA	Prep	3510C			125443	01/21/14 09:09	SMB	TAL HOU
Total/NA	Analysis	8270C LL		250	126106	01/28/14 03:56	TTD	TAL HOU
Total/NA	Prep	3510C	DL		125443	01/21/14 09:09	SMB	TAL HOU
Total/NA	Analysis	8270C LL	DL	2500	126210	01/30/14 00:41	TTD	TAL HOU

Client Sample ID: WG-1620-MW42B-20140115

Lab Sample ID: 600-85750-6

Date Collected: 01/15/14 18:20

Matrix: Water

Date Received: 01/17/14 12:19

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	137857	01/28/14 02:33	EML	TAL NSH
Total/NA	Prep	3510C			125443	01/21/14 09:09	SMB	TAL HOU
Total/NA	Analysis	8270C LL		1	126113	01/28/14 23:27	TTD	TAL HOU

Client Sample ID: WG-1620-MW05-20140115

Lab Sample ID: 600-85750-7

Date Collected: 01/15/14 15:05

Matrix: Water

Date Received: 01/17/14 12:19

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	137857	01/28/14 02:58	EML	TAL NSH
Total/NA	Prep	3510C			125443	01/21/14 09:09	SMB	TAL HOU
Total/NA	Analysis	8270C LL		1	126106	01/28/14 04:47	TTD	TAL HOU

Client Sample ID: WG-1620-P11-20140115

Lab Sample ID: 600-85750-8

Date Collected: 01/15/14 16:05

Matrix: Water

Date Received: 01/17/14 12:19

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	137857	01/28/14 03:23	EML	TAL NSH
Total/NA	Prep	3510C			125443	01/21/14 09:09	SMB	TAL HOU
Total/NA	Analysis	8270C LL		1	126106	01/28/14 05:12	TTD	TAL HOU
Total/NA	Prep	3510C	DL		125443	01/21/14 09:09	SMB	TAL HOU
Total/NA	Analysis	8270C LL	DL	5	126210	01/30/14 01:07	TTD	TAL HOU

Client Sample ID: WG-1620-MW60A-20140115

Lab Sample ID: 600-85750-9

Date Collected: 01/15/14 17:10

Matrix: Water

Date Received: 01/17/14 12:19

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	137857	01/28/14 03:48	EML	TAL NSH
Total/NA	Prep	3510C			125443	01/21/14 09:09	SMB	TAL HOU

TestAmerica Houston

Lab Chronicle

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-85750-1

Client Sample ID: WG-1620-MW60A-20140115

Lab Sample ID: 600-85750-9

Date Collected: 01/15/14 17:10

Matrix: Water

Date Received: 01/17/14 12:19

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8270C LL		1	125990	01/24/14 15:26	TTD	TAL HOU

Client Sample ID: WG-1620-FB3-20140115

Lab Sample ID: 600-85750-10

Date Collected: 01/15/14 17:25

Matrix: Water

Date Received: 01/17/14 12:19

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	137940	01/28/14 14:04	EML	TAL NSH
Total/NA	Prep	3510C			125443	01/21/14 09:09	SMB	TAL HOU
Total/NA	Analysis	8270C LL		1	125990	01/24/14 15:52	TTD	TAL HOU

Client Sample ID: WG-1620-MW48C-20140116

Lab Sample ID: 600-85750-11

Date Collected: 01/16/14 08:10

Matrix: Water

Date Received: 01/17/14 12:19

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	137857	01/28/14 04:14	EML	TAL NSH
Total/NA	Prep	3510C			125443	01/21/14 09:09	SMB	TAL HOU
Total/NA	Analysis	8270C LL		1	125990	01/24/14 16:18	TTD	TAL HOU

Client Sample ID: WG-1620-MW59B-20140116

Lab Sample ID: 600-85750-12

Date Collected: 01/16/14 09:00

Matrix: Water

Date Received: 01/17/14 12:19

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	137857	01/28/14 04:39	EML	TAL NSH
Total/NA	Prep	3510C			125443	01/21/14 09:09	SMB	TAL HOU
Total/NA	Analysis	8270C LL		1	125990	01/24/14 16:44	TTD	TAL HOU

Client Sample ID: WG-1620-MW59A-20140116

Lab Sample ID: 600-85750-13

Date Collected: 01/16/14 10:00

Matrix: Water

Date Received: 01/17/14 12:19

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	137857	01/28/14 05:04	EML	TAL NSH
Total/NA	Prep	3510C			125443	01/21/14 09:09	SMB	TAL HOU
Total/NA	Analysis	8270C LL		1	125990	01/24/14 17:10	TTD	TAL HOU

Lab Chronicle

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-85750-1

Client Sample ID: WG-1620-MW49A-20140116

Lab Sample ID: 600-85750-14

Date Collected: 01/16/14 11:00

Matrix: Water

Date Received: 01/17/14 12:19

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	137857	01/28/14 05:29	EML	TAL NSH
Total/NA	Analysis	8260B		5	137940	01/28/14 17:04	EML	TAL NSH
Total/NA	Prep	3510C			125443	01/21/14 09:09	SMB	TAL HOU
Total/NA	Analysis	8270C LL		50	126106	01/28/14 05:37	TTD	TAL HOU
Total/NA	Prep	3510C	DL		125443	01/21/14 09:09	SMB	TAL HOU
Total/NA	Analysis	8270C LL	DL	500	126210	01/30/14 01:33	TTD	TAL HOU

Client Sample ID: WG-1620-MW49B-20140116

Lab Sample ID: 600-85750-15

Date Collected: 01/16/14 12:00

Matrix: Water

Date Received: 01/17/14 12:19

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	137940	01/28/14 15:47	EML	TAL NSH
Total/NA	Prep	3510C			125443	01/21/14 09:09	SMB	TAL HOU
Total/NA	Analysis	8270C LL		250	126106	01/28/14 06:03	TTD	TAL HOU
Total/NA	Prep	3510C	DL		125443	01/21/14 09:09	SMB	TAL HOU
Total/NA	Analysis	8270C LL	DL	1250	126210	01/30/14 01:58	TTD	TAL HOU

Client Sample ID: WG-1620-MW21C-20140116

Lab Sample ID: 600-85750-16

Date Collected: 01/16/14 14:00

Matrix: Water

Date Received: 01/17/14 12:19

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	137857	01/28/14 06:19	EML	TAL NSH
Total/NA	Prep	3510C			125443	01/21/14 20:52	SMB	TAL HOU
Total/NA	Analysis	8270C LL		1	125990	01/24/14 18:28	TTD	TAL HOU

Client Sample ID: WG-1620-DUP1-20140116

Lab Sample ID: 600-85750-17

Date Collected: 01/16/14 14:00

Matrix: Water

Date Received: 01/17/14 12:19

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	137857	01/28/14 06:44	EML	TAL NSH
Total/NA	Prep	3510C			125443	01/21/14 20:52	SMB	TAL HOU
Total/NA	Analysis	8270C LL		1	125990	01/24/14 18:54	TTD	TAL HOU

Client Sample ID: WG-1620-TW41B-20140116

Lab Sample ID: 600-85750-18

Date Collected: 01/16/14 15:05

Matrix: Water

Date Received: 01/17/14 12:19

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	137857	01/28/14 07:09	EML	TAL NSH

TestAmerica Houston

Lab Chronicle

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-85750-1

Client Sample ID: WG-1620-TW41B-20140116

Lab Sample ID: 600-85750-18

Date Collected: 01/16/14 15:05

Matrix: Water

Date Received: 01/17/14 12:19

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			125443	01/21/14 20:52	SMB	TAL HOU
Total/NA	Analysis	8270C LL		1	125990	01/24/14 19:20	TTD	TAL HOU

Client Sample ID: WG-1620-MW36B-20140116

Lab Sample ID: 600-85750-19

Date Collected: 01/16/14 16:15

Matrix: Water

Date Received: 01/17/14 12:19

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	137857	01/28/14 07:35	EML	TAL NSH
Total/NA	Prep	3510C			125745	01/23/14 19:10	SMB	TAL HOU
Total/NA	Analysis	8270C LL		1	126113	01/28/14 13:33	TTD	TAL HOU

Client Sample ID: WG-1620-MW36A-20140116

Lab Sample ID: 600-85750-20

Date Collected: 01/16/14 17:15

Matrix: Water

Date Received: 01/17/14 12:19

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	137855	01/28/14 09:49	EML	TAL NSH
Total/NA	Prep	3510C			125745	01/23/14 19:10	SMB	TAL HOU
Total/NA	Analysis	8270C LL		1	125939	01/27/14 21:24	TTD	TAL HOU

Client Sample ID: WG-1620-FB4-20140116

Lab Sample ID: 600-85750-21

Date Collected: 01/16/14 17:30

Matrix: Water

Date Received: 01/17/14 12:19

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	137940	01/28/14 13:38	EML	TAL NSH
Total/NA	Prep	3510C			125745	01/23/14 19:10	SMB	TAL HOU
Total/NA	Analysis	8270C LL		1	126113	01/28/14 13:59	TTD	TAL HOU

Client Sample ID: WG-1620-MW44A-20140117

Lab Sample ID: 600-85750-22

Date Collected: 01/17/14 07:50

Matrix: Water

Date Received: 01/17/14 12:19

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	137940	01/28/14 14:55	EML	TAL NSH
Total/NA	Prep	3510C			125745	01/23/14 19:10	SMB	TAL HOU
Total/NA	Analysis	8270C LL		1	126113	01/28/14 14:25	TTD	TAL HOU
Total/NA	Prep	3510C	DL		125745	01/23/14 19:10	SMB	TAL HOU
Total/NA	Analysis	8270C LL	DL	50	126210	01/30/14 02:24	TTD	TAL HOU

TestAmerica Houston

Lab Chronicle

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-85750-1

Client Sample ID: WG-1620-MW47C-20140117

Lab Sample ID: 600-85750-23

Date Collected: 01/17/14 09:10

Matrix: Water

Date Received: 01/17/14 12:19

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	137940	01/28/14 14:30	EML	TAL NSH
Total/NA	Analysis	8260B		1	125698	01/23/14 12:24	WS1	TAL HOU
Total/NA	Prep	3510C			125813	01/24/14 15:13	LER	TAL HOU
Total/NA	Analysis	8270C LL		1	126281	01/30/14 16:22	TTD	TAL HOU

Client Sample ID: WG-1620-FB5-20140117

Lab Sample ID: 600-85750-24

Date Collected: 01/17/14 09:45

Matrix: Water

Date Received: 01/17/14 12:19

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	125698	01/23/14 11:59	WS1	TAL HOU
Total/NA	Prep	3510C			125813	01/24/14 15:13	LER	TAL HOU
Total/NA	Analysis	8270C LL		1	126281	01/30/14 16:48	TTD	TAL HOU

Client Sample ID: WG-1620-TB2-20140117

Lab Sample ID: 600-85750-25

Date Collected: 01/17/14 00:00

Matrix: Water

Date Received: 01/17/14 12:19

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	137940	01/28/14 13:13	EML	TAL NSH

Laboratory References:

TAL HOU = TestAmerica Houston, 6310 Rothway Street, Houston, TX 77040, TEL (713)690-4444

TAL NSH = TestAmerica Nashville, 2960 Foster Creighton Drive, Nashville, TN 37204, TEL (615)726-0177

Certification Summary

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-85750-1

Laboratory: TestAmerica Houston

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Arkansas DEQ	State Program	6	88-0759	08-04-14
Louisiana	NELAP	6	30643	06-30-14
Oklahoma	State Program	6	1309	08-31-14
Texas	NELAP	6	T104704223	10-31-14
USDA	Federal		P330-08-00217	04-01-14
Utah	NELAP	8	TX00083	10-31-14

Laboratory: TestAmerica Nashville

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
A2LA	ISO/IEC 17025		0453.07	12-31-15
Alaska (UST)	State Program	10	UST-087	07-24-14
Arizona	State Program	9	AZ0473	05-05-14
Arizona	State Program	9	AZ0473	05-05-14 *
Arkansas DEQ	State Program	6	88-0737	04-25-14
California	NELAP	9	1168CA	10-31-14
Canadian Assoc Lab Accred (CALA)	Canada		3744	03-08-14
Connecticut	State Program	1	PH-0220	12-31-15
Florida	NELAP	4	E87358	06-30-14
Illinois	NELAP	5	200010	12-09-14
Iowa	State Program	7	131	05-01-14
Kansas	NELAP	7	E-10229	10-31-14
Kentucky (UST)	State Program	4	19	06-30-14
Louisiana	NELAP	6	30613	06-30-14
Maryland	State Program	3	316	03-31-14
Massachusetts	State Program	1	M-TN032	06-30-14
Minnesota	NELAP	5	047-999-345	12-31-14
Mississippi	State Program	4	N/A	06-30-14
Montana (UST)	State Program	8	NA	01-01-20
Nevada	State Program	9	TN00032	07-31-14
New Hampshire	NELAP	1	2963	10-10-14
New Jersey	NELAP	2	TN965	06-30-14
New York	NELAP	2	11342	04-01-14
North Carolina DENR	State Program	4	387	12-31-14
North Dakota	State Program	8	R-146	06-30-14
Ohio VAP	State Program	5	CL0033	10-16-15
Oklahoma	State Program	6	9412	08-31-14
Oregon	NELAP	10	TN200001	04-29-14
Pennsylvania	NELAP	3	68-00585	06-30-14
Rhode Island	State Program	1	LAO00268	12-30-14
South Carolina	State Program	4	84009 (001)	02-28-14 *
Tennessee	State Program	4	2008	02-23-14 *
Texas	NELAP	6	T104704077-09-TX	08-31-14
USDA	Federal		S-48469	10-30-16
Utah	NELAP	8	TN00032	07-31-14
Virginia	NELAP	3	460152	06-14-14
Washington	State Program	10	C789	07-19-14
West Virginia DEP	State Program	3	219	02-28-14 *
Wisconsin	State Program	5	998020430	08-31-14

* Expired certification is currently pending renewal and is considered valid.

TestAmerica Houston

Certification Summary

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-85750-1

Laboratory: TestAmerica Nashville (Continued)

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Wyoming (UST)	A2LA	8	453.07	12-31-15

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15
- 16

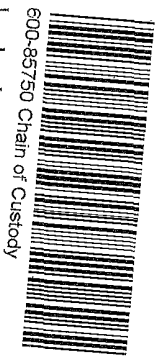
Chain of Custody Record

Client Information
 Client Contact: Mr. Eric Matzner
 Company: Pastor, Behling & Wheeler LLC
 Address: 2201 Double Creek Dr Suite 4004
 City: Round Rock
 State, Zip: TX, 78664
 Phone: 512-671-3434(Tel) 512-671-3446(Fax)
 Email: eric.matzner@pbwllc.com
 Project Name: 1620 UPRR HMPW
 Site:
 Sampler: JOHN BEATSON
 Phone: 512-671-3434
 Lab Pw: Kudchadkar, Sachin G
 E-Mail: sachin.kudchadkar@testamericainc.com
 Carrier Tracking No(s):
 COC No: 600-25645-9048-10
 Page: 1 of 2
 Job #:

Due Date Requested:
 TAT Requested (days):
 Purchase Order not required
 PO #:
 WO #:
 Project #: 60003722
 SSOW#:

Sample Identification	Sample Date	Sample Time	Sample Type (G=comp, G=grab)	Matrix (Metallic, Semisolid, Overstroll, BT-Tissue, A&H)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	Analysis Requested	Special Instructions/Note	Preservation Codes:
WG-1620-MW73B-20140115	1-15-14	0835	G	Water	X	N	VINYL CHLORIDE		A-HCL B-NaOH C-Zn Acetate D-Nitric Acid E-NAHSO4 F-MeOH G-Amorphous H-Ascorbic Acid I-Ice J-DI Water K-EDTA L-EDA Other:
WG-1620-MW57B-20140115		0925	G	Water	X	N			M-Hexane N-None O-AshKAO2 P-NA2OAS Q-NA2SO3 R-NA2S2SO3 S-H2SO4 T-TSP Dodecahydrate U-Acetone V-MCAA W-ph 4-5 Z-other (specify)
WG-1620-MW57A-20140115		1020	G	Water	X	X			
WG-1620-MW72AB-20140115		1120	G	Water	X	X			
WG-1620-MW33C-20140115		1215	G	Water	X	X			
WG-1620-MW42B-20140115		1320	G	Water	X	X			
WG-1620-MW05-20140115		1505	G	Water	X	X			
WG-1620-P11-20140115		1605	G	Water	X	X			
WG-1620-MW60A-20140115		1710	G	Water	X	X			
WG-1620-FB3-20140115		1725	G	Water	X	X			
WG-1620-MW48C-20140116	1-16-14	0810	G	Water	X	X			

Analysis Requested:
 Total Number of containers:
 Special Instructions/Note:
 Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
 Return To Client Disposal By Lab Archive For _____ Months
 Possible Hazard Identification
 Non-Hazard Flammable Skin Irritant Poison B Unknown Radiological
 Deliverable Requested: I, II, III, IV, Other (specify):



Empty Kit Relinquished by:
 Relinquished by: John Dixon
 Date/Time: 1-15-14
 Company: FBW
 Received by:
 Date/Time: 1/14/14
 Company:
 Relinquished by:
 Date/Time:
 Company:
 Custody Seals Intact: A Yes A No
 Custody Seal No.:
 Cooler Temperature(s) °C and Other Remarks:

TestAmerica Houston

6310 Rothway Street
Houston, TX 77040
Phone (713) 690-4444 Fax (713) 690-5646

Chain of Custody Record

Client Information

Client Contact: Mr. Eric Matzner
Company: Pastor, Behling & Wheeler LLC
Address: 2201 Double Creek Dr Suite 4004
City: Round Rock
State, Zip: TX, 78684
Phone: 512-671-3434 (Tel) 512-671-3446 (Fax)
Email: eric.matzner@pbwllc.com
Project Name: 1620 UPRR HWPW
Site:
Due Date Requested:
TAT Requested (days):
Purchase Order not required

Sampler: JOHN BRAYDON
Phone: 512-1071-3434
Lab PIN: Kutchadkar, Sachin G
E-Mail: sachin_kutchadkar@testamericainc.com

Carrier Tracking No(s):

COC No.: 600-25645-9048, 10
Pages: 2 of 2
Job #:

Analysis Requested

Preservation Codes:

- A - HCL
- B - NaOH
- C - Zn Acetate
- D - Nitric Acid
- E - NaHSO4
- F - MeOH
- G - Archlor
- H - Ascorbic Acid
- I - Ice
- J - DI Water
- K - EDTA
- L - EDA
- M - Hexane
- N - None
- O - AsnCl2
- P - Na2OxS
- Q - Na2SO3
- R - Na2S2O3
- S - H2SO4
- T - TSP Dodecahydrate
- U - Acetone
- V - MCA
- W - pH 4.5
- Z - other (specify)

Sample Identification

Sample Date

Sample Time

Sample Type (C=Comp, G=Grab)

Matrix (Mineral, Sewage, Oil, Paint, etc.)

Preservation Code:

Field Filtered Sample (Yes or No)

Perform MS/MSD (Yes or No)

8260B_LL - (MOD) 8260B - Volatiles

8270C_LL - (MOD) 8270C

VINYL CHLORIDE

Total Number of containers

Special Instructions/Note:

Sample ID	Sample Date	Sample Time	Sample Type	Matrix	Preservation Code	Field Filtered Sample	Perform MS/MSD	Notes
WG-1620-MW59B-20140116	1-16-14	0900	G	Water		X	X	
WG-1620-MW59A-20140116		1000	G	Water		X	X	
WG-1620-MW49A-20140116		1100	G	Water		X	X	
WG-1620-MW49B-20140116		1200	G	Water		X	X	
WG-1620-MW21C-20140116		1400	G	Water		X	X	
WG-1620-DVP1-20140116		1400	G	Water		X	X	
WG-1620-TW41B-20140116		1505	G	Water		X	X	
WG-1620-MW36B-20140116		1615	G	Water		X	X	
WG-1620-MW36A-20140116		1715	G	Water		X	X	
WG-1620-FB4-20140116		1730	G	Water		X	X	
WG-1620-MW44A-20140117	1-17-14	0750	G	Water		X	X	

Possible Hazard Identification

Non-Hazard Flammable Skin Irritant Poison B Unknown Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
 Return To Client Disposal By Lab Archive For _____ Months

Empty Kit Relinquished by:

Date: _____ Time: _____

Method of Shipment:

Date/Time: _____ Company: _____

Relinquished by:

Date/Time: 1-17-14 1919 Company: PBW

Received by:

Date/Time: 1/17/14 1219 Company: PBW

Relinquished by:

Date/Time: _____ Company: _____

Received by:

Date/Time: _____ Company: _____

Custody Seals Intact:

Custody Seal No.: _____

Cooler Temperature(s) °C and Other Remarks:

Client Information
 Client Contact: Mr. Eric Matzner
 Company: Pastor, Behling & Wheeler LLC
 Address: 2201 Double Creek Dr Suite 4004
 City: Round Rock
 State, Zip: TX, 78664
 Phone: 512-671-3434(Tel) 512-671-3446(Fax)
 Email: eric.matzner@pbwllc.com
 Project Name: 1620 UPRR HWPW
 Site: SSOW#:

Sampler: **JOHN BRAYTON**
 Lab P#: Kuchchadkar, Sachin G
 Carrier Tracking No(s):
 E-Mail: sachin.kuchchadkar@testamericainc.com
 Job #: 600-25645-9048.10
 Pages: 3 of 3

Due Date Requested:
 TAT Requested (days):
 PO #:
 Purchase Order not required
 Project #:
 60003722
 Analysis Requested

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (Water, Soil, Sewer, etc.)	Preservation Code:	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	Total Number of containers	Special Instructions/Note:
WG-1620-MW47C-20140117	1-17-14	0910	G	Water			8260B_LL - (MOD) 8260B - Volatiles		
WG-1620-FBS-20140117	1-17-14	0945	G	Water			8270C_LL - (MOD) 8270C		
WG-1620-TB2-20140117				Water					
				Water					
				Water					
				Water					
				Water					
				Water					
				Water					
				Water					
				Water					
				Water					
				Water					

Possible Hazard Identification
 Non-Hazard Flammable Skin Irritant Poison B Unknown Radiological
 Deliverable Requested: I, II, III, IV, Other (specify):
 Empty Kit Requisitioned:
 Relinquished by: *[Signature]* Date: 1-17-14
 Relinquished by: *[Signature]* Date: 1-17-14
 Relinquished by: *[Signature]* Date: 1-17-14
 Relinquished by: *[Signature]* Date: 1-17-14
 Custody Seals Intact: Yes No
 Custody Seal No.:

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
 Return To Client Disposal By Lab Archive For _____ Months
 Special Instructions/QC Requirements:
 Method of Shipment:
 Received by: *[Signature]* Date: 1-17-14
 Received by: *[Signature]* Date: 1-17-14
 Received by: *[Signature]* Date: 1-17-14
 Received by: *[Signature]* Date: 1-17-14
 Cooler Temperature(s) °C and Other Remarks:

Carrier Tracking No(s):
 Preservation Codes:
 A - HCL
 B - NaOH
 C - Zn Acetate
 D - Nitric Acid
 E - NaHSO4
 F - MeOH
 G - Amchlor
 H - Ascorbic Acid
 I - Ice
 J - DI Water
 K - EDTA
 L - EDA
 M - Hexane
 N - None
 O - AsH2O2
 P - Na2CO3
 Q - Na2SO3
 R - Na2S2O3
 S - H2SO4
 T - TSP Dodecahydrate
 U - Acetone
 V - MCAA
 W - pH 4.5
 Z - other (Specify)
 Other:
 Page 3 of 3
 2/20/2014

Login Sample Receipt Checklist

Client: Pastor, Behling & Wheeler LLC

Job Number: 600-85750-1

Login Number: 85750

List Source: TestAmerica Houston

List Number: 1

Creator: Capps, Dana R

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	N/A	Lab does not accept radioactive samples.
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	3.9/3.7/1.3/1.5/3.2
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	False	Refer to Job Narrative for details.
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	Check done at department level as required.

Login Sample Receipt Checklist

Client: Pastor, Behling & Wheeler LLC

Job Number: 600-85750-1

Login Number: 85750

List Number: 1

Creator: Buckingham, Paul

List Source: TestAmerica Nashville

List Creation: 01/27/14 11:34 AM

Question	Answer	Comment
Radioactivity wasn't checked or is <=/ background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Houston
6310 Rothway Street
Houston, TX 77040
Tel: (713)690-4444

TestAmerica Job ID: 600-85976-1

Client Project/Site: 1620 UPRR HWPW

For:

Pastor, Behling & Wheeler LLC
2201 Double Creek Dr
Suite 4004
Round Rock, Texas 78664

Attn: Mr. Eric Matzner



Authorized for release by:

2/10/2014 6:17:01 PM

Sophia Shah, Project Management Assistant I
sophia.shah@testamericainc.com

Designee for

Sachin Kudchadkar, Senior Project Manager
(713)690-4444

sachin.kudchadkar@testamericainc.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.



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- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15
- 16



Table of Contents

Cover Page	1
Table of Contents	2
TRRP Checklists & DCSs	3
Case Narrative	12
Method Summary	13
Sample Summary	14
Client Sample Results	15
Definitions/Glossary	41
Surrogate Summary	42
QC Sample Results	44
Default Detection Limits	54
QC Association Summary	55
Lab Chronicle	58
Certification Summary	63
Chain of Custody	65
Receipt Checklists	68

Appendix A

Laboratory Data Package Cover Page - Page 1 of 4

This data package is for TestAmerica Houston job number 600-85976-1 and consists of:

- R1 - Field chain-of-custody documentation;
- R2 - Sample identification cross-reference;
- R3 - Test reports (analytical data sheets) for each environmental sample that includes:
 - a. Items consistent with NELAC Chapter 5,
 - b. dilution factors,
 - c. preparation methods,
 - d. cleanup methods, and
 - e. if required for the project, tentatively identified compounds (TICs).
- R4 - Surrogate recovery data including:
 - a. Calculated recovery (%R), and
 - b. The laboratory's surrogate QC limits.
- R5 - Test reports/summary forms for blank samples;
- R6 - Test reports/summary forms for laboratory control samples (LCSs) including:
 - a. LCS spiking amounts,
 - b. Calculated %R for each analyte, and
 - c. The laboratory's LCS QC limits.
- R7 - Test reports for project matrix spike/matrix spike duplicates (MS/MSDs) including:
 - a. Samples associated with the MS/MSD clearly identified,
 - b. MS/MSD spiking amounts,
 - c. Concentration of each MS/MSD analyte measured in the parent and spiked samples,
 - d. Calculated %Rs and relative percent differences (RPDs), and
 - e. The laboratory's MS/MSD QC limits
- R8 - Laboratory analytical duplicate (if applicable) recovery and precision:
 - a. The amount of analyte measured in the duplicate,
 - b. The calculated RPD, and
 - c. The laboratory's QC limits for analytical duplicates.
- R9 - List of method quantitation limits (MQLs) and detectability check sample results for each analyte for each method and matrix.
- R10 - Other problems or anomalies.

The Exception Report for each "No" or "Not Reviewed (NR)" item in Laboratory Review Checklist and for each analyte, matrix, and method for which the laboratory does not hold NELAC accreditation under the Texas Laboratory Accreditation Program.

Release Statement: I am responsible for the release of this laboratory data package. This laboratory is NELAC accredited under the Texas Laboratory Accreditation Program for all the methods, analytes, and matrices reported in this data package except as noted in the Exception Reports. The data have been reviewed and are technically compliant with the requirements of the methods used, except where noted by the laboratory in the Exception Reports. By my signature below, I affirm to the best of my knowledge all problems/anomalies observed by the laboratory have been identified in the Laboratory Review Checklist, and no information affecting the quality of the data has been knowingly withheld.

Sophia Shah
Name (printed)



Signature

2/10/2014
Date

Project Management Assistant
Official Title (printed)

Laboratory Review Checklist: Reportable Data - Page 2 of 4

Laboratory Name:	TestAmerica Houston	LRC Date:	2/10/2014
Project Name:	1620 UPRR HWPW	Laboratory Job Number:	600-85976-1
Reviewer Name:	Sachin G Kudchadkar		

# ¹	A ²	Description	Yes	No	NA ³	NR ⁴	ER# ⁵
R1	OI	Chain-of-custody (C-O-C)					
		Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?	X				
		Were all departures from standard conditions described in an exception report?	X				
R2	OI	Sample and quality control (QC) identification					
		Are all field sample ID numbers cross-referenced to the laboratory ID numbers?	X				
		Are all laboratory ID numbers cross-referenced to the corresponding QC data?	X				
R3	OI	Test reports					
		Were all samples prepared and analyzed within holding times?	X				
		Other than those results < MQL, were all other raw values bracketed by calibration standards?	X				
		Were calculations checked by a peer or supervisor?	X				
		Were all analyte identifications checked by a peer or supervisor?	X				
		Were sample detection limits reported for all analytes not detected?	X				
		Were all results for soil and sediment samples reported on a dry weight basis?				X	
		Were % moisture (or solids) reported for all soil and sediment samples?				X	
		Were bulk soils/solids samples for volatile analysis extracted with methanol per SW846 Method 5035?				X	
		If required for the project, are TICs reported?				X	
R4	O	Surrogate recovery data					
		Were surrogates added prior to extraction?	X				
		Were surrogate percent recoveries in all samples within the laboratory QC limits?		X			R04B
R5	OI	Test reports/summary forms for blank samples					
		Were appropriate type(s) of blanks analyzed?	X				
		Were blanks analyzed at the appropriate frequency?	X				
		Were method blanks taken through the entire analytical process, including preparation and, if applicable, cleanup procedures?	X				
		Were blank concentrations < MQL?		X			R05D
R6	OI	Laboratory control samples (LCS):					
		Were all COCs included in the LCS?	X				
		Was each LCS taken through the entire analytical procedure, including prep and cleanup steps?	X				
		Were LCSs analyzed at the required frequency?	X				
		Were LCS (and LCSD, if applicable) %Rs within the laboratory QC limits?	X				
		Does the detectability check sample data document the laboratory's capability to detect the COCs at the MDL used to calculate the SDLs?	X				
		Was the LCSD RPD within QC limits?	X				
R7	OI	Matrix spike (MS) and matrix spike duplicate (MSD) data					
		Were the project/method specified analytes included in the MS and MSD?	X				
		Were MS/MSD analyzed at the appropriate frequency?	X				
		Were MS (and MSD, if applicable) %Rs within the laboratory QC limits?		X			R07C
		Were MS/MSD RPDs within laboratory QC limits?		X			R07D
R8	OI	Analytical duplicate data					
		Were appropriate analytical duplicates analyzed for each matrix?				X	
		Were analytical duplicates analyzed at the appropriate frequency?				X	
		Were RPDs or relative standard deviations within the laboratory QC limits?				X	
R9	OI	Method quantitation limits (MQLs):					
		Are the MQLs for each method analyte included in the laboratory data package?	X				
		Do the MQLs correspond to the concentration of the lowest non-zero calibration standard?	X				
		Are unadjusted MQLs and DCSs included in the laboratory data package?	X				
R10	OI	Other problems/anomalies					
		Are all known problems/anomalies/special conditions noted in this LRC and ER?	X				
		Was applicable and available technology used to lower the SDL to minimize the matrix interference effects on the sample results?		X			R10B
		Is the laboratory NELAC-accredited under the Texas Laboratory Accreditation Program for the analytes, matrices and methods associated with this laboratory data package?	X				

- Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.
- O = organic analyses; I = inorganic analyses (and general chemistry, when applicable);
- NA = Not applicable;
- NR = Not reviewed;
- ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

Laboratory Review checklist: Supporting Data - Page 3 of 4

Laboratory Name:	TestAmerica Houston	LRC Date:	2/10/2014
Project Name:	1620 UPRR HWPW	Laboratory Job Number:	600-85976-1
Reviewer Name:	Sachin G Kudchadkar		

# ¹	A ²	Description	Yes	No	NA ³	NR ⁴	ER# ⁵
S1	OI	Initial calibration (ICAL)					
		Were response factors and/or relative response factors for each analyte within QC limits?	X				
		Were percent RSDs or correlation coefficient criteria met?	X				
		Was the number of standards recommended in the method used for all analytes?	X				
		Were all points generated between the lowest and highest standard used to calculate the curve?	X				
		Are ICAL data available for all instruments used?	X				
		Has the initial calibration curve been verified using an appropriate second source standard?	X				
S2	OI	Initial and continuing calibration verification (ICV and CCV) and continuing calibration blank (CCB):					
		Was the CCV analyzed at the method-required frequency?	X				
		Were percent differences for each analyte within the method-required QC limits?	X				
		Was the ICAL curve verified for each analyte?	X				
		Was the absolute value of the analyte concentration in the inorganic CCB < MDL?			X		
S3	O	Mass spectral tuning					
		Was the appropriate compound for the method used for tuning?	X				
		Were ion abundance data within the method-required QC limits?	X				
S4	O	Internal standards (IS)					
		Were IS area counts and retention times within the method-required QC limits?	X				
S5	OI	Raw data (NELAC Section 5.5.10)					
		Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?	X				
		Were data associated with manual integrations flagged on the raw data?	X				
S6	O	Dual column confirmation					
		Did dual column confirmation results meet the method-required QC?			X		
S7	O	Tentatively identified compounds (TICs)					
		If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?			X		
S8	I	Interference Check Sample (ICS) results					
		Were percent recoveries within method QC limits?			X		
S9	I	Serial dilutions, post digestion spikes, and method of standard additions					
		Were percent differences, recoveries, and the linearity within the QC limits specified in the method?			X		
S10	OI	Method detection limit (MDL) studies					
		Was a MDL study performed for each reported analyte?	X				
		Is the MDL either adjusted or supported by the analysis of DCSS?	X				
S11	OI	Proficiency test reports					
		Was the laboratory's performance acceptable on the applicable proficiency tests or evaluation studies?	X				
S12	OI	Standards documentation					
		Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?	X				
S13	OI	Compound/analyte identification procedures					
		Are the procedures for compound/analyte identification documented?	X				
S14	OI	Demonstration of analyst competency (DOC)					
		Was DOC conducted consistent with NELAC Chapter 5?	X				
		Is documentation of the analyst's competency up-to-date and on file?	X				
S15	OI	Verification/validation documentation for methods (NELAC Chapter 5)					
		Are all the methods used to generate the data documented, verified, and validated, where applicable?	X				
S16	OI	Laboratory standard operating procedures (SOPs)					
		Are laboratory SOPs current and on file for each method performed?	X				
<p>1. Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.</p> <p>2. O = organic analyses; I = inorganic analyses (and general chemistry, when applicable);</p> <p>3. NA = Not applicable;</p> <p>4. NR = Not reviewed;</p> <p>5. ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).</p>							

Laboratory Review Checklist: Exception Reports - Page 4 of 4

Laboratory Name:	TestAmerica Houston	LRC Date:	2/10/2014
Project Name:	1620 UPRR HWPW	Laboratory Job Number:	600-85976-1
Reviewer Name:	Sachin G Kudchadkar		

ER # ¹	Description
R04B	Method 8270C LL: Surrogate recovery for the following sample(s) was outside control limits: 600-85976-2 and 600-85976-22. Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed. Method 8270C LL: The following sample(s) required a dilution due to the nature of the sample matrix: 600-85976-2, 600-85976-5, 600-85976-10, 600-85976-16, 600-85976-17, 600-85976-18, 600-85976-19, and 600-85976-21. Because of this dilution, the surrogate spike concentration in the sample was reduced to a level where the recovery calculation does not provide useful information.
R05D	Method 8270C LL: The method blank for batch 126055 contained Naphthalene above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed.
R07C	Method 8270C LL: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for batch 126055 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recoveries was within acceptance limits.
R07D	Method 8270C LL: 600-85976-13 MSD failed the RPD criteria for the following analyte(s): 2,4-Dimethylphenol, 4-Nitrophenol, Phenol. Matrix interference is suspected.
R10B	Method 8270C LL: The following sample(s) was diluted to bring the concentration of target analytes within the calibration range: 600-85976-2, 600-85976-5, 600-85976-9, 600-85976-10, 600-85976-16, 600-85976-17, 600-85976-18, 600-85976-19, and 600-85976-21. Elevated reporting limits (RLs) are provided.
	<ol style="list-style-type: none"> Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period. O = organic analyses; I = inorganic analyses (and general chemistry, when applicable); NA = Not applicable; NR = Not reviewed; ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

Matrix: Water
Method: 8260B_LL
Date Analyzed: 12/10/2013
TALS Batch: 122598
Units: ug/L

Analyte	MDL	DCS Spike	Measured Result	MQL
1,1,1,2-Tetrachloroethane	0.180	0.500	0.411	1
1,1,1-Trichloroethane	0.150	0.500	0.475	1
1,1,2,2-Tetrachloroethane	0.220	0.500	0.515	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.000	0.250	0.276	1
1,1,2-Trichloroethane	0.280	0.500	0.507	1
1,1-Dichloroethane	0.110	0.250	0.300	1
1,1-Dichloroethene	0.190	0.500	0.439	1
1,1-Dichloropropene	0.210	0.500	0.431	1
1,2,3-Trichlorobenzene	0.570	0.500	0.950	1
1,2,3-Trichloropropane	0.290	0.500	0.568	1
1,2,3-Trimethylbenzene	0.130	0.500	0.449	1
1,2,4-Trichlorobenzene	0.310	0.500	0.713	1
1,2,4-Trimethylbenzene	0.140	0.500	0.434	1
1,2-Dibromo-3-Chloropropane	0.810	0.500	0.665	1
1,2-Dichlorobenzene	0.100	0.250	0.349	1
1,2-Dichloroethane	0.140	0.500	0.500	1
1,2-Dichloroethene, Total	0.300	1.000	0.970	1
1,2-Dichloropropane	0.160	0.500	0.474	1
1,3,5-Trichlorobenzene	1.000	0.500	0.578	1
1,3,5-Trimethylbenzene	0.100	0.250	0.262	1
1,3-Dichlorobenzene	0.130	0.500	0.530	1
1,3-Dichloropropane	0.220	0.500	0.531	1
1,4-Dichlorobenzene	0.110	0.250	0.336	1
1,4-Dioxane	30.790	10.000	11.352	50
1-Chlorohexane	0.260	0.250	0.279	1
2,2-Dichloropropane	0.130	0.500	0.452	1
2-Butanone (MEK)	0.760	1.000	0.963	2
2-Chloro-1,3-butadiene	0.330	0.500	0.406	1
2-Chloroethyl vinyl ether	0.500	1.000	0.798	2
2-Chlorotoluene	0.130	0.500	0.439	1
2-Hexanone	0.350	1.000	0.789	2
3-Chloro-1-propene	0.240	0.500	0.425	2
4-Chlorotoluene	0.140	0.500	0.490	1
4-Isopropyltoluene	0.100	0.250	0.279	1
4-Methyl-2-pentanone (MIBK)	0.450	1.000	0.931	2
Acetone	0.990	1.000	1.452	5
Acrolein	1.630	2.500	2.455	5
Acrylonitrile	0.520	2.500	2.614	5
Benzene	0.080	0.250	0.304	1
Benzyl chloride	0.240	0.500	0.977	1
Bromobenzene	0.190	0.500	0.523	1
Bromoform	0.190	0.500	0.410	1
Bromomethane	0.250	0.500	0.468	2
Butadiene	0.210	0.500	0.496	1
Carbon disulfide	0.240	0.500	0.478	2
Carbon tetrachloride	0.150	0.500	0.378	1
Chlorobenzene	0.120	0.250	0.317	1
Chlorobromomethane	0.180	0.500	0.480	1

DCS = Detection Check Standard
MQL = Method Quantitation Limit

Matrix: Water
Method: 8260B_LL
Date Analyzed: 12/10/2013
TALS Batch: 122598
Units: ug/L

Analyte	MDL	DCS Spike	Measured Result	MQL
Chlorodibromomethane	0.150	0.500	0.403	1
Chloroethane	0.080	0.250	0.313	2
Chloroform	0.130	0.500	0.471	1
Chloromethane	0.180	0.500	0.516	2
cis-1,2-Dichloroethene	0.060	0.250	0.324	1
cis-1,3-Dichloropropene	0.180	0.500	0.371	1
Cyclohexane	0.160	0.500	0.410	1
Cyclohexanone	8.640	25.000	30.305	50
Dibromomethane	0.520	0.500	0.962	1
Dichlorobromomethane	0.160	0.500	0.403	1
Dichlorodifluoromethane	0.120	0.250	0.245	1
Dichlorofluoromethane	1.000	0.500	0.472	1
Ethyl acetate	0.410	1.000	1.448	2
Ethyl acrylate	0.340	0.500	0.640	2
Ethyl ether	0.150	0.500	0.480	1
Ethyl methacrylate	0.260	0.500	0.415	2
Ethylbenzene	0.110	0.250	0.006	1
Ethylene Dibromide	0.180	0.500	0.474	1
Hexachlorobutadiene	0.170	0.500	0.620	1
Hexane	0.160	0.500	0.404	1
Iodomethane	0.158	0.500	0.484	2
Isobutyl alcohol	3.320	12.500	13.826	10
Isooctane	0.330	0.500	1.097	1
Isopropyl alcohol	3.720	5.000	5.417	10
Isopropyl ether	0.090	0.250	0.271	1
Isopropylbenzene	0.180	0.500	0.427	1
Methyl acetate	0.550	1.250	1.371	2
Methyl methacrylate	0.330	1.000	0.835	1
Methyl tert-butyl ether	0.120	0.250	0.287	1
Methylcyclohexane	0.100	0.250	0.292	1
Methylene Chloride	0.150	0.500	0.488	5
m-Xylene & p-Xylene	0.170	0.500	0.442	1
Naphthalene	0.320	0.500	0.776	2
n-Butyl acetate	0.190	0.500	0.384	1
n-Butylbenzene	0.160	0.500	0.423	1
N-Propylbenzene	0.150	0.500	0.418	1
o-Xylene	0.120	0.250	0.265	1
Propionitrile	0.660	2.500	2.335	2
sec-Butylbenzene	0.120	0.250	0.266	1
Styrene	0.070	0.250	0.230	1
tert-Butylbenzene	0.080	0.250	0.290	1
Tetrachloroethene	0.130	0.500	0.598	1
Toluene	0.150	0.500	0.503	1
trans-1,2-Dichloroethene	0.090	0.250	0.287	1
trans-1,3-Dichloropropene	0.210	0.500	0.763	1
Trichloroethene	0.180	0.500	0.481	1
Trichlorofluoromethane	0.080	0.250	0.234	1
Trihalomethanes, Total	1.000	2.000	1.680	5

DCS = Detection Check Standard
MQL = Method Quantitation Limit

Matrix: Water
Method: 8260B_LL
Date Analyzed: 12/10/2013
TALS Batch: 122598
Units: ug/L

Analyte	MDL	DCS Spike	Measured Result	MQL
Vinyl acetate	0.210	0.500	0.428	2
Vinyl chloride	0.110	0.250	0.293	2
Xylenes, Total	0.260	1.000	0.900	1



Matrix: Water
Method: 8270C_LL
Prep Method: 3510C_LL
Date Analyzed: 1/14/2014
Job #: 600-85250
TALS Batch: 124915
Units: ug/L

Analyte	MDL	DCS Spike	Measured Result	MQL
1,1'-Biphenyl	0.100	0.250	0.169	1
1,2,4,5-Tetrachlorobenzene	0.100	0.250	0.177	1.5
1,2,4-Trichlorobenzene	0.120	0.250	0.175	2
1,2-Dichlorobenzene	0.170	0.250	0.169	1.75
1,2-Dinitrobenzene	0.500	0.500	0.518	5
1,2-Diphenylhydrazine	0.110	0.250	0.145	2
1,3-Dichlorobenzene	0.170	0.250	0.156	1.5
1,3-Dinitrobenzene	0.080	0.500	0.432	1
1,4-Dichlorobenzene	0.130	0.250	0.185	2
1-Methylnaphthalene	0.090	0.250	0.194	2
2,2'-oxybis[1-chloropropane]	0.400	0.250	0.107	1.5
2,3,4,6-Tetrachlorophenol	0.500	0.250	0.506	1
2,4,5-Trichlorophenol	0.250	0.250	0.099	2
2,4,6-Trichlorophenol	0.180	0.250	0.118	2
2,4-Dichlorophenol	0.150	0.250	0.110	2.5
2,4-Dimethylphenol	0.310	0.250	0.088	2.5
2,4-Dinitrophenol	0.390	2.000	3.540	5
2,4-Dinitrotoluene	0.130	0.250	0.509	1.5
2,6-Dinitrotoluene	0.080	0.250	0.359	1
2-Chloronaphthalene	0.080	0.500	0.481	1.5
2-Chlorophenol	0.130	0.250	0.159	2
2-Methylnaphthalene	0.070	0.250	0.183	1.5
2-Methylphenol	0.120	0.250	0.159	1.5
2-Nitroaniline	0.190	0.250	0.340	2.5
2-Nitrophenol	0.220	0.250	0.479	1
3 & 4 Methylphenol	0.200	0.250	0.134	1
3,3'-Dichlorobenzidine	0.180	0.250	0.254	10
3-Nitroaniline	0.160	0.500	0.199	2.5
4,6-Dinitro-2-methylphenol	0.830	0.500	2.340	2.5
4-Bromophenyl phenyl ether	0.100	0.250	0.094	1.5
4-Chloro-3-methylphenol	0.170	0.250	0.077	1
4-Chloroaniline	0.210	0.250	0.126	1
4-Chlorophenyl phenyl ether	0.100	0.250	0.177	1.5
4-Nitroaniline	0.250	0.250	0.112	2.5
4-Nitrophenol	0.560	1.000	0.272	2.5
Acenaphthene	0.080	0.250	0.169	1
Acenaphthylene	0.060	0.500	0.517	1
Acetophenone	0.150	0.250	0.144	1.5
Aniline	0.080	0.250	0.095	1.5
Anthracene	0.050	0.250	0.171	1
Azobenzene	0.070	0.250	0.136	1.5
Benzidine	0.061	2.500	3.750	10
Benzo[a]anthracene	0.080	0.250	0.173	2
Benzo[a]pyrene	0.080	0.250	0.146	1.5
Benzo[b]fluoranthene	0.070	0.250	0.161	2
Benzo[g,h,i]perylene	0.080	0.250	0.159	2.5

DCS = Detection Check Standard
MQL = Method Quantitation Limit

Matrix: Water
Method: 8270C_LL
Prep Method: 3510C_LL
Date Analyzed: 1/14/2014
Job #: 600-85250
TALS Batch: 124915
Units: ug/L

Analyte	MDL	DCS Spike	Measured Result	MQL
Benzo[k]fluoranthene	0.090	0.250	0.162	2
Benzoic acid	2.510	2.500	5.980	10
Benzyl alcohol	0.170	0.250	0.083	5.5
Bis(2-chloroethoxy)methane	0.130	0.250	0.167	1.5
Bis(2-chloroethyl)ether	0.150	0.250	0.150	1.5
Bis(2-ethylhexyl) phthalate	0.370	0.250	0.445	2.5
Butyl benzyl phthalate	0.120	0.250	0.266	2.5
Caprolactam	1.000	0.500	0.079	1
Carbazole	0.170	0.500	0.480	6.25
Chrysene	0.080	0.250	0.167	1.5
Dibenz(a,h)anthracene	0.080	0.250	0.112	2.5
Dibenzofuran	0.080	0.250	0.159	1.5
Diethyl phthalate	1.500	0.250	0.510	2.5
Dimethyl phthalate	0.070	0.250	0.153	2.5
Di-n-butyl phthalate	0.110	0.250	0.186	2.5
Di-n-octyl phthalate	0.160	0.250	0.441	5
Fluoranthene	0.070	0.250	0.155	2.5
Fluorene	0.070	0.250	0.155	1.5
Hexachlorobenzene	0.110	0.250	0.181	1.5
Hexachlorobutadiene	0.180	0.250	0.187	2
Hexachlorocyclopentadiene	0.130	0.250	0.748	1.5
Hexachloroethane	0.100	0.250	0.169	2
Indeno[1,2,3-cd]pyrene	0.070	0.250	0.417	2
Isophorone	0.110	0.250	0.151	1.5
Methyl Phenols, Total	0.200	0.500	0.160	1
Naphthalene	0.080	0.250	0.808	5
Nitrobenzene	0.110	0.250	0.152	1.5
N-Nitrosodimethylamine	0.260	0.250	0.129	2
N-Nitrosodi-n-propylamine	0.100	0.250	0.151	2.5
Pentachlorophenol	0.610	2.000	0.713	2.5
Phenanthrene	0.060	0.500	0.516	1.5
Phenol	0.040	0.500	0.224	1.5
Pyrene	0.110	0.250	0.169	2
Pyridine	0.040	0.500	0.215	4

Case Narrative

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-85976-1

Job ID: 600-85976-1

Laboratory: TestAmerica Houston

Narrative

Job Narrative
600-85976-1

Comments

No additional comments.

Receipt

The samples were received on 1/23/2014 7:24 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 4 coolers at receipt time were 3.0° C, 3.2° C, 3.5° C and 3.6° C.

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Method Summary

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-85976-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL NSH
8270C LL	Semivolatile Organic Compounds by GCMS - Low Levels	SW846	TAL HOU

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL HOU = TestAmerica Houston, 6310 Rothway Street, Houston, TX 77040, TEL (713)690-4444

TAL NSH = TestAmerica Nashville, 2960 Foster Creighton Drive, Nashville, TN 37204, TEL (615)726-0177



Sample Summary

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-85976-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
600-85976-1	WG-1620-MW32AR-20140121	Water	01/21/14 10:05	01/23/14 07:24
600-85976-2	WG-1620-MW32B-20140121	Water	01/21/14 10:50	01/23/14 07:24
600-85976-3	WG-1620-MW38A-20140121	Water	01/21/14 12:00	01/23/14 07:24
600-85976-4	WG-1620-MW38B-20140121	Water	01/21/14 14:00	01/23/14 07:24
600-85976-5	WG-1620-MW33BR-20140121	Water	01/21/14 15:15	01/23/14 07:24
600-85976-6	WG-1620-MW36D-20140121	Water	01/21/14 16:30	01/23/14 07:24
600-85976-7	WG-1620-MW65D-20140121	Water	01/21/14 17:30	01/23/14 07:24
600-85976-8	WG-1620-FB6-20140121	Water	01/21/14 17:45	01/23/14 07:24
600-85976-9	WG-1620-MW53C-20140122	Water	01/22/14 08:10	01/23/14 07:24
600-85976-10	WG-1620-MW25C-20140122	Water	01/22/14 09:10	01/23/14 07:24
600-85976-11	WG-1620-MW25A-20140122	Water	01/22/14 10:00	01/23/14 07:24
600-85976-12	WG-1620-MW28A-20140122	Water	01/22/14 11:00	01/23/14 07:24
600-85976-13	WG-1620-MW28C-20140122	Water	01/22/14 12:00	01/23/14 07:24
600-85976-16	WG-1620-MW63B-20140122	Water	01/22/14 13:45	01/23/14 07:24
600-85976-17	WG-1620-MW26A-20140122	Water	01/22/14 14:45	01/23/14 07:24
600-85976-18	WG-1620-MW68B-20140122	Water	01/22/14 15:45	01/23/14 07:24
600-85976-19	WG-1620-DUP2-20140122	Water	01/22/14 15:45	01/23/14 07:24
600-85976-20	WG-1620-MW68C-20140122	Water	01/22/14 16:30	01/23/14 07:24
600-85976-21	WG-1620-MW70B-20140122	Water	01/22/14 17:20	01/23/14 07:24
600-85976-22	WG-1620-FB7-20140122	Water	01/22/14 17:40	01/23/14 07:24
600-85976-23	WG-1620-TB3-20140122	Water	01/22/14 00:00	01/23/14 07:24

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-85976-1

Client Sample ID: WG-1620-MW32AR-20140121

Lab Sample ID: 600-85976-1

Date Collected: 01/21/14 10:05

Matrix: Water

Date Received: 01/23/14 07:24

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane	0.200	U	0.500	0.200	ug/L			01/28/14 19:59	1
Benzene	0.200	U	0.500	0.200	ug/L			01/28/14 19:59	1
Chlorobenzene	0.180	U	0.500	0.180	ug/L			01/28/14 19:59	1
Ethylbenzene	0.190	U	0.500	0.190	ug/L			01/28/14 19:59	1
Methylene Chloride	0.220	U	5.00	0.220	ug/L			01/28/14 19:59	1
Toluene	0.170	U	0.500	0.170	ug/L			01/28/14 19:59	1
Xylenes, Total	0.580	U	1.50	0.580	ug/L			01/28/14 19:59	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	93		70 - 130		01/28/14 19:59	1
Dibromofluoromethane (Surr)	92		70 - 130		01/28/14 19:59	1
Toluene-d8 (Surr)	100		70 - 130		01/28/14 19:59	1
1,2-Dichloroethane-d4 (Surr)	97		70 - 130		01/28/14 19:59	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.0000377	U	0.000472	0.0000377	mg/L		01/28/14 06:11	02/01/14 05:10	1
Nitrobenzene	0.000104	U	0.000472	0.000104	mg/L		01/28/14 06:11	02/01/14 05:10	1
2,4-Dimethylphenol	0.000292	U	0.000472	0.000292	mg/L		01/28/14 06:11	02/01/14 05:10	1
Bis(2-chloroethoxy)methane	0.000123	U	0.000472	0.000123	mg/L		01/28/14 06:11	02/01/14 05:10	1
Naphthalene	0.00870		0.00472	0.0000755	mg/L		01/28/14 06:11	02/01/14 05:10	1
2-Methylnaphthalene	0.000210	J	0.000472	0.0000660	mg/L		01/28/14 06:11	02/01/14 05:10	1
2-Chloronaphthalene	0.0000755	U	0.000472	0.0000755	mg/L		01/28/14 06:11	02/01/14 05:10	1
Acenaphthylene	0.000317	J	0.000472	0.0000566	mg/L		01/28/14 06:11	02/01/14 05:10	1
2,6-Dinitrotoluene	0.0000755	U	0.000472	0.0000755	mg/L		01/28/14 06:11	02/01/14 05:10	1
Acenaphthene	0.0105		0.000472	0.0000755	mg/L		01/28/14 06:11	02/01/14 05:10	1
4-Nitrophenol	0.000528	U	0.000943	0.000528	mg/L		01/28/14 06:11	02/01/14 05:10	1
Dibenzofuran	0.000664		0.000472	0.0000755	mg/L		01/28/14 06:11	02/01/14 05:10	1
2,4-Dinitrotoluene	0.000123	U	0.000472	0.000123	mg/L		01/28/14 06:11	02/01/14 05:10	1
Fluorene	0.00317		0.000472	0.0000660	mg/L		01/28/14 06:11	02/01/14 05:10	1
4,6-Dinitro-2-methylphenol	0.000783	U	0.000943	0.000783	mg/L		01/28/14 06:11	02/01/14 05:10	1
N-Nitrosodiphenylamine	0.0000943	U	0.000472	0.0000943	mg/L		01/28/14 06:11	02/01/14 05:10	1
1,2-Diphenylhydrazine	0.000104	U	0.000472	0.000104	mg/L		01/28/14 06:11	02/01/14 05:10	1
Pentachlorophenol	0.000575	U	0.000943	0.000575	mg/L		01/28/14 06:11	02/01/14 05:10	1
Phenanthrene	0.000101	J	0.000472	0.0000566	mg/L		01/28/14 06:11	02/01/14 05:10	1
Anthracene	0.000444	J	0.000472	0.0000472	mg/L		01/28/14 06:11	02/01/14 05:10	1
Di-n-butyl phthalate	0.000104	U	0.00236	0.000104	mg/L		01/28/14 06:11	02/01/14 05:10	1
Fluoranthene	0.00124		0.000472	0.0000660	mg/L		01/28/14 06:11	02/01/14 05:10	1
Pyrene	0.000625		0.000472	0.000104	mg/L		01/28/14 06:11	02/01/14 05:10	1
Benzo[a]anthracene	0.0000755	U	0.000472	0.0000755	mg/L		01/28/14 06:11	02/01/14 05:10	1
Bis(2-ethylhexyl) phthalate	0.000349	U	0.00236	0.000349	mg/L		01/28/14 06:11	02/01/14 05:10	1
Chrysene	0.0000774	J	0.000472	0.0000755	mg/L		01/28/14 06:11	02/01/14 05:10	1
Benzo[a]pyrene	0.0000755	U	0.000472	0.0000755	mg/L		01/28/14 06:11	02/01/14 05:10	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	83		44 - 123	01/28/14 06:11	02/01/14 05:10	1
2-Fluorobiphenyl	65		43 - 120	01/28/14 06:11	02/01/14 05:10	1
2-Fluorophenol	31		18 - 120	01/28/14 06:11	02/01/14 05:10	1
Nitrobenzene-d5	67		47 - 120	01/28/14 06:11	02/01/14 05:10	1
Terphenyl-d14	78		33 - 141	01/28/14 06:11	02/01/14 05:10	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-85976-1

Client Sample ID: WG-1620-MW32AR-20140121

Lab Sample ID: 600-85976-1

Date Collected: 01/21/14 10:05

Matrix: Water

Date Received: 01/23/14 07:24

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Phenol-d5 (Surr)	19		12 - 128	01/28/14 06:11	02/01/14 05:10	1

Client Sample ID: WG-1620-MW32B-20140121

Lab Sample ID: 600-85976-2

Date Collected: 01/21/14 10:50

Matrix: Water

Date Received: 01/23/14 07:24

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane	0.200	U	0.500	0.200	ug/L			01/28/14 20:26	1
Benzene	239		2.50	1.00	ug/L			01/29/14 16:27	5
Chlorobenzene	0.180	U	0.500	0.180	ug/L			01/28/14 20:26	1
Ethylbenzene	254		2.50	0.950	ug/L			01/29/14 16:27	5
Methylene Chloride	0.220	U	5.00	0.220	ug/L			01/28/14 20:26	1
Toluene	541		2.50	0.850	ug/L			01/29/14 16:27	5
Xylenes, Total	749		7.50	2.90	ug/L			01/29/14 16:27	5

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	92		70 - 130		01/28/14 20:26	1
4-Bromofluorobenzene (Surr)	91		70 - 130		01/29/14 16:27	5
Dibromofluoromethane (Surr)	91		70 - 130		01/28/14 20:26	1
Dibromofluoromethane (Surr)	93		70 - 130		01/29/14 16:27	5
Toluene-d8 (Surr)	100		70 - 130		01/28/14 20:26	1
Toluene-d8 (Surr)	99		70 - 130		01/29/14 16:27	5
1,2-Dichloroethane-d4 (Surr)	96		70 - 130		01/28/14 20:26	1
1,2-Dichloroethane-d4 (Surr)	102		70 - 130		01/29/14 16:27	5

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrobenzene	0.00104	U	0.00472	0.00104	mg/L		01/28/14 06:11	02/01/14 05:36	10
Bis(2-chloroethoxy)methane	0.00123	U	0.00472	0.00123	mg/L		01/28/14 06:11	02/01/14 05:36	10
2-Chloronaphthalene	0.000755	U	0.00472	0.000755	mg/L		01/28/14 06:11	02/01/14 05:36	10
Acenaphthylene	0.000566	U	0.00472	0.000566	mg/L		01/28/14 06:11	02/01/14 05:36	10
2,6-Dinitrotoluene	0.000755	U	0.00472	0.000755	mg/L		01/28/14 06:11	02/01/14 05:36	10
4-Nitrophenol	0.00528	U	0.00943	0.00528	mg/L		01/28/14 06:11	02/01/14 05:36	10
2,4-Dinitrotoluene	0.00123	U	0.00472	0.00123	mg/L		01/28/14 06:11	02/01/14 05:36	10
4,6-Dinitro-2-methylphenol	0.00783	U	0.00943	0.00783	mg/L		01/28/14 06:11	02/01/14 05:36	10
N-Nitrosodiphenylamine	0.000943	U	0.00472	0.000943	mg/L		01/28/14 06:11	02/01/14 05:36	10
1,2-Diphenylhydrazine	0.00104	U	0.00472	0.00104	mg/L		01/28/14 06:11	02/01/14 05:36	10
Pentachlorophenol	0.00575	U	0.00943	0.00575	mg/L		01/28/14 06:11	02/01/14 05:36	10
Anthracene	0.144		0.00472	0.000472	mg/L		01/28/14 06:11	02/01/14 05:36	10
Di-n-butyl phthalate	0.00104	U	0.0236	0.00104	mg/L		01/28/14 06:11	02/01/14 05:36	10
Fluoranthene	0.121		0.00472	0.000660	mg/L		01/28/14 06:11	02/01/14 05:36	10
Pyrene	0.0841		0.00472	0.00104	mg/L		01/28/14 06:11	02/01/14 05:36	10
Benzo[a]anthracene	0.0195		0.00472	0.000755	mg/L		01/28/14 06:11	02/01/14 05:36	10
Bis(2-ethylhexyl) phthalate	0.00349	U	0.0236	0.00349	mg/L		01/28/14 06:11	02/01/14 05:36	10
Chrysene	0.0180		0.00472	0.000755	mg/L		01/28/14 06:11	02/01/14 05:36	10
Benzo[a]pyrene	0.00649		0.00472	0.000755	mg/L		01/28/14 06:11	02/01/14 05:36	10

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	112		44 - 123	01/28/14 06:11	02/01/14 05:36	10

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-85976-1

Client Sample ID: WG-1620-MW32B-20140121

Lab Sample ID: 600-85976-2

Date Collected: 01/21/14 10:50

Matrix: Water

Date Received: 01/23/14 07:24

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	94		43 - 120	01/28/14 06:11	02/01/14 05:36	10
2-Fluorophenol	246	X	18 - 120	01/28/14 06:11	02/01/14 05:36	10
Nitrobenzene-d5	139	X	47 - 120	01/28/14 06:11	02/01/14 05:36	10
Terphenyl-d14	103		33 - 141	01/28/14 06:11	02/01/14 05:36	10
Phenol-d5 (Surr)	27		12 - 128	01/28/14 06:11	02/01/14 05:36	10

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels - DL

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.0357		0.0236	0.00189	mg/L		01/28/14 06:11	02/03/14 22:55	50
2,4-Dimethylphenol	0.178		0.0236	0.0146	mg/L		01/28/14 06:11	02/03/14 22:55	50
2-Methylnaphthalene	0.137		0.0236	0.00330	mg/L		01/28/14 06:11	02/03/14 22:55	50
Acenaphthene	0.0427		0.0236	0.00377	mg/L		01/28/14 06:11	02/03/14 22:55	50
Dibenzofuran	0.0428		0.0236	0.00377	mg/L		01/28/14 06:11	02/03/14 22:55	50
Fluorene	0.0282		0.0236	0.00330	mg/L		01/28/14 06:11	02/03/14 22:55	50
Phenanthrene	0.0548		0.0236	0.00283	mg/L		01/28/14 06:11	02/03/14 22:55	50

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	0	X	44 - 123	01/28/14 06:11	02/03/14 22:55	50
2-Fluorobiphenyl	0	X	43 - 120	01/28/14 06:11	02/03/14 22:55	50
2-Fluorophenol	0	X	18 - 120	01/28/14 06:11	02/03/14 22:55	50
Nitrobenzene-d5	0	X	47 - 120	01/28/14 06:11	02/03/14 22:55	50
Terphenyl-d14	0	X	33 - 141	01/28/14 06:11	02/03/14 22:55	50
Phenol-d5 (Surr)	0	X	12 - 128	01/28/14 06:11	02/03/14 22:55	50

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels - DL2

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	2.17	J	2.36	0.0377	mg/L		01/28/14 06:11	02/03/14 23:21	500

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	0	X	44 - 123	01/28/14 06:11	02/03/14 23:21	500
2-Fluorobiphenyl	0	X	43 - 120	01/28/14 06:11	02/03/14 23:21	500
2-Fluorophenol	0	X	18 - 120	01/28/14 06:11	02/03/14 23:21	500
Nitrobenzene-d5	0	X	47 - 120	01/28/14 06:11	02/03/14 23:21	500
Terphenyl-d14	0	X	33 - 141	01/28/14 06:11	02/03/14 23:21	500
Phenol-d5 (Surr)	0	X	12 - 128	01/28/14 06:11	02/03/14 23:21	500

Client Sample ID: WG-1620-MW38A-20140121

Lab Sample ID: 600-85976-3

Date Collected: 01/21/14 12:00

Matrix: Water

Date Received: 01/23/14 07:24

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane	0.200	U	0.500	0.200	ug/L			01/29/14 14:07	1
Benzene	0.200	U	0.500	0.200	ug/L			01/29/14 14:07	1
Chlorobenzene	0.180	U	0.500	0.180	ug/L			01/29/14 14:07	1
Ethylbenzene	0.190	U	0.500	0.190	ug/L			01/29/14 14:07	1
Methylene Chloride	0.220	U	5.00	0.220	ug/L			01/29/14 14:07	1
Toluene	0.170	U	0.500	0.170	ug/L			01/29/14 14:07	1
Xylenes, Total	0.580	U	1.50	0.580	ug/L			01/29/14 14:07	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-85976-1

Client Sample ID: WG-1620-MW38A-20140121

Lab Sample ID: 600-85976-3

Date Collected: 01/21/14 12:00

Matrix: Water

Date Received: 01/23/14 07:24

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	96		70 - 130		01/29/14 14:07	1
Dibromofluoromethane (Surr)	94		70 - 130		01/29/14 14:07	1
Toluene-d8 (Surr)	99		70 - 130		01/29/14 14:07	1
1,2-Dichloroethane-d4 (Surr)	101		70 - 130		01/29/14 14:07	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.000381	U	0.000476	0.000381	mg/L		01/28/14 06:11	02/01/14 06:01	1
Nitrobenzene	0.000105	U	0.000476	0.000105	mg/L		01/28/14 06:11	02/01/14 06:01	1
2,4-Dimethylphenol	0.000295	U	0.000476	0.000295	mg/L		01/28/14 06:11	02/01/14 06:01	1
Bis(2-chloroethoxy)methane	0.000124	U	0.000476	0.000124	mg/L		01/28/14 06:11	02/01/14 06:01	1
Naphthalene	0.000146	J	0.00476	0.0000762	mg/L		01/28/14 06:11	02/01/14 06:01	1
2-Methylnaphthalene	0.0000667	U	0.000476	0.0000667	mg/L		01/28/14 06:11	02/01/14 06:01	1
2-Chloronaphthalene	0.0000762	U	0.000476	0.0000762	mg/L		01/28/14 06:11	02/01/14 06:01	1
Acenaphthylene	0.0000571	U	0.000476	0.0000571	mg/L		01/28/14 06:11	02/01/14 06:01	1
2,6-Dinitrotoluene	0.0000762	U	0.000476	0.0000762	mg/L		01/28/14 06:11	02/01/14 06:01	1
Acenaphthene	0.0000762	U	0.000476	0.0000762	mg/L		01/28/14 06:11	02/01/14 06:01	1
4-Nitrophenol	0.000533	U	0.000952	0.000533	mg/L		01/28/14 06:11	02/01/14 06:01	1
Dibenzofuran	0.0000762	U	0.000476	0.0000762	mg/L		01/28/14 06:11	02/01/14 06:01	1
2,4-Dinitrotoluene	0.000124	U	0.000476	0.000124	mg/L		01/28/14 06:11	02/01/14 06:01	1
Fluorene	0.0000667	U	0.000476	0.0000667	mg/L		01/28/14 06:11	02/01/14 06:01	1
4,6-Dinitro-2-methylphenol	0.000790	U	0.000952	0.000790	mg/L		01/28/14 06:11	02/01/14 06:01	1
N-Nitrosodiphenylamine	0.0000952	U	0.000476	0.0000952	mg/L		01/28/14 06:11	02/01/14 06:01	1
1,2-Diphenylhydrazine	0.000105	U	0.000476	0.000105	mg/L		01/28/14 06:11	02/01/14 06:01	1
Pentachlorophenol	0.000581	U	0.000952	0.000581	mg/L		01/28/14 06:11	02/01/14 06:01	1
Phenanthrene	0.0000571	U	0.000476	0.0000571	mg/L		01/28/14 06:11	02/01/14 06:01	1
Anthracene	0.000103	J	0.000476	0.0000476	mg/L		01/28/14 06:11	02/01/14 06:01	1
Di-n-butyl phthalate	0.000105	U	0.00238	0.000105	mg/L		01/28/14 06:11	02/01/14 06:01	1
Fluoranthene	0.0000667	U	0.000476	0.0000667	mg/L		01/28/14 06:11	02/01/14 06:01	1
Pyrene	0.000105	U	0.000476	0.000105	mg/L		01/28/14 06:11	02/01/14 06:01	1
Benzo[a]anthracene	0.0000762	U	0.000476	0.0000762	mg/L		01/28/14 06:11	02/01/14 06:01	1
Bis(2-ethylhexyl) phthalate	0.000352	U	0.00238	0.000352	mg/L		01/28/14 06:11	02/01/14 06:01	1
Chrysene	0.0000762	U	0.000476	0.0000762	mg/L		01/28/14 06:11	02/01/14 06:01	1
Benzo[a]pyrene	0.0000762	U	0.000476	0.0000762	mg/L		01/28/14 06:11	02/01/14 06:01	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	45		44 - 123	01/28/14 06:11	02/01/14 06:01	1
2-Fluorobiphenyl	60		43 - 120	01/28/14 06:11	02/01/14 06:01	1
2-Fluorophenol	18		18 - 120	01/28/14 06:11	02/01/14 06:01	1
Nitrobenzene-d5	58		47 - 120	01/28/14 06:11	02/01/14 06:01	1
Terphenyl-d14	86		33 - 141	01/28/14 06:11	02/01/14 06:01	1
Phenol-d5 (Surr)	13		12 - 128	01/28/14 06:11	02/01/14 06:01	1

Client Sample ID: WG-1620-MW38B-20140121

Lab Sample ID: 600-85976-4

Date Collected: 01/21/14 14:00

Matrix: Water

Date Received: 01/23/14 07:24

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane	0.200	U	0.500	0.200	ug/L			01/28/14 21:20	1
Benzene	0.200	U	0.500	0.200	ug/L			01/28/14 21:20	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-85976-1

Client Sample ID: WG-1620-MW38B-20140121

Lab Sample ID: 600-85976-4

Date Collected: 01/21/14 14:00

Matrix: Water

Date Received: 01/23/14 07:24

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Chlorobenzene	0.180	U	0.500	0.180	ug/L			01/28/14 21:20	1
Ethylbenzene	0.190	U	0.500	0.190	ug/L			01/28/14 21:20	1
Methylene Chloride	0.220	U	5.00	0.220	ug/L			01/28/14 21:20	1
Toluene	0.170	U	0.500	0.170	ug/L			01/28/14 21:20	1
Xylenes, Total	0.580	U	1.50	0.580	ug/L			01/28/14 21:20	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	94		70 - 130		01/28/14 21:20	1
Dibromofluoromethane (Surr)	92		70 - 130		01/28/14 21:20	1
Toluene-d8 (Surr)	100		70 - 130		01/28/14 21:20	1
1,2-Dichloroethane-d4 (Surr)	96		70 - 130		01/28/14 21:20	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.0000381	U	0.000476	0.0000381	mg/L		01/28/14 06:11	02/01/14 06:27	1
Nitrobenzene	0.000105	U	0.000476	0.000105	mg/L		01/28/14 06:11	02/01/14 06:27	1
2,4-Dimethylphenol	0.000295	U	0.000476	0.000295	mg/L		01/28/14 06:11	02/01/14 06:27	1
Bis(2-chloroethoxy)methane	0.000124	U	0.000476	0.000124	mg/L		01/28/14 06:11	02/01/14 06:27	1
Naphthalene	0.000466	J	0.00476	0.0000762	mg/L		01/28/14 06:11	02/01/14 06:27	1
2-Methylnaphthalene	0.000137	J	0.000476	0.0000667	mg/L		01/28/14 06:11	02/01/14 06:27	1
2-Chloronaphthalene	0.0000762	U	0.000476	0.0000762	mg/L		01/28/14 06:11	02/01/14 06:27	1
Acenaphthylene	0.0000571	U	0.000476	0.0000571	mg/L		01/28/14 06:11	02/01/14 06:27	1
2,6-Dinitrotoluene	0.0000762	U	0.000476	0.0000762	mg/L		01/28/14 06:11	02/01/14 06:27	1
Acenaphthene	0.0000786	J	0.000476	0.0000762	mg/L		01/28/14 06:11	02/01/14 06:27	1
4-Nitrophenol	0.000533	U	0.000952	0.000533	mg/L		01/28/14 06:11	02/01/14 06:27	1
Dibenzofuran	0.0000923	J	0.000476	0.0000762	mg/L		01/28/14 06:11	02/01/14 06:27	1
2,4-Dinitrotoluene	0.000124	U	0.000476	0.000124	mg/L		01/28/14 06:11	02/01/14 06:27	1
Fluorene	0.0000778	J	0.000476	0.0000667	mg/L		01/28/14 06:11	02/01/14 06:27	1
4,6-Dinitro-2-methylphenol	0.000790	U	0.000952	0.000790	mg/L		01/28/14 06:11	02/01/14 06:27	1
N-Nitrosodiphenylamine	0.0000952	U	0.000476	0.0000952	mg/L		01/28/14 06:11	02/01/14 06:27	1
1,2-Diphenylhydrazine	0.000105	U	0.000476	0.000105	mg/L		01/28/14 06:11	02/01/14 06:27	1
Pentachlorophenol	0.000581	U	0.000952	0.000581	mg/L		01/28/14 06:11	02/01/14 06:27	1
Phenanthrene	0.000304	J	0.000476	0.0000571	mg/L		01/28/14 06:11	02/01/14 06:27	1
Anthracene	0.000141	J	0.000476	0.0000476	mg/L		01/28/14 06:11	02/01/14 06:27	1
Di-n-butyl phthalate	0.000105	U	0.00238	0.000105	mg/L		01/28/14 06:11	02/01/14 06:27	1
Fluoranthene	0.000101	J	0.000476	0.0000667	mg/L		01/28/14 06:11	02/01/14 06:27	1
Pyrene	0.000105	U	0.000476	0.000105	mg/L		01/28/14 06:11	02/01/14 06:27	1
Benzo[a]anthracene	0.0000762	U	0.000476	0.0000762	mg/L		01/28/14 06:11	02/01/14 06:27	1
Bis(2-ethylhexyl) phthalate	0.000352	U	0.00238	0.000352	mg/L		01/28/14 06:11	02/01/14 06:27	1
Chrysene	0.0000762	U	0.000476	0.0000762	mg/L		01/28/14 06:11	02/01/14 06:27	1
Benzo[a]pyrene	0.0000762	U	0.000476	0.0000762	mg/L		01/28/14 06:11	02/01/14 06:27	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	82		44 - 123	01/28/14 06:11	02/01/14 06:27	1
2-Fluorobiphenyl	68		43 - 120	01/28/14 06:11	02/01/14 06:27	1
2-Fluorophenol	32		18 - 120	01/28/14 06:11	02/01/14 06:27	1
Nitrobenzene-d5	65		47 - 120	01/28/14 06:11	02/01/14 06:27	1
Terphenyl-d14	86		33 - 141	01/28/14 06:11	02/01/14 06:27	1
Phenol-d5 (Surr)	19		12 - 128	01/28/14 06:11	02/01/14 06:27	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-85976-1

Client Sample ID: WG-1620-MW33BR-20140121

Lab Sample ID: 600-85976-5

Date Collected: 01/21/14 15:15

Matrix: Water

Date Received: 01/23/14 07:24

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane	0.200	U	0.500	0.200	ug/L			01/28/14 21:47	1
Benzene	837		5.00	2.00	ug/L			01/29/14 16:55	10
Chlorobenzene	0.349	J	0.500	0.180	ug/L			01/28/14 21:47	1
Ethylbenzene	128		0.500	0.190	ug/L			01/28/14 21:47	1
Methylene Chloride	0.220	U	5.00	0.220	ug/L			01/28/14 21:47	1
Toluene	9.42		0.500	0.170	ug/L			01/28/14 21:47	1
Vinyl chloride	0.180	U	0.500	0.180	ug/L			01/28/14 21:47	1
Xylenes, Total	128		1.50	0.580	ug/L			01/28/14 21:47	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	93		70 - 130		01/28/14 21:47	1
4-Bromofluorobenzene (Surr)	93		70 - 130		01/29/14 16:55	10
Dibromofluoromethane (Surr)	89		70 - 130		01/28/14 21:47	1
Dibromofluoromethane (Surr)	93		70 - 130		01/29/14 16:55	10
Toluene-d8 (Surr)	100		70 - 130		01/28/14 21:47	1
Toluene-d8 (Surr)	100		70 - 130		01/29/14 16:55	10
1,2-Dichloroethane-d4 (Surr)	95		70 - 130		01/28/14 21:47	1
1,2-Dichloroethane-d4 (Surr)	102		70 - 130		01/29/14 16:55	10

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.000192	U	0.00240	0.000192	mg/L		01/28/14 06:11	02/01/14 06:53	5
Nitrobenzene	0.000529	U	0.00240	0.000529	mg/L		01/28/14 06:11	02/01/14 06:53	5
2,4-Dimethylphenol	0.00149	U	0.00240	0.00149	mg/L		01/28/14 06:11	02/01/14 06:53	5
Bis(2-chloroethoxy)methane	0.000625	U	0.00240	0.000625	mg/L		01/28/14 06:11	02/01/14 06:53	5
2-Chloronaphthalene	0.000385	U	0.00240	0.000385	mg/L		01/28/14 06:11	02/01/14 06:53	5
Acenaphthylene	0.000679	J	0.00240	0.000288	mg/L		01/28/14 06:11	02/01/14 06:53	5
2,6-Dinitrotoluene	0.000385	U	0.00240	0.000385	mg/L		01/28/14 06:11	02/01/14 06:53	5
Acenaphthene	0.0625		0.00240	0.000385	mg/L		01/28/14 06:11	02/01/14 06:53	5
4-Nitrophenol	0.00269	U	0.00481	0.00269	mg/L		01/28/14 06:11	02/01/14 06:53	5
Dibenzofuran	0.0769		0.00240	0.000385	mg/L		01/28/14 06:11	02/01/14 06:53	5
2,4-Dinitrotoluene	0.000625	U	0.00240	0.000625	mg/L		01/28/14 06:11	02/01/14 06:53	5
Fluorene	0.0287		0.00240	0.000337	mg/L		01/28/14 06:11	02/01/14 06:53	5
4,6-Dinitro-2-methylphenol	0.00399	U	0.00481	0.00399	mg/L		01/28/14 06:11	02/01/14 06:53	5
N-Nitrosodiphenylamine	0.000481	U	0.00240	0.000481	mg/L		01/28/14 06:11	02/01/14 06:53	5
1,2-Diphenylhydrazine	0.000529	U	0.00240	0.000529	mg/L		01/28/14 06:11	02/01/14 06:53	5
Pentachlorophenol	0.00293	U	0.00481	0.00293	mg/L		01/28/14 06:11	02/01/14 06:53	5
Phenanthrene	0.0238		0.00240	0.000288	mg/L		01/28/14 06:11	02/01/14 06:53	5
Anthracene	0.00450		0.00240	0.000240	mg/L		01/28/14 06:11	02/01/14 06:53	5
Di-n-butyl phthalate	0.000529	U	0.0120	0.000529	mg/L		01/28/14 06:11	02/01/14 06:53	5
Fluoranthene	0.00107	J	0.00240	0.000337	mg/L		01/28/14 06:11	02/01/14 06:53	5
Pyrene	0.000734	J	0.00240	0.000529	mg/L		01/28/14 06:11	02/01/14 06:53	5
Benzo[a]anthracene	0.000385	U	0.00240	0.000385	mg/L		01/28/14 06:11	02/01/14 06:53	5
Bis(2-ethylhexyl) phthalate	0.00178	U	0.0120	0.00178	mg/L		01/28/14 06:11	02/01/14 06:53	5
Chrysene	0.000385	U	0.00240	0.000385	mg/L		01/28/14 06:11	02/01/14 06:53	5
Benzo[a]pyrene	0.000385	U	0.00240	0.000385	mg/L		01/28/14 06:11	02/01/14 06:53	5

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	113		44 - 123	01/28/14 06:11	02/01/14 06:53	5
2-Fluorobiphenyl	85		43 - 120	01/28/14 06:11	02/01/14 06:53	5

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-85976-1

Client Sample ID: WG-1620-MW33BR-20140121

Lab Sample ID: 600-85976-5

Date Collected: 01/21/14 15:15

Matrix: Water

Date Received: 01/23/14 07:24

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	118		18 - 120	01/28/14 06:11	02/01/14 06:53	5
Nitrobenzene-d5	98		47 - 120	01/28/14 06:11	02/01/14 06:53	5
Terphenyl-d14	108		33 - 141	01/28/14 06:11	02/01/14 06:53	5
Phenol-d5 (Surr)	26		12 - 128	01/28/14 06:11	02/01/14 06:53	5

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels - DL

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylnaphthalene	0.0558		0.0240	0.00337	mg/L		01/28/14 06:11	02/03/14 23:47	50

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	0	X	44 - 123	01/28/14 06:11	02/03/14 23:47	50
2-Fluorobiphenyl	0	X	43 - 120	01/28/14 06:11	02/03/14 23:47	50
2-Fluorophenol	0	X	18 - 120	01/28/14 06:11	02/03/14 23:47	50
Nitrobenzene-d5	0	X	47 - 120	01/28/14 06:11	02/03/14 23:47	50
Terphenyl-d14	0	X	33 - 141	01/28/14 06:11	02/03/14 23:47	50
Phenol-d5 (Surr)	0	X	12 - 128	01/28/14 06:11	02/03/14 23:47	50

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels - DL2

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	1.68	J	2.40	0.0385	mg/L		01/28/14 06:11	02/04/14 00:13	500

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	0	X	44 - 123	01/28/14 06:11	02/04/14 00:13	500
2-Fluorobiphenyl	0	X	43 - 120	01/28/14 06:11	02/04/14 00:13	500
2-Fluorophenol	0	X	18 - 120	01/28/14 06:11	02/04/14 00:13	500
Nitrobenzene-d5	0	X	47 - 120	01/28/14 06:11	02/04/14 00:13	500
Terphenyl-d14	0	X	33 - 141	01/28/14 06:11	02/04/14 00:13	500
Phenol-d5 (Surr)	0	X	12 - 128	01/28/14 06:11	02/04/14 00:13	500

Client Sample ID: WG-1620-MW36D-20140121

Lab Sample ID: 600-85976-6

Date Collected: 01/21/14 16:30

Matrix: Water

Date Received: 01/23/14 07:24

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane	0.200	U	0.500	0.200	ug/L			01/29/14 14:35	1
Benzene	0.200	U	0.500	0.200	ug/L			01/29/14 14:35	1
Chlorobenzene	0.180	U	0.500	0.180	ug/L			01/29/14 14:35	1
Ethylbenzene	0.190	U	0.500	0.190	ug/L			01/29/14 14:35	1
Methylene Chloride	0.220	U	5.00	0.220	ug/L			01/29/14 14:35	1
Toluene	0.170	U	0.500	0.170	ug/L			01/29/14 14:35	1
Xylenes, Total	0.580	U	1.50	0.580	ug/L			01/29/14 14:35	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	93		70 - 130		01/29/14 14:35	1
Dibromofluoromethane (Surr)	95		70 - 130		01/29/14 14:35	1
Toluene-d8 (Surr)	99		70 - 130		01/29/14 14:35	1
1,2-Dichloroethane-d4 (Surr)	103		70 - 130		01/29/14 14:35	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-85976-1

Client Sample ID: WG-1620-MW36D-20140121

Lab Sample ID: 600-85976-6

Date Collected: 01/21/14 16:30

Matrix: Water

Date Received: 01/23/14 07:24

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.0000377	U	0.000472	0.0000377	mg/L		01/28/14 06:11	02/01/14 07:19	1
Nitrobenzene	0.000104	U	0.000472	0.000104	mg/L		01/28/14 06:11	02/01/14 07:19	1
2,4-Dimethylphenol	0.000292	U	0.000472	0.000292	mg/L		01/28/14 06:11	02/01/14 07:19	1
Bis(2-chloroethoxy)methane	0.000123	U	0.000472	0.000123	mg/L		01/28/14 06:11	02/01/14 07:19	1
Naphthalene	0.00110	J	0.00472	0.0000755	mg/L		01/28/14 06:11	02/01/14 07:19	1
2-Methylnaphthalene	0.000189	J	0.000472	0.0000660	mg/L		01/28/14 06:11	02/01/14 07:19	1
2-Chloronaphthalene	0.0000755	U	0.000472	0.0000755	mg/L		01/28/14 06:11	02/01/14 07:19	1
Acenaphthylene	0.0000566	U	0.000472	0.0000566	mg/L		01/28/14 06:11	02/01/14 07:19	1
2,6-Dinitrotoluene	0.0000755	U	0.000472	0.0000755	mg/L		01/28/14 06:11	02/01/14 07:19	1
Acenaphthene	0.000140	J	0.000472	0.0000755	mg/L		01/28/14 06:11	02/01/14 07:19	1
4-Nitrophenol	0.000528	U	0.000943	0.000528	mg/L		01/28/14 06:11	02/01/14 07:19	1
Dibenzofuran	0.000170	J	0.000472	0.0000755	mg/L		01/28/14 06:11	02/01/14 07:19	1
2,4-Dinitrotoluene	0.000123	U	0.000472	0.000123	mg/L		01/28/14 06:11	02/01/14 07:19	1
Fluorene	0.000147	J	0.000472	0.0000660	mg/L		01/28/14 06:11	02/01/14 07:19	1
4,6-Dinitro-2-methylphenol	0.000783	U	0.000943	0.000783	mg/L		01/28/14 06:11	02/01/14 07:19	1
N-Nitrosodiphenylamine	0.0000943	U	0.000472	0.0000943	mg/L		01/28/14 06:11	02/01/14 07:19	1
1,2-Diphenylhydrazine	0.000104	U	0.000472	0.000104	mg/L		01/28/14 06:11	02/01/14 07:19	1
Pentachlorophenol	0.000575	U	0.000943	0.000575	mg/L		01/28/14 06:11	02/01/14 07:19	1
Phenanthrene	0.000665		0.000472	0.0000566	mg/L		01/28/14 06:11	02/01/14 07:19	1
Anthracene	0.000105	J	0.000472	0.0000472	mg/L		01/28/14 06:11	02/01/14 07:19	1
Di-n-butyl phthalate	0.000104	U	0.00236	0.000104	mg/L		01/28/14 06:11	02/01/14 07:19	1
Fluoranthene	0.000216	J	0.000472	0.0000660	mg/L		01/28/14 06:11	02/01/14 07:19	1
Pyrene	0.000159	J	0.000472	0.000104	mg/L		01/28/14 06:11	02/01/14 07:19	1
Benzo[a]anthracene	0.0000755	U	0.000472	0.0000755	mg/L		01/28/14 06:11	02/01/14 07:19	1
Bis(2-ethylhexyl) phthalate	0.000349	U	0.00236	0.000349	mg/L		01/28/14 06:11	02/01/14 07:19	1
Chrysene	0.0000755	U	0.000472	0.0000755	mg/L		01/28/14 06:11	02/01/14 07:19	1
Benzo[a]pyrene	0.0000755	U	0.000472	0.0000755	mg/L		01/28/14 06:11	02/01/14 07:19	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	59		44 - 123	01/28/14 06:11	02/01/14 07:19	1
2-Fluorobiphenyl	69		43 - 120	01/28/14 06:11	02/01/14 07:19	1
2-Fluorophenol	21		18 - 120	01/28/14 06:11	02/01/14 07:19	1
Nitrobenzene-d5	66		47 - 120	01/28/14 06:11	02/01/14 07:19	1
Terphenyl-d14	94		33 - 141	01/28/14 06:11	02/01/14 07:19	1
Phenol-d5 (Surr)	16		12 - 128	01/28/14 06:11	02/01/14 07:19	1

Client Sample ID: WG-1620-MW65D-20140121

Lab Sample ID: 600-85976-7

Date Collected: 01/21/14 17:30

Matrix: Water

Date Received: 01/23/14 07:24

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane	0.200	U	0.500	0.200	ug/L			01/29/14 03:38	1
Benzene	0.200	U	0.500	0.200	ug/L			01/29/14 03:38	1
Chlorobenzene	0.180	U	0.500	0.180	ug/L			01/29/14 03:38	1
Ethylbenzene	0.190	U	0.500	0.190	ug/L			01/29/14 03:38	1
Methylene Chloride	0.220	U	5.00	0.220	ug/L			01/29/14 03:38	1
Toluene	0.170	U	0.500	0.170	ug/L			01/29/14 03:38	1
Xylenes, Total	0.580	U	1.50	0.580	ug/L			01/29/14 03:38	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-85976-1

Client Sample ID: WG-1620-MW65D-20140121

Lab Sample ID: 600-85976-7

Date Collected: 01/21/14 17:30

Matrix: Water

Date Received: 01/23/14 07:24

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	94		70 - 130		01/29/14 03:38	1
Dibromofluoromethane (Surr)	90		70 - 130		01/29/14 03:38	1
Toluene-d8 (Surr)	103		70 - 130		01/29/14 03:38	1
1,2-Dichloroethane-d4 (Surr)	92		70 - 130		01/29/14 03:38	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.000377	U	0.000472	0.000377	mg/L		01/28/14 06:11	02/01/14 07:45	1
Nitrobenzene	0.000104	U	0.000472	0.000104	mg/L		01/28/14 06:11	02/01/14 07:45	1
2,4-Dimethylphenol	0.000292	U	0.000472	0.000292	mg/L		01/28/14 06:11	02/01/14 07:45	1
Bis(2-chloroethoxy)methane	0.000123	U	0.000472	0.000123	mg/L		01/28/14 06:11	02/01/14 07:45	1
Naphthalene	0.000529	J	0.00472	0.0000755	mg/L		01/28/14 06:11	02/01/14 07:45	1
2-Methylnaphthalene	0.000808	J	0.000472	0.0000660	mg/L		01/28/14 06:11	02/01/14 07:45	1
2-Chloronaphthalene	0.000755	U	0.000472	0.0000755	mg/L		01/28/14 06:11	02/01/14 07:45	1
Acenaphthylene	0.0000566	U	0.000472	0.0000566	mg/L		01/28/14 06:11	02/01/14 07:45	1
2,6-Dinitrotoluene	0.0000755	U	0.000472	0.0000755	mg/L		01/28/14 06:11	02/01/14 07:45	1
Acenaphthene	0.0000755	U	0.000472	0.0000755	mg/L		01/28/14 06:11	02/01/14 07:45	1
4-Nitrophenol	0.000528	U	0.000943	0.000528	mg/L		01/28/14 06:11	02/01/14 07:45	1
Dibenzofuran	0.0000755	U	0.000472	0.0000755	mg/L		01/28/14 06:11	02/01/14 07:45	1
2,4-Dinitrotoluene	0.000123	U	0.000472	0.000123	mg/L		01/28/14 06:11	02/01/14 07:45	1
Fluorene	0.0000660	U	0.000472	0.0000660	mg/L		01/28/14 06:11	02/01/14 07:45	1
4,6-Dinitro-2-methylphenol	0.000783	U	0.000943	0.000783	mg/L		01/28/14 06:11	02/01/14 07:45	1
N-Nitrosodiphenylamine	0.0000943	U	0.000472	0.0000943	mg/L		01/28/14 06:11	02/01/14 07:45	1
1,2-Diphenylhydrazine	0.000104	U	0.000472	0.000104	mg/L		01/28/14 06:11	02/01/14 07:45	1
Pentachlorophenol	0.000575	U	0.000943	0.000575	mg/L		01/28/14 06:11	02/01/14 07:45	1
Phenanthrene	0.000294	J	0.000472	0.0000566	mg/L		01/28/14 06:11	02/01/14 07:45	1
Anthracene	0.000574	J	0.000472	0.0000472	mg/L		01/28/14 06:11	02/01/14 07:45	1
Di-n-butyl phthalate	0.000104	U	0.00236	0.000104	mg/L		01/28/14 06:11	02/01/14 07:45	1
Fluoranthene	0.000117	J	0.000472	0.0000660	mg/L		01/28/14 06:11	02/01/14 07:45	1
Pyrene	0.000104	U	0.000472	0.000104	mg/L		01/28/14 06:11	02/01/14 07:45	1
Benzo[a]anthracene	0.0000755	U	0.000472	0.0000755	mg/L		01/28/14 06:11	02/01/14 07:45	1
Bis(2-ethylhexyl) phthalate	0.000349	U	0.00236	0.000349	mg/L		01/28/14 06:11	02/01/14 07:45	1
Chrysene	0.0000755	U	0.000472	0.0000755	mg/L		01/28/14 06:11	02/01/14 07:45	1
Benzo[a]pyrene	0.0000755	U	0.000472	0.0000755	mg/L		01/28/14 06:11	02/01/14 07:45	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	96		44 - 123	01/28/14 06:11	02/01/14 07:45	1
2-Fluorobiphenyl	64		43 - 120	01/28/14 06:11	02/01/14 07:45	1
2-Fluorophenol	30		18 - 120	01/28/14 06:11	02/01/14 07:45	1
Nitrobenzene-d5	64		47 - 120	01/28/14 06:11	02/01/14 07:45	1
Terphenyl-d14	84		33 - 141	01/28/14 06:11	02/01/14 07:45	1
Phenol-d5 (Surr)	19		12 - 128	01/28/14 06:11	02/01/14 07:45	1

Client Sample ID: WG-1620-FB6-20140121

Lab Sample ID: 600-85976-8

Date Collected: 01/21/14 17:45

Matrix: Water

Date Received: 01/23/14 07:24

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane	0.200	U	0.500	0.200	ug/L			01/29/14 04:04	1
Benzene	0.200	U	0.500	0.200	ug/L			01/29/14 04:04	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-85976-1

Client Sample ID: WG-1620-FB6-20140121

Lab Sample ID: 600-85976-8

Date Collected: 01/21/14 17:45

Matrix: Water

Date Received: 01/23/14 07:24

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Chlorobenzene	0.180	U	0.500	0.180	ug/L			01/29/14 04:04	1
Ethylbenzene	0.190	U	0.500	0.190	ug/L			01/29/14 04:04	1
Methylene Chloride	0.220	U	5.00	0.220	ug/L			01/29/14 04:04	1
Toluene	0.170	U	0.500	0.170	ug/L			01/29/14 04:04	1
Vinyl chloride	0.180	U	0.500	0.180	ug/L			01/29/14 04:04	1
Xylenes, Total	0.580	U	1.50	0.580	ug/L			01/29/14 04:04	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	94		70 - 130		01/29/14 04:04	1
Dibromofluoromethane (Surr)	90		70 - 130		01/29/14 04:04	1
Toluene-d8 (Surr)	102		70 - 130		01/29/14 04:04	1
1,2-Dichloroethane-d4 (Surr)	92		70 - 130		01/29/14 04:04	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.0000381	U	0.000476	0.0000381	mg/L		01/28/14 14:05	02/01/14 16:05	1
Nitrobenzene	0.000105	U	0.000476	0.000105	mg/L		01/28/14 14:05	02/01/14 16:05	1
2,4-Dimethylphenol	0.000295	U	0.000476	0.000295	mg/L		01/28/14 14:05	02/01/14 16:05	1
Bis(2-chloroethoxy)methane	0.000124	U	0.000476	0.000124	mg/L		01/28/14 14:05	02/01/14 16:05	1
Naphthalene	0.0000799	J b	0.00476	0.0000762	mg/L		01/28/14 14:05	02/01/14 16:05	1
2-Methylnaphthalene	0.0000667	U	0.000476	0.0000667	mg/L		01/28/14 14:05	02/01/14 16:05	1
2-Chloronaphthalene	0.0000762	U	0.000476	0.0000762	mg/L		01/28/14 14:05	02/01/14 16:05	1
Acenaphthylene	0.00158		0.000476	0.0000571	mg/L		01/28/14 14:05	02/01/14 16:05	1
2,6-Dinitrotoluene	0.0000762	U	0.000476	0.0000762	mg/L		01/28/14 14:05	02/01/14 16:05	1
Acenaphthene	0.0000762	U	0.000476	0.0000762	mg/L		01/28/14 14:05	02/01/14 16:05	1
4-Nitrophenol	0.000533	U	0.000952	0.000533	mg/L		01/28/14 14:05	02/01/14 16:05	1
Dibenzofuran	0.0000762	U	0.000476	0.0000762	mg/L		01/28/14 14:05	02/01/14 16:05	1
2,4-Dinitrotoluene	0.000124	U	0.000476	0.000124	mg/L		01/28/14 14:05	02/01/14 16:05	1
Fluorene	0.0000667	U	0.000476	0.0000667	mg/L		01/28/14 14:05	02/01/14 16:05	1
4,6-Dinitro-2-methylphenol	0.000790	U	0.000952	0.000790	mg/L		01/28/14 14:05	02/01/14 16:05	1
N-Nitrosodiphenylamine	0.0000952	U	0.000476	0.0000952	mg/L		01/28/14 14:05	02/01/14 16:05	1
1,2-Diphenylhydrazine	0.000105	U	0.000476	0.000105	mg/L		01/28/14 14:05	02/01/14 16:05	1
Pentachlorophenol	0.000581	U	0.000952	0.000581	mg/L		01/28/14 14:05	02/01/14 16:05	1
Phenanthrene	0.0000571	U	0.000476	0.0000571	mg/L		01/28/14 14:05	02/01/14 16:05	1
Anthracene	0.0000476	U	0.000476	0.0000476	mg/L		01/28/14 14:05	02/01/14 16:05	1
Di-n-butyl phthalate	0.000105	U	0.00238	0.000105	mg/L		01/28/14 14:05	02/01/14 16:05	1
Fluoranthene	0.0000667	U	0.000476	0.0000667	mg/L		01/28/14 14:05	02/01/14 16:05	1
Pyrene	0.000105	U	0.000476	0.000105	mg/L		01/28/14 14:05	02/01/14 16:05	1
Benzo[a]anthracene	0.0000762	U	0.000476	0.0000762	mg/L		01/28/14 14:05	02/01/14 16:05	1
Bis(2-ethylhexyl) phthalate	0.000352	U	0.00238	0.000352	mg/L		01/28/14 14:05	02/01/14 16:05	1
Chrysene	0.0000762	U	0.000476	0.0000762	mg/L		01/28/14 14:05	02/01/14 16:05	1
Benzo[a]pyrene	0.0000762	U	0.000476	0.0000762	mg/L		01/28/14 14:05	02/01/14 16:05	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	96		44 - 123	01/28/14 14:05	02/01/14 16:05	1
2-Fluorobiphenyl	97		43 - 120	01/28/14 14:05	02/01/14 16:05	1
2-Fluorophenol	40		18 - 120	01/28/14 14:05	02/01/14 16:05	1
Nitrobenzene-d5	96		47 - 120	01/28/14 14:05	02/01/14 16:05	1
Terphenyl-d14	103		33 - 141	01/28/14 14:05	02/01/14 16:05	1
Phenol-d5 (Surr)	22		12 - 128	01/28/14 14:05	02/01/14 16:05	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-85976-1

Client Sample ID: WG-1620-MW53C-20140122

Lab Sample ID: 600-85976-9

Date Collected: 01/22/14 08:10

Matrix: Water

Date Received: 01/23/14 07:24

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane	0.200	U	0.500	0.200	ug/L			01/29/14 04:31	1
Benzene	0.200	U	0.500	0.200	ug/L			01/29/14 04:31	1
Chlorobenzene	0.180	U	0.500	0.180	ug/L			01/29/14 04:31	1
Ethylbenzene	0.190	U	0.500	0.190	ug/L			01/29/14 04:31	1
Methylene Chloride	0.220	U	5.00	0.220	ug/L			01/29/14 04:31	1
Toluene	0.170	U	0.500	0.170	ug/L			01/29/14 04:31	1
Xylenes, Total	0.580	U	1.50	0.580	ug/L			01/29/14 04:31	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	95		70 - 130		01/29/14 04:31	1
Dibromofluoromethane (Surr)	90		70 - 130		01/29/14 04:31	1
Toluene-d8 (Surr)	103		70 - 130		01/29/14 04:31	1
1,2-Dichloroethane-d4 (Surr)	90		70 - 130		01/29/14 04:31	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.000190	U	0.00238	0.000190	mg/L		01/28/14 14:05	02/06/14 06:07	5
Nitrobenzene	0.000524	U	0.00238	0.000524	mg/L		01/28/14 14:05	02/06/14 06:07	5
2,4-Dimethylphenol	0.00148	U	0.00238	0.00148	mg/L		01/28/14 14:05	02/06/14 06:07	5
Bis(2-chloroethoxy)methane	0.000619	U	0.00238	0.000619	mg/L		01/28/14 14:05	02/06/14 06:07	5
Naphthalene	0.00212	J b	0.0238	0.000381	mg/L		01/28/14 14:05	02/06/14 06:07	5
2-Methylnaphthalene	0.000358	J	0.00238	0.000333	mg/L		01/28/14 14:05	02/06/14 06:07	5
2-Chloronaphthalene	0.000381	U	0.00238	0.000381	mg/L		01/28/14 14:05	02/06/14 06:07	5
Acenaphthylene	0.000286	U	0.00238	0.000286	mg/L		01/28/14 14:05	02/06/14 06:07	5
2,6-Dinitrotoluene	0.000381	U	0.00238	0.000381	mg/L		01/28/14 14:05	02/06/14 06:07	5
Acenaphthene	0.000856	J	0.00238	0.000381	mg/L		01/28/14 14:05	02/06/14 06:07	5
4-Nitrophenol	0.00267	U	0.00476	0.00267	mg/L		01/28/14 14:05	02/06/14 06:07	5
Dibenzofuran	0.000381	U	0.00238	0.000381	mg/L		01/28/14 14:05	02/06/14 06:07	5
2,4-Dinitrotoluene	0.000619	U	0.00238	0.000619	mg/L		01/28/14 14:05	02/06/14 06:07	5
Fluorene	0.000355	J	0.00238	0.000333	mg/L		01/28/14 14:05	02/06/14 06:07	5
4,6-Dinitro-2-methylphenol	0.00395	U	0.00476	0.00395	mg/L		01/28/14 14:05	02/06/14 06:07	5
N-Nitrosodiphenylamine	0.000476	U	0.00238	0.000476	mg/L		01/28/14 14:05	02/06/14 06:07	5
1,2-Diphenylhydrazine	0.000524	U	0.00238	0.000524	mg/L		01/28/14 14:05	02/06/14 06:07	5
Pentachlorophenol	0.00290	U	0.00476	0.00290	mg/L		01/28/14 14:05	02/06/14 06:07	5
Phenanthrene	0.000939	J	0.00238	0.000286	mg/L		01/28/14 14:05	02/06/14 06:07	5
Anthracene	0.000238	U	0.00238	0.000238	mg/L		01/28/14 14:05	02/06/14 06:07	5
Di-n-butyl phthalate	0.000524	U	0.0119	0.000524	mg/L		01/28/14 14:05	02/06/14 06:07	5
Fluoranthene	0.000333	U	0.00238	0.000333	mg/L		01/28/14 14:05	02/06/14 06:07	5
Pyrene	0.000524	U	0.00238	0.000524	mg/L		01/28/14 14:05	02/06/14 06:07	5
Benzo[a]anthracene	0.000381	U	0.00238	0.000381	mg/L		01/28/14 14:05	02/06/14 06:07	5
Bis(2-ethylhexyl) phthalate	0.00176	U	0.0119	0.00176	mg/L		01/28/14 14:05	02/06/14 06:07	5
Chrysene	0.000381	U	0.00238	0.000381	mg/L		01/28/14 14:05	02/06/14 06:07	5
Benzo[a]pyrene	0.000381	U	0.00238	0.000381	mg/L		01/28/14 14:05	02/06/14 06:07	5

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	78		44 - 123	01/28/14 14:05	02/06/14 06:07	5
2-Fluorobiphenyl	76		43 - 120	01/28/14 14:05	02/06/14 06:07	5
2-Fluorophenol	33		18 - 120	01/28/14 14:05	02/06/14 06:07	5
Nitrobenzene-d5	74		47 - 120	01/28/14 14:05	02/06/14 06:07	5
Terphenyl-d14	84		33 - 141	01/28/14 14:05	02/06/14 06:07	5

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-85976-1

Client Sample ID: WG-1620-MW53C-20140122

Lab Sample ID: 600-85976-9

Date Collected: 01/22/14 08:10

Matrix: Water

Date Received: 01/23/14 07:24

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Phenol-d5 (Surr)	15		12 - 128	01/28/14 14:05	02/06/14 06:07	5

Client Sample ID: WG-1620-MW25C-20140122

Lab Sample ID: 600-85976-10

Date Collected: 01/22/14 09:10

Matrix: Water

Date Received: 01/23/14 07:24

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MLQ (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane	0.200	U	0.500	0.200	ug/L			01/29/14 04:58	1
Benzene	22.0		0.500	0.200	ug/L			01/29/14 04:58	1
Chlorobenzene	0.340	J	0.500	0.180	ug/L			01/29/14 04:58	1
Ethylbenzene	320		2.50	0.950	ug/L			01/29/14 17:22	5
Methylene Chloride	0.220	U	5.00	0.220	ug/L			01/29/14 04:58	1
Toluene	261		2.50	0.850	ug/L			01/29/14 17:22	5
Vinyl chloride	0.180	U	0.500	0.180	ug/L			01/29/14 04:58	1
Xylenes, Total	1010		7.50	2.90	ug/L			01/29/14 17:22	5

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	93		70 - 130		01/29/14 04:58	1
4-Bromofluorobenzene (Surr)	92		70 - 130		01/29/14 17:22	5
Dibromofluoromethane (Surr)	92		70 - 130		01/29/14 04:58	1
Dibromofluoromethane (Surr)	96		70 - 130		01/29/14 17:22	5
Toluene-d8 (Surr)	101		70 - 130		01/29/14 04:58	1
Toluene-d8 (Surr)	99		70 - 130		01/29/14 17:22	5
1,2-Dichloroethane-d4 (Surr)	91		70 - 130		01/29/14 04:58	1
1,2-Dichloroethane-d4 (Surr)	102		70 - 130		01/29/14 17:22	5

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MLQ (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.00381	U	0.0476	0.00381	mg/L		01/28/14 14:05	02/01/14 16:57	100
Nitrobenzene	0.0105	U	0.0476	0.0105	mg/L		01/28/14 14:05	02/01/14 16:57	100
2,4-Dimethylphenol	0.372		0.0476	0.0295	mg/L		01/28/14 14:05	02/01/14 16:57	100
Bis(2-chloroethoxy)methane	0.0124	U	0.0476	0.0124	mg/L		01/28/14 14:05	02/01/14 16:57	100
2-Methylnaphthalene	1.46		0.0476	0.00667	mg/L		01/28/14 14:05	02/01/14 16:57	100
2-Chloronaphthalene	0.00762	U	0.0476	0.00762	mg/L		01/28/14 14:05	02/01/14 16:57	100
Acenaphthylene	0.00571	U	0.0476	0.00571	mg/L		01/28/14 14:05	02/01/14 16:57	100
2,6-Dinitrotoluene	0.00762	U	0.0476	0.00762	mg/L		01/28/14 14:05	02/01/14 16:57	100
Acenaphthene	0.416		0.0476	0.00762	mg/L		01/28/14 14:05	02/01/14 16:57	100
4-Nitrophenol	0.0533	U	0.0952	0.0533	mg/L		01/28/14 14:05	02/01/14 16:57	100
Dibenzofuran	0.00762	U	0.0476	0.00762	mg/L		01/28/14 14:05	02/01/14 16:57	100
2,4-Dinitrotoluene	0.0124	U	0.0476	0.0124	mg/L		01/28/14 14:05	02/01/14 16:57	100
Fluorene	0.00667	U	0.0476	0.00667	mg/L		01/28/14 14:05	02/01/14 16:57	100
4,6-Dinitro-2-methylphenol	0.0790	U	0.0952	0.0790	mg/L		01/28/14 14:05	02/01/14 16:57	100
N-Nitrosodiphenylamine	0.00952	U	0.0476	0.00952	mg/L		01/28/14 14:05	02/01/14 16:57	100
1,2-Diphenylhydrazine	0.0105	U	0.0476	0.0105	mg/L		01/28/14 14:05	02/01/14 16:57	100
Pentachlorophenol	0.0581	U	0.0952	0.0581	mg/L		01/28/14 14:05	02/01/14 16:57	100
Phenanthrene	0.222		0.0476	0.00571	mg/L		01/28/14 14:05	02/01/14 16:57	100
Anthracene	0.0372	J	0.0476	0.00476	mg/L		01/28/14 14:05	02/01/14 16:57	100
Di-n-butyl phthalate	0.0105	U	0.238	0.0105	mg/L		01/28/14 14:05	02/01/14 16:57	100
Fluoranthene	0.0180	J	0.0476	0.00667	mg/L		01/28/14 14:05	02/01/14 16:57	100

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-85976-1

Client Sample ID: WG-1620-MW25C-20140122

Lab Sample ID: 600-85976-10

Date Collected: 01/22/14 09:10

Matrix: Water

Date Received: 01/23/14 07:24

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Pyrene	0.0105	U	0.0476	0.0105	mg/L		01/28/14 14:05	02/01/14 16:57	100
Benzo[a]anthracene	0.00762	U	0.0476	0.00762	mg/L		01/28/14 14:05	02/01/14 16:57	100
Bis(2-ethylhexyl) phthalate	0.0352	U	0.238	0.0352	mg/L		01/28/14 14:05	02/01/14 16:57	100
Chrysene	0.00762	U	0.0476	0.00762	mg/L		01/28/14 14:05	02/01/14 16:57	100
Benzo[a]pyrene	0.00762	U	0.0476	0.00762	mg/L		01/28/14 14:05	02/01/14 16:57	100

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	0	X	44 - 123	01/28/14 14:05	02/01/14 16:57	100
2-Fluorobiphenyl	0	X	43 - 120	01/28/14 14:05	02/01/14 16:57	100
2-Fluorophenol	0	X	18 - 120	01/28/14 14:05	02/01/14 16:57	100
Nitrobenzene-d5	0	X	47 - 120	01/28/14 14:05	02/01/14 16:57	100
Terphenyl-d14	0	X	33 - 141	01/28/14 14:05	02/01/14 16:57	100
Phenol-d5 (Surr)	0	X	12 - 128	01/28/14 14:05	02/01/14 16:57	100

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels - DL

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	19.0	b	4.76	0.0762	mg/L		01/28/14 14:05	02/06/14 06:32	1000

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	0	X	44 - 123	01/28/14 14:05	02/06/14 06:32	1000
2-Fluorobiphenyl	0	X	43 - 120	01/28/14 14:05	02/06/14 06:32	1000
2-Fluorophenol	0	X	18 - 120	01/28/14 14:05	02/06/14 06:32	1000
Nitrobenzene-d5	0	X	47 - 120	01/28/14 14:05	02/06/14 06:32	1000
Terphenyl-d14	0	X	33 - 141	01/28/14 14:05	02/06/14 06:32	1000
Phenol-d5 (Surr)	0	X	12 - 128	01/28/14 14:05	02/06/14 06:32	1000

Client Sample ID: WG-1620-MW25A-20140122

Lab Sample ID: 600-85976-11

Date Collected: 01/22/14 10:00

Matrix: Water

Date Received: 01/23/14 07:24

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane	0.200	U	0.500	0.200	ug/L			01/29/14 15:03	1
Benzene	0.200	U	0.500	0.200	ug/L			01/29/14 15:03	1
Chlorobenzene	0.180	U	0.500	0.180	ug/L			01/29/14 15:03	1
Ethylbenzene	0.190	U	0.500	0.190	ug/L			01/29/14 15:03	1
Methylene Chloride	0.220	U	5.00	0.220	ug/L			01/29/14 15:03	1
Toluene	0.170	U	0.500	0.170	ug/L			01/29/14 15:03	1
Vinyl chloride	0.180	U	0.500	0.180	ug/L			01/29/14 15:03	1
Xylenes, Total	0.580	U	1.50	0.580	ug/L			01/29/14 15:03	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	93		70 - 130		01/29/14 15:03	1
Dibromofluoromethane (Surr)	95		70 - 130		01/29/14 15:03	1
Toluene-d8 (Surr)	99		70 - 130		01/29/14 15:03	1
1,2-Dichloroethane-d4 (Surr)	104		70 - 130		01/29/14 15:03	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.0000381	U	0.000476	0.0000381	mg/L		01/28/14 14:05	02/01/14 17:23	1
Nitrobenzene	0.000105	U	0.000476	0.000105	mg/L		01/28/14 14:05	02/01/14 17:23	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-85976-1

Client Sample ID: WG-1620-MW25A-20140122

Lab Sample ID: 600-85976-11

Date Collected: 01/22/14 10:00

Matrix: Water

Date Received: 01/23/14 07:24

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-Dimethylphenol	0.000295	U	0.000476	0.000295	mg/L		01/28/14 14:05	02/01/14 17:23	1
Bis(2-chloroethoxy)methane	0.000124	U	0.000476	0.000124	mg/L		01/28/14 14:05	02/01/14 17:23	1
Naphthalene	0.000217	J b	0.00476	0.0000762	mg/L		01/28/14 14:05	02/01/14 17:23	1
2-Methylnaphthalene	0.0000667	U	0.000476	0.0000667	mg/L		01/28/14 14:05	02/01/14 17:23	1
2-Chloronaphthalene	0.0000762	U	0.000476	0.0000762	mg/L		01/28/14 14:05	02/01/14 17:23	1
Acenaphthylene	0.000542		0.000476	0.0000571	mg/L		01/28/14 14:05	02/01/14 17:23	1
2,6-Dinitrotoluene	0.0000762	U	0.000476	0.0000762	mg/L		01/28/14 14:05	02/01/14 17:23	1
Acenaphthene	0.00356		0.000476	0.0000762	mg/L		01/28/14 14:05	02/01/14 17:23	1
4-Nitrophenol	0.000533	U	0.000952	0.000533	mg/L		01/28/14 14:05	02/01/14 17:23	1
Dibenzofuran	0.0000762	U	0.000476	0.0000762	mg/L		01/28/14 14:05	02/01/14 17:23	1
2,4-Dinitrotoluene	0.000124	U	0.000476	0.000124	mg/L		01/28/14 14:05	02/01/14 17:23	1
Fluorene	0.0000667	U	0.000476	0.0000667	mg/L		01/28/14 14:05	02/01/14 17:23	1
4,6-Dinitro-2-methylphenol	0.000790	U	0.000952	0.000790	mg/L		01/28/14 14:05	02/01/14 17:23	1
N-Nitrosodiphenylamine	0.0000952	U	0.000476	0.0000952	mg/L		01/28/14 14:05	02/01/14 17:23	1
1,2-Diphenylhydrazine	0.000105	U	0.000476	0.000105	mg/L		01/28/14 14:05	02/01/14 17:23	1
Pentachlorophenol	0.000581	U	0.000952	0.000581	mg/L		01/28/14 14:05	02/01/14 17:23	1
Phenanthrene	0.0000571	U	0.000476	0.0000571	mg/L		01/28/14 14:05	02/01/14 17:23	1
Anthracene	0.0000476	U	0.000476	0.0000476	mg/L		01/28/14 14:05	02/01/14 17:23	1
Di-n-butyl phthalate	0.000105	U	0.00238	0.000105	mg/L		01/28/14 14:05	02/01/14 17:23	1
Fluoranthene	0.00106		0.000476	0.0000667	mg/L		01/28/14 14:05	02/01/14 17:23	1
Pyrene	0.000585		0.000476	0.000105	mg/L		01/28/14 14:05	02/01/14 17:23	1
Benzo[a]anthracene	0.0000762	U	0.000476	0.0000762	mg/L		01/28/14 14:05	02/01/14 17:23	1
Bis(2-ethylhexyl) phthalate	0.000352	U	0.00238	0.000352	mg/L		01/28/14 14:05	02/01/14 17:23	1
Chrysene	0.0000762	U	0.000476	0.0000762	mg/L		01/28/14 14:05	02/01/14 17:23	1
Benzo[a]pyrene	0.0000762	U	0.000476	0.0000762	mg/L		01/28/14 14:05	02/01/14 17:23	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	65		44 - 123	01/28/14 14:05	02/01/14 17:23	1
2-Fluorobiphenyl	72		43 - 120	01/28/14 14:05	02/01/14 17:23	1
2-Fluorophenol	25		18 - 120	01/28/14 14:05	02/01/14 17:23	1
Nitrobenzene-d5	81		47 - 120	01/28/14 14:05	02/01/14 17:23	1
Terphenyl-d14	86		33 - 141	01/28/14 14:05	02/01/14 17:23	1
Phenol-d5 (Surr)	13		12 - 128	01/28/14 14:05	02/01/14 17:23	1

Client Sample ID: WG-1620-MW28A-20140122

Lab Sample ID: 600-85976-12

Date Collected: 01/22/14 11:00

Matrix: Water

Date Received: 01/23/14 07:24

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane	0.200	U	0.500	0.200	ug/L			01/29/14 05:52	1
Benzene	0.200	U	0.500	0.200	ug/L			01/29/14 05:52	1
Chlorobenzene	0.180	U	0.500	0.180	ug/L			01/29/14 05:52	1
Ethylbenzene	0.190	U	0.500	0.190	ug/L			01/29/14 05:52	1
Methylene Chloride	0.220	U	5.00	0.220	ug/L			01/29/14 05:52	1
Toluene	0.170	U	0.500	0.170	ug/L			01/29/14 05:52	1
Xylenes, Total	0.580	U	1.50	0.580	ug/L			01/29/14 05:52	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	95		70 - 130		01/29/14 05:52	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-85976-1

Client Sample ID: WG-1620-MW28A-20140122

Lab Sample ID: 600-85976-12

Date Collected: 01/22/14 11:00

Matrix: Water

Date Received: 01/23/14 07:24

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Dibromofluoromethane (Surr)	90		70 - 130		01/29/14 05:52	1
Toluene-d8 (Surr)	104		70 - 130		01/29/14 05:52	1
1,2-Dichloroethane-d4 (Surr)	89		70 - 130		01/29/14 05:52	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.000381	U	0.000476	0.000381	mg/L		01/28/14 14:05	02/01/14 17:48	1
Nitrobenzene	0.000105	U	0.000476	0.000105	mg/L		01/28/14 14:05	02/01/14 17:48	1
2,4-Dimethylphenol	0.000295	U	0.000476	0.000295	mg/L		01/28/14 14:05	02/01/14 17:48	1
Bis(2-chloroethoxy)methane	0.000124	U	0.000476	0.000124	mg/L		01/28/14 14:05	02/01/14 17:48	1
Naphthalene	0.000400	J b	0.00476	0.0000762	mg/L		01/28/14 14:05	02/01/14 17:48	1
2-Methylnaphthalene	0.0000667	U	0.000476	0.0000667	mg/L		01/28/14 14:05	02/01/14 17:48	1
2-Chloronaphthalene	0.0000762	U	0.000476	0.0000762	mg/L		01/28/14 14:05	02/01/14 17:48	1
Acenaphthylene	0.0000571	U	0.000476	0.0000571	mg/L		01/28/14 14:05	02/01/14 17:48	1
2,6-Dinitrotoluene	0.0000762	U	0.000476	0.0000762	mg/L		01/28/14 14:05	02/01/14 17:48	1
Acenaphthene	0.0000762	U	0.000476	0.0000762	mg/L		01/28/14 14:05	02/01/14 17:48	1
4-Nitrophenol	0.000533	U	0.000952	0.000533	mg/L		01/28/14 14:05	02/01/14 17:48	1
Dibenzofuran	0.0000762	U	0.000476	0.0000762	mg/L		01/28/14 14:05	02/01/14 17:48	1
2,4-Dinitrotoluene	0.000124	U	0.000476	0.000124	mg/L		01/28/14 14:05	02/01/14 17:48	1
Fluorene	0.0000667	U	0.000476	0.0000667	mg/L		01/28/14 14:05	02/01/14 17:48	1
4,6-Dinitro-2-methylphenol	0.000790	U	0.000952	0.000790	mg/L		01/28/14 14:05	02/01/14 17:48	1
N-Nitrosodiphenylamine	0.0000952	U	0.000476	0.0000952	mg/L		01/28/14 14:05	02/01/14 17:48	1
1,2-Diphenylhydrazine	0.000105	U	0.000476	0.000105	mg/L		01/28/14 14:05	02/01/14 17:48	1
Pentachlorophenol	0.000581	U	0.000952	0.000581	mg/L		01/28/14 14:05	02/01/14 17:48	1
Phenanthrene	0.0000571	U	0.000476	0.0000571	mg/L		01/28/14 14:05	02/01/14 17:48	1
Anthracene	0.0000476	U	0.000476	0.0000476	mg/L		01/28/14 14:05	02/01/14 17:48	1
Di-n-butyl phthalate	0.000105	U	0.00238	0.000105	mg/L		01/28/14 14:05	02/01/14 17:48	1
Fluoranthene	0.0000667	U	0.000476	0.0000667	mg/L		01/28/14 14:05	02/01/14 17:48	1
Pyrene	0.000105	J	0.000476	0.000105	mg/L		01/28/14 14:05	02/01/14 17:48	1
Benzo[a]anthracene	0.0000762	U	0.000476	0.0000762	mg/L		01/28/14 14:05	02/01/14 17:48	1
Bis(2-ethylhexyl) phthalate	0.000352	U	0.00238	0.000352	mg/L		01/28/14 14:05	02/01/14 17:48	1
Chrysene	0.0000762	U	0.000476	0.0000762	mg/L		01/28/14 14:05	02/01/14 17:48	1
Benzo[a]pyrene	0.0000762	U	0.000476	0.0000762	mg/L		01/28/14 14:05	02/01/14 17:48	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	94		44 - 123	01/28/14 14:05	02/01/14 17:48	1
2-Fluorobiphenyl	92		43 - 120	01/28/14 14:05	02/01/14 17:48	1
2-Fluorophenol	37		18 - 120	01/28/14 14:05	02/01/14 17:48	1
Nitrobenzene-d5	83		47 - 120	01/28/14 14:05	02/01/14 17:48	1
Terphenyl-d14	92		33 - 141	01/28/14 14:05	02/01/14 17:48	1
Phenol-d5 (Surr)	22		12 - 128	01/28/14 14:05	02/01/14 17:48	1

Client Sample ID: WG-1620-MW28C-20140122

Lab Sample ID: 600-85976-13

Date Collected: 01/22/14 12:00

Matrix: Water

Date Received: 01/23/14 07:24

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane	0.200	U	0.500	0.200	ug/L			01/29/14 03:11	1
Benzene	0.200	U	0.500	0.200	ug/L			01/29/14 03:11	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-85976-1

Client Sample ID: WG-1620-MW28C-20140122

Lab Sample ID: 600-85976-13

Date Collected: 01/22/14 12:00

Matrix: Water

Date Received: 01/23/14 07:24

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Chlorobenzene	0.180	U	0.500	0.180	ug/L			01/29/14 03:11	1
Ethylbenzene	0.190	U	0.500	0.190	ug/L			01/29/14 03:11	1
Methylene Chloride	0.220	U	5.00	0.220	ug/L			01/29/14 03:11	1
Toluene	0.170	U	0.500	0.170	ug/L			01/29/14 03:11	1
Xylenes, Total	0.580	U	1.50	0.580	ug/L			01/29/14 03:11	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	96		70 - 130		01/29/14 03:11	1
Dibromofluoromethane (Surr)	90		70 - 130		01/29/14 03:11	1
Toluene-d8 (Surr)	103		70 - 130		01/29/14 03:11	1
1,2-Dichloroethane-d4 (Surr)	92		70 - 130		01/29/14 03:11	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.0000400	U	0.000500	0.0000400	mg/L		01/28/14 14:05	02/01/14 18:14	1
Nitrobenzene	0.000110	U	0.000500	0.000110	mg/L		01/28/14 14:05	02/01/14 18:14	1
2,4-Dimethylphenol	0.000310	U	0.000500	0.000310	mg/L		01/28/14 14:05	02/01/14 18:14	1
Bis(2-chloroethoxy)methane	0.000130	U	0.000500	0.000130	mg/L		01/28/14 14:05	02/01/14 18:14	1
Naphthalene	0.000596	J b	0.00500	0.0000800	mg/L		01/28/14 14:05	02/01/14 18:14	1
2-Methylnaphthalene	0.0000741	J	0.000500	0.0000700	mg/L		01/28/14 14:05	02/01/14 18:14	1
2-Chloronaphthalene	0.0000800	U	0.000500	0.0000800	mg/L		01/28/14 14:05	02/01/14 18:14	1
Acenaphthylene	0.0000600	U	0.000500	0.0000600	mg/L		01/28/14 14:05	02/01/14 18:14	1
2,6-Dinitrotoluene	0.0000800	U	0.000500	0.0000800	mg/L		01/28/14 14:05	02/01/14 18:14	1
Acenaphthene	0.0000800	U	0.000500	0.0000800	mg/L		01/28/14 14:05	02/01/14 18:14	1
4-Nitrophenol	0.000560	U	0.00100	0.000560	mg/L		01/28/14 14:05	02/01/14 18:14	1
Dibenzofuran	0.0000800	U	0.000500	0.0000800	mg/L		01/28/14 14:05	02/01/14 18:14	1
2,4-Dinitrotoluene	0.000130	U	0.000500	0.000130	mg/L		01/28/14 14:05	02/01/14 18:14	1
Fluorene	0.0000700	U	0.000500	0.0000700	mg/L		01/28/14 14:05	02/01/14 18:14	1
4,6-Dinitro-2-methylphenol	0.000830	U	0.00100	0.000830	mg/L		01/28/14 14:05	02/01/14 18:14	1
N-Nitrosodiphenylamine	0.000100	U	0.000500	0.000100	mg/L		01/28/14 14:05	02/01/14 18:14	1
1,2-Diphenylhydrazine	0.000110	U	0.000500	0.000110	mg/L		01/28/14 14:05	02/01/14 18:14	1
Pentachlorophenol	0.000610	U	0.00100	0.000610	mg/L		01/28/14 14:05	02/01/14 18:14	1
Phenanthrene	0.0000739	J	0.000500	0.0000600	mg/L		01/28/14 14:05	02/01/14 18:14	1
Anthracene	0.0000500	U	0.000500	0.0000500	mg/L		01/28/14 14:05	02/01/14 18:14	1
Di-n-butyl phthalate	0.000110	U	0.00250	0.000110	mg/L		01/28/14 14:05	02/01/14 18:14	1
Fluoranthene	0.0000700	U	0.000500	0.0000700	mg/L		01/28/14 14:05	02/01/14 18:14	1
Pyrene	0.000110	U	0.000500	0.000110	mg/L		01/28/14 14:05	02/01/14 18:14	1
Benzo[a]anthracene	0.0000800	U	0.000500	0.0000800	mg/L		01/28/14 14:05	02/01/14 18:14	1
Bis(2-ethylhexyl) phthalate	0.000370	U	0.00250	0.000370	mg/L		01/28/14 14:05	02/01/14 18:14	1
Chrysene	0.0000800	U	0.000500	0.0000800	mg/L		01/28/14 14:05	02/01/14 18:14	1
Benzo[a]pyrene	0.0000800	U	0.000500	0.0000800	mg/L		01/28/14 14:05	02/01/14 18:14	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	102		44 - 123	01/28/14 14:05	02/01/14 18:14	1
2-Fluorobiphenyl	69		43 - 120	01/28/14 14:05	02/01/14 18:14	1
2-Fluorophenol	40		18 - 120	01/28/14 14:05	02/01/14 18:14	1
Nitrobenzene-d5	85		47 - 120	01/28/14 14:05	02/01/14 18:14	1
Terphenyl-d14	89		33 - 141	01/28/14 14:05	02/01/14 18:14	1
Phenol-d5 (Surr)	21		12 - 128	01/28/14 14:05	02/01/14 18:14	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-85976-1

Client Sample ID: WG-1620-MW63B-20140122

Lab Sample ID: 600-85976-16

Date Collected: 01/22/14 13:45

Matrix: Water

Date Received: 01/23/14 07:24

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane	0.200	U	0.500	0.200	ug/L			01/29/14 06:18	1
Benzene	76.2		0.500	0.200	ug/L			01/29/14 06:18	1
Chlorobenzene	0.180	U	0.500	0.180	ug/L			01/29/14 06:18	1
Ethylbenzene	41.8		0.500	0.190	ug/L			01/29/14 06:18	1
Methylene Chloride	0.220	U	5.00	0.220	ug/L			01/29/14 06:18	1
Toluene	0.399	J	0.500	0.170	ug/L			01/29/14 06:18	1
Xylenes, Total	15.6		1.50	0.580	ug/L			01/29/14 06:18	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	97		70 - 130		01/29/14 06:18	1
Dibromofluoromethane (Surr)	89		70 - 130		01/29/14 06:18	1
Toluene-d8 (Surr)	102		70 - 130		01/29/14 06:18	1
1,2-Dichloroethane-d4 (Surr)	89		70 - 130		01/29/14 06:18	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.000889	J	0.00495	0.000396	mg/L		01/28/14 14:05	02/06/14 06:57	10
Nitrobenzene	0.00109	U	0.00495	0.00109	mg/L		01/28/14 14:05	02/06/14 06:57	10
2,4-Dimethylphenol	0.00307	U	0.00495	0.00307	mg/L		01/28/14 14:05	02/06/14 06:57	10
Bis(2-chloroethoxy)methane	0.00129	U	0.00495	0.00129	mg/L		01/28/14 14:05	02/06/14 06:57	10
2-Methylnaphthalene	0.00756		0.00495	0.000693	mg/L		01/28/14 14:05	02/06/14 06:57	10
2-Chloronaphthalene	0.000792	U	0.00495	0.000792	mg/L		01/28/14 14:05	02/06/14 06:57	10
Acenaphthylene	0.000594	U	0.00495	0.000594	mg/L		01/28/14 14:05	02/06/14 06:57	10
2,6-Dinitrotoluene	0.000792	U	0.00495	0.000792	mg/L		01/28/14 14:05	02/06/14 06:57	10
Acenaphthene	0.00274	J	0.00495	0.000792	mg/L		01/28/14 14:05	02/06/14 06:57	10
4-Nitrophenol	0.00554	U	0.00990	0.00554	mg/L		01/28/14 14:05	02/06/14 06:57	10
Dibenzofuran	0.00200	J	0.00495	0.000792	mg/L		01/28/14 14:05	02/06/14 06:57	10
2,4-Dinitrotoluene	0.00129	U	0.00495	0.00129	mg/L		01/28/14 14:05	02/06/14 06:57	10
Fluorene	0.00102	J	0.00495	0.000693	mg/L		01/28/14 14:05	02/06/14 06:57	10
4,6-Dinitro-2-methylphenol	0.00822	U	0.00990	0.00822	mg/L		01/28/14 14:05	02/06/14 06:57	10
N-Nitrosodiphenylamine	0.000990	U	0.00495	0.000990	mg/L		01/28/14 14:05	02/06/14 06:57	10
1,2-Diphenylhydrazine	0.00109	U	0.00495	0.00109	mg/L		01/28/14 14:05	02/06/14 06:57	10
Pentachlorophenol	0.00604	U	0.00990	0.00604	mg/L		01/28/14 14:05	02/06/14 06:57	10
Phenanthrene	0.00133	J	0.00495	0.000594	mg/L		01/28/14 14:05	02/06/14 06:57	10
Anthracene	0.000495	U	0.00495	0.000495	mg/L		01/28/14 14:05	02/06/14 06:57	10
Di-n-butyl phthalate	0.00109	U	0.0248	0.00109	mg/L		01/28/14 14:05	02/06/14 06:57	10
Fluoranthene	0.000693	U	0.00495	0.000693	mg/L		01/28/14 14:05	02/06/14 06:57	10
Pyrene	0.00109	U	0.00495	0.00109	mg/L		01/28/14 14:05	02/06/14 06:57	10
Benzo[a]anthracene	0.000792	U	0.00495	0.000792	mg/L		01/28/14 14:05	02/06/14 06:57	10
Bis(2-ethylhexyl) phthalate	0.00366	U	0.0248	0.00366	mg/L		01/28/14 14:05	02/06/14 06:57	10
Chrysene	0.000792	U	0.00495	0.000792	mg/L		01/28/14 14:05	02/06/14 06:57	10
Benzo[a]pyrene	0.000792	U	0.00495	0.000792	mg/L		01/28/14 14:05	02/06/14 06:57	10

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	61		44 - 123	01/28/14 14:05	02/06/14 06:57	10
2-Fluorobiphenyl	88		43 - 120	01/28/14 14:05	02/06/14 06:57	10
2-Fluorophenol	51		18 - 120	01/28/14 14:05	02/06/14 06:57	10
Nitrobenzene-d5	85		47 - 120	01/28/14 14:05	02/06/14 06:57	10
Terphenyl-d14	91		33 - 141	01/28/14 14:05	02/06/14 06:57	10
Phenol-d5 (Surr)	23		12 - 128	01/28/14 14:05	02/06/14 06:57	10

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-85976-1

Client Sample ID: WG-1620-MW63B-20140122

Lab Sample ID: 600-85976-16

Date Collected: 01/22/14 13:45

Matrix: Water

Date Received: 01/23/14 07:24

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels - DL

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	0.374	b	0.248	0.00396	mg/L		01/28/14 14:05	02/10/14 11:22	50
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	0	X	44 - 123				01/28/14 14:05	02/10/14 11:22	50
2-Fluorobiphenyl	0	X	43 - 120				01/28/14 14:05	02/10/14 11:22	50
2-Fluorophenol	0	X	18 - 120				01/28/14 14:05	02/10/14 11:22	50
Nitrobenzene-d5	0	X	47 - 120				01/28/14 14:05	02/10/14 11:22	50
Terphenyl-d14	0	X	33 - 141				01/28/14 14:05	02/10/14 11:22	50
Phenol-d5 (Surr)	0	X	12 - 128				01/28/14 14:05	02/10/14 11:22	50

Client Sample ID: WG-1620-MW26A-20140122

Lab Sample ID: 600-85976-17

Date Collected: 01/22/14 14:45

Matrix: Water

Date Received: 01/23/14 07:24

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane	0.200	U	0.500	0.200	ug/L			01/29/14 06:45	1
Benzene	0.434	J	0.500	0.200	ug/L			01/29/14 06:45	1
Chlorobenzene	0.180	U	0.500	0.180	ug/L			01/29/14 06:45	1
Ethylbenzene	0.190	U	0.500	0.190	ug/L			01/29/14 06:45	1
Methylene Chloride	0.220	U	5.00	0.220	ug/L			01/29/14 06:45	1
Toluene	0.170	U	0.500	0.170	ug/L			01/29/14 06:45	1
Xylenes, Total	0.580	U	1.50	0.580	ug/L			01/29/14 06:45	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	94		70 - 130					01/29/14 06:45	1
Dibromofluoromethane (Surr)	89		70 - 130					01/29/14 06:45	1
Toluene-d8 (Surr)	102		70 - 130					01/29/14 06:45	1
1,2-Dichloroethane-d4 (Surr)	88		70 - 130					01/29/14 06:45	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.0000400	U	0.000500	0.0000400	mg/L		01/28/14 14:05	02/01/14 19:57	1
Nitrobenzene	0.000110	U	0.000500	0.000110	mg/L		01/28/14 14:05	02/01/14 19:57	1
2,4-Dimethylphenol	0.000310	U	0.000500	0.000310	mg/L		01/28/14 14:05	02/01/14 19:57	1
Bis(2-chloroethoxy)methane	0.000130	U	0.000500	0.000130	mg/L		01/28/14 14:05	02/01/14 19:57	1
Naphthalene	0.000924	J b	0.00500	0.0000800	mg/L		01/28/14 14:05	02/01/14 19:57	1
2-Methylnaphthalene	0.0000700	U	0.000500	0.0000700	mg/L		01/28/14 14:05	02/01/14 19:57	1
2-Chloronaphthalene	0.0000800	U	0.000500	0.0000800	mg/L		01/28/14 14:05	02/01/14 19:57	1
Acenaphthylene	0.0000600	U	0.000500	0.0000600	mg/L		01/28/14 14:05	02/01/14 19:57	1
2,6-Dinitrotoluene	0.0000800	U	0.000500	0.0000800	mg/L		01/28/14 14:05	02/01/14 19:57	1
4-Nitrophenol	0.000560	U	0.00100	0.000560	mg/L		01/28/14 14:05	02/01/14 19:57	1
Dibenzofuran	0.0000800	U	0.000500	0.0000800	mg/L		01/28/14 14:05	02/01/14 19:57	1
2,4-Dinitrotoluene	0.000130	U	0.000500	0.000130	mg/L		01/28/14 14:05	02/01/14 19:57	1
Fluorene	0.00310		0.000500	0.0000700	mg/L		01/28/14 14:05	02/01/14 19:57	1
4,6-Dinitro-2-methylphenol	0.000830	U	0.00100	0.000830	mg/L		01/28/14 14:05	02/01/14 19:57	1
N-Nitrosodiphenylamine	0.000100	U	0.000500	0.000100	mg/L		01/28/14 14:05	02/01/14 19:57	1
1,2-Diphenylhydrazine	0.000110	U	0.000500	0.000110	mg/L		01/28/14 14:05	02/01/14 19:57	1
Pentachlorophenol	0.000610	U	0.00100	0.000610	mg/L		01/28/14 14:05	02/01/14 19:57	1
Phenanthrene	0.000147	J	0.000500	0.0000600	mg/L		01/28/14 14:05	02/01/14 19:57	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-85976-1

Client Sample ID: WG-1620-MW26A-20140122

Lab Sample ID: 600-85976-17

Date Collected: 01/22/14 14:45

Matrix: Water

Date Received: 01/23/14 07:24

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	0.00136		0.000500	0.0000500	mg/L		01/28/14 14:05	02/01/14 19:57	1
Di-n-butyl phthalate	0.000110	U	0.00250	0.000110	mg/L		01/28/14 14:05	02/01/14 19:57	1
Fluoranthene	0.00306		0.000500	0.0000700	mg/L		01/28/14 14:05	02/01/14 19:57	1
Pyrene	0.00159		0.000500	0.000110	mg/L		01/28/14 14:05	02/01/14 19:57	1
Benzo[a]anthracene	0.0000800	U	0.000500	0.0000800	mg/L		01/28/14 14:05	02/01/14 19:57	1
Bis(2-ethylhexyl) phthalate	0.000370	U	0.00250	0.000370	mg/L		01/28/14 14:05	02/01/14 19:57	1
Chrysene	0.0000800	U	0.000500	0.0000800	mg/L		01/28/14 14:05	02/01/14 19:57	1
Benzo[a]pyrene	0.0000800	U	0.000500	0.0000800	mg/L		01/28/14 14:05	02/01/14 19:57	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	117		44 - 123				01/28/14 14:05	02/01/14 19:57	1
2-Fluorobiphenyl	86		43 - 120				01/28/14 14:05	02/01/14 19:57	1
2-Fluorophenol	42		18 - 120				01/28/14 14:05	02/01/14 19:57	1
Nitrobenzene-d5	88		47 - 120				01/28/14 14:05	02/01/14 19:57	1
Terphenyl-d14	107		33 - 141				01/28/14 14:05	02/01/14 19:57	1
Phenol-d5 (Surr)	26		12 - 128				01/28/14 14:05	02/01/14 19:57	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels - DL

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	0.0699		0.00500	0.000800	mg/L		01/28/14 14:05	02/06/14 07:22	10
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	89		44 - 123				01/28/14 14:05	02/06/14 07:22	10
2-Fluorobiphenyl	81		43 - 120				01/28/14 14:05	02/06/14 07:22	10
2-Fluorophenol	37		18 - 120				01/28/14 14:05	02/06/14 07:22	10
Nitrobenzene-d5	74		47 - 120				01/28/14 14:05	02/06/14 07:22	10
Terphenyl-d14	86		33 - 141				01/28/14 14:05	02/06/14 07:22	10
Phenol-d5 (Surr)	15		12 - 128				01/28/14 14:05	02/06/14 07:22	10

Client Sample ID: WG-1620-MW68B-20140122

Lab Sample ID: 600-85976-18

Date Collected: 01/22/14 15:45

Matrix: Water

Date Received: 01/23/14 07:24

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane	0.200	U	0.500	0.200	ug/L			01/29/14 07:12	1
Benzene	1500		5.00	2.00	ug/L			01/29/14 17:50	10
Chlorobenzene	0.454	J	0.500	0.180	ug/L			01/29/14 07:12	1
Ethylbenzene	364		5.00	1.90	ug/L			01/29/14 17:50	10
Methylene Chloride	0.220	U	5.00	0.220	ug/L			01/29/14 07:12	1
Toluene	329		5.00	1.70	ug/L			01/29/14 17:50	10
Xylenes, Total	857		15.0	5.80	ug/L			01/29/14 17:50	10
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	93		70 - 130					01/29/14 07:12	1
4-Bromofluorobenzene (Surr)	94		70 - 130					01/29/14 17:50	10
Dibromofluoromethane (Surr)	86		70 - 130					01/29/14 07:12	1
Dibromofluoromethane (Surr)	93		70 - 130					01/29/14 17:50	10
Toluene-d8 (Surr)	102		70 - 130					01/29/14 07:12	1
Toluene-d8 (Surr)	99		70 - 130					01/29/14 17:50	10
1,2-Dichloroethane-d4 (Surr)	85		70 - 130					01/29/14 07:12	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-85976-1

Client Sample ID: WG-1620-MW68B-20140122

Lab Sample ID: 600-85976-18

Date Collected: 01/22/14 15:45

Matrix: Water

Date Received: 01/23/14 07:24

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	98		70 - 130		01/29/14 17:50	10

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.0862		0.0476	0.00381	mg/L		01/28/14 14:05	02/01/14 20:23	100
Nitrobenzene	0.0105	U	0.0476	0.0105	mg/L		01/28/14 14:05	02/01/14 20:23	100
Bis(2-chloroethoxy)methane	0.0124	U	0.0476	0.0124	mg/L		01/28/14 14:05	02/01/14 20:23	100
2-Methylnaphthalene	1.10		0.0476	0.00667	mg/L		01/28/14 14:05	02/01/14 20:23	100
2-Chloronaphthalene	0.00762	U	0.0476	0.00762	mg/L		01/28/14 14:05	02/01/14 20:23	100
Acenaphthylene	0.00571	U	0.0476	0.00571	mg/L		01/28/14 14:05	02/01/14 20:23	100
2,6-Dinitrotoluene	0.00762	U	0.0476	0.00762	mg/L		01/28/14 14:05	02/01/14 20:23	100
Acenaphthene	0.263		0.0476	0.00762	mg/L		01/28/14 14:05	02/01/14 20:23	100
4-Nitrophenol	0.0533	U	0.0952	0.0533	mg/L		01/28/14 14:05	02/01/14 20:23	100
Dibenzofuran	0.284		0.0476	0.00762	mg/L		01/28/14 14:05	02/01/14 20:23	100
2,4-Dinitrotoluene	0.0124	U	0.0476	0.0124	mg/L		01/28/14 14:05	02/01/14 20:23	100
Fluorene	0.149		0.0476	0.00667	mg/L		01/28/14 14:05	02/01/14 20:23	100
4,6-Dinitro-2-methylphenol	0.0790	U	0.0952	0.0790	mg/L		01/28/14 14:05	02/01/14 20:23	100
N-Nitrosodiphenylamine	0.00952	U	0.0476	0.00952	mg/L		01/28/14 14:05	02/01/14 20:23	100
1,2-Diphenylhydrazine	0.0105	U	0.0476	0.0105	mg/L		01/28/14 14:05	02/01/14 20:23	100
Pentachlorophenol	0.0581	U	0.0952	0.0581	mg/L		01/28/14 14:05	02/01/14 20:23	100
Phenanthrene	0.263		0.0476	0.00571	mg/L		01/28/14 14:05	02/01/14 20:23	100
Anthracene	0.0428	J	0.0476	0.00476	mg/L		01/28/14 14:05	02/01/14 20:23	100
Di-n-butyl phthalate	0.0105	U	0.238	0.0105	mg/L		01/28/14 14:05	02/01/14 20:23	100
Fluoranthene	0.0520		0.0476	0.00667	mg/L		01/28/14 14:05	02/01/14 20:23	100
Pyrene	0.0341	J	0.0476	0.0105	mg/L		01/28/14 14:05	02/01/14 20:23	100
Benzo[a]anthracene	0.0123	J	0.0476	0.00762	mg/L		01/28/14 14:05	02/01/14 20:23	100
Bis(2-ethylhexyl) phthalate	0.0352	U	0.238	0.0352	mg/L		01/28/14 14:05	02/01/14 20:23	100
Chrysene	0.00806	J	0.0476	0.00762	mg/L		01/28/14 14:05	02/01/14 20:23	100
Benzo[a]pyrene	0.00762	U	0.0476	0.00762	mg/L		01/28/14 14:05	02/01/14 20:23	100

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	0	X	44 - 123	01/28/14 14:05	02/01/14 20:23	100
2-Fluorobiphenyl	0	X	43 - 120	01/28/14 14:05	02/01/14 20:23	100
2-Fluorophenol	0	X	18 - 120	01/28/14 14:05	02/01/14 20:23	100
Nitrobenzene-d5	0	X	47 - 120	01/28/14 14:05	02/01/14 20:23	100
Terphenyl-d14	0	X	33 - 141	01/28/14 14:05	02/01/14 20:23	100
Phenol-d5 (Surr)	0	X	12 - 128	01/28/14 14:05	02/01/14 20:23	100

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels - DL

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-Dimethylphenol	0.536		0.476	0.295	mg/L		01/28/14 14:05	02/06/14 07:47	1000
Naphthalene	17.0	b	4.76	0.0762	mg/L		01/28/14 14:05	02/06/14 07:47	1000

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	0	X	44 - 123	01/28/14 14:05	02/06/14 07:47	1000
2-Fluorobiphenyl	0	X	43 - 120	01/28/14 14:05	02/06/14 07:47	1000
2-Fluorophenol	0	X	18 - 120	01/28/14 14:05	02/06/14 07:47	1000
Nitrobenzene-d5	0	X	47 - 120	01/28/14 14:05	02/06/14 07:47	1000
Terphenyl-d14	0	X	33 - 141	01/28/14 14:05	02/06/14 07:47	1000
Phenol-d5 (Surr)	0	X	12 - 128	01/28/14 14:05	02/06/14 07:47	1000

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-85976-1

Client Sample ID: WG-1620-DUP2-20140122

Lab Sample ID: 600-85976-19

Date Collected: 01/22/14 15:45

Matrix: Water

Date Received: 01/23/14 07:24

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane	0.200	U	0.500	0.200	ug/L			01/29/14 07:38	1
Benzene	1510		5.00	2.00	ug/L			01/29/14 18:18	10
Chlorobenzene	0.468	J	0.500	0.180	ug/L			01/29/14 07:38	1
Ethylbenzene	363		5.00	1.90	ug/L			01/29/14 18:18	10
Methylene Chloride	0.220	U	5.00	0.220	ug/L			01/29/14 07:38	1
Toluene	329		5.00	1.70	ug/L			01/29/14 18:18	10
Xylenes, Total	862		15.0	5.80	ug/L			01/29/14 18:18	10

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	93		70 - 130		01/29/14 07:38	1
4-Bromofluorobenzene (Surr)	94		70 - 130		01/29/14 18:18	10
Dibromofluoromethane (Surr)	87		70 - 130		01/29/14 07:38	1
Dibromofluoromethane (Surr)	92		70 - 130		01/29/14 18:18	10
Toluene-d8 (Surr)	102		70 - 130		01/29/14 07:38	1
Toluene-d8 (Surr)	99		70 - 130		01/29/14 18:18	10
1,2-Dichloroethane-d4 (Surr)	86		70 - 130		01/29/14 07:38	1
1,2-Dichloroethane-d4 (Surr)	99		70 - 130		01/29/14 18:18	10

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.0929		0.0476	0.00381	mg/L		01/28/14 14:05	02/01/14 20:49	100
Nitrobenzene	0.0105	U	0.0476	0.0105	mg/L		01/28/14 14:05	02/01/14 20:49	100
Bis(2-chloroethoxy)methane	0.0124	U	0.0476	0.0124	mg/L		01/28/14 14:05	02/01/14 20:49	100
2-Methylnaphthalene	1.19		0.0476	0.00667	mg/L		01/28/14 14:05	02/01/14 20:49	100
2-Chloronaphthalene	0.00762	U	0.0476	0.00762	mg/L		01/28/14 14:05	02/01/14 20:49	100
Acenaphthylene	0.00571	U	0.0476	0.00571	mg/L		01/28/14 14:05	02/01/14 20:49	100
2,6-Dinitrotoluene	0.00762	U	0.0476	0.00762	mg/L		01/28/14 14:05	02/01/14 20:49	100
Acenaphthene	0.260		0.0476	0.00762	mg/L		01/28/14 14:05	02/01/14 20:49	100
4-Nitrophenol	0.0533	U	0.0952	0.0533	mg/L		01/28/14 14:05	02/01/14 20:49	100
Dibenzofuran	0.276		0.0476	0.00762	mg/L		01/28/14 14:05	02/01/14 20:49	100
2,4-Dinitrotoluene	0.0124	U	0.0476	0.0124	mg/L		01/28/14 14:05	02/01/14 20:49	100
Fluorene	0.143		0.0476	0.00667	mg/L		01/28/14 14:05	02/01/14 20:49	100
4,6-Dinitro-2-methylphenol	0.0790	U	0.0952	0.0790	mg/L		01/28/14 14:05	02/01/14 20:49	100
N-Nitrosodiphenylamine	0.00952	U	0.0476	0.00952	mg/L		01/28/14 14:05	02/01/14 20:49	100
1,2-Diphenylhydrazine	0.0105	U	0.0476	0.0105	mg/L		01/28/14 14:05	02/01/14 20:49	100
Pentachlorophenol	0.0581	U	0.0952	0.0581	mg/L		01/28/14 14:05	02/01/14 20:49	100
Phenanthrene	0.196		0.0476	0.00571	mg/L		01/28/14 14:05	02/01/14 20:49	100
Anthracene	0.0292	J	0.0476	0.00476	mg/L		01/28/14 14:05	02/01/14 20:49	100
Di-n-butyl phthalate	0.0105	U	0.238	0.0105	mg/L		01/28/14 14:05	02/01/14 20:49	100
Fluoranthene	0.0357	J	0.0476	0.00667	mg/L		01/28/14 14:05	02/01/14 20:49	100
Pyrene	0.0227	J	0.0476	0.0105	mg/L		01/28/14 14:05	02/01/14 20:49	100
Benzo[a]anthracene	0.00762	U	0.0476	0.00762	mg/L		01/28/14 14:05	02/01/14 20:49	100
Bis(2-ethylhexyl) phthalate	0.0352	U	0.238	0.0352	mg/L		01/28/14 14:05	02/01/14 20:49	100
Chrysene	0.00976	J	0.0476	0.00762	mg/L		01/28/14 14:05	02/01/14 20:49	100
Benzo[a]pyrene	0.00762	U	0.0476	0.00762	mg/L		01/28/14 14:05	02/01/14 20:49	100

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	0	X	44 - 123	01/28/14 14:05	02/01/14 20:49	100
2-Fluorobiphenyl	0	X	43 - 120	01/28/14 14:05	02/01/14 20:49	100
2-Fluorophenol	0	X	18 - 120	01/28/14 14:05	02/01/14 20:49	100

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-85976-1

Client Sample ID: WG-1620-DUP2-20140122

Lab Sample ID: 600-85976-19

Date Collected: 01/22/14 15:45

Matrix: Water

Date Received: 01/23/14 07:24

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5	0	X	47 - 120	01/28/14 14:05	02/01/14 20:49	100
Terphenyl-d14	0	X	33 - 141	01/28/14 14:05	02/01/14 20:49	100
Phenol-d5 (Surr)	0	X	12 - 128	01/28/14 14:05	02/01/14 20:49	100

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels - DL

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-Dimethylphenol	0.457	J	0.476	0.295	mg/L		01/28/14 14:05	02/06/14 08:13	1000
Naphthalene	17.6	b	4.76	0.0762	mg/L		01/28/14 14:05	02/06/14 08:13	1000

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	0	X	44 - 123	01/28/14 14:05	02/06/14 08:13	1000
2-Fluorobiphenyl	0	X	43 - 120	01/28/14 14:05	02/06/14 08:13	1000
2-Fluorophenol	0	X	18 - 120	01/28/14 14:05	02/06/14 08:13	1000
Nitrobenzene-d5	0	X	47 - 120	01/28/14 14:05	02/06/14 08:13	1000
Terphenyl-d14	0	X	33 - 141	01/28/14 14:05	02/06/14 08:13	1000
Phenol-d5 (Surr)	0	X	12 - 128	01/28/14 14:05	02/06/14 08:13	1000

Client Sample ID: WG-1620-MW68C-20140122

Lab Sample ID: 600-85976-20

Date Collected: 01/22/14 16:30

Matrix: Water

Date Received: 01/23/14 07:24

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane	0.200	U	0.500	0.200	ug/L			01/29/14 15:30	1
Benzene	2.25		0.500	0.200	ug/L			01/29/14 15:30	1
Chlorobenzene	0.180	U	0.500	0.180	ug/L			01/29/14 15:30	1
Ethylbenzene	0.240	J	0.500	0.190	ug/L			01/29/14 15:30	1
Methylene Chloride	0.220	U	5.00	0.220	ug/L			01/29/14 15:30	1
Toluene	0.590		0.500	0.170	ug/L			01/29/14 15:30	1
Xylenes, Total	0.580	U	1.50	0.580	ug/L			01/29/14 15:30	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	93		70 - 130		01/29/14 15:30	1
Dibromofluoromethane (Surr)	94		70 - 130		01/29/14 15:30	1
Toluene-d8 (Surr)	99		70 - 130		01/29/14 15:30	1
1,2-Dichloroethane-d4 (Surr)	104		70 - 130		01/29/14 15:30	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.0000381	U	0.000476	0.0000381	mg/L		01/28/14 14:05	02/01/14 21:15	1
Nitrobenzene	0.000105	U	0.000476	0.000105	mg/L		01/28/14 14:05	02/01/14 21:15	1
2,4-Dimethylphenol	0.000454	J	0.000476	0.000295	mg/L		01/28/14 14:05	02/01/14 21:15	1
Bis(2-chloroethoxy)methane	0.000124	U	0.000476	0.000124	mg/L		01/28/14 14:05	02/01/14 21:15	1
Naphthalene	0.0112	b	0.00476	0.0000762	mg/L		01/28/14 14:05	02/01/14 21:15	1
2-Methylnaphthalene	0.00331		0.000476	0.0000667	mg/L		01/28/14 14:05	02/01/14 21:15	1
2-Chloronaphthalene	0.0000762	U	0.000476	0.0000762	mg/L		01/28/14 14:05	02/01/14 21:15	1
Acenaphthylene	0.0000571	U	0.000476	0.0000571	mg/L		01/28/14 14:05	02/01/14 21:15	1
2,6-Dinitrotoluene	0.0000762	U	0.000476	0.0000762	mg/L		01/28/14 14:05	02/01/14 21:15	1
Acenaphthene	0.00183		0.000476	0.0000762	mg/L		01/28/14 14:05	02/01/14 21:15	1
4-Nitrophenol	0.000533	U	0.000952	0.000533	mg/L		01/28/14 14:05	02/01/14 21:15	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-85976-1

Client Sample ID: WG-1620-MW68C-20140122

Lab Sample ID: 600-85976-20

Date Collected: 01/22/14 16:30

Matrix: Water

Date Received: 01/23/14 07:24

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Dibenzofuran	0.00192		0.000476	0.0000762	mg/L		01/28/14 14:05	02/01/14 21:15	1
2,4-Dinitrotoluene	0.000124	U	0.000476	0.000124	mg/L		01/28/14 14:05	02/01/14 21:15	1
Fluorene	0.00167		0.000476	0.0000667	mg/L		01/28/14 14:05	02/01/14 21:15	1
4,6-Dinitro-2-methylphenol	0.000790	U	0.000952	0.000790	mg/L		01/28/14 14:05	02/01/14 21:15	1
N-Nitrosodiphenylamine	0.0000952	U	0.000476	0.0000952	mg/L		01/28/14 14:05	02/01/14 21:15	1
1,2-Diphenylhydrazine	0.000105	U	0.000476	0.000105	mg/L		01/28/14 14:05	02/01/14 21:15	1
Pentachlorophenol	0.000581	U	0.000952	0.000581	mg/L		01/28/14 14:05	02/01/14 21:15	1
Phenanthrene	0.00585		0.000476	0.0000571	mg/L		01/28/14 14:05	02/01/14 21:15	1
Anthracene	0.00106		0.000476	0.0000476	mg/L		01/28/14 14:05	02/01/14 21:15	1
Di-n-butyl phthalate	0.000105	U	0.00238	0.000105	mg/L		01/28/14 14:05	02/01/14 21:15	1
Fluoranthene	0.00233		0.000476	0.0000667	mg/L		01/28/14 14:05	02/01/14 21:15	1
Pyrene	0.00140		0.000476	0.000105	mg/L		01/28/14 14:05	02/01/14 21:15	1
Benzo[a]anthracene	0.000276	J	0.000476	0.0000762	mg/L		01/28/14 14:05	02/01/14 21:15	1
Bis(2-ethylhexyl) phthalate	0.000352	U	0.00238	0.000352	mg/L		01/28/14 14:05	02/01/14 21:15	1
Chrysene	0.000301	J	0.000476	0.0000762	mg/L		01/28/14 14:05	02/01/14 21:15	1
Benzo[a]pyrene	0.000171	J	0.000476	0.0000762	mg/L		01/28/14 14:05	02/01/14 21:15	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	89		44 - 123				01/28/14 14:05	02/01/14 21:15	1
2-Fluorobiphenyl	62		43 - 120				01/28/14 14:05	02/01/14 21:15	1
2-Fluorophenol	42		18 - 120				01/28/14 14:05	02/01/14 21:15	1
Nitrobenzene-d5	63		47 - 120				01/28/14 14:05	02/01/14 21:15	1
Terphenyl-d14	85		33 - 141				01/28/14 14:05	02/01/14 21:15	1
Phenol-d5 (Surr)	32		12 - 128				01/28/14 14:05	02/01/14 21:15	1

Client Sample ID: WG-1620-MW70B-20140122

Lab Sample ID: 600-85976-21

Date Collected: 01/22/14 17:20

Matrix: Water

Date Received: 01/23/14 07:24

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane	0.200	U	0.500	0.200	ug/L			01/29/14 08:32	1
Benzene	2390		10.0	4.00	ug/L			01/29/14 18:45	20
Chlorobenzene	0.715		0.500	0.180	ug/L			01/29/14 08:32	1
Ethylbenzene	621		10.0	3.80	ug/L			01/29/14 18:45	20
Methylene Chloride	0.220	U	5.00	0.220	ug/L			01/29/14 08:32	1
Toluene	2310		10.0	3.40	ug/L			01/29/14 18:45	20
Xylenes, Total	1680		30.0	11.6	ug/L			01/29/14 18:45	20
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	93		70 - 130					01/29/14 08:32	1
4-Bromofluorobenzene (Surr)	92		70 - 130					01/29/14 18:45	20
Dibromofluoromethane (Surr)	88		70 - 130					01/29/14 08:32	1
Dibromofluoromethane (Surr)	94		70 - 130					01/29/14 18:45	20
Toluene-d8 (Surr)	101		70 - 130					01/29/14 08:32	1
Toluene-d8 (Surr)	99		70 - 130					01/29/14 18:45	20
1,2-Dichloroethane-d4 (Surr)	88		70 - 130					01/29/14 08:32	1
1,2-Dichloroethane-d4 (Surr)	101		70 - 130					01/29/14 18:45	20

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-85976-1

Client Sample ID: WG-1620-MW70B-20140122

Lab Sample ID: 600-85976-21

Date Collected: 01/22/14 17:20

Matrix: Water

Date Received: 01/23/14 07:24

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrobenzene	0.0157	U	0.0714	0.0157	mg/L		01/28/14 14:05	02/01/14 21:41	100
Bis(2-chloroethoxy)methane	0.0186	U	0.0714	0.0186	mg/L		01/28/14 14:05	02/01/14 21:41	100
2-Methylnaphthalene	1.40		0.0714	0.0100	mg/L		01/28/14 14:05	02/01/14 21:41	100
2-Chloronaphthalene	0.0114	U	0.0714	0.0114	mg/L		01/28/14 14:05	02/01/14 21:41	100
Acenaphthylene	0.00857	U	0.0714	0.00857	mg/L		01/28/14 14:05	02/01/14 21:41	100
2,6-Dinitrotoluene	0.0114	U	0.0714	0.0114	mg/L		01/28/14 14:05	02/01/14 21:41	100
Acenaphthene	0.454		0.0714	0.0114	mg/L		01/28/14 14:05	02/01/14 21:41	100
4-Nitrophenol	0.0800	U	0.143	0.0800	mg/L		01/28/14 14:05	02/01/14 21:41	100
Dibenzofuran	0.355		0.0714	0.0114	mg/L		01/28/14 14:05	02/01/14 21:41	100
2,4-Dinitrotoluene	0.0186	U	0.0714	0.0186	mg/L		01/28/14 14:05	02/01/14 21:41	100
Fluorene	0.217		0.0714	0.0100	mg/L		01/28/14 14:05	02/01/14 21:41	100
4,6-Dinitro-2-methylphenol	0.119	U	0.143	0.119	mg/L		01/28/14 14:05	02/01/14 21:41	100
N-Nitrosodiphenylamine	0.0143	U	0.0714	0.0143	mg/L		01/28/14 14:05	02/01/14 21:41	100
1,2-Diphenylhydrazine	0.0157	U	0.0714	0.0157	mg/L		01/28/14 14:05	02/01/14 21:41	100
Pentachlorophenol	0.0871	U	0.143	0.0871	mg/L		01/28/14 14:05	02/01/14 21:41	100
Phenanthrene	0.175		0.0714	0.00857	mg/L		01/28/14 14:05	02/01/14 21:41	100
Anthracene	0.0423	J	0.0714	0.00714	mg/L		01/28/14 14:05	02/01/14 21:41	100
Di-n-butyl phthalate	0.0157	U	0.357	0.0157	mg/L		01/28/14 14:05	02/01/14 21:41	100
Fluoranthene	0.0105	J	0.0714	0.0100	mg/L		01/28/14 14:05	02/01/14 21:41	100
Pyrene	0.0157	U	0.0714	0.0157	mg/L		01/28/14 14:05	02/01/14 21:41	100
Benzo[a]anthracene	0.0114	U	0.0714	0.0114	mg/L		01/28/14 14:05	02/01/14 21:41	100
Bis(2-ethylhexyl) phthalate	0.0529	U	0.357	0.0529	mg/L		01/28/14 14:05	02/01/14 21:41	100
Chrysene	0.0114	U	0.0714	0.0114	mg/L		01/28/14 14:05	02/01/14 21:41	100
Benzo[a]pyrene	0.0114	U	0.0714	0.0114	mg/L		01/28/14 14:05	02/01/14 21:41	100

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	0	X	44 - 123	01/28/14 14:05	02/01/14 21:41	100
2-Fluorobiphenyl	0	X	43 - 120	01/28/14 14:05	02/01/14 21:41	100
2-Fluorophenol	0	X	18 - 120	01/28/14 14:05	02/01/14 21:41	100
Nitrobenzene-d5	0	X	47 - 120	01/28/14 14:05	02/01/14 21:41	100
Terphenyl-d14	0	X	33 - 141	01/28/14 14:05	02/01/14 21:41	100
Phenol-d5 (Surr)	0	X	12 - 128	01/28/14 14:05	02/01/14 21:41	100

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels - DL

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	3.86		0.714	0.0571	mg/L		01/28/14 14:05	02/06/14 08:38	1000
Naphthalene	30.1	b	7.14	0.114	mg/L		01/28/14 14:05	02/06/14 08:38	1000

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	0	X	44 - 123	01/28/14 14:05	02/06/14 08:38	1000
2-Fluorobiphenyl	0	X	43 - 120	01/28/14 14:05	02/06/14 08:38	1000
2-Fluorophenol	0	X	18 - 120	01/28/14 14:05	02/06/14 08:38	1000
Nitrobenzene-d5	0	X	47 - 120	01/28/14 14:05	02/06/14 08:38	1000
Terphenyl-d14	0	X	33 - 141	01/28/14 14:05	02/06/14 08:38	1000
Phenol-d5 (Surr)	0	X	12 - 128	01/28/14 14:05	02/06/14 08:38	1000

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels - DL2

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-Dimethylphenol	72.0		7.14	4.43	mg/L		01/28/14 14:05	02/06/14 09:04	10000

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-85976-1

Client Sample ID: WG-1620-MW70B-20140122

Lab Sample ID: 600-85976-21

Date Collected: 01/22/14 17:20

Matrix: Water

Date Received: 01/23/14 07:24

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	0	X	44 - 123	01/28/14 14:05	02/06/14 09:04	10000
2-Fluorobiphenyl	0	X	43 - 120	01/28/14 14:05	02/06/14 09:04	10000
2-Fluorophenol	0	X	18 - 120	01/28/14 14:05	02/06/14 09:04	10000
Nitrobenzene-d5	0	X	47 - 120	01/28/14 14:05	02/06/14 09:04	10000
Terphenyl-d14	0	X	33 - 141	01/28/14 14:05	02/06/14 09:04	10000
Phenol-d5 (Surr)	0	X	12 - 128	01/28/14 14:05	02/06/14 09:04	10000

Client Sample ID: WG-1620-FB7-20140122

Lab Sample ID: 600-85976-22

Date Collected: 01/22/14 17:40

Matrix: Water

Date Received: 01/23/14 07:24

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane	0.200	U	0.500	0.200	ug/L			01/29/14 15:59	1
Benzene	0.200	U	0.500	0.200	ug/L			01/29/14 15:59	1
Chlorobenzene	0.180	U	0.500	0.180	ug/L			01/29/14 15:59	1
Ethylbenzene	0.190	U	0.500	0.190	ug/L			01/29/14 15:59	1
Methylene Chloride	0.220	U	5.00	0.220	ug/L			01/29/14 15:59	1
Toluene	0.170	U	0.500	0.170	ug/L			01/29/14 15:59	1
Vinyl chloride	0.180	U	0.500	0.180	ug/L			01/29/14 15:59	1
Xylenes, Total	0.580	U	1.50	0.580	ug/L			01/29/14 15:59	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	92		70 - 130		01/29/14 15:59	1
Dibromofluoromethane (Surr)	94		70 - 130		01/29/14 15:59	1
Toluene-d8 (Surr)	99		70 - 130		01/29/14 15:59	1
1,2-Dichloroethane-d4 (Surr)	105		70 - 130		01/29/14 15:59	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.000381	U	0.000476	0.000381	mg/L		01/28/14 14:05	02/01/14 22:07	1
Nitrobenzene	0.000105	U	0.000476	0.000105	mg/L		01/28/14 14:05	02/01/14 22:07	1
2,4-Dimethylphenol	0.000295	U	0.000476	0.000295	mg/L		01/28/14 14:05	02/01/14 22:07	1
Bis(2-chloroethoxy)methane	0.000124	U	0.000476	0.000124	mg/L		01/28/14 14:05	02/01/14 22:07	1
Naphthalene	0.000476	J b	0.00476	0.0000762	mg/L		01/28/14 14:05	02/01/14 22:07	1
2-Methylnaphthalene	0.000667	U	0.000476	0.000667	mg/L		01/28/14 14:05	02/01/14 22:07	1
2-Chloronaphthalene	0.000762	U	0.000476	0.000762	mg/L		01/28/14 14:05	02/01/14 22:07	1
Acenaphthylene	0.000571	U	0.000476	0.000571	mg/L		01/28/14 14:05	02/01/14 22:07	1
2,6-Dinitrotoluene	0.000762	U	0.000476	0.000762	mg/L		01/28/14 14:05	02/01/14 22:07	1
Acenaphthene	0.000762	U	0.000476	0.000762	mg/L		01/28/14 14:05	02/01/14 22:07	1
4-Nitrophenol	0.000533	U	0.000952	0.000533	mg/L		01/28/14 14:05	02/01/14 22:07	1
Dibenzofuran	0.000762	U	0.000476	0.000762	mg/L		01/28/14 14:05	02/01/14 22:07	1
2,4-Dinitrotoluene	0.000124	U	0.000476	0.000124	mg/L		01/28/14 14:05	02/01/14 22:07	1
Fluorene	0.000667	U	0.000476	0.000667	mg/L		01/28/14 14:05	02/01/14 22:07	1
4,6-Dinitro-2-methylphenol	0.000790	U	0.000952	0.000790	mg/L		01/28/14 14:05	02/01/14 22:07	1
N-Nitrosodiphenylamine	0.0000952	U	0.000476	0.0000952	mg/L		01/28/14 14:05	02/01/14 22:07	1
1,2-Diphenylhydrazine	0.000105	U	0.000476	0.000105	mg/L		01/28/14 14:05	02/01/14 22:07	1
Pentachlorophenol	0.000581	U	0.000952	0.000581	mg/L		01/28/14 14:05	02/01/14 22:07	1
Phenanthrene	0.000571	U	0.000476	0.000571	mg/L		01/28/14 14:05	02/01/14 22:07	1
Anthracene	0.000476	U	0.000476	0.000476	mg/L		01/28/14 14:05	02/01/14 22:07	1
Di-n-butyl phthalate	0.000105	U	0.00238	0.000105	mg/L		01/28/14 14:05	02/01/14 22:07	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-85976-1

Client Sample ID: WG-1620-FB7-20140122

Lab Sample ID: 600-85976-22

Date Collected: 01/22/14 17:40

Matrix: Water

Date Received: 01/23/14 07:24

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoranthene	0.0000667	U	0.000476	0.0000667	mg/L		01/28/14 14:05	02/01/14 22:07	1
Pyrene	0.000105	U	0.000476	0.000105	mg/L		01/28/14 14:05	02/01/14 22:07	1
Benzo[a]anthracene	0.0000762	U	0.000476	0.0000762	mg/L		01/28/14 14:05	02/01/14 22:07	1
Bis(2-ethylhexyl) phthalate	0.000352	U	0.00238	0.000352	mg/L		01/28/14 14:05	02/01/14 22:07	1
Chrysene	0.0000762	U	0.000476	0.0000762	mg/L		01/28/14 14:05	02/01/14 22:07	1
Benzo[a]pyrene	0.0000762	U	0.000476	0.0000762	mg/L		01/28/14 14:05	02/01/14 22:07	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	47		44 - 123				01/28/14 14:05	02/01/14 22:07	1
2-Fluorobiphenyl	43		43 - 120				01/28/14 14:05	02/01/14 22:07	1
2-Fluorophenol	22		18 - 120				01/28/14 14:05	02/01/14 22:07	1
Nitrobenzene-d5	44	X	47 - 120				01/28/14 14:05	02/01/14 22:07	1
Terphenyl-d14	46		33 - 141				01/28/14 14:05	02/01/14 22:07	1
Phenol-d5 (Surr)	12		12 - 128				01/28/14 14:05	02/01/14 22:07	1

Client Sample ID: WG-1620-TB3-20140122

Lab Sample ID: 600-85976-23

Date Collected: 01/22/14 00:00

Matrix: Water

Date Received: 01/23/14 07:24

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane	0.200	U	0.500	0.200	ug/L			01/29/14 02:44	1
Benzene	0.200	U	0.500	0.200	ug/L			01/29/14 02:44	1
Chlorobenzene	0.180	U	0.500	0.180	ug/L			01/29/14 02:44	1
Ethylbenzene	0.190	U	0.500	0.190	ug/L			01/29/14 02:44	1
Methylene Chloride	0.220	U	5.00	0.220	ug/L			01/29/14 02:44	1
Toluene	0.170	U	0.500	0.170	ug/L			01/29/14 02:44	1
Vinyl chloride	0.180	U	0.500	0.180	ug/L			01/29/14 02:44	1
Xylenes, Total	0.580	U	1.50	0.580	ug/L			01/29/14 02:44	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	95		70 - 130					01/29/14 02:44	1
Dibromofluoromethane (Surr)	91		70 - 130					01/29/14 02:44	1
Toluene-d8 (Surr)	102		70 - 130					01/29/14 02:44	1
1,2-Dichloroethane-d4 (Surr)	92		70 - 130					01/29/14 02:44	1

Definitions/Glossary

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-85976-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
U	Analyte was not detected at or above the SDL.
J	Result is less than the MQL but greater than or equal to the SDL and the concentration is an estimated value.

GC/MS Semi VOA

Qualifier	Qualifier Description
U	Analyte was not detected at or above the SDL.
J	Result is less than the MQL but greater than or equal to the SDL and the concentration is an estimated value.
X	Surrogate is outside control limits
b	The compound was found in the blank and sample
N	MS, MSD: Spike recovery exceeds upper or lower control limits.
N	RPD of the MS and MSD exceeds the control limits

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Surrogate Summary

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-85976-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		BFB (70-130)	DBFM (70-130)	TOL (70-130)	12DCE (70-130)
600-85976-1	WG-1620-MW32AR-20140121	93	92	100	97
600-85976-2	WG-1620-MW32B-20140121	92	91	100	96
600-85976-2	WG-1620-MW32B-20140121	91	93	99	102
600-85976-3	WG-1620-MW38A-20140121	96	94	99	101
600-85976-4	WG-1620-MW38B-20140121	94	92	100	96
600-85976-5	WG-1620-MW33BR-20140121	93	89	100	95
600-85976-5	WG-1620-MW33BR-20140121	93	93	100	102
600-85976-6	WG-1620-MW36D-20140121	93	95	99	103
600-85976-7	WG-1620-MW65D-20140121	94	90	103	92
600-85976-8	WG-1620-FB6-20140121	94	90	102	92
600-85976-9	WG-1620-MW53C-20140122	95	90	103	90
600-85976-10	WG-1620-MW25C-20140122	93	92	101	91
600-85976-10	WG-1620-MW25C-20140122	92	96	99	102
600-85976-11	WG-1620-MW25A-20140122	93	95	99	104
600-85976-12	WG-1620-MW28A-20140122	95	90	104	89
600-85976-13	WG-1620-MW28C-20140122	96	90	103	92
600-85976-13 MS	WG-1620-MW28CMS-20140122	97	92	102	91
600-85976-13 MSD	WG-1620-MW28CMSD-20140122	97	91	101	92
600-85976-16	WG-1620-MW63B-20140122	97	89	102	89
600-85976-17	WG-1620-MW26A-20140122	94	89	102	88
600-85976-18	WG-1620-MW68B-20140122	93	86	102	85
600-85976-18	WG-1620-MW68B-20140122	94	93	99	98
600-85976-19	WG-1620-DUP2-20140122	93	87	102	86
600-85976-19	WG-1620-DUP2-20140122	94	92	99	99
600-85976-20	WG-1620-MW68C-20140122	93	94	99	104
600-85976-21	WG-1620-MW70B-20140122	93	88	101	88
600-85976-21	WG-1620-MW70B-20140122	92	94	99	101
600-85976-22	WG-1620-FB7-20140122	92	94	99	105
600-85976-23	WG-1620-TB3-20140122	95	91	102	92
LCS 490-137972/3	Lab Control Sample	95	93	101	97
LCS 490-138115/3	Lab Control Sample	95	92	102	91
LCS 490-138219/3	Lab Control Sample	97	93	101	96
LCSD 490-137972/4	Lab Control Sample Dup	94	94	101	95
LCSD 490-138115/4	Lab Control Sample Dup	96	91	102	92
LCSD 490-138219/4	Lab Control Sample Dup	96	93	100	97
MB 490-137972/7	Method Blank	92	95	99	103
MB 490-138115/7	Method Blank	95	90	103	91
MB 490-138219/7	Method Blank	94	93	99	101

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)
 DBFM = Dibromofluoromethane (Surr)
 TOL = Toluene-d8 (Surr)
 12DCE = 1,2-Dichloroethane-d4 (Surr)

Surrogate Summary

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-85976-1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)					
		TBP (44-123)	FBP (43-120)	2FP (18-120)	NBZ (47-120)	TPH (33-141)	PHL (12-128)
600-85976-1	WG-1620-MW32AR-20140121	83	65	31	67	78	19
600-85976-2	WG-1620-MW32B-20140121	112	94	246 X	139 X	103	27
600-85976-2 - DL	WG-1620-MW32B-20140121	0 X	0 X	0 X	0 X	0 X	0 X
600-85976-2 - DL2	WG-1620-MW32B-20140121	0 X	0 X	0 X	0 X	0 X	0 X
600-85976-3	WG-1620-MW38A-20140121	45	60	18	58	86	13
600-85976-4	WG-1620-MW38B-20140121	82	68	32	65	86	19
600-85976-5	WG-1620-MW33BR-20140121	113	85	118	98	108	26
600-85976-5 - DL	WG-1620-MW33BR-20140121	0 X	0 X	0 X	0 X	0 X	0 X
600-85976-5 - DL2	WG-1620-MW33BR-20140121	0 X	0 X	0 X	0 X	0 X	0 X
600-85976-6	WG-1620-MW36D-20140121	59	69	21	66	94	16
600-85976-7	WG-1620-MW65D-20140121	96	64	30	64	84	19
600-85976-8	WG-1620-FB6-20140121	96	97	40	96	103	22
600-85976-9	WG-1620-MW53C-20140122	78	76	33	74	84	15
600-85976-10	WG-1620-MW25C-20140122	0 X	0 X	0 X	0 X	0 X	0 X
600-85976-10 - DL	WG-1620-MW25C-20140122	0 X	0 X	0 X	0 X	0 X	0 X
600-85976-11	WG-1620-MW25A-20140122	65	72	25	81	86	13
600-85976-12	WG-1620-MW28A-20140122	94	92	37	83	92	22
600-85976-13	WG-1620-MW28C-20140122	102	69	40	85	89	21
600-85976-13 MS	WG-1620-MW28CMS-20140122	121	78	67	98	106	57
600-85976-13 MSD	WG-1620-MW28CMSD-20140122	114	71	54	77	99	38
600-85976-16	WG-1620-MW63B-20140122	61	88	51	85	91	23
600-85976-16 - DL	WG-1620-MW63B-20140122	0 X	0 X	0 X	0 X	0 X	0 X
600-85976-17	WG-1620-MW26A-20140122	117	86	42	88	107	26
600-85976-17 - DL	WG-1620-MW26A-20140122	89	81	37	74	86	15
600-85976-18	WG-1620-MW68B-20140122	0 X	0 X	0 X	0 X	0 X	0 X
600-85976-18 - DL	WG-1620-MW68B-20140122	0 X	0 X	0 X	0 X	0 X	0 X
600-85976-19	WG-1620-DUP2-20140122	0 X	0 X	0 X	0 X	0 X	0 X
600-85976-19 - DL	WG-1620-DUP2-20140122	0 X	0 X	0 X	0 X	0 X	0 X
600-85976-20	WG-1620-MW68C-20140122	89	62	42	63	85	32
600-85976-21	WG-1620-MW70B-20140122	0 X	0 X	0 X	0 X	0 X	0 X
600-85976-21 - DL	WG-1620-MW70B-20140122	0 X	0 X	0 X	0 X	0 X	0 X
600-85976-21 - DL2	WG-1620-MW70B-20140122	0 X	0 X	0 X	0 X	0 X	0 X
600-85976-22	WG-1620-FB7-20140122	47	43	22	44 X	46	12
LCS 600-125999/2-A	Lab Control Sample	86	73	74	76	82	78
LCS 600-126055/2-A	Lab Control Sample	105	87	39	88	88	25
MB 600-125999/1-A	Method Blank	72	79	77	81	84	78
MB 600-126055/1-A	Method Blank	97	90	44	91	102	27

Surrogate Legend

TBP = 2,4,6-Tribromophenol
 FBP = 2-Fluorobiphenyl
 2FP = 2-Fluorophenol
 NBZ = Nitrobenzene-d5
 TPH = Terphenyl-d14
 PHL = Phenol-d5 (Surr)

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-85976-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 490-137972/7

Matrix: Water

Analysis Batch: 137972

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB MB		MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
1,2-Dichloroethane	0.200	U	0.500	0.200	ug/L			01/28/14 15:25	1
Benzene	0.200	U	0.500	0.200	ug/L			01/28/14 15:25	1
Chlorobenzene	0.180	U	0.500	0.180	ug/L			01/28/14 15:25	1
Ethylbenzene	0.190	U	0.500	0.190	ug/L			01/28/14 15:25	1
Methylene Chloride	0.220	U	5.00	0.220	ug/L			01/28/14 15:25	1
Toluene	0.170	U	0.500	0.170	ug/L			01/28/14 15:25	1
Vinyl chloride	0.180	U	0.500	0.180	ug/L			01/28/14 15:25	1
Xylenes, Total	0.580	U	1.50	0.580	ug/L			01/28/14 15:25	1

Surrogate	MB MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
4-Bromofluorobenzene (Surr)	92		70 - 130		01/28/14 15:25	1
Dibromofluoromethane (Surr)	95		70 - 130		01/28/14 15:25	1
Toluene-d8 (Surr)	99		70 - 130		01/28/14 15:25	1
1,2-Dichloroethane-d4 (Surr)	103		70 - 130		01/28/14 15:25	1

Lab Sample ID: LCS 490-137972/3

Matrix: Water

Analysis Batch: 137972

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	50.0	49.48		ug/L		99	80 - 121
Chlorobenzene	50.0	50.04		ug/L		100	80 - 120
Ethylbenzene	50.0	51.60		ug/L		103	80 - 130
Methylene Chloride	50.0	52.10		ug/L		104	79 - 123
Toluene	50.0	50.20		ug/L		100	80 - 126
Vinyl chloride	50.0	57.15		ug/L		114	68 - 120
Xylenes, Total	100	102.5		ug/L		102	80 - 132

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene (Surr)	95		70 - 130
Dibromofluoromethane (Surr)	93		70 - 130
Toluene-d8 (Surr)	101		70 - 130
1,2-Dichloroethane-d4 (Surr)	97		70 - 130

Lab Sample ID: LCSD 490-137972/4

Matrix: Water

Analysis Batch: 137972

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	
								RPD	Limit
1,2-Dichloroethane	50.0	46.35		ug/L		93	77 - 121	2	17
Benzene	50.0	48.47		ug/L		97	80 - 121	2	17
Chlorobenzene	50.0	49.78		ug/L		100	80 - 120	1	14
Ethylbenzene	50.0	51.11		ug/L		102	80 - 130	1	15
Methylene Chloride	50.0	51.84		ug/L		104	79 - 123	1	17
Toluene	50.0	49.62		ug/L		99	80 - 126	1	15
Vinyl chloride	50.0	55.39		ug/L		111	68 - 120	3	17

TestAmerica Houston

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-85976-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 490-137972/4

Matrix: Water

Analysis Batch: 137972

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Xylenes, Total	100	102.1		ug/L		102	80 - 132	0	15

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	94		70 - 130
Dibromofluoromethane (Surr)	94		70 - 130
Toluene-d8 (Surr)	101		70 - 130
1,2-Dichloroethane-d4 (Surr)	95		70 - 130

Lab Sample ID: MB 490-138115/7

Matrix: Water

Analysis Batch: 138115

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane	0.200	U	0.500	0.200	ug/L			01/29/14 02:17	1
Benzene	0.200	U	0.500	0.200	ug/L			01/29/14 02:17	1
Chlorobenzene	0.180	U	0.500	0.180	ug/L			01/29/14 02:17	1
Ethylbenzene	0.190	U	0.500	0.190	ug/L			01/29/14 02:17	1
Methylene Chloride	0.220	U	5.00	0.220	ug/L			01/29/14 02:17	1
Toluene	0.170	U	0.500	0.170	ug/L			01/29/14 02:17	1
Vinyl chloride	0.180	U	0.500	0.180	ug/L			01/29/14 02:17	1
Xylenes, Total	0.580	U	1.50	0.580	ug/L			01/29/14 02:17	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	95		70 - 130		01/29/14 02:17	1
Dibromofluoromethane (Surr)	90		70 - 130		01/29/14 02:17	1
Toluene-d8 (Surr)	103		70 - 130		01/29/14 02:17	1
1,2-Dichloroethane-d4 (Surr)	91		70 - 130		01/29/14 02:17	1

Lab Sample ID: LCS 490-138115/3

Matrix: Water

Analysis Batch: 138115

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2-Dichloroethane	50.0	45.82		ug/L		92	77 - 121
Benzene	50.0	50.80		ug/L		102	80 - 121
Chlorobenzene	50.0	52.69		ug/L		105	80 - 120
Ethylbenzene	50.0	54.81		ug/L		110	80 - 130
Methylene Chloride	50.0	54.07		ug/L		108	79 - 123
Toluene	50.0	52.95		ug/L		106	80 - 126
Vinyl chloride	50.0	56.98		ug/L		114	68 - 120
Xylenes, Total	100	109.0		ug/L		109	80 - 132

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	95		70 - 130
Dibromofluoromethane (Surr)	92		70 - 130
Toluene-d8 (Surr)	102		70 - 130
1,2-Dichloroethane-d4 (Surr)	91		70 - 130

TestAmerica Houston

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-85976-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 490-138115/4

Matrix: Water

Analysis Batch: 138115

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,2-Dichloroethane	50.0	44.28		ug/L		89	77 - 121	3	17
Benzene	50.0	49.06		ug/L		98	80 - 121	3	17
Chlorobenzene	50.0	51.08		ug/L		102	80 - 120	3	14
Ethylbenzene	50.0	52.99		ug/L		106	80 - 130	3	15
Methylene Chloride	50.0	52.70		ug/L		105	79 - 123	3	17
Toluene	50.0	50.96		ug/L		102	80 - 126	4	15
Vinyl chloride	50.0	54.30		ug/L		109	68 - 120	5	17
Xylenes, Total	100	105.6		ug/L		106	80 - 132	3	15

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	96		70 - 130
Dibromofluoromethane (Surr)	91		70 - 130
Toluene-d8 (Surr)	102		70 - 130
1,2-Dichloroethane-d4 (Surr)	92		70 - 130

Lab Sample ID: 600-85976-13 MS

Matrix: Water

Analysis Batch: 138115

Client Sample ID: WG-1620-MW28CMS-20140122

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2-Dichloroethane	0.200	U	50.0	44.03		ug/L		88	64 - 136
Benzene	0.200	U	50.0	50.67		ug/L		101	75 - 133
Chlorobenzene	0.180	U	50.0	51.06		ug/L		102	80 - 129
Ethylbenzene	0.190	U	50.0	54.08		ug/L		108	79 - 139
Methylene Chloride	0.220	U	50.0	50.98		ug/L		102	64 - 139
Toluene	0.170	U	50.0	52.34		ug/L		105	75 - 136
Vinyl chloride	0.180		50.0	56.29		ug/L		113	56 - 129
Xylenes, Total	0.580	U	100	107.6		ug/L		108	74 - 141

Surrogate	MS %Recovery	MS Qualifier	Limits
4-Bromofluorobenzene (Surr)	97		70 - 130
Dibromofluoromethane (Surr)	92		70 - 130
Toluene-d8 (Surr)	102		70 - 130
1,2-Dichloroethane-d4 (Surr)	91		70 - 130

Lab Sample ID: 600-85976-13 MSD

Matrix: Water

Analysis Batch: 138115

Client Sample ID: WG-1620-MW28CMSD-20140122

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,2-Dichloroethane	0.200	U	50.0	45.29		ug/L		91	64 - 136	3	17
Benzene	0.200	U	50.0	51.21		ug/L		102	75 - 133	1	17
Chlorobenzene	0.180	U	50.0	52.46		ug/L		105	80 - 129	3	14
Ethylbenzene	0.190	U	50.0	55.10		ug/L		110	79 - 139	2	15
Methylene Chloride	0.220	U	50.0	52.02		ug/L		104	64 - 139	2	17
Toluene	0.170	U	50.0	52.89		ug/L		106	75 - 136	1	15
Vinyl chloride	0.180		50.0	56.92		ug/L		114	56 - 129	1	17

TestAmerica Houston

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-85976-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 600-85976-13 MSD

Client Sample ID: WG-1620-MW28CMSD-20140122

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 138115

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Xylenes, Total	0.580	U	100	109.4		ug/L		109	74 - 141	2	15
Surrogate	%Recovery	MSD Qualifier	Limits								
4-Bromofluorobenzene (Surr)	97		70 - 130								
Dibromofluoromethane (Surr)	91		70 - 130								
Toluene-d8 (Surr)	101		70 - 130								
1,2-Dichloroethane-d4 (Surr)	92		70 - 130								

Lab Sample ID: MB 490-138219/7

Client Sample ID: Method Blank

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 138219

Analyte	MB Result	MB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane	0.200	U	0.500	0.200	ug/L			01/29/14 13:11	1
Benzene	0.200	U	0.500	0.200	ug/L			01/29/14 13:11	1
Chlorobenzene	0.180	U	0.500	0.180	ug/L			01/29/14 13:11	1
Ethylbenzene	0.190	U	0.500	0.190	ug/L			01/29/14 13:11	1
Methylene Chloride	0.220	U	5.00	0.220	ug/L			01/29/14 13:11	1
Toluene	0.170	U	0.500	0.170	ug/L			01/29/14 13:11	1
Vinyl chloride	0.180	U	0.500	0.180	ug/L			01/29/14 13:11	1
Xylenes, Total	0.580	U	1.50	0.580	ug/L			01/29/14 13:11	1
Surrogate	%Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	94		70 - 130					01/29/14 13:11	1
Dibromofluoromethane (Surr)	93		70 - 130					01/29/14 13:11	1
Toluene-d8 (Surr)	99		70 - 130					01/29/14 13:11	1
1,2-Dichloroethane-d4 (Surr)	101		70 - 130					01/29/14 13:11	1

Lab Sample ID: LCS 490-138219/3

Client Sample ID: Lab Control Sample

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 138219

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2-Dichloroethane	50.0	46.38		ug/L		93	77 - 121
Benzene	50.0	48.21		ug/L		96	80 - 121
Chlorobenzene	50.0	49.57		ug/L		99	80 - 120
Ethylbenzene	50.0	51.13		ug/L		102	80 - 130
Methylene Chloride	50.0	51.41		ug/L		103	79 - 123
Toluene	50.0	49.35		ug/L		99	80 - 126
Vinyl chloride	50.0	51.29		ug/L		103	68 - 120
Xylenes, Total	100	102.8		ug/L		103	80 - 132
Surrogate	%Recovery	LCS Qualifier	Limits				
4-Bromofluorobenzene (Surr)	97		70 - 130				
Dibromofluoromethane (Surr)	93		70 - 130				
Toluene-d8 (Surr)	101		70 - 130				
1,2-Dichloroethane-d4 (Surr)	96		70 - 130				

TestAmerica Houston

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-85976-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 490-138219/4

Matrix: Water

Analysis Batch: 138219

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,2-Dichloroethane	50.0	46.99		ug/L		94	77 - 121	1	17
Benzene	50.0	49.15		ug/L		98	80 - 121	2	17
Chlorobenzene	50.0	50.04		ug/L		100	80 - 120	1	14
Ethylbenzene	50.0	51.68		ug/L		103	80 - 130	1	15
Methylene Chloride	50.0	51.60		ug/L		103	79 - 123	0	17
Toluene	50.0	49.99		ug/L		100	80 - 126	1	15
Vinyl chloride	50.0	53.30		ug/L		107	68 - 120	4	17
Xylenes, Total	100	103.8		ug/L		104	80 - 132	1	15

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	96		70 - 130
Dibromofluoromethane (Surr)	93		70 - 130
Toluene-d8 (Surr)	100		70 - 130
1,2-Dichloroethane-d4 (Surr)	97		70 - 130

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Lab Sample ID: MB 600-125999/1-A

Matrix: Water

Analysis Batch: 126484

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 125999

Analyte	MB Result	MB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.000400	U	0.000500	0.000400	mg/L		01/28/14 06:11	01/31/14 11:23	1
Nitrobenzene	0.000110	U	0.000500	0.000110	mg/L		01/28/14 06:11	01/31/14 11:23	1
2,4-Dimethylphenol	0.000310	U	0.000500	0.000310	mg/L		01/28/14 06:11	01/31/14 11:23	1
Bis(2-chloroethoxy)methane	0.000130	U	0.000500	0.000130	mg/L		01/28/14 06:11	01/31/14 11:23	1
Naphthalene	0.0000800	U	0.000500	0.0000800	mg/L		01/28/14 06:11	01/31/14 11:23	1
2-Methylnaphthalene	0.0000700	U	0.000500	0.0000700	mg/L		01/28/14 06:11	01/31/14 11:23	1
2-Chloronaphthalene	0.0000800	U	0.000500	0.0000800	mg/L		01/28/14 06:11	01/31/14 11:23	1
Acenaphthylene	0.0000600	U	0.000500	0.0000600	mg/L		01/28/14 06:11	01/31/14 11:23	1
2,6-Dinitrotoluene	0.0000800	U	0.000500	0.0000800	mg/L		01/28/14 06:11	01/31/14 11:23	1
Acenaphthene	0.0000800	U	0.000500	0.0000800	mg/L		01/28/14 06:11	01/31/14 11:23	1
4-Nitrophenol	0.000560	U	0.00100	0.000560	mg/L		01/28/14 06:11	01/31/14 11:23	1
Dibenzofuran	0.0000800	U	0.000500	0.0000800	mg/L		01/28/14 06:11	01/31/14 11:23	1
2,4-Dinitrotoluene	0.000130	U	0.000500	0.000130	mg/L		01/28/14 06:11	01/31/14 11:23	1
Fluorene	0.0000700	U	0.000500	0.0000700	mg/L		01/28/14 06:11	01/31/14 11:23	1
4,6-Dinitro-2-methylphenol	0.000830	U	0.00100	0.000830	mg/L		01/28/14 06:11	01/31/14 11:23	1
N-Nitrosodiphenylamine	0.000100	U	0.000500	0.000100	mg/L		01/28/14 06:11	01/31/14 11:23	1
1,2-Diphenylhydrazine	0.000110	U	0.000500	0.000110	mg/L		01/28/14 06:11	01/31/14 11:23	1
Pentachlorophenol	0.000610	U	0.00100	0.000610	mg/L		01/28/14 06:11	01/31/14 11:23	1
Phenanthrene	0.0000600	U	0.000500	0.0000600	mg/L		01/28/14 06:11	01/31/14 11:23	1
Anthracene	0.0000500	U	0.000500	0.0000500	mg/L		01/28/14 06:11	01/31/14 11:23	1
Di-n-butyl phthalate	0.000110	U	0.00250	0.000110	mg/L		01/28/14 06:11	01/31/14 11:23	1
Fluoranthene	0.0000700	U	0.000500	0.0000700	mg/L		01/28/14 06:11	01/31/14 11:23	1
Pyrene	0.000110	U	0.000500	0.000110	mg/L		01/28/14 06:11	01/31/14 11:23	1
Benzo[a]anthracene	0.0000800	U	0.000500	0.0000800	mg/L		01/28/14 06:11	01/31/14 11:23	1
Bis(2-ethylhexyl) phthalate	0.000370	U	0.00250	0.000370	mg/L		01/28/14 06:11	01/31/14 11:23	1

TestAmerica Houston

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-85976-1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Lab Sample ID: MB 600-125999/1-A

Matrix: Water

Analysis Batch: 126484

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 125999

Analyte	MB Result	MB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	0.0000800	U	0.000500	0.0000800	mg/L		01/28/14 06:11	01/31/14 11:23	1
Benzo[a]pyrene	0.0000800	U	0.000500	0.0000800	mg/L		01/28/14 06:11	01/31/14 11:23	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	72		44 - 123	01/28/14 06:11	01/31/14 11:23	1
2-Fluorobiphenyl	79		43 - 120	01/28/14 06:11	01/31/14 11:23	1
2-Fluorophenol	77		18 - 120	01/28/14 06:11	01/31/14 11:23	1
Nitrobenzene-d5	81		47 - 120	01/28/14 06:11	01/31/14 11:23	1
Terphenyl-d14	84		33 - 141	01/28/14 06:11	01/31/14 11:23	1
Phenol-d5 (Surr)	78		12 - 128	01/28/14 06:11	01/31/14 11:23	1

Lab Sample ID: LCS 600-125999/2-A

Matrix: Water

Analysis Batch: 126484

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 125999

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Phenol	0.0100	0.009172		mg/L		92	11 - 112
Nitrobenzene	0.0100	0.008504		mg/L		85	42 - 119
2,4-Dimethylphenol	0.0100	0.008482		mg/L		85	36 - 109
Bis(2-chloroethoxy)methane	0.0100	0.008002		mg/L		80	42 - 119
Naphthalene	0.0100	0.008275		mg/L		83	39 - 120
2-Methylnaphthalene	0.0100	0.008096		mg/L		81	40 - 121
2-Chloronaphthalene	0.0100	0.007717		mg/L		77	43 - 120
Acenaphthylene	0.0100	0.008171		mg/L		82	35 - 135
2,6-Dinitrotoluene	0.0100	0.008268		mg/L		83	45 - 122
Acenaphthene	0.0100	0.007667		mg/L		77	47 - 145
4-Nitrophenol	0.0200	0.01920		mg/L		96	14 - 132
Dibenzofuran	0.0100	0.007927		mg/L		79	46 - 123
2,4-Dinitrotoluene	0.0100	0.008460		mg/L		85	43 - 128
Fluorene	0.0100	0.007969		mg/L		80	48 - 127
4,6-Dinitro-2-methylphenol	0.0200	0.01644		mg/L		82	24 - 122
N-Nitrosodiphenylamine	0.0100	0.008365		mg/L		84	43 - 107
1,2-Diphenylhydrazine	0.0100	0.008576		mg/L		86	47 - 117
Pentachlorophenol	0.0200	0.01818		mg/L		91	9 - 147
Phenanthrene	0.0100	0.007957		mg/L		80	52 - 121
Anthracene	0.0100	0.008483		mg/L		85	53 - 124
Di-n-butyl phthalate	0.0100	0.008881		mg/L		89	54 - 138
Fluoranthene	0.0100	0.008662		mg/L		87	53 - 127
Pyrene	0.0100	0.007927		mg/L		79	49 - 121
Benzo[a]anthracene	0.0100	0.008602		mg/L		86	53 - 122
Bis(2-ethylhexyl) phthalate	0.0100	0.007741		mg/L		77	47 - 132
Chrysene	0.0100	0.008294		mg/L		83	49 - 124
Benzo[a]pyrene	0.0100	0.009291		mg/L		93	50 - 124

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2,4,6-Tribromophenol	86		44 - 123
2-Fluorobiphenyl	73		43 - 120

TestAmerica Houston

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-85976-1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Lab Sample ID: LCS 600-125999/2-A
Matrix: Water
Analysis Batch: 126484

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 125999

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
2-Fluorophenol	74		18 - 120
Nitrobenzene-d5	76		47 - 120
Terphenyl-d14	82		33 - 141
Phenol-d5 (Surr)	78		12 - 128

Lab Sample ID: MB 600-126055/1-A
Matrix: Water
Analysis Batch: 126520

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 126055

Analyte	MB MB		MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Phenol	0.0000400	U	0.000500	0.0000400	mg/L		01/28/14 14:05	02/01/14 15:14	1
Nitrobenzene	0.000110	U	0.000500	0.000110	mg/L		01/28/14 14:05	02/01/14 15:14	1
2,4-Dimethylphenol	0.000310	U	0.000500	0.000310	mg/L		01/28/14 14:05	02/01/14 15:14	1
Bis(2-chloroethoxy)methane	0.000130	U	0.000500	0.000130	mg/L		01/28/14 14:05	02/01/14 15:14	1
Naphthalene	0.0002811	J	0.00500	0.0000800	mg/L		01/28/14 14:05	02/01/14 15:14	1
2-Methylnaphthalene	0.0000700	U	0.000500	0.0000700	mg/L		01/28/14 14:05	02/01/14 15:14	1
2-Chloronaphthalene	0.0000800	U	0.000500	0.0000800	mg/L		01/28/14 14:05	02/01/14 15:14	1
Acenaphthylene	0.0000600	U	0.000500	0.0000600	mg/L		01/28/14 14:05	02/01/14 15:14	1
2,6-Dinitrotoluene	0.0000800	U	0.000500	0.0000800	mg/L		01/28/14 14:05	02/01/14 15:14	1
Acenaphthene	0.0000800	U	0.000500	0.0000800	mg/L		01/28/14 14:05	02/01/14 15:14	1
4-Nitrophenol	0.000560	U	0.00100	0.000560	mg/L		01/28/14 14:05	02/01/14 15:14	1
Dibenzofuran	0.0000800	U	0.000500	0.0000800	mg/L		01/28/14 14:05	02/01/14 15:14	1
2,4-Dinitrotoluene	0.000130	U	0.000500	0.000130	mg/L		01/28/14 14:05	02/01/14 15:14	1
Fluorene	0.0000700	U	0.000500	0.0000700	mg/L		01/28/14 14:05	02/01/14 15:14	1
4,6-Dinitro-2-methylphenol	0.000830	U	0.00100	0.000830	mg/L		01/28/14 14:05	02/01/14 15:14	1
N-Nitrosodiphenylamine	0.000100	U	0.000500	0.000100	mg/L		01/28/14 14:05	02/01/14 15:14	1
1,2-Diphenylhydrazine	0.000110	U	0.000500	0.000110	mg/L		01/28/14 14:05	02/01/14 15:14	1
Pentachlorophenol	0.000610	U	0.00100	0.000610	mg/L		01/28/14 14:05	02/01/14 15:14	1
Phenanthrene	0.0000600	U	0.000500	0.0000600	mg/L		01/28/14 14:05	02/01/14 15:14	1
Anthracene	0.0000500	U	0.000500	0.0000500	mg/L		01/28/14 14:05	02/01/14 15:14	1
Di-n-butyl phthalate	0.000110	U	0.00250	0.000110	mg/L		01/28/14 14:05	02/01/14 15:14	1
Fluoranthene	0.0000700	U	0.000500	0.0000700	mg/L		01/28/14 14:05	02/01/14 15:14	1
Pyrene	0.000110	U	0.000500	0.000110	mg/L		01/28/14 14:05	02/01/14 15:14	1
Benzo[a]anthracene	0.0000800	U	0.000500	0.0000800	mg/L		01/28/14 14:05	02/01/14 15:14	1
Bis(2-ethylhexyl) phthalate	0.000370	U	0.00250	0.000370	mg/L		01/28/14 14:05	02/01/14 15:14	1
Chrysene	0.0000800	U	0.000500	0.0000800	mg/L		01/28/14 14:05	02/01/14 15:14	1
Benzo[a]pyrene	0.0000800	U	0.000500	0.0000800	mg/L		01/28/14 14:05	02/01/14 15:14	1

Surrogate	MB MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
2,4,6-Tribromophenol	97		44 - 123	01/28/14 14:05	02/01/14 15:14	1
2-Fluorobiphenyl	90		43 - 120	01/28/14 14:05	02/01/14 15:14	1
2-Fluorophenol	44		18 - 120	01/28/14 14:05	02/01/14 15:14	1
Nitrobenzene-d5	91		47 - 120	01/28/14 14:05	02/01/14 15:14	1
Terphenyl-d14	102		33 - 141	01/28/14 14:05	02/01/14 15:14	1
Phenol-d5 (Surr)	27		12 - 128	01/28/14 14:05	02/01/14 15:14	1

TestAmerica Houston

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-85976-1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Lab Sample ID: LCS 600-126055/2-A

Matrix: Water

Analysis Batch: 126520

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 126055

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Phenol	0.0100	0.002458		mg/L		25	11 - 112
Nitrobenzene	0.0100	0.009671		mg/L		97	42 - 119
2,4-Dimethylphenol	0.0100	0.009001		mg/L		90	36 - 109
Bis(2-chloroethoxy)methane	0.0100	0.009327		mg/L		93	42 - 119
Naphthalene	0.0100	0.008464		mg/L		85	39 - 120
2-Methylnaphthalene	0.0100	0.007803		mg/L		78	40 - 121
2-Chloronaphthalene	0.0100	0.008567		mg/L		86	43 - 120
Acenaphthylene	0.0100	0.009823		mg/L		98	35 - 135
2,6-Dinitrotoluene	0.0100	0.01060		mg/L		106	45 - 122
Acenaphthene	0.0100	0.008547		mg/L		85	47 - 145
4-Nitrophenol	0.0200	0.005977		mg/L		30	14 - 132
Dibenzofuran	0.0100	0.008451		mg/L		85	46 - 123
2,4-Dinitrotoluene	0.0100	0.009912		mg/L		99	43 - 128
Fluorene	0.0100	0.009130		mg/L		91	48 - 127
4,6-Dinitro-2-methylphenol	0.0200	0.01749		mg/L		87	24 - 122
N-Nitrosodiphenylamine	0.0100	0.009721		mg/L		97	43 - 107
1,2-Diphenylhydrazine	0.0100	0.01035		mg/L		103	47 - 117
Pentachlorophenol	0.0200	0.01642		mg/L		82	9 - 147
Phenanthrene	0.0100	0.008653		mg/L		87	52 - 121
Anthracene	0.0100	0.008496		mg/L		85	53 - 124
Di-n-butyl phthalate	0.0100	0.01036		mg/L		104	54 - 138
Fluoranthene	0.0100	0.01021		mg/L		102	53 - 127
Pyrene	0.0100	0.008252		mg/L		83	49 - 121
Benzo[a]anthracene	0.0100	0.009143		mg/L		91	53 - 122
Bis(2-ethylhexyl) phthalate	0.0100	0.008791		mg/L		88	47 - 132
Chrysene	0.0100	0.008804		mg/L		88	49 - 124
Benzo[a]pyrene	0.0100	0.008683		mg/L		87	50 - 124

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2,4,6-Tribromophenol	105		44 - 123
2-Fluorobiphenyl	87		43 - 120
2-Fluorophenol	39		18 - 120
Nitrobenzene-d5	88		47 - 120
Terphenyl-d14	88		33 - 141
Phenol-d5 (Surr)	25		12 - 128

Lab Sample ID: 600-85976-13 MS

Matrix: Water

Analysis Batch: 126520

Client Sample ID: WG-1620-MW28CMS-20140122

Prep Type: Total/NA

Prep Batch: 126055

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Phenol	0.0000400	U	0.0100	0.005839		mg/L		58	10 - 62
Nitrobenzene	0.000110	U	0.0100	0.01030		mg/L		103	37 - 104
2,4-Dimethylphenol	0.000310	U	0.0100	0.01041	N	mg/L		104	25 - 85
Bis(2-chloroethoxy)methane	0.000130	U	0.0100	0.009796		mg/L		98	42 - 101
Naphthalene	0.000596	J b	0.0100	0.008626		mg/L		80	34 - 99
2-Methylnaphthalene	0.0000741	J	0.0100	0.007304		mg/L		72	36 - 111
2-Chloronaphthalene	0.0000800	U	0.0100	0.007898		mg/L		79	42 - 100

TestAmerica Houston

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-85976-1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Lab Sample ID: 600-85976-13 MS

Matrix: Water

Analysis Batch: 126520

Client Sample ID: WG-1620-MW28CMS-20140122

Prep Type: Total/NA

Prep Batch: 126055

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec. Limits
	Result	Qualifier	Added	Result	Qualifier				
Acenaphthylene	0.0000600	U	0.0100	0.008789		mg/L		88	38 - 115
2,6-Dinitrotoluene	0.0000800	U	0.0100	0.01177		mg/L		118	47 - 118
Acenaphthene	0.0000800	U	0.0100	0.008424		mg/L		84	46 - 118
4-Nitrophenol	0.000560	U	0.0200	0.01190		mg/L		59	10 - 100
Dibenzofuran	0.0000800	U	0.0100	0.008312		mg/L		83	46 - 110
2,4-Dinitrotoluene	0.000130	U	0.0100	0.01114		mg/L		111	41 - 125
Fluorene	0.0000700	U	0.0100	0.009119		mg/L		91	44 - 112
4,6-Dinitro-2-methylphenol	0.000830	U	0.0200	0.02136		mg/L		107	28 - 128
N-Nitrosodiphenylamine	0.000100	U	0.0100	0.01131		mg/L		113	58 - 142
1,2-Diphenylhydrazine	0.000110	U	0.0100	0.01114		mg/L		111	10 - 130
Pentachlorophenol	0.000610	U	0.0200	0.02252		mg/L		113	45 - 155
Phenanthrene	0.0000739	J	0.0100	0.009516		mg/L		94	41 - 117
Anthracene	0.0000500	U	0.0100	0.009084		mg/L		91	35 - 116
Di-n-butyl phthalate	0.000110	U	0.0100	0.01221		mg/L		122	31 - 137
Fluoranthene	0.0000700	U	0.0100	0.01027		mg/L		103	14 - 145
Pyrene	0.000110	U	0.0100	0.01041		mg/L		104	28 - 133
Benzo[a]anthracene	0.0000800	U	0.0100	0.01032		mg/L		103	24 - 126
Bis(2-ethylhexyl) phthalate	0.000370	U	0.0100	0.01105		mg/L		110	14 - 123
Chrysene	0.0000800	U	0.0100	0.01048		mg/L		105	23 - 128
Benzo[a]pyrene	0.0000800	U	0.0100	0.01021		mg/L		102	60 - 140

Surrogate	MS	MS	Limits
	%Recovery	Qualifier	
2,4,6-Tribromophenol	121		44 - 123
2-Fluorobiphenyl	78		43 - 120
2-Fluorophenol	67		18 - 120
Nitrobenzene-d5	98		47 - 120
Terphenyl-d14	106		33 - 141
Phenol-d5 (Surr)	57		12 - 128

Lab Sample ID: 600-85976-13 MSD

Matrix: Water

Analysis Batch: 126520

Client Sample ID: WG-1620-MW28CMSD-20140122

Prep Type: Total/NA

Prep Batch: 126055

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec. Limits	RPD	Limit
	Result	Qualifier	Added	Result	Qualifier						
Phenol	0.0000400	U	0.0100	0.004571	N	mg/L		46	10 - 62	24	20
Nitrobenzene	0.000110	U	0.0100	0.008506		mg/L		85	37 - 104	19	20
2,4-Dimethylphenol	0.000310	U	0.0100	0.008234	N	mg/L		82	25 - 85	23	20
Bis(2-chloroethoxy)methane	0.000130	U	0.0100	0.008611		mg/L		86	42 - 101	13	20
Naphthalene	0.000596	J b	0.0100	0.009991		mg/L		94	34 - 99	15	20
2-Methylnaphthalene	0.0000741	J	0.0100	0.007446		mg/L		74	36 - 111	2	20
2-Chloronaphthalene	0.0000800	U	0.0100	0.007807		mg/L		78	42 - 100	1	20
Acenaphthylene	0.0000600	U	0.0100	0.007896		mg/L		79	38 - 115	11	20
2,6-Dinitrotoluene	0.0000800	U	0.0100	0.009646		mg/L		96	47 - 118	20	20
Acenaphthene	0.0000800	U	0.0100	0.007817		mg/L		78	46 - 118	7	20
4-Nitrophenol	0.000560	U	0.0200	0.008916	N	mg/L		45	10 - 100	29	20
Dibenzofuran	0.0000800	U	0.0100	0.008239		mg/L		82	46 - 110	1	20
2,4-Dinitrotoluene	0.000130	U	0.0100	0.009567		mg/L		96	41 - 125	15	20
Fluorene	0.0000700	U	0.0100	0.008548		mg/L		85	44 - 112	6	20

TestAmerica Houston

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-85976-1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Lab Sample ID: 600-85976-13 MSD

Client Sample ID: WG-1620-MW28CMSD-20140122

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 126520

Prep Batch: 126055

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.	RPD	Limit
	Result	Qualifier	Added	Result	Qualifier				Limits		
4,6-Dinitro-2-methylphenol	0.000830	U	0.0200	0.01861		mg/L		93	28 - 128	14	20
N-Nitrosodiphenylamine	0.000100	U	0.0100	0.01023		mg/L		102	58 - 142	10	20
1,2-Diphenylhydrazine	0.000110	U	0.0100	0.01021		mg/L		102	10 - 130	9	20
Pentachlorophenol	0.000610	U	0.0200	0.02070		mg/L		103	45 - 155	8	20
Phenanthrene	0.0000739	J	0.0100	0.009123		mg/L		90	41 - 117	4	20
Anthracene	0.0000500	U	0.0100	0.008692		mg/L		87	35 - 116	4	20
Di-n-butyl phthalate	0.000110	U	0.0100	0.01092		mg/L		109	31 - 137	11	20
Fluoranthene	0.0000700	U	0.0100	0.01010		mg/L		101	14 - 145	2	20
Pyrene	0.000110	U	0.0100	0.009938		mg/L		99	28 - 133	5	20
Benzo[a]anthracene	0.0000800	U	0.0100	0.009552		mg/L		96	24 - 126	8	20
Bis(2-ethylhexyl) phthalate	0.000370	U	0.0100	0.01061		mg/L		106	14 - 123	4	20
Chrysene	0.0000800	U	0.0100	0.009040		mg/L		90	23 - 128	15	20
Benzo[a]pyrene	0.0000800	U	0.0100	0.009472		mg/L		95	60 - 140	7	20

Surrogate	MSD	MSD	Limits
	%Recovery	Qualifier	
2,4,6-Tribromophenol	114		44 - 123
2-Fluorobiphenyl	71		43 - 120
2-Fluorophenol	54		18 - 120
Nitrobenzene-d5	77		47 - 120
Terphenyl-d14	99		33 - 141
Phenol-d5 (Surr)	38		12 - 128

Unadjusted Detection Limits

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-85976-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	MQL	MDL	Units	Method
1,2-Dichloroethane	0.500	0.200	ug/L	8260B
Benzene	0.500	0.200	ug/L	8260B
Chlorobenzene	0.500	0.180	ug/L	8260B
Ethylbenzene	0.500	0.190	ug/L	8260B
Methylene Chloride	5.00	0.220	ug/L	8260B
Toluene	0.500	0.170	ug/L	8260B
Vinyl chloride	0.500	0.180	ug/L	8260B
Xylenes, Total	1.50	0.580	ug/L	8260B

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	MQL	MDL	Units	Method
1,2-Diphenylhydrazine	0.000500	0.000110	mg/L	8270C LL
2,4-Dimethylphenol	0.000500	0.000310	mg/L	8270C LL
2,4-Dinitrotoluene	0.000500	0.000130	mg/L	8270C LL
2,6-Dinitrotoluene	0.000500	0.0000800	mg/L	8270C LL
2-Chloronaphthalene	0.000500	0.0000800	mg/L	8270C LL
2-Methylnaphthalene	0.000500	0.0000700	mg/L	8270C LL
4,6-Dinitro-2-methylphenol	0.00100	0.000830	mg/L	8270C LL
4-Nitrophenol	0.00100	0.000560	mg/L	8270C LL
Acenaphthene	0.000500	0.0000800	mg/L	8270C LL
Acenaphthylene	0.000500	0.0000600	mg/L	8270C LL
Anthracene	0.000500	0.0000500	mg/L	8270C LL
Benzo[a]anthracene	0.000500	0.0000800	mg/L	8270C LL
Benzo[a]pyrene	0.000500	0.0000800	mg/L	8270C LL
Bis(2-chloroethoxy)methane	0.000500	0.000130	mg/L	8270C LL
Bis(2-ethylhexyl) phthalate	0.00250	0.000370	mg/L	8270C LL
Chrysene	0.000500	0.0000800	mg/L	8270C LL
Dibenzofuran	0.000500	0.0000800	mg/L	8270C LL
Di-n-butyl phthalate	0.00250	0.000110	mg/L	8270C LL
Fluoranthene	0.000500	0.0000700	mg/L	8270C LL
Fluorene	0.000500	0.0000700	mg/L	8270C LL
Naphthalene	0.00500	0.0000800	mg/L	8270C LL
Nitrobenzene	0.000500	0.000110	mg/L	8270C LL
N-Nitrosodiphenylamine	0.000500	0.000100	mg/L	8270C LL
Pentachlorophenol	0.00100	0.000610	mg/L	8270C LL
Phenanthrene	0.000500	0.0000600	mg/L	8270C LL
Phenol	0.000500	0.0000400	mg/L	8270C LL
Pyrene	0.000500	0.000110	mg/L	8270C LL

QC Association Summary

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-85976-1

GC/MS VOA

Analysis Batch: 137972

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-85976-1	WG-1620-MW32AR-20140121	Total/NA	Water	8260B	
600-85976-2	WG-1620-MW32B-20140121	Total/NA	Water	8260B	
600-85976-4	WG-1620-MW38B-20140121	Total/NA	Water	8260B	
600-85976-5	WG-1620-MW33BR-20140121	Total/NA	Water	8260B	
LCS 490-137972/3	Lab Control Sample	Total/NA	Water	8260B	
LCSD 490-137972/4	Lab Control Sample Dup	Total/NA	Water	8260B	
MB 490-137972/7	Method Blank	Total/NA	Water	8260B	

Analysis Batch: 138115

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-85976-7	WG-1620-MW65D-20140121	Total/NA	Water	8260B	
600-85976-8	WG-1620-FB6-20140121	Total/NA	Water	8260B	
600-85976-9	WG-1620-MW53C-20140122	Total/NA	Water	8260B	
600-85976-10	WG-1620-MW25C-20140122	Total/NA	Water	8260B	
600-85976-12	WG-1620-MW28A-20140122	Total/NA	Water	8260B	
600-85976-13	WG-1620-MW28C-20140122	Total/NA	Water	8260B	
600-85976-13 MS	WG-1620-MW28CMS-20140122	Total/NA	Water	8260B	
600-85976-13 MSD	WG-1620-MW28CMSD-20140122	Total/NA	Water	8260B	
600-85976-16	WG-1620-MW63B-20140122	Total/NA	Water	8260B	
600-85976-17	WG-1620-MW26A-20140122	Total/NA	Water	8260B	
600-85976-18	WG-1620-MW68B-20140122	Total/NA	Water	8260B	
600-85976-19	WG-1620-DUP2-20140122	Total/NA	Water	8260B	
600-85976-21	WG-1620-MW70B-20140122	Total/NA	Water	8260B	
600-85976-23	WG-1620-TB3-20140122	Total/NA	Water	8260B	
LCS 490-138115/3	Lab Control Sample	Total/NA	Water	8260B	
LCSD 490-138115/4	Lab Control Sample Dup	Total/NA	Water	8260B	
MB 490-138115/7	Method Blank	Total/NA	Water	8260B	

Analysis Batch: 138219

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-85976-2	WG-1620-MW32B-20140121	Total/NA	Water	8260B	
600-85976-3	WG-1620-MW38A-20140121	Total/NA	Water	8260B	
600-85976-5	WG-1620-MW33BR-20140121	Total/NA	Water	8260B	
600-85976-6	WG-1620-MW36D-20140121	Total/NA	Water	8260B	
600-85976-10	WG-1620-MW25C-20140122	Total/NA	Water	8260B	
600-85976-11	WG-1620-MW25A-20140122	Total/NA	Water	8260B	
600-85976-18	WG-1620-MW68B-20140122	Total/NA	Water	8260B	
600-85976-19	WG-1620-DUP2-20140122	Total/NA	Water	8260B	
600-85976-20	WG-1620-MW68C-20140122	Total/NA	Water	8260B	
600-85976-21	WG-1620-MW70B-20140122	Total/NA	Water	8260B	
600-85976-22	WG-1620-FB7-20140122	Total/NA	Water	8260B	
LCS 490-138219/3	Lab Control Sample	Total/NA	Water	8260B	
LCSD 490-138219/4	Lab Control Sample Dup	Total/NA	Water	8260B	
MB 490-138219/7	Method Blank	Total/NA	Water	8260B	

GC/MS Semi VOA

Prep Batch: 125999

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-85976-1	WG-1620-MW32AR-20140121	Total/NA	Water	3510C	

TestAmerica Houston

QC Association Summary

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-85976-1

GC/MS Semi VOA (Continued)

Prep Batch: 125999 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-85976-2 - DL	WG-1620-MW32B-20140121	Total/NA	Water	3510C	
600-85976-2 - DL2	WG-1620-MW32B-20140121	Total/NA	Water	3510C	
600-85976-2	WG-1620-MW32B-20140121	Total/NA	Water	3510C	
600-85976-3	WG-1620-MW38A-20140121	Total/NA	Water	3510C	
600-85976-4	WG-1620-MW38B-20140121	Total/NA	Water	3510C	
600-85976-5	WG-1620-MW33BR-20140121	Total/NA	Water	3510C	
600-85976-5 - DL	WG-1620-MW33BR-20140121	Total/NA	Water	3510C	
600-85976-5 - DL2	WG-1620-MW33BR-20140121	Total/NA	Water	3510C	
600-85976-6	WG-1620-MW36D-20140121	Total/NA	Water	3510C	
600-85976-7	WG-1620-MW65D-20140121	Total/NA	Water	3510C	
LCS 600-125999/2-A	Lab Control Sample	Total/NA	Water	3510C	
MB 600-125999/1-A	Method Blank	Total/NA	Water	3510C	

Prep Batch: 126055

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-85976-8	WG-1620-FB6-20140121	Total/NA	Water	3510C	
600-85976-9	WG-1620-MW53C-20140122	Total/NA	Water	3510C	
600-85976-10	WG-1620-MW25C-20140122	Total/NA	Water	3510C	
600-85976-10 - DL	WG-1620-MW25C-20140122	Total/NA	Water	3510C	
600-85976-11	WG-1620-MW25A-20140122	Total/NA	Water	3510C	
600-85976-12	WG-1620-MW28A-20140122	Total/NA	Water	3510C	
600-85976-13	WG-1620-MW28C-20140122	Total/NA	Water	3510C	
600-85976-13 MS	WG-1620-MW28CMS-20140122	Total/NA	Water	3510C	
600-85976-13 MSD	WG-1620-MW28CMSD-20140122	Total/NA	Water	3510C	
600-85976-16	WG-1620-MW63B-20140122	Total/NA	Water	3510C	
600-85976-16 - DL	WG-1620-MW63B-20140122	Total/NA	Water	3510C	
600-85976-17	WG-1620-MW26A-20140122	Total/NA	Water	3510C	
600-85976-17 - DL	WG-1620-MW26A-20140122	Total/NA	Water	3510C	
600-85976-18 - DL	WG-1620-MW68B-20140122	Total/NA	Water	3510C	
600-85976-18	WG-1620-MW68B-20140122	Total/NA	Water	3510C	
600-85976-19 - DL	WG-1620-DUP2-20140122	Total/NA	Water	3510C	
600-85976-19	WG-1620-DUP2-20140122	Total/NA	Water	3510C	
600-85976-20	WG-1620-MW68C-20140122	Total/NA	Water	3510C	
600-85976-21	WG-1620-MW70B-20140122	Total/NA	Water	3510C	
600-85976-21 - DL2	WG-1620-MW70B-20140122	Total/NA	Water	3510C	
600-85976-21 - DL	WG-1620-MW70B-20140122	Total/NA	Water	3510C	
600-85976-22	WG-1620-FB7-20140122	Total/NA	Water	3510C	
LCS 600-126055/2-A	Lab Control Sample	Total/NA	Water	3510C	
MB 600-126055/1-A	Method Blank	Total/NA	Water	3510C	

Analysis Batch: 126437

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-85976-1	WG-1620-MW32AR-20140121	Total/NA	Water	8270C LL	125999
600-85976-2	WG-1620-MW32B-20140121	Total/NA	Water	8270C LL	125999
600-85976-3	WG-1620-MW38A-20140121	Total/NA	Water	8270C LL	125999
600-85976-4	WG-1620-MW38B-20140121	Total/NA	Water	8270C LL	125999
600-85976-5	WG-1620-MW33BR-20140121	Total/NA	Water	8270C LL	125999
600-85976-6	WG-1620-MW36D-20140121	Total/NA	Water	8270C LL	125999
600-85976-7	WG-1620-MW65D-20140121	Total/NA	Water	8270C LL	125999

TestAmerica Houston

QC Association Summary

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-85976-1

GC/MS Semi VOA (Continued)

Analysis Batch: 126484

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 600-125999/2-A	Lab Control Sample	Total/NA	Water	8270C LL	125999
MB 600-125999/1-A	Method Blank	Total/NA	Water	8270C LL	125999

Analysis Batch: 126520

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-85976-8	WG-1620-FB6-20140121	Total/NA	Water	8270C LL	126055
600-85976-10	WG-1620-MW25C-20140122	Total/NA	Water	8270C LL	126055
600-85976-11	WG-1620-MW25A-20140122	Total/NA	Water	8270C LL	126055
600-85976-12	WG-1620-MW28A-20140122	Total/NA	Water	8270C LL	126055
600-85976-13	WG-1620-MW28C-20140122	Total/NA	Water	8270C LL	126055
600-85976-13 MS	WG-1620-MW28CMS-20140122	Total/NA	Water	8270C LL	126055
600-85976-13 MSD	WG-1620-MW28CMSD-20140122	Total/NA	Water	8270C LL	126055
600-85976-17	WG-1620-MW26A-20140122	Total/NA	Water	8270C LL	126055
600-85976-18	WG-1620-MW68B-20140122	Total/NA	Water	8270C LL	126055
600-85976-19	WG-1620-DUP2-20140122	Total/NA	Water	8270C LL	126055
600-85976-20	WG-1620-MW68C-20140122	Total/NA	Water	8270C LL	126055
600-85976-21	WG-1620-MW70B-20140122	Total/NA	Water	8270C LL	126055
600-85976-22	WG-1620-FB7-20140122	Total/NA	Water	8270C LL	126055
LCS 600-126055/2-A	Lab Control Sample	Total/NA	Water	8270C LL	126055
MB 600-126055/1-A	Method Blank	Total/NA	Water	8270C LL	126055

Analysis Batch: 126600

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-85976-2 - DL	WG-1620-MW32B-20140121	Total/NA	Water	8270C LL	125999
600-85976-2 - DL2	WG-1620-MW32B-20140121	Total/NA	Water	8270C LL	125999
600-85976-5 - DL	WG-1620-MW33BR-20140121	Total/NA	Water	8270C LL	125999
600-85976-5 - DL2	WG-1620-MW33BR-20140121	Total/NA	Water	8270C LL	125999

Analysis Batch: 126908

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-85976-9	WG-1620-MW53C-20140122	Total/NA	Water	8270C LL	126055
600-85976-10 - DL	WG-1620-MW25C-20140122	Total/NA	Water	8270C LL	126055
600-85976-16	WG-1620-MW63B-20140122	Total/NA	Water	8270C LL	126055
600-85976-17 - DL	WG-1620-MW26A-20140122	Total/NA	Water	8270C LL	126055
600-85976-18 - DL	WG-1620-MW68B-20140122	Total/NA	Water	8270C LL	126055
600-85976-19 - DL	WG-1620-DUP2-20140122	Total/NA	Water	8270C LL	126055
600-85976-21 - DL	WG-1620-MW70B-20140122	Total/NA	Water	8270C LL	126055
600-85976-21 - DL2	WG-1620-MW70B-20140122	Total/NA	Water	8270C LL	126055

Analysis Batch: 126983

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-85976-16 - DL	WG-1620-MW63B-20140122	Total/NA	Water	8270C LL	126055

Lab Chronicle

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-85976-1

Client Sample ID: WG-1620-MW32AR-20140121

Lab Sample ID: 600-85976-1

Date Collected: 01/21/14 10:05

Matrix: Water

Date Received: 01/23/14 07:24

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	137972	01/28/14 19:59	EML	TAL NSH
Total/NA	Prep	3510C			125999	01/28/14 06:11	LER	TAL HOU
Total/NA	Analysis	8270C LL		1	126437	02/01/14 05:10	TTD	TAL HOU

Client Sample ID: WG-1620-MW32B-20140121

Lab Sample ID: 600-85976-2

Date Collected: 01/21/14 10:50

Matrix: Water

Date Received: 01/23/14 07:24

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	137972	01/28/14 20:26	EML	TAL NSH
Total/NA	Analysis	8260B		5	138219	01/29/14 16:27	EML	TAL NSH
Total/NA	Prep	3510C			125999	01/28/14 06:11	LER	TAL HOU
Total/NA	Analysis	8270C LL		10	126437	02/01/14 05:36	TTD	TAL HOU
Total/NA	Prep	3510C	DL		125999	01/28/14 06:11	LER	TAL HOU
Total/NA	Analysis	8270C LL	DL	50	126600	02/03/14 22:55	TTD	TAL HOU
Total/NA	Prep	3510C	DL2		125999	01/28/14 06:11	LER	TAL HOU
Total/NA	Analysis	8270C LL	DL2	500	126600	02/03/14 23:21	TTD	TAL HOU

Client Sample ID: WG-1620-MW38A-20140121

Lab Sample ID: 600-85976-3

Date Collected: 01/21/14 12:00

Matrix: Water

Date Received: 01/23/14 07:24

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	138219	01/29/14 14:07	EML	TAL NSH
Total/NA	Prep	3510C			125999	01/28/14 06:11	LER	TAL HOU
Total/NA	Analysis	8270C LL		1	126437	02/01/14 06:01	TTD	TAL HOU

Client Sample ID: WG-1620-MW38B-20140121

Lab Sample ID: 600-85976-4

Date Collected: 01/21/14 14:00

Matrix: Water

Date Received: 01/23/14 07:24

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	137972	01/28/14 21:20	EML	TAL NSH
Total/NA	Prep	3510C			125999	01/28/14 06:11	LER	TAL HOU
Total/NA	Analysis	8270C LL		1	126437	02/01/14 06:27	TTD	TAL HOU

Client Sample ID: WG-1620-MW33BR-20140121

Lab Sample ID: 600-85976-5

Date Collected: 01/21/14 15:15

Matrix: Water

Date Received: 01/23/14 07:24

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	137972	01/28/14 21:47	EML	TAL NSH

TestAmerica Houston

Lab Chronicle

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-85976-1

Client Sample ID: WG-1620-MW33BR-20140121

Lab Sample ID: 600-85976-5

Date Collected: 01/21/14 15:15

Matrix: Water

Date Received: 01/23/14 07:24

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		10	138219	01/29/14 16:55	EML	TAL NSH
Total/NA	Prep	3510C			125999	01/28/14 06:11	LER	TAL HOU
Total/NA	Analysis	8270C LL		5	126437	02/01/14 06:53	TTD	TAL HOU
Total/NA	Prep	3510C	DL		125999	01/28/14 06:11	LER	TAL HOU
Total/NA	Analysis	8270C LL	DL	50	126600	02/03/14 23:47	TTD	TAL HOU
Total/NA	Prep	3510C	DL2		125999	01/28/14 06:11	LER	TAL HOU
Total/NA	Analysis	8270C LL	DL2	500	126600	02/04/14 00:13	TTD	TAL HOU

Client Sample ID: WG-1620-MW36D-20140121

Lab Sample ID: 600-85976-6

Date Collected: 01/21/14 16:30

Matrix: Water

Date Received: 01/23/14 07:24

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	138219	01/29/14 14:35	EML	TAL NSH
Total/NA	Prep	3510C			125999	01/28/14 06:11	LER	TAL HOU
Total/NA	Analysis	8270C LL		1	126437	02/01/14 07:19	TTD	TAL HOU

Client Sample ID: WG-1620-MW65D-20140121

Lab Sample ID: 600-85976-7

Date Collected: 01/21/14 17:30

Matrix: Water

Date Received: 01/23/14 07:24

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	138115	01/29/14 03:38	EML	TAL NSH
Total/NA	Prep	3510C			125999	01/28/14 06:11	LER	TAL HOU
Total/NA	Analysis	8270C LL		1	126437	02/01/14 07:45	TTD	TAL HOU

Client Sample ID: WG-1620-FB6-20140121

Lab Sample ID: 600-85976-8

Date Collected: 01/21/14 17:45

Matrix: Water

Date Received: 01/23/14 07:24

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	138115	01/29/14 04:04	EML	TAL NSH
Total/NA	Prep	3510C			126055	01/28/14 14:05	MRA	TAL HOU
Total/NA	Analysis	8270C LL		1	126520	02/01/14 16:05	TTD	TAL HOU

Client Sample ID: WG-1620-MW53C-20140122

Lab Sample ID: 600-85976-9

Date Collected: 01/22/14 08:10

Matrix: Water

Date Received: 01/23/14 07:24

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	138115	01/29/14 04:31	EML	TAL NSH
Total/NA	Prep	3510C			126055	01/28/14 14:05	MRA	TAL HOU

TestAmerica Houston

Lab Chronicle

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-85976-1

Client Sample ID: WG-1620-MW53C-20140122

Lab Sample ID: 600-85976-9

Date Collected: 01/22/14 08:10

Matrix: Water

Date Received: 01/23/14 07:24

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8270C LL		5	126908	02/06/14 06:07	TTD	TAL HOU

Client Sample ID: WG-1620-MW25C-20140122

Lab Sample ID: 600-85976-10

Date Collected: 01/22/14 09:10

Matrix: Water

Date Received: 01/23/14 07:24

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	138115	01/29/14 04:58	EML	TAL NSH
Total/NA	Analysis	8260B		5	138219	01/29/14 17:22	EML	TAL NSH
Total/NA	Prep	3510C			126055	01/28/14 14:05	MRA	TAL HOU
Total/NA	Analysis	8270C LL		100	126520	02/01/14 16:57	TTD	TAL HOU
Total/NA	Prep	3510C	DL		126055	01/28/14 14:05	MRA	TAL HOU
Total/NA	Analysis	8270C LL	DL	1000	126908	02/06/14 06:32	TTD	TAL HOU

Client Sample ID: WG-1620-MW25A-20140122

Lab Sample ID: 600-85976-11

Date Collected: 01/22/14 10:00

Matrix: Water

Date Received: 01/23/14 07:24

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	138219	01/29/14 15:03	EML	TAL NSH
Total/NA	Prep	3510C			126055	01/28/14 14:05	MRA	TAL HOU
Total/NA	Analysis	8270C LL		1	126520	02/01/14 17:23	TTD	TAL HOU

Client Sample ID: WG-1620-MW28A-20140122

Lab Sample ID: 600-85976-12

Date Collected: 01/22/14 11:00

Matrix: Water

Date Received: 01/23/14 07:24

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	138115	01/29/14 05:52	EML	TAL NSH
Total/NA	Prep	3510C			126055	01/28/14 14:05	MRA	TAL HOU
Total/NA	Analysis	8270C LL		1	126520	02/01/14 17:48	TTD	TAL HOU

Client Sample ID: WG-1620-MW28C-20140122

Lab Sample ID: 600-85976-13

Date Collected: 01/22/14 12:00

Matrix: Water

Date Received: 01/23/14 07:24

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	138115	01/29/14 03:11	EML	TAL NSH
Total/NA	Prep	3510C			126055	01/28/14 14:05	MRA	TAL HOU
Total/NA	Analysis	8270C LL		1	126520	02/01/14 18:14	TTD	TAL HOU

TestAmerica Houston

Lab Chronicle

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-85976-1

Client Sample ID: WG-1620-MW63B-20140122

Lab Sample ID: 600-85976-16

Date Collected: 01/22/14 13:45

Matrix: Water

Date Received: 01/23/14 07:24

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	138115	01/29/14 06:18	EML	TAL NSH
Total/NA	Prep	3510C			126055	01/28/14 14:05	MRA	TAL HOU
Total/NA	Analysis	8270C LL		10	126908	02/06/14 06:57	TTD	TAL HOU
Total/NA	Prep	3510C	DL		126055	01/28/14 14:05	MRA	TAL HOU
Total/NA	Analysis	8270C LL	DL	50	126983	02/10/14 11:22	TTD	TAL HOU

Client Sample ID: WG-1620-MW26A-20140122

Lab Sample ID: 600-85976-17

Date Collected: 01/22/14 14:45

Matrix: Water

Date Received: 01/23/14 07:24

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	138115	01/29/14 06:45	EML	TAL NSH
Total/NA	Prep	3510C			126055	01/28/14 14:05	MRA	TAL HOU
Total/NA	Analysis	8270C LL		1	126520	02/01/14 19:57	TTD	TAL HOU
Total/NA	Prep	3510C	DL		126055	01/28/14 14:05	MRA	TAL HOU
Total/NA	Analysis	8270C LL	DL	10	126908	02/06/14 07:22	TTD	TAL HOU

Client Sample ID: WG-1620-MW68B-20140122

Lab Sample ID: 600-85976-18

Date Collected: 01/22/14 15:45

Matrix: Water

Date Received: 01/23/14 07:24

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	138115	01/29/14 07:12	EML	TAL NSH
Total/NA	Analysis	8260B		10	138219	01/29/14 17:50	EML	TAL NSH
Total/NA	Prep	3510C			126055	01/28/14 14:05	MRA	TAL HOU
Total/NA	Analysis	8270C LL		100	126520	02/01/14 20:23	TTD	TAL HOU
Total/NA	Prep	3510C	DL		126055	01/28/14 14:05	MRA	TAL HOU
Total/NA	Analysis	8270C LL	DL	1000	126908	02/06/14 07:47	TTD	TAL HOU

Client Sample ID: WG-1620-DUP2-20140122

Lab Sample ID: 600-85976-19

Date Collected: 01/22/14 15:45

Matrix: Water

Date Received: 01/23/14 07:24

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	138115	01/29/14 07:38	EML	TAL NSH
Total/NA	Analysis	8260B		10	138219	01/29/14 18:18	EML	TAL NSH
Total/NA	Prep	3510C			126055	01/28/14 14:05	MRA	TAL HOU
Total/NA	Analysis	8270C LL		100	126520	02/01/14 20:49	TTD	TAL HOU
Total/NA	Prep	3510C	DL		126055	01/28/14 14:05	MRA	TAL HOU
Total/NA	Analysis	8270C LL	DL	1000	126908	02/06/14 08:13	TTD	TAL HOU

TestAmerica Houston

Lab Chronicle

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-85976-1

Client Sample ID: WG-1620-MW68C-20140122

Lab Sample ID: 600-85976-20

Date Collected: 01/22/14 16:30

Matrix: Water

Date Received: 01/23/14 07:24

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	138219	01/29/14 15:30	EML	TAL NSH
Total/NA	Prep	3510C			126055	01/28/14 14:05	MRA	TAL HOU
Total/NA	Analysis	8270C LL		1	126520	02/01/14 21:15	TTD	TAL HOU

Client Sample ID: WG-1620-MW70B-20140122

Lab Sample ID: 600-85976-21

Date Collected: 01/22/14 17:20

Matrix: Water

Date Received: 01/23/14 07:24

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	138115	01/29/14 08:32	EML	TAL NSH
Total/NA	Analysis	8260B		20	138219	01/29/14 18:45	EML	TAL NSH
Total/NA	Prep	3510C			126055	01/28/14 14:05	MRA	TAL HOU
Total/NA	Analysis	8270C LL		100	126520	02/01/14 21:41	TTD	TAL HOU
Total/NA	Prep	3510C	DL		126055	01/28/14 14:05	MRA	TAL HOU
Total/NA	Analysis	8270C LL	DL	1000	126908	02/06/14 08:38	TTD	TAL HOU
Total/NA	Prep	3510C	DL2		126055	01/28/14 14:05	MRA	TAL HOU
Total/NA	Analysis	8270C LL	DL2	10000	126908	02/06/14 09:04	TTD	TAL HOU

Client Sample ID: WG-1620-FB7-20140122

Lab Sample ID: 600-85976-22

Date Collected: 01/22/14 17:40

Matrix: Water

Date Received: 01/23/14 07:24

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	138219	01/29/14 15:59	EML	TAL NSH
Total/NA	Prep	3510C			126055	01/28/14 14:05	MRA	TAL HOU
Total/NA	Analysis	8270C LL		1	126520	02/01/14 22:07	TTD	TAL HOU

Client Sample ID: WG-1620-TB3-20140122

Lab Sample ID: 600-85976-23

Date Collected: 01/22/14 00:00

Matrix: Water

Date Received: 01/23/14 07:24

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	138115	01/29/14 02:44	EML	TAL NSH

Laboratory References:

TAL HOU = TestAmerica Houston, 6310 Rothway Street, Houston, TX 77040, TEL (713)690-4444

TAL NSH = TestAmerica Nashville, 2960 Foster Creighton Drive, Nashville, TN 37204, TEL (615)726-0177

Certification Summary

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-85976-1

Laboratory: TestAmerica Houston

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Arkansas DEQ	State Program	6	88-0759	08-04-14
Louisiana	NELAP	6	30643	06-30-14
Oklahoma	State Program	6	1309	08-31-14
Texas	NELAP	6	T104704223	10-31-14
USDA	Federal		P330-08-00217	04-01-14
Utah	NELAP	8	TX00083	10-31-14

Laboratory: TestAmerica Nashville

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
A2LA	ISO/IEC 17025		0453.07	12-31-15
Alaska (UST)	State Program	10	UST-087	07-24-14
Arizona	State Program	9	AZ0473	05-05-14
Arizona	State Program	9	AZ0473	05-05-14 *
Arkansas DEQ	State Program	6	88-0737	04-25-14
California	NELAP	9	1168CA	10-31-14
Canadian Assoc Lab Accred (CALA)	Canada		3744	03-08-14
Connecticut	State Program	1	PH-0220	12-31-15
Florida	NELAP	4	E87358	06-30-14
Illinois	NELAP	5	200010	12-09-14
Iowa	State Program	7	131	05-01-14
Kansas	NELAP	7	E-10229	10-31-14
Kentucky (UST)	State Program	4	19	06-30-14
Louisiana	NELAP	6	30613	06-30-14
Maryland	State Program	3	316	03-31-14
Massachusetts	State Program	1	M-TN032	06-30-14
Minnesota	NELAP	5	047-999-345	12-31-14
Mississippi	State Program	4	N/A	06-30-14
Montana (UST)	State Program	8	NA	01-01-20
Nevada	State Program	9	TN00032	07-31-14
New Hampshire	NELAP	1	2963	10-10-14
New Jersey	NELAP	2	TN965	06-30-14
New York	NELAP	2	11342	04-01-14
North Carolina DENR	State Program	4	387	12-31-14
North Dakota	State Program	8	R-146	06-30-14
Ohio VAP	State Program	5	CL0033	10-16-15
Oklahoma	State Program	6	9412	08-31-14
Oregon	NELAP	10	TN200001	04-29-14
Pennsylvania	NELAP	3	68-00585	06-30-14
Rhode Island	State Program	1	LAO00268	12-30-14
South Carolina	State Program	4	84009 (001)	02-28-14 *
Tennessee	State Program	4	2008	02-23-14 *
Texas	NELAP	6	T104704077-09-TX	08-31-14
USDA	Federal		S-48469	10-30-16
Utah	NELAP	8	TN00032	07-31-14
Virginia	NELAP	3	460152	06-14-14
Washington	State Program	10	C789	07-19-14
West Virginia DEP	State Program	3	219	02-28-14 *
Wisconsin	State Program	5	998020430	08-31-14

* Expired certification is currently pending renewal and is considered valid.

Certification Summary

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-85976-1

Laboratory: TestAmerica Nashville (Continued)

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Wyoming (UST)	A2LA	8	453.07	12-31-15

- 1
- 2
- 3
- 4
- 5
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- 13
- 14
- 15
- 16

TestAmerica Houston
 6310 Rothway Street
 Houston, TX 77040
 Phone (713) 690-4444 Fax (713) 690-5646

Chain of Custody Record

Client Information
 Client Contact: Mr. Eric Matzner
 Company: Pastor, Behling & Wheeler LLC
 Address: 2201 Double Creek Dr Suite 4004
 City: Round Rock
 State Zip: TX, 78664
 Phone: 512-671-3434(Tel) 512-671-3446(Fax)
 Email: eric.matzner@pbwllc.com
 Project Name: 1620 UPRR HMPW
 Site:
 Project #: 60003722
 SOW#:
 Sample ID:
 Sample Date:
 Sample Time:
 Sample Type:
 Matrix:
 Preservation Code:
 Due Date Requested:
 TAT Requested (days):
 PO #:
 Purchase Order not required
 WO #:
 Lab PM:
 Kudoschecker Sachin G
 E-Mail: sachin.kudoschecker@testamerica.com
 Camera Tracing No(s):
 COC No: 600-25945-9048 10
 Page 1 of 2
 Job #:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=overhead)	Preservation Code	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	Analysis Requested	Total Number of containers	Special Instructions/Note:
WG-1620-MW32AR-20140121	1-21-14	1005	G	Water		X	A			
WG-1620-MW33B-20140121		1050	G	Water		X	N			
WG-1620-MW38A-20140121		1200	G	Water		X				
WG-1620-MW38B-20140121		1400	G	Water		X				
WG-1620-MW33BR-20140121		1515	G	Water		X				
WG-1620-MW36D-20140121		1630	G	Water		X				
WG-1620-MW65D-20140121		1730	G	Water		X				
WG-1620-FB6-20140121		1745	G	Water		X				
WG-1620-MW53C-20140122	1-22-14	0810	G	Water		X				
WG-1620-MW25C-20140122		0910	G	Water		X				
WG-1620-MW25A-20140122		1000	G	Water		X				

Possible Hazard Identification
 Non-Hazard Flammable Skin Irritant Poison B Unknown Radiological
 Deliverable Requested: I, II, III, IV, Other (specify):
 Empty Kit Relinquished by:
 Relinquished by:
 Relinquished by:
 Relinquished by:
 Custody Seals Intact: Yes No
 Custody Seal No:
 Date:
 Time:
 Method of Shipment:
 Received by:
 Received by:
 Received by:
 Received by:
 Cooler Temperature(s) °C and Other Remarks:
 Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
 Return To Client Disposal By Lab Archive For _____ Months
 Special Instructions/QC Requirements:
 600-85976 Chain of Custody

Client Information
 Client Contact: Mr. Eric Matzner
 Company: Pastor, Behling & Wheeler LLC
 Address: 2201 Double Creek Dr Suite 4004
 City: Round Rock
 State, Zip: TX, 78664
 Phone: 512-671-3434(Tel) 512-671-3446(Fax)
 Email: eric.matzner@pbwllc.com
 Project Name: 1620 UPRR HWPW
 Site:
 Sample ID:
 Sample Date:
 Sample Time:
 Sample Type:
 Sample Matrix:
 Sample Preservation Code:
 Sample Date:
 Sample Time:
 Sample Type:
 Sample Matrix:
 Sample Preservation Code:
 Date Date Requested:
 TAT Requested (days):
 PO #:
 Purchase Order not required
 W/O #:
 Project #: 60003722
 SSOV#:
 Lab #M: Kudchadkar, Sachin G
 E-Mail: sachin.kudchadkar@testamericainc.com
 Carrier Tracking No(s):
 Job #:
 Page 2 of 2

Sample Identification	Sample Date	Sample Time	Sample Type (G=grab)	Matrix (Water, Soil, etc.)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	Analysis Requested	Carrier Tracking No(s)	COC No	Page
WG-1620-MW28A-20140122	1-22-14	1100	G	Water	X	A	VINYL CHLORIDE	600-25645-9048, 10	2012	2 of 2
WG-1620-MW28C-20140122		1200	G	Water	X	N				
WG-1620-MW28CM5-20140122		1200	G	Water	X					
WG-1620-MW28CM50-20140122		1200	G	Water	X					
WG-1620-MW63B-20140122		1345	G	Water	X					
WG-1620-MW264-20140122		1445	G	Water	X					
WG-1620-MW68B-20140122		1545	G	Water	X					
WG-1620-DWP2-20140122		1545	G	Water	X					
WG-1620-MW68C-20140122		1630	G	Water	X					
WG-1620-MW70B-20140122		1720	G	Water	X					
WG-1620-FB7-20140122		1740	G	Water	X					

Possible Hazard Identification
 Non-Hazard Flammable Skin Irritant Poison B Unknown Radiological
 Deliverable Requested: I, II, III, IV, Other (specify) _____
 Empty Kit Requisitioned by: _____ Date: _____
 Requisitioned by: _____ Date/Time: _____
 Relinquished by: _____ Date/Time: _____
 Custody Seal Intact: _____ Custody Seal No.: _____
 A Yes Δ No

Analysis Requested
 Analysis Requested: _____
 Special Instructions/Note: _____
 Total Number of containers: _____
 Preservation Codes:
 A - HCL
 B - NaOH
 C - Zn Acetate
 D - Nitric Acid
 E - NaHSO4
 F - MeOH
 G - Amchlor
 H - Ascorbic Acid
 I - Ice
 J - DI Water
 K - EDTA
 L - EDA
 Other: _____
 M - Hexane
 N - None
 O - AsNaO2
 P - Na2O4S
 Q - Na2SO3
 R - Na2S2O3
 S - H2SO4
 T - TSP Dodecahydrate
 U - Acetone
 V - MCAA
 W - ph 4-5
 Z - other (specify) _____
 Special Instructions/Note: _____
 Method of Shipment: _____
 Received by: _____ Date/Time: _____
 Received by: _____ Date/Time: _____
 Received by: _____ Date/Time: _____
 Cooler Temperature: _____ and Other Remarks: _____
 Disposal By Lab: _____ Archive For: _____ Months
 Date/Time: 1-24-13 7:24
 Company: PBW

6310 Rothway Street, Houston, TX 77046
Phone (713) 690-4444 Fax (713) 690-5646

Client Information

Client Contact: Mr. Eric Matzner
Company: Pastor, Benling & Wheeler LLC

Sampler: **John Benling**
Phone: **512-671-3434**

Lab Pnl. Kudchadkar, Sachin G
E-Mail: sachin.kudchadkar@testamericainc.com

Carrier Tracking No(s):

Job #: 600-26645-9048_10
Page: **3** of 3
Page #:

Address: 2201 Double Creek Dr Suite 4004
City: Round Rock
State/Zip: TX, 78664

Due Date Requested:
TAT Requested (days):

Phone: 512-671-3434 (Tel) 512-671-3446 (Fax)
Purchase Order not required

Project Name: 1620 UPRR HWPW
Project #: 60003722
SSOW#: **W6-1620-TB3-20140122**

Sample Identification

Sample Date: **W6-1620-TB3-20140122**

Sample Time: **1-23-14 7:24**

Sample Type: **Water**

Matrix (Weaver, Special, Overage, etc.)

Preservation Code: **X**

Field Filtered Sample (Yes or No)

Perform MS/MSD (Yes or No)

8260B_LL - (MOD) 8260B- Volatiles **X**

8270C_LL - (MOD) 8270C **X**

Analysis Requested

Special Instructions/Note:

Total Number of containers

Preservation Codes:

A - HCl
B - NaOH
C - Zn Acetate
D - Nitric Acid
E - H2SO4
F - MeOH
G - Amiclor
H - Ascorbic Acid
I - Ice
J - DI Water
K - EDTA
L - EDA
M - Hexane
N - None
O - AcNaO2
P - Na2O4S
Q - Na2SO3
R - Na2S2O3
S - H2SO4
T - TSP Dodecahydrate
U - Acetone
V - MCAA
W - ph 4.5
Z - other (specify)

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

Return To Client Disposal By Lab Archive For Months

Special Instructions/QC Requirements:

Method of Shipment:

Received by: **John Benling**
Received by: **John Benling**
Date/Time: **1-23-14 7:24**
Date/Time: **1-23-14 7:24**

Company: **PBS**
Company: **PBS**

Custody Seals Intact: Yes No
Custody Seal No.:

Empty Kit Relinquished by: **John Benling**
Date/Time: **1-23-14 7:24**
Company: **PBS**

Relinquished by: **John Benling**
Date/Time: **1-23-14 7:24**
Company: **PBS**

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (Weaver, Special, Overage, etc.)	Preservation Code	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	Analysis Requested	Special Instructions/Note	Total Number of containers	Preservation Codes
W6-1620-TB3-20140122			Water	Water	X	8260B_LL - (MOD) 8260B- Volatiles	X			X	

Possible Hazard Identification
 Non-Hazard Flammable Skin Irritant Poison B Unknown Radiological
 Deliverable Requested: I, II, III, IV, Other (specify)

Empty Kit Relinquished by: _____ Date: _____
 Relinquished by: **John Benling** Date/Time: **1-23-14 7:24** Company: **PBS**
 Relinquished by: _____ Date/Time: _____ Company: _____
 Relinquished by: _____ Date/Time: _____ Company: _____

Custody Seals Intact: Yes No
 Custody Seal No.: _____
 Cooler Temperature(s) °C and Other Remarks

Login Sample Receipt Checklist

Client: Pastor, Behling & Wheeler LLC

Job Number: 600-85976-1

Login Number: 85976

List Source: TestAmerica Houston

List Number: 1

Creator: Sundquist, Sean V

Question	Answer	Comment
Radioactivity wasn't checked or is <=/ background as measured by a survey meter.	True	Lab does not accept radioactive samples.
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	3.6/3.5/3.2/3.0
Cooler Temperature is recorded.	True	548
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	No analysis requiring residual chlorine check assigned.

Login Sample Receipt Checklist

Client: Pastor, Behling & Wheeler LLC

Job Number: 600-85976-1

Login Number: 85976

List Number: 1

Creator: Ford, Easton

List Source: TestAmerica Nashville

List Creation: 01/25/14 01:42 PM

Question	Answer	Comment
Radioactivity wasn't checked or is <=/ background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Houston
6310 Rothway Street
Houston, TX 77040
Tel: (713)690-4444

TestAmerica Job ID: 600-86091-1

Client Project/Site: 1620 UPRR HWPW

For:

Pastor, Behling & Wheeler LLC
2201 Double Creek Dr
Suite 4004
Round Rock, Texas 78664

Attn: Mr. Eric Matzner



Authorized for release by:

2/7/2014 4:55:58 PM

Sophia Shah, Project Management Assistant I
sophia.shah@testamericainc.com

Designee for

Sachin Kudchadkar, Senior Project Manager
(713)690-4444

sachin.kudchadkar@testamericainc.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15
- 16



Table of Contents

Cover Page	1
Table of Contents	2
TRRP Checklists & DCSs	3
Case Narrative	12
Method Summary	13
Sample Summary	14
Client Sample Results	15
Definitions/Glossary	37
Surrogate Summary	38
QC Sample Results	40
Default Detection Limits	51
QC Association Summary	52
Lab Chronicle	55
Certification Summary	59
Chain of Custody	61
Receipt Checklists	63

Appendix A

Laboratory Data Package Cover Page - Page 1 of 4

This data package is for TestAmerica Houston job number 600-86091-1 and consists of:

- R1 - Field chain-of-custody documentation;
- R2 - Sample identification cross-reference;
- R3 - Test reports (analytical data sheets) for each environmental sample that includes:
 - a. Items consistent with NELAC Chapter 5,
 - b. dilution factors,
 - c. preparation methods,
 - d. cleanup methods, and
 - e. if required for the project, tentatively identified compounds (TICs).
- R4 - Surrogate recovery data including:
 - a. Calculated recovery (%R), and
 - b. The laboratory's surrogate QC limits.
- R5 - Test reports/summary forms for blank samples;
- R6 - Test reports/summary forms for laboratory control samples (LCSs) including:
 - a. LCS spiking amounts,
 - b. Calculated %R for each analyte, and
 - c. The laboratory's LCS QC limits.
- R7 - Test reports for project matrix spike/matrix spike duplicates (MS/MSDs) including:
 - a. Samples associated with the MS/MSD clearly identified,
 - b. MS/MSD spiking amounts,
 - c. Concentration of each MS/MSD analyte measured in the parent and spiked samples,
 - d. Calculated %Rs and relative percent differences (RPDs), and
 - e. The laboratory's MS/MSD QC limits
- R8 - Laboratory analytical duplicate (if applicable) recovery and precision:
 - a. The amount of analyte measured in the duplicate,
 - b. The calculated RPD, and
 - c. The laboratory's QC limits for analytical duplicates.
- R9 - List of method quantitation limits (MQLs) and detectability check sample results for each analyte for each method and matrix.
- R10 - Other problems or anomalies.

The Exception Report for each "No" or "Not Reviewed (NR)" item in Laboratory Review Checklist and for each analyte, matrix, and method for which the laboratory does not hold NELAC accreditation under the Texas Laboratory Accreditation Program.

Release Statement: I am responsible for the release of this laboratory data package. This laboratory is NELAC accredited under the Texas Laboratory Accreditation Program for all the methods, analytes, and matrices reported in this data package except as noted in the Exception Reports. The data have been reviewed and are technically compliant with the requirements of the methods used, except where noted by the laboratory in the Exception Reports. By my signature below, I affirm to the best of my knowledge all problems/anomalies observed by the laboratory have been identified in the Laboratory Review Checklist, and no information affecting the quality of the data has been knowingly withheld.

Sophia Shah

Name (printed)



Signature

2/7/2014

Date

Project Management Assistant

Official Title (printed)

Laboratory Review Checklist: Reportable Data - Page 2 of 4

Laboratory Name:	TestAmerica Houston	LRC Date:	2/7/2014
Project Name:	1620 UPRR HWPW	Laboratory Job Number:	600-86091-1
Reviewer Name:	Sachin G Kudchadkar		

# ¹	A ²	Description	Yes	No	NA ³	NR ⁴	ER# ⁵
R1	OI	Chain-of-custody (C-O-C)					
		Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?		X			R01A
		Were all departures from standard conditions described in an exception report?	X				
R2	OI	Sample and quality control (QC) identification					
		Are all field sample ID numbers cross-referenced to the laboratory ID numbers?	X				
		Are all laboratory ID numbers cross-referenced to the corresponding QC data?	X				
R3	OI	Test reports					
		Were all samples prepared and analyzed within holding times?	X				
		Other than those results < MQL, were all other raw values bracketed by calibration standards?	X				
		Were calculations checked by a peer or supervisor?	X				
		Were all analyte identifications checked by a peer or supervisor?	X				
		Were sample detection limits reported for all analytes not detected?	X				
		Were all results for soil and sediment samples reported on a dry weight basis?			X		
		Were % moisture (or solids) reported for all soil and sediment samples?			X		
		Were bulk soils/solids samples for volatile analysis extracted with methanol per SW846 Method 5035?			X		
		If required for the project, are TICs reported?			X		
R4	O	Surrogate recovery data					
		Were surrogates added prior to extraction?	X				
		Were surrogate percent recoveries in all samples within the laboratory QC limits?		X			R04B
R5	OI	Test reports/summary forms for blank samples					
		Were appropriate type(s) of blanks analyzed?	X				
		Were blanks analyzed at the appropriate frequency?	X				
		Were method blanks taken through the entire analytical process, including preparation and, if applicable, cleanup procedures?	X				
		Were blank concentrations < MQL?	X				
R6	OI	Laboratory control samples (LCS):					
		Were all COCs included in the LCS?	X				
		Was each LCS taken through the entire analytical procedure, including prep and cleanup steps?	X				
		Were LCSs analyzed at the required frequency?	X				
		Were LCS (and LCSD, if applicable) %Rs within the laboratory QC limits?		X			R06D
		Does the detectability check sample data document the laboratory's capability to detect the COCs at the MDL used to calculate the SDLs?	X				
		Was the LCSD RPD within QC limits?	X				
R7	OI	Matrix spike (MS) and matrix spike duplicate (MSD) data					
		Were the project/method specified analytes included in the MS and MSD?	X				
		Were MS/MSD analyzed at the appropriate frequency?	X				
		Were MS (and MSD, if applicable) %Rs within the laboratory QC limits?		X			R07C
		Were MS/MSD RPDs within laboratory QC limits?		X			R07D
R8	OI	Analytical duplicate data					
		Were appropriate analytical duplicates analyzed for each matrix?			X		
		Were analytical duplicates analyzed at the appropriate frequency?			X		
		Were RPDs or relative standard deviations within the laboratory QC limits?			X		
R9	OI	Method quantitation limits (MQLs):					
		Are the MQLs for each method analyte included in the laboratory data package?	X				
		Do the MQLs correspond to the concentration of the lowest non-zero calibration standard?	X				
		Are unadjusted MQLs and DCSs included in the laboratory data package?	X				
R10	OI	Other problems/anomalies					
		Are all known problems/anomalies/special conditions noted in this LRC and ER?	X				
		Was applicable and available technology used to lower the SDL to minimize the matrix interference effects on the sample results?		X			R10B
		Is the laboratory NELAC-accredited under the Texas Laboratory Accreditation Program for the analytes, matrices and methods associated with this laboratory data package?	X				

- Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.
- O = organic analyses; I = inorganic analyses (and general chemistry, when applicable);
- NA = Not applicable;
- NR = Not reviewed;
- ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

Laboratory Review checklist: Supporting Data - Page 3 of 4

Laboratory Name:	TestAmerica Houston	LRC Date:	2/7/2014
Project Name:	1620 UPRR HWPW	Laboratory Job Number:	600-86091-1
Reviewer Name:	Sachin G Kudchadkar		

# ¹	A ²	Description	Yes	No	NA ³	NR ⁴	ER# ⁵
S1	OI	Initial calibration (ICAL)					
		Were response factors and/or relative response factors for each analyte within QC limits?	X				
		Were percent RSDs or correlation coefficient criteria met?	X				
		Was the number of standards recommended in the method used for all analytes?	X				
		Were all points generated between the lowest and highest standard used to calculate the curve?	X				
		Are ICAL data available for all instruments used?	X				
		Has the initial calibration curve been verified using an appropriate second source standard?	X				
S2	OI	Initial and continuing calibration verification (ICV and CCV) and continuing calibration blank (CCB):					
		Was the CCV analyzed at the method-required frequency?	X				
		Were percent differences for each analyte within the method-required QC limits?	X				
		Was the ICAL curve verified for each analyte?			X		
		Was the absolute value of the analyte concentration in the inorganic CCB < MDL?			X		
S3	O	Mass spectral tuning					
		Was the appropriate compound for the method used for tuning?	X				
		Were ion abundance data within the method-required QC limits?	X				
S4	O	Internal standards (IS)					
		Were IS area counts and retention times within the method-required QC limits?	X				
S5	OI	Raw data (NELAC Section 5.5.10)					
		Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?	X				
		Were data associated with manual integrations flagged on the raw data?	X				
S6	O	Dual column confirmation					
		Did dual column confirmation results meet the method-required QC?			X		
S7	O	Tentatively identified compounds (TICs)					
		If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?			X		
S8	I	Interference Check Sample (ICS) results					
		Were percent recoveries within method QC limits?			X		
S9	I	Serial dilutions, post digestion spikes, and method of standard additions					
		Were percent differences, recoveries, and the linearity within the QC limits specified in the method?			X		
S10	OI	Method detection limit (MDL) studies					
		Was a MDL study performed for each reported analyte?	X				
		Is the MDL either adjusted or supported by the analysis of DCSS?	X				
S11	OI	Proficiency test reports					
		Was the laboratory's performance acceptable on the applicable proficiency tests or evaluation studies?	X				
S12	OI	Standards documentation					
		Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?	X				
S13	OI	Compound/analyte identification procedures					
		Are the procedures for compound/analyte identification documented?	X				
S14	OI	Demonstration of analyst competency (DOC)					
		Was DOC conducted consistent with NELAC Chapter 5?	X				
		Is documentation of the analyst's competency up-to-date and on file?	X				
S15	OI	Verification/validation documentation for methods (NELAC Chapter 5)					
		Are all the methods used to generate the data documented, verified, and validated, where applicable?	X				
S16	OI	Laboratory standard operating procedures (SOPs)					
		Are laboratory SOPs current and on file for each method performed?	X				
<p>1. Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.</p> <p>2. O = organic analyses; I = inorganic analyses (and general chemistry, when applicable);</p> <p>3. NA = Not applicable;</p> <p>4. NR = Not reviewed;</p> <p>5. ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).</p>							

Laboratory Review Checklist: Exception Reports - Page 4 of 4

Laboratory Name:	TestAmerica Houston	LRC Date:	2/7/2014
Project Name:	1620 UPRR HWPW	Laboratory Job Number:	600-86091-1
Reviewer Name:	Sachin G Kudchadkar		

ER # ¹	Description
R01A	The following sample(s) was submitted for analysis; however, it was not listed on the Chain-of-Custody (COC): 600-86091-18 Sample was logged in per the sample bottle and for the tests requested on other samples.
R04B	<p>Method 8270C LL: Six surrogates are used for this analysis. The laboratory's SOP allows 1 base and 1 acid of these surrogates to be outside acceptance criteria without performing re-extraction/re-analysis. The following sample was biased high for Nitrobenzene-d5: 600-86091-13. These results have been reported and qualified.</p> <p>Method 8270C LL: Six surrogates are used for this analysis. The laboratory's SOP allows 1 base and 1 acid of these surrogates to be outside acceptance criteria without performing re-extraction/re-analysis. The following samples were biased low for 2,4,6-Tribromophenol: 600-86091-4, 600-86091-8, and 600-86091-16. These results have been reported and qualified.</p> <p>Method 8270C LL: Surrogate recovery for the following sample(s) was outside control limits: 600-86091-13. Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.</p> <p>Method 8270C LL: The following sample(s) required a dilution due to the nature of the sample matrix: 600-86091-1, 600-86091-5, 600-86091-9, 600-86091-12, 600-86091-13, and 600-86091-18. Because of this dilution, the surrogate spike concentration in the sample was reduced to a level where the recovery calculation does not provide useful information.</p>
R06D	Method 8270C LL: The laboratory control sample (LCS) for batch 126160 was biased high for 1,2-Diphenylhydrazine and Phenol. These analytes were not detected in the associated samples; therefore, the data have been reported.
R07C	Method 8270C LL: The matrix spike duplicate (MSD) precision for batch 126160 was outside control limits for 2,4-Dimethylphenol.
R07D	Method 8270C LL: 600-86091-4 MSD and 600-86091-8 MSD failed the RPD criteria for the following analyte(s): 2,4-Dimethylphenol. Matrix interference is suspected.
R10B	Method 8270C LL: The following sample(s) was diluted to bring the concentration of target analytes within the calibration range: 600-86091-1, 600-86091-5, 600-86091-9, 600-86091-11, 600-86091-12, 600-86091-13, and 600-86091-18. Elevated reporting limits (RLs) are provided.
	<ol style="list-style-type: none"> Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period. O = organic analyses; I = inorganic analyses (and general chemistry, when applicable); NA = Not applicable; NR = Not reviewed; ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

Detection Check Standard

Matrix: Solid
Method: 8260B
Preparation: Wei Shen
Date Analyzed: 10/16/2013
Date Prepared: 10/16/2013
TALs Batches: 118344
Units: ug/Kg

Analyte	MDL	DCS Spike	Measured Result	MQL
1,1,1,2-Tetrachloroethane	1.4	5	4.8	5
1,1,1-Trichloroethane	0.74	5	3.9	5
1,1,2,2-Tetrachloroethane	0.87	5	4.4	5
1,1,2-Trichloro-1,2,2-trifluoroethane	1.44	5	4.3	5
1,1,2-Trichloroethane	0.73	5	4.3	5
1,1-Dichloroethane	0.87	5	8.7	5
1,1-Dichloroethene	1.22	5	9.1	5
1,1-Dichloropropene	0.65	5	3.4	5
1,2 Dichloroethene, Total	1.9	10	19	10
1,2,3-Trichlorobenzene	0.62	5	4.3	5
1,2,3-Trichloropropane	1.31	5	5.3	5
1,2,3-Trimethylbenzene	1.8	5	5.3	5
1,2,4-Trichlorobenzene	1.97	5	4.3	5
1,2,4-Trimethylbenzene	0.92	5	5.2	5
1,2-Dibromo-3-chloropropane	2.44	5	5.6	10
1,2-Dibromoethane (EDB)	1.02	5	4.4	5
1,2-Dichlorobenzene	0.8	5	4.2	5
1,2-Dichloroethane	0.9	5	5.1	5
1,2-Dichloropropane	0.71	5	4.8	5
1,3,5-Trichlorobenzene	5	5	4.1	5
1,3,5-Trimethylbenzene	1.6	5	5.2	5
1,3-Dichlorobenzene	0.71	5	7.9	5
1,3-Dichloropropane	0.63	5	4.3	5
1,3-Dichloropropane, Total	0.58	10	9.3	5
1,4-Dichlorobenzene	0.66	5	5.6	5
1,4-Dioxane	62.07	100	120	500
2,2-Dichloropropane	1.82	5	9.4	5
2-Butanone (MEK)	1.9	10	9.3	10
2-Chloro-1,3-butadiene	2.71	5	5.4	10
2-Chloroethyl vinyl ether	0.98	10	8	10
2-Chlorotoluene	0.68	5	7.9	5
2-Hexanone	1.01	10	10.8	10
4-Chlorotoluene	0.83	5	5.3	5
4-Isopropyltoluene	1.02	10	9.1	5
4-Methyl-2-pentanone	1.47	10	10.2	10
Acetone	1.66	10	6.5	10
Acetonitrile	1.39	10	49	10
Acrylonitrile	5.82	50	86	25
Allyl chloride (3-Chloro-1-propene)	1.39	5	8.9	5

Detection Check Standard

Matrix: Solid
Method: 8260B
Preparation: Wei Shen
Date Analyzed: 10/16/2013
Date Prepared: 10/16/2013
TALs Batches: 118344
Units: ug/Kg

Analyte	MDL	DCS Spike	Measured Result	MQL
Benzene	0.63	5	8.6	5
Bromoform	1.37	5	4.3	5
Bromomethane	1.78	5	5.2	10
Carbon Disulfide	0.55	10	9.2	5
Carbon Tetrachloride	1.13	5	4.3	5
Chlorobenzene	0.96	5	8	5
Chlorobromomethane	1.78	5	5.2	5
Chlorodibromomethane	0.94	5	4.4	5
Chloroethane	1.4	5	5.5	10
Chloroform	5.74	5	9.8	5
Chloromethane	1.66	5	5.8	10
cis-1,2-Dichloroethene	0.83	5	9.8	5
cis-1,3-Dichloropropene	0.54	5	5	5
Dibromomethane	0.75	5	4.9	5
Dichlorobromomethane	0.66	5	4.2	5
Dichlorodifluoromethane	1.54	5	4.3	5
Ethyl methacrylate	1.66	5	4.4	5
Ethylbenzene	1.02	5	4.9	5
Hexachlorobutadiene	1.13	5	9	5
Isobutyl alcohol	17.2	50	49	50
Isopropylbenzene	0.92	5	4.9	5
Methacrylonitrile	5	5	0.88	10
Methyl Iodide	2.5	5	8.5	10
Methyl methacrylate	2.86	10	21.9	10
Methyl tert-butyl ether	1.83	5	4.8	5
Methylcyclohexane	1.5	5	4.2	5
Methylene Chloride	2.19	5	7.8	10
m-Xylene & P-Xylene	1.52	5	4.5	10
Naphthalene	2.37	5	4.5	10
n-Butyl acetate	2.4	5	5.3	10
n-Butylbenzene	0.58	5	8.5	5
n-Propylbenzene	0.95	5	5.2	5
o-Xylene	1.13	5	7.8	5
Pentachloroethane	5	5	1.47	5
Propionaldehyde	64	5	4.9	100
Propionitrile	2.36	5	70	10
sec-Butylbenzene	0.7	5	8.6	5
Styrene	0.71	5	8.3	5
tert-Butylbenzene	0.95	5	5	5

Detection Check Standard

Matrix: Solid
Method: 8260B
Preparation: Wei Shen
Date Analyzed: 10/16/2013
Date Prepared: 10/16/2013
TALs Batches: 118344
Units: ug/Kg

Analyte	MDL	DCS Spike	Measured Result	MQL
Tetrachloroethene	1.4	5	4.7	5
Toluene	1.38	5	4.6	5
trans-1,2-Dichloroethene	1.14	5	9.2	5
trans-1,3-Dichloropropene	0.58	5	4.3	5
trans-1,4-Dichloro-2-butene	1.9	5	5	10
Trichloroethene	1.4	5	4.4	5
Trichlorofluoromethane	0.66	5	5.6	5
Trichlorotrifluoroethane	1.44	5	5.6	5
Vinyl Acetate	0.93	5	7.6	10
Vinyl Chloride	0.9	5	4.8	10
Xylenes (total)	1.13	5	12	5

Matrix: Water
Method: 8270C
Prep Method: 3510C
Date Analyzed: 1/10/2014
Job #: 600-85250
TALS Batch: 124708
Units: ug/L

Analyte	MDL	DCS Spike	Measured Result	MQL
1,1'-Biphenyl	1.120	2.500	2.599	10
1,2,4,5-Tetrachlorobenzene	1.680	2.500	2.619	10
1,2,4-Trichlorobenzene	1.140	2.500	2.512	10
1,2-Dichlorobenzene	1.090	2.500	2.475	10
1,2-Dinitrobenzene	1.020	2.500	2.003	10
1,2-Diphenylhydrazine	0.900	2.500	2.890	10
1,3-Dichlorobenzene	1.150	2.500	2.580	10
1,3-Dinitrobenzene	3.470	5.000	4.860	10
1,4-Dichlorobenzene	1.260	2.500	2.580	10
1-Methylnaphthalene	0.530	2.500	2.645	10
2,2'-oxybis[1-chloropropane]	1.700	2.500	2.849	10
2,3,4,6-Tetrachlorophenol	0.830	2.500	1.973	10
2,4,5-Trichlorophenol	1.260	2.500	2.284	10
2,4,6-Trichlorophenol	0.920	2.500	2.319	10
2,4-Dichlorophenol	1.540	2.500	2.415	10
2,4-Dimethylphenol	1.340	2.500	2.781	10
2,4-Dinitrophenol	0.890	5.000	8.242	50
2,4-Dinitrotoluene	0.950	2.500	2.491	10
2,6-Dimethylphenol	1.030	2.500	2.249	10
2,6-Dinitrotoluene	0.640	2.500	2.481	10
2-Chloronaphthalene	1.000	2.500	2.695	10
2-Chlorophenol	0.670	2.500	2.420	10
2-Methylnaphthalene	1.100	2.500	2.692	10
2-Methylphenol	1.010	2.500	2.530	10
2-Nitroaniline	1.130	2.500	2.804	50
2-Nitrophenol	0.630	2.500	2.493	10
3 & 4 Methylphenol	1.880	2.500	2.655	20
3,3'-Dichlorobenzidine	0.580	2.500	4.823	20
3-Nitroaniline	0.510	2.500	2.477	50
4,6-Dinitro-2-methylphenol	1.880	5.000	3.164	50
4-Bromophenyl phenyl ether	0.680	2.500	2.519	10
4-Chloro-3-methylphenol	0.820	2.500	2.796	10
4-Chloroaniline	0.980	2.500	2.228	10
4-Chlorophenyl phenyl ether	0.790	2.500	2.875	10
4-Nitroaniline	1.010	2.500	2.276	50
4-Nitrophenol	0.990	5.000	3.057	50
Acenaphthene	0.530	2.500	2.607	10
Acenaphthylene	0.900	2.500	2.580	10
Acetophenone	1.020	2.500	2.738	10
Aniline	1.620	2.500	1.999	10
Anthracene	0.670	2.500	2.528	10
Azobenzene	10	2.500	2.890	10
Benzidine	0.610	25.000	2.670	50
Benzo[a]anthracene	0.580	2.500	2.537	10
Benzo[a]pyrene	0.570	2.500	2.311	10
Benzo[b]fluoranthene	1.050	2.500	2.564	10

DCS = Detection Check Standard
MQL = Method Quantitation Limit

Matrix: Water
Method: 8270C
Prep Method: 3510C
Date Analyzed: 1/10/2014
Job #: 600-85250
TALS Batch: 124708
Units: ug/L

Analyte	MDL	DCS Spike	Measured Result	MQL
Benzo[g,h,i]perylene	0.830	2.500	2.142	10
Benzo[k]fluoranthene	0.930	2.500	2.470	10
Benzoic acid	2.510	5.000	2.420	50
Benzyl alcohol	1.180	2.500	2.395	10
Bis(2-chloroethoxy)methane	1.240	2.500	2.776	10
Bis(2-chloroethyl)ether	1.190	2.500	2.577	10
Bis(2-ethylhexyl) phthalate	0.520	2.500	2.735	10
Butyl benzyl phthalate	0.610	2.500	2.781	10
Caprolactam	2.320	5.000	4.190	10
Carbazole	1.140	2.500	2.630	10
Chrysene	0.600	2.500	2.639	10
Dibenz(a,h)anthracene	0.720	2.500	2.244	10
Dibenzofuran	0.990	2.500	2.671	10
Diethyl phthalate	1.140	2.500	2.795	10
Dimethyl phthalate	0.520	2.500	2.597	10
Di-n-butyl phthalate	1.040	2.500	2.836	10
Di-n-octyl phthalate	0.690	2.500	2.335	10
Fluoranthene	0.520	2.500	2.616	10
Fluorene	1.420	2.500	2.748	10
Hexachlorobenzene	0.900	2.500	2.763	10
Hexachlorobutadiene	1.110	2.500	2.591	10
Hexachlorocyclopentadiene	0.580	2.500	1.623	10
Hexachloroethane	1.160	2.500	2.427	10
Indeno[1,2,3-cd]pyrene	0.670	2.500	1.627	10
Isophorone	0.730	2.500	2.806	10
Naphthalene	0.510	2.500	2.664	10
Nitrobenzene	1.180	2.500	3.061	10
N-Nitrosodimethylamine	1.930	2.500	1.988	10
N-Nitrosodi-n-propylamine	0.660	2.500	2.808	10
N-Nitrosodiphenylamine	1.030	2.500	2.590	10
Pentachlorophenol	0.890	5.000	2.274	50
Phenanthrene	0.790	2.500	2.579	10
Phenol	0.950	2.500	2.010	10
Pyrene	1.120	2.500	2.619	10
Pyridine	1.040	2.500	0.536	10
Total Cresols	1.880	5.000	5.200	50

Case Narrative

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-86091-1

Job ID: 600-86091-1

Laboratory: TestAmerica Houston

Narrative

Job Narrative
600-86091-1

Comments

No additional comments.

Receipt

The samples were received on 1/24/2014 12:29 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 4 coolers at receipt time were 0.7° C, 0.9° C, 1.5° C and 1.8° C.

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Method Summary

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-86091-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL NSH
8270C LL	Semivolatile Organic Compounds by GCMS - Low Levels	SW846	TAL HOU

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL HOU = TestAmerica Houston, 6310 Rothway Street, Houston, TX 77040, TEL (713)690-4444

TAL NSH = TestAmerica Nashville, 2960 Foster Creighton Drive, Nashville, TN 37204, TEL (615)726-0177



Sample Summary

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-86091-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
600-86091-1	WG-1620-MW54C-20140123	Water	01/23/14 08:45	01/24/14 12:29
600-86091-2	WG-1620-MW59D-20140123	Water	01/23/14 10:00	01/24/14 12:29
600-86091-3	WG-1620-DUP3-20140123	Water	01/23/14 10:00	01/24/14 12:29
600-86091-4	WG-1620-MW61A-20140123	Water	01/23/14 11:15	01/24/14 12:29
600-86091-5	WG-1620-MW22B-20140123	Water	01/23/14 12:20	01/24/14 12:29
600-86091-6	WG-1620-MW22A-20140123	Water	01/23/14 14:00	01/24/14 12:29
600-86091-7	WG-1620-WM-24AR-20140123	Water	01/23/14 15:05	01/24/14 12:29
600-86091-8	WG-1620-WM-67B-20140123	Water	01/23/14 16:30	01/24/14 12:29
600-86091-9	WG-1620-MW33A-20140123	Water	01/23/14 17:30	01/24/14 12:29
600-86091-10	WG-1620-FB8-20140123	Water	01/23/14 17:45	01/24/14 12:29
600-86091-11	WG-1620-MW35A-20140124	Water	01/24/14 07:40	01/24/14 12:29
600-86091-12	WG-1620-MW35B-20140124	Water	01/24/14 08:35	01/24/14 12:29
600-86091-13	WG-1620-MW71B-20140124	Water	01/24/14 09:35	01/24/14 12:29
600-86091-14	WG-1620-MW27C-20140124	Water	01/24/14 10:40	01/24/14 12:29
600-86091-15	WG-1620-MW69A-20140124	Water	01/24/14 11:40	01/24/14 12:29
600-86091-16	WG-1620-FB9-20140124	Water	01/24/14 11:50	01/24/14 12:29
600-86091-17	WG-1620-TB4-20140124	Water	01/24/14 00:00	01/24/14 12:29
600-86091-18	WG-1620-DUP4-20140123	Water	01/23/14 17:30	01/24/14 12:29

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-86091-1

Client Sample ID: WG-1620-MW54C-20140123

Lab Sample ID: 600-86091-1

Date Collected: 01/23/14 08:45

Matrix: Water

Date Received: 01/24/14 12:29

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane	0.200	U	0.500	0.200	ug/L			01/30/14 01:26	1
Benzene	0.200	U	0.500	0.200	ug/L			01/30/14 01:26	1
Chlorobenzene	0.180	U	0.500	0.180	ug/L			01/30/14 01:26	1
Ethylbenzene	0.527		0.500	0.190	ug/L			01/30/14 01:26	1
Methylene Chloride	0.220	U	5.00	0.220	ug/L			01/30/14 01:26	1
Toluene	0.170	U	0.500	0.170	ug/L			01/30/14 01:26	1
Xylenes, Total	0.620	J	1.50	0.580	ug/L			01/30/14 01:26	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	106		70 - 130		01/30/14 01:26	1
Dibromofluoromethane (Surr)	98		70 - 130		01/30/14 01:26	1
Toluene-d8 (Surr)	104		70 - 130		01/30/14 01:26	1
1,2-Dichloroethane-d4 (Surr)	94		70 - 130		01/30/14 01:26	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.0000377	U *	0.000472	0.0000377	mg/L		01/29/14 15:15	02/01/14 14:17	1
Nitrobenzene	0.000104	U	0.000472	0.000104	mg/L		01/29/14 15:15	02/01/14 14:17	1
2,4-Dimethylphenol	0.000292	U	0.000472	0.000292	mg/L		01/29/14 15:15	02/01/14 14:17	1
Bis(2-chloroethoxy)methane	0.000123	U	0.000472	0.000123	mg/L		01/29/14 15:15	02/01/14 14:17	1
2-Methylnaphthalene	0.0176		0.000472	0.0000660	mg/L		01/29/14 15:15	02/01/14 14:17	1
2-Chloronaphthalene	0.0000755	U	0.000472	0.0000755	mg/L		01/29/14 15:15	02/01/14 14:17	1
Acenaphthylene	0.00105		0.000472	0.0000566	mg/L		01/29/14 15:15	02/01/14 14:17	1
2,6-Dinitrotoluene	0.0000755	U	0.000472	0.0000755	mg/L		01/29/14 15:15	02/01/14 14:17	1
4-Nitrophenol	0.000528	U	0.000943	0.000528	mg/L		01/29/14 15:15	02/01/14 14:17	1
2,4-Dinitrotoluene	0.000123	U	0.000472	0.000123	mg/L		01/29/14 15:15	02/01/14 14:17	1
4,6-Dinitro-2-methylphenol	0.000783	U	0.000943	0.000783	mg/L		01/29/14 15:15	02/01/14 14:17	1
N-Nitrosodiphenylamine	0.0000943	U	0.000472	0.0000943	mg/L		01/29/14 15:15	02/01/14 14:17	1
1,2-Diphenylhydrazine	0.000104	U *	0.000472	0.000104	mg/L		01/29/14 15:15	02/01/14 14:17	1
Pentachlorophenol	0.000575	U	0.000943	0.000575	mg/L		01/29/14 15:15	02/01/14 14:17	1
Anthracene	0.00445		0.000472	0.0000472	mg/L		01/29/14 15:15	02/01/14 14:17	1
Di-n-butyl phthalate	0.000824	J	0.00236	0.000104	mg/L		01/29/14 15:15	02/01/14 14:17	1
Fluoranthene	0.00575		0.000472	0.0000660	mg/L		01/29/14 15:15	02/01/14 14:17	1
Pyrene	0.00373		0.000472	0.000104	mg/L		01/29/14 15:15	02/01/14 14:17	1
Benzo[a]anthracene	0.0000993	J	0.000472	0.0000755	mg/L		01/29/14 15:15	02/01/14 14:17	1
Bis(2-ethylhexyl) phthalate	0.000349	U	0.00236	0.000349	mg/L		01/29/14 15:15	02/01/14 14:17	1
Chrysene	0.0000758	J	0.000472	0.0000755	mg/L		01/29/14 15:15	02/01/14 14:17	1
Benzo[a]pyrene	0.0000755	U	0.000472	0.0000755	mg/L		01/29/14 15:15	02/01/14 14:17	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	82		44 - 123	01/29/14 15:15	02/01/14 14:17	1
2-Fluorobiphenyl	75		43 - 120	01/29/14 15:15	02/01/14 14:17	1
2-Fluorophenol	33		18 - 120	01/29/14 15:15	02/01/14 14:17	1
Nitrobenzene-d5	86		47 - 120	01/29/14 15:15	02/01/14 14:17	1
Terphenyl-d14	106		33 - 141	01/29/14 15:15	02/01/14 14:17	1
Phenol-d5 (Surr)	16		12 - 128	01/29/14 15:15	02/01/14 14:17	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels - DL

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	0.0620		0.00472	0.000755	mg/L		01/29/14 15:15	02/04/14 21:07	10

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-86091-1

Client Sample ID: WG-1620-MW54C-20140123

Lab Sample ID: 600-86091-1

Date Collected: 01/23/14 08:45

Matrix: Water

Date Received: 01/24/14 12:29

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels - DL (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Dibenzofuran	0.0695		0.00472	0.000755	mg/L		01/29/14 15:15	02/04/14 21:07	10
Fluorene	0.0321		0.00472	0.000660	mg/L		01/29/14 15:15	02/04/14 21:07	10
Phenanthrene	0.0420		0.00472	0.000566	mg/L		01/29/14 15:15	02/04/14 21:07	10
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	73		44 - 123				01/29/14 15:15	02/04/14 21:07	10
2-Fluorobiphenyl	78		43 - 120				01/29/14 15:15	02/04/14 21:07	10
2-Fluorophenol	23		18 - 120				01/29/14 15:15	02/04/14 21:07	10
Nitrobenzene-d5	62		47 - 120				01/29/14 15:15	02/04/14 21:07	10
Terphenyl-d14	97		33 - 141				01/29/14 15:15	02/04/14 21:07	10
Phenol-d5 (Surr)	13		12 - 128				01/29/14 15:15	02/04/14 21:07	10

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels - DL2

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	0.315	J	0.472	0.00755	mg/L		01/29/14 15:15	02/04/14 21:33	100
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	0	X	44 - 123				01/29/14 15:15	02/04/14 21:33	100
2-Fluorobiphenyl	0	X	43 - 120				01/29/14 15:15	02/04/14 21:33	100
2-Fluorophenol	0	X	18 - 120				01/29/14 15:15	02/04/14 21:33	100
Nitrobenzene-d5	0	X	47 - 120				01/29/14 15:15	02/04/14 21:33	100
Terphenyl-d14	0	X	33 - 141				01/29/14 15:15	02/04/14 21:33	100
Phenol-d5 (Surr)	0	X	12 - 128				01/29/14 15:15	02/04/14 21:33	100

Client Sample ID: WG-1620-MW59D-20140123

Lab Sample ID: 600-86091-2

Date Collected: 01/23/14 10:00

Matrix: Water

Date Received: 01/24/14 12:29

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane	0.200	U	0.500	0.200	ug/L			01/30/14 01:53	1
Benzene	0.200	U	0.500	0.200	ug/L			01/30/14 01:53	1
Chlorobenzene	0.180	U	0.500	0.180	ug/L			01/30/14 01:53	1
Ethylbenzene	0.190	U	0.500	0.190	ug/L			01/30/14 01:53	1
Methylene Chloride	0.220	U	5.00	0.220	ug/L			01/30/14 01:53	1
Toluene	0.170	U	0.500	0.170	ug/L			01/30/14 01:53	1
Xylenes, Total	0.580	U	1.50	0.580	ug/L			01/30/14 01:53	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	109		70 - 130					01/30/14 01:53	1
Dibromofluoromethane (Surr)	97		70 - 130					01/30/14 01:53	1
Toluene-d8 (Surr)	103		70 - 130					01/30/14 01:53	1
1,2-Dichloroethane-d4 (Surr)	92		70 - 130					01/30/14 01:53	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.0000377	U*	0.000472	0.0000377	mg/L		01/29/14 15:15	02/01/14 14:42	1
Nitrobenzene	0.000104	U	0.000472	0.000104	mg/L		01/29/14 15:15	02/01/14 14:42	1
2,4-Dimethylphenol	0.000292	U	0.000472	0.000292	mg/L		01/29/14 15:15	02/01/14 14:42	1
Bis(2-chloroethoxy)methane	0.000123	U	0.000472	0.000123	mg/L		01/29/14 15:15	02/01/14 14:42	1
Naphthalene	0.000727	J	0.00472	0.0000755	mg/L		01/29/14 15:15	02/01/14 14:42	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-86091-1

Client Sample ID: WG-1620-MW59D-20140123

Lab Sample ID: 600-86091-2

Date Collected: 01/23/14 10:00

Matrix: Water

Date Received: 01/24/14 12:29

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylnaphthalene	0.0000660	U	0.000472	0.0000660	mg/L		01/29/14 15:15	02/01/14 14:42	1
2-Chloronaphthalene	0.0000755	U	0.000472	0.0000755	mg/L		01/29/14 15:15	02/01/14 14:42	1
Acenaphthylene	0.0000566	U	0.000472	0.0000566	mg/L		01/29/14 15:15	02/01/14 14:42	1
2,6-Dinitrotoluene	0.0000755	U	0.000472	0.0000755	mg/L		01/29/14 15:15	02/01/14 14:42	1
Acenaphthene	0.0000755	U	0.000472	0.0000755	mg/L		01/29/14 15:15	02/01/14 14:42	1
4-Nitrophenol	0.000528	U	0.000943	0.000528	mg/L		01/29/14 15:15	02/01/14 14:42	1
Dibenzofuran	0.0000755	U	0.000472	0.0000755	mg/L		01/29/14 15:15	02/01/14 14:42	1
2,4-Dinitrotoluene	0.000123	U	0.000472	0.000123	mg/L		01/29/14 15:15	02/01/14 14:42	1
Fluorene	0.0000660	U	0.000472	0.0000660	mg/L		01/29/14 15:15	02/01/14 14:42	1
4,6-Dinitro-2-methylphenol	0.000783	U	0.000943	0.000783	mg/L		01/29/14 15:15	02/01/14 14:42	1
N-Nitrosodiphenylamine	0.0000943	U	0.000472	0.0000943	mg/L		01/29/14 15:15	02/01/14 14:42	1
1,2-Diphenylhydrazine	0.000104	U *	0.000472	0.000104	mg/L		01/29/14 15:15	02/01/14 14:42	1
Pentachlorophenol	0.000575	U	0.000943	0.000575	mg/L		01/29/14 15:15	02/01/14 14:42	1
Phenanthrene	0.000455	J	0.000472	0.0000566	mg/L		01/29/14 15:15	02/01/14 14:42	1
Anthracene	0.000425	J	0.000472	0.0000472	mg/L		01/29/14 15:15	02/01/14 14:42	1
Di-n-butyl phthalate	0.000825	J	0.00236	0.000104	mg/L		01/29/14 15:15	02/01/14 14:42	1
Fluoranthene	0.0000789	J	0.000472	0.0000660	mg/L		01/29/14 15:15	02/01/14 14:42	1
Pyrene	0.000104	U	0.000472	0.000104	mg/L		01/29/14 15:15	02/01/14 14:42	1
Benzo[a]anthracene	0.0000755	U	0.000472	0.0000755	mg/L		01/29/14 15:15	02/01/14 14:42	1
Bis(2-ethylhexyl) phthalate	0.000425	J	0.00236	0.000349	mg/L		01/29/14 15:15	02/01/14 14:42	1
Chrysene	0.0000755	U	0.000472	0.0000755	mg/L		01/29/14 15:15	02/01/14 14:42	1
Benzo[a]pyrene	0.0000755	U	0.000472	0.0000755	mg/L		01/29/14 15:15	02/01/14 14:42	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	68		44 - 123				01/29/14 15:15	02/01/14 14:42	1
2-Fluorobiphenyl	72		43 - 120				01/29/14 15:15	02/01/14 14:42	1
2-Fluorophenol	33		18 - 120				01/29/14 15:15	02/01/14 14:42	1
Nitrobenzene-d5	68		47 - 120				01/29/14 15:15	02/01/14 14:42	1
Terphenyl-d14	95		33 - 141				01/29/14 15:15	02/01/14 14:42	1
Phenol-d5 (Surr)	18		12 - 128				01/29/14 15:15	02/01/14 14:42	1

Client Sample ID: WG-1620-DUP3-20140123

Lab Sample ID: 600-86091-3

Date Collected: 01/23/14 10:00

Matrix: Water

Date Received: 01/24/14 12:29

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane	0.200	U	0.500	0.200	ug/L			01/30/14 02:20	1
Benzene	0.200	U	0.500	0.200	ug/L			01/30/14 02:20	1
Chlorobenzene	0.180	U	0.500	0.180	ug/L			01/30/14 02:20	1
Ethylbenzene	0.190	U	0.500	0.190	ug/L			01/30/14 02:20	1
Methylene Chloride	0.220	U	5.00	0.220	ug/L			01/30/14 02:20	1
Toluene	0.170	U	0.500	0.170	ug/L			01/30/14 02:20	1
Xylenes, Total	0.580	U	1.50	0.580	ug/L			01/30/14 02:20	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	113		70 - 130					01/30/14 02:20	1
Dibromofluoromethane (Surr)	97		70 - 130					01/30/14 02:20	1
Toluene-d8 (Surr)	99		70 - 130					01/30/14 02:20	1
1,2-Dichloroethane-d4 (Surr)	94		70 - 130					01/30/14 02:20	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-86091-1

Client Sample ID: WG-1620-DUP3-20140123

Lab Sample ID: 600-86091-3

Date Collected: 01/23/14 10:00

Matrix: Water

Date Received: 01/24/14 12:29

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.0000377	U *	0.000472	0.0000377	mg/L		01/29/14 15:15	02/01/14 15:06	1
Nitrobenzene	0.000104	U	0.000472	0.000104	mg/L		01/29/14 15:15	02/01/14 15:06	1
2,4-Dimethylphenol	0.000292	U	0.000472	0.000292	mg/L		01/29/14 15:15	02/01/14 15:06	1
Bis(2-chloroethoxy)methane	0.000123	U	0.000472	0.000123	mg/L		01/29/14 15:15	02/01/14 15:06	1
Naphthalene	0.000796	J	0.00472	0.0000755	mg/L		01/29/14 15:15	02/01/14 15:06	1
2-Methylnaphthalene	0.0000660	U	0.000472	0.0000660	mg/L		01/29/14 15:15	02/01/14 15:06	1
2-Chloronaphthalene	0.0000755	U	0.000472	0.0000755	mg/L		01/29/14 15:15	02/01/14 15:06	1
Acenaphthylene	0.0000566	U	0.000472	0.0000566	mg/L		01/29/14 15:15	02/01/14 15:06	1
2,6-Dinitrotoluene	0.0000755	U	0.000472	0.0000755	mg/L		01/29/14 15:15	02/01/14 15:06	1
Acenaphthene	0.0000755	U	0.000472	0.0000755	mg/L		01/29/14 15:15	02/01/14 15:06	1
4-Nitrophenol	0.000528	U	0.000943	0.000528	mg/L		01/29/14 15:15	02/01/14 15:06	1
Dibenzofuran	0.0000755	U	0.000472	0.0000755	mg/L		01/29/14 15:15	02/01/14 15:06	1
2,4-Dinitrotoluene	0.000123	U	0.000472	0.000123	mg/L		01/29/14 15:15	02/01/14 15:06	1
Fluorene	0.000688	J	0.000472	0.0000660	mg/L		01/29/14 15:15	02/01/14 15:06	1
4,6-Dinitro-2-methylphenol	0.000783	U	0.000943	0.000783	mg/L		01/29/14 15:15	02/01/14 15:06	1
N-Nitrosodiphenylamine	0.0000943	U	0.000472	0.0000943	mg/L		01/29/14 15:15	02/01/14 15:06	1
1,2-Diphenylhydrazine	0.000104	U *	0.000472	0.000104	mg/L		01/29/14 15:15	02/01/14 15:06	1
Pentachlorophenol	0.000575	U	0.000943	0.000575	mg/L		01/29/14 15:15	02/01/14 15:06	1
Phenanthrene	0.000464	J	0.000472	0.0000566	mg/L		01/29/14 15:15	02/01/14 15:06	1
Anthracene	0.0000472	U	0.000472	0.0000472	mg/L		01/29/14 15:15	02/01/14 15:06	1
Di-n-butyl phthalate	0.000827	J	0.00236	0.000104	mg/L		01/29/14 15:15	02/01/14 15:06	1
Fluoranthene	0.000746	J	0.000472	0.0000660	mg/L		01/29/14 15:15	02/01/14 15:06	1
Pyrene	0.000104	U	0.000472	0.000104	mg/L		01/29/14 15:15	02/01/14 15:06	1
Benzo[a]anthracene	0.0000755	U	0.000472	0.0000755	mg/L		01/29/14 15:15	02/01/14 15:06	1
Bis(2-ethylhexyl) phthalate	0.000364	J	0.00236	0.000349	mg/L		01/29/14 15:15	02/01/14 15:06	1
Chrysene	0.0000755	U	0.000472	0.0000755	mg/L		01/29/14 15:15	02/01/14 15:06	1
Benzo[a]pyrene	0.0000755	U	0.000472	0.0000755	mg/L		01/29/14 15:15	02/01/14 15:06	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	73		44 - 123				01/29/14 15:15	02/01/14 15:06	1
2-Fluorobiphenyl	69		43 - 120				01/29/14 15:15	02/01/14 15:06	1
2-Fluorophenol	34		18 - 120				01/29/14 15:15	02/01/14 15:06	1
Nitrobenzene-d5	69		47 - 120				01/29/14 15:15	02/01/14 15:06	1
Terphenyl-d14	96		33 - 141				01/29/14 15:15	02/01/14 15:06	1
Phenol-d5 (Surr)	19		12 - 128				01/29/14 15:15	02/01/14 15:06	1

Client Sample ID: WG-1620-MW61A-20140123

Lab Sample ID: 600-86091-4

Date Collected: 01/23/14 11:15

Matrix: Water

Date Received: 01/24/14 12:29

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane	0.200	U	0.500	0.200	ug/L			01/30/14 00:33	1
Benzene	0.200	U	0.500	0.200	ug/L			01/30/14 00:33	1
Chlorobenzene	0.180	U	0.500	0.180	ug/L			01/30/14 00:33	1
Ethylbenzene	0.190	U	0.500	0.190	ug/L			01/30/14 00:33	1
Methylene Chloride	0.220	U	5.00	0.220	ug/L			01/30/14 00:33	1
Toluene	0.170	U	0.500	0.170	ug/L			01/30/14 00:33	1
Vinyl chloride	0.180	U	0.500	0.180	ug/L			01/30/14 00:33	1
Xylenes, Total	0.580	U	1.50	0.580	ug/L			01/30/14 00:33	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-86091-1

Client Sample ID: WG-1620-MW61A-20140123

Lab Sample ID: 600-86091-4

Date Collected: 01/23/14 11:15

Matrix: Water

Date Received: 01/24/14 12:29

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	111		70 - 130		01/30/14 00:33	1
Dibromofluoromethane (Surr)	97		70 - 130		01/30/14 00:33	1
Toluene-d8 (Surr)	100		70 - 130		01/30/14 00:33	1
1,2-Dichloroethane-d4 (Surr)	93		70 - 130		01/30/14 00:33	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.0000377	U *	0.000472	0.0000377	mg/L		01/29/14 15:15	02/01/14 15:31	1
Nitrobenzene	0.000104	U	0.000472	0.000104	mg/L		01/29/14 15:15	02/01/14 15:31	1
2,4-Dimethylphenol	0.000292	U	0.000472	0.000292	mg/L		01/29/14 15:15	02/01/14 15:31	1
Bis(2-chloroethoxy)methane	0.000123	U	0.000472	0.000123	mg/L		01/29/14 15:15	02/01/14 15:31	1
Naphthalene	0.000668	J	0.00472	0.0000755	mg/L		01/29/14 15:15	02/01/14 15:31	1
2-Methylnaphthalene	0.0000660	U	0.000472	0.0000660	mg/L		01/29/14 15:15	02/01/14 15:31	1
2-Chloronaphthalene	0.0000755	U	0.000472	0.0000755	mg/L		01/29/14 15:15	02/01/14 15:31	1
Acenaphthylene	0.0000566	U	0.000472	0.0000566	mg/L		01/29/14 15:15	02/01/14 15:31	1
2,6-Dinitrotoluene	0.0000755	U	0.000472	0.0000755	mg/L		01/29/14 15:15	02/01/14 15:31	1
Acenaphthene	0.0000755	U	0.000472	0.0000755	mg/L		01/29/14 15:15	02/01/14 15:31	1
4-Nitrophenol	0.000528	U	0.000943	0.000528	mg/L		01/29/14 15:15	02/01/14 15:31	1
Dibenzofuran	0.0000755	U	0.000472	0.0000755	mg/L		01/29/14 15:15	02/01/14 15:31	1
2,4-Dinitrotoluene	0.000123	U	0.000472	0.000123	mg/L		01/29/14 15:15	02/01/14 15:31	1
Fluorene	0.0000660	U	0.000472	0.0000660	mg/L		01/29/14 15:15	02/01/14 15:31	1
4,6-Dinitro-2-methylphenol	0.000783	U	0.000943	0.000783	mg/L		01/29/14 15:15	02/01/14 15:31	1
N-Nitrosodiphenylamine	0.0000943	U	0.000472	0.0000943	mg/L		01/29/14 15:15	02/01/14 15:31	1
1,2-Diphenylhydrazine	0.000104	U *	0.000472	0.000104	mg/L		01/29/14 15:15	02/01/14 15:31	1
Pentachlorophenol	0.000575	U	0.000943	0.000575	mg/L		01/29/14 15:15	02/01/14 15:31	1
Phenanthrene	0.000460	J	0.000472	0.0000566	mg/L		01/29/14 15:15	02/01/14 15:31	1
Anthracene	0.000434	J	0.000472	0.0000472	mg/L		01/29/14 15:15	02/01/14 15:31	1
Di-n-butyl phthalate	0.000827	J	0.00236	0.000104	mg/L		01/29/14 15:15	02/01/14 15:31	1
Fluoranthene	0.000806	J	0.000472	0.0000660	mg/L		01/29/14 15:15	02/01/14 15:31	1
Pyrene	0.000104	U	0.000472	0.000104	mg/L		01/29/14 15:15	02/01/14 15:31	1
Benzo[a]anthracene	0.0000755	U	0.000472	0.0000755	mg/L		01/29/14 15:15	02/01/14 15:31	1
Bis(2-ethylhexyl) phthalate	0.00163	J	0.00236	0.000349	mg/L		01/29/14 15:15	02/01/14 15:31	1
Chrysene	0.0000755	U	0.000472	0.0000755	mg/L		01/29/14 15:15	02/01/14 15:31	1
Benzo[a]pyrene	0.0000755	U	0.000472	0.0000755	mg/L		01/29/14 15:15	02/01/14 15:31	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	38	X	44 - 123	01/29/14 15:15	02/01/14 15:31	1
2-Fluorobiphenyl	75		43 - 120	01/29/14 15:15	02/01/14 15:31	1
2-Fluorophenol	25		18 - 120	01/29/14 15:15	02/01/14 15:31	1
Nitrobenzene-d5	74		47 - 120	01/29/14 15:15	02/01/14 15:31	1
Terphenyl-d14	115		33 - 141	01/29/14 15:15	02/01/14 15:31	1
Phenol-d5 (Surr)	14		12 - 128	01/29/14 15:15	02/01/14 15:31	1

Client Sample ID: WG-1620-MW22B-20140123

Lab Sample ID: 600-86091-5

Date Collected: 01/23/14 12:20

Matrix: Water

Date Received: 01/24/14 12:29

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane	0.200	U	0.500	0.200	ug/L			01/30/14 02:47	1
Benzene	0.304	J	0.500	0.200	ug/L			01/30/14 02:47	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-86091-1

Client Sample ID: WG-1620-MW22B-20140123

Lab Sample ID: 600-86091-5

Date Collected: 01/23/14 12:20

Matrix: Water

Date Received: 01/24/14 12:29

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Chlorobenzene	0.180	U	0.500	0.180	ug/L			01/30/14 02:47	1
Ethylbenzene	2.20		0.500	0.190	ug/L			01/30/14 02:47	1
Methylene Chloride	0.220	U	5.00	0.220	ug/L			01/30/14 02:47	1
Vinyl chloride	0.180	U	0.500	0.180	ug/L			01/30/14 02:47	1
Xylenes, Total	4.09		1.50	0.580	ug/L			01/30/14 02:47	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	107		70 - 130					01/30/14 02:47	1
Dibromofluoromethane (Surr)	98		70 - 130					01/30/14 02:47	1
Toluene-d8 (Surr)	100		70 - 130					01/30/14 02:47	1
1,2-Dichloroethane-d4 (Surr)	91		70 - 130					01/30/14 02:47	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.0000392	U *	0.000490	0.0000392	mg/L		01/29/14 15:15	02/01/14 16:46	1
Nitrobenzene	0.000108	U	0.000490	0.000108	mg/L		01/29/14 15:15	02/01/14 16:46	1
2,4-Dimethylphenol	0.000304	U	0.000490	0.000304	mg/L		01/29/14 15:15	02/01/14 16:46	1
Bis(2-chloroethoxy)methane	0.000127	U	0.000490	0.000127	mg/L		01/29/14 15:15	02/01/14 16:46	1
2-Methylnaphthalene	0.000414	J	0.000490	0.0000686	mg/L		01/29/14 15:15	02/01/14 16:46	1
2-Chloronaphthalene	0.0000784	U	0.000490	0.0000784	mg/L		01/29/14 15:15	02/01/14 16:46	1
Acenaphthylene	0.000886		0.000490	0.0000588	mg/L		01/29/14 15:15	02/01/14 16:46	1
2,6-Dinitrotoluene	0.0000784	U	0.000490	0.0000784	mg/L		01/29/14 15:15	02/01/14 16:46	1
Acenaphthene	0.0244		0.000490	0.0000784	mg/L		01/29/14 15:15	02/01/14 16:46	1
4-Nitrophenol	0.000549	U	0.000980	0.000549	mg/L		01/29/14 15:15	02/01/14 16:46	1
Dibenzofuran	0.00784		0.000490	0.0000784	mg/L		01/29/14 15:15	02/01/14 16:46	1
2,4-Dinitrotoluene	0.000127	U	0.000490	0.000127	mg/L		01/29/14 15:15	02/01/14 16:46	1
Fluorene	0.00521		0.000490	0.0000686	mg/L		01/29/14 15:15	02/01/14 16:46	1
4,6-Dinitro-2-methylphenol	0.000814	U	0.000980	0.000814	mg/L		01/29/14 15:15	02/01/14 16:46	1
N-Nitrosodiphenylamine	0.0000980	U	0.000490	0.0000980	mg/L		01/29/14 15:15	02/01/14 16:46	1
1,2-Diphenylhydrazine	0.000108	U *	0.000490	0.000108	mg/L		01/29/14 15:15	02/01/14 16:46	1
Pentachlorophenol	0.000598	U	0.000980	0.000598	mg/L		01/29/14 15:15	02/01/14 16:46	1
Phenanthrene	0.000562		0.000490	0.0000588	mg/L		01/29/14 15:15	02/01/14 16:46	1
Anthracene	0.00146		0.000490	0.0000490	mg/L		01/29/14 15:15	02/01/14 16:46	1
Di-n-butyl phthalate	0.000873	J	0.00245	0.000108	mg/L		01/29/14 15:15	02/01/14 16:46	1
Fluoranthene	0.00187		0.000490	0.0000686	mg/L		01/29/14 15:15	02/01/14 16:46	1
Pyrene	0.000876		0.000490	0.000108	mg/L		01/29/14 15:15	02/01/14 16:46	1
Benzo[a]anthracene	0.0000784	U	0.000490	0.0000784	mg/L		01/29/14 15:15	02/01/14 16:46	1
Bis(2-ethylhexyl) phthalate	0.000363	U	0.00245	0.000363	mg/L		01/29/14 15:15	02/01/14 16:46	1
Chrysene	0.0000784	U	0.000490	0.0000784	mg/L		01/29/14 15:15	02/01/14 16:46	1
Benzo[a]pyrene	0.0000784	U	0.000490	0.0000784	mg/L		01/29/14 15:15	02/01/14 16:46	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	90		44 - 123				01/29/14 15:15	02/01/14 16:46	1
2-Fluorobiphenyl	71		43 - 120				01/29/14 15:15	02/01/14 16:46	1
2-Fluorophenol	35		18 - 120				01/29/14 15:15	02/01/14 16:46	1
Nitrobenzene-d5	68		47 - 120				01/29/14 15:15	02/01/14 16:46	1
Terphenyl-d14	114		33 - 141				01/29/14 15:15	02/01/14 16:46	1
Phenol-d5 (Surr)	14		12 - 128				01/29/14 15:15	02/01/14 16:46	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-86091-1

Client Sample ID: WG-1620-MW22B-20140123

Lab Sample ID: 600-86091-5

Date Collected: 01/23/14 12:20

Matrix: Water

Date Received: 01/24/14 12:29

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels - DL

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	0.130	J	0.245	0.00392	mg/L		01/29/14 15:15	02/04/14 21:58	50
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	0	X	44 - 123				01/29/14 15:15	02/04/14 21:58	50
2-Fluorobiphenyl	0	X	43 - 120				01/29/14 15:15	02/04/14 21:58	50
2-Fluorophenol	0	X	18 - 120				01/29/14 15:15	02/04/14 21:58	50
Nitrobenzene-d5	0	X	47 - 120				01/29/14 15:15	02/04/14 21:58	50
Terphenyl-d14	0	X	33 - 141				01/29/14 15:15	02/04/14 21:58	50
Phenol-d5 (Surr)	0	X	12 - 128				01/29/14 15:15	02/04/14 21:58	50

Client Sample ID: WG-1620-MW22A-20140123

Lab Sample ID: 600-86091-6

Date Collected: 01/23/14 14:00

Matrix: Water

Date Received: 01/24/14 12:29

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane	0.200	U	0.500	0.200	ug/L			01/30/14 03:14	1
Benzene	0.200	U	0.500	0.200	ug/L			01/30/14 03:14	1
Chlorobenzene	0.180	U	0.500	0.180	ug/L			01/30/14 03:14	1
Ethylbenzene	0.549		0.500	0.190	ug/L			01/30/14 03:14	1
Methylene Chloride	0.220	U	5.00	0.220	ug/L			01/30/14 03:14	1
Vinyl chloride	0.180	U	0.500	0.180	ug/L			01/30/14 03:14	1
Xylenes, Total	0.834	J	1.50	0.580	ug/L			01/30/14 03:14	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	111		70 - 130					01/30/14 03:14	1
Dibromofluoromethane (Surr)	95		70 - 130					01/30/14 03:14	1
Toluene-d8 (Surr)	100		70 - 130					01/30/14 03:14	1
1,2-Dichloroethane-d4 (Surr)	91		70 - 130					01/30/14 03:14	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.0000392	U *	0.000490	0.0000392	mg/L		01/29/14 15:15	02/01/14 17:10	1
Nitrobenzene	0.000108	U	0.000490	0.000108	mg/L		01/29/14 15:15	02/01/14 17:10	1
2,4-Dimethylphenol	0.000304	U	0.000490	0.000304	mg/L		01/29/14 15:15	02/01/14 17:10	1
Bis(2-chloroethoxy)methane	0.000127	U	0.000490	0.000127	mg/L		01/29/14 15:15	02/01/14 17:10	1
Naphthalene	0.00340	J	0.00490	0.0000784	mg/L		01/29/14 15:15	02/01/14 17:10	1
2-Methylnaphthalene	0.0000686	U	0.000490	0.0000686	mg/L		01/29/14 15:15	02/01/14 17:10	1
2-Chloronaphthalene	0.0000784	U	0.000490	0.0000784	mg/L		01/29/14 15:15	02/01/14 17:10	1
Acenaphthylene	0.000742		0.000490	0.0000588	mg/L		01/29/14 15:15	02/01/14 17:10	1
2,6-Dinitrotoluene	0.0000784	U	0.000490	0.0000784	mg/L		01/29/14 15:15	02/01/14 17:10	1
Acenaphthene	0.00557		0.000490	0.0000784	mg/L		01/29/14 15:15	02/01/14 17:10	1
4-Nitrophenol	0.000549	U	0.000980	0.000549	mg/L		01/29/14 15:15	02/01/14 17:10	1
Dibenzofuran	0.00100		0.000490	0.0000784	mg/L		01/29/14 15:15	02/01/14 17:10	1
2,4-Dinitrotoluene	0.000127	U	0.000490	0.000127	mg/L		01/29/14 15:15	02/01/14 17:10	1
Fluorene	0.000468	J	0.000490	0.0000686	mg/L		01/29/14 15:15	02/01/14 17:10	1
4,6-Dinitro-2-methylphenol	0.000814	U	0.000980	0.000814	mg/L		01/29/14 15:15	02/01/14 17:10	1
N-Nitrosodiphenylamine	0.0000980	U	0.000490	0.0000980	mg/L		01/29/14 15:15	02/01/14 17:10	1
1,2-Diphenylhydrazine	0.000108	U *	0.000490	0.000108	mg/L		01/29/14 15:15	02/01/14 17:10	1
Pentachlorophenol	0.000598	U	0.000980	0.000598	mg/L		01/29/14 15:15	02/01/14 17:10	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-86091-1

Client Sample ID: WG-1620-MW22A-20140123

Lab Sample ID: 600-86091-6

Date Collected: 01/23/14 14:00

Matrix: Water

Date Received: 01/24/14 12:29

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenanthrene	0.000478	J	0.000490	0.0000588	mg/L		01/29/14 15:15	02/01/14 17:10	1
Anthracene	0.000939		0.000490	0.0000490	mg/L		01/29/14 15:15	02/01/14 17:10	1
Di-n-butyl phthalate	0.000866	J	0.00245	0.000108	mg/L		01/29/14 15:15	02/01/14 17:10	1
Fluoranthene	0.000362	J	0.000490	0.0000686	mg/L		01/29/14 15:15	02/01/14 17:10	1
Pyrene	0.000108	U	0.000490	0.000108	mg/L		01/29/14 15:15	02/01/14 17:10	1
Benzo[a]anthracene	0.0000784	U	0.000490	0.0000784	mg/L		01/29/14 15:15	02/01/14 17:10	1
Bis(2-ethylhexyl) phthalate	0.000363	U	0.00245	0.000363	mg/L		01/29/14 15:15	02/01/14 17:10	1
Chrysene	0.0000784	U	0.000490	0.0000784	mg/L		01/29/14 15:15	02/01/14 17:10	1
Benzo[a]pyrene	0.0000784	U	0.000490	0.0000784	mg/L		01/29/14 15:15	02/01/14 17:10	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	85		44 - 123				01/29/14 15:15	02/01/14 17:10	1
2-Fluorobiphenyl	72		43 - 120				01/29/14 15:15	02/01/14 17:10	1
2-Fluorophenol	41		18 - 120				01/29/14 15:15	02/01/14 17:10	1
Nitrobenzene-d5	65		47 - 120				01/29/14 15:15	02/01/14 17:10	1
Terphenyl-d14	96		33 - 141				01/29/14 15:15	02/01/14 17:10	1
Phenol-d5 (Surr)	18		12 - 128				01/29/14 15:15	02/01/14 17:10	1

Client Sample ID: WG-1620-WM-24AR-20140123

Lab Sample ID: 600-86091-7

Date Collected: 01/23/14 15:05

Matrix: Water

Date Received: 01/24/14 12:29

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane	0.200	U	0.500	0.200	ug/L			01/30/14 03:40	1
Benzene	0.200	U	0.500	0.200	ug/L			01/30/14 03:40	1
Chlorobenzene	0.180	U	0.500	0.180	ug/L			01/30/14 03:40	1
Ethylbenzene	0.190	U	0.500	0.190	ug/L			01/30/14 03:40	1
Methylene Chloride	0.220	U	5.00	0.220	ug/L			01/30/14 03:40	1
Vinyl chloride	0.180	U	0.500	0.180	ug/L			01/30/14 03:40	1
Xylenes, Total	0.580	U	1.50	0.580	ug/L			01/30/14 03:40	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	113		70 - 130					01/30/14 03:40	1
Dibromofluoromethane (Surr)	95		70 - 130					01/30/14 03:40	1
Toluene-d8 (Surr)	103		70 - 130					01/30/14 03:40	1
1,2-Dichloroethane-d4 (Surr)	91		70 - 130					01/30/14 03:40	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.0000381	U*	0.000476	0.0000381	mg/L		01/29/14 15:15	02/01/14 17:35	1
Nitrobenzene	0.000105	U	0.000476	0.000105	mg/L		01/29/14 15:15	02/01/14 17:35	1
2,4-Dimethylphenol	0.000295	U	0.000476	0.000295	mg/L		01/29/14 15:15	02/01/14 17:35	1
Bis(2-chloroethoxy)methane	0.000124	U	0.000476	0.000124	mg/L		01/29/14 15:15	02/01/14 17:35	1
Naphthalene	0.000744	J	0.00476	0.0000762	mg/L		01/29/14 15:15	02/01/14 17:35	1
2-Methylnaphthalene	0.000924	J	0.000476	0.0000667	mg/L		01/29/14 15:15	02/01/14 17:35	1
2-Chloronaphthalene	0.0000762	U	0.000476	0.0000762	mg/L		01/29/14 15:15	02/01/14 17:35	1
Acenaphthylene	0.0000571	U	0.000476	0.0000571	mg/L		01/29/14 15:15	02/01/14 17:35	1
2,6-Dinitrotoluene	0.0000762	U	0.000476	0.0000762	mg/L		01/29/14 15:15	02/01/14 17:35	1
Acenaphthene	0.000146	J	0.000476	0.0000762	mg/L		01/29/14 15:15	02/01/14 17:35	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-86091-1

Client Sample ID: WG-1620-WM-24AR-20140123

Lab Sample ID: 600-86091-7

Date Collected: 01/23/14 15:05

Matrix: Water

Date Received: 01/24/14 12:29

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Nitrophenol	0.000533	U	0.000952	0.000533	mg/L		01/29/14 15:15	02/01/14 17:35	1
Dibenzofuran	0.000164	J	0.000476	0.0000762	mg/L		01/29/14 15:15	02/01/14 17:35	1
2,4-Dinitrotoluene	0.000124	U	0.000476	0.000124	mg/L		01/29/14 15:15	02/01/14 17:35	1
Fluorene	0.000137	J	0.000476	0.0000667	mg/L		01/29/14 15:15	02/01/14 17:35	1
4,6-Dinitro-2-methylphenol	0.000790	U	0.000952	0.000790	mg/L		01/29/14 15:15	02/01/14 17:35	1
N-Nitrosodiphenylamine	0.0000952	U	0.000476	0.0000952	mg/L		01/29/14 15:15	02/01/14 17:35	1
1,2-Diphenylhydrazine	0.000105	U *	0.000476	0.000105	mg/L		01/29/14 15:15	02/01/14 17:35	1
Pentachlorophenol	0.000581	U	0.000952	0.000581	mg/L		01/29/14 15:15	02/01/14 17:35	1
Phenanthrene	0.000691		0.000476	0.0000571	mg/L		01/29/14 15:15	02/01/14 17:35	1
Anthracene	0.000452	J	0.000476	0.0000476	mg/L		01/29/14 15:15	02/01/14 17:35	1
Di-n-butyl phthalate	0.000837	J	0.00238	0.000105	mg/L		01/29/14 15:15	02/01/14 17:35	1
Fluoranthene	0.000224	J	0.000476	0.0000667	mg/L		01/29/14 15:15	02/01/14 17:35	1
Pyrene	0.000172	J	0.000476	0.000105	mg/L		01/29/14 15:15	02/01/14 17:35	1
Benzo[a]anthracene	0.0000762	U	0.000476	0.0000762	mg/L		01/29/14 15:15	02/01/14 17:35	1
Bis(2-ethylhexyl) phthalate	0.000767	J	0.00238	0.000352	mg/L		01/29/14 15:15	02/01/14 17:35	1
Chrysene	0.0000762	U	0.000476	0.0000762	mg/L		01/29/14 15:15	02/01/14 17:35	1
Benzo[a]pyrene	0.0000762	U	0.000476	0.0000762	mg/L		01/29/14 15:15	02/01/14 17:35	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	47		44 - 123				01/29/14 15:15	02/01/14 17:35	1
2-Fluorobiphenyl	79		43 - 120				01/29/14 15:15	02/01/14 17:35	1
2-Fluorophenol	33		18 - 120				01/29/14 15:15	02/01/14 17:35	1
Nitrobenzene-d5	78		47 - 120				01/29/14 15:15	02/01/14 17:35	1
Terphenyl-d14	108		33 - 141				01/29/14 15:15	02/01/14 17:35	1
Phenol-d5 (Surr)	18		12 - 128				01/29/14 15:15	02/01/14 17:35	1

Client Sample ID: WG-1620-WM-67B-20140123

Lab Sample ID: 600-86091-8

Date Collected: 01/23/14 16:30

Matrix: Water

Date Received: 01/24/14 12:29

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane	0.200	U	0.500	0.200	ug/L			01/30/14 01:00	1
Benzene	0.200	U	0.500	0.200	ug/L			01/30/14 01:00	1
Chlorobenzene	0.180	U	0.500	0.180	ug/L			01/30/14 01:00	1
Ethylbenzene	0.190	U	0.500	0.190	ug/L			01/30/14 01:00	1
Methylene Chloride	0.220	U	5.00	0.220	ug/L			01/30/14 01:00	1
Vinyl chloride	0.180	U	0.500	0.180	ug/L			01/30/14 01:00	1
Xylenes, Total	0.580	U	1.50	0.580	ug/L			01/30/14 01:00	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	107		70 - 130					01/30/14 01:00	1
Dibromofluoromethane (Surr)	96		70 - 130					01/30/14 01:00	1
Toluene-d8 (Surr)	96		70 - 130					01/30/14 01:00	1
1,2-Dichloroethane-d4 (Surr)	91		70 - 130					01/30/14 01:00	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.0000385	U *	0.000481	0.0000385	mg/L		01/29/14 15:15	02/01/14 18:00	1
Nitrobenzene	0.000106	U	0.000481	0.000106	mg/L		01/29/14 15:15	02/01/14 18:00	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-86091-1

Client Sample ID: WG-1620-WM-67B-20140123

Lab Sample ID: 600-86091-8

Date Collected: 01/23/14 16:30

Matrix: Water

Date Received: 01/24/14 12:29

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-Dimethylphenol	0.000298	U	0.000481	0.000298	mg/L		01/29/14 15:15	02/01/14 18:00	1
Bis(2-chloroethoxy)methane	0.000125	U	0.000481	0.000125	mg/L		01/29/14 15:15	02/01/14 18:00	1
Naphthalene	0.000711	J	0.00481	0.0000769	mg/L		01/29/14 15:15	02/01/14 18:00	1
2-Methylnaphthalene	0.0000673	U	0.000481	0.0000673	mg/L		01/29/14 15:15	02/01/14 18:00	1
2-Chloronaphthalene	0.0000769	U	0.000481	0.0000769	mg/L		01/29/14 15:15	02/01/14 18:00	1
Acenaphthylene	0.0000577	U	0.000481	0.0000577	mg/L		01/29/14 15:15	02/01/14 18:00	1
2,6-Dinitrotoluene	0.0000769	U	0.000481	0.0000769	mg/L		01/29/14 15:15	02/01/14 18:00	1
Acenaphthene	0.0000769	U	0.000481	0.0000769	mg/L		01/29/14 15:15	02/01/14 18:00	1
4-Nitrophenol	0.000538	U	0.000962	0.000538	mg/L		01/29/14 15:15	02/01/14 18:00	1
Dibenzofuran	0.0000769	U	0.000481	0.0000769	mg/L		01/29/14 15:15	02/01/14 18:00	1
2,4-Dinitrotoluene	0.000125	U	0.000481	0.000125	mg/L		01/29/14 15:15	02/01/14 18:00	1
Fluorene	0.0000673	U	0.000481	0.0000673	mg/L		01/29/14 15:15	02/01/14 18:00	1
4,6-Dinitro-2-methylphenol	0.000798	U	0.000962	0.000798	mg/L		01/29/14 15:15	02/01/14 18:00	1
N-Nitrosodiphenylamine	0.0000962	U	0.000481	0.0000962	mg/L		01/29/14 15:15	02/01/14 18:00	1
1,2-Diphenylhydrazine	0.000106	U *	0.000481	0.000106	mg/L		01/29/14 15:15	02/01/14 18:00	1
Pentachlorophenol	0.000587	U	0.000962	0.000587	mg/L		01/29/14 15:15	02/01/14 18:00	1
Phenanthrene	0.000377	J	0.000481	0.0000577	mg/L		01/29/14 15:15	02/01/14 18:00	1
Anthracene	0.000424	J	0.000481	0.0000481	mg/L		01/29/14 15:15	02/01/14 18:00	1
Di-n-butyl phthalate	0.000834	J	0.00240	0.000106	mg/L		01/29/14 15:15	02/01/14 18:00	1
Fluoranthene	0.0000673	U	0.000481	0.0000673	mg/L		01/29/14 15:15	02/01/14 18:00	1
Pyrene	0.000106	U	0.000481	0.000106	mg/L		01/29/14 15:15	02/01/14 18:00	1
Benzo[a]anthracene	0.0000769	U	0.000481	0.0000769	mg/L		01/29/14 15:15	02/01/14 18:00	1
Bis(2-ethylhexyl) phthalate	0.000356	U	0.00240	0.000356	mg/L		01/29/14 15:15	02/01/14 18:00	1
Chrysene	0.0000769	U	0.000481	0.0000769	mg/L		01/29/14 15:15	02/01/14 18:00	1
Benzo[a]pyrene	0.0000769	U	0.000481	0.0000769	mg/L		01/29/14 15:15	02/01/14 18:00	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	40	X	44 - 123				01/29/14 15:15	02/01/14 18:00	1
2-Fluorobiphenyl	76		43 - 120				01/29/14 15:15	02/01/14 18:00	1
2-Fluorophenol	30		18 - 120				01/29/14 15:15	02/01/14 18:00	1
Nitrobenzene-d5	74		47 - 120				01/29/14 15:15	02/01/14 18:00	1
Terphenyl-d14	110		33 - 141				01/29/14 15:15	02/01/14 18:00	1
Phenol-d5 (Surr)	17		12 - 128				01/29/14 15:15	02/01/14 18:00	1

Client Sample ID: WG-1620-MW33A-20140123

Lab Sample ID: 600-86091-9

Date Collected: 01/23/14 17:30

Matrix: Water

Date Received: 01/24/14 12:29

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane	0.200	U	0.500	0.200	ug/L			01/30/14 04:07	1
Benzene	223		5.00	2.00	ug/L			01/30/14 12:08	10
Chlorobenzene	0.214	J	0.500	0.180	ug/L			01/30/14 04:07	1
Ethylbenzene	135		0.500	0.190	ug/L			01/30/14 04:07	1
Methylene Chloride	0.220	U	5.00	0.220	ug/L			01/30/14 04:07	1
Vinyl chloride	0.180	U	0.500	0.180	ug/L			01/30/14 04:07	1
Xylenes, Total	188		1.50	0.580	ug/L			01/30/14 04:07	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	108		70 - 130					01/30/14 04:07	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-86091-1

Client Sample ID: WG-1620-MW33A-20140123

Lab Sample ID: 600-86091-9

Date Collected: 01/23/14 17:30

Matrix: Water

Date Received: 01/24/14 12:29

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	103		70 - 130		01/30/14 12:08	10
Dibromofluoromethane (Surr)	95		70 - 130		01/30/14 04:07	1
Dibromofluoromethane (Surr)	96		70 - 130		01/30/14 12:08	10
Toluene-d8 (Surr)	102		70 - 130		01/30/14 04:07	1
Toluene-d8 (Surr)	95		70 - 130		01/30/14 12:08	10
1,2-Dichloroethane-d4 (Surr)	92		70 - 130		01/30/14 04:07	1
1,2-Dichloroethane-d4 (Surr)	93		70 - 130		01/30/14 12:08	10

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.203	J*	0.472	0.0377	mg/L		01/29/14 15:15	02/04/14 22:24	1000
Nitrobenzene	0.104	U	0.472	0.104	mg/L		01/29/14 15:15	02/04/14 22:24	1000
2,4-Dimethylphenol	1.44		0.472	0.292	mg/L		01/29/14 15:15	02/04/14 22:24	1000
Bis(2-chloroethoxy)methane	0.123	U	0.472	0.123	mg/L		01/29/14 15:15	02/04/14 22:24	1000
Naphthalene	5.82		4.72	0.0755	mg/L		01/29/14 15:15	02/04/14 22:24	1000
2-Methylnaphthalene	0.263	J	0.472	0.0660	mg/L		01/29/14 15:15	02/04/14 22:24	1000
2-Chloronaphthalene	0.0755	U	0.472	0.0755	mg/L		01/29/14 15:15	02/04/14 22:24	1000
Acenaphthylene	0.0566	U	0.472	0.0566	mg/L		01/29/14 15:15	02/04/14 22:24	1000
2,6-Dinitrotoluene	0.0755	U	0.472	0.0755	mg/L		01/29/14 15:15	02/04/14 22:24	1000
Acenaphthene	0.288	J	0.472	0.0755	mg/L		01/29/14 15:15	02/04/14 22:24	1000
4-Nitrophenol	0.528	U	0.943	0.528	mg/L		01/29/14 15:15	02/04/14 22:24	1000
Dibenzofuran	0.148	J	0.472	0.0755	mg/L		01/29/14 15:15	02/04/14 22:24	1000
2,4-Dinitrotoluene	0.123	U	0.472	0.123	mg/L		01/29/14 15:15	02/04/14 22:24	1000
Fluorene	0.145	J	0.472	0.0660	mg/L		01/29/14 15:15	02/04/14 22:24	1000
4,6-Dinitro-2-methylphenol	0.783	U	0.943	0.783	mg/L		01/29/14 15:15	02/04/14 22:24	1000
N-Nitrosodiphenylamine	0.0943	U	0.472	0.0943	mg/L		01/29/14 15:15	02/04/14 22:24	1000
1,2-Diphenylhydrazine	0.104	U*	0.472	0.104	mg/L		01/29/14 15:15	02/04/14 22:24	1000
Pentachlorophenol	0.575	U	0.943	0.575	mg/L		01/29/14 15:15	02/04/14 22:24	1000
Phenanthrene	0.180	J	0.472	0.0566	mg/L		01/29/14 15:15	02/04/14 22:24	1000
Anthracene	0.0472	U	0.472	0.0472	mg/L		01/29/14 15:15	02/04/14 22:24	1000
Di-n-butyl phthalate	0.104	U	2.36	0.104	mg/L		01/29/14 15:15	02/04/14 22:24	1000
Fluoranthene	0.0703	J	0.472	0.0660	mg/L		01/29/14 15:15	02/04/14 22:24	1000
Pyrene	0.104	U	0.472	0.104	mg/L		01/29/14 15:15	02/04/14 22:24	1000
Benzo[a]anthracene	0.0755	U	0.472	0.0755	mg/L		01/29/14 15:15	02/04/14 22:24	1000
Bis(2-ethylhexyl) phthalate	0.349	U	2.36	0.349	mg/L		01/29/14 15:15	02/04/14 22:24	1000
Chrysene	0.0755	U	0.472	0.0755	mg/L		01/29/14 15:15	02/04/14 22:24	1000
Benzo[a]pyrene	0.0755	U	0.472	0.0755	mg/L		01/29/14 15:15	02/04/14 22:24	1000

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	0	X	44 - 123	01/29/14 15:15	02/04/14 22:24	1000
2-Fluorobiphenyl	0	X	43 - 120	01/29/14 15:15	02/04/14 22:24	1000
2-Fluorophenol	0	X	18 - 120	01/29/14 15:15	02/04/14 22:24	1000
Nitrobenzene-d5	0	X	47 - 120	01/29/14 15:15	02/04/14 22:24	1000
Terphenyl-d14	0	X	33 - 141	01/29/14 15:15	02/04/14 22:24	1000
Phenol-d5 (Surr)	0	X	12 - 128	01/29/14 15:15	02/04/14 22:24	1000

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-86091-1

Client Sample ID: WG-1620-FB8-20140123

Lab Sample ID: 600-86091-10

Date Collected: 01/23/14 17:45

Matrix: Water

Date Received: 01/24/14 12:29

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane	0.200	U	0.500	0.200	ug/L			01/29/14 23:39	1
Benzene	0.200	U	0.500	0.200	ug/L			01/29/14 23:39	1
Chlorobenzene	0.180	U	0.500	0.180	ug/L			01/29/14 23:39	1
Ethylbenzene	0.190	U	0.500	0.190	ug/L			01/29/14 23:39	1
Methylene Chloride	0.220	U	5.00	0.220	ug/L			01/29/14 23:39	1
Toluene	0.170	U	0.500	0.170	ug/L			01/29/14 23:39	1
Vinyl chloride	0.180	U	0.500	0.180	ug/L			01/29/14 23:39	1
Xylenes, Total	0.580	U	1.50	0.580	ug/L			01/29/14 23:39	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	112		70 - 130					01/29/14 23:39	1
Dibromofluoromethane (Surr)	94		70 - 130					01/29/14 23:39	1
Toluene-d8 (Surr)	96		70 - 130					01/29/14 23:39	1
1,2-Dichloroethane-d4 (Surr)	92		70 - 130					01/29/14 23:39	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.000377	U *	0.000472	0.000377	mg/L		01/29/14 15:15	02/01/14 19:40	1
Nitrobenzene	0.000104	U	0.000472	0.000104	mg/L		01/29/14 15:15	02/01/14 19:40	1
2,4-Dimethylphenol	0.000292	U	0.000472	0.000292	mg/L		01/29/14 15:15	02/01/14 19:40	1
Bis(2-chloroethoxy)methane	0.000123	U	0.000472	0.000123	mg/L		01/29/14 15:15	02/01/14 19:40	1
Naphthalene	0.000887	J	0.00472	0.0000755	mg/L		01/29/14 15:15	02/01/14 19:40	1
2-Methylnaphthalene	0.0000660	U	0.000472	0.0000660	mg/L		01/29/14 15:15	02/01/14 19:40	1
2-Chloronaphthalene	0.0000755	U	0.000472	0.0000755	mg/L		01/29/14 15:15	02/01/14 19:40	1
Acenaphthylene	0.0000566	U	0.000472	0.0000566	mg/L		01/29/14 15:15	02/01/14 19:40	1
2,6-Dinitrotoluene	0.0000755	U	0.000472	0.0000755	mg/L		01/29/14 15:15	02/01/14 19:40	1
Acenaphthene	0.0000755	U	0.000472	0.0000755	mg/L		01/29/14 15:15	02/01/14 19:40	1
4-Nitrophenol	0.000528	U	0.000943	0.000528	mg/L		01/29/14 15:15	02/01/14 19:40	1
Dibenzofuran	0.0000755	U	0.000472	0.0000755	mg/L		01/29/14 15:15	02/01/14 19:40	1
2,4-Dinitrotoluene	0.000123	U	0.000472	0.000123	mg/L		01/29/14 15:15	02/01/14 19:40	1
Fluorene	0.0000660	U	0.000472	0.0000660	mg/L		01/29/14 15:15	02/01/14 19:40	1
4,6-Dinitro-2-methylphenol	0.000783	U	0.000943	0.000783	mg/L		01/29/14 15:15	02/01/14 19:40	1
N-Nitrosodiphenylamine	0.0000943	U	0.000472	0.0000943	mg/L		01/29/14 15:15	02/01/14 19:40	1
1,2-Diphenylhydrazine	0.000104	U *	0.000472	0.000104	mg/L		01/29/14 15:15	02/01/14 19:40	1
Pentachlorophenol	0.000575	U	0.000943	0.000575	mg/L		01/29/14 15:15	02/01/14 19:40	1
Phenanthrene	0.000376	J	0.000472	0.0000566	mg/L		01/29/14 15:15	02/01/14 19:40	1
Anthracene	0.000419	J	0.000472	0.0000472	mg/L		01/29/14 15:15	02/01/14 19:40	1
Di-n-butyl phthalate	0.000830	J	0.00236	0.000104	mg/L		01/29/14 15:15	02/01/14 19:40	1
Fluoranthene	0.0000660	U	0.000472	0.0000660	mg/L		01/29/14 15:15	02/01/14 19:40	1
Pyrene	0.000104	U	0.000472	0.000104	mg/L		01/29/14 15:15	02/01/14 19:40	1
Benzo[a]anthracene	0.0000755	U	0.000472	0.0000755	mg/L		01/29/14 15:15	02/01/14 19:40	1
Bis(2-ethylhexyl) phthalate	0.000349	U	0.00236	0.000349	mg/L		01/29/14 15:15	02/01/14 19:40	1
Chrysene	0.0000755	U	0.000472	0.0000755	mg/L		01/29/14 15:15	02/01/14 19:40	1
Benzo[a]pyrene	0.0000755	U	0.000472	0.0000755	mg/L		01/29/14 15:15	02/01/14 19:40	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	54		44 - 123				01/29/14 15:15	02/01/14 19:40	1
2-Fluorobiphenyl	94		43 - 120				01/29/14 15:15	02/01/14 19:40	1
2-Fluorophenol	29		18 - 120				01/29/14 15:15	02/01/14 19:40	1
Nitrobenzene-d5	93		47 - 120				01/29/14 15:15	02/01/14 19:40	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-86091-1

Client Sample ID: WG-1620-FB8-20140123

Lab Sample ID: 600-86091-10

Date Collected: 01/23/14 17:45

Matrix: Water

Date Received: 01/24/14 12:29

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Terphenyl-d14	116		33 - 141	01/29/14 15:15	02/01/14 19:40	1
Phenol-d5 (Surr)	19		12 - 128	01/29/14 15:15	02/01/14 19:40	1

Client Sample ID: WG-1620-MW35A-20140124

Lab Sample ID: 600-86091-11

Date Collected: 01/24/14 07:40

Matrix: Water

Date Received: 01/24/14 12:29

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane	0.200	U	0.500	0.200	ug/L			01/30/14 04:34	1
Benzene	0.367	J	0.500	0.200	ug/L			01/30/14 04:34	1
Chlorobenzene	0.180	U	0.500	0.180	ug/L			01/30/14 04:34	1
Ethylbenzene	0.190	U	0.500	0.190	ug/L			01/30/14 04:34	1
Methylene Chloride	0.220	U	5.00	0.220	ug/L			01/30/14 04:34	1
Vinyl chloride	0.180	U	0.500	0.180	ug/L			01/30/14 04:34	1
Xylenes, Total	0.580	U	1.50	0.580	ug/L			01/30/14 04:34	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	110		70 - 130		01/30/14 04:34	1
Dibromofluoromethane (Surr)	95		70 - 130		01/30/14 04:34	1
Toluene-d8 (Surr)	102		70 - 130		01/30/14 04:34	1
1,2-Dichloroethane-d4 (Surr)	89		70 - 130		01/30/14 04:34	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.0000377	U *	0.000472	0.0000377	mg/L		01/29/14 15:15	02/01/14 20:04	1
Nitrobenzene	0.000104	U	0.000472	0.000104	mg/L		01/29/14 15:15	02/01/14 20:04	1
2,4-Dimethylphenol	0.000292	U	0.000472	0.000292	mg/L		01/29/14 15:15	02/01/14 20:04	1
Bis(2-chloroethoxy)methane	0.000123	U	0.000472	0.000123	mg/L		01/29/14 15:15	02/01/14 20:04	1
Naphthalene	0.00968		0.00472	0.0000755	mg/L		01/29/14 15:15	02/01/14 20:04	1
2-Methylnaphthalene	0.000350	J	0.000472	0.0000660	mg/L		01/29/14 15:15	02/01/14 20:04	1
2-Chloronaphthalene	0.0000755	U	0.000472	0.0000755	mg/L		01/29/14 15:15	02/01/14 20:04	1
Acenaphthylene	0.000754		0.000472	0.0000566	mg/L		01/29/14 15:15	02/01/14 20:04	1
2,6-Dinitrotoluene	0.0000755	U	0.000472	0.0000755	mg/L		01/29/14 15:15	02/01/14 20:04	1
4-Nitrophenol	0.000528	U	0.000943	0.000528	mg/L		01/29/14 15:15	02/01/14 20:04	1
Dibenzofuran	0.00177		0.000472	0.0000755	mg/L		01/29/14 15:15	02/01/14 20:04	1
2,4-Dinitrotoluene	0.000123	U	0.000472	0.000123	mg/L		01/29/14 15:15	02/01/14 20:04	1
Fluorene	0.0149		0.000472	0.0000660	mg/L		01/29/14 15:15	02/01/14 20:04	1
4,6-Dinitro-2-methylphenol	0.000783	U	0.000943	0.000783	mg/L		01/29/14 15:15	02/01/14 20:04	1
N-Nitrosodiphenylamine	0.0000943	U	0.000472	0.0000943	mg/L		01/29/14 15:15	02/01/14 20:04	1
1,2-Diphenylhydrazine	0.000104	U *	0.000472	0.000104	mg/L		01/29/14 15:15	02/01/14 20:04	1
Pentachlorophenol	0.000575	U	0.000943	0.000575	mg/L		01/29/14 15:15	02/01/14 20:04	1
Phenanthrene	0.000848		0.000472	0.0000566	mg/L		01/29/14 15:15	02/01/14 20:04	1
Anthracene	0.00111		0.000472	0.0000472	mg/L		01/29/14 15:15	02/01/14 20:04	1
Di-n-butyl phthalate	0.000838	J	0.00236	0.000104	mg/L		01/29/14 15:15	02/01/14 20:04	1
Fluoranthene	0.000484		0.000472	0.0000660	mg/L		01/29/14 15:15	02/01/14 20:04	1
Pyrene	0.000376	J	0.000472	0.000104	mg/L		01/29/14 15:15	02/01/14 20:04	1
Benzo[a]anthracene	0.0000755	U	0.000472	0.0000755	mg/L		01/29/14 15:15	02/01/14 20:04	1
Bis(2-ethylhexyl) phthalate	0.000349	U	0.00236	0.000349	mg/L		01/29/14 15:15	02/01/14 20:04	1
Chrysene	0.0000755	U	0.000472	0.0000755	mg/L		01/29/14 15:15	02/01/14 20:04	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-86091-1

Client Sample ID: WG-1620-MW35A-20140124

Lab Sample ID: 600-86091-11

Date Collected: 01/24/14 07:40

Matrix: Water

Date Received: 01/24/14 12:29

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]pyrene	0.0000755	U	0.000472	0.0000755	mg/L		01/29/14 15:15	02/01/14 20:04	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	102		44 - 123				01/29/14 15:15	02/01/14 20:04	1
2-Fluorobiphenyl	86		43 - 120				01/29/14 15:15	02/01/14 20:04	1
2-Fluorophenol	36		18 - 120				01/29/14 15:15	02/01/14 20:04	1
Nitrobenzene-d5	74		47 - 120				01/29/14 15:15	02/01/14 20:04	1
Terphenyl-d14	114		33 - 141				01/29/14 15:15	02/01/14 20:04	1
Phenol-d5 (Surr)	22		12 - 128				01/29/14 15:15	02/01/14 20:04	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels - DL

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	0.0551		0.00236	0.000377	mg/L		01/29/14 15:15	02/05/14 00:31	5
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	109		44 - 123				01/29/14 15:15	02/05/14 00:31	5
2-Fluorobiphenyl	82		43 - 120				01/29/14 15:15	02/05/14 00:31	5
2-Fluorophenol	26		18 - 120				01/29/14 15:15	02/05/14 00:31	5
Nitrobenzene-d5	71		47 - 120				01/29/14 15:15	02/05/14 00:31	5
Terphenyl-d14	97		33 - 141				01/29/14 15:15	02/05/14 00:31	5
Phenol-d5 (Surr)	12		12 - 128				01/29/14 15:15	02/05/14 00:31	5

Client Sample ID: WG-1620-MW35B-20140124

Lab Sample ID: 600-86091-12

Date Collected: 01/24/14 08:35

Matrix: Water

Date Received: 01/24/14 12:29

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane	0.200	U	0.500	0.200	ug/L			01/30/14 05:01	1
Benzene	66.4		0.500	0.200	ug/L			01/30/14 05:01	1
Chlorobenzene	0.241	J	0.500	0.180	ug/L			01/30/14 05:01	1
Ethylbenzene	187		0.500	0.190	ug/L			01/30/14 05:01	1
Methylene Chloride	0.220	U	5.00	0.220	ug/L			01/30/14 05:01	1
Vinyl chloride	0.180	U	0.500	0.180	ug/L			01/30/14 05:01	1
Xylenes, Total	132		1.50	0.580	ug/L			01/30/14 05:01	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	108		70 - 130					01/30/14 05:01	1
Dibromofluoromethane (Surr)	96		70 - 130					01/30/14 05:01	1
Toluene-d8 (Surr)	101		70 - 130					01/30/14 05:01	1
1,2-Dichloroethane-d4 (Surr)	90		70 - 130					01/30/14 05:01	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.129	J *	0.481	0.0385	mg/L		01/29/14 15:15	02/04/14 22:49	1000
Nitrobenzene	0.106	U	0.481	0.106	mg/L		01/29/14 15:15	02/04/14 22:49	1000
2,4-Dimethylphenol	0.298	U	0.481	0.298	mg/L		01/29/14 15:15	02/04/14 22:49	1000
Bis(2-chloroethoxy)methane	0.125	U	0.481	0.125	mg/L		01/29/14 15:15	02/04/14 22:49	1000
Naphthalene	13.1		4.81	0.0769	mg/L		01/29/14 15:15	02/04/14 22:49	1000
2-Methylnaphthalene	0.534		0.481	0.0673	mg/L		01/29/14 15:15	02/04/14 22:49	1000
2-Chloronaphthalene	0.0769	U	0.481	0.0769	mg/L		01/29/14 15:15	02/04/14 22:49	1000

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-86091-1

Client Sample ID: WG-1620-MW35B-20140124

Lab Sample ID: 600-86091-12

Date Collected: 01/24/14 08:35

Matrix: Water

Date Received: 01/24/14 12:29

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthylene	0.0577	U	0.481	0.0577	mg/L		01/29/14 15:15	02/04/14 22:49	1000
2,6-Dinitrotoluene	0.0769	U	0.481	0.0769	mg/L		01/29/14 15:15	02/04/14 22:49	1000
Acenaphthene	0.305	J	0.481	0.0769	mg/L		01/29/14 15:15	02/04/14 22:49	1000
4-Nitrophenol	0.538	U	0.962	0.538	mg/L		01/29/14 15:15	02/04/14 22:49	1000
Dibenzofuran	0.256	J	0.481	0.0769	mg/L		01/29/14 15:15	02/04/14 22:49	1000
2,4-Dinitrotoluene	0.125	U	0.481	0.125	mg/L		01/29/14 15:15	02/04/14 22:49	1000
Fluorene	0.167	J	0.481	0.0673	mg/L		01/29/14 15:15	02/04/14 22:49	1000
4,6-Dinitro-2-methylphenol	0.798	U	0.962	0.798	mg/L		01/29/14 15:15	02/04/14 22:49	1000
N-Nitrosodiphenylamine	0.0962	U	0.481	0.0962	mg/L		01/29/14 15:15	02/04/14 22:49	1000
1,2-Diphenylhydrazine	0.106	U *	0.481	0.106	mg/L		01/29/14 15:15	02/04/14 22:49	1000
Pentachlorophenol	0.587	U	0.962	0.587	mg/L		01/29/14 15:15	02/04/14 22:49	1000
Phenanthrene	0.270	J	0.481	0.0577	mg/L		01/29/14 15:15	02/04/14 22:49	1000
Anthracene	0.0481	U	0.481	0.0481	mg/L		01/29/14 15:15	02/04/14 22:49	1000
Di-n-butyl phthalate	0.106	U	2.40	0.106	mg/L		01/29/14 15:15	02/04/14 22:49	1000
Fluoranthene	0.0698	J	0.481	0.0673	mg/L		01/29/14 15:15	02/04/14 22:49	1000
Pyrene	0.106	U	0.481	0.106	mg/L		01/29/14 15:15	02/04/14 22:49	1000
Benzo[a]anthracene	0.0769	U	0.481	0.0769	mg/L		01/29/14 15:15	02/04/14 22:49	1000
Bis(2-ethylhexyl) phthalate	0.356	U	2.40	0.356	mg/L		01/29/14 15:15	02/04/14 22:49	1000
Chrysene	0.0769	U	0.481	0.0769	mg/L		01/29/14 15:15	02/04/14 22:49	1000
Benzo[a]pyrene	0.0769	U	0.481	0.0769	mg/L		01/29/14 15:15	02/04/14 22:49	1000

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	0	X	44 - 123	01/29/14 15:15	02/04/14 22:49	1000
2-Fluorobiphenyl	0	X	43 - 120	01/29/14 15:15	02/04/14 22:49	1000
2-Fluorophenol	0	X	18 - 120	01/29/14 15:15	02/04/14 22:49	1000
Nitrobenzene-d5	0	X	47 - 120	01/29/14 15:15	02/04/14 22:49	1000
Terphenyl-d14	0	X	33 - 141	01/29/14 15:15	02/04/14 22:49	1000
Phenol-d5 (Surr)	0	X	12 - 128	01/29/14 15:15	02/04/14 22:49	1000

Client Sample ID: WG-1620-MW71B-20140124

Lab Sample ID: 600-86091-13

Date Collected: 01/24/14 09:35

Matrix: Water

Date Received: 01/24/14 12:29

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane	0.200	U	0.500	0.200	ug/L			01/30/14 05:27	1
Benzene	39.0		0.500	0.200	ug/L			01/30/14 05:27	1
Chlorobenzene	0.180	U	0.500	0.180	ug/L			01/30/14 05:27	1
Ethylbenzene	7.93		0.500	0.190	ug/L			01/30/14 05:27	1
Methylene Chloride	0.220	U	5.00	0.220	ug/L			01/30/14 05:27	1
Vinyl chloride	0.180	U	0.500	0.180	ug/L			01/30/14 05:27	1
Xylenes, Total	20.2		1.50	0.580	ug/L			01/30/14 05:27	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	110		70 - 130		01/30/14 05:27	1
Dibromofluoromethane (Surr)	95		70 - 130		01/30/14 05:27	1
Toluene-d8 (Surr)	100		70 - 130		01/30/14 05:27	1
1,2-Dichloroethane-d4 (Surr)	89		70 - 130		01/30/14 05:27	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-86091-1

Client Sample ID: WG-1620-MW71B-20140124

Lab Sample ID: 600-86091-13

Date Collected: 01/24/14 09:35

Matrix: Water

Date Received: 01/24/14 12:29

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.0000385	U *	0.000481	0.0000385	mg/L	-	01/29/14 15:15	02/01/14 20:54	1
Nitrobenzene	0.000106	U	0.000481	0.000106	mg/L	-	01/29/14 15:15	02/01/14 20:54	1
Bis(2-chloroethoxy)methane	0.000125	U	0.000481	0.000125	mg/L	-	01/29/14 15:15	02/01/14 20:54	1
2-Chloronaphthalene	0.0000769	U	0.000481	0.0000769	mg/L	-	01/29/14 15:15	02/01/14 20:54	1
Acenaphthylene	0.00122		0.000481	0.0000577	mg/L	-	01/29/14 15:15	02/01/14 20:54	1
2,6-Dinitrotoluene	0.0000769	U	0.000481	0.0000769	mg/L	-	01/29/14 15:15	02/01/14 20:54	1
Acenaphthene	0.0212		0.000481	0.0000769	mg/L	-	01/29/14 15:15	02/01/14 20:54	1
4-Nitrophenol	0.000538	U	0.000962	0.000538	mg/L	-	01/29/14 15:15	02/01/14 20:54	1
Dibenzofuran	0.0175		0.000481	0.0000769	mg/L	-	01/29/14 15:15	02/01/14 20:54	1
2,4-Dinitrotoluene	0.000125	U	0.000481	0.000125	mg/L	-	01/29/14 15:15	02/01/14 20:54	1
Fluorene	0.0104		0.000481	0.0000673	mg/L	-	01/29/14 15:15	02/01/14 20:54	1
4,6-Dinitro-2-methylphenol	0.000798	U	0.000962	0.000798	mg/L	-	01/29/14 15:15	02/01/14 20:54	1
N-Nitrosodiphenylamine	0.0000962	U	0.000481	0.0000962	mg/L	-	01/29/14 15:15	02/01/14 20:54	1
1,2-Diphenylhydrazine	0.000106	U *	0.000481	0.000106	mg/L	-	01/29/14 15:15	02/01/14 20:54	1
Pentachlorophenol	0.000587	U	0.000962	0.000587	mg/L	-	01/29/14 15:15	02/01/14 20:54	1
Phenanthrene	0.00677		0.000481	0.0000577	mg/L	-	01/29/14 15:15	02/01/14 20:54	1
Anthracene	0.00198		0.000481	0.0000481	mg/L	-	01/29/14 15:15	02/01/14 20:54	1
Di-n-butyl phthalate	0.000850	J	0.00240	0.000106	mg/L	-	01/29/14 15:15	02/01/14 20:54	1
Fluoranthene	0.000712		0.000481	0.0000673	mg/L	-	01/29/14 15:15	02/01/14 20:54	1
Pyrene	0.000353	J	0.000481	0.000106	mg/L	-	01/29/14 15:15	02/01/14 20:54	1
Benzo[a]anthracene	0.0000769	U	0.000481	0.0000769	mg/L	-	01/29/14 15:15	02/01/14 20:54	1
Bis(2-ethylhexyl) phthalate	0.000356	U	0.00240	0.000356	mg/L	-	01/29/14 15:15	02/01/14 20:54	1
Chrysene	0.0000769	U	0.000481	0.0000769	mg/L	-	01/29/14 15:15	02/01/14 20:54	1
Benzo[a]pyrene	0.0000769	U	0.000481	0.0000769	mg/L	-	01/29/14 15:15	02/01/14 20:54	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	114		44 - 123	01/29/14 15:15	02/01/14 20:54	1
2-Fluorobiphenyl	98		43 - 120	01/29/14 15:15	02/01/14 20:54	1
2-Fluorophenol	51		18 - 120	01/29/14 15:15	02/01/14 20:54	1
Nitrobenzene-d5	150	X	47 - 120	01/29/14 15:15	02/01/14 20:54	1
Terphenyl-d14	109		33 - 141	01/29/14 15:15	02/01/14 20:54	1
Phenol-d5 (Surr)	21		12 - 128	01/29/14 15:15	02/01/14 20:54	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels - DL

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-Dimethylphenol	0.0225		0.00240	0.00149	mg/L	-	01/29/14 15:15	02/04/14 23:15	5
2-Methylnaphthalene	0.0476		0.00240	0.000337	mg/L	-	01/29/14 15:15	02/04/14 23:15	5

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	130	X	44 - 123	01/29/14 15:15	02/04/14 23:15	5
2-Fluorobiphenyl	92		43 - 120	01/29/14 15:15	02/04/14 23:15	5
2-Fluorophenol	31		18 - 120	01/29/14 15:15	02/04/14 23:15	5
Nitrobenzene-d5	81		47 - 120	01/29/14 15:15	02/04/14 23:15	5
Terphenyl-d14	101		33 - 141	01/29/14 15:15	02/04/14 23:15	5
Phenol-d5 (Surr)	15		12 - 128	01/29/14 15:15	02/04/14 23:15	5

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels - DL2

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	0.504		0.481	0.00769	mg/L	-	01/29/14 15:15	02/04/14 23:40	100

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-86091-1

Client Sample ID: WG-1620-MW71B-20140124

Lab Sample ID: 600-86091-13

Date Collected: 01/24/14 09:35

Matrix: Water

Date Received: 01/24/14 12:29

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	0	X	44 - 123	01/29/14 15:15	02/04/14 23:40	100
2-Fluorobiphenyl	0	X	43 - 120	01/29/14 15:15	02/04/14 23:40	100
2-Fluorophenol	0	X	18 - 120	01/29/14 15:15	02/04/14 23:40	100
Nitrobenzene-d5	0	X	47 - 120	01/29/14 15:15	02/04/14 23:40	100
Terphenyl-d14	0	X	33 - 141	01/29/14 15:15	02/04/14 23:40	100
Phenol-d5 (Surr)	0	X	12 - 128	01/29/14 15:15	02/04/14 23:40	100

Client Sample ID: WG-1620-MW27C-20140124

Lab Sample ID: 600-86091-14

Date Collected: 01/24/14 10:40

Matrix: Water

Date Received: 01/24/14 12:29

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane	0.200	U	0.500	0.200	ug/L			01/30/14 05:54	1
Benzene	0.200	U	0.500	0.200	ug/L			01/30/14 05:54	1
Chlorobenzene	0.180	U	0.500	0.180	ug/L			01/30/14 05:54	1
Ethylbenzene	0.190	U	0.500	0.190	ug/L			01/30/14 05:54	1
Methylene Chloride	0.220	U	5.00	0.220	ug/L			01/30/14 05:54	1
Vinyl chloride	0.180	U	0.500	0.180	ug/L			01/30/14 05:54	1
Xylenes, Total	0.580	U	1.50	0.580	ug/L			01/30/14 05:54	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	112		70 - 130		01/30/14 05:54	1
Dibromofluoromethane (Surr)	94		70 - 130		01/30/14 05:54	1
Toluene-d8 (Surr)	102		70 - 130		01/30/14 05:54	1
1,2-Dichloroethane-d4 (Surr)	89		70 - 130		01/30/14 05:54	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.0000383	U *	0.000478	0.0000383	mg/L		01/29/14 15:15	02/01/14 21:19	1
Nitrobenzene	0.000105	U	0.000478	0.000105	mg/L		01/29/14 15:15	02/01/14 21:19	1
2,4-Dimethylphenol	0.000297	U	0.000478	0.000297	mg/L		01/29/14 15:15	02/01/14 21:19	1
Bis(2-chloroethoxy)methane	0.000124	U	0.000478	0.000124	mg/L		01/29/14 15:15	02/01/14 21:19	1
Naphthalene	0.000953	J	0.00478	0.0000766	mg/L		01/29/14 15:15	02/01/14 21:19	1
2-Methylnaphthalene	0.0000670	U	0.000478	0.0000670	mg/L		01/29/14 15:15	02/01/14 21:19	1
2-Chloronaphthalene	0.0000766	U	0.000478	0.0000766	mg/L		01/29/14 15:15	02/01/14 21:19	1
Acenaphthylene	0.0000574	U	0.000478	0.0000574	mg/L		01/29/14 15:15	02/01/14 21:19	1
2,6-Dinitrotoluene	0.0000766	U	0.000478	0.0000766	mg/L		01/29/14 15:15	02/01/14 21:19	1
Acenaphthene	0.0000766	U	0.000478	0.0000766	mg/L		01/29/14 15:15	02/01/14 21:19	1
4-Nitrophenol	0.000536	U	0.000957	0.000536	mg/L		01/29/14 15:15	02/01/14 21:19	1
Dibenzofuran	0.0000766	U	0.000478	0.0000766	mg/L		01/29/14 15:15	02/01/14 21:19	1
2,4-Dinitrotoluene	0.000124	U	0.000478	0.000124	mg/L		01/29/14 15:15	02/01/14 21:19	1
Fluorene	0.0000670	U	0.000478	0.0000670	mg/L		01/29/14 15:15	02/01/14 21:19	1
4,6-Dinitro-2-methylphenol	0.000794	U	0.000957	0.000794	mg/L		01/29/14 15:15	02/01/14 21:19	1
N-Nitrosodiphenylamine	0.0000957	U	0.000478	0.0000957	mg/L		01/29/14 15:15	02/01/14 21:19	1
1,2-Diphenylhydrazine	0.000105	U *	0.000478	0.000105	mg/L		01/29/14 15:15	02/01/14 21:19	1
Pentachlorophenol	0.000584	U	0.000957	0.000584	mg/L		01/29/14 15:15	02/01/14 21:19	1
Phenanthrene	0.000406	J	0.000478	0.0000574	mg/L		01/29/14 15:15	02/01/14 21:19	1
Anthracene	0.000431	J	0.000478	0.0000478	mg/L		01/29/14 15:15	02/01/14 21:19	1
Di-n-butyl phthalate	0.000851	J	0.00239	0.000105	mg/L		01/29/14 15:15	02/01/14 21:19	1
Fluoranthene	0.000881	J	0.000478	0.0000670	mg/L		01/29/14 15:15	02/01/14 21:19	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-86091-1

Client Sample ID: WG-1620-MW27C-20140124

Lab Sample ID: 600-86091-14

Date Collected: 01/24/14 10:40

Matrix: Water

Date Received: 01/24/14 12:29

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Pyrene	0.000105	U	0.000478	0.000105	mg/L		01/29/14 15:15	02/01/14 21:19	1
Benzo[a]anthracene	0.0000766	U	0.000478	0.0000766	mg/L		01/29/14 15:15	02/01/14 21:19	1
Bis(2-ethylhexyl) phthalate	0.000354	U	0.00239	0.000354	mg/L		01/29/14 15:15	02/01/14 21:19	1
Chrysene	0.0000766	U	0.000478	0.0000766	mg/L		01/29/14 15:15	02/01/14 21:19	1
Benzo[a]pyrene	0.0000766	U	0.000478	0.0000766	mg/L		01/29/14 15:15	02/01/14 21:19	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	96		44 - 123				01/29/14 15:15	02/01/14 21:19	1
2-Fluorobiphenyl	96		43 - 120				01/29/14 15:15	02/01/14 21:19	1
2-Fluorophenol	37		18 - 120				01/29/14 15:15	02/01/14 21:19	1
Nitrobenzene-d5	87		47 - 120				01/29/14 15:15	02/01/14 21:19	1
Terphenyl-d14	118		33 - 141				01/29/14 15:15	02/01/14 21:19	1
Phenol-d5 (Surr)	22		12 - 128				01/29/14 15:15	02/01/14 21:19	1

Client Sample ID: WG-1620-MW69A-20140124

Lab Sample ID: 600-86091-15

Date Collected: 01/24/14 11:40

Matrix: Water

Date Received: 01/24/14 12:29

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane	0.200	U	0.500	0.200	ug/L			01/30/14 06:21	1
Benzene	0.200	U	0.500	0.200	ug/L			01/30/14 06:21	1
Chlorobenzene	0.180	U	0.500	0.180	ug/L			01/30/14 06:21	1
Ethylbenzene	0.190	U	0.500	0.190	ug/L			01/30/14 06:21	1
Methylene Chloride	0.220	U	5.00	0.220	ug/L			01/30/14 06:21	1
Toluene	0.170	U	0.500	0.170	ug/L			01/30/14 06:21	1
Vinyl chloride	0.180	U	0.500	0.180	ug/L			01/30/14 06:21	1
Xylenes, Total	0.580	U	1.50	0.580	ug/L			01/30/14 06:21	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	112		70 - 130					01/30/14 06:21	1
Dibromofluoromethane (Surr)	95		70 - 130					01/30/14 06:21	1
Toluene-d8 (Surr)	105		70 - 130					01/30/14 06:21	1
1,2-Dichloroethane-d4 (Surr)	89		70 - 130					01/30/14 06:21	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.0000385	U *	0.000481	0.0000385	mg/L		01/29/14 15:15	02/01/14 21:44	1
Nitrobenzene	0.000106	U	0.000481	0.000106	mg/L		01/29/14 15:15	02/01/14 21:44	1
2,4-Dimethylphenol	0.000298	U	0.000481	0.000298	mg/L		01/29/14 15:15	02/01/14 21:44	1
Bis(2-chloroethoxy)methane	0.000125	U	0.000481	0.000125	mg/L		01/29/14 15:15	02/01/14 21:44	1
Naphthalene	0.000713	J	0.00481	0.0000769	mg/L		01/29/14 15:15	02/01/14 21:44	1
2-Methylnaphthalene	0.0000673	U	0.000481	0.0000673	mg/L		01/29/14 15:15	02/01/14 21:44	1
2-Chloronaphthalene	0.0000769	U	0.000481	0.0000769	mg/L		01/29/14 15:15	02/01/14 21:44	1
Acenaphthylene	0.0000577	U	0.000481	0.0000577	mg/L		01/29/14 15:15	02/01/14 21:44	1
2,6-Dinitrotoluene	0.0000769	U	0.000481	0.0000769	mg/L		01/29/14 15:15	02/01/14 21:44	1
Acenaphthene	0.0000769	U	0.000481	0.0000769	mg/L		01/29/14 15:15	02/01/14 21:44	1
4-Nitrophenol	0.000538	U	0.000962	0.000538	mg/L		01/29/14 15:15	02/01/14 21:44	1
Dibenzofuran	0.0000769	U	0.000481	0.0000769	mg/L		01/29/14 15:15	02/01/14 21:44	1
2,4-Dinitrotoluene	0.000125	U	0.000481	0.000125	mg/L		01/29/14 15:15	02/01/14 21:44	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-86091-1

Client Sample ID: WG-1620-MW69A-20140124

Lab Sample ID: 600-86091-15

Date Collected: 01/24/14 11:40

Matrix: Water

Date Received: 01/24/14 12:29

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluorene	0.0000673	U	0.000481	0.0000673	mg/L		01/29/14 15:15	02/01/14 21:44	1
4,6-Dinitro-2-methylphenol	0.000798	U	0.000962	0.000798	mg/L		01/29/14 15:15	02/01/14 21:44	1
N-Nitrosodiphenylamine	0.0000962	U	0.000481	0.0000962	mg/L		01/29/14 15:15	02/01/14 21:44	1
1,2-Diphenylhydrazine	0.000106	U *	0.000481	0.000106	mg/L		01/29/14 15:15	02/01/14 21:44	1
Pentachlorophenol	0.000587	U	0.000962	0.000587	mg/L		01/29/14 15:15	02/01/14 21:44	1
Phenanthrene	0.000390	J	0.000481	0.0000577	mg/L		01/29/14 15:15	02/01/14 21:44	1
Anthracene	0.000497		0.000481	0.0000481	mg/L		01/29/14 15:15	02/01/14 21:44	1
Di-n-butyl phthalate	0.000855	J	0.00240	0.000106	mg/L		01/29/14 15:15	02/01/14 21:44	1
Fluoranthene	0.0000673	U	0.000481	0.0000673	mg/L		01/29/14 15:15	02/01/14 21:44	1
Pyrene	0.000106	U	0.000481	0.000106	mg/L		01/29/14 15:15	02/01/14 21:44	1
Benzo[a]anthracene	0.0000769	U	0.000481	0.0000769	mg/L		01/29/14 15:15	02/01/14 21:44	1
Bis(2-ethylhexyl) phthalate	0.000356	U	0.00240	0.000356	mg/L		01/29/14 15:15	02/01/14 21:44	1
Chrysene	0.0000769	U	0.000481	0.0000769	mg/L		01/29/14 15:15	02/01/14 21:44	1
Benzo[a]pyrene	0.0000769	U	0.000481	0.0000769	mg/L		01/29/14 15:15	02/01/14 21:44	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	92		44 - 123				01/29/14 15:15	02/01/14 21:44	1
2-Fluorobiphenyl	91		43 - 120				01/29/14 15:15	02/01/14 21:44	1
2-Fluorophenol	38		18 - 120				01/29/14 15:15	02/01/14 21:44	1
Nitrobenzene-d5	86		47 - 120				01/29/14 15:15	02/01/14 21:44	1
Terphenyl-d14	117		33 - 141				01/29/14 15:15	02/01/14 21:44	1
Phenol-d5 (Surr)	22		12 - 128				01/29/14 15:15	02/01/14 21:44	1

Client Sample ID: WG-1620-FB9-20140124

Lab Sample ID: 600-86091-16

Date Collected: 01/24/14 11:50

Matrix: Water

Date Received: 01/24/14 12:29

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane	0.200	U	0.500	0.200	ug/L			01/30/14 00:06	1
Benzene	0.200	U	0.500	0.200	ug/L			01/30/14 00:06	1
Chlorobenzene	0.180	U	0.500	0.180	ug/L			01/30/14 00:06	1
Ethylbenzene	0.190	U	0.500	0.190	ug/L			01/30/14 00:06	1
Methylene Chloride	0.220	U	5.00	0.220	ug/L			01/30/14 00:06	1
Toluene	0.170	U	0.500	0.170	ug/L			01/30/14 00:06	1
Vinyl chloride	0.180	U	0.500	0.180	ug/L			01/30/14 00:06	1
Xylenes, Total	0.580	U	1.50	0.580	ug/L			01/30/14 00:06	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	106		70 - 130					01/30/14 00:06	1
Dibromofluoromethane (Surr)	98		70 - 130					01/30/14 00:06	1
Toluene-d8 (Surr)	96		70 - 130					01/30/14 00:06	1
1,2-Dichloroethane-d4 (Surr)	92		70 - 130					01/30/14 00:06	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.0000385	U *	0.000481	0.0000385	mg/L		01/29/14 15:15	02/01/14 22:09	1
Nitrobenzene	0.000106	U	0.000481	0.000106	mg/L		01/29/14 15:15	02/01/14 22:09	1
2,4-Dimethylphenol	0.000298	U	0.000481	0.000298	mg/L		01/29/14 15:15	02/01/14 22:09	1
Bis(2-chloroethoxy)methane	0.000125	U	0.000481	0.000125	mg/L		01/29/14 15:15	02/01/14 22:09	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-86091-1

Client Sample ID: WG-1620-FB9-20140124

Lab Sample ID: 600-86091-16

Date Collected: 01/24/14 11:50

Matrix: Water

Date Received: 01/24/14 12:29

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	0.000693	J	0.00481	0.000769	mg/L		01/29/14 15:15	02/01/14 22:09	1
2-Methylnaphthalene	0.0000673	U	0.000481	0.0000673	mg/L		01/29/14 15:15	02/01/14 22:09	1
2-Chloronaphthalene	0.0000769	U	0.000481	0.0000769	mg/L		01/29/14 15:15	02/01/14 22:09	1
Acenaphthylene	0.0000577	U	0.000481	0.0000577	mg/L		01/29/14 15:15	02/01/14 22:09	1
2,6-Dinitrotoluene	0.0000769	U	0.000481	0.0000769	mg/L		01/29/14 15:15	02/01/14 22:09	1
Acenaphthene	0.0000769	U	0.000481	0.0000769	mg/L		01/29/14 15:15	02/01/14 22:09	1
4-Nitrophenol	0.000538	U	0.000962	0.000538	mg/L		01/29/14 15:15	02/01/14 22:09	1
Dibenzofuran	0.0000769	U	0.000481	0.0000769	mg/L		01/29/14 15:15	02/01/14 22:09	1
2,4-Dinitrotoluene	0.000125	U	0.000481	0.000125	mg/L		01/29/14 15:15	02/01/14 22:09	1
Fluorene	0.0000673	U	0.000481	0.0000673	mg/L		01/29/14 15:15	02/01/14 22:09	1
4,6-Dinitro-2-methylphenol	0.000798	U	0.000962	0.000798	mg/L		01/29/14 15:15	02/01/14 22:09	1
N-Nitrosodiphenylamine	0.0000962	U	0.000481	0.0000962	mg/L		01/29/14 15:15	02/01/14 22:09	1
1,2-Diphenylhydrazine	0.000106	U *	0.000481	0.000106	mg/L		01/29/14 15:15	02/01/14 22:09	1
Pentachlorophenol	0.000587	U	0.000962	0.000587	mg/L		01/29/14 15:15	02/01/14 22:09	1
Phenanthrene	0.000387	J	0.000481	0.0000577	mg/L		01/29/14 15:15	02/01/14 22:09	1
Anthracene	0.0000481	U	0.000481	0.0000481	mg/L		01/29/14 15:15	02/01/14 22:09	1
Di-n-butyl phthalate	0.000854	J	0.00240	0.000106	mg/L		01/29/14 15:15	02/01/14 22:09	1
Fluoranthene	0.0000673	U	0.000481	0.0000673	mg/L		01/29/14 15:15	02/01/14 22:09	1
Pyrene	0.000106	U	0.000481	0.000106	mg/L		01/29/14 15:15	02/01/14 22:09	1
Benzo[a]anthracene	0.0000769	U	0.000481	0.0000769	mg/L		01/29/14 15:15	02/01/14 22:09	1
Bis(2-ethylhexyl) phthalate	0.000356	U	0.00240	0.000356	mg/L		01/29/14 15:15	02/01/14 22:09	1
Chrysene	0.0000769	U	0.000481	0.0000769	mg/L		01/29/14 15:15	02/01/14 22:09	1
Benzo[a]pyrene	0.0000769	U	0.000481	0.0000769	mg/L		01/29/14 15:15	02/01/14 22:09	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	28	X	44 - 123				01/29/14 15:15	02/01/14 22:09	1
2-Fluorobiphenyl	95		43 - 120				01/29/14 15:15	02/01/14 22:09	1
2-Fluorophenol	22		18 - 120				01/29/14 15:15	02/01/14 22:09	1
Nitrobenzene-d5	90		47 - 120				01/29/14 15:15	02/01/14 22:09	1
Terphenyl-d14	116		33 - 141				01/29/14 15:15	02/01/14 22:09	1
Phenol-d5 (Surr)	13		12 - 128				01/29/14 15:15	02/01/14 22:09	1

Client Sample ID: WG-1620-TB4-20140124

Lab Sample ID: 600-86091-17

Date Collected: 01/24/14 00:00

Matrix: Water

Date Received: 01/24/14 12:29

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane	0.200	U	0.500	0.200	ug/L			01/29/14 15:08	1
Benzene	0.200	U	0.500	0.200	ug/L			01/29/14 15:08	1
Chlorobenzene	0.180	U	0.500	0.180	ug/L			01/29/14 15:08	1
Ethylbenzene	0.190	U	0.500	0.190	ug/L			01/29/14 15:08	1
Methylene Chloride	0.220	U	5.00	0.220	ug/L			01/29/14 15:08	1
Toluene	0.170	U	0.500	0.170	ug/L			01/29/14 15:08	1
Vinyl chloride	0.180	U	0.500	0.180	ug/L			01/29/14 15:08	1
Xylenes, Total	0.580	U	1.50	0.580	ug/L			01/29/14 15:08	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	105		70 - 130					01/29/14 15:08	1
Dibromofluoromethane (Surr)	99		70 - 130					01/29/14 15:08	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-86091-1

Client Sample ID: WG-1620-TB4-20140124

Lab Sample ID: 600-86091-17

Date Collected: 01/24/14 00:00

Matrix: Water

Date Received: 01/24/14 12:29

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	96		70 - 130		01/29/14 15:08	1
1,2-Dichloroethane-d4 (Surr)	96		70 - 130		01/29/14 15:08	1

Client Sample ID: WG-1620-DUP4-20140123

Lab Sample ID: 600-86091-18

Date Collected: 01/23/14 17:30

Matrix: Water

Date Received: 01/24/14 12:29

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane	0.200	U	0.500	0.200	ug/L			01/30/14 06:48	1
Benzene	223		5.00	2.00	ug/L			01/30/14 12:35	10
Chlorobenzene	0.180	U	0.500	0.180	ug/L			01/30/14 06:48	1
Ethylbenzene	134		0.500	0.190	ug/L			01/30/14 06:48	1
Methylene Chloride	0.220	U	5.00	0.220	ug/L			01/30/14 06:48	1
Vinyl chloride	0.180	U	0.500	0.180	ug/L			01/30/14 06:48	1
Xylenes, Total	190		1.50	0.580	ug/L			01/30/14 06:48	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	109		70 - 130		01/30/14 06:48	1
4-Bromofluorobenzene (Surr)	104		70 - 130		01/30/14 12:35	10
Dibromofluoromethane (Surr)	93		70 - 130		01/30/14 06:48	1
Dibromofluoromethane (Surr)	96		70 - 130		01/30/14 12:35	10
Toluene-d8 (Surr)	102		70 - 130		01/30/14 06:48	1
Toluene-d8 (Surr)	94		70 - 130		01/30/14 12:35	10
1,2-Dichloroethane-d4 (Surr)	88		70 - 130		01/30/14 06:48	1
1,2-Dichloroethane-d4 (Surr)	93		70 - 130		01/30/14 12:35	10

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.108	J *	0.481	0.0385	mg/L		01/29/14 15:15	02/05/14 00:06	1000
Nitrobenzene	0.106	U	0.481	0.106	mg/L		01/29/14 15:15	02/05/14 00:06	1000
2,4-Dimethylphenol	1.54		0.481	0.298	mg/L		01/29/14 15:15	02/05/14 00:06	1000
Bis(2-chloroethoxy)methane	0.125	U	0.481	0.125	mg/L		01/29/14 15:15	02/05/14 00:06	1000
Naphthalene	5.30		4.81	0.0769	mg/L		01/29/14 15:15	02/05/14 00:06	1000
2-Methylnaphthalene	0.270	J	0.481	0.0673	mg/L		01/29/14 15:15	02/05/14 00:06	1000
2-Chloronaphthalene	0.0769	U	0.481	0.0769	mg/L		01/29/14 15:15	02/05/14 00:06	1000
Acenaphthylene	0.0577	U	0.481	0.0577	mg/L		01/29/14 15:15	02/05/14 00:06	1000
2,6-Dinitrotoluene	0.0769	U	0.481	0.0769	mg/L		01/29/14 15:15	02/05/14 00:06	1000
Acenaphthene	0.217	J	0.481	0.0769	mg/L		01/29/14 15:15	02/05/14 00:06	1000
4-Nitrophenol	0.538	U	0.962	0.538	mg/L		01/29/14 15:15	02/05/14 00:06	1000
Dibenzofuran	0.108	J	0.481	0.0769	mg/L		01/29/14 15:15	02/05/14 00:06	1000
2,4-Dinitrotoluene	0.125	U	0.481	0.125	mg/L		01/29/14 15:15	02/05/14 00:06	1000
Fluorene	0.0939	J	0.481	0.0673	mg/L		01/29/14 15:15	02/05/14 00:06	1000
4,6-Dinitro-2-methylphenol	0.798	U	0.962	0.798	mg/L		01/29/14 15:15	02/05/14 00:06	1000
N-Nitrosodiphenylamine	0.0962	U	0.481	0.0962	mg/L		01/29/14 15:15	02/05/14 00:06	1000
1,2-Diphenylhydrazine	0.106	U *	0.481	0.106	mg/L		01/29/14 15:15	02/05/14 00:06	1000
Pentachlorophenol	0.587	U	0.962	0.587	mg/L		01/29/14 15:15	02/05/14 00:06	1000
Phenanthrene	0.135	J	0.481	0.0577	mg/L		01/29/14 15:15	02/05/14 00:06	1000
Anthracene	0.0481	U	0.481	0.0481	mg/L		01/29/14 15:15	02/05/14 00:06	1000
Di-n-butyl phthalate	0.106	U	2.40	0.106	mg/L		01/29/14 15:15	02/05/14 00:06	1000

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-86091-1

Client Sample ID: WG-1620-DUP4-20140123

Lab Sample ID: 600-86091-18

Date Collected: 01/23/14 17:30

Matrix: Water

Date Received: 01/24/14 12:29

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoranthene	0.0673	U	0.481	0.0673	mg/L		01/29/14 15:15	02/05/14 00:06	1000
Pyrene	0.106	U	0.481	0.106	mg/L		01/29/14 15:15	02/05/14 00:06	1000
Benzo[a]anthracene	0.0769	U	0.481	0.0769	mg/L		01/29/14 15:15	02/05/14 00:06	1000
Bis(2-ethylhexyl) phthalate	0.356	U	2.40	0.356	mg/L		01/29/14 15:15	02/05/14 00:06	1000
Chrysene	0.0769	U	0.481	0.0769	mg/L		01/29/14 15:15	02/05/14 00:06	1000
Benzo[a]pyrene	0.0769	U	0.481	0.0769	mg/L		01/29/14 15:15	02/05/14 00:06	1000

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	0	X	44 - 123	01/29/14 15:15	02/05/14 00:06	1000
2-Fluorobiphenyl	0	X	43 - 120	01/29/14 15:15	02/05/14 00:06	1000
2-Fluorophenol	0	X	18 - 120	01/29/14 15:15	02/05/14 00:06	1000
Nitrobenzene-d5	0	X	47 - 120	01/29/14 15:15	02/05/14 00:06	1000
Terphenyl-d14	0	X	33 - 141	01/29/14 15:15	02/05/14 00:06	1000
Phenol-d5 (Surr)	0	X	12 - 128	01/29/14 15:15	02/05/14 00:06	1000

Definitions/Glossary

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-86091-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
U	Analyte was not detected at or above the SDL.
J	Result is less than the MQL but greater than or equal to the SDL and the concentration is an estimated value.

GC/MS Semi VOA

Qualifier	Qualifier Description
*	LCS or LCSD exceeds the control limits
U	Analyte was not detected at or above the SDL.
J	Result is less than the MQL but greater than or equal to the SDL and the concentration is an estimated value.
X	Surrogate is outside control limits
N	RPD of the MS and MSD exceeds the control limits

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
▫	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Surrogate Summary

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-86091-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		BFB (70-130)	DBFM (70-130)	TOL (70-130)	12DCE (70-130)
600-86091-1	WG-1620-MW54C-20140123	106	98	104	94
600-86091-2	WG-1620-MW59D-20140123	109	97	103	92
600-86091-3	WG-1620-DUP3-20140123	113	97	99	94
600-86091-4	WG-1620-MW61A-20140123	111	97	100	93
600-86091-4 MS	WG-1620-MW61AMS-20140123	111	96	101	86
600-86091-4 MSD	WG-1620-MW61AMSD-20140123	112	96	103	89
600-86091-5	WG-1620-MW22B-20140123	107	98	100	91
600-86091-6	WG-1620-MW22A-20140123	111	95	100	91
600-86091-7	WG-1620-WM-24AR-20140123	113	95	103	91
600-86091-8	WG-1620-WM-67B-20140123	107	96	96	91
600-86091-8 MS	WG-1620-WM-67BMS-20140123	115	96	100	87
600-86091-8 MSD	WG-1620-WM-67BMSD-20140123	112	97	103	89
600-86091-9	WG-1620-MW33A-20140123	108	95	102	92
600-86091-9	WG-1620-MW33A-20140123	103	96	95	93
600-86091-10	WG-1620-FB8-20140123	112	94	96	92
600-86091-11	WG-1620-MW35A-20140124	110	95	102	89
600-86091-12	WG-1620-MW35B-20140124	108	96	101	90
600-86091-13	WG-1620-MW71B-20140124	110	95	100	89
600-86091-14	WG-1620-MW27C-20140124	112	94	102	89
600-86091-15	WG-1620-MW69A-20140124	112	95	105	89
600-86091-16	WG-1620-FB9-20140124	106	98	96	92
600-86091-17	WG-1620-TB4-20140124	105	99	96	96
600-86091-18	WG-1620-DUP4-20140123	109	93	102	88
600-86091-18	WG-1620-DUP4-20140123	104	96	94	93
LCS 490-138165/3	Lab Control Sample	112	96	102	91
LCS 490-138333/3	Lab Control Sample	106	98	99	98
LCS 490-138433/3	Lab Control Sample	108	93	93	90
LCSD 490-138165/4	Lab Control Sample Dup	109	95	102	94
LCSD 490-138333/4	Lab Control Sample Dup	110	97	95	92
LCSD 490-138433/4	Lab Control Sample Dup	108	98	96	93
MB 490-138165/6	Method Blank	110	96	100	90
MB 490-138333/6	Method Blank	109	95	96	93
MB 490-138433/6	Method Blank	103	95	95	92

Surrogate Legend

- BFB = 4-Bromofluorobenzene (Surr)
- DBFM = Dibromofluoromethane (Surr)
- TOL = Toluene-d8 (Surr)
- 12DCE = 1,2-Dichloroethane-d4 (Surr)

Surrogate Summary

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-86091-1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)					
		TBP (44-123)	FBP (43-120)	2FP (18-120)	NBZ (47-120)	TPH (33-141)	PHL (12-128)
600-86091-1	WG-1620-MW54C-20140123	82	75	33	86	106	16
600-86091-1 - DL	WG-1620-MW54C-20140123	73	78	23	62	97	13
600-86091-1 - DL2	WG-1620-MW54C-20140123	0 X	0 X	0 X	0 X	0 X	0 X
600-86091-2	WG-1620-MW59D-20140123	68	72	33	68	95	18
600-86091-3	WG-1620-DUP3-20140123	73	69	34	69	96	19
600-86091-4	WG-1620-MW61A-20140123	38 X	75	25	74	115	14
600-86091-4 MS	WG-1620-MW61AMS-20140123	95	86	37	90	117	18
600-86091-4 MSD	WG-1620-MW61AMSD-20140123	85	84	33	87	111	15
600-86091-5	WG-1620-MW22B-20140123	90	71	35	68	114	14
600-86091-5 - DL	WG-1620-MW22B-20140123	0 X	0 X	0 X	0 X	0 X	0 X
600-86091-6	WG-1620-MW22A-20140123	85	72	41	65	96	18
600-86091-7	WG-1620-WM-24AR-20140123	47	79	33	78	108	18
600-86091-8	WG-1620-WM-67B-20140123	40 X	76	30	74	110	17
600-86091-8 MS	WG-1620-WM-67BMS-20140123	92	85	32	87	115	16
600-86091-8 MSD	WG-1620-WM-67BMSD-20140123	93	83	31	83	121	17
600-86091-9	WG-1620-MW33A-20140123	0 X	0 X	0 X	0 X	0 X	0 X
600-86091-10	WG-1620-FB8-20140123	54	94	29	93	116	19
600-86091-11	WG-1620-MW35A-20140124	102	86	36	74	114	22
600-86091-11 - DL	WG-1620-MW35A-20140124	109	82	26	71	97	12
600-86091-12	WG-1620-MW35B-20140124	0 X	0 X	0 X	0 X	0 X	0 X
600-86091-13	WG-1620-MW71B-20140124	114	98	51	150 X	109	21
600-86091-13 - DL	WG-1620-MW71B-20140124	130 X	92	31	81	101	15
600-86091-13 - DL2	WG-1620-MW71B-20140124	0 X	0 X	0 X	0 X	0 X	0 X
600-86091-14	WG-1620-MW27C-20140124	96	96	37	87	118	22
600-86091-15	WG-1620-MW69A-20140124	92	91	38	86	117	22
600-86091-16	WG-1620-FB9-20140124	28 X	95	22	90	116	13
600-86091-18	WG-1620-DUP4-20140123	0 X	0 X	0 X	0 X	0 X	0 X
LCS 600-126160/2-A	Lab Control Sample	88	100	101	102	115	105
MB 600-126160/1-A	Method Blank	73	109	102	102	123	103

Surrogate Legend

TBP = 2,4,6-Tribromophenol
FBP = 2-Fluorobiphenyl
2FP = 2-Fluorophenol
NBZ = Nitrobenzene-d5
TPH = Terphenyl-d14
PHL = Phenol-d5 (Surr)

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-86091-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 490-138165/6

Matrix: Water

Analysis Batch: 138165

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB MB		MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
1,2-Dichloroethane	0.200	U	0.500	0.200	ug/L			01/29/14 11:06	1
Benzene	0.200	U	0.500	0.200	ug/L			01/29/14 11:06	1
Chlorobenzene	0.180	U	0.500	0.180	ug/L			01/29/14 11:06	1
Ethylbenzene	0.190	U	0.500	0.190	ug/L			01/29/14 11:06	1
Methylene Chloride	0.220	U	5.00	0.220	ug/L			01/29/14 11:06	1
Toluene	0.170	U	0.500	0.170	ug/L			01/29/14 11:06	1
Vinyl chloride	0.180	U	0.500	0.180	ug/L			01/29/14 11:06	1
Xylenes, Total	0.580	U	1.50	0.580	ug/L			01/29/14 11:06	1

Surrogate	MB MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
4-Bromofluorobenzene (Surr)	110		70 - 130		01/29/14 11:06	1
Dibromofluoromethane (Surr)	96		70 - 130		01/29/14 11:06	1
Toluene-d8 (Surr)	100		70 - 130		01/29/14 11:06	1
1,2-Dichloroethane-d4 (Surr)	90		70 - 130		01/29/14 11:06	1

Lab Sample ID: LCS 490-138165/3

Matrix: Water

Analysis Batch: 138165

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	20.0	20.71		ug/L		104	80 - 121
Chlorobenzene	20.0	20.59		ug/L		103	80 - 120
Ethylbenzene	20.0	20.50		ug/L		102	80 - 130
Methylene Chloride	20.0	20.44		ug/L		102	79 - 123
Toluene	20.0	21.02		ug/L		105	80 - 126
Vinyl chloride	20.0	20.37		ug/L		102	68 - 120
Xylenes, Total	40.0	41.42		ug/L		104	80 - 132

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene (Surr)	112		70 - 130
Dibromofluoromethane (Surr)	96		70 - 130
Toluene-d8 (Surr)	102		70 - 130
1,2-Dichloroethane-d4 (Surr)	91		70 - 130

Lab Sample ID: LCSD 490-138165/4

Matrix: Water

Analysis Batch: 138165

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	
								RPD	Limit
1,2-Dichloroethane	20.0	18.69		ug/L		93	77 - 121	1	17
Benzene	20.0	20.09		ug/L		100	80 - 121	3	17
Chlorobenzene	20.0	19.79		ug/L		99	80 - 120	4	14
Ethylbenzene	20.0	20.02		ug/L		100	80 - 130	2	15
Methylene Chloride	20.0	19.68		ug/L		98	79 - 123	4	17
Toluene	20.0	20.31		ug/L		102	80 - 126	3	15
Vinyl chloride	20.0	22.64		ug/L		113	68 - 120	11	17

TestAmerica Houston

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-86091-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 490-138165/4

Matrix: Water

Analysis Batch: 138165

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Xylenes, Total	40.0	40.42		ug/L		101	80 - 132	2	15

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	109		70 - 130
Dibromofluoromethane (Surr)	95		70 - 130
Toluene-d8 (Surr)	102		70 - 130
1,2-Dichloroethane-d4 (Surr)	94		70 - 130

Lab Sample ID: MB 490-138333/6

Matrix: Water

Analysis Batch: 138333

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane	0.200	U	0.500	0.200	ug/L			01/29/14 23:12	1
Benzene	0.200	U	0.500	0.200	ug/L			01/29/14 23:12	1
Chlorobenzene	0.180	U	0.500	0.180	ug/L			01/29/14 23:12	1
Ethylbenzene	0.190	U	0.500	0.190	ug/L			01/29/14 23:12	1
Methylene Chloride	0.220	U	5.00	0.220	ug/L			01/29/14 23:12	1
Toluene	0.170	U	0.500	0.170	ug/L			01/29/14 23:12	1
Vinyl chloride	0.180	U	0.500	0.180	ug/L			01/29/14 23:12	1
Xylenes, Total	0.580	U	1.50	0.580	ug/L			01/29/14 23:12	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	109		70 - 130		01/29/14 23:12	1
Dibromofluoromethane (Surr)	95		70 - 130		01/29/14 23:12	1
Toluene-d8 (Surr)	96		70 - 130		01/29/14 23:12	1
1,2-Dichloroethane-d4 (Surr)	93		70 - 130		01/29/14 23:12	1

Lab Sample ID: LCS 490-138333/3

Matrix: Water

Analysis Batch: 138333

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2-Dichloroethane	20.0	20.90		ug/L		105	77 - 121
Benzene	20.0	22.06		ug/L		110	80 - 121
Chlorobenzene	20.0	21.50		ug/L		107	80 - 120
Ethylbenzene	20.0	21.45		ug/L		107	80 - 130
Methylene Chloride	20.0	21.43		ug/L		107	79 - 123
Toluene	20.0	20.86		ug/L		104	80 - 126
Vinyl chloride	20.0	21.62		ug/L		108	68 - 120
Xylenes, Total	40.0	43.15		ug/L		108	80 - 132

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	106		70 - 130
Dibromofluoromethane (Surr)	98		70 - 130
Toluene-d8 (Surr)	99		70 - 130
1,2-Dichloroethane-d4 (Surr)	98		70 - 130

TestAmerica Houston

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-86091-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 490-138333/4

Matrix: Water

Analysis Batch: 138333

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,2-Dichloroethane	20.0	20.61		ug/L		103	77 - 121	1	17
Benzene	20.0	21.62		ug/L		108	80 - 121	2	17
Chlorobenzene	20.0	21.21		ug/L		106	80 - 120	1	14
Ethylbenzene	20.0	21.31		ug/L		107	80 - 130	1	15
Methylene Chloride	20.0	20.83		ug/L		104	79 - 123	3	17
Toluene	20.0	20.42		ug/L		102	80 - 126	2	15
Vinyl chloride	20.0	20.47		ug/L		102	68 - 120	5	17
Xylenes, Total	40.0	43.31		ug/L		108	80 - 132	0	15

Surrogate	LCSD %Recovery	LCSD Qualifier	LCSD Limits
4-Bromofluorobenzene (Surr)	110		70 - 130
Dibromofluoromethane (Surr)	97		70 - 130
Toluene-d8 (Surr)	95		70 - 130
1,2-Dichloroethane-d4 (Surr)	92		70 - 130

Lab Sample ID: 600-86091-4 MS

Matrix: Water

Analysis Batch: 138333

Client Sample ID: WG-1620-MW61AMS-20140123

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2-Dichloroethane	0.200	U	50.0	42.62		ug/L		85	64 - 136
Benzene	0.200	U	50.0	47.33		ug/L		95	75 - 133
Chlorobenzene	0.180	U	50.0	46.47		ug/L		93	80 - 129
Ethylbenzene	0.190	U	50.0	47.42		ug/L		95	79 - 139
Methylene Chloride	0.220	U	50.0	44.68		ug/L		89	64 - 139
Toluene	0.170	U	50.0	47.85		ug/L		96	75 - 136
Vinyl chloride	0.180	U	50.0	49.68		ug/L		99	56 - 129
Xylenes, Total	0.580	U	100	93.95		ug/L		94	74 - 141

Surrogate	MS %Recovery	MS Qualifier	MS Limits
4-Bromofluorobenzene (Surr)	111		70 - 130
Dibromofluoromethane (Surr)	96		70 - 130
Toluene-d8 (Surr)	101		70 - 130
1,2-Dichloroethane-d4 (Surr)	86		70 - 130

Lab Sample ID: 600-86091-4 MSD

Matrix: Water

Analysis Batch: 138333

Client Sample ID: WG-1620-MW61AMSD-20140123

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,2-Dichloroethane	0.200	U	50.0	44.32		ug/L		89	64 - 136	4	17
Benzene	0.200	U	50.0	49.55		ug/L		99	75 - 133	5	17
Chlorobenzene	0.180	U	50.0	47.53		ug/L		95	80 - 129	2	14
Ethylbenzene	0.190	U	50.0	48.91		ug/L		98	79 - 139	3	15
Methylene Chloride	0.220	U	50.0	46.61		ug/L		93	64 - 139	4	17
Toluene	0.170	U	50.0	50.05		ug/L		100	75 - 136	4	15
Vinyl chloride	0.180	U	50.0	52.21		ug/L		104	56 - 129	5	17

TestAmerica Houston

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-86091-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 600-86091-4 MSD

Client Sample ID: WG-1620-MW61AMSD-20140123

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 138333

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Xylenes, Total	0.580	U	100	98.80		ug/L		99	74 - 141	5	15
Surrogate	%Recovery	MSD Qualifier	Limits								
4-Bromofluorobenzene (Surr)	112		70 - 130								
Dibromofluoromethane (Surr)	96		70 - 130								
Toluene-d8 (Surr)	103		70 - 130								
1,2-Dichloroethane-d4 (Surr)	89		70 - 130								

Lab Sample ID: 600-86091-8 MS

Client Sample ID: WG-1620-WM-67BMS-20140123

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 138333

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,2-Dichloroethane	0.200	U	50.0	42.53		ug/L		85	64 - 136		
Benzene	0.200	U	50.0	47.63		ug/L		95	75 - 133		
Chlorobenzene	0.180	U	50.0	45.12		ug/L		90	80 - 129		
Ethylbenzene	0.190	U	50.0	46.47		ug/L		93	79 - 139		
Methylene Chloride	0.220	U	50.0	44.85		ug/L		90	64 - 139		
Toluene	0.170		50.0	47.61		ug/L		95	75 - 136		
Vinyl chloride	0.180	U	50.0	50.68		ug/L		101	56 - 129		
Xylenes, Total	0.580	U	100	94.19		ug/L		94	74 - 141		
Surrogate	%Recovery	MS Qualifier	Limits								
4-Bromofluorobenzene (Surr)	115		70 - 130								
Dibromofluoromethane (Surr)	96		70 - 130								
Toluene-d8 (Surr)	100		70 - 130								
1,2-Dichloroethane-d4 (Surr)	87		70 - 130								

Lab Sample ID: 600-86091-8 MSD

Client Sample ID: WG-1620-WM-67BMSD-20140123

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 138333

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,2-Dichloroethane	0.200	U	50.0	47.49		ug/L		95	64 - 136	11	17
Benzene	0.200	U	50.0	51.30		ug/L		103	75 - 133	7	17
Chlorobenzene	0.180	U	50.0	49.51		ug/L		99	80 - 129	9	14
Ethylbenzene	0.190	U	50.0	50.91		ug/L		102	79 - 139	9	15
Methylene Chloride	0.220	U	50.0	48.43		ug/L		97	64 - 139	8	17
Toluene	0.170		50.0	51.48		ug/L		103	75 - 136	8	15
Vinyl chloride	0.180	U	50.0	54.75		ug/L		110	56 - 129	8	17
Xylenes, Total	0.580	U	100	101.0		ug/L		101	74 - 141	7	15
Surrogate	%Recovery	MSD Qualifier	Limits								
4-Bromofluorobenzene (Surr)	112		70 - 130								
Dibromofluoromethane (Surr)	97		70 - 130								
Toluene-d8 (Surr)	103		70 - 130								
1,2-Dichloroethane-d4 (Surr)	89		70 - 130								

TestAmerica Houston

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-86091-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 490-138433/6

Matrix: Water

Analysis Batch: 138433

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB MB		MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
1,2-Dichloroethane	0.200	U	0.500	0.200	ug/L			01/30/14 11:41	1
Benzene	0.200	U	0.500	0.200	ug/L			01/30/14 11:41	1
Chlorobenzene	0.180	U	0.500	0.180	ug/L			01/30/14 11:41	1
Ethylbenzene	0.190	U	0.500	0.190	ug/L			01/30/14 11:41	1
Methylene Chloride	0.220	U	5.00	0.220	ug/L			01/30/14 11:41	1
Toluene	0.170	U	0.500	0.170	ug/L			01/30/14 11:41	1
Vinyl chloride	0.180	U	0.500	0.180	ug/L			01/30/14 11:41	1
Xylenes, Total	0.580	U	1.50	0.580	ug/L			01/30/14 11:41	1

Surrogate	MB MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
4-Bromofluorobenzene (Surr)	103		70 - 130		01/30/14 11:41	1
Dibromofluoromethane (Surr)	95		70 - 130		01/30/14 11:41	1
Toluene-d8 (Surr)	95		70 - 130		01/30/14 11:41	1
1,2-Dichloroethane-d4 (Surr)	92		70 - 130		01/30/14 11:41	1

Lab Sample ID: LCS 490-138433/3

Matrix: Water

Analysis Batch: 138433

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	20.0	20.39		ug/L		102	80 - 121
Chlorobenzene	20.0	19.53		ug/L		98	80 - 120
Ethylbenzene	20.0	19.96		ug/L		100	80 - 130
Methylene Chloride	20.0	19.83		ug/L		99	79 - 123
Toluene	20.0	19.06		ug/L		95	80 - 126
Vinyl chloride	20.0	22.12		ug/L		111	68 - 120
Xylenes, Total	40.0	40.07		ug/L		100	80 - 132

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene (Surr)	108		70 - 130
Dibromofluoromethane (Surr)	93		70 - 130
Toluene-d8 (Surr)	93		70 - 130
1,2-Dichloroethane-d4 (Surr)	90		70 - 130

Lab Sample ID: LCSD 490-138433/4

Matrix: Water

Analysis Batch: 138433

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	
								RPD	Limit
1,2-Dichloroethane	20.0	20.96		ug/L		105	77 - 121	8	17
Benzene	20.0	21.83		ug/L		109	80 - 121	7	17
Chlorobenzene	20.0	20.93		ug/L		105	80 - 120	7	14
Ethylbenzene	20.0	21.27		ug/L		106	80 - 130	6	15
Methylene Chloride	20.0	21.18		ug/L		106	79 - 123	7	17
Toluene	20.0	20.40		ug/L		102	80 - 126	7	15
Vinyl chloride	20.0	22.54		ug/L		113	68 - 120	2	17

TestAmerica Houston

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-86091-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 490-138433/4

Matrix: Water

Analysis Batch: 138433

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Xylenes, Total	40.0	42.92		ug/L		107	80 - 132	7	15
Surrogate	%Recovery	LCSD Qualifier	Limits						
4-Bromofluorobenzene (Surr)	108		70 - 130						
Dibromofluoromethane (Surr)	98		70 - 130						
Toluene-d8 (Surr)	96		70 - 130						
1,2-Dichloroethane-d4 (Surr)	93		70 - 130						

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Lab Sample ID: MB 600-126160/1-A

Matrix: Water

Analysis Batch: 126585

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 126160

Analyte	MB Result	MB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.000400	U	0.000500	0.000400	mg/L		01/29/14 15:15	02/01/14 13:27	1
Nitrobenzene	0.000110	U	0.000500	0.000110	mg/L		01/29/14 15:15	02/01/14 13:27	1
2,4-Dimethylphenol	0.000310	U	0.000500	0.000310	mg/L		01/29/14 15:15	02/01/14 13:27	1
Bis(2-chloroethoxy)methane	0.000130	U	0.000500	0.000130	mg/L		01/29/14 15:15	02/01/14 13:27	1
Naphthalene	0.0000800	U	0.00500	0.0000800	mg/L		01/29/14 15:15	02/01/14 13:27	1
2-Methylnaphthalene	0.0000700	U	0.000500	0.0000700	mg/L		01/29/14 15:15	02/01/14 13:27	1
2-Chloronaphthalene	0.0000800	U	0.000500	0.0000800	mg/L		01/29/14 15:15	02/01/14 13:27	1
Acenaphthylene	0.0000600	U	0.000500	0.0000600	mg/L		01/29/14 15:15	02/01/14 13:27	1
2,6-Dinitrotoluene	0.0000800	U	0.000500	0.0000800	mg/L		01/29/14 15:15	02/01/14 13:27	1
Acenaphthene	0.0000800	U	0.000500	0.0000800	mg/L		01/29/14 15:15	02/01/14 13:27	1
4-Nitrophenol	0.000560	U	0.00100	0.000560	mg/L		01/29/14 15:15	02/01/14 13:27	1
Dibenzofuran	0.0000800	U	0.000500	0.0000800	mg/L		01/29/14 15:15	02/01/14 13:27	1
2,4-Dinitrotoluene	0.000130	U	0.000500	0.000130	mg/L		01/29/14 15:15	02/01/14 13:27	1
Fluorene	0.0000700	U	0.000500	0.0000700	mg/L		01/29/14 15:15	02/01/14 13:27	1
4,6-Dinitro-2-methylphenol	0.000830	U	0.00100	0.000830	mg/L		01/29/14 15:15	02/01/14 13:27	1
N-Nitrosodiphenylamine	0.000100	U	0.000500	0.000100	mg/L		01/29/14 15:15	02/01/14 13:27	1
1,2-Diphenylhydrazine	0.000110	U	0.000500	0.000110	mg/L		01/29/14 15:15	02/01/14 13:27	1
Pentachlorophenol	0.000610	U	0.00100	0.000610	mg/L		01/29/14 15:15	02/01/14 13:27	1
Phenanthrene	0.0000600	U	0.000500	0.0000600	mg/L		01/29/14 15:15	02/01/14 13:27	1
Anthracene	0.0000500	U	0.000500	0.0000500	mg/L		01/29/14 15:15	02/01/14 13:27	1
Di-n-butyl phthalate	0.000110	U	0.00250	0.000110	mg/L		01/29/14 15:15	02/01/14 13:27	1
Fluoranthene	0.0000700	U	0.000500	0.0000700	mg/L		01/29/14 15:15	02/01/14 13:27	1
Pyrene	0.000110	U	0.000500	0.000110	mg/L		01/29/14 15:15	02/01/14 13:27	1
Benzo[a]anthracene	0.0000800	U	0.000500	0.0000800	mg/L		01/29/14 15:15	02/01/14 13:27	1
Bis(2-ethylhexyl) phthalate	0.000370	U	0.00250	0.000370	mg/L		01/29/14 15:15	02/01/14 13:27	1
Chrysene	0.0000800	U	0.000500	0.0000800	mg/L		01/29/14 15:15	02/01/14 13:27	1
Benzo[a]pyrene	0.0000800	U	0.000500	0.0000800	mg/L		01/29/14 15:15	02/01/14 13:27	1
Surrogate	%Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	73		44 - 123				01/29/14 15:15	02/01/14 13:27	1
2-Fluorobiphenyl	109		43 - 120				01/29/14 15:15	02/01/14 13:27	1
2-Fluorophenol	102		18 - 120				01/29/14 15:15	02/01/14 13:27	1

TestAmerica Houston

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-86091-1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Lab Sample ID: MB 600-126160/1-A

Matrix: Water

Analysis Batch: 126585

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 126160

Surrogate	MB MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
Nitrobenzene-d5	102		47 - 120	01/29/14 15:15	02/01/14 13:27	1
Terphenyl-d14	123		33 - 141	01/29/14 15:15	02/01/14 13:27	1
Phenol-d5 (Surr)	103		12 - 128	01/29/14 15:15	02/01/14 13:27	1

Lab Sample ID: LCS 600-126160/2-A

Matrix: Water

Analysis Batch: 126585

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 126160

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec.
							Limits
Phenol	0.0100	0.01180	*	mg/L		118	11 - 112
Nitrobenzene	0.0100	0.01043		mg/L		104	42 - 119
2,4-Dimethylphenol	0.0100	0.01008		mg/L		101	36 - 109
Bis(2-chloroethoxy)methane	0.0100	0.01034		mg/L		103	42 - 119
Naphthalene	0.0100	0.01011		mg/L		101	39 - 120
2-Methylnaphthalene	0.0100	0.009765		mg/L		98	40 - 121
2-Chloronaphthalene	0.0100	0.01013		mg/L		101	43 - 120
Acenaphthylene	0.0100	0.01027		mg/L		103	35 - 135
2,6-Dinitrotoluene	0.0100	0.01071		mg/L		107	45 - 122
Acenaphthene	0.0100	0.01020		mg/L		102	47 - 145
4-Nitrophenol	0.0200	0.01579		mg/L		79	14 - 132
Dibenzofuran	0.0100	0.01033		mg/L		103	46 - 123
2,4-Dinitrotoluene	0.0100	0.01100		mg/L		110	43 - 128
Fluorene	0.0100	0.01052		mg/L		105	48 - 127
4,6-Dinitro-2-methylphenol	0.0200	0.01629		mg/L		81	24 - 122
N-Nitrosodiphenylamine	0.0100	0.01043		mg/L		104	43 - 107
1,2-Diphenylhydrazine	0.0100	0.01304	*	mg/L		130	47 - 117
Pentachlorophenol	0.0200	0.01447		mg/L		72	9 - 147
Phenanthrene	0.0100	0.01082		mg/L		108	52 - 121
Anthracene	0.0100	0.01061		mg/L		106	53 - 124
Di-n-butyl phthalate	0.0100	0.01262		mg/L		126	54 - 138
Fluoranthene	0.0100	0.01071		mg/L		107	53 - 127
Pyrene	0.0100	0.01201		mg/L		120	49 - 121
Benzo[a]anthracene	0.0100	0.01142		mg/L		114	53 - 122
Bis(2-ethylhexyl) phthalate	0.0100	0.01186		mg/L		119	47 - 132
Chrysene	0.0100	0.01070		mg/L		107	49 - 124
Benzo[a]pyrene	0.0100	0.01139		mg/L		114	50 - 124

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
2,4,6-Tribromophenol	88		44 - 123
2-Fluorobiphenyl	100		43 - 120
2-Fluorophenol	101		18 - 120
Nitrobenzene-d5	102		47 - 120
Terphenyl-d14	115		33 - 141
Phenol-d5 (Surr)	105		12 - 128

TestAmerica Houston

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-86091-1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Lab Sample ID: 600-86091-4 MS

Matrix: Water

Analysis Batch: 126585

Client Sample ID: WG-1620-MW61AMS-20140123

Prep Type: Total/NA

Prep Batch: 126160

Analyte	Sample Result	Sample Qualifier	Spike Added	MS MS		Unit	D	%Rec	%Rec. Limits
				Result	Qualifier				
Phenol	0.0000377	U *	0.00962	0.002196		mg/L		23	10 - 62
Nitrobenzene	0.000104	U	0.00962	0.008663		mg/L		90	37 - 104
2,4-Dimethylphenol	0.000292	U	0.00962	0.007168		mg/L		75	25 - 85
Bis(2-chloroethoxy)methane	0.000123	U	0.00962	0.008590		mg/L		89	42 - 101
Naphthalene	0.000668	J	0.00962	0.007894		mg/L		75	34 - 99
2-Methylnaphthalene	0.0000660	U	0.00962	0.008149		mg/L		85	36 - 111
2-Chloronaphthalene	0.0000755	U	0.00962	0.008237		mg/L		86	42 - 100
Acenaphthylene	0.0000566	U	0.00962	0.008360		mg/L		87	38 - 115
2,6-Dinitrotoluene	0.0000755	U	0.00962	0.009873		mg/L		103	47 - 118
Acenaphthene	0.0000755	U	0.00962	0.008790		mg/L		91	46 - 118
4-Nitrophenol	0.000528	U	0.0192	0.002711		mg/L		14	10 - 100
Dibenzofuran	0.0000755	U	0.00962	0.009116		mg/L		95	46 - 110
2,4-Dinitrotoluene	0.000123	U	0.00962	0.01014		mg/L		105	41 - 125
Fluorene	0.0000660	U	0.00962	0.009531		mg/L		99	44 - 112
4,6-Dinitro-2-methylphenol	0.000783	U	0.0192	0.01434		mg/L		75	28 - 128
N-Nitrosodiphenylamine	0.0000943	U	0.00962	0.009950		mg/L		103	58 - 142
1,2-Diphenylhydrazine	0.000104	U *	0.00962	0.01223		mg/L		127	10 - 130
Pentachlorophenol	0.000575	U	0.0192	0.01684		mg/L		88	45 - 155
Phenanthrene	0.000460	J	0.00962	0.01075		mg/L		107	41 - 117
Anthracene	0.000434	J	0.00962	0.01032		mg/L		103	35 - 116
Di-n-butyl phthalate	0.000827	J	0.00962	0.01233		mg/L		120	31 - 137
Fluoranthene	0.0000806	J	0.00962	0.01041		mg/L		107	14 - 145
Pyrene	0.000104	U	0.00962	0.01155		mg/L		120	28 - 133
Benzo[a]anthracene	0.0000755	U	0.00962	0.01086		mg/L		113	24 - 126
Bis(2-ethylhexyl) phthalate	0.00163	J	0.00962	0.01184		mg/L		106	14 - 123
Chrysene	0.0000755	U	0.00962	0.01019		mg/L		106	23 - 128
Benzo[a]pyrene	0.0000755	U	0.00962	0.01057		mg/L		110	60 - 140

Surrogate	MS MS		Limits
	%Recovery	Qualifier	
2,4,6-Tribromophenol	95		44 - 123
2-Fluorobiphenyl	86		43 - 120
2-Fluorophenol	37		18 - 120
Nitrobenzene-d5	90		47 - 120
Terphenyl-d14	117		33 - 141
Phenol-d5 (Surr)	18		12 - 128

Lab Sample ID: 600-86091-4 MSD

Matrix: Water

Analysis Batch: 126585

Client Sample ID: WG-1620-MW61AMSD-20140123

Prep Type: Total/NA

Prep Batch: 126160

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD MSD		Unit	D	%Rec	%Rec. Limits	RPD	
				Result	Qualifier					RPD	Limit
Phenol	0.0000377	U *	0.00962	0.001851		mg/L		19	10 - 62	17	20
Nitrobenzene	0.000104	U	0.00962	0.008713		mg/L		91	37 - 104	1	20
2,4-Dimethylphenol	0.000292	U	0.00962	0.004507	N	mg/L		47	25 - 85	46	20
Bis(2-chloroethoxy)methane	0.000123	U	0.00962	0.008461		mg/L		88	42 - 101	2	20
Naphthalene	0.000668	J	0.00962	0.007537		mg/L		71	34 - 99	5	20
2-Methylnaphthalene	0.0000660	U	0.00962	0.007957		mg/L		83	36 - 111	2	20
2-Chloronaphthalene	0.0000755	U	0.00962	0.008048		mg/L		84	42 - 100	2	20

TestAmerica Houston

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-86091-1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Lab Sample ID: 600-86091-4 MSD

Matrix: Water

Analysis Batch: 126585

Client Sample ID: WG-1620-MW61AMSD-20140123

Prep Type: Total/NA

Prep Batch: 126160

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.	RPD	Limit
	Result	Qualifier	Added	Result	Qualifier				Limits		
Acenaphthylene	0.0000566	U	0.00962	0.007946		mg/L		83	38 - 115	5	20
2,6-Dinitrotoluene	0.0000755	U	0.00962	0.009520		mg/L		99	47 - 118	4	20
Acenaphthene	0.0000755	U	0.00962	0.008451		mg/L		88	46 - 118	4	20
4-Nitrophenol	0.000528	U	0.0192	0.002375		mg/L		12	10 - 100	13	20
Dibenzofuran	0.0000755	U	0.00962	0.008759		mg/L		91	46 - 110	4	20
2,4-Dinitrotoluene	0.000123	U	0.00962	0.01004		mg/L		104	41 - 125	1	20
Fluorene	0.0000660	U	0.00962	0.009238		mg/L		96	44 - 112	3	20
4,6-Dinitro-2-methylphenol	0.000783	U	0.0192	0.01452		mg/L		76	28 - 128	1	20
N-Nitrosodiphenylamine	0.0000943	U	0.00962	0.009042		mg/L		94	58 - 142	10	20
1,2-Diphenylhydrazine	0.000104	U *	0.00962	0.01168		mg/L		121	10 - 130	5	20
Pentachlorophenol	0.000575	U	0.0192	0.01564		mg/L		81	45 - 155	7	20
Phenanthrene	0.000460	J	0.00962	0.01033		mg/L		103	41 - 117	4	20
Anthracene	0.000434	J	0.00962	0.009876		mg/L		98	35 - 116	4	20
Di-n-butyl phthalate	0.000827	J	0.00962	0.01232		mg/L		120	31 - 137	0	20
Fluoranthene	0.0000806	J	0.00962	0.01030		mg/L		106	14 - 145	1	20
Pyrene	0.000104	U	0.00962	0.01115		mg/L		116	28 - 133	4	20
Benzo[a]anthracene	0.0000755	U	0.00962	0.01061		mg/L		110	24 - 126	2	20
Bis(2-ethylhexyl) phthalate	0.00163	J	0.00962	0.01145		mg/L		102	14 - 123	3	20
Chrysene	0.0000755	U	0.00962	0.009966		mg/L		104	23 - 128	2	20
Benzo[a]pyrene	0.0000755	U	0.00962	0.01009		mg/L		105	60 - 140	5	20

Surrogate	MSD	MSD	Limits
	%Recovery	Qualifier	
2,4,6-Tribromophenol	85		44 - 123
2-Fluorobiphenyl	84		43 - 120
2-Fluorophenol	33		18 - 120
Nitrobenzene-d5	87		47 - 120
Terphenyl-d14	111		33 - 141
Phenol-d5 (Surr)	15		12 - 128

Lab Sample ID: 600-86091-8 MS

Matrix: Water

Analysis Batch: 126585

Client Sample ID: WG-1620-WM-67BMS-20140123

Prep Type: Total/NA

Prep Batch: 126160

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec.	RPD	Limit
	Result	Qualifier	Added	Result	Qualifier				Limits		
Phenol	0.0000385	U *	0.00962	0.002261		mg/L		24	10 - 62		
Nitrobenzene	0.000106	U	0.00962	0.008341		mg/L		87	37 - 104		
2,4-Dimethylphenol	0.000298	U	0.00962	0.007456		mg/L		78	25 - 85		
Bis(2-chloroethoxy)methane	0.000125	U	0.00962	0.008366		mg/L		87	42 - 101		
Naphthalene	0.000711	J	0.00962	0.007780		mg/L		74	34 - 99		
2-Methylnaphthalene	0.0000673	U	0.00962	0.007932		mg/L		82	36 - 111		
2-Chloronaphthalene	0.0000769	U	0.00962	0.008169		mg/L		85	42 - 100		
Acenaphthylene	0.0000577	U	0.00962	0.008218		mg/L		85	38 - 115		
2,6-Dinitrotoluene	0.0000769	U	0.00962	0.01019		mg/L		106	47 - 118		
Acenaphthene	0.0000769	U	0.00962	0.008510		mg/L		89	46 - 118		
4-Nitrophenol	0.000538	U	0.0192	0.002710		mg/L		14	10 - 100		
Dibenzofuran	0.0000769	U	0.00962	0.008791		mg/L		91	46 - 110		
2,4-Dinitrotoluene	0.000125	U	0.00962	0.009989		mg/L		104	41 - 125		
Fluorene	0.0000673	U	0.00962	0.009475		mg/L		99	44 - 112		

TestAmerica Houston

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-86091-1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Lab Sample ID: 600-86091-8 MS

Client Sample ID: WG-1620-WM-67BMS-20140123

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 126585

Prep Batch: 126160

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec.
	Result	Qualifier	Added	Result	Qualifier				Limits
4,6-Dinitro-2-methylphenol	0.000798	U	0.0192	0.01207		mg/L		63	28 - 128
N-Nitrosodiphenylamine	0.0000962	U	0.00962	0.009716		mg/L		101	58 - 142
1,2-Diphenylhydrazine	0.000106	U *	0.00962	0.01160		mg/L		121	10 - 130
Pentachlorophenol	0.000587	U	0.0192	0.01575		mg/L		82	45 - 155
Phenanthrene	0.000377	J	0.00962	0.01007		mg/L		101	41 - 117
Anthracene	0.000424	J	0.00962	0.009962		mg/L		99	35 - 116
Di-n-butyl phthalate	0.000834	J	0.00962	0.01180		mg/L		114	31 - 137
Fluoranthene	0.0000673	U	0.00962	0.009988		mg/L		104	14 - 145
Pyrene	0.000106	U	0.00962	0.01115		mg/L		116	28 - 133
Benzo[a]anthracene	0.0000769	U	0.00962	0.01051		mg/L		109	24 - 126
Bis(2-ethylhexyl) phthalate	0.000356	U	0.00962	0.01124		mg/L		117	14 - 123
Chrysene	0.0000769	U	0.00962	0.01007		mg/L		105	23 - 128
Benzo[a]pyrene	0.0000769	U	0.00962	0.01056		mg/L		110	60 - 140

Surrogate	MS %Recovery	MS Qualifier	Limits
2,4,6-Tribromophenol	92		44 - 123
2-Fluorobiphenyl	85		43 - 120
2-Fluorophenol	32		18 - 120
Nitrobenzene-d5	87		47 - 120
Terphenyl-d14	115		33 - 141
Phenol-d5 (Surr)	16		12 - 128

Lab Sample ID: 600-86091-8 MSD

Client Sample ID: WG-1620-WM-67BMSD-20140123

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 126585

Prep Batch: 126160

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.	RPD	
	Result	Qualifier	Added	Result	Qualifier				Limits	RPD	Limit
Phenol	0.0000385	U *	0.00943	0.002141		mg/L		23	10 - 62	5	20
Nitrobenzene	0.000106	U	0.00943	0.007913		mg/L		84	37 - 104	5	20
2,4-Dimethylphenol	0.000298	U	0.00943	0.005963	N	mg/L		63	25 - 85	22	20
Bis(2-chloroethoxy)methane	0.000125	U	0.00943	0.007818		mg/L		83	42 - 101	7	20
Naphthalene	0.000711	J	0.00943	0.009478		mg/L		93	34 - 99	20	20
2-Methylnaphthalene	0.0000673	U	0.00943	0.007554		mg/L		80	36 - 111	5	20
2-Chloronaphthalene	0.0000769	U	0.00943	0.007885		mg/L		84	42 - 100	4	20
Acenaphthylene	0.0000577	U	0.00943	0.008138		mg/L		86	38 - 115	1	20
2,6-Dinitrotoluene	0.0000769	U	0.00943	0.01063		mg/L		113	47 - 118	4	20
Acenaphthene	0.0000769	U	0.00943	0.008616		mg/L		91	46 - 118	1	20
4-Nitrophenol	0.000538	U	0.0189	0.002499		mg/L		13	10 - 100	8	20
Dibenzofuran	0.0000769	U	0.00943	0.008858		mg/L		94	46 - 110	1	20
2,4-Dinitrotoluene	0.000125	U	0.00943	0.01024		mg/L		108	41 - 125	2	20
Fluorene	0.0000673	U	0.00943	0.009534		mg/L		101	44 - 112	1	20
4,6-Dinitro-2-methylphenol	0.000798	U	0.0189	0.01380		mg/L		73	28 - 128	13	20
N-Nitrosodiphenylamine	0.0000962	U	0.00943	0.009946		mg/L		105	58 - 142	2	20
1,2-Diphenylhydrazine	0.000106	U *	0.00943	0.01176		mg/L		125	10 - 130	1	20
Pentachlorophenol	0.000587	U	0.0189	0.01720		mg/L		91	45 - 155	9	20
Phenanthrene	0.000377	J	0.00943	0.01086		mg/L		111	41 - 117	8	20
Anthracene	0.000424	J	0.00943	0.01076		mg/L		110	35 - 116	8	20
Di-n-butyl phthalate	0.000834	J	0.00943	0.01290		mg/L		128	31 - 137	9	20

TestAmerica Houston

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-86091-1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Lab Sample ID: 600-86091-8 MSD

Matrix: Water

Analysis Batch: 126585

Client Sample ID: WG-1620-WM-67BMSD-20140123

Prep Type: Total/NA

Prep Batch: 126160

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.	RPD	
	Result	Qualifier	Added	Result	Qualifier				Limits	RPD	Limit
Fluoranthene	0.0000673	U	0.00943	0.01051		mg/L		111	14 - 145	5	20
Pyrene	0.000106	U	0.00943	0.01162		mg/L		123	28 - 133	4	20
Benzo[a]anthracene	0.0000769	U	0.00943	0.01094		mg/L		116	24 - 126	4	20
Bis(2-ethylhexyl) phthalate	0.000356	U	0.00943	0.01164		mg/L		123	14 - 123	3	20
Chrysene	0.0000769	U	0.00943	0.01044		mg/L		111	23 - 128	4	20
Benzo[a]pyrene	0.0000769	U	0.00943	0.01072		mg/L		114	60 - 140	1	20
MSD MSD											
Surrogate	%Recovery	Qualifier	Limits								
2,4,6-Tribromophenol	93		44 - 123								
2-Fluorobiphenyl	83		43 - 120								
2-Fluorophenol	31		18 - 120								
Nitrobenzene-d5	83		47 - 120								
Terphenyl-d14	121		33 - 141								
Phenol-d5 (Surr)	17		12 - 128								

Unadjusted Detection Limits

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-86091-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	MQL	MDL	Units	Method
1,2-Dichloroethane	0.500	0.200	ug/L	8260B
Benzene	0.500	0.200	ug/L	8260B
Chlorobenzene	0.500	0.180	ug/L	8260B
Ethylbenzene	0.500	0.190	ug/L	8260B
Methylene Chloride	5.00	0.220	ug/L	8260B
Toluene	0.500	0.170	ug/L	8260B
Vinyl chloride	0.500	0.180	ug/L	8260B
Xylenes, Total	1.50	0.580	ug/L	8260B

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	MQL	MDL	Units	Method
1,2-Diphenylhydrazine	0.000500	0.000110	mg/L	8270C LL
2,4-Dimethylphenol	0.000500	0.000310	mg/L	8270C LL
2,4-Dinitrotoluene	0.000500	0.000130	mg/L	8270C LL
2,6-Dinitrotoluene	0.000500	0.0000800	mg/L	8270C LL
2-Chloronaphthalene	0.000500	0.0000800	mg/L	8270C LL
2-Methylnaphthalene	0.000500	0.0000700	mg/L	8270C LL
4,6-Dinitro-2-methylphenol	0.00100	0.000830	mg/L	8270C LL
4-Nitrophenol	0.00100	0.000560	mg/L	8270C LL
Acenaphthene	0.000500	0.0000800	mg/L	8270C LL
Acenaphthylene	0.000500	0.0000600	mg/L	8270C LL
Anthracene	0.000500	0.0000500	mg/L	8270C LL
Benzo[a]anthracene	0.000500	0.0000800	mg/L	8270C LL
Benzo[a]pyrene	0.000500	0.0000800	mg/L	8270C LL
Bis(2-chloroethoxy)methane	0.000500	0.000130	mg/L	8270C LL
Bis(2-ethylhexyl) phthalate	0.00250	0.000370	mg/L	8270C LL
Chrysene	0.000500	0.0000800	mg/L	8270C LL
Dibenzofuran	0.000500	0.0000800	mg/L	8270C LL
Di-n-butyl phthalate	0.00250	0.000110	mg/L	8270C LL
Fluoranthene	0.000500	0.0000700	mg/L	8270C LL
Fluorene	0.000500	0.0000700	mg/L	8270C LL
Naphthalene	0.00500	0.0000800	mg/L	8270C LL
Nitrobenzene	0.000500	0.000110	mg/L	8270C LL
N-Nitrosodiphenylamine	0.000500	0.000100	mg/L	8270C LL
Pentachlorophenol	0.00100	0.000610	mg/L	8270C LL
Phenanthrene	0.000500	0.0000600	mg/L	8270C LL
Phenol	0.000500	0.0000400	mg/L	8270C LL
Pyrene	0.000500	0.000110	mg/L	8270C LL

QC Association Summary

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-86091-1

GC/MS VOA

Analysis Batch: 138165

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-86091-17	WG-1620-TB4-20140124	Total/NA	Water	8260B	
LCS 490-138165/3	Lab Control Sample	Total/NA	Water	8260B	
LCSD 490-138165/4	Lab Control Sample Dup	Total/NA	Water	8260B	
MB 490-138165/6	Method Blank	Total/NA	Water	8260B	

Analysis Batch: 138333

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-86091-1	WG-1620-MW54C-20140123	Total/NA	Water	8260B	
600-86091-2	WG-1620-MW59D-20140123	Total/NA	Water	8260B	
600-86091-3	WG-1620-DUP3-20140123	Total/NA	Water	8260B	
600-86091-4	WG-1620-MW61A-20140123	Total/NA	Water	8260B	
600-86091-4 MS	WG-1620-MW61AMS-20140123	Total/NA	Water	8260B	
600-86091-4 MSD	WG-1620-MW61AMSD-20140123	Total/NA	Water	8260B	
600-86091-5	WG-1620-MW22B-20140123	Total/NA	Water	8260B	
600-86091-6	WG-1620-MW22A-20140123	Total/NA	Water	8260B	
600-86091-7	WG-1620-WM-24AR-20140123	Total/NA	Water	8260B	
600-86091-8	WG-1620-WM-67B-20140123	Total/NA	Water	8260B	
600-86091-8 MS	WG-1620-WM-67BMS-20140123	Total/NA	Water	8260B	
600-86091-8 MSD	WG-1620-WM-67BMDS-20140123	Total/NA	Water	8260B	
600-86091-9	WG-1620-MW33A-20140123	Total/NA	Water	8260B	
600-86091-10	WG-1620-FB8-20140123	Total/NA	Water	8260B	
600-86091-11	WG-1620-MW35A-20140124	Total/NA	Water	8260B	
600-86091-12	WG-1620-MW35B-20140124	Total/NA	Water	8260B	
600-86091-13	WG-1620-MW71B-20140124	Total/NA	Water	8260B	
600-86091-14	WG-1620-MW27C-20140124	Total/NA	Water	8260B	
600-86091-15	WG-1620-MW69A-20140124	Total/NA	Water	8260B	
600-86091-16	WG-1620-FB9-20140124	Total/NA	Water	8260B	
600-86091-18	WG-1620-DUP4-20140123	Total/NA	Water	8260B	
LCS 490-138333/3	Lab Control Sample	Total/NA	Water	8260B	
LCSD 490-138333/4	Lab Control Sample Dup	Total/NA	Water	8260B	
MB 490-138333/6	Method Blank	Total/NA	Water	8260B	

Analysis Batch: 138433

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-86091-9	WG-1620-MW33A-20140123	Total/NA	Water	8260B	
600-86091-18	WG-1620-DUP4-20140123	Total/NA	Water	8260B	
LCS 490-138433/3	Lab Control Sample	Total/NA	Water	8260B	
LCSD 490-138433/4	Lab Control Sample Dup	Total/NA	Water	8260B	
MB 490-138433/6	Method Blank	Total/NA	Water	8260B	

GC/MS Semi VOA

Prep Batch: 126160

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-86091-1 - DL2	WG-1620-MW54C-20140123	Total/NA	Water	3510C	
600-86091-1 - DL	WG-1620-MW54C-20140123	Total/NA	Water	3510C	
600-86091-1	WG-1620-MW54C-20140123	Total/NA	Water	3510C	
600-86091-2	WG-1620-MW59D-20140123	Total/NA	Water	3510C	
600-86091-3	WG-1620-DUP3-20140123	Total/NA	Water	3510C	
600-86091-4	WG-1620-MW61A-20140123	Total/NA	Water	3510C	

TestAmerica Houston

QC Association Summary

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-86091-1

GC/MS Semi VOA (Continued)

Prep Batch: 126160 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-86091-4 MS	WG-1620-MW61AMS-20140123	Total/NA	Water	3510C	
600-86091-4 MSD	WG-1620-MW61AMSD-20140123	Total/NA	Water	3510C	
600-86091-5 - DL	WG-1620-MW22B-20140123	Total/NA	Water	3510C	
600-86091-5	WG-1620-MW22B-20140123	Total/NA	Water	3510C	
600-86091-6	WG-1620-MW22A-20140123	Total/NA	Water	3510C	
600-86091-7	WG-1620-WM-24AR-20140123	Total/NA	Water	3510C	
600-86091-8	WG-1620-WM-67B-20140123	Total/NA	Water	3510C	
600-86091-8 MS	WG-1620-WM-67BMS-20140123	Total/NA	Water	3510C	
600-86091-8 MSD	WG-1620-WM-67BMSD-20140123	Total/NA	Water	3510C	
600-86091-9	WG-1620-MW33A-20140123	Total/NA	Water	3510C	
600-86091-10	WG-1620-FB8-20140123	Total/NA	Water	3510C	
600-86091-11 - DL	WG-1620-MW35A-20140124	Total/NA	Water	3510C	
600-86091-11	WG-1620-MW35A-20140124	Total/NA	Water	3510C	
600-86091-12	WG-1620-MW35B-20140124	Total/NA	Water	3510C	
600-86091-13 - DL	WG-1620-MW71B-20140124	Total/NA	Water	3510C	
600-86091-13 - DL2	WG-1620-MW71B-20140124	Total/NA	Water	3510C	
600-86091-13	WG-1620-MW71B-20140124	Total/NA	Water	3510C	
600-86091-14	WG-1620-MW27C-20140124	Total/NA	Water	3510C	
600-86091-15	WG-1620-MW69A-20140124	Total/NA	Water	3510C	
600-86091-16	WG-1620-FB9-20140124	Total/NA	Water	3510C	
600-86091-18	WG-1620-DUP4-20140123	Total/NA	Water	3510C	
LCS 600-126160/2-A	Lab Control Sample	Total/NA	Water	3510C	
MB 600-126160/1-A	Method Blank	Total/NA	Water	3510C	

Analysis Batch: 126585

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-86091-1	WG-1620-MW54C-20140123	Total/NA	Water	8270C LL	126160
600-86091-2	WG-1620-MW59D-20140123	Total/NA	Water	8270C LL	126160
600-86091-3	WG-1620-DUP3-20140123	Total/NA	Water	8270C LL	126160
600-86091-4	WG-1620-MW61A-20140123	Total/NA	Water	8270C LL	126160
600-86091-4 MS	WG-1620-MW61AMS-20140123	Total/NA	Water	8270C LL	126160
600-86091-4 MSD	WG-1620-MW61AMSD-20140123	Total/NA	Water	8270C LL	126160
600-86091-5	WG-1620-MW22B-20140123	Total/NA	Water	8270C LL	126160
600-86091-6	WG-1620-MW22A-20140123	Total/NA	Water	8270C LL	126160
600-86091-7	WG-1620-WM-24AR-20140123	Total/NA	Water	8270C LL	126160
600-86091-8	WG-1620-WM-67B-20140123	Total/NA	Water	8270C LL	126160
600-86091-8 MS	WG-1620-WM-67BMS-20140123	Total/NA	Water	8270C LL	126160
600-86091-8 MSD	WG-1620-WM-67BMSD-20140123	Total/NA	Water	8270C LL	126160
600-86091-10	WG-1620-FB8-20140123	Total/NA	Water	8270C LL	126160
600-86091-11	WG-1620-MW35A-20140124	Total/NA	Water	8270C LL	126160
600-86091-13	WG-1620-MW71B-20140124	Total/NA	Water	8270C LL	126160
600-86091-14	WG-1620-MW27C-20140124	Total/NA	Water	8270C LL	126160
600-86091-15	WG-1620-MW69A-20140124	Total/NA	Water	8270C LL	126160
600-86091-16	WG-1620-FB9-20140124	Total/NA	Water	8270C LL	126160
LCS 600-126160/2-A	Lab Control Sample	Total/NA	Water	8270C LL	126160
MB 600-126160/1-A	Method Blank	Total/NA	Water	8270C LL	126160

Analysis Batch: 126635

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-86091-1 - DL	WG-1620-MW54C-20140123	Total/NA	Water	8270C LL	126160
600-86091-1 - DL2	WG-1620-MW54C-20140123	Total/NA	Water	8270C LL	126160

TestAmerica Houston

QC Association Summary

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-86091-1

GC/MS Semi VOA (Continued)

Analysis Batch: 126635 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-86091-5 - DL	WG-1620-MW22B-20140123	Total/NA	Water	8270C LL	126160
600-86091-9	WG-1620-MW33A-20140123	Total/NA	Water	8270C LL	126160
600-86091-11 - DL	WG-1620-MW35A-20140124	Total/NA	Water	8270C LL	126160
600-86091-12	WG-1620-MW35B-20140124	Total/NA	Water	8270C LL	126160
600-86091-13 - DL	WG-1620-MW71B-20140124	Total/NA	Water	8270C LL	126160
600-86091-13 - DL2	WG-1620-MW71B-20140124	Total/NA	Water	8270C LL	126160
600-86091-18	WG-1620-DUP4-20140123	Total/NA	Water	8270C LL	126160



Lab Chronicle

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-86091-1

Client Sample ID: WG-1620-MW54C-20140123

Lab Sample ID: 600-86091-1

Date Collected: 01/23/14 08:45

Matrix: Water

Date Received: 01/24/14 12:29

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	138333	01/30/14 01:26	JJR	TAL NSH
Total/NA	Prep	3510C			126160	01/29/14 15:15	SMB	TAL HOU
Total/NA	Analysis	8270C LL		1	126585	02/01/14 14:17	MBB	TAL HOU
Total/NA	Prep	3510C	DL		126160	01/29/14 15:15	SMB	TAL HOU
Total/NA	Analysis	8270C LL	DL	10	126635	02/04/14 21:07	TTD	TAL HOU
Total/NA	Prep	3510C	DL2		126160	01/29/14 15:15	SMB	TAL HOU
Total/NA	Analysis	8270C LL	DL2	100	126635	02/04/14 21:33	TTD	TAL HOU

Client Sample ID: WG-1620-MW59D-20140123

Lab Sample ID: 600-86091-2

Date Collected: 01/23/14 10:00

Matrix: Water

Date Received: 01/24/14 12:29

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	138333	01/30/14 01:53	JJR	TAL NSH
Total/NA	Prep	3510C			126160	01/29/14 15:15	SMB	TAL HOU
Total/NA	Analysis	8270C LL		1	126585	02/01/14 14:42	MBB	TAL HOU

Client Sample ID: WG-1620-DUP3-20140123

Lab Sample ID: 600-86091-3

Date Collected: 01/23/14 10:00

Matrix: Water

Date Received: 01/24/14 12:29

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	138333	01/30/14 02:20	JJR	TAL NSH
Total/NA	Prep	3510C			126160	01/29/14 15:15	SMB	TAL HOU
Total/NA	Analysis	8270C LL		1	126585	02/01/14 15:06	MBB	TAL HOU

Client Sample ID: WG-1620-MW61A-20140123

Lab Sample ID: 600-86091-4

Date Collected: 01/23/14 11:15

Matrix: Water

Date Received: 01/24/14 12:29

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	138333	01/30/14 00:33	JJR	TAL NSH
Total/NA	Prep	3510C			126160	01/29/14 15:15	SMB	TAL HOU
Total/NA	Analysis	8270C LL		1	126585	02/01/14 15:31	MBB	TAL HOU

Client Sample ID: WG-1620-MW22B-20140123

Lab Sample ID: 600-86091-5

Date Collected: 01/23/14 12:20

Matrix: Water

Date Received: 01/24/14 12:29

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	138333	01/30/14 02:47	JJR	TAL NSH
Total/NA	Prep	3510C			126160	01/29/14 15:15	SMB	TAL HOU

TestAmerica Houston

Lab Chronicle

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-86091-1

Client Sample ID: WG-1620-MW22B-20140123

Lab Sample ID: 600-86091-5

Date Collected: 01/23/14 12:20

Matrix: Water

Date Received: 01/24/14 12:29

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8270C LL		1	126585	02/01/14 16:46	MBB	TAL HOU
Total/NA	Prep	3510C	DL		126160	01/29/14 15:15	SMB	TAL HOU
Total/NA	Analysis	8270C LL	DL	50	126635	02/04/14 21:58	TTD	TAL HOU

Client Sample ID: WG-1620-MW22A-20140123

Lab Sample ID: 600-86091-6

Date Collected: 01/23/14 14:00

Matrix: Water

Date Received: 01/24/14 12:29

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	138333	01/30/14 03:14	JJR	TAL NSH
Total/NA	Prep	3510C			126160	01/29/14 15:15	SMB	TAL HOU
Total/NA	Analysis	8270C LL		1	126585	02/01/14 17:10	MBB	TAL HOU

Client Sample ID: WG-1620-WM-24AR-20140123

Lab Sample ID: 600-86091-7

Date Collected: 01/23/14 15:05

Matrix: Water

Date Received: 01/24/14 12:29

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	138333	01/30/14 03:40	JJR	TAL NSH
Total/NA	Prep	3510C			126160	01/29/14 15:15	SMB	TAL HOU
Total/NA	Analysis	8270C LL		1	126585	02/01/14 17:35	MBB	TAL HOU

Client Sample ID: WG-1620-WM-67B-20140123

Lab Sample ID: 600-86091-8

Date Collected: 01/23/14 16:30

Matrix: Water

Date Received: 01/24/14 12:29

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	138333	01/30/14 01:00	JJR	TAL NSH
Total/NA	Prep	3510C			126160	01/29/14 15:15	SMB	TAL HOU
Total/NA	Analysis	8270C LL		1	126585	02/01/14 18:00	MBB	TAL HOU

Client Sample ID: WG-1620-MW33A-20140123

Lab Sample ID: 600-86091-9

Date Collected: 01/23/14 17:30

Matrix: Water

Date Received: 01/24/14 12:29

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	138333	01/30/14 04:07	JJR	TAL NSH
Total/NA	Analysis	8260B		10	138433	01/30/14 12:08	JJR	TAL NSH
Total/NA	Prep	3510C			126160	01/29/14 15:15	SMB	TAL HOU
Total/NA	Analysis	8270C LL		1000	126635	02/04/14 22:24	TTD	TAL HOU

TestAmerica Houston

Lab Chronicle

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-86091-1

Client Sample ID: WG-1620-FB8-20140123

Lab Sample ID: 600-86091-10

Date Collected: 01/23/14 17:45

Matrix: Water

Date Received: 01/24/14 12:29

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	138333	01/29/14 23:39	JJR	TAL NSH
Total/NA	Prep	3510C			126160	01/29/14 15:15	SMB	TAL HOU
Total/NA	Analysis	8270C LL		1	126585	02/01/14 19:40	MBB	TAL HOU

Client Sample ID: WG-1620-MW35A-20140124

Lab Sample ID: 600-86091-11

Date Collected: 01/24/14 07:40

Matrix: Water

Date Received: 01/24/14 12:29

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	138333	01/30/14 04:34	JJR	TAL NSH
Total/NA	Prep	3510C			126160	01/29/14 15:15	SMB	TAL HOU
Total/NA	Analysis	8270C LL		1	126585	02/01/14 20:04	MBB	TAL HOU
Total/NA	Prep	3510C	DL		126160	01/29/14 15:15	SMB	TAL HOU
Total/NA	Analysis	8270C LL	DL	5	126635	02/05/14 00:31	TTD	TAL HOU

Client Sample ID: WG-1620-MW35B-20140124

Lab Sample ID: 600-86091-12

Date Collected: 01/24/14 08:35

Matrix: Water

Date Received: 01/24/14 12:29

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	138333	01/30/14 05:01	JJR	TAL NSH
Total/NA	Prep	3510C			126160	01/29/14 15:15	SMB	TAL HOU
Total/NA	Analysis	8270C LL		1000	126635	02/04/14 22:49	TTD	TAL HOU

Client Sample ID: WG-1620-MW71B-20140124

Lab Sample ID: 600-86091-13

Date Collected: 01/24/14 09:35

Matrix: Water

Date Received: 01/24/14 12:29

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	138333	01/30/14 05:27	JJR	TAL NSH
Total/NA	Prep	3510C			126160	01/29/14 15:15	SMB	TAL HOU
Total/NA	Analysis	8270C LL		1	126585	02/01/14 20:54	MBB	TAL HOU
Total/NA	Prep	3510C	DL		126160	01/29/14 15:15	SMB	TAL HOU
Total/NA	Analysis	8270C LL	DL	5	126635	02/04/14 23:15	TTD	TAL HOU
Total/NA	Prep	3510C	DL2		126160	01/29/14 15:15	SMB	TAL HOU
Total/NA	Analysis	8270C LL	DL2	100	126635	02/04/14 23:40	TTD	TAL HOU

Lab Chronicle

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-86091-1

Client Sample ID: WG-1620-MW27C-20140124

Lab Sample ID: 600-86091-14

Date Collected: 01/24/14 10:40

Matrix: Water

Date Received: 01/24/14 12:29

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	138333	01/30/14 05:54	JJR	TAL NSH
Total/NA	Prep	3510C			126160	01/29/14 15:15	SMB	TAL HOU
Total/NA	Analysis	8270C LL		1	126585	02/01/14 21:19	MBB	TAL HOU

Client Sample ID: WG-1620-MW69A-20140124

Lab Sample ID: 600-86091-15

Date Collected: 01/24/14 11:40

Matrix: Water

Date Received: 01/24/14 12:29

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	138333	01/30/14 06:21	JJR	TAL NSH
Total/NA	Prep	3510C			126160	01/29/14 15:15	SMB	TAL HOU
Total/NA	Analysis	8270C LL		1	126585	02/01/14 21:44	MBB	TAL HOU

Client Sample ID: WG-1620-FB9-20140124

Lab Sample ID: 600-86091-16

Date Collected: 01/24/14 11:50

Matrix: Water

Date Received: 01/24/14 12:29

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	138333	01/30/14 00:06	JJR	TAL NSH
Total/NA	Prep	3510C			126160	01/29/14 15:15	SMB	TAL HOU
Total/NA	Analysis	8270C LL		1	126585	02/01/14 22:09	MBB	TAL HOU

Client Sample ID: WG-1620-TB4-20140124

Lab Sample ID: 600-86091-17

Date Collected: 01/24/14 00:00

Matrix: Water

Date Received: 01/24/14 12:29

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	138165	01/29/14 15:08	JJR	TAL NSH

Client Sample ID: WG-1620-DUP4-20140123

Lab Sample ID: 600-86091-18

Date Collected: 01/23/14 17:30

Matrix: Water

Date Received: 01/24/14 12:29

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	138333	01/30/14 06:48	JJR	TAL NSH
Total/NA	Analysis	8260B		10	138433	01/30/14 12:35	JJR	TAL NSH
Total/NA	Prep	3510C			126160	01/29/14 15:15	SMB	TAL HOU
Total/NA	Analysis	8270C LL		1000	126635	02/05/14 00:06	TTD	TAL HOU

Laboratory References:

TAL HOU = TestAmerica Houston, 6310 Rothway Street, Houston, TX 77040, TEL (713)690-4444

TAL NSH = TestAmerica Nashville, 2960 Foster Creighton Drive, Nashville, TN 37204, TEL (615)726-0177

TestAmerica Houston

Certification Summary

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-86091-1

Laboratory: TestAmerica Houston

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Arkansas DEQ	State Program	6	88-0759	08-04-14
Louisiana	NELAP	6	30643	06-30-14
Oklahoma	State Program	6	1309	08-31-14
Texas	NELAP	6	T104704223	10-31-14
USDA	Federal		P330-08-00217	04-01-14
Utah	NELAP	8	TX00083	10-31-14

Laboratory: TestAmerica Nashville

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
A2LA	ISO/IEC 17025		0453.07	12-31-15
Alaska (UST)	State Program	10	UST-087	07-24-14
Arizona	State Program	9	AZ0473	05-05-14
Arizona	State Program	9	AZ0473	05-05-14 *
Arkansas DEQ	State Program	6	88-0737	04-25-14
California	NELAP	9	1168CA	10-31-14
Canadian Assoc Lab Accred (CALA)	Canada		3744	03-08-14
Connecticut	State Program	1	PH-0220	12-31-15
Florida	NELAP	4	E87358	06-30-14
Illinois	NELAP	5	200010	12-09-14
Iowa	State Program	7	131	05-01-14
Kansas	NELAP	7	E-10229	10-31-14
Kentucky (UST)	State Program	4	19	06-30-14
Louisiana	NELAP	6	30613	06-30-14
Maryland	State Program	3	316	03-31-14
Massachusetts	State Program	1	M-TN032	06-30-14
Minnesota	NELAP	5	047-999-345	12-31-14
Mississippi	State Program	4	N/A	06-30-14
Montana (UST)	State Program	8	NA	01-01-20
Nevada	State Program	9	TN00032	07-31-14
New Hampshire	NELAP	1	2963	10-10-14
New Jersey	NELAP	2	TN965	06-30-14
New York	NELAP	2	11342	04-01-14
North Carolina DENR	State Program	4	387	12-31-14
North Dakota	State Program	8	R-146	06-30-14
Ohio VAP	State Program	5	CL0033	10-16-15
Oklahoma	State Program	6	9412	08-31-14
Oregon	NELAP	10	TN200001	04-29-14
Pennsylvania	NELAP	3	68-00585	06-30-14
Rhode Island	State Program	1	LAO00268	12-30-14
South Carolina	State Program	4	84009 (001)	02-28-14
Tennessee	State Program	4	2008	02-23-14
Texas	NELAP	6	T104704077-09-TX	08-31-14
USDA	Federal		S-48469	10-30-16
Utah	NELAP	8	TN00032	07-31-14
Virginia	NELAP	3	460152	06-14-14
Washington	State Program	10	C789	07-19-14
West Virginia DEP	State Program	3	219	02-28-14
Wisconsin	State Program	5	998020430	08-31-14

* Expired certification is currently pending renewal and is considered valid.

TestAmerica Houston

Certification Summary

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-86091-1

Laboratory: TestAmerica Nashville (Continued)

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Wyoming (UST)	A2LA	8	453.07	12-31-15

- 1
- 2
- 3
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- 14
- 15
- 16

6310 Redway Street
Houston, TX 77040
Phone (713) 690-4444 Fax (713) 690-5646

Chain of Custody Record

Client Information
Client Contact: Mr. Eric Matzner
Company: Pastor, Behling & Wheeler LLC
Address: 2201 Double Creek Dr Suite 4004
City: Round Rock
State, Zip: TX, 78664
Phone: 512-671-3434(Tel) 512-671-3448(Fax)
Email: eric.matzner@bhwlc.com
Project Name: 1920 UPPR HWPW
Site: SSOV#

Sampler: JOHN BRAYDON
Phone: 512-671-3434
Lab P#: Kuchadkar, Sachin G
E-Mail: sachin.kuchadkar@testamericainc.com

Carrier Tracking No(s):
COC No: 600-26645-9048, 110
Page 1 of 1
Job #

Analysis Requested

Due Date Requested:
TAT Requested (days):
Purchase Order not required
WOC #
Project #: 60003722
SSOV#

Field Filtered Sample (Yes or No)
Perform MS/MSD (Yes or No)
8260B_LL - (MOD) 8260B- Volatiles
8270C_LL - (MOD) 8270C
VINYL CHLORIDE

Preservation Codes:
A - HCl
B - NaOH
C - Zn Acetate
D - Nitric Acid
E - NaHSO4
F - MeOH
G - Ammonia
H - Ascorbic Acid
I - Ice
J - DI Water
K - EDTA
L - EDA
M - Hexane
N - None
O - AsNaO2
P - Na2O4S
Q - Na2SO3
R - Na2S2O3
S - H2SO4
T - TSP Dodecahydrate
U - Ascorbic Acid
V - MCAA
W - pH 4-5
Z - other (specify)
Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix (Water, Solid, Other)	Preservation Code	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	Total Number of containers	Special Instructions/Note
WG-1620-MW54C-20140123	1-23-14	0845	G	Water		X	X		
WG-1620-MW54D-20140123		1000	G	Water		X	X		
WG-1620-DVP3-20140123		1000	G	Water		X	X		
WG-1620-MW61A-20140123		1115	G	Water		X	X		
WG-1620-MW61Ams-20140123		1115	G	Water		X	X		
WG-1620-MW1AmsD-20140123		1115	G	Water		X	X		
WG-1620-MW22B-20140123		1220	G	Water		X	X		
WG-1620-MW22A-20140123		1400	G	Water		X	X		
WG-1620-MW-24AR-20140123		1505	G	Water		X	X		
WG-1620-MW-67B-20140123		1630	G	Water		X	X		
WG-1620-MW-67BNS-20140123		1630	G	Water		X	X		



Possible Hazard Identification
 Non-Hazard Flammable Skin Irritant Poison B Unknown Radiological
 Deliverable Requested: I, II, III, IV, Other (specify)
 Special Instructions/QC Requirements:

Empty Kit Relinquished by: _____ Date: _____
 Relinquished by: _____ Date/Time: _____ Company: _____
 Relinquished by: _____ Date/Time: _____ Company: _____

Received by: _____ Date/Time: _____ Company: _____
 Received by: _____ Date/Time: _____ Company: _____

Custody Seals Intact: Yes No
 Custody Seal No.: _____
 Method of Shipment: _____
 Date/Time: 1-24-14 12:25
 Date/Time: 1-24-14 12:25
 Date/Time: 1-24-14 12:25
 Company: PRM
 Company: PRM
 Company: TRC

Chain of Custody Record

Client Information
 Client Contact: Mr. Eric Matzner
 Company: Pastor, Behling & Wheeler, LLC
 Address: 2201 Double Creek Dr. Suite 4004
 City: Round Rock
 State, Zip: TX, 78664
 Phone: 512-671-3434 (Tel) 512-671-3446 (Fax)
 Email: eric.matzner@pbwllc.com
 Project Name: 1620 UPRR HWPW
 Site: S50W#

Sampler: **JOHN BRAYDON**
 Phone: **512-671-3434**
 Lab P/N: Kuchchadkar, Sachin G
 E-Mail: sachin.kuchchadkar@testamerica.com
 Carrier Tracking No(s):
 COC No: 600-25645-9048 10
 Page 2 of 2
 Job #:

Due Date Requested:
 TAT Requested (days):
 PO #:
 Purchase Order not required
 Project #: 60003722
 Analysis Requested:
 Preservation Codes:
 A - HCL
 B - NaOH
 C - Zn Acetate
 D - Nitric Acid
 E - NaHSO4
 F - MeOH
 G - Amnlior
 H - Ascorbic Acid
 I - Ice
 J - DI Water
 K - EDTA
 L - BDA
 M - Hexane
 N - None
 O - Asn902
 P - Na2OAS
 Q - Na2SO3
 R - Na2S2O3
 S - H2SO4
 T - TSP Dodecylhydrate
 U - Acetone
 V - MCAA
 W - pn 4-5
 Z - other (specify)
 Other:

Sample Identification	Sample Date	Sample Time	Sample Type (G=Comp, G=grab)	Matrix (Water, Spent, Amnlior, etc.)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	Analysis Requested	Total Number of containers	Special Instructions/Note:
WG-1620-MW67BMSD-20140123	1-23-14	1630	G	Water	X	8260B_LL - (MOD) 8260B- Volatiles			
WG-1620-MW333A-20140123	1-23-14	1730	G	Water	X	8270C_LL - (MOD) 8270C			
WG-1620-FB8-20140123	1-24-14	1745	G	Water	X	VINYL CHLORIDE			
WG-1620-MW35A-20140124	1-24-14	0740	G	Water	X				
WG-1620-MW35B-20140124	1-24-14	0835	G	Water	X				
WG-1620-MW71B-20140124	1-24-14	0935	G	Water	X				
WG-1620-MW27C-20140124	1-24-14	1040	G	Water	X				
WG-1620-MW69F-20140124	1-24-14	1140	G	Water	X				
WG-1620-FB9-20140124	1-24-14	1150	G	Water	X				
WG-1620-TB4-20140124	1-24-14		G	Water	X				

Possible Hazard Identification
 Non-Hazard Flammable Skin Irritant Poison B Unknown Radiological

Deliverable Requested: I, II, III, IV, Other (specify):
 Special Instructions/QC Requirements:
 Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
 Return To Client Disposal By Lab Archive For _____ Months

Empty Kit Relinquished by: _____ Date: _____ Method of Shipment: _____
 Relinquished by: **Eric Matzner** Date/Time: **1-24-14 12:29** Company: **PBW**
 Relinquished by: _____ Date/Time: _____ Company: _____
 Relinquished by: _____ Date/Time: _____ Company: _____
 Custody Seals Intact: Yes No
 Custody Seal No.: _____
 Received by: **John Braydon** Date/Time: **1-27-14 12:29** Company: **TAC**
 Received by: _____ Date/Time: _____ Company: _____
 Received by: _____ Date/Time: _____ Company: _____
 Other: _____

Login Sample Receipt Checklist

Client: Pastor, Behling & Wheeler LLC

Job Number: 600-86091-1

Login Number: 86091

List Source: TestAmerica Houston

List Number: 1

Creator: Sundquist, Sean V

Question	Answer	Comment
Radioactivity wasn't checked or is <=/ background as measured by a survey meter.	False	Lab does not accept radioactive samples.
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	True	



Login Sample Receipt Checklist

Client: Pastor, Behling & Wheeler LLC

Job Number: 600-86091-1

Login Number: 86091

List Number: 1

Creator: Armstrong, Daniel

List Source: TestAmerica Nashville

List Creation: 01/28/14 02:23 PM

Question	Answer	Comment
Radioactivity wasn't checked or is <=/ background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	1.8C
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Houston
6310 Rothway Street
Houston, TX 77040
Tel: (713)690-4444

TestAmerica Job ID: 600-86398-1

Client Project/Site: 1620 UPRR HWPW

For:

Pastor, Behling & Wheeler LLC
2201 Double Creek Dr
Suite 4004
Round Rock, Texas 78664

Attn: Mr. Eric Matzner



Authorized for release by:

2/14/2014 4:03:07 PM

Sophia Shah, Project Management Assistant I

sophia.shah@testamericainc.com

Designee for

Sachin Kudchadkar, Senior Project Manager

(713)690-4444

sachin.kudchadkar@testamericainc.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15
- 16



Table of Contents

Cover Page	1
Table of Contents	2
TRRP Checklists & DCSs	3
Case Narrative	12
Method Summary	13
Sample Summary	14
Client Sample Results	15
Definitions/Glossary	27
Surrogate Summary	28
QC Sample Results	30
Default Detection Limits	36
QC Association Summary	37
Lab Chronicle	39
Certification Summary	42
Chain of Custody	43
Receipt Checklists	44

Appendix A

Laboratory Data Package Cover Page - Page 1 of 4

This data package is for TestAmerica Houston job number 600-86398-1 and consists of:

- R1 - Field chain-of-custody documentation;
- R2 - Sample identification cross-reference;
- R3 - Test reports (analytical data sheets) for each environmental sample that includes:
 - a. Items consistent with NELAC Chapter 5,
 - b. dilution factors,
 - c. preparation methods,
 - d. cleanup methods, and
 - e. if required for the project, tentatively identified compounds (TICs).
- R4 - Surrogate recovery data including:
 - a. Calculated recovery (%R), and
 - b. The laboratory's surrogate QC limits.
- R5 - Test reports/summary forms for blank samples;
- R6 - Test reports/summary forms for laboratory control samples (LCSs) including:
 - a. LCS spiking amounts,
 - b. Calculated %R for each analyte, and
 - c. The laboratory's LCS QC limits.
- R7 - Test reports for project matrix spike/matrix spike duplicates (MS/MSDs) including:
 - a. Samples associated with the MS/MSD clearly identified,
 - b. MS/MSD spiking amounts,
 - c. Concentration of each MS/MSD analyte measured in the parent and spiked samples,
 - d. Calculated %Rs and relative percent differences (RPDs), and
 - e. The laboratory's MS/MSD QC limits
- R8 - Laboratory analytical duplicate (if applicable) recovery and precision:
 - a. The amount of analyte measured in the duplicate,
 - b. The calculated RPD, and
 - c. The laboratory's QC limits for analytical duplicates.
- R9 - List of method quantitation limits (MQLs) and detectability check sample results for each analyte for each method and matrix.
- R10 - Other problems or anomalies.

The Exception Report for each "No" or "Not Reviewed (NR)" item in Laboratory Review Checklist and for each analyte, matrix, and method for which the laboratory does not hold NELAC accreditation under the Texas Laboratory Accreditation Program.

Release Statement: I am responsible for the release of this laboratory data package. This laboratory is NELAC accredited under the Texas Laboratory Accreditation Program for all the methods, analytes, and matrices reported in this data package except as noted in the Exception Reports. The data have been reviewed and are technically compliant with the requirements of the methods used, except where noted by the laboratory in the Exception Reports. By my signature below, I affirm to the best of my knowledge all problems/anomalies observed by the laboratory have been identified in the Laboratory Review Checklist, and no information affecting the quality of the data has been knowingly withheld.

Sophia Shah
Name (printed)



Signature

2/14/2014
Date

Project Management Assitant
Official Title (printed)

Laboratory Review Checklist: Reportable Data - Page 2 of 4

Laboratory Name:	TestAmerica Houston	LRC Date:	2/12/2014
Project Name:	1620 UPRR HWPW	Laboratory Job Number:	600-86398-1
Reviewer Name:	Sachin G Kudchadkar		

# ¹	A ²	Description	Yes	No	NA ³	NR ⁴	ER# ⁵
R1	OI	Chain-of-custody (C-O-C)					
		Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?	X				
		Were all departures from standard conditions described in an exception report?	X				
R2	OI	Sample and quality control (QC) identification					
		Are all field sample ID numbers cross-referenced to the laboratory ID numbers?	X				
		Are all laboratory ID numbers cross-referenced to the corresponding QC data?	X				
R3	OI	Test reports					
		Were all samples prepared and analyzed within holding times?	X				
		Other than those results < MQL, were all other raw values bracketed by calibration standards?	X				
		Were calculations checked by a peer or supervisor?	X				
		Were all analyte identifications checked by a peer or supervisor?	X				
		Were sample detection limits reported for all analytes not detected?	X				
		Were all results for soil and sediment samples reported on a dry weight basis?				X	
		Were % moisture (or solids) reported for all soil and sediment samples?				X	
		Were bulk soils/solids samples for volatile analysis extracted with methanol per SW846 Method 5035?				X	
		If required for the project, are TICs reported?				X	
R4	O	Surrogate recovery data					
		Were surrogates added prior to extraction?	X				
		Were surrogate percent recoveries in all samples within the laboratory QC limits?		X			R04B
R5	OI	Test reports/summary forms for blank samples					
		Were appropriate type(s) of blanks analyzed?	X				
		Were blanks analyzed at the appropriate frequency?	X				
		Were method blanks taken through the entire analytical process, including preparation and, if applicable, cleanup procedures?	X				
		Were blank concentrations < MQL?	X				
R6	OI	Laboratory control samples (LCS):					
		Were all COCs included in the LCS?	X				
		Was each LCS taken through the entire analytical procedure, including prep and cleanup steps?	X				
		Were LCSs analyzed at the required frequency?	X				
		Were LCS (and LCSD, if applicable) %Rs within the laboratory QC limits?	X				
		Does the detectability check sample data document the laboratory's capability to detect the COCs at the MDL used to calculate the SDLs?	X				
		Was the LCSD RPD within QC limits?				X	
R7	OI	Matrix spike (MS) and matrix spike duplicate (MSD) data					
		Were the project/method specified analytes included in the MS and MSD?	X				
		Were MS/MSD analyzed at the appropriate frequency?	X				
		Were MS (and MSD, if applicable) %Rs within the laboratory QC limits?		X			R07C
		Were MS/MSD RPDs within laboratory QC limits?		X			R07D
R8	OI	Analytical duplicate data					
		Were appropriate analytical duplicates analyzed for each matrix?				X	
		Were analytical duplicates analyzed at the appropriate frequency?				X	
		Were RPDs or relative standard deviations within the laboratory QC limits?				X	
R9	OI	Method quantitation limits (MQLs):					
		Are the MQLs for each method analyte included in the laboratory data package?	X				
		Do the MQLs correspond to the concentration of the lowest non-zero calibration standard?	X				
		Are unadjusted MQLs and DCSs included in the laboratory data package?	X				
R10	OI	Other problems/anomalies					
		Are all known problems/anomalies/special conditions noted in this LRC and ER?	X				
		Was applicable and available technology used to lower the SDL to minimize the matrix interference effects on the sample results?		X			R10B
		Is the laboratory NELAC-accredited under the Texas Laboratory Accreditation Program for the analytes, matrices and methods associated with this laboratory data package?	X				

- Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.
- O = organic analyses; I = inorganic analyses (and general chemistry, when applicable);
- NA = Not applicable;
- NR = Not reviewed;
- ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

Laboratory Review checklist: Supporting Data - Page 3 of 4

Laboratory Name:	TestAmerica Houston	LRC Date:	2/12/2014
Project Name:	1620 UPRR HWPW	Laboratory Job Number:	600-86398-1
Reviewer Name:	Sachin G Kudchadkar		

# ¹	A ²	Description	Yes	No	NA ³	NR ⁴	ER# ⁵
S1	OI	Initial calibration (ICAL)					
		Were response factors and/or relative response factors for each analyte within QC limits?	X				
		Were percent RSDs or correlation coefficient criteria met?	X				
		Was the number of standards recommended in the method used for all analytes?	X				
		Were all points generated between the lowest and highest standard used to calculate the curve?	X				
		Are ICAL data available for all instruments used?	X				
		Has the initial calibration curve been verified using an appropriate second source standard?	X				
S2	OI	Initial and continuing calibration verification (ICV and CCV) and continuing calibration blank (CCB):					
		Was the CCV analyzed at the method-required frequency?	X				
		Were percent differences for each analyte within the method-required QC limits?	X				
		Was the ICAL curve verified for each analyte?			X		
		Was the absolute value of the analyte concentration in the inorganic CCB < MDL?			X		
S3	O	Mass spectral tuning					
		Was the appropriate compound for the method used for tuning?	X				
		Were ion abundance data within the method-required QC limits?	X				
S4	O	Internal standards (IS)					
		Were IS area counts and retention times within the method-required QC limits?	X				
S5	OI	Raw data (NELAC Section 5.5.10)					
		Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?	X				
		Were data associated with manual integrations flagged on the raw data?	X				
S6	O	Dual column confirmation					
		Did dual column confirmation results meet the method-required QC?			X		
S7	O	Tentatively identified compounds (TICs)					
		If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?			X		
S8	I	Interference Check Sample (ICS) results					
		Were percent recoveries within method QC limits?			X		
S9	I	Serial dilutions, post digestion spikes, and method of standard additions					
		Were percent differences, recoveries, and the linearity within the QC limits specified in the method?			X		
S10	OI	Method detection limit (MDL) studies					
		Was a MDL study performed for each reported analyte?	X				
		Is the MDL either adjusted or supported by the analysis of DCSS?	X				
S11	OI	Proficiency test reports					
		Was the laboratory's performance acceptable on the applicable proficiency tests or evaluation studies?	X				
S12	OI	Standards documentation					
		Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?	X				
S13	OI	Compound/analyte identification procedures					
		Are the procedures for compound/analyte identification documented?	X				
S14	OI	Demonstration of analyst competency (DOC)					
		Was DOC conducted consistent with NELAC Chapter 5?	X				
		Is documentation of the analyst's competency up-to-date and on file?	X				
S15	OI	Verification/validation documentation for methods (NELAC Chapter 5)					
		Are all the methods used to generate the data documented, verified, and validated, where applicable?	X				
S16	OI	Laboratory standard operating procedures (SOPs)					
		Are laboratory SOPs current and on file for each method performed?	X				
<p>1. Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.</p> <p>2. O = organic analyses; I = inorganic analyses (and general chemistry, when applicable);</p> <p>3. NA = Not applicable;</p> <p>4. NR = Not reviewed;</p> <p>5. ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).</p>							

Laboratory Review Checklist: Exception Reports - Page 4 of 4

Laboratory Name:	TestAmerica Houston	LRC Date:	2/12/2014
Project Name:	1620 UPRR HWPW	Laboratory Job Number:	600-86398-1
Reviewer Name:	Sachin G Kudchadkar		

ER # ¹	Description
R04B	<p>Method 8270C LL: Surrogate recovery for the following sample was outside control limits: 600-86398-3. Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.</p> <p>Method 8270C LL: The following samples required a dilution due to the nature of the sample matrix: 600-86398-6 and 600-86398-7. Because of this dilution, the surrogate spike concentration in the sample was reduced to a level where the recovery calculation does not provide useful information.</p>
R07C	Method 8270C LL: The matrix spike / matrix spike duplicate (MS/MSD) precision for batch 126395 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recoveries was within acceptance limits.
R07D	Method 8270C LL: 600-86398-9 MSD failed the RPD criteria for the following analyte(s): 1,2-Diphenylhydrazine, 2,4-Dimethylphenol, 2,6-Dinitrotoluene, 2-Chloronaphthalene, 2-Methylnaphthalene, 4,6-Dinitro-2-methylphenol, Acenaphthene, Acenaphthylene, Anthracene, Benzo[a]anthracene, Bis(2-chloroethoxy)methane, Bis(2-ethylhexyl) phthalate, Chrysene, Di-n-butyl phthalate, Fluoranthene, Fluorene, N-Nitrosodiphenylamine, Naphthalene, Nitrobenzene, Phenanthrene, Phenol, Pyrene. Matrix interference is suspected.
R10B	Method 8260B: The following sample(s) was diluted due to the nature of the sample matrix: 600-86398-6 and 600-86398-7. Elevated reporting limits (RLs) are provided. The non-target compound naphthalene has high concentraion in the sample.
	<ol style="list-style-type: none"> Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period. O = organic analyses; I = inorganic analyses (and general chemistry, when applicable); NA = Not applicable; NR = Not reviewed; ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

Detection Check Standard

Matrix: Solid
Method: 8260B
Preparation: Wei Shen
Date Analyzed: 10/16/2013
Date Prepared: 10/16/2013
TALs Batches: 118344
Units: ug/Kg

Analyte	MDL	DCS Spike	Measured Result	MQL
1,1,1,2-Tetrachloroethane	1.4	5	4.8	5
1,1,1-Trichloroethane	0.74	5	3.9	5
1,1,2,2-Tetrachloroethane	0.87	5	4.4	5
1,1,2-Trichloro-1,2,2-trifluoroethane	1.44	5	4.3	5
1,1,2-Trichloroethane	0.73	5	4.3	5
1,1-Dichloroethane	0.87	5	8.7	5
1,1-Dichloroethene	1.22	5	9.1	5
1,1-Dichloropropene	0.65	5	3.4	5
1,2 Dichloroethene, Total	1.9	10	19	10
1,2,3-Trichlorobenzene	0.62	5	4.3	5
1,2,3-Trichloropropane	1.31	5	5.3	5
1,2,3-Trimethylbenzene	1.8	5	5.3	5
1,2,4-Trichlorobenzene	1.97	5	4.3	5
1,2,4-Trimethylbenzene	0.92	5	5.2	5
1,2-Dibromo-3-chloropropane	2.44	5	5.6	10
1,2-Dibromoethane (EDB)	1.02	5	4.4	5
1,2-Dichlorobenzene	0.8	5	4.2	5
1,2-Dichloroethane	0.9	5	5.1	5
1,2-Dichloropropane	0.71	5	4.8	5
1,3,5-Trichlorobenzene	5	5	4.1	5
1,3,5-Trimethylbenzene	1.6	5	5.2	5
1,3-Dichlorobenzene	0.71	5	7.9	5
1,3-Dichloropropane	0.63	5	4.3	5
1,3-Dichloropropane, Total	0.58	10	9.3	5
1,4-Dichlorobenzene	0.66	5	5.6	5
1,4-Dioxane	62.07	100	120	500
2,2-Dichloropropane	1.82	5	9.4	5
2-Butanone (MEK)	1.9	10	9.3	10
2-Chloro-1,3-butadiene	2.71	5	5.4	10
2-Chloroethyl vinyl ether	0.98	10	8	10
2-Chlorotoluene	0.68	5	7.9	5
2-Hexanone	1.01	10	10.8	10
4-Chlorotoluene	0.83	5	5.3	5
4-Isopropyltoluene	1.02	10	9.1	5
4-Methyl-2-pentanone	1.47	10	10.2	10
Acetone	1.66	10	6.5	10
Acetonitrile	1.39	10	49	10
Acrylonitrile	5.82	50	86	25
Allyl chloride (3-Chloro-1-propene)	1.39	5	8.9	5

Detection Check Standard

Matrix: Solid
Method: 8260B
Preparation: Wei Shen
Date Analyzed: 10/16/2013
Date Prepared: 10/16/2013
TALs Batches: 118344
Units: ug/Kg

Analyte	MDL	DCS Spike	Measured Result	MQL
Benzene	0.63	5	8.6	5
Bromoform	1.37	5	4.3	5
Bromomethane	1.78	5	5.2	10
Carbon Disulfide	0.55	10	9.2	5
Carbon Tetrachloride	1.13	5	4.3	5
Chlorobenzene	0.96	5	8	5
Chlorobromomethane	1.78	5	5.2	5
Chlorodibromomethane	0.94	5	4.4	5
Chloroethane	1.4	5	5.5	10
Chloroform	5.74	5	9.8	5
Chloromethane	1.66	5	5.8	10
cis-1,2-Dichloroethene	0.83	5	9.8	5
cis-1,3-Dichloropropene	0.54	5	5	5
Dibromomethane	0.75	5	4.9	5
Dichlorobromomethane	0.66	5	4.2	5
Dichlorodifluoromethane	1.54	5	4.3	5
Ethyl methacrylate	1.66	5	4.4	5
Ethylbenzene	1.02	5	4.9	5
Hexachlorobutadiene	1.13	5	9	5
Isobutyl alcohol	17.2	50	49	50
Isopropylbenzene	0.92	5	4.9	5
Methacrylonitrile	5	5	0.88	10
Methyl Iodide	2.5	5	8.5	10
Methyl methacrylate	2.86	10	21.9	10
Methyl tert-butyl ether	1.83	5	4.8	5
Methylcyclohexane	1.5	5	4.2	5
Methylene Chloride	2.19	5	7.8	10
m-Xylene & P-Xylene	1.52	5	4.5	10
Naphthalene	2.37	5	4.5	10
n-Butyl acetate	2.4	5	5.3	10
n-Butylbenzene	0.58	5	8.5	5
n-Propylbenzene	0.95	5	5.2	5
o-Xylene	1.13	5	7.8	5
Pentachloroethane	5	5	1.47	5
Propionaldehyde	64	5	4.9	100
Propionitrile	2.36	5	70	10
sec-Butylbenzene	0.7	5	8.6	5
Styrene	0.71	5	8.3	5
tert-Butylbenzene	0.95	5	5	5

Detection Check Standard

Matrix: Solid
Method: 8260B
Preparation: Wei Shen
Date Analyzed: 10/16/2013
Date Prepared: 10/16/2013
TALs Batches: 118344
Units: ug/Kg

Analyte	MDL	DCS Spike	Measured Result	MQL
Tetrachloroethene	1.4	5	4.7	5
Toluene	1.38	5	4.6	5
trans-1,2-Dichloroethene	1.14	5	9.2	5
trans-1,3-Dichloropropene	0.58	5	4.3	5
trans-1,4-Dichloro-2-butene	1.9	5	5	10
Trichloroethene	1.4	5	4.4	5
Trichlorofluoromethane	0.66	5	5.6	5
Trichlorotrifluoroethane	1.44	5	5.6	5
Vinyl Acetate	0.93	5	7.6	10
Vinyl Chloride	0.9	5	4.8	10
Xylenes (total)	1.13	5	12	5

Matrix: Water
Method: 8270C_LL
Prep Method: 3510C_LL
Date Analyzed: 1/14/2014
Job #: 600-85250
TALS Batch: 124915
Units: ug/L

Analyte	MDL	DCS Spike	Measured Result	MQL
1,1'-Biphenyl	0.100	0.250	0.169	1
1,2,4,5-Tetrachlorobenzene	0.100	0.250	0.177	1.5
1,2,4-Trichlorobenzene	0.120	0.250	0.175	2
1,2-Dichlorobenzene	0.170	0.250	0.169	1.75
1,2-Dinitrobenzene	0.500	0.500	0.518	5
1,2-Diphenylhydrazine	0.110	0.250	0.145	2
1,3-Dichlorobenzene	0.170	0.250	0.156	1.5
1,3-Dinitrobenzene	0.080	0.500	0.432	1
1,4-Dichlorobenzene	0.130	0.250	0.185	2
1-Methylnaphthalene	0.090	0.250	0.194	2
2,2'-oxybis[1-chloropropane]	0.400	0.250	0.107	1.5
2,3,4,6-Tetrachlorophenol	0.500	0.250	0.506	1
2,4,5-Trichlorophenol	0.250	0.250	0.099	2
2,4,6-Trichlorophenol	0.180	0.250	0.118	2
2,4-Dichlorophenol	0.150	0.250	0.110	2.5
2,4-Dimethylphenol	0.310	0.250	0.088	2.5
2,4-Dinitrophenol	0.390	2.000	3.540	5
2,4-Dinitrotoluene	0.130	0.250	0.509	1.5
2,6-Dinitrotoluene	0.080	0.250	0.359	1
2-Chloronaphthalene	0.080	0.500	0.481	1.5
2-Chlorophenol	0.130	0.250	0.159	2
2-Methylnaphthalene	0.070	0.250	0.183	1.5
2-Methylphenol	0.120	0.250	0.159	1.5
2-Nitroaniline	0.190	0.250	0.340	2.5
2-Nitrophenol	0.220	0.250	0.479	1
3 & 4 Methylphenol	0.200	0.250	0.134	1
3,3'-Dichlorobenzidine	0.180	0.250	0.254	10
3-Nitroaniline	0.160	0.500	0.199	2.5
4,6-Dinitro-2-methylphenol	0.830	0.500	2.340	2.5
4-Bromophenyl phenyl ether	0.100	0.250	0.094	1.5
4-Chloro-3-methylphenol	0.170	0.250	0.077	1
4-Chloroaniline	0.210	0.250	0.126	1
4-Chlorophenyl phenyl ether	0.100	0.250	0.177	1.5
4-Nitroaniline	0.250	0.250	0.112	2.5
4-Nitrophenol	0.560	1.000	0.272	2.5
Acenaphthene	0.080	0.250	0.169	1
Acenaphthylene	0.060	0.500	0.517	1
Acetophenone	0.150	0.250	0.144	1.5
Aniline	0.080	0.250	0.095	1.5
Anthracene	0.050	0.250	0.171	1
Azobenzene	0.070	0.250	0.136	1.5
Benzidine	0.061	2.500	3.750	10
Benzo[a]anthracene	0.080	0.250	0.173	2
Benzo[a]pyrene	0.080	0.250	0.146	1.5
Benzo[b]fluoranthene	0.070	0.250	0.161	2
Benzo[g,h,i]perylene	0.080	0.250	0.159	2.5

DCS = Detection Check Standard
MQL = Method Quantitation Limit

Matrix: Water
Method: 8270C_LL
Prep Method: 3510C_LL
Date Analyzed: 1/14/2014
Job #: 600-85250
TALS Batch: 124915
Units: ug/L

Analyte	MDL	DCS Spike	Measured Result	MQL
Benzo[k]fluoranthene	0.090	0.250	0.162	2
Benzoic acid	2.510	2.500	5.980	10
Benzyl alcohol	0.170	0.250	0.083	5.5
Bis(2-chloroethoxy)methane	0.130	0.250	0.167	1.5
Bis(2-chloroethyl)ether	0.150	0.250	0.150	1.5
Bis(2-ethylhexyl) phthalate	0.370	0.250	0.445	2.5
Butyl benzyl phthalate	0.120	0.250	0.266	2.5
Caprolactam	1.000	0.500	0.079	1
Carbazole	0.170	0.500	0.480	6.25
Chrysene	0.080	0.250	0.167	1.5
Dibenz(a,h)anthracene	0.080	0.250	0.112	2.5
Dibenzofuran	0.080	0.250	0.159	1.5
Diethyl phthalate	1.500	0.250	0.510	2.5
Dimethyl phthalate	0.070	0.250	0.153	2.5
Di-n-butyl phthalate	0.110	0.250	0.186	2.5
Di-n-octyl phthalate	0.160	0.250	0.441	5
Fluoranthene	0.070	0.250	0.155	2.5
Fluorene	0.070	0.250	0.155	1.5
Hexachlorobenzene	0.110	0.250	0.181	1.5
Hexachlorobutadiene	0.180	0.250	0.187	2
Hexachlorocyclopentadiene	0.130	0.250	0.748	1.5
Hexachloroethane	0.100	0.250	0.169	2
Indeno[1,2,3-cd]pyrene	0.070	0.250	0.417	2
Isophorone	0.110	0.250	0.151	1.5
Methyl Phenols, Total	0.200	0.500	0.160	1
Naphthalene	0.080	0.250	0.808	5
Nitrobenzene	0.110	0.250	0.152	1.5
N-Nitrosodimethylamine	0.260	0.250	0.129	2
N-Nitrosodi-n-propylamine	0.100	0.250	0.151	2.5
Pentachlorophenol	0.610	2.000	0.713	2.5
Phenanthrene	0.060	0.500	0.516	1.5
Phenol	0.040	0.500	0.224	1.5
Pyrene	0.110	0.250	0.169	2
Pyridine	0.040	0.500	0.215	4

Case Narrative

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-86398-1

Job ID: 600-86398-1

Laboratory: TestAmerica Houston

Narrative

Job Narrative
600-86398-1

Comments

No additional comments.

Receipt

The samples were received on 1/31/2014 9:42 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 2 coolers at receipt time were 4.2° C and 5.0° C.

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Method Summary

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-86398-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL HOU
8270C LL	Semivolatile Organic Compounds by GCMS - Low Levels	SW846	TAL HOU

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL HOU = TestAmerica Houston, 6310 Rothway Street, Houston, TX 77040, TEL (713)690-4444



Sample Summary

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-86398-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
600-86398-1	WG-1620-MW64A-20140129	Water	01/29/14 07:50	01/31/14 09:42
600-86398-2	WG-1620-MW62B-20140129	Water	01/29/14 09:00	01/31/14 09:42
600-86398-3	WG-1620-MW58A-20140129	Water	01/29/14 09:50	01/31/14 09:42
600-86398-4	WG-1620-MW51A-20140129	Water	01/29/14 11:10	01/31/14 09:42
600-86398-5	WG-1620-MW50A-20140129	Water	01/29/14 13:05	01/31/14 09:42
600-86398-6	WG-1620-MW75B-20140129	Water	01/29/14 14:00	01/31/14 09:42
600-86398-7	WG-1620-MW74B-20140129	Water	01/29/14 15:00	01/31/14 09:42
600-86398-8	WG-1620-MW66D-20140129	Water	01/29/14 16:25	01/31/14 09:42
600-86398-9	WG-1620-FB10-20140129	Water	01/29/14 16:45	01/31/14 09:42
600-86398-10	WG-1620-TB-20140129	Water	01/29/14 00:00	01/31/14 09:42



Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-86398-1

Client Sample ID: WG-1620-MW64A-20140129

Lab Sample ID: 600-86398-1

Date Collected: 01/29/14 07:50

Matrix: Water

Date Received: 01/31/14 09:42

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			02/06/14 17:22	1
Benzene	0.000154	J	0.00100	0.0000800	mg/L			02/06/14 17:22	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			02/06/14 17:22	1
Toluene	0.000150	U	0.00100	0.000150	mg/L			02/06/14 17:22	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			02/06/14 17:22	1
Ethylbenzene	0.000110	U	0.00100	0.000110	mg/L			02/06/14 17:22	1
Xylenes, Total	0.000260	U	0.00300	0.000260	mg/L			02/06/14 17:22	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>4-Bromofluorobenzene</i>	92		67 - 139					02/06/14 17:22	1
<i>Dibromofluoromethane</i>	107		62 - 130					02/06/14 17:22	1
<i>Toluene-d8 (Surr)</i>	103		70 - 130					02/06/14 17:22	1
<i>1,2-Dichloroethane-d4 (Surr)</i>	98		50 - 134					02/06/14 17:22	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.0000377	U	0.000472	0.0000377	mg/L		02/03/14 07:31	02/04/14 06:21	1
Nitrobenzene	0.000104	U	0.000472	0.000104	mg/L		02/03/14 07:31	02/04/14 06:21	1
2,4-Dimethylphenol	0.000292	U	0.000472	0.000292	mg/L		02/03/14 07:31	02/04/14 06:21	1
Bis(2-chloroethoxy)methane	0.000123	U	0.000472	0.000123	mg/L		02/03/14 07:31	02/04/14 06:21	1
Naphthalene	0.0000755	U	0.000472	0.0000755	mg/L		02/03/14 07:31	02/04/14 06:21	1
2-Methylnaphthalene	0.0000660	U	0.000472	0.0000660	mg/L		02/03/14 07:31	02/04/14 06:21	1
2-Chloronaphthalene	0.0000755	U	0.000472	0.0000755	mg/L		02/03/14 07:31	02/04/14 06:21	1
Acenaphthylene	0.0000566	U	0.000472	0.0000566	mg/L		02/03/14 07:31	02/04/14 06:21	1
2,6-Dinitrotoluene	0.0000755	U	0.000472	0.0000755	mg/L		02/03/14 07:31	02/04/14 06:21	1
Acenaphthene	0.0000755	U	0.000472	0.0000755	mg/L		02/03/14 07:31	02/04/14 06:21	1
4-Nitrophenol	0.000528	U	0.000943	0.000528	mg/L		02/03/14 07:31	02/04/14 06:21	1
Dibenzofuran	0.0000755	U	0.000472	0.0000755	mg/L		02/03/14 07:31	02/04/14 06:21	1
2,4-Dinitrotoluene	0.000123	U	0.000472	0.000123	mg/L		02/03/14 07:31	02/04/14 06:21	1
Fluorene	0.0000660	U	0.000472	0.0000660	mg/L		02/03/14 07:31	02/04/14 06:21	1
4,6-Dinitro-2-methylphenol	0.000783	U	0.000943	0.000783	mg/L		02/03/14 07:31	02/04/14 06:21	1
N-Nitrosodiphenylamine	0.0000943	U	0.000472	0.0000943	mg/L		02/03/14 07:31	02/04/14 06:21	1
1,2-Diphenylhydrazine	0.000104	U	0.000472	0.000104	mg/L		02/03/14 07:31	02/04/14 06:21	1
Pentachlorophenol	0.000575	U	0.000943	0.000575	mg/L		02/03/14 07:31	02/04/14 06:21	1
Phenanthrene	0.0000566	U	0.000472	0.0000566	mg/L		02/03/14 07:31	02/04/14 06:21	1
Anthracene	0.0000472	U	0.000472	0.0000472	mg/L		02/03/14 07:31	02/04/14 06:21	1
Di-n-butyl phthalate	0.000117	J	0.000472	0.000104	mg/L		02/03/14 07:31	02/04/14 06:21	1
Fluoranthene	0.0000660	U	0.000472	0.0000660	mg/L		02/03/14 07:31	02/04/14 06:21	1
Pyrene	0.000104	U	0.000472	0.000104	mg/L		02/03/14 07:31	02/04/14 06:21	1
Benzo[a]anthracene	0.0000755	U	0.000472	0.0000755	mg/L		02/03/14 07:31	02/04/14 06:21	1
Bis(2-ethylhexyl) phthalate	0.000349	U	0.000472	0.000349	mg/L		02/03/14 07:31	02/04/14 06:21	1
Chrysene	0.0000755	U	0.000472	0.0000755	mg/L		02/03/14 07:31	02/04/14 06:21	1
Benzo[a]pyrene	0.0000755	U	0.000472	0.0000755	mg/L		02/03/14 07:31	02/04/14 06:21	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>2,4,6-Tribromophenol</i>	92		10 - 147				02/03/14 07:31	02/04/14 06:21	1
<i>2-Fluorobiphenyl</i>	78		10 - 150				02/03/14 07:31	02/04/14 06:21	1
<i>2-Fluorophenol</i>	39		10 - 130				02/03/14 07:31	02/04/14 06:21	1
<i>Nitrobenzene-d5</i>	77		23 - 130				02/03/14 07:31	02/04/14 06:21	1
<i>Terphenyl-d14</i>	96		42 - 133				02/03/14 07:31	02/04/14 06:21	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-86398-1

Client Sample ID: WG-1620-MW64A-20140129

Lab Sample ID: 600-86398-1

Date Collected: 01/29/14 07:50

Matrix: Water

Date Received: 01/31/14 09:42

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Phenol-d5 (Surr)	19		10 - 130	02/03/14 07:31	02/04/14 06:21	1

Client Sample ID: WG-1620-MW62B-20140129

Lab Sample ID: 600-86398-2

Date Collected: 01/29/14 09:00

Matrix: Water

Date Received: 01/31/14 09:42

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			02/06/14 17:47	1
Benzene	0.0000800	U	0.00100	0.0000800	mg/L			02/06/14 17:47	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			02/06/14 17:47	1
Toluene	0.000150	U	0.00100	0.000150	mg/L			02/06/14 17:47	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			02/06/14 17:47	1
Ethylbenzene	0.000110	U	0.00100	0.000110	mg/L			02/06/14 17:47	1
Xylenes, Total	0.000260	U	0.00300	0.000260	mg/L			02/06/14 17:47	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	95		67 - 139		02/06/14 17:47	1
Dibromofluoromethane	113		62 - 130		02/06/14 17:47	1
Toluene-d8 (Surr)	106		70 - 130		02/06/14 17:47	1
1,2-Dichloroethane-d4 (Surr)	102		50 - 134		02/06/14 17:47	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.0000377	U	0.000472	0.0000377	mg/L		02/03/14 07:31	02/04/14 06:47	1
Nitrobenzene	0.000104	U	0.000472	0.000104	mg/L		02/03/14 07:31	02/04/14 06:47	1
2,4-Dimethylphenol	0.000292	U	0.000472	0.000292	mg/L		02/03/14 07:31	02/04/14 06:47	1
Bis(2-chloroethoxy)methane	0.000123	U	0.000472	0.000123	mg/L		02/03/14 07:31	02/04/14 06:47	1
Naphthalene	0.0000755	U	0.000472	0.0000755	mg/L		02/03/14 07:31	02/04/14 06:47	1
2-Methylnaphthalene	0.0000660	U	0.000472	0.0000660	mg/L		02/03/14 07:31	02/04/14 06:47	1
2-Chloronaphthalene	0.0000755	U	0.000472	0.0000755	mg/L		02/03/14 07:31	02/04/14 06:47	1
Acenaphthylene	0.0000566	U	0.000472	0.0000566	mg/L		02/03/14 07:31	02/04/14 06:47	1
2,6-Dinitrotoluene	0.0000755	U	0.000472	0.0000755	mg/L		02/03/14 07:31	02/04/14 06:47	1
Acenaphthene	0.0000755	U	0.000472	0.0000755	mg/L		02/03/14 07:31	02/04/14 06:47	1
4-Nitrophenol	0.000528	U	0.000943	0.000528	mg/L		02/03/14 07:31	02/04/14 06:47	1
Dibenzofuran	0.0000755	U	0.000472	0.0000755	mg/L		02/03/14 07:31	02/04/14 06:47	1
2,4-Dinitrotoluene	0.000123	U	0.000472	0.000123	mg/L		02/03/14 07:31	02/04/14 06:47	1
Fluorene	0.0000660	U	0.000472	0.0000660	mg/L		02/03/14 07:31	02/04/14 06:47	1
4,6-Dinitro-2-methylphenol	0.000783	U	0.000943	0.000783	mg/L		02/03/14 07:31	02/04/14 06:47	1
N-Nitrosodiphenylamine	0.0000943	U	0.000472	0.0000943	mg/L		02/03/14 07:31	02/04/14 06:47	1
1,2-Diphenylhydrazine	0.000104	U	0.000472	0.000104	mg/L		02/03/14 07:31	02/04/14 06:47	1
Pentachlorophenol	0.000575	U	0.000943	0.000575	mg/L		02/03/14 07:31	02/04/14 06:47	1
Phenanthrene	0.0000566	U	0.000472	0.0000566	mg/L		02/03/14 07:31	02/04/14 06:47	1
Anthracene	0.0000472	U	0.000472	0.0000472	mg/L		02/03/14 07:31	02/04/14 06:47	1
Di-n-butyl phthalate	0.000104	U	0.000472	0.000104	mg/L		02/03/14 07:31	02/04/14 06:47	1
Fluoranthene	0.0000660	U	0.000472	0.0000660	mg/L		02/03/14 07:31	02/04/14 06:47	1
Pyrene	0.000104	U	0.000472	0.000104	mg/L		02/03/14 07:31	02/04/14 06:47	1
Benzo[a]anthracene	0.0000755	U	0.000472	0.0000755	mg/L		02/03/14 07:31	02/04/14 06:47	1
Bis(2-ethylhexyl) phthalate	0.000349	U	0.000472	0.000349	mg/L		02/03/14 07:31	02/04/14 06:47	1
Chrysene	0.0000755	U	0.000472	0.0000755	mg/L		02/03/14 07:31	02/04/14 06:47	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-86398-1

Client Sample ID: WG-1620-MW62B-20140129

Lab Sample ID: 600-86398-2

Date Collected: 01/29/14 09:00

Matrix: Water

Date Received: 01/31/14 09:42

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]pyrene	0.0000755	U	0.000472	0.0000755	mg/L		02/03/14 07:31	02/04/14 06:47	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	89		10 - 147				02/03/14 07:31	02/04/14 06:47	1
2-Fluorobiphenyl	73		10 - 150				02/03/14 07:31	02/04/14 06:47	1
2-Fluorophenol	34		10 - 130				02/03/14 07:31	02/04/14 06:47	1
Nitrobenzene-d5	65		23 - 130				02/03/14 07:31	02/04/14 06:47	1
Terphenyl-d14	92		42 - 133				02/03/14 07:31	02/04/14 06:47	1
Phenol-d5 (Surr)	16		10 - 130				02/03/14 07:31	02/04/14 06:47	1

Client Sample ID: WG-1620-MW58A-20140129

Lab Sample ID: 600-86398-3

Date Collected: 01/29/14 09:50

Matrix: Water

Date Received: 01/31/14 09:42

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	0.000110	U	0.00200	0.000110	mg/L			02/06/14 18:12	1
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			02/06/14 18:12	1
Benzene	0.0000800	U	0.00100	0.0000800	mg/L			02/06/14 18:12	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			02/06/14 18:12	1
Toluene	0.000150	U	0.00100	0.000150	mg/L			02/06/14 18:12	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			02/06/14 18:12	1
Ethylbenzene	0.000110	U	0.00100	0.000110	mg/L			02/06/14 18:12	1
Xylenes, Total	0.000260	U	0.00300	0.000260	mg/L			02/06/14 18:12	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	90		67 - 139					02/06/14 18:12	1
Dibromofluoromethane	106		62 - 130					02/06/14 18:12	1
Toluene-d8 (Surr)	101		70 - 130					02/06/14 18:12	1
1,2-Dichloroethane-d4 (Surr)	95		50 - 134					02/06/14 18:12	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.0000377	U	0.000472	0.0000377	mg/L		02/03/14 07:31	02/04/14 07:14	1
Nitrobenzene	0.000104	U	0.000472	0.000104	mg/L		02/03/14 07:31	02/04/14 07:14	1
2,4-Dimethylphenol	0.000292	U	0.000472	0.000292	mg/L		02/03/14 07:31	02/04/14 07:14	1
Bis(2-chloroethoxy)methane	0.000123	U	0.000472	0.000123	mg/L		02/03/14 07:31	02/04/14 07:14	1
Naphthalene	0.0000755	U	0.000472	0.0000755	mg/L		02/03/14 07:31	02/04/14 07:14	1
2-Methylnaphthalene	0.0000660	U	0.000472	0.0000660	mg/L		02/03/14 07:31	02/04/14 07:14	1
2-Chloronaphthalene	0.0000755	U	0.000472	0.0000755	mg/L		02/03/14 07:31	02/04/14 07:14	1
Acenaphthylene	0.0000566	U	0.000472	0.0000566	mg/L		02/03/14 07:31	02/04/14 07:14	1
2,6-Dinitrotoluene	0.0000755	U	0.000472	0.0000755	mg/L		02/03/14 07:31	02/04/14 07:14	1
Acenaphthene	0.0000755	U	0.000472	0.0000755	mg/L		02/03/14 07:31	02/04/14 07:14	1
4-Nitrophenol	0.000528	U	0.000943	0.000528	mg/L		02/03/14 07:31	02/04/14 07:14	1
Dibenzofuran	0.0000755	U	0.000472	0.0000755	mg/L		02/03/14 07:31	02/04/14 07:14	1
2,4-Dinitrotoluene	0.000123	U	0.000472	0.000123	mg/L		02/03/14 07:31	02/04/14 07:14	1
Fluorene	0.0000660	U	0.000472	0.0000660	mg/L		02/03/14 07:31	02/04/14 07:14	1
4,6-Dinitro-2-methylphenol	0.000783	U	0.000943	0.000783	mg/L		02/03/14 07:31	02/04/14 07:14	1
N-Nitrosodiphenylamine	0.0000943	U	0.000472	0.0000943	mg/L		02/03/14 07:31	02/04/14 07:14	1
1,2-Diphenylhydrazine	0.000104	U	0.000472	0.000104	mg/L		02/03/14 07:31	02/04/14 07:14	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-86398-1

Client Sample ID: WG-1620-MW58A-20140129

Lab Sample ID: 600-86398-3

Date Collected: 01/29/14 09:50

Matrix: Water

Date Received: 01/31/14 09:42

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Pentachlorophenol	0.000575	U	0.000943	0.000575	mg/L		02/03/14 07:31	02/04/14 07:14	1
Phenanthrene	0.0000566	U	0.000472	0.0000566	mg/L		02/03/14 07:31	02/04/14 07:14	1
Anthracene	0.0000472	U	0.000472	0.0000472	mg/L		02/03/14 07:31	02/04/14 07:14	1
Di-n-butyl phthalate	0.000104	U	0.000472	0.000104	mg/L		02/03/14 07:31	02/04/14 07:14	1
Fluoranthene	0.0000660	U	0.000472	0.0000660	mg/L		02/03/14 07:31	02/04/14 07:14	1
Pyrene	0.000104	U	0.000472	0.000104	mg/L		02/03/14 07:31	02/04/14 07:14	1
Benzo[a]anthracene	0.0000755	U	0.000472	0.0000755	mg/L		02/03/14 07:31	02/04/14 07:14	1
Bis(2-ethylhexyl) phthalate	0.000349	U	0.000472	0.000349	mg/L		02/03/14 07:31	02/04/14 07:14	1
Chrysene	0.0000755	U	0.000472	0.0000755	mg/L		02/03/14 07:31	02/04/14 07:14	1
Benzo[a]pyrene	0.0000755	U	0.000472	0.0000755	mg/L		02/03/14 07:31	02/04/14 07:14	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	100		10 - 147				02/03/14 07:31	02/04/14 07:14	1
2-Fluorobiphenyl	58		10 - 150				02/03/14 07:31	02/04/14 07:14	1
2-Fluorophenol	9	X	10 - 130				02/03/14 07:31	02/04/14 07:14	1
Nitrobenzene-d5	30		23 - 130				02/03/14 07:31	02/04/14 07:14	1
Terphenyl-d14	91		42 - 133				02/03/14 07:31	02/04/14 07:14	1
Phenol-d5 (Surr)	12		10 - 130				02/03/14 07:31	02/04/14 07:14	1

Client Sample ID: WG-1620-MW51A-20140129

Lab Sample ID: 600-86398-4

Date Collected: 01/29/14 11:10

Matrix: Water

Date Received: 01/31/14 09:42

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			02/06/14 19:52	1
Benzene	0.0000800	U	0.00100	0.0000800	mg/L			02/06/14 19:52	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			02/06/14 19:52	1
Toluene	0.000150	U	0.00100	0.000150	mg/L			02/06/14 19:52	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			02/06/14 19:52	1
Ethylbenzene	0.000110	U	0.00100	0.000110	mg/L			02/06/14 19:52	1
Xylenes, Total	0.000260	U	0.00300	0.000260	mg/L			02/06/14 19:52	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	93		67 - 139					02/06/14 19:52	1
Dibromofluoromethane	118		62 - 130					02/06/14 19:52	1
Toluene-d8 (Surr)	114		70 - 130					02/06/14 19:52	1
1,2-Dichloroethane-d4 (Surr)	102		50 - 134					02/06/14 19:52	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.0000377	U	0.000472	0.0000377	mg/L		02/03/14 07:31	02/04/14 07:40	1
Nitrobenzene	0.000104	U	0.000472	0.000104	mg/L		02/03/14 07:31	02/04/14 07:40	1
2,4-Dimethylphenol	0.000292	U	0.000472	0.000292	mg/L		02/03/14 07:31	02/04/14 07:40	1
Bis(2-chloroethoxy)methane	0.000123	U	0.000472	0.000123	mg/L		02/03/14 07:31	02/04/14 07:40	1
Naphthalene	0.000118	J	0.000472	0.0000755	mg/L		02/03/14 07:31	02/04/14 07:40	1
2-Methylnaphthalene	0.0000660	U	0.000472	0.0000660	mg/L		02/03/14 07:31	02/04/14 07:40	1
2-Chloronaphthalene	0.0000755	U	0.000472	0.0000755	mg/L		02/03/14 07:31	02/04/14 07:40	1
Acenaphthylene	0.0000566	U	0.000472	0.0000566	mg/L		02/03/14 07:31	02/04/14 07:40	1
2,6-Dinitrotoluene	0.00292		0.000472	0.0000755	mg/L		02/03/14 07:31	02/04/14 07:40	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-86398-1

Client Sample ID: WG-1620-MW51A-20140129

Lab Sample ID: 600-86398-4

Date Collected: 01/29/14 11:10

Matrix: Water

Date Received: 01/31/14 09:42

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	0.0000755	U	0.000472	0.0000755	mg/L		02/03/14 07:31	02/04/14 07:40	1
4-Nitrophenol	0.000528	U	0.000943	0.000528	mg/L		02/03/14 07:31	02/04/14 07:40	1
Dibenzofuran	0.0000755	U	0.000472	0.0000755	mg/L		02/03/14 07:31	02/04/14 07:40	1
2,4-Dinitrotoluene	0.000123	U	0.000472	0.000123	mg/L		02/03/14 07:31	02/04/14 07:40	1
Fluorene	0.0000660	U	0.000472	0.0000660	mg/L		02/03/14 07:31	02/04/14 07:40	1
4,6-Dinitro-2-methylphenol	0.000783	U	0.000943	0.000783	mg/L		02/03/14 07:31	02/04/14 07:40	1
N-Nitrosodiphenylamine	0.0000943	U	0.000472	0.0000943	mg/L		02/03/14 07:31	02/04/14 07:40	1
1,2-Diphenylhydrazine	0.000104	U	0.000472	0.000104	mg/L		02/03/14 07:31	02/04/14 07:40	1
Pentachlorophenol	0.000575	U	0.000943	0.000575	mg/L		02/03/14 07:31	02/04/14 07:40	1
Phenanthrene	0.0000566	U	0.000472	0.0000566	mg/L		02/03/14 07:31	02/04/14 07:40	1
Anthracene	0.0000472	U	0.000472	0.0000472	mg/L		02/03/14 07:31	02/04/14 07:40	1
Di-n-butyl phthalate	0.000104	U	0.000472	0.000104	mg/L		02/03/14 07:31	02/04/14 07:40	1
Fluoranthene	0.0000660	U	0.000472	0.0000660	mg/L		02/03/14 07:31	02/04/14 07:40	1
Pyrene	0.000104	U	0.000472	0.000104	mg/L		02/03/14 07:31	02/04/14 07:40	1
Benzo[a]anthracene	0.0000755	U	0.000472	0.0000755	mg/L		02/03/14 07:31	02/04/14 07:40	1
Bis(2-ethylhexyl) phthalate	0.00121		0.000472	0.000349	mg/L		02/03/14 07:31	02/04/14 07:40	1
Chrysene	0.0000755	U	0.000472	0.0000755	mg/L		02/03/14 07:31	02/04/14 07:40	1
Benzo[a]pyrene	0.0000755	U	0.000472	0.0000755	mg/L		02/03/14 07:31	02/04/14 07:40	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	42		10 - 147				02/03/14 07:31	02/04/14 07:40	1
2-Fluorobiphenyl	82		10 - 150				02/03/14 07:31	02/04/14 07:40	1
2-Fluorophenol	23		10 - 130				02/03/14 07:31	02/04/14 07:40	1
Nitrobenzene-d5	80		23 - 130				02/03/14 07:31	02/04/14 07:40	1
Terphenyl-d14	95		42 - 133				02/03/14 07:31	02/04/14 07:40	1
Phenol-d5 (Surr)	13		10 - 130				02/03/14 07:31	02/04/14 07:40	1

Client Sample ID: WG-1620-MW50A-20140129

Lab Sample ID: 600-86398-5

Date Collected: 01/29/14 13:05

Matrix: Water

Date Received: 01/31/14 09:42

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			02/06/14 20:18	1
Benzene	0.0000800	U	0.00100	0.0000800	mg/L			02/06/14 20:18	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			02/06/14 20:18	1
Toluene	0.000150	U	0.00100	0.000150	mg/L			02/06/14 20:18	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			02/06/14 20:18	1
Ethylbenzene	0.000110	U	0.00100	0.000110	mg/L			02/06/14 20:18	1
Xylenes, Total	0.000260	U	0.00300	0.000260	mg/L			02/06/14 20:18	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	93		67 - 139					02/06/14 20:18	1
Dibromofluoromethane	115		62 - 130					02/06/14 20:18	1
Toluene-d8 (Surr)	114		70 - 130					02/06/14 20:18	1
1,2-Dichloroethane-d4 (Surr)	101		50 - 134					02/06/14 20:18	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.0000377	U	0.000472	0.0000377	mg/L		02/03/14 07:31	02/06/14 11:41	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-86398-1

Client Sample ID: WG-1620-MW50A-20140129

Lab Sample ID: 600-86398-5

Date Collected: 01/29/14 13:05

Matrix: Water

Date Received: 01/31/14 09:42

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrobenzene	0.000104	U	0.000472	0.000104	mg/L		02/03/14 07:31	02/06/14 11:41	1
2,4-Dimethylphenol	0.000292	U	0.000472	0.000292	mg/L		02/03/14 07:31	02/06/14 11:41	1
Bis(2-chloroethoxy)methane	0.000123	U	0.000472	0.000123	mg/L		02/03/14 07:31	02/06/14 11:41	1
Naphthalene	0.00129		0.000472	0.0000755	mg/L		02/03/14 07:31	02/06/14 11:41	1
2-Methylnaphthalene	0.000264	J	0.000472	0.0000660	mg/L		02/03/14 07:31	02/06/14 11:41	1
2-Chloronaphthalene	0.0000755	U	0.000472	0.0000755	mg/L		02/03/14 07:31	02/06/14 11:41	1
Acenaphthylene	0.0000566	U	0.000472	0.0000566	mg/L		02/03/14 07:31	02/06/14 11:41	1
2,6-Dinitrotoluene	0.0000755	U	0.000472	0.0000755	mg/L		02/03/14 07:31	02/06/14 11:41	1
Acenaphthene	0.0000755	U	0.000472	0.0000755	mg/L		02/03/14 07:31	02/06/14 11:41	1
4-Nitrophenol	0.000528	U	0.000943	0.000528	mg/L		02/03/14 07:31	02/06/14 11:41	1
Dibenzofuran	0.000134	J	0.000472	0.0000755	mg/L		02/03/14 07:31	02/06/14 11:41	1
2,4-Dinitrotoluene	0.000123	U	0.000472	0.000123	mg/L		02/03/14 07:31	02/06/14 11:41	1
Fluorene	0.0000660	U	0.000472	0.0000660	mg/L		02/03/14 07:31	02/06/14 11:41	1
4,6-Dinitro-2-methylphenol	0.000783	U	0.000943	0.000783	mg/L		02/03/14 07:31	02/06/14 11:41	1
N-Nitrosodiphenylamine	0.0000943	U	0.000472	0.0000943	mg/L		02/03/14 07:31	02/06/14 11:41	1
1,2-Diphenylhydrazine	0.000104	U	0.000472	0.000104	mg/L		02/03/14 07:31	02/06/14 11:41	1
Pentachlorophenol	0.000575	U	0.000943	0.000575	mg/L		02/03/14 07:31	02/06/14 11:41	1
Phenanthrene	0.0000703	J	0.000472	0.0000566	mg/L		02/03/14 07:31	02/06/14 11:41	1
Anthracene	0.0000472	U	0.000472	0.0000472	mg/L		02/03/14 07:31	02/06/14 11:41	1
Di-n-butyl phthalate	0.000104	U	0.000472	0.000104	mg/L		02/03/14 07:31	02/06/14 11:41	1
Fluoranthene	0.0000660	U	0.000472	0.0000660	mg/L		02/03/14 07:31	02/06/14 11:41	1
Pyrene	0.000104	U	0.000472	0.000104	mg/L		02/03/14 07:31	02/06/14 11:41	1
Benzo[a]anthracene	0.0000755	U	0.000472	0.0000755	mg/L		02/03/14 07:31	02/06/14 11:41	1
Bis(2-ethylhexyl) phthalate	0.000349	U	0.000472	0.000349	mg/L		02/03/14 07:31	02/06/14 11:41	1
Chrysene	0.0000755	U	0.000472	0.0000755	mg/L		02/03/14 07:31	02/06/14 11:41	1
Benzo[a]pyrene	0.0000755	U	0.000472	0.0000755	mg/L		02/03/14 07:31	02/06/14 11:41	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	42		10 - 147				02/03/14 07:31	02/06/14 11:41	1
2-Fluorobiphenyl	73		10 - 150				02/03/14 07:31	02/06/14 11:41	1
2-Fluorophenol	20		10 - 130				02/03/14 07:31	02/06/14 11:41	1
Nitrobenzene-d5	75		23 - 130				02/03/14 07:31	02/06/14 11:41	1
Terphenyl-d14	74		42 - 133				02/03/14 07:31	02/06/14 11:41	1
Phenol-d5 (Surr)	10		10 - 130				02/03/14 07:31	02/06/14 11:41	1

Client Sample ID: WG-1620-MW75B-20140129

Lab Sample ID: 600-86398-6

Date Collected: 01/29/14 14:00

Matrix: Water

Date Received: 01/31/14 09:42

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	0.000750	U	0.00500	0.000750	mg/L			02/07/14 18:32	5
1,2-Dichloroethane	0.000700	U	0.00500	0.000700	mg/L			02/07/14 18:32	5
Chlorobenzene	0.000600	U	0.00500	0.000600	mg/L			02/07/14 18:32	5
Ethylbenzene	0.0773		0.00500	0.000550	mg/L			02/07/14 18:32	5
Xylenes, Total	0.276		0.0150	0.00130	mg/L			02/07/14 18:32	5
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	78		67 - 139					02/07/14 18:32	5
Dibromofluoromethane	88		62 - 130					02/07/14 18:32	5

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-86398-1

Client Sample ID: WG-1620-MW75B-20140129

Lab Sample ID: 600-86398-6

Date Collected: 01/29/14 14:00

Matrix: Water

Date Received: 01/31/14 09:42

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	85		70 - 130		02/07/14 18:32	5
1,2-Dichloroethane-d4 (Surr)	83		50 - 134		02/07/14 18:32	5

Method: 8260B - Volatile Organic Compounds (GC/MS) - DL

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.502		0.100	0.00800	mg/L			02/07/14 18:58	100
Toluene	0.328		0.100	0.0150	mg/L			02/07/14 18:58	100

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	80		67 - 139		02/07/14 18:58	100
Dibromofluoromethane	94		62 - 130		02/07/14 18:58	100
Toluene-d8 (Surr)	96		70 - 130		02/07/14 18:58	100
1,2-Dichloroethane-d4 (Surr)	85		50 - 134		02/07/14 18:58	100

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.108	J	0.236	0.0189	mg/L		02/03/14 07:31	02/06/14 12:34	500
Nitrobenzene	0.0519	U	0.236	0.0519	mg/L		02/03/14 07:31	02/06/14 12:34	500
2,4-Dimethylphenol	6.35		0.236	0.146	mg/L		02/03/14 07:31	02/06/14 12:34	500
Bis(2-chloroethoxy)methane	0.0613	U	0.236	0.0613	mg/L		02/03/14 07:31	02/06/14 12:34	500
2-Methylnaphthalene	3.18		0.236	0.0330	mg/L		02/03/14 07:31	02/06/14 12:34	500
2-Chloronaphthalene	0.0377	U	0.236	0.0377	mg/L		02/03/14 07:31	02/06/14 12:34	500
Acenaphthylene	0.0672	J	0.236	0.0283	mg/L		02/03/14 07:31	02/06/14 12:34	500
2,6-Dinitrotoluene	0.0377	U	0.236	0.0377	mg/L		02/03/14 07:31	02/06/14 12:34	500
Acenaphthene	2.57		0.236	0.0377	mg/L		02/03/14 07:31	02/06/14 12:34	500
4-Nitrophenol	0.264	U	0.472	0.264	mg/L		02/03/14 07:31	02/06/14 12:34	500
Dibenzofuran	1.56		0.236	0.0377	mg/L		02/03/14 07:31	02/06/14 12:34	500
2,4-Dinitrotoluene	0.0613	U	0.236	0.0613	mg/L		02/03/14 07:31	02/06/14 12:34	500
Fluorene	1.59		0.236	0.0330	mg/L		02/03/14 07:31	02/06/14 12:34	500
4,6-Dinitro-2-methylphenol	0.392	U	0.472	0.392	mg/L		02/03/14 07:31	02/06/14 12:34	500
N-Nitrosodiphenylamine	0.0472	U	0.236	0.0472	mg/L		02/03/14 07:31	02/06/14 12:34	500
1,2-Diphenylhydrazine	0.0519	U	0.236	0.0519	mg/L		02/03/14 07:31	02/06/14 12:34	500
Pentachlorophenol	0.288	U	0.472	0.288	mg/L		02/03/14 07:31	02/06/14 12:34	500
Phenanthrene	2.13		0.236	0.0283	mg/L		02/03/14 07:31	02/06/14 12:34	500
Anthracene	0.605		0.236	0.0236	mg/L		02/03/14 07:31	02/06/14 12:34	500
Di-n-butyl phthalate	0.0519	U	0.236	0.0519	mg/L		02/03/14 07:31	02/06/14 12:34	500
Fluoranthene	0.708		0.236	0.0330	mg/L		02/03/14 07:31	02/06/14 12:34	500
Pyrene	0.416		0.236	0.0519	mg/L		02/03/14 07:31	02/06/14 12:34	500
Benzo[a]anthracene	0.0667	J	0.236	0.0377	mg/L		02/03/14 07:31	02/06/14 12:34	500
Bis(2-ethylhexyl) phthalate	0.175	U	0.236	0.175	mg/L		02/03/14 07:31	02/06/14 12:34	500
Chrysene	0.0704	J	0.236	0.0377	mg/L		02/03/14 07:31	02/06/14 12:34	500
Benzo[a]pyrene	0.0377	U	0.236	0.0377	mg/L		02/03/14 07:31	02/06/14 12:34	500

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	0	X	10 - 147	02/03/14 07:31	02/06/14 12:34	500
2-Fluorobiphenyl	0	X	10 - 150	02/03/14 07:31	02/06/14 12:34	500
2-Fluorophenol	0	X	10 - 130	02/03/14 07:31	02/06/14 12:34	500
Nitrobenzene-d5	0	X	23 - 130	02/03/14 07:31	02/06/14 12:34	500
Terphenyl-d14	0	X	42 - 133	02/03/14 07:31	02/06/14 12:34	500
Phenol-d5 (Surr)	0	X	10 - 130	02/03/14 07:31	02/06/14 12:34	500

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-86398-1

Client Sample ID: WG-1620-MW75B-20140129

Lab Sample ID: 600-86398-6

Date Collected: 01/29/14 14:00

Matrix: Water

Date Received: 01/31/14 09:42

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels - DL

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	27.1		1.18	0.189	mg/L		02/03/14 07:31	02/10/14 14:36	2500
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	0	X	10 - 147				02/03/14 07:31	02/10/14 14:36	2500
2-Fluorobiphenyl	0	X	10 - 150				02/03/14 07:31	02/10/14 14:36	2500
2-Fluorophenol	0	X	10 - 130				02/03/14 07:31	02/10/14 14:36	2500
Nitrobenzene-d5	0	X	23 - 130				02/03/14 07:31	02/10/14 14:36	2500
Terphenyl-d14	0	X	42 - 133				02/03/14 07:31	02/10/14 14:36	2500
Phenol-d5 (Surr)	0	X	10 - 130				02/03/14 07:31	02/10/14 14:36	2500

Client Sample ID: WG-1620-MW74B-20140129

Lab Sample ID: 600-86398-7

Date Collected: 01/29/14 15:00

Matrix: Water

Date Received: 01/31/14 09:42

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	0.000750	U	0.00500	0.000750	mg/L			02/07/14 19:24	5
1,2-Dichloroethane	0.000700	U	0.00500	0.000700	mg/L			02/07/14 19:24	5
Chlorobenzene	0.000600	U	0.00500	0.000600	mg/L			02/07/14 19:24	5
Ethylbenzene	0.203		0.00500	0.000550	mg/L			02/07/14 19:24	5
Xylenes, Total	0.553		0.0150	0.00130	mg/L			02/07/14 19:24	5
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	83		67 - 139					02/07/14 19:24	5
Dibromofluoromethane	87		62 - 130					02/07/14 19:24	5
Toluene-d8 (Surr)	89		70 - 130					02/07/14 19:24	5
1,2-Dichloroethane-d4 (Surr)	76		50 - 134					02/07/14 19:24	5

Method: 8260B - Volatile Organic Compounds (GC/MS) - DL

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.795		0.100	0.00800	mg/L			02/07/14 19:49	100
Toluene	0.774		0.100	0.0150	mg/L			02/07/14 19:49	100
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	87		67 - 139					02/07/14 19:49	100
Dibromofluoromethane	94		62 - 130					02/07/14 19:49	100
Toluene-d8 (Surr)	100		70 - 130					02/07/14 19:49	100
1,2-Dichloroethane-d4 (Surr)	83		50 - 134					02/07/14 19:49	100

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrobenzene	0.208	U	0.943	0.208	mg/L		02/03/14 07:31	02/06/14 13:26	1000
Bis(2-chloroethoxy)methane	0.245	U	0.943	0.245	mg/L		02/03/14 07:31	02/06/14 13:26	1000
2-Methylnaphthalene	5.52		0.943	0.132	mg/L		02/03/14 07:31	02/06/14 13:26	1000
2-Chloronaphthalene	0.151	U	0.943	0.151	mg/L		02/03/14 07:31	02/06/14 13:26	1000
Acenaphthylene	0.113	U	0.943	0.113	mg/L		02/03/14 07:31	02/06/14 13:26	1000
2,6-Dinitrotoluene	0.151	U	0.943	0.151	mg/L		02/03/14 07:31	02/06/14 13:26	1000
Acenaphthene	2.40		0.943	0.151	mg/L		02/03/14 07:31	02/06/14 13:26	1000
4-Nitrophenol	1.06	U	1.89	1.06	mg/L		02/03/14 07:31	02/06/14 13:26	1000
Dibenzofuran	1.84		0.943	0.151	mg/L		02/03/14 07:31	02/06/14 13:26	1000
2,4-Dinitrotoluene	0.245	U	0.943	0.245	mg/L		02/03/14 07:31	02/06/14 13:26	1000

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-86398-1

Client Sample ID: WG-1620-MW74B-20140129

Lab Sample ID: 600-86398-7

Date Collected: 01/29/14 15:00

Matrix: Water

Date Received: 01/31/14 09:42

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluorene	1.34		0.943	0.132	mg/L		02/03/14 07:31	02/06/14 13:26	1000
4,6-Dinitro-2-methylphenol	1.57	U	1.89	1.57	mg/L		02/03/14 07:31	02/06/14 13:26	1000
N-Nitrosodiphenylamine	0.189	U	0.943	0.189	mg/L		02/03/14 07:31	02/06/14 13:26	1000
1,2-Diphenylhydrazine	0.208	U	0.943	0.208	mg/L		02/03/14 07:31	02/06/14 13:26	1000
Pentachlorophenol	1.15	U	1.89	1.15	mg/L		02/03/14 07:31	02/06/14 13:26	1000
Phenanthrene	1.28		0.943	0.113	mg/L		02/03/14 07:31	02/06/14 13:26	1000
Anthracene	0.282	J	0.943	0.0943	mg/L		02/03/14 07:31	02/06/14 13:26	1000
Di-n-butyl phthalate	0.208	U	0.943	0.208	mg/L		02/03/14 07:31	02/06/14 13:26	1000
Fluoranthene	0.132	U	0.943	0.132	mg/L		02/03/14 07:31	02/06/14 13:26	1000
Pyrene	0.208	U	0.943	0.208	mg/L		02/03/14 07:31	02/06/14 13:26	1000
Benzo[a]anthracene	0.151	U	0.943	0.151	mg/L		02/03/14 07:31	02/06/14 13:26	1000
Bis(2-ethylhexyl) phthalate	0.698	U	0.943	0.698	mg/L		02/03/14 07:31	02/06/14 13:26	1000
Chrysene	0.151	U	0.943	0.151	mg/L		02/03/14 07:31	02/06/14 13:26	1000
Benzo[a]pyrene	0.151	U	0.943	0.151	mg/L		02/03/14 07:31	02/06/14 13:26	1000
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	0	X	10 - 147				02/03/14 07:31	02/06/14 13:26	1000
2-Fluorobiphenyl	0	X	10 - 150				02/03/14 07:31	02/06/14 13:26	1000
2-Fluorophenol	0	X	10 - 130				02/03/14 07:31	02/06/14 13:26	1000
Nitrobenzene-d5	0	X	23 - 130				02/03/14 07:31	02/06/14 13:26	1000
Terphenyl-d14	0	X	42 - 133				02/03/14 07:31	02/06/14 13:26	1000
Phenol-d5 (Surr)	0	X	10 - 130				02/03/14 07:31	02/06/14 13:26	1000

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels - DL

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	420		9.43	0.755	mg/L		02/03/14 07:31	02/10/14 15:01	10000
2,4-Dimethylphenol	525	E	9.43	5.85	mg/L		02/03/14 07:31	02/10/14 15:01	10000
Naphthalene	139		9.43	1.51	mg/L		02/03/14 07:31	02/10/14 15:01	10000
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	0	X	10 - 147				02/03/14 07:31	02/10/14 15:01	10000
2-Fluorobiphenyl	0	X	10 - 150				02/03/14 07:31	02/10/14 15:01	10000
2-Fluorophenol	0	X	10 - 130				02/03/14 07:31	02/10/14 15:01	10000
Nitrobenzene-d5	0	X	23 - 130				02/03/14 07:31	02/10/14 15:01	10000
Terphenyl-d14	0	X	42 - 133				02/03/14 07:31	02/10/14 15:01	10000
Phenol-d5 (Surr)	0	X	10 - 130				02/03/14 07:31	02/10/14 15:01	10000

Client Sample ID: WG-1620-MW66D-20140129

Lab Sample ID: 600-86398-8

Date Collected: 01/29/14 16:25

Matrix: Water

Date Received: 01/31/14 09:42

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			02/06/14 19:26	1
Benzene	0.0000800	U	0.00100	0.0000800	mg/L			02/06/14 19:26	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			02/06/14 19:26	1
Toluene	0.000150	U	0.00100	0.000150	mg/L			02/06/14 19:26	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			02/06/14 19:26	1
Ethylbenzene	0.000110	U	0.00100	0.000110	mg/L			02/06/14 19:26	1
Xylenes, Total	0.000260	U	0.00300	0.000260	mg/L			02/06/14 19:26	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-86398-1

Client Sample ID: WG-1620-MW66D-20140129

Lab Sample ID: 600-86398-8

Date Collected: 01/29/14 16:25

Matrix: Water

Date Received: 01/31/14 09:42

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	91		67 - 139		02/06/14 19:26	1
Dibromofluoromethane	109		62 - 130		02/06/14 19:26	1
Toluene-d8 (Surr)	109		70 - 130		02/06/14 19:26	1
1,2-Dichloroethane-d4 (Surr)	96		50 - 134		02/06/14 19:26	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.000377	U	0.000472	0.000377	mg/L		02/03/14 07:31	02/06/14 13:52	1
Nitrobenzene	0.000104	U	0.000472	0.000104	mg/L		02/03/14 07:31	02/06/14 13:52	1
2,4-Dimethylphenol	0.000292	U	0.000472	0.000292	mg/L		02/03/14 07:31	02/06/14 13:52	1
Bis(2-chloroethoxy)methane	0.000123	U	0.000472	0.000123	mg/L		02/03/14 07:31	02/06/14 13:52	1
Naphthalene	0.000367	J	0.000472	0.0000755	mg/L		02/03/14 07:31	02/06/14 13:52	1
2-Methylnaphthalene	0.0000660	U	0.000472	0.0000660	mg/L		02/03/14 07:31	02/06/14 13:52	1
2-Chloronaphthalene	0.0000755	U	0.000472	0.0000755	mg/L		02/03/14 07:31	02/06/14 13:52	1
Acenaphthylene	0.0000566	U	0.000472	0.0000566	mg/L		02/03/14 07:31	02/06/14 13:52	1
2,6-Dinitrotoluene	0.0000755	U	0.000472	0.0000755	mg/L		02/03/14 07:31	02/06/14 13:52	1
Acenaphthene	0.000145	J	0.000472	0.0000755	mg/L		02/03/14 07:31	02/06/14 13:52	1
4-Nitrophenol	0.000528	U	0.000943	0.000528	mg/L		02/03/14 07:31	02/06/14 13:52	1
Dibenzofuran	0.0000755	U	0.000472	0.0000755	mg/L		02/03/14 07:31	02/06/14 13:52	1
2,4-Dinitrotoluene	0.000123	U	0.000472	0.000123	mg/L		02/03/14 07:31	02/06/14 13:52	1
Fluorene	0.0000660	U	0.000472	0.0000660	mg/L		02/03/14 07:31	02/06/14 13:52	1
4,6-Dinitro-2-methylphenol	0.000783	U	0.000943	0.000783	mg/L		02/03/14 07:31	02/06/14 13:52	1
N-Nitrosodiphenylamine	0.0000943	U	0.000472	0.0000943	mg/L		02/03/14 07:31	02/06/14 13:52	1
1,2-Diphenylhydrazine	0.000104	U	0.000472	0.000104	mg/L		02/03/14 07:31	02/06/14 13:52	1
Pentachlorophenol	0.000575	U	0.000943	0.000575	mg/L		02/03/14 07:31	02/06/14 13:52	1
Phenanthrene	0.000132	J	0.000472	0.0000566	mg/L		02/03/14 07:31	02/06/14 13:52	1
Anthracene	0.0000472	U	0.000472	0.0000472	mg/L		02/03/14 07:31	02/06/14 13:52	1
Di-n-butyl phthalate	0.000104	U	0.000472	0.000104	mg/L		02/03/14 07:31	02/06/14 13:52	1
Fluoranthene	0.0000660	U	0.000472	0.0000660	mg/L		02/03/14 07:31	02/06/14 13:52	1
Pyrene	0.000104	U	0.000472	0.000104	mg/L		02/03/14 07:31	02/06/14 13:52	1
Benzo[a]anthracene	0.0000755	U	0.000472	0.0000755	mg/L		02/03/14 07:31	02/06/14 13:52	1
Bis(2-ethylhexyl) phthalate	0.000349	U	0.000472	0.000349	mg/L		02/03/14 07:31	02/06/14 13:52	1
Chrysene	0.0000755	U	0.000472	0.0000755	mg/L		02/03/14 07:31	02/06/14 13:52	1
Benzo[a]pyrene	0.0000755	U	0.000472	0.0000755	mg/L		02/03/14 07:31	02/06/14 13:52	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	78		10 - 147	02/03/14 07:31	02/06/14 13:52	1
2-Fluorobiphenyl	69		10 - 150	02/03/14 07:31	02/06/14 13:52	1
2-Fluorophenol	36		10 - 130	02/03/14 07:31	02/06/14 13:52	1
Nitrobenzene-d5	69		23 - 130	02/03/14 07:31	02/06/14 13:52	1
Terphenyl-d14	78		42 - 133	02/03/14 07:31	02/06/14 13:52	1
Phenol-d5 (Surr)	19		10 - 130	02/03/14 07:31	02/06/14 13:52	1

Client Sample ID: WG-1620-FB10-20140129

Lab Sample ID: 600-86398-9

Date Collected: 01/29/14 16:45

Matrix: Water

Date Received: 01/31/14 09:42

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			02/06/14 19:01	1
Benzene	0.0000800	U	0.00100	0.0000800	mg/L			02/06/14 19:01	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-86398-1

Client Sample ID: WG-1620-FB10-20140129

Lab Sample ID: 600-86398-9

Date Collected: 01/29/14 16:45

Matrix: Water

Date Received: 01/31/14 09:42

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			02/06/14 19:01	1
Toluene	0.000150	U	0.00100	0.000150	mg/L			02/06/14 19:01	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			02/06/14 19:01	1
Ethylbenzene	0.000110	U	0.00100	0.000110	mg/L			02/06/14 19:01	1
Xylenes, Total	0.000260	U	0.00300	0.000260	mg/L			02/06/14 19:01	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	92		67 - 139					02/06/14 19:01	1
Dibromofluoromethane	111		62 - 130					02/06/14 19:01	1
Toluene-d8 (Surr)	109		70 - 130					02/06/14 19:01	1
1,2-Dichloroethane-d4 (Surr)	97		50 - 134					02/06/14 19:01	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.0000377	U	0.000472	0.0000377	mg/L		02/03/14 07:31	02/04/14 05:02	1
Nitrobenzene	0.000104	U	0.000472	0.000104	mg/L		02/03/14 07:31	02/04/14 05:02	1
2,4-Dimethylphenol	0.000292	U	0.000472	0.000292	mg/L		02/03/14 07:31	02/04/14 05:02	1
Bis(2-chloroethoxy)methane	0.000123	U	0.000472	0.000123	mg/L		02/03/14 07:31	02/04/14 05:02	1
Naphthalene	0.0000755	U	0.000472	0.0000755	mg/L		02/03/14 07:31	02/04/14 05:02	1
2-Methylnaphthalene	0.0000660	U	0.000472	0.0000660	mg/L		02/03/14 07:31	02/04/14 05:02	1
2-Chloronaphthalene	0.0000755	U	0.000472	0.0000755	mg/L		02/03/14 07:31	02/04/14 05:02	1
Acenaphthylene	0.0000566	U	0.000472	0.0000566	mg/L		02/03/14 07:31	02/04/14 05:02	1
2,6-Dinitrotoluene	0.0000755	U	0.000472	0.0000755	mg/L		02/03/14 07:31	02/04/14 05:02	1
Acenaphthene	0.0000755	U	0.000472	0.0000755	mg/L		02/03/14 07:31	02/04/14 05:02	1
4-Nitrophenol	0.000528	U	0.000943	0.000528	mg/L		02/03/14 07:31	02/04/14 05:02	1
Dibenzofuran	0.0000755	U	0.000472	0.0000755	mg/L		02/03/14 07:31	02/04/14 05:02	1
2,4-Dinitrotoluene	0.000123	U	0.000472	0.000123	mg/L		02/03/14 07:31	02/04/14 05:02	1
Fluorene	0.0000660	U	0.000472	0.0000660	mg/L		02/03/14 07:31	02/04/14 05:02	1
4,6-Dinitro-2-methylphenol	0.000783	U	0.000943	0.000783	mg/L		02/03/14 07:31	02/04/14 05:02	1
N-Nitrosodiphenylamine	0.0000943	U	0.000472	0.0000943	mg/L		02/03/14 07:31	02/04/14 05:02	1
1,2-Diphenylhydrazine	0.000104	U	0.000472	0.000104	mg/L		02/03/14 07:31	02/04/14 05:02	1
Pentachlorophenol	0.000575	U	0.000943	0.000575	mg/L		02/03/14 07:31	02/04/14 05:02	1
Phenanthrene	0.0000566	U	0.000472	0.0000566	mg/L		02/03/14 07:31	02/04/14 05:02	1
Anthracene	0.0000472	U	0.000472	0.0000472	mg/L		02/03/14 07:31	02/04/14 05:02	1
Di-n-butyl phthalate	0.000104	U	0.000472	0.000104	mg/L		02/03/14 07:31	02/04/14 05:02	1
Fluoranthene	0.0000660	U	0.000472	0.0000660	mg/L		02/03/14 07:31	02/04/14 05:02	1
Pyrene	0.000104	U	0.000472	0.000104	mg/L		02/03/14 07:31	02/04/14 05:02	1
Benzo[a]anthracene	0.0000755	U	0.000472	0.0000755	mg/L		02/03/14 07:31	02/04/14 05:02	1
Bis(2-ethylhexyl) phthalate	0.000349	U	0.000472	0.000349	mg/L		02/03/14 07:31	02/04/14 05:02	1
Chrysene	0.0000755	U	0.000472	0.0000755	mg/L		02/03/14 07:31	02/04/14 05:02	1
Benzo[a]pyrene	0.0000755	U	0.000472	0.0000755	mg/L		02/03/14 07:31	02/04/14 05:02	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	81		10 - 147				02/03/14 07:31	02/04/14 05:02	1
2-Fluorobiphenyl	83		10 - 150				02/03/14 07:31	02/04/14 05:02	1
2-Fluorophenol	46		10 - 130				02/03/14 07:31	02/04/14 05:02	1
Nitrobenzene-d5	86		23 - 130				02/03/14 07:31	02/04/14 05:02	1
Terphenyl-d14	97		42 - 133				02/03/14 07:31	02/04/14 05:02	1
Phenol-d5 (Surr)	24		10 - 130				02/03/14 07:31	02/04/14 05:02	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-86398-1

Client Sample ID: WG-1620-TB-20140129

Lab Sample ID: 600-86398-10

Date Collected: 01/29/14 00:00

Matrix: Water

Date Received: 01/31/14 09:42

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			02/06/14 18:36	1
Benzene	0.0000800	U	0.00100	0.0000800	mg/L			02/06/14 18:36	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			02/06/14 18:36	1
Toluene	0.000150	U	0.00100	0.000150	mg/L			02/06/14 18:36	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			02/06/14 18:36	1
Ethylbenzene	0.000110	U	0.00100	0.000110	mg/L			02/06/14 18:36	1
Xylenes, Total	0.000260	U	0.00300	0.000260	mg/L			02/06/14 18:36	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	93		67 - 139		02/06/14 18:36	1
Dibromofluoromethane	115		62 - 130		02/06/14 18:36	1
Toluene-d8 (Surr)	111		70 - 130		02/06/14 18:36	1
1,2-Dichloroethane-d4 (Surr)	103		50 - 134		02/06/14 18:36	1

Definitions/Glossary

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-86398-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
U	Analyte was not detected at or above the SDL.
J	Result is less than the MQL but greater than or equal to the SDL and the concentration is an estimated value.

GC/MS Semi VOA

Qualifier	Qualifier Description
U	Analyte was not detected at or above the SDL.
J	Result is less than the MQL but greater than or equal to the SDL and the concentration is an estimated value.
X	Surrogate is outside control limits
E	Result is greater than the UQL and the concentration is an estimated value.
N	RPD of the MS and MSD exceeds the control limits

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Surrogate Summary

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-86398-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		BFB (67-139)	DBFM (62-130)	TOL (70-130)	12DCE (50-134)
600-86398-1	WG-1620-MW64A-20140129	92	107	103	98
600-86398-2	WG-1620-MW62B-20140129	95	113	106	102
600-86398-3	WG-1620-MW58A-20140129	90	106	101	95
600-86398-4	WG-1620-MW51A-20140129	93	118	114	102
600-86398-5	WG-1620-MW50A-20140129	93	115	114	101
600-86398-6	WG-1620-MW75B-20140129	78	88	85	83
600-86398-6 - DL	WG-1620-MW75B-20140129	80	94	96	85
600-86398-7	WG-1620-MW74B-20140129	83	87	89	76
600-86398-7 - DL	WG-1620-MW74B-20140129	87	94	100	83
600-86398-8	WG-1620-MW66D-20140129	91	109	109	96
600-86398-9	WG-1620-FB10-20140129	92	111	109	97
600-86398-10	WG-1620-TB-20140129	93	115	111	103
LCS 600-126812/3	Lab Control Sample	100	109	100	98
LCS 600-126929/3	Lab Control Sample	85	95	88	87
MB 600-126812/4	Method Blank	77	87	82	82
MB 600-126929/4	Method Blank	76	96	84	92

Surrogate Legend

BFB = 4-Bromofluorobenzene
DBFM = Dibromofluoromethane
TOL = Toluene-d8 (Surr)
12DCE = 1,2-Dichloroethane-d4 (Surr)

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)					
		TBP (10-147)	FBP (10-150)	2FP (10-130)	NBZ (23-130)	TPH (42-133)	PHL (10-130)
600-86398-1	WG-1620-MW64A-20140129	92	78	39	77	96	19
600-86398-2	WG-1620-MW62B-20140129	89	73	34	65	92	16
600-86398-3	WG-1620-MW58A-20140129	100	58	9 X	30	91	12
600-86398-4	WG-1620-MW51A-20140129	42	82	23	80	95	13
600-86398-5	WG-1620-MW50A-20140129	42	73	20	75	74	10
600-86398-6	WG-1620-MW75B-20140129	0 X	0 X	0 X	0 X	0 X	0 X
600-86398-6 - DL	WG-1620-MW75B-20140129	0 X	0 X	0 X	0 X	0 X	0 X
600-86398-7	WG-1620-MW74B-20140129	0 X	0 X	0 X	0 X	0 X	0 X
600-86398-7 - DL	WG-1620-MW74B-20140129	0 X	0 X	0 X	0 X	0 X	0 X
600-86398-8	WG-1620-MW66D-20140129	78	69	36	69	78	19
600-86398-9	WG-1620-FB10-20140129	81	83	46	86	97	24
600-86398-9 MS	WG-1620-FB10-20140129	104	78	67	81	98	43
600-86398-9 MSD	WG-1620-FB10-20140129	76	61	51	65	74	34
LCS 600-126395/2-A	Lab Control Sample	95	70	38	71	85	25
MB 600-126395/1-A	Method Blank	88	88	45	84	99	21

Surrogate Legend

TBP = 2,4,6-Tribromophenol
FBP = 2-Fluorobiphenyl
2FP = 2-Fluorophenol
NBZ = Nitrobenzene-d5

TestAmerica Houston

Surrogate Summary

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-86398-1

TPH = Terphenyl-d14
PHL = Phenol-d5 (Surr)

- 1
- 2
- 3
- 4
- 5
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- 11
- 12
- 13
- 14
- 15
- 16

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-86398-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 600-126812/4

Matrix: Water

Analysis Batch: 126812

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	0.000110	U	0.00200	0.000110	mg/L			02/06/14 11:41	1
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			02/06/14 11:41	1
Benzene	0.0000800	U	0.00100	0.0000800	mg/L			02/06/14 11:41	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			02/06/14 11:41	1
Toluene	0.000150	U	0.00100	0.000150	mg/L			02/06/14 11:41	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			02/06/14 11:41	1
Ethylbenzene	0.000110	U	0.00100	0.000110	mg/L			02/06/14 11:41	1
Xylenes, Total	0.000260	U	0.00300	0.000260	mg/L			02/06/14 11:41	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	77		67 - 139		02/06/14 11:41	1
Dibromofluoromethane	87		62 - 130		02/06/14 11:41	1
Toluene-d8 (Surr)	82		70 - 130		02/06/14 11:41	1
1,2-Dichloroethane-d4 (Surr)	82		50 - 134		02/06/14 11:41	1

Lab Sample ID: LCS 600-126812/3

Matrix: Water

Analysis Batch: 126812

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Vinyl chloride	0.0100	0.008058		mg/L		81	33 - 150
Methylene Chloride	0.0100	0.009661		mg/L		97	55 - 147
Benzene	0.0100	0.009605		mg/L		96	70 - 130
1,2-Dichloroethane	0.0100	0.008860		mg/L		89	67 - 134
Toluene	0.0100	0.009062		mg/L		91	70 - 130
Chlorobenzene	0.0100	0.009140		mg/L		91	69 - 130
Ethylbenzene	0.0100	0.009177		mg/L		92	70 - 130
Xylenes, Total	0.0200	0.01839		mg/L		92	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene	100		67 - 139
Dibromofluoromethane	109		62 - 130
Toluene-d8 (Surr)	100		70 - 130
1,2-Dichloroethane-d4 (Surr)	98		50 - 134

Lab Sample ID: MB 600-126929/4

Matrix: Water

Analysis Batch: 126929

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	0.000110	U	0.00200	0.000110	mg/L			02/07/14 10:22	1
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			02/07/14 10:22	1
Benzene	0.0000800	U	0.00100	0.0000800	mg/L			02/07/14 10:22	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			02/07/14 10:22	1
Toluene	0.000150	U	0.00100	0.000150	mg/L			02/07/14 10:22	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			02/07/14 10:22	1
Ethylbenzene	0.000110	U	0.00100	0.000110	mg/L			02/07/14 10:22	1

TestAmerica Houston

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-86398-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 600-126929/4

Matrix: Water

Analysis Batch: 126929

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Xylenes, Total	0.000260	U	0.00300	0.000260	mg/L			02/07/14 10:22	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	76		67 - 139		02/07/14 10:22	1
Dibromofluoromethane	96		62 - 130		02/07/14 10:22	1
Toluene-d8 (Surr)	84		70 - 130		02/07/14 10:22	1
1,2-Dichloroethane-d4 (Surr)	92		50 - 134		02/07/14 10:22	1

Lab Sample ID: LCS 600-126929/3

Matrix: Water

Analysis Batch: 126929

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Vinyl chloride	0.0100	0.009053		mg/L		91	33 - 150
Methylene Chloride	0.0100	0.009650		mg/L		97	55 - 147
Benzene	0.0100	0.009871		mg/L		99	70 - 130
1,2-Dichloroethane	0.0100	0.009182		mg/L		92	67 - 134
Toluene	0.0100	0.009321		mg/L		93	70 - 130
Chlorobenzene	0.0100	0.009368		mg/L		94	69 - 130
Ethylbenzene	0.0100	0.009574		mg/L		96	70 - 130
Xylenes, Total	0.0200	0.01912		mg/L		96	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene	85		67 - 139
Dibromofluoromethane	95		62 - 130
Toluene-d8 (Surr)	88		70 - 130
1,2-Dichloroethane-d4 (Surr)	87		50 - 134

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Lab Sample ID: MB 600-126395/1-A

Matrix: Water

Analysis Batch: 126600

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 126395

Analyte	MB Result	MB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.0000400	U	0.000500	0.0000400	mg/L		02/03/14 07:31	02/03/14 21:10	1
Nitrobenzene	0.000110	U	0.000500	0.000110	mg/L		02/03/14 07:31	02/03/14 21:10	1
2,4-Dimethylphenol	0.000310	U	0.000500	0.000310	mg/L		02/03/14 07:31	02/03/14 21:10	1
Bis(2-chloroethoxy)methane	0.000130	U	0.000500	0.000130	mg/L		02/03/14 07:31	02/03/14 21:10	1
Naphthalene	0.0000800	U	0.000500	0.0000800	mg/L		02/03/14 07:31	02/03/14 21:10	1
2-Methylnaphthalene	0.0000700	U	0.000500	0.0000700	mg/L		02/03/14 07:31	02/03/14 21:10	1
2-Chloronaphthalene	0.0000800	U	0.000500	0.0000800	mg/L		02/03/14 07:31	02/03/14 21:10	1
Acenaphthylene	0.0000600	U	0.000500	0.0000600	mg/L		02/03/14 07:31	02/03/14 21:10	1
2,6-Dinitrotoluene	0.0000800	U	0.000500	0.0000800	mg/L		02/03/14 07:31	02/03/14 21:10	1
Acenaphthene	0.0000800	U	0.000500	0.0000800	mg/L		02/03/14 07:31	02/03/14 21:10	1
4-Nitrophenol	0.000560	U	0.00100	0.000560	mg/L		02/03/14 07:31	02/03/14 21:10	1
Dibenzofuran	0.0000800	U	0.000500	0.0000800	mg/L		02/03/14 07:31	02/03/14 21:10	1

TestAmerica Houston

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-86398-1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Lab Sample ID: MB 600-126395/1-A

Matrix: Water

Analysis Batch: 126600

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 126395

Analyte	MB Result	MB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-Dinitrotoluene	0.000130	U	0.000500	0.000130	mg/L		02/03/14 07:31	02/03/14 21:10	1
Fluorene	0.0000700	U	0.000500	0.0000700	mg/L		02/03/14 07:31	02/03/14 21:10	1
4,6-Dinitro-2-methylphenol	0.000830	U	0.00100	0.000830	mg/L		02/03/14 07:31	02/03/14 21:10	1
N-Nitrosodiphenylamine	0.000100	U	0.000500	0.000100	mg/L		02/03/14 07:31	02/03/14 21:10	1
1,2-Diphenylhydrazine	0.000110	U	0.000500	0.000110	mg/L		02/03/14 07:31	02/03/14 21:10	1
Pentachlorophenol	0.000610	U	0.00100	0.000610	mg/L		02/03/14 07:31	02/03/14 21:10	1
Phenanthrene	0.0000600	U	0.000500	0.0000600	mg/L		02/03/14 07:31	02/03/14 21:10	1
Anthracene	0.0000500	U	0.000500	0.0000500	mg/L		02/03/14 07:31	02/03/14 21:10	1
Di-n-butyl phthalate	0.000110	U	0.000500	0.000110	mg/L		02/03/14 07:31	02/03/14 21:10	1
Fluoranthene	0.0000700	U	0.000500	0.0000700	mg/L		02/03/14 07:31	02/03/14 21:10	1
Pyrene	0.000110	U	0.000500	0.000110	mg/L		02/03/14 07:31	02/03/14 21:10	1
Benzo[a]anthracene	0.0000800	U	0.000500	0.0000800	mg/L		02/03/14 07:31	02/03/14 21:10	1
Bis(2-ethylhexyl) phthalate	0.000370	U	0.000500	0.000370	mg/L		02/03/14 07:31	02/03/14 21:10	1
Chrysene	0.0000800	U	0.000500	0.0000800	mg/L		02/03/14 07:31	02/03/14 21:10	1
Benzo[a]pyrene	0.0000800	U	0.000500	0.0000800	mg/L		02/03/14 07:31	02/03/14 21:10	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	88		10 - 147	02/03/14 07:31	02/03/14 21:10	1
2-Fluorobiphenyl	88		10 - 150	02/03/14 07:31	02/03/14 21:10	1
2-Fluorophenol	45		10 - 130	02/03/14 07:31	02/03/14 21:10	1
Nitrobenzene-d5	84		23 - 130	02/03/14 07:31	02/03/14 21:10	1
Terphenyl-d14	99		42 - 133	02/03/14 07:31	02/03/14 21:10	1
Phenol-d5 (Surr)	21		10 - 130	02/03/14 07:31	02/03/14 21:10	1

Lab Sample ID: LCS 600-126395/2-A

Matrix: Water

Analysis Batch: 126600

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 126395

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Phenol	0.0100	0.002639		mg/L		26	10 - 144
Nitrobenzene	0.0100	0.007757		mg/L		78	41 - 130
2,4-Dimethylphenol	0.0100	0.007617		mg/L		76	45 - 130
Bis(2-chloroethoxy)methane	0.0100	0.007590		mg/L		76	36 - 134
Naphthalene	0.0100	0.007760		mg/L		78	57 - 130
2-Methylnaphthalene	0.0100	0.007577		mg/L		76	52 - 130
2-Chloronaphthalene	0.0100	0.007439		mg/L		74	56 - 130
Acenaphthylene	0.0100	0.008067		mg/L		81	58 - 130
2,6-Dinitrotoluene	0.0100	0.008788		mg/L		88	56 - 130
Acenaphthene	0.0100	0.007408		mg/L		74	59 - 130
4-Nitrophenol	0.0200	0.006200		mg/L		31	10 - 150
Dibenzofuran	0.0100	0.007719		mg/L		77	56 - 130
2,4-Dinitrotoluene	0.0100	0.008405		mg/L		84	54 - 130
Fluorene	0.0100	0.008055		mg/L		81	57 - 130
4,6-Dinitro-2-methylphenol	0.0200	0.01633		mg/L		82	10 - 145
N-Nitrosodiphenylamine	0.0100	0.008522		mg/L		85	55 - 137
1,2-Diphenylhydrazine	0.0100	0.009034		mg/L		90	45 - 130
Pentachlorophenol	0.0200	0.01734		mg/L		87	27 - 130
Phenanthrene	0.0100	0.007970		mg/L		80	60 - 130

TestAmerica Houston

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-86398-1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Lab Sample ID: LCS 600-126395/2-A

Matrix: Water

Analysis Batch: 126600

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 126395

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Anthracene	0.0100	0.008151		mg/L		82	46 - 132
Di-n-butyl phthalate	0.0100	0.009267		mg/L		93	61 - 130
Fluoranthene	0.0100	0.009242		mg/L		92	63 - 130
Pyrene	0.0100	0.008550		mg/L		85	62 - 130
Benzo[a]anthracene	0.0100	0.008877		mg/L		89	58 - 130
Bis(2-ethylhexyl) phthalate	0.0100	0.008063		mg/L		81	59 - 130
Chrysene	0.0100	0.008402		mg/L		84	60 - 130
Benzo[a]pyrene	0.0100	0.009148		mg/L		91	56 - 130

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
2,4,6-Tribromophenol	95		10 - 147
2-Fluorobiphenyl	70		10 - 150
2-Fluorophenol	38		10 - 130
Nitrobenzene-d5	71		23 - 130
Terphenyl-d14	85		42 - 133
Phenol-d5 (Surr)	25		10 - 130

Lab Sample ID: 600-86398-9 MS

Matrix: Water

Analysis Batch: 126600

Client Sample ID: WG-1620-FB10-20140129

Prep Type: Total/NA

Prep Batch: 126395

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Phenol	0.0000377	U	0.00472	0.002393		mg/L		51	10 - 144
Nitrobenzene	0.000104	U	0.00472	0.003997		mg/L		85	41 - 130
2,4-Dimethylphenol	0.000292	U	0.00472	0.004230		mg/L		90	45 - 130
Bis(2-chloroethoxy)methane	0.000123	U	0.00472	0.004147		mg/L		88	36 - 134
Naphthalene	0.0000755	U	0.00472	0.003873		mg/L		82	57 - 130
2-Methylnaphthalene	0.0000660	U	0.00472	0.003815		mg/L		81	52 - 130
2-Chloronaphthalene	0.0000755	U	0.00472	0.003786		mg/L		80	56 - 130
Acenaphthylene	0.0000566	U	0.00472	0.004051		mg/L		86	58 - 130
2,6-Dinitrotoluene	0.0000755	U	0.00472	0.004274		mg/L		91	56 - 130
Acenaphthene	0.0000755	U	0.00472	0.003558		mg/L		75	59 - 130
4-Nitrophenol	0.000528	U	0.00943	0.004595		mg/L		49	10 - 150
Dibenzofuran	0.0000755	U	0.00472	0.003771		mg/L		80	56 - 130
2,4-Dinitrotoluene	0.000123	U	0.00472	0.004313		mg/L		91	54 - 130
Fluorene	0.0000660	U	0.00472	0.003954		mg/L		84	57 - 130
4,6-Dinitro-2-methylphenol	0.000783	U	0.00943	0.007635		mg/L		81	10 - 145
N-Nitrosodiphenylamine	0.0000943	U	0.00472	0.004334		mg/L		92	55 - 137
1,2-Diphenylhydrazine	0.000104	U	0.00472	0.004207		mg/L		89	45 - 130
Pentachlorophenol	0.000575	U	0.00943	0.008352		mg/L		89	27 - 130
Phenanthrene	0.0000566	U	0.00472	0.004176		mg/L		89	60 - 130
Anthracene	0.0000472	U	0.00472	0.004201		mg/L		89	46 - 132
Di-n-butyl phthalate	0.000104	U	0.00472	0.004823		mg/L		102	61 - 130
Fluoranthene	0.0000660	U	0.00472	0.004808		mg/L		102	63 - 130
Pyrene	0.000104	U	0.00472	0.004432		mg/L		94	62 - 130
Benzo[a]anthracene	0.0000755	U	0.00472	0.004771		mg/L		101	58 - 130
Bis(2-ethylhexyl) phthalate	0.000349	U	0.00472	0.004358		mg/L		92	59 - 130
Chrysene	0.0000755	U	0.00472	0.004643		mg/L		98	60 - 130

TestAmerica Houston

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-86398-1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Lab Sample ID: 600-86398-9 MS

Matrix: Water

Analysis Batch: 126600

Client Sample ID: WG-1620-FB10-20140129

Prep Type: Total/NA

Prep Batch: 126395

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzo[a]pyrene	0.0000755	U	0.00472	0.004678		mg/L		99	56 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
2,4,6-Tribromophenol	104		10 - 147
2-Fluorobiphenyl	78		10 - 150
2-Fluorophenol	67		10 - 130
Nitrobenzene-d5	81		23 - 130
Terphenyl-d14	98		42 - 133
Phenol-d5 (Surr)	43		10 - 130

Lab Sample ID: 600-86398-9 MSD

Matrix: Water

Analysis Batch: 126600

Client Sample ID: WG-1620-FB10-20140129

Prep Type: Total/NA

Prep Batch: 126395

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Phenol	0.0000377	U	0.00472	0.001801	N	mg/L		38	10 - 144	28	20
Nitrobenzene	0.000104	U	0.00472	0.003138	N	mg/L		67	41 - 130	24	20
2,4-Dimethylphenol	0.000292	U	0.00472	0.003267	N	mg/L		69	45 - 130	26	20
Bis(2-chloroethoxy)methane	0.000123	U	0.00472	0.003131	N	mg/L		66	36 - 134	28	20
Naphthalene	0.0000755	U	0.00472	0.003019	N	mg/L		64	57 - 130	25	20
2-Methylnaphthalene	0.0000660	U	0.00472	0.002851	N	mg/L		60	52 - 130	29	20
2-Chloronaphthalene	0.0000755	U	0.00472	0.002942	N	mg/L		62	56 - 130	25	20
Acenaphthylene	0.0000566	U	0.00472	0.003199	N	mg/L		68	58 - 130	24	20
2,6-Dinitrotoluene	0.0000755	U	0.00472	0.003245	N	mg/L		69	56 - 130	27	20
Acenaphthene	0.0000755	U	0.00472	0.002871	N	mg/L		61	59 - 130	21	20
4-Nitrophenol	0.000528	U	0.00943	0.003800		mg/L		40	10 - 150	19	20
Dibenzofuran	0.0000755	U	0.00472	0.003074		mg/L		65	56 - 130	20	20
2,4-Dinitrotoluene	0.000123	U	0.00472	0.003580		mg/L		76	54 - 130	19	20
Fluorene	0.0000660	U	0.00472	0.003108	N	mg/L		66	57 - 130	24	20
4,6-Dinitro-2-methylphenol	0.000783	U	0.00943	0.006011	N	mg/L		64	10 - 145	24	20
N-Nitrosodiphenylamine	0.0000943	U	0.00472	0.003412	N	mg/L		72	55 - 137	24	20
1,2-Diphenylhydrazine	0.000104	U	0.00472	0.003348	N	mg/L		71	45 - 130	23	20
Pentachlorophenol	0.000575	U	0.00943	0.007212		mg/L		76	27 - 130	15	20
Phenanthrene	0.0000566	U	0.00472	0.003245	N	mg/L		69	60 - 130	25	20
Anthracene	0.0000472	U	0.00472	0.003322	N	mg/L		70	46 - 132	23	20
Di-n-butyl phthalate	0.000104	U	0.00472	0.003805	N	mg/L		81	61 - 130	24	20
Fluoranthene	0.0000660	U	0.00472	0.003740	N	mg/L		79	63 - 130	25	20
Pyrene	0.000104	U	0.00472	0.003440	N	mg/L		73	62 - 130	25	20
Benzo[a]anthracene	0.0000755	U	0.00472	0.003562	N	mg/L		76	58 - 130	29	20
Bis(2-ethylhexyl) phthalate	0.000349	U	0.00472	0.003421	N	mg/L		73	59 - 130	24	20
Chrysene	0.0000755	U	0.00472	0.003463	N	mg/L		73	60 - 130	29	20
Benzo[a]pyrene	0.0000755	U	0.00472	0.003858		mg/L		82	56 - 130	19	20

Surrogate	MSD %Recovery	MSD Qualifier	Limits
2,4,6-Tribromophenol	76		10 - 147
2-Fluorobiphenyl	61		10 - 150
2-Fluorophenol	51		10 - 130

TestAmerica Houston

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-86398-1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Lab Sample ID: 600-86398-9 MSD

Matrix: Water

Analysis Batch: 126600

Client Sample ID: WG-1620-FB10-20140129

Prep Type: Total/NA

Prep Batch: 126395

Surrogate	MSD		Limits
	%Recovery	Qualifier	
Nitrobenzene-d5	65		23 - 130
Terphenyl-d14	74		42 - 133
Phenol-d5 (Surr)	34		10 - 130

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Unadjusted Detection Limits

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-86398-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	MQL	MDL	Units	Method
1,2-Dichloroethane	0.00100	0.000140	mg/L	8260B
Benzene	0.00100	0.0000800	mg/L	8260B
Chlorobenzene	0.00100	0.000120	mg/L	8260B
Ethylbenzene	0.00100	0.000110	mg/L	8260B
Methylene Chloride	0.00100	0.000150	mg/L	8260B
Toluene	0.00100	0.000150	mg/L	8260B
Vinyl chloride	0.00200	0.000110	mg/L	8260B
Xylenes, Total	0.00300	0.000260	mg/L	8260B

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	MQL	MDL	Units	Method
1,2-Diphenylhydrazine	0.000500	0.000110	mg/L	8270C LL
2,4-Dimethylphenol	0.000500	0.000310	mg/L	8270C LL
2,4-Dinitrotoluene	0.000500	0.000130	mg/L	8270C LL
2,6-Dinitrotoluene	0.000500	0.0000800	mg/L	8270C LL
2-Chloronaphthalene	0.000500	0.0000800	mg/L	8270C LL
2-Methylnaphthalene	0.000500	0.0000700	mg/L	8270C LL
4,6-Dinitro-2-methylphenol	0.00100	0.000830	mg/L	8270C LL
4-Nitrophenol	0.00100	0.000560	mg/L	8270C LL
Acenaphthene	0.000500	0.0000800	mg/L	8270C LL
Acenaphthylene	0.000500	0.0000600	mg/L	8270C LL
Anthracene	0.000500	0.0000500	mg/L	8270C LL
Benzo[a]anthracene	0.000500	0.0000800	mg/L	8270C LL
Benzo[a]pyrene	0.000500	0.0000800	mg/L	8270C LL
Bis(2-chloroethoxy)methane	0.000500	0.000130	mg/L	8270C LL
Bis(2-ethylhexyl) phthalate	0.000500	0.000370	mg/L	8270C LL
Chrysene	0.000500	0.0000800	mg/L	8270C LL
Dibenzofuran	0.000500	0.0000800	mg/L	8270C LL
Di-n-butyl phthalate	0.000500	0.000110	mg/L	8270C LL
Fluoranthene	0.000500	0.0000700	mg/L	8270C LL
Fluorene	0.000500	0.0000700	mg/L	8270C LL
Naphthalene	0.000500	0.0000800	mg/L	8270C LL
Nitrobenzene	0.000500	0.000110	mg/L	8270C LL
N-Nitrosodiphenylamine	0.000500	0.000100	mg/L	8270C LL
Pentachlorophenol	0.00100	0.000610	mg/L	8270C LL
Phenanthrene	0.000500	0.0000600	mg/L	8270C LL
Phenol	0.000500	0.0000400	mg/L	8270C LL
Pyrene	0.000500	0.000110	mg/L	8270C LL

QC Association Summary

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-86398-1

GC/MS VOA

Analysis Batch: 126812

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-86398-1	WG-1620-MW64A-20140129	Total/NA	Water	8260B	
600-86398-2	WG-1620-MW62B-20140129	Total/NA	Water	8260B	
600-86398-3	WG-1620-MW58A-20140129	Total/NA	Water	8260B	
600-86398-4	WG-1620-MW51A-20140129	Total/NA	Water	8260B	
600-86398-5	WG-1620-MW50A-20140129	Total/NA	Water	8260B	
600-86398-8	WG-1620-MW66D-20140129	Total/NA	Water	8260B	
600-86398-9	WG-1620-FB10-20140129	Total/NA	Water	8260B	
600-86398-10	WG-1620-TB-20140129	Total/NA	Water	8260B	
LCS 600-126812/3	Lab Control Sample	Total/NA	Water	8260B	
MB 600-126812/4	Method Blank	Total/NA	Water	8260B	

Analysis Batch: 126929

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-86398-6	WG-1620-MW75B-20140129	Total/NA	Water	8260B	
600-86398-6 - DL	WG-1620-MW75B-20140129	Total/NA	Water	8260B	
600-86398-7	WG-1620-MW74B-20140129	Total/NA	Water	8260B	
600-86398-7 - DL	WG-1620-MW74B-20140129	Total/NA	Water	8260B	
LCS 600-126929/3	Lab Control Sample	Total/NA	Water	8260B	
MB 600-126929/4	Method Blank	Total/NA	Water	8260B	

GC/MS Semi VOA

Prep Batch: 126395

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-86398-1	WG-1620-MW64A-20140129	Total/NA	Water	3510C	
600-86398-2	WG-1620-MW62B-20140129	Total/NA	Water	3510C	
600-86398-3	WG-1620-MW58A-20140129	Total/NA	Water	3510C	
600-86398-4	WG-1620-MW51A-20140129	Total/NA	Water	3510C	
600-86398-5	WG-1620-MW50A-20140129	Total/NA	Water	3510C	
600-86398-6	WG-1620-MW75B-20140129	Total/NA	Water	3510C	
600-86398-6 - DL	WG-1620-MW75B-20140129	Total/NA	Water	3510C	
600-86398-7	WG-1620-MW74B-20140129	Total/NA	Water	3510C	
600-86398-7 - DL	WG-1620-MW74B-20140129	Total/NA	Water	3510C	
600-86398-8	WG-1620-MW66D-20140129	Total/NA	Water	3510C	
600-86398-9	WG-1620-FB10-20140129	Total/NA	Water	3510C	
600-86398-9 MS	WG-1620-FB10-20140129	Total/NA	Water	3510C	
600-86398-9 MSD	WG-1620-FB10-20140129	Total/NA	Water	3510C	
LCS 600-126395/2-A	Lab Control Sample	Total/NA	Water	3510C	
MB 600-126395/1-A	Method Blank	Total/NA	Water	3510C	

Analysis Batch: 126600

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-86398-1	WG-1620-MW64A-20140129	Total/NA	Water	8270C LL	126395
600-86398-2	WG-1620-MW62B-20140129	Total/NA	Water	8270C LL	126395
600-86398-3	WG-1620-MW58A-20140129	Total/NA	Water	8270C LL	126395
600-86398-4	WG-1620-MW51A-20140129	Total/NA	Water	8270C LL	126395
600-86398-9	WG-1620-FB10-20140129	Total/NA	Water	8270C LL	126395
600-86398-9 MS	WG-1620-FB10-20140129	Total/NA	Water	8270C LL	126395
600-86398-9 MSD	WG-1620-FB10-20140129	Total/NA	Water	8270C LL	126395
LCS 600-126395/2-A	Lab Control Sample	Total/NA	Water	8270C LL	126395

TestAmerica Houston

QC Association Summary

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-86398-1

GC/MS Semi VOA (Continued)

Analysis Batch: 126600 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 600-126395/1-A	Method Blank	Total/NA	Water	8270C LL	126395

Analysis Batch: 126908

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-86398-5	WG-1620-MW50A-20140129	Total/NA	Water	8270C LL	126395
600-86398-6	WG-1620-MW75B-20140129	Total/NA	Water	8270C LL	126395
600-86398-7	WG-1620-MW74B-20140129	Total/NA	Water	8270C LL	126395
600-86398-8	WG-1620-MW66D-20140129	Total/NA	Water	8270C LL	126395

Analysis Batch: 127050

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-86398-6 - DL	WG-1620-MW75B-20140129	Total/NA	Water	8270C LL	126395
600-86398-7 - DL	WG-1620-MW74B-20140129	Total/NA	Water	8270C LL	126395

Lab Chronicle

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-86398-1

Client Sample ID: WG-1620-MW64A-20140129

Lab Sample ID: 600-86398-1

Date Collected: 01/29/14 07:50

Matrix: Water

Date Received: 01/31/14 09:42

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	126812	02/06/14 17:22	YX1	TAL HOU
Total/NA	Prep	3510C			126395	02/03/14 07:31	LER	TAL HOU
Total/NA	Analysis	8270C LL		1	126600	02/04/14 06:21	TTD	TAL HOU

Client Sample ID: WG-1620-MW62B-20140129

Lab Sample ID: 600-86398-2

Date Collected: 01/29/14 09:00

Matrix: Water

Date Received: 01/31/14 09:42

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	126812	02/06/14 17:47	YX1	TAL HOU
Total/NA	Prep	3510C			126395	02/03/14 07:31	LER	TAL HOU
Total/NA	Analysis	8270C LL		1	126600	02/04/14 06:47	TTD	TAL HOU

Client Sample ID: WG-1620-MW58A-20140129

Lab Sample ID: 600-86398-3

Date Collected: 01/29/14 09:50

Matrix: Water

Date Received: 01/31/14 09:42

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	126812	02/06/14 18:12	YX1	TAL HOU
Total/NA	Prep	3510C			126395	02/03/14 07:31	LER	TAL HOU
Total/NA	Analysis	8270C LL		1	126600	02/04/14 07:14	TTD	TAL HOU

Client Sample ID: WG-1620-MW51A-20140129

Lab Sample ID: 600-86398-4

Date Collected: 01/29/14 11:10

Matrix: Water

Date Received: 01/31/14 09:42

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	126812	02/06/14 19:52	YX1	TAL HOU
Total/NA	Prep	3510C			126395	02/03/14 07:31	LER	TAL HOU
Total/NA	Analysis	8270C LL		1	126600	02/04/14 07:40	TTD	TAL HOU

Client Sample ID: WG-1620-MW50A-20140129

Lab Sample ID: 600-86398-5

Date Collected: 01/29/14 13:05

Matrix: Water

Date Received: 01/31/14 09:42

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	126812	02/06/14 20:18	YX1	TAL HOU
Total/NA	Prep	3510C			126395	02/03/14 07:31	LER	TAL HOU
Total/NA	Analysis	8270C LL		1	126908	02/06/14 11:41	TTD	TAL HOU

Lab Chronicle

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-86398-1

Client Sample ID: WG-1620-MW75B-20140129

Lab Sample ID: 600-86398-6

Date Collected: 01/29/14 14:00

Matrix: Water

Date Received: 01/31/14 09:42

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		5	126929	02/07/14 18:32	WS1	TAL HOU
Total/NA	Analysis	8260B	DL	100	126929	02/07/14 18:58	WS1	TAL HOU
Total/NA	Prep	3510C			126395	02/03/14 07:31	LER	TAL HOU
Total/NA	Analysis	8270C LL		500	126908	02/06/14 12:34	TTD	TAL HOU
Total/NA	Prep	3510C	DL		126395	02/03/14 07:31	LER	TAL HOU
Total/NA	Analysis	8270C LL	DL	2500	127050	02/10/14 14:36	TTD	TAL HOU

Client Sample ID: WG-1620-MW74B-20140129

Lab Sample ID: 600-86398-7

Date Collected: 01/29/14 15:00

Matrix: Water

Date Received: 01/31/14 09:42

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		5	126929	02/07/14 19:24	WS1	TAL HOU
Total/NA	Analysis	8260B	DL	100	126929	02/07/14 19:49	WS1	TAL HOU
Total/NA	Prep	3510C			126395	02/03/14 07:31	LER	TAL HOU
Total/NA	Analysis	8270C LL		1000	126908	02/06/14 13:26	TTD	TAL HOU
Total/NA	Prep	3510C	DL		126395	02/03/14 07:31	LER	TAL HOU
Total/NA	Analysis	8270C LL	DL	10000	127050	02/10/14 15:01	TTD	TAL HOU

Client Sample ID: WG-1620-MW66D-20140129

Lab Sample ID: 600-86398-8

Date Collected: 01/29/14 16:25

Matrix: Water

Date Received: 01/31/14 09:42

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	126812	02/06/14 19:26	YX1	TAL HOU
Total/NA	Prep	3510C			126395	02/03/14 07:31	LER	TAL HOU
Total/NA	Analysis	8270C LL		1	126908	02/06/14 13:52	TTD	TAL HOU

Client Sample ID: WG-1620-FB10-20140129

Lab Sample ID: 600-86398-9

Date Collected: 01/29/14 16:45

Matrix: Water

Date Received: 01/31/14 09:42

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	126812	02/06/14 19:01	YX1	TAL HOU
Total/NA	Prep	3510C			126395	02/03/14 07:31	LER	TAL HOU
Total/NA	Analysis	8270C LL		1	126600	02/04/14 05:02	TTD	TAL HOU

Lab Chronicle

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-86398-1

Client Sample ID: WG-1620-TB-20140129

Lab Sample ID: 600-86398-10

Date Collected: 01/29/14 00:00

Matrix: Water

Date Received: 01/31/14 09:42

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	126812	02/06/14 18:36	YX1	TAL HOU

Laboratory References:

TAL HOU = TestAmerica Houston, 6310 Rothway Street, Houston, TX 77040, TEL (713)690-4444

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Certification Summary

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-86398-1

Laboratory: TestAmerica Houston

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Arkansas DEQ	State Program	6	88-0759	08-04-14
Louisiana	NELAP	6	30643	06-30-14
Oklahoma	State Program	6	1309	08-31-14
Texas	NELAP	6	T104704223	10-31-14
USDA	Federal		P330-08-00217	04-01-14
Utah	NELAP	8	TX00083	10-31-14

Client Information
 Client Contact: Mr. Eric Matzner
 Company: Pastor, Behling & Wheeler LLC
 Address: 2201 Double Creek Dr Suite 4004
 City: Round Rock
 State Zip: TX, 78664
 Phone: 512-671-3434(Tel) 512-671-3446(Fax)
 Email: eric.matzner@pbwllc.com
 Project Name: 1620 UPRR HMPV
 Site: SSOVW#:
 Sampler: **John Brayton**
 Phone: 512-671-3434
 Lab P/N: Kudachadkar Sachin G
 E-Mail: sachin.kudachadkar@testamericainc.com
 Carrier Tracking No(s):
 COC No: 600-26645-9048-10
 Page 1 of 1
 Job #:

Analysis Requested
 Due Date Requested:
 TAT Requested (days):
 PO #:
 Purchase Order not required
 W/O #:
 Project #:
 60003722
 SSOVW#:
 Field Filtered Sample (Yes or No)
 Perform MS/MSD (Yes or No)
 8260B_LL - (MOD) 8260B- Volatiles
 8270C_LL - (MOD) 8270C
VINYL CHLORIDE
 Preservation Codes:
 A - HCL
 B - NaOH
 C - Zn Acetate
 D - Nitric Acid
 E - NaHSO4
 F - MeOH
 G - Anichlor
 H - Ascorbic Acid
 I - Ice
 J - DI Water
 K - EDTA
 L - EDA
 M - Hexane
 N - None
 O - AsH2O2
 P - Na2O4S
 Q - Na2SO3
 R - Na2S2O3
 S - H2SO4
 T - TSP Dodecahydrate
 U - Acetone
 V - MCAA
 W - pH 4-5
 Z - other (specify)
 Other:
 Special Instructions/Note:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Coimp, G=grab)	Matrix (W=water, S=solid, O=water, A=air)	Preservation Code:	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	Total Number of containers	Special Instructions/Note:
W6-1620-MW164A-20140129	1-29-14	0750	G	Water					
W6-1620-MW162B-20140129		0900	G	Water					
W6-1620-MW59A-20140129		0950	G	Water					
W6-1620-MW51A-20140129		1110	G	Water					
W6-1620-MW50A-20140129		1305	G	Water					
W6-1620-MW-15B-20140129		1400	G	Water					
W6-1620-MW-14B-20140129		1500	G	Water					
W6-1620-MW-16D-20140129		1625	G	Water					
W6-1620-FB10-20140129		1645	G	Water					
W6-1620-TB-20140129				Water					

Possible Hazard Identification
 Non-Hazard Flammable Skin Irritant Poison B Unknown Radiological
 Deliverable Requested: I, II, III, IV, Other (specify)
Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
 Return To Client Disposal By Lab Archive For _____ Months

Empty Kit Relinquished by: [Signature]
Relinquished by: [Signature] Date/Time: 1-31-14 Date: 9/1
Relinquished by: [Signature] Date/Time: Date/Time: Company: PBW
Relinquished by: [Signature] Date/Time: Date/Time: Company: PBW
 Received by: [Signature] Date/Time: 1/31/14 Date/Time: 9/1
 Received by: [Signature] Date/Time: Date/Time: Company: [Signature]

Custody Seals Intact: A Yes A No
 Custody Seal No.:
 Cooler Temperature(s) °C and Other Remarks:



Login Sample Receipt Checklist

Client: Pastor, Behling & Wheeler LLC

Job Number: 600-86398-1

Login Number: 86398

List Source: TestAmerica Houston

List Number: 1

Creator: Lopez, Sandro R

Question	Answer	Comment
Radioactivity wasn't checked or is <=/ background as measured by a survey meter.	N/A	Lab does not accept radioactive samples.
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	5.0/4.2
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	Check done at department level as required.



MEMORANDUM

To: Eric Matzner REF. NO.: 085706-1620

FROM: Chris G. Knight/eew/33-NF *CK* DATE: September 30, 2014

CC: Jesse Orth; Julie Lidstone

RE: **Data Usability Summary
2014 2nd Semiannual Site Wide Monitoring Event
Union Pacific Railroad (UPRR) – 1620 Wood Preserving Works
Houston, Texas
July-August 2014**

1.0 Scope of Data Usability Study

The following document details a Data Usability Summary (DUS) of analytical results for groundwater samples collected in support of the Semiannual Site Wide Monitoring Event at the Union Pacific Railroad – 1620 Wood Preserving Works site during July-August 2014. Samples were submitted to TestAmerica Laboratories, Inc., located in Houston, Texas and are reported in data packages 600-95617-1, 600-95956-1, 600-96037-1, 600-96083-1, 600-96330-1, 600-97854-1, and 600-97855-1. The intended use of the data is to support the groundwater sampling event at the site by providing current concentrations of chemicals of concern (COCs).

Data were reviewed and validated by Chris G. Knight of Conestoga-Rovers and Associates, in accordance with Title 30 of the Texas Administrative Code Section 350.54 (30 TAC 350.54) as described in the document entitled "Review and Reporting of COC Concentration Data under TRRP", (RG-366/TRRP-13), revised May 2010. Evaluation of the data was based on information obtained from the chain of custody forms, finished report forms, method blank data, duplicate data, recovery data from surrogate spikes, laboratory control samples (LCS), matrix spikes (MS), field quality assurance/quality control (QA/QC) samples, the laboratory review checklist (LRC), and the laboratory exception report (ER).

A sample collection and analysis summary is presented in Table 1. This summary provides a cross-reference of field sample identification numbers and location identification. Each sample is assigned a unique field identification number.

The validated sample results are presented in Table 2. The laboratory's data packages, including the LRC and any associated exception reports, are presented in Attachment A. Each data package includes a cross-reference list of field sample identifications to laboratory sample designations.

A summary of the analytical methodology is presented in Table 3.

2.0 Laboratory Qualifications

The Laboratory's quality assurance program is consistent with the quality standards outlined in the National Environmental Laboratory Accreditation Program (NELAP). This laboratory was accredited under Texas Certification number T104704223 at the time the analysis was performed and the certificate is included in Attachment B.

3.0 Project Objectives

The QA/QC program was designed to identify contamination resulting from the sampling, sample transport and analytical process through the analysis of a trip blank, field blanks, and method blanks. The QA/QC program was designed to evaluate the quality of the resulting data with respect to bias and precision through analysis of laboratory control samples (LCS) and matrix spike/duplicate (MS/DUP) or matrix spike/matrix spike duplicate (MS/MSD) analyses.

4.0 Data Review/Validation Results

4.1 Sample Holding Time and Preservation

Samples were shipped with chains of custody and the paper work was filled out properly. All samples were properly preserved, delivered on ice, and stored by the laboratory at the required temperature (0-6°C).

Sample chain of custody documents and analytical reports were used to determine sample holding times. All samples were prepared and analyzed within the required holding times.

4.2 Sample Containers

Sample containers used were certified pre-cleaned glass containers provided by the laboratory. These containers meet or exceed analyte specifications established in the United States Environmental Protection Agency (USEPA) *Specifications and Guidance for Contaminant-free Sample Containers*.

4.3 Calibrations

According to the LRC, initial calibration and continuing calibration data met the criteria for the selected methods.

4.4 Laboratory Method Blank

Method blanks are prepared from a purified matrix and analyzed with investigative samples to determine the existence and magnitude of sample contamination introduced during the analytical procedures. As

these were not discrete samples handled in the field, method blanks are not listed on the sample identification cross-reference list found in the data packages.

For this study, laboratory method blanks were analyzed at a minimum frequency of 1 per 20 investigative samples and/or 1 per analytical batch and results are reported in the laboratory data packages.

All method blank results were non-detect or below the method quantitation limit (MQL), indicating that laboratory contamination was not a factor for this investigation with the following exception:

- i. One method blank yielded a detected result for naphthalene. The associated sample results were non-detect and not impacted.

4.5 Internal Standard and Surrogate Spike Recoveries

Recoveries of internal standards are addressed in the LRC of the data packages. All internal standard recoveries associated with the compounds of interest were acceptable per the LRC.

In accordance with the methods employed, all samples, blanks, and QC samples analyzed for volatile organic compounds (VOCs) and semi-volatile organic compounds (SVOCs) are spiked with surrogate compounds prior to sample extraction and analysis. Surrogate recoveries provide a means to evaluate the effects of laboratory performance on individual sample matrices. Each individual surrogate compound is expected to meet the laboratory control limits. According to the TCEQ Regulatory Guidelines, one outlying surrogate is acceptable for methods with multiple surrogate spike compounds as long as the recovery is at least 10 percent.

Surrogate recoveries were assessed against laboratory control limits and the guidance in TRRP-13. All surrogate recoveries met the above criteria with the following exception (see Table 4):

- i. One SVOCs sample was reported with low associated surrogate recoveries. Associated detected sample results were qualified as estimated; biased low. Non-detect sample results were rejected due to recoveries less than 10 percent.

4.6 Laboratory Control Sample Analyses

Laboratory control samples/ laboratory control sample duplicates (LCS/LCSD) are prepared and analyzed as samples to assess the analytical efficiencies of the methods employed, independent of sample matrix effects. The relative percent difference (RPD) of the LCS/LCSD recoveries is used to evaluate analytical precision.

For this study, LCS/LCSD were analyzed at a minimum frequency of 1 per 20 investigative samples and/or 1 per analytical batch.

The LCS/LCSD contained all compounds of interest. All LCS recoveries and RPDs were within the laboratory control limits, demonstrating acceptable analytical accuracy and precision with the following exception:

- i. Non-detect sample results associated with high LCS/LCSD recoveries or RPDs were not qualified – they would not be impacted by any indicated high bias/variability. If only the LCS or LCSD recovery was outside of control limits, no qualification of the data was performed based on the acceptable recovery of the companion spike and the acceptable RPD.

4.7 Matrix Spike/Matrix Spike Duplicate (MS/MSD) Analyses

To evaluate the effects of sample matrices on the extraction or digestion process, measurement procedures, and accuracy of a particular analysis, samples are spiked with a known concentration of the analytes of concern and analyzed as MS/MSD samples. The RPD between the MS and MSD is used to assess analytical precision. If the original sample concentration is significantly greater than the spike concentration, the recovery is not assessed.

MS/MSD analyses were performed as specified in Table 1. The recovery ranges established by the laboratory are adopted as the acceptance criteria for the project.

The MS/MSD samples were spiked with all compounds of interest. All percent recoveries and RPD values were within the laboratory control limits, demonstrating acceptable analytical accuracy and precision with the following exception (see Table 5):

- i. Non-detect sample results associated with high MS/MSD recoveries or RPDs were not qualified – they would not be impacted by any indicated high bias/variability. If only the MS or MSD recovery was outside of control limits, no qualification of the data was performed based on the acceptable recovery of the companion spike and the acceptable RPD.
- ii. Several SVOCs MS/MSD analysis resulted in low recoveries due to matrix interference. No further action was required.
- iii. One SVOCs MS/MSD analysis resulted in a high RPD for bis(2-ethylhexyl) phthalate. Associated detected sample results were qualified as estimated.

The laboratory performed additional MS/MSD on non-site samples. These cannot be used to assess accuracy and precision for the site samples.

4.8 Field QA/QC Samples

The field QA/QC consisted of one trip blank sample, seven field blank samples, and four field duplicate sample sets.

Trip Blank Sample Analysis

To evaluate contamination from sample collection, transportation, storage, and analytical activities, one trip blank was submitted to the laboratory for VOCs analysis. All results were non-detect for the compounds of interest.

Field Blank Sample Analysis

To assess field decontamination procedures, ambient conditions at the site, and cleanliness of sample containers, seven field blanks were submitted for analysis, as identified in Table 1. All results were non-detect for the analytes of interest with the following exceptions (see Table 6):

- i. Several field blanks yielded detected results for SVOCs analysis. Associated sample results that were significantly greater than the concentration found in the field blank or were non-detect were not impacted. Associated sample results with comparable concentrations were qualified as non-detect.

Field Duplicate Sample Analysis

To assess the analytical and sampling protocol precision, four field duplicate samples were collected and submitted "blind" to the laboratory, as specified in Table 1. The RPDs associated with these duplicate samples must be less than 30 percent for water samples. The RPDs are only used when sample concentrations are above the estimated regions of detection.

All field duplicate results were within acceptable agreement, demonstrating acceptable sampling and analytical precision with the following exceptions (see Table 7):

- i. SVOCs results did show some variability in four of the field duplicate sample sets. The associated results were qualified as estimated.
- ii. VOCs results did show some variability in one of the field duplicate sample sets. The associated results were qualified as estimated.

4.9 Field Procedures

Pastor, Behling & Wheeler, LLC (PB&W) collected groundwater samples in accordance with their Standard Operating Procedures (SOP) for sample collection.

5.0 Analyte Reporting

The laboratory reported detected results for each analyte down to the sample detection limit (SDL), which is defined as the MDL with sample-specific adjustments for dilutions, aliquot size, volumes, etc. Positive analyte detections less than the MQL but greater than the SDL were qualified as estimated (J) in Table 3 and the also in the attached copies of the laboratory data packages unless qualified otherwise in this memorandum.

6.0 Conclusion

Based on the assessment detailed in the foregoing, the data summarized in Table 2 are usable for the purpose of supporting the groundwater sampling event at the site by providing current concentrations of chemicals of concern with the specific qualifications and exceptions noted herein.

TABLE 1

SAMPLE COLLECTION AND ANALYSIS SUMMARY
 2014 2nd SEMI ANNUAL SITE WIDE MONITORING EVENT
 UNION PACIFIC RAILROAD (UPRR) - 1620 WOOD PRESERVING WORKS
 HOUSTON, TEXAS
 JULY-AUGUST 2014

Sample Identification	Location	Matrix	Collection Date (mm/dd/yyyy)	Collection Time (hr:min)	Analysis/Parameters		Comments
					VOCs	SVOCs	
WG-1620-MW48C-20140716	MW-48C	water	07/16/2014	13:15	X	X	
WG-1620-MW49A-20140716	MW-49A	water	07/16/2014	14:20	X	X	
WG-1620-MW49B-20140716	MW-49B	water	07/16/2014	15:10	X	X	
WG-1620-MW69A-20140716	MW-69A	water	07/16/2014	16:00	X	X	
WG-1620-MW60A-20140716	MW-60A	water	07/16/2014	17:00	X	X	
WG-1620-MW18A-20140716	MW-18A	water	07/16/2014	18:15	X	X	
WG-1620-MW18C-20140716	MW-18C	water	07/16/2014	19:10	X	X	
WG-1620-FB1-20140716	-	water	07/16/2014	19:20	X	X	Field Blank
WG-1620-MW17C-20140717	MW-17C	water	07/17/2014	07:40	X	X	
WG-1620-MW17-20140717	MW-17	water	07/17/2014	08:30	X	X	
WG-1620-MW15B-20140717	MW-15B	water	07/17/2014	09:30	X	X	
WG-1620-MW15C-20140717	MW-15C	water	07/17/2014	10:20	X	X	
WG-1620-MW15A-20140717	MW-15A	water	07/17/2014	11:20	X	X	
WG-1620-MW55B-20140717	MW-55B	water	07/17/2014	12:30	X	X	
WG-1620-MW55A-20140717	MW-55A	water	07/17/2014	13:20	X	X	
WG-1620-MW19C-20140717	MW-19C	water	07/17/2014	14:20	X	X	
WG-1620-FB2-20140717	-	water	07/17/2014	14:35	X	X	Field Blank
WG-1620-MW73B-20140718	MW-73B	water	07/18/2014	08:00	X	X	
WG-1620-MW14-20140718	MW-14	water	07/18/2014	09:00	X	X	
WG-1620-MW40B-20140718	MW-40B	water	07/18/2014	09:50	X	X	
WG-1620-MW42B-20140718	MW-42B	water	07/18/2014	10:50	X	X	
WG-1620-FB-3-20140718	-	water	07/18/2014	11:00	X	X	Field Blank
WG-1620-TB1-20140718	-	water	07/18/2014	-	X		Trip Blank
WG-1620-MW32AR-20140724	MW-32AR	water	07/24/2014	07:50	X	X	
WG-1620-MW68C-20140724	MW-68C	water	07/24/2014	08:50	X	X	
WG-1620-MW68B-20140724	MW-68B	water	07/24/2014	10:00	X	X	
WG-1620-DUP1-20140724	MW-68B	water	07/24/2014	10:00	X	X	Field duplicate of MW-68B
WG-1620-MW51A-20140724	MW-51A	water	07/24/2014	10:00	X	X	
WG-1620-MW51C-20140724	MW-51C	water	07/24/2014	10:50	X	X	
WG-1620-MW67B-20140724	MW-67B	water	07/24/2014	11:35	X	X	
WG-1620-MW76C-20140724	MW-76C	water	07/24/2014	12:00	X	X	
WG-1620-MW26A-20140724	MW-26A	water	07/24/2014	13:45	X	X	
WG-1620-MW63B-20140724	MW-63B	water	07/24/2014	14:35	X	X	
WG-1620-MW77A-20140724	MW-77A	water	07/24/2014	15:15	X	X	
WG-1620-MW35A-20140724	MW-35A	water	07/24/2014	15:35	X	X	
WG-1620-MW78A-20140724	MW-78A	water	07/24/2014	16:10	X	X	
WG-1620-FB4-20140724	-	water	07/24/2014	16:25	X	X	Field Blank
WG-1620-MW-35B-20140725	MW-35B	water	07/24/2014	16:30	X	X	
WG-1620-MW81B-20140724	MW-81B	water	07/24/2014	17:30	X	X	

TABLE 1

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 2014 2nd SEMI ANNUAL SITE WIDE MONITORING EVENT
 UNION PACIFIC RAILROAD (UPRR) - 1620 WOOD PRESERVING WORKS
 HOUSTON, TEXAS
 JULY-AUGUST 2014

Sample Identification	Location	Matrix	<u>Analysis/Parameters</u>				Comments
			Collection Date (mm/dd/yyyy)	Collection Time (hr:min)	VOCs	SVOCs	
WG-1620-MW75B-20140724	MW-75B	water	07/24/2014	18:25	X	X	
WG-1620-MW53C-20140725	MW-53C	water	07/25/2014	07:50	X	X	
WG-1620-MW54C-20140725	MW-54C	water	07/25/2014	08:55	X	X	
WG-1620-MW13-20140725	MW-13	water	07/25/2014	09:05	X	X	
WG-1620-MW38B-20140725	MW-38B	water	07/25/2014	10:00	X	X	
WG-1620-MW21C-20140725	MW-21C	water	07/25/2014	10:15	X	X	
WG-1620-DUP2-20140725	MW-21C	water	07/25/2014	10:15	X	X	Field duplicate of MW-21C
WG-1620-MW38A-20140725	MW-38A	water	07/25/2014	10:50	X	X	
WG-1620-MW39B-20140725	MW-39B	water	07/25/2014	11:20	X	X	
WG-1620-MW28A-20140725	MW-28A	water	07/25/2014	11:55	X	X	
WG-1620-MW28C-20140725	MW-28C	water	07/25/2014	12:55	X	X	
WG-1620-TW41B-20140725	TW-41B	water	07/25/2014	13:20	X	X	
WG-1620-MW12C-20140725	MW-12C	water	07/25/2014	14:15	X	X	
WG-1620-MW27C-20140725	MW-27C	water	07/25/2014	14:50	X	X	
WG-1620-MW12A-20140725	MW-12A	water	07/25/2014	15:05	X	X	
WG-1620-FB5-20140725	-	water	07/25/2014	15:15	X	X	Field Blank
WG-1620-MW36B-20140728	MW-36B	water	07/28/2014	13:50	X	X	
WG-1620-MW36A-20140728	MW-36A	water	07/28/2014	14:50	X	X	
WG-1620-MW71B-20140728	MW-71B	water	07/28/2014	16:00	X	X	
WG-1620-MW33BR-20140728	MW-33BR	water	07/28/2014	17:05	X	X	
WG-1620-MW70B-20140728	MW-70B	water	07/28/2014	18:00	X	X	
WG-1620-FB-6-20140728	-	water	07/28/2014	18:15	X	X	Field Blank
WG-1620-MW25A-20140729	MW-25A	water	07/29/2014	07:45	X	X	
WG-1620-MW25C-20140729	MW-25C	water	07/29/2014	08:30	X	X	
WG-1620-MW34CR-20140729	MW-34CR	water	07/29/2014	09:30	X	X	
WG-1620-MW05-20140729	MW-05	water	07/29/2014	10:40	X	X	
WG-1620-MW64A-20140729	MW-64A	water	07/29/2014	11:45	X	X	
WG-1620-P11-20140729	P-11	water	07/29/2014	13:50	X	X	
WG-1620-MW62B-20140729	MW-62B	water	07/29/2014	14:55	X	X	
WG-1620-MW57A-20140729	MW-57A	water	07/29/2014	16:05	X	X	
WG-1620-MW57B-20140729	MW-57B	water	07/29/2014	17:00	X	X	
WG-1620-FB7-20140729	-	water	07/29/2014	17:15	X	X	Field Blank
WG-1620-MW22A-20140730	MW-22A	water	07/30/2014	07:50	X	X	
WG-1620-MW22B-20140730	MW-22B	water	07/30/2014	08:45	X	X	
WG-1620-MW59A-20140730	MW-59A	water	07/30/2014	10:00	X	X	
WG-1620-MW59B-20140730	MW-59B	water	07/30/2014	10:55	X	X	
WG-1620-MW47C-20140730	MW-47C	water	07/30/2014	12:00	X	X	
WG-1620-MW80B-20140828	MW-80B	water	08/28/2014	08:10	X	X	
WG-1620-MW50A-20140828	MW-50A	water	08/28/2014	09:05	X	X	

TABLE 1

SAMPLE COLLECTION AND ANALYSIS SUMMARY
 2014 2nd SEMI ANNUAL SITE WIDE MONITORING EVENT
 UNION PACIFIC RAILROAD (UPRR) - 1620 WOOD PRESERVING WORKS
 HOUSTON, TEXAS
 JULY-AUGUST 2014

Sample Identification	Location	Matrix	<u>Analysis/Parameters</u>				Comments
			Collection Date (mm/dd/yyyy)	Collection Time (hr:min)	VOCs	SVOCs	
WG-1620-MW74B-20140828	MW-74B	water	08/28/2014	10:30	X	X	
WG-1620-MW61A-20140828	MW-61A	water	08/28/2014	10:45	X	X	
WG-1620-MW66D-20140828	MW-66D	water	08/28/2014	10:53	X	X	
WG-1620-MW79A-20140828	MW-79A	water	08/28/2014	11:25	X	X	
WG-1620-MW44A-20140828	MW-44A	water	08/28/2014	12:10	X	X	
WG-1620-MW65D-20140828	MW-65D	water	08/28/2014	12:17	X	X	
WG-1620-MW58A-20140828	MW-58A	water	08/28/2014	12:30	X	X	
WG-1620-MW33A-20140828	MW-33A	water	08/28/2014	13:00	X	X	
WG-1620-MWDUP A-20140828	MW-33A	water	08/28/2014	13:00	X	X	Field duplicate of MW-33A
WG-1620-MW23C-20140828	MW-23C	water	08/28/2014	13:35	X	X	
WG-1620-MW36D-20140828	MW-36D	water	08/28/2014	14:12	X	X	
WG-1620-MW22B- 20140828	MW-22B	water	08/28/2014	15:50	X	X	
WG-1620-MW68C-20140828	MW-68C	water	08/28/2014	16:15	X		
WG-1620-MW59D-20140828	MW-59D	water	08/28/2014	16:43	X	X	
WG-1620-DUPD-20140828	MW-59D	water	08/28/2014	16:43	X	X	Field duplicate of MW-59D

Notes:

VOCs - Volatile Organic Compounds

SVOCs - Semi-volatile Organic Compounds

MS/MSD - Matrix Spike and/or Matrix Spike Duplicate

ANALYTICAL RESULTS SUMMARY
2014 2nd SEMIANNUAL SITE WIDE MONITORING EVENT
UNION PACIFIC RAILROAD (UPRR) - 1620 WOOD PRESERVING WORKS
HOUSTON, TEXAS
JULY-AUGUST 2014

<i>Sample Location:</i>		<i>MW-05</i>	<i>MW-12A</i>	<i>MW-12C</i>	<i>MW-13</i>	<i>MW-14</i>
<i>Sample ID:</i>		<i>WG-1620-MW05-20140729</i>	<i>WG-1620-MW12A-20140725</i>	<i>WG-1620-MW12C-20140725</i>	<i>WG-1620-MW13-20140725</i>	<i>WG-1620-MW14-20140718</i>
<i>Sample Date:</i>		<i>7/29/2014</i>	<i>7/25/2014</i>	<i>7/25/2014</i>	<i>7/25/2014</i>	<i>7/18/2014</i>
<i>Parameters</i>	<i>Units</i>					
<i>Volatile Organic Compounds</i>						
1,2-Dichloroethane	mg/L	<0.000140	<0.000140	<0.000140	<0.000140	<0.000140
Benzene	mg/L	<0.0000800	0.000122 J	<0.0000800	<0.0000800	<0.0000800
Chlorobenzene	mg/L	<0.000120	<0.000120	<0.000120	<0.000120	<0.000120
Ethylbenzene	mg/L	<0.000110	0.000403 J	<0.000110	<0.000110	<0.000110
Methylene chloride	mg/L	<0.000150	<0.000150	<0.000150	<0.000150	<0.000150
Toluene	mg/L	<0.000150	<0.000150	<0.000150	<0.000150	<0.000150
Vinyl chloride	mg/L	-	<0.000110	<0.000110	<0.000110	<0.000110
Xylenes (total)	mg/L	<0.000260	0.00165 J	<0.000260	<0.000260	<0.000260
<i>Semi-volatile Organic Compounds</i>						
1,2-Diphenylhydrazine	mg/L	<0.000108	<0.000107	<0.000107	<0.000107	<0.000109
2,4-Dimethylphenol	mg/L	<0.000304	<0.000301	<0.000301	<0.000301	<0.000307
2,4-Dinitrotoluene	mg/L	<0.000127	<0.000126	<0.000126	<0.000126	<0.000129
2,6-Dinitrotoluene	mg/L	<0.0000784	<0.0000777	0.209	<0.0000777	0.0788
2-Chloronaphthalene	mg/L	<0.0000784	<0.0000777	<0.0000777	<0.0000777	<0.0000792
2-Methylnaphthalene	mg/L	<0.0000686	0.121	<0.000146	<0.000687	0.000336 J
4,6-Dinitro-2-methylphenol	mg/L	<0.000814	<0.000806	<0.000806	<0.000806	<0.000822
4-Nitrophenol	mg/L	<0.000549	<0.000544	<0.000544	<0.000544	<0.000554
Acenaphthene	mg/L	<0.0000784	0.292	<0.000114	<0.000329	0.000619
Acenaphthylene	mg/L	<0.0000588	0.00225	<0.0000583	<0.0000583	<0.0000594
Anthracene	mg/L	0.000153 J	0.0179	<0.0000485	<0.000587	0.000139 J
Benzo(a)anthracene	mg/L	<0.0000784	0.000268 J	<0.0000777	<0.0000777	<0.0000792
Benzo(a)pyrene	mg/L	<0.0000784	<0.0000777	<0.0000777	<0.0000777	<0.0000792
bis(2-Chloroethoxy)methane	mg/L	<0.000127	<0.000126	<0.000126	<0.000126	<0.000129
bis(2-Ethylhexyl)phthalate (DEHP)	mg/L	<0.000363	0.000679	<0.000359	<0.000359	0.000615
Chrysene	mg/L	<0.0000784	0.000241 J	<0.0000777	<0.0000777	<0.0000792
Dibenzofuran	mg/L	<0.0000784	0.193	<0.0000910	<0.000257	0.000437 J
Di-n-butylphthalate (DBP)	mg/L	<0.000108	0.000797	<0.000107	0.000122 J	<0.000109
Fluoranthene	mg/L	<0.0000686	0.0132	<0.0000680	<0.0000680	<0.0000693
Fluorene	mg/L	<0.0000686	0.202	<0.0000680	<0.000188	0.0000901 J

ANALYTICAL RESULTS SUMMARY
 2014 2nd SEMIANNUAL SITE WIDE MONITORING EVENT
 UNION PACIFIC RAILROAD (UPRR) - 1620 WOOD PRESERVING WORKS
 HOUSTON, TEXAS
 JULY-AUGUST 2014

<i>Sample Location:</i>		<i>MW-05</i>	<i>MW-12A</i>	<i>MW-12C</i>	<i>MW-13</i>	<i>MW-14</i>
<i>Sample ID:</i>		<i>WG-1620-MW05-20140729</i>	<i>WG-1620-MW12A-20140725</i>	<i>WG-1620-MW12C-20140725</i>	<i>WG-1620-MW13-20140725</i>	<i>WG-1620-MW14-20140718</i>
<i>Sample Date:</i>		<i>7/29/2014</i>	<i>7/25/2014</i>	<i>7/25/2014</i>	<i>7/25/2014</i>	<i>7/18/2014</i>
<i>Parameters</i>	<i>Units</i>					
<i>Semi-volatile Organic Compounds (Continued)</i>						
Naphthalene	mg/L	<0.000131	0.0750	<0.000598	0.00390	0.00143
Nitrobenzene	mg/L	<0.000108	<0.000107	<0.000107	<0.000107	<0.000109
N-Nitrosodiphenylamine	mg/L	<0.0000980	<0.0000971	<0.0000971	<0.0000971	<0.0000990
Pentachlorophenol	mg/L	<0.000598	<0.000592	<0.000592	<0.000592	<0.000604
Phenanthrene	mg/L	<0.0000588	0.162	<0.0000808	<0.000163	0.000506
Phenol	mg/L	<0.0000392	<0.0000388	<0.0000388	<0.0000388	<0.0000396
Pyrene	mg/L	<0.000108	0.00649	<0.000107	<0.000107	<0.000109

ANALYTICAL RESULTS SUMMARY
2014 2nd SEMIANNUAL SITE WIDE MONITORING EVENT
UNION PACIFIC RAILROAD (UPRR) - 1620 WOOD PRESERVING WORKS
HOUSTON, TEXAS
JULY-AUGUST 2014

<i>Sample Location:</i>	<i>MW-15A</i>	<i>MW-15B</i>	<i>MW-15C</i>	<i>MW-17</i>	<i>MW-17C</i>	
<i>Sample ID:</i>	<i>WG-1620-MW15A-20140717</i>	<i>WG-1620-MW15B-20140717</i>	<i>WG-1620-MW15C-20140717</i>	<i>WG-1620-MW17-20140717</i>	<i>WG-1620-MW17C-20140717</i>	
<i>Sample Date:</i>	<i>7/17/2014</i>	<i>7/17/2014</i>	<i>7/17/2014</i>	<i>7/17/2014</i>	<i>7/17/2014</i>	
<i>Parameters</i>	<i>Units</i>					
<i>Volatile Organic Compounds</i>						
1,2-Dichloroethane	mg/L	<0.000140	<0.000140	<0.000140	<0.00280	<0.000140
Benzene	mg/L	0.00161	0.00292	0.000781 J	0.576	0.0132
Chlorobenzene	mg/L	<0.000120	0.000136 J	<0.000120	<0.00240	<0.000120
Ethylbenzene	mg/L	0.00101	0.00903	0.000219 J	0.209	0.0374
Methylene chloride	mg/L	<0.000150	<0.000150	<0.000150	0.0187 J	<0.000150
Toluene	mg/L	0.000595 J	<0.000150	0.000190 J	0.930	0.00730
Vinyl chloride	mg/L	-	-	-	-	-
Xylenes (total)	mg/L	0.00854	0.00464	0.000392 J	0.641	0.0482
<i>Semi-volatile Organic Compounds</i>						
1,2-Diphenylhydrazine	mg/L	<0.000104	<0.000104	<0.000104	<0.00519	<0.00519
2,4-Dimethylphenol	mg/L	<0.000292	<0.000292	<0.000292	13.9	7.09
2,4-Dinitrotoluene	mg/L	<0.000123	<0.000123	<0.000123	<0.00613	<0.00613
2,6-Dinitrotoluene	mg/L	<0.0000755	<0.0000755	<0.0000755	<0.00377	<0.00377
2-Chloronaphthalene	mg/L	<0.0000755	<0.0000755	<0.0000755	<0.00377	<0.00377
2-Methylnaphthalene	mg/L	0.0590	0.00622	<0.0000660	0.636	0.0203 J
4,6-Dinitro-2-methylphenol	mg/L	<0.000783	<0.000783	<0.000783	<0.0392	<0.0392
4-Nitrophenol	mg/L	<0.000528	<0.000528	<0.000528	<0.0264	<0.0264
Acenaphthene	mg/L	0.205	0.0653	0.0455	0.195	0.0299
Acenaphthylene	mg/L	<0.0000566	<0.0000566	0.00342	<0.00283	<0.00283
Anthracene	mg/L	0.00642	0.00517	0.000315 J	0.0202 J	<0.00236
Benzo(a)anthracene	mg/L	<0.0000755	0.000310 J	<0.0000755	<0.00377	<0.00377
Benzo(a)pyrene	mg/L	<0.0000755	<0.0000755	<0.0000755	<0.00377	<0.00377
bis(2-Chloroethoxy)methane	mg/L	<0.000123	<0.000123	<0.000123	<0.00613	<0.00613
bis(2-Ethylhexyl)phthalate (DEHP)	mg/L	<0.000349	0.000548	0.000526	<0.0175	<0.0175
Chrysene	mg/L	<0.0000755	0.000228 J	<0.0000755	<0.00377	<0.00377
Dibenzofuran	mg/L	0.0572	0.0272	0.0102	0.148	0.0255
Di-n-butylphthalate (DBP)	mg/L	<0.000104	<0.000104	<0.000104	<0.00519	<0.00519
Fluoranthene	mg/L	0.00257	0.00736	0.000763	0.00429 J	<0.00330
Fluorene	mg/L	0.0822	0.0231	0.00135	0.0943	0.0118 J

ANALYTICAL RESULTS SUMMARY
 2014 2nd SEMIANNUAL SITE WIDE MONITORING EVENT
 UNION PACIFIC RAILROAD (UPRR) - 1620 WOOD PRESERVING WORKS
 HOUSTON, TEXAS
 JULY-AUGUST 2014

<i>Sample Location:</i>		<i>MW-15A</i>	<i>MW-15B</i>	<i>MW-15C</i>	<i>MW-17</i>	<i>MW-17C</i>
<i>Sample ID:</i>		<i>WG-1620-MW15A-20140717</i>	<i>WG-1620-MW15B-20140717</i>	<i>WG-1620-MW15C-20140717</i>	<i>WG-1620-MW17-20140717</i>	<i>WG-1620-MW17C-20140717</i>
<i>Sample Date:</i>		<i>7/17/2014</i>	<i>7/17/2014</i>	<i>7/17/2014</i>	<i>7/17/2014</i>	<i>7/17/2014</i>
<i>Parameters</i>	<i>Units</i>					
<i>Semi-volatile Organic Compounds (Continued)</i>						
Naphthalene	mg/L	0.248	0.452	<0.000748	15.4	0.772
Nitrobenzene	mg/L	<0.000104	<0.000104	<0.000104	<0.00519	<0.00519
N-Nitrosodiphenylamine	mg/L	<0.0000943	<0.0000943	<0.0000943	<0.00472	<0.00472
Pentachlorophenol	mg/L	<0.000575	<0.000575	<0.000575	<0.0288	<0.0288
Phenanthrene	mg/L	0.0203	0.0204	<0.0000566	0.0725	0.0122 J
Phenol	mg/L	<0.0000377	0.00112	<0.0000377	18.1	8.33
Pyrene	mg/L	0.00101	0.00406	0.000430 J	<0.00519	<0.00519

TABLE 2

ANALYTICAL RESULTS SUMMARY
2014 2nd SEMI-ANNUAL SITE WIDE MONITORING EVENT
UNION PACIFIC RAILROAD (UPRR) - 1620 WOOD PRESERVING WORKS
HOUSTON, TEXAS
JULY-AUGUST 2014

<i>Sample Location:</i>		<i>MW-18A</i>	<i>MW-18C</i>	<i>MW-19C</i>	<i>MW-21C</i>	<i>MW-21C</i>
<i>Sample ID:</i>		<i>WG-1620-MW18A-20140716</i>	<i>WG-1620-MW18C-20140716</i>	<i>WG-1620-MW19C-20140717</i>	<i>WG-1620-MW21C-20140725</i>	<i>WG-1620-DUP2-20140725</i>
<i>Sample Date:</i>		<i>7/16/2014</i>	<i>7/16/2014</i>	<i>7/17/2014</i>	<i>7/25/2014</i>	<i>7/25/2014</i>
<i>Parameters</i>	<i>Units</i>					<i>Duplicate</i>
<i>Volatile Organic Compounds</i>						
1,2-Dichloroethane	mg/L	0.00482 J	<0.00280	<0.000140	<0.000140	<0.000140
Benzene	mg/L	0.483	1.45	0.0000801 J	<0.0000800	<0.0000800
Chlorobenzene	mg/L	<0.00240	<0.00240	<0.000120	<0.000120	<0.000120
Ethylbenzene	mg/L	0.692	0.309	0.000783 J	<0.000110	<0.000110
Methylene chloride	mg/L	0.0138 J	0.0161 J	<0.000150	<0.000150	<0.000150
Toluene	mg/L	0.416	0.986	0.000578 J	<0.000150	<0.000150
Vinyl chloride	mg/L	0.0200 J	<0.00220	<0.000110	<0.000110	<0.000110
Xylenes (total)	mg/L	1.30	1.36	0.00179 J	<0.000260	<0.000260
<i>Semi-volatile Organic Compounds</i>						
1,2-Diphenylhydrazine	mg/L	<0.00519	<0.00519	<0.000104	<0.000107	<0.000107
2,4-Dimethylphenol	mg/L	8.01	0.0325	<0.000292	<0.000301	<0.000301
2,4-Dinitrotoluene	mg/L	<0.00613	<0.00613	<0.000123	<0.000126	<0.000126
2,6-Dinitrotoluene	mg/L	<0.00377	<0.00377	<0.0000755	<0.0000777	<0.0000777
2-Chloronaphthalene	mg/L	<0.00377	<0.00377	<0.0000755	<0.0000777	<0.0000777
2-Methylnaphthalene	mg/L	0.589	0.778	0.000845	<0.0000680	<0.0000680
4,6-Dinitro-2-methylphenol	mg/L	<0.0392	<0.0392	<0.000783	<0.000806	<0.000806
4-Nitrophenol	mg/L	<0.0264	<0.0264	<0.000528	<0.000544	<0.000544
Acenaphthene	mg/L	0.352	0.246	0.000700	<0.0000777	<0.0000777
Acenaphthylene	mg/L	0.0155 J	<0.00283	<0.0000566	<0.0000583	<0.0000583
Anthracene	mg/L	0.0192 J	0.0280	<0.0000472	<0.0000485	<0.0000485
Benzo(a)anthracene	mg/L	<0.00377	<0.00377	<0.0000755	<0.0000777	<0.0000777
Benzo(a)pyrene	mg/L	<0.00377	<0.00377	<0.0000755	<0.0000777	<0.0000777
bis(2-Chloroethoxy)methane	mg/L	<0.00613	<0.00613	<0.000123	<0.000126	<0.000126
bis(2-Ethylhexyl)phthalate (DEHP)	mg/L	<0.0175	<0.0175	0.000646	<0.000359	<0.000359
Chrysene	mg/L	<0.00377	<0.00377	<0.0000755	<0.0000777	<0.0000777
Dibenzofuran	mg/L	0.204	0.207	0.000554	<0.0000777	<0.0000777
Di-n-butylphthalate (DBP)	mg/L	<0.00519	<0.00519	<0.000104	0.000184 J	<0.000107 J
Fluoranthene	mg/L	<0.00330	0.00957 J	0.00169	<0.0000680	<0.0000680
Fluorene	mg/L	0.163	0.116	0.000485	<0.0000680	<0.0000680

ANALYTICAL RESULTS SUMMARY
 2014 2nd SEMIANNUAL SITE WIDE MONITORING EVENT
 UNION PACIFIC RAILROAD (UPRR) - 1620 WOOD PRESERVING WORKS
 HOUSTON, TEXAS
 JULY-AUGUST 2014

<i>Sample Location:</i>	<i>MW-18A</i>	<i>MW-18C</i>	<i>MW-19C</i>	<i>MW-21C</i>	<i>MW-21C</i>	
<i>Sample ID:</i>	<i>WG-1620-MW18A-20140716</i>	<i>WG-1620-MW18C-20140716</i>	<i>WG-1620-MW19C-20140717</i>	<i>WG-1620-MW21C-20140725</i>	<i>WG-1620-DUP2-20140725</i>	
<i>Sample Date:</i>	<i>7/16/2014</i>	<i>7/16/2014</i>	<i>7/17/2014</i>	<i>7/25/2014</i>	<i>7/25/2014</i>	
<i>Parameters</i>	<i>Duplicate</i>					
<i>Units</i>						
<i>Semi-volatile Organic Compounds (Continued)</i>						
Naphthalene	mg/L	5.27	14.7	0.0198	<0.0000777	<0.0000777
Nitrobenzene	mg/L	<0.00519	<0.00519	<0.000104	<0.000107	<0.000107
N-Nitrosodiphenylamine	mg/L	<0.00472	<0.00472	<0.0000943	<0.0000971	<0.0000971
Pentachlorophenol	mg/L	<0.0288	0.164	<0.000575	<0.000592	<0.000592
Phenanthrene	mg/L	0.114	0.122	<0.0000566	<0.0000870	<0.0000613
Phenol	mg/L	<0.00189	0.0285	0.000330 J	<0.0000388	<0.0000388
Pyrene	mg/L	<0.00519	0.00571 J	0.00178	<0.000107	<0.000107

TABLE 2

ANALYTICAL RESULTS SUMMARY
2014 2nd SEMIANNUAL SITE WIDE MONITORING EVENT
UNION PACIFIC RAILROAD (UPRR) - 1620 WOOD PRESERVING WORKS
HOUSTON, TEXAS
JULY-AUGUST 2014

<i>Sample Location:</i>		<i>MW-22A</i>	<i>MW-22B</i>	<i>MW-22B</i>	<i>MW-23C</i>	<i>MW-25A</i>
<i>Sample ID:</i>		<i>WG-1620-MW22A-20140730</i>	<i>WG-1620-MW22B-20140730</i>	<i>WG-1620-MW22B- 20140828</i>	<i>WG-1620-MW23C-20140828</i>	<i>WG-1620-MW25A-20140729</i>
<i>Sample Date:</i>		<i>7/30/2014</i>	<i>7/30/2014</i>	<i>8/28/2014</i>	<i>8/28/2014</i>	<i>7/29/2014</i>
<i>Parameters</i>	<i>Units</i>					
<i>Volatile Organic Compounds</i>						
1,2-Dichloroethane	mg/L	<0.000140	<0.000140	<0.000140	<0.00140	<0.000140
Benzene	mg/L	0.00296	0.00185	0.00238	0.00596 J	<0.0000800
Chlorobenzene	mg/L	<0.000120	<0.000120	<0.000120	<0.00120	<0.000120
Ethylbenzene	mg/L	0.0403	0.0255	0.0275	0.150	<0.000110
Methylene chloride	mg/L	<0.000150	<0.000150	<0.000150	<0.00150	<0.000150
Toluene	mg/L	0.00925	0.00584	0.00752	0.00378 J	<0.000150
Vinyl chloride	mg/L	-	-	<0.000110	<0.00110	<0.000110
Xylenes (total)	mg/L	0.0569	0.0362	0.0383	0.0915	<0.000260
<i>Semi-volatile Organic Compounds</i>						
1,2-Diphenylhydrazine	mg/L	<0.000109	<0.000109	<0.000110	<0.0220	<0.000107
2,4-Dimethylphenol	mg/L	<0.000307	0.00107	<0.000310	0.202	<0.000301
2,4-Dinitrotoluene	mg/L	<0.000129	<0.000129	<0.000130	<0.0260	<0.000126
2,6-Dinitrotoluene	mg/L	<0.0000792	<0.0000792	<0.0000800	<0.0160	<0.0000777
2-Chloronaphthalene	mg/L	<0.0000792	<0.0000792	<0.0000800	<0.0160	<0.0000777
2-Methylnaphthalene	mg/L	0.00603	0.00721	0.00663	18.3	<0.0000680
4,6-Dinitro-2-methylphenol	mg/L	<0.000822	<0.000822	<0.000830	<0.166	<0.000806
4-Nitrophenol	mg/L	<0.000554	<0.000554	<0.000560	<0.112	<0.000544
Acenaphthene	mg/L	0.0783	0.0762	0.123	25.9	0.0000912 J
Acenaphthylene	mg/L	0.000943	0.000641	0.00132	0.336	<0.0000583
Anthracene	mg/L	0.00265	0.00292	0.00404	8.74	<0.0000485
Benzo(a)anthracene	mg/L	<0.0000792	<0.0000792	<0.0000800	2.63	<0.0000777
Benzo(a)pyrene	mg/L	<0.0000792	<0.0000792	<0.0000800	0.730	<0.0000777
bis(2-Chloroethoxy)methane	mg/L	<0.000129	<0.000129	<0.000130	<0.0260	<0.000126
bis(2-Ethylhexyl)phthalate (DEHP)	mg/L	0.000703	0.000672	<0.000370	<0.0740	<0.000359
Chrysene	mg/L	<0.0000792	<0.0000792	<0.0000800	2.24	<0.0000777
Dibenzofuran	mg/L	0.0224	0.0238	0.0409	25.7	<0.0000777
Di-n-butylphthalate (DBP)	mg/L	<0.000109	<0.000109	<0.000110	<0.0220	<0.000107
Fluoranthene	mg/L	0.00247	0.00304	0.00282	20.4	<0.0000680
Fluorene	mg/L	0.0175	0.0198	0.0355	20.5	<0.0000680

ANALYTICAL RESULTS SUMMARY
 2014 2nd SEMIANNUAL SITE WIDE MONITORING EVENT
 UNION PACIFIC RAILROAD (UPRR) - 1620 WOOD PRESERVING WORKS
 HOUSTON, TEXAS
 JULY-AUGUST 2014

<i>Sample Location:</i>	<i>MW-22A</i>	<i>MW-22B</i>	<i>MW-22B</i>	<i>MW-23C</i>	<i>MW-25A</i>	
<i>Sample ID:</i>	<i>WG-1620-MW22A-20140730</i>	<i>WG-1620-MW22B-20140730</i>	<i>WG-1620-MW22B- 20140828</i>	<i>WG-1620-MW23C-20140828</i>	<i>WG-1620-MW25A-20140729</i>	
<i>Sample Date:</i>	<i>7/30/2014</i>	<i>7/30/2014</i>	<i>8/28/2014</i>	<i>8/28/2014</i>	<i>7/29/2014</i>	
<i>Parameters</i>	<i>Units</i>					
<i>Semi-volatile Organic Compounds (Continued)</i>						
Naphthalene	mg/L	0.792	0.832	0.977	57.9	<0.000817
Nitrobenzene	mg/L	<0.000109	<0.000109	<0.000110	<0.0220	<0.000107
N-Nitrosodiphenylamine	mg/L	<0.0000990	<0.0000990	<0.000100	<0.0200	<0.0000971
Pentachlorophenol	mg/L	<0.000604	<0.000604	<0.000610	<0.122	<0.000592
Phenanthrene	mg/L	0.000604	0.000530	<0.0000600	59.4	<0.0000583
Phenol	mg/L	<0.0000396	<0.0000396	<0.0000400	<0.00800	<0.0000388
Pyrene	mg/L	0.00106	0.00123	0.00230	13.3	0.000180 J

ANALYTICAL RESULTS SUMMARY
2014 2nd SEMIANNUAL SITE WIDE MONITORING EVENT
UNION PACIFIC RAILROAD (UPRR) - 1620 WOOD PRESERVING WORKS
HOUSTON, TEXAS
JULY-AUGUST 2014

<i>Sample Location:</i>		<i>MW-25C</i>	<i>MW-26A</i>	<i>MW-27C</i>	<i>MW-28A</i>	<i>MW-28C</i>
<i>Sample ID:</i>		<i>WG-1620-MW25C-20140729</i>	<i>WG-1620-MW26A-20140724</i>	<i>WG-1620-MW27C-20140725</i>	<i>WG-1620-MW28A-20140725</i>	<i>WG-1620-MW28C-20140725</i>
<i>Sample Date:</i>		<i>7/29/2014</i>	<i>7/24/2014</i>	<i>7/25/2014</i>	<i>7/25/2014</i>	<i>7/25/2014</i>
<i>Parameters</i>	<i>Units</i>					
<i>Volatile Organic Compounds</i>						
1,2-Dichloroethane	mg/L	<0.000700	<0.000140	<0.000140	<0.000140	<0.000140
Benzene	mg/L	0.0119	0.000189 J	<0.0000800	<0.0000800	<0.0000800
Chlorobenzene	mg/L	<0.000600	0.000205 J	<0.000120	<0.000120	<0.000120
Ethylbenzene	mg/L	0.298	<0.000110	<0.000110	<0.000110	<0.000110
Methylene chloride	mg/L	<0.000750	<0.000150	<0.000150	<0.000150	<0.000150
Toluene	mg/L	0.207	<0.000150	<0.000150	<0.000150	<0.000150
Vinyl chloride	mg/L	<0.000550	<0.000110	<0.000110	<0.000110	<0.000110
Xylenes (total)	mg/L	1.07	<0.000260	<0.000260	<0.000260	<0.000260
<i>Semi-volatile Organic Compounds</i>						
1,2-Diphenylhydrazine	mg/L	<0.000107	<0.000107	<0.000108	<0.000107	<0.000107
2,4-Dimethylphenol	mg/L	<0.000301	<0.000301	<0.000304	<0.000301	<0.000301
2,4-Dinitrotoluene	mg/L	<0.000126	<0.000126	<0.000127	<0.000126	<0.000126
2,6-Dinitrotoluene	mg/L	<0.0000777	<0.0000777	<0.0000784	<0.0000777	<0.0000777
2-Chloronaphthalene	mg/L	<0.0000777	<0.0000777	<0.0000784	<0.0000777	<0.0000777
2-Methylnaphthalene	mg/L	0.943	<0.0000680	<0.0000686	<0.0000680	<0.0000680
4,6-Dinitro-2-methylphenol	mg/L	<0.000806	<0.000806	<0.000814	<0.000806	<0.000806
4-Nitrophenol	mg/L	<0.000544	<0.000544	<0.000549	<0.000544	<0.000544
Acenaphthene	mg/L	0.284	0.0663	<0.0000784	<0.0000777	<0.0000777
Acenaphthylene	mg/L	0.00316	0.000486	<0.0000588	<0.0000583	<0.0000583
Anthracene	mg/L	0.0209	0.00141	<0.0000490	<0.0000485	<0.0000485
Benzo(a)anthracene	mg/L	0.000813	<0.0000777	<0.0000784	<0.0000777	<0.0000777
Benzo(a)pyrene	mg/L	0.000435 J	<0.0000777	<0.0000784	<0.0000777	<0.0000777
bis(2-Chloroethoxy)methane	mg/L	0.00160	<0.000126	<0.000127	<0.000126	<0.000126
bis(2-Ethylhexyl)phthalate (DEHP)	mg/L	<0.000674	<0.000359	<0.000363	<0.000359	<0.000359
Chrysene	mg/L	0.000957	<0.0000777	<0.0000784	<0.0000777	<0.0000777
Dibenzofuran	mg/L	0.276	0.00154	<0.0000784	<0.0000777	<0.0000777
Di-n-butylphthalate (DBP)	mg/L	<0.000107	<0.000107	<0.000108	<0.000107	<0.000107
Fluoranthene	mg/L	0.0127	0.00465	<0.0000686	<0.0000680	<0.0000680
Fluorene	mg/L	0.129	0.00245	<0.0000686	<0.0000680	<0.0000680

ANALYTICAL RESULTS SUMMARY
 2014 2nd SEMIANNUAL SITE WIDE MONITORING EVENT
 UNION PACIFIC RAILROAD (UPRR) - 1620 WOOD PRESERVING WORKS
 HOUSTON, TEXAS
 JULY-AUGUST 2014

<i>Sample Location:</i>		<i>MW-25C</i>	<i>MW-26A</i>	<i>MW-27C</i>	<i>MW-28A</i>	<i>MW-28C</i>
<i>Sample ID:</i>		<i>WG-1620-MW25C-20140729</i>	<i>WG-1620-MW26A-20140724</i>	<i>WG-1620-MW27C-20140725</i>	<i>WG-1620-MW28A-20140725</i>	<i>WG-1620-MW28C-20140725</i>
<i>Sample Date:</i>		<i>7/29/2014</i>	<i>7/24/2014</i>	<i>7/25/2014</i>	<i>7/25/2014</i>	<i>7/25/2014</i>
<i>Parameters</i>	<i>Units</i>					
<i>Semi-volatile Organic Compounds (Continued)</i>						
Naphthalene	mg/L	10.7	0.000419 J	<0.0000784	<0.0000777	<0.0000777
Nitrobenzene	mg/L	<0.000107	0.00394	<0.000108	<0.000107	<0.000107
N-Nitrosodiphenylamine	mg/L	<0.0000971	<0.0000971	<0.0000980	<0.0000971	<0.0000971
Pentachlorophenol	mg/L	<0.000592	<0.000592	<0.000598	<0.000592	<0.000592
Phenanthrene	mg/L	0.140	0.000155 J	<0.0000588	<0.0000583	<0.0000583
Phenol	mg/L	0.00177	<0.0000388	<0.0000392	<0.0000388	<0.0000388
Pyrene	mg/L	0.00769	0.00220	<0.000108	<0.000107	<0.000107

ANALYTICAL RESULTS SUMMARY
 2014 2nd SEMI-ANNUAL SITE WIDE MONITORING EVENT
 UNION PACIFIC RAILROAD (UPRR) - 1620 WOOD PRESERVING WORKS
 HOUSTON, TEXAS
 JULY-AUGUST 2014

Sample Location:	MW-32AR	MW-33A	MW-33A	MW-33BR	MW-34CR
Sample ID:	WG-1620-MW32AR-20140724	WG-1620-MW33A-20140828	WG-1620-MWDUP A-20140828	WG-1620-MW33BR-20140728	WG-1620-MW34CR-20140729
Sample Date:	7/24/2014	8/28/2014	8/28/2014 <i>Duplicate</i>	7/28/2014	7/29/2014
Parameters	Units				
<i>Volatile Organic Compounds</i>					
1,2-Dichloroethane	mg/L	<0.000140	<0.000140	<0.000140	<0.000140
Benzene	mg/L	0.0404	0.00236 J	0.00389 J	1.41
Chlorobenzene	mg/L	<0.000120	<0.000120	<0.000120	<0.000600
Ethylbenzene	mg/L	0.0208	0.00140 J	0.00224 J	0.348
Methylene chloride	mg/L	<0.000150	<0.000150	<0.000150	<0.000750
Toluene	mg/L	0.000849 J	<0.000150	<0.000150	0.00638
Vinyl chloride	mg/L	<0.000110	-	-	<0.000550
Xylenes (total)	mg/L	0.0336	0.000632 J	0.000872 J	0.0649
<i>Semi-volatile Organic Compounds</i>					
1,2-Diphenylhydrazine	mg/L	<0.000104	<0.000108	<0.000108	<0.000107
2,4-Dimethylphenol	mg/L	0.0722	0.0212 J	0.0608 J	<0.000301
2,4-Dinitrotoluene	mg/L	<0.000123	<0.000127	<0.000127	<0.000126
2,6-Dinitrotoluene	mg/L	<0.0000755	<0.0000784	<0.0000784	<0.0000777
2-Chloronaphthalene	mg/L	<0.0000755	<0.0000784	<0.0000784	<0.0000777
2-Methylnaphthalene	mg/L	0.206	0.0216 J	0.0524 J	0.277
4,6-Dinitro-2-methylphenol	mg/L	<0.000783	<0.000814	<0.000814	<0.000806
4-Nitrophenol	mg/L	<0.000528	<0.000549	<0.000549	<0.000544
Acenaphthene	mg/L	0.111	0.0460 J	0.0692 J	0.0711
Acenaphthylene	mg/L	0.00226	0.000410 J	0.000636 J	0.000870
Anthracene	mg/L	0.00332	0.00132 J	0.00184 J	0.00564
Benzo(a)anthracene	mg/L	0.000218 J	0.000288 J	0.000318 J	0.000119 J
Benzo(a)pyrene	mg/L	<0.0000755	<0.0000784	<0.0000784	<0.0000777
bis(2-Chloroethoxy)methane	mg/L	0.000452 J	<0.000127	0.000476 J	<0.000126
bis(2-Ethylhexyl)phthalate (DEHP)	mg/L	0.000621	<0.000363 J	<0.000363 J	0.000722
Chrysene	mg/L	0.000160 J	0.000168 J	0.000178 J	0.000132 J
Dibenzofuran	mg/L	0.0500	0.0164 J	0.0334 J	0.0868
Di-n-butylphthalate (DBP)	mg/L	<0.000104	<0.000108	<0.000108	<0.000384
Fluoranthene	mg/L	0.00656	0.00395	0.00426	0.00265
Fluorene	mg/L	0.0516	0.0146 J	0.0224 J	0.0350 J

ANALYTICAL RESULTS SUMMARY
 2014 2nd SEMIANNUAL SITE WIDE MONITORING EVENT
 UNION PACIFIC RAILROAD (UPRR) - 1620 WOOD PRESERVING WORKS
 HOUSTON, TEXAS
 JULY-AUGUST 2014

<i>Sample Location:</i>		<i>MW-32AR</i>	<i>MW-33A</i>	<i>MW-33A</i>	<i>MW-33BR</i>	<i>MW-34CR</i>
<i>Sample ID:</i>		<i>WG-1620-MW32AR-20140724</i>	<i>WG-1620-MW33A-20140828</i>	<i>WG-1620-MWDUP A-20140828</i>	<i>WG-1620-MW33BR-20140728</i>	<i>WG-1620-MW34CR-20140729</i>
<i>Sample Date:</i>		<i>7/24/2014</i>	<i>8/28/2014</i>	<i>8/28/2014</i>	<i>7/28/2014</i>	<i>7/29/2014</i>
<i>Parameters</i>	<i>Units</i>			<i>Duplicate</i>		
<i>Semi-volatile Organic Compounds (Continued)</i>						
Naphthalene	mg/L	3.83	0.489 J	1.02 J	6.59	0.00282
Nitrobenzene	mg/L	<0.000104	<0.000108 J	0.00936 J	<0.000107	<0.000108
N-Nitrosodiphenylamine	mg/L	<0.0000943	<0.0000980	<0.0000980	<0.0000971	<0.0000980
Pentachlorophenol	mg/L	<0.000575	<0.000598	<0.000598	<0.000592	<0.000598
Phenanthrene	mg/L	0.0111	0.00427 J	0.00736 J	0.0313 J	<0.0000588
Phenol	mg/L	<0.0000377	<0.0000392	<0.0000392	<0.0000388	<0.0000392
Pyrene	mg/L	0.00474	0.00430	0.00471	0.00126	<0.000108

ANALYTICAL RESULTS SUMMARY
2014 2nd SEMI-ANNUAL SITE WIDE MONITORING EVENT
UNION PACIFIC RAILROAD (UPRR) - 1620 WOOD PRESERVING WORKS
HOUSTON, TEXAS
JULY-AUGUST 2014

<i>Sample Location:</i>		<i>MW-35A</i>	<i>MW-35B</i>	<i>MW-36A</i>	<i>MW-36B</i>	<i>MW-36D</i>
<i>Sample ID:</i>		<i>WG-1620-MW35A-20140724</i>	<i>WG-1620-MW-35B-20140725</i>	<i>WG-1620-MW36A-20140728</i>	<i>WG-1620-MW36B-20140728</i>	<i>WG-1620-MW36D-20140828</i>
<i>Sample Date:</i>		<i>7/24/2014</i>	<i>7/24/2014</i>	<i>7/28/2014</i>	<i>7/28/2014</i>	<i>8/28/2014</i>
<i>Parameters</i>	<i>Units</i>					
<i>Volatile Organic Compounds</i>						
1,2-Dichloroethane	mg/L	<0.000140	<0.000140	<0.000140	<0.000140	<0.000140
Benzene	mg/L	0.000210 J	0.0539	<0.0000800	<0.0000800	0.0000895 J
Chlorobenzene	mg/L	0.000150 J	0.000228 J	<0.000120	<0.000120	<0.000120
Ethylbenzene	mg/L	0.000473 J	0.176	<0.000110	<0.000110	<0.000110
Methylene chloride	mg/L	<0.000150	<0.000150	<0.000150	<0.000150	<0.000150
Toluene	mg/L	<0.000150	0.00377	<0.000150	<0.000150	0.00675
Vinyl chloride	mg/L	<0.000110	<0.000110	<0.000110	<0.000110	-
Xylenes (total)	mg/L	<0.000260	0.114	<0.000260	<0.000260	<0.000260
<i>Semi-volatile Organic Compounds</i>						
1,2-Diphenylhydrazine	mg/L	<0.000106	<0.00107	<0.000107	<0.000107	<0.000109
2,4-Dimethylphenol	mg/L	<0.000298	<0.00301	<0.000301	<0.000301	<0.000307
2,4-Dinitrotoluene	mg/L	<0.000125	<0.00126	<0.000126	<0.000126	<0.000129
2,6-Dinitrotoluene	mg/L	<0.0000769	<0.000777	<0.0000777	<0.0000777	<0.0000792
2-Chloronaphthalene	mg/L	<0.0000769	<0.000777	<0.0000777	<0.0000777	<0.0000792
2-Methylnaphthalene	mg/L	0.000151 J	0.376	<0.000177	<0.0000680	<0.0000693
4,6-Dinitro-2-methylphenol	mg/L	<0.000798	<0.00806	<0.000806	<0.000806	<0.000822
4-Nitrophenol	mg/L	<0.000538	<0.00544	<0.000544	<0.000544	<0.000554
Acenaphthene	mg/L	0.0294	0.139	<0.0000777	<0.0000777	<0.0000792
Acenaphthylene	mg/L	<0.0000577	0.00150 J	<0.0000583	<0.0000583	<0.0000594
Anthracene	mg/L	0.000601	0.0111	<0.0000485	<0.0000485	0.000224 J
Benzo(a)anthracene	mg/L	<0.0000769	<0.000777	<0.0000777	<0.0000777	0.000213 J
Benzo(a)pyrene	mg/L	<0.0000769	<0.000777	<0.0000777	<0.0000777	0.000192 J
bis(2-Chloroethoxy)methane	mg/L	<0.000125	<0.00126	<0.000126	<0.000126	<0.000129
bis(2-Ethylhexyl)phthalate (DEHP)	mg/L	<0.000356	<0.00359	<0.000359	<0.000359	0.00128
Chrysene	mg/L	<0.0000769	<0.000777	<0.0000777	<0.0000777	0.000347 J
Dibenzofuran	mg/L	0.00115	0.138	<0.0000777	<0.0000777	<0.0000792
Di-n-butylphthalate (DBP)	mg/L	<0.000106	<0.00107	<0.000107	<0.000107	<0.000109
Fluoranthene	mg/L	0.000782	0.00692	<0.0000680	<0.0000680	0.00111
Fluorene	mg/L	0.00710	0.0760	<0.0000680	<0.0000680	0.000100 J

ANALYTICAL RESULTS SUMMARY
 2014 2nd SEMIANNUAL SITE WIDE MONITORING EVENT
 UNION PACIFIC RAILROAD (UPRR) - 1620 WOOD PRESERVING WORKS
 HOUSTON, TEXAS
 JULY-AUGUST 2014

<i>Sample Location:</i>		<i>MW-35A</i>	<i>MW-35B</i>	<i>MW-36A</i>	<i>MW-36B</i>	<i>MW-36D</i>
<i>Sample ID:</i>		<i>WG-1620-MW35A-20140724</i>	<i>WG-1620-MW-35B-20140725</i>	<i>WG-1620-MW36A-20140728</i>	<i>WG-1620-MW36B-20140728</i>	<i>WG-1620-MW36D-20140828</i>
<i>Sample Date:</i>		<i>7/24/2014</i>	<i>7/24/2014</i>	<i>7/28/2014</i>	<i>7/28/2014</i>	<i>8/28/2014</i>
<i>Parameters</i>	<i>Units</i>					
<i>Semi-volatile Organic Compounds (Continued)</i>						
Naphthalene	mg/L	0.00293	9.36	<0.00101	<0.0000777	0.0000923 J
Nitrobenzene	mg/L	<0.000106	<0.00107	<0.000107	<0.000107	<0.000109
N-Nitrosodiphenylamine	mg/L	<0.0000962	<0.000971	<0.0000971	<0.0000971	<0.0000990
Pentachlorophenol	mg/L	<0.000587	<0.00592	<0.000592	<0.000592	<0.000604
Phenanthrene	mg/L	0.000449 J	0.0891	<0.0000583	<0.0000583	0.00102
Phenol	mg/L	<0.0000385	<0.000388	<0.0000388	<0.0000388	0.00194
Pyrene	mg/L	0.000548	0.00327 J	<0.000107	<0.000107	0.000881

ANALYTICAL RESULTS SUMMARY
2014 2nd SEMI-ANNUAL SITE WIDE MONITORING EVENT
UNION PACIFIC RAILROAD (UPRR) - 1620 WOOD PRESERVING WORKS
HOUSTON, TEXAS
JULY-AUGUST 2014

<i>Sample Location:</i>		<i>MW-38A</i>	<i>MW-38B</i>	<i>MW-39B</i>	<i>MW-40B</i>	<i>MW-42B</i>
<i>Sample ID:</i>		<i>WG-1620-MW38A-20140725</i>	<i>WG-1620-MW38B-20140725</i>	<i>WG-1620-MW39B-20140725</i>	<i>WG-1620-MW40B-20140718</i>	<i>WG-1620-MW42B-20140718</i>
<i>Sample Date:</i>		<i>7/25/2014</i>	<i>7/25/2014</i>	<i>7/25/2014</i>	<i>7/18/2014</i>	<i>7/18/2014</i>
<i>Parameters</i>	<i>Units</i>					
<i>Volatile Organic Compounds</i>						
1,2-Dichloroethane	mg/L	<0.000140	<0.000140	<0.000140	<0.000140	<0.000140
Benzene	mg/L	<0.0000800	<0.0000800	<0.0000800	0.0103	<0.0000800
Chlorobenzene	mg/L	<0.000120	<0.000120	<0.000120	<0.000120	<0.000120
Ethylbenzene	mg/L	<0.000110	<0.000110	<0.000110	0.0825	0.000208 J
Methylene chloride	mg/L	<0.000150	<0.000150	<0.000150	<0.000150	<0.000150
Toluene	mg/L	<0.000150	<0.000150	<0.000150	0.0154	<0.000150
Vinyl chloride	mg/L	<0.000110	<0.000110	<0.000110	<0.000110	<0.000110
Xylenes (total)	mg/L	<0.000260	<0.000260	<0.000260	0.126	0.000349 J
<i>Semi-volatile Organic Compounds</i>						
1,2-Diphenylhydrazine	mg/L	<0.000107	<0.000109	<0.000107	<0.00109	<0.000109
2,4-Dimethylphenol	mg/L	<0.000301	<0.000307	<0.000301	<0.00307	0.000577
2,4-Dinitrotoluene	mg/L	<0.000126	<0.000129	<0.000126	<0.00129	<0.000129
2,6-Dinitrotoluene	mg/L	<0.0000777	<0.0000792	<0.0000777	<0.000792	<0.0000792
2-Chloronaphthalene	mg/L	<0.0000777	<0.0000792	<0.0000777	<0.000792	<0.0000792
2-Methylnaphthalene	mg/L	<0.0000680	<0.0000992	<0.0000708	0.263	<0.0000693
4,6-Dinitro-2-methylphenol	mg/L	<0.000806	<0.000822	<0.000806	<0.00822	<0.000822
4-Nitrophenol	mg/L	<0.000544	<0.000554	<0.000544	<0.00554	<0.000554
Acenaphthene	mg/L	<0.0000777	<0.000342	<0.00120	0.236	<0.0000792
Acenaphthylene	mg/L	<0.0000583	<0.0000594	0.0000623 J	0.00335 J	<0.0000594
Anthracene	mg/L	<0.0000816	<0.000398	<0.000615	0.0142	<0.0000495
Benzo(a)anthracene	mg/L	<0.0000777	<0.0000792	<0.0000777	<0.000792	<0.0000792
Benzo(a)pyrene	mg/L	<0.0000777	<0.0000792	<0.0000777	<0.000792	<0.0000792
bis(2-Chloroethoxy)methane	mg/L	<0.000126	<0.000129	<0.000126	<0.00129	<0.000129
bis(2-Ethylhexyl)phthalate (DEHP)	mg/L	<0.000359	<0.000366	<0.000359	<0.00366	0.000513
Chrysene	mg/L	<0.0000777	<0.0000792	<0.0000777	<0.000792	<0.0000792
Dibenzofuran	mg/L	<0.0000777	<0.000410	<0.0000823	0.178	<0.0000792
Di-n-butylphthalate (DBP)	mg/L	<0.000107	<0.000109	<0.000107	<0.00109	<0.000109
Fluoranthene	mg/L	<0.0000680	<0.000580	<0.000605	0.00562	<0.0000693
Fluorene	mg/L	<0.0000680	<0.000219	<0.000311	0.183	<0.0000693

ANALYTICAL RESULTS SUMMARY
 2014 2nd SEMIANNUAL SITE WIDE MONITORING EVENT
 UNION PACIFIC RAILROAD (UPRR) - 1620 WOOD PRESERVING WORKS
 HOUSTON, TEXAS
 JULY-AUGUST 2014

<i>Sample Location:</i>		<i>MW-38A</i>	<i>MW-38B</i>	<i>MW-39B</i>	<i>MW-40B</i>	<i>MW-42B</i>
<i>Sample ID:</i>		<i>WG-1620-MW38A-20140725</i>	<i>WG-1620-MW38B-20140725</i>	<i>WG-1620-MW39B-20140725</i>	<i>WG-1620-MW40B-20140718</i>	<i>WG-1620-MW42B-20140718</i>
<i>Sample Date:</i>		<i>7/25/2014</i>	<i>7/25/2014</i>	<i>7/25/2014</i>	<i>7/18/2014</i>	<i>7/18/2014</i>
<i>Parameters</i>	<i>Units</i>					
<i>Semi-volatile Organic Compounds (Continued)</i>						
Naphthalene	mg/L	<0.0000777	<0.00160	<0.0000777	4.24	0.000426 J
Nitrobenzene	mg/L	<0.000107	<0.000109	0.000853	<0.00109	<0.000109
N-Nitrosodiphenylamine	mg/L	<0.0000971	<0.0000990	<0.0000971	<0.000990	<0.0000990
Pentachlorophenol	mg/L	<0.000592	<0.000604	<0.000592	<0.00604	<0.000604
Phenanthrene	mg/L	<0.0000583	<0.000164	<0.000100	0.111	<0.0000594
Phenol	mg/L	<0.0000388	<0.0000396	<0.0000388	<0.000396	0.000801
Pyrene	mg/L	<0.000107	0.000472 J	0.000818	0.00242 J	<0.000109

ANALYTICAL RESULTS SUMMARY
2014 2nd SEMI-ANNUAL SITE WIDE MONITORING EVENT
UNION PACIFIC RAILROAD (UPRR) - 1620 WOOD PRESERVING WORKS
HOUSTON, TEXAS
JULY-AUGUST 2014

<i>Sample Location:</i>		<i>MW-44A</i>	<i>MW-47C</i>	<i>MW-48C</i>	<i>MW-49A</i>	<i>MW-49B</i>
<i>Sample ID:</i>		<i>WG-1620-MW44A-20140828</i>	<i>WG-1620-MW47C-20140730</i>	<i>WG-1620-MW48C-20140716</i>	<i>WG-1620-MW49A-20140716</i>	<i>WG-1620-MW49B-20140716</i>
<i>Sample Date:</i>		<i>8/28/2014</i>	<i>7/30/2014</i>	<i>7/16/2014</i>	<i>7/16/2014</i>	<i>7/16/2014</i>
<i>Parameters</i>	<i>Units</i>					
<i>Volatile Organic Compounds</i>						
1,2-Dichloroethane	mg/L	<0.000140	<0.000140	<0.000140	<0.00280	<0.00280
Benzene	mg/L	0.00420	<0.0000800	<0.0000800	0.108	0.346
Chlorobenzene	mg/L	<0.000120	<0.000120	<0.000120	0.211	<0.00240
Ethylbenzene	mg/L	0.000344 J	<0.000110	<0.000110	0.0701	0.0847
Methylene chloride	mg/L	<0.000150	<0.000150	<0.000150	0.0212	0.0212
Toluene	mg/L	0.000329 J	<0.000150	<0.000150	0.0593	0.310
Vinyl chloride	mg/L	<0.000110	-	-	<0.00220	<0.00220
Xylenes (total)	mg/L	0.00561	<0.000260	<0.000260	0.157	0.249
<i>Semi-volatile Organic Compounds</i>						
1,2-Diphenylhydrazine	mg/L	<0.000108	<0.000104	<0.000104	<0.0104	<0.00208
2,4-Dimethylphenol	mg/L	<0.000304	<0.000292	<0.000292	1.23	13.6
2,4-Dinitrotoluene	mg/L	<0.000127	<0.000123	<0.000123	<0.0123	<0.00245
2,6-Dinitrotoluene	mg/L	<0.0000784	<0.0000755	<0.0000755	<0.00755	<0.00151
2-Chloronaphthalene	mg/L	<0.0000784	<0.0000755	<0.0000755	<0.00755	<0.00151
2-Methylnaphthalene	mg/L	0.00902	<0.0000660	<0.0000660	0.293	0.276
4,6-Dinitro-2-methylphenol	mg/L	<0.000814	<0.000783	<0.000783	<0.0783	<0.0157
4-Nitrophenol	mg/L	<0.000549	<0.000528	<0.000528	<0.0528	<0.0106
Acenaphthene	mg/L	0.197	<0.0000755	<0.0000755	0.126	0.117
Acenaphthylene	mg/L	0.00140	<0.0000566	<0.0000566	<0.00566	0.00432 J
Anthracene	mg/L	0.00868	<0.0000472	<0.0000472	<0.00472	0.0130
Benzo(a)anthracene	mg/L	<0.0000784	<0.0000755	<0.0000755	<0.00755	<0.00151
Benzo(a)pyrene	mg/L	<0.0000784	<0.0000755	<0.0000755	<0.00755	<0.00151
bis(2-Chloroethoxy)methane	mg/L	0.000140 J	<0.000123	<0.000123	<0.0123	<0.00245
bis(2-Ethylhexyl)phthalate (DEHP)	mg/L	<0.000363	<0.000349	<0.000349	<0.0349	<0.00698
Chrysene	mg/L	<0.0000784	<0.0000755	<0.0000755	<0.00755	<0.00151
Dibenzofuran	mg/L	0.0159	<0.0000755	<0.0000755	0.0941	0.0800
Di-n-butylphthalate (DBP)	mg/L	<0.000108	<0.000104	<0.000104	<0.0104	<0.00208
Fluoranthene	mg/L	0.00749	<0.0000660	<0.0000660	<0.00660	0.00456 J
Fluorene	mg/L	0.0987	<0.0000660	<0.0000660	0.0651	0.0633

ANALYTICAL RESULTS SUMMARY
 2014 2nd SEMIANNUAL SITE WIDE MONITORING EVENT
 UNION PACIFIC RAILROAD (UPRR) - 1620 WOOD PRESERVING WORKS
 HOUSTON, TEXAS
 JULY-AUGUST 2014

<i>Sample Location:</i>	<i>MW-44A</i>	<i>MW-47C</i>	<i>MW-48C</i>	<i>MW-49A</i>	<i>MW-49B</i>	
<i>Sample ID:</i>	WG-1620-MW44A-20140828	WG-1620-MW47C-20140730	WG-1620-MW48C-20140716	WG-1620-MW49A-20140716	WG-1620-MW49B-20140716	
<i>Sample Date:</i>	8/28/2014	7/30/2014	7/16/2014	7/16/2014	7/16/2014	
<i>Parameters</i>	<i>Units</i>					
<i>Semi-volatile Organic Compounds (Continued)</i>						
Naphthalene	mg/L	0.0163	<0.0000755	<0.0000755	5.13	5.57
Nitrobenzene	mg/L	0.00120	<0.000104	<0.000104	<0.0104	<0.00208
N-Nitrosodiphenylamine	mg/L	<0.0000980	<0.0000943	<0.0000943	<0.00943	<0.00189
Pentachlorophenol	mg/L	<0.000598	<0.000575	<0.000575	<0.0575	<0.0115
Phenanthrene	mg/L	0.0217	<0.0000566	<0.0000566	0.0519	0.0458
Phenol	mg/L	<0.0000392	<0.0000377	<0.0000377	<0.00377	0.0145
Pyrene	mg/L	0.00410	<0.000104	<0.000104	<0.0104	<0.00208

ANALYTICAL RESULTS SUMMARY
2014 2nd SEMI-ANNUAL SITE WIDE MONITORING EVENT
UNION PACIFIC RAILROAD (UPRR) - 1620 WOOD PRESERVING WORKS
HOUSTON, TEXAS
JULY-AUGUST 2014

<i>Sample Location:</i>		<i>MW-50A</i>	<i>MW-51A</i>	<i>MW-51C</i>	<i>MW-53C</i>	<i>MW-54C</i>
<i>Sample ID:</i>		<i>WG-1620-MW50A-20140828</i>	<i>WG-1620-MW51A-20140724</i>	<i>WG-1620-MW51C-20140724</i>	<i>WG-1620-MW53C-20140725</i>	<i>WG-1620-MW54C-20140725</i>
<i>Sample Date:</i>		<i>8/28/2014</i>	<i>7/24/2014</i>	<i>7/24/2014</i>	<i>7/25/2014</i>	<i>7/25/2014</i>
<i>Parameters</i>	<i>Units</i>					
<i>Volatile Organic Compounds</i>						
1,2-Dichloroethane	mg/L	<0.000140	<0.000140	<0.000140	<0.000140	<0.000140
Benzene	mg/L	<0.0000800	<0.0000800	0.000104 J	<0.0000800	<0.0000800
Chlorobenzene	mg/L	<0.000120	<0.000120	<0.000120	<0.000120	<0.000120
Ethylbenzene	mg/L	<0.000110	<0.000110	<0.000110	<0.000110	0.000282 J
Methylene chloride	mg/L	<0.000150	<0.000150	<0.000150	<0.000150	<0.000150
Toluene	mg/L	<0.000150	<0.000150	<0.000150	<0.000150	<0.000150
Vinyl chloride	mg/L	-	<0.000110	<0.000110	<0.000110	<0.000110
Xylenes (total)	mg/L	<0.000260	<0.000260	<0.000260	<0.000260	<0.000260
<i>Semi-volatile Organic Compounds</i>						
1,2-Diphenylhydrazine	mg/L	<0.000109	<0.000104	<0.000104	<0.000107	<0.000109
2,4-Dimethylphenol	mg/L	<0.000307	<0.000292	<0.000292	<0.000301	<0.000307
2,4-Dinitrotoluene	mg/L	<0.000129	<0.000123	<0.000123	<0.000126	<0.000129
2,6-Dinitrotoluene	mg/L	<0.0000792	<0.0000755	<0.0000755	<0.0000777	<0.0000792
2-Chloronaphthalene	mg/L	<0.0000792	<0.0000755	<0.0000755	<0.0000777	<0.0000792
2-Methylnaphthalene	mg/L	<0.0000693	<0.0000660	<0.0000660	<0.0000826	0.00834
4,6-Dinitro-2-methylphenol	mg/L	<0.000822	<0.000783	<0.000783	<0.000806	<0.000822
4-Nitrophenol	mg/L	<0.000554	<0.000528	<0.000528	<0.000544	<0.000554
Acenaphthene	mg/L	<0.0000792	<0.0000755	<0.0000755	<0.0000777	0.0367
Acenaphthylene	mg/L	<0.0000594	<0.0000566	<0.0000566	<0.0000583	0.000526
Anthracene	mg/L	<0.0000495	<0.0000472	<0.0000472	<0.0000485	0.00261
Benzo(a)anthracene	mg/L	<0.0000792	<0.0000755	<0.0000755	<0.0000777	<0.0000792
Benzo(a)pyrene	mg/L	<0.0000792	<0.0000755	<0.0000755	<0.0000777	<0.0000792
bis(2-Chloroethoxy)methane	mg/L	<0.000129	<0.000123	<0.000123	<0.000126	<0.000129
bis(2-Ethylhexyl)phthalate (DEHP)	mg/L	<0.000366	0.000804	0.00111	<0.000359	<0.000366
Chrysene	mg/L	<0.0000792	<0.0000755	<0.0000755	<0.0000777	<0.0000792
Dibenzofuran	mg/L	<0.0000792	<0.0000755	<0.0000755	<0.0000777	0.0471
Di-n-butylphthalate (DBP)	mg/L	<0.000109	<0.000104	<0.000104	<0.000107	<0.000109
Fluoranthene	mg/L	<0.0000693	<0.0000660	<0.0000660	<0.0000680	0.00302
Fluorene	mg/L	<0.0000693	<0.0000660	<0.0000660	<0.0000680	<0.0208

ANALYTICAL RESULTS SUMMARY
 2014 2nd SEMIANNUAL SITE WIDE MONITORING EVENT
 UNION PACIFIC RAILROAD (UPRR) - 1620 WOOD PRESERVING WORKS
 HOUSTON, TEXAS
 JULY-AUGUST 2014

<i>Sample Location:</i>		<i>MW-50A</i>	<i>MW-51A</i>	<i>MW-51C</i>	<i>MW-53C</i>	<i>MW-54C</i>
<i>Sample ID:</i>		<i>WG-1620-MW50A-20140828</i>	<i>WG-1620-MW51A-20140724</i>	<i>WG-1620-MW51C-20140724</i>	<i>WG-1620-MW53C-20140725</i>	<i>WG-1620-MW54C-20140725</i>
<i>Sample Date:</i>		<i>8/28/2014</i>	<i>7/24/2014</i>	<i>7/24/2014</i>	<i>7/25/2014</i>	<i>7/25/2014</i>
<i>Parameters</i>	<i>Units</i>					
<i>Semi-volatile Organic Compounds (Continued)</i>						
Naphthalene	mg/L	0.000710	0.000162 J	0.000553	<0.00194	0.180
Nitrobenzene	mg/L	<0.000109	<0.000104	<0.000104	<0.000107	<0.000109
N-Nitrosodiphenylamine	mg/L	<0.0000990	<0.0000943	<0.0000943	<0.0000971	<0.0000990
Pentachlorophenol	mg/L	<0.000604	<0.000575	<0.000575	<0.000592	<0.000604
Phenanthrene	mg/L	<0.0000594	<0.0000566	<0.0000566	<0.0000665	0.0148
Phenol	mg/L	<0.0000396	<0.0000377	0.000628	<0.0000388	<0.0000396
Pyrene	mg/L	<0.000109	<0.000104	<0.000104	<0.000107	0.00169

ANALYTICAL RESULTS SUMMARY
2014 2nd SEMIANNUAL SITE WIDE MONITORING EVENT
UNION PACIFIC RAILROAD (UPRR) - 1620 WOOD PRESERVING WORKS
HOUSTON, TEXAS
JULY-AUGUST 2014

<i>Sample Location:</i>		<i>MW-55A</i>	<i>MW-55B</i>	<i>MW-57A</i>	<i>MW-57B</i>	<i>MW-58A</i>
<i>Sample ID:</i>		<i>WG-1620-MW55A-20140717</i>	<i>WG-1620-MW55B-20140717</i>	<i>WG-1620-MW57A-20140729</i>	<i>WG-1620-MW57B-20140729</i>	<i>WG-1620-MW58A-20140828</i>
<i>Sample Date:</i>		<i>7/17/2014</i>	<i>7/17/2014</i>	<i>7/29/2014</i>	<i>7/29/2014</i>	<i>8/28/2014</i>
<i>Parameters</i>	<i>Units</i>					
<i>Volatile Organic Compounds</i>						
1,2-Dichloroethane	mg/L	<0.00280	<0.00280	<0.000140	<0.000700	<0.00140
Benzene	mg/L	0.0881	0.846	0.0412	1.25	0.259
Chlorobenzene	mg/L	<0.00240	<0.00240	0.000625 J	<0.000600	<0.00120
Ethylbenzene	mg/L	0.368	0.126	0.274	0.371	0.167
Methylene chloride	mg/L	0.0179 J	0.0155 J	<0.000150	<0.000750	<0.00150
Toluene	mg/L	0.409	0.591	0.0355	1.33	0.135
Vinyl chloride	mg/L	-	-	-	0.00299 J	0.0101 J
Xylenes (total)	mg/L	0.869	0.443	0.455	1.16	0.352
<i>Semi-volatile Organic Compounds</i>						
1,2-Diphenylhydrazine	mg/L	<0.00519	<0.0130	<0.000109	<0.0109	<0.00539
2,4-Dimethylphenol	mg/L	0.463	35.6	0.0443 J	15.0	9.19
2,4-Dinitrotoluene	mg/L	<0.00613	<0.0153	<0.000129	<0.0129	<0.00637
2,6-Dinitrotoluene	mg/L	<0.00377	<0.00943	<0.0000792	<0.00792	<0.00392
2-Chloronaphthalene	mg/L	<0.00377	<0.00943	<0.0000792	<0.00792	<0.00392
2-Methylnaphthalene	mg/L	0.486	0.512	0.616	0.945	0.373
4,6-Dinitro-2-methylphenol	mg/L	<0.0392	<0.0979	<0.000822	<0.0822	<0.0407
4-Nitrophenol	mg/L	<0.0264	<0.0660	<0.000554	<0.0554	<0.0275
Acenaphthene	mg/L	0.219	0.190	0.335	0.267	0.221
Acenaphthylene	mg/L	<0.00283	<0.00708	0.00779	<0.00594	0.00996 J
Anthracene	mg/L	0.0320	0.0270 J	0.0557	0.0355 J	0.0126 J
Benzo(a)anthracene	mg/L	<0.00377	<0.00943	0.00720	<0.00792	<0.00392
Benzo(a)pyrene	mg/L	<0.00377	<0.00943	0.00385	<0.00792	<0.00392
bis(2-Chloroethoxy)methane	mg/L	<0.00613	<0.0153	0.00210	<0.0129	<0.00637
bis(2-Ethylhexyl)phthalate (DEHP)	mg/L	<0.0175	<0.0436	<0.000808	<0.0366	<0.0181
Chrysene	mg/L	<0.00377	<0.00943	0.00625	<0.00792	<0.00392
Dibenzofuran	mg/L	0.140	0.138	0.257	0.226	0.136
Di-n-butylphthalate (DBP)	mg/L	<0.00519	<0.0130	<0.000109	<0.0109	<0.00539
Fluoranthene	mg/L	0.0175 J	0.0119 J	0.0561	0.0109 J	<0.00343
Fluorene	mg/L	0.100	0.0816	0.210	0.138	0.109

ANALYTICAL RESULTS SUMMARY
 2014 2nd SEMIANNUAL SITE WIDE MONITORING EVENT
 UNION PACIFIC RAILROAD (UPRR) - 1620 WOOD PRESERVING WORKS
 HOUSTON, TEXAS
 JULY-AUGUST 2014

<i>Sample Location:</i>	<i>MW-55A</i>	<i>MW-55B</i>	<i>MW-57A</i>	<i>MW-57B</i>	<i>MW-58A</i>	
<i>Sample ID:</i>	<i>WG-1620-MW55A-20140717</i>	<i>WG-1620-MW55B-20140717</i>	<i>WG-1620-MW57A-20140729</i>	<i>WG-1620-MW57B-20140729</i>	<i>WG-1620-MW58A-20140828</i>	
<i>Sample Date:</i>	<i>7/17/2014</i>	<i>7/17/2014</i>	<i>7/29/2014</i>	<i>7/29/2014</i>	<i>8/28/2014</i>	
<i>Parameters</i>	<i>Units</i>					
<i>Semi-volatile Organic Compounds (Continued)</i>						
Naphthalene	mg/L	11.6	13.5	7.27	17.0	4.05
Nitrobenzene	mg/L	<0.00519	<0.0130	<0.000109	<0.0109	<0.00539
N-Nitrosodiphenylamine	mg/L	<0.00472	<0.0118	<0.0000990	<0.00990	<0.00490
Pentachlorophenol	mg/L	<0.0288	<0.0719	<0.000604	<0.0604	<0.0299
Phenanthrene	mg/L	0.0893	0.100	0.271	0.127	0.0702
Phenol	mg/L	<0.00189	127	<0.0000396	0.495	<0.00196
Pyrene	mg/L	0.0101 J	<0.0130	0.0308 J	<0.0109	<0.00539

ANALYTICAL RESULTS SUMMARY
2014 2nd SEMIANNUAL SITE WIDE MONITORING EVENT
UNION PACIFIC RAILROAD (UPRR) - 1620 WOOD PRESERVING WORKS
HOUSTON, TEXAS
JULY-AUGUST 2014

<i>Sample Location:</i>		<i>MW-59A</i>	<i>MW-59B</i>	<i>MW-59D</i>	<i>MW-59D</i>	<i>MW-60A</i>
<i>Sample ID:</i>		<i>WG-1620-MW59A-20140730</i>	<i>WG-1620-MW59B-20140730</i>	<i>WG-1620-MW59D-20140828</i>	<i>WG-1620-DUPD-20140828</i>	<i>WG-1620-MW60A-20140716</i>
<i>Sample Date:</i>		<i>7/30/2014</i>	<i>7/30/2014</i>	<i>8/28/2014</i>	<i>8/28/2014</i>	<i>7/16/2014</i>
<i>Parameters</i>	<i>Units</i>				<i>Duplicate</i>	
<i>Volatile Organic Compounds</i>						
1,2-Dichloroethane	mg/L	<0.000140	<0.000140	<0.000140	<0.000140	<0.000140
Benzene	mg/L	<0.0000800	<0.0000800	0.000135 J	0.000114 J	<0.0000800
Chlorobenzene	mg/L	<0.000120	<0.000120	<0.000120	<0.000120	<0.000120
Ethylbenzene	mg/L	<0.000110	<0.000110	<0.000110	<0.000110	<0.000110
Methylene chloride	mg/L	<0.000150	<0.000150	<0.000150	<0.000150	<0.000150
Toluene	mg/L	<0.000150	<0.000150	0.000258 J	0.000249 J	<0.000150
Vinyl chloride	mg/L	<0.000110	<0.000110	-	-	<0.000110
Xylenes (total)	mg/L	<0.000260	<0.000260	<0.000260	<0.000260	<0.000260
<i>Semi-volatile Organic Compounds</i>						
1,2-Diphenylhydrazine	mg/L	<0.000109	R	<0.000110	<0.000110	<0.000104
2,4-Dimethylphenol	mg/L	<0.000307	R	<0.000310	<0.000310	<0.000292
2,4-Dinitrotoluene	mg/L	<0.000129	R	<0.000130	<0.000130	<0.000123
2,6-Dinitrotoluene	mg/L	<0.0000792	R	<0.0000800	<0.0000800	<0.0000755
2-Chloronaphthalene	mg/L	<0.0000792	R	<0.0000800	<0.0000800	<0.0000755
2-Methylnaphthalene	mg/L	<0.0000693	R	0.000334 J	<0.0000700 J	0.000516
4,6-Dinitro-2-methylphenol	mg/L	<0.000822	R	<0.000830	<0.000830	<0.000783
4-Nitrophenol	mg/L	<0.000554	R	<0.000560	<0.000560	<0.000528
Acenaphthene	mg/L	<0.0000792	0.000621 JL	<0.0000800	<0.0000800	0.000167 J
Acenaphthylene	mg/L	<0.0000594	R	<0.0000600	<0.0000600	<0.0000566
Anthracene	mg/L	<0.0000495	R	<0.0000500	<0.0000500	<0.0000472
Benzo(a)anthracene	mg/L	<0.0000792	R	<0.0000800	<0.0000800	<0.0000755
Benzo(a)pyrene	mg/L	<0.0000792	R	<0.0000800	<0.0000800	<0.0000755
bis(2-Chloroethoxy)methane	mg/L	<0.000129	R	<0.000130	<0.000130	<0.000123
bis(2-Ethylhexyl)phthalate (DEHP)	mg/L	<0.000366	R	0.00306 J	0.00598 J	<0.000349
Chrysene	mg/L	<0.0000792	R	<0.0000800	<0.0000800	<0.0000755
Dibenzofuran	mg/L	<0.0000792	0.000201 JL	<0.0000800	<0.0000800	0.000116 J
Di-n-butylphthalate (DBP)	mg/L	<0.000109	R	<0.000110	<0.000110	<0.000104
Fluoranthene	mg/L	<0.0000693	R	0.000180 J	<0.0000700 J	<0.0000660
Fluorene	mg/L	<0.0000693	0.000189 JL	<0.0000700	<0.0000700	<0.0000660

ANALYTICAL RESULTS SUMMARY
 2014 2nd SEMIANNUAL SITE WIDE MONITORING EVENT
 UNION PACIFIC RAILROAD (UPRR) - 1620 WOOD PRESERVING WORKS
 HOUSTON, TEXAS
 JULY-AUGUST 2014

<i>Sample Location:</i>	<i>MW-59A</i>	<i>MW-59B</i>	<i>MW-59D</i>	<i>MW-59D</i>	<i>MW-60A</i>	
<i>Sample ID:</i>	<i>WG-1620-MW59A-20140730</i>	<i>WG-1620-MW59B-20140730</i>	<i>WG-1620-MW59D-20140828</i>	<i>WG-1620-DUPD-20140828</i>	<i>WG-1620-MW60A-20140716</i>	
<i>Sample Date:</i>	<i>7/30/2014</i>	<i>7/30/2014</i>	<i>8/28/2014</i>	<i>8/28/2014</i>	<i>7/16/2014</i>	
<i>Parameters</i>	<i>Units</i>			<i>Duplicate</i>		
<i>Semi-volatile Organic Compounds (Continued)</i>						
Naphthalene	mg/L	0.000219 J	0.00627 JL	0.00576 J	<0.0000800 J	0.00653
Nitrobenzene	mg/L	<0.000109	R	<0.000110	<0.000110	<0.000104
N-Nitrosodiphenylamine	mg/L	<0.0000990	R	<0.000100	<0.000100	<0.0000943
Pentachlorophenol	mg/L	<0.000604	R	<0.000610	<0.000610	<0.000575
Phenanthrene	mg/L	<0.0000594	R	0.000180 J	0.0000608 J	<0.0000566
Phenol	mg/L	<0.0000396	R	<0.0000400	<0.0000400	<0.0000377
Pyrene	mg/L	<0.000109	R	0.000131 J	<0.000110	<0.000104

ANALYTICAL RESULTS SUMMARY
2014 2nd SEMI-ANNUAL SITE WIDE MONITORING EVENT
UNION PACIFIC RAILROAD (UPRR) - 1620 WOOD PRESERVING WORKS
HOUSTON, TEXAS
JULY-AUGUST 2014

<i>Sample Location:</i>		<i>MW-61A</i>	<i>MW-62B</i>	<i>MW-63B</i>	<i>MW-64A</i>	<i>MW-65D</i>
<i>Sample ID:</i>		<i>WG-1620-MW61A-20140828</i>	<i>WG-1620-MW62B-20140729</i>	<i>WG-1620-MW63B-20140724</i>	<i>WG-1620-MW64A-20140729</i>	<i>WG-1620-MW65D-20140828</i>
<i>Sample Date:</i>		<i>8/28/2014</i>	<i>7/29/2014</i>	<i>7/24/2014</i>	<i>7/29/2014</i>	<i>8/28/2014</i>
<i>Parameters</i>	<i>Units</i>					
<i>Volatile Organic Compounds</i>						
1,2-Dichloroethane	mg/L	<0.000140	<0.000140	<0.000140	<0.000140	<0.000140
Benzene	mg/L	<0.0000800	<0.0000800	0.108	<0.0000800	<0.0000800
Chlorobenzene	mg/L	<0.000120	<0.000120	0.000216 J	<0.000120	<0.000120
Ethylbenzene	mg/L	<0.000110	<0.000110	0.151	<0.000110	<0.000110
Methylene chloride	mg/L	<0.000150	<0.000150	<0.000150	<0.000150	<0.000150
Toluene	mg/L	<0.000150	<0.000150	0.00257	<0.000150	<0.000150
Vinyl chloride	mg/L	<0.000110	-	<0.000110	-	-
Xylenes (total)	mg/L	<0.000260	<0.000260	0.0535	<0.000260	<0.000260
<i>Semi-volatile Organic Compounds</i>						
1,2-Diphenylhydrazine	mg/L	<0.000110	<0.000109	<0.00110	<0.000108	<0.000110
2,4-Dimethylphenol	mg/L	<0.000310	<0.000307	<0.00310	<0.000304	<0.000310
2,4-Dinitrotoluene	mg/L	<0.000130	<0.000129	<0.00130	<0.000127	<0.000130
2,6-Dinitrotoluene	mg/L	<0.0000800	<0.0000792	<0.000800	<0.0000784	<0.0000800
2-Chloronaphthalene	mg/L	<0.0000800	<0.0000792	<0.000800	<0.0000784	<0.0000800
2-Methylnaphthalene	mg/L	<0.0000700	<0.0000693	0.0302	<0.0000686	<0.0000700
4,6-Dinitro-2-methylphenol	mg/L	<0.000830	<0.000822	<0.00830	<0.000814	<0.000830
4-Nitrophenol	mg/L	<0.000560	<0.000554	<0.00560	<0.000549	<0.000560
Acenaphthene	mg/L	<0.0000800	0.000235 J	0.00754	<0.0000784	<0.0000800
Acenaphthylene	mg/L	<0.0000600	<0.0000594	<0.000600	<0.0000588	<0.0000600
Anthracene	mg/L	<0.0000500	0.0000699 J	<0.000500	0.000127 J	<0.0000500
Benzo(a)anthracene	mg/L	<0.0000800	<0.0000792	<0.000800	<0.0000784	<0.0000800
Benzo(a)pyrene	mg/L	<0.0000800	<0.0000792	<0.000800	<0.0000784	<0.0000800
bis(2-Chloroethoxy)methane	mg/L	<0.000130	<0.000129	<0.00130	<0.000127	<0.000130
bis(2-Ethylhexyl)phthalate (DEHP)	mg/L	0.000536 J	<0.000366	<0.00370	<0.000363	0.00244
Chrysene	mg/L	<0.0000800	<0.0000792	<0.000800	<0.0000784	<0.0000800
Dibenzofuran	mg/L	<0.0000800	0.0000916 J	0.00663	<0.0000784	<0.0000800
Di-n-butylphthalate (DBP)	mg/L	<0.000110	<0.000109	<0.00110	<0.000108	<0.000110
Fluoranthene	mg/L	<0.0000700	<0.0000693	<0.000700	<0.0000686	<0.0000700
Fluorene	mg/L	<0.0000700	0.000126 J	0.00248 J	<0.0000686	<0.0000700

ANALYTICAL RESULTS SUMMARY
 2014 2nd SEMIANNUAL SITE WIDE MONITORING EVENT
 UNION PACIFIC RAILROAD (UPRR) - 1620 WOOD PRESERVING WORKS
 HOUSTON, TEXAS
 JULY-AUGUST 2014

<i>Sample Location:</i>	<i>MW-61A</i>	<i>MW-62B</i>	<i>MW-63B</i>	<i>MW-64A</i>	<i>MW-65D</i>	
<i>Sample ID:</i>	<i>WG-1620-MW61A-20140828</i>	<i>WG-1620-MW62B-20140729</i>	<i>WG-1620-MW63B-20140724</i>	<i>WG-1620-MW64A-20140729</i>	<i>WG-1620-MW65D-20140828</i>	
<i>Sample Date:</i>	<i>8/28/2014</i>	<i>7/29/2014</i>	<i>7/24/2014</i>	<i>7/29/2014</i>	<i>8/28/2014</i>	
<i>Parameters</i>	<i>Units</i>					
<i>Semi-volatile Organic Compounds (Continued)</i>						
Naphthalene	mg/L	<0.0000800	<0.0000792	1.69	<0.000317	0.000710
Nitrobenzene	mg/L	<0.000110	<0.000109	<0.00110	<0.000108	<0.000110
N-Nitrosodiphenylamine	mg/L	<0.000100	<0.0000990	<0.00100	<0.0000980	<0.000100
Pentachlorophenol	mg/L	<0.000610	<0.000604	<0.00610	<0.000598	<0.000610
Phenanthrene	mg/L	<0.0000600	<0.000144	<0.000600	<0.0000588	<0.0000600
Phenol	mg/L	<0.0000400	<0.0000396	<0.000400	<0.0000392	<0.0000400
Pyrene	mg/L	<0.000110	<0.000109	<0.00110	<0.000108	<0.000110

ANALYTICAL RESULTS SUMMARY
2014 2nd SEMI-ANNUAL SITE WIDE MONITORING EVENT
UNION PACIFIC RAILROAD (UPRR) - 1620 WOOD PRESERVING WORKS
HOUSTON, TEXAS
JULY-AUGUST 2014

<i>Sample Location:</i>		<i>MW-66D</i>	<i>MW-67B</i>	<i>MW-68B</i>	<i>MW-68B</i>	<i>MW-68C</i>
<i>Sample ID:</i>		<i>WG-1620-MW66D-20140828</i>	<i>WG-1620-MW67B-20140724</i>	<i>WG-1620-MW68B-20140724</i>	<i>WG-1620-DUP1-20140724</i>	<i>WG-1620-MW68C-20140724</i>
<i>Sample Date:</i>		<i>8/28/2014</i>	<i>7/24/2014</i>	<i>7/24/2014</i>	<i>7/24/2014</i>	<i>7/24/2014</i>
<i>Parameters</i>	<i>Units</i>				<i>Duplicate</i>	
<i>Volatile Organic Compounds</i>						
1,2-Dichloroethane	mg/L	<0.000140	<0.000140	<0.00280	<0.00280	<0.000140
Benzene	mg/L	<0.0000800	<0.0000800	2.18	2.10	0.00730
Chlorobenzene	mg/L	<0.000120	<0.000120	<0.00240	<0.00240	<0.000120
Ethylbenzene	mg/L	<0.000110	<0.000110	0.403	0.453	0.000419 J
Methylene chloride	mg/L	<0.000150	<0.000150	<0.00300	<0.00300	<0.000150
Toluene	mg/L	<0.000150	<0.000150	0.538	0.570	0.00138
Vinyl chloride	mg/L	-	<0.000110	0.00700 J	<0.00220 J	<0.000110
Xylenes (total)	mg/L	<0.000260	<0.000260	1.08	1.22	0.000649 J
<i>Semi-volatile Organic Compounds</i>						
1,2-Diphenylhydrazine	mg/L	<0.000109	<0.000106	<0.00550	<0.00529	<0.000104
2,4-Dimethylphenol	mg/L	<0.000307	<0.000298	0.445	0.451	<0.000292
2,4-Dinitrotoluene	mg/L	<0.000129	<0.000125	<0.00650	<0.00625	<0.000123
2,6-Dinitrotoluene	mg/L	<0.0000792	<0.0000769	<0.00400	<0.00385	<0.0000755
2-Chloronaphthalene	mg/L	<0.0000792	<0.0000769	<0.00400	<0.00385	<0.0000755
2-Methylnaphthalene	mg/L	0.000211 J	<0.0000673	0.852	0.906	0.000188 J
4,6-Dinitro-2-methylphenol	mg/L	<0.000822	<0.000798	<0.0415	<0.0399	<0.000783
4-Nitrophenol	mg/L	<0.000554	<0.000538	<0.0280	<0.0269	<0.000528
Acenaphthene	mg/L	0.000141 J	<0.0000769	0.178	0.181	0.000235 J
Acenaphthylene	mg/L	0.000411 J	<0.0000577	<0.00300	<0.00288	<0.0000566
Anthracene	mg/L	0.00304	<0.0000481	0.0169 J	0.0162 J	<0.0000472
Benzo(a)anthracene	mg/L	0.000410 J	<0.0000769	<0.00400	<0.00385	<0.0000755
Benzo(a)pyrene	mg/L	0.000436 J	<0.0000769	<0.00400	<0.00385	<0.0000755
bis(2-Chloroethoxy)methane	mg/L	<0.000129	<0.000125	<0.00650	<0.00625	<0.000123
bis(2-Ethylhexyl)phthalate (DEHP)	mg/L	0.000585	0.00184	<0.0185	<0.0178	<0.000349
Chrysene	mg/L	0.00104	<0.0000769	<0.00400	<0.00385	<0.0000755
Dibenzofuran	mg/L	0.000133 J	<0.0000769	0.198	0.196	0.0000942 J
Di-n-butylphthalate (DBP)	mg/L	0.000121 J	<0.000106	<0.00550	<0.00529	<0.000104
Fluoranthene	mg/L	0.00116	<0.0000673	0.00825 J	0.00751 J	<0.0000660
Fluorene	mg/L	0.000143 J	<0.0000673	0.0966	0.0953	0.000155 J

ANALYTICAL RESULTS SUMMARY
 2014 2nd SEMIANNUAL SITE WIDE MONITORING EVENT
 UNION PACIFIC RAILROAD (UPRR) - 1620 WOOD PRESERVING WORKS
 HOUSTON, TEXAS
 JULY-AUGUST 2014

<i>Sample Location:</i>		<i>MW-66D</i>	<i>MW-67B</i>	<i>MW-68B</i>	<i>MW-68B</i>	<i>MW-68C</i>
<i>Sample ID:</i>		<i>WG-1620-MW66D-20140828</i>	<i>WG-1620-MW67B-20140724</i>	<i>WG-1620-MW68B-20140724</i>	<i>WG-1620-DUP1-20140724</i>	<i>WG-1620-MW68C-20140724</i>
<i>Sample Date:</i>		<i>8/28/2014</i>	<i>7/24/2014</i>	<i>7/24/2014</i>	<i>7/24/2014</i>	<i>7/24/2014</i>
<i>Parameters</i>	<i>Units</i>				<i>Duplicate</i>	
<i>Semi-volatile Organic Compounds (Continued)</i>						
Naphthalene	mg/L	0.00118	0.000275 J	10.5	12.6	0.00274
Nitrobenzene	mg/L	<0.000109	<0.000106	<0.00550	<0.00529	<0.000104
N-Nitrosodiphenylamine	mg/L	<0.0000990	<0.0000962	<0.00500	<0.00481	<0.0000943
Pentachlorophenol	mg/L	<0.000604	<0.000587	<0.0305	<0.0293	<0.000575
Phenanthrene	mg/L	0.000295 J	<0.0000577	0.106	0.103	<0.0000566
Phenol	mg/L	<0.0000396	<0.0000385	0.00988 J	<0.00192 J	<0.0000377
Pyrene	mg/L	0.00118	<0.000106	<0.00550	<0.00529	<0.000104

ANALYTICAL RESULTS SUMMARY
2014 2nd SEMI-ANNUAL SITE WIDE MONITORING EVENT
UNION PACIFIC RAILROAD (UPRR) - 1620 WOOD PRESERVING WORKS
HOUSTON, TEXAS
JULY-AUGUST 2014

<i>Sample Location:</i>	<i>MW-68C</i>	<i>MW-69A</i>	<i>MW-70B</i>	<i>MW-71B</i>	<i>MW-73B</i>
<i>Sample ID:</i>	<i>WG-1620-MW68C-20140828</i>	<i>WG-1620-MW69A-20140716</i>	<i>WG-1620-MW70B-20140728</i>	<i>WG-1620-MW71B-20140728</i>	<i>WG-1620-MW73B-20140718</i>
<i>Sample Date:</i>	<i>8/28/2014</i>	<i>7/16/2014</i>	<i>7/28/2014</i>	<i>7/28/2014</i>	<i>7/18/2014</i>
<i>Parameters</i>	<i>Units</i>				
<i>Volatile Organic Compounds</i>					
1,2-Dichloroethane	mg/L	<0.000140	<0.000140	<0.00140	<0.000140
Benzene	mg/L	0.00118	<0.0000800	2.55	0.00155
Chlorobenzene	mg/L	<0.000120	<0.000120	<0.00120	<0.000120
Ethylbenzene	mg/L	0.000140 J	<0.000110	0.742	<0.000110
Methylene chloride	mg/L	<0.000150	<0.000150	<0.00150	<0.000150
Toluene	mg/L	0.000442 J	<0.000150	2.76	0.00423
Vinyl chloride	mg/L	<0.000110	<0.000110	-	-
Xylenes (total)	mg/L	<0.000260	<0.000260	2.11	0.0126
<i>Semi-volatile Organic Compounds</i>					
1,2-Diphenylhydrazine	mg/L	-	<0.000104	<0.0107	<0.000107
2,4-Dimethylphenol	mg/L	-	<0.000292	50.8	<0.000301
2,4-Dinitrotoluene	mg/L	-	<0.000123	<0.0126	<0.000126
2,6-Dinitrotoluene	mg/L	-	<0.0000755	<0.00777	<0.0000777
2-Chloronaphthalene	mg/L	-	<0.0000755	<0.00777	<0.0000777
2-Methylnaphthalene	mg/L	-	<0.0000660	1.31	<0.0000680
4,6-Dinitro-2-methylphenol	mg/L	-	<0.000783	<0.0806	<0.000806
4-Nitrophenol	mg/L	-	<0.000528	<0.0544	<0.000544
Acenaphthene	mg/L	-	<0.0000755	0.374	0.000785
Acenaphthylene	mg/L	-	<0.0000566	0.0114 J	<0.0000583
Anthracene	mg/L	-	<0.0000472	0.0387 J	<0.0000485
Benzo(a)anthracene	mg/L	-	<0.0000755	<0.00777	<0.0000777
Benzo(a)pyrene	mg/L	-	<0.0000755	<0.00777	<0.0000777
bis(2-Chloroethoxy)methane	mg/L	-	<0.000123	<0.0126	<0.000126
bis(2-Ethylhexyl)phthalate (DEHP)	mg/L	-	<0.000349	<0.0359	<0.000359
Chrysene	mg/L	-	<0.0000755	<0.00777	<0.0000777
Dibenzofuran	mg/L	-	<0.0000755	0.278	<0.0000777
Di-n-butylphthalate (DBP)	mg/L	-	<0.000104	<0.0107	<0.000107
Fluoranthene	mg/L	-	<0.0000660	0.0130 J	0.000149 J
Fluorene	mg/L	-	<0.0000660	0.186	<0.0000680

ANALYTICAL RESULTS SUMMARY
 2014 2nd SEMIANNUAL SITE WIDE MONITORING EVENT
 UNION PACIFIC RAILROAD (UPRR) - 1620 WOOD PRESERVING WORKS
 HOUSTON, TEXAS
 JULY-AUGUST 2014

<i>Sample Location:</i>	<i>MW-68C</i>	<i>MW-69A</i>	<i>MW-70B</i>	<i>MW-71B</i>	<i>MW-73B</i>
<i>Sample ID:</i>	<i>WG-1620-MW68C-20140828</i>	<i>WG-1620-MW69A-20140716</i>	<i>WG-1620-MW70B-20140728</i>	<i>WG-1620-MW71B-20140728</i>	<i>WG-1620-MW73B-20140718</i>
<i>Sample Date:</i>	<i>8/28/2014</i>	<i>7/16/2014</i>	<i>7/28/2014</i>	<i>7/28/2014</i>	<i>7/18/2014</i>

<i>Parameters</i>	<i>Units</i>					
<i>Semi-volatile Organic Compounds (Continued)</i>						
Naphthalene	mg/L	-	<0.000155	18.1	<0.000471	<0.0000792
Nitrobenzene	mg/L	-	<0.000104	<0.0107	<0.000107	<0.000109
N-Nitrosodiphenylamine	mg/L	-	<0.0000943	<0.00971	<0.0000971	<0.0000990
Pentachlorophenol	mg/L	-	<0.000575	<0.0592	<0.000592	<0.000604
Phenanthrene	mg/L	-	<0.0000566	0.162	<0.0000583	<0.0000594
Phenol	mg/L	-	<0.0000377	1.69	<0.0000388	<0.0000396
Pyrene	mg/L	-	<0.000104	<0.0107	<0.000107	<0.000109

ANALYTICAL RESULTS SUMMARY
2014 2nd SEMI-ANNUAL SITE WIDE MONITORING EVENT
UNION PACIFIC RAILROAD (UPRR) - 1620 WOOD PRESERVING WORKS
HOUSTON, TEXAS
JULY-AUGUST 2014

<i>Sample Location:</i>	<i>MW-74B</i>	<i>MW-75B</i>	<i>MW-76C</i>	<i>MW-77A</i>	<i>MW-78A</i>	
<i>Sample ID:</i>	<i>WG-1620-MW74B-20140828</i>	<i>WG-1620-MW75B-20140724</i>	<i>WG-1620-MW76C-20140724</i>	<i>WG-1620-MW77A-20140724</i>	<i>WG-1620-MW78A-20140724</i>	
<i>Sample Date:</i>	<i>8/28/2014</i>	<i>7/24/2014</i>	<i>7/24/2014</i>	<i>7/24/2014</i>	<i>7/24/2014</i>	
<i>Parameters</i>	<i>Units</i>					
<i>Volatile Organic Compounds</i>						
1,2-Dichloroethane	mg/L	<0.00280	<0.000140	<0.000140	<0.000140	<0.000700
Benzene	mg/L	0.652	0.298	0.000149 J	<0.0000800	0.0571
Chlorobenzene	mg/L	<0.00240	<0.000120	<0.000120	<0.000120	<0.000600
Ethylbenzene	mg/L	0.200	0.0737	<0.000110	<0.000110	0.0637
Methylene chloride	mg/L	<0.00300	<0.000150	<0.000150	<0.000150	<0.000750
Toluene	mg/L	0.741	0.273	0.000156 J	<0.000150	0.100
Vinyl chloride	mg/L	-	<0.000110	<0.000110	<0.000110	<0.000550
Xylenes (total)	mg/L	0.558	0.255	<0.000260	<0.000260	0.158
<i>Semi-volatile Organic Compounds</i>						
1,2-Diphenylhydrazine	mg/L	<0.216	<0.00214	<0.000104	<0.00519	<0.0259
2,4-Dimethylphenol	mg/L	70.6	<0.00602	<0.000292	<0.0146	6.66
2,4-Dinitrotoluene	mg/L	<0.255	<0.00252	<0.000123	<0.00613	<0.0307
2,6-Dinitrotoluene	mg/L	<0.157	<0.00155	<0.0000755	<0.00377	<0.0189
2-Chloronaphthalene	mg/L	<0.157	<0.00155	<0.0000755	<0.00377	<0.0189
2-Methylnaphthalene	mg/L	0.950 J	0.546	0.000392 J	0.0571	0.879
4,6-Dinitro-2-methylphenol	mg/L	<1.63	<0.0161	<0.000783	<0.0392	<0.196
4-Nitrophenol	mg/L	<1.10	<0.0109	<0.000528	<0.0264	<0.132
Acenaphthene	mg/L	0.413 J	0.429	0.000696	0.0456	0.497
Acenaphthylene	mg/L	<0.118	0.0121	<0.0000566	<0.00283	<0.0142
Anthracene	mg/L	<0.0980	0.0626	0.000234 J	<0.00236	0.105 J
Benzo(a)anthracene	mg/L	<0.157	0.00748 J	<0.0000755	<0.00377	0.0336 J
Benzo(a)pyrene	mg/L	<0.157	<0.00155	<0.0000755	<0.00377	<0.0189
bis(2-Chloroethoxy)methane	mg/L	<0.255	<0.00252	<0.000123	<0.00613	<0.0307
bis(2-Ethylhexyl)phthalate (DEHP)	mg/L	<0.725	<0.00718	0.000803	<0.0175	<0.0873
Chrysene	mg/L	<0.157	0.00677 J	<0.0000755	<0.00377	0.0248 J
Dibenzofuran	mg/L	<0.157	0.214	0.000507	0.0229 J	0.411
Di-n-butylphthalate (DBP)	mg/L	<0.216	<0.00214	<0.000104	<0.00519	<0.0259
Fluoranthene	mg/L	<0.137	0.0914	0.000322 J	<0.00330	0.165
Fluorene	mg/L	0.263 J	0.218	0.000778	0.0240	0.382

ANALYTICAL RESULTS SUMMARY
 2014 2nd SEMIANNUAL SITE WIDE MONITORING EVENT
 UNION PACIFIC RAILROAD (UPRR) - 1620 WOOD PRESERVING WORKS
 HOUSTON, TEXAS
 JULY-AUGUST 2014

<i>Sample Location:</i>	<i>MW-74B</i>	<i>MW-75B</i>	<i>MW-76C</i>	<i>MW-77A</i>	<i>MW-78A</i>
<i>Sample ID:</i>	<i>WG-1620-MW74B-20140828</i>	<i>WG-1620-MW75B-20140724</i>	<i>WG-1620-MW76C-20140724</i>	<i>WG-1620-MW77A-20140724</i>	<i>WG-1620-MW78A-20140724</i>
<i>Sample Date:</i>	<i>8/28/2014</i>	<i>7/24/2014</i>	<i>7/24/2014</i>	<i>7/24/2014</i>	<i>7/24/2014</i>

<i>Parameters</i>	<i>Units</i>					
<i>Semi-volatile Organic Compounds (Continued)</i>						
Naphthalene	mg/L	17.9	5.70	0.00176	0.884	7.18
Nitrobenzene	mg/L	<0.216	<0.00214	<0.000104	<0.00519	<0.0259
N-Nitrosodiphenylamine	mg/L	<0.196	<0.00194	<0.0000943	<0.00472	<0.0236
Pentachlorophenol	mg/L	<1.20	<0.0118	0.00272	<0.0288	<0.144
Phenanthrene	mg/L	0.307 J	0.238	0.00183	0.0262	0.604
Phenol	mg/L	53.3	<0.000777	0.00284	<0.00189	0.192
Pyrene	mg/L	<0.216	0.0537	0.000194 J	<0.00519	0.0967 J

ANALYTICAL RESULTS SUMMARY
2014 2nd SEMI-ANNUAL SITE WIDE MONITORING EVENT
UNION PACIFIC RAILROAD (UPRR) - 1620 WOOD PRESERVING WORKS
HOUSTON, TEXAS
JULY-AUGUST 2014

<i>Sample Location:</i>	<i>MW-79A</i>	<i>MW-80B</i>	<i>MW-81B</i>	<i>P-11</i>	<i>TW-41B</i>
<i>Sample ID:</i>	<i>WG-1620-MW79A-20140828</i>	<i>WG-1620-MW80B-20140828</i>	<i>WG-1620-MW81B-20140724</i>	<i>WG-1620-P11-20140729</i>	<i>WG-1620-TW41B-20140725</i>
<i>Sample Date:</i>	<i>8/28/2014</i>	<i>8/28/2014</i>	<i>7/24/2014</i>	<i>7/29/2014</i>	<i>7/25/2014</i>
<i>Parameters</i>	<i>Units</i>				
<i>Volatile Organic Compounds</i>					
1,2-Dichloroethane	mg/L	<0.000700	<0.000140	<0.000140	<0.000140
Benzene	mg/L	0.0485	0.0000898 J	<0.0000800	0.000594 J
Chlorobenzene	mg/L	<0.000600	<0.000120	<0.000120	<0.000120
Ethylbenzene	mg/L	0.0215	<0.000110	<0.000110	0.00501
Methylene chloride	mg/L	<0.000750	<0.000150	<0.000150	<0.000150
Toluene	mg/L	0.0760	<0.000150	<0.000150	0.00116
Vinyl chloride	mg/L	-	-	<0.000110	<0.000110
Xylenes (total)	mg/L	0.0763	<0.000260	<0.000260	0.0101
<i>Semi-volatile Organic Compounds</i>					
1,2-Diphenylhydrazine	mg/L	<0.00539	<0.000110	<0.000107	<0.000107
2,4-Dimethylphenol	mg/L	6.11	<0.000310	<0.000301	<0.000301
2,4-Dinitrotoluene	mg/L	<0.00637	<0.000130	<0.000126	<0.000126
2,6-Dinitrotoluene	mg/L	<0.00392	<0.0000800	<0.0000777	<0.0000777
2-Chloronaphthalene	mg/L	<0.00392	<0.0000800	<0.0000777	<0.0000777
2-Methylnaphthalene	mg/L	0.654	0.000158 J	<0.0000680	0.0125
4,6-Dinitro-2-methylphenol	mg/L	<0.0407	<0.000830	<0.000806	<0.000806
4-Nitrophenol	mg/L	<0.0275	<0.000560	<0.000544	<0.000544
Acenaphthene	mg/L	0.427	0.0000835 J	<0.0000777	0.000653
Acenaphthylene	mg/L	0.0112 J	<0.0000600	<0.0000583	<0.0000588
Anthracene	mg/L	0.0673	<0.0000500	<0.0000485	0.000119 J
Benzo(a)anthracene	mg/L	0.00985 J	<0.0000800	<0.0000777	<0.0000784
Benzo(a)pyrene	mg/L	<0.00392	<0.0000800	<0.0000777	<0.0000784
bis(2-Chloroethoxy)methane	mg/L	<0.00637	<0.000130	<0.000126	<0.000127
bis(2-Ethylhexyl)phthalate (DEHP)	mg/L	<0.0181	0.00106	<0.000359	<0.000711
Chrysene	mg/L	0.00948 J	<0.0000800	<0.0000777	<0.0000784
Dibenzofuran	mg/L	0.342	<0.0000800	<0.0000777	0.000176 J
Di-n-butylphthalate (DBP)	mg/L	<0.00539	<0.000110	<0.000107	<0.000108
Fluoranthene	mg/L	0.0713	<0.0000700	<0.0000680	0.0000771 J
Fluorene	mg/L	0.291	<0.0000700	<0.0000680	0.000344 J

ANALYTICAL RESULTS SUMMARY
 2014 2nd SEMIANNUAL SITE WIDE MONITORING EVENT
 UNION PACIFIC RAILROAD (UPRR) - 1620 WOOD PRESERVING WORKS
 HOUSTON, TEXAS
 JULY-AUGUST 2014

<i>Sample Location:</i>	<i>MW-79A</i>	<i>MW-80B</i>	<i>MW-81B</i>	<i>P-11</i>	<i>TW-41B</i>
<i>Sample ID:</i>	<i>WG-1620-MW79A-20140828</i>	<i>WG-1620-MW80B-20140828</i>	<i>WG-1620-MW81B-20140724</i>	<i>WG-1620-P11-20140729</i>	<i>WG-1620-TW41B-20140725</i>
<i>Sample Date:</i>	<i>8/28/2014</i>	<i>8/28/2014</i>	<i>7/24/2014</i>	<i>7/29/2014</i>	<i>7/25/2014</i>

<i>Parameters</i>	<i>Units</i>					
<i>Semi-volatile Organic Compounds (Continued)</i>						
Naphthalene	mg/L	6.89	0.00157	<0.0000777	<0.0000784	0.149
Nitrobenzene	mg/L	<0.00539	<0.000110	<0.000107	<0.000108	<0.000107
N-Nitrosodiphenylamine	mg/L	<0.00490	<0.000100	<0.0000971	<0.0000980	<0.0000971
Pentachlorophenol	mg/L	<0.0299	<0.000610	<0.000592	<0.000598	<0.000592
Phenanthrene	mg/L	0.355	0.0000792 J	0.0000944 J	<0.000317	0.0573
Phenol	mg/L	1.13	0.000180 J	<0.0000388	<0.0000392	<0.0000388
Pyrene	mg/L	0.0434	<0.000110	<0.000107	<0.000108	0.00209

Notes:

- J - Estimated concentration
- JL - Estimated concentration; biased low
- R - Rejected

TABLE 3

ANALYTICAL METHODS AND HOLDING TIME CRITERIA
 2014 2nd SEMIANNUAL SITE WIDE MONITORING EVENT
 UNION PACIFIC RAILROAD (UPRR) - 1620 WOOD PRESERVING WORKS
 HOUSTON, TEXAS
 JULY-AUGUST 2014

<i>Parameter</i>	<i>Method</i>	<i>Matrix</i>	<i>Holding Time</i>	
			<i>Collection to Extraction (Days)</i>	<i>Extraction to Analysis (Days)</i>
VOCs	SW-846 8260B	water	-	40
SVOCs	SW-846 8270C LL	water	7	40

Notes:

- SW-846 - "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW-846, Third Edition, 1986, with subsequent revisions
 VOCs - Volatile Organic Compounds
 SVOCs - Semi-volatile Organic Compounds

TABLE 4

QUALIFIED SAMPLE DATA DUE TO OUTLYING OF SURROGATE RECOVERIES
 2014 2nd SEMIANNUAL SITE WIDE MONITORING EVENT
 UNION PACIFIC RAILROAD (UPRR) - 1620 WOOD PRESERVING WORKS
 HOUSTON, TEXAS
 JULY-AUGUST 2014

Parameter	Sample ID	Surrogate	Surrogate Control Limits		Analyte	Qualified Result	Units
			% Recovery	% Recovery			
SVOCs	WG-1620-MW59B-20140730	2-Fluorophenol	9	10 - 130	1,2-Diphenylhydrazine	R	
		Terphenyl-d14	36	42 - 133	2,4-Dimethylphenol	R	
		Phenol-d5	4	10 - 130	2,4-Dinitrotoluene	R	
					2,6-Dinitrotoluene	R	
					2-Chloronaphthalene	R	
					2-Methylnaphthalene	R	
					4,6-Dinitro-2-methylphenol	R	
					4-Nitrophenol	R	
					Acenaphthene	0.000621 JL	mg/L
					Acenaphthylene	R	
					Anthracene	R	
					Benzo(a)anthracene	R	
					Benzo(a)pyrene	R	
					bis(2-Chloroethoxy)methane	R	
					bis(2-Ethylhexyl)phthalate (DEHP)	R	
					Chrysene	R	
					Dibenzofuran	0.000201 JL	mg/L
					Di-n-butylphthalate (DBP)	R	
					Fluoranthene	R	
					Fluorene	0.000189 JL	mg/L
			Naphthalene	0.00627 JL	mg/L		
			Nitrobenzene	R			
			N-Nitrosodiphenylamine	R			
			Pentachlorophenol	R			
			Phenanthrene	R			
			Phenol	R			
			Pyrene	R			

Notes:

- SVOCs - Semi-volatile Organic Compounds
 JL - Estimated concentration; biased low
 R - Rejected

TABLE 5

QUALIFIED SAMPLE RESULTS DUE TO OUTLYING MS/MSD RESULTS
 2014 2nd SEMIANNUAL SITE WIDE MONITORING EVENT
 UNION PACIFIC RAILROAD (UPRR) - 1620 WOOD PRESERVING WORKS
 HOUSTON, TEXAS
 JULY-AUGUST 2014

<i>Parameter</i>	<i>Sample ID</i>	<i>Analyte</i>	<i>MS</i> % Recovery	<i>MSD</i> % Recovery	<i>RPD</i> (percent)	<i>Control Limits</i>		<i>Qualified</i> <i>Result</i>	<i>Units</i>
						<i>% Recovery</i>	<i>RPD</i>		
SVOCs	WG-1620-MW61A-20140828	bis(2-Ethylhexyl)phthalate (DEHP)	90	68	28	59-130	30	0.000536 J	mg/L

Notes:

- MS - Matrix Spike
- MSD - Matrix Spike Duplicate
- RPD - Relative Percent Difference
- SVOCs - Semi-volatile Organic Compounds
- J - Estimated concentration

TABLE 6

QUALIFIED SAMPLE DATA DUE TO ANALYTE CONCENTRATIONS IN THE FIELD BLANKS
 2014 2nd SEMIANNUAL SITE WIDE MONITORING EVENT
 UNION PACIFIC RAILROAD (UPRR) - 1620 WOOD PRESERVING WORKS
 HOUSTON, TEXAS
 JULY-AUGUST 2014

<i>Parameter</i>	<i>Field Blank ID</i>	<i>Blank Date</i>	<i>Analyte</i>	<i>Blank Result</i>	<i>Associated Sample ID</i>	<i>Original Result</i>	<i>Qualified Result</i>	<i>Units</i>
SVOAs	WG-1620-FB1-20140716	7/16/2014	Naphthalene	0.00112	WG-1620-MW69A-20140716	0.000155 J	<0.000155	mg/L
SVOAs	WG-1620-FB2-20140717	7/17/2014	Naphthalene	0.000300 J	WG-1620-MW15C-20140717	0.000748	<0.000748	mg/L
SVOAs	WG-1620-FB5-20140725	7/25/2014	2-Methylnaphthalene	0.000979	WG-1620-MW12C-20140725	0.000146 J	<0.000146	mg/L
					WG-1620-MW13-20140725	0.000687	<0.000687	mg/L
					WG-1620-MW38B-20140725	0.0000992 J	<0.0000992	mg/L
					WG-1620-MW39B-20140725	0.0000708 J	<0.0000708	mg/L
					WG-1620-MW53C-20140725	0.0000826 J	<0.0000826	mg/L
SVOAs	WG-1620-FB5-20140725	7/25/2014	Acenaphthene	0.00216	WG-1620-MW12C-20140725	0.000114 J	<0.000114	mg/L
					WG-1620-MW13-20140725	0.000329 J	<0.000329	mg/L
					WG-1620-MW38B-20140725	0.000342 J	<0.000342	mg/L
					WG-1620-MW39B-20140725	0.00120	<0.00120	mg/L
SVOAs	WG-1620-FB5-20140725	7/25/2014	Anthracene	0.000170 J	WG-1620-MW13-20140725	0.000587	<0.000587	mg/L
					WG-1620-MW38A-20140725	0.0000816 J	<0.0000816	mg/L
					WG-1620-MW38B-20140725	0.000398 J	<0.000398	mg/L
					WG-1620-MW39B-20140725	0.000615	<0.000615	mg/L
SVOAs	WG-1620-FB5-20140725	7/25/2014	Dibenzofuran	0.00159	WG-1620-MW12C-20140725	0.0000910 J	<0.0000910	mg/L
					WG-1620-MW13-20140725	0.000257 J	<0.000257	mg/L
					WG-1620-MW38B-20140725	0.000410 J	<0.000410	mg/L
					WG-1620-MW39B-20140725	0.0000823 J	<0.0000823	mg/L
SVOAs	WG-1620-FB5-20140725	7/25/2014	Fluoranthene	0.000131 J	WG-1620-MW38B-20140725	0.000580	<0.000580	mg/L
					WG-1620-MW39B-20140725	0.000605	<0.000605	mg/L

TABLE 6

QUALIFIED SAMPLE DATA DUE TO ANALYTE CONCENTRATIONS IN THE FIELD BLANKS
 2014 2nd SEMIANNUAL SITE WIDE MONITORING EVENT
 UNION PACIFIC RAILROAD (UPRR) - 1620 WOOD PRESERVING WORKS
 HOUSTON, TEXAS
 JULY-AUGUST 2014

<i>Parameter</i>	<i>Field Blank ID</i>	<i>Blank Date</i>	<i>Analyte</i>	<i>Blank Result</i>	<i>Associated Sample ID</i>	<i>Original Result</i>	<i>Qualified Result</i>	<i>Units</i>
SVOAs	WG-1620-FB5-20140725	7/25/2014	Fluorene	0.00161	WG-1620-MW13-20140725	0.000188 J	<0.000188	mg/L
					WG-1620-MW38B-20140725	0.000219 J	<0.000219	mg/L
					WG-1620-MW39B-20140725	0.000311 J	<0.000311	mg/L
					WG-1620-MW54C-20140725	0.0208	<0.0208	mg/L
					WG-1620-TW41B-20140725	0.0811	<0.0811	mg/L
SVOAs	WG-1620-FB5-20140725	7/25/2014	Naphthalene	0.0006333	WG-1620-MW12C-20140725	0.000598	<0.000598	mg/L
					WG-1620-MW38B-20140725	0.00160	<0.00160	mg/L
					WG-1620-MW53C-20140725	0.00194	<0.00194	mg/L
SVOAs	WG-1620-FB5-20140725	7/25/2014	Phenanthrene	0.00139	WG-1620-MW12C-20140725	0.0000808 J	<0.0000808	mg/L
					WG-1620-MW13-20140725	0.000163 J	<0.000163	mg/L
					WG-1620-DUP2-20140725	0.0000613 J	<0.0000613	mg/L
					WG-1620-MW21C-20140725	0.0000870 J	<0.0000870	mg/L
					WG-1620-MW38B-20140725	0.000164 J	<0.000164	mg/L
					WG-1620-MW39B-20140725	0.000100 J	<0.000100	mg/L
					WG-1620-MW53C-20140725	0.0000665 J	<0.0000665	mg/L
SVOAs	WG-1620-FB-6-20140728	7/28/2014	2-Methylnaphthalene	0.0000917 J	WG-1620-MW36A-20140728	0.000177 J	<0.000177	mg/L
SVOAs	WG-1620-FB-6-20140728	7/28/2014	Di-n-butylphthalate (DBP)	0.000364 J	WG-1620-MW33BR-20140728	0.000384 J	<0.000384	mg/L
SVOAs	WG-1620-FB-6-20140728	7/28/2014	Naphthalene	0.00169	WG-1620-MW36A-20140728	0.00101	<0.00101	mg/L
					WG-1620-MW71B-20140728	0.000471 J	<0.000471	mg/L
SVOAs	WG-1620-FB7-20140729	7/29/2014	(DEHP)	0.000661	WG-1620-MW25C-20140729	0.000674	<0.000674	mg/L
					WG-1620-MW34CR-20140729	0.000799	<0.000799	mg/L
					WG-1620-MW57A-20140729	0.000808	<0.000808	mg/L
					WG-1620-P11-20140729	0.000711	<0.000711	mg/L

TABLE 6

QUALIFIED SAMPLE DATA DUE TO ANALYTE CONCENTRATIONS IN THE FIELD BLANKS
 2014 2nd SEMIANNUAL SITE WIDE MONITORING EVENT
 UNION PACIFIC RAILROAD (UPRR) - 1620 WOOD PRESERVING WORKS
 HOUSTON, TEXAS
 JULY-AUGUST 2014

<i>Parameter</i>	<i>Field Blank ID</i>	<i>Blank Date</i>	<i>Analyte</i>	<i>Blank Result</i>	<i>Associated Sample ID</i>	<i>Original Result</i>	<i>Qualified Result</i>	<i>Units</i>
SVOAs	WG-1620-FB7-20140729	7/29/2014	Naphthalene	0.000527	WG-1620-MW05-20140729	0.000131 J	<0.000131	mg/L
					WG-1620-MW25A-20140729	0.000817	<0.000817	mg/L
					WG-1620-MW64A-20140729	0.000317 J	<0.000317	mg/L
SVOAs	WG-1620-FB7-20140729	7/29/2014	Phenanthrene	0.0000835 J	WG-1620-MW62B-20140729	0.000144 J	<0.000144	mg/L
					WG-1620-P11-20140729	0.000317 J	<0.000317	mg/L

Notes:

SVOAs - Semi-volatile Organic Analytes

J - Estimated concentration

TABLE 7

QUALIFIED SAMPLE DATA DUE TO VARIABILITY IN FIELD DUPLICATE RESULTS
 2014 2nd SEMIANNUAL SITE WIDE MONITORING EVENT
 UNION PACIFIC RAILROAD (UPRR) - 1620 WOOD PRESERVING WORKS
 HOUSTON, TEXAS
 JULY-AUGUST 2014

<i>Parameter</i>	<i>Analyte</i>	<i>RPD</i>	<i>Sample ID</i>	<i>Qualified Result</i>	<i>Field Duplicate Sample ID</i>	<i>Qualified Result</i>	<i>Units</i>
SVOCs	Phenol	134	WG-1620-MW68B-20140724	0.00988 J	WG-1620-DUP1-20140724	<0.00192 J	mg/L
	Vinyl chloride	104		0.00700 J		<0.00220 J	mg/L
SVOCs	Di-n-butylphthalate (DBP)	52.9	WG-1620-MW21C-20140725	0.000184 J	WG-1620-DUP2-20140725	0.000107 J	mg/L
VOCs	Benzene	49	WG-1620-MW33A-20140828	0.00236 J	WG-1620-MWDUP A-20140828	0.00389 J	mg/L
	Ethylbenzene	46.2		0.00140 J		0.00224 J	mg/L
	Xylenes (total)	31.9		0.000632 J		0.000872 J	mg/L
SVOCs	2,4-Dimethylphenol	96.6		0.0212 J		0.0608 J	mg/L
	2-Methylnaphthalene	83.2		0.0216 J		0.0524 J	mg/L
	Acenaphthene	40.3		0.0460 J		0.0692 J	mg/L
	Acenaphthylene	43.2		0.000410 J		0.000636 J	mg/L
	Anthracene	32.9		0.00132 J		0.00184 J	mg/L
	bis(2-Chloroethoxy)methane	115		<0.000127 J		0.000476 J	mg/L
	Dibenzofuran	68.3		0.0164 J		0.0334 J	mg/L
	Fluorene	42.2		0.0146 J		0.0224 J	mg/L
	Naphthalene	70.4		0.489 J		1.02 J	mg/L
	Nitrobenzene	195		<0.000108 J		0.00936 J	mg/L
	Phenanthrene	53.1		0.00427 J		0.00736 J	mg/L
SVOCs	2-Methylnaphthalene	130	WG-1620-MW59D-20140828	0.000334 J	WG-1620-DUPD-20140828	<0.0000700 J	mg/L
	bis(2-Ethylhexyl)phthalate (DEHP)	64.6		0.00306 J		0.00598 J	mg/L
	Fluoranthene	185		0.000180 J		<0.0000700 J	mg/L
	Naphthalene	194		0.00576 J		<0.0000800 J	mg/L
	Phenanthrene	99		0.000180 J		0.0000608 J	mg/L

Notes:

SVOCs - Semi-volatile Organic Compounds

VOCs - Volatile Organic Compounds

J - Estimated concentration

RPD - Relative Percent Difference

ATTACHMENT A

LABORATORY REPORTS

[Available Upon Request]

ATTACHMENT B
LABORATORY NELAP CERTIFICATE



Texas Commission on Environmental Quality



NELAP - Recognized Laboratory Fields of Accreditation

TestAmerica Laboratories, Inc. - Houston

6310 Rothway Drive
Houston, TX 77040-5056

Certificate: T104704223-13-11
Expiration Date: 10/31/2014
Issue Date: 11/1/2013

These fields of accreditation supercede all previous fields. The Texas Commission on Environmental Quality urges customers to verify the laboratory's current accreditation status for particular methods and analyses.

Matrix: *Non-Potable Water*

Method	Analyte	AB	Analyte ID	Method ID
EPA 1010	Ignitability	TX	1780	10116606
EPA 110.2	Color	TX	1605	10005604
EPA 120.1	Conductivity	TX	1610	10006403
EPA 130.2	Total hardness as CaCO ₃	TX	1755	10007202
EPA 1311	TCLP	TX	849	10118806
EPA 1312	SPLP	TX	850	10119003
EPA 150.1	pH	TX	1900	10008409
EPA 160.1	Residue-filterable (TDS)	TX	1955	10009208
EPA 160.2	Residue-nonfilterable (TSS)	TX	1960	10009606
EPA 160.3	Residue-total (total solids)	TX	1950	10010001
EPA 1664		AB	Analyte ID	Method ID



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Matrix: *Non-Potable Water*

n-Hexane Extractable Material (HEM) (O&G)	TX	1803	10127807
Silica Gel Treated n-Hexane Extractable Material (SGT-HEM)	TX	10220	10127807

Method EPA 180.1

Analyte	AB	Analyte ID	Method ID
Turbidity	TX	2055	10011606

Method EPA 200.7

Analyte	AB	Analyte ID	Method ID
Aluminum	TX	1000	10013806
Antimony	TX	1005	10013806
Arsenic	TX	1010	10013806
Barium	TX	1015	10013806
Beryllium	TX	1020	10013806
Boron	TX	1025	10013806
Cadmium	TX	1030	10013806
Calcium	TX	1035	10013806
Chromium	TX	1040	10013806
Cobalt	TX	1050	10013806
Copper	TX	1055	10013806
Iron	TX	1070	10013806
Lead	TX	1075	10013806
Magnesium	TX	1085	10013806
Manganese	TX	1090	10013806
Molybdenum	TX	1100	10013806
Nickel	TX	1105	10013806
Potassium	TX	1125	10013806
Selenium	TX	1140	10013806
Silver	TX	1150	10013806
Sodium	TX	1155	10013806
Strontium	TX	1160	10013806
Thallium	TX	1165	10013806
Tin	TX	1175	10013806



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Matrix: *Non-Potable Water*

Titanium	TX	1180	10013806
Vanadium	TX	1185	10013806
Zinc	TX	1190	10013806
Method EPA 245.1			
Analyte	AB	Analyte ID	Method ID
Mercury	TX	1095	10036609
Method EPA 300.0			
Analyte	AB	Analyte ID	Method ID
Bromide	TX	1540	10053006
Chloride	TX	1575	10053006
Fluoride	TX	1730	10053006
Nitrate as N	TX	1810	10053006
Nitrate-nitrite	TX	1820	10053006
Nitrite as N	TX	1840	10053006
Sulfate	TX	2000	10053006
Method EPA 305.1			
Analyte	AB	Analyte ID	Method ID
Acidity, as CaCO ₃	TX	1500	10054203
Method EPA 310.1			
Analyte	AB	Analyte ID	Method ID
Alkalinity as CaCO ₃	TX	1505	10054805
Method EPA 330.4			
Analyte	AB	Analyte ID	Method ID
Total residual chlorine	TX	1940	10059208
Method EPA 335.1			
Analyte	AB	Analyte ID	Method ID
Amenable cyanide	TX	1510	10060001
Method EPA 335.4			
Analyte	AB	Analyte ID	Method ID
Total cyanide	TX	1645	10061402



Texas Commission on Environmental Quality



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Houston, TX 77040-5056

Certificate: T104704223-13-11

Expiration Date: 10/31/2014

Issue Date: 11/1/2013

These fields of accreditation supercede all previous fields. The Texas Commission on Environmental Quality urges customers to verify the laboratory's current accreditation status for particular methods and analyses.

Matrix: *Non-Potable Water*

Method	Analyte	AB	Analyte ID	Method ID
Method EPA 350.1				
	Ammonia as N	TX	1515	10063408
Method EPA 351.2				
	Kjeldahl nitrogen - total (TKN)	TX	1795	10065200
Method EPA 353.2				
	Nitrate as N	TX	1810	10067400
	Nitrate-nitrite	TX	1820	10067400
Method EPA 365.2				
	Orthophosphate as P	TX	1870	10070403
	Phosphorus	TX	1910	10070403
Method EPA 377.1				
	Sulfite	TX	2015	10075000
Method EPA 405.1				
	Biochemical oxygen demand (BOD)	TX	1530	10075602
Method EPA 415.1				
	Total Organic Carbon (TOC)	TX	2040	10078407
Method EPA 420.4				
	Total phenolics	TX	1905	10080203
Method EPA 425.1				
	Surfactants - MBAS	TX	2025	10080601
Method EPA 6010				
	Aluminum	TX	1000	10155609



Texas Commission on Environmental Quality



NELAP - Recognized Laboratory Fields of Accreditation

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Issue Date: 11/1/2013

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Matrix: *Non-Potable Water*

Antimony	TX	1005	10155609
Arsenic	TX	1010	10155609
Barium	TX	1015	10155609
Beryllium	TX	1020	10155609
Boron	TX	1025	10155609
Cadmium	TX	1030	10155609
Calcium	TX	1035	10155609
Chromium	TX	1040	10155609
Cobalt	TX	1050	10155609
Copper	TX	1055	10155609
Iron	TX	1070	10155609
Lead	TX	1075	10155609
Magnesium	TX	1085	10155609
Manganese	TX	1090	10155609
Molybdenum	TX	1100	10155609
Nickel	TX	1105	10155609
Potassium	TX	1125	10155609
Selenium	TX	1140	10155609
Silver	TX	1150	10155609
Sodium	TX	1155	10155609
Strontium	TX	1160	10155609
Thallium	TX	1165	10155609
Tin	TX	1175	10155609
Titanium	TX	1180	10155609
Vanadium	TX	1185	10155609
Zinc	TX	1190	10155609

Method EPA 602

Analyte	AB	Analyte ID	Method ID
Benzene	TX	4375	10102202
Ethylbenzene	TX	4765	10102202



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Matrix: *Non-Potable Water*

m+p-xylene	TX	5240	10102202
o-Xylene	TX	5250	10102202
Toluene	TX	5140	10102202
Xylene (total)	TX	5260	10102202

Method EPA 608

Analyte	AB	Analyte ID	Method ID
4,4'-DDD	TX	7355	10103603
4,4'-DDE	TX	7360	10103603
4,4'-DDT	TX	7365	10103603
Aldrin	TX	7025	10103603
alpha-BHC (alpha-Hexachlorocyclohexane)	TX	7110	10103603
alpha-Chlordane	TX	7240	10103603
Aroclor-1016 (PCB-1016)	TX	8880	10103603
Aroclor-1221 (PCB-1221)	TX	8885	10103603
Aroclor-1232 (PCB-1232)	TX	8890	10103603
Aroclor-1242 (PCB-1242)	TX	8895	10103603
Aroclor-1248 (PCB-1248)	TX	8900	10103603
Aroclor-1254 (PCB-1254)	TX	8905	10103603
Aroclor-1260 (PCB-1260)	TX	8910	10103603
beta-BHC (beta-Hexachlorocyclohexane)	TX	7115	10103603
Chlordane (tech.)	TX	7250	10103603
delta-BHC (delta-Hexachlorocyclohexane)	TX	7105	10103603
Dieldrin	TX	7470	10103603
Endosulfan I	TX	7510	10103603
Endosulfan II	TX	7515	10103603
Endosulfan sulfate	TX	7520	10103603
Endrin	TX	7540	10103603
Endrin aldehyde	TX	7530	10103603
gamma-BHC (Lindane, gamma-Hexachlorocyclohexane)	TX	7120	10103603
gamma-Chlordane	TX	7245	10103603



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Matrix: *Non-Potable Water*

Heptachlor	TX	7685	10103603
Heptachlor epoxide	TX	7690	10103603
Methoxychlor	TX	7810	10103603
Toxaphene (Chlorinated camphene)	TX	8250	10103603

Method EPA 615

Analyte	AB	Analyte ID	Method ID
2,4,5-T	TX	8655	10105609
2,4-D	TX	8545	10105609
2,4-DB	TX	8560	10105609
Dalapon	TX	8555	10105609
Dicamba	TX	8595	10105609
Dichloroprop (Dichloroprop, Weedone)	TX	8605	10105609
Dinoseb (2-sec-butyl-4,6-dinitrophenol, DNBP)	TX	8620	10105609
MCPA	TX	7775	10105609
MCPP	TX	7780	10105609
Silvex (2,4,5-TP)	TX	8650	10105609

Method EPA 624

Analyte	AB	Analyte ID	Method ID
1,1,1-Trichloroethane	TX	5160	10107207
1,1,2,2-Tetrachloroethane	TX	5110	10107207
1,1,2-Trichloroethane	TX	5165	10107207
1,1-Dichloroethane	TX	4630	10107207
1,1-Dichloroethylene	TX	4640	10107207
1,2-Dibromoethane (EDB, Ethylene dibromide)	TX	4585	10107207
1,2-Dichlorobenzene	TX	4610	10107207
1,2-Dichloroethane (Ethylene dichloride)	TX	4635	10107207
1,2-Dichloropropane	TX	4655	10107207
1,3-Dichlorobenzene	TX	4615	10107207
1,4-Dichlorobenzene	TX	4620	10107207
2-Butanone (Methyl ethyl ketone, MEK)	TX	4410	10107207
2-Chloroethyl vinyl ether	TX	4500	10107207



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Matrix: *Non-Potable Water*

Acetone (2-Propanone)	TX	4315	10107207
Acrolein (Propenal)	TX	4325	10107207
Acrylonitrile	TX	4340	10107207
Benzene	TX	4375	10107207
Bromodichloromethane	TX	4395	10107207
Bromoform	TX	4400	10107207
Carbon tetrachloride	TX	4455	10107207
Chlorobenzene	TX	4475	10107207
Chlorodibromomethane	TX	4575	10107207
Chloroethane (Ethyl chloride)	TX	4485	10107207
Chloroform	TX	4505	10107207
cis-1,3-Dichloropropene	TX	4680	10107207
Ethylbenzene	TX	4765	10107207
m+p-xylene	TX	5240	10107207
Methyl chloride (Chloromethane)	TX	4960	10107207
Methyl tert-butyl ether (MTBE)	TX	5000	10107207
Methylene chloride (Dichloromethane)	TX	4975	10107207
o-Xylene	TX	5250	10107207
Tetrachloroethylene (Perchloroethylene)	TX	5115	10107207
Toluene	TX	5140	10107207
trans-1,2-Dichloroethylene	TX	4700	10107207
trans-1,3-Dichloropropylene	TX	4685	10107207
Trichloroethene (Trichloroethylene)	TX	5170	10107207
Trichlorofluoromethane (Fluorotrichloromethane, Freon 11)	TX	5175	10107207
Vinyl chloride	TX	5235	10107207
Xylene (total)	TX	5260	10107207

Method EPA 625

Analyte	AB	Analyte ID	Method ID
1,2,4,5-Tetrachlorobenzene	TX	6715	10107401
1,2,4-Trichlorobenzene	TX	5155	10107401



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Matrix: *Non-Potable Water*

1,2-Dichlorobenzene	TX	4610	10107401
1,3-Dichlorobenzene	TX	4615	10107401
1,4-Dichlorobenzene	TX	4620	10107401
2,3,4,6-Tetrachlorophenol	TX	6735	10107401
2,4,5-Trichlorophenol	TX	6835	10107401
2,4,6-Trichlorophenol	TX	6840	10107401
2,4-Dichlorophenol	TX	6000	10107401
2,4-Dimethylphenol	TX	6130	10107401
2,4-Dinitrophenol	TX	6175	10107401
2,4-Dinitrotoluene (2,4-DNT)	TX	6185	10107401
2,6-Dinitrotoluene (2,6-DNT)	TX	6190	10107401
2-Chloronaphthalene	TX	5795	10107401
2-Chlorophenol	TX	5800	10107401
2-Methyl-4,6-dinitrophenol (4,6-Dinitro-2-methylphenol)	TX	6360	10107401
2-Methylphenol (o-Cresol)	TX	6400	10107401
2-Nitrophenol	TX	6490	10107401
3,3'-Dichlorobenzidine	TX	5945	10107401
4-Bromophenyl phenyl ether (BDE-3)	TX	5660	10107401
4-Chloro-3-methylphenol	TX	5700	10107401
4-Chlorophenyl phenylether	TX	5825	10107401
4-Methylphenol (p-Cresol)	TX	6410	10107401
4-Nitrophenol	TX	6500	10107401
Acenaphthene	TX	5500	10107401
Acenaphthylene	TX	5505	10107401
Anthracene	TX	5555	10107401
Benzidine	TX	5595	10107401
Benzo(a)anthracene	TX	5575	10107401
Benzo(a)pyrene	TX	5580	10107401
Benzo(b)fluoranthene	TX	5585	10107401
Benzo(g,h,i)perylene	TX	5590	10107401



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Matrix: *Non-Potable Water*

Benzo(k)fluoranthene	TX	5600	10107401
bis(2-Chloroethoxy)methane	TX	5760	10107401
bis(2-Chloroethyl) ether	TX	5765	10107401
bis(2-Chloroisopropyl) ether	TX	5780	10107401
bis(2-Ethylhexyl) phthalate (DEHP)	TX	6255	10107401
Butyl benzyl phthalate	TX	5670	10107401
Chrysene	TX	5855	10107401
Dibenz(a,h) anthracene	TX	5895	10107401
Diethyl phthalate	TX	6070	10107401
Dimethyl phthalate	TX	6135	10107401
Di-n-butyl phthalate	TX	5925	10107401
Di-n-octyl phthalate	TX	6200	10107401
Fluoranthene	TX	6265	10107401
Fluorene	TX	6270	10107401
Hexachlorobenzene	TX	6275	10107401
Hexachlorobutadiene	TX	4835	10107401
Hexachlorocyclopentadiene	TX	6285	10107401
Hexachloroethane	TX	4840	10107401
Indeno(1,2,3-cd) pyrene	TX	6315	10107401
Isophorone	TX	6320	10107401
Naphthalene	TX	5005	10107401
Nitrobenzene	TX	5015	10107401
n-Nitrosodiethylamine	TX	6525	10107401
n-Nitrosodimethylamine	TX	6530	10107401
n-Nitrosodi-n-butylamine	TX	5025	10107401
n-Nitrosodi-n-propylamine	TX	6545	10107401
n-Nitrosodiphenylamine	TX	6535	10107401
Pentachlorophenol	TX	6605	10107401
Phenanthrene	TX	6615	10107401
Phenol	TX	6625	10107401



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Matrix: *Non-Potable Water*

Pyrene	TX	6665	10107401
Pyridine	TX	5095	10107401
Method EPA 7196			
Analyte	AB	Analyte ID	Method ID
Chromium (VI)	TX	1045	10162400
Method EPA 7470			
Analyte	AB	Analyte ID	Method ID
Mercury	TX	1095	10165807
Method EPA 8015			
Analyte	AB	Analyte ID	Method ID
Allyl alcohol	TX	4350	10173601
Diesel range organics (DRO)	TX	9369	10173601
Ethanol	TX	4750	10173601
Ethylene glycol	TX	4785	10173601
Gasoline range organics (GRO)	TX	9408	10173601
Isobutyl alcohol (2-Methyl-1-propanol)	TX	4875	10173601
Isopropanol	TX	4885	10173601
Methanol	TX	4930	10173601
n-Butyl alcohol (1-Butanol, n-Butanol)	TX	4425	10173601
n-Propanol (1-Propanol)	TX	5055	10173601
Method EPA 8021			
Analyte	AB	Analyte ID	Method ID
Benzene	TX	4375	10174808
Ethylbenzene	TX	4765	10174808
m+p-xylene	TX	5240	10174808
Methyl tert-butyl ether (MTBE)	TX	5000	10174808
o-Xylene	TX	5250	10174808
Toluene	TX	5140	10174808
Xylene (total)	TX	5260	10174808
Method EPA 8081			
Analyte	AB	Analyte ID	Method ID



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Matrix: *Non-Potable Water*

4,4'-DDD	TX	7355	10178606
4,4'-DDE	TX	7360	10178606
4,4'-DDT	TX	7365	10178606
Aldrin	TX	7025	10178606
alpha-BHC (alpha-Hexachlorocyclohexane)	TX	7110	10178606
alpha-Chlordane	TX	7240	10178606
beta-BHC (beta-Hexachlorocyclohexane)	TX	7115	10178606
Chlordane (tech.)	TX	7250	10178606
delta-BHC (delta-Hexachlorocyclohexane)	TX	7105	10178606
Dieldrin	TX	7470	10178606
Endosulfan I	TX	7510	10178606
Endosulfan II	TX	7515	10178606
Endosulfan sulfate	TX	7520	10178606
Endrin	TX	7540	10178606
Endrin aldehyde	TX	7530	10178606
Endrin ketone	TX	7535	10178606
gamma-BHC (Lindane, gamma-Hexachlorocyclohexane)	TX	7120	10178606
gamma-Chlordane	TX	7245	10178606
Heptachlor	TX	7685	10178606
Heptachlor epoxide	TX	7690	10178606
Methoxychlor	TX	7810	10178606
Toxaphene (Chlorinated camphene)	TX	8250	10178606

Method EPA 8082

Analyte	AB	Analyte ID	Method ID
Aroclor-1016 (PCB-1016)	TX	8880	10179007
Aroclor-1221 (PCB-1221)	TX	8885	10179007
Aroclor-1232 (PCB-1232)	TX	8890	10179007
Aroclor-1242 (PCB-1242)	TX	8895	10179007
Aroclor-1248 (PCB-1248)	TX	8900	10179007
Aroclor-1254 (PCB-1254)	TX	8905	10179007



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Matrix: *Non-Potable Water*

Aroclor-1260 (PCB-1260)	TX	8910	10179007
PCBs (total)	TX	8870	10179007

Method EPA 8151

Analyte	AB	Analyte ID	Method ID
2,4,5-T	TX	8655	10183207
2,4-D	TX	8545	10183207
2,4-DB	TX	8560	10183207
Dalapon	TX	8555	10183207
Dicamba	TX	8595	10183207
Dichloroprop (Dichloroprop, Weedone)	TX	8605	10183207
Dinoseb (2-sec-butyl-4,6-dinitrophenol, DNBP)	TX	8620	10183207
MCPA	TX	7775	10183207
MCPP	TX	7780	10183207
Silvex (2,4,5-TP)	TX	8650	10183207

Method EPA 8260

Analyte	AB	Analyte ID	Method ID
1,1,1,2-Tetrachloroethane	TX	5105	10184802
1,1,1-Trichloroethane	TX	5160	10184802
1,1,2,2-Tetrachloroethane	TX	5110	10184802
1,1,2-Trichloroethane	TX	5165	10184802
1,1-Dichloroethane	TX	4630	10184802
1,1-Dichloroethylene	TX	4640	10184802
1,1-Dichloropropene	TX	4670	10184802
1,2,3-Trichlorobenzene	TX	5150	10184802
1,2,3-Trichloropropane	TX	5180	10184802
1,2,4-Trichlorobenzene	TX	5155	10184802
1,2,4-Trimethylbenzene	TX	5210	10184802
1,2-Dibromoethane (EDB, Ethylene dibromide)	TX	4585	10184802
1,2-Dichlorobenzene	TX	4610	10184802
1,2-Dichloroethane (Ethylene dichloride)	TX	4635	10184802
1,2-Dichloropropane	TX	4655	10184802



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Matrix: *Non-Potable Water*

1,3,5-Trimethylbenzene	TX	5215	10184802
1,3-Dichlorobenzene	TX	4615	10184802
1,3-Dichloropropane	TX	4660	10184802
1,4-Dichlorobenzene	TX	4620	10184802
1,4-Dioxane (1,4-Diethyleneoxide)	TX	4735	10184802
2,2-Dichloropropane	TX	4665	10184802
2-Butanone (Methyl ethyl ketone, MEK)	TX	4410	10184802
2-Chloroethyl vinyl ether	TX	4500	10184802
2-Chlorotoluene	TX	4535	10184802
2-Hexanone (MBK)	TX	4860	10184802
2-Nitropropane	TX	5020	10184802
2-Propanol	TX	5065	10184802
4-Chlorotoluene	TX	4540	10184802
4-Isopropyltoluene (p-Cymene)	TX	4915	10184802
4-Methyl-2-pentanone (MIBK)	TX	4995	10184802
Acetone (2-Propanone)	TX	4315	10184802
Acetonitrile	TX	4320	10184802
Acrolein (Propenal)	TX	4325	10184802
Acrylonitrile	TX	4340	10184802
Allyl chloride (3-Chloropropene)	TX	4355	10184802
Benzene	TX	4375	10184802
Benzyl chloride	TX	5635	10184802
Bromobenzene	TX	4385	10184802
Bromochloromethane	TX	4390	10184802
Bromodichloromethane	TX	4395	10184802
Bromoform	TX	4400	10184802
Carbon disulfide	TX	4450	10184802
Carbon tetrachloride	TX	4455	10184802
Chlorobenzene	TX	4475	10184802
Chlorodibromomethane	TX	4575	10184802



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Matrix: *Non-Potable Water*

Chloroethane (Ethyl chloride)	TX	4485	10184802
Chloroform	TX	4505	10184802
Chloroprene (2-Chloro-1,3-butadiene)	TX	4525	10184802
cis-1,2-Dichloroethylene	TX	4645	10184802
cis-1,3-Dichloropropene	TX	4680	10184802
Dibromofluoromethane	TX	4590	10184802
Dibromomethane (Methylene bromide)	TX	4595	10184802
Dichlorodifluoromethane (Freon-12)	TX	4625	10184802
Diethyl ether	TX	4725	10184802
Epichlorohydrin (1-Chloro-2,3-epoxypropane)	TX	4745	10184802
Ethyl acetate	TX	4755	10184802
Ethyl methacrylate	TX	4810	10184802
Ethylbenzene	TX	4765	10184802
Ethylene oxide	TX	4795	10184802
Hexachlorobutadiene	TX	4835	10184802
Iodomethane (Methyl iodide)	TX	4870	10184802
Isobutyl alcohol (2-Methyl-1-propanol)	TX	4875	10184802
Isopropylbenzene (Cumene)	TX	4900	10184802
m+p-xylene	TX	5240	10184802
Methacrylonitrile	TX	4925	10184802
Methyl acrylate	TX	4945	10184802
Methyl chloride (Chloromethane)	TX	4960	10184802
Methyl methacrylate	TX	4990	10184802
Methyl tert-butyl ether (MTBE)	TX	5000	10184802
Methylene chloride (Dichloromethane)	TX	4975	10184802
Naphthalene	TX	5005	10184802
n-Butyl alcohol (1-Butanol, n-Butanol)	TX	4425	10184802
n-Butylbenzene	TX	4435	10184802
n-Propylbenzene	TX	5090	10184802
sec-Butylbenzene	TX	4440	10184802



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Matrix: *Non-Potable Water*

Styrene	TX	5100	10184802
tert-Butyl alcohol	TX	4420	10184802
tert-Butylbenzene	TX	4445	10184802
Tetrachloroethylene (Perchloroethylene)	TX	5115	10184802
Toluene	TX	5140	10184802
trans-1,2-Dichloroethylene	TX	4700	10184802
trans-1,3-Dichloropropylene	TX	4685	10184802
trans-1,4-Dichloro-2-butene	TX	4605	10184802
Trichloroethene (Trichloroethylene)	TX	5170	10184802
Trichlorofluoromethane (Fluorotrichloromethane, Freon 11)	TX	5175	10184802
Vinyl acetate	TX	5225	10184802
Vinyl chloride	TX	5235	10184802
Xylene (total)	TX	5260	10184802

Method EPA 8270

Analyte	AB	Analyte ID	Method ID
1,2,4,5-Tetrachlorobenzene	TX	6715	10185805
1,2,4-Trichlorobenzene	TX	5155	10185805
1,2-Dichlorobenzene	TX	4610	10185805
1,2-Dinitrobenzene	TX	6155	10185805
1,2-Diphenylhydrazine	TX	6220	10185805
1,3,5-Trinitrobenzene (1,3,5-TNB)	TX	6885	10185805
1,3-Dichlorobenzene	TX	4615	10185805
1,3-Dinitrobenzene (1,3-DNB)	TX	6160	10185805
1,4-Dichlorobenzene	TX	4620	10185805
1,4-Dinitrobenzene	TX	6165	10185805
1,4-Naphthoquinone	TX	6420	10185805
1,4-Phenylenediamine	TX	6630	10185805
1-Chloronaphthalene	TX	5790	10185805
1-Naphthylamine	TX	6425	10185805
2,3,4,6-Tetrachlorophenol	TX	6735	10185805



Texas Commission on Environmental Quality



NELAP - Recognized Laboratory Fields of Accreditation

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Issue Date: 11/1/2013

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Matrix: *Non-Potable Water*

2,4,5-Trichlorophenol	TX	6835	10185805
2,4,6-Trichlorophenol	TX	6840	10185805
2,4-Diaminotoluene	TX	5880	10185805
2,4-Dichlorophenol	TX	6000	10185805
2,4-Dimethylphenol	TX	6130	10185805
2,4-Dinitrophenol	TX	6175	10185805
2,4-Dinitrotoluene (2,4-DNT)	TX	6185	10185805
2,6-Dichlorophenol	TX	6005	10185805
2,6-Dinitrotoluene (2,6-DNT)	TX	6190	10185805
2-Acetylamino fluorene	TX	5515	10185805
2-Chloronaphthalene	TX	5795	10185805
2-Chlorophenol	TX	5800	10185805
2-Methyl-4,6-dinitrophenol (4,6-Dinitro-2-methylphenol)	TX	6360	10185805
2-Methylaniline (o-Toluidine)	TX	5145	10185805
2-Methylnaphthalene	TX	6385	10185805
2-Methylphenol (o-Cresol)	TX	6400	10185805
2-Naphthylamine	TX	6430	10185805
2-Nitroaniline	TX	6460	10185805
2-Nitrophenol	TX	6490	10185805
2-Picoline (2-Methylpyridine)	TX	5050	10185805
3,3'-Dichlorobenzidine	TX	5945	10185805
3,3'-Dimethoxybenzidine	TX	6100	10185805
3,3'-Dimethylbenzidine	TX	6120	10185805
3-Methylcholanthrene	TX	6355	10185805
3-Methylphenol (m-Cresol)	TX	6405	10185805
3-Nitroaniline	TX	6465	10185805
4-Aminobiphenyl	TX	5540	10185805
4-Bromophenyl phenyl ether (BDE-3)	TX	5660	10185805
4-Chloro-3-methylphenol	TX	5700	10185805
4-Chloroaniline	TX	5745	10185805



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Matrix: *Non-Potable Water*

4-Chlorophenyl phenylether	TX	5825	10185805
4-Dimethyl aminoazobenzene	TX	6105	10185805
4-Methylphenol (p-Cresol)	TX	6410	10185805
4-Nitroaniline	TX	6470	10185805
4-Nitrophenol	TX	6500	10185805
5-Nitro-o-toluidine	TX	6570	10185805
7,12-Dimethylbenz(a) anthracene	TX	6115	10185805
a-a-Dimethylphenethylamine	TX	6125	10185805
Acenaphthene	TX	5500	10185805
Acenaphthylene	TX	5505	10185805
Acetophenone	TX	5510	10185805
Aniline	TX	5545	10185805
Anthracene	TX	5555	10185805
Azobenzene	TX	5562	10185805
Benzidine	TX	5595	10185805
Benzo(a)anthracene	TX	5575	10185805
Benzo(a)pyrene	TX	5580	10185805
Benzo(b)fluoranthene	TX	5585	10185805
Benzo(g,h,i)perylene	TX	5590	10185805
Benzo(k)fluoranthene	TX	5600	10185805
Benzoic acid	TX	5610	10185805
Benzyl alcohol	TX	5630	10185805
Biphenyl	TX	5640	10185805
bis(2-Chloroethoxy)methane	TX	5760	10185805
bis(2-Chloroethyl) ether	TX	5765	10185805
bis(2-Chloroisopropyl) ether	TX	5780	10185805
bis(2-Ethylhexyl) phthalate (DEHP)	TX	6255	10185805
Butyl benzyl phthalate	TX	5670	10185805
Carbazole	TX	5680	10185805
Chlorobenzilate	TX	7260	10185805



Texas Commission on Environmental Quality



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Matrix: Non-Potable Water

Chrysene	TX	5855	10185805
Diallate	TX	7405	10185805
Dibenz(a,h) anthracene	TX	5895	10185805
Dibenz(a,j) acridine	TX	5900	10185805
Dibenzo(a,e) pyrene	TX	5890	10185805
Dibenzofuran	TX	5905	10185805
Diethyl phthalate	TX	6070	10185805
Dimethoate	TX	7475	10185805
Dimethyl phthalate	TX	6135	10185805
Di-n-butyl phthalate	TX	5925	10185805
Di-n-octyl phthalate	TX	6200	10185805
Diphenylamine	TX	6205	10185805
Disulfoton	TX	8625	10185805
Ethyl methanesulfonate	TX	6260	10185805
Fluoranthene	TX	6265	10185805
Fluorene	TX	6270	10185805
Hexachlorobenzene	TX	6275	10185805
Hexachlorobutadiene	TX	4835	10185805
Hexachlorocyclopentadiene	TX	6285	10185805
Hexachloroethane	TX	4840	10185805
Hexachloropropene	TX	6295	10185805
Indeno(1,2,3-cd) pyrene	TX	6315	10185805
Isodrin	TX	7725	10185805
Isophorone	TX	6320	10185805
Isosafrole	TX	6325	10185805
Methyl methanesulfonate	TX	6375	10185805
Methyl parathion (Parathion, methyl)	TX	7825	10185805
Naphthalene	TX	5005	10185805
Nitrobenzene	TX	5015	10185805
Nitroquinoline-1-oxide	TX	6515	10185805



Texas Commission on Environmental Quality



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Issue Date: 11/1/2013

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Matrix: *Non-Potable Water*

n-Nitrosodiethylamine	TX	6525	10185805
n-Nitrosodimethylamine	TX	6530	10185805
n-Nitrosodi-n-butylamine	TX	5025	10185805
n-Nitrosodi-n-propylamine	TX	6545	10185805
n-Nitrosodiphenylamine	TX	6535	10185805
n-Nitrosomethylethylamine	TX	6550	10185805
n-Nitrosomorpholine	TX	6555	10185805
n-Nitrosopiperidine	TX	6560	10185805
n-Nitrosopyrrolidine	TX	6565	10185805
o,o,o-Triethyl phosphorothioate	TX	8290	10185805
Parathion, ethyl	TX	7955	10185805
Pentachlorobenzene	TX	6590	10185805
Pentachloronitrobenzene (PCNB)	TX	6600	10185805
Pentachlorophenol	TX	6605	10185805
Phenacetin	TX	6610	10185805
Phenanthrene	TX	6615	10185805
Phenol	TX	6625	10185805
Phorate	TX	7985	10185805
Pronamide (Kerb)	TX	6650	10185805
Pyrene	TX	6665	10185805
Pyridine	TX	5095	10185805
Safrole	TX	6685	10185805
Thionazin (Zinophos)	TX	8235	10185805

Method EPA 8315

Analyte	AB	Analyte ID	Method ID
Formaldehyde	TX	4815	10188008

Method EPA 9012

Analyte	AB	Analyte ID	Method ID
Amenable cyanide	TX	1510	10193405
Total Cyanide	TX	1635	10193405



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Matrix: *Non-Potable Water*

Method EPA 9034			
Analyte Sulfide	AB TX	Analyte ID 2005	Method ID 10196006
Method EPA 9040			
Analyte pH	AB TX	Analyte ID 1900	Method ID 10197203
Method EPA 9050			
Analyte Conductivity	AB TX	Analyte ID 1610	Method ID 10198808
Method EPA 9056			
Analyte Bromide	AB TX	Analyte ID 1540	Method ID 10199209
Chloride	TX	1575	10199209
Fluoride	TX	1730	10199209
Nitrate as N	TX	1810	10199209
Nitrate-nitrite	TX	1820	10199209
Nitrite as N	TX	1840	10199209
Sulfate	TX	2000	10199209
Method EPA 9060			
Analyte Total Organic Carbon (TOC)	AB TX	Analyte ID 2040	Method ID 10200201
Method EPA 9066			
Analyte Total phenolics	AB TX	Analyte ID 1905	Method ID 10200609
Method EPA RSK 175			
Analyte Ethane	AB TX	Analyte ID 4747	Method ID 10212905
Ethene	TX	4752	10212905
Methane	TX	4926	10212905
Method HACH 8000			
Analyte	AB	Analyte ID	Method ID



Texas Commission on Environmental Quality



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Matrix: *Non-Potable Water*

Chemical oxygen demand (COD)	TX	1565	60003001
Method HACH 8507			
Analyte Nitrite as N	AB TX	Analyte ID 1840	Method ID 60004208
Method SM 2120 B			
Analyte Color	AB TX	Analyte ID 1605	Method ID 20223807
Method SM 2130 B			
Analyte Turbidity	AB TX	Analyte ID 2055	Method ID 20042200
Method SM 2310 B (4a)			
Analyte Acidity, as CaCO ₃	AB TX	Analyte ID 1500	Method ID 20002806
Method SM 2320 B			
Analyte Alkalinity as CaCO ₃	AB TX	Analyte ID 1505	Method ID 20045005
Method SM 2340 B			
Analyte Total hardness as CaCO ₃	AB TX	Analyte ID 1755	Method ID 20046008
Method SM 2510 B			
Analyte Conductivity	AB TX	Analyte ID 1610	Method ID 20048004
Method SM 2540 B			
Analyte Residue-total (total solids)	AB TX	Analyte ID 1950	Method ID 20004608
Method SM 2540 C			
Analyte Residue-filterable (TDS)	AB TX	Analyte ID 1955	Method ID 20049803
Method SM 2540 D			
Analyte Residue-nonfilterable (TSS)	AB TX	Analyte ID 1960	Method ID 20004802



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Matrix: *Non-Potable Water*

Method SM 3500-Cr D			
Analyte Chromium (VI)	AB TX	Analyte ID 1045	Method ID 20009001
Method SM 4500-Cl F			
Analyte Total residual chlorine	AB TX	Analyte ID 1940	Method ID 20080482
Method SM 4500-CN ⁻ G			
Analyte Amenable cyanide	AB TX	Analyte ID 1510	Method ID 20021607
Method SM 4500-H+ B			
Analyte pH	AB TX	Analyte ID 1900	Method ID 20104603
Method SM 4500-NH3 G			
Analyte Ammonia as N	AB TX	Analyte ID 1515	Method ID 20023205
Method SM 4500-O G			
Analyte Oxygen, dissolved	AB TX	Analyte ID 1880	Method ID 20025405
Method SM 4500-P E			
Analyte Orthophosphate as P	AB TX	Analyte ID 1870	Method ID 20025803
Phosphorus	TX	1910	20025803
Method SM 4500-S2 ⁻ D			
Analyte Sulfide	AB TX	Analyte ID 2005	Method ID 20125400
Method SM 4500-S2 ⁻ E			
Analyte Sulfide	AB TX	Analyte ID 2005	Method ID 20026408
Method SM 4500-SO3 ⁻ B			
Analyte Sulfite	AB TX	Analyte ID 2015	Method ID 20026806



Texas Commission on Environmental Quality



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Matrix: *Non-Potable Water*

Method SM 5210 B

Analyte	AB	Analyte ID	Method ID
Biochemical oxygen demand (BOD)	TX	1530	20027401
Carbonaceous BOD, CBOD	TX	1555	20027401

Method SM 5310 D

Analyte	AB	Analyte ID	Method ID
Total Organic Carbon (TOC)	TX	2040	20139202

Method SM 5540 C

Analyte	AB	Analyte ID	Method ID
Surfactants - MBAS	TX	2025	20144405

Method TCEQ 1005

Analyte	AB	Analyte ID	Method ID
Total Petroleum Hydrocarbons (TPH)	TX	2050	90019208



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Matrix: *Solid & Chemical Materials*

Method EPA 1010			
Analyte	AB	Analyte ID	Method ID
Ignitability	TX	1780	10116606
Method EPA 1311			
Analyte	AB	Analyte ID	Method ID
TCLP	TX	849	10118806
Method EPA 1312			
Analyte	AB	Analyte ID	Method ID
SPLP	TX	850	10119003
Method EPA 300.0			
Analyte	AB	Analyte ID	Method ID
Bromide	TX	1540	10053006
Chloride	TX	1575	10053006
Fluoride	TX	1730	10053006
Nitrate as N	TX	1810	10053006
Nitrate-nitrite	TX	1820	10053006
Nitrite as N	TX	1840	10053006
Orthophosphate as P	TX	1870	10053006
Sulfate	TX	2000	10053006
Method EPA 350.1			
Analyte	AB	Analyte ID	Method ID
Ammonia as N	TX	1515	10063408
Method EPA 353.2			
Analyte	AB	Analyte ID	Method ID
Nitrate-nitrite	TX	1820	10067604
Method EPA 365.2			
Analyte	AB	Analyte ID	Method ID
Phosphorus	TX	1910	10070403
Method EPA 6010			
Analyte	AB	Analyte ID	Method ID
Aluminum	TX	1000	10155609



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Matrix: *Solid & Chemical Materials*

Antimony	TX	1005	10155609
Arsenic	TX	1010	10155609
Barium	TX	1015	10155609
Beryllium	TX	1020	10155609
Boron	TX	1025	10155609
Cadmium	TX	1030	10155609
Calcium	TX	1035	10155609
Chromium	TX	1040	10155609
Cobalt	TX	1050	10155609
Copper	TX	1055	10155609
Iron	TX	1070	10155609
Lead	TX	1075	10155609
Magnesium	TX	1085	10155609
Manganese	TX	1090	10155609
Molybdenum	TX	1100	10155609
Nickel	TX	1105	10155609
Potassium	TX	1125	10155609
Selenium	TX	1140	10155609
Silica as SiO ₂	TX	1990	10155609
Silver	TX	1150	10155609
Sodium	TX	1155	10155609
Strontium	TX	1160	10155609
Thallium	TX	1165	10155609
Tin	TX	1175	10155609
Titanium	TX	1180	10155609
Vanadium	TX	1185	10155609
Zinc	TX	1190	10155609

Method EPA 7471

Analyte	AB	Analyte ID	Method ID
Mercury	TX	1095	10166208



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Matrix: *Solid & Chemical Materials*

Method EPA 8015

Analyte	AB	Analyte ID	Method ID
Allyl alcohol	TX	4350	10173601
Diesel range organics (DRO)	TX	9369	10173601
Ethanol	TX	4750	10173601
Ethylene glycol	TX	4785	10173601
Gasoline range organics (GRO)	TX	9408	10173601
Isobutyl alcohol (2-Methyl-1-propanol)	TX	4875	10173601
Isopropyl alcohol (2-Propanol, Isopropanol)	TX	4895	10173601
Methanol	TX	4930	10173601
n-Butyl alcohol (1-Butanol, n-Butanol)	TX	4425	10173601
n-Propanol (1-Propanol)	TX	5055	10173601

Method EPA 8021

Analyte	AB	Analyte ID	Method ID
Benzene	TX	4375	10174808
m+p-xylene	TX	5240	10174808
Methyl tert-butyl ether (MTBE)	TX	5000	10174808
o-Xylene	TX	5250	10174808
Toluene	TX	5140	10174808
Xylene (total)	TX	5260	10174808

Method EPA 8081

Analyte	AB	Analyte ID	Method ID
4,4'-DDD	TX	7355	10178606
4,4'-DDE	TX	7360	10178606
4,4'-DDT	TX	7365	10178606
Aldrin	TX	7025	10178606
alpha-BHC (alpha-Hexachlorocyclohexane)	TX	7110	10178606
alpha-Chlordane	TX	7240	10178606
beta-BHC (beta-Hexachlorocyclohexane)	TX	7115	10178606
delta-BHC (delta-Hexachlorocyclohexane)	TX	7105	10178606
Dieldrin	TX	7470	10178606



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Matrix: *Solid & Chemical Materials*

Endosulfan I	TX	7510	10178606
Endosulfan II	TX	7515	10178606
Endosulfan sulfate	TX	7520	10178606
Endrin	TX	7540	10178606
Endrin aldehyde	TX	7530	10178606
Endrin ketone	TX	7535	10178606
gamma-BHC (Lindane, gamma-Hexachlorocyclohexane)	TX	7120	10178606
gamma-Chlordane	TX	7245	10178606
Heptachlor	TX	7685	10178606
Heptachlor epoxide	TX	7690	10178606
Methoxychlor	TX	7810	10178606
Toxaphene (Chlorinated camphene)	TX	8250	10178606

Method EPA 8082

Analyte	AB	Analyte ID	Method ID
Aroclor-1016 (PCB-1016)	TX	8880	10179007
Aroclor-1221 (PCB-1221)	TX	8885	10179007
Aroclor-1232 (PCB-1232)	TX	8890	10179007
Aroclor-1242 (PCB-1242)	TX	8895	10179007
Aroclor-1248 (PCB-1248)	TX	8900	10179007
Aroclor-1254 (PCB-1254)	TX	8905	10179007
Aroclor-1260 (PCB-1260)	TX	8910	10179007
PCBs (total)	TX	8870	10179007

Method EPA 8151

Analyte	AB	Analyte ID	Method ID
2,4-D	TX	8545	10183207
2,4-DB	TX	8560	10183207
Dalapon	TX	8555	10183207
Dicamba	TX	8595	10183207
Dichloroprop (Dichloroprop, Weedone)	TX	8605	10183207
Dinoseb (2-sec-butyl-4,6-dinitrophenol, DNBP)	TX	8620	10183207
MCPA	TX	7775	10183207



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Matrix: *Solid & Chemical Materials*

MCPP	TX	7780	10183207
Silvex (2,4,5-TP)	TX	8650	10183207
Method EPA 8260			
Analyte	AB	Analyte ID	Method ID
1,1,1,2-Tetrachloroethane	TX	5105	10184802
1,1,1-Trichloroethane	TX	5160	10184802
1,1,2,2-Tetrachloroethane	TX	5110	10184802
1,1,2-Trichloroethane	TX	5165	10184802
1,1-Dichloroethane	TX	4630	10184802
1,1-Dichloroethylene	TX	4640	10184802
1,1-Dichloropropene	TX	4670	10184802
1,2,3-Trichlorobenzene	TX	5150	10184802
1,2,3-Trichloropropane	TX	5180	10184802
1,2,4-Trichlorobenzene	TX	5155	10184802
1,2,4-Trimethylbenzene	TX	5210	10184802
1,2-Dibromo-3-chloropropane (DBCP)	TX	4570	10184802
1,2-Dibromoethane (EDB, Ethylene dibromide)	TX	4585	10184802
1,2-Dichlorobenzene	TX	4610	10184802
1,2-Dichloroethane (Ethylene dichloride)	TX	4635	10184802
1,2-Dichloropropane	TX	4655	10184802
1,3,5-Trimethylbenzene	TX	5215	10184802
1,3-Dichlorobenzene	TX	4615	10184802
1,3-Dichloropropane	TX	4660	10184802
1,4-Dichlorobenzene	TX	4620	10184802
1,4-Dioxane (1,4-Diethyleneoxide)	TX	4735	10184802
2,2-Dichloropropane	TX	4665	10184802
2-Butanone (Methyl ethyl ketone, MEK)	TX	4410	10184802
2-Chloroethyl vinyl ether	TX	4500	10184802
2-Chlorotoluene	TX	4535	10184802
2-Hexanone (MBK)	TX	4860	10184802



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Matrix: Solid & Chemical Materials

2-Propanol	TX	5065	10184802
4-Chlorotoluene	TX	4540	10184802
4-Isopropyltoluene (p-Cymene)	TX	4915	10184802
4-Methyl-2-pentanone (MIBK)	TX	4995	10184802
Acetone (2-Propanone)	TX	4315	10184802
Acetonitrile	TX	4320	10184802
Acrolein (Propenal)	TX	4325	10184802
Acrylonitrile	TX	4340	10184802
Benzene	TX	4375	10184802
Benzyl chloride	TX	5635	10184802
Bromobenzene	TX	4385	10184802
Bromochloromethane	TX	4390	10184802
Bromodichloromethane	TX	4395	10184802
Bromoform	TX	4400	10184802
Carbon disulfide	TX	4450	10184802
Carbon tetrachloride	TX	4455	10184802
Chlorobenzene	TX	4475	10184802
Chlorodibromomethane	TX	4575	10184802
Chloroethane (Ethyl chloride)	TX	4485	10184802
Chloroform	TX	4505	10184802
Chloroprene (2-Chloro-1,3-butadiene)	TX	4525	10184802
cis-1,2-Dichloroethylene	TX	4645	10184802
cis-1,3-Dichloropropene	TX	4680	10184802
Dibromofluoromethane	TX	4590	10184802
Dibromomethane (Methylene bromide)	TX	4595	10184802
Dichlorodifluoromethane (Freon-12)	TX	4625	10184802
Ethyl acetate	TX	4755	10184802
Ethyl methacrylate	TX	4810	10184802
Ethylbenzene	TX	4765	10184802
Ethylene oxide	TX	4795	10184802



Texas Commission on Environmental Quality



NELAP - Recognized Laboratory Fields of Accreditation

TestAmerica Laboratories, Inc. - Houston
 6310 Rothway Drive
 Houston, TX 77040-5056

Certificate: T104704223-13-11
 Expiration Date: 10/31/2014
 Issue Date: 11/1/2013

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Matrix: *Solid & Chemical Materials*

Hexachlorobutadiene	TX	4835	10184802
Iodomethane (Methyl iodide)	TX	4870	10184802
Isobutyl alcohol (2-Methyl-1-propanol)	TX	4875	10184802
Isopropylbenzene (Cumene)	TX	4900	10184802
m+p-xylene	TX	5240	10184802
Methacrylonitrile	TX	4925	10184802
Methyl acrylate	TX	4945	10184802
Methyl bromide (Bromomethane)	TX	4950	10184802
Methyl chloride (Chloromethane)	TX	4960	10184802
Methyl methacrylate	TX	4990	10184802
Methyl tert-butyl ether (MTBE)	TX	5000	10184802
Methylene chloride (Dichloromethane)	TX	4975	10184802
Naphthalene	TX	5005	10184802
n-Butyl alcohol (1-Butanol, n-Butanol)	TX	4425	10184802
n-Butylbenzene	TX	4435	10184802
n-Propylbenzene	TX	5090	10184802
o-Xylene	TX	5250	10184802
sec-Butylbenzene	TX	4440	10184802
Styrene	TX	5100	10184802
tert-Butyl alcohol	TX	4420	10184802
tert-Butylbenzene	TX	4445	10184802
Tetrachloroethylene (Perchloroethylene)	TX	5115	10184802
Toluene	TX	5140	10184802
trans-1,2-Dichloroethylene	TX	4700	10184802
trans-1,3-Dichloropropylene	TX	4685	10184802
trans-1,4-Dichloro-2-butene	TX	4605	10184802
Trichloroethene (Trichloroethylene)	TX	5170	10184802
Trichlorofluoromethane (Fluorotrichloromethane, Freon 11)	TX	5175	10184802
Vinyl acetate	TX	5225	10184802
Vinyl chloride	TX	5235	10184802



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Matrix: Solid & Chemical Materials

Method	AB	Analyte ID	Method ID
Xylene (total)	TX	5260	10184802
Method EPA 8270			
Analyte	AB	Analyte ID	Method ID
1,2,4,5-Tetrachlorobenzene	TX	6715	10185805
1,2,4-Trichlorobenzene	TX	5155	10185805
1,2-Dichlorobenzene	TX	4610	10185805
1,2-Dinitrobenzene	TX	6155	10185805
1,2-Diphenylhydrazine	TX	6220	10185805
1,3,5-Trinitrobenzene (1,3,5-TNB)	TX	6885	10185805
1,3-Dichlorobenzene	TX	4615	10185805
1,3-Dinitrobenzene (1,3-DNB)	TX	6160	10185805
1,4-Dichlorobenzene	TX	4620	10185805
1,4-Dinitrobenzene	TX	6165	10185805
1,4-Naphthoquinone	TX	6420	10185805
1,4-Phenylenediamine	TX	6630	10185805
1-Chloronaphthalene	TX	5790	10185805
1-Naphthylamine	TX	6425	10185805
2,3,4,6-Tetrachlorophenol	TX	6735	10185805
2,4,5-Trichlorophenol	TX	6835	10185805
2,4,6-Trichlorophenol	TX	6840	10185805
2,4-Diaminotoluene	TX	5880	10185805
2,4-Dichlorophenol	TX	6000	10185805
2,4-Dimethylphenol	TX	6130	10185805
2,4-Dinitrophenol	TX	6175	10185805
2,4-Dinitrotoluene (2,4-DNT)	TX	6185	10185805
2,6-Dichlorophenol	TX	6005	10185805
2,6-Dinitrotoluene (2,6-DNT)	TX	6190	10185805
2-Acetylaminofluorene	TX	5515	10185805
2-Chloronaphthalene	TX	5795	10185805
2-Chlorophenol	TX	5800	10185805



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Matrix: *Solid & Chemical Materials*

2-Methyl-4,6-dinitrophenol (4,6-Dinitro-2-methylphenol)	TX	6360	10185805
2-Methylaniline (o-Toluidine)	TX	5145	10185805
2-Methylnaphthalene	TX	6385	10185805
2-Methylphenol (o-Cresol)	TX	6400	10185805
2-Naphthylamine	TX	6430	10185805
2-Nitroaniline	TX	6460	10185805
2-Nitrophenol	TX	6490	10185805
2-Picoline (2-Methylpyridine)	TX	5050	10185805
3,3'-Dichlorobenzidine	TX	5945	10185805
3,3'-Dimethoxybenzidine	TX	6100	10185805
3,3'-Dimethylbenzidine	TX	6120	10185805
3-Methylcholanthrene	TX	6355	10185805
3-Methylphenol (m-Cresol)	TX	6405	10185805
3-Nitroaniline	TX	6465	10185805
4-Aminobiphenyl	TX	5540	10185805
4-Bromophenyl phenyl ether (BDE-3)	TX	5660	10185805
4-Chloro-3-methylphenol	TX	5700	10185805
4-Chloroaniline	TX	5745	10185805
4-Chlorophenyl phenylether	TX	5825	10185805
4-Methylphenol (p-Cresol)	TX	6410	10185805
4-Nitroaniline	TX	6470	10185805
4-Nitrophenol	TX	6500	10185805
5-Nitro-o-toluidine	TX	6570	10185805
7,12-Dimethylbenz(a) anthracene	TX	6115	10185805
Acenaphthene	TX	5500	10185805
Acenaphthylene	TX	5505	10185805
Acetophenone	TX	5510	10185805
Aniline	TX	5545	10185805
Anthracene	TX	5555	10185805
Azobenzene	TX	5562	10185805



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Matrix: *Solid & Chemical Materials*

Benzenethiol (Thiophenol)	TX	6750	10185805
Benzidine	TX	5595	10185805
Benzo(a)anthracene	TX	5575	10185805
Benzo(a)pyrene	TX	5580	10185805
Benzo(b)fluoranthene	TX	5585	10185805
Benzo(g,h,i)perylene	TX	5590	10185805
Benzo(k)fluoranthene	TX	5600	10185805
Benzoic acid	TX	5610	10185805
Benzyl alcohol	TX	5630	10185805
Biphenyl	TX	5640	10185805
bis(2-Chloroethoxy)methane	TX	5760	10185805
bis(2-Chloroethyl) ether	TX	5765	10185805
bis(2-Chloroisopropyl) ether	TX	5780	10185805
bis(2-Ethylhexyl) phthalate (DEHP)	TX	6255	10185805
Butyl benzyl phthalate	TX	5670	10185805
Caprolactam	TX	7180	10185805
Carbazole	TX	5680	10185805
Chlorobenzilate	TX	7260	10185805
Chrysene	TX	5855	10185805
Diallate	TX	7405	10185805
Dibenz(a,h) anthracene	TX	5895	10185805
Dibenzofuran	TX	5905	10185805
Diethyl phthalate	TX	6070	10185805
Dimethoate	TX	7475	10185805
Dimethyl phthalate	TX	6135	10185805
Di-n-butyl phthalate	TX	5925	10185805
Di-n-octyl phthalate	TX	6200	10185805
Diphenylamine	TX	6205	10185805
Disulfoton	TX	8625	10185805
Ethyl methanesulfonate	TX	6260	10185805



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Matrix: *Solid & Chemical Materials*

Fluoranthene	TX	6265	10185805
Fluorene	TX	6270	10185805
Hexachlorobenzene	TX	6275	10185805
Hexachlorobutadiene	TX	4835	10185805
Hexachlorocyclopentadiene	TX	6285	10185805
Hexachloroethane	TX	4840	10185805
Hexachlorophene	TX	6290	10185805
Indeno(1,2,3-cd) pyrene	TX	6315	10185805
Isodrin	TX	7725	10185805
Isophorone	TX	6320	10185805
Isosafrole	TX	6325	10185805
Methyl methanesulfonate	TX	6375	10185805
Methyl parathion (Parathion, methyl)	TX	7825	10185805
Methylphenols, total	TX	10313	10185805
Naphthalene	TX	5005	10185805
Nitrobenzene	TX	5015	10185805
Nitroquinoline-1-oxide	TX	6515	10185805
n-Nitrosodiethylamine	TX	6525	10185805
n-Nitrosodimethylamine	TX	6530	10185805
n-Nitrosodi-n-butylamine	TX	5025	10185805
n-Nitrosodi-n-propylamine	TX	6545	10185805
n-Nitrosodiphenylamine	TX	6535	10185805
n-Nitrosomethylethylamine	TX	6550	10185805
n-Nitrosomorpholine	TX	6555	10185805
n-Nitrosopiperidine	TX	6560	10185805
n-Nitrosopyrrolidine	TX	6565	10185805
o,o,o-Triethyl phosphorothioate	TX	8290	10185805
Parathion, ethyl	TX	7955	10185805
Pentachlorobenzene	TX	6590	10185805
Pentachloronitrobenzene (PCNB)	TX	6600	10185805



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Matrix: *Solid & Chemical Materials*

Pentachlorophenol	TX	6605	10185805
Phenacetin	TX	6610	10185805
Phenanthrene	TX	6615	10185805
Phenol	TX	6625	10185805
Phorate	TX	7985	10185805
Pronamide (Kerb)	TX	6650	10185805
Pyrene	TX	6665	10185805
Pyridine	TX	5095	10185805
Safrole	TX	6685	10185805
Thionazin (Zinophos)	TX	8235	10185805
Toluene diisocyanate	TX	6775	10185805
Method EPA 9012			
Analyte	AB	Analyte ID	Method ID
Amenable cyanide	TX	1510	10193405
Total Cyanide	TX	1635	10193405
Method EPA 9034			
Analyte	AB	Analyte ID	Method ID
Sulfide	TX	2005	10196006
Method EPA 9040			
Analyte	AB	Analyte ID	Method ID
Corrosivity	TX	1615	10197203
pH	TX	1900	10197203
Method EPA 9045			
Analyte	AB	Analyte ID	Method ID
pH	TX	1900	10198400
Method EPA 9050			
Analyte	AB	Analyte ID	Method ID
Conductivity	TX	1610	10198808
Method EPA 9056			
Analyte	AB	Analyte ID	Method ID
Bromide	TX	1540	10199209



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Matrix: *Solid & Chemical Materials*

Chloride	TX	1575	10199209
Fluoride	TX	1730	10199209
Nitrate as N	TX	1810	10199209
Nitrate-nitrite	TX	1820	10199209
Nitrite as N	TX	1840	10199209
Orthophosphate as P	TX	1870	10199209
Sulfate	TX	2000	10199209
Method EPA 9060			
Analyte	AB	Analyte ID	Method ID
Total Organic Carbon (TOC)	TX	2040	10200201
Method EPA 9066			
Analyte	AB	Analyte ID	Method ID
Total phenolics	TX	1905	10200609
Method EPA 9071			
Analyte	AB	Analyte ID	Method ID
Silica Gel Treated n-Hexane Extractable Material (SGT-HEM)	TX	10220	10201806
Method EPA 9095			
Analyte	AB	Analyte ID	Method ID
Paint Filter Liquids Test	TX	10312	10204203
Method SSA/ASA Part 3:34			
Analyte	AB	Analyte ID	Method ID
Carbon, organic (Walkley-Black)	TX	10340	SSA/ASA Pt 3:34
Method TCEQ 1005			
Analyte	AB	Analyte ID	Method ID
Total Petroleum Hydrocarbons (TPH)	TX	2050	90019208

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Houston
6310 Rothway Street
Houston, TX 77040
Tel: (713)690-4444

TestAmerica Job ID: 600-95617-1

Client Project/Site: 1620 UPRR HWPW - SA Monitoring

For:

Pastor, Behling & Wheeler LLC
2201 Double Creek Dr
Suite 4004
Round Rock, Texas 78664

Attn: Mr. Eric Matzner



Authorized for release by:

8/7/2014 5:35:44 PM

Sophia Shah, Project Management Assistant I
sophia.shah@testamericainc.com

Designee for

Sachin Kudchadkar, Senior Project Manager
(713)690-4444
sachin.kudchadkar@testamericainc.com

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The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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- 14
- 15
- 16



Table of Contents

Cover Page	1
Table of Contents	2
TRRP Checklists & DCSs	3
Case Narrative	12
Method Summary	13
Sample Summary	14
Client Sample Results	15
Definitions/Glossary	38
Surrogate Summary	39
QC Sample Results	41
Default Detection Limits	51
QC Association Summary	52
Lab Chronicle	55
Certification Summary	60
Chain of Custody	61
Receipt Checklists	64

Appendix A

Laboratory Data Package Cover Page - Page 1 of 4

This data package is for TestAmerica Houston job number 600-95617-1 and consists of:

- R1 - Field chain-of-custody documentation;
- R2 - Sample identification cross-reference;
- R3 - Test reports (analytical data sheets) for each environmental sample that includes:
 - a. Items consistent with NELAC Chapter 5,
 - b. dilution factors,
 - c. preparation methods,
 - d. cleanup methods, and
 - e. if required for the project, tentatively identified compounds (TICs).
- R4 - Surrogate recovery data including:
 - a. Calculated recovery (%R), and
 - b. The laboratory's surrogate QC limits.
- R5 - Test reports/summary forms for blank samples;
- R6 - Test reports/summary forms for laboratory control samples (LCSs) including:
 - a. LCS spiking amounts,
 - b. Calculated %R for each analyte, and
 - c. The laboratory's LCS QC limits.
- R7 - Test reports for project matrix spike/matrix spike duplicates (MS/MSDs) including:
 - a. Samples associated with the MS/MSD clearly identified,
 - b. MS/MSD spiking amounts,
 - c. Concentration of each MS/MSD analyte measured in the parent and spiked samples,
 - d. Calculated %Rs and relative percent differences (RPDs), and
 - e. The laboratory's MS/MSD QC limits
- R8 - Laboratory analytical duplicate (if applicable) recovery and precision:
 - a. The amount of analyte measured in the duplicate,
 - b. The calculated RPD, and
 - c. The laboratory's QC limits for analytical duplicates.
- R9 - List of method quantitation limits (MQLs) and detectability check sample results for each analyte for each method and matrix.
- R10 - Other problems or anomalies.

The Exception Report for each "No" or "Not Reviewed (NR)" item in Laboratory Review Checklist and for each analyte, matrix, and method for which the laboratory does not hold NELAC accreditation under the Texas Laboratory Accreditation Program.

Release Statement: I am responsible for the release of this laboratory data package. This laboratory is NELAC accredited under the Texas Laboratory Accreditation Program for all the methods, analytes, and matrices reported in this data package except as noted in the Exception Reports. The data have been reviewed and are technically compliant with the requirements of the methods used, except where noted by the laboratory in the Exception Reports. By my signature below, I affirm to the best of my knowledge all problems/anomalies observed by the laboratory have been identified in the Laboratory Review Checklist, and no information affecting the quality of the data has been knowingly withheld.

Sophia Shah
Name (printed)



Signature

8/7/2014
Date

Project Management Assistant
Official Title (printed)

Laboratory Review Checklist: Reportable Data - Page 2 of 4

Laboratory Name:	TestAmerica Houston	LRC Date:	8/7/2014
Project Name:	1620 UPRR HWPW - SA Monitoring	Laboratory Job Number:	600-95617-1
Reviewer Name:	Sachin G Kudchadkar		

# ¹	A ²	Description	Yes	No	NA ³	NR ⁴	ER# ⁵
R1	OI	Chain-of-custody (C-O-C)					
		Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?	X				
		Were all departures from standard conditions described in an exception report?	X				
R2	OI	Sample and quality control (QC) identification					
		Are all field sample ID numbers cross-referenced to the laboratory ID numbers?	X				
		Are all laboratory ID numbers cross-referenced to the corresponding QC data?	X				
R3	OI	Test reports					
		Were all samples prepared and analyzed within holding times?	X				
		Other than those results < MQL, were all other raw values bracketed by calibration standards?	X				
		Were calculations checked by a peer or supervisor?	X				
		Were all analyte identifications checked by a peer or supervisor?	X				
		Were sample detection limits reported for all analytes not detected?	X				
		Were all results for soil and sediment samples reported on a dry weight basis?				X	
		Were % moisture (or solids) reported for all soil and sediment samples?				X	
		Were bulk soils/solids samples for volatile analysis extracted with methanol per SW846 Method 5035?				X	
		If required for the project, are TICs reported?				X	
R4	O	Surrogate recovery data					
		Were surrogates added prior to extraction?	X				
		Were surrogate percent recoveries in all samples within the laboratory QC limits?		X			R04B
R5	OI	Test reports/summary forms for blank samples					
		Were appropriate type(s) of blanks analyzed?	X				
		Were blanks analyzed at the appropriate frequency?	X				
		Were method blanks taken through the entire analytical process, including preparation and, if applicable, cleanup procedures?	X				
		Were blank concentrations < MQL?	X				
R6	OI	Laboratory control samples (LCS):					
		Were all COCs included in the LCS?	X				
		Was each LCS taken through the entire analytical procedure, including prep and cleanup steps?	X				
		Were LCSs analyzed at the required frequency?	X				
		Were LCS (and LCSD, if applicable) %Rs within the laboratory QC limits?	X				
		Does the detectability check sample data document the laboratory's capability to detect the COCs at the MDL used to calculate the SDLs?	X				
		Was the LCSD RPD within QC limits?	X				
R7	OI	Matrix spike (MS) and matrix spike duplicate (MSD) data					
		Were the project/method specified analytes included in the MS and MSD?	X				
		Were MS/MSD analyzed at the appropriate frequency?	X				
		Were MS (and MSD, if applicable) %Rs within the laboratory QC limits?		X			R07C
		Were MS/MSD RPDs within laboratory QC limits?		X			R07D
R8	OI	Analytical duplicate data					
		Were appropriate analytical duplicates analyzed for each matrix?				X	
		Were analytical duplicates analyzed at the appropriate frequency?				X	
		Were RPDs or relative standard deviations within the laboratory QC limits?				X	
R9	OI	Method quantitation limits (MQLs):					
		Are the MQLs for each method analyte included in the laboratory data package?	X				
		Do the MQLs correspond to the concentration of the lowest non-zero calibration standard?	X				
		Are unadjusted MQLs and DCSs included in the laboratory data package?	X				
R10	OI	Other problems/anomalies					
		Are all known problems/anomalies/special conditions noted in this LRC and ER?	X				
		Was applicable and available technology used to lower the SDL to minimize the matrix interference effects on the sample results?		X			R10B
		Is the laboratory NELAC-accredited under the Texas Laboratory Accreditation Program for the analytes, matrices and methods associated with this laboratory data package?	X				

- Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.
- O = organic analyses; I = inorganic analyses (and general chemistry, when applicable);
- NA = Not applicable;
- NR = Not reviewed;
- ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

Laboratory Review checklist: Supporting Data - Page 3 of 4

Laboratory Name:	TestAmerica Houston	LRC Date:	8/7/2014
Project Name:	1620 UPRR HWPW - SA Monitoring	Laboratory Job Number:	600-95617-1
Reviewer Name:	Sachin G Kudchadkar		

# ¹	A ²	Description	Yes	No	NA ³	NR ⁴	ER# ⁵
S1	OI	Initial calibration (ICAL)					
		Were response factors and/or relative response factors for each analyte within QC limits?	X				
		Were percent RSDs or correlation coefficient criteria met?	X				
		Was the number of standards recommended in the method used for all analytes?	X				
		Were all points generated between the lowest and highest standard used to calculate the curve?	X				
		Are ICAL data available for all instruments used?	X				
		Has the initial calibration curve been verified using an appropriate second source standard?	X				
S2	OI	Initial and continuing calibration verification (ICV and CCV) and continuing calibration blank (CCB):					
		Was the CCV analyzed at the method-required frequency?	X				
		Were percent differences for each analyte within the method-required QC limits?	X				
		Was the ICAL curve verified for each analyte?			X		
		Was the absolute value of the analyte concentration in the inorganic CCB < MDL?			X		
S3	O	Mass spectral tuning					
		Was the appropriate compound for the method used for tuning?	X				
		Were ion abundance data within the method-required QC limits?	X				
S4	O	Internal standards (IS)					
		Were IS area counts and retention times within the method-required QC limits?		X			S04A
S5	OI	Raw data (NELAC Section 5.5.10)					
		Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?	X				
		Were data associated with manual integrations flagged on the raw data?	X				
S6	O	Dual column confirmation					
		Did dual column confirmation results meet the method-required QC?			X		
S7	O	Tentatively identified compounds (TICs)					
		If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?			X		
S8	I	Interference Check Sample (ICS) results					
		Were percent recoveries within method QC limits?			X		
S9	I	Serial dilutions, post digestion spikes, and method of standard additions					
		Were percent differences, recoveries, and the linearity within the QC limits specified in the method?			X		
S10	OI	Method detection limit (MDL) studies					
		Was a MDL study performed for each reported analyte?	X				
		Is the MDL either adjusted or supported by the analysis of DCSS?	X				
S11	OI	Proficiency test reports					
		Was the laboratory's performance acceptable on the applicable proficiency tests or evaluation studies?	X				
S12	OI	Standards documentation					
		Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?	X				
S13	OI	Compound/analyte identification procedures					
		Are the procedures for compound/analyte identification documented?	X				
S14	OI	Demonstration of analyst competency (DOC)					
		Was DOC conducted consistent with NELAC Chapter 5?	X				
		Is documentation of the analyst's competency up-to-date and on file?	X				
S15	OI	Verification/validation documentation for methods (NELAC Chapter 5)					
		Are all the methods used to generate the data documented, verified, and validated, where applicable?	X				
S16	OI	Laboratory standard operating procedures (SOPs)					
		Are laboratory SOPs current and on file for each method performed?	X				
<p>1. Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.</p> <p>2. O = organic analyses; I = inorganic analyses (and general chemistry, when applicable);</p> <p>3. NA = Not applicable;</p> <p>4. NR = Not reviewed;</p> <p>5. ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).</p>							

Laboratory Review Checklist: Exception Reports - Page 4 of 4

Laboratory Name:	TestAmerica Houston	LRC Date:	8/7/2014
Project Name:	1620 UPRR HWPW - SA Monitoring	Laboratory Job Number:	600-95617-1
Reviewer Name:	Sachin G Kudchadkar		

ER # ¹	Description
R04B	<p>Method 8270C LL: Surrogate recovery for the following sample was outside control limits: 600-95617-12. Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.</p> <p>Method 8270C LL: The following samples required dilutions due to the nature of the sample matrix: 600-95617-2, 600-95617-3, 600-95617-9, 600-95617-10, 600-95617-6, 600-95617-7, 600-95617-11, 600-95617-13, 600-95617-14, and 600-95617-15. Because of this dilution, the surrogate spike concentration in the sample was reduced to a level where the recovery calculation does not provide useful information.</p>
R07C	<p>Method 8270C LL: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for batch 139804 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.</p> <p>Method 8270C LL: The matrix spike duplicate (MSD) recoveries and precision for batch 139772 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCSD) recovery was within acceptance limits.</p>
R07D	<p>Method 8270C LL: 600-95617-17 MSD failed the RPD criteria for the following analyte(s): 4-Nitrophenol, Phenol. Matrix interference is suspected.</p> <p>Method 8270C LL: 600-95656-B-5-B MSD failed the RPD criteria for the following analyte(s): 1,2-Diphenylhydrazine, 2,4-Dimethylphenol, 2,4-Dinitrotoluene, 2,6-Dinitrotoluene, 2-Chloronaphthalene, 2-Methylnaphthalene, Acenaphthene, Acenaphthylene, Anthracene, Bis(2-chloroethoxy)methane, Dibenzofuran, Fluorene, N-Nitrosodiphenylamine, Naphthalene, Nitrobenzene, Phenanthrene, Phenol. Matrix interference is suspected.</p>
R10B	<p>Method 8260B: The following sample(s) was diluted to bring the concentration of target analytes within the calibration range: 600-95617-2, 600-95617-3, 600-95617-6, 600-95617-7, 600-95617-10, 600-95617-14, 600-95617-15. Elevated reporting limits (RLs) are provided.</p> <p>Method 8270C LL: Due to the matrix, the following sample(s) could not be concentrated to the final method required volume: 600-95617-14. The reporting limits (RLs) are elevated proportionately.</p> <p>Method 8270C LL: The following sample(s) was diluted due to the nature of the sample matrix: 600-95617-2 and 600-95617-3. Elevated reporting limits (RLs) are provided.</p> <p>Method 8270C LL: The following sample(s) was diluted due to the nature of the sample matrix: 600-95617-6, 600-95617-7, 600-95617-9, 600-95617-10, 600-95617-14, and 600-95617-15. Elevated reporting limits (RLs) are provided.</p> <p>Method 8270C LL: The following sample(s) was diluted to bring the concentration of target analytes within the calibration range: 600-95617-3, 600-95617-9, 600-95617-10, 600-95617-6, 600-95617-7, 600-95617-11, 600-95617-12, 600-95617-13, 600-95617-14, and 600-95617-15. Elevated reporting limits (RLs) are provided.</p>
S04A	<p>Method 8270C LL: Internal standard (ISTD) response for Phenanthrene-d10 for the following sample(s) was outside acceptance criteria: 600-95617-9 and 600-95617-14. This ISTD does not correspond to any of the requested target compounds; therefore, the data have been reported.</p>
	<ol style="list-style-type: none"> Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period. O = organic analyses; I = inorganic analyses (and general chemistry, when applicable); NA = Not applicable; NR = Not reviewed; ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

Matrix: Water
Method: 8260B_LL
Prep Method: No Prep
Date Analyzed: 3/21/2014
Job #: 600-88537
TALS Batch: 130207
Units: ug/L

Analyte	Instrument #	MDL	DCS Spike	Measured Result	MQL
1,1,1,2-Tetrachloroethane	VOAMS07	0.180	0.500	0.545	1
1,1,1-Trichloroethane	VOAMS07	0.150	0.500	0.610	1
1,1,2,2-Tetrachloroethane	VOAMS07	0.220	0.500	0.432	1
1,1,2-Trichloro-1,2,2-trifluoroethane	VOAMS01	1.000	1.000	0.906	1
1,1,2-Trichloroethane	VOAMS01	0.280	1.000	0.836	1
1,1-Dichloroethane	VOAMS07	0.11	0.5	0.476	1
1,1-Dichloroethene	VOAMS07	0.190	0.500	0.495	1
1,1-Dichloropropene	VOAMS07	0.210	0.500	0.833	1
1,2,3-Trichlorobenzene	VOAMS01	0.570	1.000	1.041	1
1,2,3-Trichloropropane	VOAMS01	0.290	1.000	1.028	1
1,2,3-Trimethylbenzene	VOAMS07	0.130	0.500	0.714	1
1,2,4-Trichlorobenzene	VOAMS01	0.310	1.000	0.904	1
1,2,4-Trimethylbenzene	VOAMS07	0.140	0.500	0.730	1
1,2-Dibromo-3-Chloropropane	VOAMS01	0.810	1.000	0.586	1
1,2-Dichlorobenzene	VOAMS07	0.1	0.5	0.417	1
1,2-Dichloroethane	VOAMS07	0.140	0.500	0.596	1
1,2-Dichloroethene, Total	VOAMS07	0.300	1.000	0.960	1
1,2-Dichloropropane	VOAMS07	0.160	0.500	0.450	1
1,3,5-Trichlorobenzene	VOAMS01	1.000	1.000	0.908	1
1,3,5-Trimethylbenzene	VOAMS07	0.1	0.5	0.715	1
1,3-Dichlorobenzene	VOAMS07	0.130	0.500	0.435	1
1,3-Dichloropropane	VOAMS07	0.220	0.500	0.489	1
1,3-Dichloropropene, Total	VOAMS07	0.11	1	1.81	1
1,4-Dichlorobenzene	VOAMS07	0.11	0.5	0.5	1
1,4-Dioxane	VOAMS01	30.79	20	16.089	50
1-Chlorohexane	VOAMS01	0.260	1.000	1.097	1
2,2-Dichloropropane	VOAMS07	0.130	0.500	0.563	1
2-Butanone (MEK)	VOAMS01	0.760	2.000	1.428	2
2-Chloro-1,3-butadiene	VOAMS01	0.330	1.000	1.011	1
2-Chloroethyl vinyl ether	VOAMS01	0.500	2.000	2.554	2
2-Chlorotoluene	VOAMS07	0.130	0.500	0.665	1
2-Hexanone	VOAMS07	0.350	1.000	1.971	2
2-Methyl-2-propanol	VOAMS07	10.47	5	5.576	20
2-Methylnaphthalene	VOAMS01	1	1	0	1
2-Nitropropane	VOAMS01	1.210	2.000	4.577	1
3-Chloro-1-propene	VOAMS07	0.240	0.500	0.953	2
4-Chlorotoluene	VOAMS07	0.140	0.500	0.337	1
4-Isopropyltoluene	VOAMS07	0.1	0.5	0.403	1
4-Methyl-2-pentanone (MIBK)	VOAMS07	0.450	1.000	1.760	2
Acetone	VOAMS01	0.990	2.000	0.565	5
Acetonitrile	VOAMS07	0.27	5	3.915	2
Acrolein	VOAMS01	1.630	5.000	5.060	5
Acrylonitrile	VOAMS07	0.52	5	3.884	5
Benzene	VOAMS07	0.08	0.5	0.459	1
Benzyl chloride	VOAMS07	0.240	0.500	0.875	1
Bromobenzene	VOAMS07	0.190	0.500	0.489	1
Bromoform	VOAMS07	0.190	0.500	0.573	1
Bromomethane	VOAMS01	0.250	1.000	0.804	2
Butadiene	VOAMS07	0.210	0.500	0.384	1
Carbon disulfide	VOAMS07	0.240	0.500	0.434	2
Carbon tetrachloride	VOAMS07	0.150	0.500	0.610	1

Matrix: Water
Method: 8260B_LL
Prep Method: No Prep
Date Analyzed: 3/21/2014
Job #: 600-88537
TALS Batch: 130207
Units: ug/L

Analyte	Instrument #	MDL	DCS Spike	Measured Result	MQL
Chlorobenzene	VOAMS07	0.12	0.5	0.508	1
Chlorobromomethane	VOAMS07	0.180	0.500	0.517	1
Chlorodibromomethane	VOAMS07	0.150	0.500	0.565	1
Chloroethane	VOAMS07	0.08	0.5	0.549	2
Chloroform	VOAMS07	0.130	0.500	0.573	1
Chloromethane	VOAMS07	0.180	0.500	0.424	2
cis-1,2-Dichloroethene	VOAMS07	0.06	0.5	0.491	1
cis-1,3-Dichloropropene	VOAMS07	0.180	0.500	0.807	1
Cyclohexane	VOAMS07	0.160	0.500	0.700	1
Cyclohexanone	VOAMS07	8.640	25.000	31.282	50
Dibromomethane	VOAMS01	0.520	1.000	0.343	1
Dichlorobromomethane	VOAMS07	0.160	0.500	0.490	1
Dichlorodifluoromethane	VOAMS07	0.12	0.5	0.476	1
Dichlorofluoromethane	VOAMS01	1.000	1.000	1.214	1
Ethanol	VOAMS07	1	25	0	1
Ethyl acetate	VOAMS07	0.410	1.000	2.127	2
Ethyl acrylate	VOAMS01	0.340	1.000	0.535	2
Ethyl ether	VOAMS07	0.150	0.500	0.836	1
Ethyl methacrylate	VOAMS01	0.260	1.000	0.915	2
Ethylbenzene	VOAMS07	0.11	0.5	0.769	1
Ethylene Dibromide	VOAMS07	0.180	0.500	0.466	1
Ethylene oxide	VOAMS01	2.13	20	4.963	10
Hexachlorobutadiene	VOAMS07	0.170	0.500	0.685	1
Hexane	VOAMS07	0.160	0.500	0.433	1
Iodomethane	VOAMS07	0.158	0.500	0.517	2
Isobutyl alcohol	VOAMS07	3.320	12.500	9.263	10
Isooctane	VOAMS01	0.330	1.000	0.661	1
Isopropyl alcohol	VOAMS01	3.720	10.000	0.586	10
Isopropyl ether	VOAMS07	0.09	0.5	0.443	1
Isopropylbenzene	VOAMS07	0.180	0.500	0.757	1
Methacrylonitrile	VOAMS07	0.41	5	3.96	2
Methyl acetate	VOAMS07	0.55	2.5	1.883	2
Methyl methacrylate	VOAMS07	0.330	1.000	1.663	1
Methyl tert-butyl ether	VOAMS07	0.12	0.5	0.947	1
Methylcyclohexane	VOAMS07	0.1	0.5	0.719	1
Methylene Chloride	VOAMS07	0.150	0.500	1.229	5
m-Xylene & p-Xylene	VOAMS07	0.170	0.500	0.838	1
Naphthalene	VOAMS01	0.320	1.000	1.120	2
n-Butyl acetate	VOAMS01	0.19	1	1.902	1
n-Butylbenzene	VOAMS07	0.160	0.500	0.585	1
n-Heptane	VOAMS01	1.000	1.000	0.511	1
N-Propylbenzene	VOAMS07	0.150	0.500	0.892	1
o-Xylene	VOAMS07	0.12	0.5	0.543	1
Pentachloroethane	VOAMS01	1.000	1.000	1.053	1
Propionitrile	VOAMS07	0.66	5	3.711	5
sec-Butylbenzene	VOAMS07	0.12	0.5	0.659741	1
Styrene	VOAMS07	0.07	0.5	1.110441	1
Tert-amyl methyl ether	VOAMS01	1.000	1.000	0.633	1
Tert-butyl ethyl ether	VOAMS01	1.000	1.000	0.677	1
tert-Butylbenzene	VOAMS07	0.08	0.5	0.880472	1
Tetrachloroethene	VOAMS07	0.130	0.500	0.817	1

Matrix: Water
Method: 8260B_LL
Prep Method: No Prep
Date Analyzed: 3/21/2014
Job #: 600-88537
TALS Batch: 130207
Units: ug/L

Analyte	Instrument #	MDL	DCS Spike	Measured Result	MQL
Tetrahydrofuran	VOAMS01	1.080	2.000	1.071	5
Toluene	VOAMS07	0.150	0.500	0.506	1
trans-1,2-Dichloroethene	VOAMS07	0.09	0.5	0.472189	1
trans-1,3-Dichloropropene	VOAMS07	0.210	0.500	1.009	1
trans-1,4-Dichloro-2-butene	VOAMS01	0.640	1.000	0.676	2
Trichloroethene	VOAMS07	0.180	0.500	0.498	1
Trichlorofluoromethane	VOAMS07	0.08	0.5	0.539265	1
Trihalomethanes, Total	VOAMS01	1.000	4.000	3.600	5
Vinyl acetate	VOAMS07	0.21	1	1.798318	2
Vinyl chloride	VOAMS07	0.11	1	1.38	2
Xylenes, Total	VOAMS07	0.260	1.000	1.380	1



Matrix: Water
Method: 8270C_LL
Prep Method: 3510C_LL
Date Analyzed: 3/21/2014
Job #: 600-87830
TALS Batch: 130292
Units: ug/L

Analyte	Instrument #	MDL	DCS Spike	Measured Result	MQL
1,1'-Biphenyl	SVMS06	0.100	0.125	0.089	1
1,2,4,5-Tetrachlorobenzene	SVMS06	0.100	0.125	0.122	1.5
1,2,4-Trichlorobenzene	SVMS06	0.120	0.125	0.072	2
1,2-Dichlorobenzene	SVMS06	0.170	0.250	0.174	1.75
1,2-Diphenylhydrazine	SVMS06	0.110	0.125	0.079	2
1,3-Dichlorobenzene	SVMS06	0.170	0.250	0.188	1.5
1,4-Dichlorobenzene	SVMS06	0.130	0.250	0.178	2
1,4-Dinitrobenzene	SVMS06	5.00	2.50	1.77	5
1-Methylnaphthalene	SVMS06	0.090	0.125	0.096	2
1-Naphthylamine	SVMS06	0.170	0.500	0.181	2
2,2'-oxybis[1-chloropropane]	SVMS06	0.400	0.250	0.159	1.5
2,3,5,6-Tetrachlorophenol	SVMS06	0.500	0.500	0.870	5
2,4,5-Trichlorophenol	SVMS06	0.250	0.250	0.102	2
2,4,6-Trichlorophenol	SVMS06	0.180	0.250	0.115	2
2,4-Dichlorophenol	SVMS06	0.150	0.250	0.071	2.5
2,4-Dinitrotoluene	SVMS06	0.130	0.250	0.385	1.5
2,6-Dinitrotoluene	SVMS06	0.080	0.250	0.353	1
2-Chloronaphthalene	SVMS06	0.080	0.125	0.130	1.5
2-Chlorophenol	SVMS06	0.130	0.250	0.188	2
2-Methylnaphthalene	SVMS06	0.070	0.125	0.092	1.5
2-Methylphenol	SVMS06	0.120	0.125	0.092	1.5
2-Naphthylamine	SVMS06	0.140	0.500	0.188	1
2-Nitroaniline	SVMS06	0.190	0.250	0.374	2.5
2-Nitrophenol	SVMS06	0.220	0.250	0.130	1
2-Picoline	SVMS06	0.390	0.500	0.170	1.5
2-Toluidine	SVMS06	0.130	0.500	0.271	1
3 & 4 Methylphenol	SVMS06	0.200	0.250	0.099	1
3,3'-Dichlorobenzidine	SVMS06	0.180	0.250	0.370	10
3-Methylcholanthrene	SVMS06	0.500	0.500	0.481	5
3-Nitroaniline	SVMS06	0.160	0.250	0.061	2.5
4-Aminobiphenyl	SVMS06	0.170	0.500	0.297	10
4-Bromophenyl phenyl ether	SVMS06	0.100	0.125	0.045	1.5
4-Chloro-3-methylphenol	SVMS06	0.170	0.250	0.073	1
4-Chloroaniline	SVMS06	0.210	0.250	0.117	1
4-Chlorophenyl phenyl ether	SVMS06	0.100	0.125	0.088	1.5
Acenaphthene	SVMS06	0.080	0.125	0.101	1
Acenaphthylene	SVMS06	0.060	0.125	0.315	1
Acetophenone	SVMS06	0.150	0.250	0.153	1.5
Aniline	SVMS06	0.080	0.250	0.140	1.5
Anthracene	SVMS06	0.050	0.125	0.075	1
Atrazine	SVMS06	0.160	0.250	0.060	1.5
Azobenzene	SVMS06	0.070	0.125	0.071	1.5
Benzaldehyde	SVMS06	0.500	0.500	0.096	1
Benzidine	SVMS06	0.610	1.303	1.220	10
Benzo[a]anthracene	SVMS06	0.080	0.125	0.114	2
Benzo[a]pyrene	SVMS06	0.080	0.125	0.046	1.5
Benzo[b]fluoranthene	SVMS06	0.070	0.125	0.083	2
Benzo[g,h,i]perylene	SVMS06	0.080	0.250	0.146	2.5
Benzo[k]fluoranthene	SVMS06	0.090	0.125	0.076	2
Benzyl alcohol	SVMS06	0.170	0.250	0.039	5.5
Bis(2-chloroethoxy)methane	SVMS06	0.130	0.250	0.206	1.5

Matrix: Water
Method: 8270C_LL
Prep Method: 3510C_LL
Date Analyzed: 3/21/2014
Job #: 600-87830
TALS Batch: 130292
Units: ug/L

Analyte	Instrument #	MDL	DCS Spike	Measured Result	MQL
Bis(2-chloroethyl)ether	SVMS06	0.150	0.250	0.215	1.5
Bis(2-ethylhexyl) phthalate	SVMS06	0.370	0.250	0.058	2.5
Butyl benzyl phthalate	SVMS06	0.120	0.125	0.011	2.5
Carbazole	SVMS06	0.170	0.250	0.116	6.25
Chrysene	SVMS06	0.080	0.125	0.095	1.5
Dibenz(a,h)anthracene	SVMS06	0.080	0.250	0.045	2.5
Dibenz[a,j]acridine	SVMS06	0.350	1.000	0.687	1
Dibenzofuran	SVMS06	0.080	0.125	0.081	1.5
Diethyl phthalate	SVMS06	1.50	0.250	0.215	2.5
Dimethyl phthalate	SVMS06	0.070	0.250	0.195	2.5
Di-n-butyl phthalate	SVMS06	0.110	0.125	0.080	2.5
Di-n-octyl phthalate	SVMS06	0.160	0.250	0.030	5
Diphenylamine	SVMS06	0.100	0.125	0.059	1.5
Ethyl methanesulfonate	SVMS06	0.170	0.500	0.370	1.5
Fluoranthene	SVMS06	0.070	0.125	0.109	2.5
Fluorene	SVMS06	0.070	0.125	0.090	1.5
Hexachlorobenzene	SVMS06	0.110	0.125	0.129	1.5
Hexachlorobutadiene	SVMS06	0.180	0.250	0.218	2
Hexachlorocyclopentadiene	SVMS06	0.130	0.250	0.184	1.5
Hexachloroethane	SVMS06	0.100	0.125	0.147	2
Hexachloropropene	SVMS06	0.160	0.500	0.395	10
Indene	SVMS06	0.150	0.500	0.204	1
Indeno[1,2,3-cd]pyrene	SVMS06	0.070	0.125	0.021	2
Isodrin	SVMS06	0.150	0.500	0.447	1.5
Isophorone	SVMS06	0.110	0.250	0.168	1.5
Methapyrilene	SVMS06	1.060	2.500	1.485	1.5
Methyl methanesulfonate	SVMS06	0.200	0.500	0.437	1.5
Methyl Phenols, Total	SVMS06	0.200	0.500	0.140	1
Naphthalene	SVMS06	0.080	0.125	0.082	5
Nitrobenzene	SVMS06	0.110	0.125	0.107	1.5
N-Nitrosodiethylamine	SVMS06	0.380	0.500	0.366	1.5
N-Nitrosodimethylamine	SVMS06	0.260	0.250	0.163	2
N-Nitrosodi-n-butylamine	SVMS06	0.230	0.500	0.308	1.5
N-Nitrosodi-n-propylamine	SVMS06	0.100	0.125	0.076	2.5
N-Nitrosodiphenylamine	SVMS06	0.100	0.125	0.056	1.5
N-Nitrosomethylethylamine	SVMS06	0.110	0.500	0.115	1
N-Nitrosomorpholine	SVMS06	0.190	0.500	0.355	10
N-Nitrosopiperidine	SVMS06	0.190	0.500	0.370	1.5
N-Nitrosopyrrolidine	SVMS06	0.210	0.500	0.434	1
o,o',o"-Triethylphosphorothioate	SVMS06	0.500	0.500	0.398	5
Pentachlorobenzene	SVMS06	0.130	0.500	0.415	1.5
Pentachloroethane	SVMS06	0.150	0.500	0.296	1
Pentachloronitrobenzene	SVMS06	0.12	0.500	0.573	1.5
Pentachlorophenol	SVMS06	0.610	0.250	0.582	2.5
Phenanthrene	SVMS06	0.060	0.125	0.087	1.5
Phenol	SVMS06	0.040	0.125	0.110	1.5
Pyrene	SVMS06	0.110	0.125	0.077	2
Quinoline	SVMS06	0.130	0.500	0.396	1

Case Narrative

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW - SA Monitoring

TestAmerica Job ID: 600-95617-1

Job ID: 600-95617-1

Laboratory: TestAmerica Houston

Narrative

Job Narrative
600-95617-1

Comments

No additional comments.

Receipt

The samples were received on 7/18/2014 3:43 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 4 coolers at receipt time were 0.3° C, 0.3° C, 1.9° C and 2.1° C.

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Method Summary

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW - SA Monitoring

TestAmerica Job ID: 600-95617-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL HOU
8270C LL	Semivolatile Organic Compounds by GCMS - Low Levels	SW846	TAL HOU

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL HOU = TestAmerica Houston, 6310 Rothway Street, Houston, TX 77040, TEL (713)690-4444



Sample Summary

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW - SA Monitoring

TestAmerica Job ID: 600-95617-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
600-95617-1	WG-1620-MW48C-20140716	Water	07/16/14 13:15	07/18/14 15:43
600-95617-2	WG-1620-MW49A-20140716	Water	07/16/14 14:20	07/18/14 15:43
600-95617-3	WG-1620-MW49B-20140716	Water	07/16/14 15:10	07/18/14 15:43
600-95617-4	WG-1620-MW69A-20140716	Water	07/16/14 16:00	07/18/14 15:43
600-95617-5	WG-1620-MW60A-20140716	Water	07/16/14 17:00	07/18/14 15:43
600-95617-6	WG-1620-MW18A-20140716	Water	07/16/14 18:15	07/18/14 15:43
600-95617-7	WG-1620-MW18C-20140716	Water	07/16/14 19:10	07/18/14 15:43
600-95617-8	WG-1620-FB1-20140716	Water	07/16/14 19:20	07/18/14 15:43
600-95617-9	WG-1620-MW17C-20140717	Water	07/17/14 07:40	07/18/14 15:43
600-95617-10	WG-1620-MW17-20140717	Water	07/17/14 08:30	07/18/14 15:43
600-95617-11	WG-1620-MW15B-20140717	Water	07/17/14 09:30	07/18/14 15:43
600-95617-12	WG-1620-MW15C-20140717	Water	07/17/14 10:20	07/18/14 15:43
600-95617-13	WG-1620-MW15A-20140717	Water	07/17/14 11:20	07/18/14 15:43
600-95617-14	WG-1620-MW55B-20140717	Water	07/17/14 12:30	07/18/14 15:43
600-95617-15	WG-1620-MW55A-20140717	Water	07/17/14 13:20	07/18/14 15:43
600-95617-16	WG-1620-MW19C-20140717	Water	07/17/14 14:20	07/18/14 15:43
600-95617-17	WG-1620-FB2-20140717	Water	07/17/14 14:35	07/18/14 15:43

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW - SA Monitoring

TestAmerica Job ID: 600-95617-1

Client Sample ID: WG-1620-MW48C-20140716

Lab Sample ID: 600-95617-1

Date Collected: 07/16/14 13:15

Matrix: Water

Date Received: 07/18/14 15:43

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			07/18/14 15:42	1
Benzene	0.0000800	U	0.00100	0.0000800	mg/L			07/18/14 15:42	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			07/18/14 15:42	1
Toluene	0.000150	U	0.00100	0.000150	mg/L			07/18/14 15:42	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			07/18/14 15:42	1
Ethylbenzene	0.000110	U	0.00100	0.000110	mg/L			07/18/14 15:42	1
Xylenes, Total	0.000260	U	0.00300	0.000260	mg/L			07/18/14 15:42	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	98		67 - 139		07/18/14 15:42	1
Dibromofluoromethane	86		62 - 130		07/18/14 15:42	1
Toluene-d8 (Surr)	98		70 - 130		07/18/14 15:42	1
1,2-Dichloroethane-d4 (Surr)	84		50 - 134		07/18/14 15:42	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	0.0000755	U	0.000472	0.0000755	mg/L		07/22/14 14:46	07/23/14 15:06	1
2-Methylnaphthalene	0.0000660	U	0.000472	0.0000660	mg/L		07/22/14 14:46	07/23/14 15:06	1
Acenaphthylene	0.0000566	U	0.000472	0.0000566	mg/L		07/22/14 14:46	07/23/14 15:06	1
Acenaphthene	0.0000755	U	0.000472	0.0000755	mg/L		07/22/14 14:46	07/23/14 15:06	1
Dibenzofuran	0.0000755	U	0.000472	0.0000755	mg/L		07/22/14 14:46	07/23/14 15:06	1
Fluorene	0.0000660	U	0.000472	0.0000660	mg/L		07/22/14 14:46	07/23/14 15:06	1
Phenanthrene	0.0000566	U	0.000472	0.0000566	mg/L		07/22/14 14:46	07/23/14 15:06	1
Anthracene	0.0000472	U	0.000472	0.0000472	mg/L		07/22/14 14:46	07/23/14 15:06	1
Fluoranthene	0.0000660	U	0.000472	0.0000660	mg/L		07/22/14 14:46	07/23/14 15:06	1
Pyrene	0.000104	U	0.000472	0.000104	mg/L		07/22/14 14:46	07/23/14 15:06	1
Bis(2-ethylhexyl) phthalate	0.000349	U	0.000472	0.000349	mg/L		07/22/14 14:46	07/23/14 15:06	1
2,4-Dimethylphenol	0.000292	U	0.000472	0.000292	mg/L		07/22/14 14:46	07/23/14 15:06	1
Benzo[a]pyrene	0.0000755	U	0.000472	0.0000755	mg/L		07/22/14 14:46	07/23/14 15:06	1
Di-n-butyl phthalate	0.000104	U	0.000472	0.000104	mg/L		07/22/14 14:46	07/23/14 15:06	1
2,4-Dinitrotoluene	0.000123	U	0.000472	0.000123	mg/L		07/22/14 14:46	07/23/14 15:06	1
Nitrobenzene	0.000104	U	0.000472	0.000104	mg/L		07/22/14 14:46	07/23/14 15:06	1
Pentachlorophenol	0.000575	U	0.000943	0.000575	mg/L		07/22/14 14:46	07/23/14 15:06	1
4,6-Dinitro-2-methylphenol	0.000783	U	0.000943	0.000783	mg/L		07/22/14 14:46	07/23/14 15:06	1
N-Nitrosodiphenylamine	0.0000943	U	0.000472	0.0000943	mg/L		07/22/14 14:46	07/23/14 15:06	1
Benzo[a]anthracene	0.0000755	U	0.000472	0.0000755	mg/L		07/22/14 14:46	07/23/14 15:06	1
1,2-Diphenylhydrazine	0.000104	U	0.000472	0.000104	mg/L		07/22/14 14:46	07/23/14 15:06	1
Chrysene	0.0000755	U	0.000472	0.0000755	mg/L		07/22/14 14:46	07/23/14 15:06	1
4-Nitrophenol	0.000528	U	0.000943	0.000528	mg/L		07/22/14 14:46	07/23/14 15:06	1
2,6-Dinitrotoluene	0.0000755	U	0.000472	0.0000755	mg/L		07/22/14 14:46	07/23/14 15:06	1
Phenol	0.0000377	U	0.000472	0.0000377	mg/L		07/22/14 14:46	07/23/14 15:06	1
Bis(2-chloroethoxy)methane	0.000123	U	0.000472	0.000123	mg/L		07/22/14 14:46	07/23/14 15:06	1
2-Chloronaphthalene	0.0000755	U	0.000472	0.0000755	mg/L		07/22/14 14:46	07/23/14 15:06	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	47		10 - 147	07/22/14 14:46	07/23/14 15:06	1
2-Fluorobiphenyl	68		10 - 150	07/22/14 14:46	07/23/14 15:06	1
2-Fluorophenol	25		10 - 130	07/22/14 14:46	07/23/14 15:06	1
Nitrobenzene-d5	60		23 - 130	07/22/14 14:46	07/23/14 15:06	1
Terphenyl-d14	101		42 - 133	07/22/14 14:46	07/23/14 15:06	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW - SA Monitoring

TestAmerica Job ID: 600-95617-1

Client Sample ID: WG-1620-MW48C-20140716

Lab Sample ID: 600-95617-1

Date Collected: 07/16/14 13:15

Matrix: Water

Date Received: 07/18/14 15:43

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Phenol-d5 (Surr)	12		10 - 130	07/22/14 14:46	07/23/14 15:06	1

Client Sample ID: WG-1620-MW49A-20140716

Lab Sample ID: 600-95617-2

Date Collected: 07/16/14 14:20

Matrix: Water

Date Received: 07/18/14 15:43

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	0.00220	U	0.0400	0.00220	mg/L			07/18/14 16:39	20
Methylene Chloride	0.0212		0.0200	0.00300	mg/L			07/18/14 16:39	20
Benzene	0.108		0.0200	0.00160	mg/L			07/18/14 16:39	20
1,2-Dichloroethane	0.00280	U	0.0200	0.00280	mg/L			07/18/14 16:39	20
Toluene	0.0593		0.0200	0.00300	mg/L			07/18/14 16:39	20
Chlorobenzene	0.211		0.0200	0.00240	mg/L			07/18/14 16:39	20
Ethylbenzene	0.0701		0.0200	0.00220	mg/L			07/18/14 16:39	20
Xylenes, Total	0.157		0.0600	0.00520	mg/L			07/18/14 16:39	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	90		67 - 139		07/18/14 16:39	20
Dibromofluoromethane	86		62 - 130		07/18/14 16:39	20
Toluene-d8 (Surr)	101		70 - 130		07/18/14 16:39	20
1,2-Dichloroethane-d4 (Surr)	86		50 - 134		07/18/14 16:39	20

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylnaphthalene	0.293		0.0472	0.00660	mg/L		07/22/14 14:49	07/29/14 10:37	100
Acenaphthylene	0.00566	U	0.0472	0.00566	mg/L		07/22/14 14:49	07/29/14 10:37	100
Acenaphthene	0.126		0.0472	0.00755	mg/L		07/22/14 14:49	07/29/14 10:37	100
Dibenzofuran	0.0941		0.0472	0.00755	mg/L		07/22/14 14:49	07/29/14 10:37	100
Fluorene	0.0651		0.0472	0.00660	mg/L		07/22/14 14:49	07/29/14 10:37	100
Phenanthrene	0.0519		0.0472	0.00566	mg/L		07/22/14 14:49	07/29/14 10:37	100
Anthracene	0.00472	U	0.0472	0.00472	mg/L		07/22/14 14:49	07/29/14 10:37	100
Fluoranthene	0.00660	U	0.0472	0.00660	mg/L		07/22/14 14:49	07/29/14 10:37	100
Pyrene	0.0104	U	0.0472	0.0104	mg/L		07/22/14 14:49	07/29/14 10:37	100
Bis(2-ethylhexyl) phthalate	0.0349	U	0.0472	0.0349	mg/L		07/22/14 14:49	07/29/14 10:37	100
2,4-Dimethylphenol	1.23		0.0472	0.0292	mg/L		07/22/14 14:49	07/29/14 10:37	100
Benzo[a]pyrene	0.00755	U	0.0472	0.00755	mg/L		07/22/14 14:49	07/29/14 10:37	100
Di-n-butyl phthalate	0.0104	U	0.0472	0.0104	mg/L		07/22/14 14:49	07/29/14 10:37	100
2,4-Dinitrotoluene	0.0123	U	0.0472	0.0123	mg/L		07/22/14 14:49	07/29/14 10:37	100
Nitrobenzene	0.0104	U	0.0472	0.0104	mg/L		07/22/14 14:49	07/29/14 10:37	100
Pentachlorophenol	0.0575	U	0.0943	0.0575	mg/L		07/22/14 14:49	07/29/14 10:37	100
4,6-Dinitro-2-methylphenol	0.0783	U	0.0943	0.0783	mg/L		07/22/14 14:49	07/29/14 10:37	100
N-Nitrosodiphenylamine	0.00943	U	0.0472	0.00943	mg/L		07/22/14 14:49	07/29/14 10:37	100
Benzo[a]anthracene	0.00755	U	0.0472	0.00755	mg/L		07/22/14 14:49	07/29/14 10:37	100
1,2-Diphenylhydrazine	0.0104	U	0.0472	0.0104	mg/L		07/22/14 14:49	07/29/14 10:37	100
Chrysene	0.00755	U	0.0472	0.00755	mg/L		07/22/14 14:49	07/29/14 10:37	100
4-Nitrophenol	0.0528	U	0.0943	0.0528	mg/L		07/22/14 14:49	07/29/14 10:37	100
2,6-Dinitrotoluene	0.00755	U	0.0472	0.00755	mg/L		07/22/14 14:49	07/29/14 10:37	100
Phenol	0.00377	U	0.0472	0.00377	mg/L		07/22/14 14:49	07/29/14 10:37	100
Bis(2-chloroethoxy)methane	0.0123	U	0.0472	0.0123	mg/L		07/22/14 14:49	07/29/14 10:37	100

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW - SA Monitoring

TestAmerica Job ID: 600-95617-1

Client Sample ID: WG-1620-MW49A-20140716

Lab Sample ID: 600-95617-2

Date Collected: 07/16/14 14:20

Matrix: Water

Date Received: 07/18/14 15:43

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Chloronaphthalene	0.00755	U	0.0472	0.00755	mg/L		07/22/14 14:49	07/29/14 10:37	100
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	0	X	10 - 147				07/22/14 14:49	07/29/14 10:37	100
2-Fluorobiphenyl	0	X	10 - 150				07/22/14 14:49	07/29/14 10:37	100
2-Fluorophenol	0	X	10 - 130				07/22/14 14:49	07/29/14 10:37	100
Nitrobenzene-d5	0	X	23 - 130				07/22/14 14:49	07/29/14 10:37	100
Terphenyl-d14	0	X	42 - 133				07/22/14 14:49	07/29/14 10:37	100
Phenol-d5 (Surr)	0	X	10 - 130				07/22/14 14:49	07/29/14 10:37	100

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels - DL

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	5.13		0.236	0.0377	mg/L		07/22/14 14:49	07/29/14 16:27	500
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	0	X	10 - 147				07/22/14 14:49	07/29/14 16:27	500
2-Fluorobiphenyl	0	X	10 - 150				07/22/14 14:49	07/29/14 16:27	500
2-Fluorophenol	0	X	10 - 130				07/22/14 14:49	07/29/14 16:27	500
Nitrobenzene-d5	0	X	23 - 130				07/22/14 14:49	07/29/14 16:27	500
Terphenyl-d14	0	X	42 - 133				07/22/14 14:49	07/29/14 16:27	500
Phenol-d5 (Surr)	0	X	10 - 130				07/22/14 14:49	07/29/14 16:27	500

Client Sample ID: WG-1620-MW49B-20140716

Lab Sample ID: 600-95617-3

Date Collected: 07/16/14 15:10

Matrix: Water

Date Received: 07/18/14 15:43

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	0.00220	U	0.0400	0.00220	mg/L			07/18/14 17:07	20
Methylene Chloride	0.0212		0.0200	0.00300	mg/L			07/18/14 17:07	20
Benzene	0.346		0.0200	0.00160	mg/L			07/18/14 17:07	20
1,2-Dichloroethane	0.00280	U	0.0200	0.00280	mg/L			07/18/14 17:07	20
Toluene	0.310		0.0200	0.00300	mg/L			07/18/14 17:07	20
Chlorobenzene	0.00240	U	0.0200	0.00240	mg/L			07/18/14 17:07	20
Ethylbenzene	0.0847		0.0200	0.00220	mg/L			07/18/14 17:07	20
Xylenes, Total	0.249		0.0600	0.00520	mg/L			07/18/14 17:07	20
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	90		67 - 139					07/18/14 17:07	20
Dibromofluoromethane	84		62 - 130					07/18/14 17:07	20
Toluene-d8 (Surr)	90		70 - 130					07/18/14 17:07	20
1,2-Dichloroethane-d4 (Surr)	84		50 - 134					07/18/14 17:07	20

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylnaphthalene	0.276		0.00943	0.00132	mg/L		07/22/14 14:49	07/29/14 11:06	20
Acenaphthylene	0.00432	J	0.00943	0.00113	mg/L		07/22/14 14:49	07/29/14 11:06	20
Acenaphthene	0.117		0.00943	0.00151	mg/L		07/22/14 14:49	07/29/14 11:06	20
Dibenzofuran	0.0800		0.00943	0.00151	mg/L		07/22/14 14:49	07/29/14 11:06	20
Fluorene	0.0633		0.00943	0.00132	mg/L		07/22/14 14:49	07/29/14 11:06	20
Phenanthrene	0.0458		0.00943	0.00113	mg/L		07/22/14 14:49	07/29/14 11:06	20

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW - SA Monitoring

TestAmerica Job ID: 600-95617-1

Client Sample ID: WG-1620-MW49B-20140716

Lab Sample ID: 600-95617-3

Date Collected: 07/16/14 15:10

Matrix: Water

Date Received: 07/18/14 15:43

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	0.0130		0.00943	0.000943	mg/L		07/22/14 14:49	07/29/14 11:06	20
Fluoranthene	0.00456	J	0.00943	0.00132	mg/L		07/22/14 14:49	07/29/14 11:06	20
Pyrene	0.00208	U	0.00943	0.00208	mg/L		07/22/14 14:49	07/29/14 11:06	20
Bis(2-ethylhexyl) phthalate	0.00698	U	0.00943	0.00698	mg/L		07/22/14 14:49	07/29/14 11:06	20
Benzo[a]pyrene	0.00151	U	0.00943	0.00151	mg/L		07/22/14 14:49	07/29/14 11:06	20
Di-n-butyl phthalate	0.00208	U	0.00943	0.00208	mg/L		07/22/14 14:49	07/29/14 11:06	20
2,4-Dinitrotoluene	0.00245	U	0.00943	0.00245	mg/L		07/22/14 14:49	07/29/14 11:06	20
Nitrobenzene	0.00208	U	0.00943	0.00208	mg/L		07/22/14 14:49	07/29/14 11:06	20
Pentachlorophenol	0.0115	U	0.0189	0.0115	mg/L		07/22/14 14:49	07/29/14 11:06	20
4,6-Dinitro-2-methylphenol	0.0157	U	0.0189	0.0157	mg/L		07/22/14 14:49	07/29/14 11:06	20
N-Nitrosodiphenylamine	0.00189	U	0.00943	0.00189	mg/L		07/22/14 14:49	07/29/14 11:06	20
Benzo[a]anthracene	0.00151	U	0.00943	0.00151	mg/L		07/22/14 14:49	07/29/14 11:06	20
1,2-Diphenylhydrazine	0.00208	U	0.00943	0.00208	mg/L		07/22/14 14:49	07/29/14 11:06	20
Chrysene	0.00151	U	0.00943	0.00151	mg/L		07/22/14 14:49	07/29/14 11:06	20
4-Nitrophenol	0.0106	U	0.0189	0.0106	mg/L		07/22/14 14:49	07/29/14 11:06	20
2,6-Dinitrotoluene	0.00151	U	0.00943	0.00151	mg/L		07/22/14 14:49	07/29/14 11:06	20
Phenol	0.0145		0.00943	0.000755	mg/L		07/22/14 14:49	07/29/14 11:06	20
Bis(2-chloroethoxy)methane	0.00245	U	0.00943	0.00245	mg/L		07/22/14 14:49	07/29/14 11:06	20
2-Chloronaphthalene	0.00151	U	0.00943	0.00151	mg/L		07/22/14 14:49	07/29/14 11:06	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	0	X	10 - 147	07/22/14 14:49	07/29/14 11:06	20
2-Fluorobiphenyl	0	X	10 - 150	07/22/14 14:49	07/29/14 11:06	20
2-Fluorophenol	0	X	10 - 130	07/22/14 14:49	07/29/14 11:06	20
Nitrobenzene-d5	0	X	23 - 130	07/22/14 14:49	07/29/14 11:06	20
Terphenyl-d14	0	X	42 - 133	07/22/14 14:49	07/29/14 11:06	20
Phenol-d5 (Surr)	0	X	10 - 130	07/22/14 14:49	07/29/14 11:06	20

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels - DL

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	5.57		0.472	0.0755	mg/L		07/22/14 14:49	08/02/14 02:10	1000
2,4-Dimethylphenol	13.6		0.472	0.292	mg/L		07/22/14 14:49	08/02/14 02:10	1000

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	0	X	10 - 147	07/22/14 14:49	08/02/14 02:10	1000
2-Fluorobiphenyl	0	X	10 - 150	07/22/14 14:49	08/02/14 02:10	1000
2-Fluorophenol	0	X	10 - 130	07/22/14 14:49	08/02/14 02:10	1000
Nitrobenzene-d5	0	X	23 - 130	07/22/14 14:49	08/02/14 02:10	1000
Terphenyl-d14	0	X	42 - 133	07/22/14 14:49	08/02/14 02:10	1000
Phenol-d5 (Surr)	0	X	10 - 130	07/22/14 14:49	08/02/14 02:10	1000

Client Sample ID: WG-1620-MW69A-20140716

Lab Sample ID: 600-95617-4

Date Collected: 07/16/14 16:00

Matrix: Water

Date Received: 07/18/14 15:43

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	0.000110	U	0.00200	0.000110	mg/L			07/18/14 16:10	1
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			07/18/14 16:10	1
Benzene	0.0000800	U	0.00100	0.0000800	mg/L			07/18/14 16:10	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW - SA Monitoring

TestAmerica Job ID: 600-95617-1

Client Sample ID: WG-1620-MW69A-20140716

Lab Sample ID: 600-95617-4

Date Collected: 07/16/14 16:00

Matrix: Water

Date Received: 07/18/14 15:43

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			07/18/14 16:10	1
Toluene	0.000150	U	0.00100	0.000150	mg/L			07/18/14 16:10	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			07/18/14 16:10	1
Ethylbenzene	0.000110	U	0.00100	0.000110	mg/L			07/18/14 16:10	1
Xylenes, Total	0.000260	U	0.00300	0.000260	mg/L			07/18/14 16:10	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	106		67 - 139					07/18/14 16:10	1
Dibromofluoromethane	88		62 - 130					07/18/14 16:10	1
Toluene-d8 (Surr)	97		70 - 130					07/18/14 16:10	1
1,2-Dichloroethane-d4 (Surr)	86		50 - 134					07/18/14 16:10	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	0.000155	J	0.000472	0.0000755	mg/L		07/23/14 05:45	07/24/14 12:12	1
2-Methylnaphthalene	0.0000660	U	0.000472	0.0000660	mg/L		07/23/14 05:45	07/24/14 12:12	1
Acenaphthylene	0.0000566	U	0.000472	0.0000566	mg/L		07/23/14 05:45	07/24/14 12:12	1
Acenaphthene	0.0000755	U	0.000472	0.0000755	mg/L		07/23/14 05:45	07/24/14 12:12	1
Dibenzofuran	0.0000755	U	0.000472	0.0000755	mg/L		07/23/14 05:45	07/24/14 12:12	1
Fluorene	0.0000660	U	0.000472	0.0000660	mg/L		07/23/14 05:45	07/24/14 12:12	1
Phenanthrene	0.0000566	U	0.000472	0.0000566	mg/L		07/23/14 05:45	07/24/14 12:12	1
Anthracene	0.0000472	U	0.000472	0.0000472	mg/L		07/23/14 05:45	07/24/14 12:12	1
Fluoranthene	0.0000660	U	0.000472	0.0000660	mg/L		07/23/14 05:45	07/24/14 12:12	1
Pyrene	0.000104	U	0.000472	0.000104	mg/L		07/23/14 05:45	07/24/14 12:12	1
Bis(2-ethylhexyl) phthalate	0.000349	U	0.000472	0.000349	mg/L		07/23/14 05:45	07/24/14 12:12	1
2,4-Dimethylphenol	0.000292	U	0.000472	0.000292	mg/L		07/23/14 05:45	07/24/14 12:12	1
Benzo[a]pyrene	0.0000755	U	0.000472	0.0000755	mg/L		07/23/14 05:45	07/24/14 12:12	1
Di-n-butyl phthalate	0.000104	U	0.000472	0.000104	mg/L		07/23/14 05:45	07/24/14 12:12	1
2,4-Dinitrotoluene	0.000123	U	0.000472	0.000123	mg/L		07/23/14 05:45	07/24/14 12:12	1
Nitrobenzene	0.000104	U	0.000472	0.000104	mg/L		07/23/14 05:45	07/24/14 12:12	1
Pentachlorophenol	0.000575	U	0.000943	0.000575	mg/L		07/23/14 05:45	07/24/14 12:12	1
4,6-Dinitro-2-methylphenol	0.000783	U	0.000943	0.000783	mg/L		07/23/14 05:45	07/24/14 12:12	1
N-Nitrosodiphenylamine	0.0000943	U	0.000472	0.0000943	mg/L		07/23/14 05:45	07/24/14 12:12	1
Benzo[a]anthracene	0.0000755	U	0.000472	0.0000755	mg/L		07/23/14 05:45	07/24/14 12:12	1
1,2-Diphenylhydrazine	0.000104	U	0.000472	0.000104	mg/L		07/23/14 05:45	07/24/14 12:12	1
Chrysene	0.0000755	U	0.000472	0.0000755	mg/L		07/23/14 05:45	07/24/14 12:12	1
4-Nitrophenol	0.000528	U	0.000943	0.000528	mg/L		07/23/14 05:45	07/24/14 12:12	1
2,6-Dinitrotoluene	0.0000755	U	0.000472	0.0000755	mg/L		07/23/14 05:45	07/24/14 12:12	1
Phenol	0.0000377	U	0.000472	0.0000377	mg/L		07/23/14 05:45	07/24/14 12:12	1
Bis(2-chloroethoxy)methane	0.000123	U	0.000472	0.000123	mg/L		07/23/14 05:45	07/24/14 12:12	1
2-Chloronaphthalene	0.0000755	U	0.000472	0.0000755	mg/L		07/23/14 05:45	07/24/14 12:12	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	76		10 - 147				07/23/14 05:45	07/24/14 12:12	1
2-Fluorobiphenyl	62		10 - 150				07/23/14 05:45	07/24/14 12:12	1
2-Fluorophenol	31		10 - 130				07/23/14 05:45	07/24/14 12:12	1
Nitrobenzene-d5	61		23 - 130				07/23/14 05:45	07/24/14 12:12	1
Terphenyl-d14	89		42 - 133				07/23/14 05:45	07/24/14 12:12	1
Phenol-d5 (Surr)	15		10 - 130				07/23/14 05:45	07/24/14 12:12	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW - SA Monitoring

TestAmerica Job ID: 600-95617-1

Client Sample ID: WG-1620-MW60A-20140716

Lab Sample ID: 600-95617-5

Date Collected: 07/16/14 17:00

Matrix: Water

Date Received: 07/18/14 15:43

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	0.000110	U	0.00200	0.000110	mg/L			07/18/14 17:35	1
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			07/18/14 17:35	1
Benzene	0.0000800	U	0.00100	0.0000800	mg/L			07/18/14 17:35	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			07/18/14 17:35	1
Toluene	0.000150	U	0.00100	0.000150	mg/L			07/18/14 17:35	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			07/18/14 17:35	1
Ethylbenzene	0.000110	U	0.00100	0.000110	mg/L			07/18/14 17:35	1
Xylenes, Total	0.000260	U	0.00300	0.000260	mg/L			07/18/14 17:35	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	93		67 - 139					07/18/14 17:35	1
Dibromofluoromethane	79		62 - 130					07/18/14 17:35	1
Toluene-d8 (Surr)	95		70 - 130					07/18/14 17:35	1
1,2-Dichloroethane-d4 (Surr)	78		50 - 134					07/18/14 17:35	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	0.00653		0.000472	0.0000755	mg/L		07/23/14 05:45	07/24/14 12:41	1
2-Methylnaphthalene	0.000516		0.000472	0.0000660	mg/L		07/23/14 05:45	07/24/14 12:41	1
Acenaphthylene	0.0000566	U	0.000472	0.0000566	mg/L		07/23/14 05:45	07/24/14 12:41	1
Acenaphthene	0.000167	J	0.000472	0.0000755	mg/L		07/23/14 05:45	07/24/14 12:41	1
Dibenzofuran	0.000116	J	0.000472	0.0000755	mg/L		07/23/14 05:45	07/24/14 12:41	1
Fluorene	0.0000660	U	0.000472	0.0000660	mg/L		07/23/14 05:45	07/24/14 12:41	1
Phenanthrene	0.0000566	U	0.000472	0.0000566	mg/L		07/23/14 05:45	07/24/14 12:41	1
Anthracene	0.0000472	U	0.000472	0.0000472	mg/L		07/23/14 05:45	07/24/14 12:41	1
Fluoranthene	0.0000660	U	0.000472	0.0000660	mg/L		07/23/14 05:45	07/24/14 12:41	1
Pyrene	0.000104	U	0.000472	0.000104	mg/L		07/23/14 05:45	07/24/14 12:41	1
Bis(2-ethylhexyl) phthalate	0.000349	U	0.000472	0.000349	mg/L		07/23/14 05:45	07/24/14 12:41	1
2,4-Dimethylphenol	0.000292	U	0.000472	0.000292	mg/L		07/23/14 05:45	07/24/14 12:41	1
Benzo[a]pyrene	0.0000755	U	0.000472	0.0000755	mg/L		07/23/14 05:45	07/24/14 12:41	1
Di-n-butyl phthalate	0.000104	U	0.000472	0.000104	mg/L		07/23/14 05:45	07/24/14 12:41	1
2,4-Dinitrotoluene	0.000123	U	0.000472	0.000123	mg/L		07/23/14 05:45	07/24/14 12:41	1
Nitrobenzene	0.000104	U	0.000472	0.000104	mg/L		07/23/14 05:45	07/24/14 12:41	1
Pentachlorophenol	0.000575	U	0.000943	0.000575	mg/L		07/23/14 05:45	07/24/14 12:41	1
4,6-Dinitro-2-methylphenol	0.000783	U	0.000943	0.000783	mg/L		07/23/14 05:45	07/24/14 12:41	1
N-Nitrosodiphenylamine	0.0000943	U	0.000472	0.0000943	mg/L		07/23/14 05:45	07/24/14 12:41	1
Benzo[a]anthracene	0.0000755	U	0.000472	0.0000755	mg/L		07/23/14 05:45	07/24/14 12:41	1
1,2-Diphenylhydrazine	0.000104	U	0.000472	0.000104	mg/L		07/23/14 05:45	07/24/14 12:41	1
Chrysene	0.0000755	U	0.000472	0.0000755	mg/L		07/23/14 05:45	07/24/14 12:41	1
4-Nitrophenol	0.000528	U	0.000943	0.000528	mg/L		07/23/14 05:45	07/24/14 12:41	1
2,6-Dinitrotoluene	0.0000755	U	0.000472	0.0000755	mg/L		07/23/14 05:45	07/24/14 12:41	1
Phenol	0.0000377	U	0.000472	0.0000377	mg/L		07/23/14 05:45	07/24/14 12:41	1
Bis(2-chloroethoxy)methane	0.000123	U	0.000472	0.000123	mg/L		07/23/14 05:45	07/24/14 12:41	1
2-Chloronaphthalene	0.0000755	U	0.000472	0.0000755	mg/L		07/23/14 05:45	07/24/14 12:41	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	73		10 - 147				07/23/14 05:45	07/24/14 12:41	1
2-Fluorobiphenyl	69		10 - 150				07/23/14 05:45	07/24/14 12:41	1
2-Fluorophenol	29		10 - 130				07/23/14 05:45	07/24/14 12:41	1
Nitrobenzene-d5	61		23 - 130				07/23/14 05:45	07/24/14 12:41	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW - SA Monitoring

TestAmerica Job ID: 600-95617-1

Client Sample ID: WG-1620-MW60A-20140716

Lab Sample ID: 600-95617-5

Date Collected: 07/16/14 17:00

Matrix: Water

Date Received: 07/18/14 15:43

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Terphenyl-d14	92		42 - 133	07/23/14 05:45	07/24/14 12:41	1
Phenol-d5 (Surr)	14		10 - 130	07/23/14 05:45	07/24/14 12:41	1

Client Sample ID: WG-1620-MW18A-20140716

Lab Sample ID: 600-95617-6

Date Collected: 07/16/14 18:15

Matrix: Water

Date Received: 07/18/14 15:43

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	0.0200	J	0.0400	0.00220	mg/L			07/18/14 19:01	20
Methylene Chloride	0.0138	J	0.0200	0.00300	mg/L			07/18/14 19:01	20
Benzene	0.483		0.0200	0.00160	mg/L			07/18/14 19:01	20
1,2-Dichloroethane	0.00482	J	0.0200	0.00280	mg/L			07/18/14 19:01	20
Toluene	0.416		0.0200	0.00300	mg/L			07/18/14 19:01	20
Chlorobenzene	0.00240	U	0.0200	0.00240	mg/L			07/18/14 19:01	20
Ethylbenzene	0.692		0.0200	0.00220	mg/L			07/18/14 19:01	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	103		67 - 139		07/18/14 19:01	20
Dibromofluoromethane	86		62 - 130		07/18/14 19:01	20
Toluene-d8 (Surr)	96		70 - 130		07/18/14 19:01	20
1,2-Dichloroethane-d4 (Surr)	85		50 - 134		07/18/14 19:01	20

Method: 8260B - Volatile Organic Compounds (GC/MS) - DL

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Xylenes, Total	1.30		0.300	0.0260	mg/L			07/23/14 15:13	100

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	103		67 - 139		07/23/14 15:13	100
Dibromofluoromethane	88		62 - 130		07/23/14 15:13	100
Toluene-d8 (Surr)	102		70 - 130		07/23/14 15:13	100
1,2-Dichloroethane-d4 (Surr)	90		50 - 134		07/23/14 15:13	100

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylnaphthalene	0.589		0.0236	0.00330	mg/L		07/23/14 05:45	07/24/14 19:58	50
Acenaphthylene	0.0155	J	0.0236	0.00283	mg/L		07/23/14 05:45	07/24/14 19:58	50
Acenaphthene	0.352		0.0236	0.00377	mg/L		07/23/14 05:45	07/24/14 19:58	50
Dibenzofuran	0.204		0.0236	0.00377	mg/L		07/23/14 05:45	07/24/14 19:58	50
Fluorene	0.163		0.0236	0.00330	mg/L		07/23/14 05:45	07/24/14 19:58	50
Phenanthrene	0.114		0.0236	0.00283	mg/L		07/23/14 05:45	07/24/14 19:58	50
Anthracene	0.0192	J	0.0236	0.00236	mg/L		07/23/14 05:45	07/24/14 19:58	50
Fluoranthene	0.00330	U	0.0236	0.00330	mg/L		07/23/14 05:45	07/24/14 19:58	50
Pyrene	0.00519	U	0.0236	0.00519	mg/L		07/23/14 05:45	07/24/14 19:58	50
Bis(2-ethylhexyl) phthalate	0.0175	U	0.0236	0.0175	mg/L		07/23/14 05:45	07/24/14 19:58	50
Benzo[a]pyrene	0.00377	U	0.0236	0.00377	mg/L		07/23/14 05:45	07/24/14 19:58	50
Di-n-butyl phthalate	0.00519	U	0.0236	0.00519	mg/L		07/23/14 05:45	07/24/14 19:58	50
2,4-Dinitrotoluene	0.00613	U	0.0236	0.00613	mg/L		07/23/14 05:45	07/24/14 19:58	50
Nitrobenzene	0.00519	U	0.0236	0.00519	mg/L		07/23/14 05:45	07/24/14 19:58	50
Pentachlorophenol	0.0288	U	0.0472	0.0288	mg/L		07/23/14 05:45	07/24/14 19:58	50

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW - SA Monitoring

TestAmerica Job ID: 600-95617-1

Client Sample ID: WG-1620-MW18A-20140716

Lab Sample ID: 600-95617-6

Date Collected: 07/16/14 18:15

Matrix: Water

Date Received: 07/18/14 15:43

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
4,6-Dinitro-2-methylphenol	0.0392	U	0.0472	0.0392	mg/L		07/23/14 05:45	07/24/14 19:58	50
N-Nitrosodiphenylamine	0.00472	U	0.0236	0.00472	mg/L		07/23/14 05:45	07/24/14 19:58	50
Benzo[a]anthracene	0.00377	U	0.0236	0.00377	mg/L		07/23/14 05:45	07/24/14 19:58	50
1,2-Diphenylhydrazine	0.00519	U	0.0236	0.00519	mg/L		07/23/14 05:45	07/24/14 19:58	50
Chrysene	0.00377	U	0.0236	0.00377	mg/L		07/23/14 05:45	07/24/14 19:58	50
4-Nitrophenol	0.0264	U	0.0472	0.0264	mg/L		07/23/14 05:45	07/24/14 19:58	50
2,6-Dinitrotoluene	0.00377	U	0.0236	0.00377	mg/L		07/23/14 05:45	07/24/14 19:58	50
Phenol	0.00189	U	0.0236	0.00189	mg/L		07/23/14 05:45	07/24/14 19:58	50
Bis(2-chloroethoxy)methane	0.00613	U	0.0236	0.00613	mg/L		07/23/14 05:45	07/24/14 19:58	50
2-Chloronaphthalene	0.00377	U	0.0236	0.00377	mg/L		07/23/14 05:45	07/24/14 19:58	50

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	0	X	10 - 147	07/23/14 05:45	07/24/14 19:58	50
2-Fluorobiphenyl	0	X	10 - 150	07/23/14 05:45	07/24/14 19:58	50
2-Fluorophenol	0	X	10 - 130	07/23/14 05:45	07/24/14 19:58	50
Nitrobenzene-d5	0	X	23 - 130	07/23/14 05:45	07/24/14 19:58	50
Terphenyl-d14	0	X	42 - 133	07/23/14 05:45	07/24/14 19:58	50
Phenol-d5 (Surr)	0	X	10 - 130	07/23/14 05:45	07/24/14 19:58	50

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels - DL

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	5.27		0.236	0.0377	mg/L		07/23/14 05:45	07/26/14 03:07	500
2,4-Dimethylphenol	8.01		0.236	0.146	mg/L		07/23/14 05:45	07/26/14 03:07	500

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	0	X	10 - 147	07/23/14 05:45	07/26/14 03:07	500
2-Fluorobiphenyl	0	X	10 - 150	07/23/14 05:45	07/26/14 03:07	500
2-Fluorophenol	0	X	10 - 130	07/23/14 05:45	07/26/14 03:07	500
Nitrobenzene-d5	0	X	23 - 130	07/23/14 05:45	07/26/14 03:07	500
Terphenyl-d14	0	X	42 - 133	07/23/14 05:45	07/26/14 03:07	500
Phenol-d5 (Surr)	0	X	10 - 130	07/23/14 05:45	07/26/14 03:07	500

Client Sample ID: WG-1620-MW18C-20140716

Lab Sample ID: 600-95617-7

Date Collected: 07/16/14 19:10

Matrix: Water

Date Received: 07/18/14 15:43

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	0.00220	U	0.0400	0.00220	mg/L			07/18/14 19:29	20
Methylene Chloride	0.0161	J	0.0200	0.00300	mg/L			07/18/14 19:29	20
1,2-Dichloroethane	0.00280	U	0.0200	0.00280	mg/L			07/18/14 19:29	20
Chlorobenzene	0.00240	U	0.0200	0.00240	mg/L			07/18/14 19:29	20
Ethylbenzene	0.309		0.0200	0.00220	mg/L			07/18/14 19:29	20
Xylenes, Total	1.36		0.0600	0.00520	mg/L			07/18/14 19:29	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	92		67 - 139		07/18/14 19:29	20
Dibromofluoromethane	87		62 - 130		07/18/14 19:29	20
Toluene-d8 (Surr)	93		70 - 130		07/18/14 19:29	20
1,2-Dichloroethane-d4 (Surr)	84		50 - 134		07/18/14 19:29	20

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW - SA Monitoring

TestAmerica Job ID: 600-95617-1

Client Sample ID: WG-1620-MW18C-20140716

Lab Sample ID: 600-95617-7

Date Collected: 07/16/14 19:10

Matrix: Water

Date Received: 07/18/14 15:43

Method: 8260B - Volatile Organic Compounds (GC/MS) - DL

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	1.45		0.200	0.0160	mg/L			07/23/14 15:42	200
Toluene	0.986		0.200	0.0300	mg/L			07/23/14 15:42	200
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	102		67 - 139					07/23/14 15:42	200
Dibromofluoromethane	88		62 - 130					07/23/14 15:42	200
Toluene-d8 (Surr)	98		70 - 130					07/23/14 15:42	200
1,2-Dichloroethane-d4 (Surr)	92		50 - 134					07/23/14 15:42	200

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylnaphthalene	0.778		0.0236	0.00330	mg/L		07/23/14 05:45	07/24/14 20:27	50
Acenaphthylene	0.00283	U	0.0236	0.00283	mg/L		07/23/14 05:45	07/24/14 20:27	50
Acenaphthene	0.246		0.0236	0.00377	mg/L		07/23/14 05:45	07/24/14 20:27	50
Dibenzofuran	0.207		0.0236	0.00377	mg/L		07/23/14 05:45	07/24/14 20:27	50
Fluorene	0.116		0.0236	0.00330	mg/L		07/23/14 05:45	07/24/14 20:27	50
Phenanthrene	0.122		0.0236	0.00283	mg/L		07/23/14 05:45	07/24/14 20:27	50
Anthracene	0.0280		0.0236	0.00236	mg/L		07/23/14 05:45	07/24/14 20:27	50
Fluoranthene	0.00957	J	0.0236	0.00330	mg/L		07/23/14 05:45	07/24/14 20:27	50
Pyrene	0.00571	J	0.0236	0.00519	mg/L		07/23/14 05:45	07/24/14 20:27	50
Bis(2-ethylhexyl) phthalate	0.0175	U	0.0236	0.0175	mg/L		07/23/14 05:45	07/24/14 20:27	50
2,4-Dimethylphenol	0.0325		0.0236	0.0146	mg/L		07/23/14 05:45	07/24/14 20:27	50
Benzo[a]pyrene	0.00377	U	0.0236	0.00377	mg/L		07/23/14 05:45	07/24/14 20:27	50
Di-n-butyl phthalate	0.00519	U	0.0236	0.00519	mg/L		07/23/14 05:45	07/24/14 20:27	50
2,4-Dinitrotoluene	0.00613	U	0.0236	0.00613	mg/L		07/23/14 05:45	07/24/14 20:27	50
Nitrobenzene	0.00519	U	0.0236	0.00519	mg/L		07/23/14 05:45	07/24/14 20:27	50
Pentachlorophenol	0.164		0.0472	0.0288	mg/L		07/23/14 05:45	07/24/14 20:27	50
4,6-Dinitro-2-methylphenol	0.0392	U	0.0472	0.0392	mg/L		07/23/14 05:45	07/24/14 20:27	50
N-Nitrosodiphenylamine	0.00472	U	0.0236	0.00472	mg/L		07/23/14 05:45	07/24/14 20:27	50
Benzo[a]anthracene	0.00377	U	0.0236	0.00377	mg/L		07/23/14 05:45	07/24/14 20:27	50
1,2-Diphenylhydrazine	0.00519	U	0.0236	0.00519	mg/L		07/23/14 05:45	07/24/14 20:27	50
Chrysene	0.00377	U	0.0236	0.00377	mg/L		07/23/14 05:45	07/24/14 20:27	50
4-Nitrophenol	0.0264	U	0.0472	0.0264	mg/L		07/23/14 05:45	07/24/14 20:27	50
2,6-Dinitrotoluene	0.00377	U	0.0236	0.00377	mg/L		07/23/14 05:45	07/24/14 20:27	50
Phenol	0.0285		0.0236	0.00189	mg/L		07/23/14 05:45	07/24/14 20:27	50
Bis(2-chloroethoxy)methane	0.00613	U	0.0236	0.00613	mg/L		07/23/14 05:45	07/24/14 20:27	50
2-Chloronaphthalene	0.00377	U	0.0236	0.00377	mg/L		07/23/14 05:45	07/24/14 20:27	50
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	0	X	10 - 147				07/23/14 05:45	07/24/14 20:27	50
2-Fluorobiphenyl	0	X	10 - 150				07/23/14 05:45	07/24/14 20:27	50
2-Fluorophenol	0	X	10 - 130				07/23/14 05:45	07/24/14 20:27	50
Nitrobenzene-d5	0	X	23 - 130				07/23/14 05:45	07/24/14 20:27	50
Terphenyl-d14	0	X	42 - 133				07/23/14 05:45	07/24/14 20:27	50
Phenol-d5 (Surr)	0	X	10 - 130				07/23/14 05:45	07/24/14 20:27	50

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels - DL

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	14.7		0.472	0.0755	mg/L		07/23/14 05:45	07/26/14 03:36	1000

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW - SA Monitoring

TestAmerica Job ID: 600-95617-1

Client Sample ID: WG-1620-MW18C-20140716

Lab Sample ID: 600-95617-7

Date Collected: 07/16/14 19:10

Matrix: Water

Date Received: 07/18/14 15:43

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	0	X	10 - 147	07/23/14 05:45	07/26/14 03:36	1000
2-Fluorobiphenyl	0	X	10 - 150	07/23/14 05:45	07/26/14 03:36	1000
2-Fluorophenol	0	X	10 - 130	07/23/14 05:45	07/26/14 03:36	1000
Nitrobenzene-d5	0	X	23 - 130	07/23/14 05:45	07/26/14 03:36	1000
Terphenyl-d14	0	X	42 - 133	07/23/14 05:45	07/26/14 03:36	1000
Phenol-d5 (Surr)	0	X	10 - 130	07/23/14 05:45	07/26/14 03:36	1000

Client Sample ID: WG-1620-FB1-20140716

Lab Sample ID: 600-95617-8

Date Collected: 07/16/14 19:20

Matrix: Water

Date Received: 07/18/14 15:43

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			07/18/14 18:04	1
Benzene	0.0000800	U	0.00100	0.0000800	mg/L			07/18/14 18:04	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			07/18/14 18:04	1
Toluene	0.000150	U	0.00100	0.000150	mg/L			07/18/14 18:04	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			07/18/14 18:04	1
Ethylbenzene	0.000110	U	0.00100	0.000110	mg/L			07/18/14 18:04	1
Xylenes, Total	0.000260	U	0.00300	0.000260	mg/L			07/18/14 18:04	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	111		67 - 139		07/18/14 18:04	1
Dibromofluoromethane	101		62 - 130		07/18/14 18:04	1
Toluene-d8 (Surr)	104		70 - 130		07/18/14 18:04	1
1,2-Dichloroethane-d4 (Surr)	95		50 - 134		07/18/14 18:04	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	0.00112		0.000472	0.0000755	mg/L		07/23/14 05:45	07/24/14 14:08	1
2-Methylnaphthalene	0.0000660	U	0.000472	0.0000660	mg/L		07/23/14 05:45	07/24/14 14:08	1
Acenaphthylene	0.0000566	U	0.000472	0.0000566	mg/L		07/23/14 05:45	07/24/14 14:08	1
Acenaphthene	0.0000755	U	0.000472	0.0000755	mg/L		07/23/14 05:45	07/24/14 14:08	1
Dibenzofuran	0.0000755	U	0.000472	0.0000755	mg/L		07/23/14 05:45	07/24/14 14:08	1
Fluorene	0.0000660	U	0.000472	0.0000660	mg/L		07/23/14 05:45	07/24/14 14:08	1
Phenanthrene	0.0000566	U	0.000472	0.0000566	mg/L		07/23/14 05:45	07/24/14 14:08	1
Anthracene	0.0000472	U	0.000472	0.0000472	mg/L		07/23/14 05:45	07/24/14 14:08	1
Fluoranthene	0.0000660	U	0.000472	0.0000660	mg/L		07/23/14 05:45	07/24/14 14:08	1
Pyrene	0.000104	U	0.000472	0.000104	mg/L		07/23/14 05:45	07/24/14 14:08	1
Bis(2-ethylhexyl) phthalate	0.000349	U	0.000472	0.000349	mg/L		07/23/14 05:45	07/24/14 14:08	1
2,4-Dimethylphenol	0.000292	U	0.000472	0.000292	mg/L		07/23/14 05:45	07/24/14 14:08	1
Benzo[a]pyrene	0.0000755	U	0.000472	0.0000755	mg/L		07/23/14 05:45	07/24/14 14:08	1
Di-n-butyl phthalate	0.000104	U	0.000472	0.000104	mg/L		07/23/14 05:45	07/24/14 14:08	1
2,4-Dinitrotoluene	0.000123	U	0.000472	0.000123	mg/L		07/23/14 05:45	07/24/14 14:08	1
Nitrobenzene	0.000104	U	0.000472	0.000104	mg/L		07/23/14 05:45	07/24/14 14:08	1
Pentachlorophenol	0.000575	U	0.000943	0.000575	mg/L		07/23/14 05:45	07/24/14 14:08	1
4,6-Dinitro-2-methylphenol	0.000783	U	0.000943	0.000783	mg/L		07/23/14 05:45	07/24/14 14:08	1
N-Nitrosodiphenylamine	0.0000943	U	0.000472	0.0000943	mg/L		07/23/14 05:45	07/24/14 14:08	1
Benzo[a]anthracene	0.0000755	U	0.000472	0.0000755	mg/L		07/23/14 05:45	07/24/14 14:08	1
1,2-Diphenylhydrazine	0.000104	U	0.000472	0.000104	mg/L		07/23/14 05:45	07/24/14 14:08	1
Chrysene	0.0000755	U	0.000472	0.0000755	mg/L		07/23/14 05:45	07/24/14 14:08	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW - SA Monitoring

TestAmerica Job ID: 600-95617-1

Client Sample ID: WG-1620-FB1-20140716

Lab Sample ID: 600-95617-8

Date Collected: 07/16/14 19:20

Matrix: Water

Date Received: 07/18/14 15:43

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Nitrophenol	0.000528	U	0.000943	0.000528	mg/L		07/23/14 05:45	07/24/14 14:08	1
2,6-Dinitrotoluene	0.0000755	U	0.000472	0.0000755	mg/L		07/23/14 05:45	07/24/14 14:08	1
Phenol	0.0000377	U	0.000472	0.0000377	mg/L		07/23/14 05:45	07/24/14 14:08	1
Bis(2-chloroethoxy)methane	0.000123	U	0.000472	0.000123	mg/L		07/23/14 05:45	07/24/14 14:08	1
2-Chloronaphthalene	0.0000755	U	0.000472	0.0000755	mg/L		07/23/14 05:45	07/24/14 14:08	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	82		10 - 147				07/23/14 05:45	07/24/14 14:08	1
2-Fluorobiphenyl	73		10 - 150				07/23/14 05:45	07/24/14 14:08	1
2-Fluorophenol	35		10 - 130				07/23/14 05:45	07/24/14 14:08	1
Nitrobenzene-d5	69		23 - 130				07/23/14 05:45	07/24/14 14:08	1
Terphenyl-d14	93		42 - 133				07/23/14 05:45	07/24/14 14:08	1
Phenol-d5 (Surr)	16		10 - 130				07/23/14 05:45	07/24/14 14:08	1

Client Sample ID: WG-1620-MW17C-20140717

Lab Sample ID: 600-95617-9

Date Collected: 07/17/14 07:40

Matrix: Water

Date Received: 07/18/14 15:43

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			07/18/14 18:32	1
Benzene	0.0132		0.00100	0.0000800	mg/L			07/18/14 18:32	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			07/18/14 18:32	1
Toluene	0.00730		0.00100	0.000150	mg/L			07/18/14 18:32	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			07/18/14 18:32	1
Ethylbenzene	0.0374		0.00100	0.000110	mg/L			07/18/14 18:32	1
Xylenes, Total	0.0482		0.00300	0.000260	mg/L			07/18/14 18:32	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	91		67 - 139					07/18/14 18:32	1
Dibromofluoromethane	86		62 - 130					07/18/14 18:32	1
Toluene-d8 (Surr)	97		70 - 130					07/18/14 18:32	1
1,2-Dichloroethane-d4 (Surr)	84		50 - 134					07/18/14 18:32	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	0.772		0.0236	0.00377	mg/L		07/23/14 05:45	07/24/14 20:56	50
2-Methylnaphthalene	0.0203	J	0.0236	0.00330	mg/L		07/23/14 05:45	07/24/14 20:56	50
Acenaphthylene	0.00283	U	0.0236	0.00283	mg/L		07/23/14 05:45	07/24/14 20:56	50
Acenaphthene	0.0299		0.0236	0.00377	mg/L		07/23/14 05:45	07/24/14 20:56	50
Dibenzofuran	0.0255		0.0236	0.00377	mg/L		07/23/14 05:45	07/24/14 20:56	50
Fluorene	0.0118	J	0.0236	0.00330	mg/L		07/23/14 05:45	07/24/14 20:56	50
Phenanthrene	0.0122	J	0.0236	0.00283	mg/L		07/23/14 05:45	07/24/14 20:56	50
Anthracene	0.00236	U	0.0236	0.00236	mg/L		07/23/14 05:45	07/24/14 20:56	50
Fluoranthene	0.00330	U	0.0236	0.00330	mg/L		07/23/14 05:45	07/24/14 20:56	50
Pyrene	0.00519	U	0.0236	0.00519	mg/L		07/23/14 05:45	07/24/14 20:56	50
Bis(2-ethylhexyl) phthalate	0.0175	U	0.0236	0.0175	mg/L		07/23/14 05:45	07/24/14 20:56	50
Benzo[a]pyrene	0.00377	U	0.0236	0.00377	mg/L		07/23/14 05:45	07/24/14 20:56	50
Di-n-butyl phthalate	0.00519	U	0.0236	0.00519	mg/L		07/23/14 05:45	07/24/14 20:56	50
2,4-Dinitrotoluene	0.00613	U	0.0236	0.00613	mg/L		07/23/14 05:45	07/24/14 20:56	50

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW - SA Monitoring

TestAmerica Job ID: 600-95617-1

Client Sample ID: WG-1620-MW17C-20140717

Lab Sample ID: 600-95617-9

Date Collected: 07/17/14 07:40

Matrix: Water

Date Received: 07/18/14 15:43

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrobenzene	0.00519	U	0.0236	0.00519	mg/L		07/23/14 05:45	07/24/14 20:56	50
Pentachlorophenol	0.0288	U	0.0472	0.0288	mg/L		07/23/14 05:45	07/24/14 20:56	50
4,6-Dinitro-2-methylphenol	0.0392	U	0.0472	0.0392	mg/L		07/23/14 05:45	07/24/14 20:56	50
N-Nitrosodiphenylamine	0.00472	U	0.0236	0.00472	mg/L		07/23/14 05:45	07/24/14 20:56	50
Benzo[a]anthracene	0.00377	U	0.0236	0.00377	mg/L		07/23/14 05:45	07/24/14 20:56	50
1,2-Diphenylhydrazine	0.00519	U	0.0236	0.00519	mg/L		07/23/14 05:45	07/24/14 20:56	50
Chrysene	0.00377	U	0.0236	0.00377	mg/L		07/23/14 05:45	07/24/14 20:56	50
4-Nitrophenol	0.0264	U	0.0472	0.0264	mg/L		07/23/14 05:45	07/24/14 20:56	50
2,6-Dinitrotoluene	0.00377	U	0.0236	0.00377	mg/L		07/23/14 05:45	07/24/14 20:56	50
Bis(2-chloroethoxy)methane	0.00613	U	0.0236	0.00613	mg/L		07/23/14 05:45	07/24/14 20:56	50
2-Chloronaphthalene	0.00377	U	0.0236	0.00377	mg/L		07/23/14 05:45	07/24/14 20:56	50
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	0	X	10 - 147				07/23/14 05:45	07/24/14 20:56	50
2-Fluorobiphenyl	0	X	10 - 150				07/23/14 05:45	07/24/14 20:56	50
2-Fluorophenol	0	X	10 - 130				07/23/14 05:45	07/24/14 20:56	50
Nitrobenzene-d5	0	X	23 - 130				07/23/14 05:45	07/24/14 20:56	50
Terphenyl-d14	0	X	42 - 133				07/23/14 05:45	07/24/14 20:56	50
Phenol-d5 (Surr)	0	X	10 - 130				07/23/14 05:45	07/24/14 20:56	50

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels - DL

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-Dimethylphenol	7.09		0.472	0.292	mg/L		07/23/14 05:45	08/02/14 02:37	1000
Phenol	8.33		0.472	0.0377	mg/L		07/23/14 05:45	08/02/14 02:37	1000
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	0	X*	10 - 147				07/23/14 05:45	08/02/14 02:37	1000
2-Fluorobiphenyl	0	X	10 - 150				07/23/14 05:45	08/02/14 02:37	1000
2-Fluorophenol	0	X	10 - 130				07/23/14 05:45	08/02/14 02:37	1000
Nitrobenzene-d5	0	X	23 - 130				07/23/14 05:45	08/02/14 02:37	1000
Terphenyl-d14	0	X	42 - 133				07/23/14 05:45	08/02/14 02:37	1000
Phenol-d5 (Surr)	0	X	10 - 130				07/23/14 05:45	08/02/14 02:37	1000

Client Sample ID: WG-1620-MW17-20140717

Lab Sample ID: 600-95617-10

Date Collected: 07/17/14 08:30

Matrix: Water

Date Received: 07/18/14 15:43

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	0.0187	J	0.0200	0.00300	mg/L			07/18/14 23:16	20
Benzene	0.576		0.0200	0.00160	mg/L			07/18/14 23:16	20
1,2-Dichloroethane	0.00280	U	0.0200	0.00280	mg/L			07/18/14 23:16	20
Toluene	0.930		0.0200	0.00300	mg/L			07/18/14 23:16	20
Chlorobenzene	0.00240	U	0.0200	0.00240	mg/L			07/18/14 23:16	20
Ethylbenzene	0.209		0.0200	0.00220	mg/L			07/18/14 23:16	20
Xylenes, Total	0.641		0.0600	0.00520	mg/L			07/18/14 23:16	20
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	102		67 - 139					07/18/14 23:16	20
Dibromofluoromethane	90		62 - 130					07/18/14 23:16	20
Toluene-d8 (Surr)	89		70 - 130					07/18/14 23:16	20

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW - SA Monitoring

TestAmerica Job ID: 600-95617-1

Client Sample ID: WG-1620-MW17-20140717

Lab Sample ID: 600-95617-10

Date Collected: 07/17/14 08:30

Matrix: Water

Date Received: 07/18/14 15:43

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	90		50 - 134		07/18/14 23:16	20

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylnaphthalene	0.636		0.0236	0.00330	mg/L		07/23/14 05:45	07/24/14 21:25	50
Acenaphthylene	0.00283	U	0.0236	0.00283	mg/L		07/23/14 05:45	07/24/14 21:25	50
Acenaphthene	0.195		0.0236	0.00377	mg/L		07/23/14 05:45	07/24/14 21:25	50
Dibenzofuran	0.148		0.0236	0.00377	mg/L		07/23/14 05:45	07/24/14 21:25	50
Fluorene	0.0943		0.0236	0.00330	mg/L		07/23/14 05:45	07/24/14 21:25	50
Phenanthrene	0.0725		0.0236	0.00283	mg/L		07/23/14 05:45	07/24/14 21:25	50
Anthracene	0.0202	J	0.0236	0.00236	mg/L		07/23/14 05:45	07/24/14 21:25	50
Fluoranthene	0.00429	J	0.0236	0.00330	mg/L		07/23/14 05:45	07/24/14 21:25	50
Pyrene	0.00519	U	0.0236	0.00519	mg/L		07/23/14 05:45	07/24/14 21:25	50
Bis(2-ethylhexyl) phthalate	0.0175	U	0.0236	0.0175	mg/L		07/23/14 05:45	07/24/14 21:25	50
Benzo[a]pyrene	0.00377	U	0.0236	0.00377	mg/L		07/23/14 05:45	07/24/14 21:25	50
Di-n-butyl phthalate	0.00519	U	0.0236	0.00519	mg/L		07/23/14 05:45	07/24/14 21:25	50
2,4-Dinitrotoluene	0.00613	U	0.0236	0.00613	mg/L		07/23/14 05:45	07/24/14 21:25	50
Nitrobenzene	0.00519	U	0.0236	0.00519	mg/L		07/23/14 05:45	07/24/14 21:25	50
Pentachlorophenol	0.0288	U	0.0472	0.0288	mg/L		07/23/14 05:45	07/24/14 21:25	50
4,6-Dinitro-2-methylphenol	0.0392	U	0.0472	0.0392	mg/L		07/23/14 05:45	07/24/14 21:25	50
N-Nitrosodiphenylamine	0.00472	U	0.0236	0.00472	mg/L		07/23/14 05:45	07/24/14 21:25	50
Benzo[a]anthracene	0.00377	U	0.0236	0.00377	mg/L		07/23/14 05:45	07/24/14 21:25	50
1,2-Diphenylhydrazine	0.00519	U	0.0236	0.00519	mg/L		07/23/14 05:45	07/24/14 21:25	50
Chrysene	0.00377	U	0.0236	0.00377	mg/L		07/23/14 05:45	07/24/14 21:25	50
4-Nitrophenol	0.0264	U	0.0472	0.0264	mg/L		07/23/14 05:45	07/24/14 21:25	50
2,6-Dinitrotoluene	0.00377	U	0.0236	0.00377	mg/L		07/23/14 05:45	07/24/14 21:25	50
Bis(2-chloroethoxy)methane	0.00613	U	0.0236	0.00613	mg/L		07/23/14 05:45	07/24/14 21:25	50
2-Chloronaphthalene	0.00377	U	0.0236	0.00377	mg/L		07/23/14 05:45	07/24/14 21:25	50

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	0	X	10 - 147	07/23/14 05:45	07/24/14 21:25	50
2-Fluorobiphenyl	0	X	10 - 150	07/23/14 05:45	07/24/14 21:25	50
2-Fluorophenol	0	X	10 - 130	07/23/14 05:45	07/24/14 21:25	50
Nitrobenzene-d5	0	X	23 - 130	07/23/14 05:45	07/24/14 21:25	50
Terphenyl-d14	0	X	42 - 133	07/23/14 05:45	07/24/14 21:25	50
Phenol-d5 (Surr)	0	X	10 - 130	07/23/14 05:45	07/24/14 21:25	50

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels - DL

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	15.4		0.472	0.0755	mg/L		07/23/14 05:45	08/02/14 03:04	1000
2,4-Dimethylphenol	13.9		0.472	0.292	mg/L		07/23/14 05:45	08/02/14 03:04	1000
Phenol	18.1		0.472	0.0377	mg/L		07/23/14 05:45	08/02/14 03:04	1000

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	0	X	10 - 147	07/23/14 05:45	08/02/14 03:04	1000
2-Fluorobiphenyl	0	X	10 - 150	07/23/14 05:45	08/02/14 03:04	1000
2-Fluorophenol	0	X	10 - 130	07/23/14 05:45	08/02/14 03:04	1000
Nitrobenzene-d5	0	X	23 - 130	07/23/14 05:45	08/02/14 03:04	1000
Terphenyl-d14	0	X	42 - 133	07/23/14 05:45	08/02/14 03:04	1000
Phenol-d5 (Surr)	0	X	10 - 130	07/23/14 05:45	08/02/14 03:04	1000

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW - SA Monitoring

TestAmerica Job ID: 600-95617-1

Client Sample ID: WG-1620-MW15B-20140717

Lab Sample ID: 600-95617-11

Date Collected: 07/17/14 09:30

Matrix: Water

Date Received: 07/18/14 15:43

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			07/18/14 20:26	1
Benzene	0.00292		0.00100	0.0000800	mg/L			07/18/14 20:26	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			07/18/14 20:26	1
Toluene	0.000150	U	0.00100	0.000150	mg/L			07/18/14 20:26	1
Chlorobenzene	0.000136	J	0.00100	0.000120	mg/L			07/18/14 20:26	1
Ethylbenzene	0.00903		0.00100	0.000110	mg/L			07/18/14 20:26	1
Xylenes, Total	0.00464		0.00300	0.000260	mg/L			07/18/14 20:26	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	95		67 - 139		07/18/14 20:26	1
Dibromofluoromethane	86		62 - 130		07/18/14 20:26	1
Toluene-d8 (Surr)	93		70 - 130		07/18/14 20:26	1
1,2-Dichloroethane-d4 (Surr)	87		50 - 134		07/18/14 20:26	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylnaphthalene	0.00622		0.000472	0.0000660	mg/L		07/23/14 05:45	07/24/14 15:36	1
Acenaphthylene	0.0000566	U	0.000472	0.0000566	mg/L		07/23/14 05:45	07/24/14 15:36	1
Fluorene	0.0231		0.000472	0.0000660	mg/L		07/23/14 05:45	07/24/14 15:36	1
Phenanthrene	0.0204		0.000472	0.0000566	mg/L		07/23/14 05:45	07/24/14 15:36	1
Anthracene	0.00517		0.000472	0.0000472	mg/L		07/23/14 05:45	07/24/14 15:36	1
Fluoranthene	0.00736		0.000472	0.0000660	mg/L		07/23/14 05:45	07/24/14 15:36	1
Pyrene	0.00406		0.000472	0.000104	mg/L		07/23/14 05:45	07/24/14 15:36	1
Bis(2-ethylhexyl) phthalate	0.000548		0.000472	0.000349	mg/L		07/23/14 05:45	07/24/14 15:36	1
2,4-Dimethylphenol	0.000292	U	0.000472	0.000292	mg/L		07/23/14 05:45	07/24/14 15:36	1
Benzo[a]pyrene	0.0000755	U	0.000472	0.0000755	mg/L		07/23/14 05:45	07/24/14 15:36	1
Di-n-butyl phthalate	0.000104	U	0.000472	0.000104	mg/L		07/23/14 05:45	07/24/14 15:36	1
2,4-Dinitrotoluene	0.000123	U	0.000472	0.000123	mg/L		07/23/14 05:45	07/24/14 15:36	1
Nitrobenzene	0.000104	U	0.000472	0.000104	mg/L		07/23/14 05:45	07/24/14 15:36	1
Pentachlorophenol	0.000575	U	0.000943	0.000575	mg/L		07/23/14 05:45	07/24/14 15:36	1
4,6-Dinitro-2-methylphenol	0.000783	U	0.000943	0.000783	mg/L		07/23/14 05:45	07/24/14 15:36	1
N-Nitrosodiphenylamine	0.0000943	U	0.000472	0.0000943	mg/L		07/23/14 05:45	07/24/14 15:36	1
Benzo[a]anthracene	0.000310	J	0.000472	0.0000755	mg/L		07/23/14 05:45	07/24/14 15:36	1
1,2-Diphenylhydrazine	0.000104	U	0.000472	0.000104	mg/L		07/23/14 05:45	07/24/14 15:36	1
Chrysene	0.000228	J	0.000472	0.0000755	mg/L		07/23/14 05:45	07/24/14 15:36	1
4-Nitrophenol	0.000528	U	0.000943	0.000528	mg/L		07/23/14 05:45	07/24/14 15:36	1
2,6-Dinitrotoluene	0.0000755	U	0.000472	0.0000755	mg/L		07/23/14 05:45	07/24/14 15:36	1
Phenol	0.00112		0.000472	0.0000377	mg/L		07/23/14 05:45	07/24/14 15:36	1
Bis(2-chloroethoxy)methane	0.000123	U	0.000472	0.000123	mg/L		07/23/14 05:45	07/24/14 15:36	1
2-Chloronaphthalene	0.0000755	U	0.000472	0.0000755	mg/L		07/23/14 05:45	07/24/14 15:36	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	103		10 - 147	07/23/14 05:45	07/24/14 15:36	1
2-Fluorobiphenyl	71		10 - 150	07/23/14 05:45	07/24/14 15:36	1
2-Fluorophenol	35		10 - 130	07/23/14 05:45	07/24/14 15:36	1
Nitrobenzene-d5	74		23 - 130	07/23/14 05:45	07/24/14 15:36	1
Terphenyl-d14	94		42 - 133	07/23/14 05:45	07/24/14 15:36	1
Phenol-d5 (Surr)	17		10 - 130	07/23/14 05:45	07/24/14 15:36	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW - SA Monitoring

TestAmerica Job ID: 600-95617-1

Client Sample ID: WG-1620-MW15B-20140717

Lab Sample ID: 600-95617-11

Date Collected: 07/17/14 09:30

Matrix: Water

Date Received: 07/18/14 15:43

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels - DL

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	0.452		0.00943	0.00151	mg/L		07/23/14 05:45	07/26/14 00:44	20
Acenaphthene	0.0653		0.00943	0.00151	mg/L		07/23/14 05:45	07/26/14 00:44	20
Dibenzofuran	0.0272		0.00943	0.00151	mg/L		07/23/14 05:45	07/26/14 00:44	20
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	0	X	10 - 147				07/23/14 05:45	07/26/14 00:44	20
2-Fluorobiphenyl	0	X	10 - 150				07/23/14 05:45	07/26/14 00:44	20
2-Fluorophenol	0	X	10 - 130				07/23/14 05:45	07/26/14 00:44	20
Nitrobenzene-d5	0	X	23 - 130				07/23/14 05:45	07/26/14 00:44	20
Terphenyl-d14	0	X	42 - 133				07/23/14 05:45	07/26/14 00:44	20
Phenol-d5 (Surr)	0	X	10 - 130				07/23/14 05:45	07/26/14 00:44	20

Client Sample ID: WG-1620-MW15C-20140717

Lab Sample ID: 600-95617-12

Date Collected: 07/17/14 10:20

Matrix: Water

Date Received: 07/18/14 15:43

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			07/18/14 20:54	1
Benzene	0.000781	J	0.00100	0.0000800	mg/L			07/18/14 20:54	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			07/18/14 20:54	1
Toluene	0.000190	J	0.00100	0.000150	mg/L			07/18/14 20:54	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			07/18/14 20:54	1
Ethylbenzene	0.000219	J	0.00100	0.000110	mg/L			07/18/14 20:54	1
Xylenes, Total	0.000392	J	0.00300	0.000260	mg/L			07/18/14 20:54	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	101		67 - 139					07/18/14 20:54	1
Dibromofluoromethane	91		62 - 130					07/18/14 20:54	1
Toluene-d8 (Surr)	93		70 - 130					07/18/14 20:54	1
1,2-Dichloroethane-d4 (Surr)	91		50 - 134					07/18/14 20:54	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	0.000748		0.000472	0.0000755	mg/L		07/23/14 05:45	07/24/14 16:05	1
2-Methylnaphthalene	0.0000660	U	0.000472	0.0000660	mg/L		07/23/14 05:45	07/24/14 16:05	1
Acenaphthylene	0.00342		0.000472	0.0000566	mg/L		07/23/14 05:45	07/24/14 16:05	1
Dibenzofuran	0.0102		0.000472	0.0000755	mg/L		07/23/14 05:45	07/24/14 16:05	1
Fluorene	0.00135		0.000472	0.0000660	mg/L		07/23/14 05:45	07/24/14 16:05	1
Phenanthrene	0.0000566	U	0.000472	0.0000566	mg/L		07/23/14 05:45	07/24/14 16:05	1
Anthracene	0.000315	J	0.000472	0.0000472	mg/L		07/23/14 05:45	07/24/14 16:05	1
Fluoranthene	0.000763		0.000472	0.0000660	mg/L		07/23/14 05:45	07/24/14 16:05	1
Pyrene	0.000430	J	0.000472	0.000104	mg/L		07/23/14 05:45	07/24/14 16:05	1
Bis(2-ethylhexyl) phthalate	0.000526		0.000472	0.000349	mg/L		07/23/14 05:45	07/24/14 16:05	1
2,4-Dimethylphenol	0.000292	U	0.000472	0.000292	mg/L		07/23/14 05:45	07/24/14 16:05	1
Benzo[a]pyrene	0.0000755	U	0.000472	0.0000755	mg/L		07/23/14 05:45	07/24/14 16:05	1
Di-n-butyl phthalate	0.000104	U	0.000472	0.000104	mg/L		07/23/14 05:45	07/24/14 16:05	1
2,4-Dinitrotoluene	0.000123	U	0.000472	0.000123	mg/L		07/23/14 05:45	07/24/14 16:05	1
Nitrobenzene	0.000104	U	0.000472	0.000104	mg/L		07/23/14 05:45	07/24/14 16:05	1
Pentachlorophenol	0.000575	U	0.000943	0.000575	mg/L		07/23/14 05:45	07/24/14 16:05	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW - SA Monitoring

TestAmerica Job ID: 600-95617-1

Client Sample ID: WG-1620-MW15C-20140717

Lab Sample ID: 600-95617-12

Date Collected: 07/17/14 10:20

Matrix: Water

Date Received: 07/18/14 15:43

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
4,6-Dinitro-2-methylphenol	0.000783	U	0.000943	0.000783	mg/L		07/23/14 05:45	07/24/14 16:05	1
N-Nitrosodiphenylamine	0.0000943	U	0.000472	0.0000943	mg/L		07/23/14 05:45	07/24/14 16:05	1
Benzo[a]anthracene	0.0000755	U	0.000472	0.0000755	mg/L		07/23/14 05:45	07/24/14 16:05	1
1,2-Diphenylhydrazine	0.000104	U	0.000472	0.000104	mg/L		07/23/14 05:45	07/24/14 16:05	1
Chrysene	0.0000755	U	0.000472	0.0000755	mg/L		07/23/14 05:45	07/24/14 16:05	1
4-Nitrophenol	0.000528	U	0.000943	0.000528	mg/L		07/23/14 05:45	07/24/14 16:05	1
2,6-Dinitrotoluene	0.0000755	U	0.000472	0.0000755	mg/L		07/23/14 05:45	07/24/14 16:05	1
Phenol	0.0000377	U	0.000472	0.0000377	mg/L		07/23/14 05:45	07/24/14 16:05	1
Bis(2-chloroethoxy)methane	0.000123	U	0.000472	0.000123	mg/L		07/23/14 05:45	07/24/14 16:05	1
2-Chloronaphthalene	0.0000755	U	0.000472	0.0000755	mg/L		07/23/14 05:45	07/24/14 16:05	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	95		10 - 147	07/23/14 05:45	07/24/14 16:05	1
2-Fluorobiphenyl	64		10 - 150	07/23/14 05:45	07/24/14 16:05	1
2-Fluorophenol	32		10 - 130	07/23/14 05:45	07/24/14 16:05	1
Nitrobenzene-d5	62		23 - 130	07/23/14 05:45	07/24/14 16:05	1
Terphenyl-d14	91		42 - 133	07/23/14 05:45	07/24/14 16:05	1
Phenol-d5 (Surr)	15		10 - 130	07/23/14 05:45	07/24/14 16:05	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels - DL

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	0.0455		0.00472	0.000755	mg/L		07/23/14 05:45	07/26/14 01:12	10

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	0	X	10 - 147	07/23/14 05:45	07/26/14 01:12	10
2-Fluorobiphenyl	67		10 - 150	07/23/14 05:45	07/26/14 01:12	10
2-Fluorophenol	0	X	10 - 130	07/23/14 05:45	07/26/14 01:12	10
Nitrobenzene-d5	62		23 - 130	07/23/14 05:45	07/26/14 01:12	10
Terphenyl-d14	61		42 - 133	07/23/14 05:45	07/26/14 01:12	10
Phenol-d5 (Surr)	0	X	10 - 130	07/23/14 05:45	07/26/14 01:12	10

Client Sample ID: WG-1620-MW15A-20140717

Lab Sample ID: 600-95617-13

Date Collected: 07/17/14 11:20

Matrix: Water

Date Received: 07/18/14 15:43

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			07/18/14 21:22	1
Benzene	0.00161		0.00100	0.0000800	mg/L			07/18/14 21:22	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			07/18/14 21:22	1
Toluene	0.000595	J	0.00100	0.000150	mg/L			07/18/14 21:22	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			07/18/14 21:22	1
Ethylbenzene	0.00101		0.00100	0.000110	mg/L			07/18/14 21:22	1
Xylenes, Total	0.00854		0.00300	0.000260	mg/L			07/18/14 21:22	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	102		67 - 139		07/18/14 21:22	1
Dibromofluoromethane	91		62 - 130		07/18/14 21:22	1
Toluene-d8 (Surr)	96		70 - 130		07/18/14 21:22	1
1,2-Dichloroethane-d4 (Surr)	91		50 - 134		07/18/14 21:22	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW - SA Monitoring

TestAmerica Job ID: 600-95617-1

Client Sample ID: WG-1620-MW15A-20140717

Lab Sample ID: 600-95617-13

Date Collected: 07/17/14 11:20

Matrix: Water

Date Received: 07/18/14 15:43

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthylene	0.0000566	U	0.000472	0.0000566	mg/L		07/23/14 05:45	07/24/14 16:34	1
Phenanthrene	0.0203		0.000472	0.0000566	mg/L		07/23/14 05:45	07/24/14 16:34	1
Anthracene	0.00642		0.000472	0.0000472	mg/L		07/23/14 05:45	07/24/14 16:34	1
Fluoranthene	0.00257		0.000472	0.0000660	mg/L		07/23/14 05:45	07/24/14 16:34	1
Pyrene	0.00101		0.000472	0.000104	mg/L		07/23/14 05:45	07/24/14 16:34	1
Bis(2-ethylhexyl) phthalate	0.000349	U	0.000472	0.000349	mg/L		07/23/14 05:45	07/24/14 16:34	1
2,4-Dimethylphenol	0.000292	U	0.000472	0.000292	mg/L		07/23/14 05:45	07/24/14 16:34	1
Benzo[a]pyrene	0.0000755	U	0.000472	0.0000755	mg/L		07/23/14 05:45	07/24/14 16:34	1
Di-n-butyl phthalate	0.000104	U	0.000472	0.000104	mg/L		07/23/14 05:45	07/24/14 16:34	1
2,4-Dinitrotoluene	0.000123	U	0.000472	0.000123	mg/L		07/23/14 05:45	07/24/14 16:34	1
Nitrobenzene	0.000104	U	0.000472	0.000104	mg/L		07/23/14 05:45	07/24/14 16:34	1
Pentachlorophenol	0.000575	U	0.000943	0.000575	mg/L		07/23/14 05:45	07/24/14 16:34	1
4,6-Dinitro-2-methylphenol	0.000783	U	0.000943	0.000783	mg/L		07/23/14 05:45	07/24/14 16:34	1
N-Nitrosodiphenylamine	0.0000943	U	0.000472	0.0000943	mg/L		07/23/14 05:45	07/24/14 16:34	1
Benzo[a]anthracene	0.0000755	U	0.000472	0.0000755	mg/L		07/23/14 05:45	07/24/14 16:34	1
1,2-Diphenylhydrazine	0.000104	U	0.000472	0.000104	mg/L		07/23/14 05:45	07/24/14 16:34	1
Chrysene	0.0000755	U	0.000472	0.0000755	mg/L		07/23/14 05:45	07/24/14 16:34	1
4-Nitrophenol	0.000528	U	0.000943	0.000528	mg/L		07/23/14 05:45	07/24/14 16:34	1
2,6-Dinitrotoluene	0.0000755	U	0.000472	0.0000755	mg/L		07/23/14 05:45	07/24/14 16:34	1
Phenol	0.0000377	U	0.000472	0.0000377	mg/L		07/23/14 05:45	07/24/14 16:34	1
Bis(2-chloroethoxy)methane	0.000123	U	0.000472	0.000123	mg/L		07/23/14 05:45	07/24/14 16:34	1
2-Chloronaphthalene	0.0000755	U	0.000472	0.0000755	mg/L		07/23/14 05:45	07/24/14 16:34	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	101		10 - 147	07/23/14 05:45	07/24/14 16:34	1
2-Fluorobiphenyl	76		10 - 150	07/23/14 05:45	07/24/14 16:34	1
2-Fluorophenol	38		10 - 130	07/23/14 05:45	07/24/14 16:34	1
Nitrobenzene-d5	71		23 - 130	07/23/14 05:45	07/24/14 16:34	1
Terphenyl-d14	90		42 - 133	07/23/14 05:45	07/24/14 16:34	1
Phenol-d5 (Surr)	18		10 - 130	07/23/14 05:45	07/24/14 16:34	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels - DL

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	0.248		0.00943	0.00151	mg/L		07/23/14 05:45	07/26/14 01:41	20
2-Methylnaphthalene	0.0590		0.00943	0.00132	mg/L		07/23/14 05:45	07/26/14 01:41	20
Acenaphthene	0.205		0.00943	0.00151	mg/L		07/23/14 05:45	07/26/14 01:41	20
Dibenzofuran	0.0572		0.00943	0.00151	mg/L		07/23/14 05:45	07/26/14 01:41	20
Fluorene	0.0822		0.00943	0.00132	mg/L		07/23/14 05:45	07/26/14 01:41	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	0	X	10 - 147	07/23/14 05:45	07/26/14 01:41	20
2-Fluorobiphenyl	0	X	10 - 150	07/23/14 05:45	07/26/14 01:41	20
2-Fluorophenol	0	X	10 - 130	07/23/14 05:45	07/26/14 01:41	20
Nitrobenzene-d5	0	X	23 - 130	07/23/14 05:45	07/26/14 01:41	20
Terphenyl-d14	0	X	42 - 133	07/23/14 05:45	07/26/14 01:41	20
Phenol-d5 (Surr)	0	X	10 - 130	07/23/14 05:45	07/26/14 01:41	20

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW - SA Monitoring

TestAmerica Job ID: 600-95617-1

Client Sample ID: WG-1620-MW55B-20140717

Lab Sample ID: 600-95617-14

Date Collected: 07/17/14 12:30

Matrix: Water

Date Received: 07/18/14 15:43

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	0.0155	J	0.0200	0.00300	mg/L			07/18/14 22:19	20
Benzene	0.846		0.0200	0.00160	mg/L			07/18/14 22:19	20
1,2-Dichloroethane	0.00280	U	0.0200	0.00280	mg/L			07/18/14 22:19	20
Toluene	0.591		0.0200	0.00300	mg/L			07/18/14 22:19	20
Chlorobenzene	0.00240	U	0.0200	0.00240	mg/L			07/18/14 22:19	20
Ethylbenzene	0.126		0.0200	0.00220	mg/L			07/18/14 22:19	20
Xylenes, Total	0.443		0.0600	0.00520	mg/L			07/18/14 22:19	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	100		67 - 139		07/18/14 22:19	20
Dibromofluoromethane	88		62 - 130		07/18/14 22:19	20
Toluene-d8 (Surr)	94		70 - 130		07/18/14 22:19	20
1,2-Dichloroethane-d4 (Surr)	87		50 - 134		07/18/14 22:19	20

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylnaphthalene	0.512		0.0590	0.00825	mg/L		07/23/14 05:45	07/24/14 17:03	50
Acenaphthylene	0.00708	U	0.0590	0.00708	mg/L		07/23/14 05:45	07/24/14 17:03	50
Acenaphthene	0.190		0.0590	0.00943	mg/L		07/23/14 05:45	07/24/14 17:03	50
Dibenzofuran	0.138		0.0590	0.00943	mg/L		07/23/14 05:45	07/24/14 17:03	50
Fluorene	0.0816		0.0590	0.00825	mg/L		07/23/14 05:45	07/24/14 17:03	50
Phenanthrene	0.100		0.0590	0.00708	mg/L		07/23/14 05:45	07/24/14 17:03	50
Anthracene	0.0270	J	0.0590	0.00590	mg/L		07/23/14 05:45	07/24/14 17:03	50
Fluoranthene	0.0119	J	0.0590	0.00825	mg/L		07/23/14 05:45	07/24/14 17:03	50
Pyrene	0.0130	U	0.0590	0.0130	mg/L		07/23/14 05:45	07/24/14 17:03	50
Bis(2-ethylhexyl) phthalate	0.0436	U	0.0590	0.0436	mg/L		07/23/14 05:45	07/24/14 17:03	50
Benzo[a]pyrene	0.00943	U	0.0590	0.00943	mg/L		07/23/14 05:45	07/24/14 17:03	50
Di-n-butyl phthalate	0.0130	U	0.0590	0.0130	mg/L		07/23/14 05:45	07/24/14 17:03	50
2,4-Dinitrotoluene	0.0153	U	0.0590	0.0153	mg/L		07/23/14 05:45	07/24/14 17:03	50
Nitrobenzene	0.0130	U	0.0590	0.0130	mg/L		07/23/14 05:45	07/24/14 17:03	50
Pentachlorophenol	0.0719	U	0.118	0.0719	mg/L		07/23/14 05:45	07/24/14 17:03	50
4,6-Dinitro-2-methylphenol	0.0979	U	0.118	0.0979	mg/L		07/23/14 05:45	07/24/14 17:03	50
N-Nitrosodiphenylamine	0.0118	U	0.0590	0.0118	mg/L		07/23/14 05:45	07/24/14 17:03	50
Benzo[a]anthracene	0.00943	U	0.0590	0.00943	mg/L		07/23/14 05:45	07/24/14 17:03	50
1,2-Diphenylhydrazine	0.0130	U	0.0590	0.0130	mg/L		07/23/14 05:45	07/24/14 17:03	50
Chrysene	0.00943	U	0.0590	0.00943	mg/L		07/23/14 05:45	07/24/14 17:03	50
4-Nitrophenol	0.0660	U	0.118	0.0660	mg/L		07/23/14 05:45	07/24/14 17:03	50
2,6-Dinitrotoluene	0.00943	U	0.0590	0.00943	mg/L		07/23/14 05:45	07/24/14 17:03	50
Bis(2-chloroethoxy)methane	0.0153	U	0.0590	0.0153	mg/L		07/23/14 05:45	07/24/14 17:03	50
2-Chloronaphthalene	0.00943	U	0.0590	0.00943	mg/L		07/23/14 05:45	07/24/14 17:03	50

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	0	X	10 - 147	07/23/14 05:45	07/24/14 17:03	50
2-Fluorobiphenyl	0	X	10 - 150	07/23/14 05:45	07/24/14 17:03	50
2-Fluorophenol	0	X	10 - 130	07/23/14 05:45	07/24/14 17:03	50
Nitrobenzene-d5	0	X	23 - 130	07/23/14 05:45	07/24/14 17:03	50
Terphenyl-d14	0	X	42 - 133	07/23/14 05:45	07/24/14 17:03	50
Phenol-d5 (Surr)	0	X	10 - 130	07/23/14 05:45	07/24/14 17:03	50

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW - SA Monitoring

TestAmerica Job ID: 600-95617-1

Client Sample ID: WG-1620-MW55B-20140717

Lab Sample ID: 600-95617-14

Date Collected: 07/17/14 12:30

Matrix: Water

Date Received: 07/18/14 15:43

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels - DL

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	13.5		1.18	0.189	mg/L		07/23/14 05:45	07/26/14 02:10	1000
2,4-Dimethylphenol	35.6		1.18	0.731	mg/L		07/23/14 05:45	07/26/14 02:10	1000
Phenol	127		11.8	0.943	mg/L		07/23/14 05:45	08/02/14 03:31	10000
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	0	X	10 - 147				07/23/14 05:45	07/26/14 02:10	1000
2,4,6-Tribromophenol	0	X*	10 - 147				07/23/14 05:45	08/02/14 03:31	10000
2-Fluorobiphenyl	0	X	10 - 150				07/23/14 05:45	07/26/14 02:10	1000
2-Fluorobiphenyl	0	X	10 - 150				07/23/14 05:45	08/02/14 03:31	10000
2-Fluorophenol	0	X	10 - 130				07/23/14 05:45	07/26/14 02:10	1000
2-Fluorophenol	0	X	10 - 130				07/23/14 05:45	08/02/14 03:31	10000
Nitrobenzene-d5	0	X	23 - 130				07/23/14 05:45	07/26/14 02:10	1000
Nitrobenzene-d5	0	X	23 - 130				07/23/14 05:45	08/02/14 03:31	10000
Terphenyl-d14	0	X	42 - 133				07/23/14 05:45	07/26/14 02:10	1000
Terphenyl-d14	0	X	42 - 133				07/23/14 05:45	08/02/14 03:31	10000
Phenol-d5 (Surr)	0	X	10 - 130				07/23/14 05:45	07/26/14 02:10	1000
Phenol-d5 (Surr)	0	X	10 - 130				07/23/14 05:45	08/02/14 03:31	10000

Client Sample ID: WG-1620-MW55A-20140717

Lab Sample ID: 600-95617-15

Date Collected: 07/17/14 13:20

Matrix: Water

Date Received: 07/18/14 15:43

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	0.0179	J	0.0200	0.00300	mg/L			07/18/14 22:48	20
Benzene	0.0881		0.0200	0.00160	mg/L			07/18/14 22:48	20
1,2-Dichloroethane	0.00280	U	0.0200	0.00280	mg/L			07/18/14 22:48	20
Toluene	0.409		0.0200	0.00300	mg/L			07/18/14 22:48	20
Chlorobenzene	0.00240	U	0.0200	0.00240	mg/L			07/18/14 22:48	20
Ethylbenzene	0.368		0.0200	0.00220	mg/L			07/18/14 22:48	20
Xylenes, Total	0.869		0.0600	0.00520	mg/L			07/18/14 22:48	20
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	101		67 - 139					07/18/14 22:48	20
Dibromofluoromethane	91		62 - 130					07/18/14 22:48	20
Toluene-d8 (Surr)	93		70 - 130					07/18/14 22:48	20
1,2-Dichloroethane-d4 (Surr)	91		50 - 134					07/18/14 22:48	20

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylnaphthalene	0.486		0.0236	0.00330	mg/L		07/23/14 05:45	07/24/14 17:32	50
Acenaphthylene	0.00283	U	0.0236	0.00283	mg/L		07/23/14 05:45	07/24/14 17:32	50
Acenaphthene	0.219		0.0236	0.00377	mg/L		07/23/14 05:45	07/24/14 17:32	50
Dibenzofuran	0.140		0.0236	0.00377	mg/L		07/23/14 05:45	07/24/14 17:32	50
Fluorene	0.100		0.0236	0.00330	mg/L		07/23/14 05:45	07/24/14 17:32	50
Phenanthrene	0.0893		0.0236	0.00283	mg/L		07/23/14 05:45	07/24/14 17:32	50
Anthracene	0.0320		0.0236	0.00236	mg/L		07/23/14 05:45	07/24/14 17:32	50
Fluoranthene	0.0175	J	0.0236	0.00330	mg/L		07/23/14 05:45	07/24/14 17:32	50
Pyrene	0.0101	J	0.0236	0.00519	mg/L		07/23/14 05:45	07/24/14 17:32	50
Bis(2-ethylhexyl) phthalate	0.0175	U	0.0236	0.0175	mg/L		07/23/14 05:45	07/24/14 17:32	50

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW - SA Monitoring

TestAmerica Job ID: 600-95617-1

Client Sample ID: WG-1620-MW55A-20140717

Lab Sample ID: 600-95617-15

Date Collected: 07/17/14 13:20

Matrix: Water

Date Received: 07/18/14 15:43

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-Dimethylphenol	0.463		0.0236	0.0146	mg/L		07/23/14 05:45	07/24/14 17:32	50
Benzo[a]pyrene	0.00377	U	0.0236	0.00377	mg/L		07/23/14 05:45	07/24/14 17:32	50
Di-n-butyl phthalate	0.00519	U	0.0236	0.00519	mg/L		07/23/14 05:45	07/24/14 17:32	50
2,4-Dinitrotoluene	0.00613	U	0.0236	0.00613	mg/L		07/23/14 05:45	07/24/14 17:32	50
Nitrobenzene	0.00519	U	0.0236	0.00519	mg/L		07/23/14 05:45	07/24/14 17:32	50
Pentachlorophenol	0.0288	U	0.0472	0.0288	mg/L		07/23/14 05:45	07/24/14 17:32	50
4,6-Dinitro-2-methylphenol	0.0392	U	0.0472	0.0392	mg/L		07/23/14 05:45	07/24/14 17:32	50
N-Nitrosodiphenylamine	0.00472	U	0.0236	0.00472	mg/L		07/23/14 05:45	07/24/14 17:32	50
Benzo[a]anthracene	0.00377	U	0.0236	0.00377	mg/L		07/23/14 05:45	07/24/14 17:32	50
1,2-Diphenylhydrazine	0.00519	U	0.0236	0.00519	mg/L		07/23/14 05:45	07/24/14 17:32	50
Chrysene	0.00377	U	0.0236	0.00377	mg/L		07/23/14 05:45	07/24/14 17:32	50
4-Nitrophenol	0.0264	U	0.0472	0.0264	mg/L		07/23/14 05:45	07/24/14 17:32	50
2,6-Dinitrotoluene	0.00377	U	0.0236	0.00377	mg/L		07/23/14 05:45	07/24/14 17:32	50
Phenol	0.00189	U	0.0236	0.00189	mg/L		07/23/14 05:45	07/24/14 17:32	50
Bis(2-chloroethoxy)methane	0.00613	U	0.0236	0.00613	mg/L		07/23/14 05:45	07/24/14 17:32	50
2-Chloronaphthalene	0.00377	U	0.0236	0.00377	mg/L		07/23/14 05:45	07/24/14 17:32	50

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	0	X	10 - 147	07/23/14 05:45	07/24/14 17:32	50
2-Fluorobiphenyl	0	X	10 - 150	07/23/14 05:45	07/24/14 17:32	50
2-Fluorophenol	0	X	10 - 130	07/23/14 05:45	07/24/14 17:32	50
Nitrobenzene-d5	0	X	23 - 130	07/23/14 05:45	07/24/14 17:32	50
Terphenyl-d14	0	X	42 - 133	07/23/14 05:45	07/24/14 17:32	50
Phenol-d5 (Surr)	0	X	10 - 130	07/23/14 05:45	07/24/14 17:32	50

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels - DL

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	11.6		0.472	0.0755	mg/L		07/23/14 05:45	07/26/14 02:38	1000

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	0	X	10 - 147	07/23/14 05:45	07/26/14 02:38	1000
2-Fluorobiphenyl	0	X	10 - 150	07/23/14 05:45	07/26/14 02:38	1000
2-Fluorophenol	0	X	10 - 130	07/23/14 05:45	07/26/14 02:38	1000
Nitrobenzene-d5	0	X	23 - 130	07/23/14 05:45	07/26/14 02:38	1000
Terphenyl-d14	0	X	42 - 133	07/23/14 05:45	07/26/14 02:38	1000
Phenol-d5 (Surr)	0	X	10 - 130	07/23/14 05:45	07/26/14 02:38	1000

Client Sample ID: WG-1620-MW19C-20140717

Lab Sample ID: 600-95617-16

Date Collected: 07/17/14 14:20

Matrix: Water

Date Received: 07/18/14 15:43

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	0.000110	U	0.00200	0.000110	mg/L			07/18/14 21:51	1
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			07/18/14 21:51	1
Benzene	0.000801	J	0.00100	0.000800	mg/L			07/18/14 21:51	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			07/18/14 21:51	1
Toluene	0.000578	J	0.00100	0.000150	mg/L			07/18/14 21:51	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			07/18/14 21:51	1
Ethylbenzene	0.000783	J	0.00100	0.000110	mg/L			07/18/14 21:51	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW - SA Monitoring

TestAmerica Job ID: 600-95617-1

Client Sample ID: WG-1620-MW19C-20140717

Lab Sample ID: 600-95617-16

Date Collected: 07/17/14 14:20

Matrix: Water

Date Received: 07/18/14 15:43

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Xylenes, Total	0.00179	J	0.00300	0.000260	mg/L			07/18/14 21:51	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	99		67 - 139				07/18/14 21:51	07/18/14 21:51	1
Dibromofluoromethane	85		62 - 130				07/18/14 21:51	07/18/14 21:51	1
Toluene-d8 (Surr)	89		70 - 130				07/18/14 21:51	07/18/14 21:51	1
1,2-Dichloroethane-d4 (Surr)	84		50 - 134				07/18/14 21:51	07/18/14 21:51	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	0.0198		0.000472	0.0000755	mg/L		07/23/14 05:45	07/24/14 18:02	1
2-Methylnaphthalene	0.000845		0.000472	0.0000660	mg/L		07/23/14 05:45	07/24/14 18:02	1
Acenaphthylene	0.0000566	U	0.000472	0.0000566	mg/L		07/23/14 05:45	07/24/14 18:02	1
Acenaphthene	0.000700		0.000472	0.0000755	mg/L		07/23/14 05:45	07/24/14 18:02	1
Dibenzofuran	0.000554		0.000472	0.0000755	mg/L		07/23/14 05:45	07/24/14 18:02	1
Fluorene	0.000485		0.000472	0.0000660	mg/L		07/23/14 05:45	07/24/14 18:02	1
Phenanthrene	0.0000566	U	0.000472	0.0000566	mg/L		07/23/14 05:45	07/24/14 18:02	1
Anthracene	0.0000472	U	0.000472	0.0000472	mg/L		07/23/14 05:45	07/24/14 18:02	1
Fluoranthene	0.00169		0.000472	0.0000660	mg/L		07/23/14 05:45	07/24/14 18:02	1
Pyrene	0.00178		0.000472	0.000104	mg/L		07/23/14 05:45	07/24/14 18:02	1
Bis(2-ethylhexyl) phthalate	0.000646		0.000472	0.000349	mg/L		07/23/14 05:45	07/24/14 18:02	1
2,4-Dimethylphenol	0.000292	U	0.000472	0.000292	mg/L		07/23/14 05:45	07/24/14 18:02	1
Benzo[a]pyrene	0.0000755	U	0.000472	0.0000755	mg/L		07/23/14 05:45	07/24/14 18:02	1
Di-n-butyl phthalate	0.000104	U	0.000472	0.000104	mg/L		07/23/14 05:45	07/24/14 18:02	1
2,4-Dinitrotoluene	0.000123	U	0.000472	0.000123	mg/L		07/23/14 05:45	07/24/14 18:02	1
Nitrobenzene	0.000104	U	0.000472	0.000104	mg/L		07/23/14 05:45	07/24/14 18:02	1
Pentachlorophenol	0.000575	U	0.000943	0.000575	mg/L		07/23/14 05:45	07/24/14 18:02	1
4,6-Dinitro-2-methylphenol	0.000783	U	0.000943	0.000783	mg/L		07/23/14 05:45	07/24/14 18:02	1
N-Nitrosodiphenylamine	0.0000943	U	0.000472	0.0000943	mg/L		07/23/14 05:45	07/24/14 18:02	1
Benzo[a]anthracene	0.0000755	U	0.000472	0.0000755	mg/L		07/23/14 05:45	07/24/14 18:02	1
1,2-Diphenylhydrazine	0.000104	U	0.000472	0.000104	mg/L		07/23/14 05:45	07/24/14 18:02	1
Chrysene	0.0000755	U	0.000472	0.0000755	mg/L		07/23/14 05:45	07/24/14 18:02	1
4-Nitrophenol	0.000528	U	0.000943	0.000528	mg/L		07/23/14 05:45	07/24/14 18:02	1
2,6-Dinitrotoluene	0.0000755	U	0.000472	0.0000755	mg/L		07/23/14 05:45	07/24/14 18:02	1
Phenol	0.000330	J	0.000472	0.0000377	mg/L		07/23/14 05:45	07/24/14 18:02	1
Bis(2-chloroethoxy)methane	0.000123	U	0.000472	0.000123	mg/L		07/23/14 05:45	07/24/14 18:02	1
2-Chloronaphthalene	0.0000755	U	0.000472	0.0000755	mg/L		07/23/14 05:45	07/24/14 18:02	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	80		10 - 147				07/23/14 05:45	07/24/14 18:02	1
2-Fluorobiphenyl	69		10 - 150				07/23/14 05:45	07/24/14 18:02	1
2-Fluorophenol	28		10 - 130				07/23/14 05:45	07/24/14 18:02	1
Nitrobenzene-d5	59		23 - 130				07/23/14 05:45	07/24/14 18:02	1
Terphenyl-d14	90		42 - 133				07/23/14 05:45	07/24/14 18:02	1
Phenol-d5 (Surr)	13		10 - 130				07/23/14 05:45	07/24/14 18:02	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW - SA Monitoring

TestAmerica Job ID: 600-95617-1

Client Sample ID: WG-1620-FB2-20140717

Lab Sample ID: 600-95617-17

Date Collected: 07/17/14 14:35

Matrix: Water

Date Received: 07/18/14 15:43

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			07/18/14 19:57	1
Benzene	0.0000800	U	0.00100	0.0000800	mg/L			07/18/14 19:57	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			07/18/14 19:57	1
Toluene	0.000150	U	0.00100	0.000150	mg/L			07/18/14 19:57	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			07/18/14 19:57	1
Ethylbenzene	0.000110	U	0.00100	0.000110	mg/L			07/18/14 19:57	1
Xylenes, Total	0.000260	U	0.00300	0.000260	mg/L			07/18/14 19:57	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	106		67 - 139		07/18/14 19:57	1
Dibromofluoromethane	89		62 - 130		07/18/14 19:57	1
Toluene-d8 (Surr)	99		70 - 130		07/18/14 19:57	1
1,2-Dichloroethane-d4 (Surr)	87		50 - 134		07/18/14 19:57	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	0.000300	J	0.000472	0.0000755	mg/L		07/23/14 05:45	07/24/14 18:31	1
2-Methylnaphthalene	0.0000660	U	0.000472	0.0000660	mg/L		07/23/14 05:45	07/24/14 18:31	1
Acenaphthylene	0.0000566	U	0.000472	0.0000566	mg/L		07/23/14 05:45	07/24/14 18:31	1
Acenaphthene	0.0000755	U	0.000472	0.0000755	mg/L		07/23/14 05:45	07/24/14 18:31	1
Dibenzofuran	0.0000755	U	0.000472	0.0000755	mg/L		07/23/14 05:45	07/24/14 18:31	1
Fluorene	0.0000660	U	0.000472	0.0000660	mg/L		07/23/14 05:45	07/24/14 18:31	1
Phenanthrene	0.0000566	U	0.000472	0.0000566	mg/L		07/23/14 05:45	07/24/14 18:31	1
Anthracene	0.0000472	U	0.000472	0.0000472	mg/L		07/23/14 05:45	07/24/14 18:31	1
Fluoranthene	0.0000660	U	0.000472	0.0000660	mg/L		07/23/14 05:45	07/24/14 18:31	1
Pyrene	0.000104	U	0.000472	0.000104	mg/L		07/23/14 05:45	07/24/14 18:31	1
Bis(2-ethylhexyl) phthalate	0.000349	U	0.000472	0.000349	mg/L		07/23/14 05:45	07/24/14 18:31	1
2,4-Dimethylphenol	0.000292	U	0.000472	0.000292	mg/L		07/23/14 05:45	07/24/14 18:31	1
Benzo[a]pyrene	0.0000755	U	0.000472	0.0000755	mg/L		07/23/14 05:45	07/24/14 18:31	1
Di-n-butyl phthalate	0.000104	U	0.000472	0.000104	mg/L		07/23/14 05:45	07/24/14 18:31	1
2,4-Dinitrotoluene	0.000123	U	0.000472	0.000123	mg/L		07/23/14 05:45	07/24/14 18:31	1
Nitrobenzene	0.000104	U	0.000472	0.000104	mg/L		07/23/14 05:45	07/24/14 18:31	1
Pentachlorophenol	0.000575	U	0.000943	0.000575	mg/L		07/23/14 05:45	07/24/14 18:31	1
4,6-Dinitro-2-methylphenol	0.000783	U	0.000943	0.000783	mg/L		07/23/14 05:45	07/24/14 18:31	1
N-Nitrosodiphenylamine	0.0000943	U	0.000472	0.0000943	mg/L		07/23/14 05:45	07/24/14 18:31	1
Benzo[a]anthracene	0.0000755	U	0.000472	0.0000755	mg/L		07/23/14 05:45	07/24/14 18:31	1
1,2-Diphenylhydrazine	0.000104	U	0.000472	0.000104	mg/L		07/23/14 05:45	07/24/14 18:31	1
Chrysene	0.0000755	U	0.000472	0.0000755	mg/L		07/23/14 05:45	07/24/14 18:31	1
4-Nitrophenol	0.000528	U	0.000943	0.000528	mg/L		07/23/14 05:45	07/24/14 18:31	1
2,6-Dinitrotoluene	0.0000755	U	0.000472	0.0000755	mg/L		07/23/14 05:45	07/24/14 18:31	1
Phenol	0.0000377	U	0.000472	0.0000377	mg/L		07/23/14 05:45	07/24/14 18:31	1
Bis(2-chloroethoxy)methane	0.000123	U	0.000472	0.000123	mg/L		07/23/14 05:45	07/24/14 18:31	1
2-Chloronaphthalene	0.0000755	U	0.000472	0.0000755	mg/L		07/23/14 05:45	07/24/14 18:31	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	56		10 - 147	07/23/14 05:45	07/24/14 18:31	1
2-Fluorobiphenyl	66		10 - 150	07/23/14 05:45	07/24/14 18:31	1
2-Fluorophenol	31		10 - 130	07/23/14 05:45	07/24/14 18:31	1
Nitrobenzene-d5	62		23 - 130	07/23/14 05:45	07/24/14 18:31	1
Terphenyl-d14	88		42 - 133	07/23/14 05:45	07/24/14 18:31	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW - SA Monitoring

TestAmerica Job ID: 600-95617-1

Client Sample ID: WG-1620-FB2-20140717

Lab Sample ID: 600-95617-17

Date Collected: 07/17/14 14:35

Matrix: Water

Date Received: 07/18/14 15:43

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

<i>Surrogate</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
<i>Phenol-d5 (Surr)</i>	14		10 - 130	07/23/14 05:45	07/24/14 18:31	1

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15
- 16

Definitions/Glossary

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW - SA Monitoring

TestAmerica Job ID: 600-95617-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
U	Analyte was not detected at or above the SDL.
J	Result is less than the MQL but greater than or equal to the SDL and the concentration is an estimated value.

GC/MS Semi VOA

Qualifier	Qualifier Description
U	Analyte was not detected at or above the SDL.
X	Surrogate is outside control limits
J	Result is less than the MQL but greater than or equal to the SDL and the concentration is an estimated value.
*	ISTD response or retention time outside acceptable limits
N1	MS, MSD: Spike recovery exceeds upper or lower control limits.
N2	RPD of the MS and MSD exceeds the control limits

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Surrogate Summary

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW - SA Monitoring

TestAmerica Job ID: 600-95617-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		BFB (67-139)	DBFM (62-130)	TOL (70-130)	12DCE (50-134)
600-95617-1	WG-1620-MW48C-20140716	98	86	98	84
600-95617-2	WG-1620-MW49A-20140716	90	86	101	86
600-95617-3	WG-1620-MW49B-20140716	90	84	90	84
600-95617-4	WG-1620-MW69A-20140716	106	88	97	86
600-95617-5	WG-1620-MW60A-20140716	93	79	95	78
600-95617-6	WG-1620-MW18A-20140716	103	86	96	85
600-95617-6 - DL	WG-1620-MW18A-20140716	103	88	102	90
600-95617-7	WG-1620-MW18C-20140716	92	87	93	84
600-95617-7 - DL	WG-1620-MW18C-20140716	102	88	98	92
600-95617-8	WG-1620-FB1-20140716	111	101	104	95
600-95617-9	WG-1620-MW17C-20140717	91	86	97	84
600-95617-10	WG-1620-MW17-20140717	102	90	89	90
600-95617-11	WG-1620-MW15B-20140717	95	86	93	87
600-95617-12	WG-1620-MW15C-20140717	101	91	93	91
600-95617-13	WG-1620-MW15A-20140717	102	91	96	91
600-95617-14	WG-1620-MW55B-20140717	100	88	94	87
600-95617-15	WG-1620-MW55A-20140717	101	91	93	91
600-95617-16	WG-1620-MW19C-20140717	99	85	89	84
600-95617-17	WG-1620-FB2-20140717	106	89	99	87
600-95663-D-4 MS	Matrix Spike	99	94	85	91
600-95663-D-4 MSD	Matrix Spike Duplicate	96	94	88	91
LCS 600-139518/3	Lab Control Sample	107	99	102	94
LCS 600-139854/3	Lab Control Sample	104	96	93	94
LCS 600-139518/4	Lab Control Sample Dup	102	93	95	89
MB 600-139518/6	Method Blank	107	91	92	93
MB 600-139854/5	Method Blank	108	92	98	94

Surrogate Legend

BFB = 4-Bromofluorobenzene
 DBFM = Dibromofluoromethane
 TOL = Toluene-d8 (Surr)
 12DCE = 1,2-Dichloroethane-d4 (Surr)

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)					
		TBP (10-147)	FBP (10-150)	2FP (10-130)	NBZ (23-130)	TPH (42-133)	PHL (10-130)
600-95617-1	WG-1620-MW48C-20140716	47	68	25	60	101	12
600-95617-2 - DL	WG-1620-MW49A-20140716	0 X	0 X	0 X	0 X	0 X	0 X
600-95617-2	WG-1620-MW49A-20140716	0 X	0 X	0 X	0 X	0 X	0 X
600-95617-3	WG-1620-MW49B-20140716	0 X	0 X	0 X	0 X	0 X	0 X
600-95617-3 - DL	WG-1620-MW49B-20140716	0 X	0 X	0 X	0 X	0 X	0 X
600-95617-4	WG-1620-MW69A-20140716	76	62	31	61	89	15
600-95617-5	WG-1620-MW60A-20140716	73	69	29	61	92	14
600-95617-6	WG-1620-MW18A-20140716	0 X	0 X	0 X	0 X	0 X	0 X
600-95617-6 - DL	WG-1620-MW18A-20140716	0 X	0 X	0 X	0 X	0 X	0 X
600-95617-7	WG-1620-MW18C-20140716	0 X	0 X	0 X	0 X	0 X	0 X

TestAmerica Houston

Surrogate Summary

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW - SA Monitoring

TestAmerica Job ID: 600-95617-1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)					
		TBP (10-147)	FBP (10-150)	2FP (10-130)	NBZ (23-130)	TPH (42-133)	PHL (10-130)
600-95617-7 - DL	WG-1620-MW18C-20140716	0 X	0 X	0 X	0 X	0 X	0 X
600-95617-8	WG-1620-FB1-20140716	82	73	35	69	93	16
600-95617-9	WG-1620-MW17C-20140717	0 X	0 X	0 X	0 X	0 X	0 X
600-95617-9 - DL	WG-1620-MW17C-20140717	0 X *	0 X	0 X	0 X	0 X	0 X
600-95617-10	WG-1620-MW17-20140717	0 X	0 X	0 X	0 X	0 X	0 X
600-95617-10 - DL	WG-1620-MW17-20140717	0 X	0 X	0 X	0 X	0 X	0 X
600-95617-11	WG-1620-MW15B-20140717	103	71	35	74	94	17
600-95617-11 - DL	WG-1620-MW15B-20140717	0 X	0 X	0 X	0 X	0 X	0 X
600-95617-12	WG-1620-MW15C-20140717	95	64	32	62	91	15
600-95617-12 - DL	WG-1620-MW15C-20140717	0 X	67	0 X	62	61	0 X
600-95617-13	WG-1620-MW15A-20140717	101	76	38	71	90	18
600-95617-13 - DL	WG-1620-MW15A-20140717	0 X	0 X	0 X	0 X	0 X	0 X
600-95617-14	WG-1620-MW55B-20140717	0 X	0 X	0 X	0 X	0 X	0 X
600-95617-14 - DL	WG-1620-MW55B-20140717	0 X	0 X	0 X	0 X	0 X	0 X
600-95617-14 - DL	WG-1620-MW55B-20140717	0 X *	0 X	0 X	0 X	0 X	0 X
600-95617-15	WG-1620-MW55A-20140717	0 X	0 X	0 X	0 X	0 X	0 X
600-95617-15 - DL	WG-1620-MW55A-20140717	0 X	0 X	0 X	0 X	0 X	0 X
600-95617-16	WG-1620-MW19C-20140717	80	69	28	59	90	13
600-95617-17	WG-1620-FB2-20140717	56	66	31	62	88	14
600-95617-17 MS	WG-1620-FB2-20140717	80	54	38	52	95	25
600-95617-17 MSD	WG-1620-FB2-20140717	74	59	21	52	95	11
600-95656-B-5-A MS	Matrix Spike	61	73	51	74	96	32
600-95656-B-5-B MSD	Matrix Spike Duplicate	46	55	39	56	85	25
LCS 600-139772/2-A	Lab Control Sample	64	72	26	73	93	13
LCS 600-139804/2-A	Lab Control Sample	83	69	45	68	91	24
MB 600-139772/1-A	Method Blank	46	74	36	75	104	18
MB 600-139804/1-A	Method Blank	60	71	43	71	91	21

Surrogate Legend

- TBP = 2,4,6-Tribromophenol
- FBP = 2-Fluorobiphenyl
- 2FP = 2-Fluorophenol
- NBZ = Nitrobenzene-d5
- TPH = Terphenyl-d14
- PHL = Phenol-d5 (Surr)

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW - SA Monitoring

TestAmerica Job ID: 600-95617-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 600-139518/6

Matrix: Water

Analysis Batch: 139518

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	0.000110	U	0.00200	0.000110	mg/L			07/18/14 15:14	1
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			07/18/14 15:14	1
Benzene	0.0000800	U	0.00100	0.0000800	mg/L			07/18/14 15:14	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			07/18/14 15:14	1
Toluene	0.000150	U	0.00100	0.000150	mg/L			07/18/14 15:14	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			07/18/14 15:14	1
Ethylbenzene	0.000110	U	0.00100	0.000110	mg/L			07/18/14 15:14	1
Xylenes, Total	0.000260	U	0.00300	0.000260	mg/L			07/18/14 15:14	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	107		67 - 139		07/18/14 15:14	1
Dibromofluoromethane	91		62 - 130		07/18/14 15:14	1
Toluene-d8 (Surr)	92		70 - 130		07/18/14 15:14	1
1,2-Dichloroethane-d4 (Surr)	93		50 - 134		07/18/14 15:14	1

Lab Sample ID: LCS 600-139518/3

Matrix: Water

Analysis Batch: 139518

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Vinyl chloride	0.0100	0.009188		mg/L		92	33 - 150
Methylene Chloride	0.0100	0.01064		mg/L		106	55 - 147
Benzene	0.0100	0.01005		mg/L		101	70 - 130
1,2-Dichloroethane	0.0100	0.009916		mg/L		99	67 - 134
Toluene	0.0100	0.009792		mg/L		98	70 - 130
Chlorobenzene	0.0100	0.009414		mg/L		94	69 - 130
Ethylbenzene	0.0100	0.009934		mg/L		99	70 - 130
Xylenes, Total	0.0200	0.01999		mg/L		100	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene	107		67 - 139
Dibromofluoromethane	99		62 - 130
Toluene-d8 (Surr)	102		70 - 130
1,2-Dichloroethane-d4 (Surr)	94		50 - 134

Lab Sample ID: LCSD 600-139518/4

Matrix: Water

Analysis Batch: 139518

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Vinyl chloride	0.0100	0.009534		mg/L		95	33 - 150	4	20
Methylene Chloride	0.0100	0.01138		mg/L		114	55 - 147	7	20
Benzene	0.0100	0.01031		mg/L		103	70 - 130	2	20
1,2-Dichloroethane	0.0100	0.01014		mg/L		101	67 - 134	2	20
Toluene	0.0100	0.01045		mg/L		105	70 - 130	7	20
Chlorobenzene	0.0100	0.009986		mg/L		100	69 - 130	6	20
Ethylbenzene	0.0100	0.01053		mg/L		105	70 - 130	6	20

TestAmerica Houston

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW - SA Monitoring

TestAmerica Job ID: 600-95617-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 600-139518/4

Matrix: Water

Analysis Batch: 139518

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Xylenes, Total	0.0200	0.02143		mg/L		107	70 - 130	7	20
Surrogate	%Recovery	LCSD Qualifier	Limits						
4-Bromofluorobenzene	102		67 - 139						
Dibromofluoromethane	93		62 - 130						
Toluene-d8 (Surr)	95		70 - 130						
1,2-Dichloroethane-d4 (Surr)	89		50 - 134						

Lab Sample ID: MB 600-139854/5

Matrix: Water

Analysis Batch: 139854

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	0.000110	U	0.00200	0.000110	mg/L			07/23/14 13:20	1
Methylene Chloride	0.001451		0.00100	0.000150	mg/L			07/23/14 13:20	1
Benzene	0.0000800	U	0.00100	0.0000800	mg/L			07/23/14 13:20	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			07/23/14 13:20	1
Toluene	0.000150	U	0.00100	0.000150	mg/L			07/23/14 13:20	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			07/23/14 13:20	1
Ethylbenzene	0.000110	U	0.00100	0.000110	mg/L			07/23/14 13:20	1
Xylenes, Total	0.000260	U	0.00300	0.000260	mg/L			07/23/14 13:20	1
Surrogate	%Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	108		67 - 139					07/23/14 13:20	1
Dibromofluoromethane	92		62 - 130					07/23/14 13:20	1
Toluene-d8 (Surr)	98		70 - 130					07/23/14 13:20	1
1,2-Dichloroethane-d4 (Surr)	94		50 - 134					07/23/14 13:20	1

Lab Sample ID: LCS 600-139854/3

Matrix: Water

Analysis Batch: 139854

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Vinyl chloride	0.0100	0.009873		mg/L		99	33 - 150
Methylene Chloride	0.0100	0.01080		mg/L		108	55 - 147
Benzene	0.0100	0.009854		mg/L		99	70 - 130
1,2-Dichloroethane	0.0100	0.01059		mg/L		106	67 - 134
Toluene	0.0100	0.009210		mg/L		92	70 - 130
Chlorobenzene	0.0100	0.009269		mg/L		93	69 - 130
Ethylbenzene	0.0100	0.009808		mg/L		98	70 - 130
Xylenes, Total	0.0200	0.01921		mg/L		96	70 - 130
Surrogate	%Recovery	LCS Qualifier	Limits				
4-Bromofluorobenzene	104		67 - 139				
Dibromofluoromethane	96		62 - 130				
Toluene-d8 (Surr)	93		70 - 130				
1,2-Dichloroethane-d4 (Surr)	94		50 - 134				

TestAmerica Houston

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW - SA Monitoring

TestAmerica Job ID: 600-95617-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 600-95663-D-4 MS

Matrix: Water

Analysis Batch: 139854

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec.	Limits
	Result	Qualifier		Result	Qualifier					
Vinyl chloride	0.00166	J	0.0100	0.01364		mg/L		120	33 - 150	
Methylene Chloride	0.000150	U	0.0100	0.008849		mg/L		88	55 - 147	
Benzene	0.000519	J	0.0100	0.01078		mg/L		103	70 - 130	
1,2-Dichloroethane	0.000140	U	0.0100	0.01074		mg/L		107	67 - 134	
Toluene	0.000150	U	0.0100	0.009204		mg/L		92	70 - 130	
Chlorobenzene	0.000120	U	0.0100	0.009449		mg/L		94	69 - 130	
Ethylbenzene	0.000110	U	0.0100	0.009868		mg/L		99	70 - 130	
Xylenes, Total	0.000295	J	0.0200	0.02067		mg/L		102	70 - 130	

Surrogate	MS	MS	Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene	99		67 - 139
Dibromofluoromethane	94		62 - 130
Toluene-d8 (Surr)	85		70 - 130
1,2-Dichloroethane-d4 (Surr)	91		50 - 134

Lab Sample ID: 600-95663-D-4 MSD

Matrix: Water

Analysis Batch: 139854

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.	Limits	RPD	RPD	Limit
	Result	Qualifier		Result	Qualifier								
Vinyl chloride	0.00166	J	0.0100	0.01304		mg/L		114	33 - 150	4	30		
Methylene Chloride	0.000150	U	0.0100	0.008315		mg/L		83	55 - 147	6	30		
Benzene	0.000519	J	0.0100	0.01056		mg/L		100	70 - 130	2	30		
1,2-Dichloroethane	0.000140	U	0.0100	0.01036		mg/L		104	67 - 134	4	30		
Toluene	0.000150	U	0.0100	0.009263		mg/L		93	70 - 130	1	30		
Chlorobenzene	0.000120	U	0.0100	0.009520		mg/L		95	69 - 130	1	30		
Ethylbenzene	0.000110	U	0.0100	0.01006		mg/L		101	70 - 130	2	30		
Xylenes, Total	0.000295	J	0.0200	0.02067		mg/L		102	70 - 130	0	30		

Surrogate	MSD	MSD	Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene	96		67 - 139
Dibromofluoromethane	94		62 - 130
Toluene-d8 (Surr)	88		70 - 130
1,2-Dichloroethane-d4 (Surr)	91		50 - 134

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Lab Sample ID: MB 600-139772/1-A

Matrix: Water

Analysis Batch: 139825

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 139772

Analyte	MB	MB	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil	Fac
	Result	Qualifier								
Naphthalene	0.0000800	U	0.000500	0.0000800	mg/L		07/22/14 14:46	07/23/14 10:45	1	
2-Methylnaphthalene	0.0000700	U	0.000500	0.0000700	mg/L		07/22/14 14:46	07/23/14 10:45	1	
Acenaphthylene	0.0000600	U	0.000500	0.0000600	mg/L		07/22/14 14:46	07/23/14 10:45	1	
Acenaphthene	0.0000800	U	0.000500	0.0000800	mg/L		07/22/14 14:46	07/23/14 10:45	1	
Dibenzofuran	0.0000800	U	0.000500	0.0000800	mg/L		07/22/14 14:46	07/23/14 10:45	1	

TestAmerica Houston

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW - SA Monitoring

TestAmerica Job ID: 600-95617-1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Lab Sample ID: MB 600-139772/1-A

Matrix: Water

Analysis Batch: 139825

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 139772

Analyte	MB	MB	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Fluorene	0.0000700	U	0.000500	0.0000700	mg/L		07/22/14 14:46	07/23/14 10:45	1
Phenanthrene	0.0000600	U	0.000500	0.0000600	mg/L		07/22/14 14:46	07/23/14 10:45	1
Anthracene	0.0000500	U	0.000500	0.0000500	mg/L		07/22/14 14:46	07/23/14 10:45	1
Fluoranthene	0.0000700	U	0.000500	0.0000700	mg/L		07/22/14 14:46	07/23/14 10:45	1
Pyrene	0.000110	U	0.000500	0.000110	mg/L		07/22/14 14:46	07/23/14 10:45	1
Bis(2-ethylhexyl) phthalate	0.000370	U	0.000500	0.000370	mg/L		07/22/14 14:46	07/23/14 10:45	1
2,4-Dimethylphenol	0.000310	U	0.000500	0.000310	mg/L		07/22/14 14:46	07/23/14 10:45	1
Benzo[a]pyrene	0.0000800	U	0.000500	0.0000800	mg/L		07/22/14 14:46	07/23/14 10:45	1
Di-n-butyl phthalate	0.000110	U	0.000500	0.000110	mg/L		07/22/14 14:46	07/23/14 10:45	1
2,4-Dinitrotoluene	0.000130	U	0.000500	0.000130	mg/L		07/22/14 14:46	07/23/14 10:45	1
Nitrobenzene	0.000110	U	0.000500	0.000110	mg/L		07/22/14 14:46	07/23/14 10:45	1
Pentachlorophenol	0.000610	U	0.00100	0.000610	mg/L		07/22/14 14:46	07/23/14 10:45	1
4,6-Dinitro-2-methylphenol	0.000830	U	0.00100	0.000830	mg/L		07/22/14 14:46	07/23/14 10:45	1
N-Nitrosodiphenylamine	0.000100	U	0.000500	0.000100	mg/L		07/22/14 14:46	07/23/14 10:45	1
Benzo[a]anthracene	0.0000800	U	0.000500	0.0000800	mg/L		07/22/14 14:46	07/23/14 10:45	1
1,2-Diphenylhydrazine	0.000110	U	0.000500	0.000110	mg/L		07/22/14 14:46	07/23/14 10:45	1
Chrysene	0.0000800	U	0.000500	0.0000800	mg/L		07/22/14 14:46	07/23/14 10:45	1
4-Nitrophenol	0.000560	U	0.00100	0.000560	mg/L		07/22/14 14:46	07/23/14 10:45	1
2,6-Dinitrotoluene	0.0000800	U	0.000500	0.0000800	mg/L		07/22/14 14:46	07/23/14 10:45	1
Phenol	0.0000400	U	0.000500	0.0000400	mg/L		07/22/14 14:46	07/23/14 10:45	1
Bis(2-chloroethoxy)methane	0.000130	U	0.000500	0.000130	mg/L		07/22/14 14:46	07/23/14 10:45	1
2-Chloronaphthalene	0.0000800	U	0.000500	0.0000800	mg/L		07/22/14 14:46	07/23/14 10:45	1

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
2,4,6-Tribromophenol	46		10 - 147	07/22/14 14:46	07/23/14 10:45	1
2-Fluorobiphenyl	74		10 - 150	07/22/14 14:46	07/23/14 10:45	1
2-Fluorophenol	36		10 - 130	07/22/14 14:46	07/23/14 10:45	1
Nitrobenzene-d5	75		23 - 130	07/22/14 14:46	07/23/14 10:45	1
Terphenyl-d14	104		42 - 133	07/22/14 14:46	07/23/14 10:45	1
Phenol-d5 (Surr)	18		10 - 130	07/22/14 14:46	07/23/14 10:45	1

Lab Sample ID: LCS 600-139772/2-A

Matrix: Water

Analysis Batch: 139825

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 139772

Analyte	Spike Added	LCS	LCS	Unit	D	%Rec	%Rec. Limits
		Result	Qualifier				
Naphthalene	0.0100	0.007006		mg/L		70	57 - 130
2-Methylnaphthalene	0.0100	0.006697		mg/L		67	52 - 130
Acenaphthylene	0.0100	0.006869		mg/L		69	58 - 130
Acenaphthene	0.0100	0.006995		mg/L		70	59 - 130
Dibenzofuran	0.0100	0.007057		mg/L		71	56 - 130
Fluorene	0.0100	0.007310		mg/L		73	57 - 130
Phenanthrene	0.0100	0.007773		mg/L		78	60 - 130
Anthracene	0.0100	0.007566		mg/L		76	46 - 132
Fluoranthene	0.0100	0.007402		mg/L		74	63 - 130
Pyrene	0.0100	0.009185		mg/L		92	62 - 130
Bis(2-ethylhexyl) phthalate	0.0100	0.007084		mg/L		71	59 - 130
2,4-Dimethylphenol	0.0100	0.007008		mg/L		70	45 - 130

TestAmerica Houston

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW - SA Monitoring

TestAmerica Job ID: 600-95617-1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Lab Sample ID: LCS 600-139772/2-A

Matrix: Water

Analysis Batch: 139825

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 139772

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzo[a]pyrene	0.0100	0.006637		mg/L		66	56 - 130
Di-n-butyl phthalate	0.0100	0.008085		mg/L		81	61 - 130
2,4-Dinitrotoluene	0.0100	0.007259		mg/L		73	54 - 130
Nitrobenzene	0.0100	0.007264		mg/L		73	41 - 130
Pentachlorophenol	0.0200	0.01134		mg/L		57	27 - 130
4,6-Dinitro-2-methylphenol	0.0200	0.01316		mg/L		66	10 - 145
N-Nitrosodiphenylamine	0.0100	0.008260		mg/L		83	55 - 137
Benzo[a]anthracene	0.0100	0.008257		mg/L		83	58 - 130
1,2-Diphenylhydrazine	0.0100	0.008012		mg/L		80	45 - 130
Chrysene	0.0100	0.007642		mg/L		76	60 - 130
4-Nitrophenol	0.0200	0.002894		mg/L		14	10 - 150
2,6-Dinitrotoluene	0.0100	0.007136		mg/L		71	56 - 130
Phenol	0.0100	0.001624		mg/L		16	10 - 144
Bis(2-chloroethoxy)methane	0.0100	0.006835		mg/L		68	36 - 134
2-Chloronaphthalene	0.0100	0.007079		mg/L		71	56 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2,4,6-Tribromophenol	64		10 - 147
2-Fluorobiphenyl	72		10 - 150
2-Fluorophenol	26		10 - 130
Nitrobenzene-d5	73		23 - 130
Terphenyl-d14	93		42 - 133
Phenol-d5 (Surr)	13		10 - 130

Lab Sample ID: 600-95656-B-5-A MS

Matrix: Water

Analysis Batch: 139825

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 139772

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Naphthalene	0.0000755	U	0.00943	0.006830		mg/L		72	57 - 130
2-Methylnaphthalene	0.0000660	U	0.00943	0.006498		mg/L		69	52 - 130
Acenaphthylene	0.0000566	U	0.00943	0.006780		mg/L		72	58 - 130
Acenaphthene	0.0000755	U	0.00943	0.006876		mg/L		73	59 - 130
Dibenzofuran	0.0000755	U	0.00943	0.006991		mg/L		74	56 - 130
Fluorene	0.0000660	U	0.00943	0.006995		mg/L		74	57 - 130
Phenanthrene	0.0000566	U	0.00943	0.007468		mg/L		79	60 - 130
Anthracene	0.0000472	U	0.00943	0.007499		mg/L		79	46 - 132
Fluoranthene	0.0000660	U	0.00943	0.007410		mg/L		79	63 - 130
Pyrene	0.000104	U	0.00943	0.009046		mg/L		96	62 - 130
Bis(2-ethylhexyl) phthalate	0.000349	U	0.00943	0.008290		mg/L		88	59 - 130
2,4-Dimethylphenol	0.000292	U	0.00943	0.007153		mg/L		76	45 - 130
Benzo[a]pyrene	0.0000755	U	0.00943	0.006922		mg/L		73	56 - 130
Di-n-butyl phthalate	0.000104	U	0.00943	0.008268		mg/L		88	61 - 130
2,4-Dinitrotoluene	0.000123	U	0.00943	0.007162		mg/L		76	54 - 130
Nitrobenzene	0.000104	U	0.00943	0.007080		mg/L		75	41 - 130
Pentachlorophenol	0.000575	U	0.0189	0.01027		mg/L		54	27 - 130
4,6-Dinitro-2-methylphenol	0.000783	U	0.0189	0.01265		mg/L		67	10 - 145
N-Nitrosodiphenylamine	0.0000943	U	0.00943	0.007740		mg/L		82	55 - 137

TestAmerica Houston

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW - SA Monitoring

TestAmerica Job ID: 600-95617-1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Lab Sample ID: 600-95656-B-5-A MS

Matrix: Water

Analysis Batch: 139825

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 139772

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec. Limits
	Result	Qualifier	Added	Result	Qualifier				
Benzo[a]anthracene	0.0000755	U	0.00943	0.008165		mg/L		87	58 - 130
1,2-Diphenylhydrazine	0.000104	U	0.00943	0.007599		mg/L		81	45 - 130
Chrysene	0.0000755	U	0.00943	0.007958		mg/L		84	60 - 130
4-Nitrophenol	0.000528	U	0.0189	0.005534		mg/L		29	10 - 150
2,6-Dinitrotoluene	0.0000755	U	0.00943	0.006834		mg/L		72	56 - 130
Phenol	0.0000377	U	0.00943	0.003265		mg/L		35	10 - 144
Bis(2-chloroethoxy)methane	0.000123	U	0.00943	0.006758		mg/L		72	36 - 134
2-Chloronaphthalene	0.0000755	U	0.00943	0.006931		mg/L		73	56 - 130

Surrogate	MS	MS	Limits
	%Recovery	Qualifier	
2,4,6-Tribromophenol	61		10 - 147
2-Fluorobiphenyl	73		10 - 150
2-Fluorophenol	51		10 - 130
Nitrobenzene-d5	74		23 - 130
Terphenyl-d14	96		42 - 133
Phenol-d5 (Surr)	32		10 - 130

Lab Sample ID: 600-95656-B-5-B MSD

Matrix: Water

Analysis Batch: 139825

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 139772

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec. Limits	RPD	
	Result	Qualifier	Added	Result	Qualifier					RPD	Limit
Naphthalene	0.0000755	U	0.00943	0.005157	N1 N2	mg/L		55	57 - 130	28	20
2-Methylnaphthalene	0.0000660	U	0.00943	0.004904	N2	mg/L		52	52 - 130	28	20
Acenaphthylene	0.0000566	U	0.00943	0.005008	N1 N2	mg/L		53	58 - 130	30	20
Acenaphthene	0.0000755	U	0.00943	0.005060	N1 N2	mg/L		54	59 - 130	30	20
Dibenzofuran	0.0000755	U	0.00943	0.005170	N1 N2	mg/L		55	56 - 130	30	20
Fluorene	0.0000660	U	0.00943	0.005339	N2	mg/L		57	57 - 130	27	20
Phenanthrene	0.0000566	U	0.00943	0.005838	N2	mg/L		62	60 - 130	25	20
Anthracene	0.0000472	U	0.00943	0.005951	N2	mg/L		63	46 - 132	23	20
Fluoranthene	0.0000660	U	0.00943	0.006478		mg/L		69	63 - 130	13	20
Pyrene	0.000104	U	0.00943	0.008064		mg/L		85	62 - 130	11	20
Bis(2-ethylhexyl) phthalate	0.000349	U	0.00943	0.007592		mg/L		80	59 - 130	9	20
2,4-Dimethylphenol	0.000292	U	0.00943	0.005622	N2	mg/L		60	45 - 130	24	20
Benzo[a]pyrene	0.0000755	U	0.00943	0.006201		mg/L		66	56 - 130	11	20
Di-n-butyl phthalate	0.000104	U	0.00943	0.007351		mg/L		78	61 - 130	12	20
2,4-Dinitrotoluene	0.000123	U	0.00943	0.005771	N2	mg/L		61	54 - 130	22	20
Nitrobenzene	0.000104	U	0.00943	0.005476	N2	mg/L		58	41 - 130	26	20
Pentachlorophenol	0.000575	U	0.0189	0.008583		mg/L		45	27 - 130	18	20
4,6-Dinitro-2-methylphenol	0.000783	U	0.0189	0.01118		mg/L		59	10 - 145	12	20
N-Nitrosodiphenylamine	0.0000943	U	0.00943	0.006151	N2	mg/L		65	55 - 137	23	20
Benzo[a]anthracene	0.0000755	U	0.00943	0.007270		mg/L		77	58 - 130	12	20
1,2-Diphenylhydrazine	0.000104	U	0.00943	0.005816	N2	mg/L		62	45 - 130	27	20
Chrysene	0.0000755	U	0.00943	0.007275		mg/L		77	60 - 130	9	20
4-Nitrophenol	0.000528	U	0.0189	0.005591		mg/L		30	10 - 150	1	20
2,6-Dinitrotoluene	0.0000755	U	0.00943	0.005352	N2	mg/L		57	56 - 130	24	20
Phenol	0.0000377	U	0.00943	0.002556	N2	mg/L		27	10 - 144	24	20
Bis(2-chloroethoxy)methane	0.000123	U	0.00943	0.005044	N2	mg/L		53	36 - 134	29	20

TestAmerica Houston

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW - SA Monitoring

TestAmerica Job ID: 600-95617-1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Lab Sample ID: 600-95656-B-5-B MSD

Matrix: Water

Analysis Batch: 139825

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 139772

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
2-Chloronaphthalene	0.0000755	U	0.00943	0.005242	N2	mg/L		56	56 - 130	28	20
Surrogate	%Recovery	MSD Qualifier	Limits								
2,4,6-Tribromophenol	46		10 - 147								
2-Fluorobiphenyl	55		10 - 150								
2-Fluorophenol	39		10 - 130								
Nitrobenzene-d5	56		23 - 130								
Terphenyl-d14	85		42 - 133								
Phenol-d5 (Surr)	25		10 - 130								

Lab Sample ID: MB 600-139804/1-A

Matrix: Water

Analysis Batch: 139934

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 139804

Analyte	MB Result	MB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	0.0000800	U	0.000500	0.0000800	mg/L		07/23/14 05:45	07/24/14 10:45	1
2-Methylnaphthalene	0.0000700	U	0.000500	0.0000700	mg/L		07/23/14 05:45	07/24/14 10:45	1
Acenaphthylene	0.0000600	U	0.000500	0.0000600	mg/L		07/23/14 05:45	07/24/14 10:45	1
Acenaphthene	0.0000800	U	0.000500	0.0000800	mg/L		07/23/14 05:45	07/24/14 10:45	1
Dibenzofuran	0.0000800	U	0.000500	0.0000800	mg/L		07/23/14 05:45	07/24/14 10:45	1
Fluorene	0.0000700	U	0.000500	0.0000700	mg/L		07/23/14 05:45	07/24/14 10:45	1
Phenanthrene	0.0000600	U	0.000500	0.0000600	mg/L		07/23/14 05:45	07/24/14 10:45	1
Anthracene	0.0000500	U	0.000500	0.0000500	mg/L		07/23/14 05:45	07/24/14 10:45	1
Fluoranthene	0.0000700	U	0.000500	0.0000700	mg/L		07/23/14 05:45	07/24/14 10:45	1
Pyrene	0.000110	U	0.000500	0.000110	mg/L		07/23/14 05:45	07/24/14 10:45	1
Bis(2-ethylhexyl) phthalate	0.000370	U	0.000500	0.000370	mg/L		07/23/14 05:45	07/24/14 10:45	1
2,4-Dimethylphenol	0.000310	U	0.000500	0.000310	mg/L		07/23/14 05:45	07/24/14 10:45	1
Benzo[a]pyrene	0.0000800	U	0.000500	0.0000800	mg/L		07/23/14 05:45	07/24/14 10:45	1
Di-n-butyl phthalate	0.000110	U	0.000500	0.000110	mg/L		07/23/14 05:45	07/24/14 10:45	1
2,4-Dinitrotoluene	0.000130	U	0.000500	0.000130	mg/L		07/23/14 05:45	07/24/14 10:45	1
Nitrobenzene	0.000110	U	0.000500	0.000110	mg/L		07/23/14 05:45	07/24/14 10:45	1
Pentachlorophenol	0.000610	U	0.00100	0.000610	mg/L		07/23/14 05:45	07/24/14 10:45	1
4,6-Dinitro-2-methylphenol	0.000830	U	0.00100	0.000830	mg/L		07/23/14 05:45	07/24/14 10:45	1
N-Nitrosodiphenylamine	0.000100	U	0.000500	0.000100	mg/L		07/23/14 05:45	07/24/14 10:45	1
Benzo[a]anthracene	0.0000800	U	0.000500	0.0000800	mg/L		07/23/14 05:45	07/24/14 10:45	1
1,2-Diphenylhydrazine	0.000110	U	0.000500	0.000110	mg/L		07/23/14 05:45	07/24/14 10:45	1
Chrysene	0.0000800	U	0.000500	0.0000800	mg/L		07/23/14 05:45	07/24/14 10:45	1
4-Nitrophenol	0.000560	U	0.00100	0.000560	mg/L		07/23/14 05:45	07/24/14 10:45	1
2,6-Dinitrotoluene	0.0000800	U	0.000500	0.0000800	mg/L		07/23/14 05:45	07/24/14 10:45	1
Phenol	0.0000400	U	0.000500	0.0000400	mg/L		07/23/14 05:45	07/24/14 10:45	1
Bis(2-chloroethoxy)methane	0.000130	U	0.000500	0.000130	mg/L		07/23/14 05:45	07/24/14 10:45	1
2-Chloronaphthalene	0.0000800	U	0.000500	0.0000800	mg/L		07/23/14 05:45	07/24/14 10:45	1
Surrogate	%Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	60		10 - 147				07/23/14 05:45	07/24/14 10:45	1
2-Fluorobiphenyl	71		10 - 150				07/23/14 05:45	07/24/14 10:45	1
2-Fluorophenol	43		10 - 130				07/23/14 05:45	07/24/14 10:45	1

TestAmerica Houston

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW - SA Monitoring

TestAmerica Job ID: 600-95617-1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Lab Sample ID: MB 600-139804/1-A
Matrix: Water
Analysis Batch: 139934

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 139804

Surrogate	MB MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
Nitrobenzene-d5	71		23 - 130	07/23/14 05:45	07/24/14 10:45	1
Terphenyl-d14	91		42 - 133	07/23/14 05:45	07/24/14 10:45	1
Phenol-d5 (Surr)	21		10 - 130	07/23/14 05:45	07/24/14 10:45	1

Lab Sample ID: LCS 600-139804/2-A
Matrix: Water
Analysis Batch: 139934

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 139804

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec.
							Limits
Naphthalene	0.0100	0.007345		mg/L		73	57 - 130
2-Methylnaphthalene	0.0100	0.007008		mg/L		70	52 - 130
Acenaphthylene	0.0100	0.007032		mg/L		70	58 - 130
Acenaphthene	0.0100	0.007075		mg/L		71	59 - 130
Dibenzofuran	0.0100	0.007037		mg/L		70	56 - 130
Fluorene	0.0100	0.007390		mg/L		74	57 - 130
Phenanthrene	0.0100	0.008184		mg/L		82	60 - 130
Anthracene	0.0100	0.008346		mg/L		83	46 - 132
Fluoranthene	0.0100	0.008319		mg/L		83	63 - 130
Pyrene	0.0100	0.008790		mg/L		88	62 - 130
Bis(2-ethylhexyl) phthalate	0.0100	0.008670		mg/L		87	59 - 130
2,4-Dimethylphenol	0.0100	0.007703		mg/L		77	45 - 130
Benzo[a]pyrene	0.0100	0.007571		mg/L		76	56 - 130
Di-n-butyl phthalate	0.0100	0.008860		mg/L		89	61 - 130
2,4-Dinitrotoluene	0.0100	0.007388		mg/L		74	54 - 130
Nitrobenzene	0.0100	0.006853		mg/L		69	41 - 130
Pentachlorophenol	0.0200	0.01057		mg/L		53	27 - 130
4,6-Dinitro-2-methylphenol	0.0200	0.01474		mg/L		74	10 - 145
N-Nitrosodiphenylamine	0.0100	0.008469		mg/L		85	55 - 137
Benzo[a]anthracene	0.0100	0.008431		mg/L		84	58 - 130
1,2-Diphenylhydrazine	0.0100	0.007078		mg/L		71	45 - 130
Chrysene	0.0100	0.008455		mg/L		85	60 - 130
4-Nitrophenol	0.0200	0.003377		mg/L		17	10 - 150
2,6-Dinitrotoluene	0.0100	0.007376		mg/L		74	56 - 130
Phenol	0.0100	0.002640		mg/L		26	10 - 144
Bis(2-chloroethoxy)methane	0.0100	0.007047		mg/L		70	36 - 134
2-Chloronaphthalene	0.0100	0.007317		mg/L		73	56 - 130

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
2,4,6-Tribromophenol	83		10 - 147
2-Fluorobiphenyl	69		10 - 150
2-Fluorophenol	45		10 - 130
Nitrobenzene-d5	68		23 - 130
Terphenyl-d14	91		42 - 133
Phenol-d5 (Surr)	24		10 - 130

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW - SA Monitoring

TestAmerica Job ID: 600-95617-1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Lab Sample ID: 600-95617-17 MS

Matrix: Water

Analysis Batch: 139934

Client Sample ID: WG-1620-FB2-20140717

Prep Type: Total/NA

Prep Batch: 139804

Analyte	Sample	Sample	Spike	MS MS		Unit	D	%Rec	%Rec. Limits
	Result	Qualifier		Result	Qualifier				
Naphthalene	0.000300	J	0.00943	0.005211	N1	mg/L		52	57 - 130
2-Methylnaphthalene	0.0000660	U	0.00943	0.005103		mg/L		54	52 - 130
Acenaphthylene	0.0000566	U	0.00943	0.004915	N1	mg/L		52	58 - 130
Acenaphthene	0.0000755	U	0.00943	0.005148	N1	mg/L		55	59 - 130
Dibenzofuran	0.0000755	U	0.00943	0.005096	N1	mg/L		54	56 - 130
Fluorene	0.0000660	U	0.00943	0.005643		mg/L		60	57 - 130
Phenanthrene	0.0000566	U	0.00943	0.006516		mg/L		69	60 - 130
Anthracene	0.0000472	U	0.00943	0.007363		mg/L		78	46 - 132
Fluoranthene	0.0000660	U	0.00943	0.007716		mg/L		82	63 - 130
Pyrene	0.000104	U	0.00943	0.008139		mg/L		86	62 - 130
Bis(2-ethylhexyl) phthalate	0.000349	U	0.00943	0.009519		mg/L		101	59 - 130
2,4-Dimethylphenol	0.000292	U	0.00943	0.005024		mg/L		53	45 - 130
Benzo[a]pyrene	0.0000755	U	0.00943	0.006736		mg/L		71	56 - 130
Di-n-butyl phthalate	0.000104	U	0.00943	0.01023		mg/L		108	61 - 130
2,4-Dinitrotoluene	0.000123	U	0.00943	0.005932		mg/L		63	54 - 130
Nitrobenzene	0.000104	U	0.00943	0.004689		mg/L		50	41 - 130
Pentachlorophenol	0.000575	U	0.0189	0.01022		mg/L		54	27 - 130
4,6-Dinitro-2-methylphenol	0.000783	U	0.0189	0.01080		mg/L		57	10 - 145
N-Nitrosodiphenylamine	0.0000943	U	0.00943	0.006849		mg/L		73	55 - 137
Benzo[a]anthracene	0.0000755	U	0.00943	0.007815		mg/L		83	58 - 130
1,2-Diphenylhydrazine	0.000104	U	0.00943	0.005968		mg/L		63	45 - 130
Chrysene	0.0000755	U	0.00943	0.007864		mg/L		83	60 - 130
4-Nitrophenol	0.000528	U	0.0189	0.005470		mg/L		29	10 - 150
2,6-Dinitrotoluene	0.0000755	U	0.00943	0.005388		mg/L		57	56 - 130
Phenol	0.0000377	U	0.00943	0.002456		mg/L		26	10 - 144
Bis(2-chloroethoxy)methane	0.000123	U	0.00943	0.005066		mg/L		54	36 - 134
2-Chloronaphthalene	0.0000755	U	0.00943	0.004907	N1	mg/L		52	56 - 130

Surrogate	MS MS		Limits
	%Recovery	Qualifier	
2,4,6-Tribromophenol	80		10 - 147
2-Fluorobiphenyl	54		10 - 150
2-Fluorophenol	38		10 - 130
Nitrobenzene-d5	52		23 - 130
Terphenyl-d14	95		42 - 133
Phenol-d5 (Surr)	25		10 - 130

Lab Sample ID: 600-95617-17 MSD

Matrix: Water

Analysis Batch: 139934

Client Sample ID: WG-1620-FB2-20140717

Prep Type: Total/NA

Prep Batch: 139804

Analyte	Sample	Sample	Spike	MSD MSD		Unit	D	%Rec	%Rec. Limits	RPD	
	Result	Qualifier		Result	Qualifier					RPD	Limit
Naphthalene	0.000300	J	0.00943	0.005294	N1	mg/L		53	57 - 130	2	20
2-Methylnaphthalene	0.0000660	U	0.00943	0.005297		mg/L		56	52 - 130	4	20
Acenaphthylene	0.0000566	U	0.00943	0.005628		mg/L		60	58 - 130	14	20
Acenaphthene	0.0000755	U	0.00943	0.005791		mg/L		61	59 - 130	12	20
Dibenzofuran	0.0000755	U	0.00943	0.005684		mg/L		60	56 - 130	11	20
Fluorene	0.0000660	U	0.00943	0.006014		mg/L		64	57 - 130	6	20
Phenanthrene	0.0000566	U	0.00943	0.007031		mg/L		75	60 - 130	8	20

TestAmerica Houston

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW - SA Monitoring

TestAmerica Job ID: 600-95617-1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Lab Sample ID: 600-95617-17 MSD

Client Sample ID: WG-1620-FB2-20140717

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 139934

Prep Batch: 139804

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.	RPD	Limit
	Result	Qualifier	Added	Result	Qualifier				Limits		
Anthracene	0.0000472	U	0.00943	0.007278		mg/L		77	46 - 132	1	20
Fluoranthene	0.0000660	U	0.00943	0.008136		mg/L		86	63 - 130	5	20
Pyrene	0.000104	U	0.00943	0.008638		mg/L		92	62 - 130	6	20
Bis(2-ethylhexyl) phthalate	0.000349	U	0.00943	0.009317		mg/L		99	59 - 130	2	20
2,4-Dimethylphenol	0.000292	U	0.00943	0.004386		mg/L		46	45 - 130	14	20
Benzo[a]pyrene	0.0000755	U	0.00943	0.007175		mg/L		76	56 - 130	6	20
Di-n-butyl phthalate	0.000104	U	0.00943	0.009161		mg/L		97	61 - 130	11	20
2,4-Dinitrotoluene	0.000123	U	0.00943	0.006455		mg/L		68	54 - 130	8	20
Nitrobenzene	0.000104	U	0.00943	0.004937		mg/L		52	41 - 130	5	20
Pentachlorophenol	0.000575	U	0.0189	0.009559		mg/L		51	27 - 130	7	20
4,6-Dinitro-2-methylphenol	0.000783	U	0.0189	0.01174		mg/L		62	10 - 145	8	20
N-Nitrosodiphenylamine	0.0000943	U	0.00943	0.006748		mg/L		72	55 - 137	1	20
Benzo[a]anthracene	0.0000755	U	0.00943	0.008328		mg/L		88	58 - 130	6	20
1,2-Diphenylhydrazine	0.000104	U	0.00943	0.005753		mg/L		61	45 - 130	4	20
Chrysene	0.0000755	U	0.00943	0.008375		mg/L		89	60 - 130	6	20
4-Nitrophenol	0.000528	U	0.0189	0.002304	N2	mg/L		12	10 - 150	81	20
2,6-Dinitrotoluene	0.0000755	U	0.00943	0.006251		mg/L		66	56 - 130	15	20
Phenol	0.0000377	U	0.00943	0.001407	N2	mg/L		15	10 - 144	54	20
Bis(2-chloroethoxy)methane	0.000123	U	0.00943	0.005299		mg/L		56	36 - 134	4	20
2-Chloronaphthalene	0.0000755	U	0.00943	0.005566		mg/L		59	56 - 130	13	20

Surrogate	MSD	MSD	Limits
	%Recovery	Qualifier	
2,4,6-Tribromophenol	74		10 - 147
2-Fluorobiphenyl	59		10 - 150
2-Fluorophenol	21		10 - 130
Nitrobenzene-d5	52		23 - 130
Terphenyl-d14	95		42 - 133
Phenol-d5 (Surr)	11		10 - 130

Unadjusted Detection Limits

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW - SA Monitoring

TestAmerica Job ID: 600-95617-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	MQL	MDL	Units	Method
1,2-Dichloroethane	0.00100	0.000140	mg/L	8260B
Benzene	0.00100	0.0000800	mg/L	8260B
Chlorobenzene	0.00100	0.000120	mg/L	8260B
Ethylbenzene	0.00100	0.000110	mg/L	8260B
Methylene Chloride	0.00100	0.000150	mg/L	8260B
Toluene	0.00100	0.000150	mg/L	8260B
Vinyl chloride	0.00200	0.000110	mg/L	8260B
Xylenes, Total	0.00300	0.000260	mg/L	8260B

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	MQL	MDL	Units	Method
1,2-Diphenylhydrazine	0.000500	0.000110	mg/L	8270C LL
2,4-Dimethylphenol	0.000500	0.000310	mg/L	8270C LL
2,4-Dinitrotoluene	0.000500	0.000130	mg/L	8270C LL
2,6-Dinitrotoluene	0.000500	0.0000800	mg/L	8270C LL
2-Chloronaphthalene	0.000500	0.0000800	mg/L	8270C LL
2-Methylnaphthalene	0.000500	0.0000700	mg/L	8270C LL
4,6-Dinitro-2-methylphenol	0.00100	0.000830	mg/L	8270C LL
4-Nitrophenol	0.00100	0.000560	mg/L	8270C LL
Acenaphthene	0.000500	0.0000800	mg/L	8270C LL
Acenaphthylene	0.000500	0.0000600	mg/L	8270C LL
Anthracene	0.000500	0.0000500	mg/L	8270C LL
Benzo[a]anthracene	0.000500	0.0000800	mg/L	8270C LL
Benzo[a]pyrene	0.000500	0.0000800	mg/L	8270C LL
Bis(2-chloroethoxy)methane	0.000500	0.000130	mg/L	8270C LL
Bis(2-ethylhexyl) phthalate	0.000500	0.000370	mg/L	8270C LL
Chrysene	0.000500	0.0000800	mg/L	8270C LL
Dibenzofuran	0.000500	0.0000800	mg/L	8270C LL
Di-n-butyl phthalate	0.000500	0.000110	mg/L	8270C LL
Fluoranthene	0.000500	0.0000700	mg/L	8270C LL
Fluorene	0.000500	0.0000700	mg/L	8270C LL
Naphthalene	0.000500	0.0000800	mg/L	8270C LL
Nitrobenzene	0.000500	0.000110	mg/L	8270C LL
N-Nitrosodiphenylamine	0.000500	0.000100	mg/L	8270C LL
Pentachlorophenol	0.00100	0.000610	mg/L	8270C LL
Phenanthrene	0.000500	0.0000600	mg/L	8270C LL
Phenol	0.000500	0.0000400	mg/L	8270C LL
Pyrene	0.000500	0.000110	mg/L	8270C LL

QC Association Summary

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW - SA Monitoring

TestAmerica Job ID: 600-95617-1

GC/MS VOA

Analysis Batch: 139518

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-95617-1	WG-1620-MW48C-20140716	Total/NA	Water	8260B	
600-95617-2	WG-1620-MW49A-20140716	Total/NA	Water	8260B	
600-95617-3	WG-1620-MW49B-20140716	Total/NA	Water	8260B	
600-95617-4	WG-1620-MW69A-20140716	Total/NA	Water	8260B	
600-95617-5	WG-1620-MW60A-20140716	Total/NA	Water	8260B	
600-95617-6	WG-1620-MW18A-20140716	Total/NA	Water	8260B	
600-95617-7	WG-1620-MW18C-20140716	Total/NA	Water	8260B	
600-95617-8	WG-1620-FB1-20140716	Total/NA	Water	8260B	
600-95617-9	WG-1620-MW17C-20140717	Total/NA	Water	8260B	
600-95617-10	WG-1620-MW17-20140717	Total/NA	Water	8260B	
600-95617-11	WG-1620-MW15B-20140717	Total/NA	Water	8260B	
600-95617-12	WG-1620-MW15C-20140717	Total/NA	Water	8260B	
600-95617-13	WG-1620-MW15A-20140717	Total/NA	Water	8260B	
600-95617-14	WG-1620-MW55B-20140717	Total/NA	Water	8260B	
600-95617-15	WG-1620-MW55A-20140717	Total/NA	Water	8260B	
600-95617-16	WG-1620-MW19C-20140717	Total/NA	Water	8260B	
600-95617-17	WG-1620-FB2-20140717	Total/NA	Water	8260B	
LCS 600-139518/3	Lab Control Sample	Total/NA	Water	8260B	
LCS 600-139518/4	Lab Control Sample Dup	Total/NA	Water	8260B	
MB 600-139518/6	Method Blank	Total/NA	Water	8260B	

Analysis Batch: 139854

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-95617-6 - DL	WG-1620-MW18A-20140716	Total/NA	Water	8260B	
600-95617-7 - DL	WG-1620-MW18C-20140716	Total/NA	Water	8260B	
600-95663-D-4 MS	Matrix Spike	Total/NA	Water	8260B	
600-95663-D-4 MSD	Matrix Spike Duplicate	Total/NA	Water	8260B	
LCS 600-139854/3	Lab Control Sample	Total/NA	Water	8260B	
MB 600-139854/5	Method Blank	Total/NA	Water	8260B	

GC/MS Semi VOA

Prep Batch: 139772

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-95617-1	WG-1620-MW48C-20140716	Total/NA	Water	3510C	
600-95617-2	WG-1620-MW49A-20140716	Total/NA	Water	3510C	
600-95617-2 - DL	WG-1620-MW49A-20140716	Total/NA	Water	3510C	
600-95617-3	WG-1620-MW49B-20140716	Total/NA	Water	3510C	
600-95617-3 - DL	WG-1620-MW49B-20140716	Total/NA	Water	3510C	
600-95656-B-5-A MS	Matrix Spike	Total/NA	Water	3510C	
600-95656-B-5-B MSD	Matrix Spike Duplicate	Total/NA	Water	3510C	
LCS 600-139772/2-A	Lab Control Sample	Total/NA	Water	3510C	
MB 600-139772/1-A	Method Blank	Total/NA	Water	3510C	

Prep Batch: 139804

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-95617-4	WG-1620-MW69A-20140716	Total/NA	Water	3510C	
600-95617-5	WG-1620-MW60A-20140716	Total/NA	Water	3510C	
600-95617-6 - DL	WG-1620-MW18A-20140716	Total/NA	Water	3510C	
600-95617-6	WG-1620-MW18A-20140716	Total/NA	Water	3510C	

TestAmerica Houston

QC Association Summary

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW - SA Monitoring

TestAmerica Job ID: 600-95617-1

GC/MS Semi VOA (Continued)

Prep Batch: 139804 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-95617-7 - DL	WG-1620-MW18C-20140716	Total/NA	Water	3510C	
600-95617-7	WG-1620-MW18C-20140716	Total/NA	Water	3510C	
600-95617-8	WG-1620-FB1-20140716	Total/NA	Water	3510C	
600-95617-9	WG-1620-MW17C-20140717	Total/NA	Water	3510C	
600-95617-9 - DL	WG-1620-MW17C-20140717	Total/NA	Water	3510C	
600-95617-10	WG-1620-MW17-20140717	Total/NA	Water	3510C	
600-95617-10 - DL	WG-1620-MW17-20140717	Total/NA	Water	3510C	
600-95617-11 - DL	WG-1620-MW15B-20140717	Total/NA	Water	3510C	
600-95617-11	WG-1620-MW15B-20140717	Total/NA	Water	3510C	
600-95617-12 - DL	WG-1620-MW15C-20140717	Total/NA	Water	3510C	
600-95617-12	WG-1620-MW15C-20140717	Total/NA	Water	3510C	
600-95617-13 - DL	WG-1620-MW15A-20140717	Total/NA	Water	3510C	
600-95617-13	WG-1620-MW15A-20140717	Total/NA	Water	3510C	
600-95617-14 - DL	WG-1620-MW55B-20140717	Total/NA	Water	3510C	
600-95617-14	WG-1620-MW55B-20140717	Total/NA	Water	3510C	
600-95617-15	WG-1620-MW55A-20140717	Total/NA	Water	3510C	
600-95617-15 - DL	WG-1620-MW55A-20140717	Total/NA	Water	3510C	
600-95617-16	WG-1620-MW19C-20140717	Total/NA	Water	3510C	
600-95617-17	WG-1620-FB2-20140717	Total/NA	Water	3510C	
600-95617-17 MS	WG-1620-FB2-20140717	Total/NA	Water	3510C	
600-95617-17 MSD	WG-1620-FB2-20140717	Total/NA	Water	3510C	
LCS 600-139804/2-A	Lab Control Sample	Total/NA	Water	3510C	
MB 600-139804/1-A	Method Blank	Total/NA	Water	3510C	

Analysis Batch: 139825

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-95617-1	WG-1620-MW48C-20140716	Total/NA	Water	8270C LL	139772
600-95656-B-5-A MS	Matrix Spike	Total/NA	Water	8270C LL	139772
600-95656-B-5-B MSD	Matrix Spike Duplicate	Total/NA	Water	8270C LL	139772
LCS 600-139772/2-A	Lab Control Sample	Total/NA	Water	8270C LL	139772
MB 600-139772/1-A	Method Blank	Total/NA	Water	8270C LL	139772

Analysis Batch: 139934

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-95617-4	WG-1620-MW69A-20140716	Total/NA	Water	8270C LL	139804
600-95617-5	WG-1620-MW60A-20140716	Total/NA	Water	8270C LL	139804
600-95617-6	WG-1620-MW18A-20140716	Total/NA	Water	8270C LL	139804
600-95617-7	WG-1620-MW18C-20140716	Total/NA	Water	8270C LL	139804
600-95617-8	WG-1620-FB1-20140716	Total/NA	Water	8270C LL	139804
600-95617-9	WG-1620-MW17C-20140717	Total/NA	Water	8270C LL	139804
600-95617-10	WG-1620-MW17-20140717	Total/NA	Water	8270C LL	139804
600-95617-11	WG-1620-MW15B-20140717	Total/NA	Water	8270C LL	139804
600-95617-12	WG-1620-MW15C-20140717	Total/NA	Water	8270C LL	139804
600-95617-13	WG-1620-MW15A-20140717	Total/NA	Water	8270C LL	139804
600-95617-14	WG-1620-MW55B-20140717	Total/NA	Water	8270C LL	139804
600-95617-15	WG-1620-MW55A-20140717	Total/NA	Water	8270C LL	139804
600-95617-16	WG-1620-MW19C-20140717	Total/NA	Water	8270C LL	139804
600-95617-17	WG-1620-FB2-20140717	Total/NA	Water	8270C LL	139804
600-95617-17 MS	WG-1620-FB2-20140717	Total/NA	Water	8270C LL	139804
600-95617-17 MSD	WG-1620-FB2-20140717	Total/NA	Water	8270C LL	139804
LCS 600-139804/2-A	Lab Control Sample	Total/NA	Water	8270C LL	139804

TestAmerica Houston

QC Association Summary

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW - SA Monitoring

TestAmerica Job ID: 600-95617-1

GC/MS Semi VOA (Continued)

Analysis Batch: 139934 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 600-139804/1-A	Method Blank	Total/NA	Water	8270C LL	139804

Analysis Batch: 140127

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-95617-6 - DL	WG-1620-MW18A-20140716	Total/NA	Water	8270C LL	139804
600-95617-7 - DL	WG-1620-MW18C-20140716	Total/NA	Water	8270C LL	139804
600-95617-11 - DL	WG-1620-MW15B-20140717	Total/NA	Water	8270C LL	139804
600-95617-12 - DL	WG-1620-MW15C-20140717	Total/NA	Water	8270C LL	139804
600-95617-13 - DL	WG-1620-MW15A-20140717	Total/NA	Water	8270C LL	139804
600-95617-14 - DL	WG-1620-MW55B-20140717	Total/NA	Water	8270C LL	139804
600-95617-15 - DL	WG-1620-MW55A-20140717	Total/NA	Water	8270C LL	139804

Analysis Batch: 140222

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-95617-2	WG-1620-MW49A-20140716	Total/NA	Water	8270C LL	139772
600-95617-2 - DL	WG-1620-MW49A-20140716	Total/NA	Water	8270C LL	139772
600-95617-3	WG-1620-MW49B-20140716	Total/NA	Water	8270C LL	139772

Analysis Batch: 140670

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-95617-3 - DL	WG-1620-MW49B-20140716	Total/NA	Water	8270C LL	139772
600-95617-9 - DL	WG-1620-MW17C-20140717	Total/NA	Water	8270C LL	139804
600-95617-10 - DL	WG-1620-MW17-20140717	Total/NA	Water	8270C LL	139804
600-95617-14 - DL	WG-1620-MW55B-20140717	Total/NA	Water	8270C LL	139804

Lab Chronicle

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW - SA Monitoring

TestAmerica Job ID: 600-95617-1

Client Sample ID: WG-1620-MW48C-20140716

Lab Sample ID: 600-95617-1

Date Collected: 07/16/14 13:15

Matrix: Water

Date Received: 07/18/14 15:43

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	139518	07/18/14 15:42	YX1	TAL HOU
Total/NA	Prep	3510C			139772	07/22/14 14:46	LER	TAL HOU
Total/NA	Analysis	8270C LL		1	139825	07/23/14 15:06	MBB	TAL HOU

Client Sample ID: WG-1620-MW49A-20140716

Lab Sample ID: 600-95617-2

Date Collected: 07/16/14 14:20

Matrix: Water

Date Received: 07/18/14 15:43

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		20	139518	07/18/14 16:39	YX1	TAL HOU
Total/NA	Prep	3510C			139772	07/22/14 14:49	LER	TAL HOU
Total/NA	Analysis	8270C LL		100	140222	07/29/14 10:37	MBB	TAL HOU
Total/NA	Prep	3510C	DL		139772	07/22/14 14:49	LER	TAL HOU
Total/NA	Analysis	8270C LL	DL	500	140222	07/29/14 16:27	MBB	TAL HOU

Client Sample ID: WG-1620-MW49B-20140716

Lab Sample ID: 600-95617-3

Date Collected: 07/16/14 15:10

Matrix: Water

Date Received: 07/18/14 15:43

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		20	139518	07/18/14 17:07	YX1	TAL HOU
Total/NA	Prep	3510C			139772	07/22/14 14:49	LER	TAL HOU
Total/NA	Analysis	8270C LL		20	140222	07/29/14 11:06	MBB	TAL HOU
Total/NA	Prep	3510C	DL		139772	07/22/14 14:49	LER	TAL HOU
Total/NA	Analysis	8270C LL	DL	1000	140670	08/02/14 02:10	MBB	TAL HOU

Client Sample ID: WG-1620-MW69A-20140716

Lab Sample ID: 600-95617-4

Date Collected: 07/16/14 16:00

Matrix: Water

Date Received: 07/18/14 15:43

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	139518	07/18/14 16:10	YX1	TAL HOU
Total/NA	Prep	3510C			139804	07/23/14 05:45	LER	TAL HOU
Total/NA	Analysis	8270C LL		1	139934	07/24/14 12:12	MBB	TAL HOU

Client Sample ID: WG-1620-MW60A-20140716

Lab Sample ID: 600-95617-5

Date Collected: 07/16/14 17:00

Matrix: Water

Date Received: 07/18/14 15:43

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	139518	07/18/14 17:35	YX1	TAL HOU
Total/NA	Prep	3510C			139804	07/23/14 05:45	LER	TAL HOU

TestAmerica Houston

Lab Chronicle

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW - SA Monitoring

TestAmerica Job ID: 600-95617-1

Client Sample ID: WG-1620-MW60A-20140716

Lab Sample ID: 600-95617-5

Date Collected: 07/16/14 17:00

Matrix: Water

Date Received: 07/18/14 15:43

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8270C LL		1	139934	07/24/14 12:41	MBB	TAL HOU

Client Sample ID: WG-1620-MW18A-20140716

Lab Sample ID: 600-95617-6

Date Collected: 07/16/14 18:15

Matrix: Water

Date Received: 07/18/14 15:43

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		20	139518	07/18/14 19:01	YX1	TAL HOU
Total/NA	Analysis	8260B	DL	100	139854	07/23/14 15:13	YX1	TAL HOU
Total/NA	Prep	3510C			139804	07/23/14 05:45	LER	TAL HOU
Total/NA	Analysis	8270C LL		50	139934	07/24/14 19:58	MBB	TAL HOU
Total/NA	Prep	3510C	DL		139804	07/23/14 05:45	LER	TAL HOU
Total/NA	Analysis	8270C LL	DL	500	140127	07/26/14 03:07	MBB	TAL HOU

Client Sample ID: WG-1620-MW18C-20140716

Lab Sample ID: 600-95617-7

Date Collected: 07/16/14 19:10

Matrix: Water

Date Received: 07/18/14 15:43

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		20	139518	07/18/14 19:29	YX1	TAL HOU
Total/NA	Analysis	8260B	DL	200	139854	07/23/14 15:42	YX1	TAL HOU
Total/NA	Prep	3510C			139804	07/23/14 05:45	LER	TAL HOU
Total/NA	Analysis	8270C LL		50	139934	07/24/14 20:27	MBB	TAL HOU
Total/NA	Prep	3510C	DL		139804	07/23/14 05:45	LER	TAL HOU
Total/NA	Analysis	8270C LL	DL	1000	140127	07/26/14 03:36	MBB	TAL HOU

Client Sample ID: WG-1620-FB1-20140716

Lab Sample ID: 600-95617-8

Date Collected: 07/16/14 19:20

Matrix: Water

Date Received: 07/18/14 15:43

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	139518	07/18/14 18:04	YX1	TAL HOU
Total/NA	Prep	3510C			139804	07/23/14 05:45	LER	TAL HOU
Total/NA	Analysis	8270C LL		1	139934	07/24/14 14:08	MBB	TAL HOU

Client Sample ID: WG-1620-MW17C-20140717

Lab Sample ID: 600-95617-9

Date Collected: 07/17/14 07:40

Matrix: Water

Date Received: 07/18/14 15:43

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	139518	07/18/14 18:32	YX1	TAL HOU
Total/NA	Prep	3510C			139804	07/23/14 05:45	LER	TAL HOU

TestAmerica Houston

Lab Chronicle

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW - SA Monitoring

TestAmerica Job ID: 600-95617-1

Client Sample ID: WG-1620-MW17C-20140717

Lab Sample ID: 600-95617-9

Date Collected: 07/17/14 07:40

Matrix: Water

Date Received: 07/18/14 15:43

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8270C LL		50	139934	07/24/14 20:56	MBB	TAL HOU
Total/NA	Prep	3510C	DL		139804	07/23/14 05:45	LER	TAL HOU
Total/NA	Analysis	8270C LL	DL	1000	140670	08/02/14 02:37	MBB	TAL HOU

Client Sample ID: WG-1620-MW17-20140717

Lab Sample ID: 600-95617-10

Date Collected: 07/17/14 08:30

Matrix: Water

Date Received: 07/18/14 15:43

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		20	139518	07/18/14 23:16	YX1	TAL HOU
Total/NA	Prep	3510C			139804	07/23/14 05:45	LER	TAL HOU
Total/NA	Analysis	8270C LL		50	139934	07/24/14 21:25	MBB	TAL HOU
Total/NA	Prep	3510C	DL		139804	07/23/14 05:45	LER	TAL HOU
Total/NA	Analysis	8270C LL	DL	1000	140670	08/02/14 03:04	MBB	TAL HOU

Client Sample ID: WG-1620-MW15B-20140717

Lab Sample ID: 600-95617-11

Date Collected: 07/17/14 09:30

Matrix: Water

Date Received: 07/18/14 15:43

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	139518	07/18/14 20:26	YX1	TAL HOU
Total/NA	Prep	3510C			139804	07/23/14 05:45	LER	TAL HOU
Total/NA	Analysis	8270C LL		1	139934	07/24/14 15:36	MBB	TAL HOU
Total/NA	Prep	3510C	DL		139804	07/23/14 05:45	LER	TAL HOU
Total/NA	Analysis	8270C LL	DL	20	140127	07/26/14 00:44	MBB	TAL HOU

Client Sample ID: WG-1620-MW15C-20140717

Lab Sample ID: 600-95617-12

Date Collected: 07/17/14 10:20

Matrix: Water

Date Received: 07/18/14 15:43

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	139518	07/18/14 20:54	YX1	TAL HOU
Total/NA	Prep	3510C			139804	07/23/14 05:45	LER	TAL HOU
Total/NA	Analysis	8270C LL		1	139934	07/24/14 16:05	MBB	TAL HOU
Total/NA	Prep	3510C	DL		139804	07/23/14 05:45	LER	TAL HOU
Total/NA	Analysis	8270C LL	DL	10	140127	07/26/14 01:12	MBB	TAL HOU

Lab Chronicle

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW - SA Monitoring

TestAmerica Job ID: 600-95617-1

Client Sample ID: WG-1620-MW15A-20140717

Lab Sample ID: 600-95617-13

Date Collected: 07/17/14 11:20

Matrix: Water

Date Received: 07/18/14 15:43

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	139518	07/18/14 21:22	YX1	TAL HOU
Total/NA	Prep	3510C			139804	07/23/14 05:45	LER	TAL HOU
Total/NA	Analysis	8270C LL		1	139934	07/24/14 16:34	MBB	TAL HOU
Total/NA	Prep	3510C	DL		139804	07/23/14 05:45	LER	TAL HOU
Total/NA	Analysis	8270C LL	DL	20	140127	07/26/14 01:41	MBB	TAL HOU

Client Sample ID: WG-1620-MW55B-20140717

Lab Sample ID: 600-95617-14

Date Collected: 07/17/14 12:30

Matrix: Water

Date Received: 07/18/14 15:43

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		20	139518	07/18/14 22:19	YX1	TAL HOU
Total/NA	Prep	3510C			139804	07/23/14 05:45	LER	TAL HOU
Total/NA	Analysis	8270C LL		50	139934	07/24/14 17:03	MBB	TAL HOU
Total/NA	Prep	3510C	DL		139804	07/23/14 05:45	LER	TAL HOU
Total/NA	Analysis	8270C LL	DL	1000	140127	07/26/14 02:10	MBB	TAL HOU
Total/NA	Prep	3510C	DL		139804	07/23/14 05:45	LER	TAL HOU
Total/NA	Analysis	8270C LL	DL	10000	140670	08/02/14 03:31	MBB	TAL HOU

Client Sample ID: WG-1620-MW55A-20140717

Lab Sample ID: 600-95617-15

Date Collected: 07/17/14 13:20

Matrix: Water

Date Received: 07/18/14 15:43

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		20	139518	07/18/14 22:48	YX1	TAL HOU
Total/NA	Prep	3510C			139804	07/23/14 05:45	LER	TAL HOU
Total/NA	Analysis	8270C LL		50	139934	07/24/14 17:32	MBB	TAL HOU
Total/NA	Prep	3510C	DL		139804	07/23/14 05:45	LER	TAL HOU
Total/NA	Analysis	8270C LL	DL	1000	140127	07/26/14 02:38	MBB	TAL HOU

Client Sample ID: WG-1620-MW19C-20140717

Lab Sample ID: 600-95617-16

Date Collected: 07/17/14 14:20

Matrix: Water

Date Received: 07/18/14 15:43

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	139518	07/18/14 21:51	YX1	TAL HOU
Total/NA	Prep	3510C			139804	07/23/14 05:45	LER	TAL HOU
Total/NA	Analysis	8270C LL		1	139934	07/24/14 18:02	MBB	TAL HOU

Lab Chronicle

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW - SA Monitoring

TestAmerica Job ID: 600-95617-1

Client Sample ID: WG-1620-FB2-20140717

Lab Sample ID: 600-95617-17

Date Collected: 07/17/14 14:35

Matrix: Water

Date Received: 07/18/14 15:43

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	139518	07/18/14 19:57	YX1	TAL HOU
Total/NA	Prep	3510C			139804	07/23/14 05:45	LER	TAL HOU
Total/NA	Analysis	8270C LL		1	139934	07/24/14 18:31	MBB	TAL HOU

Laboratory References:

TAL HOU = TestAmerica Houston, 6310 Rothway Street, Houston, TX 77040, TEL (713)690-4444

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Certification Summary

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW - SA Monitoring

TestAmerica Job ID: 600-95617-1

Laboratory: TestAmerica Houston

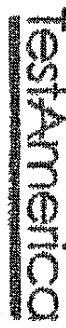
The certifications listed below are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Texas	NELAP	6	T104704223	10-31-14

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6310 Rothway Street
Houston, TX 77040
Phone (713) 690-4444 Fax (713) 690-5646

Chain of Custody



Client Information
 Client Contact: Mr. Eric Matzner
 Company: Pastor, Behling & Wheeler LLC
 Address: 2201 Double Creek Dr Suite 4004
 City: Round Rock
 State, Zip: TX 78664
 Phone: 512-671-3434(Tel) 512-671-3446(Fax)
 Email: eric.matzner@pbwllc.com

Sampler: **JOHN BEAYTON**
 Phone: 512-671-3434
 Lab P/N: Kuddach
 E-Mail: sachin.k

COC No: 600-29458-10071.1
 Page 1 of 2
 Job #

Date Date Requested:
 TAT Requested (days): 10-Business Days
 PO #: Purchase Order not required
 WOC #:

Project Name: 1620 UPRR HWPW - SemiAnnual Monitoring - Site-Wide
 Project #: 60003722
 SSON#:

Sample Identification	Sample Date	Sample Time	Sample Type (C-comp, G-grad)	Matrix (Water, Soil, etc.)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	Total Number of Containers	Special Instructions/Note:
WG-1620-MW48C-20140716	7-16-14	1315	G	Water	X	X		
WG-1620-MW49A-20140716		1420	G	Water	X	X		
WG-1620-MW49B-20140716		1510	G	Water	X	X		
WG-1620-MW69A-20140716		1600	G	Water	X	X		
WG-1620-MW60A-20140716		1700	G	Water	X	X		
WG-1620-MW18A-20140716		1815	G	Water	X	X		
WG-1620-MW18C-20140716		1910	G	Water	X	X		
WG-1620-FB1-20140716		1920	G	Water	X	X		
WG-1620-MW17C-20140717	7-17-14	0740	G	Water	X	X		
WG-1620-MW17-20140717		0830	G	Water	X	X		
WG-1620-MW15B-20140717		0930	G	Water	X	X		

8260B_LL - Volatiles
 8270C_LL - Semi-volatiles
VINYL CHLORIDE

Preservation Codes:
 A - HCl
 B - NaOH
 C - Zn Acetate
 D - Nitric Acid
 E - NaHSO4
 F - MeOH
 G - Ammonia
 H - Ascorbic Acid
 I - Ice
 J - DI Water
 K - EDTA
 L - EDTA
 M - Hexane
 N - None
 O - AsHClO2
 P - Na2CO3
 Q - Na2SO3
 R - Na2S2O3
 S - H2SO4
 T - TSP Dodecylhydrate
 U - Acetone
 V - MCAA
 W - Ph 4-5
 Z - other (specify)

Empty Kit Reinstated by: [Signature]
 Date: [Blank]
 Time: [Blank]
 Method of Shipment: [Blank]

Reinstated by: [Signature]
 Date/Time: 7-17-14 1535
 Company: PBW

Received by: [Signature]
 Date/Time: 7/17/14 1543
 Company: TA

Cooler Temperature(s) °C and Other Remarks: [Blank]

6310 Rönway Street
Houston, TX 77040
Phone (713) 690-4444 Fax (713) 690-5646

Chain of Custody Record

Client Information

Company: Pastor, Belling & Wheeler LLC
Address: 2201 Double Creek Dr Suite 4004
City: Round Rock
State, Zip: TX, 78664
Phone: 512-671-3434 (Tel) 512-671-3446 (Fax)
Email: eric.matzner@dbwllc.com
Project Name: 1620 UPRR HMPW - Semi-Annual Monitoring - Site-Wide
Site:

Sampler: JOHN BEATSON
Project #: 512-671-3434

Lab Piv: Kundhadkar, Sachin G
E-Mail: sachin.kundhadkar@testamerica.com

Carrier Tracking No(s):

COC No: 800-29458-10071.1
Page: 2 of 2
Job #:

Due Date Requested:

TAT Requested (days): 10-Business Days

Analysis Requested

Preservation Codes:

PO #: Purchase Order not required
WQC #:
Project #: 60003722
SSOW#:

- A - HCL
- B - MeOH
- C - 2H Acetate
- D - Nitric Acid
- E - NaHSO4
- F - MeOH
- G - Amchlor
- H - Acetic Acid
- I - Ice
- J - DI Water
- K - EDTA
- L - EDA
- M - Hexane
- N - None
- O - ASHCO2
- P - Na2CO3
- Q - Na2SO3
- R - Na2S2O3
- S - H2SO4
- T - TSP Dodecahydrate
- U - Acetone
- V - MCAA
- W - pH 4.5
- Z - other (specify)
- Other:

Sample Identification

Sample Date

Sample Time

Sample Type (C=Comp, G=grab)

Matrix (A=water, S=solid, O=organic, A=air)

Field Filtered Sample (Yes or No)

Perform MS/MS (Yes or No)

Total Number of containers

Special Instructions/Note:

Sample ID	Sample Date	Sample Time	Sample Type	Matrix	Field Filtered	MS/MS	Containers	Notes
WG-1620-MWISC-20140717	7-17-14	1020	G	Water	X	X	1	
WG-1620-MWISA-20140717		1120	G	Water	X	X	1	
WG-1620-MWSSB-20140717		1230	G	Water	X	X	1	
WG-1620-MWSSA-20140717		1320	G	Water	X	X	1	
WG-1620-MW19C-20140717		1420	G	Water	X	X	1	
WG-1620-FB2-20140717		1435	G	Water	X	X	1	

Possible Hazard Identification
 Non-Hazard Flammable Skin Irritant Poison B Unknown Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
 Return To Client Disposal By Lab Archive For _____ Months

Empty Kit Requisitioned by: _____ Date: _____

Requisitioned by: *[Signature]* Date/Time: 7-17-14 1525 Company: PBC

Requisitioned by: _____ Date/Time: _____ Company: _____

Received by: *[Signature]* Date/Time: 7/17/14 1540 Company: PBC

Received by: _____ Date/Time: _____ Company: _____

Custody Seals Intact: A Yes A No Custody Seal No.:

Cooler Temperature(s) and Other Remarks:

Sample Receipt Checklist

14 JUL 17 15:43

Loc: 600
95617

JOB NUMBER: _____

UNPACKED BY: _____

Custody Seal Present: YES NO

Date/Time Received: _____

CLIENT: FBW

CARRIER/DRIVER: Client

Number of Coolers Received: _____

Cooler ID	Temp Blank	Trip Blank	Observed Temp (°C)	Therm ID	Therm CF	Corrected Temp (°C)
<u>Blw</u>	<u>(X) / N</u>	<u>Y / N</u>	<u>0.5</u>	<u>549</u>	<u>-0.2</u>	<u>0.3</u>
<u>Blw</u>	<u>(X) / N</u>	<u>Y / N</u>	<u>0.5</u>	<u>549</u>	<u>-0.2</u>	<u>0.3</u>
<u>W</u>	<u>(X) / N</u>	<u>Y / N</u>	<u>2.3</u>	<u>549</u>	<u>-0.2</u>	<u>2.1</u>
<u>Blw</u>	<u>(X) / N</u>	<u>Y / N</u>	<u>2.1</u>	<u>549</u>	<u>-0.2</u>	<u>1.9</u>
	Y / N	Y / N				
	Y / N	Y / N				
	Y / N	Y / N				
	Y / N	Y / N				
	Y / N	Y / N				

CF = correction factor

Samples received on ice? YES NO

LABORATORY PRESERVATION OF SAMPLES REQUIRED: NO YES

Base samples are >pH 12: YES NO Acid preserved are <pH 2: YES NO

pH paper Lot # _____

VOA headspace acceptable (5-6mm): YES NO NA

Did samples meet the laboratory's standard conditions of sample acceptability upon receipt? YES NO

COMMENTS:

~~_____~~

~~_____~~

~~_____~~

~~_____~~

~~_____~~

Login Sample Receipt Checklist

Client: Pastor, Behling & Wheeler LLC

Job Number: 600-95617-1

Login Number: 95617

List Source: TestAmerica Houston

List Number: 1

Creator: Lockett, DuJuan D

Question	Answer	Comment
Radioactivity wasn't checked or is <=/ background as measured by a survey meter.	N/A	Lab does not accept radioactive samples.
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	0.3, 0.3, 2.1, 1.9
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	Check done at department level as required.

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Houston

6310 Rothway Street

Houston, TX 77040

Tel: (713)690-4444

TestAmerica Job ID: 600-95656-1

Client Project/Site: 1620 UPRR HWPW

For:

Pastor, Behling & Wheeler LLC

2201 Double Creek Dr

Suite 4004

Round Rock, Texas 78664

Attn: Mr. Eric Matzner



Authorized for release by:

8/7/2014 5:47:23 PM

Sophia Shah, Project Management Assistant I

sophia.shah@testamericainc.com

Designee for

Sachin Kudchadkar, Senior Project Manager

(713)690-4444

sachin.kudchadkar@testamericainc.com

LINKS

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results through

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Have a Question?



Visit us at:

www.testamericainc.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15
- 16



Table of Contents

Cover Page	1
Table of Contents	2
TRRP Checklists & DCSs	3
Case Narrative	12
Method Summary	13
Sample Summary	14
Client Sample Results	15
Definitions/Glossary	22
Surrogate Summary	23
QC Sample Results	24
Default Detection Limits	33
QC Association Summary	34
Lab Chronicle	36
Certification Summary	38
Chain of Custody	39
Receipt Checklists	41

Appendix A

Laboratory Data Package Cover Page - Page 1 of 4

This data package is for TestAmerica Houston job number 600-95656-1 and consists of:

- R1 - Field chain-of-custody documentation;
- R2 - Sample identification cross-reference;
- R3 - Test reports (analytical data sheets) for each environmental sample that includes:
 - a. Items consistent with NELAC Chapter 5,
 - b. dilution factors,
 - c. preparation methods,
 - d. cleanup methods, and
 - e. if required for the project, tentatively identified compounds (TICs).
- R4 - Surrogate recovery data including:
 - a. Calculated recovery (%R), and
 - b. The laboratory's surrogate QC limits.
- R5 - Test reports/summary forms for blank samples;
- R6 - Test reports/summary forms for laboratory control samples (LCSs) including:
 - a. LCS spiking amounts,
 - b. Calculated %R for each analyte, and
 - c. The laboratory's LCS QC limits.
- R7 - Test reports for project matrix spike/matrix spike duplicates (MS/MSDs) including:
 - a. Samples associated with the MS/MSD clearly identified,
 - b. MS/MSD spiking amounts,
 - c. Concentration of each MS/MSD analyte measured in the parent and spiked samples,
 - d. Calculated %Rs and relative percent differences (RPDs), and
 - e. The laboratory's MS/MSD QC limits
- R8 - Laboratory analytical duplicate (if applicable) recovery and precision:
 - a. The amount of analyte measured in the duplicate,
 - b. The calculated RPD, and
 - c. The laboratory's QC limits for analytical duplicates.
- R9 - List of method quantitation limits (MQLs) and detectability check sample results for each analyte for each method and matrix.
- R10 - Other problems or anomalies.

The Exception Report for each "No" or "Not Reviewed (NR)" item in Laboratory Review Checklist and for each analyte, matrix, and method for which the laboratory does not hold NELAC accreditation under the Texas Laboratory Accreditation Program.

Release Statement: I am responsible for the release of this laboratory data package. This laboratory is NELAC accredited under the Texas Laboratory Accreditation Program for all the methods, analytes, and matrices reported in this data package except as noted in the Exception Reports. The data have been reviewed and are technically compliant with the requirements of the methods used, except where noted by the laboratory in the Exception Reports. By my signature below, I affirm to the best of my knowledge all problems/anomalies observed by the laboratory have been identified in the Laboratory Review Checklist, and no information affecting the quality of the data has been knowingly withheld.

Sophia Shah
Name (printed)



Signature

8/7/2014
Date

Project Management Assistant
Official Title (printed)

Laboratory Review Checklist: Reportable Data - Page 2 of 4

Laboratory Name:	TestAmerica Houston	LRC Date:	8/7/2014
Project Name:	1620 UPRR HWPW	Laboratory Job Number:	600-95656-1
Reviewer Name:	Sachin G Kudchadkar		

# ¹	A ²	Description	Yes	No	NA ³	NR ⁴	ER# ⁵
R1	OI	Chain-of-custody (C-O-C)					
		Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?	X				
		Were all departures from standard conditions described in an exception report?	X				
R2	OI	Sample and quality control (QC) identification					
		Are all field sample ID numbers cross-referenced to the laboratory ID numbers?	X				
		Are all laboratory ID numbers cross-referenced to the corresponding QC data?	X				
R3	OI	Test reports					
		Were all samples prepared and analyzed within holding times?	X				
		Other than those results < MQL, were all other raw values bracketed by calibration standards?	X				
		Were calculations checked by a peer or supervisor?	X				
		Were all analyte identifications checked by a peer or supervisor?	X				
		Were sample detection limits reported for all analytes not detected?	X				
		Were all results for soil and sediment samples reported on a dry weight basis?			X		
		Were % moisture (or solids) reported for all soil and sediment samples?			X		
		Were bulk soils/solids samples for volatile analysis extracted with methanol per SW846 Method 5035?			X		
		If required for the project, are TICs reported?			X		
R4	O	Surrogate recovery data					
		Were surrogates added prior to extraction?	X				
		Were surrogate percent recoveries in all samples within the laboratory QC limits?		X			R04B
R5	OI	Test reports/summary forms for blank samples					
		Were appropriate type(s) of blanks analyzed?	X				
		Were blanks analyzed at the appropriate frequency?	X				
		Were method blanks taken through the entire analytical process, including preparation and, if applicable, cleanup procedures?	X				
		Were blank concentrations < MQL?	X				
R6	OI	Laboratory control samples (LCS):					
		Were all COCs included in the LCS?	X				
		Was each LCS taken through the entire analytical procedure, including prep and cleanup steps?	X				
		Were LCSs analyzed at the required frequency?	X				
		Were LCS (and LCSD, if applicable) %Rs within the laboratory QC limits?	X				
		Does the detectability check sample data document the laboratory's capability to detect the COCs at the MDL used to calculate the SDLs?	X				
		Was the LCSD RPD within QC limits?	X				
R7	OI	Matrix spike (MS) and matrix spike duplicate (MSD) data					
		Were the project/method specified analytes included in the MS and MSD?	X				
		Were MS/MSD analyzed at the appropriate frequency?	X				
		Were MS (and MSD, if applicable) %Rs within the laboratory QC limits?		X			R07C
		Were MS/MSD RPDs within laboratory QC limits?		X			R07D
R8	OI	Analytical duplicate data					
		Were appropriate analytical duplicates analyzed for each matrix?			X		
		Were analytical duplicates analyzed at the appropriate frequency?			X		
		Were RPDs or relative standard deviations within the laboratory QC limits?			X		
R9	OI	Method quantitation limits (MQLs):					
		Are the MQLs for each method analyte included in the laboratory data package?	X				
		Do the MQLs correspond to the concentration of the lowest non-zero calibration standard?	X				
		Are unadjusted MQLs and DCSs included in the laboratory data package?	X				
R10	OI	Other problems/anomalies					
		Are all known problems/anomalies/special conditions noted in this LRC and ER?	X				
		Was applicable and available technology used to lower the SDL to minimize the matrix interference effects on the sample results?		X			R10B
		Is the laboratory NELAC-accredited under the Texas Laboratory Accreditation Program for the analytes, matrices and methods associated with this laboratory data package?	X				

- Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.
- O = organic analyses; I = inorganic analyses (and general chemistry, when applicable);
- NA = Not applicable;
- NR = Not reviewed;
- ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

Laboratory Review checklist: Supporting Data - Page 3 of 4

Laboratory Name:	TestAmerica Houston	LRC Date:	8/7/2014
Project Name:	1620 UPRR HWPW	Laboratory Job Number:	600-95656-1
Reviewer Name:	Sachin G Kudchadkar		

# ¹	A ²	Description	Yes	No	NA ³	NR ⁴	ER# ⁵
S1	OI	Initial calibration (ICAL)					
		Were response factors and/or relative response factors for each analyte within QC limits?	X				
		Were percent RSDs or correlation coefficient criteria met?	X				
		Was the number of standards recommended in the method used for all analytes?	X				
		Were all points generated between the lowest and highest standard used to calculate the curve?	X				
		Are ICAL data available for all instruments used?	X				
		Has the initial calibration curve been verified using an appropriate second source standard?	X				
S2	OI	Initial and continuing calibration verification (ICV and CCV) and continuing calibration blank (CCB):					
		Was the CCV analyzed at the method-required frequency?	X				
		Were percent differences for each analyte within the method-required QC limits?	X				
		Was the ICAL curve verified for each analyte?			X		
		Was the absolute value of the analyte concentration in the inorganic CCB < MDL?			X		
S3	O	Mass spectral tuning					
		Was the appropriate compound for the method used for tuning?	X				
		Were ion abundance data within the method-required QC limits?	X				
S4	O	Internal standards (IS)					
		Were IS area counts and retention times within the method-required QC limits?	X				
S5	OI	Raw data (NELAC Section 5.5.10)					
		Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?	X				
		Were data associated with manual integrations flagged on the raw data?	X				
S6	O	Dual column confirmation					
		Did dual column confirmation results meet the method-required QC?			X		
S7	O	Tentatively identified compounds (TICs)					
		If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?			X		
S8	I	Interference Check Sample (ICS) results					
		Were percent recoveries within method QC limits?			X		
S9	I	Serial dilutions, post digestion spikes, and method of standard additions					
		Were percent differences, recoveries, and the linearity within the QC limits specified in the method?			X		
S10	OI	Method detection limit (MDL) studies					
		Was a MDL study performed for each reported analyte?	X				
		Is the MDL either adjusted or supported by the analysis of DCSS?	X				
S11	OI	Proficiency test reports					
		Was the laboratory's performance acceptable on the applicable proficiency tests or evaluation studies?	X				
S12	OI	Standards documentation					
		Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?	X				
S13	OI	Compound/analyte identification procedures					
		Are the procedures for compound/analyte identification documented?	X				
S14	OI	Demonstration of analyst competency (DOC)					
		Was DOC conducted consistent with NELAC Chapter 5?	X				
		Is documentation of the analyst's competency up-to-date and on file?	X				
S15	OI	Verification/validation documentation for methods (NELAC Chapter 5)					
		Are all the methods used to generate the data documented, verified, and validated, where applicable?	X				
S16	OI	Laboratory standard operating procedures (SOPs)					
		Are laboratory SOPs current and on file for each method performed?	X				
<p>1. Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.</p> <p>2. O = organic analyses; I = inorganic analyses (and general chemistry, when applicable);</p> <p>3. NA = Not applicable;</p> <p>4. NR = Not reviewed;</p> <p>5. ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).</p>							

Laboratory Review Checklist: Exception Reports - Page 4 of 4

Laboratory Name:	TestAmerica Houston	LRC Date:	8/7/2014
Project Name:	1620 UPRR HWPW	Laboratory Job Number:	600-95656-1
Reviewer Name:	Sachin G Kudchadkar		

ER # ¹	Description
R04B	Method 8270C LL: The following sample(s) required a dilution due to the nature of the sample matrix: 600-95656-3. Because of this dilution, the surrogate spike concentration in the sample was reduced to a level where the recovery calculation does not provide useful information.
R07C	Method 8270C LL: The matrix spike duplicate (MSD) recoveries and precision for batch 139772 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCSD) recovery was within acceptance limits.
R07D	Method 8270C LL: 600-95656-5 MSD failed the RPD criteria for the following analyte(s): 1,2-Diphenylhydrazine, 2,4-Dimethylphenol, 2,4-Dinitrotoluene, 2,6-Dinitrotoluene, 2-Chloronaphthalene, 2-Methylnaphthalene, Acenaphthene, Acenaphthylene, Anthracene, Bis(2-chloroethoxy)methane, Dibenzofuran, Fluorene, N-Nitrosodiphenylamine, Naphthalene, Nitrobenzene, Phenanthrene, Phenol. Matrix interference is suspected.
R10B	Method 8270C LL: The following sample(s) was diluted due to the nature of the sample matrix: 600-95656-3. Elevated reporting limits (RLs) are provided. Method 8270C LL: The following sample(s) was diluted to bring the concentration of target analytes within the calibration range: 600-95656-2 and 600-95656-3. Elevated reporting limits (RLs) are provided.
	<ol style="list-style-type: none"> Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period. O = organic analyses; I = inorganic analyses (and general chemistry, when applicable); NA = Not applicable; NR = Not reviewed; ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

Matrix: Water
Method: 8260B_LL
Prep Method: No Prep
Date Analyzed: 3/21/2014
Job #: 600-88537
TALS Batch: 130207
Units: ug/L

Analyte	Instrument #	MDL	DCS Spike	Measured Result	MQL
1,1,1,2-Tetrachloroethane	VOAMS07	0.180	0.500	0.545	1
1,1,1-Trichloroethane	VOAMS07	0.150	0.500	0.610	1
1,1,2,2-Tetrachloroethane	VOAMS07	0.220	0.500	0.432	1
1,1,2-Trichloro-1,2,2-trifluoroethane	VOAMS01	1.000	1.000	0.906	1
1,1,2-Trichloroethane	VOAMS01	0.280	1.000	0.836	1
1,1-Dichloroethane	VOAMS07	0.11	0.5	0.476	1
1,1-Dichloroethene	VOAMS07	0.190	0.500	0.495	1
1,1-Dichloropropene	VOAMS07	0.210	0.500	0.833	1
1,2,3-Trichlorobenzene	VOAMS01	0.570	1.000	1.041	1
1,2,3-Trichloropropane	VOAMS01	0.290	1.000	1.028	1
1,2,3-Trimethylbenzene	VOAMS07	0.130	0.500	0.714	1
1,2,4-Trichlorobenzene	VOAMS01	0.310	1.000	0.904	1
1,2,4-Trimethylbenzene	VOAMS07	0.140	0.500	0.730	1
1,2-Dibromo-3-Chloropropane	VOAMS01	0.810	1.000	0.586	1
1,2-Dichlorobenzene	VOAMS07	0.1	0.5	0.417	1
1,2-Dichloroethane	VOAMS07	0.140	0.500	0.596	1
1,2-Dichloroethene, Total	VOAMS07	0.300	1.000	0.960	1
1,2-Dichloropropane	VOAMS07	0.160	0.500	0.450	1
1,3,5-Trichlorobenzene	VOAMS01	1.000	1.000	0.908	1
1,3,5-Trimethylbenzene	VOAMS07	0.1	0.5	0.715	1
1,3-Dichlorobenzene	VOAMS07	0.130	0.500	0.435	1
1,3-Dichloropropane	VOAMS07	0.220	0.500	0.489	1
1,3-Dichloropropene, Total	VOAMS07	0.11	1	1.81	1
1,4-Dichlorobenzene	VOAMS07	0.11	0.5	0.5	1
1,4-Dioxane	VOAMS01	30.79	20	16.089	50
1-Chlorohexane	VOAMS01	0.260	1.000	1.097	1
2,2-Dichloropropane	VOAMS07	0.130	0.500	0.563	1
2-Butanone (MEK)	VOAMS01	0.760	2.000	1.428	2
2-Chloro-1,3-butadiene	VOAMS01	0.330	1.000	1.011	1
2-Chloroethyl vinyl ether	VOAMS01	0.500	2.000	2.554	2
2-Chlorotoluene	VOAMS07	0.130	0.500	0.665	1
2-Hexanone	VOAMS07	0.350	1.000	1.971	2
2-Methyl-2-propanol	VOAMS07	10.47	5	5.576	20
2-Methylnaphthalene	VOAMS01	1	1	0	1
2-Nitropropane	VOAMS01	1.210	2.000	4.577	1
3-Chloro-1-propene	VOAMS07	0.240	0.500	0.953	2
4-Chlorotoluene	VOAMS07	0.140	0.500	0.337	1
4-Isopropyltoluene	VOAMS07	0.1	0.5	0.403	1
4-Methyl-2-pentanone (MIBK)	VOAMS07	0.450	1.000	1.760	2
Acetone	VOAMS01	0.990	2.000	0.565	5
Acetonitrile	VOAMS07	0.27	5	3.915	2
Acrolein	VOAMS01	1.630	5.000	5.060	5
Acrylonitrile	VOAMS07	0.52	5	3.884	5
Benzene	VOAMS07	0.08	0.5	0.459	1
Benzyl chloride	VOAMS07	0.240	0.500	0.875	1
Bromobenzene	VOAMS07	0.190	0.500	0.489	1
Bromoform	VOAMS07	0.190	0.500	0.573	1
Bromomethane	VOAMS01	0.250	1.000	0.804	2
Butadiene	VOAMS07	0.210	0.500	0.384	1
Carbon disulfide	VOAMS07	0.240	0.500	0.434	2
Carbon tetrachloride	VOAMS07	0.150	0.500	0.610	1

Matrix: Water
Method: 8260B_LL
Prep Method: No Prep
Date Analyzed: 3/21/2014
Job #: 600-88537
TALS Batch: 130207
Units: ug/L

Analyte	Instrument #	MDL	DCS Spike	Measured Result	MQL
Chlorobenzene	VOAMS07	0.12	0.5	0.508	1
Chlorobromomethane	VOAMS07	0.180	0.500	0.517	1
Chlorodibromomethane	VOAMS07	0.150	0.500	0.565	1
Chloroethane	VOAMS07	0.08	0.5	0.549	2
Chloroform	VOAMS07	0.130	0.500	0.573	1
Chloromethane	VOAMS07	0.180	0.500	0.424	2
cis-1,2-Dichloroethene	VOAMS07	0.06	0.5	0.491	1
cis-1,3-Dichloropropene	VOAMS07	0.180	0.500	0.807	1
Cyclohexane	VOAMS07	0.160	0.500	0.700	1
Cyclohexanone	VOAMS07	8.640	25.000	31.282	50
Dibromomethane	VOAMS01	0.520	1.000	0.343	1
Dichlorobromomethane	VOAMS07	0.160	0.500	0.490	1
Dichlorodifluoromethane	VOAMS07	0.12	0.5	0.476	1
Dichlorofluoromethane	VOAMS01	1.000	1.000	1.214	1
Ethanol	VOAMS07	1	25	0	1
Ethyl acetate	VOAMS07	0.410	1.000	2.127	2
Ethyl acrylate	VOAMS01	0.340	1.000	0.535	2
Ethyl ether	VOAMS07	0.150	0.500	0.836	1
Ethyl methacrylate	VOAMS01	0.260	1.000	0.915	2
Ethylbenzene	VOAMS07	0.11	0.5	0.769	1
Ethylene Dibromide	VOAMS07	0.180	0.500	0.466	1
Ethylene oxide	VOAMS01	2.13	20	4.963	10
Hexachlorobutadiene	VOAMS07	0.170	0.500	0.685	1
Hexane	VOAMS07	0.160	0.500	0.433	1
Iodomethane	VOAMS07	0.158	0.500	0.517	2
Isobutyl alcohol	VOAMS07	3.320	12.500	9.263	10
Isooctane	VOAMS01	0.330	1.000	0.661	1
Isopropyl alcohol	VOAMS01	3.720	10.000	0.586	10
Isopropyl ether	VOAMS07	0.09	0.5	0.443	1
Isopropylbenzene	VOAMS07	0.180	0.500	0.757	1
Methacrylonitrile	VOAMS07	0.41	5	3.96	2
Methyl acetate	VOAMS07	0.55	2.5	1.883	2
Methyl methacrylate	VOAMS07	0.330	1.000	1.663	1
Methyl tert-butyl ether	VOAMS07	0.12	0.5	0.947	1
Methylcyclohexane	VOAMS07	0.1	0.5	0.719	1
Methylene Chloride	VOAMS07	0.150	0.500	1.229	5
m-Xylene & p-Xylene	VOAMS07	0.170	0.500	0.838	1
Naphthalene	VOAMS01	0.320	1.000	1.120	2
n-Butyl acetate	VOAMS01	0.19	1	1.902	1
n-Butylbenzene	VOAMS07	0.160	0.500	0.585	1
n-Heptane	VOAMS01	1.000	1.000	0.511	1
N-Propylbenzene	VOAMS07	0.150	0.500	0.892	1
o-Xylene	VOAMS07	0.12	0.5	0.543	1
Pentachloroethane	VOAMS01	1.000	1.000	1.053	1
Propionitrile	VOAMS07	0.66	5	3.711	5
sec-Butylbenzene	VOAMS07	0.12	0.5	0.659741	1
Styrene	VOAMS07	0.07	0.5	1.110441	1
Tert-amyl methyl ether	VOAMS01	1.000	1.000	0.633	1
Tert-butyl ethyl ether	VOAMS01	1.000	1.000	0.677	1
tert-Butylbenzene	VOAMS07	0.08	0.5	0.880472	1
Tetrachloroethene	VOAMS07	0.130	0.500	0.817	1

Matrix: Water
Method: 8260B_LL
Prep Method: No Prep
Date Analyzed: 3/21/2014
Job #: 600-88537
TALS Batch: 130207
Units: ug/L

Analyte	Instrument #	MDL	DCS Spike	Measured Result	MQL
Tetrahydrofuran	VOAMS01	1.080	2.000	1.071	5
Toluene	VOAMS07	0.150	0.500	0.506	1
trans-1,2-Dichloroethene	VOAMS07	0.09	0.5	0.472189	1
trans-1,3-Dichloropropene	VOAMS07	0.210	0.500	1.009	1
trans-1,4-Dichloro-2-butene	VOAMS01	0.640	1.000	0.676	2
Trichloroethene	VOAMS07	0.180	0.500	0.498	1
Trichlorofluoromethane	VOAMS07	0.08	0.5	0.539265	1
Trihalomethanes, Total	VOAMS01	1.000	4.000	3.600	5
Vinyl acetate	VOAMS07	0.21	1	1.798318	2
Vinyl chloride	VOAMS07	0.11	1	1.38	2
Xylenes, Total	VOAMS07	0.260	1.000	1.380	1



Matrix: Water
Method: 8270C_LL
Prep Method: 3510C_LL
Date Analyzed: 3/21/2014
Job #: 600-87830
TALS Batch: 130292
Units: ug/L

Analyte	Instrument #	MDL	DCS Spike	Measured Result	MQL
1,1'-Biphenyl	SVMS06	0.100	0.125	0.089	1
1,2,4,5-Tetrachlorobenzene	SVMS06	0.100	0.125	0.122	1.5
1,2,4-Trichlorobenzene	SVMS06	0.120	0.125	0.072	2
1,2-Dichlorobenzene	SVMS06	0.170	0.250	0.174	1.75
1,2-Diphenylhydrazine	SVMS06	0.110	0.125	0.079	2
1,3-Dichlorobenzene	SVMS06	0.170	0.250	0.188	1.5
1,4-Dichlorobenzene	SVMS06	0.130	0.250	0.178	2
1,4-Dinitrobenzene	SVMS06	5.00	2.50	1.77	5
1-Methylnaphthalene	SVMS06	0.090	0.125	0.096	2
1-Naphthylamine	SVMS06	0.170	0.500	0.181	2
2,2'-oxybis[1-chloropropane]	SVMS06	0.400	0.250	0.159	1.5
2,3,5,6-Tetrachlorophenol	SVMS06	0.500	0.500	0.870	5
2,4,5-Trichlorophenol	SVMS06	0.250	0.250	0.102	2
2,4,6-Trichlorophenol	SVMS06	0.180	0.250	0.115	2
2,4-Dichlorophenol	SVMS06	0.150	0.250	0.071	2.5
2,4-Dinitrotoluene	SVMS06	0.130	0.250	0.385	1.5
2,6-Dinitrotoluene	SVMS06	0.080	0.250	0.353	1
2-Chloronaphthalene	SVMS06	0.080	0.125	0.130	1.5
2-Chlorophenol	SVMS06	0.130	0.250	0.188	2
2-Methylnaphthalene	SVMS06	0.070	0.125	0.092	1.5
2-Methylphenol	SVMS06	0.120	0.125	0.092	1.5
2-Naphthylamine	SVMS06	0.140	0.500	0.188	1
2-Nitroaniline	SVMS06	0.190	0.250	0.374	2.5
2-Nitrophenol	SVMS06	0.220	0.250	0.130	1
2-Picoline	SVMS06	0.390	0.500	0.170	1.5
2-Toluidine	SVMS06	0.130	0.500	0.271	1
3 & 4 Methylphenol	SVMS06	0.200	0.250	0.099	1
3,3'-Dichlorobenzidine	SVMS06	0.180	0.250	0.370	10
3-Methylcholanthrene	SVMS06	0.500	0.500	0.481	5
3-Nitroaniline	SVMS06	0.160	0.250	0.061	2.5
4-Aminobiphenyl	SVMS06	0.170	0.500	0.297	10
4-Bromophenyl phenyl ether	SVMS06	0.100	0.125	0.045	1.5
4-Chloro-3-methylphenol	SVMS06	0.170	0.250	0.073	1
4-Chloroaniline	SVMS06	0.210	0.250	0.117	1
4-Chlorophenyl phenyl ether	SVMS06	0.100	0.125	0.088	1.5
Acenaphthene	SVMS06	0.080	0.125	0.101	1
Acenaphthylene	SVMS06	0.060	0.125	0.315	1
Acetophenone	SVMS06	0.150	0.250	0.153	1.5
Aniline	SVMS06	0.080	0.250	0.140	1.5
Anthracene	SVMS06	0.050	0.125	0.075	1
Atrazine	SVMS06	0.160	0.250	0.060	1.5
Azobenzene	SVMS06	0.070	0.125	0.071	1.5
Benzaldehyde	SVMS06	0.500	0.500	0.096	1
Benzidine	SVMS06	0.610	1.303	1.220	10
Benzo[a]anthracene	SVMS06	0.080	0.125	0.114	2
Benzo[a]pyrene	SVMS06	0.080	0.125	0.046	1.5
Benzo[b]fluoranthene	SVMS06	0.070	0.125	0.083	2
Benzo[g,h,i]perylene	SVMS06	0.080	0.250	0.146	2.5
Benzo[k]fluoranthene	SVMS06	0.090	0.125	0.076	2
Benzyl alcohol	SVMS06	0.170	0.250	0.039	5.5
Bis(2-chloroethoxy)methane	SVMS06	0.130	0.250	0.206	1.5

Matrix: Water
Method: 8270C_LL
Prep Method: 3510C_LL
Date Analyzed: 3/21/2014
Job #: 600-87830
TALS Batch: 130292
Units: ug/L

Analyte	Instrument #	MDL	DCS Spike	Measured Result	MQL
Bis(2-chloroethyl)ether	SVMS06	0.150	0.250	0.215	1.5
Bis(2-ethylhexyl) phthalate	SVMS06	0.370	0.250	0.058	2.5
Butyl benzyl phthalate	SVMS06	0.120	0.125	0.011	2.5
Carbazole	SVMS06	0.170	0.250	0.116	6.25
Chrysene	SVMS06	0.080	0.125	0.095	1.5
Dibenz(a,h)anthracene	SVMS06	0.080	0.250	0.045	2.5
Dibenz[a,j]acridine	SVMS06	0.350	1.000	0.687	1
Dibenzofuran	SVMS06	0.080	0.125	0.081	1.5
Diethyl phthalate	SVMS06	1.50	0.250	0.215	2.5
Dimethyl phthalate	SVMS06	0.070	0.250	0.195	2.5
Di-n-butyl phthalate	SVMS06	0.110	0.125	0.080	2.5
Di-n-octyl phthalate	SVMS06	0.160	0.250	0.030	5
Diphenylamine	SVMS06	0.100	0.125	0.059	1.5
Ethyl methanesulfonate	SVMS06	0.170	0.500	0.370	1.5
Fluoranthene	SVMS06	0.070	0.125	0.109	2.5
Fluorene	SVMS06	0.070	0.125	0.090	1.5
Hexachlorobenzene	SVMS06	0.110	0.125	0.129	1.5
Hexachlorobutadiene	SVMS06	0.180	0.250	0.218	2
Hexachlorocyclopentadiene	SVMS06	0.130	0.250	0.184	1.5
Hexachloroethane	SVMS06	0.100	0.125	0.147	2
Hexachloropropene	SVMS06	0.160	0.500	0.395	10
Indene	SVMS06	0.150	0.500	0.204	1
Indeno[1,2,3-cd]pyrene	SVMS06	0.070	0.125	0.021	2
Isodrin	SVMS06	0.150	0.500	0.447	1.5
Isophorone	SVMS06	0.110	0.250	0.168	1.5
Methapyrilene	SVMS06	1.060	2.500	1.485	1.5
Methyl methanesulfonate	SVMS06	0.200	0.500	0.437	1.5
Methyl Phenols, Total	SVMS06	0.200	0.500	0.140	1
Naphthalene	SVMS06	0.080	0.125	0.082	5
Nitrobenzene	SVMS06	0.110	0.125	0.107	1.5
N-Nitrosodiethylamine	SVMS06	0.380	0.500	0.366	1.5
N-Nitrosodimethylamine	SVMS06	0.260	0.250	0.163	2
N-Nitrosodi-n-butylamine	SVMS06	0.230	0.500	0.308	1.5
N-Nitrosodi-n-propylamine	SVMS06	0.100	0.125	0.076	2.5
N-Nitrosodiphenylamine	SVMS06	0.100	0.125	0.056	1.5
N-Nitrosomethylethylamine	SVMS06	0.110	0.500	0.115	1
N-Nitrosomorpholine	SVMS06	0.190	0.500	0.355	10
N-Nitrosopiperidine	SVMS06	0.190	0.500	0.370	1.5
N-Nitrosopyrrolidine	SVMS06	0.210	0.500	0.434	1
o,o',o"-Triethylphosphorothioate	SVMS06	0.500	0.500	0.398	5
Pentachlorobenzene	SVMS06	0.130	0.500	0.415	1.5
Pentachloroethane	SVMS06	0.150	0.500	0.296	1
Pentachloronitrobenzene	SVMS06	0.12	0.500	0.573	1.5
Pentachlorophenol	SVMS06	0.610	0.250	0.582	2.5
Phenanthrene	SVMS06	0.060	0.125	0.087	1.5
Phenol	SVMS06	0.040	0.125	0.110	1.5
Pyrene	SVMS06	0.110	0.125	0.077	2
Quinoline	SVMS06	0.130	0.500	0.396	1

Case Narrative

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-95656-1

Job ID: 600-95656-1

Laboratory: TestAmerica Houston

Narrative

Job Narrative
600-95656-1

Comments

No additional comments.

Receipt

The samples were received on 7/18/2014 11:34 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 3.0° C.

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Method Summary

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-95656-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL HOU
8270C LL	Semivolatile Organic Compounds by GCMS - Low Levels	SW846	TAL HOU

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL HOU = TestAmerica Houston, 6310 Rothway Street, Houston, TX 77040, TEL (713)690-4444



Sample Summary

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-95656-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
600-95656-1	WG-1620-MW73B-20140718	Water	07/18/14 08:00	07/18/14 11:34
600-95656-2	WG-1620-MW14-20140718	Water	07/18/14 09:00	07/18/14 11:34
600-95656-3	WG-1620-MW40B-20140718	Water	07/18/14 09:50	07/18/14 11:34
600-95656-4	WG-1620-MW42B-20140718	Water	07/18/14 10:50	07/18/14 11:34
600-95656-5	WG-1620-FB-3-20140718	Water	07/18/14 11:00	07/18/14 11:34
600-95656-6	WG-1620-TB1-20140718	Water	07/18/14 00:00	07/18/14 11:34

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Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-95656-1

Client Sample ID: WG-1620-MW73B-20140718

Lab Sample ID: 600-95656-1

Date Collected: 07/18/14 08:00

Matrix: Water

Date Received: 07/18/14 11:34

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	0.000110	U	0.00200	0.000110	mg/L			07/18/14 17:30	1
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			07/18/14 17:30	1
Benzene	0.00309		0.00100	0.0000800	mg/L			07/18/14 17:30	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			07/18/14 17:30	1
Toluene	0.000150	U	0.00100	0.000150	mg/L			07/18/14 17:30	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			07/18/14 17:30	1
Ethylbenzene	0.000110	U	0.00100	0.000110	mg/L			07/18/14 17:30	1
Xylenes, Total	0.000260	U	0.00300	0.000260	mg/L			07/18/14 17:30	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	95		67 - 139					07/18/14 17:30	1
Dibromofluoromethane	113		62 - 130					07/18/14 17:30	1
Toluene-d8 (Surr)	117		70 - 130					07/18/14 17:30	1
1,2-Dichloroethane-d4 (Surr)	111		50 - 134					07/18/14 17:30	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.0000396	U	0.000495	0.0000396	mg/L		07/21/14 11:20	07/23/14 16:33	1
Naphthalene	0.0000792	U	0.000495	0.0000792	mg/L		07/21/14 11:20	07/23/14 16:33	1
Acenaphthylene	0.0000594	U	0.000495	0.0000594	mg/L		07/21/14 11:20	07/23/14 16:33	1
Acenaphthene	0.0000792	U	0.000495	0.0000792	mg/L		07/21/14 11:20	07/23/14 16:33	1
Dibenzofuran	0.0000792	U	0.000495	0.0000792	mg/L		07/21/14 11:20	07/23/14 16:33	1
Fluorene	0.0000693	U	0.000495	0.0000693	mg/L		07/21/14 11:20	07/23/14 16:33	1
Anthracene	0.000150	J	0.000495	0.0000495	mg/L		07/21/14 11:20	07/23/14 16:33	1
Di-n-butyl phthalate	0.000109	U	0.000495	0.000109	mg/L		07/21/14 11:20	07/23/14 16:33	1
Fluoranthene	0.0000693	U	0.000495	0.0000693	mg/L		07/21/14 11:20	07/23/14 16:33	1
Pyrene	0.000109	U	0.000495	0.000109	mg/L		07/21/14 11:20	07/23/14 16:33	1
Bis(2-ethylhexyl) phthalate	0.000603		0.000495	0.000366	mg/L		07/21/14 11:20	07/23/14 16:33	1
Phenanthrene	0.0000594	U	0.000495	0.0000594	mg/L		07/21/14 11:20	07/23/14 16:33	1
Benzo[a]pyrene	0.0000792	U	0.000495	0.0000792	mg/L		07/21/14 11:20	07/23/14 16:33	1
2-Methylnaphthalene	0.0000693	U	0.000495	0.0000693	mg/L		07/21/14 11:20	07/23/14 16:33	1
2,4-Dinitrotoluene	0.000129	U	0.000495	0.000129	mg/L		07/21/14 11:20	07/23/14 16:33	1
Nitrobenzene	0.000109	U	0.000495	0.000109	mg/L		07/21/14 11:20	07/23/14 16:33	1
Pentachlorophenol	0.000604	U	0.000990	0.000604	mg/L		07/21/14 11:20	07/23/14 16:33	1
4,6-Dinitro-2-methylphenol	0.000822	U	0.000990	0.000822	mg/L		07/21/14 11:20	07/23/14 16:33	1
N-Nitrosodiphenylamine	0.0000990	U	0.000495	0.0000990	mg/L		07/21/14 11:20	07/23/14 16:33	1
Benzo[a]anthracene	0.0000792	U	0.000495	0.0000792	mg/L		07/21/14 11:20	07/23/14 16:33	1
1,2-Diphenylhydrazine	0.000109	U	0.000495	0.000109	mg/L		07/21/14 11:20	07/23/14 16:33	1
Chrysene	0.0000792	U	0.000495	0.0000792	mg/L		07/21/14 11:20	07/23/14 16:33	1
4-Nitrophenol	0.000554	U	0.000990	0.000554	mg/L		07/21/14 11:20	07/23/14 16:33	1
2,6-Dinitrotoluene	0.0000792	U	0.000495	0.0000792	mg/L		07/21/14 11:20	07/23/14 16:33	1
Bis(2-chloroethoxy)methane	0.000129	U	0.000495	0.000129	mg/L		07/21/14 11:20	07/23/14 16:33	1
2-Chloronaphthalene	0.0000792	U	0.000495	0.0000792	mg/L		07/21/14 11:20	07/23/14 16:33	1
2,4-Dimethylphenol	0.000307	U	0.000495	0.000307	mg/L		07/21/14 11:20	07/23/14 16:33	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	87		10 - 147				07/21/14 11:20	07/23/14 16:33	1
2-Fluorobiphenyl	71		10 - 150				07/21/14 11:20	07/23/14 16:33	1
2-Fluorophenol	28		10 - 130				07/21/14 11:20	07/23/14 16:33	1
Nitrobenzene-d5	68		23 - 130				07/21/14 11:20	07/23/14 16:33	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-95656-1

Client Sample ID: WG-1620-MW73B-20140718

Lab Sample ID: 600-95656-1

Date Collected: 07/18/14 08:00

Matrix: Water

Date Received: 07/18/14 11:34

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Terphenyl-d14	99		42 - 133	07/21/14 11:20	07/23/14 16:33	1
Phenol-d5 (Surr)	13		10 - 130	07/21/14 11:20	07/23/14 16:33	1

Client Sample ID: WG-1620-MW14-20140718

Lab Sample ID: 600-95656-2

Date Collected: 07/18/14 09:00

Matrix: Water

Date Received: 07/18/14 11:34

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	0.000110	U	0.00200	0.000110	mg/L			07/18/14 17:56	1
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			07/18/14 17:56	1
Benzene	0.0000800	U	0.00100	0.0000800	mg/L			07/18/14 17:56	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			07/18/14 17:56	1
Toluene	0.000150	U	0.00100	0.000150	mg/L			07/18/14 17:56	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			07/18/14 17:56	1
Ethylbenzene	0.000110	U	0.00100	0.000110	mg/L			07/18/14 17:56	1
Xylenes, Total	0.000260	U	0.00300	0.000260	mg/L			07/18/14 17:56	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	105		67 - 139		07/18/14 17:56	1
Dibromofluoromethane	130		62 - 130		07/18/14 17:56	1
Toluene-d8 (Surr)	123		70 - 130		07/18/14 17:56	1
1,2-Dichloroethane-d4 (Surr)	127		50 - 134		07/18/14 17:56	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.0000396	U	0.000495	0.0000396	mg/L		07/21/14 11:20	07/23/14 17:01	1
Naphthalene	0.00143		0.000495	0.0000792	mg/L		07/21/14 11:20	07/23/14 17:01	1
Acenaphthylene	0.0000594	U	0.000495	0.0000594	mg/L		07/21/14 11:20	07/23/14 17:01	1
Acenaphthene	0.000619		0.000495	0.0000792	mg/L		07/21/14 11:20	07/23/14 17:01	1
Dibenzofuran	0.000437	J	0.000495	0.0000792	mg/L		07/21/14 11:20	07/23/14 17:01	1
Fluorene	0.000901	J	0.000495	0.0000693	mg/L		07/21/14 11:20	07/23/14 17:01	1
Anthracene	0.000139	J	0.000495	0.0000495	mg/L		07/21/14 11:20	07/23/14 17:01	1
Di-n-butyl phthalate	0.000109	U	0.000495	0.000109	mg/L		07/21/14 11:20	07/23/14 17:01	1
Fluoranthene	0.0000693	U	0.000495	0.0000693	mg/L		07/21/14 11:20	07/23/14 17:01	1
Pyrene	0.000109	U	0.000495	0.000109	mg/L		07/21/14 11:20	07/23/14 17:01	1
Bis(2-ethylhexyl) phthalate	0.000615		0.000495	0.000366	mg/L		07/21/14 11:20	07/23/14 17:01	1
Phenanthrene	0.000506		0.000495	0.0000594	mg/L		07/21/14 11:20	07/23/14 17:01	1
Benzo[a]pyrene	0.0000792	U	0.000495	0.0000792	mg/L		07/21/14 11:20	07/23/14 17:01	1
2-Methylnaphthalene	0.000336	J	0.000495	0.0000693	mg/L		07/21/14 11:20	07/23/14 17:01	1
2,4-Dinitrotoluene	0.000129	U	0.000495	0.000129	mg/L		07/21/14 11:20	07/23/14 17:01	1
Nitrobenzene	0.000109	U	0.000495	0.000109	mg/L		07/21/14 11:20	07/23/14 17:01	1
Pentachlorophenol	0.000604	U	0.000990	0.000604	mg/L		07/21/14 11:20	07/23/14 17:01	1
4,6-Dinitro-2-methylphenol	0.000822	U	0.000990	0.000822	mg/L		07/21/14 11:20	07/23/14 17:01	1
N-Nitrosodiphenylamine	0.0000990	U	0.000495	0.0000990	mg/L		07/21/14 11:20	07/23/14 17:01	1
Benzo[a]anthracene	0.0000792	U	0.000495	0.0000792	mg/L		07/21/14 11:20	07/23/14 17:01	1
1,2-Diphenylhydrazine	0.000109	U	0.000495	0.000109	mg/L		07/21/14 11:20	07/23/14 17:01	1
Chrysene	0.0000792	U	0.000495	0.0000792	mg/L		07/21/14 11:20	07/23/14 17:01	1
4-Nitrophenol	0.000554	U	0.000990	0.000554	mg/L		07/21/14 11:20	07/23/14 17:01	1
Bis(2-chloroethoxy)methane	0.000129	U	0.000495	0.000129	mg/L		07/21/14 11:20	07/23/14 17:01	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-95656-1

Client Sample ID: WG-1620-MW14-20140718

Lab Sample ID: 600-95656-2

Date Collected: 07/18/14 09:00

Matrix: Water

Date Received: 07/18/14 11:34

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Chloronaphthalene	0.0000792	U	0.000495	0.0000792	mg/L		07/21/14 11:20	07/23/14 17:01	1
2,4-Dimethylphenol	0.000307	U	0.000495	0.000307	mg/L		07/21/14 11:20	07/23/14 17:01	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	74		10 - 147				07/21/14 11:20	07/23/14 17:01	1
2-Fluorobiphenyl	73		10 - 150				07/21/14 11:20	07/23/14 17:01	1
2-Fluorophenol	28		10 - 130				07/21/14 11:20	07/23/14 17:01	1
Nitrobenzene-d5	73		23 - 130				07/21/14 11:20	07/23/14 17:01	1
Terphenyl-d14	95		42 - 133				07/21/14 11:20	07/23/14 17:01	1
Phenol-d5 (Surr)	13		10 - 130				07/21/14 11:20	07/23/14 17:01	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels - DL

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
2,6-Dinitrotoluene	0.0788		0.00198	0.000317	mg/L		07/21/14 11:20	08/02/14 16:53	4
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	78		10 - 147				07/21/14 11:20	08/02/14 16:53	4
2-Fluorobiphenyl	69		10 - 150				07/21/14 11:20	08/02/14 16:53	4
2-Fluorophenol	25		10 - 130				07/21/14 11:20	08/02/14 16:53	4
Nitrobenzene-d5	71		23 - 130				07/21/14 11:20	08/02/14 16:53	4
Terphenyl-d14	82		42 - 133				07/21/14 11:20	08/02/14 16:53	4
Phenol-d5 (Surr)	13		10 - 130				07/21/14 11:20	08/02/14 16:53	4

Client Sample ID: WG-1620-MW40B-20140718

Lab Sample ID: 600-95656-3

Date Collected: 07/18/14 09:50

Matrix: Water

Date Received: 07/18/14 11:34

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	0.000110	U	0.00200	0.000110	mg/L			07/18/14 18:22	1
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			07/18/14 18:22	1
Benzene	0.0103		0.00100	0.0000800	mg/L			07/18/14 18:22	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			07/18/14 18:22	1
Toluene	0.0154		0.00100	0.000150	mg/L			07/18/14 18:22	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			07/18/14 18:22	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	96		67 - 139					07/18/14 18:22	1
Dibromofluoromethane	109		62 - 130					07/18/14 18:22	1
Toluene-d8 (Surr)	110		70 - 130					07/18/14 18:22	1
1,2-Dichloroethane-d4 (Surr)	112		50 - 134					07/18/14 18:22	1

Method: 8260B - Volatile Organic Compounds (GC/MS) - DL

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	0.0825		0.0100	0.00110	mg/L			07/21/14 00:21	10
Xylenes, Total	0.126		0.0300	0.00260	mg/L			07/21/14 00:21	10
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	91		67 - 139					07/21/14 00:21	10
Dibromofluoromethane	100		62 - 130					07/21/14 00:21	10
Toluene-d8 (Surr)	98		70 - 130					07/21/14 00:21	10

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-95656-1

Client Sample ID: WG-1620-MW40B-20140718

Lab Sample ID: 600-95656-3

Date Collected: 07/18/14 09:50

Matrix: Water

Date Received: 07/18/14 11:34

Method: 8260B - Volatile Organic Compounds (GC/MS) - DL (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	101		50 - 134		07/21/14 00:21	10

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.000396	U	0.00495	0.000396	mg/L		07/21/14 11:20	08/02/14 01:16	10
Acenaphthylene	0.00335	J	0.00495	0.000594	mg/L		07/21/14 11:20	08/02/14 01:16	10
Acenaphthene	0.236		0.00495	0.000792	mg/L		07/21/14 11:20	08/02/14 01:16	10
Dibenzofuran	0.178		0.00495	0.000792	mg/L		07/21/14 11:20	08/02/14 01:16	10
Fluorene	0.183		0.00495	0.000693	mg/L		07/21/14 11:20	08/02/14 01:16	10
Anthracene	0.0142		0.00495	0.000495	mg/L		07/21/14 11:20	08/02/14 01:16	10
Di-n-butyl phthalate	0.00109	U	0.00495	0.00109	mg/L		07/21/14 11:20	08/02/14 01:16	10
Fluoranthene	0.00562		0.00495	0.000693	mg/L		07/21/14 11:20	08/02/14 01:16	10
Pyrene	0.00242	J	0.00495	0.00109	mg/L		07/21/14 11:20	08/02/14 01:16	10
Bis(2-ethylhexyl) phthalate	0.00366	U	0.00495	0.00366	mg/L		07/21/14 11:20	08/02/14 01:16	10
Phenanthrene	0.111		0.00495	0.000594	mg/L		07/21/14 11:20	08/02/14 01:16	10
Benzo[a]pyrene	0.000792	U	0.00495	0.000792	mg/L		07/21/14 11:20	08/02/14 01:16	10
2-Methylnaphthalene	0.263	E	0.00495	0.000693	mg/L		07/21/14 11:20	08/02/14 01:16	10
2,4-Dinitrotoluene	0.00129	U	0.00495	0.00129	mg/L		07/21/14 11:20	08/02/14 01:16	10
Nitrobenzene	0.00109	U	0.00495	0.00109	mg/L		07/21/14 11:20	08/02/14 01:16	10
Pentachlorophenol	0.00604	U	0.00990	0.00604	mg/L		07/21/14 11:20	08/02/14 01:16	10
4,6-Dinitro-2-methylphenol	0.00822	U	0.00990	0.00822	mg/L		07/21/14 11:20	08/02/14 01:16	10
N-Nitrosodiphenylamine	0.000990	U	0.00495	0.000990	mg/L		07/21/14 11:20	08/02/14 01:16	10
Benzo[a]anthracene	0.000792	U	0.00495	0.000792	mg/L		07/21/14 11:20	08/02/14 01:16	10
1,2-Diphenylhydrazine	0.00109	U	0.00495	0.00109	mg/L		07/21/14 11:20	08/02/14 01:16	10
Chrysene	0.000792	U	0.00495	0.000792	mg/L		07/21/14 11:20	08/02/14 01:16	10
4-Nitrophenol	0.00554	U	0.00990	0.00554	mg/L		07/21/14 11:20	08/02/14 01:16	10
2,6-Dinitrotoluene	0.000792	U	0.00495	0.000792	mg/L		07/21/14 11:20	08/02/14 01:16	10
Bis(2-chloroethoxy)methane	0.00129	U	0.00495	0.00129	mg/L		07/21/14 11:20	08/02/14 01:16	10
2-Chloronaphthalene	0.000792	U	0.00495	0.000792	mg/L		07/21/14 11:20	08/02/14 01:16	10
2,4-Dimethylphenol	0.00307	U	0.00495	0.00307	mg/L		07/21/14 11:20	08/02/14 01:16	10

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	71		10 - 147	07/21/14 11:20	08/02/14 01:16	10
2-Fluorobiphenyl	67		10 - 150	07/21/14 11:20	08/02/14 01:16	10
2-Fluorophenol	43		10 - 130	07/21/14 11:20	08/02/14 01:16	10
Nitrobenzene-d5	76		23 - 130	07/21/14 11:20	08/02/14 01:16	10
Terphenyl-d14	74		42 - 133	07/21/14 11:20	08/02/14 01:16	10
Phenol-d5 (Surr)	11		10 - 130	07/21/14 11:20	08/02/14 01:16	10

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels - DL

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	4.24		0.248	0.0396	mg/L		07/21/14 11:20	07/29/14 11:36	500

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	0	X	10 - 147	07/21/14 11:20	07/29/14 11:36	500
2-Fluorobiphenyl	0	X	10 - 150	07/21/14 11:20	07/29/14 11:36	500
2-Fluorophenol	0	X	10 - 130	07/21/14 11:20	07/29/14 11:36	500
Nitrobenzene-d5	0	X	23 - 130	07/21/14 11:20	07/29/14 11:36	500
Terphenyl-d14	0	X	42 - 133	07/21/14 11:20	07/29/14 11:36	500
Phenol-d5 (Surr)	0	X	10 - 130	07/21/14 11:20	07/29/14 11:36	500

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-95656-1

Client Sample ID: WG-1620-MW42B-20140718

Lab Sample ID: 600-95656-4

Date Collected: 07/18/14 10:50

Matrix: Water

Date Received: 07/18/14 11:34

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	0.000110	U	0.00200	0.000110	mg/L			07/18/14 18:48	1
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			07/18/14 18:48	1
Benzene	0.0000800	U	0.00100	0.0000800	mg/L			07/18/14 18:48	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			07/18/14 18:48	1
Toluene	0.000150	U	0.00100	0.000150	mg/L			07/18/14 18:48	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			07/18/14 18:48	1
Ethylbenzene	0.000208	J	0.00100	0.000110	mg/L			07/18/14 18:48	1
Xylenes, Total	0.000349	J	0.00300	0.000260	mg/L			07/18/14 18:48	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	97		67 - 139					07/18/14 18:48	1
Dibromofluoromethane	102		62 - 130					07/18/14 18:48	1
Toluene-d8 (Surr)	111		70 - 130					07/18/14 18:48	1
1,2-Dichloroethane-d4 (Surr)	101		50 - 134					07/18/14 18:48	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.000801		0.000495	0.0000396	mg/L		07/21/14 11:20	07/23/14 18:00	1
Naphthalene	0.000426	J	0.000495	0.0000792	mg/L		07/21/14 11:20	07/23/14 18:00	1
Acenaphthylene	0.0000594	U	0.000495	0.0000594	mg/L		07/21/14 11:20	07/23/14 18:00	1
Acenaphthene	0.0000792	U	0.000495	0.0000792	mg/L		07/21/14 11:20	07/23/14 18:00	1
Dibenzofuran	0.0000792	U	0.000495	0.0000792	mg/L		07/21/14 11:20	07/23/14 18:00	1
Fluorene	0.0000693	U	0.000495	0.0000693	mg/L		07/21/14 11:20	07/23/14 18:00	1
Anthracene	0.0000495	U	0.000495	0.0000495	mg/L		07/21/14 11:20	07/23/14 18:00	1
Di-n-butyl phthalate	0.000109	U	0.000495	0.000109	mg/L		07/21/14 11:20	07/23/14 18:00	1
Fluoranthene	0.0000693	U	0.000495	0.0000693	mg/L		07/21/14 11:20	07/23/14 18:00	1
Pyrene	0.000109	U	0.000495	0.000109	mg/L		07/21/14 11:20	07/23/14 18:00	1
Bis(2-ethylhexyl) phthalate	0.000513		0.000495	0.000366	mg/L		07/21/14 11:20	07/23/14 18:00	1
Phenanthrene	0.0000594	U	0.000495	0.0000594	mg/L		07/21/14 11:20	07/23/14 18:00	1
Benzo[a]pyrene	0.0000792	U	0.000495	0.0000792	mg/L		07/21/14 11:20	07/23/14 18:00	1
2-Methylnaphthalene	0.0000693	U	0.000495	0.0000693	mg/L		07/21/14 11:20	07/23/14 18:00	1
2,4-Dinitrotoluene	0.000129	U	0.000495	0.000129	mg/L		07/21/14 11:20	07/23/14 18:00	1
Nitrobenzene	0.000109	U	0.000495	0.000109	mg/L		07/21/14 11:20	07/23/14 18:00	1
Pentachlorophenol	0.000604	U	0.000990	0.000604	mg/L		07/21/14 11:20	07/23/14 18:00	1
4,6-Dinitro-2-methylphenol	0.000822	U	0.000990	0.000822	mg/L		07/21/14 11:20	07/23/14 18:00	1
N-Nitrosodiphenylamine	0.0000990	U	0.000495	0.0000990	mg/L		07/21/14 11:20	07/23/14 18:00	1
Benzo[a]anthracene	0.0000792	U	0.000495	0.0000792	mg/L		07/21/14 11:20	07/23/14 18:00	1
1,2-Diphenylhydrazine	0.000109	U	0.000495	0.000109	mg/L		07/21/14 11:20	07/23/14 18:00	1
Chrysene	0.0000792	U	0.000495	0.0000792	mg/L		07/21/14 11:20	07/23/14 18:00	1
4-Nitrophenol	0.000554	U	0.000990	0.000554	mg/L		07/21/14 11:20	07/23/14 18:00	1
2,6-Dinitrotoluene	0.0000792	U	0.000495	0.0000792	mg/L		07/21/14 11:20	07/23/14 18:00	1
Bis(2-chloroethoxy)methane	0.000129	U	0.000495	0.000129	mg/L		07/21/14 11:20	07/23/14 18:00	1
2-Chloronaphthalene	0.0000792	U	0.000495	0.0000792	mg/L		07/21/14 11:20	07/23/14 18:00	1
2,4-Dimethylphenol	0.000577		0.000495	0.000307	mg/L		07/21/14 11:20	07/23/14 18:00	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	75		10 - 147				07/21/14 11:20	07/23/14 18:00	1
2-Fluorobiphenyl	80		10 - 150				07/21/14 11:20	07/23/14 18:00	1
2-Fluorophenol	34		10 - 130				07/21/14 11:20	07/23/14 18:00	1
Nitrobenzene-d5	75		23 - 130				07/21/14 11:20	07/23/14 18:00	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-95656-1

Client Sample ID: WG-1620-MW42B-20140718

Lab Sample ID: 600-95656-4

Date Collected: 07/18/14 10:50

Matrix: Water

Date Received: 07/18/14 11:34

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Terphenyl-d14	99		42 - 133	07/21/14 11:20	07/23/14 18:00	1
Phenol-d5 (Surr)	16		10 - 130	07/21/14 11:20	07/23/14 18:00	1

Client Sample ID: WG-1620-FB-3-20140718

Lab Sample ID: 600-95656-5

Date Collected: 07/18/14 11:00

Matrix: Water

Date Received: 07/18/14 11:34

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	0.000110	U	0.00200	0.000110	mg/L			07/18/14 19:14	1
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			07/18/14 19:14	1
Benzene	0.0000800	U	0.00100	0.0000800	mg/L			07/18/14 19:14	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			07/18/14 19:14	1
Toluene	0.000150	U	0.00100	0.000150	mg/L			07/18/14 19:14	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			07/18/14 19:14	1
Ethylbenzene	0.000110	U	0.00100	0.000110	mg/L			07/18/14 19:14	1
Xylenes, Total	0.000260	U	0.00300	0.000260	mg/L			07/18/14 19:14	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	97		67 - 139		07/18/14 19:14	1
Dibromofluoromethane	99		62 - 130		07/18/14 19:14	1
Toluene-d8 (Surr)	105		70 - 130		07/18/14 19:14	1
1,2-Dichloroethane-d4 (Surr)	104		50 - 134		07/18/14 19:14	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.0000377	U	0.000472	0.0000377	mg/L		07/22/14 14:46	07/23/14 12:12	1
Naphthalene	0.0000755	U	0.000472	0.0000755	mg/L		07/22/14 14:46	07/23/14 12:12	1
Acenaphthylene	0.0000566	U	0.000472	0.0000566	mg/L		07/22/14 14:46	07/23/14 12:12	1
Acenaphthene	0.0000755	U	0.000472	0.0000755	mg/L		07/22/14 14:46	07/23/14 12:12	1
Dibenzofuran	0.0000755	U	0.000472	0.0000755	mg/L		07/22/14 14:46	07/23/14 12:12	1
Fluorene	0.0000660	U	0.000472	0.0000660	mg/L		07/22/14 14:46	07/23/14 12:12	1
Anthracene	0.0000472	U	0.000472	0.0000472	mg/L		07/22/14 14:46	07/23/14 12:12	1
Di-n-butyl phthalate	0.000104	U	0.000472	0.000104	mg/L		07/22/14 14:46	07/23/14 12:12	1
Fluoranthene	0.0000660	U	0.000472	0.0000660	mg/L		07/22/14 14:46	07/23/14 12:12	1
Pyrene	0.000104	U	0.000472	0.000104	mg/L		07/22/14 14:46	07/23/14 12:12	1
Bis(2-ethylhexyl) phthalate	0.000349	U	0.000472	0.000349	mg/L		07/22/14 14:46	07/23/14 12:12	1
Phenanthrene	0.0000566	U	0.000472	0.0000566	mg/L		07/22/14 14:46	07/23/14 12:12	1
Benzo[a]pyrene	0.0000755	U	0.000472	0.0000755	mg/L		07/22/14 14:46	07/23/14 12:12	1
2-Methylnaphthalene	0.0000660	U	0.000472	0.0000660	mg/L		07/22/14 14:46	07/23/14 12:12	1
2,4-Dinitrotoluene	0.000123	U	0.000472	0.000123	mg/L		07/22/14 14:46	07/23/14 12:12	1
Nitrobenzene	0.000104	U	0.000472	0.000104	mg/L		07/22/14 14:46	07/23/14 12:12	1
Pentachlorophenol	0.000575	U	0.000943	0.000575	mg/L		07/22/14 14:46	07/23/14 12:12	1
4,6-Dinitro-2-methylphenol	0.000783	U	0.000943	0.000783	mg/L		07/22/14 14:46	07/23/14 12:12	1
N-Nitrosodiphenylamine	0.0000943	U	0.000472	0.0000943	mg/L		07/22/14 14:46	07/23/14 12:12	1
Benzo[a]anthracene	0.0000755	U	0.000472	0.0000755	mg/L		07/22/14 14:46	07/23/14 12:12	1
1,2-Diphenylhydrazine	0.000104	U	0.000472	0.000104	mg/L		07/22/14 14:46	07/23/14 12:12	1
Chrysene	0.0000755	U	0.000472	0.0000755	mg/L		07/22/14 14:46	07/23/14 12:12	1
4-Nitrophenol	0.000528	U	0.000943	0.000528	mg/L		07/22/14 14:46	07/23/14 12:12	1
2,6-Dinitrotoluene	0.0000755	U	0.000472	0.0000755	mg/L		07/22/14 14:46	07/23/14 12:12	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-95656-1

Client Sample ID: WG-1620-FB-3-20140718

Lab Sample ID: 600-95656-5

Date Collected: 07/18/14 11:00

Matrix: Water

Date Received: 07/18/14 11:34

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-chloroethoxy)methane	0.000123	U	0.000472	0.000123	mg/L		07/22/14 14:46	07/23/14 12:12	1
2-Chloronaphthalene	0.0000755	U	0.000472	0.0000755	mg/L		07/22/14 14:46	07/23/14 12:12	1
2,4-Dimethylphenol	0.000292	U	0.000472	0.000292	mg/L		07/22/14 14:46	07/23/14 12:12	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	42		10 - 147				07/22/14 14:46	07/23/14 12:12	1
2-Fluorobiphenyl	61		10 - 150				07/22/14 14:46	07/23/14 12:12	1
2-Fluorophenol	25		10 - 130				07/22/14 14:46	07/23/14 12:12	1
Nitrobenzene-d5	63		23 - 130				07/22/14 14:46	07/23/14 12:12	1
Terphenyl-d14	106		42 - 133				07/22/14 14:46	07/23/14 12:12	1
Phenol-d5 (Surr)	12		10 - 130				07/22/14 14:46	07/23/14 12:12	1

Client Sample ID: WG-1620-TB1-20140718

Lab Sample ID: 600-95656-6

Date Collected: 07/18/14 00:00

Matrix: Water

Date Received: 07/18/14 11:34

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	0.000110	U	0.00200	0.000110	mg/L			07/18/14 17:04	1
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			07/18/14 17:04	1
Benzene	0.0000800	U	0.00100	0.0000800	mg/L			07/18/14 17:04	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			07/18/14 17:04	1
Toluene	0.000150	U	0.00100	0.000150	mg/L			07/18/14 17:04	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			07/18/14 17:04	1
Ethylbenzene	0.000110	U	0.00100	0.000110	mg/L			07/18/14 17:04	1
Xylenes, Total	0.000260	U	0.00300	0.000260	mg/L			07/18/14 17:04	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	78		67 - 139					07/18/14 17:04	1
Dibromofluoromethane	118		62 - 130					07/18/14 17:04	1
Toluene-d8 (Surr)	104		70 - 130					07/18/14 17:04	1
1,2-Dichloroethane-d4 (Surr)	118		50 - 134					07/18/14 17:04	1

Definitions/Glossary

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-95656-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
U	Analyte was not detected at or above the SDL.
J	Result is less than the MQL but greater than or equal to the SDL and the concentration is an estimated value.

GC/MS Semi VOA

Qualifier	Qualifier Description
U	Analyte was not detected at or above the SDL.
J	Result is less than the MQL but greater than or equal to the SDL and the concentration is an estimated value.
X	Surrogate is outside control limits
E	Result is greater than the UQL and the concentration is an estimated value.
N2	RPD of the MS and MSD exceeds the control limits
N1	MS, MSD: Spike recovery exceeds upper or lower control limits.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Surrogate Summary

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-95656-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		BFB (67-139)	DBFM (62-130)	TOL (70-130)	12DCE (50-134)
600-95656-1	WG-1620-MW73B-20140718	95	113	117	111
600-95656-2	WG-1620-MW14-20140718	105	130	123	127
600-95656-3	WG-1620-MW40B-20140718	96	109	110	112
600-95656-3 - DL	WG-1620-MW40B-20140718	91	100	98	101
600-95656-4	WG-1620-MW42B-20140718	97	102	111	101
600-95656-5	WG-1620-FB-3-20140718	97	99	105	104
600-95656-6	WG-1620-TB1-20140718	78	118	104	118
LCS 600-139487/3	Lab Control Sample	84	74	72	68
LCS 600-139577/3	Lab Control Sample	91	102	91	98
LCSD 600-139487/4	Lab Control Sample Dup	85	74	73	66
LCSD 600-139577/4	Lab Control Sample Dup	93	102	92	101
MB 600-139487/7	Method Blank	110	123	121	122
MB 600-139577/7	Method Blank	96	102	98	101

Surrogate Legend

BFB = 4-Bromofluorobenzene
 DBFM = Dibromofluoromethane
 TOL = Toluene-d8 (Surr)
 12DCE = 1,2-Dichloroethane-d4 (Surr)

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)					
		TBP (10-147)	FBP (10-150)	2FP (10-130)	NBZ (23-130)	TPH (42-133)	PHL (10-130)
600-95656-1	WG-1620-MW73B-20140718	87	71	28	68	99	13
600-95656-2	WG-1620-MW14-20140718	74	73	28	73	95	13
600-95656-2 - DL	WG-1620-MW14-20140718	78	69	25	71	82	13
600-95656-3 - DL	WG-1620-MW40B-20140718	0 X	0 X	0 X	0 X	0 X	0 X
600-95656-3	WG-1620-MW40B-20140718	71	67	43	76	74	11
600-95656-4	WG-1620-MW42B-20140718	75	80	34	75	99	16
600-95656-5	WG-1620-FB-3-20140718	42	61	25	63	106	12
600-95656-5 MS	WG-1620-FB-3-20140718	61	73	51	74	96	32
600-95656-5 MSD	WG-1620-FB-3-20140718	46	55	39	56	85	25
LCS 600-139623/2-A	Lab Control Sample	59	78	81	82	85	79
LCS 600-139772/2-A	Lab Control Sample	64	72	26	73	93	13
LCSD 600-139623/23-A	Lab Control Sample Dup	57	74	76	76	83	75
MB 600-139623/1-A	Method Blank	41	83	80	81	94	74
MB 600-139772/1-A	Method Blank	46	74	36	75	104	18

Surrogate Legend

TBP = 2,4,6-Tribromophenol
 FBP = 2-Fluorobiphenyl
 2FP = 2-Fluorophenol
 NBZ = Nitrobenzene-d5
 TPH = Terphenyl-d14
 PHL = Phenol-d5 (Surr)

TestAmerica Houston

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-95656-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 600-139487/7

Matrix: Water

Analysis Batch: 139487

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	0.000110	U	0.00200	0.000110	mg/L			07/18/14 13:10	1
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			07/18/14 13:10	1
Benzene	0.0000800	U	0.00100	0.0000800	mg/L			07/18/14 13:10	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			07/18/14 13:10	1
Toluene	0.000150	U	0.00100	0.000150	mg/L			07/18/14 13:10	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			07/18/14 13:10	1
Ethylbenzene	0.000110	U	0.00100	0.000110	mg/L			07/18/14 13:10	1
Xylenes, Total	0.000260	U	0.00300	0.000260	mg/L			07/18/14 13:10	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	110		67 - 139		07/18/14 13:10	1
Dibromofluoromethane	123		62 - 130		07/18/14 13:10	1
Toluene-d8 (Surr)	121		70 - 130		07/18/14 13:10	1
1,2-Dichloroethane-d4 (Surr)	122		50 - 134		07/18/14 13:10	1

Lab Sample ID: LCS 600-139487/3

Matrix: Water

Analysis Batch: 139487

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Vinyl chloride	0.0100	0.01087		mg/L		109	33 - 150
Methylene Chloride	0.0100	0.009038		mg/L		90	55 - 147
Benzene	0.0100	0.009884		mg/L		99	70 - 130
1,2-Dichloroethane	0.0100	0.008800		mg/L		88	67 - 134
Toluene	0.0100	0.009839		mg/L		98	70 - 130
Chlorobenzene	0.0100	0.009434		mg/L		94	69 - 130
Ethylbenzene	0.0100	0.009659		mg/L		97	70 - 130
Xylenes, Total	0.0200	0.01958		mg/L		98	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene	84		67 - 139
Dibromofluoromethane	74		62 - 130
Toluene-d8 (Surr)	72		70 - 130
1,2-Dichloroethane-d4 (Surr)	68		50 - 134

Lab Sample ID: LCSD 600-139487/4

Matrix: Water

Analysis Batch: 139487

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Vinyl chloride	0.0100	0.01091		mg/L		109	33 - 150	0	20
Methylene Chloride	0.0100	0.009070		mg/L		91	55 - 147	0	20
Benzene	0.0100	0.009950		mg/L		99	70 - 130	1	20
1,2-Dichloroethane	0.0100	0.008589		mg/L		86	67 - 134	2	20
Toluene	0.0100	0.009973		mg/L		100	70 - 130	1	20
Chlorobenzene	0.0100	0.009595		mg/L		96	69 - 130	2	20
Ethylbenzene	0.0100	0.009932		mg/L		99	70 - 130	3	20

TestAmerica Houston

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-95656-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 600-139487/4

Matrix: Water

Analysis Batch: 139487

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Xylenes, Total	0.0200	0.01993		mg/L		100	70 - 130	2	20

Surrogate	LCSD %Recovery	LCSD Qualifier	LCSD Limits
4-Bromofluorobenzene	85		67 - 139
Dibromofluoromethane	74		62 - 130
Toluene-d8 (Surr)	73		70 - 130
1,2-Dichloroethane-d4 (Surr)	66		50 - 134

Lab Sample ID: MB 600-139577/7

Matrix: Water

Analysis Batch: 139577

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	0.000110	U	0.00200	0.000110	mg/L			07/20/14 19:10	1
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			07/20/14 19:10	1
Benzene	0.0000800	U	0.00100	0.0000800	mg/L			07/20/14 19:10	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			07/20/14 19:10	1
Toluene	0.000150	U	0.00100	0.000150	mg/L			07/20/14 19:10	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			07/20/14 19:10	1
Ethylbenzene	0.000110	U	0.00100	0.000110	mg/L			07/20/14 19:10	1
Xylenes, Total	0.000260	U	0.00300	0.000260	mg/L			07/20/14 19:10	1

Surrogate	MB %Recovery	MB Qualifier	MB Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	96		67 - 139		07/20/14 19:10	1
Dibromofluoromethane	102		62 - 130		07/20/14 19:10	1
Toluene-d8 (Surr)	98		70 - 130		07/20/14 19:10	1
1,2-Dichloroethane-d4 (Surr)	101		50 - 134		07/20/14 19:10	1

Lab Sample ID: LCS 600-139577/3

Matrix: Water

Analysis Batch: 139577

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Vinyl chloride	0.0100	0.01195		mg/L		119	33 - 150
Methylene Chloride	0.0100	0.008249		mg/L		82	55 - 147
Benzene	0.0100	0.01014		mg/L		101	70 - 130
1,2-Dichloroethane	0.0100	0.009451		mg/L		95	67 - 134
Toluene	0.0100	0.01014		mg/L		101	70 - 130
Chlorobenzene	0.0100	0.01003		mg/L		100	69 - 130
Ethylbenzene	0.0100	0.01062		mg/L		106	70 - 130
Xylenes, Total	0.0200	0.02123		mg/L		106	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	LCS Limits
4-Bromofluorobenzene	91		67 - 139
Dibromofluoromethane	102		62 - 130
Toluene-d8 (Surr)	91		70 - 130
1,2-Dichloroethane-d4 (Surr)	98		50 - 134

TestAmerica Houston

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-95656-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 600-139577/4

Matrix: Water

Analysis Batch: 139577

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Vinyl chloride	0.0100	0.009799		mg/L		98	33 - 150	20	20
Methylene Chloride	0.0100	0.007686		mg/L		77	55 - 147	7	20
Benzene	0.0100	0.009561		mg/L		96	70 - 130	6	20
1,2-Dichloroethane	0.0100	0.009183		mg/L		92	67 - 134	3	20
Toluene	0.0100	0.009463		mg/L		95	70 - 130	7	20
Chlorobenzene	0.0100	0.009389		mg/L		94	69 - 130	7	20
Ethylbenzene	0.0100	0.009780		mg/L		98	70 - 130	8	20
Xylenes, Total	0.0200	0.01976		mg/L		99	70 - 130	7	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene	93		67 - 139
Dibromofluoromethane	102		62 - 130
Toluene-d8 (Surr)	92		70 - 130
1,2-Dichloroethane-d4 (Surr)	101		50 - 134

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Lab Sample ID: MB 600-139623/1-A

Matrix: Water

Analysis Batch: 139655

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 139623

Analyte	MB Result	MB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.000400	U	0.000500	0.000400	mg/L		07/21/14 11:20	07/21/14 19:55	1
Naphthalene	0.000800	U	0.000500	0.000800	mg/L		07/21/14 11:20	07/21/14 19:55	1
Acenaphthylene	0.000600	U	0.000500	0.000600	mg/L		07/21/14 11:20	07/21/14 19:55	1
Acenaphthene	0.000800	U	0.000500	0.000800	mg/L		07/21/14 11:20	07/21/14 19:55	1
Dibenzofuran	0.000800	U	0.000500	0.000800	mg/L		07/21/14 11:20	07/21/14 19:55	1
Fluorene	0.000700	U	0.000500	0.000700	mg/L		07/21/14 11:20	07/21/14 19:55	1
Anthracene	0.000500	U	0.000500	0.000500	mg/L		07/21/14 11:20	07/21/14 19:55	1
Di-n-butyl phthalate	0.000110	U	0.000500	0.000110	mg/L		07/21/14 11:20	07/21/14 19:55	1
Fluoranthene	0.000700	U	0.000500	0.000700	mg/L		07/21/14 11:20	07/21/14 19:55	1
Pyrene	0.000110	U	0.000500	0.000110	mg/L		07/21/14 11:20	07/21/14 19:55	1
Bis(2-ethylhexyl) phthalate	0.000370	U	0.000500	0.000370	mg/L		07/21/14 11:20	07/21/14 19:55	1
Phenanthrene	0.000600	U	0.000500	0.000600	mg/L		07/21/14 11:20	07/21/14 19:55	1
Benzo[a]pyrene	0.000800	U	0.000500	0.000800	mg/L		07/21/14 11:20	07/21/14 19:55	1
2-Methylnaphthalene	0.000700	U	0.000500	0.000700	mg/L		07/21/14 11:20	07/21/14 19:55	1
2,4-Dinitrotoluene	0.000130	U	0.000500	0.000130	mg/L		07/21/14 11:20	07/21/14 19:55	1
Nitrobenzene	0.000110	U	0.000500	0.000110	mg/L		07/21/14 11:20	07/21/14 19:55	1
Pentachlorophenol	0.000610	U	0.00100	0.000610	mg/L		07/21/14 11:20	07/21/14 19:55	1
4,6-Dinitro-2-methylphenol	0.000830	U	0.00100	0.000830	mg/L		07/21/14 11:20	07/21/14 19:55	1
N-Nitrosodiphenylamine	0.000100	U	0.000500	0.000100	mg/L		07/21/14 11:20	07/21/14 19:55	1
Benzo[a]anthracene	0.000800	U	0.000500	0.000800	mg/L		07/21/14 11:20	07/21/14 19:55	1
1,2-Diphenylhydrazine	0.000110	U	0.000500	0.000110	mg/L		07/21/14 11:20	07/21/14 19:55	1
Chrysene	0.000800	U	0.000500	0.000800	mg/L		07/21/14 11:20	07/21/14 19:55	1
4-Nitrophenol	0.000560	U	0.00100	0.000560	mg/L		07/21/14 11:20	07/21/14 19:55	1
2,6-Dinitrotoluene	0.000800	U	0.000500	0.000800	mg/L		07/21/14 11:20	07/21/14 19:55	1
Bis(2-chloroethoxy)methane	0.000130	U	0.000500	0.000130	mg/L		07/21/14 11:20	07/21/14 19:55	1

TestAmerica Houston

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-95656-1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Lab Sample ID: MB 600-139623/1-A

Matrix: Water

Analysis Batch: 139655

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 139623

Analyte	MB Result	MB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Chloronaphthalene	0.0000800	U	0.000500	0.0000800	mg/L		07/21/14 11:20	07/21/14 19:55	1
2,4-Dimethylphenol	0.000310	U	0.000500	0.000310	mg/L		07/21/14 11:20	07/21/14 19:55	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	41		10 - 147	07/21/14 11:20	07/21/14 19:55	1
2-Fluorobiphenyl	83		10 - 150	07/21/14 11:20	07/21/14 19:55	1
2-Fluorophenol	80		10 - 130	07/21/14 11:20	07/21/14 19:55	1
Nitrobenzene-d5	81		23 - 130	07/21/14 11:20	07/21/14 19:55	1
Terphenyl-d14	94		42 - 133	07/21/14 11:20	07/21/14 19:55	1
Phenol-d5 (Surr)	74		10 - 130	07/21/14 11:20	07/21/14 19:55	1

Lab Sample ID: LCS 600-139623/2-A

Matrix: Water

Analysis Batch: 139655

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 139623

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Phenol	0.0100	0.007984		mg/L		80	10 - 144
Naphthalene	0.0100	0.007675		mg/L		77	57 - 130
Acenaphthylene	0.0100	0.007886		mg/L		79	58 - 130
Acenaphthene	0.0100	0.007573		mg/L		76	59 - 130
Dibenzofuran	0.0100	0.007977		mg/L		80	56 - 130
Fluorene	0.0100	0.007665		mg/L		77	57 - 130
Anthracene	0.0100	0.007844		mg/L		78	46 - 132
Di-n-butyl phthalate	0.0100	0.009318		mg/L		93	61 - 130
Fluoranthene	0.0100	0.008341		mg/L		83	63 - 130
Pyrene	0.0100	0.008867		mg/L		89	62 - 130
Bis(2-ethylhexyl) phthalate	0.0100	0.008384		mg/L		84	59 - 130
Phenanthrene	0.0100	0.008014		mg/L		80	60 - 130
Benzo[a]pyrene	0.0100	0.006730		mg/L		67	56 - 130
2-Methylnaphthalene	0.0100	0.007838		mg/L		78	52 - 130
2,4-Dinitrotoluene	0.0100	0.007817		mg/L		78	54 - 130
Nitrobenzene	0.0100	0.008141		mg/L		81	41 - 130
Pentachlorophenol	0.0200	0.01189		mg/L		59	27 - 130
4,6-Dinitro-2-methylphenol	0.0200	0.01253		mg/L		63	10 - 145
N-Nitrosodiphenylamine	0.0100	0.007849		mg/L		78	55 - 137
Benzo[a]anthracene	0.0100	0.008395		mg/L		84	58 - 130
1,2-Diphenylhydrazine	0.0100	0.008187		mg/L		82	45 - 130
Chrysene	0.0100	0.008137		mg/L		81	60 - 130
4-Nitrophenol	0.0200	0.01217		mg/L		61	10 - 150
2,6-Dinitrotoluene	0.0100	0.007680		mg/L		77	56 - 130
Bis(2-chloroethoxy)methane	0.0100	0.007939		mg/L		79	36 - 134
2-Chloronaphthalene	0.0100	0.007884		mg/L		79	56 - 130
2,4-Dimethylphenol	0.0100	0.008711		mg/L		87	45 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2,4,6-Tribromophenol	59		10 - 147
2-Fluorobiphenyl	78		10 - 150

TestAmerica Houston

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-95656-1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Lab Sample ID: LCS 600-139623/2-A

Matrix: Water

Analysis Batch: 139655

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 139623

Surrogate	LCS		Limits
	%Recovery	Qualifier	
2-Fluorophenol	81		10 - 130
Nitrobenzene-d5	82		23 - 130
Terphenyl-d14	85		42 - 133
Phenol-d5 (Surr)	79		10 - 130

Lab Sample ID: LCSD 600-139623/23-A

Matrix: Water

Analysis Batch: 139655

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 139623

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec.		RPD	Limit
							Limits	RPD		
Phenol	0.0100	0.007529		mg/L		75	10 - 144	6	20	
Naphthalene	0.0100	0.007286		mg/L		73	57 - 130	5	20	
Acenaphthylene	0.0100	0.007472		mg/L		75	58 - 130	5	20	
Acenaphthene	0.0100	0.007345		mg/L		73	59 - 130	3	20	
Dibenzofuran	0.0100	0.007615		mg/L		76	56 - 130	5	20	
Fluorene	0.0100	0.007431		mg/L		74	57 - 130	3	20	
Anthracene	0.0100	0.007759		mg/L		78	46 - 132	1	20	
Di-n-butyl phthalate	0.0100	0.009326		mg/L		93	61 - 130	0	20	
Fluoranthene	0.0100	0.008354		mg/L		84	63 - 130	0	20	
Pyrene	0.0100	0.008555		mg/L		86	62 - 130	4	20	
Bis(2-ethylhexyl) phthalate	0.0100	0.008449		mg/L		84	59 - 130	1	20	
Phenanthrene	0.0100	0.007723		mg/L		77	60 - 130	4	20	
Benzo[a]pyrene	0.0100	0.006634		mg/L		66	56 - 130	1	20	
2-Methylnaphthalene	0.0100	0.007278		mg/L		73	52 - 130	7	20	
2,4-Dinitrotoluene	0.0100	0.007696		mg/L		77	54 - 130	2	20	
Nitrobenzene	0.0100	0.007642		mg/L		76	41 - 130	6	20	
Pentachlorophenol	0.0200	0.01247		mg/L		62	27 - 130	5	20	
4,6-Dinitro-2-methylphenol	0.0200	0.01265		mg/L		63	10 - 145	1	20	
N-Nitrosodiphenylamine	0.0100	0.007705		mg/L		77	55 - 137	2	20	
Benzo[a]anthracene	0.0100	0.008033		mg/L		80	58 - 130	4	20	
1,2-Diphenylhydrazine	0.0100	0.008089		mg/L		81	45 - 130	1	20	
Chrysene	0.0100	0.007995		mg/L		80	60 - 130	2	20	
4-Nitrophenol	0.0200	0.01230		mg/L		62	10 - 150	1	20	
2,6-Dinitrotoluene	0.0100	0.007442		mg/L		74	56 - 130	3	20	
Bis(2-chloroethoxy)methane	0.0100	0.007501		mg/L		75	36 - 134	6	20	
2-Chloronaphthalene	0.0100	0.007415		mg/L		74	56 - 130	6	20	
2,4-Dimethylphenol	0.0100	0.008205		mg/L		82	45 - 130	6	20	

Surrogate	LCSD		Limits
	%Recovery	Qualifier	
2,4,6-Tribromophenol	57		10 - 147
2-Fluorobiphenyl	74		10 - 150
2-Fluorophenol	76		10 - 130
Nitrobenzene-d5	76		23 - 130
Terphenyl-d14	83		42 - 133
Phenol-d5 (Surr)	75		10 - 130

TestAmerica Houston

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-95656-1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Lab Sample ID: MB 600-139772/1-A

Matrix: Water

Analysis Batch: 139825

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 139772

Analyte	MB Result	MB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.0000400	U	0.000500	0.0000400	mg/L		07/22/14 14:46	07/23/14 10:45	1
Naphthalene	0.0000800	U	0.000500	0.0000800	mg/L		07/22/14 14:46	07/23/14 10:45	1
Acenaphthylene	0.0000600	U	0.000500	0.0000600	mg/L		07/22/14 14:46	07/23/14 10:45	1
Acenaphthene	0.0000800	U	0.000500	0.0000800	mg/L		07/22/14 14:46	07/23/14 10:45	1
Dibenzofuran	0.0000800	U	0.000500	0.0000800	mg/L		07/22/14 14:46	07/23/14 10:45	1
Fluorene	0.0000700	U	0.000500	0.0000700	mg/L		07/22/14 14:46	07/23/14 10:45	1
Anthracene	0.0000500	U	0.000500	0.0000500	mg/L		07/22/14 14:46	07/23/14 10:45	1
Di-n-butyl phthalate	0.000110	U	0.000500	0.000110	mg/L		07/22/14 14:46	07/23/14 10:45	1
Fluoranthene	0.0000700	U	0.000500	0.0000700	mg/L		07/22/14 14:46	07/23/14 10:45	1
Pyrene	0.000110	U	0.000500	0.000110	mg/L		07/22/14 14:46	07/23/14 10:45	1
Bis(2-ethylhexyl) phthalate	0.000370	U	0.000500	0.000370	mg/L		07/22/14 14:46	07/23/14 10:45	1
Phenanthrene	0.0000600	U	0.000500	0.0000600	mg/L		07/22/14 14:46	07/23/14 10:45	1
Benzo[a]pyrene	0.0000800	U	0.000500	0.0000800	mg/L		07/22/14 14:46	07/23/14 10:45	1
2-Methylnaphthalene	0.0000700	U	0.000500	0.0000700	mg/L		07/22/14 14:46	07/23/14 10:45	1
2,4-Dinitrotoluene	0.000130	U	0.000500	0.000130	mg/L		07/22/14 14:46	07/23/14 10:45	1
Nitrobenzene	0.000110	U	0.000500	0.000110	mg/L		07/22/14 14:46	07/23/14 10:45	1
Pentachlorophenol	0.000610	U	0.00100	0.000610	mg/L		07/22/14 14:46	07/23/14 10:45	1
4,6-Dinitro-2-methylphenol	0.000830	U	0.00100	0.000830	mg/L		07/22/14 14:46	07/23/14 10:45	1
N-Nitrosodiphenylamine	0.000100	U	0.000500	0.000100	mg/L		07/22/14 14:46	07/23/14 10:45	1
Benzo[a]anthracene	0.0000800	U	0.000500	0.0000800	mg/L		07/22/14 14:46	07/23/14 10:45	1
1,2-Diphenylhydrazine	0.000110	U	0.000500	0.000110	mg/L		07/22/14 14:46	07/23/14 10:45	1
Chrysene	0.0000800	U	0.000500	0.0000800	mg/L		07/22/14 14:46	07/23/14 10:45	1
4-Nitrophenol	0.000560	U	0.00100	0.000560	mg/L		07/22/14 14:46	07/23/14 10:45	1
2,6-Dinitrotoluene	0.0000800	U	0.000500	0.0000800	mg/L		07/22/14 14:46	07/23/14 10:45	1
Bis(2-chloroethoxy)methane	0.000130	U	0.000500	0.000130	mg/L		07/22/14 14:46	07/23/14 10:45	1
2-Chloronaphthalene	0.0000800	U	0.000500	0.0000800	mg/L		07/22/14 14:46	07/23/14 10:45	1
2,4-Dimethylphenol	0.000310	U	0.000500	0.000310	mg/L		07/22/14 14:46	07/23/14 10:45	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	46		10 - 147	07/22/14 14:46	07/23/14 10:45	1
2-Fluorobiphenyl	74		10 - 150	07/22/14 14:46	07/23/14 10:45	1
2-Fluorophenol	36		10 - 130	07/22/14 14:46	07/23/14 10:45	1
Nitrobenzene-d5	75		23 - 130	07/22/14 14:46	07/23/14 10:45	1
Terphenyl-d14	104		42 - 133	07/22/14 14:46	07/23/14 10:45	1
Phenol-d5 (Surr)	18		10 - 130	07/22/14 14:46	07/23/14 10:45	1

Lab Sample ID: LCS 600-139772/2-A

Matrix: Water

Analysis Batch: 139825

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 139772

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Phenol	0.0100	0.001624		mg/L		16	10 - 144
Naphthalene	0.0100	0.007006		mg/L		70	57 - 130
Acenaphthylene	0.0100	0.006869		mg/L		69	58 - 130
Acenaphthene	0.0100	0.006995		mg/L		70	59 - 130
Dibenzofuran	0.0100	0.007057		mg/L		71	56 - 130
Fluorene	0.0100	0.007310		mg/L		73	57 - 130
Anthracene	0.0100	0.007566		mg/L		76	46 - 132

TestAmerica Houston

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-95656-1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Lab Sample ID: LCS 600-139772/2-A

Matrix: Water

Analysis Batch: 139825

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 139772

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec.	
							Limits	
Di-n-butyl phthalate	0.0100	0.008085		mg/L		81	61 - 130	
Fluoranthene	0.0100	0.007402		mg/L		74	63 - 130	
Pyrene	0.0100	0.009185		mg/L		92	62 - 130	
Bis(2-ethylhexyl) phthalate	0.0100	0.007084		mg/L		71	59 - 130	
Phenanthrene	0.0100	0.007773		mg/L		78	60 - 130	
Benzo[a]pyrene	0.0100	0.006637		mg/L		66	56 - 130	
2-Methylnaphthalene	0.0100	0.006697		mg/L		67	52 - 130	
2,4-Dinitrotoluene	0.0100	0.007259		mg/L		73	54 - 130	
Nitrobenzene	0.0100	0.007264		mg/L		73	41 - 130	
Pentachlorophenol	0.0200	0.01134		mg/L		57	27 - 130	
4,6-Dinitro-2-methylphenol	0.0200	0.01316		mg/L		66	10 - 145	
N-Nitrosodiphenylamine	0.0100	0.008260		mg/L		83	55 - 137	
Benzo[a]anthracene	0.0100	0.008257		mg/L		83	58 - 130	
1,2-Diphenylhydrazine	0.0100	0.008012		mg/L		80	45 - 130	
Chrysene	0.0100	0.007642		mg/L		76	60 - 130	
4-Nitrophenol	0.0200	0.002894		mg/L		14	10 - 150	
2,6-Dinitrotoluene	0.0100	0.007136		mg/L		71	56 - 130	
Bis(2-chloroethoxy)methane	0.0100	0.006835		mg/L		68	36 - 134	
2-Chloronaphthalene	0.0100	0.007079		mg/L		71	56 - 130	
2,4-Dimethylphenol	0.0100	0.007008		mg/L		70	45 - 130	

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
2,4,6-Tribromophenol	64		10 - 147
2-Fluorobiphenyl	72		10 - 150
2-Fluorophenol	26		10 - 130
Nitrobenzene-d5	73		23 - 130
Terphenyl-d14	93		42 - 133
Phenol-d5 (Surr)	13		10 - 130

Lab Sample ID: 600-95656-5 MS

Matrix: Water

Analysis Batch: 139825

Client Sample ID: WG-1620-FB-3-20140718

Prep Type: Total/NA

Prep Batch: 139772

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec.	
									Limits	
Phenol	0.0000377	U	0.00943	0.003265		mg/L		35	10 - 144	
Naphthalene	0.0000755	U	0.00943	0.006830		mg/L		72	57 - 130	
Acenaphthylene	0.0000566	U	0.00943	0.006780		mg/L		72	58 - 130	
Acenaphthene	0.0000755	U	0.00943	0.006876		mg/L		73	59 - 130	
Dibenzofuran	0.0000755	U	0.00943	0.006991		mg/L		74	56 - 130	
Fluorene	0.0000660	U	0.00943	0.006995		mg/L		74	57 - 130	
Anthracene	0.0000472	U	0.00943	0.007499		mg/L		79	46 - 132	
Di-n-butyl phthalate	0.000104	U	0.00943	0.008268		mg/L		88	61 - 130	
Fluoranthene	0.0000660	U	0.00943	0.007410		mg/L		79	63 - 130	
Pyrene	0.000104	U	0.00943	0.009046		mg/L		96	62 - 130	
Bis(2-ethylhexyl) phthalate	0.000349	U	0.00943	0.008290		mg/L		88	59 - 130	
Phenanthrene	0.0000566	U	0.00943	0.007468		mg/L		79	60 - 130	
Benzo[a]pyrene	0.0000755	U	0.00943	0.006922		mg/L		73	56 - 130	
2-Methylnaphthalene	0.0000660	U	0.00943	0.006498		mg/L		69	52 - 130	

TestAmerica Houston

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-95656-1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Lab Sample ID: 600-95656-5 MS

Matrix: Water

Analysis Batch: 139825

Client Sample ID: WG-1620-FB-3-20140718

Prep Type: Total/NA

Prep Batch: 139772

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec. Limits
	Result	Qualifier	Added	Result	Qualifier				
2,4-Dinitrotoluene	0.000123	U	0.00943	0.007162		mg/L		76	54 - 130
Nitrobenzene	0.000104	U	0.00943	0.007080		mg/L		75	41 - 130
Pentachlorophenol	0.000575	U	0.0189	0.01027		mg/L		54	27 - 130
4,6-Dinitro-2-methylphenol	0.000783	U	0.0189	0.01265		mg/L		67	10 - 145
N-Nitrosodiphenylamine	0.0000943	U	0.00943	0.007740		mg/L		82	55 - 137
Benzo[a]anthracene	0.0000755	U	0.00943	0.008165		mg/L		87	58 - 130
1,2-Diphenylhydrazine	0.000104	U	0.00943	0.007599		mg/L		81	45 - 130
Chrysene	0.0000755	U	0.00943	0.007958		mg/L		84	60 - 130
4-Nitrophenol	0.000528	U	0.0189	0.005534		mg/L		29	10 - 150
2,6-Dinitrotoluene	0.0000755	U	0.00943	0.006834		mg/L		72	56 - 130
Bis(2-chloroethoxy)methane	0.000123	U	0.00943	0.006758		mg/L		72	36 - 134
2-Chloronaphthalene	0.0000755	U	0.00943	0.006931		mg/L		73	56 - 130
2,4-Dimethylphenol	0.000292	U	0.00943	0.007153		mg/L		76	45 - 130

Surrogate	MS	MS	Limits
	%Recovery	Qualifier	
2,4,6-Tribromophenol	61		10 - 147
2-Fluorobiphenyl	73		10 - 150
2-Fluorophenol	51		10 - 130
Nitrobenzene-d5	74		23 - 130
Terphenyl-d14	96		42 - 133
Phenol-d5 (Surr)	32		10 - 130

Lab Sample ID: 600-95656-5 MSD

Matrix: Water

Analysis Batch: 139825

Client Sample ID: WG-1620-FB-3-20140718

Prep Type: Total/NA

Prep Batch: 139772

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec. Limits	RPD	
	Result	Qualifier	Added	Result	Qualifier					RPD	Limit
Phenol	0.0000377	U	0.00943	0.002556	N2	mg/L		27	10 - 144	24	20
Naphthalene	0.0000755	U	0.00943	0.005157	N1 N2	mg/L		55	57 - 130	28	20
Acenaphthylene	0.0000566	U	0.00943	0.005008	N1 N2	mg/L		53	58 - 130	30	20
Acenaphthene	0.0000755	U	0.00943	0.005060	N1 N2	mg/L		54	59 - 130	30	20
Dibenzofuran	0.0000755	U	0.00943	0.005170	N1 N2	mg/L		55	56 - 130	30	20
Fluorene	0.0000660	U	0.00943	0.005339	N2	mg/L		57	57 - 130	27	20
Anthracene	0.0000472	U	0.00943	0.005951	N2	mg/L		63	46 - 132	23	20
Di-n-butyl phthalate	0.000104	U	0.00943	0.007351		mg/L		78	61 - 130	12	20
Fluoranthene	0.0000660	U	0.00943	0.006478		mg/L		69	63 - 130	13	20
Pyrene	0.000104	U	0.00943	0.008064		mg/L		85	62 - 130	11	20
Bis(2-ethylhexyl) phthalate	0.000349	U	0.00943	0.007592		mg/L		80	59 - 130	9	20
Phenanthrene	0.0000566	U	0.00943	0.005838	N2	mg/L		62	60 - 130	25	20
Benzo[a]pyrene	0.0000755	U	0.00943	0.006201		mg/L		66	56 - 130	11	20
2-Methylnaphthalene	0.0000660	U	0.00943	0.004904	N2	mg/L		52	52 - 130	28	20
2,4-Dinitrotoluene	0.000123	U	0.00943	0.005771	N2	mg/L		61	54 - 130	22	20
Nitrobenzene	0.000104	U	0.00943	0.005476	N2	mg/L		58	41 - 130	26	20
Pentachlorophenol	0.000575	U	0.0189	0.008583		mg/L		45	27 - 130	18	20
4,6-Dinitro-2-methylphenol	0.000783	U	0.0189	0.01118		mg/L		59	10 - 145	12	20
N-Nitrosodiphenylamine	0.0000943	U	0.00943	0.006151	N2	mg/L		65	55 - 137	23	20
Benzo[a]anthracene	0.0000755	U	0.00943	0.007270		mg/L		77	58 - 130	12	20
1,2-Diphenylhydrazine	0.000104	U	0.00943	0.005816	N2	mg/L		62	45 - 130	27	20

TestAmerica Houston

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-95656-1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Lab Sample ID: 600-95656-5 MSD

Client Sample ID: WG-1620-FB-3-20140718

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 139825

Prep Batch: 139772

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.	RPD	Limit
	Result	Qualifier	Added	Result	Qualifier				Limits		
Chrysene	0.0000755	U	0.00943	0.007275		mg/L		77	60 - 130	9	20
4-Nitrophenol	0.000528	U	0.0189	0.005591		mg/L		30	10 - 150	1	20
2,6-Dinitrotoluene	0.0000755	U	0.00943	0.005352	N2	mg/L		57	56 - 130	24	20
Bis(2-chloroethoxy)methane	0.000123	U	0.00943	0.005044	N2	mg/L		53	36 - 134	29	20
2-Chloronaphthalene	0.0000755	U	0.00943	0.005242	N2	mg/L		56	56 - 130	28	20
2,4-Dimethylphenol	0.000292	U	0.00943	0.005622	N2	mg/L		60	45 - 130	24	20

Surrogate	MSD	MSD	Limits
	%Recovery	Qualifier	
2,4,6-Tribromophenol	46		10 - 147
2-Fluorobiphenyl	55		10 - 150
2-Fluorophenol	39		10 - 130
Nitrobenzene-d5	56		23 - 130
Terphenyl-d14	85		42 - 133
Phenol-d5 (Surr)	25		10 - 130

Unadjusted Detection Limits

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-95656-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	MQL	MDL	Units	Method
1,2-Dichloroethane	0.00100	0.000140	mg/L	8260B
Benzene	0.00100	0.0000800	mg/L	8260B
Chlorobenzene	0.00100	0.000120	mg/L	8260B
Ethylbenzene	0.00100	0.000110	mg/L	8260B
Methylene Chloride	0.00100	0.000150	mg/L	8260B
Toluene	0.00100	0.000150	mg/L	8260B
Vinyl chloride	0.00200	0.000110	mg/L	8260B
Xylenes, Total	0.00300	0.000260	mg/L	8260B

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	MQL	MDL	Units	Method
1,2-Diphenylhydrazine	0.000500	0.000110	mg/L	8270C LL
2,4-Dimethylphenol	0.000500	0.000310	mg/L	8270C LL
2,4-Dinitrotoluene	0.000500	0.000130	mg/L	8270C LL
2,6-Dinitrotoluene	0.000500	0.0000800	mg/L	8270C LL
2-Chloronaphthalene	0.000500	0.0000800	mg/L	8270C LL
2-Methylnaphthalene	0.000500	0.0000700	mg/L	8270C LL
4,6-Dinitro-2-methylphenol	0.00100	0.000830	mg/L	8270C LL
4-Nitrophenol	0.00100	0.000560	mg/L	8270C LL
Acenaphthene	0.000500	0.0000800	mg/L	8270C LL
Acenaphthylene	0.000500	0.0000600	mg/L	8270C LL
Anthracene	0.000500	0.0000500	mg/L	8270C LL
Benzo[a]anthracene	0.000500	0.0000800	mg/L	8270C LL
Benzo[a]pyrene	0.000500	0.0000800	mg/L	8270C LL
Bis(2-chloroethoxy)methane	0.000500	0.000130	mg/L	8270C LL
Bis(2-ethylhexyl) phthalate	0.000500	0.000370	mg/L	8270C LL
Chrysene	0.000500	0.0000800	mg/L	8270C LL
Dibenzofuran	0.000500	0.0000800	mg/L	8270C LL
Di-n-butyl phthalate	0.000500	0.000110	mg/L	8270C LL
Fluoranthene	0.000500	0.0000700	mg/L	8270C LL
Fluorene	0.000500	0.0000700	mg/L	8270C LL
Naphthalene	0.000500	0.0000800	mg/L	8270C LL
Nitrobenzene	0.000500	0.000110	mg/L	8270C LL
N-Nitrosodiphenylamine	0.000500	0.000100	mg/L	8270C LL
Pentachlorophenol	0.00100	0.000610	mg/L	8270C LL
Phenanthrene	0.000500	0.0000600	mg/L	8270C LL
Phenol	0.000500	0.0000400	mg/L	8270C LL
Pyrene	0.000500	0.000110	mg/L	8270C LL

QC Association Summary

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-95656-1

GC/MS VOA

Analysis Batch: 139487

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-95656-1	WG-1620-MW73B-20140718	Total/NA	Water	8260B	
600-95656-2	WG-1620-MW14-20140718	Total/NA	Water	8260B	
600-95656-3	WG-1620-MW40B-20140718	Total/NA	Water	8260B	
600-95656-4	WG-1620-MW42B-20140718	Total/NA	Water	8260B	
600-95656-5	WG-1620-FB-3-20140718	Total/NA	Water	8260B	
600-95656-6	WG-1620-TB1-20140718	Total/NA	Water	8260B	
LCS 600-139487/3	Lab Control Sample	Total/NA	Water	8260B	
LCSD 600-139487/4	Lab Control Sample Dup	Total/NA	Water	8260B	
MB 600-139487/7	Method Blank	Total/NA	Water	8260B	

Analysis Batch: 139577

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-95656-3 - DL	WG-1620-MW40B-20140718	Total/NA	Water	8260B	
LCS 600-139577/3	Lab Control Sample	Total/NA	Water	8260B	
LCSD 600-139577/4	Lab Control Sample Dup	Total/NA	Water	8260B	
MB 600-139577/7	Method Blank	Total/NA	Water	8260B	

GC/MS Semi VOA

Prep Batch: 139623

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-95656-1	WG-1620-MW73B-20140718	Total/NA	Water	3510C	
600-95656-2 - DL	WG-1620-MW14-20140718	Total/NA	Water	3510C	
600-95656-2	WG-1620-MW14-20140718	Total/NA	Water	3510C	
600-95656-3 - DL	WG-1620-MW40B-20140718	Total/NA	Water	3510C	
600-95656-3	WG-1620-MW40B-20140718	Total/NA	Water	3510C	
600-95656-4	WG-1620-MW42B-20140718	Total/NA	Water	3510C	
LCS 600-139623/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 600-139623/23-A	Lab Control Sample Dup	Total/NA	Water	3510C	
MB 600-139623/1-A	Method Blank	Total/NA	Water	3510C	

Analysis Batch: 139655

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 600-139623/2-A	Lab Control Sample	Total/NA	Water	8270C LL	139623
LCSD 600-139623/23-A	Lab Control Sample Dup	Total/NA	Water	8270C LL	139623
MB 600-139623/1-A	Method Blank	Total/NA	Water	8270C LL	139623

Prep Batch: 139772

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-95656-5	WG-1620-FB-3-20140718	Total/NA	Water	3510C	
600-95656-5 MS	WG-1620-FB-3-20140718	Total/NA	Water	3510C	
600-95656-5 MSD	WG-1620-FB-3-20140718	Total/NA	Water	3510C	
LCS 600-139772/2-A	Lab Control Sample	Total/NA	Water	3510C	
MB 600-139772/1-A	Method Blank	Total/NA	Water	3510C	

Analysis Batch: 139825

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-95656-1	WG-1620-MW73B-20140718	Total/NA	Water	8270C LL	139623
600-95656-2	WG-1620-MW14-20140718	Total/NA	Water	8270C LL	139623
600-95656-4	WG-1620-MW42B-20140718	Total/NA	Water	8270C LL	139623

TestAmerica Houston

QC Association Summary

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-95656-1

GC/MS Semi VOA (Continued)

Analysis Batch: 139825 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-95656-5	WG-1620-FB-3-20140718	Total/NA	Water	8270C LL	139772
600-95656-5 MS	WG-1620-FB-3-20140718	Total/NA	Water	8270C LL	139772
600-95656-5 MSD	WG-1620-FB-3-20140718	Total/NA	Water	8270C LL	139772
LCS 600-139772/2-A	Lab Control Sample	Total/NA	Water	8270C LL	139772
MB 600-139772/1-A	Method Blank	Total/NA	Water	8270C LL	139772

Analysis Batch: 140222

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-95656-3 - DL	WG-1620-MW40B-20140718	Total/NA	Water	8270C LL	139623

Analysis Batch: 140670

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-95656-3	WG-1620-MW40B-20140718	Total/NA	Water	8270C LL	139623

Analysis Batch: 140698

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-95656-2 - DL	WG-1620-MW14-20140718	Total/NA	Water	8270C LL	139623

Lab Chronicle

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-95656-1

Client Sample ID: WG-1620-MW73B-20140718

Lab Sample ID: 600-95656-1

Date Collected: 07/18/14 08:00

Matrix: Water

Date Received: 07/18/14 11:34

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	139487	07/18/14 17:30	WS1	TAL HOU
Total/NA	Prep	3510C			139623	07/21/14 11:20	SMB	TAL HOU
Total/NA	Analysis	8270C LL		1	139825	07/23/14 16:33	MBB	TAL HOU

Client Sample ID: WG-1620-MW14-20140718

Lab Sample ID: 600-95656-2

Date Collected: 07/18/14 09:00

Matrix: Water

Date Received: 07/18/14 11:34

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	139487	07/18/14 17:56	WS1	TAL HOU
Total/NA	Prep	3510C			139623	07/21/14 11:20	SMB	TAL HOU
Total/NA	Analysis	8270C LL		1	139825	07/23/14 17:01	MBB	TAL HOU
Total/NA	Prep	3510C	DL		139623	07/21/14 11:20	SMB	TAL HOU
Total/NA	Analysis	8270C LL	DL	4	140698	08/02/14 16:53	TTD	TAL HOU

Client Sample ID: WG-1620-MW40B-20140718

Lab Sample ID: 600-95656-3

Date Collected: 07/18/14 09:50

Matrix: Water

Date Received: 07/18/14 11:34

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	139487	07/18/14 18:22	WS1	TAL HOU
Total/NA	Analysis	8260B	DL	10	139577	07/21/14 00:21	WS1	TAL HOU
Total/NA	Prep	3510C	DL		139623	07/21/14 11:20	SMB	TAL HOU
Total/NA	Analysis	8270C LL	DL	500	140222	07/29/14 11:36	MBB	TAL HOU
Total/NA	Prep	3510C			139623	07/21/14 11:20	SMB	TAL HOU
Total/NA	Analysis	8270C LL		10	140670	08/02/14 01:16	MBB	TAL HOU

Client Sample ID: WG-1620-MW42B-20140718

Lab Sample ID: 600-95656-4

Date Collected: 07/18/14 10:50

Matrix: Water

Date Received: 07/18/14 11:34

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	139487	07/18/14 18:48	WS1	TAL HOU
Total/NA	Prep	3510C			139623	07/21/14 11:20	SMB	TAL HOU
Total/NA	Analysis	8270C LL		1	139825	07/23/14 18:00	MBB	TAL HOU

Client Sample ID: WG-1620-FB-3-20140718

Lab Sample ID: 600-95656-5

Date Collected: 07/18/14 11:00

Matrix: Water

Date Received: 07/18/14 11:34

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	139487	07/18/14 19:14	WS1	TAL HOU

TestAmerica Houston

Lab Chronicle

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-95656-1

Client Sample ID: WG-1620-FB-3-20140718

Lab Sample ID: 600-95656-5

Date Collected: 07/18/14 11:00

Matrix: Water

Date Received: 07/18/14 11:34

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			139772	07/22/14 14:46	LER	TAL HOU
Total/NA	Analysis	8270C LL		1	139825	07/23/14 12:12	MBB	TAL HOU

Client Sample ID: WG-1620-TB1-20140718

Lab Sample ID: 600-95656-6

Date Collected: 07/18/14 00:00

Matrix: Water

Date Received: 07/18/14 11:34

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	139487	07/18/14 17:04	WS1	TAL HOU

Laboratory References:

TAL HOU = TestAmerica Houston, 6310 Rothway Street, Houston, TX 77040, TEL (713)690-4444



Certification Summary

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-95656-1

Laboratory: TestAmerica Houston

The certifications listed below are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Texas	NELAP	6	T104704223	10-31-14

- 1
- 2
- 3
- 4
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- 12
- 13
- 14
- 15
- 16

America Houston

6310 Rothway Street
Houston, TX 77040
Phone (713) 690-4444 Fax (713) 690-5646

Chain of Custody

Client Information
Client Contact: Mr. Eric Matzner
Company: Pastor, Behling & Wheeler LLC
Address: 2201 Double Creek Dr Suite 4004
City: Round Rock
State, Zip: TX, 78664
Phone: 512-671-3434(Tel) 512-671-3446(Fax)
Email: eric.matzner@pbwillc.com
Project Name: 1620 UPRR HMPW
Site: SCDW#

Sampler: JOHN BEAHTON
Phone: 512-671-3434
Lab E#V sac.
600-95556 Chain of Custody



Analysis Requested

COC No: 600-29460-10071-1
Page 1 of 1
Job #:

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=soil, O=water, A=air)	Preservation Codes	Special Instructions/Note
WG-1620-MW73B-20140718	7-18-14	0800	G	Water	A, N	
WG-1620-MW14-20140718		0900	G	Water	X, N	
WG-1620-MW40B-20140718		0950	G	Water	X, N	
WG-1620-MW42B-20140718		1050	G	Water	X, N	
WG-1620-FB-3-20140718		1100	G	Water	X, N	
WG-1620-TB1-20140718			G	Water	X, N	
				Water	X, N	
				Water	X, N	
				Water	X, N	
				Water	X, N	
				Water	X, N	
				Water	X, N	
				Water	X, N	

Possible Hazard Identification
 Non-Hazard Flammable Skin Irritant Poison B Unknown Radiological

Deliverable Requested: I, II, III, IV, Other (specify)

Empty Kit Relinquished By: _____ Date: _____

Relinquished By: _____ Date/Time: _____

Relinquished By: _____ Date/Time: _____

Relinquished By: _____ Date/Time: _____

Custody Seals Intact: Yes No Custody Seal No.: _____

Special Instructions/Note: _____

Special Instructions/QC Requirements: _____

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
 Return To Client Disposal By Lab Archive For _____ Months

Method of Shipment: _____

Received by: _____ Date/Time: 7/18/14 1135
 Received by: _____ Date/Time: 7/18/14 1135
 Received by: _____ Date/Time: 7/18/14 1135

Cooler Temperature (5-8°C) and other remarks: _____

7/18/14 1135 7A

Sample Receipt Checklist

Date/Time Received: _____
 Loc: 600
 JOB NUMBER: 95656 CLIENT: PBW
 UNPACKED BY: _____ CARRIER/DRIVER: Client
 Custody Seal Present: YES NO Number of Coolers Received: _____

Cooler ID	Temp Blank	Trip Blank	Observed Temp (°C)	Therm ID	Therm CF	Corrected Temp (°C)
<u>PW</u>	<u>Y / N</u>	<u>Y / N</u>	<u>3.2</u>	<u>549</u>	<u>-0.2</u>	<u>3.0</u>
	Y / N	Y / N				
	Y / N	Y / N				
	Y / N	Y / N				
	Y / N	Y / N				
	Y / N	Y / N				
	Y / N	Y / N				
	Y / N	Y / N				
	Y / N	Y / N				

CF = correction factor

Samples received on ice? YES NO

LABORATORY PRESERVATION OF SAMPLES REQUIRED: NO YES

Base samples are >pH 12: YES NO Acid preserved are <pH 2: YES NO

pH paper Lot # _____

VOA headspace acceptable (5-6mm): YES NO NA

7/18/14
DL

Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?	YES	NO
	<input checked="" type="checkbox"/>	<input type="checkbox"/>

COMMENTS:

_____ 7/18/14

_____ DL

Login Sample Receipt Checklist

Client: Pastor, Behling & Wheeler LLC

Job Number: 600-95656-1

Login Number: 95656

List Source: TestAmerica Houston

List Number: 1

Creator: Lockett, DuJuan D

Question	Answer	Comment
Radioactivity wasn't checked or is <=/ background as measured by a survey meter.	N/A	Lab does not accept radioactive samples.
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	3.0
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	Check done at department level as required.

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Houston
6310 Rothway Street
Houston, TX 77040
Tel: (713)690-4444

TestAmerica Job ID: 600-96037-1

Client Project/Site: 1620 UPRR HWPW

For:

Pastor, Behling & Wheeler LLC
2201 Double Creek Dr
Suite 4004
Round Rock, Texas 78664

Attn: Mr. Eric Matzner



Authorized for release by:

8/12/2014 3:58:36 PM

Sophia Shah, Project Management Assistant I
sophia.shah@testamericainc.com

Designee for

Sachin Kudchadkar, Senior Project Manager
(713)690-4444

sachin.kudchadkar@testamericainc.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

LINKS

Review your project
results through
TotalAccess

Have a Question?



Visit us at:
www.testamericainc.com

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15
- 16



Table of Contents

Cover Page	1
Table of Contents	2
TRRP Checklists & DCSs	3
Case Narrative	12
Method Summary	13
Sample Summary	14
Client Sample Results	15
Definitions/Glossary	34
Surrogate Summary	35
QC Sample Results	37
Default Detection Limits	44
QC Association Summary	45
Lab Chronicle	47
Certification Summary	51
Chain of Custody	52
Receipt Checklists	55

Appendix A

Laboratory Data Package Cover Page - Page 1 of 4

This data package is for TestAmerica Houston job number 600-96037-1 and consists of:

- R1 - Field chain-of-custody documentation;
- R2 - Sample identification cross-reference;
- R3 - Test reports (analytical data sheets) for each environmental sample that includes:
 - a. Items consistent with NELAC Chapter 5,
 - b. dilution factors,
 - c. preparation methods,
 - d. cleanup methods, and
 - e. if required for the project, tentatively identified compounds (TICs).
- R4 - Surrogate recovery data including:
 - a. Calculated recovery (%R), and
 - b. The laboratory's surrogate QC limits.
- R5 - Test reports/summary forms for blank samples;
- R6 - Test reports/summary forms for laboratory control samples (LCSs) including:
 - a. LCS spiking amounts,
 - b. Calculated %R for each analyte, and
 - c. The laboratory's LCS QC limits.
- R7 - Test reports for project matrix spike/matrix spike duplicates (MS/MSDs) including:
 - a. Samples associated with the MS/MSD clearly identified,
 - b. MS/MSD spiking amounts,
 - c. Concentration of each MS/MSD analyte measured in the parent and spiked samples,
 - d. Calculated %Rs and relative percent differences (RPDs), and
 - e. The laboratory's MS/MSD QC limits
- R8 - Laboratory analytical duplicate (if applicable) recovery and precision:
 - a. The amount of analyte measured in the duplicate,
 - b. The calculated RPD, and
 - c. The laboratory's QC limits for analytical duplicates.
- R9 - List of method quantitation limits (MQLs) and detectability check sample results for each analyte for each method and matrix.
- R10 - Other problems or anomalies.

The Exception Report for each "No" or "Not Reviewed (NR)" item in Laboratory Review Checklist and for each analyte, matrix, and method for which the laboratory does not hold NELAC accreditation under the Texas Laboratory Accreditation Program.

Release Statement: I am responsible for the release of this laboratory data package. This laboratory is NELAC accredited under the Texas Laboratory Accreditation Program for all the methods, analytes, and matrices reported in this data package except as noted in the Exception Reports. The data have been reviewed and are technically compliant with the requirements of the methods used, except where noted by the laboratory in the Exception Reports. By my signature below, I affirm to the best of my knowledge all problems/anomalies observed by the laboratory have been identified in the Laboratory Review Checklist, and no information affecting the quality of the data has been knowingly withheld.

Sophia Shah
Name (printed)



Signature

8/12/2014
Date

Project Management Assistant
Official Title (printed)

Laboratory Review Checklist: Reportable Data - Page 2 of 4

Laboratory Name:	TestAmerica Houston	LRC Date:	8/12/2014
Project Name:	1620 UPRR HWPW	Laboratory Job Number:	600-96037-1
Reviewer Name:	Sachin G Kudchadkar		

# ¹	A ²	Description	Yes	No	NA ³	NR ⁴	ER# ⁵
R1	OI	Chain-of-custody (C-O-C)					
		Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?	X				
		Were all departures from standard conditions described in an exception report?	X				
R2	OI	Sample and quality control (QC) identification					
		Are all field sample ID numbers cross-referenced to the laboratory ID numbers?	X				
		Are all laboratory ID numbers cross-referenced to the corresponding QC data?	X				
R3	OI	Test reports					
		Were all samples prepared and analyzed within holding times?	X				
		Other than those results < MQL, were all other raw values bracketed by calibration standards?	X				
		Were calculations checked by a peer or supervisor?	X				
		Were all analyte identifications checked by a peer or supervisor?	X				
		Were sample detection limits reported for all analytes not detected?	X				
		Were all results for soil and sediment samples reported on a dry weight basis?			X		
		Were % moisture (or solids) reported for all soil and sediment samples?			X		
		Were bulk soils/solids samples for volatile analysis extracted with methanol per SW846 Method 5035?			X		
		If required for the project, are TICs reported?			X		
R4	O	Surrogate recovery data					
		Were surrogates added prior to extraction?	X				
		Were surrogate percent recoveries in all samples within the laboratory QC limits?		X			R04B
R5	OI	Test reports/summary forms for blank samples					
		Were appropriate type(s) of blanks analyzed?	X				
		Were blanks analyzed at the appropriate frequency?	X				
		Were method blanks taken through the entire analytical process, including preparation and, if applicable, cleanup procedures?	X				
		Were blank concentrations < MQL?	X				
R6	OI	Laboratory control samples (LCS):					
		Were all COCs included in the LCS?	X				
		Was each LCS taken through the entire analytical procedure, including prep and cleanup steps?	X				
		Were LCSs analyzed at the required frequency?	X				
		Were LCS (and LCSD, if applicable) %Rs within the laboratory QC limits?	X				
		Does the detectability check sample data document the laboratory's capability to detect the COCs at the MDL used to calculate the SDLs?	X				
		Was the LCSD RPD within QC limits?	X				
R7	OI	Matrix spike (MS) and matrix spike duplicate (MSD) data					
		Were the project/method specified analytes included in the MS and MSD?	X				
		Were MS/MSD analyzed at the appropriate frequency?	X				
		Were MS (and MSD, if applicable) %Rs within the laboratory QC limits?		X			R07C
		Were MS/MSD RPDs within laboratory QC limits?		X			R07D
R8	OI	Analytical duplicate data					
		Were appropriate analytical duplicates analyzed for each matrix?			X		
		Were analytical duplicates analyzed at the appropriate frequency?			X		
		Were RPDs or relative standard deviations within the laboratory QC limits?			X		
R9	OI	Method quantitation limits (MQLs):					
		Are the MQLs for each method analyte included in the laboratory data package?	X				
		Do the MQLs correspond to the concentration of the lowest non-zero calibration standard?	X				
		Are unadjusted MQLs and DCSs included in the laboratory data package?	X				
R10	OI	Other problems/anomalies					
		Are all known problems/anomalies/special conditions noted in this LRC and ER?	X				
		Was applicable and available technology used to lower the SDL to minimize the matrix interference effects on the sample results?		X			R10B
		Is the laboratory NELAC-accredited under the Texas Laboratory Accreditation Program for the analytes, matrices and methods associated with this laboratory data package?	X				

- Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.
- O = organic analyses; I = inorganic analyses (and general chemistry, when applicable);
- NA = Not applicable;
- NR = Not reviewed;
- ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

Laboratory Review checklist: Supporting Data - Page 3 of 4

Laboratory Name:	TestAmerica Houston	LRC Date:	8/12/2014
Project Name:	1620 UPRR HWPW	Laboratory Job Number:	600-96037-1
Reviewer Name:	Sachin G Kudchadkar		

# ¹	A ²	Description	Yes	No	NA ³	NR ⁴	ER# ⁵
S1	OI	Initial calibration (ICAL)					
		Were response factors and/or relative response factors for each analyte within QC limits?	X				
		Were percent RSDs or correlation coefficient criteria met?	X				
		Was the number of standards recommended in the method used for all analytes?	X				
		Were all points generated between the lowest and highest standard used to calculate the curve?	X				
		Are ICAL data available for all instruments used?	X				
		Has the initial calibration curve been verified using an appropriate second source standard?	X				
S2	OI	Initial and continuing calibration verification (ICV and CCV) and continuing calibration blank (CCB):					
		Was the CCV analyzed at the method-required frequency?	X				
		Were percent differences for each analyte within the method-required QC limits?	X				
		Was the ICAL curve verified for each analyte?			X		
		Was the absolute value of the analyte concentration in the inorganic CCB < MDL?			X		
S3	O	Mass spectral tuning					
		Was the appropriate compound for the method used for tuning?	X				
		Were ion abundance data within the method-required QC limits?	X				
S4	O	Internal standards (IS)					
		Were IS area counts and retention times within the method-required QC limits?	X				
S5	OI	Raw data (NELAC Section 5.5.10)					
		Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?	X				
		Were data associated with manual integrations flagged on the raw data?	X				
S6	O	Dual column confirmation					
		Did dual column confirmation results meet the method-required QC?			X		
S7	O	Tentatively identified compounds (TICs)					
		If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?			X		
S8	I	Interference Check Sample (ICS) results					
		Were percent recoveries within method QC limits?			X		
S9	I	Serial dilutions, post digestion spikes, and method of standard additions					
		Were percent differences, recoveries, and the linearity within the QC limits specified in the method?			X		
S10	OI	Method detection limit (MDL) studies					
		Was a MDL study performed for each reported analyte?	X				
		Is the MDL either adjusted or supported by the analysis of DCSS?	X				
S11	OI	Proficiency test reports					
		Was the laboratory's performance acceptable on the applicable proficiency tests or evaluation studies?	X				
S12	OI	Standards documentation					
		Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?	X				
S13	OI	Compound/analyte identification procedures					
		Are the procedures for compound/analyte identification documented?	X				
S14	OI	Demonstration of analyst competency (DOC)					
		Was DOC conducted consistent with NELAC Chapter 5?	X				
		Is documentation of the analyst's competency up-to-date and on file?	X				
S15	OI	Verification/validation documentation for methods (NELAC Chapter 5)					
		Are all the methods used to generate the data documented, verified, and validated, where applicable?	X				
S16	OI	Laboratory standard operating procedures (SOPs)					
		Are laboratory SOPs current and on file for each method performed?	X				
<p>1. Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.</p> <p>2. O = organic analyses; I = inorganic analyses (and general chemistry, when applicable);</p> <p>3. NA = Not applicable;</p> <p>4. NR = Not reviewed;</p> <p>5. ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).</p>							

Laboratory Review Checklist: Exception Reports - Page 4 of 4

Laboratory Name:	TestAmerica Houston	LRC Date:	8/12/2014
Project Name:	1620 UPRR HWPW	Laboratory Job Number:	600-96037-1
Reviewer Name:	Sachin G Kudchadkar		

ER # ¹	Description
R04B	<p>Method 8260B: Surrogate recovery for the following sample was outside the upper control limit: 600-96037-6. This sample did not contain any target analytes; therefore, re-extraction and/or re-analysis was not performed.</p> <p>Method 8270C LL: The following sample(s) required a dilution due to the nature of the sample matrix: 600-96037-1, 600-96037-6, 600-96037-7, 600-96037-9, 600-96037-10, and 600-96037-13. Because of this dilution, the surrogate spike concentration in the sample was reduced to a level where the recovery calculation does not provide useful information.</p>
R07C	Method 8270C LL: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for batch 140210 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.
R07D	Method 8270C LL: 600-96037-11 MSD failed the RPD criteria for the following analyte(s): N-Nitrosodiphenylamine, Naphthalene. Matrix interference is suspected.
R10B	<p>Method 8260B: The following samples were diluted to bring the concentration of target analytes within the calibration range: 600-96037-9, 600-96037-10, and 600-96037-13. Elevated reporting limits (RLs) are provided.</p> <p>Method 8260B: The following volatiles sample was diluted due to foaming at the time of purging during the original sample analysis: 600-96037-7. Elevated reporting limits (RLs) are provided.</p> <p>Method 8270C LL: The following samples were diluted due to color, odor, appearance, viscosity, etc.: 600-96037-6, 600-96037-7, 600-96037-9, and 600-96037-10. Elevated reporting limits (RL) are provided.</p> <p>Method 8270C LL: The following samples were diluted due to the nature of the sample matrix: 600-96037-1 and 600-96037-13. Elevated reporting limits (RLs) are provided.</p> <p>Method 8270C LL: The following samples were diluted to bring the concentration of target analytes within the calibration range: 600-96037-1, 600-96037-7, 600-96037-9, 600-96037-10, 600-96037-12, 600-96037-13, and 600-96037-14. Elevated reporting limits (RLs) are provided.</p>
Misc	Method 8270C LL: 600-96037-A-11 seems to have brown soil in the sample, while the 96037-A-11MS and 96037-A-11MSD are clear without hint of color.
	<ol style="list-style-type: none"> Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period. O = organic analyses; I = inorganic analyses (and general chemistry, when applicable); NA = Not applicable; NR = Not reviewed; ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

Matrix: Water
Method: 8260B_LL
Prep Method: No Prep
Date Analyzed: 3/21/2014
Job #: 600-88537
TALS Batch: 130207
Units: ug/L

Analyte	Instrument #	MDL	DCS Spike	Measured Result	MQL
1,1,1,2-Tetrachloroethane	VOAMS07	0.180	0.500	0.545	1
1,1,1-Trichloroethane	VOAMS07	0.150	0.500	0.610	1
1,1,2,2-Tetrachloroethane	VOAMS07	0.220	0.500	0.432	1
1,1,2-Trichloro-1,2,2-trifluoroethane	VOAMS01	1.000	1.000	0.906	1
1,1,2-Trichloroethane	VOAMS01	0.280	1.000	0.836	1
1,1-Dichloroethane	VOAMS07	0.11	0.5	0.476	1
1,1-Dichloroethene	VOAMS07	0.190	0.500	0.495	1
1,1-Dichloropropene	VOAMS07	0.210	0.500	0.833	1
1,2,3-Trichlorobenzene	VOAMS01	0.570	1.000	1.041	1
1,2,3-Trichloropropane	VOAMS01	0.290	1.000	1.028	1
1,2,3-Trimethylbenzene	VOAMS07	0.130	0.500	0.714	1
1,2,4-Trichlorobenzene	VOAMS01	0.310	1.000	0.904	1
1,2,4-Trimethylbenzene	VOAMS07	0.140	0.500	0.730	1
1,2-Dibromo-3-Chloropropane	VOAMS01	0.810	1.000	0.586	1
1,2-Dichlorobenzene	VOAMS07	0.1	0.5	0.417	1
1,2-Dichloroethane	VOAMS07	0.140	0.500	0.596	1
1,2-Dichloroethene, Total	VOAMS07	0.300	1.000	0.960	1
1,2-Dichloropropane	VOAMS07	0.160	0.500	0.450	1
1,3,5-Trichlorobenzene	VOAMS01	1.000	1.000	0.908	1
1,3,5-Trimethylbenzene	VOAMS07	0.1	0.5	0.715	1
1,3-Dichlorobenzene	VOAMS07	0.130	0.500	0.435	1
1,3-Dichloropropane	VOAMS07	0.220	0.500	0.489	1
1,3-Dichloropropene, Total	VOAMS07	0.11	1	1.81	1
1,4-Dichlorobenzene	VOAMS07	0.11	0.5	0.5	1
1,4-Dioxane	VOAMS01	30.79	20	16.089	50
1-Chlorohexane	VOAMS01	0.260	1.000	1.097	1
2,2-Dichloropropane	VOAMS07	0.130	0.500	0.563	1
2-Butanone (MEK)	VOAMS01	0.760	2.000	1.428	2
2-Chloro-1,3-butadiene	VOAMS01	0.330	1.000	1.011	1
2-Chloroethyl vinyl ether	VOAMS01	0.500	2.000	2.554	2
2-Chlorotoluene	VOAMS07	0.130	0.500	0.665	1
2-Hexanone	VOAMS07	0.350	1.000	1.971	2
2-Methyl-2-propanol	VOAMS07	10.47	5	5.576	20
2-Methylnaphthalene	VOAMS01	1	1	0	1
2-Nitropropane	VOAMS01	1.210	2.000	4.577	1
3-Chloro-1-propene	VOAMS07	0.240	0.500	0.953	2
4-Chlorotoluene	VOAMS07	0.140	0.500	0.337	1
4-Isopropyltoluene	VOAMS07	0.1	0.5	0.403	1
4-Methyl-2-pentanone (MIBK)	VOAMS07	0.450	1.000	1.760	2
Acetone	VOAMS01	0.990	2.000	0.565	5
Acetonitrile	VOAMS07	0.27	5	3.915	2
Acrolein	VOAMS01	1.630	5.000	5.060	5
Acrylonitrile	VOAMS07	0.52	5	3.884	5
Benzene	VOAMS07	0.08	0.5	0.459	1
Benzyl chloride	VOAMS07	0.240	0.500	0.875	1
Bromobenzene	VOAMS07	0.190	0.500	0.489	1
Bromoform	VOAMS07	0.190	0.500	0.573	1
Bromomethane	VOAMS01	0.250	1.000	0.804	2
Butadiene	VOAMS07	0.210	0.500	0.384	1
Carbon disulfide	VOAMS07	0.240	0.500	0.434	2
Carbon tetrachloride	VOAMS07	0.150	0.500	0.610	1

Matrix: Water
Method: 8260B_LL
Prep Method: No Prep
Date Analyzed: 3/21/2014
Job #: 600-88537
TALS Batch: 130207
Units: ug/L

Analyte	Instrument #	MDL	DCS Spike	Measured Result	MQL
Chlorobenzene	VOAMS07	0.12	0.5	0.508	1
Chlorobromomethane	VOAMS07	0.180	0.500	0.517	1
Chlorodibromomethane	VOAMS07	0.150	0.500	0.565	1
Chloroethane	VOAMS07	0.08	0.5	0.549	2
Chloroform	VOAMS07	0.130	0.500	0.573	1
Chloromethane	VOAMS07	0.180	0.500	0.424	2
cis-1,2-Dichloroethene	VOAMS07	0.06	0.5	0.491	1
cis-1,3-Dichloropropene	VOAMS07	0.180	0.500	0.807	1
Cyclohexane	VOAMS07	0.160	0.500	0.700	1
Cyclohexanone	VOAMS07	8.640	25.000	31.282	50
Dibromomethane	VOAMS01	0.520	1.000	0.343	1
Dichlorobromomethane	VOAMS07	0.160	0.500	0.490	1
Dichlorodifluoromethane	VOAMS07	0.12	0.5	0.476	1
Dichlorofluoromethane	VOAMS01	1.000	1.000	1.214	1
Ethanol	VOAMS07	1	25	0	1
Ethyl acetate	VOAMS07	0.410	1.000	2.127	2
Ethyl acrylate	VOAMS01	0.340	1.000	0.535	2
Ethyl ether	VOAMS07	0.150	0.500	0.836	1
Ethyl methacrylate	VOAMS01	0.260	1.000	0.915	2
Ethylbenzene	VOAMS07	0.11	0.5	0.769	1
Ethylene Dibromide	VOAMS07	0.180	0.500	0.466	1
Ethylene oxide	VOAMS01	2.13	20	4.963	10
Hexachlorobutadiene	VOAMS07	0.170	0.500	0.685	1
Hexane	VOAMS07	0.160	0.500	0.433	1
Iodomethane	VOAMS07	0.158	0.500	0.517	2
Isobutyl alcohol	VOAMS07	3.320	12.500	9.263	10
Isooctane	VOAMS01	0.330	1.000	0.661	1
Isopropyl alcohol	VOAMS01	3.720	10.000	0.586	10
Isopropyl ether	VOAMS07	0.09	0.5	0.443	1
Isopropylbenzene	VOAMS07	0.180	0.500	0.757	1
Methacrylonitrile	VOAMS07	0.41	5	3.96	2
Methyl acetate	VOAMS07	0.55	2.5	1.883	2
Methyl methacrylate	VOAMS07	0.330	1.000	1.663	1
Methyl tert-butyl ether	VOAMS07	0.12	0.5	0.947	1
Methylcyclohexane	VOAMS07	0.1	0.5	0.719	1
Methylene Chloride	VOAMS07	0.150	0.500	1.229	5
m-Xylene & p-Xylene	VOAMS07	0.170	0.500	0.838	1
Naphthalene	VOAMS01	0.320	1.000	1.120	2
n-Butyl acetate	VOAMS01	0.19	1	1.902	1
n-Butylbenzene	VOAMS07	0.160	0.500	0.585	1
n-Heptane	VOAMS01	1.000	1.000	0.511	1
N-Propylbenzene	VOAMS07	0.150	0.500	0.892	1
o-Xylene	VOAMS07	0.12	0.5	0.543	1
Pentachloroethane	VOAMS01	1.000	1.000	1.053	1
Propionitrile	VOAMS07	0.66	5	3.711	5
sec-Butylbenzene	VOAMS07	0.12	0.5	0.659741	1
Styrene	VOAMS07	0.07	0.5	1.110441	1
Tert-amyl methyl ether	VOAMS01	1.000	1.000	0.633	1
Tert-butyl ethyl ether	VOAMS01	1.000	1.000	0.677	1
tert-Butylbenzene	VOAMS07	0.08	0.5	0.880472	1
Tetrachloroethene	VOAMS07	0.130	0.500	0.817	1

Matrix: Water
Method: 8260B_LL
Prep Method: No Prep
Date Analyzed: 3/21/2014
Job #: 600-88537
TALS Batch: 130207
Units: ug/L

Analyte	Instrument #	MDL	DCS Spike	Measured Result	MQL
Tetrahydrofuran	VOAMS01	1.080	2.000	1.071	5
Toluene	VOAMS07	0.150	0.500	0.506	1
trans-1,2-Dichloroethene	VOAMS07	0.09	0.5	0.472189	1
trans-1,3-Dichloropropene	VOAMS07	0.210	0.500	1.009	1
trans-1,4-Dichloro-2-butene	VOAMS01	0.640	1.000	0.676	2
Trichloroethene	VOAMS07	0.180	0.500	0.498	1
Trichlorofluoromethane	VOAMS07	0.08	0.5	0.539265	1
Trihalomethanes, Total	VOAMS01	1.000	4.000	3.600	5
Vinyl acetate	VOAMS07	0.21	1	1.798318	2
Vinyl chloride	VOAMS07	0.11	1	1.38	2
Xylenes, Total	VOAMS07	0.260	1.000	1.380	1



Matrix: Water
Method: 8270C_LL
Prep Method: 3510C_LL
Date Analyzed: 3/21/2014
Job #: 600-87830
TALS Batch: 130292
Units: ug/L

Analyte	Instrument #	MDL	DCS Spike	Measured Result	MQL
1,1'-Biphenyl	SVMS06	0.100	0.125	0.089	1
1,2,4,5-Tetrachlorobenzene	SVMS06	0.100	0.125	0.122	1.5
1,2,4-Trichlorobenzene	SVMS06	0.120	0.125	0.072	2
1,2-Dichlorobenzene	SVMS06	0.170	0.250	0.174	1.75
1,2-Diphenylhydrazine	SVMS06	0.110	0.125	0.079	2
1,3-Dichlorobenzene	SVMS06	0.170	0.250	0.188	1.5
1,4-Dichlorobenzene	SVMS06	0.130	0.250	0.178	2
1,4-Dinitrobenzene	SVMS06	5.00	2.50	1.77	5
1-Methylnaphthalene	SVMS06	0.090	0.125	0.096	2
1-Naphthylamine	SVMS06	0.170	0.500	0.181	2
2,2'-oxybis[1-chloropropane]	SVMS06	0.400	0.250	0.159	1.5
2,3,5,6-Tetrachlorophenol	SVMS06	0.500	0.500	0.870	5
2,4,5-Trichlorophenol	SVMS06	0.250	0.250	0.102	2
2,4,6-Trichlorophenol	SVMS06	0.180	0.250	0.115	2
2,4-Dichlorophenol	SVMS06	0.150	0.250	0.071	2.5
2,4-Dinitrotoluene	SVMS06	0.130	0.250	0.385	1.5
2,6-Dinitrotoluene	SVMS06	0.080	0.250	0.353	1
2-Chloronaphthalene	SVMS06	0.080	0.125	0.130	1.5
2-Chlorophenol	SVMS06	0.130	0.250	0.188	2
2-Methylnaphthalene	SVMS06	0.070	0.125	0.092	1.5
2-Methylphenol	SVMS06	0.120	0.125	0.092	1.5
2-Naphthylamine	SVMS06	0.140	0.500	0.188	1
2-Nitroaniline	SVMS06	0.190	0.250	0.374	2.5
2-Nitrophenol	SVMS06	0.220	0.250	0.130	1
2-Picoline	SVMS06	0.390	0.500	0.170	1.5
2-Toluidine	SVMS06	0.130	0.500	0.271	1
3 & 4 Methylphenol	SVMS06	0.200	0.250	0.099	1
3,3'-Dichlorobenzidine	SVMS06	0.180	0.250	0.370	10
3-Methylcholanthrene	SVMS06	0.500	0.500	0.481	5
3-Nitroaniline	SVMS06	0.160	0.250	0.061	2.5
4-Aminobiphenyl	SVMS06	0.170	0.500	0.297	10
4-Bromophenyl phenyl ether	SVMS06	0.100	0.125	0.045	1.5
4-Chloro-3-methylphenol	SVMS06	0.170	0.250	0.073	1
4-Chloroaniline	SVMS06	0.210	0.250	0.117	1
4-Chlorophenyl phenyl ether	SVMS06	0.100	0.125	0.088	1.5
Acenaphthene	SVMS06	0.080	0.125	0.101	1
Acenaphthylene	SVMS06	0.060	0.125	0.315	1
Acetophenone	SVMS06	0.150	0.250	0.153	1.5
Aniline	SVMS06	0.080	0.250	0.140	1.5
Anthracene	SVMS06	0.050	0.125	0.075	1
Atrazine	SVMS06	0.160	0.250	0.060	1.5
Azobenzene	SVMS06	0.070	0.125	0.071	1.5
Benzaldehyde	SVMS06	0.500	0.500	0.096	1
Benzidine	SVMS06	0.610	1.303	1.220	10
Benzo[a]anthracene	SVMS06	0.080	0.125	0.114	2
Benzo[a]pyrene	SVMS06	0.080	0.125	0.046	1.5
Benzo[b]fluoranthene	SVMS06	0.070	0.125	0.083	2
Benzo[g,h,i]perylene	SVMS06	0.080	0.250	0.146	2.5
Benzo[k]fluoranthene	SVMS06	0.090	0.125	0.076	2
Benzyl alcohol	SVMS06	0.170	0.250	0.039	5.5
Bis(2-chloroethoxy)methane	SVMS06	0.130	0.250	0.206	1.5

Matrix: Water
Method: 8270C_LL
Prep Method: 3510C_LL
Date Analyzed: 3/21/2014
Job #: 600-87830
TALS Batch: 130292
Units: ug/L

Analyte	Instrument #	MDL	DCS Spike	Measured Result	MQL
Bis(2-chloroethyl)ether	SVMS06	0.150	0.250	0.215	1.5
Bis(2-ethylhexyl) phthalate	SVMS06	0.370	0.250	0.058	2.5
Butyl benzyl phthalate	SVMS06	0.120	0.125	0.011	2.5
Carbazole	SVMS06	0.170	0.250	0.116	6.25
Chrysene	SVMS06	0.080	0.125	0.095	1.5
Dibenz(a,h)anthracene	SVMS06	0.080	0.250	0.045	2.5
Dibenz[a,j]acridine	SVMS06	0.350	1.000	0.687	1
Dibenzofuran	SVMS06	0.080	0.125	0.081	1.5
Diethyl phthalate	SVMS06	1.50	0.250	0.215	2.5
Dimethyl phthalate	SVMS06	0.070	0.250	0.195	2.5
Di-n-butyl phthalate	SVMS06	0.110	0.125	0.080	2.5
Di-n-octyl phthalate	SVMS06	0.160	0.250	0.030	5
Diphenylamine	SVMS06	0.100	0.125	0.059	1.5
Ethyl methanesulfonate	SVMS06	0.170	0.500	0.370	1.5
Fluoranthene	SVMS06	0.070	0.125	0.109	2.5
Fluorene	SVMS06	0.070	0.125	0.090	1.5
Hexachlorobenzene	SVMS06	0.110	0.125	0.129	1.5
Hexachlorobutadiene	SVMS06	0.180	0.250	0.218	2
Hexachlorocyclopentadiene	SVMS06	0.130	0.250	0.184	1.5
Hexachloroethane	SVMS06	0.100	0.125	0.147	2
Hexachloropropene	SVMS06	0.160	0.500	0.395	10
Indene	SVMS06	0.150	0.500	0.204	1
Indeno[1,2,3-cd]pyrene	SVMS06	0.070	0.125	0.021	2
Isodrin	SVMS06	0.150	0.500	0.447	1.5
Isophorone	SVMS06	0.110	0.250	0.168	1.5
Methapyrilene	SVMS06	1.060	2.500	1.485	1.5
Methyl methanesulfonate	SVMS06	0.200	0.500	0.437	1.5
Methyl Phenols, Total	SVMS06	0.200	0.500	0.140	1
Naphthalene	SVMS06	0.080	0.125	0.082	5
Nitrobenzene	SVMS06	0.110	0.125	0.107	1.5
N-Nitrosodiethylamine	SVMS06	0.380	0.500	0.366	1.5
N-Nitrosodimethylamine	SVMS06	0.260	0.250	0.163	2
N-Nitrosodi-n-butylamine	SVMS06	0.230	0.500	0.308	1.5
N-Nitrosodi-n-propylamine	SVMS06	0.100	0.125	0.076	2.5
N-Nitrosodiphenylamine	SVMS06	0.100	0.125	0.056	1.5
N-Nitrosomethylethylamine	SVMS06	0.110	0.500	0.115	1
N-Nitrosomorpholine	SVMS06	0.190	0.500	0.355	10
N-Nitrosopiperidine	SVMS06	0.190	0.500	0.370	1.5
N-Nitrosopyrrolidine	SVMS06	0.210	0.500	0.434	1
o,o',o"-Triethylphosphorothioate	SVMS06	0.500	0.500	0.398	5
Pentachlorobenzene	SVMS06	0.130	0.500	0.415	1.5
Pentachloroethane	SVMS06	0.150	0.500	0.296	1
Pentachloronitrobenzene	SVMS06	0.12	0.500	0.573	1.5
Pentachlorophenol	SVMS06	0.610	0.250	0.582	2.5
Phenanthrene	SVMS06	0.060	0.125	0.087	1.5
Phenol	SVMS06	0.040	0.125	0.110	1.5
Pyrene	SVMS06	0.110	0.125	0.077	2
Quinoline	SVMS06	0.130	0.500	0.396	1

Case Narrative

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-96037-1

Job ID: 600-96037-1

Laboratory: TestAmerica Houston

Narrative

Job Narrative
600-96037-1

Comments

No additional comments.

Receipt

The samples were received on 7/25/2014 7:12 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 4 coolers at receipt time were 0.5° C, 0.6° C, 1.5° C and 1.6° C.

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Method Summary

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-96037-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL HOU
8270C LL	Semivolatile Organic Compounds by GCMS - Low Levels	SW846	TAL HOU

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL HOU = TestAmerica Houston, 6310 Rothway Street, Houston, TX 77040, TEL (713)690-4444



Sample Summary

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-96037-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
600-96037-1	WG-1620-MW32AR-20140724	Water	07/24/14 07:50	07/25/14 07:12
600-96037-2	WG-1620-MW68C-20140724	Water	07/24/14 08:50	07/25/14 07:12
600-96037-3	WG-1620-MW51A-20140724	Water	07/24/14 10:00	07/25/14 07:12
600-96037-4	WG-1620-MW51C-20140724	Water	07/24/14 10:50	07/25/14 07:12
600-96037-5	WG-1620-MW76C-20140724	Water	07/24/14 12:00	07/25/14 07:12
600-96037-6	WG-1620-MW77A-20140724	Water	07/24/14 15:15	07/25/14 07:12
600-96037-7	WG-1620-MW78A-20140724	Water	07/24/14 16:10	07/25/14 07:12
600-96037-8	WG-1620-FB4-20140724	Water	07/24/14 16:25	07/25/14 07:12
600-96037-9	WG-1620-MW68B-20140724	Water	07/24/14 10:00	07/25/14 07:12
600-96037-10	WG-1620-DUP1-20140724	Water	07/24/14 10:00	07/25/14 07:12
600-96037-11	WG-1620-MW67B-20140724	Water	07/24/14 11:35	07/25/14 07:12
600-96037-12	WG-1620-MW26A-20140724	Water	07/24/14 13:45	07/25/14 07:12
600-96037-13	WG-1620-MW63B-20140724	Water	07/24/14 14:35	07/25/14 07:12
600-96037-14	WG-1620-MW35A-20140724	Water	07/24/14 15:35	07/25/14 07:12

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-96037-1

Client Sample ID: WG-1620-MW32AR-20140724

Lab Sample ID: 600-96037-1

Date Collected: 07/24/14 07:50

Matrix: Water

Date Received: 07/25/14 07:12

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	0.000110	U	0.00200	0.000110	mg/L			07/31/14 14:58	1
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			07/31/14 14:58	1
Benzene	0.0404		0.00100	0.0000800	mg/L			07/31/14 14:58	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			07/31/14 14:58	1
Toluene	0.000849	J	0.00100	0.000150	mg/L			07/31/14 14:58	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			07/31/14 14:58	1
Ethylbenzene	0.0208		0.00100	0.000110	mg/L			07/31/14 14:58	1
Xylenes, Total	0.0336		0.00300	0.000260	mg/L			07/31/14 14:58	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	85		67 - 139					07/31/14 14:58	1
Dibromofluoromethane	101		62 - 130					07/31/14 14:58	1
Toluene-d8 (Surr)	83		70 - 130					07/31/14 14:58	1
1,2-Dichloroethane-d4 (Surr)	94		50 - 134					07/31/14 14:58	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.0000377	U	0.000472	0.0000377	mg/L		07/28/14 15:45	07/31/14 12:27	1
Nitrobenzene	0.000104	U	0.000472	0.000104	mg/L		07/28/14 15:45	07/31/14 12:27	1
2,4-Dimethylphenol	0.0722		0.0236	0.0146	mg/L		07/28/14 15:45	08/01/14 11:38	50
Bis(2-chloroethoxy)methane	0.000452	J	0.000472	0.000123	mg/L		07/28/14 15:45	07/31/14 12:27	1
2-Methylnaphthalene	0.206		0.0236	0.00330	mg/L		07/28/14 15:45	08/01/14 11:38	50
2-Chloronaphthalene	0.0000755	U	0.000472	0.0000755	mg/L		07/28/14 15:45	07/31/14 12:27	1
Acenaphthylene	0.00226		0.000472	0.0000566	mg/L		07/28/14 15:45	07/31/14 12:27	1
2,6-Dinitrotoluene	0.0000755	U	0.000472	0.0000755	mg/L		07/28/14 15:45	07/31/14 12:27	1
Acenaphthene	0.111		0.0236	0.00377	mg/L		07/28/14 15:45	08/01/14 11:38	50
4-Nitrophenol	0.000528	U	0.000943	0.000528	mg/L		07/28/14 15:45	07/31/14 12:27	1
Dibenzofuran	0.0500		0.0236	0.00377	mg/L		07/28/14 15:45	08/01/14 11:38	50
2,4-Dinitrotoluene	0.000123	U	0.000472	0.000123	mg/L		07/28/14 15:45	07/31/14 12:27	1
Fluorene	0.0516		0.0236	0.00330	mg/L		07/28/14 15:45	08/01/14 11:38	50
4,6-Dinitro-2-methylphenol	0.000783	U	0.000943	0.000783	mg/L		07/28/14 15:45	07/31/14 12:27	1
N-Nitrosodiphenylamine	0.0000943	U	0.000472	0.0000943	mg/L		07/28/14 15:45	07/31/14 12:27	1
1,2-Diphenylhydrazine	0.000104	U	0.000472	0.000104	mg/L		07/28/14 15:45	07/31/14 12:27	1
Pentachlorophenol	0.000575	U	0.000943	0.000575	mg/L		07/28/14 15:45	07/31/14 12:27	1
Phenanthrene	0.0111		0.000472	0.0000566	mg/L		07/28/14 15:45	07/31/14 12:27	1
Anthracene	0.00332		0.000472	0.0000472	mg/L		07/28/14 15:45	07/31/14 12:27	1
Di-n-butyl phthalate	0.000104	U	0.000472	0.000104	mg/L		07/28/14 15:45	07/31/14 12:27	1
Fluoranthene	0.00656		0.000472	0.0000660	mg/L		07/28/14 15:45	07/31/14 12:27	1
Pyrene	0.00474		0.000472	0.000104	mg/L		07/28/14 15:45	07/31/14 12:27	1
Benzo[a]anthracene	0.000218	J	0.000472	0.0000755	mg/L		07/28/14 15:45	07/31/14 12:27	1
Bis(2-ethylhexyl) phthalate	0.000621		0.000472	0.000349	mg/L		07/28/14 15:45	07/31/14 12:27	1
Chrysene	0.000160	J	0.000472	0.0000755	mg/L		07/28/14 15:45	07/31/14 12:27	1
Benzo[a]pyrene	0.0000755	U	0.000472	0.0000755	mg/L		07/28/14 15:45	07/31/14 12:27	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	110		10 - 147				07/28/14 15:45	07/31/14 12:27	1
2,4,6-Tribromophenol	0	X	10 - 147				07/28/14 15:45	08/01/14 11:38	50
2-Fluorobiphenyl	91		10 - 150				07/28/14 15:45	07/31/14 12:27	1
2-Fluorobiphenyl	0	X	10 - 150				07/28/14 15:45	08/01/14 11:38	50
2-Fluorophenol	40		10 - 130				07/28/14 15:45	07/31/14 12:27	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-96037-1

Client Sample ID: WG-1620-MW32AR-20140724

Lab Sample ID: 600-96037-1

Date Collected: 07/24/14 07:50

Matrix: Water

Date Received: 07/25/14 07:12

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	0	X	10 - 130	07/28/14 15:45	08/01/14 11:38	50
Nitrobenzene-d5	61		23 - 130	07/28/14 15:45	07/31/14 12:27	1
Nitrobenzene-d5	0	X	23 - 130	07/28/14 15:45	08/01/14 11:38	50
Terphenyl-d14	92		42 - 133	07/28/14 15:45	07/31/14 12:27	1
Terphenyl-d14	0	X	42 - 133	07/28/14 15:45	08/01/14 11:38	50
Phenol-d5 (Surr)	20		10 - 130	07/28/14 15:45	07/31/14 12:27	1
Phenol-d5 (Surr)	0	X	10 - 130	07/28/14 15:45	08/01/14 11:38	50

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels - DL

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	3.83		0.236	0.0377	mg/L		07/28/14 15:45	08/04/14 13:58	500

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	0	X	10 - 147	07/28/14 15:45	08/04/14 13:58	500
2-Fluorobiphenyl	0	X	10 - 150	07/28/14 15:45	08/04/14 13:58	500
2-Fluorophenol	0	X	10 - 130	07/28/14 15:45	08/04/14 13:58	500
Nitrobenzene-d5	0	X	23 - 130	07/28/14 15:45	08/04/14 13:58	500
Terphenyl-d14	0	X	42 - 133	07/28/14 15:45	08/04/14 13:58	500
Phenol-d5 (Surr)	0	X	10 - 130	07/28/14 15:45	08/04/14 13:58	500

Client Sample ID: WG-1620-MW68C-20140724

Lab Sample ID: 600-96037-2

Date Collected: 07/24/14 08:50

Matrix: Water

Date Received: 07/25/14 07:12

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	0.000110	U	0.00200	0.000110	mg/L			07/31/14 15:24	1
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			07/31/14 15:24	1
Benzene	0.00730		0.00100	0.0000800	mg/L			07/31/14 15:24	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			07/31/14 15:24	1
Toluene	0.00138		0.00100	0.000150	mg/L			07/31/14 15:24	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			07/31/14 15:24	1
Ethylbenzene	0.000419	J	0.00100	0.000110	mg/L			07/31/14 15:24	1
Xylenes, Total	0.000649	J	0.00300	0.000260	mg/L			07/31/14 15:24	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	86		67 - 139		07/31/14 15:24	1
Dibromofluoromethane	102		62 - 130		07/31/14 15:24	1
Toluene-d8 (Surr)	85		70 - 130		07/31/14 15:24	1
1,2-Dichloroethane-d4 (Surr)	94		50 - 134		07/31/14 15:24	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.0000377	U	0.000472	0.0000377	mg/L		07/28/14 15:45	07/31/14 12:56	1
Nitrobenzene	0.000104	U	0.000472	0.000104	mg/L		07/28/14 15:45	07/31/14 12:56	1
2,4-Dimethylphenol	0.000292	U	0.000472	0.000292	mg/L		07/28/14 15:45	07/31/14 12:56	1
Bis(2-chloroethoxy)methane	0.000123	U	0.000472	0.000123	mg/L		07/28/14 15:45	07/31/14 12:56	1
Naphthalene	0.00274		0.000472	0.0000755	mg/L		07/28/14 15:45	07/31/14 12:56	1
2-Methylnaphthalene	0.000188	J	0.000472	0.0000660	mg/L		07/28/14 15:45	07/31/14 12:56	1
2-Chloronaphthalene	0.0000755	U	0.000472	0.0000755	mg/L		07/28/14 15:45	07/31/14 12:56	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-96037-1

Client Sample ID: WG-1620-MW68C-20140724

Lab Sample ID: 600-96037-2

Date Collected: 07/24/14 08:50

Matrix: Water

Date Received: 07/25/14 07:12

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthylene	0.0000566	U	0.000472	0.0000566	mg/L		07/28/14 15:45	07/31/14 12:56	1
2,6-Dinitrotoluene	0.0000755	U	0.000472	0.0000755	mg/L		07/28/14 15:45	07/31/14 12:56	1
Acenaphthene	0.000235	J	0.000472	0.0000755	mg/L		07/28/14 15:45	07/31/14 12:56	1
4-Nitrophenol	0.000528	U	0.000943	0.000528	mg/L		07/28/14 15:45	07/31/14 12:56	1
Dibenzofuran	0.0000942	J	0.000472	0.0000755	mg/L		07/28/14 15:45	07/31/14 12:56	1
2,4-Dinitrotoluene	0.000123	U	0.000472	0.000123	mg/L		07/28/14 15:45	07/31/14 12:56	1
Fluorene	0.000155	J	0.000472	0.0000660	mg/L		07/28/14 15:45	07/31/14 12:56	1
4,6-Dinitro-2-methylphenol	0.000783	U	0.000943	0.000783	mg/L		07/28/14 15:45	07/31/14 12:56	1
N-Nitrosodiphenylamine	0.0000943	U	0.000472	0.0000943	mg/L		07/28/14 15:45	07/31/14 12:56	1
1,2-Diphenylhydrazine	0.000104	U	0.000472	0.000104	mg/L		07/28/14 15:45	07/31/14 12:56	1
Pentachlorophenol	0.000575	U	0.000943	0.000575	mg/L		07/28/14 15:45	07/31/14 12:56	1
Phenanthrene	0.0000566	U	0.000472	0.0000566	mg/L		07/28/14 15:45	07/31/14 12:56	1
Anthracene	0.0000472	U	0.000472	0.0000472	mg/L		07/28/14 15:45	07/31/14 12:56	1
Di-n-butyl phthalate	0.000104	U	0.000472	0.000104	mg/L		07/28/14 15:45	07/31/14 12:56	1
Fluoranthene	0.0000660	U	0.000472	0.0000660	mg/L		07/28/14 15:45	07/31/14 12:56	1
Pyrene	0.000104	U	0.000472	0.000104	mg/L		07/28/14 15:45	07/31/14 12:56	1
Benzo[a]anthracene	0.0000755	U	0.000472	0.0000755	mg/L		07/28/14 15:45	07/31/14 12:56	1
Bis(2-ethylhexyl) phthalate	0.000349	U	0.000472	0.000349	mg/L		07/28/14 15:45	07/31/14 12:56	1
Chrysene	0.0000755	U	0.000472	0.0000755	mg/L		07/28/14 15:45	07/31/14 12:56	1
Benzo[a]pyrene	0.0000755	U	0.000472	0.0000755	mg/L		07/28/14 15:45	07/31/14 12:56	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	98		10 - 147	07/28/14 15:45	07/31/14 12:56	1
2-Fluorobiphenyl	69		10 - 150	07/28/14 15:45	07/31/14 12:56	1
2-Fluorophenol	33		10 - 130	07/28/14 15:45	07/31/14 12:56	1
Nitrobenzene-d5	70		23 - 130	07/28/14 15:45	07/31/14 12:56	1
Terphenyl-d14	96		42 - 133	07/28/14 15:45	07/31/14 12:56	1
Phenol-d5 (Surr)	17		10 - 130	07/28/14 15:45	07/31/14 12:56	1

Client Sample ID: WG-1620-MW51A-20140724

Lab Sample ID: 600-96037-3

Date Collected: 07/24/14 10:00

Matrix: Water

Date Received: 07/25/14 07:12

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	0.000110	U	0.00200	0.000110	mg/L			07/31/14 16:42	1
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			07/31/14 16:42	1
Benzene	0.0000800	U	0.00100	0.0000800	mg/L			07/31/14 16:42	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			07/31/14 16:42	1
Toluene	0.000150	U	0.00100	0.000150	mg/L			07/31/14 16:42	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			07/31/14 16:42	1
Ethylbenzene	0.000110	U	0.00100	0.000110	mg/L			07/31/14 16:42	1
Xylenes, Total	0.000260	U	0.00300	0.000260	mg/L			07/31/14 16:42	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	87		67 - 139		07/31/14 16:42	1
Dibromofluoromethane	104		62 - 130		07/31/14 16:42	1
Toluene-d8 (Surr)	84		70 - 130		07/31/14 16:42	1
1,2-Dichloroethane-d4 (Surr)	98		50 - 134		07/31/14 16:42	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-96037-1

Client Sample ID: WG-1620-MW51A-20140724

Lab Sample ID: 600-96037-3

Date Collected: 07/24/14 10:00

Matrix: Water

Date Received: 07/25/14 07:12

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.0000377	U	0.000472	0.0000377	mg/L		07/28/14 15:45	07/31/14 13:25	1
Nitrobenzene	0.000104	U	0.000472	0.000104	mg/L		07/28/14 15:45	07/31/14 13:25	1
2,4-Dimethylphenol	0.000292	U	0.000472	0.000292	mg/L		07/28/14 15:45	07/31/14 13:25	1
Bis(2-chloroethoxy)methane	0.000123	U	0.000472	0.000123	mg/L		07/28/14 15:45	07/31/14 13:25	1
Naphthalene	0.000162	J	0.000472	0.0000755	mg/L		07/28/14 15:45	07/31/14 13:25	1
2-Methylnaphthalene	0.0000660	U	0.000472	0.0000660	mg/L		07/28/14 15:45	07/31/14 13:25	1
2-Chloronaphthalene	0.0000755	U	0.000472	0.0000755	mg/L		07/28/14 15:45	07/31/14 13:25	1
Acenaphthylene	0.0000566	U	0.000472	0.0000566	mg/L		07/28/14 15:45	07/31/14 13:25	1
2,6-Dinitrotoluene	0.0000755	U	0.000472	0.0000755	mg/L		07/28/14 15:45	07/31/14 13:25	1
Acenaphthene	0.0000755	U	0.000472	0.0000755	mg/L		07/28/14 15:45	07/31/14 13:25	1
4-Nitrophenol	0.000528	U	0.000943	0.000528	mg/L		07/28/14 15:45	07/31/14 13:25	1
Dibenzofuran	0.0000755	U	0.000472	0.0000755	mg/L		07/28/14 15:45	07/31/14 13:25	1
2,4-Dinitrotoluene	0.000123	U	0.000472	0.000123	mg/L		07/28/14 15:45	07/31/14 13:25	1
Fluorene	0.0000660	U	0.000472	0.0000660	mg/L		07/28/14 15:45	07/31/14 13:25	1
4,6-Dinitro-2-methylphenol	0.000783	U	0.000943	0.000783	mg/L		07/28/14 15:45	07/31/14 13:25	1
N-Nitrosodiphenylamine	0.0000943	U	0.000472	0.0000943	mg/L		07/28/14 15:45	07/31/14 13:25	1
1,2-Diphenylhydrazine	0.000104	U	0.000472	0.000104	mg/L		07/28/14 15:45	07/31/14 13:25	1
Pentachlorophenol	0.000575	U	0.000943	0.000575	mg/L		07/28/14 15:45	07/31/14 13:25	1
Phenanthrene	0.0000566	U	0.000472	0.0000566	mg/L		07/28/14 15:45	07/31/14 13:25	1
Anthracene	0.0000472	U	0.000472	0.0000472	mg/L		07/28/14 15:45	07/31/14 13:25	1
Di-n-butyl phthalate	0.000104	U	0.000472	0.000104	mg/L		07/28/14 15:45	07/31/14 13:25	1
Fluoranthene	0.0000660	U	0.000472	0.0000660	mg/L		07/28/14 15:45	07/31/14 13:25	1
Pyrene	0.000104	U	0.000472	0.000104	mg/L		07/28/14 15:45	07/31/14 13:25	1
Benzo[a]anthracene	0.0000755	U	0.000472	0.0000755	mg/L		07/28/14 15:45	07/31/14 13:25	1
Bis(2-ethylhexyl) phthalate	0.000804		0.000472	0.000349	mg/L		07/28/14 15:45	07/31/14 13:25	1
Chrysene	0.0000755	U	0.000472	0.0000755	mg/L		07/28/14 15:45	07/31/14 13:25	1
Benzo[a]pyrene	0.0000755	U	0.000472	0.0000755	mg/L		07/28/14 15:45	07/31/14 13:25	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	54		10 - 147	07/28/14 15:45	07/31/14 13:25	1
2-Fluorobiphenyl	80		10 - 150	07/28/14 15:45	07/31/14 13:25	1
2-Fluorophenol	27		10 - 130	07/28/14 15:45	07/31/14 13:25	1
Nitrobenzene-d5	84		23 - 130	07/28/14 15:45	07/31/14 13:25	1
Terphenyl-d14	95		42 - 133	07/28/14 15:45	07/31/14 13:25	1
Phenol-d5 (Surr)	14		10 - 130	07/28/14 15:45	07/31/14 13:25	1

Client Sample ID: WG-1620-MW51C-20140724

Lab Sample ID: 600-96037-4

Date Collected: 07/24/14 10:50

Matrix: Water

Date Received: 07/25/14 07:12

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	0.000110	U	0.00200	0.000110	mg/L			07/31/14 17:08	1
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			07/31/14 17:08	1
Benzene	0.000104	J	0.00100	0.0000800	mg/L			07/31/14 17:08	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			07/31/14 17:08	1
Toluene	0.000150	U	0.00100	0.000150	mg/L			07/31/14 17:08	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			07/31/14 17:08	1
Ethylbenzene	0.000110	U	0.00100	0.000110	mg/L			07/31/14 17:08	1
Xylenes, Total	0.000260	U	0.00300	0.000260	mg/L			07/31/14 17:08	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-96037-1

Client Sample ID: WG-1620-MW51C-20140724

Lab Sample ID: 600-96037-4

Date Collected: 07/24/14 10:50

Matrix: Water

Date Received: 07/25/14 07:12

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	84		67 - 139		07/31/14 17:08	1
Dibromofluoromethane	102		62 - 130		07/31/14 17:08	1
Toluene-d8 (Surr)	82		70 - 130		07/31/14 17:08	1
1,2-Dichloroethane-d4 (Surr)	93		50 - 134		07/31/14 17:08	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.000628		0.000472	0.0000377	mg/L		07/28/14 15:45	07/31/14 13:54	1
Nitrobenzene	0.000104	U	0.000472	0.000104	mg/L		07/28/14 15:45	07/31/14 13:54	1
2,4-Dimethylphenol	0.000292	U	0.000472	0.000292	mg/L		07/28/14 15:45	07/31/14 13:54	1
Bis(2-chloroethoxy)methane	0.000123	U	0.000472	0.000123	mg/L		07/28/14 15:45	07/31/14 13:54	1
Naphthalene	0.000553		0.000472	0.0000755	mg/L		07/28/14 15:45	07/31/14 13:54	1
2-Methylnaphthalene	0.0000660	U	0.000472	0.0000660	mg/L		07/28/14 15:45	07/31/14 13:54	1
2-Chloronaphthalene	0.0000755	U	0.000472	0.0000755	mg/L		07/28/14 15:45	07/31/14 13:54	1
Acenaphthylene	0.0000566	U	0.000472	0.0000566	mg/L		07/28/14 15:45	07/31/14 13:54	1
2,6-Dinitrotoluene	0.0000755	U	0.000472	0.0000755	mg/L		07/28/14 15:45	07/31/14 13:54	1
Acenaphthene	0.0000755	U	0.000472	0.0000755	mg/L		07/28/14 15:45	07/31/14 13:54	1
4-Nitrophenol	0.000528	U	0.000943	0.000528	mg/L		07/28/14 15:45	07/31/14 13:54	1
Dibenzofuran	0.0000755	U	0.000472	0.0000755	mg/L		07/28/14 15:45	07/31/14 13:54	1
2,4-Dinitrotoluene	0.000123	U	0.000472	0.000123	mg/L		07/28/14 15:45	07/31/14 13:54	1
Fluorene	0.0000660	U	0.000472	0.0000660	mg/L		07/28/14 15:45	07/31/14 13:54	1
4,6-Dinitro-2-methylphenol	0.000783	U	0.000943	0.000783	mg/L		07/28/14 15:45	07/31/14 13:54	1
N-Nitrosodiphenylamine	0.0000943	U	0.000472	0.0000943	mg/L		07/28/14 15:45	07/31/14 13:54	1
1,2-Diphenylhydrazine	0.000104	U	0.000472	0.000104	mg/L		07/28/14 15:45	07/31/14 13:54	1
Pentachlorophenol	0.000575	U	0.000943	0.000575	mg/L		07/28/14 15:45	07/31/14 13:54	1
Phenanthrene	0.0000566	U	0.000472	0.0000566	mg/L		07/28/14 15:45	07/31/14 13:54	1
Anthracene	0.0000472	U	0.000472	0.0000472	mg/L		07/28/14 15:45	07/31/14 13:54	1
Di-n-butyl phthalate	0.000104	U	0.000472	0.000104	mg/L		07/28/14 15:45	07/31/14 13:54	1
Fluoranthene	0.0000660	U	0.000472	0.0000660	mg/L		07/28/14 15:45	07/31/14 13:54	1
Pyrene	0.000104	U	0.000472	0.000104	mg/L		07/28/14 15:45	07/31/14 13:54	1
Benzo[a]anthracene	0.0000755	U	0.000472	0.0000755	mg/L		07/28/14 15:45	07/31/14 13:54	1
Bis(2-ethylhexyl) phthalate	0.00111		0.000472	0.000349	mg/L		07/28/14 15:45	07/31/14 13:54	1
Chrysene	0.0000755	U	0.000472	0.0000755	mg/L		07/28/14 15:45	07/31/14 13:54	1
Benzo[a]pyrene	0.0000755	U	0.000472	0.0000755	mg/L		07/28/14 15:45	07/31/14 13:54	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	101		10 - 147	07/28/14 15:45	07/31/14 13:54	1
2-Fluorobiphenyl	84		10 - 150	07/28/14 15:45	07/31/14 13:54	1
2-Fluorophenol	35		10 - 130	07/28/14 15:45	07/31/14 13:54	1
Nitrobenzene-d5	83		23 - 130	07/28/14 15:45	07/31/14 13:54	1
Terphenyl-d14	95		42 - 133	07/28/14 15:45	07/31/14 13:54	1
Phenol-d5 (Surr)	19		10 - 130	07/28/14 15:45	07/31/14 13:54	1

Client Sample ID: WG-1620-MW76C-20140724

Lab Sample ID: 600-96037-5

Date Collected: 07/24/14 12:00

Matrix: Water

Date Received: 07/25/14 07:12

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	0.000110	U	0.00200	0.000110	mg/L			07/31/14 17:35	1
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			07/31/14 17:35	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-96037-1

Client Sample ID: WG-1620-MW76C-20140724

Lab Sample ID: 600-96037-5

Date Collected: 07/24/14 12:00

Matrix: Water

Date Received: 07/25/14 07:12

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.000149	J	0.00100	0.0000800	mg/L			07/31/14 17:35	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			07/31/14 17:35	1
Toluene	0.000156	J	0.00100	0.000150	mg/L			07/31/14 17:35	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			07/31/14 17:35	1
Ethylbenzene	0.000110	U	0.00100	0.000110	mg/L			07/31/14 17:35	1
Xylenes, Total	0.000260	U	0.00300	0.000260	mg/L			07/31/14 17:35	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>4-Bromofluorobenzene</i>	84		67 - 139					07/31/14 17:35	1
<i>Dibromofluoromethane</i>	104		62 - 130					07/31/14 17:35	1
<i>Toluene-d8 (Surr)</i>	83		70 - 130					07/31/14 17:35	1
<i>1,2-Dichloroethane-d4 (Surr)</i>	96		50 - 134					07/31/14 17:35	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.00284		0.000472	0.0000377	mg/L		07/28/14 15:45	07/31/14 14:23	1
Nitrobenzene	0.000104	U	0.000472	0.000104	mg/L		07/28/14 15:45	07/31/14 14:23	1
2,4-Dimethylphenol	0.000292	U	0.000472	0.000292	mg/L		07/28/14 15:45	07/31/14 14:23	1
Bis(2-chloroethoxy)methane	0.000123	U	0.000472	0.000123	mg/L		07/28/14 15:45	07/31/14 14:23	1
Naphthalene	0.00176		0.000472	0.0000755	mg/L		07/28/14 15:45	07/31/14 14:23	1
2-Methylnaphthalene	0.000392	J	0.000472	0.0000660	mg/L		07/28/14 15:45	07/31/14 14:23	1
2-Chloronaphthalene	0.0000755	U	0.000472	0.0000755	mg/L		07/28/14 15:45	07/31/14 14:23	1
Acenaphthylene	0.0000566	U	0.000472	0.0000566	mg/L		07/28/14 15:45	07/31/14 14:23	1
2,6-Dinitrotoluene	0.0000755	U	0.000472	0.0000755	mg/L		07/28/14 15:45	07/31/14 14:23	1
Acenaphthene	0.000696		0.000472	0.0000755	mg/L		07/28/14 15:45	07/31/14 14:23	1
4-Nitrophenol	0.000528	U	0.000943	0.000528	mg/L		07/28/14 15:45	07/31/14 14:23	1
Dibenzofuran	0.000507		0.000472	0.0000755	mg/L		07/28/14 15:45	07/31/14 14:23	1
2,4-Dinitrotoluene	0.000123	U	0.000472	0.000123	mg/L		07/28/14 15:45	07/31/14 14:23	1
Fluorene	0.000778		0.000472	0.0000660	mg/L		07/28/14 15:45	07/31/14 14:23	1
4,6-Dinitro-2-methylphenol	0.000783	U	0.000943	0.000783	mg/L		07/28/14 15:45	07/31/14 14:23	1
N-Nitrosodiphenylamine	0.0000943	U	0.000472	0.0000943	mg/L		07/28/14 15:45	07/31/14 14:23	1
1,2-Diphenylhydrazine	0.000104	U	0.000472	0.000104	mg/L		07/28/14 15:45	07/31/14 14:23	1
Pentachlorophenol	0.00272		0.000943	0.0000575	mg/L		07/28/14 15:45	07/31/14 14:23	1
Phenanthrene	0.00183		0.000472	0.0000566	mg/L		07/28/14 15:45	07/31/14 14:23	1
Anthracene	0.000234	J	0.000472	0.0000472	mg/L		07/28/14 15:45	07/31/14 14:23	1
Di-n-butyl phthalate	0.000104	U	0.000472	0.000104	mg/L		07/28/14 15:45	07/31/14 14:23	1
Fluoranthene	0.000322	J	0.000472	0.0000660	mg/L		07/28/14 15:45	07/31/14 14:23	1
Pyrene	0.000194	J	0.000472	0.000104	mg/L		07/28/14 15:45	07/31/14 14:23	1
Benzo[a]anthracene	0.0000755	U	0.000472	0.0000755	mg/L		07/28/14 15:45	07/31/14 14:23	1
Bis(2-ethylhexyl) phthalate	0.000803		0.000472	0.000349	mg/L		07/28/14 15:45	07/31/14 14:23	1
Chrysene	0.0000755	U	0.000472	0.0000755	mg/L		07/28/14 15:45	07/31/14 14:23	1
Benzo[a]pyrene	0.0000755	U	0.000472	0.0000755	mg/L		07/28/14 15:45	07/31/14 14:23	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>2,4,6-Tribromophenol</i>	106		10 - 147				07/28/14 15:45	07/31/14 14:23	1
<i>2-Fluorobiphenyl</i>	84		10 - 150				07/28/14 15:45	07/31/14 14:23	1
<i>2-Fluorophenol</i>	32		10 - 130				07/28/14 15:45	07/31/14 14:23	1
<i>Nitrobenzene-d5</i>	87		23 - 130				07/28/14 15:45	07/31/14 14:23	1
<i>Terphenyl-d14</i>	99		42 - 133				07/28/14 15:45	07/31/14 14:23	1
<i>Phenol-d5 (Surr)</i>	19		10 - 130				07/28/14 15:45	07/31/14 14:23	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-96037-1

Client Sample ID: WG-1620-MW77A-20140724

Lab Sample ID: 600-96037-6

Date Collected: 07/24/14 15:15

Matrix: Water

Date Received: 07/25/14 07:12

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	0.000110	U	0.00200	0.000110	mg/L			08/01/14 13:02	1
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			08/01/14 13:02	1
Benzene	0.0000800	U	0.00100	0.0000800	mg/L			08/01/14 13:02	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			08/01/14 13:02	1
Toluene	0.000150	U	0.00100	0.000150	mg/L			08/01/14 13:02	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			08/01/14 13:02	1
Ethylbenzene	0.000110	U	0.00100	0.000110	mg/L			08/01/14 13:02	1
Xylenes, Total	0.000260	U	0.00300	0.000260	mg/L			08/01/14 13:02	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	97		67 - 139					08/01/14 13:02	1
Dibromofluoromethane	114		62 - 130					08/01/14 13:02	1
Toluene-d8 (Surr)	108		70 - 130					08/01/14 13:02	1
1,2-Dichloroethane-d4 (Surr)	144	X	50 - 134					08/01/14 13:02	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.00189	U	0.0236	0.00189	mg/L		07/28/14 15:45	07/31/14 14:58	50
Nitrobenzene	0.00519	U	0.0236	0.00519	mg/L		07/28/14 15:45	07/31/14 14:58	50
2,4-Dimethylphenol	0.0146	U	0.0236	0.0146	mg/L		07/28/14 15:45	07/31/14 14:58	50
Bis(2-chloroethoxy)methane	0.00613	U	0.0236	0.00613	mg/L		07/28/14 15:45	07/31/14 14:58	50
Naphthalene	0.884		0.0236	0.00377	mg/L		07/28/14 15:45	07/31/14 14:58	50
2-Methylnaphthalene	0.0571		0.0236	0.00330	mg/L		07/28/14 15:45	07/31/14 14:58	50
2-Chloronaphthalene	0.00377	U	0.0236	0.00377	mg/L		07/28/14 15:45	07/31/14 14:58	50
Acenaphthylene	0.00283	U	0.0236	0.00283	mg/L		07/28/14 15:45	07/31/14 14:58	50
2,6-Dinitrotoluene	0.00377	U	0.0236	0.00377	mg/L		07/28/14 15:45	07/31/14 14:58	50
Acenaphthene	0.0456		0.0236	0.00377	mg/L		07/28/14 15:45	07/31/14 14:58	50
4-Nitrophenol	0.0264	U	0.0472	0.0264	mg/L		07/28/14 15:45	07/31/14 14:58	50
Dibenzofuran	0.0229	J	0.0236	0.00377	mg/L		07/28/14 15:45	07/31/14 14:58	50
2,4-Dinitrotoluene	0.00613	U	0.0236	0.00613	mg/L		07/28/14 15:45	07/31/14 14:58	50
Fluorene	0.0240		0.0236	0.00330	mg/L		07/28/14 15:45	07/31/14 14:58	50
4,6-Dinitro-2-methylphenol	0.0392	U	0.0472	0.0392	mg/L		07/28/14 15:45	07/31/14 14:58	50
N-Nitrosodiphenylamine	0.00472	U	0.0236	0.00472	mg/L		07/28/14 15:45	07/31/14 14:58	50
1,2-Diphenylhydrazine	0.00519	U	0.0236	0.00519	mg/L		07/28/14 15:45	07/31/14 14:58	50
Pentachlorophenol	0.0288	U	0.0472	0.0288	mg/L		07/28/14 15:45	07/31/14 14:58	50
Phenanthrene	0.0262		0.0236	0.00283	mg/L		07/28/14 15:45	07/31/14 14:58	50
Anthracene	0.00236	U	0.0236	0.00236	mg/L		07/28/14 15:45	07/31/14 14:58	50
Di-n-butyl phthalate	0.00519	U	0.0236	0.00519	mg/L		07/28/14 15:45	07/31/14 14:58	50
Fluoranthene	0.00330	U	0.0236	0.00330	mg/L		07/28/14 15:45	07/31/14 14:58	50
Pyrene	0.00519	U	0.0236	0.00519	mg/L		07/28/14 15:45	07/31/14 14:58	50
Benzo[a]anthracene	0.00377	U	0.0236	0.00377	mg/L		07/28/14 15:45	07/31/14 14:58	50
Bis(2-ethylhexyl) phthalate	0.0175	U	0.0236	0.0175	mg/L		07/28/14 15:45	07/31/14 14:58	50
Chrysene	0.00377	U	0.0236	0.00377	mg/L		07/28/14 15:45	07/31/14 14:58	50
Benzo[a]pyrene	0.00377	U	0.0236	0.00377	mg/L		07/28/14 15:45	07/31/14 14:58	50
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	0	X	10 - 147				07/28/14 15:45	07/31/14 14:58	50
2-Fluorobiphenyl	0	X	10 - 150				07/28/14 15:45	07/31/14 14:58	50
2-Fluorophenol	0	X	10 - 130				07/28/14 15:45	07/31/14 14:58	50
Nitrobenzene-d5	0	X	23 - 130				07/28/14 15:45	07/31/14 14:58	50

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-96037-1

Client Sample ID: WG-1620-MW77A-20140724

Lab Sample ID: 600-96037-6

Date Collected: 07/24/14 15:15

Matrix: Water

Date Received: 07/25/14 07:12

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Terphenyl-d14	0	X	42 - 133	07/28/14 15:45	07/31/14 14:58	50
Phenol-d5 (Surr)	0	X	10 - 130	07/28/14 15:45	07/31/14 14:58	50

Client Sample ID: WG-1620-MW78A-20140724

Lab Sample ID: 600-96037-7

Date Collected: 07/24/14 16:10

Matrix: Water

Date Received: 07/25/14 07:12

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	0.000550	U	0.0100	0.000550	mg/L			08/01/14 13:28	5
Methylene Chloride	0.000750	U	0.00500	0.000750	mg/L			08/01/14 13:28	5
Benzene	0.0571		0.00500	0.000400	mg/L			08/01/14 13:28	5
1,2-Dichloroethane	0.000700	U	0.00500	0.000700	mg/L			08/01/14 13:28	5
Toluene	0.100		0.00500	0.000750	mg/L			08/01/14 13:28	5
Chlorobenzene	0.000600	U	0.00500	0.000600	mg/L			08/01/14 13:28	5
Ethylbenzene	0.0637		0.00500	0.000550	mg/L			08/01/14 13:28	5
Xylenes, Total	0.158		0.0150	0.00130	mg/L			08/01/14 13:28	5
Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac			
4-Bromofluorobenzene	95		67 - 139		08/01/14 13:28	5			
Dibromofluoromethane	77		62 - 130		08/01/14 13:28	5			
Toluene-d8 (Surr)	107		70 - 130		08/01/14 13:28	5			
1,2-Dichloroethane-d4 (Surr)	86		50 - 134		08/01/14 13:28	5			

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.192		0.118	0.00943	mg/L		07/28/14 15:45	07/31/14 15:27	250
Nitrobenzene	0.0259	U	0.118	0.0259	mg/L		07/28/14 15:45	07/31/14 15:27	250
Bis(2-chloroethoxy)methane	0.0307	U	0.118	0.0307	mg/L		07/28/14 15:45	07/31/14 15:27	250
Naphthalene	7.18	E	0.118	0.0189	mg/L		07/28/14 15:45	07/31/14 15:27	250
2-Methylnaphthalene	0.879		0.118	0.0165	mg/L		07/28/14 15:45	07/31/14 15:27	250
2-Chloronaphthalene	0.0189	U	0.118	0.0189	mg/L		07/28/14 15:45	07/31/14 15:27	250
Acenaphthylene	0.0142	U	0.118	0.0142	mg/L		07/28/14 15:45	07/31/14 15:27	250
2,6-Dinitrotoluene	0.0189	U	0.118	0.0189	mg/L		07/28/14 15:45	07/31/14 15:27	250
Acenaphthene	0.497		0.118	0.0189	mg/L		07/28/14 15:45	07/31/14 15:27	250
4-Nitrophenol	0.132	U	0.236	0.132	mg/L		07/28/14 15:45	07/31/14 15:27	250
Dibenzofuran	0.411		0.118	0.0189	mg/L		07/28/14 15:45	07/31/14 15:27	250
2,4-Dinitrotoluene	0.0307	U	0.118	0.0307	mg/L		07/28/14 15:45	07/31/14 15:27	250
Fluorene	0.382		0.118	0.0165	mg/L		07/28/14 15:45	07/31/14 15:27	250
4,6-Dinitro-2-methylphenol	0.196	U	0.236	0.196	mg/L		07/28/14 15:45	07/31/14 15:27	250
N-Nitrosodiphenylamine	0.0236	U	0.118	0.0236	mg/L		07/28/14 15:45	07/31/14 15:27	250
1,2-Diphenylhydrazine	0.0259	U	0.118	0.0259	mg/L		07/28/14 15:45	07/31/14 15:27	250
Pentachlorophenol	0.144	U	0.236	0.144	mg/L		07/28/14 15:45	07/31/14 15:27	250
Phenanthrene	0.604		0.118	0.0142	mg/L		07/28/14 15:45	07/31/14 15:27	250
Anthracene	0.105	J	0.118	0.0118	mg/L		07/28/14 15:45	07/31/14 15:27	250
Di-n-butyl phthalate	0.0259	U	0.118	0.0259	mg/L		07/28/14 15:45	07/31/14 15:27	250
Fluoranthene	0.165		0.118	0.0165	mg/L		07/28/14 15:45	07/31/14 15:27	250
Pyrene	0.0967	J	0.118	0.0259	mg/L		07/28/14 15:45	07/31/14 15:27	250
Benzo[a]anthracene	0.0336	J	0.118	0.0189	mg/L		07/28/14 15:45	07/31/14 15:27	250
Bis(2-ethylhexyl) phthalate	0.0873	U	0.118	0.0873	mg/L		07/28/14 15:45	07/31/14 15:27	250

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-96037-1

Client Sample ID: WG-1620-MW78A-20140724

Lab Sample ID: 600-96037-7

Date Collected: 07/24/14 16:10

Matrix: Water

Date Received: 07/25/14 07:12

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	0.0248	J	0.118	0.0189	mg/L		07/28/14 15:45	07/31/14 15:27	250
Benzo[a]pyrene	0.0189	U	0.118	0.0189	mg/L		07/28/14 15:45	07/31/14 15:27	250
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	0	X	10 - 147				07/28/14 15:45	07/31/14 15:27	250
2-Fluorobiphenyl	0	X	10 - 150				07/28/14 15:45	07/31/14 15:27	250
2-Fluorophenol	0	X	10 - 130				07/28/14 15:45	07/31/14 15:27	250
Nitrobenzene-d5	0	X	23 - 130				07/28/14 15:45	07/31/14 15:27	250
Terphenyl-d14	0	X	42 - 133				07/28/14 15:45	07/31/14 15:27	250
Phenol-d5 (Surr)	0	X	10 - 130				07/28/14 15:45	07/31/14 15:27	250

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels - DL

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-Dimethylphenol	6.66		0.590	0.366	mg/L		07/28/14 15:45	08/01/14 14:48	1250
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	0	X	10 - 147				07/28/14 15:45	08/01/14 14:48	1250
2-Fluorobiphenyl	0	X	10 - 150				07/28/14 15:45	08/01/14 14:48	1250
2-Fluorophenol	0	X	10 - 130				07/28/14 15:45	08/01/14 14:48	1250
Nitrobenzene-d5	0	X	23 - 130				07/28/14 15:45	08/01/14 14:48	1250
Terphenyl-d14	0	X	42 - 133				07/28/14 15:45	08/01/14 14:48	1250
Phenol-d5 (Surr)	0	X	10 - 130				07/28/14 15:45	08/01/14 14:48	1250

Client Sample ID: WG-1620-FB4-20140724

Lab Sample ID: 600-96037-8

Date Collected: 07/24/14 16:25

Matrix: Water

Date Received: 07/25/14 07:12

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	0.000110	U	0.00200	0.000110	mg/L			07/31/14 18:01	1
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			07/31/14 18:01	1
Benzene	0.0000800	U	0.00100	0.0000800	mg/L			07/31/14 18:01	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			07/31/14 18:01	1
Toluene	0.000150	U	0.00100	0.000150	mg/L			07/31/14 18:01	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			07/31/14 18:01	1
Ethylbenzene	0.000110	U	0.00100	0.000110	mg/L			07/31/14 18:01	1
Xylenes, Total	0.000260	U	0.00300	0.000260	mg/L			07/31/14 18:01	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	84		67 - 139					07/31/14 18:01	1
Dibromofluoromethane	104		62 - 130					07/31/14 18:01	1
Toluene-d8 (Surr)	83		70 - 130					07/31/14 18:01	1
1,2-Dichloroethane-d4 (Surr)	97		50 - 134					07/31/14 18:01	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.0000377	U	0.000472	0.0000377	mg/L		07/28/14 15:45	07/31/14 15:56	1
Nitrobenzene	0.000104	U	0.000472	0.000104	mg/L		07/28/14 15:45	07/31/14 15:56	1
2,4-Dimethylphenol	0.000292	U	0.000472	0.000292	mg/L		07/28/14 15:45	07/31/14 15:56	1
Bis(2-chloroethoxy)methane	0.000123	U	0.000472	0.000123	mg/L		07/28/14 15:45	07/31/14 15:56	1
Naphthalene	0.0000755	U	0.000472	0.0000755	mg/L		07/28/14 15:45	07/31/14 15:56	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-96037-1

Client Sample ID: WG-1620-FB4-20140724

Lab Sample ID: 600-96037-8

Date Collected: 07/24/14 16:25

Matrix: Water

Date Received: 07/25/14 07:12

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylnaphthalene	0.0000660	U	0.000472	0.0000660	mg/L		07/28/14 15:45	07/31/14 15:56	1
2-Chloronaphthalene	0.0000755	U	0.000472	0.0000755	mg/L		07/28/14 15:45	07/31/14 15:56	1
Acenaphthylene	0.0000566	U	0.000472	0.0000566	mg/L		07/28/14 15:45	07/31/14 15:56	1
2,6-Dinitrotoluene	0.0000755	U	0.000472	0.0000755	mg/L		07/28/14 15:45	07/31/14 15:56	1
Acenaphthene	0.0000755	U	0.000472	0.0000755	mg/L		07/28/14 15:45	07/31/14 15:56	1
4-Nitrophenol	0.000528	U	0.000943	0.000528	mg/L		07/28/14 15:45	07/31/14 15:56	1
Dibenzofuran	0.0000755	U	0.000472	0.0000755	mg/L		07/28/14 15:45	07/31/14 15:56	1
2,4-Dinitrotoluene	0.000123	U	0.000472	0.000123	mg/L		07/28/14 15:45	07/31/14 15:56	1
Fluorene	0.0000660	U	0.000472	0.0000660	mg/L		07/28/14 15:45	07/31/14 15:56	1
4,6-Dinitro-2-methylphenol	0.000783	U	0.000943	0.000783	mg/L		07/28/14 15:45	07/31/14 15:56	1
N-Nitrosodiphenylamine	0.0000943	U	0.000472	0.0000943	mg/L		07/28/14 15:45	07/31/14 15:56	1
1,2-Diphenylhydrazine	0.000104	U	0.000472	0.000104	mg/L		07/28/14 15:45	07/31/14 15:56	1
Pentachlorophenol	0.000575	U	0.000943	0.000575	mg/L		07/28/14 15:45	07/31/14 15:56	1
Phenanthrene	0.0000566	U	0.000472	0.0000566	mg/L		07/28/14 15:45	07/31/14 15:56	1
Anthracene	0.0000472	U	0.000472	0.0000472	mg/L		07/28/14 15:45	07/31/14 15:56	1
Di-n-butyl phthalate	0.000104	U	0.000472	0.000104	mg/L		07/28/14 15:45	07/31/14 15:56	1
Fluoranthene	0.0000660	U	0.000472	0.0000660	mg/L		07/28/14 15:45	07/31/14 15:56	1
Pyrene	0.000104	U	0.000472	0.000104	mg/L		07/28/14 15:45	07/31/14 15:56	1
Benzo[a]anthracene	0.0000755	U	0.000472	0.0000755	mg/L		07/28/14 15:45	07/31/14 15:56	1
Bis(2-ethylhexyl) phthalate	0.000349	U	0.000472	0.000349	mg/L		07/28/14 15:45	07/31/14 15:56	1
Chrysene	0.0000755	U	0.000472	0.0000755	mg/L		07/28/14 15:45	07/31/14 15:56	1
Benzo[a]pyrene	0.0000755	U	0.000472	0.0000755	mg/L		07/28/14 15:45	07/31/14 15:56	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	87		10 - 147				07/28/14 15:45	07/31/14 15:56	1
2-Fluorobiphenyl	85		10 - 150				07/28/14 15:45	07/31/14 15:56	1
2-Fluorophenol	41		10 - 130				07/28/14 15:45	07/31/14 15:56	1
Nitrobenzene-d5	90		23 - 130				07/28/14 15:45	07/31/14 15:56	1
Terphenyl-d14	101		42 - 133				07/28/14 15:45	07/31/14 15:56	1
Phenol-d5 (Surr)	21		10 - 130				07/28/14 15:45	07/31/14 15:56	1

Client Sample ID: WG-1620-MW68B-20140724

Lab Sample ID: 600-96037-9

Date Collected: 07/24/14 10:00

Matrix: Water

Date Received: 07/25/14 07:12

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	0.00700	J	0.0400	0.00220	mg/L			07/31/14 20:38	20
Methylene Chloride	0.00300	U	0.0200	0.00300	mg/L			07/31/14 20:38	20
1,2-Dichloroethane	0.00280	U	0.0200	0.00280	mg/L			07/31/14 20:38	20
Toluene	0.538		0.0200	0.00300	mg/L			07/31/14 20:38	20
Chlorobenzene	0.00240	U	0.0200	0.00240	mg/L			07/31/14 20:38	20
Ethylbenzene	0.403		0.0200	0.00220	mg/L			07/31/14 20:38	20
Xylenes, Total	1.08		0.0600	0.00520	mg/L			07/31/14 20:38	20
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	84		67 - 139					07/31/14 20:38	20
Dibromofluoromethane	100		62 - 130					07/31/14 20:38	20
Toluene-d8 (Surr)	83		70 - 130					07/31/14 20:38	20
1,2-Dichloroethane-d4 (Surr)	93		50 - 134					07/31/14 20:38	20

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-96037-1

Client Sample ID: WG-1620-MW68B-20140724

Lab Sample ID: 600-96037-9

Date Collected: 07/24/14 10:00

Matrix: Water

Date Received: 07/25/14 07:12

Method: 8260B - Volatile Organic Compounds (GC/MS) - DL

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	2.18		0.200	0.0160	mg/L			08/01/14 14:47	200
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	99		67 - 139				08/01/14 14:47	08/01/14 14:47	200
Dibromofluoromethane	97		62 - 130				08/01/14 14:47	08/01/14 14:47	200
Toluene-d8 (Surr)	106		70 - 130				08/01/14 14:47	08/01/14 14:47	200
1,2-Dichloroethane-d4 (Surr)	91		50 - 134				08/01/14 14:47	08/01/14 14:47	200

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.00988	J	0.0250	0.00200	mg/L		07/28/14 15:45	07/31/14 16:25	50
Nitrobenzene	0.00550	U	0.0250	0.00550	mg/L		07/28/14 15:45	07/31/14 16:25	50
2,4-Dimethylphenol	0.445		0.0250	0.0155	mg/L		07/28/14 15:45	07/31/14 16:25	50
Bis(2-chloroethoxy)methane	0.00650	U	0.0250	0.00650	mg/L		07/28/14 15:45	07/31/14 16:25	50
2-Methylnaphthalene	0.852		0.0250	0.00350	mg/L		07/28/14 15:45	07/31/14 16:25	50
2-Chloronaphthalene	0.00400	U	0.0250	0.00400	mg/L		07/28/14 15:45	07/31/14 16:25	50
Acenaphthylene	0.00300	U	0.0250	0.00300	mg/L		07/28/14 15:45	07/31/14 16:25	50
2,6-Dinitrotoluene	0.00400	U	0.0250	0.00400	mg/L		07/28/14 15:45	07/31/14 16:25	50
Acenaphthene	0.178		0.0250	0.00400	mg/L		07/28/14 15:45	07/31/14 16:25	50
4-Nitrophenol	0.0280	U	0.0500	0.0280	mg/L		07/28/14 15:45	07/31/14 16:25	50
Dibenzofuran	0.198		0.0250	0.00400	mg/L		07/28/14 15:45	07/31/14 16:25	50
2,4-Dinitrotoluene	0.00650	U	0.0250	0.00650	mg/L		07/28/14 15:45	07/31/14 16:25	50
Fluorene	0.0966		0.0250	0.00350	mg/L		07/28/14 15:45	07/31/14 16:25	50
4,6-Dinitro-2-methylphenol	0.0415	U	0.0500	0.0415	mg/L		07/28/14 15:45	07/31/14 16:25	50
N-Nitrosodiphenylamine	0.00500	U	0.0250	0.00500	mg/L		07/28/14 15:45	07/31/14 16:25	50
1,2-Diphenylhydrazine	0.00550	U	0.0250	0.00550	mg/L		07/28/14 15:45	07/31/14 16:25	50
Pentachlorophenol	0.0305	U	0.0500	0.0305	mg/L		07/28/14 15:45	07/31/14 16:25	50
Phenanthrene	0.106		0.0250	0.00300	mg/L		07/28/14 15:45	07/31/14 16:25	50
Anthracene	0.0169	J	0.0250	0.00250	mg/L		07/28/14 15:45	07/31/14 16:25	50
Di-n-butyl phthalate	0.00550	U	0.0250	0.00550	mg/L		07/28/14 15:45	07/31/14 16:25	50
Fluoranthene	0.00825	J	0.0250	0.00350	mg/L		07/28/14 15:45	07/31/14 16:25	50
Pyrene	0.00550	U	0.0250	0.00550	mg/L		07/28/14 15:45	07/31/14 16:25	50
Benzo[a]anthracene	0.00400	U	0.0250	0.00400	mg/L		07/28/14 15:45	07/31/14 16:25	50
Bis(2-ethylhexyl) phthalate	0.0185	U	0.0250	0.0185	mg/L		07/28/14 15:45	07/31/14 16:25	50
Chrysene	0.00400	U	0.0250	0.00400	mg/L		07/28/14 15:45	07/31/14 16:25	50
Benzo[a]pyrene	0.00400	U	0.0250	0.00400	mg/L		07/28/14 15:45	07/31/14 16:25	50
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	0	X	10 - 147				07/28/14 15:45	07/31/14 16:25	50
2-Fluorobiphenyl	0	X	10 - 150				07/28/14 15:45	07/31/14 16:25	50
2-Fluorophenol	0	X	10 - 130				07/28/14 15:45	07/31/14 16:25	50
Nitrobenzene-d5	0	X	23 - 130				07/28/14 15:45	07/31/14 16:25	50
Terphenyl-d14	0	X	42 - 133				07/28/14 15:45	07/31/14 16:25	50
Phenol-d5 (Surr)	0	X	10 - 130				07/28/14 15:45	07/31/14 16:25	50

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels - DL

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	10.5		0.500	0.0800	mg/L		07/28/14 15:45	08/01/14 13:54	1000
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	0	X	10 - 147				07/28/14 15:45	08/01/14 13:54	1000

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-96037-1

Client Sample ID: WG-1620-MW68B-20140724

Lab Sample ID: 600-96037-9

Date Collected: 07/24/14 10:00

Matrix: Water

Date Received: 07/25/14 07:12

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels - DL (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	0	X	10 - 150	07/28/14 15:45	08/01/14 13:54	1000
2-Fluorophenol	0	X	10 - 130	07/28/14 15:45	08/01/14 13:54	1000
Nitrobenzene-d5	0	X	23 - 130	07/28/14 15:45	08/01/14 13:54	1000
Terphenyl-d14	0	X	42 - 133	07/28/14 15:45	08/01/14 13:54	1000
Phenol-d5 (Surr)	0	X	10 - 130	07/28/14 15:45	08/01/14 13:54	1000

Client Sample ID: WG-1620-DUP1-20140724

Lab Sample ID: 600-96037-10

Date Collected: 07/24/14 10:00

Matrix: Water

Date Received: 07/25/14 07:12

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	0.00220	U	0.0400	0.00220	mg/L			08/01/14 15:13	20
Methylene Chloride	0.00300	U	0.0200	0.00300	mg/L			08/01/14 15:13	20
1,2-Dichloroethane	0.00280	U	0.0200	0.00280	mg/L			08/01/14 15:13	20
Toluene	0.570		0.0200	0.00300	mg/L			08/01/14 15:13	20
Chlorobenzene	0.00240	U	0.0200	0.00240	mg/L			08/01/14 15:13	20
Ethylbenzene	0.453		0.0200	0.00220	mg/L			08/01/14 15:13	20
Xylenes, Total	1.22		0.0600	0.00520	mg/L			08/01/14 15:13	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	102		67 - 139		08/01/14 15:13	20
Dibromofluoromethane	100		62 - 130		08/01/14 15:13	20
Toluene-d8 (Surr)	112		70 - 130		08/01/14 15:13	20
1,2-Dichloroethane-d4 (Surr)	96		50 - 134		08/01/14 15:13	20

Method: 8260B - Volatile Organic Compounds (GC/MS) - DL

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	2.10		0.200	0.0160	mg/L			08/01/14 15:39	200

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	97		67 - 139		08/01/14 15:39	200
Dibromofluoromethane	97		62 - 130		08/01/14 15:39	200
Toluene-d8 (Surr)	107		70 - 130		08/01/14 15:39	200
1,2-Dichloroethane-d4 (Surr)	91		50 - 134		08/01/14 15:39	200

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.00192	U	0.0240	0.00192	mg/L		07/28/14 15:45	07/31/14 16:54	50
Nitrobenzene	0.00529	U	0.0240	0.00529	mg/L		07/28/14 15:45	07/31/14 16:54	50
2,4-Dimethylphenol	0.451		0.0240	0.0149	mg/L		07/28/14 15:45	07/31/14 16:54	50
Bis(2-chloroethoxy)methane	0.00625	U	0.0240	0.00625	mg/L		07/28/14 15:45	07/31/14 16:54	50
2-Methylnaphthalene	0.906		0.0240	0.00337	mg/L		07/28/14 15:45	07/31/14 16:54	50
2-Chloronaphthalene	0.00385	U	0.0240	0.00385	mg/L		07/28/14 15:45	07/31/14 16:54	50
Acenaphthylene	0.00288	U	0.0240	0.00288	mg/L		07/28/14 15:45	07/31/14 16:54	50
2,6-Dinitrotoluene	0.00385	U	0.0240	0.00385	mg/L		07/28/14 15:45	07/31/14 16:54	50
Acenaphthene	0.181		0.0240	0.00385	mg/L		07/28/14 15:45	07/31/14 16:54	50
4-Nitrophenol	0.0269	U	0.0481	0.0269	mg/L		07/28/14 15:45	07/31/14 16:54	50
Dibenzofuran	0.196		0.0240	0.00385	mg/L		07/28/14 15:45	07/31/14 16:54	50
2,4-Dinitrotoluene	0.00625	U	0.0240	0.00625	mg/L		07/28/14 15:45	07/31/14 16:54	50

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-96037-1

Client Sample ID: WG-1620-DUP1-20140724

Lab Sample ID: 600-96037-10

Date Collected: 07/24/14 10:00

Matrix: Water

Date Received: 07/25/14 07:12

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluorene	0.0953		0.0240	0.00337	mg/L		07/28/14 15:45	07/31/14 16:54	50
4,6-Dinitro-2-methylphenol	0.0399	U	0.0481	0.0399	mg/L		07/28/14 15:45	07/31/14 16:54	50
N-Nitrosodiphenylamine	0.00481	U	0.0240	0.00481	mg/L		07/28/14 15:45	07/31/14 16:54	50
1,2-Diphenylhydrazine	0.00529	U	0.0240	0.00529	mg/L		07/28/14 15:45	07/31/14 16:54	50
Pentachlorophenol	0.0293	U	0.0481	0.0293	mg/L		07/28/14 15:45	07/31/14 16:54	50
Phenanthrene	0.103		0.0240	0.00288	mg/L		07/28/14 15:45	07/31/14 16:54	50
Anthracene	0.0162	J	0.0240	0.00240	mg/L		07/28/14 15:45	07/31/14 16:54	50
Di-n-butyl phthalate	0.00529	U	0.0240	0.00529	mg/L		07/28/14 15:45	07/31/14 16:54	50
Fluoranthene	0.00751	J	0.0240	0.00337	mg/L		07/28/14 15:45	07/31/14 16:54	50
Pyrene	0.00529	U	0.0240	0.00529	mg/L		07/28/14 15:45	07/31/14 16:54	50
Benzo[a]anthracene	0.00385	U	0.0240	0.00385	mg/L		07/28/14 15:45	07/31/14 16:54	50
Bis(2-ethylhexyl) phthalate	0.0178	U	0.0240	0.0178	mg/L		07/28/14 15:45	07/31/14 16:54	50
Chrysene	0.00385	U	0.0240	0.00385	mg/L		07/28/14 15:45	07/31/14 16:54	50
Benzo[a]pyrene	0.00385	U	0.0240	0.00385	mg/L		07/28/14 15:45	07/31/14 16:54	50

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	0	X	10 - 147	07/28/14 15:45	07/31/14 16:54	50
2-Fluorobiphenyl	0	X	10 - 150	07/28/14 15:45	07/31/14 16:54	50
2-Fluorophenol	0	X	10 - 130	07/28/14 15:45	07/31/14 16:54	50
Nitrobenzene-d5	0	X	23 - 130	07/28/14 15:45	07/31/14 16:54	50
Terphenyl-d14	0	X	42 - 133	07/28/14 15:45	07/31/14 16:54	50
Phenol-d5 (Surr)	0	X	10 - 130	07/28/14 15:45	07/31/14 16:54	50

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels - DL

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	12.6		0.481	0.0769	mg/L		07/28/14 15:45	08/01/14 14:21	1000

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	0	X	10 - 147	07/28/14 15:45	08/01/14 14:21	1000
2-Fluorobiphenyl	0	X	10 - 150	07/28/14 15:45	08/01/14 14:21	1000
2-Fluorophenol	0	X	10 - 130	07/28/14 15:45	08/01/14 14:21	1000
Nitrobenzene-d5	0	X	23 - 130	07/28/14 15:45	08/01/14 14:21	1000
Terphenyl-d14	0	X	42 - 133	07/28/14 15:45	08/01/14 14:21	1000
Phenol-d5 (Surr)	0	X	10 - 130	07/28/14 15:45	08/01/14 14:21	1000

Client Sample ID: WG-1620-MW67B-20140724

Lab Sample ID: 600-96037-11

Date Collected: 07/24/14 11:35

Matrix: Water

Date Received: 07/25/14 07:12

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	0.000110	U	0.00200	0.000110	mg/L			07/31/14 14:32	1
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			07/31/14 14:32	1
Benzene	0.0000800	U	0.00100	0.0000800	mg/L			07/31/14 14:32	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			07/31/14 14:32	1
Toluene	0.000150	U	0.00100	0.000150	mg/L			07/31/14 14:32	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			07/31/14 14:32	1
Ethylbenzene	0.000110	U	0.00100	0.000110	mg/L			07/31/14 14:32	1
Xylenes, Total	0.000260	U	0.00300	0.000260	mg/L			07/31/14 14:32	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-96037-1

Client Sample ID: WG-1620-MW67B-20140724

Lab Sample ID: 600-96037-11

Date Collected: 07/24/14 11:35

Matrix: Water

Date Received: 07/25/14 07:12

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	90		67 - 139		07/31/14 14:32	1
Dibromofluoromethane	106		62 - 130		07/31/14 14:32	1
Toluene-d8 (Surr)	88		70 - 130		07/31/14 14:32	1
1,2-Dichloroethane-d4 (Surr)	97		50 - 134		07/31/14 14:32	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.000385	U	0.000481	0.000385	mg/L		07/28/14 15:45	08/01/14 08:42	1
Nitrobenzene	0.000106	U	0.000481	0.000106	mg/L		07/28/14 15:45	08/01/14 08:42	1
2,4-Dimethylphenol	0.000298	U	0.000481	0.000298	mg/L		07/28/14 15:45	08/01/14 08:42	1
Bis(2-chloroethoxy)methane	0.000125	U	0.000481	0.000125	mg/L		07/28/14 15:45	08/01/14 08:42	1
Naphthalene	0.000275	J	0.000481	0.0000769	mg/L		07/28/14 15:45	08/01/14 08:42	1
2-Methylnaphthalene	0.0000673	U	0.000481	0.0000673	mg/L		07/28/14 15:45	08/01/14 08:42	1
2-Chloronaphthalene	0.0000769	U	0.000481	0.0000769	mg/L		07/28/14 15:45	08/01/14 08:42	1
Acenaphthylene	0.0000577	U	0.000481	0.0000577	mg/L		07/28/14 15:45	08/01/14 08:42	1
2,6-Dinitrotoluene	0.0000769	U	0.000481	0.0000769	mg/L		07/28/14 15:45	08/01/14 08:42	1
Acenaphthene	0.0000769	U	0.000481	0.0000769	mg/L		07/28/14 15:45	08/01/14 08:42	1
4-Nitrophenol	0.000538	U	0.000962	0.000538	mg/L		07/28/14 15:45	08/01/14 08:42	1
Dibenzofuran	0.0000769	U	0.000481	0.0000769	mg/L		07/28/14 15:45	08/01/14 08:42	1
2,4-Dinitrotoluene	0.000125	U	0.000481	0.000125	mg/L		07/28/14 15:45	08/01/14 08:42	1
Fluorene	0.0000673	U	0.000481	0.0000673	mg/L		07/28/14 15:45	08/01/14 08:42	1
4,6-Dinitro-2-methylphenol	0.000798	U	0.000962	0.000798	mg/L		07/28/14 15:45	08/01/14 08:42	1
N-Nitrosodiphenylamine	0.0000962	U	0.000481	0.0000962	mg/L		07/28/14 15:45	08/01/14 08:42	1
1,2-Diphenylhydrazine	0.000106	U	0.000481	0.000106	mg/L		07/28/14 15:45	08/01/14 08:42	1
Pentachlorophenol	0.000587	U	0.000962	0.000587	mg/L		07/28/14 15:45	08/01/14 08:42	1
Phenanthrene	0.0000577	U	0.000481	0.0000577	mg/L		07/28/14 15:45	08/01/14 08:42	1
Anthracene	0.0000481	U	0.000481	0.0000481	mg/L		07/28/14 15:45	08/01/14 08:42	1
Di-n-butyl phthalate	0.000106	U	0.000481	0.000106	mg/L		07/28/14 15:45	08/01/14 08:42	1
Fluoranthene	0.0000673	U	0.000481	0.0000673	mg/L		07/28/14 15:45	08/01/14 08:42	1
Pyrene	0.000106	U	0.000481	0.000106	mg/L		07/28/14 15:45	08/01/14 08:42	1
Benzo[a]anthracene	0.0000769	U	0.000481	0.0000769	mg/L		07/28/14 15:45	08/01/14 08:42	1
Bis(2-ethylhexyl) phthalate	0.00184		0.000481	0.000356	mg/L		07/28/14 15:45	08/01/14 08:42	1
Chrysene	0.0000769	U	0.000481	0.0000769	mg/L		07/28/14 15:45	08/01/14 08:42	1
Benzo[a]pyrene	0.0000769	U	0.000481	0.0000769	mg/L		07/28/14 15:45	08/01/14 08:42	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	86		10 - 147	07/28/14 15:45	08/01/14 08:42	1
2-Fluorobiphenyl	74		10 - 150	07/28/14 15:45	08/01/14 08:42	1
2-Fluorophenol	30		10 - 130	07/28/14 15:45	08/01/14 08:42	1
Nitrobenzene-d5	74		23 - 130	07/28/14 15:45	08/01/14 08:42	1
Terphenyl-d14	94		42 - 133	07/28/14 15:45	08/01/14 08:42	1
Phenol-d5 (Surr)	16		10 - 130	07/28/14 15:45	08/01/14 08:42	1

Client Sample ID: WG-1620-MW26A-20140724

Lab Sample ID: 600-96037-12

Date Collected: 07/24/14 13:45

Matrix: Water

Date Received: 07/25/14 07:12

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	0.000110	U	0.00200	0.000110	mg/L			07/31/14 18:27	1
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			07/31/14 18:27	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-96037-1

Client Sample ID: WG-1620-MW26A-20140724

Lab Sample ID: 600-96037-12

Date Collected: 07/24/14 13:45

Matrix: Water

Date Received: 07/25/14 07:12

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.000189	J	0.00100	0.0000800	mg/L			07/31/14 18:27	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			07/31/14 18:27	1
Toluene	0.000150	U	0.00100	0.000150	mg/L			07/31/14 18:27	1
Chlorobenzene	0.000205	J	0.00100	0.000120	mg/L			07/31/14 18:27	1
Ethylbenzene	0.000110	U	0.00100	0.000110	mg/L			07/31/14 18:27	1
Xylenes, Total	0.000260	U	0.00300	0.000260	mg/L			07/31/14 18:27	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	84		67 - 139					07/31/14 18:27	1
Dibromofluoromethane	102		62 - 130					07/31/14 18:27	1
Toluene-d8 (Surr)	81		70 - 130					07/31/14 18:27	1
1,2-Dichloroethane-d4 (Surr)	95		50 - 134					07/31/14 18:27	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.0000388	U	0.000485	0.0000388	mg/L		07/28/14 15:45	08/01/14 10:09	1
Nitrobenzene	0.00394		0.000485	0.000107	mg/L		07/28/14 15:45	08/01/14 10:09	1
2,4-Dimethylphenol	0.000301	U	0.000485	0.000301	mg/L		07/28/14 15:45	08/01/14 10:09	1
Bis(2-chloroethoxy)methane	0.000126	U	0.000485	0.000126	mg/L		07/28/14 15:45	08/01/14 10:09	1
Naphthalene	0.000419	J	0.000485	0.0000777	mg/L		07/28/14 15:45	08/01/14 10:09	1
2-Methylnaphthalene	0.0000680	U	0.000485	0.0000680	mg/L		07/28/14 15:45	08/01/14 10:09	1
2-Chloronaphthalene	0.0000777	U	0.000485	0.0000777	mg/L		07/28/14 15:45	08/01/14 10:09	1
Acenaphthylene	0.000486		0.000485	0.0000583	mg/L		07/28/14 15:45	08/01/14 10:09	1
2,6-Dinitrotoluene	0.0000777	U	0.000485	0.0000777	mg/L		07/28/14 15:45	08/01/14 10:09	1
4-Nitrophenol	0.000544	U	0.000971	0.000544	mg/L		07/28/14 15:45	08/01/14 10:09	1
Dibenzofuran	0.00154		0.000485	0.0000777	mg/L		07/28/14 15:45	08/01/14 10:09	1
2,4-Dinitrotoluene	0.000126	U	0.000485	0.000126	mg/L		07/28/14 15:45	08/01/14 10:09	1
Fluorene	0.00245		0.000485	0.0000680	mg/L		07/28/14 15:45	08/01/14 10:09	1
4,6-Dinitro-2-methylphenol	0.000806	U	0.000971	0.000806	mg/L		07/28/14 15:45	08/01/14 10:09	1
N-Nitrosodiphenylamine	0.0000971	U	0.000485	0.0000971	mg/L		07/28/14 15:45	08/01/14 10:09	1
1,2-Diphenylhydrazine	0.000107	U	0.000485	0.000107	mg/L		07/28/14 15:45	08/01/14 10:09	1
Pentachlorophenol	0.000592	U	0.000971	0.000592	mg/L		07/28/14 15:45	08/01/14 10:09	1
Phenanthrene	0.000155	J	0.000485	0.0000583	mg/L		07/28/14 15:45	08/01/14 10:09	1
Anthracene	0.00141		0.000485	0.0000485	mg/L		07/28/14 15:45	08/01/14 10:09	1
Di-n-butyl phthalate	0.000107	U	0.000485	0.000107	mg/L		07/28/14 15:45	08/01/14 10:09	1
Fluoranthene	0.00465		0.000485	0.0000680	mg/L		07/28/14 15:45	08/01/14 10:09	1
Pyrene	0.00220		0.000485	0.000107	mg/L		07/28/14 15:45	08/01/14 10:09	1
Benzo[a]anthracene	0.0000777	U	0.000485	0.0000777	mg/L		07/28/14 15:45	08/01/14 10:09	1
Bis(2-ethylhexyl) phthalate	0.000359	U	0.000485	0.000359	mg/L		07/28/14 15:45	08/01/14 10:09	1
Chrysene	0.0000777	U	0.000485	0.0000777	mg/L		07/28/14 15:45	08/01/14 10:09	1
Benzo[a]pyrene	0.0000777	U	0.000485	0.0000777	mg/L		07/28/14 15:45	08/01/14 10:09	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	99		10 - 147				07/28/14 15:45	08/01/14 10:09	1
2-Fluorobiphenyl	73		10 - 150				07/28/14 15:45	08/01/14 10:09	1
2-Fluorophenol	38		10 - 130				07/28/14 15:45	08/01/14 10:09	1
Nitrobenzene-d5	73		23 - 130				07/28/14 15:45	08/01/14 10:09	1
Terphenyl-d14	93		42 - 133				07/28/14 15:45	08/01/14 10:09	1
Phenol-d5 (Surr)	19		10 - 130				07/28/14 15:45	08/01/14 10:09	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-96037-1

Client Sample ID: WG-1620-MW26A-20140724

Lab Sample ID: 600-96037-12

Date Collected: 07/24/14 13:45

Matrix: Water

Date Received: 07/25/14 07:12

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels - DL

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	0.0663		0.00485	0.000777	mg/L		07/28/14 15:45	08/04/14 14:26	10
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	0	X	10 - 147				07/28/14 15:45	08/04/14 14:26	10
2-Fluorobiphenyl	64		10 - 150				07/28/14 15:45	08/04/14 14:26	10
2-Fluorophenol	25		10 - 130				07/28/14 15:45	08/04/14 14:26	10
Nitrobenzene-d5	60		23 - 130				07/28/14 15:45	08/04/14 14:26	10
Terphenyl-d14	85		42 - 133				07/28/14 15:45	08/04/14 14:26	10
Phenol-d5 (Surr)	13		10 - 130				07/28/14 15:45	08/04/14 14:26	10

Client Sample ID: WG-1620-MW63B-20140724

Lab Sample ID: 600-96037-13

Date Collected: 07/24/14 14:35

Matrix: Water

Date Received: 07/25/14 07:12

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	0.000110	U	0.00200	0.000110	mg/L			07/31/14 18:53	1
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			07/31/14 18:53	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			07/31/14 18:53	1
Toluene	0.00257		0.00100	0.000150	mg/L			07/31/14 18:53	1
Chlorobenzene	0.000216	J	0.00100	0.000120	mg/L			07/31/14 18:53	1
Xylenes, Total	0.0535		0.00300	0.000260	mg/L			07/31/14 18:53	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	85		67 - 139					07/31/14 18:53	1
Dibromofluoromethane	101		62 - 130					07/31/14 18:53	1
Toluene-d8 (Surr)	83		70 - 130					07/31/14 18:53	1
1,2-Dichloroethane-d4 (Surr)	95		50 - 134					07/31/14 18:53	1

Method: 8260B - Volatile Organic Compounds (GC/MS) - DL

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.108		0.0200	0.00160	mg/L			08/01/14 12:35	20
Ethylbenzene	0.151		0.0200	0.00220	mg/L			08/01/14 12:35	20
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	99		67 - 139					08/01/14 12:35	20
Dibromofluoromethane	101		62 - 130					08/01/14 12:35	20
Toluene-d8 (Surr)	112		70 - 130					08/01/14 12:35	20
1,2-Dichloroethane-d4 (Surr)	93		50 - 134					08/01/14 12:35	20

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.000400	U	0.00500	0.000400	mg/L		07/28/14 15:45	08/04/14 14:55	10
Nitrobenzene	0.00110	U	0.00500	0.00110	mg/L		07/28/14 15:45	08/04/14 14:55	10
2,4-Dimethylphenol	0.00310	U	0.00500	0.00310	mg/L		07/28/14 15:45	08/04/14 14:55	10
Bis(2-chloroethoxy)methane	0.00130	U	0.00500	0.00130	mg/L		07/28/14 15:45	08/04/14 14:55	10
2-Methylnaphthalene	0.0302		0.00500	0.000700	mg/L		07/28/14 15:45	08/04/14 14:55	10
2-Chloronaphthalene	0.000800	U	0.00500	0.000800	mg/L		07/28/14 15:45	08/04/14 14:55	10
Acenaphthylene	0.000600	U	0.00500	0.000600	mg/L		07/28/14 15:45	08/04/14 14:55	10
2,6-Dinitrotoluene	0.000800	U	0.00500	0.000800	mg/L		07/28/14 15:45	08/04/14 14:55	10
Acenaphthene	0.00754		0.00500	0.000800	mg/L		07/28/14 15:45	08/04/14 14:55	10

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-96037-1

Client Sample ID: WG-1620-MW63B-20140724

Lab Sample ID: 600-96037-13

Date Collected: 07/24/14 14:35

Matrix: Water

Date Received: 07/25/14 07:12

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Nitrophenol	0.00560	U	0.0100	0.00560	mg/L		07/28/14 15:45	08/04/14 14:55	10
Dibenzofuran	0.00663		0.00500	0.000800	mg/L		07/28/14 15:45	08/04/14 14:55	10
2,4-Dinitrotoluene	0.00130	U	0.00500	0.00130	mg/L		07/28/14 15:45	08/04/14 14:55	10
Fluorene	0.00248	J	0.00500	0.000700	mg/L		07/28/14 15:45	08/04/14 14:55	10
4,6-Dinitro-2-methylphenol	0.00830	U	0.0100	0.00830	mg/L		07/28/14 15:45	08/04/14 14:55	10
N-Nitrosodiphenylamine	0.00100	U	0.00500	0.00100	mg/L		07/28/14 15:45	08/04/14 14:55	10
1,2-Diphenylhydrazine	0.00110	U	0.00500	0.00110	mg/L		07/28/14 15:45	08/04/14 14:55	10
Pentachlorophenol	0.00610	U	0.0100	0.00610	mg/L		07/28/14 15:45	08/04/14 14:55	10
Phenanthrene	0.000600	U	0.00500	0.000600	mg/L		07/28/14 15:45	08/04/14 14:55	10
Anthracene	0.000500	U	0.00500	0.000500	mg/L		07/28/14 15:45	08/04/14 14:55	10
Di-n-butyl phthalate	0.00110	U	0.00500	0.00110	mg/L		07/28/14 15:45	08/04/14 14:55	10
Fluoranthene	0.000700	U	0.00500	0.000700	mg/L		07/28/14 15:45	08/04/14 14:55	10
Pyrene	0.00110	U	0.00500	0.00110	mg/L		07/28/14 15:45	08/04/14 14:55	10
Benzo[a]anthracene	0.000800	U	0.00500	0.000800	mg/L		07/28/14 15:45	08/04/14 14:55	10
Bis(2-ethylhexyl) phthalate	0.00370	U	0.00500	0.00370	mg/L		07/28/14 15:45	08/04/14 14:55	10
Chrysene	0.000800	U	0.00500	0.000800	mg/L		07/28/14 15:45	08/04/14 14:55	10
Benzo[a]pyrene	0.000800	U	0.00500	0.000800	mg/L		07/28/14 15:45	08/04/14 14:55	10

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	0	X	10 - 147	07/28/14 15:45	08/04/14 14:55	10
2-Fluorobiphenyl	74		10 - 150	07/28/14 15:45	08/04/14 14:55	10
2-Fluorophenol	37		10 - 130	07/28/14 15:45	08/04/14 14:55	10
Nitrobenzene-d5	68		23 - 130	07/28/14 15:45	08/04/14 14:55	10
Terphenyl-d14	84		42 - 133	07/28/14 15:45	08/04/14 14:55	10
Phenol-d5 (Surr)	16		10 - 130	07/28/14 15:45	08/04/14 14:55	10

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels - DL

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	1.69		0.0500	0.00800	mg/L		07/28/14 15:45	08/04/14 15:24	100

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	0	X	10 - 147	07/28/14 15:45	08/04/14 15:24	100
2-Fluorobiphenyl	0	X	10 - 150	07/28/14 15:45	08/04/14 15:24	100
2-Fluorophenol	0	X	10 - 130	07/28/14 15:45	08/04/14 15:24	100
Nitrobenzene-d5	0	X	23 - 130	07/28/14 15:45	08/04/14 15:24	100
Terphenyl-d14	0	X	42 - 133	07/28/14 15:45	08/04/14 15:24	100
Phenol-d5 (Surr)	0	X	10 - 130	07/28/14 15:45	08/04/14 15:24	100

Client Sample ID: WG-1620-MW35A-20140724

Lab Sample ID: 600-96037-14

Date Collected: 07/24/14 15:35

Matrix: Water

Date Received: 07/25/14 07:12

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	0.000110	U	0.00200	0.000110	mg/L			07/31/14 19:20	1
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			07/31/14 19:20	1
Benzene	0.000210	J	0.00100	0.0000800	mg/L			07/31/14 19:20	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			07/31/14 19:20	1
Toluene	0.000150	U	0.00100	0.000150	mg/L			07/31/14 19:20	1
Chlorobenzene	0.000150	J	0.00100	0.000120	mg/L			07/31/14 19:20	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-96037-1

Client Sample ID: WG-1620-MW35A-20140724

Lab Sample ID: 600-96037-14

Date Collected: 07/24/14 15:35

Matrix: Water

Date Received: 07/25/14 07:12

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	0.000473	J	0.00100	0.000110	mg/L			07/31/14 19:20	1
Xylenes, Total	0.000260	U	0.00300	0.000260	mg/L			07/31/14 19:20	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	90		67 - 139					07/31/14 19:20	1
Dibromofluoromethane	109		62 - 130					07/31/14 19:20	1
Toluene-d8 (Surr)	87		70 - 130					07/31/14 19:20	1
1,2-Dichloroethane-d4 (Surr)	103		50 - 134					07/31/14 19:20	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.0000385	U	0.000481	0.0000385	mg/L		07/28/14 15:45	08/01/14 11:07	1
Nitrobenzene	0.000106	U	0.000481	0.000106	mg/L		07/28/14 15:45	08/01/14 11:07	1
2,4-Dimethylphenol	0.000298	U	0.000481	0.000298	mg/L		07/28/14 15:45	08/01/14 11:07	1
Bis(2-chloroethoxy)methane	0.000125	U	0.000481	0.000125	mg/L		07/28/14 15:45	08/01/14 11:07	1
Naphthalene	0.00293		0.000481	0.0000769	mg/L		07/28/14 15:45	08/01/14 11:07	1
2-Methylnaphthalene	0.000151	J	0.000481	0.0000673	mg/L		07/28/14 15:45	08/01/14 11:07	1
2-Chloronaphthalene	0.0000769	U	0.000481	0.0000769	mg/L		07/28/14 15:45	08/01/14 11:07	1
Acenaphthylene	0.0000577	U	0.000481	0.0000577	mg/L		07/28/14 15:45	08/01/14 11:07	1
2,6-Dinitrotoluene	0.0000769	U	0.000481	0.0000769	mg/L		07/28/14 15:45	08/01/14 11:07	1
4-Nitrophenol	0.000538	U	0.000962	0.000538	mg/L		07/28/14 15:45	08/01/14 11:07	1
Dibenzofuran	0.00115		0.000481	0.0000769	mg/L		07/28/14 15:45	08/01/14 11:07	1
2,4-Dinitrotoluene	0.000125	U	0.000481	0.000125	mg/L		07/28/14 15:45	08/01/14 11:07	1
Fluorene	0.00710		0.000481	0.0000673	mg/L		07/28/14 15:45	08/01/14 11:07	1
4,6-Dinitro-2-methylphenol	0.000798	U	0.000962	0.000798	mg/L		07/28/14 15:45	08/01/14 11:07	1
N-Nitrosodiphenylamine	0.0000962	U	0.000481	0.0000962	mg/L		07/28/14 15:45	08/01/14 11:07	1
1,2-Diphenylhydrazine	0.000106	U	0.000481	0.000106	mg/L		07/28/14 15:45	08/01/14 11:07	1
Pentachlorophenol	0.000587	U	0.000962	0.000587	mg/L		07/28/14 15:45	08/01/14 11:07	1
Phenanthrene	0.000449	J	0.000481	0.0000577	mg/L		07/28/14 15:45	08/01/14 11:07	1
Anthracene	0.000601		0.000481	0.0000481	mg/L		07/28/14 15:45	08/01/14 11:07	1
Di-n-butyl phthalate	0.000106	U	0.000481	0.000106	mg/L		07/28/14 15:45	08/01/14 11:07	1
Fluoranthene	0.000782		0.000481	0.0000673	mg/L		07/28/14 15:45	08/01/14 11:07	1
Pyrene	0.000548		0.000481	0.000106	mg/L		07/28/14 15:45	08/01/14 11:07	1
Benzo[a]anthracene	0.0000769	U	0.000481	0.0000769	mg/L		07/28/14 15:45	08/01/14 11:07	1
Bis(2-ethylhexyl) phthalate	0.000356	U	0.000481	0.000356	mg/L		07/28/14 15:45	08/01/14 11:07	1
Chrysene	0.0000769	U	0.000481	0.0000769	mg/L		07/28/14 15:45	08/01/14 11:07	1
Benzo[a]pyrene	0.0000769	U	0.000481	0.0000769	mg/L		07/28/14 15:45	08/01/14 11:07	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	98		10 - 147				07/28/14 15:45	08/01/14 11:07	1
2-Fluorobiphenyl	70		10 - 150				07/28/14 15:45	08/01/14 11:07	1
2-Fluorophenol	35		10 - 130				07/28/14 15:45	08/01/14 11:07	1
Nitrobenzene-d5	69		23 - 130				07/28/14 15:45	08/01/14 11:07	1
Terphenyl-d14	93		42 - 133				07/28/14 15:45	08/01/14 11:07	1
Phenol-d5 (Surr)	19		10 - 130				07/28/14 15:45	08/01/14 11:07	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels - DL

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	0.0294		0.00240	0.000385	mg/L		07/28/14 15:45	08/04/14 15:53	5

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-96037-1

Client Sample ID: WG-1620-MW35A-20140724

Lab Sample ID: 600-96037-14

Date Collected: 07/24/14 15:35

Matrix: Water

Date Received: 07/25/14 07:12

<i>Surrogate</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
2,4,6-Tribromophenol	78		10 - 147	07/28/14 15:45	08/04/14 15:53	5
2-Fluorobiphenyl	61		10 - 150	07/28/14 15:45	08/04/14 15:53	5
2-Fluorophenol	29		10 - 130	07/28/14 15:45	08/04/14 15:53	5
Nitrobenzene-d5	56		23 - 130	07/28/14 15:45	08/04/14 15:53	5
Terphenyl-d14	83		42 - 133	07/28/14 15:45	08/04/14 15:53	5
Phenol-d5 (Surr)	13		10 - 130	07/28/14 15:45	08/04/14 15:53	5



Definitions/Glossary

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-96037-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
U	Analyte was not detected at or above the SDL.
J	Result is less than the MQL but greater than or equal to the SDL and the concentration is an estimated value.
X	Surrogate is outside control limits

GC/MS Semi VOA

Qualifier	Qualifier Description
U	Analyte was not detected at or above the SDL.
J	Result is less than the MQL but greater than or equal to the SDL and the concentration is an estimated value.
X	Surrogate is outside control limits
N1	MS, MSD: Spike recovery exceeds upper or lower control limits.
N2	RPD of the MS and MSD exceeds the control limits
E	Result is greater than the UQL and the concentration is an estimated value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Surrogate Summary

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-96037-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		BFB (67-139)	DBFM (62-130)	TOL (70-130)	12DCE (50-134)
600-96037-1	WG-1620-MW32AR-20140724	85	101	83	94
600-96037-2	WG-1620-MW68C-20140724	86	102	85	94
600-96037-3	WG-1620-MW51A-20140724	87	104	84	98
600-96037-4	WG-1620-MW51C-20140724	84	102	82	93
600-96037-5	WG-1620-MW76C-20140724	84	104	83	96
600-96037-6	WG-1620-MW77A-20140724	97	114	108	144 X
600-96037-7	WG-1620-MW78A-20140724	95	77	107	86
600-96037-8	WG-1620-FB4-20140724	84	104	83	97
600-96037-9	WG-1620-MW68B-20140724	84	100	83	93
600-96037-9 - DL	WG-1620-MW68B-20140724	99	97	106	91
600-96037-10	WG-1620-DUP1-20140724	102	100	112	96
600-96037-10 - DL	WG-1620-DUP1-20140724	97	97	107	91
600-96037-11	WG-1620-MW67B-20140724	90	106	88	97
600-96037-11 MS	WG-1620-MW67B-20140724	89	110	86	108
600-96037-11 MSD	WG-1620-MW67B-20140724	89	110	85	104
600-96037-12	WG-1620-MW26A-20140724	84	102	81	95
600-96037-13	WG-1620-MW63B-20140724	85	101	83	95
600-96037-13 - DL	WG-1620-MW63B-20140724	99	101	112	93
600-96037-14	WG-1620-MW35A-20140724	90	109	87	103
LCS 600-140458/3	Lab Control Sample	93	107	90	95
LCS 600-140562/3	Lab Control Sample	86	106	84	95
LCS 600-140458/4	Lab Control Sample Dup	88	105	86	96
LCS 600-140562/4	Lab Control Sample Dup	89	108	86	95
MB 600-140458/7	Method Blank	87	102	85	91
MB 600-140562/6	Method Blank	94	97	100	92

Surrogate Legend

- BFB = 4-Bromofluorobenzene
- DBFM = Dibromofluoromethane
- TOL = Toluene-d8 (Surr)
- 12DCE = 1,2-Dichloroethane-d4 (Surr)

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)					
		TBP (10-147)	FBP (10-150)	2FP (10-130)	NBZ (23-130)	TPH (42-133)	PHL (10-130)
600-96037-1	WG-1620-MW32AR-20140724	110	91	40	61	92	20
600-96037-1	WG-1620-MW32AR-20140724	0 X	0 X	0 X	0 X	0 X	0 X
600-96037-1 - DL	WG-1620-MW32AR-20140724	0 X	0 X	0 X	0 X	0 X	0 X
600-96037-2	WG-1620-MW68C-20140724	98	69	33	70	96	17
600-96037-3	WG-1620-MW51A-20140724	54	80	27	84	95	14
600-96037-4	WG-1620-MW51C-20140724	101	84	35	83	95	19
600-96037-5	WG-1620-MW76C-20140724	106	84	32	87	99	19
600-96037-6	WG-1620-MW77A-20140724	0 X	0 X	0 X	0 X	0 X	0 X
600-96037-7	WG-1620-MW78A-20140724	0 X	0 X	0 X	0 X	0 X	0 X
600-96037-7 - DL	WG-1620-MW78A-20140724	0 X	0 X	0 X	0 X	0 X	0 X
600-96037-8	WG-1620-FB4-20140724	87	85	41	90	101	21

TestAmerica Houston

Surrogate Summary

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-96037-1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)					
		TBP (10-147)	FBP (10-150)	2FP (10-130)	NBZ (23-130)	TPH (42-133)	PHL (10-130)
600-96037-9	WG-1620-MW68B-20140724	0 X	0 X	0 X	0 X	0 X	0 X
600-96037-9 - DL	WG-1620-MW68B-20140724	0 X	0 X	0 X	0 X	0 X	0 X
600-96037-10	WG-1620-DUP1-20140724	0 X	0 X	0 X	0 X	0 X	0 X
600-96037-10 - DL	WG-1620-DUP1-20140724	0 X	0 X	0 X	0 X	0 X	0 X
600-96037-11	WG-1620-MW67B-20140724	86	74	30	74	94	16
600-96037-11 MS	WG-1620-MW67B-20140724	83	81	36	80	96	21
600-96037-11 MSD	WG-1620-MW67B-20140724	85	79	33	78	100	17
600-96037-12	WG-1620-MW26A-20140724	99	73	38	73	93	19
600-96037-12 - DL	WG-1620-MW26A-20140724	0 X	64	25	60	85	13
600-96037-13	WG-1620-MW63B-20140724	0 X	74	37	68	84	16
600-96037-13 - DL	WG-1620-MW63B-20140724	0 X	0 X	0 X	0 X	0 X	0 X
600-96037-14	WG-1620-MW35A-20140724	98	70	35	69	93	19
600-96037-14 - DL	WG-1620-MW35A-20140724	78	61	29	56	83	13
LCS 600-140210/2-A	Lab Control Sample	90	78	58	85	103	38
MB 600-140210/1-A	Method Blank	84	88	62	96	107	36

Surrogate Legend

- TBP = 2,4,6-Tribromophenol
- FBP = 2-Fluorobiphenyl
- 2FP = 2-Fluorophenol
- NBZ = Nitrobenzene-d5
- TPH = Terphenyl-d14
- PHL = Phenol-d5 (Surr)

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-96037-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 600-140458/7

Matrix: Water

Analysis Batch: 140458

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	0.000110	U	0.00200	0.000110	mg/L			07/31/14 14:07	1
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			07/31/14 14:07	1
Benzene	0.0000800	U	0.00100	0.0000800	mg/L			07/31/14 14:07	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			07/31/14 14:07	1
Toluene	0.000150	U	0.00100	0.000150	mg/L			07/31/14 14:07	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			07/31/14 14:07	1
Ethylbenzene	0.000110	U	0.00100	0.000110	mg/L			07/31/14 14:07	1
Xylenes, Total	0.000260	U	0.00300	0.000260	mg/L			07/31/14 14:07	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	87		67 - 139		07/31/14 14:07	1
Dibromofluoromethane	102		62 - 130		07/31/14 14:07	1
Toluene-d8 (Surr)	85		70 - 130		07/31/14 14:07	1
1,2-Dichloroethane-d4 (Surr)	91		50 - 134		07/31/14 14:07	1

Lab Sample ID: LCS 600-140458/3

Matrix: Water

Analysis Batch: 140458

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Vinyl chloride	0.0100	0.006790		mg/L		68	33 - 150
Methylene Chloride	0.0100	0.01172		mg/L		117	55 - 147
Benzene	0.0100	0.01036		mg/L		104	70 - 130
1,2-Dichloroethane	0.0100	0.009526		mg/L		95	67 - 134
Toluene	0.0100	0.008892		mg/L		89	70 - 130
Chlorobenzene	0.0100	0.009062		mg/L		91	69 - 130
Ethylbenzene	0.0100	0.009521		mg/L		95	70 - 130
Xylenes, Total	0.0200	0.01877		mg/L		94	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene	93		67 - 139
Dibromofluoromethane	107		62 - 130
Toluene-d8 (Surr)	90		70 - 130
1,2-Dichloroethane-d4 (Surr)	95		50 - 134

Lab Sample ID: LCSD 600-140458/4

Matrix: Water

Analysis Batch: 140458

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Vinyl chloride	0.0100	0.006266		mg/L		63	33 - 150	8	20
Methylene Chloride	0.0100	0.01111		mg/L		111	55 - 147	5	20
Benzene	0.0100	0.009840		mg/L		98	70 - 130	5	20
1,2-Dichloroethane	0.0100	0.01042		mg/L		104	67 - 134	9	20
Toluene	0.0100	0.008302		mg/L		83	70 - 130	7	20
Chlorobenzene	0.0100	0.008502		mg/L		85	69 - 130	6	20
Ethylbenzene	0.0100	0.008944		mg/L		89	70 - 130	6	20

TestAmerica Houston

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-96037-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 600-140458/4

Matrix: Water

Analysis Batch: 140458

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Xylenes, Total	0.0200	0.01772		mg/L		89	70 - 130	6	20
Surrogate	%Recovery	LCSD Qualifier	Limits						
4-Bromofluorobenzene	88		67 - 139						
Dibromofluoromethane	105		62 - 130						
Toluene-d8 (Surr)	86		70 - 130						
1,2-Dichloroethane-d4 (Surr)	96		50 - 134						

Lab Sample ID: 600-96037-11 MS

Matrix: Water

Analysis Batch: 140458

Client Sample ID: WG-1620-MW67B-20140724

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Vinyl chloride	0.000110	U	0.0100	0.005628		mg/L		56	33 - 150
Methylene Chloride	0.000150	U	0.0100	0.008278		mg/L		83	55 - 147
Benzene	0.0000800	U	0.0100	0.009603		mg/L		96	70 - 130
1,2-Dichloroethane	0.000140	U	0.0100	0.009245		mg/L		92	67 - 134
Toluene	0.000150	U	0.0100	0.007811		mg/L		78	70 - 130
Chlorobenzene	0.000120	U	0.0100	0.008158		mg/L		82	69 - 130
Ethylbenzene	0.000110	U	0.0100	0.008372		mg/L		84	70 - 130
Xylenes, Total	0.000260	U	0.0200	0.01671		mg/L		84	70 - 130
Surrogate	%Recovery	MS Qualifier	Limits						
4-Bromofluorobenzene	89		67 - 139						
Dibromofluoromethane	110		62 - 130						
Toluene-d8 (Surr)	86		70 - 130						
1,2-Dichloroethane-d4 (Surr)	108		50 - 134						

Lab Sample ID: 600-96037-11 MSD

Matrix: Water

Analysis Batch: 140458

Client Sample ID: WG-1620-MW67B-20140724

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Vinyl chloride	0.000110	U	0.0100	0.005017		mg/L		50	33 - 150	11	30
Methylene Chloride	0.000150	U	0.0100	0.008170		mg/L		82	55 - 147	1	30
Benzene	0.0000800	U	0.0100	0.009491		mg/L		95	70 - 130	1	30
1,2-Dichloroethane	0.000140	U	0.0100	0.009205		mg/L		92	67 - 134	0	30
Toluene	0.000150	U	0.0100	0.007609		mg/L		76	70 - 130	3	30
Chlorobenzene	0.000120	U	0.0100	0.007957		mg/L		80	69 - 130	3	30
Ethylbenzene	0.000110	U	0.0100	0.008158		mg/L		82	70 - 130	3	30
Xylenes, Total	0.000260	U	0.0200	0.01637		mg/L		82	70 - 130	2	30
Surrogate	%Recovery	MSD Qualifier	Limits								
4-Bromofluorobenzene	89		67 - 139								
Dibromofluoromethane	110		62 - 130								
Toluene-d8 (Surr)	85		70 - 130								
1,2-Dichloroethane-d4 (Surr)	104		50 - 134								

TestAmerica Houston

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-96037-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 600-140562/6

Matrix: Water

Analysis Batch: 140562

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	0.000110	U	0.00200	0.000110	mg/L			08/01/14 11:33	1
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			08/01/14 11:33	1
Benzene	0.0000800	U	0.00100	0.0000800	mg/L			08/01/14 11:33	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			08/01/14 11:33	1
Toluene	0.000150	U	0.00100	0.000150	mg/L			08/01/14 11:33	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			08/01/14 11:33	1
Ethylbenzene	0.000110	U	0.00100	0.000110	mg/L			08/01/14 11:33	1
Xylenes, Total	0.000260	U	0.00300	0.000260	mg/L			08/01/14 11:33	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	94		67 - 139		08/01/14 11:33	1
Dibromofluoromethane	97		62 - 130		08/01/14 11:33	1
Toluene-d8 (Surr)	100		70 - 130		08/01/14 11:33	1
1,2-Dichloroethane-d4 (Surr)	92		50 - 134		08/01/14 11:33	1

Lab Sample ID: LCS 600-140562/3

Matrix: Water

Analysis Batch: 140562

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Vinyl chloride	0.0100	0.008258		mg/L		83	33 - 150
Methylene Chloride	0.0100	0.008748		mg/L		87	55 - 147
Benzene	0.0100	0.01021		mg/L		102	70 - 130
1,2-Dichloroethane	0.0100	0.009262		mg/L		93	67 - 134
Toluene	0.0100	0.008355		mg/L		84	70 - 130
Chlorobenzene	0.0100	0.008615		mg/L		86	69 - 130
Ethylbenzene	0.0100	0.008984		mg/L		90	70 - 130
Xylenes, Total	0.0200	0.01812		mg/L		91	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene	86		67 - 139
Dibromofluoromethane	106		62 - 130
Toluene-d8 (Surr)	84		70 - 130
1,2-Dichloroethane-d4 (Surr)	95		50 - 134

Lab Sample ID: LCSD 600-140562/4

Matrix: Water

Analysis Batch: 140562

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Vinyl chloride	0.0100	0.008414		mg/L		84	33 - 150	2	20
Methylene Chloride	0.0100	0.009114		mg/L		91	55 - 147	4	20
Benzene	0.0100	0.01063		mg/L		106	70 - 130	4	20
1,2-Dichloroethane	0.0100	0.009905		mg/L		99	67 - 134	7	20
Toluene	0.0100	0.008788		mg/L		88	70 - 130	5	20
Chlorobenzene	0.0100	0.009030		mg/L		90	69 - 130	5	20
Ethylbenzene	0.0100	0.009502		mg/L		95	70 - 130	6	20

TestAmerica Houston

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-96037-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 600-140562/4

Matrix: Water

Analysis Batch: 140562

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Xylenes, Total	0.0200	0.01905		mg/L		95	70 - 130	5	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene	89		67 - 139
Dibromofluoromethane	108		62 - 130
Toluene-d8 (Surr)	86		70 - 130
1,2-Dichloroethane-d4 (Surr)	95		50 - 134

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Lab Sample ID: MB 600-140210/1-A

Matrix: Water

Analysis Batch: 140445

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 140210

Analyte	MB Result	MB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.000400	U	0.000500	0.000400	mg/L		07/28/14 15:45	07/31/14 11:30	1
Nitrobenzene	0.000110	U	0.000500	0.000110	mg/L		07/28/14 15:45	07/31/14 11:30	1
2,4-Dimethylphenol	0.000310	U	0.000500	0.000310	mg/L		07/28/14 15:45	07/31/14 11:30	1
Bis(2-chloroethoxy)methane	0.000130	U	0.000500	0.000130	mg/L		07/28/14 15:45	07/31/14 11:30	1
Naphthalene	0.0000800	U	0.000500	0.0000800	mg/L		07/28/14 15:45	07/31/14 11:30	1
2-Methylnaphthalene	0.0000700	U	0.000500	0.0000700	mg/L		07/28/14 15:45	07/31/14 11:30	1
2-Chloronaphthalene	0.0000800	U	0.000500	0.0000800	mg/L		07/28/14 15:45	07/31/14 11:30	1
Acenaphthylene	0.0000600	U	0.000500	0.0000600	mg/L		07/28/14 15:45	07/31/14 11:30	1
2,6-Dinitrotoluene	0.0000800	U	0.000500	0.0000800	mg/L		07/28/14 15:45	07/31/14 11:30	1
Acenaphthene	0.0000800	U	0.000500	0.0000800	mg/L		07/28/14 15:45	07/31/14 11:30	1
4-Nitrophenol	0.000560	U	0.00100	0.000560	mg/L		07/28/14 15:45	07/31/14 11:30	1
Dibenzofuran	0.0000800	U	0.000500	0.0000800	mg/L		07/28/14 15:45	07/31/14 11:30	1
2,4-Dinitrotoluene	0.000130	U	0.000500	0.000130	mg/L		07/28/14 15:45	07/31/14 11:30	1
Fluorene	0.0000700	U	0.000500	0.0000700	mg/L		07/28/14 15:45	07/31/14 11:30	1
4,6-Dinitro-2-methylphenol	0.000830	U	0.00100	0.000830	mg/L		07/28/14 15:45	07/31/14 11:30	1
N-Nitrosodiphenylamine	0.000100	U	0.000500	0.000100	mg/L		07/28/14 15:45	07/31/14 11:30	1
1,2-Diphenylhydrazine	0.000110	U	0.000500	0.000110	mg/L		07/28/14 15:45	07/31/14 11:30	1
Pentachlorophenol	0.000610	U	0.00100	0.000610	mg/L		07/28/14 15:45	07/31/14 11:30	1
Phenanthrene	0.0000600	U	0.000500	0.0000600	mg/L		07/28/14 15:45	07/31/14 11:30	1
Anthracene	0.0000500	U	0.000500	0.0000500	mg/L		07/28/14 15:45	07/31/14 11:30	1
Di-n-butyl phthalate	0.000110	U	0.000500	0.000110	mg/L		07/28/14 15:45	07/31/14 11:30	1
Fluoranthene	0.0000700	U	0.000500	0.0000700	mg/L		07/28/14 15:45	07/31/14 11:30	1
Pyrene	0.000110	U	0.000500	0.000110	mg/L		07/28/14 15:45	07/31/14 11:30	1
Benzo[a]anthracene	0.0000800	U	0.000500	0.0000800	mg/L		07/28/14 15:45	07/31/14 11:30	1
Bis(2-ethylhexyl) phthalate	0.000370	U	0.000500	0.000370	mg/L		07/28/14 15:45	07/31/14 11:30	1
Chrysene	0.0000800	U	0.000500	0.0000800	mg/L		07/28/14 15:45	07/31/14 11:30	1
Benzo[a]pyrene	0.0000800	U	0.000500	0.0000800	mg/L		07/28/14 15:45	07/31/14 11:30	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	84		10 - 147	07/28/14 15:45	07/31/14 11:30	1
2-Fluorobiphenyl	88		10 - 150	07/28/14 15:45	07/31/14 11:30	1
2-Fluorophenol	62		10 - 130	07/28/14 15:45	07/31/14 11:30	1

TestAmerica Houston

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-96037-1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Lab Sample ID: MB 600-140210/1-A
Matrix: Water
Analysis Batch: 140445

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 140210

<i>Surrogate</i>	<i>MB MB</i>	<i>Limits</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
<i>%Recovery</i>	<i>Qualifier</i>				
Nitrobenzene-d5	96	23 - 130	07/28/14 15:45	07/31/14 11:30	1
Terphenyl-d14	107	42 - 133	07/28/14 15:45	07/31/14 11:30	1
Phenol-d5 (Surr)	36	10 - 130	07/28/14 15:45	07/31/14 11:30	1

Lab Sample ID: LCS 600-140210/2-A
Matrix: Water
Analysis Batch: 140445

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 140210

<i>Analyte</i>	<i>Spike Added</i>	<i>LCS Result</i>	<i>LCS Qualifier</i>	<i>Unit</i>	<i>D</i>	<i>%Rec</i>	<i>%Rec. Limits</i>
Phenol	0.0100	0.003832		mg/L		38	10 - 144
Nitrobenzene	0.0100	0.008330		mg/L		83	41 - 130
2,4-Dimethylphenol	0.0100	0.01002		mg/L		100	45 - 130
Bis(2-chloroethoxy)methane	0.0100	0.008563		mg/L		86	36 - 134
Naphthalene	0.0100	0.008241		mg/L		82	57 - 130
2-Methylnaphthalene	0.0100	0.008697		mg/L		87	52 - 130
2-Chloronaphthalene	0.0100	0.008082		mg/L		81	56 - 130
Acenaphthylene	0.0100	0.008258		mg/L		83	58 - 130
2,6-Dinitrotoluene	0.0100	0.008882		mg/L		89	56 - 130
Acenaphthene	0.0100	0.008322		mg/L		83	59 - 130
4-Nitrophenol	0.0200	0.007540		mg/L		38	10 - 150
Dibenzofuran	0.0100	0.008474		mg/L		85	56 - 130
2,4-Dinitrotoluene	0.0100	0.009599		mg/L		96	54 - 130
Fluorene	0.0100	0.009107		mg/L		91	57 - 130
4,6-Dinitro-2-methylphenol	0.0200	0.01691		mg/L		85	10 - 145
N-Nitrosodiphenylamine	0.0100	0.009371		mg/L		94	55 - 137
1,2-Diphenylhydrazine	0.0100	0.008372		mg/L		84	45 - 130
Pentachlorophenol	0.0200	0.01439		mg/L		72	27 - 130
Phenanthrene	0.0100	0.008958		mg/L		90	60 - 130
Anthracene	0.0100	0.009323		mg/L		93	46 - 132
Di-n-butyl phthalate	0.0100	0.009512		mg/L		95	61 - 130
Fluoranthene	0.0100	0.009544		mg/L		95	63 - 130
Pyrene	0.0100	0.009926		mg/L		99	62 - 130
Benzo[a]anthracene	0.0100	0.009622		mg/L		96	58 - 130
Bis(2-ethylhexyl) phthalate	0.0100	0.009285		mg/L		93	59 - 130
Chrysene	0.0100	0.009508		mg/L		95	60 - 130
Benzo[a]pyrene	0.0100	0.009371		mg/L		94	56 - 130

<i>Surrogate</i>	<i>LCS LCS</i>	<i>Limits</i>
<i>%Recovery</i>	<i>Qualifier</i>	
2,4,6-Tribromophenol	90	10 - 147
2-Fluorobiphenyl	78	10 - 150
2-Fluorophenol	58	10 - 130
Nitrobenzene-d5	85	23 - 130
Terphenyl-d14	103	42 - 133
Phenol-d5 (Surr)	38	10 - 130

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-96037-1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Lab Sample ID: 600-96037-11 MS

Matrix: Water

Analysis Batch: 140542

Client Sample ID: WG-1620-MW67B-20140724

Prep Type: Total/NA

Prep Batch: 140210

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec. Limits
	Result	Qualifier	Added	Result	Qualifier				
Phenol	0.0000385	U	0.00971	0.002174		mg/L		22	10 - 144
Nitrobenzene	0.000106	U	0.00971	0.007694		mg/L		79	41 - 130
2,4-Dimethylphenol	0.000298	U	0.00971	0.003625	N1	mg/L		37	45 - 130
Bis(2-chloroethoxy)methane	0.000125	U	0.00971	0.007847		mg/L		81	36 - 134
Naphthalene	0.000275	J	0.00971	0.01360	N1	mg/L		137	57 - 130
2-Methylnaphthalene	0.0000673	U	0.00971	0.008783		mg/L		90	52 - 130
2-Chloronaphthalene	0.0000769	U	0.00971	0.007825		mg/L		81	56 - 130
Acenaphthylene	0.0000577	U	0.00971	0.008116		mg/L		84	58 - 130
2,6-Dinitrotoluene	0.0000769	U	0.00971	0.009049		mg/L		93	56 - 130
Acenaphthene	0.0000769	U	0.00971	0.008441		mg/L		87	59 - 130
4-Nitrophenol	0.000538	U	0.0194	0.006001		mg/L		31	10 - 150
Dibenzofuran	0.0000769	U	0.00971	0.008742		mg/L		90	56 - 130
2,4-Dinitrotoluene	0.000125	U	0.00971	0.009076		mg/L		93	54 - 130
Fluorene	0.0000673	U	0.00971	0.009000		mg/L		93	57 - 130
4,6-Dinitro-2-methylphenol	0.000798	U	0.0194	0.01786		mg/L		92	10 - 145
N-Nitrosodiphenylamine	0.0000962	U	0.00971	0.003824	N1	mg/L		39	55 - 137
1,2-Diphenylhydrazine	0.000106	U	0.00971	0.008698		mg/L		90	45 - 130
Pentachlorophenol	0.000587	U	0.0194	0.01797		mg/L		93	27 - 130
Phenanthrene	0.0000577	U	0.00971	0.009189		mg/L		95	60 - 130
Anthracene	0.0000481	U	0.00971	0.009509		mg/L		98	46 - 132
Di-n-butyl phthalate	0.000106	U	0.00971	0.01039		mg/L		107	61 - 130
Fluoranthene	0.0000673	U	0.00971	0.01031		mg/L		106	63 - 130
Pyrene	0.000106	U	0.00971	0.009320		mg/L		96	62 - 130
Benzo[a]anthracene	0.0000769	U	0.00971	0.009055		mg/L		93	58 - 130
Bis(2-ethylhexyl) phthalate	0.00184		0.00971	0.007331	N1	mg/L		57	59 - 130
Chrysene	0.0000769	U	0.00971	0.008769		mg/L		90	60 - 130
Benzo[a]pyrene	0.0000769	U	0.00971	0.008202		mg/L		84	56 - 130

Surrogate	MS	MS	Limits
	%Recovery	Qualifier	
2,4,6-Tribromophenol	83		10 - 147
2-Fluorobiphenyl	81		10 - 150
2-Fluorophenol	36		10 - 130
Nitrobenzene-d5	80		23 - 130
Terphenyl-d14	96		42 - 133
Phenol-d5 (Surr)	21		10 - 130

Lab Sample ID: 600-96037-11 MSD

Matrix: Water

Analysis Batch: 140542

Client Sample ID: WG-1620-MW67B-20140724

Prep Type: Total/NA

Prep Batch: 140210

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec. Limits	RPD	
	Result	Qualifier	Added	Result	Qualifier					RPD	Limit
Phenol	0.0000385	U	0.00952	0.001853		mg/L		19	10 - 144	16	20
Nitrobenzene	0.000106	U	0.00952	0.007325		mg/L		77	41 - 130	5	20
2,4-Dimethylphenol	0.000298	U	0.00952	0.003211	N1	mg/L		34	45 - 130	12	20
Bis(2-chloroethoxy)methane	0.000125	U	0.00952	0.007651		mg/L		80	36 - 134	3	20
Naphthalene	0.000275	J	0.00952	0.007801	N2	mg/L		79	57 - 130	54	20
2-Methylnaphthalene	0.0000673	U	0.00952	0.007832		mg/L		82	52 - 130	11	20
2-Chloronaphthalene	0.0000769	U	0.00952	0.007467		mg/L		78	56 - 130	5	20

TestAmerica Houston

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-96037-1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Lab Sample ID: 600-96037-11 MSD

Client Sample ID: WG-1620-MW67B-20140724

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 140542

Prep Batch: 140210

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.	RPD	Limit
	Result	Qualifier	Added	Result	Qualifier				Limits		
Acenaphthylene	0.0000577	U	0.00952	0.007621		mg/L		80	58 - 130	6	20
2,6-Dinitrotoluene	0.0000769	U	0.00952	0.008101		mg/L		85	56 - 130	11	20
Acenaphthene	0.0000769	U	0.00952	0.007611		mg/L		80	59 - 130	10	20
4-Nitrophenol	0.000538	U	0.0190	0.005246		mg/L		28	10 - 150	13	20
Dibenzofuran	0.0000769	U	0.00952	0.007816		mg/L		82	56 - 130	11	20
2,4-Dinitrotoluene	0.000125	U	0.00952	0.008503		mg/L		89	54 - 130	7	20
Fluorene	0.0000673	U	0.00952	0.008314		mg/L		87	57 - 130	8	20
4,6-Dinitro-2-methylphenol	0.000798	U	0.0190	0.01733		mg/L		91	10 - 145	3	20
N-Nitrosodiphenylamine	0.0000962	U	0.00952	0.006460	N2	mg/L		68	55 - 137	51	20
1,2-Diphenylhydrazine	0.000106	U	0.00952	0.008146		mg/L		86	45 - 130	7	20
Pentachlorophenol	0.000587	U	0.0190	0.01746		mg/L		92	27 - 130	3	20
Phenanthrene	0.0000577	U	0.00952	0.008716		mg/L		92	60 - 130	5	20
Anthracene	0.0000481	U	0.00952	0.009035		mg/L		95	46 - 132	5	20
Di-n-butyl phthalate	0.000106	U	0.00952	0.01007		mg/L		106	61 - 130	3	20
Fluoranthene	0.0000673	U	0.00952	0.009981		mg/L		105	63 - 130	3	20
Pyrene	0.000106	U	0.00952	0.009304		mg/L		98	62 - 130	0	20
Benzo[a]anthracene	0.0000769	U	0.00952	0.008872		mg/L		93	58 - 130	2	20
Bis(2-ethylhexyl) phthalate	0.00184		0.00952	0.007964		mg/L		64	59 - 130	8	20
Chrysene	0.0000769	U	0.00952	0.008920		mg/L		94	60 - 130	2	20
Benzo[a]pyrene	0.0000769	U	0.00952	0.008070		mg/L		85	56 - 130	2	20

Surrogate	MSD	MSD	Limits
	%Recovery	Qualifier	
2,4,6-Tribromophenol	85		10 - 147
2-Fluorobiphenyl	79		10 - 150
2-Fluorophenol	33		10 - 130
Nitrobenzene-d5	78		23 - 130
Terphenyl-d14	100		42 - 133
Phenol-d5 (Surr)	17		10 - 130

Unadjusted Detection Limits

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-96037-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	MQL	MDL	Units	Method
1,2-Dichloroethane	0.00100	0.000140	mg/L	8260B
Benzene	0.00100	0.0000800	mg/L	8260B
Chlorobenzene	0.00100	0.000120	mg/L	8260B
Ethylbenzene	0.00100	0.000110	mg/L	8260B
Methylene Chloride	0.00100	0.000150	mg/L	8260B
Toluene	0.00100	0.000150	mg/L	8260B
Vinyl chloride	0.00200	0.000110	mg/L	8260B
Xylenes, Total	0.00300	0.000260	mg/L	8260B

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	MQL	MDL	Units	Method
1,2-Diphenylhydrazine	0.000500	0.000110	mg/L	8270C LL
2,4-Dimethylphenol	0.000500	0.000310	mg/L	8270C LL
2,4-Dinitrotoluene	0.000500	0.000130	mg/L	8270C LL
2,6-Dinitrotoluene	0.000500	0.0000800	mg/L	8270C LL
2-Chloronaphthalene	0.000500	0.0000800	mg/L	8270C LL
2-Methylnaphthalene	0.000500	0.0000700	mg/L	8270C LL
4,6-Dinitro-2-methylphenol	0.00100	0.000830	mg/L	8270C LL
4-Nitrophenol	0.00100	0.000560	mg/L	8270C LL
Acenaphthene	0.000500	0.0000800	mg/L	8270C LL
Acenaphthylene	0.000500	0.0000600	mg/L	8270C LL
Anthracene	0.000500	0.0000500	mg/L	8270C LL
Benzo[a]anthracene	0.000500	0.0000800	mg/L	8270C LL
Benzo[a]pyrene	0.000500	0.0000800	mg/L	8270C LL
Bis(2-chloroethoxy)methane	0.000500	0.000130	mg/L	8270C LL
Bis(2-ethylhexyl) phthalate	0.000500	0.000370	mg/L	8270C LL
Chrysene	0.000500	0.0000800	mg/L	8270C LL
Dibenzofuran	0.000500	0.0000800	mg/L	8270C LL
Di-n-butyl phthalate	0.000500	0.000110	mg/L	8270C LL
Fluoranthene	0.000500	0.0000700	mg/L	8270C LL
Fluorene	0.000500	0.0000700	mg/L	8270C LL
Naphthalene	0.000500	0.0000800	mg/L	8270C LL
Nitrobenzene	0.000500	0.000110	mg/L	8270C LL
N-Nitrosodiphenylamine	0.000500	0.000100	mg/L	8270C LL
Pentachlorophenol	0.00100	0.000610	mg/L	8270C LL
Phenanthrene	0.000500	0.0000600	mg/L	8270C LL
Phenol	0.000500	0.0000400	mg/L	8270C LL
Pyrene	0.000500	0.000110	mg/L	8270C LL

QC Association Summary

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-96037-1

GC/MS VOA

Analysis Batch: 140458

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-96037-1	WG-1620-MW32AR-20140724	Total/NA	Water	8260B	
600-96037-2	WG-1620-MW68C-20140724	Total/NA	Water	8260B	
600-96037-3	WG-1620-MW51A-20140724	Total/NA	Water	8260B	
600-96037-4	WG-1620-MW51C-20140724	Total/NA	Water	8260B	
600-96037-5	WG-1620-MW76C-20140724	Total/NA	Water	8260B	
600-96037-8	WG-1620-FB4-20140724	Total/NA	Water	8260B	
600-96037-9	WG-1620-MW68B-20140724	Total/NA	Water	8260B	
600-96037-11	WG-1620-MW67B-20140724	Total/NA	Water	8260B	
600-96037-11 MS	WG-1620-MW67B-20140724	Total/NA	Water	8260B	
600-96037-11 MSD	WG-1620-MW67B-20140724	Total/NA	Water	8260B	
600-96037-12	WG-1620-MW26A-20140724	Total/NA	Water	8260B	
600-96037-13	WG-1620-MW63B-20140724	Total/NA	Water	8260B	
600-96037-14	WG-1620-MW35A-20140724	Total/NA	Water	8260B	
LCS 600-140458/3	Lab Control Sample	Total/NA	Water	8260B	
LCSD 600-140458/4	Lab Control Sample Dup	Total/NA	Water	8260B	
MB 600-140458/7	Method Blank	Total/NA	Water	8260B	

Analysis Batch: 140562

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-96037-6	WG-1620-MW77A-20140724	Total/NA	Water	8260B	
600-96037-7	WG-1620-MW78A-20140724	Total/NA	Water	8260B	
600-96037-9 - DL	WG-1620-MW68B-20140724	Total/NA	Water	8260B	
600-96037-10	WG-1620-DUP1-20140724	Total/NA	Water	8260B	
600-96037-10 - DL	WG-1620-DUP1-20140724	Total/NA	Water	8260B	
600-96037-13 - DL	WG-1620-MW63B-20140724	Total/NA	Water	8260B	
LCS 600-140562/3	Lab Control Sample	Total/NA	Water	8260B	
LCSD 600-140562/4	Lab Control Sample Dup	Total/NA	Water	8260B	
MB 600-140562/6	Method Blank	Total/NA	Water	8260B	

GC/MS Semi VOA

Prep Batch: 140210

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-96037-1 - DL	WG-1620-MW32AR-20140724	Total/NA	Water	3510C	
600-96037-1	WG-1620-MW32AR-20140724	Total/NA	Water	3510C	
600-96037-2	WG-1620-MW68C-20140724	Total/NA	Water	3510C	
600-96037-3	WG-1620-MW51A-20140724	Total/NA	Water	3510C	
600-96037-4	WG-1620-MW51C-20140724	Total/NA	Water	3510C	
600-96037-5	WG-1620-MW76C-20140724	Total/NA	Water	3510C	
600-96037-6	WG-1620-MW77A-20140724	Total/NA	Water	3510C	
600-96037-7	WG-1620-MW78A-20140724	Total/NA	Water	3510C	
600-96037-7 - DL	WG-1620-MW78A-20140724	Total/NA	Water	3510C	
600-96037-8	WG-1620-FB4-20140724	Total/NA	Water	3510C	
600-96037-9	WG-1620-MW68B-20140724	Total/NA	Water	3510C	
600-96037-9 - DL	WG-1620-MW68B-20140724	Total/NA	Water	3510C	
600-96037-10	WG-1620-DUP1-20140724	Total/NA	Water	3510C	
600-96037-10 - DL	WG-1620-DUP1-20140724	Total/NA	Water	3510C	
600-96037-11	WG-1620-MW67B-20140724	Total/NA	Water	3510C	
600-96037-11 MS	WG-1620-MW67B-20140724	Total/NA	Water	3510C	
600-96037-11 MSD	WG-1620-MW67B-20140724	Total/NA	Water	3510C	

TestAmerica Houston

QC Association Summary

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-96037-1

GC/MS Semi VOA (Continued)

Prep Batch: 140210 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-96037-12	WG-1620-MW26A-20140724	Total/NA	Water	3510C	
600-96037-12 - DL	WG-1620-MW26A-20140724	Total/NA	Water	3510C	
600-96037-13	WG-1620-MW63B-20140724	Total/NA	Water	3510C	
600-96037-13 - DL	WG-1620-MW63B-20140724	Total/NA	Water	3510C	
600-96037-14 - DL	WG-1620-MW35A-20140724	Total/NA	Water	3510C	
600-96037-14	WG-1620-MW35A-20140724	Total/NA	Water	3510C	
LCS 600-140210/2-A	Lab Control Sample	Total/NA	Water	3510C	
MB 600-140210/1-A	Method Blank	Total/NA	Water	3510C	

Analysis Batch: 140445

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-96037-1	WG-1620-MW32AR-20140724	Total/NA	Water	8270C LL	140210
600-96037-2	WG-1620-MW68C-20140724	Total/NA	Water	8270C LL	140210
600-96037-3	WG-1620-MW51A-20140724	Total/NA	Water	8270C LL	140210
600-96037-4	WG-1620-MW51C-20140724	Total/NA	Water	8270C LL	140210
600-96037-5	WG-1620-MW76C-20140724	Total/NA	Water	8270C LL	140210
600-96037-6	WG-1620-MW77A-20140724	Total/NA	Water	8270C LL	140210
600-96037-7	WG-1620-MW78A-20140724	Total/NA	Water	8270C LL	140210
600-96037-8	WG-1620-FB4-20140724	Total/NA	Water	8270C LL	140210
600-96037-9	WG-1620-MW68B-20140724	Total/NA	Water	8270C LL	140210
600-96037-10	WG-1620-DUP1-20140724	Total/NA	Water	8270C LL	140210
LCS 600-140210/2-A	Lab Control Sample	Total/NA	Water	8270C LL	140210
MB 600-140210/1-A	Method Blank	Total/NA	Water	8270C LL	140210

Analysis Batch: 140542

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-96037-1	WG-1620-MW32AR-20140724	Total/NA	Water	8270C LL	140210
600-96037-11	WG-1620-MW67B-20140724	Total/NA	Water	8270C LL	140210
600-96037-11 MS	WG-1620-MW67B-20140724	Total/NA	Water	8270C LL	140210
600-96037-11 MSD	WG-1620-MW67B-20140724	Total/NA	Water	8270C LL	140210
600-96037-12	WG-1620-MW26A-20140724	Total/NA	Water	8270C LL	140210
600-96037-14	WG-1620-MW35A-20140724	Total/NA	Water	8270C LL	140210

Analysis Batch: 140543

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-96037-7 - DL	WG-1620-MW78A-20140724	Total/NA	Water	8270C LL	140210
600-96037-9 - DL	WG-1620-MW68B-20140724	Total/NA	Water	8270C LL	140210
600-96037-10 - DL	WG-1620-DUP1-20140724	Total/NA	Water	8270C LL	140210

Analysis Batch: 140728

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-96037-1 - DL	WG-1620-MW32AR-20140724	Total/NA	Water	8270C LL	140210
600-96037-12 - DL	WG-1620-MW26A-20140724	Total/NA	Water	8270C LL	140210
600-96037-13	WG-1620-MW63B-20140724	Total/NA	Water	8270C LL	140210
600-96037-13 - DL	WG-1620-MW63B-20140724	Total/NA	Water	8270C LL	140210
600-96037-14 - DL	WG-1620-MW35A-20140724	Total/NA	Water	8270C LL	140210

TestAmerica Houston

Lab Chronicle

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-96037-1

Client Sample ID: WG-1620-MW32AR-20140724

Lab Sample ID: 600-96037-1

Date Collected: 07/24/14 07:50

Matrix: Water

Date Received: 07/25/14 07:12

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	140458	07/31/14 14:58	WS1	TAL HOU
Total/NA	Prep	3510C			140210	07/28/14 15:45	LER	TAL HOU
Total/NA	Analysis	8270C LL		1	140445	07/31/14 12:27	MBB	TAL HOU
Total/NA	Prep	3510C			140210	07/28/14 15:45	LER	TAL HOU
Total/NA	Analysis	8270C LL		50	140542	08/01/14 11:38	MBB	TAL HOU
Total/NA	Prep	3510C	DL		140210	07/28/14 15:45	LER	TAL HOU
Total/NA	Analysis	8270C LL	DL	500	140728	08/04/14 13:58	TTD	TAL HOU

Client Sample ID: WG-1620-MW68C-20140724

Lab Sample ID: 600-96037-2

Date Collected: 07/24/14 08:50

Matrix: Water

Date Received: 07/25/14 07:12

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	140458	07/31/14 15:24	WS1	TAL HOU
Total/NA	Prep	3510C			140210	07/28/14 15:45	LER	TAL HOU
Total/NA	Analysis	8270C LL		1	140445	07/31/14 12:56	MBB	TAL HOU

Client Sample ID: WG-1620-MW51A-20140724

Lab Sample ID: 600-96037-3

Date Collected: 07/24/14 10:00

Matrix: Water

Date Received: 07/25/14 07:12

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	140458	07/31/14 16:42	WS1	TAL HOU
Total/NA	Prep	3510C			140210	07/28/14 15:45	LER	TAL HOU
Total/NA	Analysis	8270C LL		1	140445	07/31/14 13:25	MBB	TAL HOU

Client Sample ID: WG-1620-MW51C-20140724

Lab Sample ID: 600-96037-4

Date Collected: 07/24/14 10:50

Matrix: Water

Date Received: 07/25/14 07:12

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	140458	07/31/14 17:08	WS1	TAL HOU
Total/NA	Prep	3510C			140210	07/28/14 15:45	LER	TAL HOU
Total/NA	Analysis	8270C LL		1	140445	07/31/14 13:54	MBB	TAL HOU

Client Sample ID: WG-1620-MW76C-20140724

Lab Sample ID: 600-96037-5

Date Collected: 07/24/14 12:00

Matrix: Water

Date Received: 07/25/14 07:12

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	140458	07/31/14 17:35	WS1	TAL HOU
Total/NA	Prep	3510C			140210	07/28/14 15:45	LER	TAL HOU

TestAmerica Houston

Lab Chronicle

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-96037-1

Client Sample ID: WG-1620-MW76C-20140724

Lab Sample ID: 600-96037-5

Date Collected: 07/24/14 12:00

Matrix: Water

Date Received: 07/25/14 07:12

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8270C LL		1	140445	07/31/14 14:23	MBB	TAL HOU

Client Sample ID: WG-1620-MW77A-20140724

Lab Sample ID: 600-96037-6

Date Collected: 07/24/14 15:15

Matrix: Water

Date Received: 07/25/14 07:12

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	140562	08/01/14 13:02	WS1	TAL HOU
Total/NA	Prep	3510C			140210	07/28/14 15:45	LER	TAL HOU
Total/NA	Analysis	8270C LL		50	140445	07/31/14 14:58	MBB	TAL HOU

Client Sample ID: WG-1620-MW78A-20140724

Lab Sample ID: 600-96037-7

Date Collected: 07/24/14 16:10

Matrix: Water

Date Received: 07/25/14 07:12

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		5	140562	08/01/14 13:28	WS1	TAL HOU
Total/NA	Prep	3510C			140210	07/28/14 15:45	LER	TAL HOU
Total/NA	Analysis	8270C LL		250	140445	07/31/14 15:27	MBB	TAL HOU
Total/NA	Prep	3510C	DL		140210	07/28/14 15:45	LER	TAL HOU
Total/NA	Analysis	8270C LL	DL	1250	140543	08/01/14 14:48	MBB	TAL HOU

Client Sample ID: WG-1620-FB4-20140724

Lab Sample ID: 600-96037-8

Date Collected: 07/24/14 16:25

Matrix: Water

Date Received: 07/25/14 07:12

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	140458	07/31/14 18:01	WS1	TAL HOU
Total/NA	Prep	3510C			140210	07/28/14 15:45	LER	TAL HOU
Total/NA	Analysis	8270C LL		1	140445	07/31/14 15:56	MBB	TAL HOU

Client Sample ID: WG-1620-MW68B-20140724

Lab Sample ID: 600-96037-9

Date Collected: 07/24/14 10:00

Matrix: Water

Date Received: 07/25/14 07:12

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		20	140458	07/31/14 20:38	WS1	TAL HOU
Total/NA	Analysis	8260B	DL	200	140562	08/01/14 14:47	WS1	TAL HOU
Total/NA	Prep	3510C			140210	07/28/14 15:45	LER	TAL HOU
Total/NA	Analysis	8270C LL		50	140445	07/31/14 16:25	MBB	TAL HOU
Total/NA	Prep	3510C	DL		140210	07/28/14 15:45	LER	TAL HOU
Total/NA	Analysis	8270C LL	DL	1000	140543	08/01/14 13:54	MBB	TAL HOU

TestAmerica Houston

Lab Chronicle

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-96037-1

Client Sample ID: WG-1620-DUP1-20140724

Lab Sample ID: 600-96037-10

Date Collected: 07/24/14 10:00

Matrix: Water

Date Received: 07/25/14 07:12

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		20	140562	08/01/14 15:13	WS1	TAL HOU
Total/NA	Analysis	8260B	DL	200	140562	08/01/14 15:39	WS1	TAL HOU
Total/NA	Prep	3510C			140210	07/28/14 15:45	LER	TAL HOU
Total/NA	Analysis	8270C LL		50	140445	07/31/14 16:54	MBB	TAL HOU
Total/NA	Prep	3510C	DL		140210	07/28/14 15:45	LER	TAL HOU
Total/NA	Analysis	8270C LL	DL	1000	140543	08/01/14 14:21	MBB	TAL HOU

Client Sample ID: WG-1620-MW67B-20140724

Lab Sample ID: 600-96037-11

Date Collected: 07/24/14 11:35

Matrix: Water

Date Received: 07/25/14 07:12

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	140458	07/31/14 14:32	WS1	TAL HOU
Total/NA	Prep	3510C			140210	07/28/14 15:45	LER	TAL HOU
Total/NA	Analysis	8270C LL		1	140542	08/01/14 08:42	MBB	TAL HOU

Client Sample ID: WG-1620-MW26A-20140724

Lab Sample ID: 600-96037-12

Date Collected: 07/24/14 13:45

Matrix: Water

Date Received: 07/25/14 07:12

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	140458	07/31/14 18:27	WS1	TAL HOU
Total/NA	Prep	3510C			140210	07/28/14 15:45	LER	TAL HOU
Total/NA	Analysis	8270C LL		1	140542	08/01/14 10:09	MBB	TAL HOU
Total/NA	Prep	3510C	DL		140210	07/28/14 15:45	LER	TAL HOU
Total/NA	Analysis	8270C LL	DL	10	140728	08/04/14 14:26	TTD	TAL HOU

Client Sample ID: WG-1620-MW63B-20140724

Lab Sample ID: 600-96037-13

Date Collected: 07/24/14 14:35

Matrix: Water

Date Received: 07/25/14 07:12

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	140458	07/31/14 18:53	WS1	TAL HOU
Total/NA	Analysis	8260B	DL	20	140562	08/01/14 12:35	WS1	TAL HOU
Total/NA	Prep	3510C			140210	07/28/14 15:45	LER	TAL HOU
Total/NA	Analysis	8270C LL		10	140728	08/04/14 14:55	TTD	TAL HOU
Total/NA	Prep	3510C	DL		140210	07/28/14 15:45	LER	TAL HOU
Total/NA	Analysis	8270C LL	DL	100	140728	08/04/14 15:24	TTD	TAL HOU

Lab Chronicle

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-96037-1

Client Sample ID: WG-1620-MW35A-20140724

Lab Sample ID: 600-96037-14

Date Collected: 07/24/14 15:35

Matrix: Water

Date Received: 07/25/14 07:12

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	140458	07/31/14 19:20	WS1	TAL HOU
Total/NA	Prep	3510C			140210	07/28/14 15:45	LER	TAL HOU
Total/NA	Analysis	8270C LL		1	140542	08/01/14 11:07	MBB	TAL HOU
Total/NA	Prep	3510C	DL		140210	07/28/14 15:45	LER	TAL HOU
Total/NA	Analysis	8270C LL	DL	5	140728	08/04/14 15:53	TTD	TAL HOU

Laboratory References:

TAL HOU = TestAmerica Houston, 6310 Rothway Street, Houston, TX 77040, TEL (713)690-4444



Certification Summary

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-96037-1

Laboratory: TestAmerica Houston

The certifications listed below are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Texas	NELAP	6	T104704223	10-31-14

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15
- 16

6311 Highway Street
Houston, TX 77040
Phone (713) 690-4444 Fax (713) 690-5646

Chain of Custody Record



600-96037 Chain of Custody



Client Information
 Lab PIV: **JOHN BRAYTON**
 Camer: **Kudchadkar, Sachin G**
 Client Contact: **Mr. Eric Matzner**
 Phone: **512-671-3434**
 E-Mail: **sachin.kudchadkar@testamericainc.com**

Company: Pastor, Behling & Wheeler LLC
Address: 2201 Double Creek Dr Suite 4004
City: Round Rock
State/Zip: TX, 78684
Phone: 512-671-3434 (Tel) 512-671-3446 (Fax)
Email: eric.matzner@pbwllc.com
Project Name: 1620 UPRR HWPW
Project #: 60003722
SSOW#:

Analysis Request
 Due Date Requested:
 TAT Requested (days): **10-Business Days**
 PO #: Purchase Order not required
 WO #:
 Field Filtered Sample (Yes or No): No

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix (W=water, S=solid, O=wastewater, S=Spill, S=Phase, A=Asp)	Preservation Code	Field Filtered Sample (Yes or No)	2270C LL (MOD) 8270C-ATZ	2290B LL (MOD) 8290B-Volatiles	Special Instructions/Note:
WG-1620-MW32AR-20140724	7-24-14	0750	G	Water		X	X		
WG-1620-MW68C-20140724		0850	G	Water		X	X		
WG-1620-MW51A-20140724		1000	G	Water		X	X		
WG-1620-MW51C-20140724		1050	G	Water		X	X		
WG-1620-MW76C-20140724		1200	G	Water		X	X		
WG-1620-MW77A-20140724		1515	G	Water		X	X		
WG-1620-MW78A-20140724		1610	G	Water		X	X		
WG-1620-FB4-20140724		1625	G	Water		X	X		
				Water			X		
				Water			X		
				Water			X		
				Water			X		

Possible Hazard Identification
 Non-Hazard Flammable Skin Irritant Poison B Unknown Radiological
 Deliverable Requested: I, II, III, IV, Other (specify)

Empty Kit Relinquished by: *John Doe*
 Relinquished by: *John Doe*
 Relinquished by: *John Doe*
 Relinquished by: *John Doe*
 Date/Time: **7-25-14 712**
 Date/Time: **7-25-14 712**
 Date/Time: **7-25-14 712**
 Date/Time: **7-25-14 712**
 Company: **PBW**
 Company: **PBW**
 Company: **PBW**
 Company: **PBW**
 Method of Shipment: **7-25-14 712**
 Return To Client Disposal By Lab Archive For Months

Custody Seal No. Custody Seals Intact Yes No Other Remarks: **Temperature(s) °C and Other Remarks:**



Chain of Custody Record

Client Information Client Contact: Mr. Eric Matzner Company: Pastor, Bahling & Wheeler LLC Address: 2201 Double Creek Dr Suite 4004 City: Round Rock State, Zip: TX, 78664 Phone: 512-671-3434 (Tel) 512-671-3446 (Fax) Email: eric.matzner@pbwllc.com Project Name: 1620 UPRR HWPW Site:		Lab PM: Kuchhadkar, Sachin G E-Mail: sachin.kuchhadkar@testamerica.com Phone: 5. Berndt 254-760-5604		Carrier Tracking No(s): COC No. 600-29460-10071.1 Page: _____ of _____ Job # 1358				
Analysis Requested Due Date Requested: TAT Requested (days): 10-Business Days PO #: _____ Purchase Order not required WO #: _____ Project #: 60003722 SOW #: _____		Preservation Codes: A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA Other: _____ M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO8 R - Na2S2O8S S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4.5 Z - other (specify)						
Sample Identification Sample ID: WB-1620-MW688-20140724 WB-1620-DUP1-20140724 WB-1620-MW676-20140724 WB-1620-MW26A-20140724 WB-1620-MW63B-20140724 WB-1620-MW35A-20140724		Sample Date 7-24-14 1000 1000 1135 1345 1435 1535	Sample Type (C=comp, G=grab) S 	Matrix (W=water, S=solid, O=oil, E=EtOH, A=acid) Water Water Water Water Water Water Water Water Water Water Water Water Water Water Water	Field Filtration Sample (Yes or No) X X X X X X X X X X X X X X X	826B LL - (MOD) 826B - Volatiles 8270C LL - (MOD) 8270C-ATZ X X X X X X X X X X X X X X X	Total Number of Containers X X X X X X X X X X X X X X X X	Special Instructions/Note: ms/msd
Possible Hazard Identification <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input checked="" type="checkbox"/> Unknown <input type="checkbox"/> Radiological		Deliverable Requested: I, II, III, IV, Other (specify)		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months				
Empty Kit Relinquished by: Relinquished by: <i>Eric Matzner</i> Relinquished by: <i>ALM DLO</i> Relinquished by: _____		Date: Date/Time: 7-24-14 1800 Date/Time: 7-25-14 712 Date/Time: _____		Method of Shipment: Relinquished by: <i>ALM DLO</i> Relinquished by: <i>ALM DLO</i> Relinquished by: _____				
Custody Seal No: Δ Yes Δ No		Custody Seal No: _____		Company: PBW PBW PBW				



Sample Receipt Checklist

Loc: 600
96037

Date/Time Received: 25 JUL 25 7:12

JOB NUMBER: _____

CLIENT: PBW

UNPACKED BY: _____

CARRIER/DRIVER: Client

Custody Seal Present: YES NO

Number of Coolers Received: 4

Cooler ID	Temp Blank	Trip Blank	Observed Temp (°C)	Therm ID	Therm CF	Corrected Temp (°C)
<u>R1W</u>	Y / N	Y / N	<u>0.7</u>	<u>549</u>	<u>-0.2</u>	<u>+0.5</u>
<u>B1W</u>	Y / N	Y / N	<u>0.8</u>	<u>546</u>	<u>-0.2</u>	<u>+0.6</u>
<u>R1W</u>	Y / N	Y / N	<u>1.8</u>	<u>546</u>	<u>-0.2</u>	<u>1.6</u>
<u>B1W</u>	Y / N	<u>Y</u> / N	<u>1.7</u>	<u>549</u>	<u>-0.2</u>	<u>1.5</u>
	Y / N	Y / N				
	Y / N	Y / N				
	Y / N	Y / N				
	Y / N	Y / N				
	Y / N	Y / N				

CF = correction factor

Samples received on ice? YES NO

LABORATORY PRESERVATION OF SAMPLES REQUIRED: NO YES

Base samples are >pH 12: YES NO Acid preserved are <pH 2: YES NO

pH paper Lot # _____

VOA headspace acceptable (5-6mm): YES NO NA

Did samples meet the laboratory's standard conditions of sample acceptability upon receipt? YES NO
 YES NO

COMMENTS:

Login Sample Receipt Checklist

Client: Pastor, Behling & Wheeler LLC

Job Number: 600-96037-1

Login Number: 96037

List Source: TestAmerica Houston

List Number: 1

Creator: Capps, Dana R

Question	Answer	Comment
Radioactivity wasn't checked or is <=/ background as measured by a survey meter.	N/A	Lab does not accept radioactive samples.
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	0.5 0.6 1.6 1.5
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	Check done at department level as required.

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Houston
6310 Rothway Street
Houston, TX 77040
Tel: (713)690-4444

TestAmerica Job ID: 600-96083-1

Client Project/Site: 1620 UPRR HWPW

For:

Pastor, Behling & Wheeler LLC
2201 Double Creek Dr
Suite 4004
Round Rock, Texas 78664

Attn: Mr. Eric Matzner



Authorized for release by:

8/13/2014 12:04:38 PM

Sophia Shah, Project Management Assistant I

sophia.shah@testamericainc.com

Designee for

Sachin Kudchadkar, Senior Project Manager

(713)690-4444

sachin.kudchadkar@testamericainc.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.



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1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

16



Table of Contents

Cover Page	1
Table of Contents	2
TRRP Checklists & DCSs	3
Case Narrative	12
Method Summary	13
Sample Summary	14
Client Sample Results	15
Definitions/Glossary	38
Surrogate Summary	39
QC Sample Results	41
Default Detection Limits	49
QC Association Summary	50
Lab Chronicle	53
Certification Summary	57
Chain of Custody	58
Receipt Checklists	61

Appendix A

Laboratory Data Package Cover Page - Page 1 of 4

This data package is for TestAmerica Houston job number 600-96083-1 and consists of:

- R1 - Field chain-of-custody documentation;
- R2 - Sample identification cross-reference;
- R3 - Test reports (analytical data sheets) for each environmental sample that includes:
 - a. Items consistent with NELAC Chapter 5,
 - b. dilution factors,
 - c. preparation methods,
 - d. cleanup methods, and
 - e. if required for the project, tentatively identified compounds (TICs).
- R4 - Surrogate recovery data including:
 - a. Calculated recovery (%R), and
 - b. The laboratory's surrogate QC limits.
- R5 - Test reports/summary forms for blank samples;
- R6 - Test reports/summary forms for laboratory control samples (LCSs) including:
 - a. LCS spiking amounts,
 - b. Calculated %R for each analyte, and
 - c. The laboratory's LCS QC limits.
- R7 - Test reports for project matrix spike/matrix spike duplicates (MS/MSDs) including:
 - a. Samples associated with the MS/MSD clearly identified,
 - b. MS/MSD spiking amounts,
 - c. Concentration of each MS/MSD analyte measured in the parent and spiked samples,
 - d. Calculated %Rs and relative percent differences (RPDs), and
 - e. The laboratory's MS/MSD QC limits
- R8 - Laboratory analytical duplicate (if applicable) recovery and precision:
 - a. The amount of analyte measured in the duplicate,
 - b. The calculated RPD, and
 - c. The laboratory's QC limits for analytical duplicates.
- R9 - List of method quantitation limits (MQLs) and detectability check sample results for each analyte for each method and matrix.
- R10 - Other problems or anomalies.

The Exception Report for each "No" or "Not Reviewed (NR)" item in Laboratory Review Checklist and for each analyte, matrix, and method for which the laboratory does not hold NELAC accreditation under the Texas Laboratory Accreditation Program.

Release Statement: I am responsible for the release of this laboratory data package. This laboratory is NELAC accredited under the Texas Laboratory Accreditation Program for all the methods, analytes, and matrices reported in this data package except as noted in the Exception Reports. The data have been reviewed and are technically compliant with the requirements of the methods used, except where noted by the laboratory in the Exception Reports. By my signature below, I affirm to the best of my knowledge all problems/anomalies observed by the laboratory have been identified in the Laboratory Review Checklist, and no information affecting the quality of the data has been knowingly withheld.

Sophia Shah

Name (printed)



Signature

8/13/2014

Date

Project Management Assistant

Official Title (printed)

Laboratory Review Checklist: Reportable Data - Page 2 of 4

Laboratory Name:	TestAmerica Houston	LRC Date:	8/13/2014
Project Name:	1620 UPRR HWPW	Laboratory Job Number:	600-96083-1
Reviewer Name:	Sachin G Kudchadkar		

# ¹	A ²	Description	Yes	No	NA ³	NR ⁴	ER# ⁵
R1	OI	Chain-of-custody (C-O-C)					
		Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?	X				
		Were all departures from standard conditions described in an exception report?	X				
R2	OI	Sample and quality control (QC) identification					
		Are all field sample ID numbers cross-referenced to the laboratory ID numbers?	X				
		Are all laboratory ID numbers cross-referenced to the corresponding QC data?	X				
R3	OI	Test reports					
		Were all samples prepared and analyzed within holding times?	X				
		Other than those results < MQL, were all other raw values bracketed by calibration standards?	X				
		Were calculations checked by a peer or supervisor?	X				
		Were all analyte identifications checked by a peer or supervisor?	X				
		Were sample detection limits reported for all analytes not detected?	X				
		Were all results for soil and sediment samples reported on a dry weight basis?			X		
		Were % moisture (or solids) reported for all soil and sediment samples?			X		
		Were bulk soils/solids samples for volatile analysis extracted with methanol per SW846 Method 5035?			X		
		If required for the project, are TICs reported?			X		
R4	O	Surrogate recovery data					
		Were surrogates added prior to extraction?	X				
		Were surrogate percent recoveries in all samples within the laboratory QC limits?		X			R04B
R5	OI	Test reports/summary forms for blank samples					
		Were appropriate type(s) of blanks analyzed?	X				
		Were blanks analyzed at the appropriate frequency?	X				
		Were method blanks taken through the entire analytical process, including preparation and, if applicable, cleanup procedures?	X				
		Were blank concentrations < MQL?	X				
R6	OI	Laboratory control samples (LCS):					
		Were all COCs included in the LCS?	X				
		Was each LCS taken through the entire analytical procedure, including prep and cleanup steps?	X				
		Were LCSs analyzed at the required frequency?	X				
		Were LCS (and LCSD, if applicable) %Rs within the laboratory QC limits?	X				
		Does the detectability check sample data document the laboratory's capability to detect the COCs at the MDL used to calculate the SDLs?	X				
		Was the LCSD RPD within QC limits?	X				
R7	OI	Matrix spike (MS) and matrix spike duplicate (MSD) data					
		Were the project/method specified analytes included in the MS and MSD?	X				
		Were MS/MSD analyzed at the appropriate frequency?	X				
		Were MS (and MSD, if applicable) %Rs within the laboratory QC limits?		X			R07C
		Were MS/MSD RPDs within laboratory QC limits?		X			R07D
R8	OI	Analytical duplicate data					
		Were appropriate analytical duplicates analyzed for each matrix?			X		
		Were analytical duplicates analyzed at the appropriate frequency?			X		
		Were RPDs or relative standard deviations within the laboratory QC limits?			X		
R9	OI	Method quantitation limits (MQLs):					
		Are the MQLs for each method analyte included in the laboratory data package?	X				
		Do the MQLs correspond to the concentration of the lowest non-zero calibration standard?	X				
		Are unadjusted MQLs and DCSs included in the laboratory data package?	X				
R10	OI	Other problems/anomalies					
		Are all known problems/anomalies/special conditions noted in this LRC and ER?	X				
		Was applicable and available technology used to lower the SDL to minimize the matrix interference effects on the sample results?		X			R10B
		Is the laboratory NELAC-accredited under the Texas Laboratory Accreditation Program for the analytes, matrices and methods associated with this laboratory data package?	X				

- Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.
- O = organic analyses; I = inorganic analyses (and general chemistry, when applicable);
- NA = Not applicable;
- NR = Not reviewed;
- ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

Laboratory Review checklist: Supporting Data - Page 3 of 4

Laboratory Name:	TestAmerica Houston	LRC Date:	8/13/2014
Project Name:	1620 UPRR HWPW	Laboratory Job Number:	600-96083-1
Reviewer Name:	Sachin G Kudchadkar		

# ¹	A ²	Description	Yes	No	NA ³	NR ⁴	ER# ⁵
S1	OI	Initial calibration (ICAL)					
		Were response factors and/or relative response factors for each analyte within QC limits?	X				
		Were percent RSDs or correlation coefficient criteria met?	X				
		Was the number of standards recommended in the method used for all analytes?	X				
		Were all points generated between the lowest and highest standard used to calculate the curve?	X				
		Are ICAL data available for all instruments used?	X				
		Has the initial calibration curve been verified using an appropriate second source standard?	X				
S2	OI	Initial and continuing calibration verification (ICV and CCV) and continuing calibration blank (CCB):					
		Was the CCV analyzed at the method-required frequency?	X				
		Were percent differences for each analyte within the method-required QC limits?	X				
		Was the ICAL curve verified for each analyte?			X		
		Was the absolute value of the analyte concentration in the inorganic CCB < MDL?			X		
S3	O	Mass spectral tuning					
		Was the appropriate compound for the method used for tuning?	X				
		Were ion abundance data within the method-required QC limits?	X				
S4	O	Internal standards (IS)					
		Were IS area counts and retention times within the method-required QC limits?		X			S04A
S5	OI	Raw data (NELAC Section 5.5.10)					
		Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?	X				
		Were data associated with manual integrations flagged on the raw data?	X				
S6	O	Dual column confirmation					
		Did dual column confirmation results meet the method-required QC?			X		
S7	O	Tentatively identified compounds (TICs)					
		If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?			X		
S8	I	Interference Check Sample (ICS) results					
		Were percent recoveries within method QC limits?			X		
S9	I	Serial dilutions, post digestion spikes, and method of standard additions					
		Were percent differences, recoveries, and the linearity within the QC limits specified in the method?			X		
S10	OI	Method detection limit (MDL) studies					
		Was a MDL study performed for each reported analyte?	X				
		Is the MDL either adjusted or supported by the analysis of DCSS?	X				
S11	OI	Proficiency test reports					
		Was the laboratory's performance acceptable on the applicable proficiency tests or evaluation studies?	X				
S12	OI	Standards documentation					
		Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?	X				
S13	OI	Compound/analyte identification procedures					
		Are the procedures for compound/analyte identification documented?	X				
S14	OI	Demonstration of analyst competency (DOC)					
		Was DOC conducted consistent with NELAC Chapter 5?	X				
		Is documentation of the analyst's competency up-to-date and on file?	X				
S15	OI	Verification/validation documentation for methods (NELAC Chapter 5)					
		Are all the methods used to generate the data documented, verified, and validated, where applicable?	X				
S16	OI	Laboratory standard operating procedures (SOPs)					
		Are laboratory SOPs current and on file for each method performed?	X				
<p>1. Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.</p> <p>2. O = organic analyses; I = inorganic analyses (and general chemistry, when applicable);</p> <p>3. NA = Not applicable;</p> <p>4. NR = Not reviewed;</p> <p>5. ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).</p>							

Laboratory Review Checklist: Exception Reports - Page 4 of 4

Laboratory Name:	TestAmerica Houston	LRC Date:	8/13/2014
Project Name:	1620 UPRR HWPW	Laboratory Job Number:	600-96083-1
Reviewer Name:	Sachin G Kudchadkar		

ER # ¹	Description
R04B	<p>Method 8260B: Surrogate recovery for the following sample was outside control limits: 600-96083-2. Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.</p> <p>Method 8270C LL: Surrogate recovery for the following samples were outside control limits: 600-96083-3, 600-96083-7, 600-96083-8, and 600-96083-9. Evidence of matrix interference is present requiring dilution for analysis; therefore, re-extraction and/or re-analysis was not performed.</p> <p>Method 8270C LL: The following samples required dilutions due to the nature of the sample matrix: 600-96083-2, 600-96083-7, 600-96083-9, 600-96083-11, and 600-96083-13. Because of this dilution, the surrogate spike concentration in the sample was reduced to a level where the recovery calculation does not provide useful information.</p>
R07C	<p>Method 8260B: The matrix spike duplicate (MSD) recoveries for batch 140562 were outside control limits. Sample matrix interference is suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.</p> <p>Method 8270C LL: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for batch 1402551 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recoveries was within acceptance limits.</p>
R07D	Method 8270C LL: 600-96083-17 MSD failed the RPD criteria for the following analyte(s): Phenol. Matrix interference is suspected.
R10B	<p>Method 8260B: The following samples were diluted to bring the concentration of target analytes within the calibration range: 600-96083-2 and 600-96083-11. Elevated reporting limits (RLs) are provided.</p> <p>Method 8270C LL: The following samples were diluted due to the nature of the sample matrix: 600-96083-2 and 600-96083-11. Elevated reporting limits (RLs) are provided.</p> <p>Method 8270C LL: The following samples were diluted to bring the concentration of target analytes within the calibration range: 600-96083-2, 600-96083-7, 600-96083-8, 600-96083-9, 600-96083-11, and 600-96083-13. Elevated reporting limits (RLs) are provided.</p>
S04A	Method 8260B: Internal standard responses were outside of acceptance limits for the following sample: 600-96083-2. The sample shows evidence of matrix interference.
	<ol style="list-style-type: none"> Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period. O = organic analyses; I = inorganic analyses (and general chemistry, when applicable); NA = Not applicable; NR = Not reviewed; ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

Matrix: Water
Method: 8260B_LL
Prep Method: No Prep
Date Analyzed: 3/21/2014
Job #: 600-88537
TALS Batch: 130207
Units: ug/L

Analyte	Instrument #	MDL	DCS Spike	Measured Result	MQL
1,1,1,2-Tetrachloroethane	VOAMS07	0.180	0.500	0.545	1
1,1,1-Trichloroethane	VOAMS07	0.150	0.500	0.610	1
1,1,2,2-Tetrachloroethane	VOAMS07	0.220	0.500	0.432	1
1,1,2-Trichloro-1,2,2-trifluoroethane	VOAMS01	1.000	1.000	0.906	1
1,1,2-Trichloroethane	VOAMS01	0.280	1.000	0.836	1
1,1-Dichloroethane	VOAMS07	0.11	0.5	0.476	1
1,1-Dichloroethene	VOAMS07	0.190	0.500	0.495	1
1,1-Dichloropropene	VOAMS07	0.210	0.500	0.833	1
1,2,3-Trichlorobenzene	VOAMS01	0.570	1.000	1.041	1
1,2,3-Trichloropropane	VOAMS01	0.290	1.000	1.028	1
1,2,3-Trimethylbenzene	VOAMS07	0.130	0.500	0.714	1
1,2,4-Trichlorobenzene	VOAMS01	0.310	1.000	0.904	1
1,2,4-Trimethylbenzene	VOAMS07	0.140	0.500	0.730	1
1,2-Dibromo-3-Chloropropane	VOAMS01	0.810	1.000	0.586	1
1,2-Dichlorobenzene	VOAMS07	0.1	0.5	0.417	1
1,2-Dichloroethane	VOAMS07	0.140	0.500	0.596	1
1,2-Dichloroethene, Total	VOAMS07	0.300	1.000	0.960	1
1,2-Dichloropropane	VOAMS07	0.160	0.500	0.450	1
1,3,5-Trichlorobenzene	VOAMS01	1.000	1.000	0.908	1
1,3,5-Trimethylbenzene	VOAMS07	0.1	0.5	0.715	1
1,3-Dichlorobenzene	VOAMS07	0.130	0.500	0.435	1
1,3-Dichloropropane	VOAMS07	0.220	0.500	0.489	1
1,3-Dichloropropene, Total	VOAMS07	0.11	1	1.81	1
1,4-Dichlorobenzene	VOAMS07	0.11	0.5	0.5	1
1,4-Dioxane	VOAMS01	30.79	20	16.089	50
1-Chlorohexane	VOAMS01	0.260	1.000	1.097	1
2,2-Dichloropropane	VOAMS07	0.130	0.500	0.563	1
2-Butanone (MEK)	VOAMS01	0.760	2.000	1.428	2
2-Chloro-1,3-butadiene	VOAMS01	0.330	1.000	1.011	1
2-Chloroethyl vinyl ether	VOAMS01	0.500	2.000	2.554	2
2-Chlorotoluene	VOAMS07	0.130	0.500	0.665	1
2-Hexanone	VOAMS07	0.350	1.000	1.971	2
2-Methyl-2-propanol	VOAMS07	10.47	5	5.576	20
2-Methylnaphthalene	VOAMS01	1	1	0	1
2-Nitropropane	VOAMS01	1.210	2.000	4.577	1
3-Chloro-1-propene	VOAMS07	0.240	0.500	0.953	2
4-Chlorotoluene	VOAMS07	0.140	0.500	0.337	1
4-Isopropyltoluene	VOAMS07	0.1	0.5	0.403	1
4-Methyl-2-pentanone (MIBK)	VOAMS07	0.450	1.000	1.760	2
Acetone	VOAMS01	0.990	2.000	0.565	5
Acetonitrile	VOAMS07	0.27	5	3.915	2
Acrolein	VOAMS01	1.630	5.000	5.060	5
Acrylonitrile	VOAMS07	0.52	5	3.884	5
Benzene	VOAMS07	0.08	0.5	0.459	1
Benzyl chloride	VOAMS07	0.240	0.500	0.875	1
Bromobenzene	VOAMS07	0.190	0.500	0.489	1
Bromoform	VOAMS07	0.190	0.500	0.573	1
Bromomethane	VOAMS01	0.250	1.000	0.804	2
Butadiene	VOAMS07	0.210	0.500	0.384	1
Carbon disulfide	VOAMS07	0.240	0.500	0.434	2
Carbon tetrachloride	VOAMS07	0.150	0.500	0.610	1

Matrix: Water
Method: 8260B_LL
Prep Method: No Prep
Date Analyzed: 3/21/2014
Job #: 600-88537
TALS Batch: 130207
Units: ug/L

Analyte	Instrument #	MDL	DCS Spike	Measured Result	MQL
Chlorobenzene	VOAMS07	0.12	0.5	0.508	1
Chlorobromomethane	VOAMS07	0.180	0.500	0.517	1
Chlorodibromomethane	VOAMS07	0.150	0.500	0.565	1
Chloroethane	VOAMS07	0.08	0.5	0.549	2
Chloroform	VOAMS07	0.130	0.500	0.573	1
Chloromethane	VOAMS07	0.180	0.500	0.424	2
cis-1,2-Dichloroethene	VOAMS07	0.06	0.5	0.491	1
cis-1,3-Dichloropropene	VOAMS07	0.180	0.500	0.807	1
Cyclohexane	VOAMS07	0.160	0.500	0.700	1
Cyclohexanone	VOAMS07	8.640	25.000	31.282	50
Dibromomethane	VOAMS01	0.520	1.000	0.343	1
Dichlorobromomethane	VOAMS07	0.160	0.500	0.490	1
Dichlorodifluoromethane	VOAMS07	0.12	0.5	0.476	1
Dichlorofluoromethane	VOAMS01	1.000	1.000	1.214	1
Ethanol	VOAMS07	1	25	0	1
Ethyl acetate	VOAMS07	0.410	1.000	2.127	2
Ethyl acrylate	VOAMS01	0.340	1.000	0.535	2
Ethyl ether	VOAMS07	0.150	0.500	0.836	1
Ethyl methacrylate	VOAMS01	0.260	1.000	0.915	2
Ethylbenzene	VOAMS07	0.11	0.5	0.769	1
Ethylene Dibromide	VOAMS07	0.180	0.500	0.466	1
Ethylene oxide	VOAMS01	2.13	20	4.963	10
Hexachlorobutadiene	VOAMS07	0.170	0.500	0.685	1
Hexane	VOAMS07	0.160	0.500	0.433	1
Iodomethane	VOAMS07	0.158	0.500	0.517	2
Isobutyl alcohol	VOAMS07	3.320	12.500	9.263	10
Isooctane	VOAMS01	0.330	1.000	0.661	1
Isopropyl alcohol	VOAMS01	3.720	10.000	0.586	10
Isopropyl ether	VOAMS07	0.09	0.5	0.443	1
Isopropylbenzene	VOAMS07	0.180	0.500	0.757	1
Methacrylonitrile	VOAMS07	0.41	5	3.96	2
Methyl acetate	VOAMS07	0.55	2.5	1.883	2
Methyl methacrylate	VOAMS07	0.330	1.000	1.663	1
Methyl tert-butyl ether	VOAMS07	0.12	0.5	0.947	1
Methylcyclohexane	VOAMS07	0.1	0.5	0.719	1
Methylene Chloride	VOAMS07	0.150	0.500	1.229	5
m-Xylene & p-Xylene	VOAMS07	0.170	0.500	0.838	1
Naphthalene	VOAMS01	0.320	1.000	1.120	2
n-Butyl acetate	VOAMS01	0.19	1	1.902	1
n-Butylbenzene	VOAMS07	0.160	0.500	0.585	1
n-Heptane	VOAMS01	1.000	1.000	0.511	1
N-Propylbenzene	VOAMS07	0.150	0.500	0.892	1
o-Xylene	VOAMS07	0.12	0.5	0.543	1
Pentachloroethane	VOAMS01	1.000	1.000	1.053	1
Propionitrile	VOAMS07	0.66	5	3.711	5
sec-Butylbenzene	VOAMS07	0.12	0.5	0.659741	1
Styrene	VOAMS07	0.07	0.5	1.110441	1
Tert-amyl methyl ether	VOAMS01	1.000	1.000	0.633	1
Tert-butyl ethyl ether	VOAMS01	1.000	1.000	0.677	1
tert-Butylbenzene	VOAMS07	0.08	0.5	0.880472	1
Tetrachloroethene	VOAMS07	0.130	0.500	0.817	1

Matrix: Water
Method: 8260B_LL
Prep Method: No Prep
Date Analyzed: 3/21/2014
Job #: 600-88537
TALS Batch: 130207
Units: ug/L

Analyte	Instrument #	MDL	DCS Spike	Measured Result	MQL
Tetrahydrofuran	VOAMS01	1.080	2.000	1.071	5
Toluene	VOAMS07	0.150	0.500	0.506	1
trans-1,2-Dichloroethene	VOAMS07	0.09	0.5	0.472189	1
trans-1,3-Dichloropropene	VOAMS07	0.210	0.500	1.009	1
trans-1,4-Dichloro-2-butene	VOAMS01	0.640	1.000	0.676	2
Trichloroethene	VOAMS07	0.180	0.500	0.498	1
Trichlorofluoromethane	VOAMS07	0.08	0.5	0.539265	1
Trihalomethanes, Total	VOAMS01	1.000	4.000	3.600	5
Vinyl acetate	VOAMS07	0.21	1	1.798318	2
Vinyl chloride	VOAMS07	0.11	1	1.38	2
Xylenes, Total	VOAMS07	0.260	1.000	1.380	1



Matrix: Water
Method: 8270C_LL
Prep Method: 3510C_LL
Date Analyzed: 3/21/2014
Job #: 600-87830
TALS Batch: 130292
Units: ug/L

Analyte	Instrument #	MDL	DCS Spike	Measured Result	MQL
1,1'-Biphenyl	SVMS06	0.100	0.125	0.089	1
1,2,4,5-Tetrachlorobenzene	SVMS06	0.100	0.125	0.122	1.5
1,2,4-Trichlorobenzene	SVMS06	0.120	0.125	0.072	2
1,2-Dichlorobenzene	SVMS06	0.170	0.250	0.174	1.75
1,2-Diphenylhydrazine	SVMS06	0.110	0.125	0.079	2
1,3-Dichlorobenzene	SVMS06	0.170	0.250	0.188	1.5
1,4-Dichlorobenzene	SVMS06	0.130	0.250	0.178	2
1,4-Dinitrobenzene	SVMS06	5.00	2.50	1.77	5
1-Methylnaphthalene	SVMS06	0.090	0.125	0.096	2
1-Naphthylamine	SVMS06	0.170	0.500	0.181	2
2,2'-oxybis[1-chloropropane]	SVMS06	0.400	0.250	0.159	1.5
2,3,5,6-Tetrachlorophenol	SVMS06	0.500	0.500	0.870	5
2,4,5-Trichlorophenol	SVMS06	0.250	0.250	0.102	2
2,4,6-Trichlorophenol	SVMS06	0.180	0.250	0.115	2
2,4-Dichlorophenol	SVMS06	0.150	0.250	0.071	2.5
2,4-Dinitrotoluene	SVMS06	0.130	0.250	0.385	1.5
2,6-Dinitrotoluene	SVMS06	0.080	0.250	0.353	1
2-Chloronaphthalene	SVMS06	0.080	0.125	0.130	1.5
2-Chlorophenol	SVMS06	0.130	0.250	0.188	2
2-Methylnaphthalene	SVMS06	0.070	0.125	0.092	1.5
2-Methylphenol	SVMS06	0.120	0.125	0.092	1.5
2-Naphthylamine	SVMS06	0.140	0.500	0.188	1
2-Nitroaniline	SVMS06	0.190	0.250	0.374	2.5
2-Nitrophenol	SVMS06	0.220	0.250	0.130	1
2-Picoline	SVMS06	0.390	0.500	0.170	1.5
2-Toluidine	SVMS06	0.130	0.500	0.271	1
3 & 4 Methylphenol	SVMS06	0.200	0.250	0.099	1
3,3'-Dichlorobenzidine	SVMS06	0.180	0.250	0.370	10
3-Methylcholanthrene	SVMS06	0.500	0.500	0.481	5
3-Nitroaniline	SVMS06	0.160	0.250	0.061	2.5
4-Aminobiphenyl	SVMS06	0.170	0.500	0.297	10
4-Bromophenyl phenyl ether	SVMS06	0.100	0.125	0.045	1.5
4-Chloro-3-methylphenol	SVMS06	0.170	0.250	0.073	1
4-Chloroaniline	SVMS06	0.210	0.250	0.117	1
4-Chlorophenyl phenyl ether	SVMS06	0.100	0.125	0.088	1.5
Acenaphthene	SVMS06	0.080	0.125	0.101	1
Acenaphthylene	SVMS06	0.060	0.125	0.315	1
Acetophenone	SVMS06	0.150	0.250	0.153	1.5
Aniline	SVMS06	0.080	0.250	0.140	1.5
Anthracene	SVMS06	0.050	0.125	0.075	1
Atrazine	SVMS06	0.160	0.250	0.060	1.5
Azobenzene	SVMS06	0.070	0.125	0.071	1.5
Benzaldehyde	SVMS06	0.500	0.500	0.096	1
Benzidine	SVMS06	0.610	1.303	1.220	10
Benzo[a]anthracene	SVMS06	0.080	0.125	0.114	2
Benzo[a]pyrene	SVMS06	0.080	0.125	0.046	1.5
Benzo[b]fluoranthene	SVMS06	0.070	0.125	0.083	2
Benzo[g,h,i]perylene	SVMS06	0.080	0.250	0.146	2.5
Benzo[k]fluoranthene	SVMS06	0.090	0.125	0.076	2
Benzyl alcohol	SVMS06	0.170	0.250	0.039	5.5
Bis(2-chloroethoxy)methane	SVMS06	0.130	0.250	0.206	1.5

Matrix: Water
Method: 8270C_LL
Prep Method: 3510C_LL
Date Analyzed: 3/21/2014
Job #: 600-87830
TALS Batch: 130292
Units: ug/L

Analyte	Instrument #	MDL	DCS Spike	Measured Result	MQL
Bis(2-chloroethyl)ether	SVMS06	0.150	0.250	0.215	1.5
Bis(2-ethylhexyl) phthalate	SVMS06	0.370	0.250	0.058	2.5
Butyl benzyl phthalate	SVMS06	0.120	0.125	0.011	2.5
Carbazole	SVMS06	0.170	0.250	0.116	6.25
Chrysene	SVMS06	0.080	0.125	0.095	1.5
Dibenz(a,h)anthracene	SVMS06	0.080	0.250	0.045	2.5
Dibenz[a,j]acridine	SVMS06	0.350	1.000	0.687	1
Dibenzofuran	SVMS06	0.080	0.125	0.081	1.5
Diethyl phthalate	SVMS06	1.50	0.250	0.215	2.5
Dimethyl phthalate	SVMS06	0.070	0.250	0.195	2.5
Di-n-butyl phthalate	SVMS06	0.110	0.125	0.080	2.5
Di-n-octyl phthalate	SVMS06	0.160	0.250	0.030	5
Diphenylamine	SVMS06	0.100	0.125	0.059	1.5
Ethyl methanesulfonate	SVMS06	0.170	0.500	0.370	1.5
Fluoranthene	SVMS06	0.070	0.125	0.109	2.5
Fluorene	SVMS06	0.070	0.125	0.090	1.5
Hexachlorobenzene	SVMS06	0.110	0.125	0.129	1.5
Hexachlorobutadiene	SVMS06	0.180	0.250	0.218	2
Hexachlorocyclopentadiene	SVMS06	0.130	0.250	0.184	1.5
Hexachloroethane	SVMS06	0.100	0.125	0.147	2
Hexachloropropene	SVMS06	0.160	0.500	0.395	10
Indene	SVMS06	0.150	0.500	0.204	1
Indeno[1,2,3-cd]pyrene	SVMS06	0.070	0.125	0.021	2
Isodrin	SVMS06	0.150	0.500	0.447	1.5
Isophorone	SVMS06	0.110	0.250	0.168	1.5
Methapyrilene	SVMS06	1.060	2.500	1.485	1.5
Methyl methanesulfonate	SVMS06	0.200	0.500	0.437	1.5
Methyl Phenols, Total	SVMS06	0.200	0.500	0.140	1
Naphthalene	SVMS06	0.080	0.125	0.082	5
Nitrobenzene	SVMS06	0.110	0.125	0.107	1.5
N-Nitrosodiethylamine	SVMS06	0.380	0.500	0.366	1.5
N-Nitrosodimethylamine	SVMS06	0.260	0.250	0.163	2
N-Nitrosodi-n-butylamine	SVMS06	0.230	0.500	0.308	1.5
N-Nitrosodi-n-propylamine	SVMS06	0.100	0.125	0.076	2.5
N-Nitrosodiphenylamine	SVMS06	0.100	0.125	0.056	1.5
N-Nitrosomethylethylamine	SVMS06	0.110	0.500	0.115	1
N-Nitrosomorpholine	SVMS06	0.190	0.500	0.355	10
N-Nitrosopiperidine	SVMS06	0.190	0.500	0.370	1.5
N-Nitrosopyrrolidine	SVMS06	0.210	0.500	0.434	1
o,o',o"-Triethylphosphorothioate	SVMS06	0.500	0.500	0.398	5
Pentachlorobenzene	SVMS06	0.130	0.500	0.415	1.5
Pentachloroethane	SVMS06	0.150	0.500	0.296	1
Pentachloronitrobenzene	SVMS06	0.12	0.500	0.573	1.5
Pentachlorophenol	SVMS06	0.610	0.250	0.582	2.5
Phenanthrene	SVMS06	0.060	0.125	0.087	1.5
Phenol	SVMS06	0.040	0.125	0.110	1.5
Pyrene	SVMS06	0.110	0.125	0.077	2
Quinoline	SVMS06	0.130	0.500	0.396	1

Case Narrative

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-96083-1

Job ID: 600-96083-1

Laboratory: TestAmerica Houston

Narrative

Job Narrative
600-96083-1

Comments

No additional comments.

Receipt

The samples were received on 7/28/2014 4:34 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 4 coolers at receipt time were 3.6° C, 3.8° C, 5.0° C and 5.6° C.

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Method Summary

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-96083-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL HOU
8270C LL	Semivolatile Organic Compounds by GCMS - Low Levels	SW846	TAL HOU

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL HOU = TestAmerica Houston, 6310 Rothway Street, Houston, TX 77040, TEL (713)690-4444



Sample Summary

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-96083-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
600-96083-1	WG-1620-MW81B-20140724	Water	07/24/14 17:30	07/28/14 16:34
600-96083-2	WG-1620-MW75B-20140724	Water	07/24/14 18:25	07/28/14 16:34
600-96083-3	WG-1620-MW13-20140725	Water	07/25/14 09:05	07/28/14 16:34
600-96083-4	WG-1620-MW21C-20140725	Water	07/25/14 10:15	07/28/14 16:34
600-96083-5	WG-1620-DUP2-20140725	Water	07/25/14 10:15	07/28/14 16:34
600-96083-6	WG-1620-MW39B-20140725	Water	07/25/14 11:20	07/28/14 16:34
600-96083-7	WG-1620-TW41B-20140725	Water	07/25/14 13:20	07/28/14 16:34
600-96083-8	WG-1620-MW12C-20140725	Water	07/25/14 14:15	07/28/14 16:34
600-96083-9	WG-1620-MW12A-20140725	Water	07/25/14 15:05	07/28/14 16:34
600-96083-10	WG-1620-FB5-20140725	Water	07/25/14 15:15	07/28/14 16:34
600-96083-11	WG-1620-MW-35B-20140725	Water	07/24/14 16:30	07/28/14 16:34
600-96083-12	WG-1620-MW53C-20140725	Water	07/25/14 07:50	07/28/14 16:34
600-96083-13	WG-1620-MW54C-20140725	Water	07/25/14 08:55	07/28/14 16:34
600-96083-14	WG-1620-MW38B-20140725	Water	07/25/14 10:00	07/28/14 16:34
600-96083-15	WG-1620-MW38A-20140725	Water	07/25/14 10:50	07/28/14 16:34
600-96083-16	WG-1620-MW28A-20140725	Water	07/25/14 11:55	07/28/14 16:34
600-96083-17	WG-1620-MW28C-20140725	Water	07/25/14 12:55	07/28/14 16:34
600-96083-18	WG-1620-MW27C-20140725	Water	07/25/14 14:50	07/28/14 16:34

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-96083-1

Client Sample ID: WG-1620-MW81B-20140724

Lab Sample ID: 600-96083-1

Date Collected: 07/24/14 17:30

Matrix: Water

Date Received: 07/28/14 16:34

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	0.000110	U	0.00200	0.000110	mg/L			08/01/14 16:06	1
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			08/01/14 16:06	1
Benzene	0.0000800	U	0.00100	0.0000800	mg/L			08/01/14 16:06	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			08/01/14 16:06	1
Toluene	0.000150	U	0.00100	0.000150	mg/L			08/01/14 16:06	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			08/01/14 16:06	1
Ethylbenzene	0.000110	U	0.00100	0.000110	mg/L			08/01/14 16:06	1
Xylenes, Total	0.000260	U	0.00300	0.000260	mg/L			08/01/14 16:06	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	104		67 - 139					08/01/14 16:06	1
Dibromofluoromethane	105		62 - 130					08/01/14 16:06	1
Toluene-d8 (Surr)	111		70 - 130					08/01/14 16:06	1
1,2-Dichloroethane-d4 (Surr)	99		50 - 134					08/01/14 16:06	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.0000388	U	0.000485	0.0000388	mg/L		07/29/14 10:49	08/02/14 16:11	1
Nitrobenzene	0.000107	U	0.000485	0.000107	mg/L		07/29/14 10:49	08/02/14 16:11	1
2,4-Dimethylphenol	0.000301	U	0.000485	0.000301	mg/L		07/29/14 10:49	08/02/14 16:11	1
Bis(2-chloroethoxy)methane	0.000126	U	0.000485	0.000126	mg/L		07/29/14 10:49	08/02/14 16:11	1
Naphthalene	0.0000777	U	0.000485	0.0000777	mg/L		07/29/14 10:49	08/02/14 16:11	1
2-Methylnaphthalene	0.0000680	U	0.000485	0.0000680	mg/L		07/29/14 10:49	08/02/14 16:11	1
2-Chloronaphthalene	0.0000777	U	0.000485	0.0000777	mg/L		07/29/14 10:49	08/02/14 16:11	1
Acenaphthylene	0.0000583	U	0.000485	0.0000583	mg/L		07/29/14 10:49	08/02/14 16:11	1
2,6-Dinitrotoluene	0.0000777	U	0.000485	0.0000777	mg/L		07/29/14 10:49	08/02/14 16:11	1
Acenaphthene	0.0000777	U	0.000485	0.0000777	mg/L		07/29/14 10:49	08/02/14 16:11	1
4-Nitrophenol	0.000544	U	0.000971	0.000544	mg/L		07/29/14 10:49	08/02/14 16:11	1
Dibenzofuran	0.0000777	U	0.000485	0.0000777	mg/L		07/29/14 10:49	08/02/14 16:11	1
2,4-Dinitrotoluene	0.000126	U	0.000485	0.000126	mg/L		07/29/14 10:49	08/02/14 16:11	1
Fluorene	0.0000680	U	0.000485	0.0000680	mg/L		07/29/14 10:49	08/02/14 16:11	1
4,6-Dinitro-2-methylphenol	0.000806	U	0.000971	0.000806	mg/L		07/29/14 10:49	08/02/14 16:11	1
N-Nitrosodiphenylamine	0.0000971	U	0.000485	0.0000971	mg/L		07/29/14 10:49	08/02/14 16:11	1
1,2-Diphenylhydrazine	0.000107	U	0.000485	0.000107	mg/L		07/29/14 10:49	08/02/14 16:11	1
Pentachlorophenol	0.000592	U	0.000971	0.000592	mg/L		07/29/14 10:49	08/02/14 16:11	1
Phenanthrene	0.0000944	J	0.000485	0.0000583	mg/L		07/29/14 10:49	08/02/14 16:11	1
Anthracene	0.0000485	U	0.000485	0.0000485	mg/L		07/29/14 10:49	08/02/14 16:11	1
Di-n-butyl phthalate	0.000107	U	0.000485	0.000107	mg/L		07/29/14 10:49	08/02/14 16:11	1
Fluoranthene	0.0000680	U	0.000485	0.0000680	mg/L		07/29/14 10:49	08/02/14 16:11	1
Pyrene	0.000107	U	0.000485	0.000107	mg/L		07/29/14 10:49	08/02/14 16:11	1
Benzo[a]anthracene	0.0000777	U	0.000485	0.0000777	mg/L		07/29/14 10:49	08/02/14 16:11	1
Bis(2-ethylhexyl) phthalate	0.000359	U	0.000485	0.000359	mg/L		07/29/14 10:49	08/02/14 16:11	1
Chrysene	0.0000777	U	0.000485	0.0000777	mg/L		07/29/14 10:49	08/02/14 16:11	1
Benzo[a]pyrene	0.0000777	U	0.000485	0.0000777	mg/L		07/29/14 10:49	08/02/14 16:11	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	65		10 - 147				07/29/14 10:49	08/02/14 16:11	1
2-Fluorobiphenyl	55		10 - 150				07/29/14 10:49	08/02/14 16:11	1
2-Fluorophenol	19		10 - 130				07/29/14 10:49	08/02/14 16:11	1
Nitrobenzene-d5	49		23 - 130				07/29/14 10:49	08/02/14 16:11	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-96083-1

Client Sample ID: WG-1620-MW81B-20140724

Lab Sample ID: 600-96083-1

Date Collected: 07/24/14 17:30

Matrix: Water

Date Received: 07/28/14 16:34

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Terphenyl-d14	67		42 - 133	07/29/14 10:49	08/02/14 16:11	1
Phenol-d5 (Surr)	10		10 - 130	07/29/14 10:49	08/02/14 16:11	1

Client Sample ID: WG-1620-MW75B-20140724

Lab Sample ID: 600-96083-2

Date Collected: 07/24/14 18:25

Matrix: Water

Date Received: 07/28/14 16:34

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	0.000110	U	0.00200	0.000110	mg/L			08/02/14 17:16	1
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			08/02/14 17:16	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			08/02/14 17:16	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			08/02/14 17:16	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	96	*	67 - 139		08/02/14 17:16	1
Dibromofluoromethane	99		62 - 130		08/02/14 17:16	1
Toluene-d8 (Surr)	107		70 - 130		08/02/14 17:16	1
1,2-Dichloroethane-d4 (Surr)	91		50 - 134		08/02/14 17:16	1

Method: 8260B - Volatile Organic Compounds (GC/MS) - DL

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.298		0.0500	0.00400	mg/L			08/01/14 20:27	50
Toluene	0.273		0.0500	0.00750	mg/L			08/01/14 20:27	50
Ethylbenzene	0.0737		0.0500	0.00550	mg/L			08/01/14 20:27	50
Xylenes, Total	0.255		0.150	0.0130	mg/L			08/01/14 20:27	50

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	98		67 - 139		08/01/14 20:27	50
Dibromofluoromethane	100		62 - 130		08/01/14 20:27	50
Toluene-d8 (Surr)	114		70 - 130		08/01/14 20:27	50
1,2-Dichloroethane-d4 (Surr)	91		50 - 134		08/01/14 20:27	50

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.000777	U	0.00971	0.000777	mg/L		07/29/14 10:49	08/04/14 11:04	20
Nitrobenzene	0.00214	U	0.00971	0.00214	mg/L		07/29/14 10:49	08/04/14 11:04	20
2,4-Dimethylphenol	0.00602	U	0.00971	0.00602	mg/L		07/29/14 10:49	08/04/14 11:04	20
Bis(2-chloroethoxy)methane	0.00252	U	0.00971	0.00252	mg/L		07/29/14 10:49	08/04/14 11:04	20
2-Chloronaphthalene	0.00155	U	0.00971	0.00155	mg/L		07/29/14 10:49	08/04/14 11:04	20
Acenaphthylene	0.0121		0.00971	0.00117	mg/L		07/29/14 10:49	08/04/14 11:04	20
2,6-Dinitrotoluene	0.00155	U	0.00971	0.00155	mg/L		07/29/14 10:49	08/04/14 11:04	20
Acenaphthene	0.429		0.00971	0.00155	mg/L		07/29/14 10:49	08/04/14 11:04	20
4-Nitrophenol	0.0109	U	0.0194	0.0109	mg/L		07/29/14 10:49	08/04/14 11:04	20
Dibenzofuran	0.214		0.00971	0.00155	mg/L		07/29/14 10:49	08/04/14 11:04	20
2,4-Dinitrotoluene	0.00252	U	0.00971	0.00252	mg/L		07/29/14 10:49	08/04/14 11:04	20
Fluorene	0.218		0.00971	0.00136	mg/L		07/29/14 10:49	08/04/14 11:04	20
4,6-Dinitro-2-methylphenol	0.0161	U	0.0194	0.0161	mg/L		07/29/14 10:49	08/04/14 11:04	20
N-Nitrosodiphenylamine	0.00194	U	0.00971	0.00194	mg/L		07/29/14 10:49	08/04/14 11:04	20
1,2-Diphenylhydrazine	0.00214	U	0.00971	0.00214	mg/L		07/29/14 10:49	08/04/14 11:04	20

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-96083-1

Client Sample ID: WG-1620-MW75B-20140724

Lab Sample ID: 600-96083-2

Date Collected: 07/24/14 18:25

Matrix: Water

Date Received: 07/28/14 16:34

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Pentachlorophenol	0.0118	U	0.0194	0.0118	mg/L		07/29/14 10:49	08/04/14 11:04	20
Phenanthrene	0.238		0.00971	0.00117	mg/L		07/29/14 10:49	08/04/14 11:04	20
Anthracene	0.0626		0.00971	0.000971	mg/L		07/29/14 10:49	08/04/14 11:04	20
Di-n-butyl phthalate	0.00214	U	0.00971	0.00214	mg/L		07/29/14 10:49	08/04/14 11:04	20
Fluoranthene	0.0914		0.00971	0.00136	mg/L		07/29/14 10:49	08/04/14 11:04	20
Pyrene	0.0537		0.00971	0.00214	mg/L		07/29/14 10:49	08/04/14 11:04	20
Benzo[a]anthracene	0.00748	J	0.00971	0.00155	mg/L		07/29/14 10:49	08/04/14 11:04	20
Bis(2-ethylhexyl) phthalate	0.00718	U	0.00971	0.00718	mg/L		07/29/14 10:49	08/04/14 11:04	20
Chrysene	0.00677	J	0.00971	0.00155	mg/L		07/29/14 10:49	08/04/14 11:04	20
Benzo[a]pyrene	0.00155	U	0.00971	0.00155	mg/L		07/29/14 10:49	08/04/14 11:04	20
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	0	X	10 - 147				07/29/14 10:49	08/04/14 11:04	20
2-Fluorobiphenyl	0	X	10 - 150				07/29/14 10:49	08/04/14 11:04	20
2-Fluorophenol	0	X	10 - 130				07/29/14 10:49	08/04/14 11:04	20
Nitrobenzene-d5	0	X	23 - 130				07/29/14 10:49	08/04/14 11:04	20
Terphenyl-d14	0	X	42 - 133				07/29/14 10:49	08/04/14 11:04	20
Phenol-d5 (Surr)	0	X	10 - 130				07/29/14 10:49	08/04/14 11:04	20

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels - DL

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	5.70		0.194	0.0311	mg/L		07/29/14 10:49	08/06/14 01:57	400
2-Methylnaphthalene	0.546		0.194	0.0272	mg/L		07/29/14 10:49	08/06/14 01:57	400
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	0	X	10 - 147				07/29/14 10:49	08/06/14 01:57	400
2-Fluorobiphenyl	0	X	10 - 150				07/29/14 10:49	08/06/14 01:57	400
2-Fluorophenol	0	X	10 - 130				07/29/14 10:49	08/06/14 01:57	400
Nitrobenzene-d5	0	X	23 - 130				07/29/14 10:49	08/06/14 01:57	400
Terphenyl-d14	0	X	42 - 133				07/29/14 10:49	08/06/14 01:57	400
Phenol-d5 (Surr)	0	X	10 - 130				07/29/14 10:49	08/06/14 01:57	400

Client Sample ID: WG-1620-MW13-20140725

Lab Sample ID: 600-96083-3

Date Collected: 07/25/14 09:05

Matrix: Water

Date Received: 07/28/14 16:34

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	0.000110	U	0.00200	0.000110	mg/L			08/01/14 16:32	1
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			08/01/14 16:32	1
Benzene	0.0000800	U	0.00100	0.0000800	mg/L			08/01/14 16:32	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			08/01/14 16:32	1
Toluene	0.000150	U	0.00100	0.000150	mg/L			08/01/14 16:32	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			08/01/14 16:32	1
Ethylbenzene	0.000110	U	0.00100	0.000110	mg/L			08/01/14 16:32	1
Xylenes, Total	0.000260	U	0.00300	0.000260	mg/L			08/01/14 16:32	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	103		67 - 139					08/01/14 16:32	1
Dibromofluoromethane	101		62 - 130					08/01/14 16:32	1
Toluene-d8 (Surr)	111		70 - 130					08/01/14 16:32	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-96083-1

Client Sample ID: WG-1620-MW13-20140725

Lab Sample ID: 600-96083-3

Date Collected: 07/25/14 09:05

Matrix: Water

Date Received: 07/28/14 16:34

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	97		50 - 134		08/01/14 16:32	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.000388	U	0.000485	0.000388	mg/L		07/29/14 10:49	08/02/14 17:05	1
Nitrobenzene	0.000107	U	0.000485	0.000107	mg/L		07/29/14 10:49	08/02/14 17:05	1
2,4-Dimethylphenol	0.000301	U	0.000485	0.000301	mg/L		07/29/14 10:49	08/02/14 17:05	1
Bis(2-chloroethoxy)methane	0.000126	U	0.000485	0.000126	mg/L		07/29/14 10:49	08/02/14 17:05	1
Naphthalene	0.00390		0.000485	0.0000777	mg/L		07/29/14 10:49	08/02/14 17:05	1
2-Methylnaphthalene	0.000687		0.000485	0.0000680	mg/L		07/29/14 10:49	08/02/14 17:05	1
2-Chloronaphthalene	0.000777	U	0.000485	0.000777	mg/L		07/29/14 10:49	08/02/14 17:05	1
Acenaphthylene	0.000583	U	0.000485	0.000583	mg/L		07/29/14 10:49	08/02/14 17:05	1
2,6-Dinitrotoluene	0.000777	U	0.000485	0.000777	mg/L		07/29/14 10:49	08/02/14 17:05	1
Acenaphthene	0.000329	J	0.000485	0.000777	mg/L		07/29/14 10:49	08/02/14 17:05	1
4-Nitrophenol	0.000544	U	0.000971	0.000544	mg/L		07/29/14 10:49	08/02/14 17:05	1
Dibenzofuran	0.000257	J	0.000485	0.000777	mg/L		07/29/14 10:49	08/02/14 17:05	1
2,4-Dinitrotoluene	0.000126	U	0.000485	0.000126	mg/L		07/29/14 10:49	08/02/14 17:05	1
Fluorene	0.000188	J	0.000485	0.000680	mg/L		07/29/14 10:49	08/02/14 17:05	1
4,6-Dinitro-2-methylphenol	0.000806	U	0.000971	0.000806	mg/L		07/29/14 10:49	08/02/14 17:05	1
N-Nitrosodiphenylamine	0.0000971	U	0.000485	0.0000971	mg/L		07/29/14 10:49	08/02/14 17:05	1
1,2-Diphenylhydrazine	0.000107	U	0.000485	0.000107	mg/L		07/29/14 10:49	08/02/14 17:05	1
Pentachlorophenol	0.000592	U	0.000971	0.000592	mg/L		07/29/14 10:49	08/02/14 17:05	1
Phenanthrene	0.000163	J	0.000485	0.000583	mg/L		07/29/14 10:49	08/02/14 17:05	1
Anthracene	0.000587		0.000485	0.000485	mg/L		07/29/14 10:49	08/02/14 17:05	1
Di-n-butyl phthalate	0.000122	J	0.000485	0.000107	mg/L		07/29/14 10:49	08/02/14 17:05	1
Fluoranthene	0.000680	U	0.000485	0.000680	mg/L		07/29/14 10:49	08/02/14 17:05	1
Pyrene	0.000107	U	0.000485	0.000107	mg/L		07/29/14 10:49	08/02/14 17:05	1
Benzo[a]anthracene	0.000777	U	0.000485	0.000777	mg/L		07/29/14 10:49	08/02/14 17:05	1
Bis(2-ethylhexyl) phthalate	0.000359	U	0.000485	0.000359	mg/L		07/29/14 10:49	08/02/14 17:05	1
Chrysene	0.000777	U	0.000485	0.000777	mg/L		07/29/14 10:49	08/02/14 17:05	1
Benzo[a]pyrene	0.000777	U	0.000485	0.000777	mg/L		07/29/14 10:49	08/02/14 17:05	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	51		10 - 147	07/29/14 10:49	08/02/14 17:05	1
2-Fluorobiphenyl	57		10 - 150	07/29/14 10:49	08/02/14 17:05	1
2-Fluorophenol	13		10 - 130	07/29/14 10:49	08/02/14 17:05	1
Nitrobenzene-d5	43		23 - 130	07/29/14 10:49	08/02/14 17:05	1
Terphenyl-d14	61		42 - 133	07/29/14 10:49	08/02/14 17:05	1
Phenol-d5 (Surr)	8	X	10 - 130	07/29/14 10:49	08/02/14 17:05	1

Client Sample ID: WG-1620-MW21C-20140725

Lab Sample ID: 600-96083-4

Date Collected: 07/25/14 10:15

Matrix: Water

Date Received: 07/28/14 16:34

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	0.000110	U	0.00200	0.000110	mg/L			08/01/14 16:58	1
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			08/01/14 16:58	1
Benzene	0.0000800	U	0.00100	0.0000800	mg/L			08/01/14 16:58	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			08/01/14 16:58	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-96083-1

Client Sample ID: WG-1620-MW21C-20140725

Lab Sample ID: 600-96083-4

Date Collected: 07/25/14 10:15

Matrix: Water

Date Received: 07/28/14 16:34

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Toluene	0.000150	U	0.00100	0.000150	mg/L			08/01/14 16:58	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			08/01/14 16:58	1
Ethylbenzene	0.000110	U	0.00100	0.000110	mg/L			08/01/14 16:58	1
Xylenes, Total	0.000260	U	0.00300	0.000260	mg/L			08/01/14 16:58	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	100		67 - 139					08/01/14 16:58	1
Dibromofluoromethane	101		62 - 130					08/01/14 16:58	1
Toluene-d8 (Surr)	108		70 - 130					08/01/14 16:58	1
1,2-Dichloroethane-d4 (Surr)	95		50 - 134					08/01/14 16:58	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.0000388	U	0.000485	0.0000388	mg/L		07/29/14 10:49	08/02/14 17:32	1
Nitrobenzene	0.000107	U	0.000485	0.000107	mg/L		07/29/14 10:49	08/02/14 17:32	1
2,4-Dimethylphenol	0.000301	U	0.000485	0.000301	mg/L		07/29/14 10:49	08/02/14 17:32	1
Bis(2-chloroethoxy)methane	0.000126	U	0.000485	0.000126	mg/L		07/29/14 10:49	08/02/14 17:32	1
Naphthalene	0.0000777	U	0.000485	0.0000777	mg/L		07/29/14 10:49	08/02/14 17:32	1
2-Methylnaphthalene	0.0000680	U	0.000485	0.0000680	mg/L		07/29/14 10:49	08/02/14 17:32	1
2-Chloronaphthalene	0.0000777	U	0.000485	0.0000777	mg/L		07/29/14 10:49	08/02/14 17:32	1
Acenaphthylene	0.0000583	U	0.000485	0.0000583	mg/L		07/29/14 10:49	08/02/14 17:32	1
2,6-Dinitrotoluene	0.0000777	U	0.000485	0.0000777	mg/L		07/29/14 10:49	08/02/14 17:32	1
Acenaphthene	0.0000777	U	0.000485	0.0000777	mg/L		07/29/14 10:49	08/02/14 17:32	1
4-Nitrophenol	0.000544	U	0.000971	0.000544	mg/L		07/29/14 10:49	08/02/14 17:32	1
Dibenzofuran	0.0000777	U	0.000485	0.0000777	mg/L		07/29/14 10:49	08/02/14 17:32	1
2,4-Dinitrotoluene	0.000126	U	0.000485	0.000126	mg/L		07/29/14 10:49	08/02/14 17:32	1
Fluorene	0.0000680	U	0.000485	0.0000680	mg/L		07/29/14 10:49	08/02/14 17:32	1
4,6-Dinitro-2-methylphenol	0.000806	U	0.000971	0.000806	mg/L		07/29/14 10:49	08/02/14 17:32	1
N-Nitrosodiphenylamine	0.0000971	U	0.000485	0.0000971	mg/L		07/29/14 10:49	08/02/14 17:32	1
1,2-Diphenylhydrazine	0.000107	U	0.000485	0.000107	mg/L		07/29/14 10:49	08/02/14 17:32	1
Pentachlorophenol	0.000592	U	0.000971	0.000592	mg/L		07/29/14 10:49	08/02/14 17:32	1
Phenanthrene	0.0000870	J	0.000485	0.0000583	mg/L		07/29/14 10:49	08/02/14 17:32	1
Anthracene	0.0000485	U	0.000485	0.0000485	mg/L		07/29/14 10:49	08/02/14 17:32	1
Di-n-butyl phthalate	0.000184	J	0.000485	0.000107	mg/L		07/29/14 10:49	08/02/14 17:32	1
Fluoranthene	0.0000680	U	0.000485	0.0000680	mg/L		07/29/14 10:49	08/02/14 17:32	1
Pyrene	0.000107	U	0.000485	0.000107	mg/L		07/29/14 10:49	08/02/14 17:32	1
Benzo[a]anthracene	0.0000777	U	0.000485	0.0000777	mg/L		07/29/14 10:49	08/02/14 17:32	1
Bis(2-ethylhexyl) phthalate	0.000359	U	0.000485	0.000359	mg/L		07/29/14 10:49	08/02/14 17:32	1
Chrysene	0.0000777	U	0.000485	0.0000777	mg/L		07/29/14 10:49	08/02/14 17:32	1
Benzo[a]pyrene	0.0000777	U	0.000485	0.0000777	mg/L		07/29/14 10:49	08/02/14 17:32	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	63		10 - 147				07/29/14 10:49	08/02/14 17:32	1
2-Fluorobiphenyl	53		10 - 150				07/29/14 10:49	08/02/14 17:32	1
2-Fluorophenol	17		10 - 130				07/29/14 10:49	08/02/14 17:32	1
Nitrobenzene-d5	44		23 - 130				07/29/14 10:49	08/02/14 17:32	1
Terphenyl-d14	63		42 - 133				07/29/14 10:49	08/02/14 17:32	1
Phenol-d5 (Surr)	10		10 - 130				07/29/14 10:49	08/02/14 17:32	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-96083-1

Client Sample ID: WG-1620-DUP2-20140725

Lab Sample ID: 600-96083-5

Date Collected: 07/25/14 10:15

Matrix: Water

Date Received: 07/28/14 16:34

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	0.000110	U	0.00200	0.000110	mg/L			08/01/14 17:24	1
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			08/01/14 17:24	1
Benzene	0.0000800	U	0.00100	0.0000800	mg/L			08/01/14 17:24	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			08/01/14 17:24	1
Toluene	0.000150	U	0.00100	0.000150	mg/L			08/01/14 17:24	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			08/01/14 17:24	1
Ethylbenzene	0.000110	U	0.00100	0.000110	mg/L			08/01/14 17:24	1
Xylenes, Total	0.000260	U	0.00300	0.000260	mg/L			08/01/14 17:24	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	99		67 - 139					08/01/14 17:24	1
Dibromofluoromethane	101		62 - 130					08/01/14 17:24	1
Toluene-d8 (Surr)	109		70 - 130					08/01/14 17:24	1
1,2-Dichloroethane-d4 (Surr)	95		50 - 134					08/01/14 17:24	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.0000388	U	0.000485	0.0000388	mg/L		07/29/14 10:49	08/02/14 17:59	1
Nitrobenzene	0.000107	U	0.000485	0.000107	mg/L		07/29/14 10:49	08/02/14 17:59	1
2,4-Dimethylphenol	0.000301	U	0.000485	0.000301	mg/L		07/29/14 10:49	08/02/14 17:59	1
Bis(2-chloroethoxy)methane	0.000126	U	0.000485	0.000126	mg/L		07/29/14 10:49	08/02/14 17:59	1
Naphthalene	0.0000777	U	0.000485	0.0000777	mg/L		07/29/14 10:49	08/02/14 17:59	1
2-Methylnaphthalene	0.0000680	U	0.000485	0.0000680	mg/L		07/29/14 10:49	08/02/14 17:59	1
2-Chloronaphthalene	0.0000777	U	0.000485	0.0000777	mg/L		07/29/14 10:49	08/02/14 17:59	1
Acenaphthylene	0.0000583	U	0.000485	0.0000583	mg/L		07/29/14 10:49	08/02/14 17:59	1
2,6-Dinitrotoluene	0.0000777	U	0.000485	0.0000777	mg/L		07/29/14 10:49	08/02/14 17:59	1
Acenaphthene	0.0000777	U	0.000485	0.0000777	mg/L		07/29/14 10:49	08/02/14 17:59	1
4-Nitrophenol	0.000544	U	0.000971	0.000544	mg/L		07/29/14 10:49	08/02/14 17:59	1
Dibenzofuran	0.0000777	U	0.000485	0.0000777	mg/L		07/29/14 10:49	08/02/14 17:59	1
2,4-Dinitrotoluene	0.000126	U	0.000485	0.000126	mg/L		07/29/14 10:49	08/02/14 17:59	1
Fluorene	0.0000680	U	0.000485	0.0000680	mg/L		07/29/14 10:49	08/02/14 17:59	1
4,6-Dinitro-2-methylphenol	0.000806	U	0.000971	0.000806	mg/L		07/29/14 10:49	08/02/14 17:59	1
N-Nitrosodiphenylamine	0.0000971	U	0.000485	0.0000971	mg/L		07/29/14 10:49	08/02/14 17:59	1
1,2-Diphenylhydrazine	0.000107	U	0.000485	0.000107	mg/L		07/29/14 10:49	08/02/14 17:59	1
Pentachlorophenol	0.000592	U	0.000971	0.000592	mg/L		07/29/14 10:49	08/02/14 17:59	1
Phenanthrene	0.0000613	J	0.000485	0.0000583	mg/L		07/29/14 10:49	08/02/14 17:59	1
Anthracene	0.0000485	U	0.000485	0.0000485	mg/L		07/29/14 10:49	08/02/14 17:59	1
Di-n-butyl phthalate	0.000107	U	0.000485	0.000107	mg/L		07/29/14 10:49	08/02/14 17:59	1
Fluoranthene	0.0000680	U	0.000485	0.0000680	mg/L		07/29/14 10:49	08/02/14 17:59	1
Pyrene	0.000107	U	0.000485	0.000107	mg/L		07/29/14 10:49	08/02/14 17:59	1
Benzo[a]anthracene	0.0000777	U	0.000485	0.0000777	mg/L		07/29/14 10:49	08/02/14 17:59	1
Bis(2-ethylhexyl) phthalate	0.000359	U	0.000485	0.000359	mg/L		07/29/14 10:49	08/02/14 17:59	1
Chrysene	0.0000777	U	0.000485	0.0000777	mg/L		07/29/14 10:49	08/02/14 17:59	1
Benzo[a]pyrene	0.0000777	U	0.000485	0.0000777	mg/L		07/29/14 10:49	08/02/14 17:59	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	68		10 - 147				07/29/14 10:49	08/02/14 17:59	1
2-Fluorobiphenyl	61		10 - 150				07/29/14 10:49	08/02/14 17:59	1
2-Fluorophenol	21		10 - 130				07/29/14 10:49	08/02/14 17:59	1
Nitrobenzene-d5	52		23 - 130				07/29/14 10:49	08/02/14 17:59	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-96083-1

Client Sample ID: WG-1620-DUP2-20140725

Lab Sample ID: 600-96083-5

Date Collected: 07/25/14 10:15

Matrix: Water

Date Received: 07/28/14 16:34

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Terphenyl-d14	76		42 - 133	07/29/14 10:49	08/02/14 17:59	1
Phenol-d5 (Surr)	11		10 - 130	07/29/14 10:49	08/02/14 17:59	1

Client Sample ID: WG-1620-MW39B-20140725

Lab Sample ID: 600-96083-6

Date Collected: 07/25/14 11:20

Matrix: Water

Date Received: 07/28/14 16:34

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	0.000110	U	0.00200	0.000110	mg/L			08/01/14 17:50	1
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			08/01/14 17:50	1
Benzene	0.0000800	U	0.00100	0.0000800	mg/L			08/01/14 17:50	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			08/01/14 17:50	1
Toluene	0.000150	U	0.00100	0.000150	mg/L			08/01/14 17:50	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			08/01/14 17:50	1
Ethylbenzene	0.000110	U	0.00100	0.000110	mg/L			08/01/14 17:50	1
Xylenes, Total	0.000260	U	0.00300	0.000260	mg/L			08/01/14 17:50	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	103		67 - 139		08/01/14 17:50	1
Dibromofluoromethane	106		62 - 130		08/01/14 17:50	1
Toluene-d8 (Surr)	114		70 - 130		08/01/14 17:50	1
1,2-Dichloroethane-d4 (Surr)	99		50 - 134		08/01/14 17:50	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.0000388	U	0.000485	0.0000388	mg/L		07/29/14 10:49	08/02/14 18:26	1
Nitrobenzene	0.000853		0.000485	0.000107	mg/L		07/29/14 10:49	08/02/14 18:26	1
2,4-Dimethylphenol	0.000301	U	0.000485	0.000301	mg/L		07/29/14 10:49	08/02/14 18:26	1
Bis(2-chloroethoxy)methane	0.000126	U	0.000485	0.000126	mg/L		07/29/14 10:49	08/02/14 18:26	1
Naphthalene	0.0000777	U	0.000485	0.0000777	mg/L		07/29/14 10:49	08/02/14 18:26	1
2-Methylnaphthalene	0.000708	J	0.000485	0.0000680	mg/L		07/29/14 10:49	08/02/14 18:26	1
2-Chloronaphthalene	0.0000777	U	0.000485	0.0000777	mg/L		07/29/14 10:49	08/02/14 18:26	1
Acenaphthylene	0.000623	J	0.000485	0.0000583	mg/L		07/29/14 10:49	08/02/14 18:26	1
2,6-Dinitrotoluene	0.0000777	U	0.000485	0.0000777	mg/L		07/29/14 10:49	08/02/14 18:26	1
Acenaphthene	0.00120		0.000485	0.0000777	mg/L		07/29/14 10:49	08/02/14 18:26	1
4-Nitrophenol	0.000544	U	0.000971	0.000544	mg/L		07/29/14 10:49	08/02/14 18:26	1
Dibenzofuran	0.000823	J	0.000485	0.0000777	mg/L		07/29/14 10:49	08/02/14 18:26	1
2,4-Dinitrotoluene	0.000126	U	0.000485	0.000126	mg/L		07/29/14 10:49	08/02/14 18:26	1
Fluorene	0.000311	J	0.000485	0.0000680	mg/L		07/29/14 10:49	08/02/14 18:26	1
4,6-Dinitro-2-methylphenol	0.000806	U	0.000971	0.000806	mg/L		07/29/14 10:49	08/02/14 18:26	1
N-Nitrosodiphenylamine	0.0000971	U	0.000485	0.0000971	mg/L		07/29/14 10:49	08/02/14 18:26	1
1,2-Diphenylhydrazine	0.000107	U	0.000485	0.000107	mg/L		07/29/14 10:49	08/02/14 18:26	1
Pentachlorophenol	0.000592	U	0.000971	0.000592	mg/L		07/29/14 10:49	08/02/14 18:26	1
Phenanthrene	0.000100	J	0.000485	0.0000583	mg/L		07/29/14 10:49	08/02/14 18:26	1
Anthracene	0.000615		0.000485	0.0000485	mg/L		07/29/14 10:49	08/02/14 18:26	1
Di-n-butyl phthalate	0.000107	U	0.000485	0.000107	mg/L		07/29/14 10:49	08/02/14 18:26	1
Fluoranthene	0.000605		0.000485	0.0000680	mg/L		07/29/14 10:49	08/02/14 18:26	1
Pyrene	0.000818		0.000485	0.000107	mg/L		07/29/14 10:49	08/02/14 18:26	1
Benzo[a]anthracene	0.0000777	U	0.000485	0.0000777	mg/L		07/29/14 10:49	08/02/14 18:26	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-96083-1

Client Sample ID: WG-1620-MW39B-20140725

Lab Sample ID: 600-96083-6

Date Collected: 07/25/14 11:20

Matrix: Water

Date Received: 07/28/14 16:34

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	0.000359	U	0.000485	0.000359	mg/L		07/29/14 10:49	08/02/14 18:26	1
Chrysene	0.0000777	U	0.000485	0.0000777	mg/L		07/29/14 10:49	08/02/14 18:26	1
Benzo[a]pyrene	0.0000777	U	0.000485	0.0000777	mg/L		07/29/14 10:49	08/02/14 18:26	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	83		10 - 147				07/29/14 10:49	08/02/14 18:26	1
2-Fluorobiphenyl	63		10 - 150				07/29/14 10:49	08/02/14 18:26	1
2-Fluorophenol	21		10 - 130				07/29/14 10:49	08/02/14 18:26	1
Nitrobenzene-d5	54		23 - 130				07/29/14 10:49	08/02/14 18:26	1
Terphenyl-d14	76		42 - 133				07/29/14 10:49	08/02/14 18:26	1
Phenol-d5 (Surr)	11		10 - 130				07/29/14 10:49	08/02/14 18:26	1

Client Sample ID: WG-1620-TW41B-20140725

Lab Sample ID: 600-96083-7

Date Collected: 07/25/14 13:20

Matrix: Water

Date Received: 07/28/14 16:34

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	0.000110	U	0.00200	0.000110	mg/L			08/02/14 15:57	1
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			08/02/14 15:57	1
Benzene	0.000594	J	0.00100	0.0000800	mg/L			08/02/14 15:57	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			08/02/14 15:57	1
Toluene	0.00116		0.00100	0.000150	mg/L			08/02/14 15:57	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			08/02/14 15:57	1
Ethylbenzene	0.00501		0.00100	0.000110	mg/L			08/02/14 15:57	1
Xylenes, Total	0.0101		0.00300	0.000260	mg/L			08/02/14 15:57	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	94		67 - 139					08/02/14 15:57	1
Dibromofluoromethane	103		62 - 130					08/02/14 15:57	1
Toluene-d8 (Surr)	110		70 - 130					08/02/14 15:57	1
1,2-Dichloroethane-d4 (Surr)	92		50 - 134					08/02/14 15:57	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.0000388	U	0.000485	0.0000388	mg/L		07/29/14 10:49	08/02/14 18:54	1
Nitrobenzene	0.000107	U	0.000485	0.000107	mg/L		07/29/14 10:49	08/02/14 18:54	1
2,4-Dimethylphenol	0.000301	U	0.000485	0.000301	mg/L		07/29/14 10:49	08/02/14 18:54	1
Bis(2-chloroethoxy)methane	0.000126	U	0.000485	0.000126	mg/L		07/29/14 10:49	08/02/14 18:54	1
2-Methylnaphthalene	0.0125		0.000485	0.0000680	mg/L		07/29/14 10:49	08/02/14 18:54	1
2-Chloronaphthalene	0.0000777	U	0.000485	0.0000777	mg/L		07/29/14 10:49	08/02/14 18:54	1
Acenaphthylene	0.00185		0.000485	0.0000583	mg/L		07/29/14 10:49	08/02/14 18:54	1
2,6-Dinitrotoluene	0.0000777	U	0.000485	0.0000777	mg/L		07/29/14 10:49	08/02/14 18:54	1
4-Nitrophenol	0.000544	U	0.000971	0.000544	mg/L		07/29/14 10:49	08/02/14 18:54	1
2,4-Dinitrotoluene	0.000126	U	0.000485	0.000126	mg/L		07/29/14 10:49	08/02/14 18:54	1
4,6-Dinitro-2-methylphenol	0.000806	U	0.000971	0.000806	mg/L		07/29/14 10:49	08/02/14 18:54	1
N-Nitrosodiphenylamine	0.0000971	U	0.000485	0.0000971	mg/L		07/29/14 10:49	08/02/14 18:54	1
1,2-Diphenylhydrazine	0.000107	U	0.000485	0.000107	mg/L		07/29/14 10:49	08/02/14 18:54	1
Pentachlorophenol	0.000592	U	0.000971	0.000592	mg/L		07/29/14 10:49	08/02/14 18:54	1
Anthracene	0.00697		0.000485	0.0000485	mg/L		07/29/14 10:49	08/02/14 18:54	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-96083-1

Client Sample ID: WG-1620-TW41B-20140725

Lab Sample ID: 600-96083-7

Date Collected: 07/25/14 13:20

Matrix: Water

Date Received: 07/28/14 16:34

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Di-n-butyl phthalate	0.000107	U	0.000485	0.000107	mg/L		07/29/14 10:49	08/02/14 18:54	1
Fluoranthene	0.00475		0.000485	0.0000680	mg/L		07/29/14 10:49	08/02/14 18:54	1
Pyrene	0.00209		0.000485	0.000107	mg/L		07/29/14 10:49	08/02/14 18:54	1
Benzo[a]anthracene	0.0000777	U	0.000485	0.0000777	mg/L		07/29/14 10:49	08/02/14 18:54	1
Bis(2-ethylhexyl) phthalate	0.000359	U	0.000485	0.000359	mg/L		07/29/14 10:49	08/02/14 18:54	1
Chrysene	0.0000777	U	0.000485	0.0000777	mg/L		07/29/14 10:49	08/02/14 18:54	1
Benzo[a]pyrene	0.0000777	U	0.000485	0.0000777	mg/L		07/29/14 10:49	08/02/14 18:54	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	87		10 - 147	07/29/14 10:49	08/02/14 18:54	1
2-Fluorobiphenyl	63		10 - 150	07/29/14 10:49	08/02/14 18:54	1
2-Fluorophenol	27		10 - 130	07/29/14 10:49	08/02/14 18:54	1
Nitrobenzene-d5	62		23 - 130	07/29/14 10:49	08/02/14 18:54	1
Terphenyl-d14	77		42 - 133	07/29/14 10:49	08/02/14 18:54	1
Phenol-d5 (Surr)	13		10 - 130	07/29/14 10:49	08/02/14 18:54	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels - DL

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	0.149		0.0121	0.00194	mg/L		07/29/14 10:49	08/06/14 02:25	25
Acenaphthene	0.142		0.0121	0.00194	mg/L		07/29/14 10:49	08/06/14 02:25	25
Dibenzofuran	0.0845		0.00243	0.000388	mg/L		07/29/14 10:49	08/04/14 11:33	5
Fluorene	0.0811		0.00243	0.000340	mg/L		07/29/14 10:49	08/04/14 11:33	5
Phenanthrene	0.0573		0.00243	0.000291	mg/L		07/29/14 10:49	08/04/14 11:33	5

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	0	X	10 - 147	07/29/14 10:49	08/04/14 11:33	5
2,4,6-Tribromophenol	0	X	10 - 147	07/29/14 10:49	08/06/14 02:25	25
2-Fluorobiphenyl	65		10 - 150	07/29/14 10:49	08/04/14 11:33	5
2-Fluorobiphenyl	0	X	10 - 150	07/29/14 10:49	08/06/14 02:25	25
2-Fluorophenol	22		10 - 130	07/29/14 10:49	08/04/14 11:33	5
2-Fluorophenol	0	X	10 - 130	07/29/14 10:49	08/06/14 02:25	25
Nitrobenzene-d5	58		23 - 130	07/29/14 10:49	08/04/14 11:33	5
Nitrobenzene-d5	0	X	23 - 130	07/29/14 10:49	08/06/14 02:25	25
Terphenyl-d14	82		42 - 133	07/29/14 10:49	08/04/14 11:33	5
Terphenyl-d14	0	X	42 - 133	07/29/14 10:49	08/06/14 02:25	25
Phenol-d5 (Surr)	11		10 - 130	07/29/14 10:49	08/04/14 11:33	5
Phenol-d5 (Surr)	0	X	10 - 130	07/29/14 10:49	08/06/14 02:25	25

Client Sample ID: WG-1620-MW12C-20140725

Lab Sample ID: 600-96083-8

Date Collected: 07/25/14 14:15

Matrix: Water

Date Received: 07/28/14 16:34

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	0.000110	U	0.00200	0.000110	mg/L			08/01/14 18:16	1
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			08/01/14 18:16	1
Benzene	0.0000800	U	0.00100	0.0000800	mg/L			08/01/14 18:16	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			08/01/14 18:16	1
Toluene	0.000150	U	0.00100	0.000150	mg/L			08/01/14 18:16	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			08/01/14 18:16	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-96083-1

Client Sample ID: WG-1620-MW12C-20140725

Lab Sample ID: 600-96083-8

Date Collected: 07/25/14 14:15

Matrix: Water

Date Received: 07/28/14 16:34

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	0.000110	U	0.00100	0.000110	mg/L			08/01/14 18:16	1
Xylenes, Total	0.000260	U	0.00300	0.000260	mg/L			08/01/14 18:16	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	100		67 - 139					08/01/14 18:16	1
Dibromofluoromethane	103		62 - 130					08/01/14 18:16	1
Toluene-d8 (Surr)	112		70 - 130					08/01/14 18:16	1
1,2-Dichloroethane-d4 (Surr)	94		50 - 134					08/01/14 18:16	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.0000388	U	0.000485	0.0000388	mg/L		07/29/14 10:49	08/02/14 19:21	1
Nitrobenzene	0.000107	U	0.000485	0.000107	mg/L		07/29/14 10:49	08/02/14 19:21	1
2,4-Dimethylphenol	0.000301	U	0.000485	0.000301	mg/L		07/29/14 10:49	08/02/14 19:21	1
Bis(2-chloroethoxy)methane	0.000126	U	0.000485	0.000126	mg/L		07/29/14 10:49	08/02/14 19:21	1
Naphthalene	0.000598		0.000485	0.0000777	mg/L		07/29/14 10:49	08/02/14 19:21	1
2-Methylnaphthalene	0.000146	J	0.000485	0.0000680	mg/L		07/29/14 10:49	08/02/14 19:21	1
2-Chloronaphthalene	0.0000777	U	0.000485	0.0000777	mg/L		07/29/14 10:49	08/02/14 19:21	1
Acenaphthylene	0.0000583	U	0.000485	0.0000583	mg/L		07/29/14 10:49	08/02/14 19:21	1
2,6-Dinitrotoluene	0.209		0.00485	0.000777	mg/L		07/29/14 10:49	08/04/14 12:02	10
Acenaphthene	0.000114	J	0.000485	0.0000777	mg/L		07/29/14 10:49	08/02/14 19:21	1
4-Nitrophenol	0.000544	U	0.000971	0.000544	mg/L		07/29/14 10:49	08/02/14 19:21	1
Dibenzofuran	0.0000910	J	0.000485	0.0000777	mg/L		07/29/14 10:49	08/02/14 19:21	1
2,4-Dinitrotoluene	0.000126	U	0.000485	0.000126	mg/L		07/29/14 10:49	08/02/14 19:21	1
Fluorene	0.0000680	U	0.000485	0.0000680	mg/L		07/29/14 10:49	08/02/14 19:21	1
4,6-Dinitro-2-methylphenol	0.000806	U	0.000971	0.000806	mg/L		07/29/14 10:49	08/02/14 19:21	1
N-Nitrosodiphenylamine	0.0000971	U	0.000485	0.0000971	mg/L		07/29/14 10:49	08/02/14 19:21	1
1,2-Diphenylhydrazine	0.000107	U	0.000485	0.000107	mg/L		07/29/14 10:49	08/02/14 19:21	1
Pentachlorophenol	0.000592	U	0.000971	0.000592	mg/L		07/29/14 10:49	08/02/14 19:21	1
Phenanthrene	0.0000808	J	0.000485	0.0000583	mg/L		07/29/14 10:49	08/02/14 19:21	1
Anthracene	0.0000485	U	0.000485	0.0000485	mg/L		07/29/14 10:49	08/02/14 19:21	1
Di-n-butyl phthalate	0.000107	U	0.000485	0.000107	mg/L		07/29/14 10:49	08/02/14 19:21	1
Fluoranthene	0.0000680	U	0.000485	0.0000680	mg/L		07/29/14 10:49	08/02/14 19:21	1
Pyrene	0.000107	U	0.000485	0.000107	mg/L		07/29/14 10:49	08/02/14 19:21	1
Benzo[a]anthracene	0.0000777	U	0.000485	0.0000777	mg/L		07/29/14 10:49	08/02/14 19:21	1
Bis(2-ethylhexyl) phthalate	0.000359	U	0.000485	0.000359	mg/L		07/29/14 10:49	08/02/14 19:21	1
Chrysene	0.0000777	U	0.000485	0.0000777	mg/L		07/29/14 10:49	08/02/14 19:21	1
Benzo[a]pyrene	0.0000777	U	0.000485	0.0000777	mg/L		07/29/14 10:49	08/02/14 19:21	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	67		10 - 147				07/29/14 10:49	08/02/14 19:21	1
2,4,6-Tribromophenol	67		10 - 147				07/29/14 10:49	08/04/14 12:02	10
2-Fluorobiphenyl	56		10 - 150				07/29/14 10:49	08/02/14 19:21	1
2-Fluorobiphenyl	49		10 - 150				07/29/14 10:49	08/04/14 12:02	10
2-Fluorophenol	18		10 - 130				07/29/14 10:49	08/02/14 19:21	1
2-Fluorophenol	17		10 - 130				07/29/14 10:49	08/04/14 12:02	10
Nitrobenzene-d5	46		23 - 130				07/29/14 10:49	08/02/14 19:21	1
Nitrobenzene-d5	47		23 - 130				07/29/14 10:49	08/04/14 12:02	10
Terphenyl-d14	68		42 - 133				07/29/14 10:49	08/02/14 19:21	1
Terphenyl-d14	73		42 - 133				07/29/14 10:49	08/04/14 12:02	10

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-96083-1

Client Sample ID: WG-1620-MW12C-20140725

Lab Sample ID: 600-96083-8

Date Collected: 07/25/14 14:15

Matrix: Water

Date Received: 07/28/14 16:34

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Phenol-d5 (Surr)	10		10 - 130	07/29/14 10:49	08/02/14 19:21	1
Phenol-d5 (Surr)	8	X	10 - 130	07/29/14 10:49	08/04/14 12:02	10

Client Sample ID: WG-1620-MW12A-20140725

Lab Sample ID: 600-96083-9

Date Collected: 07/25/14 15:05

Matrix: Water

Date Received: 07/28/14 16:34

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	0.000110	U	0.00200	0.000110	mg/L			08/02/14 16:23	1
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			08/02/14 16:23	1
Benzene	0.000122	J	0.00100	0.0000800	mg/L			08/02/14 16:23	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			08/02/14 16:23	1
Toluene	0.000150	U	0.00100	0.000150	mg/L			08/02/14 16:23	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			08/02/14 16:23	1
Ethylbenzene	0.000403	J	0.00100	0.000110	mg/L			08/02/14 16:23	1
Xylenes, Total	0.00165	J	0.00300	0.000260	mg/L			08/02/14 16:23	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	100		67 - 139		08/02/14 16:23	1
Dibromofluoromethane	103		62 - 130		08/02/14 16:23	1
Toluene-d8 (Surr)	114		70 - 130		08/02/14 16:23	1
1,2-Dichloroethane-d4 (Surr)	94		50 - 134		08/02/14 16:23	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.0000388	U	0.000485	0.0000388	mg/L		07/29/14 10:49	08/02/14 19:48	1
Nitrobenzene	0.000107	U	0.000485	0.000107	mg/L		07/29/14 10:49	08/02/14 19:48	1
2,4-Dimethylphenol	0.000301	U	0.000485	0.000301	mg/L		07/29/14 10:49	08/02/14 19:48	1
Bis(2-chloroethoxy)methane	0.000126	U	0.000485	0.000126	mg/L		07/29/14 10:49	08/02/14 19:48	1
2-Chloronaphthalene	0.0000777	U	0.000485	0.0000777	mg/L		07/29/14 10:49	08/02/14 19:48	1
Acenaphthylene	0.00225		0.000485	0.0000583	mg/L		07/29/14 10:49	08/02/14 19:48	1
2,6-Dinitrotoluene	0.0000777	U	0.000485	0.0000777	mg/L		07/29/14 10:49	08/02/14 19:48	1
4-Nitrophenol	0.000544	U	0.000971	0.000544	mg/L		07/29/14 10:49	08/02/14 19:48	1
2,4-Dinitrotoluene	0.000126	U	0.000485	0.000126	mg/L		07/29/14 10:49	08/02/14 19:48	1
4,6-Dinitro-2-methylphenol	0.000806	U	0.000971	0.000806	mg/L		07/29/14 10:49	08/02/14 19:48	1
N-Nitrosodiphenylamine	0.0000971	U	0.000485	0.0000971	mg/L		07/29/14 10:49	08/02/14 19:48	1
1,2-Diphenylhydrazine	0.000107	U	0.000485	0.000107	mg/L		07/29/14 10:49	08/02/14 19:48	1
Pentachlorophenol	0.000592	U	0.000971	0.000592	mg/L		07/29/14 10:49	08/02/14 19:48	1
Anthracene	0.0179		0.000485	0.0000485	mg/L		07/29/14 10:49	08/02/14 19:48	1
Di-n-butyl phthalate	0.000797		0.000485	0.000107	mg/L		07/29/14 10:49	08/02/14 19:48	1
Fluoranthene	0.0132		0.000485	0.0000680	mg/L		07/29/14 10:49	08/02/14 19:48	1
Pyrene	0.00649		0.000485	0.000107	mg/L		07/29/14 10:49	08/02/14 19:48	1
Benzo[a]anthracene	0.000268	J	0.000485	0.0000777	mg/L		07/29/14 10:49	08/02/14 19:48	1
Bis(2-ethylhexyl) phthalate	0.000679		0.000485	0.000359	mg/L		07/29/14 10:49	08/02/14 19:48	1
Chrysene	0.000241	J	0.000485	0.0000777	mg/L		07/29/14 10:49	08/02/14 19:48	1
Benzo[a]pyrene	0.0000777	U	0.000485	0.0000777	mg/L		07/29/14 10:49	08/02/14 19:48	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	86		10 - 147	07/29/14 10:49	08/02/14 19:48	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-96083-1

Client Sample ID: WG-1620-MW12A-20140725

Lab Sample ID: 600-96083-9

Date Collected: 07/25/14 15:05

Matrix: Water

Date Received: 07/28/14 16:34

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	70		10 - 150	07/29/14 10:49	08/02/14 19:48	1
2-Fluorophenol	22		10 - 130	07/29/14 10:49	08/02/14 19:48	1
Nitrobenzene-d5	65		23 - 130	07/29/14 10:49	08/02/14 19:48	1
Terphenyl-d14	83		42 - 133	07/29/14 10:49	08/02/14 19:48	1
Phenol-d5 (Surr)	12		10 - 130	07/29/14 10:49	08/02/14 19:48	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels - DL

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	0.0750		0.00485	0.000777	mg/L		07/29/14 10:49	08/04/14 12:31	10
2-Methylnaphthalene	0.121		0.00485	0.000680	mg/L		07/29/14 10:49	08/04/14 12:31	10
Acenaphthene	0.292		0.0243	0.00388	mg/L		07/29/14 10:49	08/06/14 02:53	50
Dibenzofuran	0.193		0.00485	0.000777	mg/L		07/29/14 10:49	08/04/14 12:31	10
Fluorene	0.202		0.00485	0.000680	mg/L		07/29/14 10:49	08/04/14 12:31	10
Phenanthrene	0.162		0.00485	0.000583	mg/L		07/29/14 10:49	08/04/14 12:31	10

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	0	X	10 - 147	07/29/14 10:49	08/04/14 12:31	10
2,4,6-Tribromophenol	0	X	10 - 147	07/29/14 10:49	08/06/14 02:53	50
2-Fluorobiphenyl	74		10 - 150	07/29/14 10:49	08/04/14 12:31	10
2-Fluorobiphenyl	0	X	10 - 150	07/29/14 10:49	08/06/14 02:53	50
2-Fluorophenol	18		10 - 130	07/29/14 10:49	08/04/14 12:31	10
2-Fluorophenol	0	X	10 - 130	07/29/14 10:49	08/06/14 02:53	50
Nitrobenzene-d5	65		23 - 130	07/29/14 10:49	08/04/14 12:31	10
Nitrobenzene-d5	0	X	23 - 130	07/29/14 10:49	08/06/14 02:53	50
Terphenyl-d14	88		42 - 133	07/29/14 10:49	08/04/14 12:31	10
Terphenyl-d14	0	X	42 - 133	07/29/14 10:49	08/06/14 02:53	50
Phenol-d5 (Surr)	11		10 - 130	07/29/14 10:49	08/04/14 12:31	10
Phenol-d5 (Surr)	0	X	10 - 130	07/29/14 10:49	08/06/14 02:53	50

Client Sample ID: WG-1620-FB5-20140725

Lab Sample ID: 600-96083-10

Date Collected: 07/25/14 15:15

Matrix: Water

Date Received: 07/28/14 16:34

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	0.000110	U	0.00200	0.000110	mg/L			08/01/14 18:43	1
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			08/01/14 18:43	1
Benzene	0.0000800	U	0.00100	0.0000800	mg/L			08/01/14 18:43	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			08/01/14 18:43	1
Toluene	0.000150	U	0.00100	0.000150	mg/L			08/01/14 18:43	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			08/01/14 18:43	1
Ethylbenzene	0.000110	U	0.00100	0.000110	mg/L			08/01/14 18:43	1
Xylenes, Total	0.000260	U	0.00300	0.000260	mg/L			08/01/14 18:43	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	101		67 - 139		08/01/14 18:43	1
Dibromofluoromethane	104		62 - 130		08/01/14 18:43	1
Toluene-d8 (Surr)	113		70 - 130		08/01/14 18:43	1
1,2-Dichloroethane-d4 (Surr)	94		50 - 134		08/01/14 18:43	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-96083-1

Client Sample ID: WG-1620-FB5-20140725

Lab Sample ID: 600-96083-10

Date Collected: 07/25/14 15:15

Matrix: Water

Date Received: 07/28/14 16:34

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.0000388	U	0.000485	0.0000388	mg/L		07/29/14 10:49	08/02/14 20:15	1
Nitrobenzene	0.000107	U	0.000485	0.000107	mg/L		07/29/14 10:49	08/02/14 20:15	1
2,4-Dimethylphenol	0.000301	U	0.000485	0.000301	mg/L		07/29/14 10:49	08/02/14 20:15	1
Bis(2-chloroethoxy)methane	0.000126	U	0.000485	0.000126	mg/L		07/29/14 10:49	08/02/14 20:15	1
Naphthalene	0.000633		0.000485	0.0000777	mg/L		07/29/14 10:49	08/02/14 20:15	1
2-Methylnaphthalene	0.000979		0.000485	0.0000680	mg/L		07/29/14 10:49	08/02/14 20:15	1
2-Chloronaphthalene	0.0000777	U	0.000485	0.0000777	mg/L		07/29/14 10:49	08/02/14 20:15	1
Acenaphthylene	0.0000583	U	0.000485	0.0000583	mg/L		07/29/14 10:49	08/02/14 20:15	1
2,6-Dinitrotoluene	0.0000777	U	0.000485	0.0000777	mg/L		07/29/14 10:49	08/02/14 20:15	1
Acenaphthene	0.00216		0.000485	0.0000777	mg/L		07/29/14 10:49	08/02/14 20:15	1
4-Nitrophenol	0.000544	U	0.000971	0.000544	mg/L		07/29/14 10:49	08/02/14 20:15	1
Dibenzofuran	0.00159		0.000485	0.0000777	mg/L		07/29/14 10:49	08/02/14 20:15	1
2,4-Dinitrotoluene	0.000126	U	0.000485	0.000126	mg/L		07/29/14 10:49	08/02/14 20:15	1
Fluorene	0.00161		0.000485	0.0000680	mg/L		07/29/14 10:49	08/02/14 20:15	1
4,6-Dinitro-2-methylphenol	0.000806	U	0.000971	0.000806	mg/L		07/29/14 10:49	08/02/14 20:15	1
N-Nitrosodiphenylamine	0.0000971	U	0.000485	0.0000971	mg/L		07/29/14 10:49	08/02/14 20:15	1
1,2-Diphenylhydrazine	0.000107	U	0.000485	0.000107	mg/L		07/29/14 10:49	08/02/14 20:15	1
Pentachlorophenol	0.000592	U	0.000971	0.000592	mg/L		07/29/14 10:49	08/02/14 20:15	1
Phenanthrene	0.00139		0.000485	0.0000583	mg/L		07/29/14 10:49	08/02/14 20:15	1
Anthracene	0.000170	J	0.000485	0.0000485	mg/L		07/29/14 10:49	08/02/14 20:15	1
Di-n-butyl phthalate	0.000107	U	0.000485	0.000107	mg/L		07/29/14 10:49	08/02/14 20:15	1
Fluoranthene	0.000131	J	0.000485	0.0000680	mg/L		07/29/14 10:49	08/02/14 20:15	1
Pyrene	0.000107	U	0.000485	0.000107	mg/L		07/29/14 10:49	08/02/14 20:15	1
Benzo[a]anthracene	0.0000777	U	0.000485	0.0000777	mg/L		07/29/14 10:49	08/02/14 20:15	1
Bis(2-ethylhexyl) phthalate	0.000359	U	0.000485	0.000359	mg/L		07/29/14 10:49	08/02/14 20:15	1
Chrysene	0.0000777	U	0.000485	0.0000777	mg/L		07/29/14 10:49	08/02/14 20:15	1
Benzo[a]pyrene	0.0000777	U	0.000485	0.0000777	mg/L		07/29/14 10:49	08/02/14 20:15	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	63		10 - 147				07/29/14 10:49	08/02/14 20:15	1
2-Fluorobiphenyl	66		10 - 150				07/29/14 10:49	08/02/14 20:15	1
2-Fluorophenol	25		10 - 130				07/29/14 10:49	08/02/14 20:15	1
Nitrobenzene-d5	59		23 - 130				07/29/14 10:49	08/02/14 20:15	1
Terphenyl-d14	70		42 - 133				07/29/14 10:49	08/02/14 20:15	1
Phenol-d5 (Surr)	13		10 - 130				07/29/14 10:49	08/02/14 20:15	1

Client Sample ID: WG-1620-MW-35B-20140725

Lab Sample ID: 600-96083-11

Date Collected: 07/24/14 16:30

Matrix: Water

Date Received: 07/28/14 16:34

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	0.000110	U	0.00200	0.000110	mg/L			08/02/14 16:49	1
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			08/02/14 16:49	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			08/02/14 16:49	1
Toluene	0.00377		0.00100	0.000150	mg/L			08/02/14 16:49	1
Chlorobenzene	0.000228	J	0.00100	0.000120	mg/L			08/02/14 16:49	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	97		67 - 139					08/02/14 16:49	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-96083-1

Client Sample ID: WG-1620-MW-35B-20140725

Lab Sample ID: 600-96083-11

Date Collected: 07/24/14 16:30

Matrix: Water

Date Received: 07/28/14 16:34

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Dibromofluoromethane	98		62 - 130		08/02/14 16:49	1
Toluene-d8 (Surr)	112		70 - 130		08/02/14 16:49	1
1,2-Dichloroethane-d4 (Surr)	91		50 - 134		08/02/14 16:49	1

Method: 8260B - Volatile Organic Compounds (GC/MS) - DL

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.0539		0.0100	0.000800	mg/L			08/03/14 12:54	10
Ethylbenzene	0.176		0.0100	0.00110	mg/L			08/03/14 12:54	10
Xylenes, Total	0.114		0.0300	0.00260	mg/L			08/03/14 12:54	10

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	92		67 - 139		08/03/14 12:54	10
Dibromofluoromethane	97		62 - 130		08/03/14 12:54	10
Toluene-d8 (Surr)	103		70 - 130		08/03/14 12:54	10
1,2-Dichloroethane-d4 (Surr)	89		50 - 134		08/03/14 12:54	10

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.000388	U	0.00485	0.000388	mg/L		07/29/14 10:49	08/04/14 13:00	10
Nitrobenzene	0.00107	U	0.00485	0.00107	mg/L		07/29/14 10:49	08/04/14 13:00	10
2,4-Dimethylphenol	0.00301	U	0.00485	0.00301	mg/L		07/29/14 10:49	08/04/14 13:00	10
Bis(2-chloroethoxy)methane	0.00126	U	0.00485	0.00126	mg/L		07/29/14 10:49	08/04/14 13:00	10
2-Chloronaphthalene	0.000777	U	0.00485	0.000777	mg/L		07/29/14 10:49	08/04/14 13:00	10
Acenaphthylene	0.00150	J	0.00485	0.000583	mg/L		07/29/14 10:49	08/04/14 13:00	10
2,6-Dinitrotoluene	0.000777	U	0.00485	0.000777	mg/L		07/29/14 10:49	08/04/14 13:00	10
Acenaphthene	0.139		0.00485	0.000777	mg/L		07/29/14 10:49	08/04/14 13:00	10
4-Nitrophenol	0.00544	U	0.00971	0.00544	mg/L		07/29/14 10:49	08/04/14 13:00	10
Dibenzofuran	0.138		0.00485	0.000777	mg/L		07/29/14 10:49	08/04/14 13:00	10
2,4-Dinitrotoluene	0.00126	U	0.00485	0.00126	mg/L		07/29/14 10:49	08/04/14 13:00	10
Fluorene	0.0760		0.00485	0.000680	mg/L		07/29/14 10:49	08/04/14 13:00	10
4,6-Dinitro-2-methylphenol	0.00806	U	0.00971	0.00806	mg/L		07/29/14 10:49	08/04/14 13:00	10
N-Nitrosodiphenylamine	0.000971	U	0.00485	0.000971	mg/L		07/29/14 10:49	08/04/14 13:00	10
1,2-Diphenylhydrazine	0.00107	U	0.00485	0.00107	mg/L		07/29/14 10:49	08/04/14 13:00	10
Pentachlorophenol	0.00592	U	0.00971	0.00592	mg/L		07/29/14 10:49	08/04/14 13:00	10
Phenanthrene	0.0891		0.00485	0.000583	mg/L		07/29/14 10:49	08/04/14 13:00	10
Anthracene	0.0111		0.00485	0.000485	mg/L		07/29/14 10:49	08/04/14 13:00	10
Di-n-butyl phthalate	0.00107	U	0.00485	0.00107	mg/L		07/29/14 10:49	08/04/14 13:00	10
Fluoranthene	0.00692		0.00485	0.000680	mg/L		07/29/14 10:49	08/04/14 13:00	10
Pyrene	0.00327	J	0.00485	0.00107	mg/L		07/29/14 10:49	08/04/14 13:00	10
Benzo[a]anthracene	0.000777	U	0.00485	0.000777	mg/L		07/29/14 10:49	08/04/14 13:00	10
Bis(2-ethylhexyl) phthalate	0.00359	U	0.00485	0.00359	mg/L		07/29/14 10:49	08/04/14 13:00	10
Chrysene	0.000777	U	0.00485	0.000777	mg/L		07/29/14 10:49	08/04/14 13:00	10
Benzo[a]pyrene	0.000777	U	0.00485	0.000777	mg/L		07/29/14 10:49	08/04/14 13:00	10

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	107		10 - 147	07/29/14 10:49	08/04/14 13:00	10
2-Fluorobiphenyl	77		10 - 150	07/29/14 10:49	08/04/14 13:00	10
2-Fluorophenol	28		10 - 130	07/29/14 10:49	08/04/14 13:00	10
Nitrobenzene-d5	98		23 - 130	07/29/14 10:49	08/04/14 13:00	10
Terphenyl-d14	82		42 - 133	07/29/14 10:49	08/04/14 13:00	10

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-96083-1

Client Sample ID: WG-1620-MW-35B-20140725

Lab Sample ID: 600-96083-11

Date Collected: 07/24/14 16:30

Matrix: Water

Date Received: 07/28/14 16:34

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Phenol-d5 (Surr)	10		10 - 130	07/29/14 10:49	08/04/14 13:00	10

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels - DL

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	9.36		0.243	0.0388	mg/L		07/29/14 10:49	08/06/14 03:21	500
2-Methylnaphthalene	0.376		0.243	0.0340	mg/L		07/29/14 10:49	08/06/14 03:21	500

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	0	X	10 - 147	07/29/14 10:49	08/06/14 03:21	500
2-Fluorobiphenyl	0	X	10 - 150	07/29/14 10:49	08/06/14 03:21	500
2-Fluorophenol	0	X	10 - 130	07/29/14 10:49	08/06/14 03:21	500
Nitrobenzene-d5	0	X	23 - 130	07/29/14 10:49	08/06/14 03:21	500
Terphenyl-d14	0	X	42 - 133	07/29/14 10:49	08/06/14 03:21	500
Phenol-d5 (Surr)	0	X	10 - 130	07/29/14 10:49	08/06/14 03:21	500

Client Sample ID: WG-1620-MW53C-20140725

Lab Sample ID: 600-96083-12

Date Collected: 07/25/14 07:50

Matrix: Water

Date Received: 07/28/14 16:34

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	0.000110	U	0.00200	0.000110	mg/L			08/01/14 19:09	1
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			08/01/14 19:09	1
Benzene	0.0000800	U	0.00100	0.0000800	mg/L			08/01/14 19:09	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			08/01/14 19:09	1
Toluene	0.000150	U	0.00100	0.000150	mg/L			08/01/14 19:09	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			08/01/14 19:09	1
Ethylbenzene	0.000110	U	0.00100	0.000110	mg/L			08/01/14 19:09	1
Xylenes, Total	0.000260	U	0.00300	0.000260	mg/L			08/01/14 19:09	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	102		67 - 139		08/01/14 19:09	1
Dibromofluoromethane	105		62 - 130		08/01/14 19:09	1
Toluene-d8 (Surr)	114		70 - 130		08/01/14 19:09	1
1,2-Dichloroethane-d4 (Surr)	93		50 - 134		08/01/14 19:09	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.0000388	U	0.000485	0.0000388	mg/L		07/29/14 10:49	08/02/14 21:09	1
Nitrobenzene	0.000107	U	0.000485	0.000107	mg/L		07/29/14 10:49	08/02/14 21:09	1
2,4-Dimethylphenol	0.000301	U	0.000485	0.000301	mg/L		07/29/14 10:49	08/02/14 21:09	1
Bis(2-chloroethoxy)methane	0.000126	U	0.000485	0.000126	mg/L		07/29/14 10:49	08/02/14 21:09	1
Naphthalene	0.00194		0.000485	0.0000777	mg/L		07/29/14 10:49	08/02/14 21:09	1
2-Methylnaphthalene	0.0000826	J	0.000485	0.0000680	mg/L		07/29/14 10:49	08/02/14 21:09	1
2-Chloronaphthalene	0.0000777	U	0.000485	0.0000777	mg/L		07/29/14 10:49	08/02/14 21:09	1
Acenaphthylene	0.0000583	U	0.000485	0.0000583	mg/L		07/29/14 10:49	08/02/14 21:09	1
2,6-Dinitrotoluene	0.0000777	U	0.000485	0.0000777	mg/L		07/29/14 10:49	08/02/14 21:09	1
Acenaphthene	0.0000777	U	0.000485	0.0000777	mg/L		07/29/14 10:49	08/02/14 21:09	1
4-Nitrophenol	0.000544	U	0.000971	0.000544	mg/L		07/29/14 10:49	08/02/14 21:09	1
Dibenzofuran	0.0000777	U	0.000485	0.0000777	mg/L		07/29/14 10:49	08/02/14 21:09	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-96083-1

Client Sample ID: WG-1620-MW53C-20140725

Lab Sample ID: 600-96083-12

Date Collected: 07/25/14 07:50

Matrix: Water

Date Received: 07/28/14 16:34

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-Dinitrotoluene	0.000126	U	0.000485	0.000126	mg/L		07/29/14 10:49	08/02/14 21:09	1
Fluorene	0.0000680	U	0.000485	0.0000680	mg/L		07/29/14 10:49	08/02/14 21:09	1
4,6-Dinitro-2-methylphenol	0.000806	U	0.000971	0.000806	mg/L		07/29/14 10:49	08/02/14 21:09	1
N-Nitrosodiphenylamine	0.0000971	U	0.000485	0.0000971	mg/L		07/29/14 10:49	08/02/14 21:09	1
1,2-Diphenylhydrazine	0.000107	U	0.000485	0.000107	mg/L		07/29/14 10:49	08/02/14 21:09	1
Pentachlorophenol	0.000592	U	0.000971	0.000592	mg/L		07/29/14 10:49	08/02/14 21:09	1
Phenanthrene	0.0000665	J	0.000485	0.0000583	mg/L		07/29/14 10:49	08/02/14 21:09	1
Anthracene	0.0000485	U	0.000485	0.0000485	mg/L		07/29/14 10:49	08/02/14 21:09	1
Di-n-butyl phthalate	0.000107	U	0.000485	0.000107	mg/L		07/29/14 10:49	08/02/14 21:09	1
Fluoranthene	0.0000680	U	0.000485	0.0000680	mg/L		07/29/14 10:49	08/02/14 21:09	1
Pyrene	0.000107	U	0.000485	0.000107	mg/L		07/29/14 10:49	08/02/14 21:09	1
Benzo[a]anthracene	0.0000777	U	0.000485	0.0000777	mg/L		07/29/14 10:49	08/02/14 21:09	1
Bis(2-ethylhexyl) phthalate	0.000359	U	0.000485	0.000359	mg/L		07/29/14 10:49	08/02/14 21:09	1
Chrysene	0.0000777	U	0.000485	0.0000777	mg/L		07/29/14 10:49	08/02/14 21:09	1
Benzo[a]pyrene	0.0000777	U	0.000485	0.0000777	mg/L		07/29/14 10:49	08/02/14 21:09	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	68		10 - 147				07/29/14 10:49	08/02/14 21:09	1
2-Fluorobiphenyl	56		10 - 150				07/29/14 10:49	08/02/14 21:09	1
2-Fluorophenol	20		10 - 130				07/29/14 10:49	08/02/14 21:09	1
Nitrobenzene-d5	47		23 - 130				07/29/14 10:49	08/02/14 21:09	1
Terphenyl-d14	69		42 - 133				07/29/14 10:49	08/02/14 21:09	1
Phenol-d5 (Surr)	10		10 - 130				07/29/14 10:49	08/02/14 21:09	1

Client Sample ID: WG-1620-MW54C-20140725

Lab Sample ID: 600-96083-13

Date Collected: 07/25/14 08:55

Matrix: Water

Date Received: 07/28/14 16:34

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	0.000110	U	0.00200	0.000110	mg/L			08/01/14 19:35	1
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			08/01/14 19:35	1
Benzene	0.0000800	U	0.00100	0.0000800	mg/L			08/01/14 19:35	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			08/01/14 19:35	1
Toluene	0.000150	U	0.00100	0.000150	mg/L			08/01/14 19:35	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			08/01/14 19:35	1
Ethylbenzene	0.000282	J	0.00100	0.000110	mg/L			08/01/14 19:35	1
Xylenes, Total	0.000260	U	0.00300	0.000260	mg/L			08/01/14 19:35	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	95		67 - 139					08/01/14 19:35	1
Dibromofluoromethane	103		62 - 130					08/01/14 19:35	1
Toluene-d8 (Surr)	108		70 - 130					08/01/14 19:35	1
1,2-Dichloroethane-d4 (Surr)	95		50 - 134					08/01/14 19:35	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.0000396	U	0.000495	0.0000396	mg/L		07/29/14 10:49	08/02/14 21:36	1
Nitrobenzene	0.000109	U	0.000495	0.000109	mg/L		07/29/14 10:49	08/02/14 21:36	1
2,4-Dimethylphenol	0.000307	U	0.000495	0.000307	mg/L		07/29/14 10:49	08/02/14 21:36	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-96083-1

Client Sample ID: WG-1620-MW54C-20140725

Lab Sample ID: 600-96083-13

Date Collected: 07/25/14 08:55

Matrix: Water

Date Received: 07/28/14 16:34

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-chloroethoxy)methane	0.000129	U	0.000495	0.000129	mg/L		07/29/14 10:49	08/02/14 21:36	1
2-Methylnaphthalene	0.00834		0.000495	0.0000693	mg/L		07/29/14 10:49	08/02/14 21:36	1
2-Chloronaphthalene	0.0000792	U	0.000495	0.0000792	mg/L		07/29/14 10:49	08/02/14 21:36	1
Acenaphthylene	0.000526		0.000495	0.0000594	mg/L		07/29/14 10:49	08/02/14 21:36	1
2,6-Dinitrotoluene	0.0000792	U	0.000495	0.0000792	mg/L		07/29/14 10:49	08/02/14 21:36	1
4-Nitrophenol	0.000554	U	0.000990	0.000554	mg/L		07/29/14 10:49	08/02/14 21:36	1
2,4-Dinitrotoluene	0.000129	U	0.000495	0.000129	mg/L		07/29/14 10:49	08/02/14 21:36	1
Fluorene	0.0208		0.000495	0.0000693	mg/L		07/29/14 10:49	08/02/14 21:36	1
4,6-Dinitro-2-methylphenol	0.000822	U	0.000990	0.000822	mg/L		07/29/14 10:49	08/02/14 21:36	1
N-Nitrosodiphenylamine	0.0000990	U	0.000495	0.0000990	mg/L		07/29/14 10:49	08/02/14 21:36	1
1,2-Diphenylhydrazine	0.000109	U	0.000495	0.000109	mg/L		07/29/14 10:49	08/02/14 21:36	1
Pentachlorophenol	0.000604	U	0.000990	0.000604	mg/L		07/29/14 10:49	08/02/14 21:36	1
Phenanthrene	0.0148		0.000495	0.0000594	mg/L		07/29/14 10:49	08/02/14 21:36	1
Anthracene	0.00261		0.000495	0.0000495	mg/L		07/29/14 10:49	08/02/14 21:36	1
Di-n-butyl phthalate	0.000109	U	0.000495	0.000109	mg/L		07/29/14 10:49	08/02/14 21:36	1
Fluoranthene	0.00302		0.000495	0.0000693	mg/L		07/29/14 10:49	08/02/14 21:36	1
Pyrene	0.00169		0.000495	0.000109	mg/L		07/29/14 10:49	08/02/14 21:36	1
Benzo[a]anthracene	0.0000792	U	0.000495	0.0000792	mg/L		07/29/14 10:49	08/02/14 21:36	1
Bis(2-ethylhexyl) phthalate	0.000366	U	0.000495	0.000366	mg/L		07/29/14 10:49	08/02/14 21:36	1
Chrysene	0.0000792	U	0.000495	0.0000792	mg/L		07/29/14 10:49	08/02/14 21:36	1
Benzo[a]pyrene	0.0000792	U	0.000495	0.0000792	mg/L		07/29/14 10:49	08/02/14 21:36	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	73		10 - 147				07/29/14 10:49	08/02/14 21:36	1
2-Fluorobiphenyl	60		10 - 150				07/29/14 10:49	08/02/14 21:36	1
2-Fluorophenol	22		10 - 130				07/29/14 10:49	08/02/14 21:36	1
Nitrobenzene-d5	54		23 - 130				07/29/14 10:49	08/02/14 21:36	1
Terphenyl-d14	68		42 - 133				07/29/14 10:49	08/02/14 21:36	1
Phenol-d5 (Surr)	11		10 - 130				07/29/14 10:49	08/02/14 21:36	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels - DL

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	0.180		0.0124	0.00198	mg/L		07/29/14 10:49	08/06/14 03:49	25
Acenaphthene	0.0367		0.00248	0.000396	mg/L		07/29/14 10:49	08/04/14 13:29	5
Dibenzofuran	0.0471		0.00248	0.000396	mg/L		07/29/14 10:49	08/04/14 13:29	5
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	80		10 - 147				07/29/14 10:49	08/04/14 13:29	5
2,4,6-Tribromophenol	0	X	10 - 147				07/29/14 10:49	08/06/14 03:49	25
2-Fluorobiphenyl	65		10 - 150				07/29/14 10:49	08/04/14 13:29	5
2-Fluorobiphenyl	0	X	10 - 150				07/29/14 10:49	08/06/14 03:49	25
2-Fluorophenol	22		10 - 130				07/29/14 10:49	08/04/14 13:29	5
2-Fluorophenol	0	X	10 - 130				07/29/14 10:49	08/06/14 03:49	25
Nitrobenzene-d5	61		23 - 130				07/29/14 10:49	08/04/14 13:29	5
Nitrobenzene-d5	0	X	23 - 130				07/29/14 10:49	08/06/14 03:49	25
Terphenyl-d14	81		42 - 133				07/29/14 10:49	08/04/14 13:29	5
Terphenyl-d14	0	X	42 - 133				07/29/14 10:49	08/06/14 03:49	25
Phenol-d5 (Surr)	10		10 - 130				07/29/14 10:49	08/04/14 13:29	5
Phenol-d5 (Surr)	0	X	10 - 130				07/29/14 10:49	08/06/14 03:49	25

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-96083-1

Client Sample ID: WG-1620-MW38B-20140725

Lab Sample ID: 600-96083-14

Date Collected: 07/25/14 10:00

Matrix: Water

Date Received: 07/28/14 16:34

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	0.000110	U	0.00200	0.000110	mg/L			08/01/14 20:01	1
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			08/01/14 20:01	1
Benzene	0.0000800	U	0.00100	0.0000800	mg/L			08/01/14 20:01	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			08/01/14 20:01	1
Toluene	0.000150	U	0.00100	0.000150	mg/L			08/01/14 20:01	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			08/01/14 20:01	1
Ethylbenzene	0.000110	U	0.00100	0.000110	mg/L			08/01/14 20:01	1
Xylenes, Total	0.000260	U	0.00300	0.000260	mg/L			08/01/14 20:01	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	102		67 - 139					08/01/14 20:01	1
Dibromofluoromethane	105		62 - 130					08/01/14 20:01	1
Toluene-d8 (Surr)	116		70 - 130					08/01/14 20:01	1
1,2-Dichloroethane-d4 (Surr)	94		50 - 134					08/01/14 20:01	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.0000396	U	0.000495	0.0000396	mg/L		07/29/14 10:49	08/02/14 22:04	1
Nitrobenzene	0.000109	U	0.000495	0.000109	mg/L		07/29/14 10:49	08/02/14 22:04	1
2,4-Dimethylphenol	0.000307	U	0.000495	0.000307	mg/L		07/29/14 10:49	08/02/14 22:04	1
Bis(2-chloroethoxy)methane	0.000129	U	0.000495	0.000129	mg/L		07/29/14 10:49	08/02/14 22:04	1
Naphthalene	0.00160		0.000495	0.0000792	mg/L		07/29/14 10:49	08/02/14 22:04	1
2-Methylnaphthalene	0.0000992	J	0.000495	0.0000693	mg/L		07/29/14 10:49	08/02/14 22:04	1
2-Chloronaphthalene	0.0000792	U	0.000495	0.0000792	mg/L		07/29/14 10:49	08/02/14 22:04	1
Acenaphthylene	0.0000594	U	0.000495	0.0000594	mg/L		07/29/14 10:49	08/02/14 22:04	1
2,6-Dinitrotoluene	0.0000792	U	0.000495	0.0000792	mg/L		07/29/14 10:49	08/02/14 22:04	1
Acenaphthene	0.000342	J	0.000495	0.0000792	mg/L		07/29/14 10:49	08/02/14 22:04	1
4-Nitrophenol	0.000554	U	0.000990	0.000554	mg/L		07/29/14 10:49	08/02/14 22:04	1
Dibenzofuran	0.000410	J	0.000495	0.0000792	mg/L		07/29/14 10:49	08/02/14 22:04	1
2,4-Dinitrotoluene	0.000129	U	0.000495	0.000129	mg/L		07/29/14 10:49	08/02/14 22:04	1
Fluorene	0.000219	J	0.000495	0.0000693	mg/L		07/29/14 10:49	08/02/14 22:04	1
4,6-Dinitro-2-methylphenol	0.000822	U	0.000990	0.000822	mg/L		07/29/14 10:49	08/02/14 22:04	1
N-Nitrosodiphenylamine	0.0000990	U	0.000495	0.0000990	mg/L		07/29/14 10:49	08/02/14 22:04	1
1,2-Diphenylhydrazine	0.000109	U	0.000495	0.000109	mg/L		07/29/14 10:49	08/02/14 22:04	1
Pentachlorophenol	0.000604	U	0.000990	0.000604	mg/L		07/29/14 10:49	08/02/14 22:04	1
Phenanthrene	0.000164	J	0.000495	0.0000594	mg/L		07/29/14 10:49	08/02/14 22:04	1
Anthracene	0.000398	J	0.000495	0.0000495	mg/L		07/29/14 10:49	08/02/14 22:04	1
Di-n-butyl phthalate	0.000109	U	0.000495	0.000109	mg/L		07/29/14 10:49	08/02/14 22:04	1
Fluoranthene	0.000580		0.000495	0.0000693	mg/L		07/29/14 10:49	08/02/14 22:04	1
Pyrene	0.000472	J	0.000495	0.000109	mg/L		07/29/14 10:49	08/02/14 22:04	1
Benzo[a]anthracene	0.0000792	U	0.000495	0.0000792	mg/L		07/29/14 10:49	08/02/14 22:04	1
Bis(2-ethylhexyl) phthalate	0.000366	U	0.000495	0.000366	mg/L		07/29/14 10:49	08/02/14 22:04	1
Chrysene	0.0000792	U	0.000495	0.0000792	mg/L		07/29/14 10:49	08/02/14 22:04	1
Benzo[a]pyrene	0.0000792	U	0.000495	0.0000792	mg/L		07/29/14 10:49	08/02/14 22:04	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	74		10 - 147				07/29/14 10:49	08/02/14 22:04	1
2-Fluorobiphenyl	63		10 - 150				07/29/14 10:49	08/02/14 22:04	1
2-Fluorophenol	23		10 - 130				07/29/14 10:49	08/02/14 22:04	1
Nitrobenzene-d5	55		23 - 130				07/29/14 10:49	08/02/14 22:04	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-96083-1

Client Sample ID: WG-1620-MW38B-20140725

Lab Sample ID: 600-96083-14

Date Collected: 07/25/14 10:00

Matrix: Water

Date Received: 07/28/14 16:34

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Terphenyl-d14	75		42 - 133	07/29/14 10:49	08/02/14 22:04	1
Phenol-d5 (Surr)	13		10 - 130	07/29/14 10:49	08/02/14 22:04	1

Client Sample ID: WG-1620-MW38A-20140725

Lab Sample ID: 600-96083-15

Date Collected: 07/25/14 10:50

Matrix: Water

Date Received: 07/28/14 16:34

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	0.000110	U	0.00200	0.000110	mg/L			08/02/14 14:38	1
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			08/02/14 14:38	1
Benzene	0.0000800	U	0.00100	0.0000800	mg/L			08/02/14 14:38	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			08/02/14 14:38	1
Toluene	0.000150	U	0.00100	0.000150	mg/L			08/02/14 14:38	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			08/02/14 14:38	1
Ethylbenzene	0.000110	U	0.00100	0.000110	mg/L			08/02/14 14:38	1
Xylenes, Total	0.000260	U	0.00300	0.000260	mg/L			08/02/14 14:38	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	105		67 - 139		08/02/14 14:38	1
Dibromofluoromethane	110		62 - 130		08/02/14 14:38	1
Toluene-d8 (Surr)	116		70 - 130		08/02/14 14:38	1
1,2-Dichloroethane-d4 (Surr)	101		50 - 134		08/02/14 14:38	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.0000388	U	0.000485	0.0000388	mg/L		07/29/14 10:49	08/02/14 22:31	1
Nitrobenzene	0.000107	U	0.000485	0.000107	mg/L		07/29/14 10:49	08/02/14 22:31	1
2,4-Dimethylphenol	0.000301	U	0.000485	0.000301	mg/L		07/29/14 10:49	08/02/14 22:31	1
Bis(2-chloroethoxy)methane	0.000126	U	0.000485	0.000126	mg/L		07/29/14 10:49	08/02/14 22:31	1
Naphthalene	0.0000777	U	0.000485	0.0000777	mg/L		07/29/14 10:49	08/02/14 22:31	1
2-Methylnaphthalene	0.0000680	U	0.000485	0.0000680	mg/L		07/29/14 10:49	08/02/14 22:31	1
2-Chloronaphthalene	0.0000777	U	0.000485	0.0000777	mg/L		07/29/14 10:49	08/02/14 22:31	1
Acenaphthylene	0.0000583	U	0.000485	0.0000583	mg/L		07/29/14 10:49	08/02/14 22:31	1
2,6-Dinitrotoluene	0.0000777	U	0.000485	0.0000777	mg/L		07/29/14 10:49	08/02/14 22:31	1
Acenaphthene	0.0000777	U	0.000485	0.0000777	mg/L		07/29/14 10:49	08/02/14 22:31	1
4-Nitrophenol	0.000544	U	0.000971	0.000544	mg/L		07/29/14 10:49	08/02/14 22:31	1
Dibenzofuran	0.0000777	U	0.000485	0.0000777	mg/L		07/29/14 10:49	08/02/14 22:31	1
2,4-Dinitrotoluene	0.000126	U	0.000485	0.000126	mg/L		07/29/14 10:49	08/02/14 22:31	1
Fluorene	0.0000680	U	0.000485	0.0000680	mg/L		07/29/14 10:49	08/02/14 22:31	1
4,6-Dinitro-2-methylphenol	0.000806	U	0.000971	0.000806	mg/L		07/29/14 10:49	08/02/14 22:31	1
N-Nitrosodiphenylamine	0.0000971	U	0.000485	0.0000971	mg/L		07/29/14 10:49	08/02/14 22:31	1
1,2-Diphenylhydrazine	0.000107	U	0.000485	0.000107	mg/L		07/29/14 10:49	08/02/14 22:31	1
Pentachlorophenol	0.000592	U	0.000971	0.000592	mg/L		07/29/14 10:49	08/02/14 22:31	1
Phenanthrene	0.0000583	U	0.000485	0.0000583	mg/L		07/29/14 10:49	08/02/14 22:31	1
Anthracene	0.0000816	J	0.000485	0.0000816	mg/L		07/29/14 10:49	08/02/14 22:31	1
Di-n-butyl phthalate	0.000107	U	0.000485	0.000107	mg/L		07/29/14 10:49	08/02/14 22:31	1
Fluoranthene	0.0000680	U	0.000485	0.0000680	mg/L		07/29/14 10:49	08/02/14 22:31	1
Pyrene	0.000107	U	0.000485	0.000107	mg/L		07/29/14 10:49	08/02/14 22:31	1
Benzo[a]anthracene	0.0000777	U	0.000485	0.0000777	mg/L		07/29/14 10:49	08/02/14 22:31	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-96083-1

Client Sample ID: WG-1620-MW38A-20140725

Lab Sample ID: 600-96083-15

Date Collected: 07/25/14 10:50

Matrix: Water

Date Received: 07/28/14 16:34

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	0.000359	U	0.000485	0.000359	mg/L		07/29/14 10:49	08/02/14 22:31	1
Chrysene	0.0000777	U	0.000485	0.0000777	mg/L		07/29/14 10:49	08/02/14 22:31	1
Benzo[a]pyrene	0.0000777	U	0.000485	0.0000777	mg/L		07/29/14 10:49	08/02/14 22:31	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	66		10 - 147				07/29/14 10:49	08/02/14 22:31	1
2-Fluorobiphenyl	59		10 - 150				07/29/14 10:49	08/02/14 22:31	1
2-Fluorophenol	24		10 - 130				07/29/14 10:49	08/02/14 22:31	1
Nitrobenzene-d5	51		23 - 130				07/29/14 10:49	08/02/14 22:31	1
Terphenyl-d14	69		42 - 133				07/29/14 10:49	08/02/14 22:31	1
Phenol-d5 (Surr)	13		10 - 130				07/29/14 10:49	08/02/14 22:31	1

Client Sample ID: WG-1620-MW28A-20140725

Lab Sample ID: 600-96083-16

Date Collected: 07/25/14 11:55

Matrix: Water

Date Received: 07/28/14 16:34

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	0.000110	U	0.00200	0.000110	mg/L			08/02/14 15:04	1
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			08/02/14 15:04	1
Benzene	0.0000800	U	0.00100	0.0000800	mg/L			08/02/14 15:04	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			08/02/14 15:04	1
Toluene	0.000150	U	0.00100	0.000150	mg/L			08/02/14 15:04	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			08/02/14 15:04	1
Ethylbenzene	0.000110	U	0.00100	0.000110	mg/L			08/02/14 15:04	1
Xylenes, Total	0.000260	U	0.00300	0.000260	mg/L			08/02/14 15:04	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	109		67 - 139					08/02/14 15:04	1
Dibromofluoromethane	115		62 - 130					08/02/14 15:04	1
Toluene-d8 (Surr)	119		70 - 130					08/02/14 15:04	1
1,2-Dichloroethane-d4 (Surr)	105		50 - 134					08/02/14 15:04	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.0000388	U	0.000485	0.0000388	mg/L		07/29/14 10:49	08/02/14 22:58	1
Nitrobenzene	0.000107	U	0.000485	0.000107	mg/L		07/29/14 10:49	08/02/14 22:58	1
2,4-Dimethylphenol	0.000301	U	0.000485	0.000301	mg/L		07/29/14 10:49	08/02/14 22:58	1
Bis(2-chloroethoxy)methane	0.000126	U	0.000485	0.000126	mg/L		07/29/14 10:49	08/02/14 22:58	1
Naphthalene	0.0000777	U	0.000485	0.0000777	mg/L		07/29/14 10:49	08/02/14 22:58	1
2-Methylnaphthalene	0.0000680	U	0.000485	0.0000680	mg/L		07/29/14 10:49	08/02/14 22:58	1
2-Chloronaphthalene	0.0000777	U	0.000485	0.0000777	mg/L		07/29/14 10:49	08/02/14 22:58	1
Acenaphthylene	0.0000583	U	0.000485	0.0000583	mg/L		07/29/14 10:49	08/02/14 22:58	1
2,6-Dinitrotoluene	0.0000777	U	0.000485	0.0000777	mg/L		07/29/14 10:49	08/02/14 22:58	1
Acenaphthene	0.0000777	U	0.000485	0.0000777	mg/L		07/29/14 10:49	08/02/14 22:58	1
4-Nitrophenol	0.000544	U	0.000971	0.000544	mg/L		07/29/14 10:49	08/02/14 22:58	1
Dibenzofuran	0.0000777	U	0.000485	0.0000777	mg/L		07/29/14 10:49	08/02/14 22:58	1
2,4-Dinitrotoluene	0.000126	U	0.000485	0.000126	mg/L		07/29/14 10:49	08/02/14 22:58	1
Fluorene	0.0000680	U	0.000485	0.0000680	mg/L		07/29/14 10:49	08/02/14 22:58	1
4,6-Dinitro-2-methylphenol	0.000806	U	0.000971	0.000806	mg/L		07/29/14 10:49	08/02/14 22:58	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-96083-1

Client Sample ID: WG-1620-MW28A-20140725

Lab Sample ID: 600-96083-16

Date Collected: 07/25/14 11:55

Matrix: Water

Date Received: 07/28/14 16:34

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Nitrosodiphenylamine	0.0000971	U	0.000485	0.0000971	mg/L		07/29/14 10:49	08/02/14 22:58	1
1,2-Diphenylhydrazine	0.000107	U	0.000485	0.000107	mg/L		07/29/14 10:49	08/02/14 22:58	1
Pentachlorophenol	0.000592	U	0.000971	0.000592	mg/L		07/29/14 10:49	08/02/14 22:58	1
Phenanthrene	0.0000583	U	0.000485	0.0000583	mg/L		07/29/14 10:49	08/02/14 22:58	1
Anthracene	0.0000485	U	0.000485	0.0000485	mg/L		07/29/14 10:49	08/02/14 22:58	1
Di-n-butyl phthalate	0.000107	U	0.000485	0.000107	mg/L		07/29/14 10:49	08/02/14 22:58	1
Fluoranthene	0.0000680	U	0.000485	0.0000680	mg/L		07/29/14 10:49	08/02/14 22:58	1
Pyrene	0.000107	U	0.000485	0.000107	mg/L		07/29/14 10:49	08/02/14 22:58	1
Benzo[a]anthracene	0.0000777	U	0.000485	0.0000777	mg/L		07/29/14 10:49	08/02/14 22:58	1
Bis(2-ethylhexyl) phthalate	0.000359	U	0.000485	0.000359	mg/L		07/29/14 10:49	08/02/14 22:58	1
Chrysene	0.0000777	U	0.000485	0.0000777	mg/L		07/29/14 10:49	08/02/14 22:58	1
Benzo[a]pyrene	0.0000777	U	0.000485	0.0000777	mg/L		07/29/14 10:49	08/02/14 22:58	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	70		10 - 147				07/29/14 10:49	08/02/14 22:58	1
2-Fluorobiphenyl	55		10 - 150				07/29/14 10:49	08/02/14 22:58	1
2-Fluorophenol	23		10 - 130				07/29/14 10:49	08/02/14 22:58	1
Nitrobenzene-d5	49		23 - 130				07/29/14 10:49	08/02/14 22:58	1
Terphenyl-d14	75		42 - 133				07/29/14 10:49	08/02/14 22:58	1
Phenol-d5 (Surr)	12		10 - 130				07/29/14 10:49	08/02/14 22:58	1

Client Sample ID: WG-1620-MW28C-20140725

Lab Sample ID: 600-96083-17

Date Collected: 07/25/14 12:55

Matrix: Water

Date Received: 07/28/14 16:34

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	0.000110	U	0.00200	0.000110	mg/L			08/01/14 12:09	1
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			08/01/14 12:09	1
Benzene	0.0000800	U	0.00100	0.0000800	mg/L			08/01/14 12:09	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			08/01/14 12:09	1
Toluene	0.000150	U	0.00100	0.000150	mg/L			08/01/14 12:09	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			08/01/14 12:09	1
Ethylbenzene	0.000110	U	0.00100	0.000110	mg/L			08/01/14 12:09	1
Xylenes, Total	0.000260	U	0.00300	0.000260	mg/L			08/01/14 12:09	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	105		67 - 139					08/01/14 12:09	1
Dibromofluoromethane	108		62 - 130					08/01/14 12:09	1
Toluene-d8 (Surr)	115		70 - 130					08/01/14 12:09	1
1,2-Dichloroethane-d4 (Surr)	100		50 - 134					08/01/14 12:09	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.0000388	U	0.000485	0.0000388	mg/L		07/29/14 10:49	08/02/14 23:25	1
Nitrobenzene	0.000107	U	0.000485	0.000107	mg/L		07/29/14 10:49	08/02/14 23:25	1
2,4-Dimethylphenol	0.000301	U	0.000485	0.000301	mg/L		07/29/14 10:49	08/02/14 23:25	1
Bis(2-chloroethoxy)methane	0.000126	U	0.000485	0.000126	mg/L		07/29/14 10:49	08/02/14 23:25	1
Naphthalene	0.0000777	U	0.000485	0.0000777	mg/L		07/29/14 10:49	08/02/14 23:25	1
2-Methylnaphthalene	0.0000680	U	0.000485	0.0000680	mg/L		07/29/14 10:49	08/02/14 23:25	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-96083-1

Client Sample ID: WG-1620-MW28C-20140725

Lab Sample ID: 600-96083-17

Date Collected: 07/25/14 12:55

Matrix: Water

Date Received: 07/28/14 16:34

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Chloronaphthalene	0.0000777	U	0.000485	0.0000777	mg/L		07/29/14 10:49	08/02/14 23:25	1
Acenaphthylene	0.0000583	U	0.000485	0.0000583	mg/L		07/29/14 10:49	08/02/14 23:25	1
2,6-Dinitrotoluene	0.0000777	U	0.000485	0.0000777	mg/L		07/29/14 10:49	08/02/14 23:25	1
Acenaphthene	0.0000777	U	0.000485	0.0000777	mg/L		07/29/14 10:49	08/02/14 23:25	1
4-Nitrophenol	0.000544	U	0.000971	0.000544	mg/L		07/29/14 10:49	08/02/14 23:25	1
Dibenzofuran	0.0000777	U	0.000485	0.0000777	mg/L		07/29/14 10:49	08/02/14 23:25	1
2,4-Dinitrotoluene	0.000126	U	0.000485	0.000126	mg/L		07/29/14 10:49	08/02/14 23:25	1
Fluorene	0.0000680	U	0.000485	0.0000680	mg/L		07/29/14 10:49	08/02/14 23:25	1
4,6-Dinitro-2-methylphenol	0.000806	U	0.000971	0.000806	mg/L		07/29/14 10:49	08/02/14 23:25	1
N-Nitrosodiphenylamine	0.0000971	U	0.000485	0.0000971	mg/L		07/29/14 10:49	08/02/14 23:25	1
1,2-Diphenylhydrazine	0.000107	U	0.000485	0.000107	mg/L		07/29/14 10:49	08/02/14 23:25	1
Pentachlorophenol	0.000592	U	0.000971	0.000592	mg/L		07/29/14 10:49	08/02/14 23:25	1
Phenanthrene	0.0000583	U	0.000485	0.0000583	mg/L		07/29/14 10:49	08/02/14 23:25	1
Anthracene	0.0000485	U	0.000485	0.0000485	mg/L		07/29/14 10:49	08/02/14 23:25	1
Di-n-butyl phthalate	0.000107	U	0.000485	0.000107	mg/L		07/29/14 10:49	08/02/14 23:25	1
Fluoranthene	0.0000680	U	0.000485	0.0000680	mg/L		07/29/14 10:49	08/02/14 23:25	1
Pyrene	0.000107	U	0.000485	0.000107	mg/L		07/29/14 10:49	08/02/14 23:25	1
Benzo[a]anthracene	0.0000777	U	0.000485	0.0000777	mg/L		07/29/14 10:49	08/02/14 23:25	1
Bis(2-ethylhexyl) phthalate	0.000359	U	0.000485	0.000359	mg/L		07/29/14 10:49	08/02/14 23:25	1
Chrysene	0.0000777	U	0.000485	0.0000777	mg/L		07/29/14 10:49	08/02/14 23:25	1
Benzo[a]pyrene	0.0000777	U	0.000485	0.0000777	mg/L		07/29/14 10:49	08/02/14 23:25	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	65		10 - 147				07/29/14 10:49	08/02/14 23:25	1
2-Fluorobiphenyl	54		10 - 150				07/29/14 10:49	08/02/14 23:25	1
2-Fluorophenol	21		10 - 130				07/29/14 10:49	08/02/14 23:25	1
Nitrobenzene-d5	47		23 - 130				07/29/14 10:49	08/02/14 23:25	1
Terphenyl-d14	70		42 - 133				07/29/14 10:49	08/02/14 23:25	1
Phenol-d5 (Surr)	12		10 - 130				07/29/14 10:49	08/02/14 23:25	1

Client Sample ID: WG-1620-MW27C-20140725

Lab Sample ID: 600-96083-18

Date Collected: 07/25/14 14:50

Matrix: Water

Date Received: 07/28/14 16:34

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	0.000110	U	0.00200	0.000110	mg/L			08/02/14 15:31	1
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			08/02/14 15:31	1
Benzene	0.0000800	U	0.00100	0.0000800	mg/L			08/02/14 15:31	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			08/02/14 15:31	1
Toluene	0.000150	U	0.00100	0.000150	mg/L			08/02/14 15:31	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			08/02/14 15:31	1
Ethylbenzene	0.000110	U	0.00100	0.000110	mg/L			08/02/14 15:31	1
Xylenes, Total	0.000260	U	0.00300	0.000260	mg/L			08/02/14 15:31	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	101		67 - 139					08/02/14 15:31	1
Dibromofluoromethane	106		62 - 130					08/02/14 15:31	1
Toluene-d8 (Surr)	112		70 - 130					08/02/14 15:31	1
1,2-Dichloroethane-d4 (Surr)	97		50 - 134					08/02/14 15:31	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-96083-1

Client Sample ID: WG-1620-MW27C-20140725

Lab Sample ID: 600-96083-18

Date Collected: 07/25/14 14:50

Matrix: Water

Date Received: 07/28/14 16:34

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.0000392	U	0.000490	0.0000392	mg/L		07/29/14 18:28	08/03/14 00:46	1
Nitrobenzene	0.000108	U	0.000490	0.000108	mg/L		07/29/14 18:28	08/03/14 00:46	1
2,4-Dimethylphenol	0.000304	U	0.000490	0.000304	mg/L		07/29/14 18:28	08/03/14 00:46	1
Bis(2-chloroethoxy)methane	0.000127	U	0.000490	0.000127	mg/L		07/29/14 18:28	08/03/14 00:46	1
Naphthalene	0.0000784	U	0.000490	0.0000784	mg/L		07/29/14 18:28	08/03/14 00:46	1
2-Methylnaphthalene	0.0000686	U	0.000490	0.0000686	mg/L		07/29/14 18:28	08/03/14 00:46	1
2-Chloronaphthalene	0.0000784	U	0.000490	0.0000784	mg/L		07/29/14 18:28	08/03/14 00:46	1
Acenaphthylene	0.0000588	U	0.000490	0.0000588	mg/L		07/29/14 18:28	08/03/14 00:46	1
2,6-Dinitrotoluene	0.0000784	U	0.000490	0.0000784	mg/L		07/29/14 18:28	08/03/14 00:46	1
Acenaphthene	0.0000784	U	0.000490	0.0000784	mg/L		07/29/14 18:28	08/03/14 00:46	1
4-Nitrophenol	0.000549	U	0.000980	0.000549	mg/L		07/29/14 18:28	08/03/14 00:46	1
Dibenzofuran	0.0000784	U	0.000490	0.0000784	mg/L		07/29/14 18:28	08/03/14 00:46	1
2,4-Dinitrotoluene	0.000127	U	0.000490	0.000127	mg/L		07/29/14 18:28	08/03/14 00:46	1
Fluorene	0.0000686	U	0.000490	0.0000686	mg/L		07/29/14 18:28	08/03/14 00:46	1
4,6-Dinitro-2-methylphenol	0.000814	U	0.000980	0.000814	mg/L		07/29/14 18:28	08/03/14 00:46	1
N-Nitrosodiphenylamine	0.0000980	U	0.000490	0.0000980	mg/L		07/29/14 18:28	08/03/14 00:46	1
1,2-Diphenylhydrazine	0.000108	U	0.000490	0.000108	mg/L		07/29/14 18:28	08/03/14 00:46	1
Pentachlorophenol	0.000598	U	0.000980	0.000598	mg/L		07/29/14 18:28	08/03/14 00:46	1
Phenanthrene	0.0000588	U	0.000490	0.0000588	mg/L		07/29/14 18:28	08/03/14 00:46	1
Anthracene	0.0000490	U	0.000490	0.0000490	mg/L		07/29/14 18:28	08/03/14 00:46	1
Di-n-butyl phthalate	0.000108	U	0.000490	0.000108	mg/L		07/29/14 18:28	08/03/14 00:46	1
Fluoranthene	0.0000686	U	0.000490	0.0000686	mg/L		07/29/14 18:28	08/03/14 00:46	1
Pyrene	0.000108	U	0.000490	0.000108	mg/L		07/29/14 18:28	08/03/14 00:46	1
Benzo[a]anthracene	0.0000784	U	0.000490	0.0000784	mg/L		07/29/14 18:28	08/03/14 00:46	1
Bis(2-ethylhexyl) phthalate	0.000363	U	0.000490	0.000363	mg/L		07/29/14 18:28	08/03/14 00:46	1
Chrysene	0.0000784	U	0.000490	0.0000784	mg/L		07/29/14 18:28	08/03/14 00:46	1
Benzo[a]pyrene	0.0000784	U	0.000490	0.0000784	mg/L		07/29/14 18:28	08/03/14 00:46	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	67		10 - 147				07/29/14 18:28	08/03/14 00:46	1
2-Fluorobiphenyl	70		10 - 150				07/29/14 18:28	08/03/14 00:46	1
2-Fluorophenol	23		10 - 130				07/29/14 18:28	08/03/14 00:46	1
Nitrobenzene-d5	59		23 - 130				07/29/14 18:28	08/03/14 00:46	1
Terphenyl-d14	74		42 - 133				07/29/14 18:28	08/03/14 00:46	1
Phenol-d5 (Surr)	13		10 - 130				07/29/14 18:28	08/03/14 00:46	1

Definitions/Glossary

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-96083-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
U	Analyte was not detected at or above the SDL.
J	Result is less than the MQL but greater than or equal to the SDL and the concentration is an estimated value.
N1	MS, MSD: Spike recovery exceeds upper or lower control limits.
*	ISTD response or retention time outside acceptable limits

GC/MS Semi VOA

Qualifier	Qualifier Description
U	Analyte was not detected at or above the SDL.
J	Result is less than the MQL but greater than or equal to the SDL and the concentration is an estimated value.
X	Surrogate is outside control limits
N1	MS, MSD: Spike recovery exceeds upper or lower control limits.
N2	RPD of the MS and MSD exceeds the control limits

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Surrogate Summary

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-96083-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		BFB (67-139)	DBFM (62-130)	TOL (70-130)	12DCE (50-134)
600-96083-1	WG-1620-MW81B-20140724	104	105	111	99
600-96083-2 - DL	WG-1620-MW75B-20140724	98	100	114	91
600-96083-2	WG-1620-MW75B-20140724	96 *	99	107	91
600-96083-3	WG-1620-MW13-20140725	103	101	111	97
600-96083-4	WG-1620-MW21C-20140725	100	101	108	95
600-96083-5	WG-1620-DUP2-20140725	99	101	109	95
600-96083-6	WG-1620-MW39B-20140725	103	106	114	99
600-96083-7	WG-1620-TW41B-20140725	94	103	110	92
600-96083-8	WG-1620-MW12C-20140725	100	103	112	94
600-96083-9	WG-1620-MW12A-20140725	100	103	114	94
600-96083-10	WG-1620-FB5-20140725	101	104	113	94
600-96083-11	WG-1620-MW-35B-20140725	97	98	112	91
600-96083-11 - DL	WG-1620-MW-35B-20140725	92	97	103	89
600-96083-12	WG-1620-MW53C-20140725	102	105	114	93
600-96083-13	WG-1620-MW54C-20140725	95	103	108	95
600-96083-14	WG-1620-MW38B-20140725	102	105	116	94
600-96083-15	WG-1620-MW38A-20140725	105	110	116	101
600-96083-16	WG-1620-MW28A-20140725	109	115	119	105
600-96083-17	WG-1620-MW28C-20140725	105	108	115	100
600-96083-17 MS	WG-1620-MW28C-20140725	98	102	106	94
600-96083-17 MSD	WG-1620-MW28C-20140725	99	101	105	95
600-96083-18	WG-1620-MW27C-20140725	101	106	112	97
LCS 600-140562/3	Lab Control Sample	86	106	84	95
LCS 600-140676/3	Lab Control Sample	99	105	109	92
LCS 600-140700/3	Lab Control Sample	95	98	103	89
LCSD 600-140562/4	Lab Control Sample Dup	89	108	86	95
LCSD 600-140676/4	Lab Control Sample Dup	103	109	115	96
LCSD 600-140700/4	Lab Control Sample Dup	95	96	100	89
MB 600-140562/6	Method Blank	94	97	100	92
MB 600-140676/7	Method Blank	106	109	116	98
MB 600-140700/6	Method Blank	93	93	100	85

Surrogate Legend

BFB = 4-Bromofluorobenzene
DBFM = Dibromofluoromethane
TOL = Toluene-d8 (Surr)
12DCE = 1,2-Dichloroethane-d4 (Surr)

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)					
		TBP (10-147)	FBP (10-150)	2FP (10-130)	NBZ (23-130)	TPH (42-133)	PHL (10-130)
600-96083-1	WG-1620-MW81B-20140724	65	55	19	49	67	10
600-96083-2	WG-1620-MW75B-20140724	0 X	0 X	0 X	0 X	0 X	0 X
600-96083-2 - DL	WG-1620-MW75B-20140724	0 X	0 X	0 X	0 X	0 X	0 X
600-96083-3	WG-1620-MW13-20140725	51	57	13	43	61	8 X
600-96083-4	WG-1620-MW21C-20140725	63	53	17	44	63	10

TestAmerica Houston

Surrogate Summary

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-96083-1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)					
		TBP (10-147)	FBP (10-150)	2FP (10-130)	NBZ (23-130)	TPH (42-133)	PHL (10-130)
600-96083-5	WG-1620-DUP2-20140725	68	61	21	52	76	11
600-96083-6	WG-1620-MW39B-20140725	83	63	21	54	76	11
600-96083-7	WG-1620-TW41B-20140725	87	63	27	62	77	13
600-96083-7 - DL	WG-1620-TW41B-20140725	0 X	65	22	58	82	11
600-96083-7 - DL	WG-1620-TW41B-20140725	0 X	0 X	0 X	0 X	0 X	0 X
600-96083-8	WG-1620-MW12C-20140725	67	56	18	46	68	10
600-96083-8	WG-1620-MW12C-20140725	67	49	17	47	73	8 X
600-96083-9	WG-1620-MW12A-20140725	86	70	22	65	83	12
600-96083-9 - DL	WG-1620-MW12A-20140725	0 X	74	18	65	88	11
600-96083-9 - DL	WG-1620-MW12A-20140725	0 X	0 X	0 X	0 X	0 X	0 X
600-96083-10	WG-1620-FB5-20140725	63	66	25	59	70	13
600-96083-11	WG-1620-MW-35B-20140725	107	77	28	98	82	10
600-96083-11 - DL	WG-1620-MW-35B-20140725	0 X	0 X	0 X	0 X	0 X	0 X
600-96083-12	WG-1620-MW53C-20140725	68	56	20	47	69	10
600-96083-13	WG-1620-MW54C-20140725	73	60	22	54	68	11
600-96083-13 - DL	WG-1620-MW54C-20140725	80	65	22	61	81	10
600-96083-13 - DL	WG-1620-MW54C-20140725	0 X	0 X	0 X	0 X	0 X	0 X
600-96083-14	WG-1620-MW38B-20140725	74	63	23	55	75	13
600-96083-15	WG-1620-MW38A-20140725	66	59	24	51	69	13
600-96083-16	WG-1620-MW28A-20140725	70	55	23	49	75	12
600-96083-17	WG-1620-MW28C-20140725	65	54	21	47	70	12
600-96083-17 MS	WG-1620-MW28C-20140725	69	54	21	50	68	12
600-96083-17 MSD	WG-1620-MW28C-20140725	79	65	25	59	78	14
600-96083-18	WG-1620-MW27C-20140725	67	70	23	59	74	13
LCS 600-140251/2-A	Lab Control Sample	69	72	74	68	70	72
MB 600-140251/1-A	Method Blank	40	65	67	70	77	68

Surrogate Legend

- TBP = 2,4,6-Tribromophenol
- FBP = 2-Fluorobiphenyl
- 2FP = 2-Fluorophenol
- NBZ = Nitrobenzene-d5
- TPH = Terphenyl-d14
- PHL = Phenol-d5 (Surr)

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-96083-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 600-140562/6

Matrix: Water

Analysis Batch: 140562

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	0.000110	U	0.00200	0.000110	mg/L			08/01/14 11:33	1
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			08/01/14 11:33	1
Benzene	0.0000800	U	0.00100	0.0000800	mg/L			08/01/14 11:33	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			08/01/14 11:33	1
Toluene	0.000150	U	0.00100	0.000150	mg/L			08/01/14 11:33	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			08/01/14 11:33	1
Ethylbenzene	0.000110	U	0.00100	0.000110	mg/L			08/01/14 11:33	1
Xylenes, Total	0.000260	U	0.00300	0.000260	mg/L			08/01/14 11:33	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	94		67 - 139		08/01/14 11:33	1
Dibromofluoromethane	97		62 - 130		08/01/14 11:33	1
Toluene-d8 (Surr)	100		70 - 130		08/01/14 11:33	1
1,2-Dichloroethane-d4 (Surr)	92		50 - 134		08/01/14 11:33	1

Lab Sample ID: LCS 600-140562/3

Matrix: Water

Analysis Batch: 140562

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Vinyl chloride	0.0100	0.008258		mg/L		83	33 - 150
Methylene Chloride	0.0100	0.008748		mg/L		87	55 - 147
Benzene	0.0100	0.01021		mg/L		102	70 - 130
1,2-Dichloroethane	0.0100	0.009262		mg/L		93	67 - 134
Toluene	0.0100	0.008355		mg/L		84	70 - 130
Chlorobenzene	0.0100	0.008615		mg/L		86	69 - 130
Ethylbenzene	0.0100	0.008984		mg/L		90	70 - 130
Xylenes, Total	0.0200	0.01812		mg/L		91	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene	86		67 - 139
Dibromofluoromethane	106		62 - 130
Toluene-d8 (Surr)	84		70 - 130
1,2-Dichloroethane-d4 (Surr)	95		50 - 134

Lab Sample ID: LCSD 600-140562/4

Matrix: Water

Analysis Batch: 140562

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Vinyl chloride	0.0100	0.008414		mg/L		84	33 - 150	2	20
Methylene Chloride	0.0100	0.009114		mg/L		91	55 - 147	4	20
Benzene	0.0100	0.01063		mg/L		106	70 - 130	4	20
1,2-Dichloroethane	0.0100	0.009905		mg/L		99	67 - 134	7	20
Toluene	0.0100	0.008788		mg/L		88	70 - 130	5	20
Chlorobenzene	0.0100	0.009030		mg/L		90	69 - 130	5	20
Ethylbenzene	0.0100	0.009502		mg/L		95	70 - 130	6	20

TestAmerica Houston

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-96083-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 600-140562/4

Matrix: Water

Analysis Batch: 140562

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Xylenes, Total	0.0200	0.01905		mg/L		95	70 - 130	5	20
Surrogate	%Recovery	LCSD Qualifier	Limits						
4-Bromofluorobenzene	89		67 - 139						
Dibromofluoromethane	108		62 - 130						
Toluene-d8 (Surr)	86		70 - 130						
1,2-Dichloroethane-d4 (Surr)	95		50 - 134						

Lab Sample ID: 600-96083-17 MS

Matrix: Water

Analysis Batch: 140562

Client Sample ID: WG-1620-MW28C-20140725

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Vinyl chloride	0.000110	U	0.0100	0.006804		mg/L		68	33 - 150
Methylene Chloride	0.000150	U	0.0100	0.005606		mg/L		56	55 - 147
Benzene	0.0000800	U	0.0100	0.007905		mg/L		79	70 - 130
1,2-Dichloroethane	0.000140	U	0.0100	0.006859		mg/L		69	67 - 134
Toluene	0.000150	U	0.0100	0.008770		mg/L		88	70 - 130
Chlorobenzene	0.000120	U	0.0100	0.008827		mg/L		88	69 - 130
Ethylbenzene	0.000110	U	0.0100	0.009421		mg/L		94	70 - 130
Xylenes, Total	0.000260	U	0.0200	0.01871		mg/L		94	70 - 130
Surrogate	%Recovery	MS Qualifier	Limits						
4-Bromofluorobenzene	98		67 - 139						
Dibromofluoromethane	102		62 - 130						
Toluene-d8 (Surr)	106		70 - 130						
1,2-Dichloroethane-d4 (Surr)	94		50 - 134						

Lab Sample ID: 600-96083-17 MSD

Matrix: Water

Analysis Batch: 140562

Client Sample ID: WG-1620-MW28C-20140725

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Vinyl chloride	0.000110	U	0.0100	0.006209		mg/L		62	33 - 150	9	30
Methylene Chloride	0.000150	U	0.0100	0.005384	N1	mg/L		54	55 - 147	4	30
Benzene	0.0000800	U	0.0100	0.007574		mg/L		76	70 - 130	4	30
1,2-Dichloroethane	0.000140	U	0.0100	0.006800		mg/L		68	67 - 134	1	30
Toluene	0.000150	U	0.0100	0.008374		mg/L		84	70 - 130	5	30
Chlorobenzene	0.000120	U	0.0100	0.008568		mg/L		86	69 - 130	3	30
Ethylbenzene	0.000110	U	0.0100	0.008978		mg/L		90	70 - 130	5	30
Xylenes, Total	0.000260	U	0.0200	0.01805		mg/L		90	70 - 130	4	30
Surrogate	%Recovery	MSD Qualifier	Limits								
4-Bromofluorobenzene	99		67 - 139								
Dibromofluoromethane	101		62 - 130								
Toluene-d8 (Surr)	105		70 - 130								
1,2-Dichloroethane-d4 (Surr)	95		50 - 134								

TestAmerica Houston

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-96083-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 600-140676/7

Matrix: Water

Analysis Batch: 140676

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	0.000110	U	0.00200	0.000110	mg/L			08/02/14 14:11	1
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			08/02/14 14:11	1
Benzene	0.0000800	U	0.00100	0.0000800	mg/L			08/02/14 14:11	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			08/02/14 14:11	1
Toluene	0.000150	U	0.00100	0.000150	mg/L			08/02/14 14:11	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			08/02/14 14:11	1
Ethylbenzene	0.000110	U	0.00100	0.000110	mg/L			08/02/14 14:11	1
Xylenes, Total	0.000260	U	0.00300	0.000260	mg/L			08/02/14 14:11	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	106		67 - 139		08/02/14 14:11	1
Dibromofluoromethane	109		62 - 130		08/02/14 14:11	1
Toluene-d8 (Surr)	116		70 - 130		08/02/14 14:11	1
1,2-Dichloroethane-d4 (Surr)	98		50 - 134		08/02/14 14:11	1

Lab Sample ID: LCS 600-140676/3

Matrix: Water

Analysis Batch: 140676

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Vinyl chloride	0.0100	0.007613		mg/L		76	33 - 150
Methylene Chloride	0.0100	0.007654		mg/L		77	55 - 147
Benzene	0.0100	0.008853		mg/L		89	70 - 130
1,2-Dichloroethane	0.0100	0.007568		mg/L		76	67 - 134
Toluene	0.0100	0.009909		mg/L		99	70 - 130
Chlorobenzene	0.0100	0.009974		mg/L		100	69 - 130
Ethylbenzene	0.0100	0.01065		mg/L		106	70 - 130
Xylenes, Total	0.0200	0.02122		mg/L		106	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene	99		67 - 139
Dibromofluoromethane	105		62 - 130
Toluene-d8 (Surr)	109		70 - 130
1,2-Dichloroethane-d4 (Surr)	92		50 - 134

Lab Sample ID: LCSD 600-140676/4

Matrix: Water

Analysis Batch: 140676

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Vinyl chloride	0.0100	0.008425		mg/L		84	33 - 150	10	20
Methylene Chloride	0.0100	0.007625		mg/L		76	55 - 147	0	20
Benzene	0.0100	0.008705		mg/L		87	70 - 130	2	20
1,2-Dichloroethane	0.0100	0.007263		mg/L		73	67 - 134	4	20
Toluene	0.0100	0.009763		mg/L		98	70 - 130	1	20
Chlorobenzene	0.0100	0.009913		mg/L		99	69 - 130	1	20
Ethylbenzene	0.0100	0.01058		mg/L		106	70 - 130	1	20

TestAmerica Houston

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-96083-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 600-140676/4

Matrix: Water

Analysis Batch: 140676

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Xylenes, Total	0.0200	0.02104		mg/L		105	70 - 130	1	20

Surrogate	LCSD %Recovery	LCSD Qualifier	LCSD Limits
4-Bromofluorobenzene	103		67 - 139
Dibromofluoromethane	109		62 - 130
Toluene-d8 (Surr)	115		70 - 130
1,2-Dichloroethane-d4 (Surr)	96		50 - 134

Lab Sample ID: MB 600-140700/6

Matrix: Water

Analysis Batch: 140700

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	0.000110	U	0.00200	0.000110	mg/L			08/03/14 12:29	1
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			08/03/14 12:29	1
Benzene	0.0000800	U	0.00100	0.0000800	mg/L			08/03/14 12:29	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			08/03/14 12:29	1
Toluene	0.000150	U	0.00100	0.000150	mg/L			08/03/14 12:29	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			08/03/14 12:29	1
Ethylbenzene	0.000110	U	0.00100	0.000110	mg/L			08/03/14 12:29	1
Xylenes, Total	0.000260	U	0.00300	0.000260	mg/L			08/03/14 12:29	1

Surrogate	MB %Recovery	MB Qualifier	MB Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	93		67 - 139		08/03/14 12:29	1
Dibromofluoromethane	93		62 - 130		08/03/14 12:29	1
Toluene-d8 (Surr)	100		70 - 130		08/03/14 12:29	1
1,2-Dichloroethane-d4 (Surr)	85		50 - 134		08/03/14 12:29	1

Lab Sample ID: LCS 600-140700/3

Matrix: Water

Analysis Batch: 140700

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Vinyl chloride	0.0100	0.008118		mg/L		81	33 - 150
Methylene Chloride	0.0100	0.008148		mg/L		81	55 - 147
Benzene	0.0100	0.009346		mg/L		93	70 - 130
1,2-Dichloroethane	0.0100	0.008183		mg/L		82	67 - 134
Toluene	0.0100	0.01051		mg/L		105	70 - 130
Chlorobenzene	0.0100	0.01068		mg/L		107	69 - 130
Ethylbenzene	0.0100	0.01148		mg/L		115	70 - 130
Xylenes, Total	0.0200	0.02262		mg/L		113	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	LCS Limits
4-Bromofluorobenzene	95		67 - 139
Dibromofluoromethane	98		62 - 130
Toluene-d8 (Surr)	103		70 - 130
1,2-Dichloroethane-d4 (Surr)	89		50 - 134

TestAmerica Houston

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-96083-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 600-140700/4

Matrix: Water

Analysis Batch: 140700

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Vinyl chloride	0.0100	0.007742		mg/L		77	33 - 150	5	20
Methylene Chloride	0.0100	0.007718		mg/L		77	55 - 147	5	20
Benzene	0.0100	0.008921		mg/L		89	70 - 130	5	20
1,2-Dichloroethane	0.0100	0.007912		mg/L		79	67 - 134	3	20
Toluene	0.0100	0.009914		mg/L		99	70 - 130	6	20
Chlorobenzene	0.0100	0.01007		mg/L		101	69 - 130	6	20
Ethylbenzene	0.0100	0.01074		mg/L		107	70 - 130	7	20
Xylenes, Total	0.0200	0.02129		mg/L		106	70 - 130	6	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene	95		67 - 139
Dibromofluoromethane	96		62 - 130
Toluene-d8 (Surr)	100		70 - 130
1,2-Dichloroethane-d4 (Surr)	89		50 - 134

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Lab Sample ID: MB 600-140251/1-A

Matrix: Water

Analysis Batch: 140728

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 140251

Analyte	MB Result	MB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.000400	U	0.000500	0.000400	mg/L		07/29/14 10:49	08/04/14 10:35	1
Nitrobenzene	0.000110	U	0.000500	0.000110	mg/L		07/29/14 10:49	08/04/14 10:35	1
2,4-Dimethylphenol	0.000310	U	0.000500	0.000310	mg/L		07/29/14 10:49	08/04/14 10:35	1
Bis(2-chloroethoxy)methane	0.000130	U	0.000500	0.000130	mg/L		07/29/14 10:49	08/04/14 10:35	1
Naphthalene	0.0000800	U	0.000500	0.0000800	mg/L		07/29/14 10:49	08/04/14 10:35	1
2-Methylnaphthalene	0.0000700	U	0.000500	0.0000700	mg/L		07/29/14 10:49	08/04/14 10:35	1
2-Chloronaphthalene	0.0000800	U	0.000500	0.0000800	mg/L		07/29/14 10:49	08/04/14 10:35	1
Acenaphthylene	0.0000600	U	0.000500	0.0000600	mg/L		07/29/14 10:49	08/04/14 10:35	1
2,6-Dinitrotoluene	0.0000800	U	0.000500	0.0000800	mg/L		07/29/14 10:49	08/04/14 10:35	1
Acenaphthene	0.0000800	U	0.000500	0.0000800	mg/L		07/29/14 10:49	08/04/14 10:35	1
4-Nitrophenol	0.000560	U	0.00100	0.000560	mg/L		07/29/14 10:49	08/04/14 10:35	1
Dibenzofuran	0.0000800	U	0.000500	0.0000800	mg/L		07/29/14 10:49	08/04/14 10:35	1
2,4-Dinitrotoluene	0.000130	U	0.000500	0.000130	mg/L		07/29/14 10:49	08/04/14 10:35	1
Fluorene	0.0000700	U	0.000500	0.0000700	mg/L		07/29/14 10:49	08/04/14 10:35	1
4,6-Dinitro-2-methylphenol	0.000830	U	0.00100	0.000830	mg/L		07/29/14 10:49	08/04/14 10:35	1
N-Nitrosodiphenylamine	0.000100	U	0.000500	0.000100	mg/L		07/29/14 10:49	08/04/14 10:35	1
1,2-Diphenylhydrazine	0.000110	U	0.000500	0.000110	mg/L		07/29/14 10:49	08/04/14 10:35	1
Pentachlorophenol	0.000610	U	0.00100	0.000610	mg/L		07/29/14 10:49	08/04/14 10:35	1
Phenanthrene	0.0000600	U	0.000500	0.0000600	mg/L		07/29/14 10:49	08/04/14 10:35	1
Anthracene	0.0000500	U	0.000500	0.0000500	mg/L		07/29/14 10:49	08/04/14 10:35	1
Di-n-butyl phthalate	0.000110	U	0.000500	0.000110	mg/L		07/29/14 10:49	08/04/14 10:35	1
Fluoranthene	0.0000700	U	0.000500	0.0000700	mg/L		07/29/14 10:49	08/04/14 10:35	1
Pyrene	0.000110	U	0.000500	0.000110	mg/L		07/29/14 10:49	08/04/14 10:35	1
Benzo[a]anthracene	0.0000800	U	0.000500	0.0000800	mg/L		07/29/14 10:49	08/04/14 10:35	1
Bis(2-ethylhexyl) phthalate	0.000370	U	0.000500	0.000370	mg/L		07/29/14 10:49	08/04/14 10:35	1

TestAmerica Houston

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-96083-1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Lab Sample ID: MB 600-140251/1-A

Matrix: Water

Analysis Batch: 140728

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 140251

Analyte	MB Result	MB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	0.0000800	U	0.000500	0.0000800	mg/L		07/29/14 10:49	08/04/14 10:35	1
Benzo[a]pyrene	0.0000800	U	0.000500	0.0000800	mg/L		07/29/14 10:49	08/04/14 10:35	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	40		10 - 147	07/29/14 10:49	08/04/14 10:35	1
2-Fluorobiphenyl	65		10 - 150	07/29/14 10:49	08/04/14 10:35	1
2-Fluorophenol	67		10 - 130	07/29/14 10:49	08/04/14 10:35	1
Nitrobenzene-d5	70		23 - 130	07/29/14 10:49	08/04/14 10:35	1
Terphenyl-d14	77		42 - 133	07/29/14 10:49	08/04/14 10:35	1
Phenol-d5 (Surr)	68		10 - 130	07/29/14 10:49	08/04/14 10:35	1

Lab Sample ID: LCS 600-140251/2-A

Matrix: Water

Analysis Batch: 140694

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 140251

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Phenol	0.0100	0.007201		mg/L		72	10 - 144
Nitrobenzene	0.0100	0.006758		mg/L		68	41 - 130
2,4-Dimethylphenol	0.0100	0.008315		mg/L		83	45 - 130
Bis(2-chloroethoxy)methane	0.0100	0.006913		mg/L		69	36 - 134
Naphthalene	0.0100	0.006844		mg/L		68	57 - 130
2-Methylnaphthalene	0.0100	0.006889		mg/L		69	52 - 130
2-Chloronaphthalene	0.0100	0.006735		mg/L		67	56 - 130
Acenaphthylene	0.0100	0.006575		mg/L		66	58 - 130
2,6-Dinitrotoluene	0.0100	0.006770		mg/L		68	56 - 130
Acenaphthene	0.0100	0.006604		mg/L		66	59 - 130
4-Nitrophenol	0.0200	0.01515		mg/L		76	10 - 150
Dibenzofuran	0.0100	0.006454		mg/L		65	56 - 130
2,4-Dinitrotoluene	0.0100	0.007290		mg/L		73	54 - 130
Fluorene	0.0100	0.006942		mg/L		69	57 - 130
4,6-Dinitro-2-methylphenol	0.0200	0.01343		mg/L		67	10 - 145
N-Nitrosodiphenylamine	0.0100	0.007286		mg/L		73	55 - 137
1,2-Diphenylhydrazine	0.0100	0.006616		mg/L		66	45 - 130
Pentachlorophenol	0.0200	0.01252		mg/L		63	27 - 130
Phenanthrene	0.0100	0.006717		mg/L		67	60 - 130
Anthracene	0.0100	0.006831		mg/L		68	46 - 132
Di-n-butyl phthalate	0.0100	0.007137		mg/L		71	61 - 130
Fluoranthene	0.0100	0.006502		mg/L		65	63 - 130
Pyrene	0.0100	0.006761		mg/L		68	62 - 130
Benzo[a]anthracene	0.0100	0.006865		mg/L		69	58 - 130
Bis(2-ethylhexyl) phthalate	0.0100	0.007018		mg/L		70	59 - 130
Chrysene	0.0100	0.006780		mg/L		68	60 - 130
Benzo[a]pyrene	0.0100	0.006338		mg/L		63	56 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2,4,6-Tribromophenol	69		10 - 147
2-Fluorobiphenyl	72		10 - 150

TestAmerica Houston

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-96083-1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Lab Sample ID: LCS 600-140251/2-A
Matrix: Water
Analysis Batch: 140694

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 140251

Surrogate	LCS		Limits
	%Recovery	Qualifier	
2-Fluorophenol	74		10 - 130
Nitrobenzene-d5	68		23 - 130
Terphenyl-d14	70		42 - 133
Phenol-d5 (Surr)	72		10 - 130

Lab Sample ID: 600-96083-17 MS
Matrix: Water
Analysis Batch: 140694

Client Sample ID: WG-1620-MW28C-20140725
Prep Type: Total/NA
Prep Batch: 140251

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec.	Limits
	Result	Qualifier		Result	Qualifier					
Phenol	0.0000388	U	0.00971	0.001292		mg/L		13		10 - 144
Nitrobenzene	0.000107	U	0.00971	0.004691		mg/L		48		41 - 130
2,4-Dimethylphenol	0.000301	U	0.00971	0.005375		mg/L		55		45 - 130
Bis(2-chloroethoxy)methane	0.000126	U	0.00971	0.004755		mg/L		49		36 - 134
Naphthalene	0.0000777	U	0.00971	0.004878	N1	mg/L		50		57 - 130
2-Methylnaphthalene	0.0000680	U	0.00971	0.004827	N1	mg/L		50		52 - 130
2-Chloronaphthalene	0.0000777	U	0.00971	0.004790	N1	mg/L		49		56 - 130
Acenaphthylene	0.0000583	U	0.00971	0.004962	N1	mg/L		51		58 - 130
2,6-Dinitrotoluene	0.0000777	U	0.00971	0.005817		mg/L		60		56 - 130
Acenaphthene	0.0000777	U	0.00971	0.005092	N1	mg/L		52		59 - 130
4-Nitrophenol	0.000544	U	0.0194	0.003357		mg/L		17		10 - 150
Dibenzofuran	0.0000777	U	0.00971	0.005074	N1	mg/L		52		56 - 130
2,4-Dinitrotoluene	0.000126	U	0.00971	0.006520		mg/L		67		54 - 130
Fluorene	0.0000680	U	0.00971	0.005812		mg/L		60		57 - 130
4,6-Dinitro-2-methylphenol	0.000806	U	0.0194	0.009615		mg/L		50		10 - 145
N-Nitrosodiphenylamine	0.0000971	U	0.00971	0.006677		mg/L		69		55 - 137
1,2-Diphenylhydrazine	0.000107	U	0.00971	0.005737		mg/L		59		45 - 130
Pentachlorophenol	0.000592	U	0.0194	0.01170		mg/L		60		27 - 130
Phenanthrene	0.0000583	U	0.00971	0.006328		mg/L		65		60 - 130
Anthracene	0.0000485	U	0.00971	0.006533		mg/L		67		46 - 132
Di-n-butyl phthalate	0.000107	U	0.00971	0.006937		mg/L		71		61 - 130
Fluoranthene	0.0000680	U	0.00971	0.006351		mg/L		65		63 - 130
Pyrene	0.000107	U	0.00971	0.006554		mg/L		68		62 - 130
Benzo[a]anthracene	0.0000777	U	0.00971	0.006376		mg/L		66		58 - 130
Bis(2-ethylhexyl) phthalate	0.000359	U	0.00971	0.005504	N1	mg/L		57		59 - 130
Chrysene	0.0000777	U	0.00971	0.006030		mg/L		62		60 - 130
Benzo[a]pyrene	0.0000777	U	0.00971	0.005329	N1	mg/L		55		56 - 130

Surrogate	MS		Limits
	%Recovery	Qualifier	
2,4,6-Tribromophenol	69		10 - 147
2-Fluorobiphenyl	54		10 - 150
2-Fluorophenol	21		10 - 130
Nitrobenzene-d5	50		23 - 130
Terphenyl-d14	68		42 - 133
Phenol-d5 (Surr)	12		10 - 130

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-96083-1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Lab Sample ID: 600-96083-17 MSD

Matrix: Water

Analysis Batch: 140694

Client Sample ID: WG-1620-MW28C-20140725

Prep Type: Total/NA

Prep Batch: 140251

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.	Limits	RPD	Limit
	Result	Qualifier	Added	Result	Qualifier							
Phenol	0.0000388	U	0.00971	0.001592	N2	mg/L		16	10 - 144	21	20	
Nitrobenzene	0.000107	U	0.00971	0.005713		mg/L		59	41 - 130	20	20	
2,4-Dimethylphenol	0.000301	U	0.00971	0.006320		mg/L		65	45 - 130	16	20	
Bis(2-chloroethoxy)methane	0.000126	U	0.00971	0.005839		mg/L		60	36 - 134	20	20	
Naphthalene	0.0000777	U	0.00971	0.005860		mg/L		60	57 - 130	18	20	
2-Methylnaphthalene	0.0000680	U	0.00971	0.005724		mg/L		59	52 - 130	17	20	
2-Chloronaphthalene	0.0000777	U	0.00971	0.005816		mg/L		60	56 - 130	19	20	
Acenaphthylene	0.0000583	U	0.00971	0.005923		mg/L		61	58 - 130	18	20	
2,6-Dinitrotoluene	0.0000777	U	0.00971	0.006990		mg/L		72	56 - 130	18	20	
Acenaphthene	0.0000777	U	0.00971	0.005991		mg/L		62	59 - 130	16	20	
4-Nitrophenol	0.000544	U	0.0194	0.004052		mg/L		21	10 - 150	19	20	
Dibenzofuran	0.0000777	U	0.00971	0.006084		mg/L		63	56 - 130	18	20	
2,4-Dinitrotoluene	0.000126	U	0.00971	0.007645		mg/L		79	54 - 130	16	20	
Fluorene	0.0000680	U	0.00971	0.006811		mg/L		70	57 - 130	16	20	
4,6-Dinitro-2-methylphenol	0.000806	U	0.0194	0.01133		mg/L		58	10 - 145	16	20	
N-Nitrosodiphenylamine	0.0000971	U	0.00971	0.007734		mg/L		80	55 - 137	15	20	
1,2-Diphenylhydrazine	0.000107	U	0.00971	0.006520		mg/L		67	45 - 130	13	20	
Pentachlorophenol	0.000592	U	0.0194	0.01317		mg/L		68	27 - 130	12	20	
Phenanthrene	0.0000583	U	0.00971	0.007152		mg/L		74	60 - 130	12	20	
Anthracene	0.0000485	U	0.00971	0.007460		mg/L		77	46 - 132	13	20	
Di-n-butyl phthalate	0.000107	U	0.00971	0.007886		mg/L		81	61 - 130	13	20	
Fluoranthene	0.0000680	U	0.00971	0.007094		mg/L		73	63 - 130	11	20	
Pyrene	0.000107	U	0.00971	0.007639		mg/L		79	62 - 130	15	20	
Benzo[a]anthracene	0.0000777	U	0.00971	0.007247		mg/L		75	58 - 130	13	20	
Bis(2-ethylhexyl) phthalate	0.000359	U	0.00971	0.006294		mg/L		65	59 - 130	13	20	
Chrysene	0.0000777	U	0.00971	0.007062		mg/L		73	60 - 130	16	20	
Benzo[a]pyrene	0.0000777	U	0.00971	0.006209		mg/L		64	56 - 130	15	20	

Surrogate	MSD %Recovery	MSD Qualifier	Limits
2,4,6-Tribromophenol	79		10 - 147
2-Fluorobiphenyl	65		10 - 150
2-Fluorophenol	25		10 - 130
Nitrobenzene-d5	59		23 - 130
Terphenyl-d14	78		42 - 133
Phenol-d5 (Surr)	14		10 - 130

Unadjusted Detection Limits

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-96083-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	MQL	MDL	Units	Method
1,2-Dichloroethane	0.00100	0.000140	mg/L	8260B
Benzene	0.00100	0.0000800	mg/L	8260B
Chlorobenzene	0.00100	0.000120	mg/L	8260B
Ethylbenzene	0.00100	0.000110	mg/L	8260B
Methylene Chloride	0.00100	0.000150	mg/L	8260B
Toluene	0.00100	0.000150	mg/L	8260B
Vinyl chloride	0.00200	0.000110	mg/L	8260B
Xylenes, Total	0.00300	0.000260	mg/L	8260B

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	MQL	MDL	Units	Method
1,2-Diphenylhydrazine	0.000500	0.000110	mg/L	8270C LL
2,4-Dimethylphenol	0.000500	0.000310	mg/L	8270C LL
2,4-Dinitrotoluene	0.000500	0.000130	mg/L	8270C LL
2,6-Dinitrotoluene	0.000500	0.0000800	mg/L	8270C LL
2-Chloronaphthalene	0.000500	0.0000800	mg/L	8270C LL
2-Methylnaphthalene	0.000500	0.0000700	mg/L	8270C LL
4,6-Dinitro-2-methylphenol	0.00100	0.000830	mg/L	8270C LL
4-Nitrophenol	0.00100	0.000560	mg/L	8270C LL
Acenaphthene	0.000500	0.0000800	mg/L	8270C LL
Acenaphthylene	0.000500	0.0000600	mg/L	8270C LL
Anthracene	0.000500	0.0000500	mg/L	8270C LL
Benzo[a]anthracene	0.000500	0.0000800	mg/L	8270C LL
Benzo[a]pyrene	0.000500	0.0000800	mg/L	8270C LL
Bis(2-chloroethoxy)methane	0.000500	0.000130	mg/L	8270C LL
Bis(2-ethylhexyl) phthalate	0.000500	0.000370	mg/L	8270C LL
Chrysene	0.000500	0.0000800	mg/L	8270C LL
Dibenzofuran	0.000500	0.0000800	mg/L	8270C LL
Di-n-butyl phthalate	0.000500	0.000110	mg/L	8270C LL
Fluoranthene	0.000500	0.0000700	mg/L	8270C LL
Fluorene	0.000500	0.0000700	mg/L	8270C LL
Naphthalene	0.000500	0.0000800	mg/L	8270C LL
Nitrobenzene	0.000500	0.000110	mg/L	8270C LL
N-Nitrosodiphenylamine	0.000500	0.000100	mg/L	8270C LL
Pentachlorophenol	0.00100	0.000610	mg/L	8270C LL
Phenanthrene	0.000500	0.0000600	mg/L	8270C LL
Phenol	0.000500	0.0000400	mg/L	8270C LL
Pyrene	0.000500	0.000110	mg/L	8270C LL

QC Association Summary

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-96083-1

GC/MS VOA

Analysis Batch: 140562

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-96083-1	WG-1620-MW81B-20140724	Total/NA	Water	8260B	
600-96083-2 - DL	WG-1620-MW75B-20140724	Total/NA	Water	8260B	
600-96083-3	WG-1620-MW13-20140725	Total/NA	Water	8260B	
600-96083-4	WG-1620-MW21C-20140725	Total/NA	Water	8260B	
600-96083-5	WG-1620-DUP2-20140725	Total/NA	Water	8260B	
600-96083-6	WG-1620-MW39B-20140725	Total/NA	Water	8260B	
600-96083-8	WG-1620-MW12C-20140725	Total/NA	Water	8260B	
600-96083-10	WG-1620-FB5-20140725	Total/NA	Water	8260B	
600-96083-12	WG-1620-MW53C-20140725	Total/NA	Water	8260B	
600-96083-13	WG-1620-MW54C-20140725	Total/NA	Water	8260B	
600-96083-14	WG-1620-MW38B-20140725	Total/NA	Water	8260B	
600-96083-17	WG-1620-MW28C-20140725	Total/NA	Water	8260B	
600-96083-17 MS	WG-1620-MW28C-20140725	Total/NA	Water	8260B	
600-96083-17 MSD	WG-1620-MW28C-20140725	Total/NA	Water	8260B	
LCS 600-140562/3	Lab Control Sample	Total/NA	Water	8260B	
LCSD 600-140562/4	Lab Control Sample Dup	Total/NA	Water	8260B	
MB 600-140562/6	Method Blank	Total/NA	Water	8260B	

Analysis Batch: 140676

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-96083-2	WG-1620-MW75B-20140724	Total/NA	Water	8260B	
600-96083-7	WG-1620-TW41B-20140725	Total/NA	Water	8260B	
600-96083-9	WG-1620-MW12A-20140725	Total/NA	Water	8260B	
600-96083-11	WG-1620-MW-35B-20140725	Total/NA	Water	8260B	
600-96083-15	WG-1620-MW38A-20140725	Total/NA	Water	8260B	
600-96083-16	WG-1620-MW28A-20140725	Total/NA	Water	8260B	
600-96083-18	WG-1620-MW27C-20140725	Total/NA	Water	8260B	
LCS 600-140676/3	Lab Control Sample	Total/NA	Water	8260B	
LCSD 600-140676/4	Lab Control Sample Dup	Total/NA	Water	8260B	
MB 600-140676/7	Method Blank	Total/NA	Water	8260B	

Analysis Batch: 140700

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-96083-11 - DL	WG-1620-MW-35B-20140725	Total/NA	Water	8260B	
LCS 600-140700/3	Lab Control Sample	Total/NA	Water	8260B	
LCSD 600-140700/4	Lab Control Sample Dup	Total/NA	Water	8260B	
MB 600-140700/6	Method Blank	Total/NA	Water	8260B	

GC/MS Semi VOA

Prep Batch: 140251

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-96083-1	WG-1620-MW81B-20140724	Total/NA	Water	3510C	
600-96083-2	WG-1620-MW75B-20140724	Total/NA	Water	3510C	
600-96083-2 - DL	WG-1620-MW75B-20140724	Total/NA	Water	3510C	
600-96083-3	WG-1620-MW13-20140725	Total/NA	Water	3510C	
600-96083-4	WG-1620-MW21C-20140725	Total/NA	Water	3510C	
600-96083-5	WG-1620-DUP2-20140725	Total/NA	Water	3510C	
600-96083-6	WG-1620-MW39B-20140725	Total/NA	Water	3510C	
600-96083-7 - DL	WG-1620-TW41B-20140725	Total/NA	Water	3510C	

TestAmerica Houston

QC Association Summary

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-96083-1

GC/MS Semi VOA (Continued)

Prep Batch: 140251 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-96083-7	WG-1620-TW41B-20140725	Total/NA	Water	3510C	
600-96083-8	WG-1620-MW12C-20140725	Total/NA	Water	3510C	
600-96083-9 - DL	WG-1620-MW12A-20140725	Total/NA	Water	3510C	
600-96083-9	WG-1620-MW12A-20140725	Total/NA	Water	3510C	
600-96083-10	WG-1620-FB5-20140725	Total/NA	Water	3510C	
600-96083-11	WG-1620-MW-35B-20140725	Total/NA	Water	3510C	
600-96083-11 - DL	WG-1620-MW-35B-20140725	Total/NA	Water	3510C	
600-96083-12	WG-1620-MW53C-20140725	Total/NA	Water	3510C	
600-96083-13 - DL	WG-1620-MW54C-20140725	Total/NA	Water	3510C	
600-96083-13	WG-1620-MW54C-20140725	Total/NA	Water	3510C	
600-96083-14	WG-1620-MW38B-20140725	Total/NA	Water	3510C	
600-96083-15	WG-1620-MW38A-20140725	Total/NA	Water	3510C	
600-96083-16	WG-1620-MW28A-20140725	Total/NA	Water	3510C	
600-96083-17	WG-1620-MW28C-20140725	Total/NA	Water	3510C	
600-96083-17 MS	WG-1620-MW28C-20140725	Total/NA	Water	3510C	
600-96083-17 MSD	WG-1620-MW28C-20140725	Total/NA	Water	3510C	
600-96083-18	WG-1620-MW27C-20140725	Total/NA	Water	3510C	
LCS 600-140251/2-A	Lab Control Sample	Total/NA	Water	3510C	
MB 600-140251/1-A	Method Blank	Total/NA	Water	3510C	

Analysis Batch: 140694

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-96083-1	WG-1620-MW81B-20140724	Total/NA	Water	8270C LL	140251
600-96083-3	WG-1620-MW13-20140725	Total/NA	Water	8270C LL	140251
600-96083-4	WG-1620-MW21C-20140725	Total/NA	Water	8270C LL	140251
600-96083-5	WG-1620-DUP2-20140725	Total/NA	Water	8270C LL	140251
600-96083-6	WG-1620-MW39B-20140725	Total/NA	Water	8270C LL	140251
600-96083-7	WG-1620-TW41B-20140725	Total/NA	Water	8270C LL	140251
600-96083-8	WG-1620-MW12C-20140725	Total/NA	Water	8270C LL	140251
600-96083-9	WG-1620-MW12A-20140725	Total/NA	Water	8270C LL	140251
600-96083-10	WG-1620-FB5-20140725	Total/NA	Water	8270C LL	140251
600-96083-12	WG-1620-MW53C-20140725	Total/NA	Water	8270C LL	140251
600-96083-13	WG-1620-MW54C-20140725	Total/NA	Water	8270C LL	140251
600-96083-14	WG-1620-MW38B-20140725	Total/NA	Water	8270C LL	140251
600-96083-15	WG-1620-MW38A-20140725	Total/NA	Water	8270C LL	140251
600-96083-16	WG-1620-MW28A-20140725	Total/NA	Water	8270C LL	140251
600-96083-17	WG-1620-MW28C-20140725	Total/NA	Water	8270C LL	140251
600-96083-17 MS	WG-1620-MW28C-20140725	Total/NA	Water	8270C LL	140251
600-96083-17 MSD	WG-1620-MW28C-20140725	Total/NA	Water	8270C LL	140251
600-96083-18	WG-1620-MW27C-20140725	Total/NA	Water	8270C LL	140251
LCS 600-140251/2-A	Lab Control Sample	Total/NA	Water	8270C LL	140251

Analysis Batch: 140728

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-96083-2	WG-1620-MW75B-20140724	Total/NA	Water	8270C LL	140251
600-96083-7 - DL	WG-1620-TW41B-20140725	Total/NA	Water	8270C LL	140251
600-96083-8	WG-1620-MW12C-20140725	Total/NA	Water	8270C LL	140251
600-96083-9 - DL	WG-1620-MW12A-20140725	Total/NA	Water	8270C LL	140251
600-96083-11	WG-1620-MW-35B-20140725	Total/NA	Water	8270C LL	140251
600-96083-13 - DL	WG-1620-MW54C-20140725	Total/NA	Water	8270C LL	140251
MB 600-140251/1-A	Method Blank	Total/NA	Water	8270C LL	140251

TestAmerica Houston

QC Association Summary

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-96083-1

GC/MS Semi VOA (Continued)

Analysis Batch: 140914

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-96083-2 - DL	WG-1620-MW75B-20140724	Total/NA	Water	8270C LL	140251
600-96083-7 - DL	WG-1620-TW41B-20140725	Total/NA	Water	8270C LL	140251
600-96083-9 - DL	WG-1620-MW12A-20140725	Total/NA	Water	8270C LL	140251
600-96083-11 - DL	WG-1620-MW-35B-20140725	Total/NA	Water	8270C LL	140251
600-96083-13 - DL	WG-1620-MW54C-20140725	Total/NA	Water	8270C LL	140251

Lab Chronicle

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-96083-1

Client Sample ID: WG-1620-MW81B-20140724

Lab Sample ID: 600-96083-1

Date Collected: 07/24/14 17:30

Matrix: Water

Date Received: 07/28/14 16:34

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	140562	08/01/14 16:06	WS1	TAL HOU
Total/NA	Prep	3510C			140251	07/29/14 10:49	SMB	TAL HOU
Total/NA	Analysis	8270C LL		1	140694	08/02/14 16:11	TTD	TAL HOU

Client Sample ID: WG-1620-MW75B-20140724

Lab Sample ID: 600-96083-2

Date Collected: 07/24/14 18:25

Matrix: Water

Date Received: 07/28/14 16:34

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B	DL	50	140562	08/01/14 20:27	WS1	TAL HOU
Total/NA	Analysis	8260B		1	140676	08/02/14 17:16	WS1	TAL HOU
Total/NA	Prep	3510C			140251	07/29/14 10:49	SMB	TAL HOU
Total/NA	Analysis	8270C LL		20	140728	08/04/14 11:04	TTD	TAL HOU
Total/NA	Prep	3510C	DL		140251	07/29/14 10:49	SMB	TAL HOU
Total/NA	Analysis	8270C LL	DL	400	140914	08/06/14 01:57	MBB	TAL HOU

Client Sample ID: WG-1620-MW13-20140725

Lab Sample ID: 600-96083-3

Date Collected: 07/25/14 09:05

Matrix: Water

Date Received: 07/28/14 16:34

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	140562	08/01/14 16:32	WS1	TAL HOU
Total/NA	Prep	3510C			140251	07/29/14 10:49	SMB	TAL HOU
Total/NA	Analysis	8270C LL		1	140694	08/02/14 17:05	TTD	TAL HOU

Client Sample ID: WG-1620-MW21C-20140725

Lab Sample ID: 600-96083-4

Date Collected: 07/25/14 10:15

Matrix: Water

Date Received: 07/28/14 16:34

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	140562	08/01/14 16:58	WS1	TAL HOU
Total/NA	Prep	3510C			140251	07/29/14 10:49	SMB	TAL HOU
Total/NA	Analysis	8270C LL		1	140694	08/02/14 17:32	TTD	TAL HOU

Client Sample ID: WG-1620-DUP2-20140725

Lab Sample ID: 600-96083-5

Date Collected: 07/25/14 10:15

Matrix: Water

Date Received: 07/28/14 16:34

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	140562	08/01/14 17:24	WS1	TAL HOU
Total/NA	Prep	3510C			140251	07/29/14 10:49	SMB	TAL HOU
Total/NA	Analysis	8270C LL		1	140694	08/02/14 17:59	TTD	TAL HOU

TestAmerica Houston

Lab Chronicle

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-96083-1

Client Sample ID: WG-1620-MW39B-20140725

Lab Sample ID: 600-96083-6

Date Collected: 07/25/14 11:20

Matrix: Water

Date Received: 07/28/14 16:34

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	140562	08/01/14 17:50	WS1	TAL HOU
Total/NA	Prep	3510C			140251	07/29/14 10:49	SMB	TAL HOU
Total/NA	Analysis	8270C LL		1	140694	08/02/14 18:26	TTD	TAL HOU

Client Sample ID: WG-1620-TW41B-20140725

Lab Sample ID: 600-96083-7

Date Collected: 07/25/14 13:20

Matrix: Water

Date Received: 07/28/14 16:34

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	140676	08/02/14 15:57	WS1	TAL HOU
Total/NA	Prep	3510C	DL		140251	07/29/14 10:49	SMB	TAL HOU
Total/NA	Analysis	8270C LL	DL	5	140728	08/04/14 11:33	TTD	TAL HOU
Total/NA	Prep	3510C	DL		140251	07/29/14 10:49	SMB	TAL HOU
Total/NA	Analysis	8270C LL	DL	25	140914	08/06/14 02:25	MBB	TAL HOU
Total/NA	Prep	3510C			140251	07/29/14 10:49	SMB	TAL HOU
Total/NA	Analysis	8270C LL		1	140694	08/02/14 18:54	TTD	TAL HOU

Client Sample ID: WG-1620-MW12C-20140725

Lab Sample ID: 600-96083-8

Date Collected: 07/25/14 14:15

Matrix: Water

Date Received: 07/28/14 16:34

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	140562	08/01/14 18:16	WS1	TAL HOU
Total/NA	Prep	3510C			140251	07/29/14 10:49	SMB	TAL HOU
Total/NA	Analysis	8270C LL		10	140728	08/04/14 12:02	TTD	TAL HOU
Total/NA	Prep	3510C			140251	07/29/14 10:49	SMB	TAL HOU
Total/NA	Analysis	8270C LL		1	140694	08/02/14 19:21	TTD	TAL HOU

Client Sample ID: WG-1620-MW12A-20140725

Lab Sample ID: 600-96083-9

Date Collected: 07/25/14 15:05

Matrix: Water

Date Received: 07/28/14 16:34

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	140676	08/02/14 16:23	WS1	TAL HOU
Total/NA	Prep	3510C	DL		140251	07/29/14 10:49	SMB	TAL HOU
Total/NA	Analysis	8270C LL	DL	10	140728	08/04/14 12:31	TTD	TAL HOU
Total/NA	Prep	3510C	DL		140251	07/29/14 10:49	SMB	TAL HOU
Total/NA	Analysis	8270C LL	DL	50	140914	08/06/14 02:53	MBB	TAL HOU
Total/NA	Prep	3510C			140251	07/29/14 10:49	SMB	TAL HOU
Total/NA	Analysis	8270C LL		1	140694	08/02/14 19:48	TTD	TAL HOU

Lab Chronicle

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-96083-1

Client Sample ID: WG-1620-FB5-20140725

Lab Sample ID: 600-96083-10

Date Collected: 07/25/14 15:15

Matrix: Water

Date Received: 07/28/14 16:34

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	140562	08/01/14 18:43	WS1	TAL HOU
Total/NA	Prep	3510C			140251	07/29/14 10:49	SMB	TAL HOU
Total/NA	Analysis	8270C LL		1	140694	08/02/14 20:15	TTD	TAL HOU

Client Sample ID: WG-1620-MW-35B-20140725

Lab Sample ID: 600-96083-11

Date Collected: 07/24/14 16:30

Matrix: Water

Date Received: 07/28/14 16:34

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	140676	08/02/14 16:49	WS1	TAL HOU
Total/NA	Analysis	8260B	DL	10	140700	08/03/14 12:54	WS1	TAL HOU
Total/NA	Prep	3510C			140251	07/29/14 10:49	SMB	TAL HOU
Total/NA	Analysis	8270C LL		10	140728	08/04/14 13:00	TTD	TAL HOU
Total/NA	Prep	3510C	DL		140251	07/29/14 10:49	SMB	TAL HOU
Total/NA	Analysis	8270C LL	DL	500	140914	08/06/14 03:21	MBB	TAL HOU

Client Sample ID: WG-1620-MW53C-20140725

Lab Sample ID: 600-96083-12

Date Collected: 07/25/14 07:50

Matrix: Water

Date Received: 07/28/14 16:34

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	140562	08/01/14 19:09	WS1	TAL HOU
Total/NA	Prep	3510C			140251	07/29/14 10:49	SMB	TAL HOU
Total/NA	Analysis	8270C LL		1	140694	08/02/14 21:09	TTD	TAL HOU

Client Sample ID: WG-1620-MW54C-20140725

Lab Sample ID: 600-96083-13

Date Collected: 07/25/14 08:55

Matrix: Water

Date Received: 07/28/14 16:34

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	140562	08/01/14 19:35	WS1	TAL HOU
Total/NA	Prep	3510C	DL		140251	07/29/14 10:49	SMB	TAL HOU
Total/NA	Analysis	8270C LL	DL	5	140728	08/04/14 13:29	TTD	TAL HOU
Total/NA	Prep	3510C	DL		140251	07/29/14 10:49	SMB	TAL HOU
Total/NA	Analysis	8270C LL	DL	25	140914	08/06/14 03:49	MBB	TAL HOU
Total/NA	Prep	3510C			140251	07/29/14 10:49	SMB	TAL HOU
Total/NA	Analysis	8270C LL		1	140694	08/02/14 21:36	TTD	TAL HOU

Lab Chronicle

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-96083-1

Client Sample ID: WG-1620-MW38B-20140725

Lab Sample ID: 600-96083-14

Date Collected: 07/25/14 10:00

Matrix: Water

Date Received: 07/28/14 16:34

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	140562	08/01/14 20:01	WS1	TAL HOU
Total/NA	Prep	3510C			140251	07/29/14 10:49	SMB	TAL HOU
Total/NA	Analysis	8270C LL		1	140694	08/02/14 22:04	TTD	TAL HOU

Client Sample ID: WG-1620-MW38A-20140725

Lab Sample ID: 600-96083-15

Date Collected: 07/25/14 10:50

Matrix: Water

Date Received: 07/28/14 16:34

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	140676	08/02/14 14:38	WS1	TAL HOU
Total/NA	Prep	3510C			140251	07/29/14 10:49	SMB	TAL HOU
Total/NA	Analysis	8270C LL		1	140694	08/02/14 22:31	TTD	TAL HOU

Client Sample ID: WG-1620-MW28A-20140725

Lab Sample ID: 600-96083-16

Date Collected: 07/25/14 11:55

Matrix: Water

Date Received: 07/28/14 16:34

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	140676	08/02/14 15:04	WS1	TAL HOU
Total/NA	Prep	3510C			140251	07/29/14 10:49	SMB	TAL HOU
Total/NA	Analysis	8270C LL		1	140694	08/02/14 22:58	TTD	TAL HOU

Client Sample ID: WG-1620-MW28C-20140725

Lab Sample ID: 600-96083-17

Date Collected: 07/25/14 12:55

Matrix: Water

Date Received: 07/28/14 16:34

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	140562	08/01/14 12:09	WS1	TAL HOU
Total/NA	Prep	3510C			140251	07/29/14 10:49	SMB	TAL HOU
Total/NA	Analysis	8270C LL		1	140694	08/02/14 23:25	TTD	TAL HOU

Client Sample ID: WG-1620-MW27C-20140725

Lab Sample ID: 600-96083-18

Date Collected: 07/25/14 14:50

Matrix: Water

Date Received: 07/28/14 16:34

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	140676	08/02/14 15:31	WS1	TAL HOU
Total/NA	Prep	3510C			140251	07/29/14 18:28	SMB	TAL HOU
Total/NA	Analysis	8270C LL		1	140694	08/03/14 00:46	TTD	TAL HOU

Laboratory References:

TAL HOU = TestAmerica Houston, 6310 Rothway Street, Houston, TX 77040, TEL (713)690-4444

TestAmerica Houston

Certification Summary

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-96083-1

Laboratory: TestAmerica Houston

The certifications listed below are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Texas	NELAP	6	T104704223	10-31-14

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15
- 16

Houston

fax (713) 690-5646

Chain of C

Sampler: JOHN BRAYTON
Phone: 512-671-3434
Lab P/N: Kuchhadka
E-Mail: sachin.kuchhadka@testamerica.com

J. Behling & Wheeler LLC
Address: 2201 Double Creek Dr. Suite 4004
City: Round Rock
State, Zip: TX, 78664
Phone: 512-671-3434 (Tel) 512-671-3446 (Fax)
Email: eric.matzner@bwilc.com

Project Name: 1620 UPRR HWY W
Site: S50W#

Project #: 60003722
SSOW#:

PO #: Purchase Order not required
WO #:

Due Date Requested:
TAT Requested (days):

Hold Filled Sample (Yes or No):
Perform MS/MP (Yes or No):

Matrix (W=water, S=solid, O=soil, G=grab) I=In-Tissue, A=Air

Sample Type (C=comp, G=grab)

Sample Time

Sample Date

Sample Identification

Matrix (W=water, S=solid, O=soil, G=grab) I=In-Tissue, A=Air

Sample Type (C=comp, G=grab)

Sample Time

Sample Date

Sample Identification

Matrix (W=water, S=solid, O=soil, G=grab) I=In-Tissue, A=Air

Sample Type (C=comp, G=grab)

Sample Time

Sample Date

Sample Identification

Matrix (W=water, S=solid, O=soil, G=grab) I=In-Tissue, A=Air

Sample Type (C=comp, G=grab)

Sample Time

Sample Date

Sample Identification

Possible Hazard Identification

Non-Hazard Flammable Skin Irritant Polson B Unknown Radiological

Deliverable Requested: I, II, III, IV, Other (specify)

Empty Kit Relinquished by:

Relinquished by: [Signature]

Relinquished by: [Signature]

Relinquished by: [Signature]

Relinquished by: [Signature]

Relinquished by: [Signature]

Relinquished by: [Signature]

Relinquished by: [Signature]

Relinquished by: [Signature]

Relinquished by: [Signature]

Relinquished by: [Signature]

Relinquished by: [Signature]

Relinquished by: [Signature]

Relinquished by: [Signature]

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

Return To Client Disposal By Lab Archive For _____ Months

Special Instructions/QC Requirements:

Method of Shipment:

Received by: [Signature]

Received by: [Signature]

Received by: [Signature]

Received by: [Signature]

Received by: [Signature]

Received by: [Signature]

Received by: [Signature]

Received by: [Signature]

Received by: [Signature]

Received by: [Signature]

Received by: [Signature]

Received by: [Signature]



600-96083 Chain of Custody

GC No: 600-29460-10071.1

Page 1 of 1

Job #

Preservation Codes:

- A - HCL
- B - NaOH
- C - Zn Acetate
- D - Nitric Acid
- E - NaHSO4
- F - MeOH
- G - Anchlor
- H - Ascorbic Acid
- I - Ice
- J - DI Water
- K - EDTA
- L - EDA
- Other:

- M - Hexane
- N - None
- O - AsNaO2
- P - Na2O4S
- Q - Na2SO3
- R - Na2S2O3
- S - H2SO4
- T - TSP Dodecahydrate
- U - Acetone
- V - MCPVA
- W - pH 4.5
- X - other (specify)

Total Number of Containers

Special Instructions/Note:

Analysis Requested

Analysis Requested

Analysis Requested

Analysis Requested

Analysis Requested

Analysis Requested

Analysis Requested

Analysis Requested

Analysis Requested

Analysis Requested

Analysis Requested

Analysis Requested

Analysis Requested

Analysis Requested

Analysis Requested

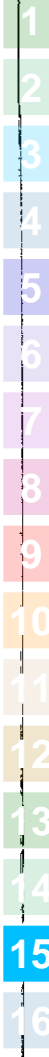
Analysis Requested

Analysis Requested

Analysis Requested



Client Information		Sample: <i>Steve Berndt</i>		Lab P# Kudchadkar, Sachin G		Carrier Tracking No(s):		COC No: 600-29460-10071.1	
Client Contact Mr. Eric Matzner		Phone <i>254-760-5604</i>		E-Mail: sachin.kudchadkar@testamericainc.com		Page ___ of ___		Job #	
Company: Pastor, Behling & Wheeler LLC		Due Date Requested:		Analysis Requested		Total Number of Containers		Preservation Codes:	
Address: 2201 Double Creek Dr Suite 4004		TAT Requested (days): 10-Business Days		Purchase Order not required		PO #		A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA Other:	
City: Round Rock		PO #		WO #		Project #		M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - Na2S2O3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - ph 4-5 Z - other (specify)	
State, Zip: TX, 78664		Email: eric.matzner@pbwllc.com		Project #		SSOW#		Special Instructions/Note:	
Phone: 512-671-3434(Tel) 512-671-3446(Fax)		Sample Date		Sample Time		Sample Type (C=Comp, G=grab)		Matrix (W=water, S=solid, D=dewar, O=oil, A=air)	
Email: eric.matzner@pbwllc.com		Sample Date		Sample Time		Sample Type		Matrix	
Project Name: 1620 UPRR HWPW		Sample Date		Sample Time		Sample Type		Matrix	
Site:		Sample Date		Sample Time		Sample Type		Matrix	
Sample Identification		Sample Date		Sample Time		Sample Type		Matrix	
<i>WG-1620-MW35B-20140724</i>		<i>7-24-14</i>		<i>1630</i>		<i>G</i>		<i>Water</i>	
<i>WG-1620-MW53C-20140725</i>		<i>7-25-14</i>		<i>750</i>		<i>T</i>		<i>Water</i>	
<i>WG-1620-MW54C-20140725</i>		<i>7-25-14</i>		<i>955</i>		<i>T</i>		<i>Water</i>	
<i>WG-1620-MW38B-20140725</i>		<i>7-25-14</i>		<i>1000</i>		<i>T</i>		<i>Water</i>	
<i>WG-1620-MW38A-20140725</i>		<i>7-25-14</i>		<i>1050</i>		<i>T</i>		<i>Water</i>	
<i>WG-1620-MW28A-20140725</i>		<i>7-25-14</i>		<i>1155</i>		<i>T</i>		<i>Water</i>	
<i>WG-1620-MW28C-20140725</i>		<i>7-25-14</i>		<i>1255</i>		<i>T</i>		<i>Water</i>	
<i>WG-1620-MW27C-20140728</i>		<i>7-28-14</i>		<i>1450</i>		<i>R</i>		<i>Water</i>	
Possible Hazard Identification		Date/Time		Date/Time		Date/Time		Date/Time	
<input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input checked="" type="checkbox"/> Unknown <input type="checkbox"/> Radiological		Date/Time		Date/Time		Date/Time		Date/Time	
Deliverable Requested: I, II, III, IV, Other (specify)		Date/Time		Date/Time		Date/Time		Date/Time	
Empty Kit Relinquished by:		Date:		Date:		Date:		Date:	
Relinquished by: <i>Steve Berndt</i>		Date/Time: <i>7-25-14 1634</i>		Date/Time:		Date/Time:		Date/Time:	
Relinquished by:		Date/Time:		Date/Time:		Date/Time:		Date/Time:	
Relinquished by:		Date/Time:		Date/Time:		Date/Time:		Date/Time:	
Custody Seals Intact: Δ Yes Δ No		Custody Seal No.:		Custody Seal No.:		Custody Seal No.:		Custody Seal No.:	
Special Instructions/QC Requirements:		Special Instructions/QC Requirements:		Special Instructions/QC Requirements:		Special Instructions/QC Requirements:		Special Instructions/QC Requirements:	
Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months		Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months		Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months		Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months		Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months	
Method of Shipment:		Method of Shipment:		Method of Shipment:		Method of Shipment:		Method of Shipment:	
Received by:		Date/Time:		Date/Time:		Date/Time:		Date/Time:	
Received by:		Date/Time:		Date/Time:		Date/Time:		Date/Time:	
Received by:		Date/Time:		Date/Time:		Date/Time:		Date/Time:	
Cooler Temperature(s) 36 and Other Remarks:		Cooler Temperature(s) 36 and Other Remarks:		Cooler Temperature(s) 36 and Other Remarks:		Cooler Temperature(s) 36 and Other Remarks:		Cooler Temperature(s) 36 and Other Remarks:	



Sample Receipt Checklist

14 JUL 25 16:34

Loc: 600
96083

Date/Time Received: _____

JOB NUMBER: _____

CLIENT: PCW

UNPACKED BY: _____

CARRIER/DRIVER: client

Custody Seal Present: YES NO

Number of Coolers Received: 4

Cooler ID	Temp Blank	Trip Blank	Observed Temp (°C)	Therm ID	Them CF	Corrected Temp (°C)
<u>BW</u>	Y / N	Y / N	<u>4.0</u>	<u>549</u>	<u>-0.2</u>	<u>3.8</u>
<u>BW</u>	Y / N	Y / N	<u>3.8</u>	<u>549</u>	<u>-0.2</u>	<u>3.6</u>
<u>RW</u>	Y / N	Y / N	<u>5.8</u>	<u>549</u>	<u>-0.2</u>	<u>5.6</u>
<u>RW</u>	Y / N	Y / N	<u>5.2</u>	<u>549</u>	<u>-0.2</u>	<u>5.0</u>
	Y / N	Y / N				
	Y / N	Y / N				
	Y / N	Y / N	<u>7/28/14</u>			
	Y / N	Y / N				
	Y / N	Y / N				

CF = correction factor

Samples received on ice? YES NO

LABORATORY PRESERVATION OF SAMPLES REQUIRED: NO YES

Base samples are > pH 12: YES NO Acid preserved are < pH 2: YES NO

pH paper Lot # _____

VOA headspace acceptable (5-6mm): YES NO NA

Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?	YES	NO
	<input checked="" type="checkbox"/>	<input type="checkbox"/>

COMMENTS:

7/28/14
DL

Login Sample Receipt Checklist

Client: Pastor, Behling & Wheeler LLC

Job Number: 600-96083-1

Login Number: 96083

List Source: TestAmerica Houston

List Number: 1

Creator: Lockett, DuJuan D

Question	Answer	Comment
Radioactivity wasn't checked or is <=/ background as measured by a survey meter.	N/A	Lab does not accept radioactive samples.
The cooler's custody seal, if present, is intact.	False	Not present
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	3.8, 3.6, 5.6, 5.0
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	Check done at department level as required.

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Houston
6310 Rothway Street
Houston, TX 77040
Tel: (713)690-4444

TestAmerica Job ID: 600-96330-1

Client Project/Site: 1620 UPRR HWPW

For:

Pastor, Behling & Wheeler LLC
2201 Double Creek Dr
Suite 4004
Round Rock, Texas 78664

Attn: Mr. Eric Matzner



Authorized for release by:

8/15/2014 11:26:59 AM

Sophia Shah, Project Management Assistant I
sophia.shah@testamericainc.com

Designee for

Sachin Kudchadkar, Senior Project Manager
(713)690-4444
sachin.kudchadkar@testamericainc.com

LINKS

Review your project
results through
TotalAccess

Have a Question?



Visit us at:
www.testamericainc.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

- 1
- 2
- 3
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- 14
- 15
- 16



Table of Contents

Cover Page	1
Table of Contents	2
TRRP Checklists & DCSs	3
Case Narrative	12
Method Summary	13
Sample Summary	14
Client Sample Results	15
Definitions/Glossary	43
Surrogate Summary	44
QC Sample Results	47
Default Detection Limits	60
QC Association Summary	61
Lab Chronicle	65
Certification Summary	70
Chain of Custody	71
Receipt Checklists	74

Appendix A

Laboratory Data Package Cover Page - Page 1 of 4

This data package is for TestAmerica Houston job number 600-96330-1 and consists of:

- R1 - Field chain-of-custody documentation;
- R2 - Sample identification cross-reference;
- R3 - Test reports (analytical data sheets) for each environmental sample that includes:
 - a. Items consistent with NELAC Chapter 5,
 - b. dilution factors,
 - c. preparation methods,
 - d. cleanup methods, and
 - e. if required for the project, tentatively identified compounds (TICs).
- R4 - Surrogate recovery data including:
 - a. Calculated recovery (%R), and
 - b. The laboratory's surrogate QC limits.
- R5 - Test reports/summary forms for blank samples;
- R6 - Test reports/summary forms for laboratory control samples (LCSs) including:
 - a. LCS spiking amounts,
 - b. Calculated %R for each analyte, and
 - c. The laboratory's LCS QC limits.
- R7 - Test reports for project matrix spike/matrix spike duplicates (MS/MSDs) including:
 - a. Samples associated with the MS/MSD clearly identified,
 - b. MS/MSD spiking amounts,
 - c. Concentration of each MS/MSD analyte measured in the parent and spiked samples,
 - d. Calculated %Rs and relative percent differences (RPDs), and
 - e. The laboratory's MS/MSD QC limits
- R8 - Laboratory analytical duplicate (if applicable) recovery and precision:
 - a. The amount of analyte measured in the duplicate,
 - b. The calculated RPD, and
 - c. The laboratory's QC limits for analytical duplicates.
- R9 - List of method quantitation limits (MQLs) and detectability check sample results for each analyte for each method and matrix.
- R10 - Other problems or anomalies.

The Exception Report for each "No" or "Not Reviewed (NR)" item in Laboratory Review Checklist and for each analyte, matrix, and method for which the laboratory does not hold NELAC accreditation under the Texas Laboratory Accreditation Program.

Release Statement: I am responsible for the release of this laboratory data package. This laboratory is NELAC accredited under the Texas Laboratory Accreditation Program for all the methods, analytes, and matrices reported in this data package except as noted in the Exception Reports. The data have been reviewed and are technically compliant with the requirements of the methods used, except where noted by the laboratory in the Exception Reports. By my signature below, I affirm to the best of my knowledge all problems/anomalies observed by the laboratory have been identified in the Laboratory Review Checklist, and no information affecting the quality of the data has been knowingly withheld.

Sophia Shah
Name (printed)



Signature

8/15/2014
Date

Project Management Assistant
Official Title (printed)

Laboratory Review Checklist: Reportable Data - Page 2 of 4

Laboratory Name:	TestAmerica Houston	LRC Date:	8/15/2014
Project Name:	1620 UPRR HWPW	Laboratory Job Number:	600-96330-1
Reviewer Name:	Sachin G Kudchadkar		

# ¹	A ²	Description	Yes	No	NA ³	NR ⁴	ER# ⁵
R1	OI	Chain-of-custody (C-O-C)					
		Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?	X				
		Were all departures from standard conditions described in an exception report?	X				
R2	OI	Sample and quality control (QC) identification					
		Are all field sample ID numbers cross-referenced to the laboratory ID numbers?	X				
		Are all laboratory ID numbers cross-referenced to the corresponding QC data?	X				
R3	OI	Test reports					
		Were all samples prepared and analyzed within holding times?		X			R03A
		Other than those results < MQL, were all other raw values bracketed by calibration standards?	X				
		Were calculations checked by a peer or supervisor?	X				
		Were all analyte identifications checked by a peer or supervisor?	X				
		Were sample detection limits reported for all analytes not detected?	X				
		Were all results for soil and sediment samples reported on a dry weight basis?			X		
		Were % moisture (or solids) reported for all soil and sediment samples?			X		
		Were bulk soils/solids samples for volatile analysis extracted with methanol per SW846 Method 5035?			X		
		If required for the project, are TICs reported?			X		
R4	O	Surrogate recovery data					
		Were surrogates added prior to extraction?	X				
		Were surrogate percent recoveries in all samples within the laboratory QC limits?		X			R04B
R5	OI	Test reports/summary forms for blank samples					
		Were appropriate type(s) of blanks analyzed?	X				
		Were blanks analyzed at the appropriate frequency?	X				
		Were method blanks taken through the entire analytical process, including preparation and, if applicable, cleanup procedures?	X				
		Were blank concentrations < MQL?	X				R05D
R6	OI	Laboratory control samples (LCS):					
		Were all COCs included in the LCS?	X				
		Was each LCS taken through the entire analytical procedure, including prep and cleanup steps?	X				
		Were LCSs analyzed at the required frequency?	X				
		Were LCS (and LCSD, if applicable) %Rs within the laboratory QC limits?		X			R06D
		Does the detectability check sample data document the laboratory's capability to detect the COCs at the MDL used to calculate the SDLs?	X				
		Was the LCSD RPD within QC limits?	X				
R7	OI	Matrix spike (MS) and matrix spike duplicate (MSD) data					
		Were the project/method specified analytes included in the MS and MSD?	X				
		Were MS/MSD analyzed at the appropriate frequency?	X				
		Were MS (and MSD, if applicable) %Rs within the laboratory QC limits?		X			R07C
		Were MS/MSD RPDs within laboratory QC limits?	X				
R8	OI	Analytical duplicate data					
		Were appropriate analytical duplicates analyzed for each matrix?			X		
		Were analytical duplicates analyzed at the appropriate frequency?			X		
		Were RPDs or relative standard deviations within the laboratory QC limits?			X		
R9	OI	Method quantitation limits (MQLs):					
		Are the MQLs for each method analyte included in the laboratory data package?	X				
		Do the MQLs correspond to the concentration of the lowest non-zero calibration standard?	X				
		Are unadjusted MQLs and DCSs included in the laboratory data package?	X				
R10	OI	Other problems/anomalies					
		Are all known problems/anomalies/special conditions noted in this LRC and ER?	X				
		Was applicable and available technology used to lower the SDL to minimize the matrix interference effects on the sample results?		X			R10B
		Is the laboratory NELAC-accredited under the Texas Laboratory Accreditation Program for the analytes, matrices and methods associated with this laboratory data package?	X				

- Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.
- O = organic analyses; I = inorganic analyses (and general chemistry, when applicable);
- NA = Not applicable;
- NR = Not reviewed;
- ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

Laboratory Review checklist: Supporting Data - Page 3 of 4

Laboratory Name:	TestAmerica Houston	LRC Date:	8/15/2014
Project Name:	1620 UPRR HWPW	Laboratory Job Number:	600-96330-1
Reviewer Name:	Sachin G Kudchadkar		

# ¹	A ²	Description	Yes	No	NA ³	NR ⁴	ER# ⁵
S1	OI	Initial calibration (ICAL)					
		Were response factors and/or relative response factors for each analyte within QC limits?	X				
		Were percent RSDs or correlation coefficient criteria met?	X				
		Was the number of standards recommended in the method used for all analytes?	X				
		Were all points generated between the lowest and highest standard used to calculate the curve?	X				
		Are ICAL data available for all instruments used?	X				
		Has the initial calibration curve been verified using an appropriate second source standard?	X				
S2	OI	Initial and continuing calibration verification (ICV and CCV) and continuing calibration blank (CCB):					
		Was the CCV analyzed at the method-required frequency?	X				
		Were percent differences for each analyte within the method-required QC limits?	X				
		Was the ICAL curve verified for each analyte?			X		
		Was the absolute value of the analyte concentration in the inorganic CCB < MDL?			X		
S3	O	Mass spectral tuning					
		Was the appropriate compound for the method used for tuning?	X				
		Were ion abundance data within the method-required QC limits?	X				
S4	O	Internal standards (IS)					
		Were IS area counts and retention times within the method-required QC limits?	X				
S5	OI	Raw data (NELAC Section 5.5.10)					
		Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?	X				
		Were data associated with manual integrations flagged on the raw data?	X				
S6	O	Dual column confirmation					
		Did dual column confirmation results meet the method-required QC?			X		
S7	O	Tentatively identified compounds (TICs)					
		If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?			X		
S8	I	Interference Check Sample (ICS) results					
		Were percent recoveries within method QC limits?			X		
S9	I	Serial dilutions, post digestion spikes, and method of standard additions					
		Were percent differences, recoveries, and the linearity within the QC limits specified in the method?			X		
S10	OI	Method detection limit (MDL) studies					
		Was a MDL study performed for each reported analyte?	X				
		Is the MDL either adjusted or supported by the analysis of DCSS?	X				
S11	OI	Proficiency test reports					
		Was the laboratory's performance acceptable on the applicable proficiency tests or evaluation studies?	X				
S12	OI	Standards documentation					
		Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?	X				
S13	OI	Compound/analyte identification procedures					
		Are the procedures for compound/analyte identification documented?	X				
S14	OI	Demonstration of analyst competency (DOC)					
		Was DOC conducted consistent with NELAC Chapter 5?	X				
		Is documentation of the analyst's competency up-to-date and on file?	X				
S15	OI	Verification/validation documentation for methods (NELAC Chapter 5)					
		Are all the methods used to generate the data documented, verified, and validated, where applicable?	X				
S16	OI	Laboratory standard operating procedures (SOPs)					
		Are laboratory SOPs current and on file for each method performed?	X				
<p>1. Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.</p> <p>2. O = organic analyses; I = inorganic analyses (and general chemistry, when applicable);</p> <p>3. NA = Not applicable;</p> <p>4. NR = Not reviewed;</p> <p>5. ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).</p>							

Laboratory Review Checklist: Exception Reports - Page 4 of 4

Laboratory Name:	TestAmerica Houston	LRC Date:	8/15/2014
Project Name:	1620 UPRR HWPW	Laboratory Job Number:	600-96330-1
Reviewer Name:	Sachin G Kudchadkar		

ER # ¹	Description
R03A	Method 8270C LL: Re-extraction and re-analysis of the following sample(s) was performed outside of the analytical holding time due to surrogate failure: 600-96330-20 . Both sets of data have been reported.
R04B	<p>Method 8270C LL: Six surrogates are used for this analysis. The laboratory's SOP allows two of these surrogates (one base and one acid) to be outside acceptance criteria without performing re-extraction/re-analysis. The following sample(s) contained an allowable number of surrogate compounds outside limits (two: Phenol-d5 and Terphenyl-d14): 600-96330-16, 600-96330-17, 600-96330-18, and 600-96330-19. These results have been reported and qualified.</p> <p>Method 8270C LL: Six surrogates are used for this analysis. The laboratory's SOP allows two of these surrogates to be outside acceptance criteria without performing re-extraction/re-analysis. The following sample(s) contained an allowable number of surrogate compounds outside limits (one: Phenol-d5): 600-96330-10. These results have been reported and qualified.</p> <p>Method 8270C LL: Six surrogates are used for this analysis. The laboratory's SOP allows two of these surrogates to be outside acceptance criteria without performing re-extraction/re-analysis. The following sample(s) contained an allowable number of surrogate compounds outside limits (one: Phenol-d5): 600-96330-2 and 600-96330-7. These results have been reported and qualified.</p> <p>Method 8270C LL: Surrogate recovery for the following sample(s) was outside control limits: 600-96330-20. Re-extraction and re-analysis was performed outside of holding time with acceptable results. Both sets of data have been reported.</p> <p>Method 8270C LL: The following sample(s) required a dilution due to the nature of the sample matrix: 600-96330-4, 600-96330-5, 600-96330-8, 600-96330-14, 600-96330-15, 600-96330-17, and 600-96330-18. Because of this dilution, the surrogate spike concentration in the sample was reduced to a level where the recovery calculation does not provide useful information.</p>
R05D	Method 8270C LL: The method blank for batch 140988 contained Naphthalene above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed.
R06D	Method 8270C LL: The laboratory control sample (LCS) / laboratory control sample duplicate (LCSD) for batch 141439 was biased low for various analytes. The associated sample(s) was re-prepared and/or re-analyzed outside holding time. There was insufficient sample remaining to perform a third extraction and analysis; therefore, both sets of data have been reported.
R07C	Method 8270C LL: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for batch 140988 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.
R10B	<p>Method 8260B: The following samples were diluted to bring the concentration of target analytes within the calibration range: 600-96330-4, 600-96330-5, 600-96330-8, 600-96330-14, and 600-96330-15. Elevated reporting limits (RLs) are provided.</p> <p>Method 8270C LL: The following samples were diluted to bring the concentration of target analytes within the calibration range: 600-96330-4, 600-96330-5, 600-96330-8, 600-96330-14, 600-96330-15, 600-96330-17, and 600-96330-18. Elevated reporting limits (RLs) are provided.</p>
	<ol style="list-style-type: none"> Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period. O = organic analyses; I = inorganic analyses (and general chemistry, when applicable); NA = Not applicable; NR = Not reviewed; ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

Matrix: Water
Method: 8260B_LL
Prep Method: No Prep
Date Analyzed: 3/21/2014
Job #: 600-88537
TALS Batch: 130207
Units: ug/L

Analyte	Instrument #	MDL	DCS Spike	Measured Result	MQL
1,1,1,2-Tetrachloroethane	VOAMS07	0.180	0.500	0.545	1
1,1,1-Trichloroethane	VOAMS07	0.150	0.500	0.610	1
1,1,2,2-Tetrachloroethane	VOAMS07	0.220	0.500	0.432	1
1,1,2-Trichloro-1,2,2-trifluoroethane	VOAMS01	1.000	1.000	0.906	1
1,1,2-Trichloroethane	VOAMS01	0.280	1.000	0.836	1
1,1-Dichloroethane	VOAMS07	0.11	0.5	0.476	1
1,1-Dichloroethene	VOAMS07	0.190	0.500	0.495	1
1,1-Dichloropropene	VOAMS07	0.210	0.500	0.833	1
1,2,3-Trichlorobenzene	VOAMS01	0.570	1.000	1.041	1
1,2,3-Trichloropropane	VOAMS01	0.290	1.000	1.028	1
1,2,3-Trimethylbenzene	VOAMS07	0.130	0.500	0.714	1
1,2,4-Trichlorobenzene	VOAMS01	0.310	1.000	0.904	1
1,2,4-Trimethylbenzene	VOAMS07	0.140	0.500	0.730	1
1,2-Dibromo-3-Chloropropane	VOAMS01	0.810	1.000	0.586	1
1,2-Dichlorobenzene	VOAMS07	0.1	0.5	0.417	1
1,2-Dichloroethane	VOAMS07	0.140	0.500	0.596	1
1,2-Dichloroethene, Total	VOAMS07	0.300	1.000	0.960	1
1,2-Dichloropropane	VOAMS07	0.160	0.500	0.450	1
1,3,5-Trichlorobenzene	VOAMS01	1.000	1.000	0.908	1
1,3,5-Trimethylbenzene	VOAMS07	0.1	0.5	0.715	1
1,3-Dichlorobenzene	VOAMS07	0.130	0.500	0.435	1
1,3-Dichloropropane	VOAMS07	0.220	0.500	0.489	1
1,3-Dichloropropene, Total	VOAMS07	0.11	1	1.81	1
1,4-Dichlorobenzene	VOAMS07	0.11	0.5	0.5	1
1,4-Dioxane	VOAMS01	30.79	20	16.089	50
1-Chlorohexane	VOAMS01	0.260	1.000	1.097	1
2,2-Dichloropropane	VOAMS07	0.130	0.500	0.563	1
2-Butanone (MEK)	VOAMS01	0.760	2.000	1.428	2
2-Chloro-1,3-butadiene	VOAMS01	0.330	1.000	1.011	1
2-Chloroethyl vinyl ether	VOAMS01	0.500	2.000	2.554	2
2-Chlorotoluene	VOAMS07	0.130	0.500	0.665	1
2-Hexanone	VOAMS07	0.350	1.000	1.971	2
2-Methyl-2-propanol	VOAMS07	10.47	5	5.576	20
2-Methylnaphthalene	VOAMS01	1	1	0	1
2-Nitropropane	VOAMS01	1.210	2.000	4.577	1
3-Chloro-1-propene	VOAMS07	0.240	0.500	0.953	2
4-Chlorotoluene	VOAMS07	0.140	0.500	0.337	1
4-Isopropyltoluene	VOAMS07	0.1	0.5	0.403	1
4-Methyl-2-pentanone (MIBK)	VOAMS07	0.450	1.000	1.760	2
Acetone	VOAMS01	0.990	2.000	0.565	5
Acetonitrile	VOAMS07	0.27	5	3.915	2
Acrolein	VOAMS01	1.630	5.000	5.060	5
Acrylonitrile	VOAMS07	0.52	5	3.884	5
Benzene	VOAMS07	0.08	0.5	0.459	1
Benzyl chloride	VOAMS07	0.240	0.500	0.875	1
Bromobenzene	VOAMS07	0.190	0.500	0.489	1
Bromoform	VOAMS07	0.190	0.500	0.573	1
Bromomethane	VOAMS01	0.250	1.000	0.804	2
Butadiene	VOAMS07	0.210	0.500	0.384	1
Carbon disulfide	VOAMS07	0.240	0.500	0.434	2
Carbon tetrachloride	VOAMS07	0.150	0.500	0.610	1

Matrix: Water
Method: 8260B_LL
Prep Method: No Prep
Date Analyzed: 3/21/2014
Job #: 600-88537
TALS Batch: 130207
Units: ug/L

Analyte	Instrument #	MDL	DCS Spike	Measured Result	MQL
Chlorobenzene	VOAMS07	0.12	0.5	0.508	1
Chlorobromomethane	VOAMS07	0.180	0.500	0.517	1
Chlorodibromomethane	VOAMS07	0.150	0.500	0.565	1
Chloroethane	VOAMS07	0.08	0.5	0.549	2
Chloroform	VOAMS07	0.130	0.500	0.573	1
Chloromethane	VOAMS07	0.180	0.500	0.424	2
cis-1,2-Dichloroethene	VOAMS07	0.06	0.5	0.491	1
cis-1,3-Dichloropropene	VOAMS07	0.180	0.500	0.807	1
Cyclohexane	VOAMS07	0.160	0.500	0.700	1
Cyclohexanone	VOAMS07	8.640	25.000	31.282	50
Dibromomethane	VOAMS01	0.520	1.000	0.343	1
Dichlorobromomethane	VOAMS07	0.160	0.500	0.490	1
Dichlorodifluoromethane	VOAMS07	0.12	0.5	0.476	1
Dichlorofluoromethane	VOAMS01	1.000	1.000	1.214	1
Ethanol	VOAMS07	1	25	0	1
Ethyl acetate	VOAMS07	0.410	1.000	2.127	2
Ethyl acrylate	VOAMS01	0.340	1.000	0.535	2
Ethyl ether	VOAMS07	0.150	0.500	0.836	1
Ethyl methacrylate	VOAMS01	0.260	1.000	0.915	2
Ethylbenzene	VOAMS07	0.11	0.5	0.769	1
Ethylene Dibromide	VOAMS07	0.180	0.500	0.466	1
Ethylene oxide	VOAMS01	2.13	20	4.963	10
Hexachlorobutadiene	VOAMS07	0.170	0.500	0.685	1
Hexane	VOAMS07	0.160	0.500	0.433	1
Iodomethane	VOAMS07	0.158	0.500	0.517	2
Isobutyl alcohol	VOAMS07	3.320	12.500	9.263	10
Isooctane	VOAMS01	0.330	1.000	0.661	1
Isopropyl alcohol	VOAMS01	3.720	10.000	0.586	10
Isopropyl ether	VOAMS07	0.09	0.5	0.443	1
Isopropylbenzene	VOAMS07	0.180	0.500	0.757	1
Methacrylonitrile	VOAMS07	0.41	5	3.96	2
Methyl acetate	VOAMS07	0.55	2.5	1.883	2
Methyl methacrylate	VOAMS07	0.330	1.000	1.663	1
Methyl tert-butyl ether	VOAMS07	0.12	0.5	0.947	1
Methylcyclohexane	VOAMS07	0.1	0.5	0.719	1
Methylene Chloride	VOAMS07	0.150	0.500	1.229	5
m-Xylene & p-Xylene	VOAMS07	0.170	0.500	0.838	1
Naphthalene	VOAMS01	0.320	1.000	1.120	2
n-Butyl acetate	VOAMS01	0.19	1	1.902	1
n-Butylbenzene	VOAMS07	0.160	0.500	0.585	1
n-Heptane	VOAMS01	1.000	1.000	0.511	1
N-Propylbenzene	VOAMS07	0.150	0.500	0.892	1
o-Xylene	VOAMS07	0.12	0.5	0.543	1
Pentachloroethane	VOAMS01	1.000	1.000	1.053	1
Propionitrile	VOAMS07	0.66	5	3.711	5
sec-Butylbenzene	VOAMS07	0.12	0.5	0.659741	1
Styrene	VOAMS07	0.07	0.5	1.110441	1
Tert-amyl methyl ether	VOAMS01	1.000	1.000	0.633	1
Tert-butyl ethyl ether	VOAMS01	1.000	1.000	0.677	1
tert-Butylbenzene	VOAMS07	0.08	0.5	0.880472	1
Tetrachloroethene	VOAMS07	0.130	0.500	0.817	1

Matrix: Water
Method: 8260B_LL
Prep Method: No Prep
Date Analyzed: 3/21/2014
Job #: 600-88537
TALS Batch: 130207
Units: ug/L

Analyte	Instrument #	MDL	DCS Spike	Measured Result	MQL
Tetrahydrofuran	VOAMS01	1.080	2.000	1.071	5
Toluene	VOAMS07	0.150	0.500	0.506	1
trans-1,2-Dichloroethene	VOAMS07	0.09	0.5	0.472189	1
trans-1,3-Dichloropropene	VOAMS07	0.210	0.500	1.009	1
trans-1,4-Dichloro-2-butene	VOAMS01	0.640	1.000	0.676	2
Trichloroethene	VOAMS07	0.180	0.500	0.498	1
Trichlorofluoromethane	VOAMS07	0.08	0.5	0.539265	1
Trihalomethanes, Total	VOAMS01	1.000	4.000	3.600	5
Vinyl acetate	VOAMS07	0.21	1	1.798318	2
Vinyl chloride	VOAMS07	0.11	1	1.38	2
Xylenes, Total	VOAMS07	0.260	1.000	1.380	1



Matrix: Water
Method: 8270C_LL
Prep Method: 3510C_LL
Date Analyzed: 3/21/2014
Job #: 600-87830
TALS Batch: 130292
Units: ug/L

Analyte	Instrument #	MDL	DCS Spike	Measured Result	MQL
1,1'-Biphenyl	SVMS06	0.100	0.125	0.089	1
1,2,4,5-Tetrachlorobenzene	SVMS06	0.100	0.125	0.122	1.5
1,2,4-Trichlorobenzene	SVMS06	0.120	0.125	0.072	2
1,2-Dichlorobenzene	SVMS06	0.170	0.250	0.174	1.75
1,2-Diphenylhydrazine	SVMS06	0.110	0.125	0.079	2
1,3-Dichlorobenzene	SVMS06	0.170	0.250	0.188	1.5
1,4-Dichlorobenzene	SVMS06	0.130	0.250	0.178	2
1,4-Dinitrobenzene	SVMS06	5.00	2.50	1.77	5
1-Methylnaphthalene	SVMS06	0.090	0.125	0.096	2
1-Naphthylamine	SVMS06	0.170	0.500	0.181	2
2,2'-oxybis[1-chloropropane]	SVMS06	0.400	0.250	0.159	1.5
2,3,5,6-Tetrachlorophenol	SVMS06	0.500	0.500	0.870	5
2,4,5-Trichlorophenol	SVMS06	0.250	0.250	0.102	2
2,4,6-Trichlorophenol	SVMS06	0.180	0.250	0.115	2
2,4-Dichlorophenol	SVMS06	0.150	0.250	0.071	2.5
2,4-Dinitrotoluene	SVMS06	0.130	0.250	0.385	1.5
2,6-Dinitrotoluene	SVMS06	0.080	0.250	0.353	1
2-Chloronaphthalene	SVMS06	0.080	0.125	0.130	1.5
2-Chlorophenol	SVMS06	0.130	0.250	0.188	2
2-Methylnaphthalene	SVMS06	0.070	0.125	0.092	1.5
2-Methylphenol	SVMS06	0.120	0.125	0.092	1.5
2-Naphthylamine	SVMS06	0.140	0.500	0.188	1
2-Nitroaniline	SVMS06	0.190	0.250	0.374	2.5
2-Nitrophenol	SVMS06	0.220	0.250	0.130	1
2-Picoline	SVMS06	0.390	0.500	0.170	1.5
2-Toluidine	SVMS06	0.130	0.500	0.271	1
3 & 4 Methylphenol	SVMS06	0.200	0.250	0.099	1
3,3'-Dichlorobenzidine	SVMS06	0.180	0.250	0.370	10
3-Methylcholanthrene	SVMS06	0.500	0.500	0.481	5
3-Nitroaniline	SVMS06	0.160	0.250	0.061	2.5
4-Aminobiphenyl	SVMS06	0.170	0.500	0.297	10
4-Bromophenyl phenyl ether	SVMS06	0.100	0.125	0.045	1.5
4-Chloro-3-methylphenol	SVMS06	0.170	0.250	0.073	1
4-Chloroaniline	SVMS06	0.210	0.250	0.117	1
4-Chlorophenyl phenyl ether	SVMS06	0.100	0.125	0.088	1.5
Acenaphthene	SVMS06	0.080	0.125	0.101	1
Acenaphthylene	SVMS06	0.060	0.125	0.315	1
Acetophenone	SVMS06	0.150	0.250	0.153	1.5
Aniline	SVMS06	0.080	0.250	0.140	1.5
Anthracene	SVMS06	0.050	0.125	0.075	1
Atrazine	SVMS06	0.160	0.250	0.060	1.5
Azobenzene	SVMS06	0.070	0.125	0.071	1.5
Benzaldehyde	SVMS06	0.500	0.500	0.096	1
Benzidine	SVMS06	0.610	1.303	1.220	10
Benzo[a]anthracene	SVMS06	0.080	0.125	0.114	2
Benzo[a]pyrene	SVMS06	0.080	0.125	0.046	1.5
Benzo[b]fluoranthene	SVMS06	0.070	0.125	0.083	2
Benzo[g,h,i]perylene	SVMS06	0.080	0.250	0.146	2.5
Benzo[k]fluoranthene	SVMS06	0.090	0.125	0.076	2
Benzyl alcohol	SVMS06	0.170	0.250	0.039	5.5
Bis(2-chloroethoxy)methane	SVMS06	0.130	0.250	0.206	1.5

Matrix: Water
Method: 8270C_LL
Prep Method: 3510C_LL
Date Analyzed: 3/21/2014
Job #: 600-87830
TALS Batch: 130292
Units: ug/L

Analyte	Instrument #	MDL	DCS Spike	Measured Result	MQL
Bis(2-chloroethyl)ether	SVMS06	0.150	0.250	0.215	1.5
Bis(2-ethylhexyl) phthalate	SVMS06	0.370	0.250	0.058	2.5
Butyl benzyl phthalate	SVMS06	0.120	0.125	0.011	2.5
Carbazole	SVMS06	0.170	0.250	0.116	6.25
Chrysene	SVMS06	0.080	0.125	0.095	1.5
Dibenz(a,h)anthracene	SVMS06	0.080	0.250	0.045	2.5
Dibenz[a,j]acridine	SVMS06	0.350	1.000	0.687	1
Dibenzofuran	SVMS06	0.080	0.125	0.081	1.5
Diethyl phthalate	SVMS06	1.50	0.250	0.215	2.5
Dimethyl phthalate	SVMS06	0.070	0.250	0.195	2.5
Di-n-butyl phthalate	SVMS06	0.110	0.125	0.080	2.5
Di-n-octyl phthalate	SVMS06	0.160	0.250	0.030	5
Diphenylamine	SVMS06	0.100	0.125	0.059	1.5
Ethyl methanesulfonate	SVMS06	0.170	0.500	0.370	1.5
Fluoranthene	SVMS06	0.070	0.125	0.109	2.5
Fluorene	SVMS06	0.070	0.125	0.090	1.5
Hexachlorobenzene	SVMS06	0.110	0.125	0.129	1.5
Hexachlorobutadiene	SVMS06	0.180	0.250	0.218	2
Hexachlorocyclopentadiene	SVMS06	0.130	0.250	0.184	1.5
Hexachloroethane	SVMS06	0.100	0.125	0.147	2
Hexachloropropene	SVMS06	0.160	0.500	0.395	10
Indene	SVMS06	0.150	0.500	0.204	1
Indeno[1,2,3-cd]pyrene	SVMS06	0.070	0.125	0.021	2
Isodrin	SVMS06	0.150	0.500	0.447	1.5
Isophorone	SVMS06	0.110	0.250	0.168	1.5
Methapyrilene	SVMS06	1.060	2.500	1.485	1.5
Methyl methanesulfonate	SVMS06	0.200	0.500	0.437	1.5
Methyl Phenols, Total	SVMS06	0.200	0.500	0.140	1
Naphthalene	SVMS06	0.080	0.125	0.082	5
Nitrobenzene	SVMS06	0.110	0.125	0.107	1.5
N-Nitrosodiethylamine	SVMS06	0.380	0.500	0.366	1.5
N-Nitrosodimethylamine	SVMS06	0.260	0.250	0.163	2
N-Nitrosodi-n-butylamine	SVMS06	0.230	0.500	0.308	1.5
N-Nitrosodi-n-propylamine	SVMS06	0.100	0.125	0.076	2.5
N-Nitrosodiphenylamine	SVMS06	0.100	0.125	0.056	1.5
N-Nitrosomethylethylamine	SVMS06	0.110	0.500	0.115	1
N-Nitrosomorpholine	SVMS06	0.190	0.500	0.355	10
N-Nitrosopiperidine	SVMS06	0.190	0.500	0.370	1.5
N-Nitrosopyrrolidine	SVMS06	0.210	0.500	0.434	1
o,o',o"-Triethylphosphorothioate	SVMS06	0.500	0.500	0.398	5
Pentachlorobenzene	SVMS06	0.130	0.500	0.415	1.5
Pentachloroethane	SVMS06	0.150	0.500	0.296	1
Pentachloronitrobenzene	SVMS06	0.12	0.500	0.573	1.5
Pentachlorophenol	SVMS06	0.610	0.250	0.582	2.5
Phenanthrene	SVMS06	0.060	0.125	0.087	1.5
Phenol	SVMS06	0.040	0.125	0.110	1.5
Pyrene	SVMS06	0.110	0.125	0.077	2
Quinoline	SVMS06	0.130	0.500	0.396	1

Case Narrative

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-96330-1

Job ID: 600-96330-1

Laboratory: TestAmerica Houston

Narrative

**Job Narrative
600-96330-1**

Comments

No additional comments.

Receipt

The samples were received on 7/30/2014 12:37 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 5 coolers at receipt time were 1.5° C, 1.7° C, 1.8° C, 2.1° C and 2.3° C.

- 1
- 2
- 3
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- 14
- 15
- 16

Method Summary

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-96330-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL HOU
8270C LL	Semivolatile Organic Compounds by GCMS - Low Levels	SW846	TAL HOU

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL HOU = TestAmerica Houston, 6310 Rothway Street, Houston, TX 77040, TEL (713)690-4444



Sample Summary

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-96330-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
600-96330-1	WG-1620-MW36B-20140728	Water	07/28/14 13:50	07/30/14 12:37
600-96330-2	WG-1620-MW36A-20140728	Water	07/28/14 14:50	07/30/14 12:37
600-96330-3	WG-1620-MW71B-20140728	Water	07/28/14 16:00	07/30/14 12:37
600-96330-4	WG-1620-MW33BR-20140728	Water	07/28/14 17:05	07/30/14 12:37
600-96330-5	WG-1620-MW70B-20140728	Water	07/28/14 18:00	07/30/14 12:37
600-96330-6	WG-1620-FB-6-20140728	Water	07/28/14 18:15	07/30/14 12:37
600-96330-7	WG-1620-MW25A-20140729	Water	07/29/14 07:45	07/30/14 12:37
600-96330-8	WG-1620-MW25C-20140729	Water	07/29/14 08:30	07/30/14 12:37
600-96330-9	WG-1620-MW34CR-20140729	Water	07/29/14 09:30	07/30/14 12:37
600-96330-10	WG-1620-MW05-20140729	Water	07/29/14 10:40	07/30/14 12:37
600-96330-11	WG-1620-MW64A-20140729	Water	07/29/14 11:45	07/30/14 12:37
600-96330-12	WG-1620-P11-20140729	Water	07/29/14 13:50	07/30/14 12:37
600-96330-13	WG-1620-MW62B-20140729	Water	07/29/14 14:55	07/30/14 12:37
600-96330-14	WG-1620-MW57A-20140729	Water	07/29/14 16:05	07/30/14 12:37
600-96330-15	WG-1620-MW57B-20140729	Water	07/29/14 17:00	07/30/14 12:37
600-96330-16	WG-1620-FB7-20140729	Water	07/29/14 17:15	07/30/14 12:37
600-96330-17	WG-1620-MW22A-20140730	Water	07/30/14 07:50	07/30/14 12:37
600-96330-18	WG-1620-MW22B-20140730	Water	07/30/14 08:45	07/30/14 12:37
600-96330-19	WG-1620-MW59A-20140730	Water	07/30/14 10:00	07/30/14 12:37
600-96330-20	WG-1620-MW59B-20140730	Water	07/30/14 10:55	07/30/14 12:37
600-96330-21	WG-1620-MW47C-20140730	Water	07/30/14 12:00	07/30/14 12:37

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-96330-1

Client Sample ID: WG-1620-MW36B-20140728

Lab Sample ID: 600-96330-1

Date Collected: 07/28/14 13:50

Matrix: Water

Date Received: 07/30/14 12:37

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	0.000110	U	0.00200	0.000110	mg/L			08/03/14 17:40	1
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			08/03/14 17:40	1
Benzene	0.0000800	U	0.00100	0.0000800	mg/L			08/03/14 17:40	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			08/03/14 17:40	1
Toluene	0.000150	U	0.00100	0.000150	mg/L			08/03/14 17:40	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			08/03/14 17:40	1
Ethylbenzene	0.000110	U	0.00100	0.000110	mg/L			08/03/14 17:40	1
Xylenes, Total	0.000260	U	0.00300	0.000260	mg/L			08/03/14 17:40	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	94		67 - 139					08/03/14 17:40	1
Dibromofluoromethane	95		62 - 130					08/03/14 17:40	1
Toluene-d8 (Surr)	101		70 - 130					08/03/14 17:40	1
1,2-Dichloroethane-d4 (Surr)	87		50 - 134					08/03/14 17:40	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.0000388	U	0.000485	0.0000388	mg/L		08/04/14 07:44	08/05/14 10:00	1
Nitrobenzene	0.000107	U	0.000485	0.000107	mg/L		08/04/14 07:44	08/05/14 10:00	1
2,4-Dimethylphenol	0.000301	U	0.000485	0.000301	mg/L		08/04/14 07:44	08/05/14 10:00	1
Bis(2-chloroethoxy)methane	0.000126	U	0.000485	0.000126	mg/L		08/04/14 07:44	08/05/14 10:00	1
Naphthalene	0.0000777	U	0.000485	0.0000777	mg/L		08/04/14 07:44	08/05/14 10:00	1
2-Methylnaphthalene	0.0000680	U	0.000485	0.0000680	mg/L		08/04/14 07:44	08/05/14 10:00	1
2-Chloronaphthalene	0.0000777	U	0.000485	0.0000777	mg/L		08/04/14 07:44	08/05/14 10:00	1
Acenaphthylene	0.0000583	U	0.000485	0.0000583	mg/L		08/04/14 07:44	08/05/14 10:00	1
2,6-Dinitrotoluene	0.0000777	U	0.000485	0.0000777	mg/L		08/04/14 07:44	08/05/14 10:00	1
Acenaphthene	0.0000777	U	0.000485	0.0000777	mg/L		08/04/14 07:44	08/05/14 10:00	1
4-Nitrophenol	0.000544	U	0.000971	0.000544	mg/L		08/04/14 07:44	08/05/14 10:00	1
Dibenzofuran	0.0000777	U	0.000485	0.0000777	mg/L		08/04/14 07:44	08/05/14 10:00	1
2,4-Dinitrotoluene	0.000126	U	0.000485	0.000126	mg/L		08/04/14 07:44	08/05/14 10:00	1
Fluorene	0.0000680	U	0.000485	0.0000680	mg/L		08/04/14 07:44	08/05/14 10:00	1
4,6-Dinitro-2-methylphenol	0.000806	U	0.000971	0.000806	mg/L		08/04/14 07:44	08/05/14 10:00	1
N-Nitrosodiphenylamine	0.0000971	U	0.000485	0.0000971	mg/L		08/04/14 07:44	08/05/14 10:00	1
1,2-Diphenylhydrazine	0.000107	U	0.000485	0.000107	mg/L		08/04/14 07:44	08/05/14 10:00	1
Pentachlorophenol	0.000592	U	0.000971	0.000592	mg/L		08/04/14 07:44	08/05/14 10:00	1
Phenanthrene	0.0000583	U	0.000485	0.0000583	mg/L		08/04/14 07:44	08/05/14 10:00	1
Anthracene	0.0000485	U	0.000485	0.0000485	mg/L		08/04/14 07:44	08/05/14 10:00	1
Di-n-butyl phthalate	0.000107	U	0.000485	0.000107	mg/L		08/04/14 07:44	08/05/14 10:00	1
Fluoranthene	0.0000680	U	0.000485	0.0000680	mg/L		08/04/14 07:44	08/05/14 10:00	1
Pyrene	0.000107	U	0.000485	0.000107	mg/L		08/04/14 07:44	08/05/14 10:00	1
Benzo[a]anthracene	0.0000777	U	0.000485	0.0000777	mg/L		08/04/14 07:44	08/05/14 10:00	1
Bis(2-ethylhexyl) phthalate	0.000359	U	0.000485	0.000359	mg/L		08/04/14 07:44	08/05/14 10:00	1
Chrysene	0.0000777	U	0.000485	0.0000777	mg/L		08/04/14 07:44	08/05/14 10:00	1
Benzo[a]pyrene	0.0000777	U	0.000485	0.0000777	mg/L		08/04/14 07:44	08/05/14 10:00	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	49		10 - 147				08/04/14 07:44	08/05/14 10:00	1
2-Fluorobiphenyl	60		10 - 150				08/04/14 07:44	08/05/14 10:00	1
2-Fluorophenol	25		10 - 130				08/04/14 07:44	08/05/14 10:00	1
Nitrobenzene-d5	67		23 - 130				08/04/14 07:44	08/05/14 10:00	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-96330-1

Client Sample ID: WG-1620-MW36B-20140728

Lab Sample ID: 600-96330-1

Date Collected: 07/28/14 13:50

Matrix: Water

Date Received: 07/30/14 12:37

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Terphenyl-d14	75		42 - 133	08/04/14 07:44	08/05/14 10:00	1
Phenol-d5 (Surr)	12		10 - 130	08/04/14 07:44	08/05/14 10:00	1

Client Sample ID: WG-1620-MW36A-20140728

Lab Sample ID: 600-96330-2

Date Collected: 07/28/14 14:50

Matrix: Water

Date Received: 07/30/14 12:37

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	0.000110	U	0.00200	0.000110	mg/L			08/03/14 18:07	1
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			08/03/14 18:07	1
Benzene	0.0000800	U	0.00100	0.0000800	mg/L			08/03/14 18:07	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			08/03/14 18:07	1
Toluene	0.000150	U	0.00100	0.000150	mg/L			08/03/14 18:07	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			08/03/14 18:07	1
Ethylbenzene	0.000110	U	0.00100	0.000110	mg/L			08/03/14 18:07	1
Xylenes, Total	0.000260	U	0.00300	0.000260	mg/L			08/03/14 18:07	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	94		67 - 139		08/03/14 18:07	1
Dibromofluoromethane	95		62 - 130		08/03/14 18:07	1
Toluene-d8 (Surr)	100		70 - 130		08/03/14 18:07	1
1,2-Dichloroethane-d4 (Surr)	88		50 - 134		08/03/14 18:07	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.0000388	U	0.000485	0.0000388	mg/L		08/04/14 07:44	08/05/14 10:29	1
Nitrobenzene	0.000107	U	0.000485	0.000107	mg/L		08/04/14 07:44	08/05/14 10:29	1
2,4-Dimethylphenol	0.000301	U	0.000485	0.000301	mg/L		08/04/14 07:44	08/05/14 10:29	1
Bis(2-chloroethoxy)methane	0.000126	U	0.000485	0.000126	mg/L		08/04/14 07:44	08/05/14 10:29	1
Naphthalene	0.00101		0.000485	0.0000777	mg/L		08/04/14 07:44	08/05/14 10:29	1
2-Methylnaphthalene	0.000177	J	0.000485	0.0000680	mg/L		08/04/14 07:44	08/05/14 10:29	1
2-Chloronaphthalene	0.0000777	U	0.000485	0.0000777	mg/L		08/04/14 07:44	08/05/14 10:29	1
Acenaphthylene	0.0000583	U	0.000485	0.0000583	mg/L		08/04/14 07:44	08/05/14 10:29	1
2,6-Dinitrotoluene	0.0000777	U	0.000485	0.0000777	mg/L		08/04/14 07:44	08/05/14 10:29	1
Acenaphthene	0.0000777	U	0.000485	0.0000777	mg/L		08/04/14 07:44	08/05/14 10:29	1
4-Nitrophenol	0.000544	U	0.000971	0.000544	mg/L		08/04/14 07:44	08/05/14 10:29	1
Dibenzofuran	0.0000777	U	0.000485	0.0000777	mg/L		08/04/14 07:44	08/05/14 10:29	1
2,4-Dinitrotoluene	0.000126	U	0.000485	0.000126	mg/L		08/04/14 07:44	08/05/14 10:29	1
Fluorene	0.0000680	U	0.000485	0.0000680	mg/L		08/04/14 07:44	08/05/14 10:29	1
4,6-Dinitro-2-methylphenol	0.000806	U	0.000971	0.000806	mg/L		08/04/14 07:44	08/05/14 10:29	1
N-Nitrosodiphenylamine	0.0000971	U	0.000485	0.0000971	mg/L		08/04/14 07:44	08/05/14 10:29	1
1,2-Diphenylhydrazine	0.000107	U	0.000485	0.000107	mg/L		08/04/14 07:44	08/05/14 10:29	1
Pentachlorophenol	0.000592	U	0.000971	0.000592	mg/L		08/04/14 07:44	08/05/14 10:29	1
Phenanthrene	0.0000583	U	0.000485	0.0000583	mg/L		08/04/14 07:44	08/05/14 10:29	1
Anthracene	0.0000485	U	0.000485	0.0000485	mg/L		08/04/14 07:44	08/05/14 10:29	1
Di-n-butyl phthalate	0.000107	U	0.000485	0.000107	mg/L		08/04/14 07:44	08/05/14 10:29	1
Fluoranthene	0.0000680	U	0.000485	0.0000680	mg/L		08/04/14 07:44	08/05/14 10:29	1
Pyrene	0.000107	U	0.000485	0.000107	mg/L		08/04/14 07:44	08/05/14 10:29	1
Benzo[a]anthracene	0.0000777	U	0.000485	0.0000777	mg/L		08/04/14 07:44	08/05/14 10:29	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-96330-1

Client Sample ID: WG-1620-MW36A-20140728

Lab Sample ID: 600-96330-2

Date Collected: 07/28/14 14:50

Matrix: Water

Date Received: 07/30/14 12:37

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	0.000359	U	0.000485	0.000359	mg/L		08/04/14 07:44	08/05/14 10:29	1
Chrysene	0.0000777	U	0.000485	0.0000777	mg/L		08/04/14 07:44	08/05/14 10:29	1
Benzo[a]pyrene	0.0000777	U	0.000485	0.0000777	mg/L		08/04/14 07:44	08/05/14 10:29	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	26		10 - 147				08/04/14 07:44	08/05/14 10:29	1
2-Fluorobiphenyl	53		10 - 150				08/04/14 07:44	08/05/14 10:29	1
2-Fluorophenol	15		10 - 130				08/04/14 07:44	08/05/14 10:29	1
Nitrobenzene-d5	58		23 - 130				08/04/14 07:44	08/05/14 10:29	1
Terphenyl-d14	69		42 - 133				08/04/14 07:44	08/05/14 10:29	1
Phenol-d5 (Surr)	8	X	10 - 130				08/04/14 07:44	08/05/14 10:29	1

Client Sample ID: WG-1620-MW71B-20140728

Lab Sample ID: 600-96330-3

Date Collected: 07/28/14 16:00

Matrix: Water

Date Received: 07/30/14 12:37

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			08/03/14 18:33	1
Benzene	0.00155		0.00100	0.0000800	mg/L			08/03/14 18:33	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			08/03/14 18:33	1
Toluene	0.00423		0.00100	0.000150	mg/L			08/03/14 18:33	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			08/03/14 18:33	1
Ethylbenzene	0.000110	U	0.00100	0.000110	mg/L			08/03/14 18:33	1
Xylenes, Total	0.0126		0.00300	0.000260	mg/L			08/03/14 18:33	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	92		67 - 139					08/03/14 18:33	1
Dibromofluoromethane	93		62 - 130					08/03/14 18:33	1
Toluene-d8 (Surr)	99		70 - 130					08/03/14 18:33	1
1,2-Dichloroethane-d4 (Surr)	85		50 - 134					08/03/14 18:33	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.0000388	U	0.000485	0.0000388	mg/L		08/04/14 07:44	08/05/14 10:58	1
Nitrobenzene	0.000107	U	0.000485	0.000107	mg/L		08/04/14 07:44	08/05/14 10:58	1
2,4-Dimethylphenol	0.000301	U	0.000485	0.000301	mg/L		08/04/14 07:44	08/05/14 10:58	1
Bis(2-chloroethoxy)methane	0.000126	U	0.000485	0.000126	mg/L		08/04/14 07:44	08/05/14 10:58	1
Naphthalene	0.000471	J	0.000485	0.0000777	mg/L		08/04/14 07:44	08/05/14 10:58	1
2-Methylnaphthalene	0.0000680	U	0.000485	0.0000680	mg/L		08/04/14 07:44	08/05/14 10:58	1
2-Chloronaphthalene	0.0000777	U	0.000485	0.0000777	mg/L		08/04/14 07:44	08/05/14 10:58	1
Acenaphthylene	0.0000583	U	0.000485	0.0000583	mg/L		08/04/14 07:44	08/05/14 10:58	1
2,6-Dinitrotoluene	0.0000777	U	0.000485	0.0000777	mg/L		08/04/14 07:44	08/05/14 10:58	1
Acenaphthene	0.000785		0.000485	0.0000777	mg/L		08/04/14 07:44	08/05/14 10:58	1
4-Nitrophenol	0.000544	U	0.000971	0.000544	mg/L		08/04/14 07:44	08/05/14 10:58	1
Dibenzofuran	0.0000777	U	0.000485	0.0000777	mg/L		08/04/14 07:44	08/05/14 10:58	1
2,4-Dinitrotoluene	0.000126	U	0.000485	0.000126	mg/L		08/04/14 07:44	08/05/14 10:58	1
Fluorene	0.0000680	U	0.000485	0.0000680	mg/L		08/04/14 07:44	08/05/14 10:58	1
4,6-Dinitro-2-methylphenol	0.000806	U	0.000971	0.000806	mg/L		08/04/14 07:44	08/05/14 10:58	1
N-Nitrosodiphenylamine	0.0000971	U	0.000485	0.0000971	mg/L		08/04/14 07:44	08/05/14 10:58	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-96330-1

Client Sample ID: WG-1620-MW71B-20140728

Lab Sample ID: 600-96330-3

Date Collected: 07/28/14 16:00

Matrix: Water

Date Received: 07/30/14 12:37

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Diphenylhydrazine	0.000107	U	0.000485	0.000107	mg/L		08/04/14 07:44	08/05/14 10:58	1
Pentachlorophenol	0.000592	U	0.000971	0.000592	mg/L		08/04/14 07:44	08/05/14 10:58	1
Phenanthrene	0.0000583	U	0.000485	0.0000583	mg/L		08/04/14 07:44	08/05/14 10:58	1
Anthracene	0.0000485	U	0.000485	0.0000485	mg/L		08/04/14 07:44	08/05/14 10:58	1
Di-n-butyl phthalate	0.000107	U	0.000485	0.000107	mg/L		08/04/14 07:44	08/05/14 10:58	1
Fluoranthene	0.000149	J	0.000485	0.0000680	mg/L		08/04/14 07:44	08/05/14 10:58	1
Pyrene	0.000107	U	0.000485	0.000107	mg/L		08/04/14 07:44	08/05/14 10:58	1
Benzo[a]anthracene	0.0000777	U	0.000485	0.0000777	mg/L		08/04/14 07:44	08/05/14 10:58	1
Bis(2-ethylhexyl) phthalate	0.000359	U	0.000485	0.000359	mg/L		08/04/14 07:44	08/05/14 10:58	1
Chrysene	0.0000777	U	0.000485	0.0000777	mg/L		08/04/14 07:44	08/05/14 10:58	1
Benzo[a]pyrene	0.0000777	U	0.000485	0.0000777	mg/L		08/04/14 07:44	08/05/14 10:58	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	60		10 - 147				08/04/14 07:44	08/05/14 10:58	1
2-Fluorobiphenyl	50		10 - 150				08/04/14 07:44	08/05/14 10:58	1
2-Fluorophenol	21		10 - 130				08/04/14 07:44	08/05/14 10:58	1
Nitrobenzene-d5	54		23 - 130				08/04/14 07:44	08/05/14 10:58	1
Terphenyl-d14	73		42 - 133				08/04/14 07:44	08/05/14 10:58	1
Phenol-d5 (Surr)	11		10 - 130				08/04/14 07:44	08/05/14 10:58	1

Client Sample ID: WG-1620-MW33BR-20140728

Lab Sample ID: 600-96330-4

Date Collected: 07/28/14 17:05

Matrix: Water

Date Received: 07/30/14 12:37

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	0.000550	U	0.0100	0.000550	mg/L			08/03/14 13:19	5
Methylene Chloride	0.000750	U	0.00500	0.000750	mg/L			08/03/14 13:19	5
1,2-Dichloroethane	0.000700	U	0.00500	0.000700	mg/L			08/03/14 13:19	5
Toluene	0.00638		0.00500	0.000750	mg/L			08/03/14 13:19	5
Chlorobenzene	0.000600	U	0.00500	0.000600	mg/L			08/03/14 13:19	5
Xylenes, Total	0.0649		0.0150	0.00130	mg/L			08/03/14 13:19	5
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	93		67 - 139					08/03/14 13:19	5
Dibromofluoromethane	90		62 - 130					08/03/14 13:19	5
Toluene-d8 (Surr)	102		70 - 130					08/03/14 13:19	5
1,2-Dichloroethane-d4 (Surr)	84		50 - 134					08/03/14 13:19	5

Method: 8260B - Volatile Organic Compounds (GC/MS) - DL

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	1.41		0.0500	0.00400	mg/L			08/03/14 13:44	50
Ethylbenzene	0.348		0.0500	0.00550	mg/L			08/03/14 13:44	50
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	92		67 - 139					08/03/14 13:44	50
Dibromofluoromethane	92		62 - 130					08/03/14 13:44	50
Toluene-d8 (Surr)	99		70 - 130					08/03/14 13:44	50
1,2-Dichloroethane-d4 (Surr)	86		50 - 134					08/03/14 13:44	50

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-96330-1

Client Sample ID: WG-1620-MW33BR-20140728

Lab Sample ID: 600-96330-4

Date Collected: 07/28/14 17:05

Matrix: Water

Date Received: 07/30/14 12:37

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.0000388	U	0.000485	0.0000388	mg/L		08/04/14 07:44	08/05/14 11:27	1
Nitrobenzene	0.000107	U	0.000485	0.000107	mg/L		08/04/14 07:44	08/05/14 11:27	1
2,4-Dimethylphenol	0.000301	U	0.000485	0.000301	mg/L		08/04/14 07:44	08/05/14 11:27	1
Bis(2-chloroethoxy)methane	0.000126	U	0.000485	0.000126	mg/L		08/04/14 07:44	08/05/14 11:27	1
2-Chloronaphthalene	0.0000777	U	0.000485	0.0000777	mg/L		08/04/14 07:44	08/05/14 11:27	1
Acenaphthylene	0.000870		0.000485	0.0000583	mg/L		08/04/14 07:44	08/05/14 11:27	1
2,6-Dinitrotoluene	0.0000777	U	0.000485	0.0000777	mg/L		08/04/14 07:44	08/05/14 11:27	1
4-Nitrophenol	0.000544	U	0.000971	0.000544	mg/L		08/04/14 07:44	08/05/14 11:27	1
2,4-Dinitrotoluene	0.000126	U	0.000485	0.000126	mg/L		08/04/14 07:44	08/05/14 11:27	1
4,6-Dinitro-2-methylphenol	0.000806	U	0.000971	0.000806	mg/L		08/04/14 07:44	08/05/14 11:27	1
N-Nitrosodiphenylamine	0.0000971	U	0.000485	0.0000971	mg/L		08/04/14 07:44	08/05/14 11:27	1
1,2-Diphenylhydrazine	0.000107	U	0.000485	0.000107	mg/L		08/04/14 07:44	08/05/14 11:27	1
Pentachlorophenol	0.000592	U	0.000971	0.000592	mg/L		08/04/14 07:44	08/05/14 11:27	1
Anthracene	0.00564		0.000485	0.0000485	mg/L		08/04/14 07:44	08/05/14 11:27	1
Di-n-butyl phthalate	0.000384	J	0.000485	0.000107	mg/L		08/04/14 07:44	08/05/14 11:27	1
Fluoranthene	0.00265		0.000485	0.0000680	mg/L		08/04/14 07:44	08/05/14 11:27	1
Pyrene	0.00126		0.000485	0.000107	mg/L		08/04/14 07:44	08/05/14 11:27	1
Benzo[a]anthracene	0.000119	J	0.000485	0.0000777	mg/L		08/04/14 07:44	08/05/14 11:27	1
Bis(2-ethylhexyl) phthalate	0.000722		0.000485	0.000359	mg/L		08/04/14 07:44	08/05/14 11:27	1
Chrysene	0.000132	J	0.000485	0.0000777	mg/L		08/04/14 07:44	08/05/14 11:27	1
Benzo[a]pyrene	0.0000777	U	0.000485	0.0000777	mg/L		08/04/14 07:44	08/05/14 11:27	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	97		10 - 147				08/04/14 07:44	08/05/14 11:27	1
2-Fluorobiphenyl	57		10 - 150				08/04/14 07:44	08/05/14 11:27	1
2-Fluorophenol	36		10 - 130				08/04/14 07:44	08/05/14 11:27	1
Nitrobenzene-d5	53		23 - 130				08/04/14 07:44	08/05/14 11:27	1
Terphenyl-d14	76		42 - 133				08/04/14 07:44	08/05/14 11:27	1
Phenol-d5 (Surr)	14		10 - 130				08/04/14 07:44	08/05/14 11:27	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels - DL

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylnaphthalene	0.277		0.0485	0.00680	mg/L		08/04/14 07:44	08/07/14 21:48	100
Acenaphthene	0.0711		0.0485	0.00777	mg/L		08/04/14 07:44	08/07/14 21:48	100
Dibenzofuran	0.0868		0.0485	0.00777	mg/L		08/04/14 07:44	08/07/14 21:48	100
Fluorene	0.0350	J	0.0485	0.00680	mg/L		08/04/14 07:44	08/07/14 21:48	100
Phenanthrene	0.0313	J	0.0485	0.00583	mg/L		08/04/14 07:44	08/07/14 21:48	100
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	0	X	10 - 147				08/04/14 07:44	08/07/14 21:48	100
2-Fluorobiphenyl	0	X	10 - 150				08/04/14 07:44	08/07/14 21:48	100
2-Fluorophenol	0	X	10 - 130				08/04/14 07:44	08/07/14 21:48	100
Nitrobenzene-d5	0	X	23 - 130				08/04/14 07:44	08/07/14 21:48	100
Terphenyl-d14	0	X	42 - 133				08/04/14 07:44	08/07/14 21:48	100
Phenol-d5 (Surr)	0	X	10 - 130				08/04/14 07:44	08/07/14 21:48	100

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels - DL2

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	6.59		0.485	0.0777	mg/L		08/04/14 07:44	08/08/14 01:04	1000

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-96330-1

Client Sample ID: WG-1620-MW33BR-20140728

Lab Sample ID: 600-96330-4

Date Collected: 07/28/14 17:05

Matrix: Water

Date Received: 07/30/14 12:37

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	0	X	10 - 147	08/04/14 07:44	08/08/14 01:04	1000
2-Fluorobiphenyl	0	X	10 - 150	08/04/14 07:44	08/08/14 01:04	1000
2-Fluorophenol	0	X	10 - 130	08/04/14 07:44	08/08/14 01:04	1000
Nitrobenzene-d5	0	X	23 - 130	08/04/14 07:44	08/08/14 01:04	1000
Terphenyl-d14	0	X	42 - 133	08/04/14 07:44	08/08/14 01:04	1000
Phenol-d5 (Surr)	0	X	10 - 130	08/04/14 07:44	08/08/14 01:04	1000

Client Sample ID: WG-1620-MW70B-20140728

Lab Sample ID: 600-96330-5

Date Collected: 07/28/14 18:00

Matrix: Water

Date Received: 07/30/14 12:37

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	0.00150	U	0.0100	0.00150	mg/L			08/03/14 14:11	10
1,2-Dichloroethane	0.00140	U	0.0100	0.00140	mg/L			08/03/14 14:11	10
Chlorobenzene	0.00120	U	0.0100	0.00120	mg/L			08/03/14 14:11	10

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	90		67 - 139		08/03/14 14:11	10
Dibromofluoromethane	86		62 - 130		08/03/14 14:11	10
Toluene-d8 (Surr)	95		70 - 130		08/03/14 14:11	10
1,2-Dichloroethane-d4 (Surr)	81		50 - 134		08/03/14 14:11	10

Method: 8260B - Volatile Organic Compounds (GC/MS) - DL

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	2.55		0.200	0.0160	mg/L			08/03/14 14:37	200
Toluene	2.76		0.200	0.0300	mg/L			08/03/14 14:37	200
Ethylbenzene	0.742		0.200	0.0220	mg/L			08/03/14 14:37	200
Xylenes, Total	2.11		0.600	0.0520	mg/L			08/03/14 14:37	200

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	96		67 - 139		08/03/14 14:37	200
Dibromofluoromethane	96		62 - 130		08/03/14 14:37	200
Toluene-d8 (Surr)	103		70 - 130		08/03/14 14:37	200
1,2-Dichloroethane-d4 (Surr)	90		50 - 134		08/03/14 14:37	200

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	1.69		0.0485	0.00388	mg/L		08/04/14 07:44	08/07/14 22:16	100
Nitrobenzene	0.0107	U	0.0485	0.0107	mg/L		08/04/14 07:44	08/07/14 22:16	100
Bis(2-chloroethoxy)methane	0.0126	U	0.0485	0.0126	mg/L		08/04/14 07:44	08/07/14 22:16	100
2-Methylnaphthalene	1.31		0.0485	0.00680	mg/L		08/04/14 07:44	08/07/14 22:16	100
2-Chloronaphthalene	0.00777	U	0.0485	0.00777	mg/L		08/04/14 07:44	08/07/14 22:16	100
Acenaphthylene	0.0114	J	0.0485	0.00583	mg/L		08/04/14 07:44	08/07/14 22:16	100
2,6-Dinitrotoluene	0.00777	U	0.0485	0.00777	mg/L		08/04/14 07:44	08/07/14 22:16	100
Acenaphthene	0.374		0.0485	0.00777	mg/L		08/04/14 07:44	08/07/14 22:16	100
4-Nitrophenol	0.0544	U	0.0971	0.0544	mg/L		08/04/14 07:44	08/07/14 22:16	100
Dibenzofuran	0.278		0.0485	0.00777	mg/L		08/04/14 07:44	08/07/14 22:16	100
2,4-Dinitrotoluene	0.0126	U	0.0485	0.0126	mg/L		08/04/14 07:44	08/07/14 22:16	100
Fluorene	0.186		0.0485	0.00680	mg/L		08/04/14 07:44	08/07/14 22:16	100
4,6-Dinitro-2-methylphenol	0.0806	U	0.0971	0.0806	mg/L		08/04/14 07:44	08/07/14 22:16	100

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-96330-1

Client Sample ID: WG-1620-MW70B-20140728

Lab Sample ID: 600-96330-5

Date Collected: 07/28/14 18:00

Matrix: Water

Date Received: 07/30/14 12:37

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Nitrosodiphenylamine	0.00971	U	0.0485	0.00971	mg/L		08/04/14 07:44	08/07/14 22:16	100
1,2-Diphenylhydrazine	0.0107	U	0.0485	0.0107	mg/L		08/04/14 07:44	08/07/14 22:16	100
Pentachlorophenol	0.0592	U	0.0971	0.0592	mg/L		08/04/14 07:44	08/07/14 22:16	100
Phenanthrene	0.162		0.0485	0.00583	mg/L		08/04/14 07:44	08/07/14 22:16	100
Anthracene	0.0387	J	0.0485	0.00485	mg/L		08/04/14 07:44	08/07/14 22:16	100
Di-n-butyl phthalate	0.0107	U	0.0485	0.0107	mg/L		08/04/14 07:44	08/07/14 22:16	100
Fluoranthene	0.0130	J	0.0485	0.00680	mg/L		08/04/14 07:44	08/07/14 22:16	100
Pyrene	0.0107	U	0.0485	0.0107	mg/L		08/04/14 07:44	08/07/14 22:16	100
Benzo[a]anthracene	0.00777	U	0.0485	0.00777	mg/L		08/04/14 07:44	08/07/14 22:16	100
Bis(2-ethylhexyl) phthalate	0.0359	U	0.0485	0.0359	mg/L		08/04/14 07:44	08/07/14 22:16	100
Chrysene	0.00777	U	0.0485	0.00777	mg/L		08/04/14 07:44	08/07/14 22:16	100
Benzo[a]pyrene	0.00777	U	0.0485	0.00777	mg/L		08/04/14 07:44	08/07/14 22:16	100

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	0	X	10 - 147	08/04/14 07:44	08/07/14 22:16	100
2-Fluorobiphenyl	0	X	10 - 150	08/04/14 07:44	08/07/14 22:16	100
2-Fluorophenol	0	X	10 - 130	08/04/14 07:44	08/07/14 22:16	100
Nitrobenzene-d5	0	X	23 - 130	08/04/14 07:44	08/07/14 22:16	100
Terphenyl-d14	0	X	42 - 133	08/04/14 07:44	08/07/14 22:16	100
Phenol-d5 (Surr)	0	X	10 - 130	08/04/14 07:44	08/07/14 22:16	100

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels - DL

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	18.1		0.485	0.0777	mg/L		08/04/14 07:44	08/08/14 01:32	1000

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	0	X	10 - 147	08/04/14 07:44	08/08/14 01:32	1000
2-Fluorobiphenyl	0	X	10 - 150	08/04/14 07:44	08/08/14 01:32	1000
2-Fluorophenol	0	X	10 - 130	08/04/14 07:44	08/08/14 01:32	1000
Nitrobenzene-d5	0	X	23 - 130	08/04/14 07:44	08/08/14 01:32	1000
Terphenyl-d14	0	X	42 - 133	08/04/14 07:44	08/08/14 01:32	1000
Phenol-d5 (Surr)	0	X	10 - 130	08/04/14 07:44	08/08/14 01:32	1000

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels - DL2

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-Dimethylphenol	50.8		2.43	1.50	mg/L		08/04/14 07:44	08/11/14 20:48	5000

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	0	X	10 - 147	08/04/14 07:44	08/11/14 20:48	5000
2-Fluorobiphenyl	0	X	10 - 150	08/04/14 07:44	08/11/14 20:48	5000
2-Fluorophenol	0	X	10 - 130	08/04/14 07:44	08/11/14 20:48	5000
Nitrobenzene-d5	0	X	23 - 130	08/04/14 07:44	08/11/14 20:48	5000
Terphenyl-d14	0	X	42 - 133	08/04/14 07:44	08/11/14 20:48	5000
Phenol-d5 (Surr)	0	X	10 - 130	08/04/14 07:44	08/11/14 20:48	5000

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-96330-1

Client Sample ID: WG-1620-FB-6-20140728

Lab Sample ID: 600-96330-6

Date Collected: 07/28/14 18:15

Matrix: Water

Date Received: 07/30/14 12:37

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			08/02/14 19:00	1
Benzene	0.0000800	U	0.00100	0.0000800	mg/L			08/02/14 19:00	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			08/02/14 19:00	1
Toluene	0.000150	U	0.00100	0.000150	mg/L			08/02/14 19:00	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			08/02/14 19:00	1
Ethylbenzene	0.000110	U	0.00100	0.000110	mg/L			08/02/14 19:00	1
Xylenes, Total	0.000260	U	0.00300	0.000260	mg/L			08/02/14 19:00	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	100		67 - 139		08/02/14 19:00	1
Dibromofluoromethane	104		62 - 130		08/02/14 19:00	1
Toluene-d8 (Surr)	109		70 - 130		08/02/14 19:00	1
1,2-Dichloroethane-d4 (Surr)	99		50 - 134		08/02/14 19:00	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.0000388	U	0.000485	0.0000388	mg/L		08/04/14 07:44	08/05/14 12:24	1
Nitrobenzene	0.000107	U	0.000485	0.000107	mg/L		08/04/14 07:44	08/05/14 12:24	1
2,4-Dimethylphenol	0.000301	U	0.000485	0.000301	mg/L		08/04/14 07:44	08/05/14 12:24	1
Bis(2-chloroethoxy)methane	0.000126	U	0.000485	0.000126	mg/L		08/04/14 07:44	08/05/14 12:24	1
Naphthalene	0.00169		0.000485	0.0000777	mg/L		08/04/14 07:44	08/05/14 12:24	1
2-Methylnaphthalene	0.0000917	J	0.000485	0.0000680	mg/L		08/04/14 07:44	08/05/14 12:24	1
2-Chloronaphthalene	0.0000777	U	0.000485	0.0000777	mg/L		08/04/14 07:44	08/05/14 12:24	1
Acenaphthylene	0.0000583	U	0.000485	0.0000583	mg/L		08/04/14 07:44	08/05/14 12:24	1
2,6-Dinitrotoluene	0.0000777	U	0.000485	0.0000777	mg/L		08/04/14 07:44	08/05/14 12:24	1
Acenaphthene	0.0000777	U	0.000485	0.0000777	mg/L		08/04/14 07:44	08/05/14 12:24	1
4-Nitrophenol	0.000544	U	0.000971	0.000544	mg/L		08/04/14 07:44	08/05/14 12:24	1
Dibenzofuran	0.0000777	U	0.000485	0.0000777	mg/L		08/04/14 07:44	08/05/14 12:24	1
2,4-Dinitrotoluene	0.000126	U	0.000485	0.000126	mg/L		08/04/14 07:44	08/05/14 12:24	1
Fluorene	0.0000680	U	0.000485	0.0000680	mg/L		08/04/14 07:44	08/05/14 12:24	1
4,6-Dinitro-2-methylphenol	0.000806	U	0.000971	0.000806	mg/L		08/04/14 07:44	08/05/14 12:24	1
N-Nitrosodiphenylamine	0.0000971	U	0.000485	0.0000971	mg/L		08/04/14 07:44	08/05/14 12:24	1
1,2-Diphenylhydrazine	0.000107	U	0.000485	0.000107	mg/L		08/04/14 07:44	08/05/14 12:24	1
Pentachlorophenol	0.000592	U	0.000971	0.000592	mg/L		08/04/14 07:44	08/05/14 12:24	1
Phenanthrene	0.0000583	U	0.000485	0.0000583	mg/L		08/04/14 07:44	08/05/14 12:24	1
Anthracene	0.0000485	U	0.000485	0.0000485	mg/L		08/04/14 07:44	08/05/14 12:24	1
Di-n-butyl phthalate	0.000364	J	0.000485	0.000107	mg/L		08/04/14 07:44	08/05/14 12:24	1
Fluoranthene	0.0000680	U	0.000485	0.0000680	mg/L		08/04/14 07:44	08/05/14 12:24	1
Pyrene	0.000107	U	0.000485	0.000107	mg/L		08/04/14 07:44	08/05/14 12:24	1
Benzo[a]anthracene	0.0000777	U	0.000485	0.0000777	mg/L		08/04/14 07:44	08/05/14 12:24	1
Bis(2-ethylhexyl) phthalate	0.000359	U	0.000485	0.000359	mg/L		08/04/14 07:44	08/05/14 12:24	1
Chrysene	0.0000777	U	0.000485	0.0000777	mg/L		08/04/14 07:44	08/05/14 12:24	1
Benzo[a]pyrene	0.0000777	U	0.000485	0.0000777	mg/L		08/04/14 07:44	08/05/14 12:24	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	74		10 - 147	08/04/14 07:44	08/05/14 12:24	1
2-Fluorobiphenyl	59		10 - 150	08/04/14 07:44	08/05/14 12:24	1
2-Fluorophenol	25		10 - 130	08/04/14 07:44	08/05/14 12:24	1
Nitrobenzene-d5	64		23 - 130	08/04/14 07:44	08/05/14 12:24	1
Terphenyl-d14	70		42 - 133	08/04/14 07:44	08/05/14 12:24	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-96330-1

Client Sample ID: WG-1620-FB-6-20140728

Lab Sample ID: 600-96330-6

Date Collected: 07/28/14 18:15

Matrix: Water

Date Received: 07/30/14 12:37

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Phenol-d5 (Surr)	12		10 - 130	08/04/14 07:44	08/05/14 12:24	1

Client Sample ID: WG-1620-MW25A-20140729

Lab Sample ID: 600-96330-7

Date Collected: 07/29/14 07:45

Matrix: Water

Date Received: 07/30/14 12:37

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	0.000110	U	0.00200	0.000110	mg/L			08/02/14 19:27	1
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			08/02/14 19:27	1
Benzene	0.0000800	U	0.00100	0.0000800	mg/L			08/02/14 19:27	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			08/02/14 19:27	1
Toluene	0.000150	U	0.00100	0.000150	mg/L			08/02/14 19:27	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			08/02/14 19:27	1
Ethylbenzene	0.000110	U	0.00100	0.000110	mg/L			08/02/14 19:27	1
Xylenes, Total	0.000260	U	0.00300	0.000260	mg/L			08/02/14 19:27	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	101		67 - 139		08/02/14 19:27	1
Dibromofluoromethane	105		62 - 130		08/02/14 19:27	1
Toluene-d8 (Surr)	110		70 - 130		08/02/14 19:27	1
1,2-Dichloroethane-d4 (Surr)	97		50 - 134		08/02/14 19:27	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.0000388	U	0.000485	0.0000388	mg/L		08/04/14 07:44	08/05/14 12:53	1
Nitrobenzene	0.000107	U	0.000485	0.000107	mg/L		08/04/14 07:44	08/05/14 12:53	1
2,4-Dimethylphenol	0.000301	U	0.000485	0.000301	mg/L		08/04/14 07:44	08/05/14 12:53	1
Bis(2-chloroethoxy)methane	0.000126	U	0.000485	0.000126	mg/L		08/04/14 07:44	08/05/14 12:53	1
Naphthalene	0.000817		0.000485	0.0000777	mg/L		08/04/14 07:44	08/05/14 12:53	1
2-Methylnaphthalene	0.0000680	U	0.000485	0.0000680	mg/L		08/04/14 07:44	08/05/14 12:53	1
2-Chloronaphthalene	0.0000777	U	0.000485	0.0000777	mg/L		08/04/14 07:44	08/05/14 12:53	1
Acenaphthylene	0.0000583	U	0.000485	0.0000583	mg/L		08/04/14 07:44	08/05/14 12:53	1
2,6-Dinitrotoluene	0.0000777	U	0.000485	0.0000777	mg/L		08/04/14 07:44	08/05/14 12:53	1
Acenaphthene	0.0000912	J	0.000485	0.0000777	mg/L		08/04/14 07:44	08/05/14 12:53	1
4-Nitrophenol	0.000544	U	0.000971	0.000544	mg/L		08/04/14 07:44	08/05/14 12:53	1
Dibenzofuran	0.0000777	U	0.000485	0.0000777	mg/L		08/04/14 07:44	08/05/14 12:53	1
2,4-Dinitrotoluene	0.000126	U	0.000485	0.000126	mg/L		08/04/14 07:44	08/05/14 12:53	1
Fluorene	0.0000680	U	0.000485	0.0000680	mg/L		08/04/14 07:44	08/05/14 12:53	1
4,6-Dinitro-2-methylphenol	0.000806	U	0.000971	0.000806	mg/L		08/04/14 07:44	08/05/14 12:53	1
N-Nitrosodiphenylamine	0.0000971	U	0.000485	0.0000971	mg/L		08/04/14 07:44	08/05/14 12:53	1
1,2-Diphenylhydrazine	0.000107	U	0.000485	0.000107	mg/L		08/04/14 07:44	08/05/14 12:53	1
Pentachlorophenol	0.000592	U	0.000971	0.000592	mg/L		08/04/14 07:44	08/05/14 12:53	1
Phenanthrene	0.0000583	U	0.000485	0.0000583	mg/L		08/04/14 07:44	08/05/14 12:53	1
Anthracene	0.0000485	U	0.000485	0.0000485	mg/L		08/04/14 07:44	08/05/14 12:53	1
Di-n-butyl phthalate	0.000107	U	0.000485	0.000107	mg/L		08/04/14 07:44	08/05/14 12:53	1
Fluoranthene	0.0000680	U	0.000485	0.0000680	mg/L		08/04/14 07:44	08/05/14 12:53	1
Pyrene	0.000180	J	0.000485	0.000107	mg/L		08/04/14 07:44	08/05/14 12:53	1
Benzo[a]anthracene	0.0000777	U	0.000485	0.0000777	mg/L		08/04/14 07:44	08/05/14 12:53	1
Bis(2-ethylhexyl) phthalate	0.000359	U	0.000485	0.000359	mg/L		08/04/14 07:44	08/05/14 12:53	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-96330-1

Client Sample ID: WG-1620-MW25A-20140729

Lab Sample ID: 600-96330-7

Date Collected: 07/29/14 07:45

Matrix: Water

Date Received: 07/30/14 12:37

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	0.0000777	U	0.000485	0.0000777	mg/L		08/04/14 07:44	08/05/14 12:53	1
Benzo[a]pyrene	0.0000777	U	0.000485	0.0000777	mg/L		08/04/14 07:44	08/05/14 12:53	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	75		10 - 147				08/04/14 07:44	08/05/14 12:53	1
2-Fluorobiphenyl	54		10 - 150				08/04/14 07:44	08/05/14 12:53	1
2-Fluorophenol	15		10 - 130				08/04/14 07:44	08/05/14 12:53	1
Nitrobenzene-d5	59		23 - 130				08/04/14 07:44	08/05/14 12:53	1
Terphenyl-d14	72		42 - 133				08/04/14 07:44	08/05/14 12:53	1
Phenol-d5 (Surr)	6	X	10 - 130				08/04/14 07:44	08/05/14 12:53	1

Client Sample ID: WG-1620-MW25C-20140729

Lab Sample ID: 600-96330-8

Date Collected: 07/29/14 08:30

Matrix: Water

Date Received: 07/30/14 12:37

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	0.000550	U	0.0100	0.000550	mg/L			08/03/14 15:03	5
Methylene Chloride	0.000750	U	0.00500	0.000750	mg/L			08/03/14 15:03	5
Benzene	0.0119		0.00500	0.000400	mg/L			08/03/14 15:03	5
1,2-Dichloroethane	0.000700	U	0.00500	0.000700	mg/L			08/03/14 15:03	5
Toluene	0.207		0.00500	0.000750	mg/L			08/03/14 15:03	5
Chlorobenzene	0.000600	U	0.00500	0.000600	mg/L			08/03/14 15:03	5
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	91		67 - 139					08/03/14 15:03	5
Dibromofluoromethane	94		62 - 130					08/03/14 15:03	5
Toluene-d8 (Surr)	100		70 - 130					08/03/14 15:03	5
1,2-Dichloroethane-d4 (Surr)	88		50 - 134					08/03/14 15:03	5

Method: 8260B - Volatile Organic Compounds (GC/MS) - DL

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	0.298		0.0500	0.00550	mg/L			08/03/14 15:29	50
Xylenes, Total	1.07		0.150	0.0130	mg/L			08/03/14 15:29	50
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	94		67 - 139					08/03/14 15:29	50
Dibromofluoromethane	94		62 - 130					08/03/14 15:29	50
Toluene-d8 (Surr)	103		70 - 130					08/03/14 15:29	50
1,2-Dichloroethane-d4 (Surr)	88		50 - 134					08/03/14 15:29	50

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.00177		0.000485	0.0000388	mg/L		08/04/14 07:44	08/05/14 13:28	1
Nitrobenzene	0.000107	U	0.000485	0.000107	mg/L		08/04/14 07:44	08/05/14 13:28	1
2,4-Dimethylphenol	0.000301	U	0.000485	0.000301	mg/L		08/04/14 07:44	08/05/14 13:28	1
Bis(2-chloroethoxy)methane	0.00160		0.000485	0.000126	mg/L		08/04/14 07:44	08/05/14 13:28	1
2-Chloronaphthalene	0.0000777	U	0.000485	0.0000777	mg/L		08/04/14 07:44	08/05/14 13:28	1
Acenaphthylene	0.00316		0.000485	0.0000583	mg/L		08/04/14 07:44	08/05/14 13:28	1
2,6-Dinitrotoluene	0.0000777	U	0.000485	0.0000777	mg/L		08/04/14 07:44	08/05/14 13:28	1
4-Nitrophenol	0.000544	U	0.000971	0.000544	mg/L		08/04/14 07:44	08/05/14 13:28	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-96330-1

Client Sample ID: WG-1620-MW25C-20140729

Lab Sample ID: 600-96330-8

Date Collected: 07/29/14 08:30

Matrix: Water

Date Received: 07/30/14 12:37

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-Dinitrotoluene	0.000126	U	0.000485	0.000126	mg/L		08/04/14 07:44	08/05/14 13:28	1
4,6-Dinitro-2-methylphenol	0.000806	U	0.000971	0.000806	mg/L		08/04/14 07:44	08/05/14 13:28	1
N-Nitrosodiphenylamine	0.0000971	U	0.000485	0.0000971	mg/L		08/04/14 07:44	08/05/14 13:28	1
1,2-Diphenylhydrazine	0.000107	U	0.000485	0.000107	mg/L		08/04/14 07:44	08/05/14 13:28	1
Pentachlorophenol	0.000592	U	0.000971	0.000592	mg/L		08/04/14 07:44	08/05/14 13:28	1
Anthracene	0.0209		0.000485	0.0000485	mg/L		08/04/14 07:44	08/05/14 13:28	1
Di-n-butyl phthalate	0.000107	U	0.000485	0.000107	mg/L		08/04/14 07:44	08/05/14 13:28	1
Fluoranthene	0.0127		0.000485	0.0000680	mg/L		08/04/14 07:44	08/05/14 13:28	1
Pyrene	0.00769		0.000485	0.000107	mg/L		08/04/14 07:44	08/05/14 13:28	1
Benzo[a]anthracene	0.000813		0.000485	0.0000777	mg/L		08/04/14 07:44	08/05/14 13:28	1
Bis(2-ethylhexyl) phthalate	0.000674		0.000485	0.000359	mg/L		08/04/14 07:44	08/05/14 13:28	1
Chrysene	0.000957		0.000485	0.0000777	mg/L		08/04/14 07:44	08/05/14 13:28	1
Benzo[a]pyrene	0.000435	J	0.000485	0.0000777	mg/L		08/04/14 07:44	08/05/14 13:28	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	84		10 - 147	08/04/14 07:44	08/05/14 13:28	1
2-Fluorobiphenyl	58		10 - 150	08/04/14 07:44	08/05/14 13:28	1
2-Fluorophenol	59		10 - 130	08/04/14 07:44	08/05/14 13:28	1
Nitrobenzene-d5	92		23 - 130	08/04/14 07:44	08/05/14 13:28	1
Terphenyl-d14	71		42 - 133	08/04/14 07:44	08/05/14 13:28	1
Phenol-d5 (Surr)	14		10 - 130	08/04/14 07:44	08/05/14 13:28	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels - DL

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylnaphthalene	0.943		0.0485	0.00680	mg/L		08/04/14 07:44	08/07/14 22:44	100
Acenaphthene	0.284		0.0485	0.00777	mg/L		08/04/14 07:44	08/07/14 22:44	100
Dibenzofuran	0.276		0.0485	0.00777	mg/L		08/04/14 07:44	08/07/14 22:44	100
Fluorene	0.129		0.0485	0.00680	mg/L		08/04/14 07:44	08/07/14 22:44	100
Phenanthrene	0.140		0.0485	0.00583	mg/L		08/04/14 07:44	08/07/14 22:44	100

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	0	X	10 - 147	08/04/14 07:44	08/07/14 22:44	100
2-Fluorobiphenyl	0	X	10 - 150	08/04/14 07:44	08/07/14 22:44	100
2-Fluorophenol	0	X	10 - 130	08/04/14 07:44	08/07/14 22:44	100
Nitrobenzene-d5	0	X	23 - 130	08/04/14 07:44	08/07/14 22:44	100
Terphenyl-d14	0	X	42 - 133	08/04/14 07:44	08/07/14 22:44	100
Phenol-d5 (Surr)	0	X	10 - 130	08/04/14 07:44	08/07/14 22:44	100

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels - DL2

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	10.7		0.485	0.0777	mg/L		08/04/14 07:44	08/08/14 02:00	1000

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	0	X	10 - 147	08/04/14 07:44	08/08/14 02:00	1000
2-Fluorobiphenyl	0	X	10 - 150	08/04/14 07:44	08/08/14 02:00	1000
2-Fluorophenol	0	X	10 - 130	08/04/14 07:44	08/08/14 02:00	1000
Nitrobenzene-d5	0	X	23 - 130	08/04/14 07:44	08/08/14 02:00	1000
Terphenyl-d14	0	X	42 - 133	08/04/14 07:44	08/08/14 02:00	1000
Phenol-d5 (Surr)	0	X	10 - 130	08/04/14 07:44	08/08/14 02:00	1000

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-96330-1

Client Sample ID: WG-1620-MW34CR-20140729

Lab Sample ID: 600-96330-9

Date Collected: 07/29/14 09:30

Matrix: Water

Date Received: 07/30/14 12:37

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			08/02/14 19:53	1
Benzene	0.000154	J	0.00100	0.0000800	mg/L			08/02/14 19:53	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			08/02/14 19:53	1
Toluene	0.000150	U	0.00100	0.000150	mg/L			08/02/14 19:53	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			08/02/14 19:53	1
Ethylbenzene	0.000110	U	0.00100	0.000110	mg/L			08/02/14 19:53	1
Xylenes, Total	0.000260	U	0.00300	0.000260	mg/L			08/02/14 19:53	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	101		67 - 139					08/02/14 19:53	1
Dibromofluoromethane	105		62 - 130					08/02/14 19:53	1
Toluene-d8 (Surr)	110		70 - 130					08/02/14 19:53	1
1,2-Dichloroethane-d4 (Surr)	97		50 - 134					08/02/14 19:53	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.0000392	U	0.000490	0.0000392	mg/L		08/04/14 07:44	08/05/14 16:44	1
Nitrobenzene	0.000108	U	0.000490	0.000108	mg/L		08/04/14 07:44	08/05/14 16:44	1
2,4-Dimethylphenol	0.000304	U	0.000490	0.000304	mg/L		08/04/14 07:44	08/05/14 16:44	1
Bis(2-chloroethoxy)methane	0.000127	U	0.000490	0.000127	mg/L		08/04/14 07:44	08/05/14 16:44	1
Naphthalene	0.00282		0.000490	0.0000784	mg/L		08/04/14 07:44	08/05/14 16:44	1
2-Methylnaphthalene	0.000255	J	0.000490	0.0000686	mg/L		08/04/14 07:44	08/05/14 16:44	1
2-Chloronaphthalene	0.0000784	U	0.000490	0.0000784	mg/L		08/04/14 07:44	08/05/14 16:44	1
Acenaphthylene	0.0000588	U	0.000490	0.0000588	mg/L		08/04/14 07:44	08/05/14 16:44	1
2,6-Dinitrotoluene	0.0000784	U	0.000490	0.0000784	mg/L		08/04/14 07:44	08/05/14 16:44	1
Acenaphthene	0.0000784	U	0.000490	0.0000784	mg/L		08/04/14 07:44	08/05/14 16:44	1
4-Nitrophenol	0.000549	U	0.000980	0.000549	mg/L		08/04/14 07:44	08/05/14 16:44	1
Dibenzofuran	0.0000784	U	0.000490	0.0000784	mg/L		08/04/14 07:44	08/05/14 16:44	1
2,4-Dinitrotoluene	0.000127	U	0.000490	0.000127	mg/L		08/04/14 07:44	08/05/14 16:44	1
Fluorene	0.0000686	U	0.000490	0.0000686	mg/L		08/04/14 07:44	08/05/14 16:44	1
4,6-Dinitro-2-methylphenol	0.000814	U	0.000980	0.000814	mg/L		08/04/14 07:44	08/05/14 16:44	1
N-Nitrosodiphenylamine	0.0000980	U	0.000490	0.0000980	mg/L		08/04/14 07:44	08/05/14 16:44	1
1,2-Diphenylhydrazine	0.000108	U	0.000490	0.000108	mg/L		08/04/14 07:44	08/05/14 16:44	1
Pentachlorophenol	0.000598	U	0.000980	0.000598	mg/L		08/04/14 07:44	08/05/14 16:44	1
Phenanthrene	0.0000588	U	0.000490	0.0000588	mg/L		08/04/14 07:44	08/05/14 16:44	1
Anthracene	0.0000490	U	0.000490	0.0000490	mg/L		08/04/14 07:44	08/05/14 16:44	1
Di-n-butyl phthalate	0.000108	U	0.000490	0.000108	mg/L		08/04/14 07:44	08/05/14 16:44	1
Fluoranthene	0.0000686	U	0.000490	0.0000686	mg/L		08/04/14 07:44	08/05/14 16:44	1
Pyrene	0.000108	U	0.000490	0.000108	mg/L		08/04/14 07:44	08/05/14 16:44	1
Benzo[a]anthracene	0.0000784	U	0.000490	0.0000784	mg/L		08/04/14 07:44	08/05/14 16:44	1
Bis(2-ethylhexyl) phthalate	0.000799		0.000490	0.000363	mg/L		08/04/14 07:44	08/05/14 16:44	1
Chrysene	0.0000784	U	0.000490	0.0000784	mg/L		08/04/14 07:44	08/05/14 16:44	1
Benzo[a]pyrene	0.0000784	U	0.000490	0.0000784	mg/L		08/04/14 07:44	08/05/14 16:44	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	80		10 - 147				08/04/14 07:44	08/05/14 16:44	1
2-Fluorobiphenyl	59		10 - 150				08/04/14 07:44	08/05/14 16:44	1
2-Fluorophenol	27		10 - 130				08/04/14 07:44	08/05/14 16:44	1
Nitrobenzene-d5	65		23 - 130				08/04/14 07:44	08/05/14 16:44	1
Terphenyl-d14	73		42 - 133				08/04/14 07:44	08/05/14 16:44	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-96330-1

Client Sample ID: WG-1620-MW34CR-20140729

Lab Sample ID: 600-96330-9

Date Collected: 07/29/14 09:30

Matrix: Water

Date Received: 07/30/14 12:37

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Phenol-d5 (Surr)	13		10 - 130	08/04/14 07:44	08/05/14 16:44	1

Client Sample ID: WG-1620-MW05-20140729

Lab Sample ID: 600-96330-10

Date Collected: 07/29/14 10:40

Matrix: Water

Date Received: 07/30/14 12:37

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			08/02/14 20:19	1
Benzene	0.0000800	U	0.00100	0.0000800	mg/L			08/02/14 20:19	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			08/02/14 20:19	1
Toluene	0.000150	U	0.00100	0.000150	mg/L			08/02/14 20:19	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			08/02/14 20:19	1
Ethylbenzene	0.000110	U	0.00100	0.000110	mg/L			08/02/14 20:19	1
Xylenes, Total	0.000260	U	0.00300	0.000260	mg/L			08/02/14 20:19	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	100		67 - 139		08/02/14 20:19	1
Dibromofluoromethane	103		62 - 130		08/02/14 20:19	1
Toluene-d8 (Surr)	110		70 - 130		08/02/14 20:19	1
1,2-Dichloroethane-d4 (Surr)	96		50 - 134		08/02/14 20:19	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.0000392	U	0.000490	0.0000392	mg/L		08/04/14 07:44	08/08/14 21:41	1
Nitrobenzene	0.000108	U	0.000490	0.000108	mg/L		08/04/14 07:44	08/08/14 21:41	1
2,4-Dimethylphenol	0.000304	U	0.000490	0.000304	mg/L		08/04/14 07:44	08/08/14 21:41	1
Bis(2-chloroethoxy)methane	0.000127	U	0.000490	0.000127	mg/L		08/04/14 07:44	08/08/14 21:41	1
Naphthalene	0.000131	J	0.000490	0.0000784	mg/L		08/04/14 07:44	08/08/14 21:41	1
2-Methylnaphthalene	0.0000686	U	0.000490	0.0000686	mg/L		08/04/14 07:44	08/08/14 21:41	1
2-Chloronaphthalene	0.0000784	U	0.000490	0.0000784	mg/L		08/04/14 07:44	08/08/14 21:41	1
Acenaphthylene	0.0000588	U	0.000490	0.0000588	mg/L		08/04/14 07:44	08/08/14 21:41	1
2,6-Dinitrotoluene	0.0000784	U	0.000490	0.0000784	mg/L		08/04/14 07:44	08/08/14 21:41	1
Acenaphthene	0.0000784	U	0.000490	0.0000784	mg/L		08/04/14 07:44	08/08/14 21:41	1
4-Nitrophenol	0.000549	U	0.000980	0.000549	mg/L		08/04/14 07:44	08/08/14 21:41	1
Dibenzofuran	0.0000784	U	0.000490	0.0000784	mg/L		08/04/14 07:44	08/08/14 21:41	1
2,4-Dinitrotoluene	0.000127	U	0.000490	0.000127	mg/L		08/04/14 07:44	08/08/14 21:41	1
Fluorene	0.0000686	U	0.000490	0.0000686	mg/L		08/04/14 07:44	08/08/14 21:41	1
4,6-Dinitro-2-methylphenol	0.000814	U	0.000980	0.000814	mg/L		08/04/14 07:44	08/08/14 21:41	1
N-Nitrosodiphenylamine	0.0000980	U	0.000490	0.0000980	mg/L		08/04/14 07:44	08/08/14 21:41	1
1,2-Diphenylhydrazine	0.000108	U	0.000490	0.000108	mg/L		08/04/14 07:44	08/08/14 21:41	1
Pentachlorophenol	0.000598	U	0.000980	0.000598	mg/L		08/04/14 07:44	08/08/14 21:41	1
Phenanthrene	0.0000588	U	0.000490	0.0000588	mg/L		08/04/14 07:44	08/08/14 21:41	1
Anthracene	0.000153	J	0.000490	0.0000490	mg/L		08/04/14 07:44	08/08/14 21:41	1
Di-n-butyl phthalate	0.000108	U	0.000490	0.000108	mg/L		08/04/14 07:44	08/08/14 21:41	1
Fluoranthene	0.0000686	U	0.000490	0.0000686	mg/L		08/04/14 07:44	08/08/14 21:41	1
Pyrene	0.000108	U	0.000490	0.000108	mg/L		08/04/14 07:44	08/08/14 21:41	1
Benzo[a]anthracene	0.0000784	U	0.000490	0.0000784	mg/L		08/04/14 07:44	08/08/14 21:41	1
Bis(2-ethylhexyl) phthalate	0.000363	U	0.000490	0.000363	mg/L		08/04/14 07:44	08/08/14 21:41	1
Chrysene	0.0000784	U	0.000490	0.0000784	mg/L		08/04/14 07:44	08/08/14 21:41	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-96330-1

Client Sample ID: WG-1620-MW05-20140729

Lab Sample ID: 600-96330-10

Date Collected: 07/29/14 10:40

Matrix: Water

Date Received: 07/30/14 12:37

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]pyrene	0.0000784	U	0.000490	0.0000784	mg/L		08/04/14 07:44	08/08/14 21:41	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	33		10 - 147				08/04/14 07:44	08/08/14 21:41	1
2-Fluorobiphenyl	39		10 - 150				08/04/14 07:44	08/08/14 21:41	1
2-Fluorophenol	18		10 - 130				08/04/14 07:44	08/08/14 21:41	1
Nitrobenzene-d5	40		23 - 130				08/04/14 07:44	08/08/14 21:41	1
Terphenyl-d14	50		42 - 133				08/04/14 07:44	08/08/14 21:41	1
Phenol-d5 (Surr)	8	X	10 - 130				08/04/14 07:44	08/08/14 21:41	1

Client Sample ID: WG-1620-MW64A-20140729

Lab Sample ID: 600-96330-11

Date Collected: 07/29/14 11:45

Matrix: Water

Date Received: 07/30/14 12:37

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			08/02/14 20:45	1
Benzene	0.0000800	U	0.00100	0.0000800	mg/L			08/02/14 20:45	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			08/02/14 20:45	1
Toluene	0.000150	U	0.00100	0.000150	mg/L			08/02/14 20:45	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			08/02/14 20:45	1
Ethylbenzene	0.000110	U	0.00100	0.000110	mg/L			08/02/14 20:45	1
Xylenes, Total	0.000260	U	0.00300	0.000260	mg/L			08/02/14 20:45	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	103		67 - 139					08/02/14 20:45	1
Dibromofluoromethane	106		62 - 130					08/02/14 20:45	1
Toluene-d8 (Surr)	113		70 - 130					08/02/14 20:45	1
1,2-Dichloroethane-d4 (Surr)	99		50 - 134					08/02/14 20:45	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.0000392	U	0.000490	0.0000392	mg/L		08/04/14 07:44	08/05/14 21:18	1
Nitrobenzene	0.000108	U	0.000490	0.000108	mg/L		08/04/14 07:44	08/05/14 21:18	1
2,4-Dimethylphenol	0.000304	U	0.000490	0.000304	mg/L		08/04/14 07:44	08/05/14 21:18	1
Bis(2-chloroethoxy)methane	0.000127	U	0.000490	0.000127	mg/L		08/04/14 07:44	08/05/14 21:18	1
Naphthalene	0.000317	J	0.000490	0.0000784	mg/L		08/04/14 07:44	08/05/14 21:18	1
2-Methylnaphthalene	0.0000686	U	0.000490	0.0000686	mg/L		08/04/14 07:44	08/05/14 21:18	1
2-Chloronaphthalene	0.0000784	U	0.000490	0.0000784	mg/L		08/04/14 07:44	08/05/14 21:18	1
Acenaphthylene	0.0000588	U	0.000490	0.0000588	mg/L		08/04/14 07:44	08/05/14 21:18	1
2,6-Dinitrotoluene	0.0000784	U	0.000490	0.0000784	mg/L		08/04/14 07:44	08/05/14 21:18	1
Acenaphthene	0.0000784	U	0.000490	0.0000784	mg/L		08/04/14 07:44	08/05/14 21:18	1
4-Nitrophenol	0.000549	U	0.000980	0.000549	mg/L		08/04/14 07:44	08/05/14 21:18	1
Dibenzofuran	0.0000784	U	0.000490	0.0000784	mg/L		08/04/14 07:44	08/05/14 21:18	1
2,4-Dinitrotoluene	0.000127	U	0.000490	0.000127	mg/L		08/04/14 07:44	08/05/14 21:18	1
Fluorene	0.0000686	U	0.000490	0.0000686	mg/L		08/04/14 07:44	08/05/14 21:18	1
4,6-Dinitro-2-methylphenol	0.000814	U	0.000980	0.000814	mg/L		08/04/14 07:44	08/05/14 21:18	1
N-Nitrosodiphenylamine	0.0000980	U	0.000490	0.0000980	mg/L		08/04/14 07:44	08/05/14 21:18	1
1,2-Diphenylhydrazine	0.000108	U	0.000490	0.000108	mg/L		08/04/14 07:44	08/05/14 21:18	1
Pentachlorophenol	0.000598	U	0.000980	0.000598	mg/L		08/04/14 07:44	08/05/14 21:18	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-96330-1

Client Sample ID: WG-1620-MW64A-20140729

Lab Sample ID: 600-96330-11

Date Collected: 07/29/14 11:45

Matrix: Water

Date Received: 07/30/14 12:37

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenanthrene	0.0000588	U	0.000490	0.0000588	mg/L		08/04/14 07:44	08/05/14 21:18	1
Anthracene	0.000127	J	0.000490	0.0000490	mg/L		08/04/14 07:44	08/05/14 21:18	1
Di-n-butyl phthalate	0.000108	U	0.000490	0.000108	mg/L		08/04/14 07:44	08/05/14 21:18	1
Fluoranthene	0.0000686	U	0.000490	0.0000686	mg/L		08/04/14 07:44	08/05/14 21:18	1
Pyrene	0.000108	U	0.000490	0.000108	mg/L		08/04/14 07:44	08/05/14 21:18	1
Benzo[a]anthracene	0.0000784	U	0.000490	0.0000784	mg/L		08/04/14 07:44	08/05/14 21:18	1
Bis(2-ethylhexyl) phthalate	0.000363	U	0.000490	0.000363	mg/L		08/04/14 07:44	08/05/14 21:18	1
Chrysene	0.0000784	U	0.000490	0.0000784	mg/L		08/04/14 07:44	08/05/14 21:18	1
Benzo[a]pyrene	0.0000784	U	0.000490	0.0000784	mg/L		08/04/14 07:44	08/05/14 21:18	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	87		10 - 147				08/04/14 07:44	08/05/14 21:18	1
2-Fluorobiphenyl	59		10 - 150				08/04/14 07:44	08/05/14 21:18	1
2-Fluorophenol	27		10 - 130				08/04/14 07:44	08/05/14 21:18	1
Nitrobenzene-d5	64		23 - 130				08/04/14 07:44	08/05/14 21:18	1
Terphenyl-d14	73		42 - 133				08/04/14 07:44	08/05/14 21:18	1
Phenol-d5 (Surr)	14		10 - 130				08/04/14 07:44	08/05/14 21:18	1

Client Sample ID: WG-1620-P11-20140729

Lab Sample ID: 600-96330-12

Date Collected: 07/29/14 13:50

Matrix: Water

Date Received: 07/30/14 12:37

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			08/04/14 13:30	1
Benzene	0.0000800	U	0.00100	0.0000800	mg/L			08/04/14 13:30	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			08/04/14 13:30	1
Toluene	0.000150	U	0.00100	0.000150	mg/L			08/04/14 13:30	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			08/04/14 13:30	1
Ethylbenzene	0.000110	U	0.00100	0.000110	mg/L			08/04/14 13:30	1
Xylenes, Total	0.000260	U	0.00300	0.000260	mg/L			08/04/14 13:30	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	98		67 - 139					08/04/14 13:30	1
Dibromofluoromethane	99		62 - 130					08/04/14 13:30	1
Toluene-d8 (Surr)	104		70 - 130					08/04/14 13:30	1
1,2-Dichloroethane-d4 (Surr)	94		50 - 134					08/04/14 13:30	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.0000392	U	0.000490	0.0000392	mg/L		08/04/14 07:44	08/05/14 21:46	1
Nitrobenzene	0.000108	U	0.000490	0.000108	mg/L		08/04/14 07:44	08/05/14 21:46	1
2,4-Dimethylphenol	0.000304	U	0.000490	0.000304	mg/L		08/04/14 07:44	08/05/14 21:46	1
Bis(2-chloroethoxy)methane	0.000127	U	0.000490	0.000127	mg/L		08/04/14 07:44	08/05/14 21:46	1
Naphthalene	0.0000784	U	0.000490	0.0000784	mg/L		08/04/14 07:44	08/05/14 21:46	1
2-Methylnaphthalene	0.0000686	U	0.000490	0.0000686	mg/L		08/04/14 07:44	08/05/14 21:46	1
2-Chloronaphthalene	0.0000784	U	0.000490	0.0000784	mg/L		08/04/14 07:44	08/05/14 21:46	1
Acenaphthylene	0.0000588	U	0.000490	0.0000588	mg/L		08/04/14 07:44	08/05/14 21:46	1
2,6-Dinitrotoluene	0.0000784	U	0.000490	0.0000784	mg/L		08/04/14 07:44	08/05/14 21:46	1
Acenaphthene	0.000653		0.000490	0.0000784	mg/L		08/04/14 07:44	08/05/14 21:46	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-96330-1

Client Sample ID: WG-1620-P11-20140729

Lab Sample ID: 600-96330-12

Date Collected: 07/29/14 13:50

Matrix: Water

Date Received: 07/30/14 12:37

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Nitrophenol	0.000549	U	0.000980	0.000549	mg/L		08/04/14 07:44	08/05/14 21:46	1
Dibenzofuran	0.000176	J	0.000490	0.0000784	mg/L		08/04/14 07:44	08/05/14 21:46	1
2,4-Dinitrotoluene	0.000127	U	0.000490	0.000127	mg/L		08/04/14 07:44	08/05/14 21:46	1
Fluorene	0.000344	J	0.000490	0.0000686	mg/L		08/04/14 07:44	08/05/14 21:46	1
4,6-Dinitro-2-methylphenol	0.000814	U	0.000980	0.000814	mg/L		08/04/14 07:44	08/05/14 21:46	1
N-Nitrosodiphenylamine	0.0000980	U	0.000490	0.0000980	mg/L		08/04/14 07:44	08/05/14 21:46	1
1,2-Diphenylhydrazine	0.000108	U	0.000490	0.000108	mg/L		08/04/14 07:44	08/05/14 21:46	1
Pentachlorophenol	0.000598	U	0.000980	0.000598	mg/L		08/04/14 07:44	08/05/14 21:46	1
Phenanthrene	0.000317	J	0.000490	0.0000588	mg/L		08/04/14 07:44	08/05/14 21:46	1
Anthracene	0.000119	J	0.000490	0.0000490	mg/L		08/04/14 07:44	08/05/14 21:46	1
Di-n-butyl phthalate	0.000108	U	0.000490	0.000108	mg/L		08/04/14 07:44	08/05/14 21:46	1
Fluoranthene	0.0000771	J	0.000490	0.0000686	mg/L		08/04/14 07:44	08/05/14 21:46	1
Pyrene	0.000108	U	0.000490	0.000108	mg/L		08/04/14 07:44	08/05/14 21:46	1
Benzo[a]anthracene	0.0000784	U	0.000490	0.0000784	mg/L		08/04/14 07:44	08/05/14 21:46	1
Bis(2-ethylhexyl) phthalate	0.000711		0.000490	0.000363	mg/L		08/04/14 07:44	08/05/14 21:46	1
Chrysene	0.0000784	U	0.000490	0.0000784	mg/L		08/04/14 07:44	08/05/14 21:46	1
Benzo[a]pyrene	0.0000784	U	0.000490	0.0000784	mg/L		08/04/14 07:44	08/05/14 21:46	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	66		10 - 147				08/04/14 07:44	08/05/14 21:46	1
2-Fluorobiphenyl	59		10 - 150				08/04/14 07:44	08/05/14 21:46	1
2-Fluorophenol	22		10 - 130				08/04/14 07:44	08/05/14 21:46	1
Nitrobenzene-d5	62		23 - 130				08/04/14 07:44	08/05/14 21:46	1
Terphenyl-d14	74		42 - 133				08/04/14 07:44	08/05/14 21:46	1
Phenol-d5 (Surr)	11		10 - 130				08/04/14 07:44	08/05/14 21:46	1

Client Sample ID: WG-1620-MW62B-20140729

Lab Sample ID: 600-96330-13

Date Collected: 07/29/14 14:55

Matrix: Water

Date Received: 07/30/14 12:37

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			08/03/14 18:59	1
Benzene	0.0000800	U	0.00100	0.0000800	mg/L			08/03/14 18:59	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			08/03/14 18:59	1
Toluene	0.000150	U	0.00100	0.000150	mg/L			08/03/14 18:59	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			08/03/14 18:59	1
Ethylbenzene	0.000110	U	0.00100	0.000110	mg/L			08/03/14 18:59	1
Xylenes, Total	0.000260	U	0.00300	0.000260	mg/L			08/03/14 18:59	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	96		67 - 139					08/03/14 18:59	1
Dibromofluoromethane	96		62 - 130					08/03/14 18:59	1
Toluene-d8 (Surr)	102		70 - 130					08/03/14 18:59	1
1,2-Dichloroethane-d4 (Surr)	89		50 - 134					08/03/14 18:59	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.0000396	U	0.000495	0.0000396	mg/L		08/04/14 07:44	08/05/14 22:14	1
Nitrobenzene	0.000109	U	0.000495	0.000109	mg/L		08/04/14 07:44	08/05/14 22:14	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-96330-1

Client Sample ID: WG-1620-MW62B-20140729

Lab Sample ID: 600-96330-13

Date Collected: 07/29/14 14:55

Matrix: Water

Date Received: 07/30/14 12:37

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-Dimethylphenol	0.000307	U	0.000495	0.000307	mg/L		08/04/14 07:44	08/05/14 22:14	1
Bis(2-chloroethoxy)methane	0.000129	U	0.000495	0.000129	mg/L		08/04/14 07:44	08/05/14 22:14	1
Naphthalene	0.0000792	U	0.000495	0.0000792	mg/L		08/04/14 07:44	08/05/14 22:14	1
2-Methylnaphthalene	0.0000693	U	0.000495	0.0000693	mg/L		08/04/14 07:44	08/05/14 22:14	1
2-Chloronaphthalene	0.0000792	U	0.000495	0.0000792	mg/L		08/04/14 07:44	08/05/14 22:14	1
Acenaphthylene	0.0000594	U	0.000495	0.0000594	mg/L		08/04/14 07:44	08/05/14 22:14	1
2,6-Dinitrotoluene	0.0000792	U	0.000495	0.0000792	mg/L		08/04/14 07:44	08/05/14 22:14	1
Acenaphthene	0.000235	J	0.000495	0.0000792	mg/L		08/04/14 07:44	08/05/14 22:14	1
4-Nitrophenol	0.000554	U	0.000990	0.000554	mg/L		08/04/14 07:44	08/05/14 22:14	1
Dibenzofuran	0.0000916	J	0.000495	0.0000792	mg/L		08/04/14 07:44	08/05/14 22:14	1
2,4-Dinitrotoluene	0.000129	U	0.000495	0.000129	mg/L		08/04/14 07:44	08/05/14 22:14	1
Fluorene	0.000126	J	0.000495	0.0000693	mg/L		08/04/14 07:44	08/05/14 22:14	1
4,6-Dinitro-2-methylphenol	0.000822	U	0.000990	0.000822	mg/L		08/04/14 07:44	08/05/14 22:14	1
N-Nitrosodiphenylamine	0.0000990	U	0.000495	0.0000990	mg/L		08/04/14 07:44	08/05/14 22:14	1
1,2-Diphenylhydrazine	0.000109	U	0.000495	0.000109	mg/L		08/04/14 07:44	08/05/14 22:14	1
Pentachlorophenol	0.000604	U	0.000990	0.000604	mg/L		08/04/14 07:44	08/05/14 22:14	1
Phenanthrene	0.000144	J	0.000495	0.0000594	mg/L		08/04/14 07:44	08/05/14 22:14	1
Anthracene	0.0000699	J	0.000495	0.0000495	mg/L		08/04/14 07:44	08/05/14 22:14	1
Di-n-butyl phthalate	0.000109	U	0.000495	0.000109	mg/L		08/04/14 07:44	08/05/14 22:14	1
Fluoranthene	0.0000693	U	0.000495	0.0000693	mg/L		08/04/14 07:44	08/05/14 22:14	1
Pyrene	0.000109	U	0.000495	0.000109	mg/L		08/04/14 07:44	08/05/14 22:14	1
Benzo[a]anthracene	0.0000792	U	0.000495	0.0000792	mg/L		08/04/14 07:44	08/05/14 22:14	1
Bis(2-ethylhexyl) phthalate	0.000366	U	0.000495	0.000366	mg/L		08/04/14 07:44	08/05/14 22:14	1
Chrysene	0.0000792	U	0.000495	0.0000792	mg/L		08/04/14 07:44	08/05/14 22:14	1
Benzo[a]pyrene	0.0000792	U	0.000495	0.0000792	mg/L		08/04/14 07:44	08/05/14 22:14	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	71		10 - 147	08/04/14 07:44	08/05/14 22:14	1
2-Fluorobiphenyl	61		10 - 150	08/04/14 07:44	08/05/14 22:14	1
2-Fluorophenol	27		10 - 130	08/04/14 07:44	08/05/14 22:14	1
Nitrobenzene-d5	65		23 - 130	08/04/14 07:44	08/05/14 22:14	1
Terphenyl-d14	76		42 - 133	08/04/14 07:44	08/05/14 22:14	1
Phenol-d5 (Surr)	14		10 - 130	08/04/14 07:44	08/05/14 22:14	1

Client Sample ID: WG-1620-MW57A-20140729

Lab Sample ID: 600-96330-14

Date Collected: 07/29/14 16:05

Matrix: Water

Date Received: 07/30/14 12:37

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			08/03/14 15:55	1
Benzene	0.0412		0.00100	0.0000800	mg/L			08/03/14 15:55	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			08/03/14 15:55	1
Toluene	0.0355		0.00100	0.000150	mg/L			08/03/14 15:55	1
Chlorobenzene	0.000625	J	0.00100	0.000120	mg/L			08/03/14 15:55	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	94		67 - 139		08/03/14 15:55	1
Dibromofluoromethane	93		62 - 130		08/03/14 15:55	1
Toluene-d8 (Surr)	98		70 - 130		08/03/14 15:55	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-96330-1

Client Sample ID: WG-1620-MW57A-20140729

Lab Sample ID: 600-96330-14

Date Collected: 07/29/14 16:05

Matrix: Water

Date Received: 07/30/14 12:37

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	87		50 - 134		08/03/14 15:55	1

Method: 8260B - Volatile Organic Compounds (GC/MS) - DL

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	0.274		0.0200	0.00220	mg/L			08/03/14 16:22	20
Xylenes, Total	0.455		0.0600	0.00520	mg/L			08/03/14 16:22	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	97		67 - 139		08/03/14 16:22	20
Dibromofluoromethane	97		62 - 130		08/03/14 16:22	20
Toluene-d8 (Surr)	102		70 - 130		08/03/14 16:22	20
1,2-Dichloroethane-d4 (Surr)	87		50 - 134		08/03/14 16:22	20

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.0000396	U	0.000495	0.0000396	mg/L		08/04/14 07:44	08/05/14 22:42	1
Nitrobenzene	0.000109	U	0.000495	0.000109	mg/L		08/04/14 07:44	08/05/14 22:42	1
Bis(2-chloroethoxy)methane	0.00210		0.000495	0.000129	mg/L		08/04/14 07:44	08/05/14 22:42	1
2-Chloronaphthalene	0.0000792	U	0.000495	0.0000792	mg/L		08/04/14 07:44	08/05/14 22:42	1
Acenaphthylene	0.00779		0.000495	0.0000594	mg/L		08/04/14 07:44	08/05/14 22:42	1
2,6-Dinitrotoluene	0.0000792	U	0.000495	0.0000792	mg/L		08/04/14 07:44	08/05/14 22:42	1
4-Nitrophenol	0.000554	U	0.000990	0.000554	mg/L		08/04/14 07:44	08/05/14 22:42	1
2,4-Dinitrotoluene	0.000129	U	0.000495	0.000129	mg/L		08/04/14 07:44	08/05/14 22:42	1
4,6-Dinitro-2-methylphenol	0.000822	U	0.000990	0.000822	mg/L		08/04/14 07:44	08/05/14 22:42	1
N-Nitrosodiphenylamine	0.0000990	U	0.000495	0.0000990	mg/L		08/04/14 07:44	08/05/14 22:42	1
1,2-Diphenylhydrazine	0.000109	U	0.000495	0.000109	mg/L		08/04/14 07:44	08/05/14 22:42	1
Pentachlorophenol	0.000604	U	0.000990	0.000604	mg/L		08/04/14 07:44	08/05/14 22:42	1
Di-n-butyl phthalate	0.000109	U	0.000495	0.000109	mg/L		08/04/14 07:44	08/05/14 22:42	1
Benzo[a]anthracene	0.00720		0.000495	0.0000792	mg/L		08/04/14 07:44	08/05/14 22:42	1
Bis(2-ethylhexyl) phthalate	0.000808		0.000495	0.000366	mg/L		08/04/14 07:44	08/05/14 22:42	1
Chrysene	0.00625		0.000495	0.0000792	mg/L		08/04/14 07:44	08/05/14 22:42	1
Benzo[a]pyrene	0.00385		0.000495	0.0000792	mg/L		08/04/14 07:44	08/05/14 22:42	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	101		10 - 147	08/04/14 07:44	08/05/14 22:42	1
2-Fluorobiphenyl	57		10 - 150	08/04/14 07:44	08/05/14 22:42	1
2-Fluorophenol	30		10 - 130	08/04/14 07:44	08/05/14 22:42	1
Nitrobenzene-d5	74		23 - 130	08/04/14 07:44	08/05/14 22:42	1
Terphenyl-d14	75		42 - 133	08/04/14 07:44	08/05/14 22:42	1
Phenol-d5 (Surr)	17		10 - 130	08/04/14 07:44	08/05/14 22:42	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels - DL

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-Dimethylphenol	0.0443	J	0.0495	0.0307	mg/L		08/04/14 07:44	08/07/14 23:12	100
2-Methylnaphthalene	0.616		0.0495	0.00693	mg/L		08/04/14 07:44	08/07/14 23:12	100
Acenaphthene	0.335		0.0495	0.00792	mg/L		08/04/14 07:44	08/07/14 23:12	100
Dibenzofuran	0.257		0.0495	0.00792	mg/L		08/04/14 07:44	08/07/14 23:12	100
Fluorene	0.210		0.0495	0.00693	mg/L		08/04/14 07:44	08/07/14 23:12	100
Phenanthrene	0.271		0.0495	0.00594	mg/L		08/04/14 07:44	08/07/14 23:12	100
Anthracene	0.0557		0.0495	0.00495	mg/L		08/04/14 07:44	08/07/14 23:12	100

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-96330-1

Client Sample ID: WG-1620-MW57A-20140729

Lab Sample ID: 600-96330-14

Date Collected: 07/29/14 16:05

Matrix: Water

Date Received: 07/30/14 12:37

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels - DL (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoranthene	0.0561		0.0495	0.00693	mg/L		08/04/14 07:44	08/07/14 23:12	100
Pyrene	0.0308	J	0.0495	0.0109	mg/L		08/04/14 07:44	08/07/14 23:12	100
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	0	X	10 - 147				08/04/14 07:44	08/07/14 23:12	100
2-Fluorobiphenyl	0	X	10 - 150				08/04/14 07:44	08/07/14 23:12	100
2-Fluorophenol	0	X	10 - 130				08/04/14 07:44	08/07/14 23:12	100
Nitrobenzene-d5	0	X	23 - 130				08/04/14 07:44	08/07/14 23:12	100
Terphenyl-d14	0	X	42 - 133				08/04/14 07:44	08/07/14 23:12	100
Phenol-d5 (Surr)	0	X	10 - 130				08/04/14 07:44	08/07/14 23:12	100

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels - DL2

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	7.27		0.495	0.0792	mg/L		08/04/14 07:44	08/08/14 02:28	1000
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	0	X	10 - 147				08/04/14 07:44	08/08/14 02:28	1000
2-Fluorobiphenyl	0	X	10 - 150				08/04/14 07:44	08/08/14 02:28	1000
2-Fluorophenol	0	X	10 - 130				08/04/14 07:44	08/08/14 02:28	1000
Nitrobenzene-d5	0	X	23 - 130				08/04/14 07:44	08/08/14 02:28	1000
Terphenyl-d14	0	X	42 - 133				08/04/14 07:44	08/08/14 02:28	1000
Phenol-d5 (Surr)	0	X	10 - 130				08/04/14 07:44	08/08/14 02:28	1000

Client Sample ID: WG-1620-MW57B-20140729

Lab Sample ID: 600-96330-15

Date Collected: 07/29/14 17:00

Matrix: Water

Date Received: 07/30/14 12:37

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	0.00299	J	0.0100	0.000550	mg/L			08/03/14 16:48	5
Methylene Chloride	0.000750	U	0.00500	0.000750	mg/L			08/03/14 16:48	5
1,2-Dichloroethane	0.000700	U	0.00500	0.000700	mg/L			08/03/14 16:48	5
Chlorobenzene	0.000600	U	0.00500	0.000600	mg/L			08/03/14 16:48	5
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	91		67 - 139					08/03/14 16:48	5
Dibromofluoromethane	93		62 - 130					08/03/14 16:48	5
Toluene-d8 (Surr)	99		70 - 130					08/03/14 16:48	5
1,2-Dichloroethane-d4 (Surr)	83		50 - 134					08/03/14 16:48	5

Method: 8260B - Volatile Organic Compounds (GC/MS) - DL

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	1.25		0.0500	0.00400	mg/L			08/03/14 17:14	50
Toluene	1.33		0.0500	0.00750	mg/L			08/03/14 17:14	50
Ethylbenzene	0.371		0.0500	0.00550	mg/L			08/03/14 17:14	50
Xylenes, Total	1.16		0.150	0.0130	mg/L			08/03/14 17:14	50
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	93		67 - 139					08/03/14 17:14	50
Dibromofluoromethane	95		62 - 130					08/03/14 17:14	50
Toluene-d8 (Surr)	100		70 - 130					08/03/14 17:14	50

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-96330-1

Client Sample ID: WG-1620-MW57B-20140729

Lab Sample ID: 600-96330-15

Date Collected: 07/29/14 17:00

Matrix: Water

Date Received: 07/30/14 12:37

Method: 8260B - Volatile Organic Compounds (GC/MS) - DL (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	86		50 - 134		08/03/14 17:14	50

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.495		0.0495	0.00396	mg/L		08/04/14 07:44	08/07/14 23:40	100
Nitrobenzene	0.0109	U	0.0495	0.0109	mg/L		08/04/14 07:44	08/07/14 23:40	100
Bis(2-chloroethoxy)methane	0.0129	U	0.0495	0.0129	mg/L		08/04/14 07:44	08/07/14 23:40	100
2-Methylnaphthalene	0.945		0.0495	0.00693	mg/L		08/04/14 07:44	08/07/14 23:40	100
2-Chloronaphthalene	0.00792	U	0.0495	0.00792	mg/L		08/04/14 07:44	08/07/14 23:40	100
Acenaphthylene	0.00594	U	0.0495	0.00594	mg/L		08/04/14 07:44	08/07/14 23:40	100
2,6-Dinitrotoluene	0.00792	U	0.0495	0.00792	mg/L		08/04/14 07:44	08/07/14 23:40	100
Acenaphthene	0.267		0.0495	0.00792	mg/L		08/04/14 07:44	08/07/14 23:40	100
4-Nitrophenol	0.0554	U	0.0990	0.0554	mg/L		08/04/14 07:44	08/07/14 23:40	100
Dibenzofuran	0.226		0.0495	0.00792	mg/L		08/04/14 07:44	08/07/14 23:40	100
2,4-Dinitrotoluene	0.0129	U	0.0495	0.0129	mg/L		08/04/14 07:44	08/07/14 23:40	100
Fluorene	0.138		0.0495	0.00693	mg/L		08/04/14 07:44	08/07/14 23:40	100
4,6-Dinitro-2-methylphenol	0.0822	U	0.0990	0.0822	mg/L		08/04/14 07:44	08/07/14 23:40	100
N-Nitrosodiphenylamine	0.00990	U	0.0495	0.00990	mg/L		08/04/14 07:44	08/07/14 23:40	100
1,2-Diphenylhydrazine	0.0109	U	0.0495	0.0109	mg/L		08/04/14 07:44	08/07/14 23:40	100
Pentachlorophenol	0.0604	U	0.0990	0.0604	mg/L		08/04/14 07:44	08/07/14 23:40	100
Phenanthrene	0.127		0.0495	0.00594	mg/L		08/04/14 07:44	08/07/14 23:40	100
Anthracene	0.0355	J	0.0495	0.00495	mg/L		08/04/14 07:44	08/07/14 23:40	100
Di-n-butyl phthalate	0.0109	U	0.0495	0.0109	mg/L		08/04/14 07:44	08/07/14 23:40	100
Fluoranthene	0.0109	J	0.0495	0.00693	mg/L		08/04/14 07:44	08/07/14 23:40	100
Pyrene	0.0109	U	0.0495	0.0109	mg/L		08/04/14 07:44	08/07/14 23:40	100
Benzo[a]anthracene	0.00792	U	0.0495	0.00792	mg/L		08/04/14 07:44	08/07/14 23:40	100
Bis(2-ethylhexyl) phthalate	0.0366	U	0.0495	0.0366	mg/L		08/04/14 07:44	08/07/14 23:40	100
Chrysene	0.00792	U	0.0495	0.00792	mg/L		08/04/14 07:44	08/07/14 23:40	100
Benzo[a]pyrene	0.00792	U	0.0495	0.00792	mg/L		08/04/14 07:44	08/07/14 23:40	100

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	0	X	10 - 147	08/04/14 07:44	08/07/14 23:40	100
2-Fluorobiphenyl	0	X	10 - 150	08/04/14 07:44	08/07/14 23:40	100
2-Fluorophenol	0	X	10 - 130	08/04/14 07:44	08/07/14 23:40	100
Nitrobenzene-d5	0	X	23 - 130	08/04/14 07:44	08/07/14 23:40	100
Terphenyl-d14	0	X	42 - 133	08/04/14 07:44	08/07/14 23:40	100
Phenol-d5 (Surr)	0	X	10 - 130	08/04/14 07:44	08/07/14 23:40	100

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels - DL

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-Dimethylphenol	15.0		0.495	0.307	mg/L		08/04/14 07:44	08/08/14 02:55	1000
Naphthalene	17.0		0.495	0.0792	mg/L		08/04/14 07:44	08/08/14 02:55	1000

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	0	X	10 - 147	08/04/14 07:44	08/08/14 02:55	1000
2-Fluorobiphenyl	0	X	10 - 150	08/04/14 07:44	08/08/14 02:55	1000
2-Fluorophenol	0	X	10 - 130	08/04/14 07:44	08/08/14 02:55	1000
Nitrobenzene-d5	0	X	23 - 130	08/04/14 07:44	08/08/14 02:55	1000
Terphenyl-d14	0	X	42 - 133	08/04/14 07:44	08/08/14 02:55	1000
Phenol-d5 (Surr)	0	X	10 - 130	08/04/14 07:44	08/08/14 02:55	1000

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-96330-1

Client Sample ID: WG-1620-FB7-20140729

Lab Sample ID: 600-96330-16

Date Collected: 07/29/14 17:15

Matrix: Water

Date Received: 07/30/14 12:37

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			08/03/14 19:25	1
Benzene	0.0000800	U	0.00100	0.0000800	mg/L			08/03/14 19:25	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			08/03/14 19:25	1
Toluene	0.000150	U	0.00100	0.000150	mg/L			08/03/14 19:25	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			08/03/14 19:25	1
Ethylbenzene	0.000110	U	0.00100	0.000110	mg/L			08/03/14 19:25	1
Xylenes, Total	0.000260	U	0.00300	0.000260	mg/L			08/03/14 19:25	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	94		67 - 139		08/03/14 19:25	1
Dibromofluoromethane	94		62 - 130		08/03/14 19:25	1
Toluene-d8 (Surr)	102		70 - 130		08/03/14 19:25	1
1,2-Dichloroethane-d4 (Surr)	87		50 - 134		08/03/14 19:25	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.0000396	U	0.000495	0.0000396	mg/L		08/04/14 07:44	08/05/14 23:38	1
Nitrobenzene	0.000109	U	0.000495	0.000109	mg/L		08/04/14 07:44	08/05/14 23:38	1
2,4-Dimethylphenol	0.000307	U	0.000495	0.000307	mg/L		08/04/14 07:44	08/05/14 23:38	1
Bis(2-chloroethoxy)methane	0.000129	U	0.000495	0.000129	mg/L		08/04/14 07:44	08/05/14 23:38	1
Naphthalene	0.000527		0.000495	0.0000792	mg/L		08/04/14 07:44	08/05/14 23:38	1
2-Methylnaphthalene	0.0000693	U	0.000495	0.0000693	mg/L		08/04/14 07:44	08/05/14 23:38	1
2-Chloronaphthalene	0.0000792	U	0.000495	0.0000792	mg/L		08/04/14 07:44	08/05/14 23:38	1
Acenaphthylene	0.0000594	U	0.000495	0.0000594	mg/L		08/04/14 07:44	08/05/14 23:38	1
2,6-Dinitrotoluene	0.0000792	U	0.000495	0.0000792	mg/L		08/04/14 07:44	08/05/14 23:38	1
Acenaphthene	0.0000792	U	0.000495	0.0000792	mg/L		08/04/14 07:44	08/05/14 23:38	1
4-Nitrophenol	0.000554	U	0.000990	0.000554	mg/L		08/04/14 07:44	08/05/14 23:38	1
Dibenzofuran	0.0000792	U	0.000495	0.0000792	mg/L		08/04/14 07:44	08/05/14 23:38	1
2,4-Dinitrotoluene	0.000129	U	0.000495	0.000129	mg/L		08/04/14 07:44	08/05/14 23:38	1
Fluorene	0.0000693	U	0.000495	0.0000693	mg/L		08/04/14 07:44	08/05/14 23:38	1
4,6-Dinitro-2-methylphenol	0.000822	U	0.000990	0.000822	mg/L		08/04/14 07:44	08/05/14 23:38	1
N-Nitrosodiphenylamine	0.0000990	U	0.000495	0.0000990	mg/L		08/04/14 07:44	08/05/14 23:38	1
1,2-Diphenylhydrazine	0.000109	U	0.000495	0.000109	mg/L		08/04/14 07:44	08/05/14 23:38	1
Pentachlorophenol	0.000604	U	0.000990	0.000604	mg/L		08/04/14 07:44	08/05/14 23:38	1
Phenanthrene	0.0000835	J	0.000495	0.0000594	mg/L		08/04/14 07:44	08/05/14 23:38	1
Anthracene	0.0000495	U	0.000495	0.0000495	mg/L		08/04/14 07:44	08/05/14 23:38	1
Di-n-butyl phthalate	0.000109	U	0.000495	0.000109	mg/L		08/04/14 07:44	08/05/14 23:38	1
Fluoranthene	0.0000693	U	0.000495	0.0000693	mg/L		08/04/14 07:44	08/05/14 23:38	1
Pyrene	0.000109	U	0.000495	0.000109	mg/L		08/04/14 07:44	08/05/14 23:38	1
Benzo[a]anthracene	0.0000792	U	0.000495	0.0000792	mg/L		08/04/14 07:44	08/05/14 23:38	1
Bis(2-ethylhexyl) phthalate	0.000661		0.000495	0.000366	mg/L		08/04/14 07:44	08/05/14 23:38	1
Chrysene	0.0000792	U	0.000495	0.0000792	mg/L		08/04/14 07:44	08/05/14 23:38	1
Benzo[a]pyrene	0.0000792	U	0.000495	0.0000792	mg/L		08/04/14 07:44	08/05/14 23:38	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	39		10 - 147	08/04/14 07:44	08/05/14 23:38	1
2-Fluorobiphenyl	29		10 - 150	08/04/14 07:44	08/05/14 23:38	1
2-Fluorophenol	14		10 - 130	08/04/14 07:44	08/05/14 23:38	1
Nitrobenzene-d5	30		23 - 130	08/04/14 07:44	08/05/14 23:38	1
Terphenyl-d14	38	X	42 - 133	08/04/14 07:44	08/05/14 23:38	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-96330-1

Client Sample ID: WG-1620-FB7-20140729

Lab Sample ID: 600-96330-16

Date Collected: 07/29/14 17:15

Matrix: Water

Date Received: 07/30/14 12:37

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Phenol-d5 (Surr)	7	X	10 - 130	08/04/14 07:44	08/05/14 23:38	1

Client Sample ID: WG-1620-MW22A-20140730

Lab Sample ID: 600-96330-17

Date Collected: 07/30/14 07:50

Matrix: Water

Date Received: 07/30/14 12:37

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			08/03/14 19:52	1
Benzene	0.00296		0.00100	0.0000800	mg/L			08/03/14 19:52	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			08/03/14 19:52	1
Toluene	0.00925		0.00100	0.000150	mg/L			08/03/14 19:52	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			08/03/14 19:52	1
Ethylbenzene	0.0403		0.00100	0.000110	mg/L			08/03/14 19:52	1
Xylenes, Total	0.0569		0.00300	0.000260	mg/L			08/03/14 19:52	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	95		67 - 139		08/03/14 19:52	1
Dibromofluoromethane	96		62 - 130		08/03/14 19:52	1
Toluene-d8 (Surr)	102		70 - 130		08/03/14 19:52	1
1,2-Dichloroethane-d4 (Surr)	89		50 - 134		08/03/14 19:52	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.0000396	U	0.000495	0.0000396	mg/L		08/04/14 07:44	08/06/14 00:05	1
Nitrobenzene	0.000109	U	0.000495	0.000109	mg/L		08/04/14 07:44	08/06/14 00:05	1
2,4-Dimethylphenol	0.000307	U	0.000495	0.000307	mg/L		08/04/14 07:44	08/06/14 00:05	1
Bis(2-chloroethoxy)methane	0.000129	U	0.000495	0.000129	mg/L		08/04/14 07:44	08/06/14 00:05	1
2-Methylnaphthalene	0.00603		0.000495	0.0000693	mg/L		08/04/14 07:44	08/06/14 00:05	1
2-Chloronaphthalene	0.0000792	U	0.000495	0.0000792	mg/L		08/04/14 07:44	08/06/14 00:05	1
Acenaphthylene	0.000943		0.000495	0.0000594	mg/L		08/04/14 07:44	08/06/14 00:05	1
2,6-Dinitrotoluene	0.0000792	U	0.000495	0.0000792	mg/L		08/04/14 07:44	08/06/14 00:05	1
4-Nitrophenol	0.000554	U	0.000990	0.000554	mg/L		08/04/14 07:44	08/06/14 00:05	1
Dibenzofuran	0.0224		0.000495	0.0000792	mg/L		08/04/14 07:44	08/06/14 00:05	1
2,4-Dinitrotoluene	0.000129	U	0.000495	0.000129	mg/L		08/04/14 07:44	08/06/14 00:05	1
Fluorene	0.0175		0.000495	0.0000693	mg/L		08/04/14 07:44	08/06/14 00:05	1
4,6-Dinitro-2-methylphenol	0.000822	U	0.000990	0.000822	mg/L		08/04/14 07:44	08/06/14 00:05	1
N-Nitrosodiphenylamine	0.0000990	U	0.000495	0.0000990	mg/L		08/04/14 07:44	08/06/14 00:05	1
1,2-Diphenylhydrazine	0.000109	U	0.000495	0.000109	mg/L		08/04/14 07:44	08/06/14 00:05	1
Pentachlorophenol	0.000604	U	0.000990	0.000604	mg/L		08/04/14 07:44	08/06/14 00:05	1
Phenanthrene	0.000604		0.000495	0.0000594	mg/L		08/04/14 07:44	08/06/14 00:05	1
Anthracene	0.00265		0.000495	0.0000495	mg/L		08/04/14 07:44	08/06/14 00:05	1
Di-n-butyl phthalate	0.000109	U	0.000495	0.000109	mg/L		08/04/14 07:44	08/06/14 00:05	1
Fluoranthene	0.00247		0.000495	0.0000693	mg/L		08/04/14 07:44	08/06/14 00:05	1
Pyrene	0.00106		0.000495	0.000109	mg/L		08/04/14 07:44	08/06/14 00:05	1
Benzo[a]anthracene	0.0000792	U	0.000495	0.0000792	mg/L		08/04/14 07:44	08/06/14 00:05	1
Bis(2-ethylhexyl) phthalate	0.000703		0.000495	0.000366	mg/L		08/04/14 07:44	08/06/14 00:05	1
Chrysene	0.0000792	U	0.000495	0.0000792	mg/L		08/04/14 07:44	08/06/14 00:05	1
Benzo[a]pyrene	0.0000792	U	0.000495	0.0000792	mg/L		08/04/14 07:44	08/06/14 00:05	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-96330-1

Client Sample ID: WG-1620-MW22A-20140730

Lab Sample ID: 600-96330-17

Date Collected: 07/30/14 07:50

Matrix: Water

Date Received: 07/30/14 12:37

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	53		10 - 147	08/04/14 07:44	08/06/14 00:05	1
2-Fluorobiphenyl	32		10 - 150	08/04/14 07:44	08/06/14 00:05	1
2-Fluorophenol	13		10 - 130	08/04/14 07:44	08/06/14 00:05	1
Nitrobenzene-d5	45		23 - 130	08/04/14 07:44	08/06/14 00:05	1
Terphenyl-d14	41	X	42 - 133	08/04/14 07:44	08/06/14 00:05	1
Phenol-d5 (Surr)	7	X	10 - 130	08/04/14 07:44	08/06/14 00:05	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels - DL

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	0.792		0.0495	0.00792	mg/L		08/04/14 07:44	08/08/14 00:08	100
Acenaphthene	0.0783		0.0495	0.00792	mg/L		08/04/14 07:44	08/08/14 00:08	100

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	0	X	10 - 147	08/04/14 07:44	08/08/14 00:08	100
2-Fluorobiphenyl	0	X	10 - 150	08/04/14 07:44	08/08/14 00:08	100
2-Fluorophenol	0	X	10 - 130	08/04/14 07:44	08/08/14 00:08	100
Nitrobenzene-d5	0	X	23 - 130	08/04/14 07:44	08/08/14 00:08	100
Terphenyl-d14	0	X	42 - 133	08/04/14 07:44	08/08/14 00:08	100
Phenol-d5 (Surr)	0	X	10 - 130	08/04/14 07:44	08/08/14 00:08	100

Client Sample ID: WG-1620-MW22B-20140730

Lab Sample ID: 600-96330-18

Date Collected: 07/30/14 08:45

Matrix: Water

Date Received: 07/30/14 12:37

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			08/04/14 13:56	1
Benzene	0.00185		0.00100	0.0000800	mg/L			08/04/14 13:56	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			08/04/14 13:56	1
Toluene	0.00584		0.00100	0.000150	mg/L			08/04/14 13:56	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			08/04/14 13:56	1
Ethylbenzene	0.0255		0.00100	0.000110	mg/L			08/04/14 13:56	1
Xylenes, Total	0.0362		0.00300	0.000260	mg/L			08/04/14 13:56	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	94		67 - 139		08/04/14 13:56	1
Dibromofluoromethane	97		62 - 130		08/04/14 13:56	1
Toluene-d8 (Surr)	101		70 - 130		08/04/14 13:56	1
1,2-Dichloroethane-d4 (Surr)	91		50 - 134		08/04/14 13:56	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.0000396	U	0.000495	0.0000396	mg/L		08/04/14 07:44	08/06/14 00:33	1
Nitrobenzene	0.000109	U	0.000495	0.000109	mg/L		08/04/14 07:44	08/06/14 00:33	1
2,4-Dimethylphenol	0.00107		0.000495	0.000307	mg/L		08/04/14 07:44	08/06/14 00:33	1
Bis(2-chloroethoxy)methane	0.000129	U	0.000495	0.000129	mg/L		08/04/14 07:44	08/06/14 00:33	1
2-Methylnaphthalene	0.00721		0.000495	0.0000693	mg/L		08/04/14 07:44	08/06/14 00:33	1
2-Chloronaphthalene	0.0000792	U	0.000495	0.0000792	mg/L		08/04/14 07:44	08/06/14 00:33	1
Acenaphthylene	0.000641		0.000495	0.0000594	mg/L		08/04/14 07:44	08/06/14 00:33	1
2,6-Dinitrotoluene	0.0000792	U	0.000495	0.0000792	mg/L		08/04/14 07:44	08/06/14 00:33	1
4-Nitrophenol	0.000554	U	0.000990	0.000554	mg/L		08/04/14 07:44	08/06/14 00:33	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-96330-1

Client Sample ID: WG-1620-MW22B-20140730

Lab Sample ID: 600-96330-18

Date Collected: 07/30/14 08:45

Matrix: Water

Date Received: 07/30/14 12:37

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Dibenzofuran	0.0238		0.000495	0.0000792	mg/L		08/04/14 07:44	08/06/14 00:33	1
2,4-Dinitrotoluene	0.000129	U	0.000495	0.000129	mg/L		08/04/14 07:44	08/06/14 00:33	1
Fluorene	0.0198		0.000495	0.0000693	mg/L		08/04/14 07:44	08/06/14 00:33	1
4,6-Dinitro-2-methylphenol	0.000822	U	0.000990	0.000822	mg/L		08/04/14 07:44	08/06/14 00:33	1
N-Nitrosodiphenylamine	0.0000990	U	0.000495	0.0000990	mg/L		08/04/14 07:44	08/06/14 00:33	1
1,2-Diphenylhydrazine	0.000109	U	0.000495	0.000109	mg/L		08/04/14 07:44	08/06/14 00:33	1
Pentachlorophenol	0.000604	U	0.000990	0.000604	mg/L		08/04/14 07:44	08/06/14 00:33	1
Phenanthrene	0.000530		0.000495	0.0000594	mg/L		08/04/14 07:44	08/06/14 00:33	1
Anthracene	0.00292		0.000495	0.0000495	mg/L		08/04/14 07:44	08/06/14 00:33	1
Di-n-butyl phthalate	0.000109	U	0.000495	0.000109	mg/L		08/04/14 07:44	08/06/14 00:33	1
Fluoranthene	0.00304		0.000495	0.0000693	mg/L		08/04/14 07:44	08/06/14 00:33	1
Pyrene	0.00123		0.000495	0.000109	mg/L		08/04/14 07:44	08/06/14 00:33	1
Benzo[a]anthracene	0.0000792	U	0.000495	0.0000792	mg/L		08/04/14 07:44	08/06/14 00:33	1
Bis(2-ethylhexyl) phthalate	0.000672		0.000495	0.000366	mg/L		08/04/14 07:44	08/06/14 00:33	1
Chrysene	0.0000792	U	0.000495	0.0000792	mg/L		08/04/14 07:44	08/06/14 00:33	1
Benzo[a]pyrene	0.0000792	U	0.000495	0.0000792	mg/L		08/04/14 07:44	08/06/14 00:33	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	51		10 - 147				08/04/14 07:44	08/06/14 00:33	1
2-Fluorobiphenyl	29		10 - 150				08/04/14 07:44	08/06/14 00:33	1
2-Fluorophenol	13		10 - 130				08/04/14 07:44	08/06/14 00:33	1
Nitrobenzene-d5	46		23 - 130				08/04/14 07:44	08/06/14 00:33	1
Terphenyl-d14	40	X	42 - 133				08/04/14 07:44	08/06/14 00:33	1
Phenol-d5 (Surr)	7	X	10 - 130				08/04/14 07:44	08/06/14 00:33	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels - DL

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	0.832		0.0495	0.00792	mg/L		08/04/14 07:44	08/08/14 00:36	100
Acenaphthene	0.0762		0.0495	0.00792	mg/L		08/04/14 07:44	08/08/14 00:36	100
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	0	X	10 - 147				08/04/14 07:44	08/08/14 00:36	100
2-Fluorobiphenyl	0	X	10 - 150				08/04/14 07:44	08/08/14 00:36	100
2-Fluorophenol	0	X	10 - 130				08/04/14 07:44	08/08/14 00:36	100
Nitrobenzene-d5	0	X	23 - 130				08/04/14 07:44	08/08/14 00:36	100
Terphenyl-d14	0	X	42 - 133				08/04/14 07:44	08/08/14 00:36	100
Phenol-d5 (Surr)	0	X	10 - 130				08/04/14 07:44	08/08/14 00:36	100

Client Sample ID: WG-1620-MW59A-20140730

Lab Sample ID: 600-96330-19

Date Collected: 07/30/14 10:00

Matrix: Water

Date Received: 07/30/14 12:37

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	0.000110	U	0.00200	0.000110	mg/L			08/04/14 14:23	1
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			08/04/14 14:23	1
Benzene	0.0000800	U	0.00100	0.0000800	mg/L			08/04/14 14:23	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			08/04/14 14:23	1
Toluene	0.000150	U	0.00100	0.000150	mg/L			08/04/14 14:23	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			08/04/14 14:23	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-96330-1

Client Sample ID: WG-1620-MW59A-20140730

Lab Sample ID: 600-96330-19

Date Collected: 07/30/14 10:00

Matrix: Water

Date Received: 07/30/14 12:37

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	0.000110	U	0.00100	0.000110	mg/L			08/04/14 14:23	1
Xylenes, Total	0.000260	U	0.00300	0.000260	mg/L			08/04/14 14:23	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	98		67 - 139					08/04/14 14:23	1
Dibromofluoromethane	97		62 - 130					08/04/14 14:23	1
Toluene-d8 (Surr)	103		70 - 130					08/04/14 14:23	1
1,2-Dichloroethane-d4 (Surr)	91		50 - 134					08/04/14 14:23	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.0000396	U	0.000495	0.0000396	mg/L		08/04/14 07:44	08/06/14 01:01	1
Nitrobenzene	0.000109	U	0.000495	0.000109	mg/L		08/04/14 07:44	08/06/14 01:01	1
2,4-Dimethylphenol	0.000307	U	0.000495	0.000307	mg/L		08/04/14 07:44	08/06/14 01:01	1
Bis(2-chloroethoxy)methane	0.000129	U	0.000495	0.000129	mg/L		08/04/14 07:44	08/06/14 01:01	1
Naphthalene	0.000219	J	0.000495	0.0000792	mg/L		08/04/14 07:44	08/06/14 01:01	1
2-Methylnaphthalene	0.0000693	U	0.000495	0.0000693	mg/L		08/04/14 07:44	08/06/14 01:01	1
2-Chloronaphthalene	0.0000792	U	0.000495	0.0000792	mg/L		08/04/14 07:44	08/06/14 01:01	1
Acenaphthylene	0.0000594	U	0.000495	0.0000594	mg/L		08/04/14 07:44	08/06/14 01:01	1
2,6-Dinitrotoluene	0.0000792	U	0.000495	0.0000792	mg/L		08/04/14 07:44	08/06/14 01:01	1
Acenaphthene	0.0000792	U	0.000495	0.0000792	mg/L		08/04/14 07:44	08/06/14 01:01	1
4-Nitrophenol	0.000554	U	0.000990	0.000554	mg/L		08/04/14 07:44	08/06/14 01:01	1
Dibenzofuran	0.0000792	U	0.000495	0.0000792	mg/L		08/04/14 07:44	08/06/14 01:01	1
2,4-Dinitrotoluene	0.000129	U	0.000495	0.000129	mg/L		08/04/14 07:44	08/06/14 01:01	1
Fluorene	0.0000693	U	0.000495	0.0000693	mg/L		08/04/14 07:44	08/06/14 01:01	1
4,6-Dinitro-2-methylphenol	0.000822	U	0.000990	0.000822	mg/L		08/04/14 07:44	08/06/14 01:01	1
N-Nitrosodiphenylamine	0.0000990	U	0.000495	0.0000990	mg/L		08/04/14 07:44	08/06/14 01:01	1
1,2-Diphenylhydrazine	0.000109	U	0.000495	0.000109	mg/L		08/04/14 07:44	08/06/14 01:01	1
Pentachlorophenol	0.000604	U	0.000990	0.000604	mg/L		08/04/14 07:44	08/06/14 01:01	1
Phenanthrene	0.0000594	U	0.000495	0.0000594	mg/L		08/04/14 07:44	08/06/14 01:01	1
Anthracene	0.0000495	U	0.000495	0.0000495	mg/L		08/04/14 07:44	08/06/14 01:01	1
Di-n-butyl phthalate	0.000109	U	0.000495	0.000109	mg/L		08/04/14 07:44	08/06/14 01:01	1
Fluoranthene	0.0000693	U	0.000495	0.0000693	mg/L		08/04/14 07:44	08/06/14 01:01	1
Pyrene	0.000109	U	0.000495	0.000109	mg/L		08/04/14 07:44	08/06/14 01:01	1
Benzo[a]anthracene	0.0000792	U	0.000495	0.0000792	mg/L		08/04/14 07:44	08/06/14 01:01	1
Bis(2-ethylhexyl) phthalate	0.000366	U	0.000495	0.000366	mg/L		08/04/14 07:44	08/06/14 01:01	1
Chrysene	0.0000792	U	0.000495	0.0000792	mg/L		08/04/14 07:44	08/06/14 01:01	1
Benzo[a]pyrene	0.0000792	U	0.000495	0.0000792	mg/L		08/04/14 07:44	08/06/14 01:01	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	35		10 - 147				08/04/14 07:44	08/06/14 01:01	1
2-Fluorobiphenyl	26		10 - 150				08/04/14 07:44	08/06/14 01:01	1
2-Fluorophenol	12		10 - 130				08/04/14 07:44	08/06/14 01:01	1
Nitrobenzene-d5	27		23 - 130				08/04/14 07:44	08/06/14 01:01	1
Terphenyl-d14	37	X	42 - 133				08/04/14 07:44	08/06/14 01:01	1
Phenol-d5 (Surr)	6	X	10 - 130				08/04/14 07:44	08/06/14 01:01	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-96330-1

Client Sample ID: WG-1620-MW59B-20140730

Lab Sample ID: 600-96330-20

Date Collected: 07/30/14 10:55

Matrix: Water

Date Received: 07/30/14 12:37

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	0.000110	U	0.00200	0.000110	mg/L			08/04/14 14:49	1
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			08/04/14 14:49	1
Benzene	0.0000800	U	0.00100	0.0000800	mg/L			08/04/14 14:49	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			08/04/14 14:49	1
Toluene	0.000150	U	0.00100	0.000150	mg/L			08/04/14 14:49	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			08/04/14 14:49	1
Ethylbenzene	0.000110	U	0.00100	0.000110	mg/L			08/04/14 14:49	1
Xylenes, Total	0.000260	U	0.00300	0.000260	mg/L			08/04/14 14:49	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	92		67 - 139					08/04/14 14:49	1
Dibromofluoromethane	93		62 - 130					08/04/14 14:49	1
Toluene-d8 (Surr)	99		70 - 130					08/04/14 14:49	1
1,2-Dichloroethane-d4 (Surr)	86		50 - 134					08/04/14 14:49	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.0000396	U	0.000495	0.0000396	mg/L		08/04/14 07:44	08/06/14 01:29	1
Nitrobenzene	0.000109	U	0.000495	0.000109	mg/L		08/04/14 07:44	08/06/14 01:29	1
2,4-Dimethylphenol	0.000307	U	0.000495	0.000307	mg/L		08/04/14 07:44	08/06/14 01:29	1
Bis(2-chloroethoxy)methane	0.000129	U	0.000495	0.000129	mg/L		08/04/14 07:44	08/06/14 01:29	1
Naphthalene	0.00627		0.000495	0.0000792	mg/L		08/04/14 07:44	08/06/14 01:29	1
2-Methylnaphthalene	0.0000693	U	0.000495	0.0000693	mg/L		08/04/14 07:44	08/06/14 01:29	1
2-Chloronaphthalene	0.0000792	U	0.000495	0.0000792	mg/L		08/04/14 07:44	08/06/14 01:29	1
Acenaphthylene	0.0000594	U	0.000495	0.0000594	mg/L		08/04/14 07:44	08/06/14 01:29	1
2,6-Dinitrotoluene	0.0000792	U	0.000495	0.0000792	mg/L		08/04/14 07:44	08/06/14 01:29	1
Acenaphthene	0.000621		0.000495	0.0000792	mg/L		08/04/14 07:44	08/06/14 01:29	1
4-Nitrophenol	0.000554	U	0.000990	0.000554	mg/L		08/04/14 07:44	08/06/14 01:29	1
Dibenzofuran	0.000201	J	0.000495	0.0000792	mg/L		08/04/14 07:44	08/06/14 01:29	1
2,4-Dinitrotoluene	0.000129	U	0.000495	0.000129	mg/L		08/04/14 07:44	08/06/14 01:29	1
Fluorene	0.000189	J	0.000495	0.0000693	mg/L		08/04/14 07:44	08/06/14 01:29	1
4,6-Dinitro-2-methylphenol	0.000822	U	0.000990	0.000822	mg/L		08/04/14 07:44	08/06/14 01:29	1
N-Nitrosodiphenylamine	0.0000990	U	0.000495	0.0000990	mg/L		08/04/14 07:44	08/06/14 01:29	1
1,2-Diphenylhydrazine	0.000109	U	0.000495	0.000109	mg/L		08/04/14 07:44	08/06/14 01:29	1
Pentachlorophenol	0.000604	U	0.000990	0.000604	mg/L		08/04/14 07:44	08/06/14 01:29	1
Phenanthrene	0.0000594	U	0.000495	0.0000594	mg/L		08/04/14 07:44	08/06/14 01:29	1
Anthracene	0.0000495	U	0.000495	0.0000495	mg/L		08/04/14 07:44	08/06/14 01:29	1
Di-n-butyl phthalate	0.000109	U	0.000495	0.000109	mg/L		08/04/14 07:44	08/06/14 01:29	1
Fluoranthene	0.0000693	U	0.000495	0.0000693	mg/L		08/04/14 07:44	08/06/14 01:29	1
Pyrene	0.000109	U	0.000495	0.000109	mg/L		08/04/14 07:44	08/06/14 01:29	1
Benzo[a]anthracene	0.0000792	U	0.000495	0.0000792	mg/L		08/04/14 07:44	08/06/14 01:29	1
Bis(2-ethylhexyl) phthalate	0.000366	U	0.000495	0.000366	mg/L		08/04/14 07:44	08/06/14 01:29	1
Chrysene	0.0000792	U	0.000495	0.0000792	mg/L		08/04/14 07:44	08/06/14 01:29	1
Benzo[a]pyrene	0.0000792	U	0.000495	0.0000792	mg/L		08/04/14 07:44	08/06/14 01:29	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	34		10 - 147				08/04/14 07:44	08/06/14 01:29	1
2-Fluorobiphenyl	25		10 - 150				08/04/14 07:44	08/06/14 01:29	1
2-Fluorophenol	9	X	10 - 130				08/04/14 07:44	08/06/14 01:29	1
Nitrobenzene-d5	24		23 - 130				08/04/14 07:44	08/06/14 01:29	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-96330-1

Client Sample ID: WG-1620-MW59B-20140730

Lab Sample ID: 600-96330-20

Date Collected: 07/30/14 10:55

Matrix: Water

Date Received: 07/30/14 12:37

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Terphenyl-d14	36	X	42 - 133	08/04/14 07:44	08/06/14 01:29	1
Phenol-d5 (Surr)	4	X	10 - 130	08/04/14 07:44	08/06/14 01:29	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels - RE

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	49		10 - 147	08/12/14 08:07	08/12/14 14:20	1
2-Fluorobiphenyl	47		10 - 150	08/12/14 08:07	08/12/14 14:20	1
2-Fluorophenol	19		10 - 130	08/12/14 08:07	08/12/14 14:20	1
Nitrobenzene-d5	51		23 - 130	08/12/14 08:07	08/12/14 14:20	1
Terphenyl-d14	55		42 - 133	08/12/14 08:07	08/12/14 14:20	1
Phenol-d5 (Surr)	10		10 - 130	08/12/14 08:07	08/12/14 14:20	1

Client Sample ID: WG-1620-MW47C-20140730

Lab Sample ID: 600-96330-21

Date Collected: 07/30/14 12:00

Matrix: Water

Date Received: 07/30/14 12:37

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			08/04/14 15:15	1
Benzene	0.0000800	U	0.00100	0.0000800	mg/L			08/04/14 15:15	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			08/04/14 15:15	1
Toluene	0.000150	U	0.00100	0.000150	mg/L			08/04/14 15:15	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			08/04/14 15:15	1
Ethylbenzene	0.000110	U	0.00100	0.000110	mg/L			08/04/14 15:15	1
Xylenes, Total	0.000260	U	0.00300	0.000260	mg/L			08/04/14 15:15	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	91		67 - 139		08/04/14 15:15	1
Dibromofluoromethane	93		62 - 130		08/04/14 15:15	1
Toluene-d8 (Surr)	99		70 - 130		08/04/14 15:15	1
1,2-Dichloroethane-d4 (Surr)	86		50 - 134		08/04/14 15:15	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.0000377	U	0.000472	0.0000377	mg/L		08/06/14 12:39	08/06/14 20:22	1
Nitrobenzene	0.000104	U	0.000472	0.000104	mg/L		08/06/14 12:39	08/06/14 20:22	1
2,4-Dimethylphenol	0.000292	U	0.000472	0.000292	mg/L		08/06/14 12:39	08/06/14 20:22	1
Bis(2-chloroethoxy)methane	0.000123	U	0.000472	0.000123	mg/L		08/06/14 12:39	08/06/14 20:22	1
Naphthalene	0.0000755	U	0.000472	0.0000755	mg/L		08/06/14 12:39	08/06/14 20:22	1
2-Methylnaphthalene	0.0000660	U	0.000472	0.0000660	mg/L		08/06/14 12:39	08/06/14 20:22	1
2-Chloronaphthalene	0.0000755	U	0.000472	0.0000755	mg/L		08/06/14 12:39	08/06/14 20:22	1
Acenaphthylene	0.0000566	U	0.000472	0.0000566	mg/L		08/06/14 12:39	08/06/14 20:22	1
2,6-Dinitrotoluene	0.0000755	U	0.000472	0.0000755	mg/L		08/06/14 12:39	08/06/14 20:22	1
Acenaphthene	0.0000755	U	0.000472	0.0000755	mg/L		08/06/14 12:39	08/06/14 20:22	1
4-Nitrophenol	0.000528	U	0.000943	0.000528	mg/L		08/06/14 12:39	08/06/14 20:22	1
Dibenzofuran	0.0000755	U	0.000472	0.0000755	mg/L		08/06/14 12:39	08/06/14 20:22	1
2,4-Dinitrotoluene	0.000123	U	0.000472	0.000123	mg/L		08/06/14 12:39	08/06/14 20:22	1
Fluorene	0.0000660	U	0.000472	0.0000660	mg/L		08/06/14 12:39	08/06/14 20:22	1
4,6-Dinitro-2-methylphenol	0.000783	U	0.000943	0.000783	mg/L		08/06/14 12:39	08/06/14 20:22	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-96330-1

Client Sample ID: WG-1620-MW47C-20140730

Lab Sample ID: 600-96330-21

Date Collected: 07/30/14 12:00

Matrix: Water

Date Received: 07/30/14 12:37

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Nitrosodiphenylamine	0.0000943	U	0.000472	0.0000943	mg/L		08/06/14 12:39	08/06/14 20:22	1
1,2-Diphenylhydrazine	0.000104	U	0.000472	0.000104	mg/L		08/06/14 12:39	08/06/14 20:22	1
Pentachlorophenol	0.000575	U	0.000943	0.000575	mg/L		08/06/14 12:39	08/06/14 20:22	1
Phenanthrene	0.0000566	U	0.000472	0.0000566	mg/L		08/06/14 12:39	08/06/14 20:22	1
Anthracene	0.0000472	U	0.000472	0.0000472	mg/L		08/06/14 12:39	08/06/14 20:22	1
Di-n-butyl phthalate	0.000104	U	0.000472	0.000104	mg/L		08/06/14 12:39	08/06/14 20:22	1
Fluoranthene	0.0000660	U	0.000472	0.0000660	mg/L		08/06/14 12:39	08/06/14 20:22	1
Pyrene	0.000104	U	0.000472	0.000104	mg/L		08/06/14 12:39	08/06/14 20:22	1
Benzo[a]anthracene	0.0000755	U	0.000472	0.0000755	mg/L		08/06/14 12:39	08/06/14 20:22	1
Bis(2-ethylhexyl) phthalate	0.000349	U	0.000472	0.000349	mg/L		08/06/14 12:39	08/06/14 20:22	1
Chrysene	0.0000755	U	0.000472	0.0000755	mg/L		08/06/14 12:39	08/06/14 20:22	1
Benzo[a]pyrene	0.0000755	U	0.000472	0.0000755	mg/L		08/06/14 12:39	08/06/14 20:22	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	86		10 - 147				08/06/14 12:39	08/06/14 20:22	1
2-Fluorobiphenyl	58		10 - 150				08/06/14 12:39	08/06/14 20:22	1
2-Fluorophenol	33		10 - 130				08/06/14 12:39	08/06/14 20:22	1
Nitrobenzene-d5	62		23 - 130				08/06/14 12:39	08/06/14 20:22	1
Terphenyl-d14	79		42 - 133				08/06/14 12:39	08/06/14 20:22	1
Phenol-d5 (Surr)	17		10 - 130				08/06/14 12:39	08/06/14 20:22	1

Definitions/Glossary

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-96330-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
U	Analyte was not detected at or above the SDL.
J	Result is less than the MQL but greater than or equal to the SDL and the concentration is an estimated value.

GC/MS Semi VOA

Qualifier	Qualifier Description
U	Analyte was not detected at or above the SDL.
J	Result is less than the MQL but greater than or equal to the SDL and the concentration is an estimated value.
X	Surrogate is outside control limits
N1	MS, MSD: Spike recovery exceeds upper or lower control limits.
*	LCS or LCSD exceeds the control limits

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
▫	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Surrogate Summary

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-96330-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		BFB (67-139)	DBFM (62-130)	TOL (70-130)	12DCE (50-134)
600-96330-1	WG-1620-MW36B-20140728	94	95	101	87
600-96330-2	WG-1620-MW36A-20140728	94	95	100	88
600-96330-3	WG-1620-MW71B-20140728	92	93	99	85
600-96330-4	WG-1620-MW33BR-20140728	93	90	102	84
600-96330-4 - DL	WG-1620-MW33BR-20140728	92	92	99	86
600-96330-5	WG-1620-MW70B-20140728	90	86	95	81
600-96330-5 - DL	WG-1620-MW70B-20140728	96	96	103	90
600-96330-6	WG-1620-FB-6-20140728	100	104	109	99
600-96330-7	WG-1620-MW25A-20140729	101	105	110	97
600-96330-8	WG-1620-MW25C-20140729	91	94	100	88
600-96330-8 - DL	WG-1620-MW25C-20140729	94	94	103	88
600-96330-9	WG-1620-MW34CR-20140729	101	105	110	97
600-96330-10	WG-1620-MW05-20140729	100	103	110	96
600-96330-11	WG-1620-MW64A-20140729	103	106	113	99
600-96330-12	WG-1620-P11-20140729	98	99	104	94
600-96330-13	WG-1620-MW62B-20140729	96	96	102	89
600-96330-14	WG-1620-MW57A-20140729	94	93	98	87
600-96330-14 - DL	WG-1620-MW57A-20140729	97	97	102	87
600-96330-15	WG-1620-MW57B-20140729	91	93	99	83
600-96330-15 - DL	WG-1620-MW57B-20140729	93	95	100	86
600-96330-16	WG-1620-FB7-20140729	94	94	102	87
600-96330-17	WG-1620-MW22A-20140730	95	96	102	89
600-96330-18	WG-1620-MW22B-20140730	94	97	101	91
600-96330-19	WG-1620-MW59A-20140730	98	97	103	91
600-96330-20	WG-1620-MW59B-20140730	92	93	99	86
600-96330-21	WG-1620-MW47C-20140730	91	93	99	86
LCS 600-140676/3	Lab Control Sample	99	105	109	92
LCS 600-140700/3	Lab Control Sample	95	98	103	89
LCS 600-140722/3	Lab Control Sample	93	99	100	92
LCSD 600-140676/4	Lab Control Sample Dup	103	109	115	96
LCSD 600-140700/4	Lab Control Sample Dup	95	96	100	89
LCSD 600-140722/4	Lab Control Sample Dup	95	99	101	93
MB 600-140676/7	Method Blank	106	109	116	98
MB 600-140700/6	Method Blank	93	93	100	85
MB 600-140722/7	Method Blank	96	98	101	91

Surrogate Legend

- BFB = 4-Bromofluorobenzene
- DBFM = Dibromofluoromethane
- TOL = Toluene-d8 (Surr)
- 12DCE = 1,2-Dichloroethane-d4 (Surr)

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)					
		TBP (10-147)	FBP (10-150)	2FP (10-130)	NBZ (23-130)	TPH (42-133)	PHL (10-130)
600-96330-1	WG-1620-MW36B-20140728	49	60	25	67	75	12

TestAmerica Houston

Surrogate Summary

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-96330-1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)					
		TBP (10-147)	FBP (10-150)	2FP (10-130)	NBZ (23-130)	TPH (42-133)	PHL (10-130)
600-96330-2	WG-1620-MW36A-20140728	26	53	15	58	69	8 X
600-96330-3	WG-1620-MW71B-20140728	60	50	21	54	73	11
600-96330-4	WG-1620-MW33BR-20140728	97	57	36	53	76	14
600-96330-4 - DL2	WG-1620-MW33BR-20140728	0 X	0 X	0 X	0 X	0 X	0 X
600-96330-4 - DL	WG-1620-MW33BR-20140728	0 X	0 X	0 X	0 X	0 X	0 X
600-96330-5 - DL	WG-1620-MW70B-20140728	0 X	0 X	0 X	0 X	0 X	0 X
600-96330-5	WG-1620-MW70B-20140728	0 X	0 X	0 X	0 X	0 X	0 X
600-96330-5 - DL2	WG-1620-MW70B-20140728	0 X	0 X	0 X	0 X	0 X	0 X
600-96330-6	WG-1620-FB-6-20140728	74	59	25	64	70	12
600-96330-7	WG-1620-MW25A-20140729	75	54	15	59	72	6 X
600-96330-8	WG-1620-MW25C-20140729	84	58	59	92	71	14
600-96330-8 - DL2	WG-1620-MW25C-20140729	0 X	0 X	0 X	0 X	0 X	0 X
600-96330-8 - DL	WG-1620-MW25C-20140729	0 X	0 X	0 X	0 X	0 X	0 X
600-96330-9	WG-1620-MW34CR-20140729	80	59	27	65	73	13
600-96330-10	WG-1620-MW05-20140729	33	39	18	40	50	8 X
600-96330-11	WG-1620-MW64A-20140729	87	59	27	64	73	14
600-96330-12	WG-1620-P11-20140729	66	59	22	62	74	11
600-96330-13	WG-1620-MW62B-20140729	71	61	27	65	76	14
600-96330-14	WG-1620-MW57A-20140729	101	57	30	74	75	17
600-96330-14 - DL2	WG-1620-MW57A-20140729	0 X	0 X	0 X	0 X	0 X	0 X
600-96330-14 - DL	WG-1620-MW57A-20140729	0 X	0 X	0 X	0 X	0 X	0 X
600-96330-15 - DL	WG-1620-MW57B-20140729	0 X	0 X	0 X	0 X	0 X	0 X
600-96330-15	WG-1620-MW57B-20140729	0 X	0 X	0 X	0 X	0 X	0 X
600-96330-16	WG-1620-FB7-20140729	39	29	14	30	38 X	7 X
600-96330-17	WG-1620-MW22A-20140730	53	32	13	45	41 X	7 X
600-96330-17 - DL	WG-1620-MW22A-20140730	0 X	0 X	0 X	0 X	0 X	0 X
600-96330-18	WG-1620-MW22B-20140730	51	29	13	46	40 X	7 X
600-96330-18 - DL	WG-1620-MW22B-20140730	0 X	0 X	0 X	0 X	0 X	0 X
600-96330-19	WG-1620-MW59A-20140730	35	26	12	27	37 X	6 X
600-96330-20	WG-1620-MW59B-20140730	34	25	9 X	24	36 X	4 X
600-96330-20 - RE	WG-1620-MW59B-20140730	49	47	19	51	55	10
600-96330-21	WG-1620-MW47C-20140730	86	58	33	62	79	17
600-96330-21 MS	WG-1620-MW47C-20140730	81	45	39	49	82	28
600-96330-21 MSD	WG-1620-MW47C-20140730	88	51	45	55	87	31
LCS 600-140715/2-A	Lab Control Sample	91	64	81	68	81	78
LCS 600-140988/2-A	Lab Control Sample	87	66	46	73	86	26
LCS 600-141439/2-A - RE	Lab Control Sample	67	60	74	66	74	70
LCSD 600-140715/23-A	Lab Control Sample Dup	91	64	81	69	82	79
LCSD 600-141439/3-A - RE	Lab Control Sample Dup	65	57	69	64	68	68
MB 600-140715/1-A	Method Blank	44	60	72	66	68	68
MB 600-140988/1-A	Method Blank	71	68	45	77	86	24
MB 600-141439/1-A - RE	Method Blank	51	57	71	62	66	68

Surrogate Legend

- TBP = 2,4,6-Tribromophenol
- FBP = 2-Fluorobiphenyl
- 2FP = 2-Fluorophenol
- NBZ = Nitrobenzene-d5
- TPH = Terphenyl-d14

TestAmerica Houston

Surrogate Summary

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-96330-1

PHL = Phenol-d5 (Surr)

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15
- 16

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-96330-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 600-140676/7

Matrix: Water

Analysis Batch: 140676

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	0.000110	U	0.00200	0.000110	mg/L			08/02/14 14:11	1
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			08/02/14 14:11	1
Benzene	0.0000800	U	0.00100	0.0000800	mg/L			08/02/14 14:11	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			08/02/14 14:11	1
Toluene	0.000150	U	0.00100	0.000150	mg/L			08/02/14 14:11	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			08/02/14 14:11	1
Ethylbenzene	0.000110	U	0.00100	0.000110	mg/L			08/02/14 14:11	1
Xylenes, Total	0.000260	U	0.00300	0.000260	mg/L			08/02/14 14:11	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	106		67 - 139		08/02/14 14:11	1
Dibromofluoromethane	109		62 - 130		08/02/14 14:11	1
Toluene-d8 (Surr)	116		70 - 130		08/02/14 14:11	1
1,2-Dichloroethane-d4 (Surr)	98		50 - 134		08/02/14 14:11	1

Lab Sample ID: LCS 600-140676/3

Matrix: Water

Analysis Batch: 140676

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Vinyl chloride	0.0100	0.007613		mg/L		76	33 - 150
Methylene Chloride	0.0100	0.007654		mg/L		77	55 - 147
Benzene	0.0100	0.008853		mg/L		89	70 - 130
1,2-Dichloroethane	0.0100	0.007568		mg/L		76	67 - 134
Toluene	0.0100	0.009909		mg/L		99	70 - 130
Chlorobenzene	0.0100	0.009974		mg/L		100	69 - 130
Ethylbenzene	0.0100	0.01065		mg/L		106	70 - 130
Xylenes, Total	0.0200	0.02122		mg/L		106	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene	99		67 - 139
Dibromofluoromethane	105		62 - 130
Toluene-d8 (Surr)	109		70 - 130
1,2-Dichloroethane-d4 (Surr)	92		50 - 134

Lab Sample ID: LCSD 600-140676/4

Matrix: Water

Analysis Batch: 140676

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Vinyl chloride	0.0100	0.008425		mg/L		84	33 - 150	10	20
Methylene Chloride	0.0100	0.007625		mg/L		76	55 - 147	0	20
Benzene	0.0100	0.008705		mg/L		87	70 - 130	2	20
1,2-Dichloroethane	0.0100	0.007263		mg/L		73	67 - 134	4	20
Toluene	0.0100	0.009763		mg/L		98	70 - 130	1	20
Chlorobenzene	0.0100	0.009913		mg/L		99	69 - 130	1	20
Ethylbenzene	0.0100	0.01058		mg/L		106	70 - 130	1	20

TestAmerica Houston

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-96330-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 600-140676/4

Matrix: Water

Analysis Batch: 140676

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Xylenes, Total	0.0200	0.02104		mg/L		105	70 - 130	1	20
Surrogate	%Recovery	LCSD Qualifier	Limits						
4-Bromofluorobenzene	103		67 - 139						
Dibromofluoromethane	109		62 - 130						
Toluene-d8 (Surr)	115		70 - 130						
1,2-Dichloroethane-d4 (Surr)	96		50 - 134						

Lab Sample ID: MB 600-140700/6

Matrix: Water

Analysis Batch: 140700

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	0.000110	U	0.00200	0.000110	mg/L			08/03/14 12:29	1
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			08/03/14 12:29	1
Benzene	0.0000800	U	0.00100	0.0000800	mg/L			08/03/14 12:29	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			08/03/14 12:29	1
Toluene	0.000150	U	0.00100	0.000150	mg/L			08/03/14 12:29	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			08/03/14 12:29	1
Ethylbenzene	0.000110	U	0.00100	0.000110	mg/L			08/03/14 12:29	1
Xylenes, Total	0.000260	U	0.00300	0.000260	mg/L			08/03/14 12:29	1
Surrogate	%Recovery	MB Qualifier	Limits			Prepared	Analyzed	Dil Fac	
4-Bromofluorobenzene	93		67 - 139				08/03/14 12:29	1	
Dibromofluoromethane	93		62 - 130				08/03/14 12:29	1	
Toluene-d8 (Surr)	100		70 - 130				08/03/14 12:29	1	
1,2-Dichloroethane-d4 (Surr)	85		50 - 134				08/03/14 12:29	1	

Lab Sample ID: LCS 600-140700/3

Matrix: Water

Analysis Batch: 140700

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Vinyl chloride	0.0100	0.008118		mg/L		81	33 - 150
Methylene Chloride	0.0100	0.008148		mg/L		81	55 - 147
Benzene	0.0100	0.009346		mg/L		93	70 - 130
1,2-Dichloroethane	0.0100	0.008183		mg/L		82	67 - 134
Toluene	0.0100	0.01051		mg/L		105	70 - 130
Chlorobenzene	0.0100	0.01068		mg/L		107	69 - 130
Ethylbenzene	0.0100	0.01148		mg/L		115	70 - 130
Xylenes, Total	0.0200	0.02262		mg/L		113	70 - 130
Surrogate	%Recovery	LCS Qualifier	Limits				
4-Bromofluorobenzene	95		67 - 139				
Dibromofluoromethane	98		62 - 130				
Toluene-d8 (Surr)	103		70 - 130				
1,2-Dichloroethane-d4 (Surr)	89		50 - 134				

TestAmerica Houston

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-96330-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 600-140700/4

Matrix: Water

Analysis Batch: 140700

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Vinyl chloride	0.0100	0.007742		mg/L		77	33 - 150	5	20
Methylene Chloride	0.0100	0.007718		mg/L		77	55 - 147	5	20
Benzene	0.0100	0.008921		mg/L		89	70 - 130	5	20
1,2-Dichloroethane	0.0100	0.007912		mg/L		79	67 - 134	3	20
Toluene	0.0100	0.009914		mg/L		99	70 - 130	6	20
Chlorobenzene	0.0100	0.01007		mg/L		101	69 - 130	6	20
Ethylbenzene	0.0100	0.01074		mg/L		107	70 - 130	7	20
Xylenes, Total	0.0200	0.02129		mg/L		106	70 - 130	6	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene	95		67 - 139
Dibromofluoromethane	96		62 - 130
Toluene-d8 (Surr)	100		70 - 130
1,2-Dichloroethane-d4 (Surr)	89		50 - 134

Lab Sample ID: MB 600-140722/7

Matrix: Water

Analysis Batch: 140722

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	0.000110	U	0.00200	0.000110	mg/L			08/04/14 13:04	1
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			08/04/14 13:04	1
Benzene	0.0000800	U	0.00100	0.0000800	mg/L			08/04/14 13:04	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			08/04/14 13:04	1
Toluene	0.000150	U	0.00100	0.000150	mg/L			08/04/14 13:04	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			08/04/14 13:04	1
Ethylbenzene	0.000110	U	0.00100	0.000110	mg/L			08/04/14 13:04	1
Xylenes, Total	0.000260	U	0.00300	0.000260	mg/L			08/04/14 13:04	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	96		67 - 139		08/04/14 13:04	1
Dibromofluoromethane	98		62 - 130		08/04/14 13:04	1
Toluene-d8 (Surr)	101		70 - 130		08/04/14 13:04	1
1,2-Dichloroethane-d4 (Surr)	91		50 - 134		08/04/14 13:04	1

Lab Sample ID: LCS 600-140722/3

Matrix: Water

Analysis Batch: 140722

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Vinyl chloride	0.0100	0.008352		mg/L		84	33 - 150
Methylene Chloride	0.0100	0.007310		mg/L		73	55 - 147
Benzene	0.0100	0.009167		mg/L		92	70 - 130
1,2-Dichloroethane	0.0100	0.008470		mg/L		85	67 - 134
Toluene	0.0100	0.01008		mg/L		101	70 - 130
Chlorobenzene	0.0100	0.01039		mg/L		104	69 - 130
Ethylbenzene	0.0100	0.01103		mg/L		110	70 - 130

TestAmerica Houston

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-96330-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 600-140722/3

Matrix: Water

Analysis Batch: 140722

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Xylenes, Total	0.0200	0.02175		mg/L		109	70 - 130
Surrogate							
	%Recovery	Qualifier	Limits				
4-Bromofluorobenzene	93		67 - 139				
Dibromofluoromethane	99		62 - 130				
Toluene-d8 (Surr)	100		70 - 130				
1,2-Dichloroethane-d4 (Surr)	92		50 - 134				

Lab Sample ID: LCSD 600-140722/4

Matrix: Water

Analysis Batch: 140722

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Vinyl chloride	0.0100	0.007955		mg/L		80	33 - 150	5	20
Methylene Chloride	0.0100	0.007400		mg/L		74	55 - 147	1	20
Benzene	0.0100	0.009266		mg/L		93	70 - 130	1	20
1,2-Dichloroethane	0.0100	0.008589		mg/L		86	67 - 134	1	20
Toluene	0.0100	0.01024		mg/L		102	70 - 130	2	20
Chlorobenzene	0.0100	0.01049		mg/L		105	69 - 130	1	20
Ethylbenzene	0.0100	0.01108		mg/L		111	70 - 130	1	20
Xylenes, Total	0.0200	0.02198		mg/L		110	70 - 130	1	20
Surrogate									
	%Recovery	Qualifier	Limits						
4-Bromofluorobenzene	95		67 - 139						
Dibromofluoromethane	99		62 - 130						
Toluene-d8 (Surr)	101		70 - 130						
1,2-Dichloroethane-d4 (Surr)	93		50 - 134						

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Lab Sample ID: MB 600-140715/1-A

Matrix: Water

Analysis Batch: 140815

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 140715

Analyte	MB Result	MB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.0000400	U	0.000500	0.0000400	mg/L		08/04/14 07:44	08/05/14 08:22	1
Nitrobenzene	0.000110	U	0.000500	0.000110	mg/L		08/04/14 07:44	08/05/14 08:22	1
2,4-Dimethylphenol	0.000310	U	0.000500	0.000310	mg/L		08/04/14 07:44	08/05/14 08:22	1
Bis(2-chloroethoxy)methane	0.000130	U	0.000500	0.000130	mg/L		08/04/14 07:44	08/05/14 08:22	1
Naphthalene	0.0000800	U	0.000500	0.0000800	mg/L		08/04/14 07:44	08/05/14 08:22	1
2-Methylnaphthalene	0.0000700	U	0.000500	0.0000700	mg/L		08/04/14 07:44	08/05/14 08:22	1
2-Chloronaphthalene	0.0000800	U	0.000500	0.0000800	mg/L		08/04/14 07:44	08/05/14 08:22	1
Acenaphthylene	0.0000600	U	0.000500	0.0000600	mg/L		08/04/14 07:44	08/05/14 08:22	1
2,6-Dinitrotoluene	0.0000800	U	0.000500	0.0000800	mg/L		08/04/14 07:44	08/05/14 08:22	1
Acenaphthene	0.0000800	U	0.000500	0.0000800	mg/L		08/04/14 07:44	08/05/14 08:22	1
4-Nitrophenol	0.000560	U	0.00100	0.000560	mg/L		08/04/14 07:44	08/05/14 08:22	1
Dibenzofuran	0.0000800	U	0.000500	0.0000800	mg/L		08/04/14 07:44	08/05/14 08:22	1

TestAmerica Houston

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-96330-1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Lab Sample ID: MB 600-140715/1-A

Matrix: Water

Analysis Batch: 140815

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 140715

Analyte	MB Result	MB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-Dinitrotoluene	0.000130	U	0.000500	0.000130	mg/L		08/04/14 07:44	08/05/14 08:22	1
Fluorene	0.0000700	U	0.000500	0.0000700	mg/L		08/04/14 07:44	08/05/14 08:22	1
4,6-Dinitro-2-methylphenol	0.000830	U	0.00100	0.000830	mg/L		08/04/14 07:44	08/05/14 08:22	1
N-Nitrosodiphenylamine	0.000100	U	0.000500	0.000100	mg/L		08/04/14 07:44	08/05/14 08:22	1
1,2-Diphenylhydrazine	0.000110	U	0.000500	0.000110	mg/L		08/04/14 07:44	08/05/14 08:22	1
Pentachlorophenol	0.000610	U	0.00100	0.000610	mg/L		08/04/14 07:44	08/05/14 08:22	1
Phenanthrene	0.0000600	U	0.000500	0.0000600	mg/L		08/04/14 07:44	08/05/14 08:22	1
Anthracene	0.0000500	U	0.000500	0.0000500	mg/L		08/04/14 07:44	08/05/14 08:22	1
Di-n-butyl phthalate	0.000110	U	0.000500	0.000110	mg/L		08/04/14 07:44	08/05/14 08:22	1
Fluoranthene	0.0000700	U	0.000500	0.0000700	mg/L		08/04/14 07:44	08/05/14 08:22	1
Pyrene	0.000110	U	0.000500	0.000110	mg/L		08/04/14 07:44	08/05/14 08:22	1
Benzo[a]anthracene	0.0000800	U	0.000500	0.0000800	mg/L		08/04/14 07:44	08/05/14 08:22	1
Bis(2-ethylhexyl) phthalate	0.000370	U	0.000500	0.000370	mg/L		08/04/14 07:44	08/05/14 08:22	1
Chrysene	0.0000800	U	0.000500	0.0000800	mg/L		08/04/14 07:44	08/05/14 08:22	1
Benzo[a]pyrene	0.0000800	U	0.000500	0.0000800	mg/L		08/04/14 07:44	08/05/14 08:22	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	44		10 - 147	08/04/14 07:44	08/05/14 08:22	1
2-Fluorobiphenyl	60		10 - 150	08/04/14 07:44	08/05/14 08:22	1
2-Fluorophenol	72		10 - 130	08/04/14 07:44	08/05/14 08:22	1
Nitrobenzene-d5	66		23 - 130	08/04/14 07:44	08/05/14 08:22	1
Terphenyl-d14	68		42 - 133	08/04/14 07:44	08/05/14 08:22	1
Phenol-d5 (Surr)	68		10 - 130	08/04/14 07:44	08/05/14 08:22	1

Lab Sample ID: LCS 600-140715/2-A

Matrix: Water

Analysis Batch: 140914

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 140715

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Phenol	0.0100	0.006983		mg/L		70	10 - 144
Nitrobenzene	0.0100	0.006237		mg/L		62	41 - 130
2,4-Dimethylphenol	0.0100	0.009293		mg/L		93	45 - 130
Bis(2-chloroethoxy)methane	0.0100	0.006597		mg/L		66	36 - 134
Naphthalene	0.0100	0.006596		mg/L		66	57 - 130
2-Methylnaphthalene	0.0100	0.006838		mg/L		68	52 - 130
2-Chloronaphthalene	0.0100	0.005926		mg/L		59	56 - 130
Acenaphthylene	0.0100	0.006274		mg/L		63	58 - 130
2,6-Dinitrotoluene	0.0100	0.006847		mg/L		68	56 - 130
Acenaphthene	0.0100	0.006451		mg/L		65	59 - 130
4-Nitrophenol	0.0200	0.01342		mg/L		67	10 - 150
Dibenzofuran	0.0100	0.006220		mg/L		62	56 - 130
2,4-Dinitrotoluene	0.0100	0.007008		mg/L		70	54 - 130
Fluorene	0.0100	0.006633		mg/L		66	57 - 130
4,6-Dinitro-2-methylphenol	0.0200	0.01376		mg/L		69	10 - 145
N-Nitrosodiphenylamine	0.0100	0.006406		mg/L		64	55 - 137
1,2-Diphenylhydrazine	0.0100	0.006335		mg/L		63	45 - 130
Pentachlorophenol	0.0200	0.01419		mg/L		71	27 - 130
Phenanthrene	0.0100	0.006950		mg/L		69	60 - 130

TestAmerica Houston

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-96330-1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Lab Sample ID: LCS 600-140715/2-A

Matrix: Water

Analysis Batch: 140914

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 140715

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Anthracene	0.0100	0.007389		mg/L		74	46 - 132
Di-n-butyl phthalate	0.0100	0.008248		mg/L		82	61 - 130
Fluoranthene	0.0100	0.007977		mg/L		80	63 - 130
Pyrene	0.0100	0.007451		mg/L		75	62 - 130
Benzo[a]anthracene	0.0100	0.006953		mg/L		70	58 - 130
Bis(2-ethylhexyl) phthalate	0.0100	0.007651		mg/L		77	59 - 130
Chrysene	0.0100	0.007066		mg/L		71	60 - 130
Benzo[a]pyrene	0.0100	0.006747		mg/L		67	56 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2,4,6-Tribromophenol	91		10 - 147
2-Fluorobiphenyl	64		10 - 150
2-Fluorophenol	81		10 - 130
Nitrobenzene-d5	68		23 - 130
Terphenyl-d14	81		42 - 133
Phenol-d5 (Surr)	78		10 - 130

Lab Sample ID: LCSD 600-140715/23-A

Matrix: Water

Analysis Batch: 140914

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 140715

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Phenol	0.0100	0.006676		mg/L		67	10 - 144	4	20
Nitrobenzene	0.0100	0.005927		mg/L		59	41 - 130	5	20
2,4-Dimethylphenol	0.0100	0.008666		mg/L		87	45 - 130	7	20
Bis(2-chloroethoxy)methane	0.0100	0.006133		mg/L		61	36 - 134	7	20
Naphthalene	0.0100	0.006251		mg/L		63	57 - 130	5	20
2-Methylnaphthalene	0.0100	0.006428		mg/L		64	52 - 130	6	20
2-Chloronaphthalene	0.0100	0.005603		mg/L		56	56 - 130	6	20
Acenaphthylene	0.0100	0.005958		mg/L		60	58 - 130	5	20
2,6-Dinitrotoluene	0.0100	0.006436		mg/L		64	56 - 130	6	20
Acenaphthene	0.0100	0.006106		mg/L		61	59 - 130	5	20
4-Nitrophenol	0.0200	0.01295		mg/L		65	10 - 150	4	20
Dibenzofuran	0.0100	0.005944		mg/L		59	56 - 130	5	20
2,4-Dinitrotoluene	0.0100	0.006829		mg/L		68	54 - 130	3	20
Fluorene	0.0100	0.006372		mg/L		64	57 - 130	4	20
4,6-Dinitro-2-methylphenol	0.0200	0.01301		mg/L		65	10 - 145	6	20
N-Nitrosodiphenylamine	0.0100	0.005964		mg/L		60	55 - 137	7	20
1,2-Diphenylhydrazine	0.0100	0.005904		mg/L		59	45 - 130	7	20
Pentachlorophenol	0.0200	0.01335		mg/L		67	27 - 130	6	20
Phenanthrene	0.0100	0.006473		mg/L		65	60 - 130	7	20
Anthracene	0.0100	0.007052		mg/L		71	46 - 132	5	20
Di-n-butyl phthalate	0.0100	0.007809		mg/L		78	61 - 130	5	20
Fluoranthene	0.0100	0.007541		mg/L		75	63 - 130	6	20
Pyrene	0.0100	0.007235		mg/L		72	62 - 130	3	20
Benzo[a]anthracene	0.0100	0.006769		mg/L		68	58 - 130	3	20
Bis(2-ethylhexyl) phthalate	0.0100	0.007168		mg/L		72	59 - 130	7	20
Chrysene	0.0100	0.006846		mg/L		68	60 - 130	3	20

TestAmerica Houston

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-96330-1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Lab Sample ID: LCSD 600-140715/23-A

Matrix: Water

Analysis Batch: 140914

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 140715

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzo[a]pyrene	0.0100	0.006344		mg/L		63	56 - 130	6	20

Surrogate	LCSD		Limits
	%Recovery	Qualifier	
2,4,6-Tribromophenol	91		10 - 147
2-Fluorobiphenyl	64		10 - 150
2-Fluorophenol	81		10 - 130
Nitrobenzene-d5	69		23 - 130
Terphenyl-d14	82		42 - 133
Phenol-d5 (Surr)	79		10 - 130

Lab Sample ID: MB 600-140988/1-A

Matrix: Water

Analysis Batch: 140973

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 140988

Analyte	MB Result	MB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.0000400	U	0.000500	0.0000400	mg/L		08/06/14 12:39	08/06/14 17:06	1
Nitrobenzene	0.000110	U	0.000500	0.000110	mg/L		08/06/14 12:39	08/06/14 17:06	1
2,4-Dimethylphenol	0.000310	U	0.000500	0.000310	mg/L		08/06/14 12:39	08/06/14 17:06	1
Bis(2-chloroethoxy)methane	0.000130	U	0.000500	0.000130	mg/L		08/06/14 12:39	08/06/14 17:06	1
Naphthalene	0.0003425	J	0.000500	0.0000800	mg/L		08/06/14 12:39	08/06/14 17:06	1
2-Methylnaphthalene	0.0000700	U	0.000500	0.0000700	mg/L		08/06/14 12:39	08/06/14 17:06	1
2-Chloronaphthalene	0.0000800	U	0.000500	0.0000800	mg/L		08/06/14 12:39	08/06/14 17:06	1
Acenaphthylene	0.0000600	U	0.000500	0.0000600	mg/L		08/06/14 12:39	08/06/14 17:06	1
2,6-Dinitrotoluene	0.0000800	U	0.000500	0.0000800	mg/L		08/06/14 12:39	08/06/14 17:06	1
Acenaphthene	0.0000800	U	0.000500	0.0000800	mg/L		08/06/14 12:39	08/06/14 17:06	1
4-Nitrophenol	0.000560	U	0.00100	0.000560	mg/L		08/06/14 12:39	08/06/14 17:06	1
Dibenzofuran	0.0000800	U	0.000500	0.0000800	mg/L		08/06/14 12:39	08/06/14 17:06	1
2,4-Dinitrotoluene	0.000130	U	0.000500	0.000130	mg/L		08/06/14 12:39	08/06/14 17:06	1
Fluorene	0.0000700	U	0.000500	0.0000700	mg/L		08/06/14 12:39	08/06/14 17:06	1
4,6-Dinitro-2-methylphenol	0.000830	U	0.00100	0.000830	mg/L		08/06/14 12:39	08/06/14 17:06	1
N-Nitrosodiphenylamine	0.000100	U	0.000500	0.000100	mg/L		08/06/14 12:39	08/06/14 17:06	1
1,2-Diphenylhydrazine	0.000110	U	0.000500	0.000110	mg/L		08/06/14 12:39	08/06/14 17:06	1
Pentachlorophenol	0.000610	U	0.00100	0.000610	mg/L		08/06/14 12:39	08/06/14 17:06	1
Phenanthrene	0.0000600	U	0.000500	0.0000600	mg/L		08/06/14 12:39	08/06/14 17:06	1
Anthracene	0.0000500	U	0.000500	0.0000500	mg/L		08/06/14 12:39	08/06/14 17:06	1
Di-n-butyl phthalate	0.000110	U	0.000500	0.000110	mg/L		08/06/14 12:39	08/06/14 17:06	1
Fluoranthene	0.0000700	U	0.000500	0.0000700	mg/L		08/06/14 12:39	08/06/14 17:06	1
Pyrene	0.000110	U	0.000500	0.000110	mg/L		08/06/14 12:39	08/06/14 17:06	1
Benzo[a]anthracene	0.0000800	U	0.000500	0.0000800	mg/L		08/06/14 12:39	08/06/14 17:06	1
Bis(2-ethylhexyl) phthalate	0.000370	U	0.000500	0.000370	mg/L		08/06/14 12:39	08/06/14 17:06	1
Chrysene	0.0000800	U	0.000500	0.0000800	mg/L		08/06/14 12:39	08/06/14 17:06	1
Benzo[a]pyrene	0.0000800	U	0.000500	0.0000800	mg/L		08/06/14 12:39	08/06/14 17:06	1

Surrogate	MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
2,4,6-Tribromophenol	71		10 - 147	08/06/14 12:39	08/06/14 17:06	1
2-Fluorobiphenyl	68		10 - 150	08/06/14 12:39	08/06/14 17:06	1
2-Fluorophenol	45		10 - 130	08/06/14 12:39	08/06/14 17:06	1

TestAmerica Houston

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-96330-1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Lab Sample ID: MB 600-140988/1-A
Matrix: Water
Analysis Batch: 140973

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 140988

Surrogate	MB MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
Nitrobenzene-d5	77		23 - 130	08/06/14 12:39	08/06/14 17:06	1
Terphenyl-d14	86		42 - 133	08/06/14 12:39	08/06/14 17:06	1
Phenol-d5 (Surr)	24		10 - 130	08/06/14 12:39	08/06/14 17:06	1

Lab Sample ID: LCS 600-140988/2-A
Matrix: Water
Analysis Batch: 140973

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 140988

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec.
							Limits
Phenol	0.0100	0.002735		mg/L		27	10 - 144
Nitrobenzene	0.0100	0.006595		mg/L		66	41 - 130
2,4-Dimethylphenol	0.0100	0.009296		mg/L		93	45 - 130
Bis(2-chloroethoxy)methane	0.0100	0.007049		mg/L		70	36 - 134
Naphthalene	0.0100	0.006667		mg/L		67	57 - 130
2-Methylnaphthalene	0.0100	0.006722		mg/L		67	52 - 130
2-Chloronaphthalene	0.0100	0.006055		mg/L		61	56 - 130
Acenaphthylene	0.0100	0.006454		mg/L		65	58 - 130
2,6-Dinitrotoluene	0.0100	0.006915		mg/L		69	56 - 130
Acenaphthene	0.0100	0.006550		mg/L		65	59 - 130
4-Nitrophenol	0.0200	0.003054		mg/L		15	10 - 150
Dibenzofuran	0.0100	0.006630		mg/L		66	56 - 130
2,4-Dinitrotoluene	0.0100	0.007479		mg/L		75	54 - 130
Fluorene	0.0100	0.006992		mg/L		70	57 - 130
4,6-Dinitro-2-methylphenol	0.0200	0.008708		mg/L		44	10 - 145
N-Nitrosodiphenylamine	0.0100	0.006577		mg/L		66	55 - 137
1,2-Diphenylhydrazine	0.0100	0.006494		mg/L		65	45 - 130
Pentachlorophenol	0.0200	0.01036		mg/L		52	27 - 130
Phenanthrene	0.0100	0.007217		mg/L		72	60 - 130
Anthracene	0.0100	0.007778		mg/L		78	46 - 132
Di-n-butyl phthalate	0.0100	0.008489		mg/L		85	61 - 130
Fluoranthene	0.0100	0.008288		mg/L		83	63 - 130
Pyrene	0.0100	0.008084		mg/L		81	62 - 130
Benzo[a]anthracene	0.0100	0.007581		mg/L		76	58 - 130
Bis(2-ethylhexyl) phthalate	0.0100	0.007608		mg/L		76	59 - 130
Chrysene	0.0100	0.007591		mg/L		76	60 - 130
Benzo[a]pyrene	0.0100	0.007083		mg/L		71	56 - 130

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
2,4,6-Tribromophenol	87		10 - 147
2-Fluorobiphenyl	66		10 - 150
2-Fluorophenol	46		10 - 130
Nitrobenzene-d5	73		23 - 130
Terphenyl-d14	86		42 - 133
Phenol-d5 (Surr)	26		10 - 130

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-96330-1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Lab Sample ID: 600-96330-21 MS

Matrix: Water

Analysis Batch: 140973

Client Sample ID: WG-1620-MW47C-20140730

Prep Type: Total/NA

Prep Batch: 140988

Analyte	Sample	Sample	Spike	MS		Unit	D	%Rec	%Rec.	Limits
	Result	Qualifier		Result	Qualifier					
Phenol	0.0000377	U	0.00943	0.002520		mg/L		27	10 - 144	
Nitrobenzene	0.000104	U	0.00943	0.004249		mg/L		45	41 - 130	
2,4-Dimethylphenol	0.000292	U	0.00943	0.006560		mg/L		70	45 - 130	
Bis(2-chloroethoxy)methane	0.000123	U	0.00943	0.004703		mg/L		50	36 - 134	
Naphthalene	0.0000755	U	0.00943	0.004134	N1	mg/L		44	57 - 130	
2-Methylnaphthalene	0.0000660	U	0.00943	0.004441	N1	mg/L		47	52 - 130	
2-Chloronaphthalene	0.0000755	U	0.00943	0.004100	N1	mg/L		43	56 - 130	
Acenaphthylene	0.0000566	U	0.00943	0.004440	N1	mg/L		47	58 - 130	
2,6-Dinitrotoluene	0.0000755	U	0.00943	0.005126	N1	mg/L		54	56 - 130	
Acenaphthene	0.0000755	U	0.00943	0.004610	N1	mg/L		49	59 - 130	
4-Nitrophenol	0.000528	U	0.0189	0.007238		mg/L		38	10 - 150	
Dibenzofuran	0.0000755	U	0.00943	0.004652	N1	mg/L		49	56 - 130	
2,4-Dinitrotoluene	0.000123	U	0.00943	0.005814		mg/L		62	54 - 130	
Fluorene	0.0000660	U	0.00943	0.005067	N1	mg/L		54	57 - 130	
4,6-Dinitro-2-methylphenol	0.000783	U	0.0189	0.01064		mg/L		56	10 - 145	
N-Nitrosodiphenylamine	0.0000943	U	0.00943	0.005130	N1	mg/L		54	55 - 137	
1,2-Diphenylhydrazine	0.000104	U	0.00943	0.004697		mg/L		50	45 - 130	
Pentachlorophenol	0.000575	U	0.0189	0.01377		mg/L		73	27 - 130	
Phenanthrene	0.0000566	U	0.00943	0.005924		mg/L		63	60 - 130	
Anthracene	0.0000472	U	0.00943	0.006296		mg/L		67	46 - 132	
Di-n-butyl phthalate	0.000104	U	0.00943	0.008067		mg/L		86	61 - 130	
Fluoranthene	0.0000660	U	0.00943	0.007703		mg/L		82	63 - 130	
Pyrene	0.000104	U	0.00943	0.007458		mg/L		79	62 - 130	
Benzo[a]anthracene	0.0000755	U	0.00943	0.007037		mg/L		75	58 - 130	
Bis(2-ethylhexyl) phthalate	0.000349	U	0.00943	0.007414		mg/L		79	59 - 130	
Chrysene	0.0000755	U	0.00943	0.007066		mg/L		75	60 - 130	
Benzo[a]pyrene	0.0000755	U	0.00943	0.006615		mg/L		70	56 - 130	

Surrogate	MS MS		Limits
	%Recovery	Qualifier	
2,4,6-Tribromophenol	81		10 - 147
2-Fluorobiphenyl	45		10 - 150
2-Fluorophenol	39		10 - 130
Nitrobenzene-d5	49		23 - 130
Terphenyl-d14	82		42 - 133
Phenol-d5 (Surr)	28		10 - 130

Lab Sample ID: 600-96330-21 MSD

Matrix: Water

Analysis Batch: 140973

Client Sample ID: WG-1620-MW47C-20140730

Prep Type: Total/NA

Prep Batch: 140988

Analyte	Sample	Sample	Spike	MSD		Unit	D	%Rec	%Rec.	RPD	RPD	Limits
	Result	Qualifier		Result	Qualifier							
Phenol	0.0000377	U	0.00943	0.002719		mg/L		29	10 - 144	8	20	10 - 144
Nitrobenzene	0.000104	U	0.00943	0.004745		mg/L		50	41 - 130	11	20	41 - 130
2,4-Dimethylphenol	0.000292	U	0.00943	0.007177		mg/L		76	45 - 130	9	20	45 - 130
Bis(2-chloroethoxy)methane	0.000123	U	0.00943	0.005023		mg/L		53	36 - 134	7	20	36 - 134
Naphthalene	0.0000755	U	0.00943	0.004635	N1	mg/L		49	57 - 130	11	20	57 - 130
2-Methylnaphthalene	0.0000660	U	0.00943	0.004780	N1	mg/L		51	52 - 130	7	20	52 - 130
2-Chloronaphthalene	0.0000755	U	0.00943	0.004501	N1	mg/L		48	56 - 130	9	20	56 - 130

TestAmerica Houston

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-96330-1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Lab Sample ID: 600-96330-21 MSD

Matrix: Water

Analysis Batch: 140973

Client Sample ID: WG-1620-MW47C-20140730

Prep Type: Total/NA

Prep Batch: 140988

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.	RPD	Limit
	Result	Qualifier	Added	Result	Qualifier				Limits		
Acenaphthylene	0.0000566	U	0.00943	0.004770	N1	mg/L		51	58 - 130	7	20
2,6-Dinitrotoluene	0.0000755	U	0.00943	0.005424		mg/L		57	56 - 130	6	20
Acenaphthene	0.0000755	U	0.00943	0.004886	N1	mg/L		52	59 - 130	6	20
4-Nitrophenol	0.000528	U	0.0189	0.007646		mg/L		41	10 - 150	5	20
Dibenzofuran	0.0000755	U	0.00943	0.004940	N1	mg/L		52	56 - 130	6	20
2,4-Dinitrotoluene	0.000123	U	0.00943	0.006125		mg/L		65	54 - 130	5	20
Fluorene	0.0000660	U	0.00943	0.005215	N1	mg/L		55	57 - 130	3	20
4,6-Dinitro-2-methylphenol	0.000783	U	0.0189	0.01069		mg/L		57	10 - 145	0	20
N-Nitrosodiphenylamine	0.0000943	U	0.00943	0.005435		mg/L		58	55 - 137	6	20
1,2-Diphenylhydrazine	0.000104	U	0.00943	0.005003		mg/L		53	45 - 130	6	20
Pentachlorophenol	0.000575	U	0.0189	0.01409		mg/L		75	27 - 130	2	20
Phenanthrene	0.0000566	U	0.00943	0.006210		mg/L		66	60 - 130	5	20
Anthracene	0.0000472	U	0.00943	0.006663		mg/L		71	46 - 132	6	20
Di-n-butyl phthalate	0.000104	U	0.00943	0.008020		mg/L		85	61 - 130	1	20
Fluoranthene	0.0000660	U	0.00943	0.007734		mg/L		82	63 - 130	0	20
Pyrene	0.000104	U	0.00943	0.007431		mg/L		79	62 - 130	0	20
Benzo[a]anthracene	0.0000755	U	0.00943	0.007149		mg/L		76	58 - 130	2	20
Bis(2-ethylhexyl) phthalate	0.000349	U	0.00943	0.007483		mg/L		79	59 - 130	1	20
Chrysene	0.0000755	U	0.00943	0.007175		mg/L		76	60 - 130	2	20
Benzo[a]pyrene	0.0000755	U	0.00943	0.006646		mg/L		70	56 - 130	0	20
	MSD	MSD									
Surrogate	%Recovery	Qualifier	Limits								
2,4,6-Tribromophenol	88		10 - 147								
2-Fluorobiphenyl	51		10 - 150								
2-Fluorophenol	45		10 - 130								
Nitrobenzene-d5	55		23 - 130								
Terphenyl-d14	87		42 - 133								
Phenol-d5 (Surr)	31		10 - 130								

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels - RE

Lab Sample ID: MB 600-141439/1-A

Matrix: Water

Analysis Batch: 141453

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 141439

Analyte	MB	MB	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Phenol - RE	0.0000400	U	0.000500	0.0000400	mg/L		08/12/14 08:07	08/12/14 12:56	1
Nitrobenzene - RE	0.000110	U	0.000500	0.000110	mg/L		08/12/14 08:07	08/12/14 12:56	1
2,4-Dimethylphenol - RE	0.000310	U	0.000500	0.000310	mg/L		08/12/14 08:07	08/12/14 12:56	1
Bis(2-chloroethoxy)methane - RE	0.000130	U	0.000500	0.000130	mg/L		08/12/14 08:07	08/12/14 12:56	1
Naphthalene - RE	0.0000800	U	0.000500	0.0000800	mg/L		08/12/14 08:07	08/12/14 12:56	1
2-Methylnaphthalene - RE	0.0000700	U	0.000500	0.0000700	mg/L		08/12/14 08:07	08/12/14 12:56	1
2-Chloronaphthalene - RE	0.0000800	U	0.000500	0.0000800	mg/L		08/12/14 08:07	08/12/14 12:56	1
Acenaphthylene - RE	0.0000600	U	0.000500	0.0000600	mg/L		08/12/14 08:07	08/12/14 12:56	1
2,6-Dinitrotoluene - RE	0.0000800	U	0.000500	0.0000800	mg/L		08/12/14 08:07	08/12/14 12:56	1
Acenaphthene - RE	0.0000800	U	0.000500	0.0000800	mg/L		08/12/14 08:07	08/12/14 12:56	1
4-Nitrophenol - RE	0.000560	U	0.00100	0.000560	mg/L		08/12/14 08:07	08/12/14 12:56	1
Dibenzofuran - RE	0.0000800	U	0.000500	0.0000800	mg/L		08/12/14 08:07	08/12/14 12:56	1

TestAmerica Houston

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-96330-1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels - RE (Continued)

Lab Sample ID: MB 600-141439/1-A

Matrix: Water

Analysis Batch: 141453

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 141439

Analyte	MB Result	MB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-Dinitrotoluene - RE	0.000130	U	0.000500	0.000130	mg/L		08/12/14 08:07	08/12/14 12:56	1
Fluorene - RE	0.0000700	U	0.000500	0.0000700	mg/L		08/12/14 08:07	08/12/14 12:56	1
4,6-Dinitro-2-methylphenol - RE	0.000830	U	0.00100	0.000830	mg/L		08/12/14 08:07	08/12/14 12:56	1
N-Nitrosodiphenylamine - RE	0.000100	U	0.000500	0.000100	mg/L		08/12/14 08:07	08/12/14 12:56	1
1,2-Diphenylhydrazine - RE	0.000110	U	0.000500	0.000110	mg/L		08/12/14 08:07	08/12/14 12:56	1
Pentachlorophenol - RE	0.000610	U	0.00100	0.000610	mg/L		08/12/14 08:07	08/12/14 12:56	1
Phenanthrene - RE	0.0000600	U	0.000500	0.0000600	mg/L		08/12/14 08:07	08/12/14 12:56	1
Anthracene - RE	0.0000500	U	0.000500	0.0000500	mg/L		08/12/14 08:07	08/12/14 12:56	1
Di-n-butyl phthalate - RE	0.000110	U	0.000500	0.000110	mg/L		08/12/14 08:07	08/12/14 12:56	1
Fluoranthene - RE	0.0000700	U	0.000500	0.0000700	mg/L		08/12/14 08:07	08/12/14 12:56	1
Pyrene - RE	0.000110	U	0.000500	0.000110	mg/L		08/12/14 08:07	08/12/14 12:56	1
Benzo[a]anthracene - RE	0.0000800	U	0.000500	0.0000800	mg/L		08/12/14 08:07	08/12/14 12:56	1
Bis(2-ethylhexyl) phthalate - RE	0.000370	U	0.000500	0.000370	mg/L		08/12/14 08:07	08/12/14 12:56	1
Chrysene - RE	0.0000800	U	0.000500	0.0000800	mg/L		08/12/14 08:07	08/12/14 12:56	1
Benzo[a]pyrene - RE	0.0000800	U	0.000500	0.0000800	mg/L		08/12/14 08:07	08/12/14 12:56	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol - RE	51		10 - 147	08/12/14 08:07	08/12/14 12:56	1
2-Fluorobiphenyl - RE	57		10 - 150	08/12/14 08:07	08/12/14 12:56	1
2-Fluorophenol - RE	71		10 - 130	08/12/14 08:07	08/12/14 12:56	1
Nitrobenzene-d5 - RE	62		23 - 130	08/12/14 08:07	08/12/14 12:56	1
Terphenyl-d14 - RE	66		42 - 133	08/12/14 08:07	08/12/14 12:56	1
Phenol-d5 (Surr) - RE	68		10 - 130	08/12/14 08:07	08/12/14 12:56	1

Lab Sample ID: LCS 600-141439/2-A

Matrix: Water

Analysis Batch: 141453

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 141439

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Phenol - RE	0.0100	0.006532		mg/L		65	10 - 144
Nitrobenzene - RE	0.0100	0.006139		mg/L		61	41 - 130
2,4-Dimethylphenol - RE	0.0100	0.008445		mg/L		84	45 - 130
Bis(2-chloroethoxy)methane - RE	0.0100	0.006114		mg/L		61	36 - 134
Naphthalene - RE	0.0100	0.005909		mg/L		59	57 - 130
2-Methylnaphthalene - RE	0.0100	0.006127		mg/L		61	52 - 130
2-Chloronaphthalene - RE	0.0100	0.005685		mg/L		57	56 - 130
Acenaphthylene - RE	0.0100	0.005772		mg/L		58	58 - 130
2,6-Dinitrotoluene - RE	0.0100	0.006013		mg/L		60	56 - 130
Acenaphthene - RE	0.0100	0.005819	*	mg/L		58	59 - 130
4-Nitrophenol - RE	0.0200	0.01258		mg/L		63	10 - 150
Dibenzofuran - RE	0.0100	0.005857		mg/L		59	56 - 130
2,4-Dinitrotoluene - RE	0.0100	0.006450		mg/L		64	54 - 130
Fluorene - RE	0.0100	0.006036		mg/L		60	57 - 130
4,6-Dinitro-2-methylphenol - RE	0.0200	0.009715		mg/L		49	10 - 145
N-Nitrosodiphenylamine - RE	0.0100	0.005620		mg/L		56	55 - 137
1,2-Diphenylhydrazine - RE	0.0100	0.006208		mg/L		62	45 - 130
Pentachlorophenol - RE	0.0200	0.01174		mg/L		59	27 - 130
Phenanthrene - RE	0.0100	0.006257		mg/L		63	60 - 130

TestAmerica Houston

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-96330-1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels - RE (Continued)

Lab Sample ID: LCS 600-141439/2-A

Matrix: Water

Analysis Batch: 141453

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 141439

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Anthracene - RE	0.0100	0.006498		mg/L		65	46 - 132
Di-n-butyl phthalate - RE	0.0100	0.007005		mg/L		70	61 - 130
Fluoranthene - RE	0.0100	0.006693		mg/L		67	63 - 130
Pyrene - RE	0.0100	0.006820		mg/L		68	62 - 130
Benzo[a]anthracene - RE	0.0100	0.006071		mg/L		61	58 - 130
Bis(2-ethylhexyl) phthalate - RE	0.0100	0.006061		mg/L		61	59 - 130
Chrysene - RE	0.0100	0.006264		mg/L		63	60 - 130
Benzo[a]pyrene - RE	0.0100	0.005484	*	mg/L		55	56 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2,4,6-Tribromophenol - RE	67		10 - 147
2-Fluorobiphenyl - RE	60		10 - 150
2-Fluorophenol - RE	74		10 - 130
Nitrobenzene-d5 - RE	66		23 - 130
Terphenyl-d14 - RE	74		42 - 133
Phenol-d5 (Surr) - RE	70		10 - 130

Lab Sample ID: LCSD 600-141439/3-A

Matrix: Water

Analysis Batch: 141453

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 141439

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Phenol - RE	0.0100	0.006392		mg/L		64	10 - 144	2	20
Nitrobenzene - RE	0.0100	0.006058		mg/L		61	41 - 130	1	20
2,4-Dimethylphenol - RE	0.0100	0.008288		mg/L		83	45 - 130	2	20
Bis(2-chloroethoxy)methane - RE	0.0100	0.006011		mg/L		60	36 - 134	2	20
Naphthalene - RE	0.0100	0.005808		mg/L		58	57 - 130	2	20
2-Methylnaphthalene - RE	0.0100	0.006028		mg/L		60	52 - 130	2	20
2-Chloronaphthalene - RE	0.0100	0.005446	*	mg/L		54	56 - 130	4	20
Acenaphthylene - RE	0.0100	0.005602	*	mg/L		56	58 - 130	3	20
2,6-Dinitrotoluene - RE	0.0100	0.005870		mg/L		59	56 - 130	2	20
Acenaphthene - RE	0.0100	0.005697	*	mg/L		57	59 - 130	2	20
4-Nitrophenol - RE	0.0200	0.01287		mg/L		64	10 - 150	2	20
Dibenzofuran - RE	0.0100	0.005725		mg/L		57	56 - 130	2	20
2,4-Dinitrotoluene - RE	0.0100	0.006342		mg/L		63	54 - 130	2	20
Fluorene - RE	0.0100	0.005905		mg/L		59	57 - 130	2	20
4,6-Dinitro-2-methylphenol - RE	0.0200	0.009139		mg/L		46	10 - 145	6	20
N-Nitrosodiphenylamine - RE	0.0100	0.005336	*	mg/L		53	55 - 137	5	20
1,2-Diphenylhydrazine - RE	0.0100	0.006116		mg/L		61	45 - 130	2	20
Pentachlorophenol - RE	0.0200	0.01169		mg/L		58	27 - 130	0	20
Phenanthrene - RE	0.0100	0.005952		mg/L		60	60 - 130	5	20
Anthracene - RE	0.0100	0.006283		mg/L		63	46 - 132	3	20
Di-n-butyl phthalate - RE	0.0100	0.006874		mg/L		69	61 - 130	2	20
Fluoranthene - RE	0.0100	0.006506		mg/L		65	63 - 130	3	20
Pyrene - RE	0.0100	0.006584		mg/L		66	62 - 130	4	20
Benzo[a]anthracene - RE	0.0100	0.005966		mg/L		60	58 - 130	2	20
Bis(2-ethylhexyl) phthalate - RE	0.0100	0.006163		mg/L		62	59 - 130	2	20
Chrysene - RE	0.0100	0.005981		mg/L		60	60 - 130	5	20

TestAmerica Houston

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-96330-1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels - RE (Continued)

Lab Sample ID: LCSD 600-141439/3-A

Matrix: Water

Analysis Batch: 141453

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 141439

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzo[a]pyrene - RE	0.0100	0.005418	*	mg/L		54	56 - 130	1	20

Surrogate	LCSD		Limits
	%Recovery	Qualifier	
2,4,6-Tribromophenol - RE	65		10 - 147
2-Fluorobiphenyl - RE	57		10 - 150
2-Fluorophenol - RE	69		10 - 130
Nitrobenzene-d5 - RE	64		23 - 130
Terphenyl-d14 - RE	68		42 - 133
Phenol-d5 (Surr) - RE	68		10 - 130

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15
- 16

Unadjusted Detection Limits

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-96330-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	MQL	MDL	Units	Method
1,2-Dichloroethane	0.00100	0.000140	mg/L	8260B
Benzene	0.00100	0.0000800	mg/L	8260B
Chlorobenzene	0.00100	0.000120	mg/L	8260B
Ethylbenzene	0.00100	0.000110	mg/L	8260B
Methylene Chloride	0.00100	0.000150	mg/L	8260B
Toluene	0.00100	0.000150	mg/L	8260B
Vinyl chloride	0.00200	0.000110	mg/L	8260B
Xylenes, Total	0.00300	0.000260	mg/L	8260B

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	MQL	MDL	Units	Method
1,2-Diphenylhydrazine	0.000500	0.000110	mg/L	8270C LL
2,4-Dimethylphenol	0.000500	0.000310	mg/L	8270C LL
2,4-Dinitrotoluene	0.000500	0.000130	mg/L	8270C LL
2,6-Dinitrotoluene	0.000500	0.0000800	mg/L	8270C LL
2-Chloronaphthalene	0.000500	0.0000800	mg/L	8270C LL
2-Methylnaphthalene	0.000500	0.0000700	mg/L	8270C LL
4,6-Dinitro-2-methylphenol	0.00100	0.000830	mg/L	8270C LL
4-Nitrophenol	0.00100	0.000560	mg/L	8270C LL
Acenaphthene	0.000500	0.0000800	mg/L	8270C LL
Acenaphthylene	0.000500	0.0000600	mg/L	8270C LL
Anthracene	0.000500	0.0000500	mg/L	8270C LL
Benzo[a]anthracene	0.000500	0.0000800	mg/L	8270C LL
Benzo[a]pyrene	0.000500	0.0000800	mg/L	8270C LL
Bis(2-chloroethoxy)methane	0.000500	0.000130	mg/L	8270C LL
Bis(2-ethylhexyl) phthalate	0.000500	0.000370	mg/L	8270C LL
Chrysene	0.000500	0.0000800	mg/L	8270C LL
Dibenzofuran	0.000500	0.0000800	mg/L	8270C LL
Di-n-butyl phthalate	0.000500	0.000110	mg/L	8270C LL
Fluoranthene	0.000500	0.0000700	mg/L	8270C LL
Fluorene	0.000500	0.0000700	mg/L	8270C LL
Naphthalene	0.000500	0.0000800	mg/L	8270C LL
Nitrobenzene	0.000500	0.000110	mg/L	8270C LL
N-Nitrosodiphenylamine	0.000500	0.000100	mg/L	8270C LL
Pentachlorophenol	0.00100	0.000610	mg/L	8270C LL
Phenanthrene	0.000500	0.0000600	mg/L	8270C LL
Phenol	0.000500	0.0000400	mg/L	8270C LL
Pyrene	0.000500	0.000110	mg/L	8270C LL

QC Association Summary

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-96330-1

GC/MS VOA

Analysis Batch: 140676

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-96330-6	WG-1620-FB-6-20140728	Total/NA	Water	8260B	
600-96330-7	WG-1620-MW25A-20140729	Total/NA	Water	8260B	
600-96330-9	WG-1620-MW34CR-20140729	Total/NA	Water	8260B	
600-96330-10	WG-1620-MW05-20140729	Total/NA	Water	8260B	
600-96330-11	WG-1620-MW64A-20140729	Total/NA	Water	8260B	
LCS 600-140676/3	Lab Control Sample	Total/NA	Water	8260B	
LCSD 600-140676/4	Lab Control Sample Dup	Total/NA	Water	8260B	
MB 600-140676/7	Method Blank	Total/NA	Water	8260B	

Analysis Batch: 140700

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-96330-1	WG-1620-MW36B-20140728	Total/NA	Water	8260B	
600-96330-2	WG-1620-MW36A-20140728	Total/NA	Water	8260B	
600-96330-3	WG-1620-MW71B-20140728	Total/NA	Water	8260B	
600-96330-4	WG-1620-MW33BR-20140728	Total/NA	Water	8260B	
600-96330-4 - DL	WG-1620-MW33BR-20140728	Total/NA	Water	8260B	
600-96330-5	WG-1620-MW70B-20140728	Total/NA	Water	8260B	
600-96330-5 - DL	WG-1620-MW70B-20140728	Total/NA	Water	8260B	
600-96330-8	WG-1620-MW25C-20140729	Total/NA	Water	8260B	
600-96330-8 - DL	WG-1620-MW25C-20140729	Total/NA	Water	8260B	
600-96330-13	WG-1620-MW62B-20140729	Total/NA	Water	8260B	
600-96330-14	WG-1620-MW57A-20140729	Total/NA	Water	8260B	
600-96330-14 - DL	WG-1620-MW57A-20140729	Total/NA	Water	8260B	
600-96330-15	WG-1620-MW57B-20140729	Total/NA	Water	8260B	
600-96330-15 - DL	WG-1620-MW57B-20140729	Total/NA	Water	8260B	
600-96330-16	WG-1620-FB7-20140729	Total/NA	Water	8260B	
600-96330-17	WG-1620-MW22A-20140730	Total/NA	Water	8260B	
LCS 600-140700/3	Lab Control Sample	Total/NA	Water	8260B	
LCSD 600-140700/4	Lab Control Sample Dup	Total/NA	Water	8260B	
MB 600-140700/6	Method Blank	Total/NA	Water	8260B	

Analysis Batch: 140722

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-96330-12	WG-1620-P11-20140729	Total/NA	Water	8260B	
600-96330-18	WG-1620-MW22B-20140730	Total/NA	Water	8260B	
600-96330-19	WG-1620-MW59A-20140730	Total/NA	Water	8260B	
600-96330-20	WG-1620-MW59B-20140730	Total/NA	Water	8260B	
600-96330-21	WG-1620-MW47C-20140730	Total/NA	Water	8260B	
LCS 600-140722/3	Lab Control Sample	Total/NA	Water	8260B	
LCSD 600-140722/4	Lab Control Sample Dup	Total/NA	Water	8260B	
MB 600-140722/7	Method Blank	Total/NA	Water	8260B	

GC/MS Semi VOA

Prep Batch: 140715

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-96330-1	WG-1620-MW36B-20140728	Total/NA	Water	3510C	
600-96330-2	WG-1620-MW36A-20140728	Total/NA	Water	3510C	
600-96330-3	WG-1620-MW71B-20140728	Total/NA	Water	3510C	
600-96330-4 - DL2	WG-1620-MW33BR-20140728	Total/NA	Water	3510C	

TestAmerica Houston

QC Association Summary

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-96330-1

GC/MS Semi VOA (Continued)

Prep Batch: 140715 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-96330-4 - DL	WG-1620-MW33BR-20140728	Total/NA	Water	3510C	
600-96330-4	WG-1620-MW33BR-20140728	Total/NA	Water	3510C	
600-96330-5 - DL2	WG-1620-MW70B-20140728	Total/NA	Water	3510C	
600-96330-5 - DL	WG-1620-MW70B-20140728	Total/NA	Water	3510C	
600-96330-5	WG-1620-MW70B-20140728	Total/NA	Water	3510C	
600-96330-6	WG-1620-FB-6-20140728	Total/NA	Water	3510C	
600-96330-7	WG-1620-MW25A-20140729	Total/NA	Water	3510C	
600-96330-8	WG-1620-MW25C-20140729	Total/NA	Water	3510C	
600-96330-8 - DL	WG-1620-MW25C-20140729	Total/NA	Water	3510C	
600-96330-8 - DL2	WG-1620-MW25C-20140729	Total/NA	Water	3510C	
600-96330-9	WG-1620-MW34CR-20140729	Total/NA	Water	3510C	
600-96330-10	WG-1620-MW05-20140729	Total/NA	Water	3510C	
600-96330-11	WG-1620-MW64A-20140729	Total/NA	Water	3510C	
600-96330-12	WG-1620-P11-20140729	Total/NA	Water	3510C	
600-96330-13	WG-1620-MW62B-20140729	Total/NA	Water	3510C	
600-96330-14	WG-1620-MW57A-20140729	Total/NA	Water	3510C	
600-96330-14 - DL2	WG-1620-MW57A-20140729	Total/NA	Water	3510C	
600-96330-14 - DL	WG-1620-MW57A-20140729	Total/NA	Water	3510C	
600-96330-15 - DL	WG-1620-MW57B-20140729	Total/NA	Water	3510C	
600-96330-15	WG-1620-MW57B-20140729	Total/NA	Water	3510C	
600-96330-16	WG-1620-FB7-20140729	Total/NA	Water	3510C	
600-96330-17 - DL	WG-1620-MW22A-20140730	Total/NA	Water	3510C	
600-96330-17	WG-1620-MW22A-20140730	Total/NA	Water	3510C	
600-96330-18 - DL	WG-1620-MW22B-20140730	Total/NA	Water	3510C	
600-96330-18	WG-1620-MW22B-20140730	Total/NA	Water	3510C	
600-96330-19	WG-1620-MW59A-20140730	Total/NA	Water	3510C	
600-96330-20	WG-1620-MW59B-20140730	Total/NA	Water	3510C	
LCS 600-140715/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 600-140715/23-A	Lab Control Sample Dup	Total/NA	Water	3510C	
MB 600-140715/1-A	Method Blank	Total/NA	Water	3510C	

Analysis Batch: 140815

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-96330-1	WG-1620-MW36B-20140728	Total/NA	Water	8270C LL	140715
600-96330-2	WG-1620-MW36A-20140728	Total/NA	Water	8270C LL	140715
600-96330-3	WG-1620-MW71B-20140728	Total/NA	Water	8270C LL	140715
600-96330-4	WG-1620-MW33BR-20140728	Total/NA	Water	8270C LL	140715
600-96330-6	WG-1620-FB-6-20140728	Total/NA	Water	8270C LL	140715
600-96330-7	WG-1620-MW25A-20140729	Total/NA	Water	8270C LL	140715
600-96330-8	WG-1620-MW25C-20140729	Total/NA	Water	8270C LL	140715
600-96330-9	WG-1620-MW34CR-20140729	Total/NA	Water	8270C LL	140715
MB 600-140715/1-A	Method Blank	Total/NA	Water	8270C LL	140715

Analysis Batch: 140914

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-96330-11	WG-1620-MW64A-20140729	Total/NA	Water	8270C LL	140715
600-96330-12	WG-1620-P11-20140729	Total/NA	Water	8270C LL	140715
600-96330-13	WG-1620-MW62B-20140729	Total/NA	Water	8270C LL	140715
600-96330-14	WG-1620-MW57A-20140729	Total/NA	Water	8270C LL	140715
600-96330-16	WG-1620-FB7-20140729	Total/NA	Water	8270C LL	140715
600-96330-17	WG-1620-MW22A-20140730	Total/NA	Water	8270C LL	140715

TestAmerica Houston

QC Association Summary

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-96330-1

GC/MS Semi VOA (Continued)

Analysis Batch: 140914 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-96330-18	WG-1620-MW22B-20140730	Total/NA	Water	8270C LL	140715
600-96330-19	WG-1620-MW59A-20140730	Total/NA	Water	8270C LL	140715
600-96330-20	WG-1620-MW59B-20140730	Total/NA	Water	8270C LL	140715
LCS 600-140715/2-A	Lab Control Sample	Total/NA	Water	8270C LL	140715
LCSD 600-140715/23-A	Lab Control Sample Dup	Total/NA	Water	8270C LL	140715

Analysis Batch: 140973

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-96330-21	WG-1620-MW47C-20140730	Total/NA	Water	8270C LL	140988
600-96330-21 MS	WG-1620-MW47C-20140730	Total/NA	Water	8270C LL	140988
600-96330-21 MSD	WG-1620-MW47C-20140730	Total/NA	Water	8270C LL	140988
LCS 600-140988/2-A	Lab Control Sample	Total/NA	Water	8270C LL	140988
MB 600-140988/1-A	Method Blank	Total/NA	Water	8270C LL	140988

Prep Batch: 140988

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-96330-21	WG-1620-MW47C-20140730	Total/NA	Water	3510C	
600-96330-21 MS	WG-1620-MW47C-20140730	Total/NA	Water	3510C	
600-96330-21 MSD	WG-1620-MW47C-20140730	Total/NA	Water	3510C	
LCS 600-140988/2-A	Lab Control Sample	Total/NA	Water	3510C	
MB 600-140988/1-A	Method Blank	Total/NA	Water	3510C	

Analysis Batch: 141160

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-96330-4 - DL	WG-1620-MW33BR-20140728	Total/NA	Water	8270C LL	140715
600-96330-4 - DL2	WG-1620-MW33BR-20140728	Total/NA	Water	8270C LL	140715
600-96330-5	WG-1620-MW70B-20140728	Total/NA	Water	8270C LL	140715
600-96330-5 - DL	WG-1620-MW70B-20140728	Total/NA	Water	8270C LL	140715
600-96330-8 - DL	WG-1620-MW25C-20140729	Total/NA	Water	8270C LL	140715
600-96330-8 - DL2	WG-1620-MW25C-20140729	Total/NA	Water	8270C LL	140715
600-96330-14 - DL	WG-1620-MW57A-20140729	Total/NA	Water	8270C LL	140715
600-96330-14 - DL2	WG-1620-MW57A-20140729	Total/NA	Water	8270C LL	140715
600-96330-15	WG-1620-MW57B-20140729	Total/NA	Water	8270C LL	140715
600-96330-15 - DL	WG-1620-MW57B-20140729	Total/NA	Water	8270C LL	140715
600-96330-17 - DL	WG-1620-MW22A-20140730	Total/NA	Water	8270C LL	140715
600-96330-18 - DL	WG-1620-MW22B-20140730	Total/NA	Water	8270C LL	140715

Analysis Batch: 141216

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-96330-10	WG-1620-MW05-20140729	Total/NA	Water	8270C LL	140715

Analysis Batch: 141398

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-96330-5 - DL2	WG-1620-MW70B-20140728	Total/NA	Water	8270C LL	140715

Prep Batch: 141439

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-96330-20 - RE	WG-1620-MW59B-20140730	Total/NA	Water	3510C	
LCS 600-141439/2-A - RE	Lab Control Sample	Total/NA	Water	3510C	
LCSD 600-141439/3-A - RE	Lab Control Sample Dup	Total/NA	Water	3510C	
MB 600-141439/1-A - RE	Method Blank	Total/NA	Water	3510C	

TestAmerica Houston

QC Association Summary

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-96330-1

GC/MS Semi VOA (Continued)

Analysis Batch: 141453

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-96330-20 - RE	WG-1620-MW59B-20140730	Total/NA	Water	8270C LL	141439
LCS 600-141439/2-A - RE	Lab Control Sample	Total/NA	Water	8270C LL	141439
LCSD 600-141439/3-A - RE	Lab Control Sample Dup	Total/NA	Water	8270C LL	141439
MB 600-141439/1-A - RE	Method Blank	Total/NA	Water	8270C LL	141439

- 1
- 2
- 3
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- 14
- 15
- 16

Lab Chronicle

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-96330-1

Client Sample ID: WG-1620-MW36B-20140728

Lab Sample ID: 600-96330-1

Date Collected: 07/28/14 13:50

Matrix: Water

Date Received: 07/30/14 12:37

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	140700	08/03/14 17:40	WS1	TAL HOU
Total/NA	Prep	3510C			140715	08/04/14 07:44	SMB	TAL HOU
Total/NA	Analysis	8270C LL		1	140815	08/05/14 10:00	TTD	TAL HOU

Client Sample ID: WG-1620-MW36A-20140728

Lab Sample ID: 600-96330-2

Date Collected: 07/28/14 14:50

Matrix: Water

Date Received: 07/30/14 12:37

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	140700	08/03/14 18:07	WS1	TAL HOU
Total/NA	Prep	3510C			140715	08/04/14 07:44	SMB	TAL HOU
Total/NA	Analysis	8270C LL		1	140815	08/05/14 10:29	TTD	TAL HOU

Client Sample ID: WG-1620-MW71B-20140728

Lab Sample ID: 600-96330-3

Date Collected: 07/28/14 16:00

Matrix: Water

Date Received: 07/30/14 12:37

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	140700	08/03/14 18:33	WS1	TAL HOU
Total/NA	Prep	3510C			140715	08/04/14 07:44	SMB	TAL HOU
Total/NA	Analysis	8270C LL		1	140815	08/05/14 10:58	TTD	TAL HOU

Client Sample ID: WG-1620-MW33BR-20140728

Lab Sample ID: 600-96330-4

Date Collected: 07/28/14 17:05

Matrix: Water

Date Received: 07/30/14 12:37

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		5	140700	08/03/14 13:19	WS1	TAL HOU
Total/NA	Analysis	8260B	DL	50	140700	08/03/14 13:44	WS1	TAL HOU
Total/NA	Prep	3510C			140715	08/04/14 07:44	SMB	TAL HOU
Total/NA	Analysis	8270C LL		1	140815	08/05/14 11:27	TTD	TAL HOU
Total/NA	Prep	3510C	DL		140715	08/04/14 07:44	SMB	TAL HOU
Total/NA	Analysis	8270C LL	DL	100	141160	08/07/14 21:48	MBB	TAL HOU
Total/NA	Prep	3510C	DL2		140715	08/04/14 07:44	SMB	TAL HOU
Total/NA	Analysis	8270C LL	DL2	1000	141160	08/08/14 01:04	MBB	TAL HOU

Client Sample ID: WG-1620-MW70B-20140728

Lab Sample ID: 600-96330-5

Date Collected: 07/28/14 18:00

Matrix: Water

Date Received: 07/30/14 12:37

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		10	140700	08/03/14 14:11	WS1	TAL HOU

TestAmerica Houston

Lab Chronicle

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-96330-1

Client Sample ID: WG-1620-MW70B-20140728

Lab Sample ID: 600-96330-5

Date Collected: 07/28/14 18:00

Matrix: Water

Date Received: 07/30/14 12:37

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B	DL	200	140700	08/03/14 14:37	WS1	TAL HOU
Total/NA	Prep	3510C			140715	08/04/14 07:44	SMB	TAL HOU
Total/NA	Analysis	8270C LL		100	141160	08/07/14 22:16	MBB	TAL HOU
Total/NA	Prep	3510C	DL		140715	08/04/14 07:44	SMB	TAL HOU
Total/NA	Analysis	8270C LL	DL	1000	141160	08/08/14 01:32	MBB	TAL HOU
Total/NA	Prep	3510C	DL2		140715	08/04/14 07:44	SMB	TAL HOU
Total/NA	Analysis	8270C LL	DL2	5000	141398	08/11/14 20:48	MBB	TAL HOU

Client Sample ID: WG-1620-FB-6-20140728

Lab Sample ID: 600-96330-6

Date Collected: 07/28/14 18:15

Matrix: Water

Date Received: 07/30/14 12:37

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	140676	08/02/14 19:00	WS1	TAL HOU
Total/NA	Prep	3510C			140715	08/04/14 07:44	SMB	TAL HOU
Total/NA	Analysis	8270C LL		1	140815	08/05/14 12:24	TTD	TAL HOU

Client Sample ID: WG-1620-MW25A-20140729

Lab Sample ID: 600-96330-7

Date Collected: 07/29/14 07:45

Matrix: Water

Date Received: 07/30/14 12:37

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	140676	08/02/14 19:27	WS1	TAL HOU
Total/NA	Prep	3510C			140715	08/04/14 07:44	SMB	TAL HOU
Total/NA	Analysis	8270C LL		1	140815	08/05/14 12:53	TTD	TAL HOU

Client Sample ID: WG-1620-MW25C-20140729

Lab Sample ID: 600-96330-8

Date Collected: 07/29/14 08:30

Matrix: Water

Date Received: 07/30/14 12:37

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		5	140700	08/03/14 15:03	WS1	TAL HOU
Total/NA	Analysis	8260B	DL	50	140700	08/03/14 15:29	WS1	TAL HOU
Total/NA	Prep	3510C			140715	08/04/14 07:44	SMB	TAL HOU
Total/NA	Analysis	8270C LL		1	140815	08/05/14 13:28	TTD	TAL HOU
Total/NA	Prep	3510C	DL		140715	08/04/14 07:44	SMB	TAL HOU
Total/NA	Analysis	8270C LL	DL	100	141160	08/07/14 22:44	MBB	TAL HOU
Total/NA	Prep	3510C	DL2		140715	08/04/14 07:44	SMB	TAL HOU
Total/NA	Analysis	8270C LL	DL2	1000	141160	08/08/14 02:00	MBB	TAL HOU

Lab Chronicle

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-96330-1

Client Sample ID: WG-1620-MW34CR-20140729

Lab Sample ID: 600-96330-9

Date Collected: 07/29/14 09:30

Matrix: Water

Date Received: 07/30/14 12:37

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	140676	08/02/14 19:53	WS1	TAL HOU
Total/NA	Prep	3510C			140715	08/04/14 07:44	SMB	TAL HOU
Total/NA	Analysis	8270C LL		1	140815	08/05/14 16:44	TTD	TAL HOU

Client Sample ID: WG-1620-MW05-20140729

Lab Sample ID: 600-96330-10

Date Collected: 07/29/14 10:40

Matrix: Water

Date Received: 07/30/14 12:37

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	140676	08/02/14 20:19	WS1	TAL HOU
Total/NA	Prep	3510C			140715	08/04/14 07:44	SMB	TAL HOU
Total/NA	Analysis	8270C LL		1	141216	08/08/14 21:41	MBB	TAL HOU

Client Sample ID: WG-1620-MW64A-20140729

Lab Sample ID: 600-96330-11

Date Collected: 07/29/14 11:45

Matrix: Water

Date Received: 07/30/14 12:37

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	140676	08/02/14 20:45	WS1	TAL HOU
Total/NA	Prep	3510C			140715	08/04/14 07:44	SMB	TAL HOU
Total/NA	Analysis	8270C LL		1	140914	08/05/14 21:18	MBB	TAL HOU

Client Sample ID: WG-1620-P11-20140729

Lab Sample ID: 600-96330-12

Date Collected: 07/29/14 13:50

Matrix: Water

Date Received: 07/30/14 12:37

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	140722	08/04/14 13:30	WS1	TAL HOU
Total/NA	Prep	3510C			140715	08/04/14 07:44	SMB	TAL HOU
Total/NA	Analysis	8270C LL		1	140914	08/05/14 21:46	MBB	TAL HOU

Client Sample ID: WG-1620-MW62B-20140729

Lab Sample ID: 600-96330-13

Date Collected: 07/29/14 14:55

Matrix: Water

Date Received: 07/30/14 12:37

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	140700	08/03/14 18:59	WS1	TAL HOU
Total/NA	Prep	3510C			140715	08/04/14 07:44	SMB	TAL HOU
Total/NA	Analysis	8270C LL		1	140914	08/05/14 22:14	MBB	TAL HOU

TestAmerica Houston

Lab Chronicle

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-96330-1

Client Sample ID: WG-1620-MW57A-20140729

Lab Sample ID: 600-96330-14

Date Collected: 07/29/14 16:05

Matrix: Water

Date Received: 07/30/14 12:37

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	140700	08/03/14 15:55	WS1	TAL HOU
Total/NA	Analysis	8260B	DL	20	140700	08/03/14 16:22	WS1	TAL HOU
Total/NA	Prep	3510C			140715	08/04/14 07:44	SMB	TAL HOU
Total/NA	Analysis	8270C LL		1	140914	08/05/14 22:42	MBB	TAL HOU
Total/NA	Prep	3510C	DL		140715	08/04/14 07:44	SMB	TAL HOU
Total/NA	Analysis	8270C LL	DL	100	141160	08/07/14 23:12	MBB	TAL HOU
Total/NA	Prep	3510C	DL2		140715	08/04/14 07:44	SMB	TAL HOU
Total/NA	Analysis	8270C LL	DL2	1000	141160	08/08/14 02:28	MBB	TAL HOU

Client Sample ID: WG-1620-MW57B-20140729

Lab Sample ID: 600-96330-15

Date Collected: 07/29/14 17:00

Matrix: Water

Date Received: 07/30/14 12:37

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		5	140700	08/03/14 16:48	WS1	TAL HOU
Total/NA	Analysis	8260B	DL	50	140700	08/03/14 17:14	WS1	TAL HOU
Total/NA	Prep	3510C			140715	08/04/14 07:44	SMB	TAL HOU
Total/NA	Analysis	8270C LL		100	141160	08/07/14 23:40	MBB	TAL HOU
Total/NA	Prep	3510C	DL		140715	08/04/14 07:44	SMB	TAL HOU
Total/NA	Analysis	8270C LL	DL	1000	141160	08/08/14 02:55	MBB	TAL HOU

Client Sample ID: WG-1620-FB7-20140729

Lab Sample ID: 600-96330-16

Date Collected: 07/29/14 17:15

Matrix: Water

Date Received: 07/30/14 12:37

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	140700	08/03/14 19:25	WS1	TAL HOU
Total/NA	Prep	3510C			140715	08/04/14 07:44	SMB	TAL HOU
Total/NA	Analysis	8270C LL		1	140914	08/05/14 23:38	MBB	TAL HOU

Client Sample ID: WG-1620-MW22A-20140730

Lab Sample ID: 600-96330-17

Date Collected: 07/30/14 07:50

Matrix: Water

Date Received: 07/30/14 12:37

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	140700	08/03/14 19:52	WS1	TAL HOU
Total/NA	Prep	3510C			140715	08/04/14 07:44	SMB	TAL HOU
Total/NA	Analysis	8270C LL		1	140914	08/06/14 00:05	MBB	TAL HOU
Total/NA	Prep	3510C	DL		140715	08/04/14 07:44	SMB	TAL HOU
Total/NA	Analysis	8270C LL	DL	100	141160	08/08/14 00:08	MBB	TAL HOU

TestAmerica Houston

Lab Chronicle

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-96330-1

Client Sample ID: WG-1620-MW22B-20140730

Lab Sample ID: 600-96330-18

Date Collected: 07/30/14 08:45

Matrix: Water

Date Received: 07/30/14 12:37

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	140722	08/04/14 13:56	WS1	TAL HOU
Total/NA	Prep	3510C			140715	08/04/14 07:44	SMB	TAL HOU
Total/NA	Analysis	8270C LL		1	140914	08/06/14 00:33	MBB	TAL HOU
Total/NA	Prep	3510C	DL		140715	08/04/14 07:44	SMB	TAL HOU
Total/NA	Analysis	8270C LL	DL	100	141160	08/08/14 00:36	MBB	TAL HOU

Client Sample ID: WG-1620-MW59A-20140730

Lab Sample ID: 600-96330-19

Date Collected: 07/30/14 10:00

Matrix: Water

Date Received: 07/30/14 12:37

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	140722	08/04/14 14:23	WS1	TAL HOU
Total/NA	Prep	3510C			140715	08/04/14 07:44	SMB	TAL HOU
Total/NA	Analysis	8270C LL		1	140914	08/06/14 01:01	MBB	TAL HOU

Client Sample ID: WG-1620-MW59B-20140730

Lab Sample ID: 600-96330-20

Date Collected: 07/30/14 10:55

Matrix: Water

Date Received: 07/30/14 12:37

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	140722	08/04/14 14:49	WS1	TAL HOU
Total/NA	Prep	3510C			140715	08/04/14 07:44	SMB	TAL HOU
Total/NA	Analysis	8270C LL		1	140914	08/06/14 01:29	MBB	TAL HOU
Total/NA	Prep	3510C	RE		141439	08/12/14 08:07	SMB	TAL HOU
Total/NA	Analysis	8270C LL	RE	1	141453	08/12/14 14:20	TTD	TAL HOU

Client Sample ID: WG-1620-MW47C-20140730

Lab Sample ID: 600-96330-21

Date Collected: 07/30/14 12:00

Matrix: Water

Date Received: 07/30/14 12:37

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	140722	08/04/14 15:15	WS1	TAL HOU
Total/NA	Prep	3510C			140988	08/06/14 12:39	LER	TAL HOU
Total/NA	Analysis	8270C LL		1	140973	08/06/14 20:22	MBB	TAL HOU

Laboratory References:

TAL HOU = TestAmerica Houston, 6310 Rothway Street, Houston, TX 77040, TEL (713)690-4444

Certification Summary

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-96330-1

Laboratory: TestAmerica Houston

The certifications listed below are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Texas	NELAP	6	T104704223	10-31-14

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15
- 16

TestAmerica Houston
 6310 Rothway Street
 Houston, TX 77040
 Phone (713) 690-4444 Fax (713) 690-5646

Chain of Custody Record

TestAmerica
 2411 Eastway Dr., Houston, TX 77060
 Phone (713) 690-4444 Fax (713) 690-5646

Client Information
 Client Contact: Mr. Eric Matzner
 Company: Pastor, Behling & Wheeler LLC
 Address: 2201 Double Creek Dr. Suite 4004
 City: Round Rock
 State, Zip: TX 78664
 Phone: 512-671-3434(Tel) 512-671-3446(Fax)
 Email: eric.matzner@pbwllc.com
 Project Name: 1620 UPRR HMPW
 Site:
 Project #: 60003722
 SSON#:
 PO #:
 Purchase Order not required
 W/O #:

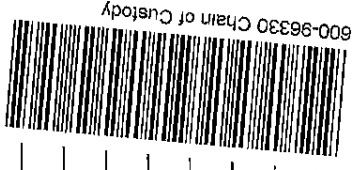
Sampler
 Name: JOHN BRAYTON
 Phone: 512-671-3434
 Lab Pin: Kudochnakar, Sachin G
 Email: sachin.kudochnakar@testamericainc.com
 Carrier Tracking No(s):
 Job #:
 Page 1 of 2
 CCC No: 600-29460-10071.1

Due Date Requested:
TAT Requested (days):
Analysis Requested
Preservation Codes:
 A - HCl
 B - NaOH
 C - Zn Acetate
 D - Nitric Acid
 E - NaHSO4
 F - MeOH
 G - Amchlor
 H - Ascorbic Acid
 I - Ice
 J - DI Water
 K - EDTA
 L - EDA
 Other:
 M - Hexane
 N - None
 O - AsNaO2
 P - Na2CO3
 Q - Na2SO3
 R - Na2S2O3
 S - H2SO4
 T - TSP Dodecahydrate
 U - Acetone
 V - MCAA
 W - pH 4.5
 Z - other (specify)

Sample Identification	Sample Date	Sample Time	Sample Type (G=grab, P=preserve, A=V)	Matrix (Water, Static, On-residual, Other)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8260B_LL - Volatiles	8270C_LL - Semivolatiles	Total Number of Containers	Special Instructions/Note:
W6-1620-MW56B-20140728	7-28-14	1350	G	Water	X	X				
W6-1620-MW36A-20140728		1450	G	Water	X	X				
W6-1620-MW71B-20140728		1600	G	Water	X	X				
W6-1620-MW33BR-20140728		1705	G	Water	X	X				
W6-1620-MW7DB-20140728		1800	G	Water	X	X				
W6-1620-FB-6-20140728		1815	G	Water	X	X				
W6-1620-MW25A-20140729	7-29-14	0745	G	Water	X	X				
W6-1620-MW25C-20140729		0830	G	Water	X	X				
W6-1620-MW34CR-20140729		0930	G	Water	X	X				
W6-1620-MW05-20140729		1040	G	Water	X	X				
W6-1620-MW64A-20140729		1145	G	Water	X	X				

Possible Hazard Identification
 Non-Hazard Flammable Skin Irritant Poison B Unknown Radiological
Deliverable Requested: I, II, III, IV, Other (specify):
Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
 Return To Client Disposal By Lab Archive For _____ Months
Special Instructions/Note:
 600-96330 Chain of Custody

Empty Kit Returned by: Date: _____ Time: _____ Method of Shipment: _____
Reinforced by: Date/Time: 7-30-14 1237 Company: PBW Received by: _____ Date/Time: _____ Company: _____
Reinforced by: Date/Time: _____ Company: _____ Received by: _____ Date/Time: _____ Company: _____
Custody Seals Intact: A Yes A No Custody Seal No.: _____
 Codes: Temperature(s) °C and Other Remarks: _____



TestAmerica Houston

6310 Rothway Street
Houston, TX 77040
Phone (713) 690-4444 Fax (713) 690-5646

Chain of Custody Record



THE LATEST IN VOC/COV/PAH/TAH/TS/AC

Client Information

Client Contact:
Mr. Eric Matzner

Company:
Pastor, Behling & Wheeler LLC

Address:
2201 Double Creek Dr Suite 4004

City:
Round Rock

State, Zip:
TX, 78664

Phone:
512-671-3434(Tel) 512-671-3446(Fax)

Email:
eric.matzner@pbwllc.com

Project Name:
1620 UPRR HWPW

Site:

Sampler: **JOHN BEAYNON**
Phone: **512-671-3434**

Lab #M: **Kudchadkar, Sachin G**
Email: **sachin.kudchadkar@testamericacm.com**

Corner Tracking No(6):

Due Date Requested:

TAT Requested (days):

PO #:
Purchase Order not required

WO #:

Project #:
60003722

SSON#:

Analysis Requested

COC No.:
600-29460-10071.1
Page: **2 of 2**
Job #:

Preservation Codes:

- A - HCL
- B - NaOH
- C - Zn Acetate
- D - Nitric Acid
- E - NaHSO4
- F - MeOH
- G - Amnchlor
- H - Ascorbic Acid
- I - Ice
- J - DI Water
- K - EDTA
- L - BDA
- Other:
- M - Hexane
- N - None
- O - AsH2O2
- P - Na2CO3
- Q - Na2SO3
- R - Na2S2O3
- S - H2SO4
- T - TSP Dodecahydrate
- U - Acetone
- V - MCAA
- W - pH 4.5
- Z - other (specify)

Sample Identification

Sample ID	Sample Date	Sample Time	Sample Type (C=Cont, G=grab, BT=Baseline, AVAL)	Matrix (W=water, S=solid, O=other)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	Analysis Requested	Total Number of Containers	Special Instructions/Note
WG-1620-P11-20140729	7-29-14	1350		Water	X	X			
WG-1620-MW62B-20140729		1455		Water	X	X			
WG-1620-MW57B-20140729		1605		Water	X	X			
WG-1620-MW57A-20140729		1700		Water	X	X			
WG-1620-FB7-20140729		1715		Water	X	X			
WG-1620-MW22A-20140730	7-30-14	0750		Water	X	X			
WG-1620-MW22B-20140730		0845		Water	X	X			
WG-1620-MW59A-20140730		1000		Water	X	X			
WG-1620-MW59B-20140730		1055		Water	X	X			
WG-1620-MW47C-20140730		1200		Water	X	X			

Possible Hazard Identification

Non-Hazard Flammable Skin Irritant Poison B Unknown Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Return To Client Disposal By Lab Archive For _____ Months

Empty Kit Requisitioned by:

Signature: *[Handwritten Signature]*

Date: _____

Time: _____

Method of Shipment: _____

Date/Time: 7-30-14

Company: **PBW**

Received by: _____

Date/Time: 7/30/14

Company: **TA**

Custody Seals Intact: Yes No

Custody Seal No.:

Special Instructions/QC Requirements:

Received by: _____

Company: **TA**

Sample Receipt Checklist

Loc: 600
96330

Date/Time Received: 11 JUL 30 12:37

JOB NUMBER:

CLIENT: PBW

UNPACKED BY: TD

CARRIER/DRIVER: Clint

Custody Seal Present: YES NO

Number of Coolers Received: 5

Cooler ID	Temp Blank	Trip Blank	Observed Temp (°C)	Therm ID	Therm CF	Corrected Temp (°C)
BW	Y / N	Y / N	1.7	549	-0.2	1.5
BW	Y / N	Y / N	2.3	549	-0.2	2.1
BW	Y / N	Y / N	1.9	549	-0.2	1.7
BW	Y / N	Y / N	2.0	549	-0.2	1.8
BW	Y / N	Y / N	2.5	549	-0.2	2.3
	Y / N	Y / N				
	Y / N	Y / N				
	Y / N	Y / N				
	Y / N	Y / N				

CF = correction factor

Samples received on ice? YES NO

LABORATORY PRESERVATION OF SAMPLES REQUIRED: NO YES

Base samples are >pH 12: YES NO Acid preserved are <pH 2: YES NO

pH paper Lot # NA NA - up preserved only of VOA vials

VOA headspace acceptable (5-6mm): YES NO NA

Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?	YES	NO
	<input checked="" type="checkbox"/>	<input type="checkbox"/>

COMMENTS:

Login Sample Receipt Checklist

Client: Pastor, Behling & Wheeler LLC

Job Number: 600-96330-1

Login Number: 96330

List Source: TestAmerica Houston

List Number: 1

Creator: Sundquist, Sean V

Question	Answer	Comment
Radioactivity wasn't checked or is <=/ background as measured by a survey meter.	N/A	Lab does not accept radioactive samples.
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	1.5/2.1/1.7/1.8/2.3
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	Unpreserved and VOA vials
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	True	

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Houston
6310 Rothway Street
Houston, TX 77040
Tel: (713)690-4444

TestAmerica Job ID: 600-97854-1
Client Project/Site: 1620 UPRR HWPW

For:
Pastor, Behling & Wheeler LLC
2201 Double Creek Dr
Suite 4004
Round Rock, Texas 78664

Attn: Mr. Eric Matzner



Authorized for release by:
9/9/2014 11:10:55 AM
Cathy Upton, Project Management Assistant II
(713)690-4444
cathy.upton@testamericainc.com

Designee for
Sachin Kudchadkar, Senior Project Manager
(713)690-4444
sachin.kudchadkar@testamericainc.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.



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www.testamericainc.com

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15
- 16



Table of Contents

Cover Page	1
Table of Contents	2
TRRP Checklists & DCSs	3
Case Narrative	13
Method Summary	14
Sample Summary	15
Client Sample Results	16
Definitions/Glossary	35
Surrogate Summary	36
QC Sample Results	38
Default Detection Limits	49
QC Association Summary	50
Lab Chronicle	53
Certification Summary	57
Chain of Custody	58
Receipt Checklists	61

Appendix A

Laboratory Data Package Cover Page - Page 1 of 4

This data package is for TestAmerica Houston job number 600-97854-1 and consists of:

- R1 - Field chain-of-custody documentation;
- R2 - Sample identification cross-reference;
- R3 - Test reports (analytical data sheets) for each environmental sample that includes:
 - a. Items consistent with NELAC Chapter 5,
 - b. dilution factors,
 - c. preparation methods,
 - d. cleanup methods, and
 - e. if required for the project, tentatively identified compounds (TICs).
- R4 - Surrogate recovery data including:
 - a. Calculated recovery (%R), and
 - b. The laboratory's surrogate QC limits.
- R5 - Test reports/summary forms for blank samples;
- R6 - Test reports/summary forms for laboratory control samples (LCSs) including:
 - a. LCS spiking amounts,
 - b. Calculated %R for each analyte, and
 - c. The laboratory's LCS QC limits.
- R7 - Test reports for project matrix spike/matrix spike duplicates (MS/MSDs) including:
 - a. Samples associated with the MS/MSD clearly identified,
 - b. MS/MSD spiking amounts,
 - c. Concentration of each MS/MSD analyte measured in the parent and spiked samples,
 - d. Calculated %Rs and relative percent differences (RPDs), and
 - e. The laboratory's MS/MSD QC limits
- R8 - Laboratory analytical duplicate (if applicable) recovery and precision:
 - a. The amount of analyte measured in the duplicate,
 - b. The calculated RPD, and
 - c. The laboratory's QC limits for analytical duplicates.
- R9 - List of method quantitation limits (MQLs) and detectability check sample results for each analyte for each method and matrix.
- R10 - Other problems or anomalies.

The Exception Report for each "No" or "Not Reviewed (NR)" item in Laboratory Review Checklist and for each analyte, matrix, and method for which the laboratory does not hold NELAC accreditation under the Texas Laboratory Accreditation Program.

Release Statement: I am responsible for the release of this laboratory data package. This laboratory is NELAC accredited under the Texas Laboratory Accreditation Program for all the methods, analytes, and matrices reported in this data package except as noted in the Exception Reports. The data have been reviewed and are technically compliant with the requirements of the methods used, except where noted by the laboratory in the Exception Reports. By my signature below, I affirm to the best of my knowledge all problems/anomalies observed by the laboratory have been identified in the Laboratory Review Checklist, and no information affecting the quality of the data has been knowingly withheld.

Cathy Upton

Name (printed)



Signature

9/9/2014

Date

Project Management Asst II

Official Title (printed)

Laboratory Review Checklist: Reportable Data - Page 2 of 4

Laboratory Name:	TestAmerica Houston	LRC Date:	9/9/2014
Project Name:	1620 UPRR HWPW	Laboratory Job Number:	600-97854-1
Reviewer Name:	Sachin G Kudchadkar		

# ¹	A ²	Description	Yes	No	NA ³	NR ⁴	ER# ⁵
R1	OI	Chain-of-custody (C-O-C)					
		Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?	X				
		Were all departures from standard conditions described in an exception report?	X				
R2	OI	Sample and quality control (QC) identification					
		Are all field sample ID numbers cross-referenced to the laboratory ID numbers?	X				
		Are all laboratory ID numbers cross-referenced to the corresponding QC data?	X				
R3	OI	Test reports					
		Were all samples prepared and analyzed within holding times?	X				
		Other than those results < MQL, were all other raw values bracketed by calibration standards?	X				
		Were calculations checked by a peer or supervisor?	X				
		Were all analyte identifications checked by a peer or supervisor?	X				
		Were sample detection limits reported for all analytes not detected?	X				
		Were all results for soil and sediment samples reported on a dry weight basis?			X		
		Were % moisture (or solids) reported for all soil and sediment samples?			X		
		Were bulk soils/solids samples for volatile analysis extracted with methanol per SW846 Method 5035?			X		
		If required for the project, are TICs reported?			X		
R4	O	Surrogate recovery data					
		Were surrogates added prior to extraction?	X				
		Were surrogate percent recoveries in all samples within the laboratory QC limits?		X			R04B
R5	OI	Test reports/summary forms for blank samples					
		Were appropriate type(s) of blanks analyzed?	X				
		Were blanks analyzed at the appropriate frequency?	X				
		Were method blanks taken through the entire analytical process, including preparation and, if applicable, cleanup procedures?	X				
		Were blank concentrations < MQL?	X				
R6	OI	Laboratory control samples (LCS):					
		Were all COCs included in the LCS?	X				
		Was each LCS taken through the entire analytical procedure, including prep and cleanup steps?	X				
		Were LCSs analyzed at the required frequency?	X				
		Were LCS (and LCSD, if applicable) %Rs within the laboratory QC limits?	X				
		Does the detectability check sample data document the laboratory's capability to detect the COCs at the MDL used to calculate the SDLs?	X				
		Was the LCSD RPD within QC limits?		X			R06F
R7	OI	Matrix spike (MS) and matrix spike duplicate (MSD) data					
		Were the project/method specified analytes included in the MS and MSD?	X				
		Were MS/MSD analyzed at the appropriate frequency?	X				
		Were MS (and MSD, if applicable) %Rs within the laboratory QC limits?		X			R07C
		Were MS/MSD RPDs within laboratory QC limits?		X			R07D
R8	OI	Analytical duplicate data					
		Were appropriate analytical duplicates analyzed for each matrix?			X		
		Were analytical duplicates analyzed at the appropriate frequency?			X		
		Were RPDs or relative standard deviations within the laboratory QC limits?			X		
R9	OI	Method quantitation limits (MQLs):					
		Are the MQLs for each method analyte included in the laboratory data package?	X				
		Do the MQLs correspond to the concentration of the lowest non-zero calibration standard?	X				
		Are unadjusted MQLs and DCSs included in the laboratory data package?	X				
R10	OI	Other problems/anomalies					
		Are all known problems/anomalies/special conditions noted in this LRC and ER?	X				
		Was applicable and available technology used to lower the SDL to minimize the matrix interference effects on the sample results?		X			R10B
		Is the laboratory NELAC-accredited under the Texas Laboratory Accreditation Program for the analytes, matrices and methods associated with this laboratory data package?	X				

- Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.
- O = organic analyses; I = inorganic analyses (and general chemistry, when applicable);
- NA = Not applicable;
- NR = Not reviewed;
- ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

Laboratory Review checklist: Supporting Data - Page 3 of 4

Laboratory Name:	TestAmerica Houston	LRC Date:	9/9/2014
Project Name:	1620 UPRR HWPW	Laboratory Job Number:	600-97854-1
Reviewer Name:	Sachin G Kudchadkar		

# ¹	A ²	Description	Yes	No	NA ³	NR ⁴	ER# ⁵
S1	OI	Initial calibration (ICAL)					
		Were response factors and/or relative response factors for each analyte within QC limits?	X				
		Were percent RSDs or correlation coefficient criteria met?	X				
		Was the number of standards recommended in the method used for all analytes?	X				
		Were all points generated between the lowest and highest standard used to calculate the curve?	X				
		Are ICAL data available for all instruments used?	X				
		Has the initial calibration curve been verified using an appropriate second source standard?	X				
S2	OI	Initial and continuing calibration verification (ICV and CCV) and continuing calibration blank (CCB):					
		Was the CCV analyzed at the method-required frequency?	X				
		Were percent differences for each analyte within the method-required QC limits?	X				
		Was the ICAL curve verified for each analyte?	X				
		Was the absolute value of the analyte concentration in the inorganic CCB < MDL?			X		
S3	O	Mass spectral tuning					
		Was the appropriate compound for the method used for tuning?	X				
		Were ion abundance data within the method-required QC limits?	X				
S4	O	Internal standards (IS)					
		Were IS area counts and retention times within the method-required QC limits?	X				
S5	OI	Raw data (NELAC Section 5.5.10)					
		Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?	X				
		Were data associated with manual integrations flagged on the raw data?	X				
S6	O	Dual column confirmation					
		Did dual column confirmation results meet the method-required QC?			X		
S7	O	Tentatively identified compounds (TICs)					
		If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?			X		
S8	I	Interference Check Sample (ICS) results					
		Were percent recoveries within method QC limits?			X		
S9	I	Serial dilutions, post digestion spikes, and method of standard additions					
		Were percent differences, recoveries, and the linearity within the QC limits specified in the method?			X		
S10	OI	Method detection limit (MDL) studies					
		Was a MDL study performed for each reported analyte?	X				
		Is the MDL either adjusted or supported by the analysis of DCSS?	X				
S11	OI	Proficiency test reports					
		Was the laboratory's performance acceptable on the applicable proficiency tests or evaluation studies?	X				
S12	OI	Standards documentation					
		Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?	X				
S13	OI	Compound/analyte identification procedures					
		Are the procedures for compound/analyte identification documented?	X				
S14	OI	Demonstration of analyst competency (DOC)					
		Was DOC conducted consistent with NELAC Chapter 5?	X				
		Is documentation of the analyst's competency up-to-date and on file?	X				
S15	OI	Verification/validation documentation for methods (NELAC Chapter 5)					
		Are all the methods used to generate the data documented, verified, and validated, where applicable?	X				
S16	OI	Laboratory standard operating procedures (SOPs)					
		Are laboratory SOPs current and on file for each method performed?	X				
<p>1. Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.</p> <p>2. O = organic analyses; I = inorganic analyses (and general chemistry, when applicable);</p> <p>3. NA = Not applicable;</p> <p>4. NR = Not reviewed;</p> <p>5. ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).</p>							

Laboratory Review Checklist: Exception Reports - Page 4 of 4

Laboratory Name:	TestAmerica Houston	LRC Date:	9/9/2014
Project Name:	1620 UPRR HWPW	Laboratory Job Number:	600-97854-1
Reviewer Name:	Sachin G Kudchadkar		

ER # ¹	Description
R04B	Method 8270C LL: The following sample(s) required a dilution due to the nature of the sample matrix: 600-97854-3, 600-97854-4, 600-97854-12, 600-97854-13, 600-97854-14, and 600-97854-15. Because of this dilution, the surrogate spike concentration in the sample was reduced to a level where the recovery calculation does not provide useful information.
R06F	Method 8260B: The %RPD of the laboratory control sample (LCS) and laboratory control standard duplicate (LCSD) for preparation batch 143386 recovered outside control limits for the following analytes: methylene chloride.
R07C	Method 8260B: 600-97854-1 MS/MSD failed the recovery criteria for the following analyte(s): Methylene Chloride. Matrix interference is suspected.
R07D	Method 8270C LL: 600-97854-1 MSD failed the RPD criteria for the following analyte(s): Bis(2-ethylhexyl) phthalate. Method 8270C LL: 600-97854-5 MSD failed the RPD criteria for the following analyte(s): 4-Nitrophenol, Phenol.
R10B	Method(s) 3510C: Due to the matrix, the following sample(s) could not be concentrated to the final method required volume: 600-97854-12 and 600-97854-15. The reporting limits (RLs) are elevated proportionately. Method 8260B: The following sample(s) was diluted to bring the concentration of target analytes within the calibration range: 600-97854-12, 600-97854-13, 600-97854-14 and 600-97854-15. Elevated reporting limits (RLs) are provided. Method 8270C: The following sample(s) was diluted to bring the concentration of target analytes within the calibration range: 600-97854-2, 600-97854-3, 600-97854-4, 600-97854-12, 600-97854-13, 600-97854-14 and 600-97854-15.. Elevated reporting limits (RLs) are provided.
	<ol style="list-style-type: none"> Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period. O = organic analyses; I = inorganic analyses (and general chemistry, when applicable); NA = Not applicable; NR = Not reviewed; ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

Matrix: Water
Method: 8260B_LL
Prep Method: 5030B
Date Analyzed: 5/9/2014
Job #: 600-91192
TALS Batch: 134175 137900
Units: ug/L

Analyte	Instrument #	MDL	DCS Spike	Measured Result	MQL
1,1,1,2-Tetrachloroethane	CHVOAMS01	0.180	0.500	0.450	1
1,1,1-Trichloroethane	CHVOAMS01	0.150	0.500	0.465	1
1,1,2,2-Tetrachloroethane	CHVOAMS01	0.220	0.500	0.454	1
1,1,2-Trichloro-1,2,2-trifluoroethane	CHVOAMS01	1.000	1.000	0.940	1
1,1,2-Trichloroethane	CHVOAMS01	0.280	0.500	0.535	1
1,1-Dichloroethane	CHVOAMS01	0.110	0.500	0.486	1
1,1-Dichloroethene	CHVOAMS01	0.190	0.500	0.478	1
1,1-Dichloropropene	CHVOAMS01	0.210	0.500	0.379	1
1,2,3-Trichlorobenzene	CHVOAMS01	0.570	1.000	0.517	1
1,2,3-Trichloropropane	CHVOAMS01	0.290	0.500	0.408	1
1,2,3-Trimethylbenzene	CHVOAMS01	0.130	0.500	0.346	1
1,2,4-Trichlorobenzene	CHVOAMS01	0.310	0.500	0.426	1
1,2,4-Trimethylbenzene	CHVOAMS01	0.140	0.500	0.314	1
1,2-Dibromo-3-Chloropropane	CHVOAMS01	0.810	1.000	0.623	1
1,2-Dichlorobenzene	CHVOAMS01	0.1	0.25	0.202634	1
1,2-Dichloroethane	CHVOAMS01	0.140	0.500	0.516	1
1,2-Dichloroethene, Total	CHVOAMS01	0.300	1.000	1.040	1
1,2-Dichloropropane	CHVOAMS01	0.160	0.500	0.462	1
1,3,5-Trichlorobenzene	CHVOAMS01	1.000	1.000	0.849	1
1,3,5-Trimethylbenzene	CHVOAMS01	0.1	0.25	0.247029	1
1,3-Dichlorobenzene	CHVOAMS01	0.130	0.500	0.452	1
1,3-Dichloropropane	CHVOAMS01	0.220	0.500	0.446	1
1,4-Dichlorobenzene	CHVOAMS01	0.11	0.25	0.292531	1
1,4-Dioxane	CHVOAMS01	30.790	20.000	17.769	50
2,2-Dichloropropane	CHVOAMS01	0.130	0.500	0.442	1
2-Butanone (MEK)	CHVOAMS01	0.760	2.000	0.941	2
2-Chloro-1,3-butadiene	CHVOAMS01	0.330	0.500	0.382	1
2-Chloroethyl vinyl ether	CHVOAMS01	0.500	2.000	1.810	2
2-Chlorotoluene	CHVOAMS01	0.130	0.500	0.378	1
2-Hexanone	CHVOAMS01	0.35	0.25	0.749429	2
2-Methyl-2-propanol	CHVOAMS01	10.47	10	10.31	20
2-Nitropropane	CHVOAMS01	1.210	2.000	1.682	1
3-Chloro-1-propene	CHVOAMS01	0.240	0.500	0.417	2
4-Chlorotoluene	CHVOAMS01	0.140	0.500	0.349	1
4-Isopropyltoluene	CHVOAMS01	0.1	0.25	0.156569	1
4-Methyl-2-pentanone (MIBK)	CHVOAMS01	0.45	2	1.644	2
Acetone	CHVOAMS01	0.990	2.000	0.904	5
Acetonitrile	CHVOAMS01	0.27	2.5	11.62444	2
Acrolein	CHVOAMS01	1.630	5.000	3.119	5
Acrylonitrile	CHVOAMS01	0.52	2.5	2.736698	5
Benzene	CHVOAMS01	0.08	0.25	0.348664	1
Benzyl chloride	CHVOAMS01	0.240	0.500	2.258	1
Bromobenzene	CHVOAMS01	0.190	0.500	0.396	1
Bromoform	CHVOAMS01	0.19	0.25	0.400841	1
Bromomethane	CHVOAMS01	0.250	0.500	0.504	2
Butadiene	CHVOAMS01	0.210	0.500	0.514	1

DCS = Detection Check Standard
 MQL = Method Quantitation Limit

Matrix: Water
Method: 8260B_LL
Prep Method: 5030B
Date Analyzed: 5/9/2014
Job #: 600-91192
TALS Batch: 134175 137900
Units: ug/L

Analyte	Instrument #	MDL	DCS Spike	Measured Result	MQL
Carbon disulfide	CHVOAMS01	0.240	0.500	0.413	2
Carbon tetrachloride	CHVOAMS01	0.150	0.500	0.436	1
Chlorobenzene	CHVOAMS01	0.12	0.5	0.482	1
Chlorobromomethane	CHVOAMS01	0.180	0.500	0.495	1
Chlorodibromomethane	CHVOAMS01	0.150	0.500	0.873	1
Chloroethane	CHVOAMS01	0.08	0.25	0.371661	2
Chloroform	CHVOAMS01	0.130	0.500	0.521	1
Chloromethane	CHVOAMS01	0.180	0.500	0.662	2
cis-1,2-Dichloroethene	CHVOAMS01	0.06	0.25	0.428914	1
cis-1,3-Dichloropropene	CHVOAMS01	0.180	0.500	0.376	1
Cyclohexane	CHVOAMS01	0.160	0.500	0.343	1
Cyclohexanone	CHVOAMS01	8.640	25.000	19.268	50
Dibromomethane	CHVOAMS01	0.520	1.000	1.014	1
Dichlorobromomethane	CHVOAMS01	0.160	0.500	0.417	1
Dichlorodifluoromethane	CHVOAMS01	0.12	0.25	0.541871	1
Dichlorofluoromethane	CHVOAMS01	1.000	1.000	1.065	1
Ethanol	CHVOAMS01	1	5	18.17191	1
Ethyl acetate	CHVOAMS01	0.41	0.5	0.558144	2
Ethyl acrylate	CHVOAMS01	0.340	1.000	0.874	2
Ethyl ether	CHVOAMS01	0.150	0.500	0.414	1
Ethyl methacrylate	CHVOAMS01	0.260	0.500	0.587	2
Ethylbenzene	CHVOAMS01	0.110	0.500	0.387	1
Ethylene Dibromide	CHVOAMS01	0.180	0.500	0.417	1
Hexachlorobutadiene	CHVOAMS01	0.170	0.500	0.485	1
Hexane	CHVOAMS01	0.160	0.500	0.359	1
Iodomethane	CHVOAMS01	0.158	0.500	0.692	2
Isobutyl alcohol	CHVOAMS01	3.320	12.500	12.568	10
Isooctane	CHVOAMS01	0.330	0.500	0.387	1
Isopropyl alcohol	CHVOAMS01	3.720	5.000	2.688	10
Isopropyl ether	CHVOAMS01	0.09	0.5	0.396746293	1
Isopropylbenzene	CHVOAMS01	0.180	0.500	0.322	1
Methacrylonitrile	CHVOAMS01	0.41	2.5	2.794871	2
Methyl acetate	CHVOAMS01	0.55	2.5	2.286	2
Methyl methacrylate	CHVOAMS01	0.330	1.000	0.763	1
Methyl tert-butyl ether	CHVOAMS01	0.12	0.5	0.422	1
Methylcyclohexane	CHVOAMS01	0.01	0.5	0.32596447	1
Methylene Chloride	CHVOAMS01	0.15	0.25	3.247659	5
m-Xylene & p-Xylene	CHVOAMS01	0.170	0.500	0.356	1
Naphthalene	CHVOAMS01	0.320	0.500	1.362	2
n-Butyl acetate	CHVOAMS01	0.190	0.500	1.114	1
n-Butylbenzene	CHVOAMS01	0.160	0.500	0.335	1
n-Heptane	CHVOAMS01	1.000	1.000	0.749	1
N-Propylbenzene	CHVOAMS01	0.150	0.500	0.301	1
o-Xylene	CHVOAMS01	0.12	0.5	0.43	1
Pentachloroethane	CHVOAMS01	1.000	1.000	0.950	1
Propionitrile	CHVOAMS01	0.66	10	8.329	2

DCS = Detection Check Standard
 MQL = Method Quantitation Limit

Matrix: Water
Method: 8260B_LL
Prep Method: 5030B
Date Analyzed: 5/9/2014
Job #: 600-91192
TALS Batch: 134175 137900
Units: ug/L

Analyte	Instrument #	MDL	DCS Spike	Measured Result	MQL
sec-Butylbenzene	CHVOAMS01	0.12	0.5	0.651	1
Styrene	CHVOAMS01	0.07	0.25	0.147965	1
Tert-amyl methyl ether	CHVOAMS01	1.000	1.000	0.800	1
Tert-butyl ethyl ether	CHVOAMS01	1.000	1.000	0.852	1
tert-Butylbenzene	CHVOAMS01	0.08	0.25	0.091902	1
Tetrachloroethene	CHVOAMS01	0.130	0.500	0.470	1
Tetrahydrofuran	CHVOAMS01	1.080	2.000	1.165	5
Toluene	CHVOAMS01	0.150	0.500	0.395	1
trans-1,2-Dichloroethene	CHVOAMS01	0.09	0.5	0.4823	1
trans-1,3-Dichloropropene	CHVOAMS01	0.210	0.500	0.359	1
trans-1,4-Dichloro-2-butene	CHVOAMS01	0.640	1.000	1.345	2
Trichloroethene	CHVOAMS01	0.180	0.500	0.481	1
Trichlorofluoromethane	CHVOAMS01	0.08	0.25	0.24947	1
Trihalomethanes, Total	CHVOAMS01	1.000	2.000	1.810	5
Vinyl acetate	CHVOAMS01	0.21	2	1.459	2
Vinyl chloride	CHVOAMS01	0.110	0.500	0.482	2
Xylenes, Total	CHVOAMS01	0.260	1.000	0.710	1

Matrix: Water
Method: 8270C_LL
Prep Method: 3510C_LVI
Date Analyzed: 5/12/2014
Job #: 600-91570
TALS Batch: 134203 139341
Units: ug/L

Analyte	Instrument #	MDL	DCS Spike	Measured Result	MLQ
1,1'-Biphenyl	CHSVMS08	0.730	0.800	0.367	1.5
1,2,4,5-Tetrachlorobenzene	CHSVMS08	0.860	2.000	0.630	2.0
1,2,4-Trichlorobenzene	CHSVMS08	0.160	0.800	0.342	2.0
1,2-Dichlorobenzene	CHSVMS08	0.210	0.800	0.381	1.8
1,2-Dinitrobenzene	CHSVMS08	0.280	0.800	0.456	2.0
1,2-Diphenylhydrazine	CHSVMS08	0.380	0.800	0.391	2.0
1,3,5-Trinitrobenzene	CHSVMS08	0.610	0.800	1.283	1.0
1,3-Dichlorobenzene	CHSVMS08	0.100	0.800	0.335	1.5
1,3-Dinitrobenzene	CHSVMS08	0.270	0.800	0.490	1.0
1,4-Dichlorobenzene	CHSVMS08	0.160	0.800	0.358	2.0
1,4-Dinitrobenzene	CHSVMS08	0.120	0.800	1.318	1.5
1,4-Naphthoquinone	CHSVMS08	0.450	2.000	0.182	1.5
1-Methylnaphthalene	CHSVMS08	0.190	0.800	0.344	2.0
1-Naphthylamine	CHSVMS08	0.700	0.800	0.250	2.0
2,2'-oxybis[1-chloropropane]	CHSVMS08	0.180	0.800	0.331	1.0
2,3,4,6-Tetrachlorophenol	CHSVMS08	0.220	0.800	0.437	1.0
2,3,5,6-Tetrachlorophenol	CHSVMS08	0.220	0.800	0.454	2.5
2,4,5-Trichlorophenol	CHSVMS08	0.290	0.800	0.337	2.0
2,4,6-Trichlorophenol	CHSVMS08	0.330	0.800	0.305	2.0
2,4-Dichlorophenol	CHSVMS08	0.260	0.800	0.256	2.5
2,4-Dimethylphenol	CHSVMS08	0.180	0.800	0.317	2.5
2,4-Dinitrophenol	CHSVMS08	0.400	1.600	1.332	5.0
2,4-Dinitrotoluene	CHSVMS08	0.320	0.800	0.431	1.5
2,6-Dichlorophenol	CHSVMS08	2.210	0.400	0.181	5.0
2,6-Dinitrotoluene	CHSVMS08	0.290	0.800	0.482	1.0
2-Acetylaminofluorene	CHSVMS08	0.710	0.800	0.839	2.0
2-Chloronaphthalene	CHSVMS08	0.190	0.800	0.325	1.5
2-Chlorophenol	CHSVMS08	0.220	0.800	0.306	2.0
2-Methylnaphthalene	CHSVMS08	0.140	0.800	0.341	1.5
2-Methylphenol	CHSVMS08	0.190	0.800	0.283	1.5
2-Naphthylamine	CHSVMS08	1.390	2.000	0.320	1.0
2-Nitroaniline	CHSVMS08	0.350	0.800	0.449	2.5
2-Nitrophenol	CHSVMS08	0.220	0.800	0.301	1.0
2-Picoline	CHSVMS08	0.910	2.000	0.023	1.5
2-Toluidine	CHSVMS08	1.940	2.000	0.959	5.0
3 & 4 Methylphenol	CHSVMS08	0.160	0.800	0.287	1.0
3,3'-Dichlorobenzidine	CHSVMS08	0.180	0.125	0.064	5.0
3,3'-Dimethylbenzidine	CHSVMS08	0.320	0.125	0.064	2.0
3-Methylcholanthrene	CHSVMS08	0.680	0.800	0.661	2.0
3-Nitroaniline	CHSVMS08	0.130	0.800	0.351	2.0
4,6-Dinitro-2-methylphenol	CHSVMS08	0.160	1.600	0.995	2.0
4-Aminobiphenyl	CHSVMS08	1.530	2.000	0.405	10.0
4-Bromophenyl phenyl ether	CHSVMS08	0.250	0.800	0.370	1.5
4-Chloro-3-methylphenol	CHSVMS08	0.250	0.800	0.329	1.0
4-Chloroaniline	CHSVMS08	0.110	0.125	0.039	1.0
4-Chlorophenyl phenyl ether	CHSVMS08	0.230	0.800	0.309	1.5

DCS = Detection Check Standard
 MLQ = Method Quantitation Limit

Matrix: Water
Method: 8270C_LL
Prep Method: 3510C_LVI
Date Analyzed: 5/12/2014
Job #: 600-91570
TALS Batch: 134203 139341
Units: ug/L

Analyte	Instrument #	MDL	DCS Spike	Measured Result	MLQ
4-Nitroaniline	CHSVMS08	0.230	0.800	0.334	2.5
4-Nitrophenol	CHSVMS08	0.330	1.600	0.804	2.5
6-Methylchrysene	CHSVMS08	1.000	2.000	1.795	2.0
7,12-Dimethylbenz(a)anthracene	CHSVMS08	0.590	0.800	0.273	2.0
Acenaphthene	CHSVMS08	0.160	0.800	0.363	1.0
Acenaphthylene	CHSVMS08	0.160	0.800	0.365	1.0
Acetophenone	CHSVMS08	0.680	0.800	0.355	1.5
Aniline	CHSVMS08	0.120	0.125	0.017	1.5
Anthracene	CHSVMS08	0.440	0.800	0.332	1.5
Atrazine	CHSVMS08	0.750	0.125	0.053	1.5
Azobenzene	CHSVMS08	0.110	0.125	0.062	1.5
Benzaldehyde	CHSVMS08	0.830	2.000	2.145	1.5
Benzo[a]anthracene	CHSVMS08	0.250	0.800	0.372	2.0
Benzo[a]pyrene	CHSVMS08	0.130	0.125	0.064	1.5
Benzo[b]fluoranthene	CHSVMS08	0.180	0.800	0.278	2.0
Benzo[g,h,i]perylene	CHSVMS08	0.350	0.800	0.378	2.5
Benzo[k]fluoranthene	CHSVMS08	0.160	0.800	0.331	2.0
Benzoic acid	CHSVMS08	0.610	1.600	2.163	5.0
Benzyl alcohol	CHSVMS08	0.510	0.800	0.310	2.0
Bis(2-chloroethoxy)methane	CHSVMS08	0.190	0.800	0.271	1.5
Bis(2-chloroethyl)ether	CHSVMS08	0.180	0.800	0.315	1.5
Bis(2-ethylhexyl) phthalate	CHSVMS08	0.590	0.800	0.348	2.5
Butyl benzyl phthalate	CHSVMS08	0.850	2.000	0.754	2.5
Caprolactam	CHSVMS08	0.400	0.800	0.130	1.0
Carbazole	CHSVMS08	0.350	0.800	0.337	5.0
Chlorobenzilate	CHSVMS08	1.130	2.000	1.858	2.5
Chrysene	CHSVMS08	0.240	0.800	0.386	1.5
Dibenz(a,h)anthracene	CHSVMS08	0.290	0.800	0.434	2.5
Dibenz[a,h]acridine	CHSVMS08	2.680	0.400	0.544	5.0
Dibenz[a,j]acridine	CHSVMS08	2.680	0.400	0.473	1.0
Dibenzofuran	CHSVMS08	0.160	0.800	0.352	1.5
Diethyl phthalate	CHSVMS08	4.190	0.800	0.536	5.0
Dimethoate	CHSVMS08	0.640	0.800	0.837	1.5
Dimethyl phthalate	CHSVMS08	0.180	0.800	0.369	2.5
Di-n-butyl phthalate	CHSVMS08	1.870	2.000	0.786	5.0
Di-n-octyl phthalate	CHSVMS08	0.160	0.800	0.491	5.0
Diphenylamine	CHSVMS08	2.010	2.800	1.081	2.0
Disulfoton	CHSVMS08	0.740	0.800	0.681	0.5
Ethyl methanesulfonate	CHSVMS08	0.520	0.800	0.653	1.5
Ethyl Parathion	CHSVMS08	0.660	0.800	0.856	2.0
Fluoranthene	CHSVMS08	0.310	0.800	0.345	2.5
Fluorene	CHSVMS08	0.120	0.125	0.069	1.5
Hexachlorobenzene	CHSVMS08	0.250	0.800	0.361	1.5
Hexachlorobutadiene	CHSVMS08	0.190	0.800	0.323	2.0
Hexachlorocyclopentadiene	CHSVMS08	0.150	0.800	0.427	1.5
Hexachloroethane	CHSVMS08	0.170	0.800	0.341	2.0

DCS = Detection Check Standard
 MLQ = Method Quantitation Limit

Matrix: Water
Method: 8270C_LL
Prep Method: 3510C_LVI
Date Analyzed: 5/12/2014
Job #: 600-91570
TALS Batch: 134203 139341
Units: ug/L

Analyte	Instrument #	MDL	DCS Spike	Measured Result	MLQ
Hexachloropropene	CHSVMS08	0.710	0.800	0.678	10.0
Indene	CHSVMS08	0.500	0.800	0.239	2.0
Indeno[1,2,3-cd]pyrene	CHSVMS08	0.290	0.800	0.447	2.0
Isodrin	CHSVMS08	0.630	0.800	0.676	2.0
Isophorone	CHSVMS08	0.150	0.125	0.059	1.5
Methyl methanesulfonate	CHSVMS08	0.210	0.400	0.219	1.5
Methyl parathion	CHSVMS08	0.750	0.800	0.691	2.0
Methyl Phenols, Total	CHSVMS08	0.500	1.600	0.570	2.0
Naphthalene	CHSVMS08	0.160	0.800	0.385	2.0
Nitrobenzene	CHSVMS08	0.200	0.800	0.317	1.5
N-Nitro-o-toluidine	CHSVMS08	0.450	0.800	0.559	10.0
N-Nitrosodiethylamine	CHSVMS08	0.580	0.800	0.618	1.5
N-Nitrosodimethylamine	CHSVMS08	0.160	0.800	0.296	2.0
N-Nitrosodi-n-butylamine	CHSVMS08	2.150	0.400	0.222	2.0
N-Nitrosodi-n-propylamine	CHSVMS08	0.240	0.800	0.328	2.5
N-Nitrosodiphenylamine	CHSVMS08	0.330	0.800	0.359	1.5
N-Nitrosomethylethylamine	CHSVMS08	0.530	0.800	0.706	1.0
N-Nitrosomorpholine	CHSVMS08	0.530	0.800	0.532	5.0
N-Nitrosopiperidine	CHSVMS08	0.480	0.800	0.660	1.5
N-Nitrosopyrrolidine	CHSVMS08	0.430	0.800	0.601	1.0
o,o',o''-Triethylphosphorothioate	CHSVMS08	0.650	0.800	0.685	5.0
p-Dimethylamino azobenzene	CHSVMS08	2.180	0.400	0.209	5.0
Pentachlorobenzene	CHSVMS08	0.860	2.000	1.666	1.5
Pentachloroethane	CHSVMS08	0.770	0.800	0.702	1.5
Pentachloronitrobenzene	CHSVMS08	0.950	2.000	1.653	2.0
Pentachlorophenol	CHSVMS08	0.960	1.600	0.811	2.5
Phenacetin	CHSVMS08	0.710	0.800	0.688	1.5
Phenanthrene	CHSVMS08	0.290	0.800	0.391	1.5
Phenol	CHSVMS08	0.140	0.125	0.048	1.5
Phorate	CHSVMS08	0.860	2.000	1.641	1.5
Pronamide	CHSVMS08	0.790	0.800	0.658	2.0
Pyrene	CHSVMS08	0.330	0.800	0.345	2.0
Pyridine	CHSVMS08	0.240	2.000	0.045	4.0
Quinoline	CHSVMS08	1.000	2.000	0.867	2.0
Safrole, Total	CHSVMS08	0.800	0.800	0.656	2.0
Thionazin	CHSVMS08	0.550	0.800	0.556	1.5
Total Cresols, TCEQ Definition	CHSVMS08	0.500	3.200	1.62	2.0

Case Narrative

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-97854-1

Job ID: 600-97854-1

Laboratory: TestAmerica Houston

Narrative

Job Narrative
600-97854-1

Comments

No additional comments.

Receipt

The samples were received on 8/29/2014 9:05 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 4 coolers at receipt time were 0.8° C, 1.1° C, 1.3° C and 3.9° C.

- 1
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- 4
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Method Summary

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-97854-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL HOU
8270C LL	Semivolatile Organic Compounds by GCMS - Low Levels	SW846	TAL HOU

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL HOU = TestAmerica Houston, 6310 Rothway Street, Houston, TX 77040, TEL (713)690-4444



Sample Summary

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-97854-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
600-97854-1	WG-1620-MW61A-20140828	Water	08/28/14 10:45	08/29/14 09:05
600-97854-2	WG-1620-MW44A-20140828	Water	08/28/14 12:10	08/29/14 09:05
600-97854-3	WG-1620-MW33A-20140828	Water	08/28/14 13:00	08/29/14 09:05
600-97854-4	WG-1620-MWDUP A-20140828	Water	08/28/14 13:10	08/29/14 09:05
600-97854-5	WG-1620-MW65D-20140828	Water	08/28/14 12:17	08/29/14 09:05
600-97854-6	WG-1620-MW66D-20140828	Water	08/28/14 10:53	08/29/14 09:05
600-97854-7	WG-1620-MW36D-20140828	Water	08/28/14 14:12	08/29/14 09:05
600-97854-8	WG-1620-MW59D-20140828	Water	08/28/14 16:43	08/29/14 09:05
600-97854-9	WG-1620-DUPD-20140828	Water	08/28/14 16:48	08/29/14 09:05
600-97854-10	WG-1620-MW80B-20140828	Water	08/28/14 08:10	08/29/14 09:05
600-97854-11	WG-1620-MW50A-20140828	Water	08/28/14 09:05	08/29/14 09:05
600-97854-12	WG-1620-MW74B-20140828	Water	08/28/14 10:30	08/29/14 09:05
600-97854-13	WG-1620-MW79A-20140828	Water	08/28/14 11:25	08/29/14 09:05
600-97854-14	WG-1620-MW58A-20140828	Water	08/28/14 12:30	08/29/14 09:05
600-97854-15	WG-1620-MW23C-20140828	Water	08/28/14 13:35	08/29/14 09:05

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-97854-1

Client Sample ID: WG-1620-MW61A-20140828

Lab Sample ID: 600-97854-1

Date Collected: 08/28/14 10:45

Matrix: Water

Date Received: 08/29/14 09:05

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	0.000110	U	0.00200	0.000110	mg/L			09/04/14 13:06	1
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			09/04/14 13:06	1
Benzene	0.0000800	U	0.00100	0.0000800	mg/L			09/04/14 13:06	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			09/04/14 13:06	1
Toluene	0.000150	U	0.00100	0.000150	mg/L			09/04/14 13:06	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			09/04/14 13:06	1
Ethylbenzene	0.000110	U	0.00100	0.000110	mg/L			09/04/14 13:06	1
Xylenes, Total	0.000260	U	0.00300	0.000260	mg/L			09/04/14 13:06	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	102		67 - 139					09/04/14 13:06	1
Dibromofluoromethane	70		62 - 130					09/04/14 13:06	1
Toluene-d8 (Surr)	95		70 - 130					09/04/14 13:06	1
1,2-Dichloroethane-d4 (Surr)	75		50 - 134					09/04/14 13:06	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.0000400	U	0.000500	0.0000400	mg/L		09/03/14 10:15	09/05/14 21:58	1
Nitrobenzene	0.000110	U	0.000500	0.000110	mg/L		09/03/14 10:15	09/05/14 21:58	1
2,4-Dimethylphenol	0.000310	U	0.000500	0.000310	mg/L		09/03/14 10:15	09/05/14 21:58	1
Bis(2-chloroethoxy)methane	0.000130	U	0.000500	0.000130	mg/L		09/03/14 10:15	09/05/14 21:58	1
Naphthalene	0.0000800	U	0.000500	0.0000800	mg/L		09/03/14 10:15	09/05/14 21:58	1
2-Methylnaphthalene	0.0000700	U	0.000500	0.0000700	mg/L		09/03/14 10:15	09/05/14 21:58	1
2-Chloronaphthalene	0.0000800	U	0.000500	0.0000800	mg/L		09/03/14 10:15	09/05/14 21:58	1
Acenaphthylene	0.0000600	U	0.000500	0.0000600	mg/L		09/03/14 10:15	09/05/14 21:58	1
2,6-Dinitrotoluene	0.0000800	U	0.000500	0.0000800	mg/L		09/03/14 10:15	09/05/14 21:58	1
Acenaphthene	0.0000800	U	0.000500	0.0000800	mg/L		09/03/14 10:15	09/05/14 21:58	1
4-Nitrophenol	0.000560	U	0.00100	0.000560	mg/L		09/03/14 10:15	09/05/14 21:58	1
Dibenzofuran	0.0000800	U	0.000500	0.0000800	mg/L		09/03/14 10:15	09/05/14 21:58	1
2,4-Dinitrotoluene	0.000130	U	0.000500	0.000130	mg/L		09/03/14 10:15	09/05/14 21:58	1
Fluorene	0.0000700	U	0.000500	0.0000700	mg/L		09/03/14 10:15	09/05/14 21:58	1
4,6-Dinitro-2-methylphenol	0.000830	U	0.00100	0.000830	mg/L		09/03/14 10:15	09/05/14 21:58	1
N-Nitrosodiphenylamine	0.000100	U	0.000500	0.000100	mg/L		09/03/14 10:15	09/05/14 21:58	1
1,2-Diphenylhydrazine	0.000110	U	0.000500	0.000110	mg/L		09/03/14 10:15	09/05/14 21:58	1
Pentachlorophenol	0.000610	U	0.00100	0.000610	mg/L		09/03/14 10:15	09/05/14 21:58	1
Phenanthrene	0.0000600	U	0.000500	0.0000600	mg/L		09/03/14 10:15	09/05/14 21:58	1
Anthracene	0.0000500	U	0.000500	0.0000500	mg/L		09/03/14 10:15	09/05/14 21:58	1
Di-n-butyl phthalate	0.000110	U	0.000500	0.000110	mg/L		09/03/14 10:15	09/05/14 21:58	1
Fluoranthene	0.0000700	U	0.000500	0.0000700	mg/L		09/03/14 10:15	09/05/14 21:58	1
Pyrene	0.000110	U	0.000500	0.000110	mg/L		09/03/14 10:15	09/05/14 21:58	1
Benzo[a]anthracene	0.0000800	U	0.000500	0.0000800	mg/L		09/03/14 10:15	09/05/14 21:58	1
Bis(2-ethylhexyl) phthalate	0.000536		0.000500	0.000370	mg/L		09/03/14 10:15	09/05/14 21:58	1
Chrysene	0.0000800	U	0.000500	0.0000800	mg/L		09/03/14 10:15	09/05/14 21:58	1
Benzo[a]pyrene	0.0000800	U	0.000500	0.0000800	mg/L		09/03/14 10:15	09/05/14 21:58	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	81		10 - 147				09/03/14 10:15	09/05/14 21:58	1
2-Fluorobiphenyl	81		10 - 150				09/03/14 10:15	09/05/14 21:58	1
2-Fluorophenol	41		10 - 130				09/03/14 10:15	09/05/14 21:58	1
Nitrobenzene-d5	72		23 - 130				09/03/14 10:15	09/05/14 21:58	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-97854-1

Client Sample ID: WG-1620-MW61A-20140828

Lab Sample ID: 600-97854-1

Date Collected: 08/28/14 10:45

Matrix: Water

Date Received: 08/29/14 09:05

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Terphenyl-d14	83		42 - 133	09/03/14 10:15	09/05/14 21:58	1
Phenol-d5 (Surr)	26		10 - 130	09/03/14 10:15	09/05/14 21:58	1

Client Sample ID: WG-1620-MW44A-20140828

Lab Sample ID: 600-97854-2

Date Collected: 08/28/14 12:10

Matrix: Water

Date Received: 08/29/14 09:05

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	0.000110	U	0.00200	0.000110	mg/L			09/04/14 16:08	1
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			09/04/14 16:08	1
Benzene	0.00420		0.00100	0.0000800	mg/L			09/04/14 16:08	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			09/04/14 16:08	1
Toluene	0.000329	J	0.00100	0.000150	mg/L			09/04/14 16:08	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			09/04/14 16:08	1
Ethylbenzene	0.000344	J	0.00100	0.000110	mg/L			09/04/14 16:08	1
Xylenes, Total	0.00561		0.00300	0.000260	mg/L			09/04/14 16:08	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	98		67 - 139		09/04/14 16:08	1
Dibromofluoromethane	72		62 - 130		09/04/14 16:08	1
Toluene-d8 (Surr)	94		70 - 130		09/04/14 16:08	1
1,2-Dichloroethane-d4 (Surr)	78		50 - 134		09/04/14 16:08	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.0000392	U	0.000490	0.0000392	mg/L		09/03/14 10:15	09/06/14 00:41	1
Nitrobenzene	0.00120		0.000490	0.000108	mg/L		09/03/14 10:15	09/06/14 00:41	1
2,4-Dimethylphenol	0.000304	U	0.000490	0.000304	mg/L		09/03/14 10:15	09/06/14 00:41	1
Bis(2-chloroethoxy)methane	0.000140	J	0.000490	0.000127	mg/L		09/03/14 10:15	09/06/14 00:41	1
Naphthalene	0.0163		0.000490	0.0000784	mg/L		09/03/14 10:15	09/06/14 00:41	1
2-Methylnaphthalene	0.00902		0.000490	0.0000686	mg/L		09/03/14 10:15	09/06/14 00:41	1
2-Chloronaphthalene	0.0000784	U	0.000490	0.0000784	mg/L		09/03/14 10:15	09/06/14 00:41	1
Acenaphthylene	0.00140		0.000490	0.0000588	mg/L		09/03/14 10:15	09/06/14 00:41	1
2,6-Dinitrotoluene	0.0000784	U	0.000490	0.0000784	mg/L		09/03/14 10:15	09/06/14 00:41	1
4-Nitrophenol	0.000549	U	0.000980	0.000549	mg/L		09/03/14 10:15	09/06/14 00:41	1
Dibenzofuran	0.0159		0.000490	0.0000784	mg/L		09/03/14 10:15	09/06/14 00:41	1
2,4-Dinitrotoluene	0.000127	U	0.000490	0.000127	mg/L		09/03/14 10:15	09/06/14 00:41	1
4,6-Dinitro-2-methylphenol	0.000814	U	0.000980	0.000814	mg/L		09/03/14 10:15	09/06/14 00:41	1
N-Nitrosodiphenylamine	0.0000980	U	0.000490	0.0000980	mg/L		09/03/14 10:15	09/06/14 00:41	1
1,2-Diphenylhydrazine	0.000108	U	0.000490	0.000108	mg/L		09/03/14 10:15	09/06/14 00:41	1
Pentachlorophenol	0.000598	U	0.000980	0.000598	mg/L		09/03/14 10:15	09/06/14 00:41	1
Phenanthrene	0.0217		0.000490	0.0000588	mg/L		09/03/14 10:15	09/06/14 00:41	1
Anthracene	0.00868		0.000490	0.0000490	mg/L		09/03/14 10:15	09/06/14 00:41	1
Di-n-butyl phthalate	0.000108	U	0.000490	0.000108	mg/L		09/03/14 10:15	09/06/14 00:41	1
Fluoranthene	0.00749		0.000490	0.0000686	mg/L		09/03/14 10:15	09/06/14 00:41	1
Pyrene	0.00410		0.000490	0.000108	mg/L		09/03/14 10:15	09/06/14 00:41	1
Benzo[a]anthracene	0.0000784	U	0.000490	0.0000784	mg/L		09/03/14 10:15	09/06/14 00:41	1
Bis(2-ethylhexyl) phthalate	0.000363	U	0.000490	0.000363	mg/L		09/03/14 10:15	09/06/14 00:41	1
Chrysene	0.0000784	U	0.000490	0.0000784	mg/L		09/03/14 10:15	09/06/14 00:41	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-97854-1

Client Sample ID: WG-1620-MW44A-20140828

Lab Sample ID: 600-97854-2

Date Collected: 08/28/14 12:10

Matrix: Water

Date Received: 08/29/14 09:05

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]pyrene	0.0000784	U	0.000490	0.0000784	mg/L		09/03/14 10:15	09/06/14 00:41	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	88		10 - 147				09/03/14 10:15	09/06/14 00:41	1
2-Fluorobiphenyl	80		10 - 150				09/03/14 10:15	09/06/14 00:41	1
2-Fluorophenol	37		10 - 130				09/03/14 10:15	09/06/14 00:41	1
Nitrobenzene-d5	68		23 - 130				09/03/14 10:15	09/06/14 00:41	1
Terphenyl-d14	87		42 - 133				09/03/14 10:15	09/06/14 00:41	1
Phenol-d5 (Surr)	23		10 - 130				09/03/14 10:15	09/06/14 00:41	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels - DL

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	0.197		0.00490	0.000784	mg/L		09/03/14 10:15	09/08/14 14:36	10
Fluorene	0.0987		0.00490	0.000686	mg/L		09/03/14 10:15	09/08/14 14:36	10
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	56		10 - 147				09/03/14 10:15	09/08/14 14:36	10
2-Fluorobiphenyl	72		10 - 150				09/03/14 10:15	09/08/14 14:36	10
2-Fluorophenol	24		10 - 130				09/03/14 10:15	09/08/14 14:36	10
Nitrobenzene-d5	58		23 - 130				09/03/14 10:15	09/08/14 14:36	10
Terphenyl-d14	75		42 - 133				09/03/14 10:15	09/08/14 14:36	10
Phenol-d5 (Surr)	14		10 - 130				09/03/14 10:15	09/08/14 14:36	10

Client Sample ID: WG-1620-MW33A-20140828

Lab Sample ID: 600-97854-3

Date Collected: 08/28/14 13:00

Matrix: Water

Date Received: 08/29/14 09:05

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			09/04/14 14:49	1
Benzene	0.00236		0.00100	0.0000800	mg/L			09/04/14 14:49	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			09/04/14 14:49	1
Toluene	0.000150	U	0.00100	0.000150	mg/L			09/04/14 14:49	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			09/04/14 14:49	1
Ethylbenzene	0.00140		0.00100	0.000110	mg/L			09/04/14 14:49	1
Xylenes, Total	0.000632	J	0.00300	0.000260	mg/L			09/04/14 14:49	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	101		67 - 139					09/04/14 14:49	1
Dibromofluoromethane	71		62 - 130					09/04/14 14:49	1
Toluene-d8 (Surr)	95		70 - 130					09/04/14 14:49	1
1,2-Dichloroethane-d4 (Surr)	76		50 - 134					09/04/14 14:49	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.0000392	U	0.000490	0.0000392	mg/L		09/03/14 10:15	09/06/14 01:08	1
Nitrobenzene	0.000108	U	0.000490	0.000108	mg/L		09/03/14 10:15	09/06/14 01:08	1
Bis(2-chloroethoxy)methane	0.000127	U	0.000490	0.000127	mg/L		09/03/14 10:15	09/06/14 01:08	1
2-Chloronaphthalene	0.0000784	U	0.000490	0.0000784	mg/L		09/03/14 10:15	09/06/14 01:08	1
Acenaphthylene	0.000410	J	0.000490	0.0000588	mg/L		09/03/14 10:15	09/06/14 01:08	1
2,6-Dinitrotoluene	0.0000784	U	0.000490	0.0000784	mg/L		09/03/14 10:15	09/06/14 01:08	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-97854-1

Client Sample ID: WG-1620-MW33A-20140828

Lab Sample ID: 600-97854-3

Date Collected: 08/28/14 13:00

Matrix: Water

Date Received: 08/29/14 09:05

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Nitrophenol	0.000549	U	0.000980	0.000549	mg/L		09/03/14 10:15	09/06/14 01:08	1
Dibenzofuran	0.0164		0.000490	0.0000784	mg/L		09/03/14 10:15	09/06/14 01:08	1
2,4-Dinitrotoluene	0.000127	U	0.000490	0.000127	mg/L		09/03/14 10:15	09/06/14 01:08	1
Fluorene	0.0146		0.000490	0.0000686	mg/L		09/03/14 10:15	09/06/14 01:08	1
4,6-Dinitro-2-methylphenol	0.000814	U	0.000980	0.000814	mg/L		09/03/14 10:15	09/06/14 01:08	1
N-Nitrosodiphenylamine	0.0000980	U	0.000490	0.0000980	mg/L		09/03/14 10:15	09/06/14 01:08	1
1,2-Diphenylhydrazine	0.000108	U	0.000490	0.000108	mg/L		09/03/14 10:15	09/06/14 01:08	1
Pentachlorophenol	0.000598	U	0.000980	0.000598	mg/L		09/03/14 10:15	09/06/14 01:08	1
Phenanthrene	0.00427		0.000490	0.0000588	mg/L		09/03/14 10:15	09/06/14 01:08	1
Anthracene	0.00132		0.000490	0.0000490	mg/L		09/03/14 10:15	09/06/14 01:08	1
Di-n-butyl phthalate	0.000108	U	0.000490	0.000108	mg/L		09/03/14 10:15	09/06/14 01:08	1
Fluoranthene	0.00395		0.000490	0.0000686	mg/L		09/03/14 10:15	09/06/14 01:08	1
Pyrene	0.00430		0.000490	0.000108	mg/L		09/03/14 10:15	09/06/14 01:08	1
Benzo[a]anthracene	0.000288	J	0.000490	0.0000784	mg/L		09/03/14 10:15	09/06/14 01:08	1
Bis(2-ethylhexyl) phthalate	0.000363	U	0.000490	0.000363	mg/L		09/03/14 10:15	09/06/14 01:08	1
Chrysene	0.000168	J	0.000490	0.0000784	mg/L		09/03/14 10:15	09/06/14 01:08	1
Benzo[a]pyrene	0.0000784	U	0.000490	0.0000784	mg/L		09/03/14 10:15	09/06/14 01:08	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	90		10 - 147				09/03/14 10:15	09/06/14 01:08	1
2-Fluorobiphenyl	76		10 - 150				09/03/14 10:15	09/06/14 01:08	1
2-Fluorophenol	41		10 - 130				09/03/14 10:15	09/06/14 01:08	1
Nitrobenzene-d5	107		23 - 130				09/03/14 10:15	09/06/14 01:08	1
Terphenyl-d14	88		42 - 133				09/03/14 10:15	09/06/14 01:08	1
Phenol-d5 (Surr)	23		10 - 130				09/03/14 10:15	09/06/14 01:08	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels - DL

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-Dimethylphenol	0.0212		0.00980	0.00608	mg/L		09/03/14 10:15	09/08/14 15:03	20
Naphthalene	0.489		0.00980	0.00157	mg/L		09/03/14 10:15	09/08/14 15:03	20
2-Methylnaphthalene	0.0216		0.00980	0.00137	mg/L		09/03/14 10:15	09/08/14 15:03	20
Acenaphthene	0.0460		0.00980	0.00157	mg/L		09/03/14 10:15	09/08/14 15:03	20
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	0	X	10 - 147				09/03/14 10:15	09/08/14 15:03	20
2-Fluorobiphenyl	0	X	10 - 150				09/03/14 10:15	09/08/14 15:03	20
2-Fluorophenol	0	X	10 - 130				09/03/14 10:15	09/08/14 15:03	20
Nitrobenzene-d5	0	X	23 - 130				09/03/14 10:15	09/08/14 15:03	20
Terphenyl-d14	0	X	42 - 133				09/03/14 10:15	09/08/14 15:03	20
Phenol-d5 (Surr)	0	X	10 - 130				09/03/14 10:15	09/08/14 15:03	20

Client Sample ID: WG-1620-MWDUP A-20140828

Lab Sample ID: 600-97854-4

Date Collected: 08/28/14 13:10

Matrix: Water

Date Received: 08/29/14 09:05

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			09/04/14 16:34	1
Benzene	0.00389		0.00100	0.0000800	mg/L			09/04/14 16:34	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			09/04/14 16:34	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-97854-1

Client Sample ID: WG-1620-MWDUP A-20140828

Lab Sample ID: 600-97854-4

Date Collected: 08/28/14 13:10

Matrix: Water

Date Received: 08/29/14 09:05

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Toluene	0.000150	U	0.00100	0.000150	mg/L			09/04/14 16:34	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			09/04/14 16:34	1
Ethylbenzene	0.00224		0.00100	0.000110	mg/L			09/04/14 16:34	1
Xylenes, Total	0.000872	J	0.00300	0.000260	mg/L			09/04/14 16:34	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	102		67 - 139					09/04/14 16:34	1
Dibromofluoromethane	72		62 - 130					09/04/14 16:34	1
Toluene-d8 (Surr)	93		70 - 130					09/04/14 16:34	1
1,2-Dichloroethane-d4 (Surr)	79		50 - 134					09/04/14 16:34	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.0000392	U	0.000490	0.0000392	mg/L		09/03/14 10:15	09/06/14 01:35	1
Nitrobenzene	0.00936		0.000490	0.000108	mg/L		09/03/14 10:15	09/06/14 01:35	1
Bis(2-chloroethoxy)methane	0.000476	J	0.000490	0.000127	mg/L		09/03/14 10:15	09/06/14 01:35	1
2-Chloronaphthalene	0.0000784	U	0.000490	0.0000784	mg/L		09/03/14 10:15	09/06/14 01:35	1
Acenaphthylene	0.000636		0.000490	0.0000588	mg/L		09/03/14 10:15	09/06/14 01:35	1
2,6-Dinitrotoluene	0.0000784	U	0.000490	0.0000784	mg/L		09/03/14 10:15	09/06/14 01:35	1
4-Nitrophenol	0.000549	U	0.000980	0.000549	mg/L		09/03/14 10:15	09/06/14 01:35	1
2,4-Dinitrotoluene	0.000127	U	0.000490	0.000127	mg/L		09/03/14 10:15	09/06/14 01:35	1
Fluorene	0.0224		0.000490	0.0000686	mg/L		09/03/14 10:15	09/06/14 01:35	1
4,6-Dinitro-2-methylphenol	0.000814	U	0.000980	0.000814	mg/L		09/03/14 10:15	09/06/14 01:35	1
N-Nitrosodiphenylamine	0.0000980	U	0.000490	0.0000980	mg/L		09/03/14 10:15	09/06/14 01:35	1
1,2-Diphenylhydrazine	0.000108	U	0.000490	0.000108	mg/L		09/03/14 10:15	09/06/14 01:35	1
Pentachlorophenol	0.000598	U	0.000980	0.000598	mg/L		09/03/14 10:15	09/06/14 01:35	1
Phenanthrene	0.00736		0.000490	0.0000588	mg/L		09/03/14 10:15	09/06/14 01:35	1
Anthracene	0.00184		0.000490	0.0000490	mg/L		09/03/14 10:15	09/06/14 01:35	1
Di-n-butyl phthalate	0.000108	U	0.000490	0.000108	mg/L		09/03/14 10:15	09/06/14 01:35	1
Fluoranthene	0.00426		0.000490	0.0000686	mg/L		09/03/14 10:15	09/06/14 01:35	1
Pyrene	0.00471		0.000490	0.000108	mg/L		09/03/14 10:15	09/06/14 01:35	1
Benzo[a]anthracene	0.000318	J	0.000490	0.0000784	mg/L		09/03/14 10:15	09/06/14 01:35	1
Bis(2-ethylhexyl) phthalate	0.000363	U	0.000490	0.000363	mg/L		09/03/14 10:15	09/06/14 01:35	1
Chrysene	0.000178	J	0.000490	0.0000784	mg/L		09/03/14 10:15	09/06/14 01:35	1
Benzo[a]pyrene	0.0000784	U	0.000490	0.0000784	mg/L		09/03/14 10:15	09/06/14 01:35	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	93		10 - 147				09/03/14 10:15	09/06/14 01:35	1
2-Fluorobiphenyl	81		10 - 150				09/03/14 10:15	09/06/14 01:35	1
2-Fluorophenol	42		10 - 130				09/03/14 10:15	09/06/14 01:35	1
Nitrobenzene-d5	54		23 - 130				09/03/14 10:15	09/06/14 01:35	1
Terphenyl-d14	92		42 - 133				09/03/14 10:15	09/06/14 01:35	1
Phenol-d5 (Surr)	22		10 - 130				09/03/14 10:15	09/06/14 01:35	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels - DL

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-Dimethylphenol	0.0608		0.00490	0.00304	mg/L		09/03/14 10:15	09/08/14 15:30	10
2-Methylnaphthalene	0.0524		0.00490	0.000686	mg/L		09/03/14 10:15	09/08/14 15:30	10
Acenaphthene	0.0692		0.00490	0.000784	mg/L		09/03/14 10:15	09/08/14 15:30	10
Dibenzofuran	0.0334		0.00490	0.000784	mg/L		09/03/14 10:15	09/08/14 15:30	10

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-97854-1

Client Sample ID: WG-1620-MWDUP A-20140828

Lab Sample ID: 600-97854-4

Date Collected: 08/28/14 13:10

Matrix: Water

Date Received: 08/29/14 09:05

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	81		10 - 147	09/03/14 10:15	09/08/14 15:30	10
2-Fluorobiphenyl	80		10 - 150	09/03/14 10:15	09/08/14 15:30	10
2-Fluorophenol	38		10 - 130	09/03/14 10:15	09/08/14 15:30	10
Nitrobenzene-d5	62		23 - 130	09/03/14 10:15	09/08/14 15:30	10
Terphenyl-d14	89		42 - 133	09/03/14 10:15	09/08/14 15:30	10
Phenol-d5 (Surr)	18		10 - 130	09/03/14 10:15	09/08/14 15:30	10

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels - DL2

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	1.02		0.0245	0.00392	mg/L		09/03/14 10:15	09/08/14 15:58	50

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	0	X	10 - 147	09/03/14 10:15	09/08/14 15:58	50
2-Fluorobiphenyl	0	X	10 - 150	09/03/14 10:15	09/08/14 15:58	50
2-Fluorophenol	0	X	10 - 130	09/03/14 10:15	09/08/14 15:58	50
Nitrobenzene-d5	0	X	23 - 130	09/03/14 10:15	09/08/14 15:58	50
Terphenyl-d14	0	X	42 - 133	09/03/14 10:15	09/08/14 15:58	50
Phenol-d5 (Surr)	0	X	10 - 130	09/03/14 10:15	09/08/14 15:58	50

Client Sample ID: WG-1620-MW65D-20140828

Lab Sample ID: 600-97854-5

Date Collected: 08/28/14 12:17

Matrix: Water

Date Received: 08/29/14 09:05

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			09/04/14 15:07	1
Benzene	0.0000800	U	0.00100	0.0000800	mg/L			09/04/14 15:07	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			09/04/14 15:07	1
Toluene	0.000150	U	0.00100	0.000150	mg/L			09/04/14 15:07	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			09/04/14 15:07	1
Ethylbenzene	0.000110	U	0.00100	0.000110	mg/L			09/04/14 15:07	1
Xylenes, Total	0.000260	U	0.00300	0.000260	mg/L			09/04/14 15:07	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	78		67 - 139		09/04/14 15:07	1
Dibromofluoromethane	77		62 - 130		09/04/14 15:07	1
Toluene-d8 (Surr)	82		70 - 130		09/04/14 15:07	1
1,2-Dichloroethane-d4 (Surr)	74		50 - 134		09/04/14 15:07	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.0000400	U	0.000500	0.0000400	mg/L		09/03/14 10:15	09/05/14 23:19	1
Nitrobenzene	0.000110	U	0.000500	0.000110	mg/L		09/03/14 10:15	09/05/14 23:19	1
2,4-Dimethylphenol	0.000310	U	0.000500	0.000310	mg/L		09/03/14 10:15	09/05/14 23:19	1
Bis(2-chloroethoxy)methane	0.000130	U	0.000500	0.000130	mg/L		09/03/14 10:15	09/05/14 23:19	1
Naphthalene	0.000710		0.000500	0.0000800	mg/L		09/03/14 10:15	09/05/14 23:19	1
2-Methylnaphthalene	0.0000700	U	0.000500	0.0000700	mg/L		09/03/14 10:15	09/05/14 23:19	1
2-Chloronaphthalene	0.0000800	U	0.000500	0.0000800	mg/L		09/03/14 10:15	09/05/14 23:19	1
Acenaphthylene	0.0000600	U	0.000500	0.0000600	mg/L		09/03/14 10:15	09/05/14 23:19	1
2,6-Dinitrotoluene	0.0000800	U	0.000500	0.0000800	mg/L		09/03/14 10:15	09/05/14 23:19	1
Acenaphthene	0.0000800	U	0.000500	0.0000800	mg/L		09/03/14 10:15	09/05/14 23:19	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-97854-1

Client Sample ID: WG-1620-MW65D-20140828

Lab Sample ID: 600-97854-5

Date Collected: 08/28/14 12:17

Matrix: Water

Date Received: 08/29/14 09:05

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Nitrophenol	0.000560	U	0.00100	0.000560	mg/L		09/03/14 10:15	09/05/14 23:19	1
Dibenzofuran	0.0000800	U	0.000500	0.0000800	mg/L		09/03/14 10:15	09/05/14 23:19	1
2,4-Dinitrotoluene	0.000130	U	0.000500	0.000130	mg/L		09/03/14 10:15	09/05/14 23:19	1
Fluorene	0.0000700	U	0.000500	0.0000700	mg/L		09/03/14 10:15	09/05/14 23:19	1
4,6-Dinitro-2-methylphenol	0.000830	U	0.00100	0.000830	mg/L		09/03/14 10:15	09/05/14 23:19	1
N-Nitrosodiphenylamine	0.000100	U	0.000500	0.000100	mg/L		09/03/14 10:15	09/05/14 23:19	1
1,2-Diphenylhydrazine	0.000110	U	0.000500	0.000110	mg/L		09/03/14 10:15	09/05/14 23:19	1
Pentachlorophenol	0.000610	U	0.00100	0.000610	mg/L		09/03/14 10:15	09/05/14 23:19	1
Phenanthrene	0.0000600	U	0.000500	0.0000600	mg/L		09/03/14 10:15	09/05/14 23:19	1
Anthracene	0.0000500	U	0.000500	0.0000500	mg/L		09/03/14 10:15	09/05/14 23:19	1
Di-n-butyl phthalate	0.000110	U	0.000500	0.000110	mg/L		09/03/14 10:15	09/05/14 23:19	1
Fluoranthene	0.0000700	U	0.000500	0.0000700	mg/L		09/03/14 10:15	09/05/14 23:19	1
Pyrene	0.000110	U	0.000500	0.000110	mg/L		09/03/14 10:15	09/05/14 23:19	1
Benzo[a]anthracene	0.0000800	U	0.000500	0.0000800	mg/L		09/03/14 10:15	09/05/14 23:19	1
Bis(2-ethylhexyl) phthalate	0.00244		0.000500	0.000370	mg/L		09/03/14 10:15	09/05/14 23:19	1
Chrysene	0.0000800	U	0.000500	0.0000800	mg/L		09/03/14 10:15	09/05/14 23:19	1
Benzo[a]pyrene	0.0000800	U	0.000500	0.0000800	mg/L		09/03/14 10:15	09/05/14 23:19	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	83		10 - 147				09/03/14 10:15	09/05/14 23:19	1
2-Fluorobiphenyl	72		10 - 150				09/03/14 10:15	09/05/14 23:19	1
2-Fluorophenol	39		10 - 130				09/03/14 10:15	09/05/14 23:19	1
Nitrobenzene-d5	64		23 - 130				09/03/14 10:15	09/05/14 23:19	1
Terphenyl-d14	84		42 - 133				09/03/14 10:15	09/05/14 23:19	1
Phenol-d5 (Surr)	25		10 - 130				09/03/14 10:15	09/05/14 23:19	1

Client Sample ID: WG-1620-MW66D-20140828

Lab Sample ID: 600-97854-6

Date Collected: 08/28/14 10:53

Matrix: Water

Date Received: 08/29/14 09:05

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			09/04/14 15:16	1
Benzene	0.0000800	U	0.00100	0.0000800	mg/L			09/04/14 15:16	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			09/04/14 15:16	1
Toluene	0.000150	U	0.00100	0.000150	mg/L			09/04/14 15:16	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			09/04/14 15:16	1
Ethylbenzene	0.000110	U	0.00100	0.000110	mg/L			09/04/14 15:16	1
Xylenes, Total	0.000260	U	0.00300	0.000260	mg/L			09/04/14 15:16	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	100		67 - 139					09/04/14 15:16	1
Dibromofluoromethane	68		62 - 130					09/04/14 15:16	1
Toluene-d8 (Surr)	92		70 - 130					09/04/14 15:16	1
1,2-Dichloroethane-d4 (Surr)	73		50 - 134					09/04/14 15:16	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.0000396	U	0.000495	0.0000396	mg/L		09/03/14 10:15	09/06/14 02:02	1
Nitrobenzene	0.000109	U	0.000495	0.000109	mg/L		09/03/14 10:15	09/06/14 02:02	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-97854-1

Client Sample ID: WG-1620-MW66D-20140828

Lab Sample ID: 600-97854-6

Date Collected: 08/28/14 10:53

Matrix: Water

Date Received: 08/29/14 09:05

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-Dimethylphenol	0.000307	U	0.000495	0.000307	mg/L		09/03/14 10:15	09/06/14 02:02	1
Bis(2-chloroethoxy)methane	0.000129	U	0.000495	0.000129	mg/L		09/03/14 10:15	09/06/14 02:02	1
Naphthalene	0.00118		0.000495	0.0000792	mg/L		09/03/14 10:15	09/06/14 02:02	1
2-Methylnaphthalene	0.000211	J	0.000495	0.0000693	mg/L		09/03/14 10:15	09/06/14 02:02	1
2-Chloronaphthalene	0.0000792	U	0.000495	0.0000792	mg/L		09/03/14 10:15	09/06/14 02:02	1
Acenaphthylene	0.000411	J	0.000495	0.0000594	mg/L		09/03/14 10:15	09/06/14 02:02	1
2,6-Dinitrotoluene	0.0000792	U	0.000495	0.0000792	mg/L		09/03/14 10:15	09/06/14 02:02	1
Acenaphthene	0.000141	J	0.000495	0.0000792	mg/L		09/03/14 10:15	09/06/14 02:02	1
4-Nitrophenol	0.000554	U	0.000990	0.000554	mg/L		09/03/14 10:15	09/06/14 02:02	1
Dibenzofuran	0.000133	J	0.000495	0.0000792	mg/L		09/03/14 10:15	09/06/14 02:02	1
2,4-Dinitrotoluene	0.000129	U	0.000495	0.000129	mg/L		09/03/14 10:15	09/06/14 02:02	1
Fluorene	0.000143	J	0.000495	0.0000693	mg/L		09/03/14 10:15	09/06/14 02:02	1
4,6-Dinitro-2-methylphenol	0.000822	U	0.000990	0.000822	mg/L		09/03/14 10:15	09/06/14 02:02	1
N-Nitrosodiphenylamine	0.0000990	U	0.000495	0.0000990	mg/L		09/03/14 10:15	09/06/14 02:02	1
1,2-Diphenylhydrazine	0.000109	U	0.000495	0.000109	mg/L		09/03/14 10:15	09/06/14 02:02	1
Pentachlorophenol	0.000604	U	0.000990	0.000604	mg/L		09/03/14 10:15	09/06/14 02:02	1
Phenanthrene	0.000295	J	0.000495	0.0000594	mg/L		09/03/14 10:15	09/06/14 02:02	1
Anthracene	0.00304		0.000495	0.0000495	mg/L		09/03/14 10:15	09/06/14 02:02	1
Di-n-butyl phthalate	0.000121	J	0.000495	0.000109	mg/L		09/03/14 10:15	09/06/14 02:02	1
Fluoranthene	0.00116		0.000495	0.0000693	mg/L		09/03/14 10:15	09/06/14 02:02	1
Pyrene	0.00118		0.000495	0.000109	mg/L		09/03/14 10:15	09/06/14 02:02	1
Benzo[a]anthracene	0.000410	J	0.000495	0.0000792	mg/L		09/03/14 10:15	09/06/14 02:02	1
Bis(2-ethylhexyl) phthalate	0.000585		0.000495	0.000366	mg/L		09/03/14 10:15	09/06/14 02:02	1
Chrysene	0.00104		0.000495	0.0000792	mg/L		09/03/14 10:15	09/06/14 02:02	1
Benzo[a]pyrene	0.000436	J	0.000495	0.0000792	mg/L		09/03/14 10:15	09/06/14 02:02	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	104		10 - 147				09/03/14 10:15	09/06/14 02:02	1
2-Fluorobiphenyl	91		10 - 150				09/03/14 10:15	09/06/14 02:02	1
2-Fluorophenol	43		10 - 130				09/03/14 10:15	09/06/14 02:02	1
Nitrobenzene-d5	78		23 - 130				09/03/14 10:15	09/06/14 02:02	1
Terphenyl-d14	95		42 - 133				09/03/14 10:15	09/06/14 02:02	1
Phenol-d5 (Surr)	28		10 - 130				09/03/14 10:15	09/06/14 02:02	1

Client Sample ID: WG-1620-MW36D-20140828

Lab Sample ID: 600-97854-7

Date Collected: 08/28/14 14:12

Matrix: Water

Date Received: 08/29/14 09:05

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			09/04/14 15:42	1
Benzene	0.0000895	J	0.00100	0.0000800	mg/L			09/04/14 15:42	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			09/04/14 15:42	1
Toluene	0.00675		0.00100	0.000150	mg/L			09/04/14 15:42	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			09/04/14 15:42	1
Ethylbenzene	0.000110	U	0.00100	0.000110	mg/L			09/04/14 15:42	1
Xylenes, Total	0.000260	U	0.00300	0.000260	mg/L			09/04/14 15:42	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	107		67 - 139					09/04/14 15:42	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-97854-1

Client Sample ID: WG-1620-MW36D-20140828

Lab Sample ID: 600-97854-7

Date Collected: 08/28/14 14:12

Matrix: Water

Date Received: 08/29/14 09:05

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Dibromofluoromethane	73		62 - 130		09/04/14 15:42	1
Toluene-d8 (Surr)	98		70 - 130		09/04/14 15:42	1
1,2-Dichloroethane-d4 (Surr)	80		50 - 134		09/04/14 15:42	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.00194		0.000495	0.000396	mg/L		09/03/14 10:15	09/06/14 02:30	1
Nitrobenzene	0.000109	U	0.000495	0.000109	mg/L		09/03/14 10:15	09/06/14 02:30	1
2,4-Dimethylphenol	0.000307	U	0.000495	0.000307	mg/L		09/03/14 10:15	09/06/14 02:30	1
Bis(2-chloroethoxy)methane	0.000129	U	0.000495	0.000129	mg/L		09/03/14 10:15	09/06/14 02:30	1
Naphthalene	0.000923	J	0.000495	0.0000792	mg/L		09/03/14 10:15	09/06/14 02:30	1
2-Methylnaphthalene	0.0000693	U	0.000495	0.0000693	mg/L		09/03/14 10:15	09/06/14 02:30	1
2-Chloronaphthalene	0.0000792	U	0.000495	0.0000792	mg/L		09/03/14 10:15	09/06/14 02:30	1
Acenaphthylene	0.0000594	U	0.000495	0.0000594	mg/L		09/03/14 10:15	09/06/14 02:30	1
2,6-Dinitrotoluene	0.0000792	U	0.000495	0.0000792	mg/L		09/03/14 10:15	09/06/14 02:30	1
Acenaphthene	0.0000792	U	0.000495	0.0000792	mg/L		09/03/14 10:15	09/06/14 02:30	1
4-Nitrophenol	0.000554	U	0.000990	0.000554	mg/L		09/03/14 10:15	09/06/14 02:30	1
Dibenzofuran	0.0000792	U	0.000495	0.0000792	mg/L		09/03/14 10:15	09/06/14 02:30	1
2,4-Dinitrotoluene	0.000129	U	0.000495	0.000129	mg/L		09/03/14 10:15	09/06/14 02:30	1
Fluorene	0.000100	J	0.000495	0.0000693	mg/L		09/03/14 10:15	09/06/14 02:30	1
4,6-Dinitro-2-methylphenol	0.000822	U	0.000990	0.000822	mg/L		09/03/14 10:15	09/06/14 02:30	1
N-Nitrosodiphenylamine	0.0000990	U	0.000495	0.0000990	mg/L		09/03/14 10:15	09/06/14 02:30	1
1,2-Diphenylhydrazine	0.000109	U	0.000495	0.000109	mg/L		09/03/14 10:15	09/06/14 02:30	1
Pentachlorophenol	0.000604	U	0.000990	0.000604	mg/L		09/03/14 10:15	09/06/14 02:30	1
Phenanthrene	0.00102		0.000495	0.0000594	mg/L		09/03/14 10:15	09/06/14 02:30	1
Anthracene	0.000224	J	0.000495	0.0000495	mg/L		09/03/14 10:15	09/06/14 02:30	1
Di-n-butyl phthalate	0.000109	U	0.000495	0.000109	mg/L		09/03/14 10:15	09/06/14 02:30	1
Fluoranthene	0.00111		0.000495	0.0000693	mg/L		09/03/14 10:15	09/06/14 02:30	1
Pyrene	0.000881		0.000495	0.000109	mg/L		09/03/14 10:15	09/06/14 02:30	1
Benzo[a]anthracene	0.000213	J	0.000495	0.0000792	mg/L		09/03/14 10:15	09/06/14 02:30	1
Bis(2-ethylhexyl) phthalate	0.00128		0.000495	0.000366	mg/L		09/03/14 10:15	09/06/14 02:30	1
Chrysene	0.000347	J	0.000495	0.0000792	mg/L		09/03/14 10:15	09/06/14 02:30	1
Benzo[a]pyrene	0.000192	J	0.000495	0.0000792	mg/L		09/03/14 10:15	09/06/14 02:30	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	102		10 - 147	09/03/14 10:15	09/06/14 02:30	1
2-Fluorobiphenyl	87		10 - 150	09/03/14 10:15	09/06/14 02:30	1
2-Fluorophenol	42		10 - 130	09/03/14 10:15	09/06/14 02:30	1
Nitrobenzene-d5	71		23 - 130	09/03/14 10:15	09/06/14 02:30	1
Terphenyl-d14	95		42 - 133	09/03/14 10:15	09/06/14 02:30	1
Phenol-d5 (Surr)	28		10 - 130	09/03/14 10:15	09/06/14 02:30	1

Client Sample ID: WG-1620-MW59D-20140828

Lab Sample ID: 600-97854-8

Date Collected: 08/28/14 16:43

Matrix: Water

Date Received: 08/29/14 09:05

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			09/04/14 20:59	1
Benzene	0.000135	J	0.00100	0.0000800	mg/L			09/04/14 20:59	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-97854-1

Client Sample ID: WG-1620-MW59D-20140828

Lab Sample ID: 600-97854-8

Date Collected: 08/28/14 16:43

Matrix: Water

Date Received: 08/29/14 09:05

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			09/04/14 20:59	1
Toluene	0.000258	J	0.00100	0.000150	mg/L			09/04/14 20:59	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			09/04/14 20:59	1
Ethylbenzene	0.000110	U	0.00100	0.000110	mg/L			09/04/14 20:59	1
Xylenes, Total	0.000260	U	0.00300	0.000260	mg/L			09/04/14 20:59	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	77		67 - 139					09/04/14 20:59	1
Dibromofluoromethane	77		62 - 130					09/04/14 20:59	1
Toluene-d8 (Surr)	87		70 - 130					09/04/14 20:59	1
1,2-Dichloroethane-d4 (Surr)	75		50 - 134					09/04/14 20:59	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.0000400	U	0.000500	0.0000400	mg/L		09/03/14 10:15	09/06/14 02:57	1
Nitrobenzene	0.000110	U	0.000500	0.000110	mg/L		09/03/14 10:15	09/06/14 02:57	1
2,4-Dimethylphenol	0.000310	U	0.000500	0.000310	mg/L		09/03/14 10:15	09/06/14 02:57	1
Bis(2-chloroethoxy)methane	0.000130	U	0.000500	0.000130	mg/L		09/03/14 10:15	09/06/14 02:57	1
Naphthalene	0.00576		0.000500	0.0000800	mg/L		09/03/14 10:15	09/06/14 02:57	1
2-Methylnaphthalene	0.000334	J	0.000500	0.0000700	mg/L		09/03/14 10:15	09/06/14 02:57	1
2-Chloronaphthalene	0.0000800	U	0.000500	0.0000800	mg/L		09/03/14 10:15	09/06/14 02:57	1
Acenaphthylene	0.0000600	U	0.000500	0.0000600	mg/L		09/03/14 10:15	09/06/14 02:57	1
2,6-Dinitrotoluene	0.0000800	U	0.000500	0.0000800	mg/L		09/03/14 10:15	09/06/14 02:57	1
Acenaphthene	0.0000800	U	0.000500	0.0000800	mg/L		09/03/14 10:15	09/06/14 02:57	1
4-Nitrophenol	0.000560	U	0.00100	0.000560	mg/L		09/03/14 10:15	09/06/14 02:57	1
Dibenzofuran	0.0000800	U	0.000500	0.0000800	mg/L		09/03/14 10:15	09/06/14 02:57	1
2,4-Dinitrotoluene	0.000130	U	0.000500	0.000130	mg/L		09/03/14 10:15	09/06/14 02:57	1
Fluorene	0.0000700	U	0.000500	0.0000700	mg/L		09/03/14 10:15	09/06/14 02:57	1
4,6-Dinitro-2-methylphenol	0.000830	U	0.00100	0.000830	mg/L		09/03/14 10:15	09/06/14 02:57	1
N-Nitrosodiphenylamine	0.000100	U	0.000500	0.000100	mg/L		09/03/14 10:15	09/06/14 02:57	1
1,2-Diphenylhydrazine	0.000110	U	0.000500	0.000110	mg/L		09/03/14 10:15	09/06/14 02:57	1
Pentachlorophenol	0.000610	U	0.00100	0.000610	mg/L		09/03/14 10:15	09/06/14 02:57	1
Phenanthrene	0.000180	J	0.000500	0.0000600	mg/L		09/03/14 10:15	09/06/14 02:57	1
Anthracene	0.0000500	U	0.000500	0.0000500	mg/L		09/03/14 10:15	09/06/14 02:57	1
Di-n-butyl phthalate	0.000110	U	0.000500	0.000110	mg/L		09/03/14 10:15	09/06/14 02:57	1
Fluoranthene	0.000180	J	0.000500	0.0000700	mg/L		09/03/14 10:15	09/06/14 02:57	1
Pyrene	0.000131	J	0.000500	0.000110	mg/L		09/03/14 10:15	09/06/14 02:57	1
Benzo[a]anthracene	0.0000800	U	0.000500	0.0000800	mg/L		09/03/14 10:15	09/06/14 02:57	1
Bis(2-ethylhexyl) phthalate	0.00306		0.000500	0.000370	mg/L		09/03/14 10:15	09/06/14 02:57	1
Chrysene	0.0000800	U	0.000500	0.0000800	mg/L		09/03/14 10:15	09/06/14 02:57	1
Benzo[a]pyrene	0.0000800	U	0.000500	0.0000800	mg/L		09/03/14 10:15	09/06/14 02:57	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	87		10 - 147				09/03/14 10:15	09/06/14 02:57	1
2-Fluorobiphenyl	67		10 - 150				09/03/14 10:15	09/06/14 02:57	1
2-Fluorophenol	35		10 - 130				09/03/14 10:15	09/06/14 02:57	1
Nitrobenzene-d5	60		23 - 130				09/03/14 10:15	09/06/14 02:57	1
Terphenyl-d14	81		42 - 133				09/03/14 10:15	09/06/14 02:57	1
Phenol-d5 (Surr)	23		10 - 130				09/03/14 10:15	09/06/14 02:57	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-97854-1

Client Sample ID: WG-1620-DUPD-20140828

Lab Sample ID: 600-97854-9

Date Collected: 08/28/14 16:48

Matrix: Water

Date Received: 08/29/14 09:05

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			09/04/14 21:29	1
Benzene	0.000114	J	0.00100	0.0000800	mg/L			09/04/14 21:29	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			09/04/14 21:29	1
Toluene	0.000249	J	0.00100	0.000150	mg/L			09/04/14 21:29	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			09/04/14 21:29	1
Ethylbenzene	0.000110	U	0.00100	0.000110	mg/L			09/04/14 21:29	1
Xylenes, Total	0.000260	U	0.00300	0.000260	mg/L			09/04/14 21:29	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	78		67 - 139		09/04/14 21:29	1
Dibromofluoromethane	77		62 - 130		09/04/14 21:29	1
Toluene-d8 (Surr)	85		70 - 130		09/04/14 21:29	1
1,2-Dichloroethane-d4 (Surr)	78		50 - 134		09/04/14 21:29	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.000400	U	0.000500	0.000400	mg/L		09/03/14 10:15	09/06/14 03:24	1
Nitrobenzene	0.000110	U	0.000500	0.000110	mg/L		09/03/14 10:15	09/06/14 03:24	1
2,4-Dimethylphenol	0.000310	U	0.000500	0.000310	mg/L		09/03/14 10:15	09/06/14 03:24	1
Bis(2-chloroethoxy)methane	0.000130	U	0.000500	0.000130	mg/L		09/03/14 10:15	09/06/14 03:24	1
Naphthalene	0.000800	U	0.000500	0.000800	mg/L		09/03/14 10:15	09/06/14 03:24	1
2-Methylnaphthalene	0.000700	U	0.000500	0.000700	mg/L		09/03/14 10:15	09/06/14 03:24	1
2-Chloronaphthalene	0.000800	U	0.000500	0.000800	mg/L		09/03/14 10:15	09/06/14 03:24	1
Acenaphthylene	0.000600	U	0.000500	0.000600	mg/L		09/03/14 10:15	09/06/14 03:24	1
2,6-Dinitrotoluene	0.000800	U	0.000500	0.000800	mg/L		09/03/14 10:15	09/06/14 03:24	1
Acenaphthene	0.000800	U	0.000500	0.000800	mg/L		09/03/14 10:15	09/06/14 03:24	1
4-Nitrophenol	0.000560	U	0.00100	0.000560	mg/L		09/03/14 10:15	09/06/14 03:24	1
Dibenzofuran	0.000800	U	0.000500	0.000800	mg/L		09/03/14 10:15	09/06/14 03:24	1
2,4-Dinitrotoluene	0.000130	U	0.000500	0.000130	mg/L		09/03/14 10:15	09/06/14 03:24	1
Fluorene	0.000700	U	0.000500	0.000700	mg/L		09/03/14 10:15	09/06/14 03:24	1
4,6-Dinitro-2-methylphenol	0.000830	U	0.00100	0.000830	mg/L		09/03/14 10:15	09/06/14 03:24	1
N-Nitrosodiphenylamine	0.000100	U	0.000500	0.000100	mg/L		09/03/14 10:15	09/06/14 03:24	1
1,2-Diphenylhydrazine	0.000110	U	0.000500	0.000110	mg/L		09/03/14 10:15	09/06/14 03:24	1
Pentachlorophenol	0.000610	U	0.00100	0.000610	mg/L		09/03/14 10:15	09/06/14 03:24	1
Phenanthrene	0.000608	J	0.000500	0.000600	mg/L		09/03/14 10:15	09/06/14 03:24	1
Anthracene	0.000500	U	0.000500	0.000500	mg/L		09/03/14 10:15	09/06/14 03:24	1
Di-n-butyl phthalate	0.000110	U	0.000500	0.000110	mg/L		09/03/14 10:15	09/06/14 03:24	1
Fluoranthene	0.000700	U	0.000500	0.000700	mg/L		09/03/14 10:15	09/06/14 03:24	1
Pyrene	0.000110	U	0.000500	0.000110	mg/L		09/03/14 10:15	09/06/14 03:24	1
Benzo[a]anthracene	0.000800	U	0.000500	0.000800	mg/L		09/03/14 10:15	09/06/14 03:24	1
Bis(2-ethylhexyl) phthalate	0.00598		0.000500	0.000370	mg/L		09/03/14 10:15	09/06/14 03:24	1
Chrysene	0.000800	U	0.000500	0.000800	mg/L		09/03/14 10:15	09/06/14 03:24	1
Benzo[a]pyrene	0.000800	U	0.000500	0.000800	mg/L		09/03/14 10:15	09/06/14 03:24	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	101		10 - 147	09/03/14 10:15	09/06/14 03:24	1
2-Fluorobiphenyl	83		10 - 150	09/03/14 10:15	09/06/14 03:24	1
2-Fluorophenol	40		10 - 130	09/03/14 10:15	09/06/14 03:24	1
Nitrobenzene-d5	71		23 - 130	09/03/14 10:15	09/06/14 03:24	1
Terphenyl-d14	94		42 - 133	09/03/14 10:15	09/06/14 03:24	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-97854-1

Client Sample ID: WG-1620-DUPD-20140828

Lab Sample ID: 600-97854-9

Date Collected: 08/28/14 16:48

Matrix: Water

Date Received: 08/29/14 09:05

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Phenol-d5 (Surr)	28		10 - 130	09/03/14 10:15	09/06/14 03:24	1

Client Sample ID: WG-1620-MW80B-20140828

Lab Sample ID: 600-97854-10

Date Collected: 08/28/14 08:10

Matrix: Water

Date Received: 08/29/14 09:05

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			09/03/14 20:21	1
Benzene	0.000898	J	0.00100	0.000800	mg/L			09/03/14 20:21	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			09/03/14 20:21	1
Toluene	0.000150	U	0.00100	0.000150	mg/L			09/03/14 20:21	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			09/03/14 20:21	1
Ethylbenzene	0.000110	U	0.00100	0.000110	mg/L			09/03/14 20:21	1
Xylenes, Total	0.000260	U	0.00300	0.000260	mg/L			09/03/14 20:21	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	78		67 - 139		09/03/14 20:21	1
Dibromofluoromethane	80		62 - 130		09/03/14 20:21	1
Toluene-d8 (Surr)	84		70 - 130		09/03/14 20:21	1
1,2-Dichloroethane-d4 (Surr)	75		50 - 134		09/03/14 20:21	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.000180	J	0.000500	0.000400	mg/L		09/03/14 10:15	09/06/14 03:51	1
Nitrobenzene	0.000110	U	0.000500	0.000110	mg/L		09/03/14 10:15	09/06/14 03:51	1
2,4-Dimethylphenol	0.000310	U	0.000500	0.000310	mg/L		09/03/14 10:15	09/06/14 03:51	1
Bis(2-chloroethoxy)methane	0.000130	U	0.000500	0.000130	mg/L		09/03/14 10:15	09/06/14 03:51	1
Naphthalene	0.00157		0.000500	0.000800	mg/L		09/03/14 10:15	09/06/14 03:51	1
2-Methylnaphthalene	0.000158	J	0.000500	0.000700	mg/L		09/03/14 10:15	09/06/14 03:51	1
2-Chloronaphthalene	0.000800	U	0.000500	0.000800	mg/L		09/03/14 10:15	09/06/14 03:51	1
Acenaphthylene	0.000600	U	0.000500	0.000600	mg/L		09/03/14 10:15	09/06/14 03:51	1
2,6-Dinitrotoluene	0.000800	U	0.000500	0.000800	mg/L		09/03/14 10:15	09/06/14 03:51	1
Acenaphthene	0.000835	J	0.000500	0.000800	mg/L		09/03/14 10:15	09/06/14 03:51	1
4-Nitrophenol	0.000560	U	0.00100	0.000560	mg/L		09/03/14 10:15	09/06/14 03:51	1
Dibenzofuran	0.000800	U	0.000500	0.000800	mg/L		09/03/14 10:15	09/06/14 03:51	1
2,4-Dinitrotoluene	0.000130	U	0.000500	0.000130	mg/L		09/03/14 10:15	09/06/14 03:51	1
Fluorene	0.000700	U	0.000500	0.000700	mg/L		09/03/14 10:15	09/06/14 03:51	1
4,6-Dinitro-2-methylphenol	0.000830	U	0.00100	0.000830	mg/L		09/03/14 10:15	09/06/14 03:51	1
N-Nitrosodiphenylamine	0.000100	U	0.000500	0.000100	mg/L		09/03/14 10:15	09/06/14 03:51	1
1,2-Diphenylhydrazine	0.000110	U	0.000500	0.000110	mg/L		09/03/14 10:15	09/06/14 03:51	1
Pentachlorophenol	0.000610	U	0.00100	0.000610	mg/L		09/03/14 10:15	09/06/14 03:51	1
Phenanthrene	0.000792	J	0.000500	0.000600	mg/L		09/03/14 10:15	09/06/14 03:51	1
Anthracene	0.000500	U	0.000500	0.000500	mg/L		09/03/14 10:15	09/06/14 03:51	1
Di-n-butyl phthalate	0.000110	U	0.000500	0.000110	mg/L		09/03/14 10:15	09/06/14 03:51	1
Fluoranthene	0.000700	U	0.000500	0.000700	mg/L		09/03/14 10:15	09/06/14 03:51	1
Pyrene	0.000110	U	0.000500	0.000110	mg/L		09/03/14 10:15	09/06/14 03:51	1
Benzo[a]anthracene	0.000800	U	0.000500	0.000800	mg/L		09/03/14 10:15	09/06/14 03:51	1
Bis(2-ethylhexyl) phthalate	0.00106		0.000500	0.000370	mg/L		09/03/14 10:15	09/06/14 03:51	1
Chrysene	0.000800	U	0.000500	0.000800	mg/L		09/03/14 10:15	09/06/14 03:51	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-97854-1

Client Sample ID: WG-1620-MW80B-20140828

Lab Sample ID: 600-97854-10

Date Collected: 08/28/14 08:10

Matrix: Water

Date Received: 08/29/14 09:05

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]pyrene	0.0000800	U	0.000500	0.0000800	mg/L		09/03/14 10:15	09/06/14 03:51	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	92		10 - 147				09/03/14 10:15	09/06/14 03:51	1
2-Fluorobiphenyl	75		10 - 150				09/03/14 10:15	09/06/14 03:51	1
2-Fluorophenol	39		10 - 130				09/03/14 10:15	09/06/14 03:51	1
Nitrobenzene-d5	64		23 - 130				09/03/14 10:15	09/06/14 03:51	1
Terphenyl-d14	84		42 - 133				09/03/14 10:15	09/06/14 03:51	1
Phenol-d5 (Surr)	26		10 - 130				09/03/14 10:15	09/06/14 03:51	1

Client Sample ID: WG-1620-MW50A-20140828

Lab Sample ID: 600-97854-11

Date Collected: 08/28/14 09:05

Matrix: Water

Date Received: 08/29/14 09:05

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			09/03/14 20:50	1
Benzene	0.0000800	U	0.00100	0.0000800	mg/L			09/03/14 20:50	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			09/03/14 20:50	1
Toluene	0.000150	U	0.00100	0.000150	mg/L			09/03/14 20:50	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			09/03/14 20:50	1
Ethylbenzene	0.000110	U	0.00100	0.000110	mg/L			09/03/14 20:50	1
Xylenes, Total	0.000260	U	0.00300	0.000260	mg/L			09/03/14 20:50	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	77		67 - 139					09/03/14 20:50	1
Dibromofluoromethane	76		62 - 130					09/03/14 20:50	1
Toluene-d8 (Surr)	83		70 - 130					09/03/14 20:50	1
1,2-Dichloroethane-d4 (Surr)	78		50 - 134					09/03/14 20:50	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.0000396	U	0.000495	0.0000396	mg/L		09/03/14 10:15	09/06/14 04:18	1
Nitrobenzene	0.000109	U	0.000495	0.000109	mg/L		09/03/14 10:15	09/06/14 04:18	1
2,4-Dimethylphenol	0.000307	U	0.000495	0.000307	mg/L		09/03/14 10:15	09/06/14 04:18	1
Bis(2-chloroethoxy)methane	0.000129	U	0.000495	0.000129	mg/L		09/03/14 10:15	09/06/14 04:18	1
Naphthalene	0.000710		0.000495	0.0000792	mg/L		09/03/14 10:15	09/06/14 04:18	1
2-Methylnaphthalene	0.0000693	U	0.000495	0.0000693	mg/L		09/03/14 10:15	09/06/14 04:18	1
2-Chloronaphthalene	0.0000792	U	0.000495	0.0000792	mg/L		09/03/14 10:15	09/06/14 04:18	1
Acenaphthylene	0.0000594	U	0.000495	0.0000594	mg/L		09/03/14 10:15	09/06/14 04:18	1
2,6-Dinitrotoluene	0.0000792	U	0.000495	0.0000792	mg/L		09/03/14 10:15	09/06/14 04:18	1
Acenaphthene	0.0000792	U	0.000495	0.0000792	mg/L		09/03/14 10:15	09/06/14 04:18	1
4-Nitrophenol	0.000554	U	0.000990	0.000554	mg/L		09/03/14 10:15	09/06/14 04:18	1
Dibenzofuran	0.0000792	U	0.000495	0.0000792	mg/L		09/03/14 10:15	09/06/14 04:18	1
2,4-Dinitrotoluene	0.000129	U	0.000495	0.000129	mg/L		09/03/14 10:15	09/06/14 04:18	1
Fluorene	0.0000693	U	0.000495	0.0000693	mg/L		09/03/14 10:15	09/06/14 04:18	1
4,6-Dinitro-2-methylphenol	0.000822	U	0.000990	0.000822	mg/L		09/03/14 10:15	09/06/14 04:18	1
N-Nitrosodiphenylamine	0.0000990	U	0.000495	0.0000990	mg/L		09/03/14 10:15	09/06/14 04:18	1
1,2-Diphenylhydrazine	0.000109	U	0.000495	0.000109	mg/L		09/03/14 10:15	09/06/14 04:18	1
Pentachlorophenol	0.000604	U	0.000990	0.000604	mg/L		09/03/14 10:15	09/06/14 04:18	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-97854-1

Client Sample ID: WG-1620-MW50A-20140828

Lab Sample ID: 600-97854-11

Date Collected: 08/28/14 09:05

Matrix: Water

Date Received: 08/29/14 09:05

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenanthrene	0.0000594	U	0.000495	0.0000594	mg/L		09/03/14 10:15	09/06/14 04:18	1
Anthracene	0.0000495	U	0.000495	0.0000495	mg/L		09/03/14 10:15	09/06/14 04:18	1
Di-n-butyl phthalate	0.000109	U	0.000495	0.000109	mg/L		09/03/14 10:15	09/06/14 04:18	1
Fluoranthene	0.0000693	U	0.000495	0.0000693	mg/L		09/03/14 10:15	09/06/14 04:18	1
Pyrene	0.000109	U	0.000495	0.000109	mg/L		09/03/14 10:15	09/06/14 04:18	1
Benzo[a]anthracene	0.0000792	U	0.000495	0.0000792	mg/L		09/03/14 10:15	09/06/14 04:18	1
Bis(2-ethylhexyl) phthalate	0.000366	U	0.000495	0.000366	mg/L		09/03/14 10:15	09/06/14 04:18	1
Chrysene	0.0000792	U	0.000495	0.0000792	mg/L		09/03/14 10:15	09/06/14 04:18	1
Benzo[a]pyrene	0.0000792	U	0.000495	0.0000792	mg/L		09/03/14 10:15	09/06/14 04:18	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	47		10 - 147				09/03/14 10:15	09/06/14 04:18	1
2-Fluorobiphenyl	85		10 - 150				09/03/14 10:15	09/06/14 04:18	1
2-Fluorophenol	33		10 - 130				09/03/14 10:15	09/06/14 04:18	1
Nitrobenzene-d5	76		23 - 130				09/03/14 10:15	09/06/14 04:18	1
Terphenyl-d14	91		42 - 133				09/03/14 10:15	09/06/14 04:18	1
Phenol-d5 (Surr)	23		10 - 130				09/03/14 10:15	09/06/14 04:18	1

Client Sample ID: WG-1620-MW74B-20140828

Lab Sample ID: 600-97854-12

Date Collected: 08/28/14 10:30

Matrix: Water

Date Received: 08/29/14 09:05

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	0.00300	U *	0.0200	0.00300	mg/L			09/05/14 15:06	20
Benzene	0.652		0.0200	0.00160	mg/L			09/05/14 15:06	20
1,2-Dichloroethane	0.00280	U	0.0200	0.00280	mg/L			09/05/14 15:06	20
Toluene	0.741		0.0200	0.00300	mg/L			09/05/14 15:06	20
Chlorobenzene	0.00240	U	0.0200	0.00240	mg/L			09/05/14 15:06	20
Ethylbenzene	0.200		0.0200	0.00220	mg/L			09/05/14 15:06	20
Xylenes, Total	0.558		0.0600	0.00520	mg/L			09/05/14 15:06	20
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	76		67 - 139					09/05/14 15:06	20
Dibromofluoromethane	66		62 - 130					09/05/14 15:06	20
Toluene-d8 (Surr)	88		70 - 130					09/05/14 15:06	20
1,2-Dichloroethane-d4 (Surr)	58		50 - 134					09/05/14 15:06	20

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrobenzene	0.216	U	0.980	0.216	mg/L		09/03/14 10:15	09/08/14 16:25	1000
Bis(2-chloroethoxy)methane	0.255	U	0.980	0.255	mg/L		09/03/14 10:15	09/08/14 16:25	1000
Naphthalene	17.9		0.980	0.157	mg/L		09/03/14 10:15	09/08/14 16:25	1000
2-Methylnaphthalene	0.950	J	0.980	0.137	mg/L		09/03/14 10:15	09/08/14 16:25	1000
2-Chloronaphthalene	0.157	U	0.980	0.157	mg/L		09/03/14 10:15	09/08/14 16:25	1000
Acenaphthylene	0.118	U	0.980	0.118	mg/L		09/03/14 10:15	09/08/14 16:25	1000
2,6-Dinitrotoluene	0.157	U	0.980	0.157	mg/L		09/03/14 10:15	09/08/14 16:25	1000
Acenaphthene	0.413	J	0.980	0.157	mg/L		09/03/14 10:15	09/08/14 16:25	1000
4-Nitrophenol	1.10	U	1.96	1.10	mg/L		09/03/14 10:15	09/08/14 16:25	1000
Dibenzofuran	0.157	U	0.980	0.157	mg/L		09/03/14 10:15	09/08/14 16:25	1000

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-97854-1

Client Sample ID: WG-1620-MW74B-20140828

Lab Sample ID: 600-97854-12

Date Collected: 08/28/14 10:30

Matrix: Water

Date Received: 08/29/14 09:05

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-Dinitrotoluene	0.255	U	0.980	0.255	mg/L		09/03/14 10:15	09/08/14 16:25	1000
Fluorene	0.263	J	0.980	0.137	mg/L		09/03/14 10:15	09/08/14 16:25	1000
4,6-Dinitro-2-methylphenol	1.63	U	1.96	1.63	mg/L		09/03/14 10:15	09/08/14 16:25	1000
N-Nitrosodiphenylamine	0.196	U	0.980	0.196	mg/L		09/03/14 10:15	09/08/14 16:25	1000
1,2-Diphenylhydrazine	0.216	U	0.980	0.216	mg/L		09/03/14 10:15	09/08/14 16:25	1000
Pentachlorophenol	1.20	U	1.96	1.20	mg/L		09/03/14 10:15	09/08/14 16:25	1000
Phenanthrene	0.307	J	0.980	0.118	mg/L		09/03/14 10:15	09/08/14 16:25	1000
Anthracene	0.0980	U	0.980	0.0980	mg/L		09/03/14 10:15	09/08/14 16:25	1000
Di-n-butyl phthalate	0.216	U	0.980	0.216	mg/L		09/03/14 10:15	09/08/14 16:25	1000
Fluoranthene	0.137	U	0.980	0.137	mg/L		09/03/14 10:15	09/08/14 16:25	1000
Pyrene	0.216	U	0.980	0.216	mg/L		09/03/14 10:15	09/08/14 16:25	1000
Benzo[a]anthracene	0.157	U	0.980	0.157	mg/L		09/03/14 10:15	09/08/14 16:25	1000
Bis(2-ethylhexyl) phthalate	0.725	U	0.980	0.725	mg/L		09/03/14 10:15	09/08/14 16:25	1000
Chrysene	0.157	U	0.980	0.157	mg/L		09/03/14 10:15	09/08/14 16:25	1000
Benzo[a]pyrene	0.157	U	0.980	0.157	mg/L		09/03/14 10:15	09/08/14 16:25	1000

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	0	X	10 - 147	09/03/14 10:15	09/08/14 16:25	1000
2-Fluorobiphenyl	0	X	10 - 150	09/03/14 10:15	09/08/14 16:25	1000
2-Fluorophenol	0	X	10 - 130	09/03/14 10:15	09/08/14 16:25	1000
Nitrobenzene-d5	0	X	23 - 130	09/03/14 10:15	09/08/14 16:25	1000
Terphenyl-d14	0	X	42 - 133	09/03/14 10:15	09/08/14 16:25	1000
Phenol-d5 (Surr)	0	X	10 - 130	09/03/14 10:15	09/08/14 16:25	1000

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels - DL

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	53.3		1.96	0.157	mg/L		09/03/14 10:15	09/08/14 18:41	2000
2,4-Dimethylphenol	70.6		1.96	1.22	mg/L		09/03/14 10:15	09/08/14 18:41	2000

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	0	X	10 - 147	09/03/14 10:15	09/08/14 18:41	2000
2-Fluorobiphenyl	0	X	10 - 150	09/03/14 10:15	09/08/14 18:41	2000
2-Fluorophenol	0	X	10 - 130	09/03/14 10:15	09/08/14 18:41	2000
Nitrobenzene-d5	0	X	23 - 130	09/03/14 10:15	09/08/14 18:41	2000
Terphenyl-d14	0	X	42 - 133	09/03/14 10:15	09/08/14 18:41	2000
Phenol-d5 (Surr)	0	X	10 - 130	09/03/14 10:15	09/08/14 18:41	2000

Client Sample ID: WG-1620-MW79A-20140828

Lab Sample ID: 600-97854-13

Date Collected: 08/28/14 11:25

Matrix: Water

Date Received: 08/29/14 09:05

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	0.000750	U*	0.00500	0.000750	mg/L			09/05/14 15:35	5
Benzene	0.0485		0.00500	0.000400	mg/L			09/05/14 15:35	5
1,2-Dichloroethane	0.000700	U	0.00500	0.000700	mg/L			09/05/14 15:35	5
Toluene	0.0760		0.00500	0.000750	mg/L			09/05/14 15:35	5
Chlorobenzene	0.000600	U	0.00500	0.000600	mg/L			09/05/14 15:35	5
Ethylbenzene	0.0215		0.00500	0.000550	mg/L			09/05/14 15:35	5
Xylenes, Total	0.0763		0.0150	0.00130	mg/L			09/05/14 15:35	5

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-97854-1

Client Sample ID: WG-1620-MW79A-20140828

Lab Sample ID: 600-97854-13

Date Collected: 08/28/14 11:25

Matrix: Water

Date Received: 08/29/14 09:05

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	80		67 - 139		09/05/14 15:35	5
Dibromofluoromethane	71		62 - 130		09/05/14 15:35	5
Toluene-d8 (Surr)	89		70 - 130		09/05/14 15:35	5
1,2-Dichloroethane-d4 (Surr)	68		50 - 134		09/05/14 15:35	5

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	1.13		0.0245	0.00196	mg/L		09/03/14 10:15	09/08/14 16:52	50
Nitrobenzene	0.00539	U	0.0245	0.00539	mg/L		09/03/14 10:15	09/08/14 16:52	50
Bis(2-chloroethoxy)methane	0.00637	U	0.0245	0.00637	mg/L		09/03/14 10:15	09/08/14 16:52	50
2-Methylnaphthalene	0.654		0.0245	0.00343	mg/L		09/03/14 10:15	09/08/14 16:52	50
2-Chloronaphthalene	0.00392	U	0.0245	0.00392	mg/L		09/03/14 10:15	09/08/14 16:52	50
Acenaphthylene	0.0112	J	0.0245	0.00294	mg/L		09/03/14 10:15	09/08/14 16:52	50
2,6-Dinitrotoluene	0.00392	U	0.0245	0.00392	mg/L		09/03/14 10:15	09/08/14 16:52	50
Acenaphthene	0.427		0.0245	0.00392	mg/L		09/03/14 10:15	09/08/14 16:52	50
4-Nitrophenol	0.0275	U	0.0490	0.0275	mg/L		09/03/14 10:15	09/08/14 16:52	50
Dibenzofuran	0.342		0.0245	0.00392	mg/L		09/03/14 10:15	09/08/14 16:52	50
2,4-Dinitrotoluene	0.00637	U	0.0245	0.00637	mg/L		09/03/14 10:15	09/08/14 16:52	50
Fluorene	0.291		0.0245	0.00343	mg/L		09/03/14 10:15	09/08/14 16:52	50
4,6-Dinitro-2-methylphenol	0.0407	U	0.0490	0.0407	mg/L		09/03/14 10:15	09/08/14 16:52	50
N-Nitrosodiphenylamine	0.00490	U	0.0245	0.00490	mg/L		09/03/14 10:15	09/08/14 16:52	50
1,2-Diphenylhydrazine	0.00539	U	0.0245	0.00539	mg/L		09/03/14 10:15	09/08/14 16:52	50
Pentachlorophenol	0.0299	U	0.0490	0.0299	mg/L		09/03/14 10:15	09/08/14 16:52	50
Phenanthrene	0.355		0.0245	0.00294	mg/L		09/03/14 10:15	09/08/14 16:52	50
Anthracene	0.0673		0.0245	0.00245	mg/L		09/03/14 10:15	09/08/14 16:52	50
Di-n-butyl phthalate	0.00539	U	0.0245	0.00539	mg/L		09/03/14 10:15	09/08/14 16:52	50
Fluoranthene	0.0713		0.0245	0.00343	mg/L		09/03/14 10:15	09/08/14 16:52	50
Pyrene	0.0434		0.0245	0.00539	mg/L		09/03/14 10:15	09/08/14 16:52	50
Benzo[a]anthracene	0.00985	J	0.0245	0.00392	mg/L		09/03/14 10:15	09/08/14 16:52	50
Bis(2-ethylhexyl) phthalate	0.0181	U	0.0245	0.0181	mg/L		09/03/14 10:15	09/08/14 16:52	50
Chrysene	0.00948	J	0.0245	0.00392	mg/L		09/03/14 10:15	09/08/14 16:52	50
Benzo[a]pyrene	0.00392	U	0.0245	0.00392	mg/L		09/03/14 10:15	09/08/14 16:52	50

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	0	X	10 - 147	09/03/14 10:15	09/08/14 16:52	50
2-Fluorobiphenyl	0	X	10 - 150	09/03/14 10:15	09/08/14 16:52	50
2-Fluorophenol	0	X	10 - 130	09/03/14 10:15	09/08/14 16:52	50
Nitrobenzene-d5	0	X	23 - 130	09/03/14 10:15	09/08/14 16:52	50
Terphenyl-d14	0	X	42 - 133	09/03/14 10:15	09/08/14 16:52	50
Phenol-d5 (Surr)	0	X	10 - 130	09/03/14 10:15	09/08/14 16:52	50

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels - DL

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-Dimethylphenol	6.11		0.245	0.152	mg/L		09/03/14 10:15	09/08/14 19:09	500
Naphthalene	6.89		0.245	0.0392	mg/L		09/03/14 10:15	09/08/14 19:09	500

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	0	X	10 - 147	09/03/14 10:15	09/08/14 19:09	500
2-Fluorobiphenyl	0	X	10 - 150	09/03/14 10:15	09/08/14 19:09	500
2-Fluorophenol	0	X	10 - 130	09/03/14 10:15	09/08/14 19:09	500
Nitrobenzene-d5	0	X	23 - 130	09/03/14 10:15	09/08/14 19:09	500

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-97854-1

Client Sample ID: WG-1620-MW79A-20140828

Lab Sample ID: 600-97854-13

Date Collected: 08/28/14 11:25

Matrix: Water

Date Received: 08/29/14 09:05

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels - DL (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Terphenyl-d14	0	X	42 - 133	09/03/14 10:15	09/08/14 19:09	500
Phenol-d5 (Surr)	0	X	10 - 130	09/03/14 10:15	09/08/14 19:09	500

Client Sample ID: WG-1620-MW58A-20140828

Lab Sample ID: 600-97854-14

Date Collected: 08/28/14 12:30

Matrix: Water

Date Received: 08/29/14 09:05

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	0.0101	J	0.0200	0.00110	mg/L			09/04/14 22:56	10
Methylene Chloride	0.00150	U	0.0100	0.00150	mg/L			09/04/14 22:56	10
Benzene	0.259		0.0100	0.000800	mg/L			09/04/14 22:56	10
1,2-Dichloroethane	0.00140	U	0.0100	0.00140	mg/L			09/04/14 22:56	10
Toluene	0.135		0.0100	0.00150	mg/L			09/04/14 22:56	10
Chlorobenzene	0.00120	U	0.0100	0.00120	mg/L			09/04/14 22:56	10
Ethylbenzene	0.167		0.0100	0.00110	mg/L			09/04/14 22:56	10
Xylenes, Total	0.352		0.0300	0.00260	mg/L			09/04/14 22:56	10

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	78		67 - 139		09/04/14 22:56	10
Dibromofluoromethane	70		62 - 130		09/04/14 22:56	10
Toluene-d8 (Surr)	85		70 - 130		09/04/14 22:56	10
1,2-Dichloroethane-d4 (Surr)	68		50 - 134		09/04/14 22:56	10

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.00196	U	0.0245	0.00196	mg/L		09/03/14 10:15	09/08/14 17:20	50
Nitrobenzene	0.00539	U	0.0245	0.00539	mg/L		09/03/14 10:15	09/08/14 17:20	50
Bis(2-chloroethoxy)methane	0.00637	U	0.0245	0.00637	mg/L		09/03/14 10:15	09/08/14 17:20	50
2-Methylnaphthalene	0.373		0.0245	0.00343	mg/L		09/03/14 10:15	09/08/14 17:20	50
2-Chloronaphthalene	0.00392	U	0.0245	0.00392	mg/L		09/03/14 10:15	09/08/14 17:20	50
Acenaphthylene	0.00996	J	0.0245	0.00294	mg/L		09/03/14 10:15	09/08/14 17:20	50
2,6-Dinitrotoluene	0.00392	U	0.0245	0.00392	mg/L		09/03/14 10:15	09/08/14 17:20	50
Acenaphthene	0.221		0.0245	0.00392	mg/L		09/03/14 10:15	09/08/14 17:20	50
4-Nitrophenol	0.0275	U	0.0490	0.0275	mg/L		09/03/14 10:15	09/08/14 17:20	50
Dibenzofuran	0.136		0.0245	0.00392	mg/L		09/03/14 10:15	09/08/14 17:20	50
2,4-Dinitrotoluene	0.00637	U	0.0245	0.00637	mg/L		09/03/14 10:15	09/08/14 17:20	50
Fluorene	0.109		0.0245	0.00343	mg/L		09/03/14 10:15	09/08/14 17:20	50
4,6-Dinitro-2-methylphenol	0.0407	U	0.0490	0.0407	mg/L		09/03/14 10:15	09/08/14 17:20	50
N-Nitrosodiphenylamine	0.00490	U	0.0245	0.00490	mg/L		09/03/14 10:15	09/08/14 17:20	50
1,2-Diphenylhydrazine	0.00539	U	0.0245	0.00539	mg/L		09/03/14 10:15	09/08/14 17:20	50
Pentachlorophenol	0.0299	U	0.0490	0.0299	mg/L		09/03/14 10:15	09/08/14 17:20	50
Phenanthrene	0.0702		0.0245	0.00294	mg/L		09/03/14 10:15	09/08/14 17:20	50
Anthracene	0.0126	J	0.0245	0.00245	mg/L		09/03/14 10:15	09/08/14 17:20	50
Di-n-butyl phthalate	0.00539	U	0.0245	0.00539	mg/L		09/03/14 10:15	09/08/14 17:20	50
Fluoranthene	0.00343	U	0.0245	0.00343	mg/L		09/03/14 10:15	09/08/14 17:20	50
Pyrene	0.00539	U	0.0245	0.00539	mg/L		09/03/14 10:15	09/08/14 17:20	50
Benzo[a]anthracene	0.00392	U	0.0245	0.00392	mg/L		09/03/14 10:15	09/08/14 17:20	50
Bis(2-ethylhexyl) phthalate	0.0181	U	0.0245	0.0181	mg/L		09/03/14 10:15	09/08/14 17:20	50
Chrysene	0.00392	U	0.0245	0.00392	mg/L		09/03/14 10:15	09/08/14 17:20	50

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-97854-1

Client Sample ID: WG-1620-MW58A-20140828

Lab Sample ID: 600-97854-14

Date Collected: 08/28/14 12:30

Matrix: Water

Date Received: 08/29/14 09:05

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]pyrene	0.00392	U	0.0245	0.00392	mg/L		09/03/14 10:15	09/08/14 17:20	50
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	0	X	10 - 147				09/03/14 10:15	09/08/14 17:20	50
2-Fluorobiphenyl	0	X	10 - 150				09/03/14 10:15	09/08/14 17:20	50
2-Fluorophenol	0	X	10 - 130				09/03/14 10:15	09/08/14 17:20	50
Nitrobenzene-d5	0	X	23 - 130				09/03/14 10:15	09/08/14 17:20	50
Terphenyl-d14	0	X	42 - 133				09/03/14 10:15	09/08/14 17:20	50
Phenol-d5 (Surr)	0	X	10 - 130				09/03/14 10:15	09/08/14 17:20	50

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels - DL

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-Dimethylphenol	9.19		0.245	0.152	mg/L		09/03/14 10:15	09/08/14 19:36	500
Naphthalene	4.05		0.245	0.0392	mg/L		09/03/14 10:15	09/08/14 19:36	500
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	0	X	10 - 147				09/03/14 10:15	09/08/14 19:36	500
2-Fluorobiphenyl	0	X	10 - 150				09/03/14 10:15	09/08/14 19:36	500
2-Fluorophenol	0	X	10 - 130				09/03/14 10:15	09/08/14 19:36	500
Nitrobenzene-d5	0	X	23 - 130				09/03/14 10:15	09/08/14 19:36	500
Terphenyl-d14	0	X	42 - 133				09/03/14 10:15	09/08/14 19:36	500
Phenol-d5 (Surr)	0	X	10 - 130				09/03/14 10:15	09/08/14 19:36	500

Client Sample ID: WG-1620-MW23C-20140828

Lab Sample ID: 600-97854-15

Date Collected: 08/28/14 13:35

Matrix: Water

Date Received: 08/29/14 09:05

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	0.00110	U	0.0200	0.00110	mg/L			09/04/14 23:26	10
Methylene Chloride	0.00150	U	0.0100	0.00150	mg/L			09/04/14 23:26	10
Benzene	0.00596	J	0.0100	0.000800	mg/L			09/04/14 23:26	10
1,2-Dichloroethane	0.00140	U	0.0100	0.00140	mg/L			09/04/14 23:26	10
Toluene	0.00378	J	0.0100	0.00150	mg/L			09/04/14 23:26	10
Chlorobenzene	0.00120	U	0.0100	0.00120	mg/L			09/04/14 23:26	10
Ethylbenzene	0.150		0.0100	0.00110	mg/L			09/04/14 23:26	10
Xylenes, Total	0.0915		0.0300	0.00260	mg/L			09/04/14 23:26	10
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	78		67 - 139					09/04/14 23:26	10
Dibromofluoromethane	69		62 - 130					09/04/14 23:26	10
Toluene-d8 (Surr)	85		70 - 130					09/04/14 23:26	10
1,2-Dichloroethane-d4 (Surr)	67		50 - 134					09/04/14 23:26	10

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.00800	U	0.100	0.00800	mg/L		09/03/14 10:25	09/06/14 06:07	50
Nitrobenzene	0.0220	U	0.100	0.0220	mg/L		09/03/14 10:25	09/06/14 06:07	50
2,4-Dimethylphenol	0.202		0.100	0.0620	mg/L		09/03/14 10:25	09/06/14 06:07	50
Bis(2-chloroethoxy)methane	0.0260	U	0.100	0.0260	mg/L		09/03/14 10:25	09/06/14 06:07	50
2-Chloronaphthalene	0.0160	U	0.100	0.0160	mg/L		09/03/14 10:25	09/06/14 06:07	50

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-97854-1

Client Sample ID: WG-1620-MW23C-20140828

Lab Sample ID: 600-97854-15

Date Collected: 08/28/14 13:35

Matrix: Water

Date Received: 08/29/14 09:05

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthylene	0.336		0.100	0.0120	mg/L		09/03/14 10:25	09/06/14 06:07	50
2,6-Dinitrotoluene	0.0160	U	0.100	0.0160	mg/L		09/03/14 10:25	09/06/14 06:07	50
4-Nitrophenol	0.112	U	0.200	0.112	mg/L		09/03/14 10:25	09/06/14 06:07	50
2,4-Dinitrotoluene	0.0260	U	0.100	0.0260	mg/L		09/03/14 10:25	09/06/14 06:07	50
4,6-Dinitro-2-methylphenol	0.166	U	0.200	0.166	mg/L		09/03/14 10:25	09/06/14 06:07	50
N-Nitrosodiphenylamine	0.0200	U	0.100	0.0200	mg/L		09/03/14 10:25	09/06/14 06:07	50
1,2-Diphenylhydrazine	0.0220	U	0.100	0.0220	mg/L		09/03/14 10:25	09/06/14 06:07	50
Pentachlorophenol	0.122	U	0.200	0.122	mg/L		09/03/14 10:25	09/06/14 06:07	50
Di-n-butyl phthalate	0.0220	U	0.100	0.0220	mg/L		09/03/14 10:25	09/06/14 06:07	50
Benzo[a]anthracene	2.63		0.100	0.0160	mg/L		09/03/14 10:25	09/06/14 06:07	50
Bis(2-ethylhexyl) phthalate	0.0740	U	0.100	0.0740	mg/L		09/03/14 10:25	09/06/14 06:07	50
Chrysene	2.24		0.100	0.0160	mg/L		09/03/14 10:25	09/06/14 06:07	50
Benzo[a]pyrene	0.730		0.100	0.0160	mg/L		09/03/14 10:25	09/06/14 06:07	50

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	0	X	10 - 147	09/03/14 10:25	09/06/14 06:07	50
2-Fluorobiphenyl	0	X	10 - 150	09/03/14 10:25	09/06/14 06:07	50
2-Fluorophenol	0	X	10 - 130	09/03/14 10:25	09/06/14 06:07	50
Nitrobenzene-d5	0	X	23 - 130	09/03/14 10:25	09/06/14 06:07	50
Terphenyl-d14	0	X	42 - 133	09/03/14 10:25	09/06/14 06:07	50
Phenol-d5 (Surr)	0	X	10 - 130	09/03/14 10:25	09/06/14 06:07	50

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels - DL

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	57.9		2.00	0.320	mg/L		09/03/14 10:25	09/08/14 17:47	1000
2-Methylnaphthalene	18.3		2.00	0.280	mg/L		09/03/14 10:25	09/08/14 17:47	1000
Acenaphthene	25.9		2.00	0.320	mg/L		09/03/14 10:25	09/08/14 17:47	1000
Dibenzofuran	25.7		2.00	0.320	mg/L		09/03/14 10:25	09/08/14 17:47	1000
Fluorene	20.5		2.00	0.280	mg/L		09/03/14 10:25	09/08/14 17:47	1000
Phenanthrene	59.4		2.00	0.240	mg/L		09/03/14 10:25	09/08/14 17:47	1000
Anthracene	8.74		2.00	0.200	mg/L		09/03/14 10:25	09/08/14 17:47	1000
Fluoranthene	20.4		2.00	0.280	mg/L		09/03/14 10:25	09/08/14 17:47	1000
Pyrene	13.3		2.00	0.440	mg/L		09/03/14 10:25	09/08/14 17:47	1000

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	0	X	10 - 147	09/03/14 10:25	09/08/14 17:47	1000
2-Fluorobiphenyl	0	X	10 - 150	09/03/14 10:25	09/08/14 17:47	1000
2-Fluorophenol	0	X	10 - 130	09/03/14 10:25	09/08/14 17:47	1000
Nitrobenzene-d5	0	X	23 - 130	09/03/14 10:25	09/08/14 17:47	1000
Terphenyl-d14	0	X	42 - 133	09/03/14 10:25	09/08/14 17:47	1000
Phenol-d5 (Surr)	0	X	10 - 130	09/03/14 10:25	09/08/14 17:47	1000

TestAmerica Houston

Definitions/Glossary

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-97854-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
U	Analyte was not detected at or above the SDL.
N1	MS, MSD: Spike recovery exceeds upper or lower control limits.
J	Result is less than the MQL but greater than or equal to the SDL and the concentration is an estimated value.
*	RPD of the LCS and LCSD exceeds the control limits

GC/MS Semi VOA

Qualifier	Qualifier Description
U	Analyte was not detected at or above the SDL.
N2	RPD of the MS and MSD exceeds the control limits
J	Result is less than the MQL but greater than or equal to the SDL and the concentration is an estimated value.
X	Surrogate is outside control limits

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Surrogate Summary

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-97854-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		BFB (67-139)	DBFM (62-130)	TOL (70-130)	12DCE (50-134)
600-97854-1	WG-1620-MW61A-20140828	102	70	95	75
600-97854-1 MS	WG-1620-MW61A-20140828	97	75	94	74
600-97854-1 MSD	WG-1620-MW61A-20140828	98	73	92	73
600-97854-2	WG-1620-MW44A-20140828	98	72	94	78
600-97854-3	WG-1620-MW33A-20140828	101	71	95	76
600-97854-4	WG-1620-MWDUP A-20140828	102	72	93	79
600-97854-5	WG-1620-MW65D-20140828	78	77	82	74
600-97854-5 MS	WG-1620-MW65D-20140828	83	80	84	77
600-97854-5 MSD	WG-1620-MW65D-20140828	83	85	86	80
600-97854-6	WG-1620-MW66D-20140828	100	68	92	73
600-97854-7	WG-1620-MW36D-20140828	107	73	98	80
600-97854-8	WG-1620-MW59D-20140828	77	77	87	75
600-97854-9	WG-1620-DUPD-20140828	78	77	85	78
600-97854-10	WG-1620-MW80B-20140828	78	80	84	75
600-97854-11	WG-1620-MW50A-20140828	77	76	83	78
600-97854-12	WG-1620-MW74B-20140828	76	66	88	58
600-97854-13	WG-1620-MW79A-20140828	80	71	89	68
600-97854-14	WG-1620-MW58A-20140828	78	70	85	68
600-97854-15	WG-1620-MW23C-20140828	78	69	85	67
LCS 600-143176/3	Lab Control Sample	78	73	80	70
LCS 600-143272/3	Lab Control Sample	97	73	92	72
LCS 600-143281/3	Lab Control Sample	80	74	83	71
LCS 600-143386/3	Lab Control Sample	82	75	86	73
LCS 600-143176/4	Lab Control Sample Dup	85	80	87	77
LCS 600-143386/4	Lab Control Sample Dup	83	75	86	71
MB 600-143176/6	Method Blank	77	77	84	74
MB 600-143272/7	Method Blank	97	69	90	74
MB 600-143281/5	Method Blank	80	80	86	79
MB 600-143386/6	Method Blank	78	73	81	70

Surrogate Legend

- BFB = 4-Bromofluorobenzene
- DBFM = Dibromofluoromethane
- TOL = Toluene-d8 (Surr)
- 12DCE = 1,2-Dichloroethane-d4 (Surr)

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)					
		TBP (10-147)	FBP (10-150)	2FP (10-130)	NBZ (23-130)	TPH (42-133)	PHL (10-130)
600-97854-1	WG-1620-MW61A-20140828	81	81	41	72	83	26
600-97854-1 MS	WG-1620-MW61A-20140828	88	75	34	69	86	21
600-97854-1 MSD	WG-1620-MW61A-20140828	79	72	37	67	77	23
600-97854-2	WG-1620-MW44A-20140828	88	80	37	68	87	23
600-97854-2 - DL	WG-1620-MW44A-20140828	56	72	24	58	75	14
600-97854-3	WG-1620-MW33A-20140828	90	76	41	107	88	23
600-97854-3 - DL	WG-1620-MW33A-20140828	0 X	0 X	0 X	0 X	0 X	0 X

TestAmerica Houston

Surrogate Summary

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-97854-1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)					
		TBP (10-147)	FBP (10-150)	2FP (10-130)	NBZ (23-130)	TPH (42-133)	PHL (10-130)
600-97854-4	WG-1620-MWDUP A-20140828	93	81	42	54	92	22
600-97854-4 - DL	WG-1620-MWDUP A-20140828	81	80	38	62	89	18
600-97854-4 - DL2	WG-1620-MWDUP A-20140828	0 X	0 X	0 X	0 X	0 X	0 X
600-97854-5	WG-1620-MW65D-20140828	83	72	39	64	84	25
600-97854-5 MS	WG-1620-MW65D-20140828	96	85	39	79	95	25
600-97854-5 MSD	WG-1620-MW65D-20140828	93	81	53	77	91	34
600-97854-6	WG-1620-MW66D-20140828	104	91	43	78	95	28
600-97854-7	WG-1620-MW36D-20140828	102	87	42	71	95	28
600-97854-8	WG-1620-MW59D-20140828	87	67	35	60	81	23
600-97854-9	WG-1620-DUPD-20140828	101	83	40	71	94	28
600-97854-10	WG-1620-MW80B-20140828	92	75	39	64	84	26
600-97854-11	WG-1620-MW50A-20140828	47	85	33	76	91	23
600-97854-12 - DL	WG-1620-MW74B-20140828	0 X	0 X	0 X	0 X	0 X	0 X
600-97854-12	WG-1620-MW74B-20140828	0 X	0 X	0 X	0 X	0 X	0 X
600-97854-13 - DL	WG-1620-MW79A-20140828	0 X	0 X	0 X	0 X	0 X	0 X
600-97854-13	WG-1620-MW79A-20140828	0 X	0 X	0 X	0 X	0 X	0 X
600-97854-14	WG-1620-MW58A-20140828	0 X	0 X	0 X	0 X	0 X	0 X
600-97854-14 - DL	WG-1620-MW58A-20140828	0 X	0 X	0 X	0 X	0 X	0 X
600-97854-15	WG-1620-MW23C-20140828	0 X	0 X	0 X	0 X	0 X	0 X
600-97854-15 - DL	WG-1620-MW23C-20140828	0 X	0 X	0 X	0 X	0 X	0 X
LCS 600-143187/2-A	Lab Control Sample	78	78	75	75	94	75
MB 600-143187/1-A	Method Blank	50	66	69	70	84	67

Surrogate Legend

- TBP = 2,4,6-Tribromophenol
- FBP = 2-Fluorobiphenyl
- 2FP = 2-Fluorophenol
- NBZ = Nitrobenzene-d5
- TPH = Terphenyl-d14
- PHL = Phenol-d5 (Surr)

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-97854-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 600-143176/6

Matrix: Water

Analysis Batch: 143176

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	0.000110	U	0.00200	0.000110	mg/L			09/03/14 12:28	1
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			09/03/14 12:28	1
Benzene	0.0000800	U	0.00100	0.0000800	mg/L			09/03/14 12:28	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			09/03/14 12:28	1
Toluene	0.000150	U	0.00100	0.000150	mg/L			09/03/14 12:28	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			09/03/14 12:28	1
Ethylbenzene	0.000110	U	0.00100	0.000110	mg/L			09/03/14 12:28	1
Xylenes, Total	0.000260	U	0.00300	0.000260	mg/L			09/03/14 12:28	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	77		67 - 139		09/03/14 12:28	1
Dibromofluoromethane	77		62 - 130		09/03/14 12:28	1
Toluene-d8 (Surr)	84		70 - 130		09/03/14 12:28	1
1,2-Dichloroethane-d4 (Surr)	74		50 - 134		09/03/14 12:28	1

Lab Sample ID: LCS 600-143176/3

Matrix: Water

Analysis Batch: 143176

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Vinyl chloride	0.0100	0.01131		mg/L		113	33 - 150
Methylene Chloride	0.0100	0.007846		mg/L		78	55 - 147
Benzene	0.0100	0.009564		mg/L		96	70 - 130
1,2-Dichloroethane	0.0100	0.009161		mg/L		92	67 - 134
Toluene	0.0100	0.01042		mg/L		104	70 - 130
Chlorobenzene	0.0100	0.01001		mg/L		100	69 - 130
Ethylbenzene	0.0100	0.01063		mg/L		106	70 - 130
Xylenes, Total	0.0200	0.02104		mg/L		105	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene	78		67 - 139
Dibromofluoromethane	73		62 - 130
Toluene-d8 (Surr)	80		70 - 130
1,2-Dichloroethane-d4 (Surr)	70		50 - 134

Lab Sample ID: LCSD 600-143176/4

Matrix: Water

Analysis Batch: 143176

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Vinyl chloride	0.0100	0.01142		mg/L		114	33 - 150	1	20
Methylene Chloride	0.0100	0.008032		mg/L		80	55 - 147	2	20
Benzene	0.0100	0.009825		mg/L		98	70 - 130	3	20
1,2-Dichloroethane	0.0100	0.009287		mg/L		93	67 - 134	1	20
Toluene	0.0100	0.01076		mg/L		108	70 - 130	3	20
Chlorobenzene	0.0100	0.01024		mg/L		102	69 - 130	2	20
Ethylbenzene	0.0100	0.01087		mg/L		109	70 - 130	2	20

TestAmerica Houston

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-97854-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 600-143176/4

Matrix: Water

Analysis Batch: 143176

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Xylenes, Total	0.0200	0.02170		mg/L		109	70 - 130	3	20
Surrogate	%Recovery	LCSD Qualifier	Limits						
4-Bromofluorobenzene	85		67 - 139						
Dibromofluoromethane	80		62 - 130						
Toluene-d8 (Surr)	87		70 - 130						
1,2-Dichloroethane-d4 (Surr)	77		50 - 134						

Lab Sample ID: MB 600-143272/7

Matrix: Water

Analysis Batch: 143272

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	0.000110	U	0.00200	0.000110	mg/L			09/04/14 11:30	1
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			09/04/14 11:30	1
Benzene	0.0000800	U	0.00100	0.0000800	mg/L			09/04/14 11:30	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			09/04/14 11:30	1
Toluene	0.000150	U	0.00100	0.000150	mg/L			09/04/14 11:30	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			09/04/14 11:30	1
Ethylbenzene	0.000110	U	0.00100	0.000110	mg/L			09/04/14 11:30	1
Xylenes, Total	0.000260	U	0.00300	0.000260	mg/L			09/04/14 11:30	1
Surrogate	%Recovery	MB Qualifier	Limits			Prepared	Analyzed	Dil Fac	
4-Bromofluorobenzene	97		67 - 139				09/04/14 11:30	1	
Dibromofluoromethane	69		62 - 130				09/04/14 11:30	1	
Toluene-d8 (Surr)	90		70 - 130				09/04/14 11:30	1	
1,2-Dichloroethane-d4 (Surr)	74		50 - 134				09/04/14 11:30	1	

Lab Sample ID: LCS 600-143272/3

Matrix: Water

Analysis Batch: 143272

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Vinyl chloride	0.0100	0.009192		mg/L		92	33 - 150
Methylene Chloride	0.0100	0.006149		mg/L		61	55 - 147
Benzene	0.0100	0.009324		mg/L		93	70 - 130
1,2-Dichloroethane	0.0100	0.009315		mg/L		93	67 - 134
Toluene	0.0100	0.01115		mg/L		111	70 - 130
Chlorobenzene	0.0100	0.01080		mg/L		108	69 - 130
Ethylbenzene	0.0100	0.01191		mg/L		119	70 - 130
Xylenes, Total	0.0200	0.02561		mg/L		128	70 - 130
Surrogate	%Recovery	LCS Qualifier	Limits				
4-Bromofluorobenzene	97		67 - 139				
Dibromofluoromethane	73		62 - 130				
Toluene-d8 (Surr)	92		70 - 130				
1,2-Dichloroethane-d4 (Surr)	72		50 - 134				

TestAmerica Houston

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-97854-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 600-97854-1 MS

Matrix: Water

Analysis Batch: 143272

Client Sample ID: WG-1620-MW61A-20140828

Prep Type: Total/NA

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec.
	Result	Qualifier		Result	Qualifier				
Vinyl chloride	0.000110	U	0.0100	0.008735		mg/L		87	33 - 150
Methylene Chloride	0.000150	U	0.0100	0.005005	N1	mg/L		50	55 - 147
Benzene	0.0000800	U	0.0100	0.008867		mg/L		89	70 - 130
1,2-Dichloroethane	0.000140	U	0.0100	0.008962		mg/L		90	67 - 134
Toluene	0.000150	U	0.0100	0.01079		mg/L		108	70 - 130
Chlorobenzene	0.000120	U	0.0100	0.01050		mg/L		105	69 - 130
Ethylbenzene	0.000110	U	0.0100	0.01148		mg/L		115	70 - 130
Xylenes, Total	0.000260	U	0.0200	0.02479		mg/L		124	70 - 130

Surrogate	MS	MS	Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene	97		67 - 139
Dibromofluoromethane	75		62 - 130
Toluene-d8 (Surr)	94		70 - 130
1,2-Dichloroethane-d4 (Surr)	74		50 - 134

Lab Sample ID: 600-97854-1 MSD

Matrix: Water

Analysis Batch: 143272

Client Sample ID: WG-1620-MW61A-20140828

Prep Type: Total/NA

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.	RPD	Limit
	Result	Qualifier		Result	Qualifier						
Vinyl chloride	0.000110	U	0.0100	0.008264		mg/L		83	33 - 150	6	30
Methylene Chloride	0.000150	U	0.0100	0.004720	N1	mg/L		47	55 - 147	6	30
Benzene	0.0000800	U	0.0100	0.008806		mg/L		88	70 - 130	1	30
1,2-Dichloroethane	0.000140	U	0.0100	0.009107		mg/L		91	67 - 134	2	30
Toluene	0.000150	U	0.0100	0.01060		mg/L		106	70 - 130	2	30
Chlorobenzene	0.000120	U	0.0100	0.01041		mg/L		104	69 - 130	1	30
Ethylbenzene	0.000110	U	0.0100	0.01115		mg/L		112	70 - 130	3	30
Xylenes, Total	0.000260	U	0.0200	0.02445		mg/L		122	70 - 130	1	30

Surrogate	MSD	MSD	Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene	98		67 - 139
Dibromofluoromethane	73		62 - 130
Toluene-d8 (Surr)	92		70 - 130
1,2-Dichloroethane-d4 (Surr)	73		50 - 134

Lab Sample ID: MB 600-143281/5

Matrix: Water

Analysis Batch: 143281

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB	MB	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Vinyl chloride	0.000110	U	0.00200	0.000110	mg/L			09/04/14 14:38	1
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			09/04/14 14:38	1
Benzene	0.0000800	U	0.00100	0.0000800	mg/L			09/04/14 14:38	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			09/04/14 14:38	1
Toluene	0.000150	U	0.00100	0.000150	mg/L			09/04/14 14:38	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			09/04/14 14:38	1
Ethylbenzene	0.000110	U	0.00100	0.000110	mg/L			09/04/14 14:38	1

TestAmerica Houston

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-97854-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 600-143281/5

Matrix: Water

Analysis Batch: 143281

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Xylenes, Total	0.000260	U	0.00300	0.000260	mg/L			09/04/14 14:38	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	80		67 - 139		09/04/14 14:38	1
Dibromofluoromethane	80		62 - 130		09/04/14 14:38	1
Toluene-d8 (Surr)	86		70 - 130		09/04/14 14:38	1
1,2-Dichloroethane-d4 (Surr)	79		50 - 134		09/04/14 14:38	1

Lab Sample ID: LCS 600-143281/3

Matrix: Water

Analysis Batch: 143281

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Vinyl chloride	0.0100	0.01095		mg/L		110	33 - 150
Methylene Chloride	0.0100	0.007647		mg/L		76	55 - 147
Benzene	0.0100	0.009140		mg/L		91	70 - 130
1,2-Dichloroethane	0.0100	0.008626		mg/L		86	67 - 134
Toluene	0.0100	0.009975		mg/L		100	70 - 130
Chlorobenzene	0.0100	0.009597		mg/L		96	69 - 130
Ethylbenzene	0.0100	0.01024		mg/L		102	70 - 130
Xylenes, Total	0.0200	0.02039		mg/L		102	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene	80		67 - 139
Dibromofluoromethane	74		62 - 130
Toluene-d8 (Surr)	83		70 - 130
1,2-Dichloroethane-d4 (Surr)	71		50 - 134

Lab Sample ID: 600-97854-5 MS

Matrix: Water

Analysis Batch: 143281

Client Sample ID: WG-1620-MW65D-20140828

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Vinyl chloride	0.000110		0.0100	0.01099		mg/L		110	33 - 150
Methylene Chloride	0.000150	U	0.0100	0.007304		mg/L		73	55 - 147
Benzene	0.0000800	U	0.0100	0.009578		mg/L		96	70 - 130
1,2-Dichloroethane	0.000140	U	0.0100	0.009509		mg/L		95	67 - 134
Toluene	0.000150	U	0.0100	0.01014		mg/L		101	70 - 130
Chlorobenzene	0.000120	U	0.0100	0.009773		mg/L		98	69 - 130
Ethylbenzene	0.000110	U	0.0100	0.01025		mg/L		102	70 - 130
Xylenes, Total	0.000260	U	0.0200	0.02059		mg/L		103	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
4-Bromofluorobenzene	83		67 - 139
Dibromofluoromethane	80		62 - 130
Toluene-d8 (Surr)	84		70 - 130
1,2-Dichloroethane-d4 (Surr)	77		50 - 134

TestAmerica Houston

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-97854-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 600-97854-5 MSD

Matrix: Water

Analysis Batch: 143281

Client Sample ID: WG-1620-MW65D-20140828

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Vinyl chloride	0.000110		0.0100	0.01162		mg/L		116	33 - 150	6	30
Methylene Chloride	0.000150	U	0.0100	0.007301		mg/L		73	55 - 147	0	30
Benzene	0.0000800	U	0.0100	0.01006		mg/L		101	70 - 130	5	30
1,2-Dichloroethane	0.000140	U	0.0100	0.009985		mg/L		100	67 - 134	5	30
Toluene	0.000150	U	0.0100	0.01019		mg/L		102	70 - 130	0	30
Chlorobenzene	0.000120	U	0.0100	0.009860		mg/L		99	69 - 130	1	30
Ethylbenzene	0.000110	U	0.0100	0.01005		mg/L		100	70 - 130	2	30
Xylenes, Total	0.000260	U	0.0200	0.02075		mg/L		104	70 - 130	1	30

Surrogate	MSD %Recovery	MSD Qualifier	Limits
4-Bromofluorobenzene	83		67 - 139
Dibromofluoromethane	85		62 - 130
Toluene-d8 (Surr)	86		70 - 130
1,2-Dichloroethane-d4 (Surr)	80		50 - 134

Lab Sample ID: MB 600-143386/6

Matrix: Water

Analysis Batch: 143386

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	0.000110	U	0.00200	0.000110	mg/L			09/05/14 12:37	1
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			09/05/14 12:37	1
Benzene	0.0000800	U	0.00100	0.0000800	mg/L			09/05/14 12:37	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			09/05/14 12:37	1
Toluene	0.000150	U	0.00100	0.000150	mg/L			09/05/14 12:37	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			09/05/14 12:37	1
Ethylbenzene	0.000110	U	0.00100	0.000110	mg/L			09/05/14 12:37	1
Xylenes, Total	0.000260	U	0.00300	0.000260	mg/L			09/05/14 12:37	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	78		67 - 139		09/05/14 12:37	1
Dibromofluoromethane	73		62 - 130		09/05/14 12:37	1
Toluene-d8 (Surr)	81		70 - 130		09/05/14 12:37	1
1,2-Dichloroethane-d4 (Surr)	70		50 - 134		09/05/14 12:37	1

Lab Sample ID: LCS 600-143386/3

Matrix: Water

Analysis Batch: 143386

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Vinyl chloride	0.0100	0.01104		mg/L		110	33 - 150
Methylene Chloride	0.0100	0.007603		mg/L		76	55 - 147
Benzene	0.0100	0.009356		mg/L		94	70 - 130
1,2-Dichloroethane	0.0100	0.008458		mg/L		85	67 - 134
Toluene	0.0100	0.009979		mg/L		100	70 - 130
Chlorobenzene	0.0100	0.009489		mg/L		95	69 - 130
Ethylbenzene	0.0100	0.01016		mg/L		102	70 - 130

TestAmerica Houston

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-97854-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 600-143386/3

Matrix: Water

Analysis Batch: 143386

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Xylenes, Total	0.0200	0.02030		mg/L		102	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene	82		67 - 139
Dibromofluoromethane	75		62 - 130
Toluene-d8 (Surr)	86		70 - 130
1,2-Dichloroethane-d4 (Surr)	73		50 - 134

Lab Sample ID: LCSD 600-143386/4

Matrix: Water

Analysis Batch: 143386

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Vinyl chloride	0.0100	0.01062		mg/L		106	33 - 150	4	20
Methylene Chloride	0.0100	0.009652	*	mg/L		97	55 - 147	24	20
Benzene	0.0100	0.009634		mg/L		96	70 - 130	3	20
1,2-Dichloroethane	0.0100	0.009244		mg/L		92	67 - 134	9	20
Toluene	0.0100	0.01049		mg/L		105	70 - 130	5	20
Chlorobenzene	0.0100	0.01005		mg/L		100	69 - 130	6	20
Ethylbenzene	0.0100	0.01078		mg/L		108	70 - 130	6	20
Xylenes, Total	0.0200	0.02159		mg/L		108	70 - 130	6	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene	83		67 - 139
Dibromofluoromethane	75		62 - 130
Toluene-d8 (Surr)	86		70 - 130
1,2-Dichloroethane-d4 (Surr)	71		50 - 134

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Lab Sample ID: MB 600-143187/1-A

Matrix: Water

Analysis Batch: 143361

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 143187

Analyte	MB Result	MB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.0000400	U	0.000500	0.0000400	mg/L		09/03/14 10:15	09/05/14 11:22	1
Nitrobenzene	0.000110	U	0.000500	0.000110	mg/L		09/03/14 10:15	09/05/14 11:22	1
2,4-Dimethylphenol	0.000310	U	0.000500	0.000310	mg/L		09/03/14 10:15	09/05/14 11:22	1
Bis(2-chloroethoxy)methane	0.000130	U	0.000500	0.000130	mg/L		09/03/14 10:15	09/05/14 11:22	1
Naphthalene	0.0000800	U	0.000500	0.0000800	mg/L		09/03/14 10:15	09/05/14 11:22	1
2-Methylnaphthalene	0.0000700	U	0.000500	0.0000700	mg/L		09/03/14 10:15	09/05/14 11:22	1
2-Chloronaphthalene	0.0000800	U	0.000500	0.0000800	mg/L		09/03/14 10:15	09/05/14 11:22	1
Acenaphthylene	0.0000600	U	0.000500	0.0000600	mg/L		09/03/14 10:15	09/05/14 11:22	1
2,6-Dinitrotoluene	0.0000800	U	0.000500	0.0000800	mg/L		09/03/14 10:15	09/05/14 11:22	1
Acenaphthene	0.0000800	U	0.000500	0.0000800	mg/L		09/03/14 10:15	09/05/14 11:22	1
4-Nitrophenol	0.000560	U	0.00100	0.000560	mg/L		09/03/14 10:15	09/05/14 11:22	1
Dibenzofuran	0.0000800	U	0.000500	0.0000800	mg/L		09/03/14 10:15	09/05/14 11:22	1

TestAmerica Houston

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-97854-1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Lab Sample ID: MB 600-143187/1-A

Matrix: Water

Analysis Batch: 143361

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 143187

Analyte	MB Result	MB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-Dinitrotoluene	0.000130	U	0.000500	0.000130	mg/L		09/03/14 10:15	09/05/14 11:22	1
Fluorene	0.0000700	U	0.000500	0.0000700	mg/L		09/03/14 10:15	09/05/14 11:22	1
4,6-Dinitro-2-methylphenol	0.000830	U	0.00100	0.000830	mg/L		09/03/14 10:15	09/05/14 11:22	1
N-Nitrosodiphenylamine	0.000100	U	0.000500	0.000100	mg/L		09/03/14 10:15	09/05/14 11:22	1
1,2-Diphenylhydrazine	0.000110	U	0.000500	0.000110	mg/L		09/03/14 10:15	09/05/14 11:22	1
Pentachlorophenol	0.000610	U	0.00100	0.000610	mg/L		09/03/14 10:15	09/05/14 11:22	1
Phenanthrene	0.0000600	U	0.000500	0.0000600	mg/L		09/03/14 10:15	09/05/14 11:22	1
Anthracene	0.0000500	U	0.000500	0.0000500	mg/L		09/03/14 10:15	09/05/14 11:22	1
Di-n-butyl phthalate	0.000110	U	0.000500	0.000110	mg/L		09/03/14 10:15	09/05/14 11:22	1
Fluoranthene	0.0000700	U	0.000500	0.0000700	mg/L		09/03/14 10:15	09/05/14 11:22	1
Pyrene	0.000110	U	0.000500	0.000110	mg/L		09/03/14 10:15	09/05/14 11:22	1
Benzo[a]anthracene	0.0000800	U	0.000500	0.0000800	mg/L		09/03/14 10:15	09/05/14 11:22	1
Bis(2-ethylhexyl) phthalate	0.000370	U	0.000500	0.000370	mg/L		09/03/14 10:15	09/05/14 11:22	1
Chrysene	0.0000800	U	0.000500	0.0000800	mg/L		09/03/14 10:15	09/05/14 11:22	1
Benzo[a]pyrene	0.0000800	U	0.000500	0.0000800	mg/L		09/03/14 10:15	09/05/14 11:22	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	50		10 - 147	09/03/14 10:15	09/05/14 11:22	1
2-Fluorobiphenyl	66		10 - 150	09/03/14 10:15	09/05/14 11:22	1
2-Fluorophenol	69		10 - 130	09/03/14 10:15	09/05/14 11:22	1
Nitrobenzene-d5	70		23 - 130	09/03/14 10:15	09/05/14 11:22	1
Terphenyl-d14	84		42 - 133	09/03/14 10:15	09/05/14 11:22	1
Phenol-d5 (Surr)	67		10 - 130	09/03/14 10:15	09/05/14 11:22	1

Lab Sample ID: LCS 600-143187/2-A

Matrix: Water

Analysis Batch: 143361

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 143187

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Phenol	0.0100	0.007094		mg/L		71	10 - 144
Nitrobenzene	0.0100	0.007834		mg/L		78	41 - 130
2,4-Dimethylphenol	0.0100	0.007218		mg/L		72	45 - 130
Bis(2-chloroethoxy)methane	0.0100	0.007291		mg/L		73	36 - 134
Naphthalene	0.0100	0.007326		mg/L		73	57 - 130
2-Methylnaphthalene	0.0100	0.007211		mg/L		72	52 - 130
2-Chloronaphthalene	0.0100	0.007515		mg/L		75	56 - 130
Acenaphthylene	0.0100	0.007020		mg/L		70	58 - 130
2,6-Dinitrotoluene	0.0100	0.007784		mg/L		78	56 - 130
Acenaphthene	0.0100	0.007204		mg/L		72	59 - 130
4-Nitrophenol	0.0200	0.01685		mg/L		84	10 - 150
Dibenzofuran	0.0100	0.007469		mg/L		75	56 - 130
2,4-Dinitrotoluene	0.0100	0.007542		mg/L		75	54 - 130
Fluorene	0.0100	0.007100		mg/L		71	57 - 130
4,6-Dinitro-2-methylphenol	0.0200	0.01734		mg/L		87	10 - 145
N-Nitrosodiphenylamine	0.0100	0.006477		mg/L		65	55 - 137
1,2-Diphenylhydrazine	0.0100	0.006366		mg/L		64	45 - 130
Pentachlorophenol	0.0200	0.01245		mg/L		62	27 - 130
Phenanthrene	0.0100	0.007413		mg/L		74	60 - 130

TestAmerica Houston

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-97854-1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Lab Sample ID: LCS 600-143187/2-A

Matrix: Water

Analysis Batch: 143361

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 143187

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Anthracene	0.0100	0.007035		mg/L		70	46 - 132
Di-n-butyl phthalate	0.0100	0.007023		mg/L		70	61 - 130
Fluoranthene	0.0100	0.007251		mg/L		73	63 - 130
Pyrene	0.0100	0.008456		mg/L		85	62 - 130
Benzo[a]anthracene	0.0100	0.007967		mg/L		80	58 - 130
Bis(2-ethylhexyl) phthalate	0.0100	0.007428		mg/L		74	59 - 130
Chrysene	0.0100	0.007754		mg/L		78	60 - 130
Benzo[a]pyrene	0.0100	0.008295		mg/L		83	56 - 130

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
2,4,6-Tribromophenol	78		10 - 147
2-Fluorobiphenyl	78		10 - 150
2-Fluorophenol	75		10 - 130
Nitrobenzene-d5	75		23 - 130
Terphenyl-d14	94		42 - 133
Phenol-d5 (Surr)	75		10 - 130

Lab Sample ID: 600-97854-1 MS

Matrix: Water

Analysis Batch: 143452

Client Sample ID: WG-1620-MW61A-20140828

Prep Type: Total/NA

Prep Batch: 143187

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Phenol	0.000400	U	0.00990	0.002338		mg/L		24	10 - 144
Nitrobenzene	0.000110	U	0.00990	0.007103		mg/L		72	41 - 130
2,4-Dimethylphenol	0.000310	U	0.00990	0.006011		mg/L		61	45 - 130
Bis(2-chloroethoxy)methane	0.000130	U	0.00990	0.007200		mg/L		73	36 - 134
Naphthalene	0.0000800	U	0.00990	0.007422		mg/L		75	57 - 130
2-Methylnaphthalene	0.0000700	U	0.00990	0.007456		mg/L		75	52 - 130
2-Chloronaphthalene	0.0000800	U	0.00990	0.007504		mg/L		76	56 - 130
Acenaphthylene	0.0000600	U	0.00990	0.007432		mg/L		75	58 - 130
2,6-Dinitrotoluene	0.0000800	U	0.00990	0.008777		mg/L		89	56 - 130
Acenaphthene	0.0000800	U	0.00990	0.007563		mg/L		76	59 - 130
4-Nitrophenol	0.000560	U	0.0198	0.004776		mg/L		24	10 - 150
Dibenzofuran	0.0000800	U	0.00990	0.007650		mg/L		77	56 - 130
2,4-Dinitrotoluene	0.000130	U	0.00990	0.008891		mg/L		90	54 - 130
Fluorene	0.0000700	U	0.00990	0.007874		mg/L		80	57 - 130
4,6-Dinitro-2-methylphenol	0.000830	U	0.0198	0.01717		mg/L		87	10 - 145
N-Nitrosodiphenylamine	0.000100	U	0.00990	0.007416		mg/L		75	55 - 137
1,2-Diphenylhydrazine	0.000110	U	0.00990	0.007580		mg/L		77	45 - 130
Pentachlorophenol	0.000610	U	0.0198	0.01737		mg/L		88	27 - 130
Phenanthrene	0.0000600	U	0.00990	0.008208		mg/L		83	60 - 130
Anthracene	0.0000500	U	0.00990	0.008169		mg/L		83	46 - 132
Di-n-butyl phthalate	0.000110	U	0.00990	0.008364		mg/L		84	61 - 130
Fluoranthene	0.0000700	U	0.00990	0.008315		mg/L		84	63 - 130
Pyrene	0.000110	U	0.00990	0.008365		mg/L		84	62 - 130
Benzo[a]anthracene	0.0000800	U	0.00990	0.008432		mg/L		85	58 - 130
Bis(2-ethylhexyl) phthalate	0.000536	U	0.00990	0.009485		mg/L		90	59 - 130
Chrysene	0.0000800	U	0.00990	0.007993		mg/L		81	60 - 130

TestAmerica Houston

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-97854-1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Lab Sample ID: 600-97854-1 MS

Client Sample ID: WG-1620-MW61A-20140828

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 143452

Prep Batch: 143187

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzo[a]pyrene	0.0000800	U	0.00990	0.008251		mg/L		83	56 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
2,4,6-Tribromophenol	88		10 - 147
2-Fluorobiphenyl	75		10 - 150
2-Fluorophenol	34		10 - 130
Nitrobenzene-d5	69		23 - 130
Terphenyl-d14	86		42 - 133
Phenol-d5 (Surr)	21		10 - 130

Lab Sample ID: 600-97854-1 MSD

Client Sample ID: WG-1620-MW61A-20140828

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 143452

Prep Batch: 143187

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Phenol	0.0000400	U	0.00980	0.002354		mg/L		24	10 - 144	1	20
Nitrobenzene	0.000110	U	0.00980	0.006560		mg/L		67	41 - 130	8	20
2,4-Dimethylphenol	0.000310	U	0.00980	0.006601		mg/L		67	45 - 130	9	20
Bis(2-chloroethoxy)methane	0.000130	U	0.00980	0.006700		mg/L		68	36 - 134	7	20
Naphthalene	0.0000800	U	0.00980	0.006865		mg/L		70	57 - 130	8	20
2-Methylnaphthalene	0.0000700	U	0.00980	0.006989		mg/L		71	52 - 130	6	20
2-Chloronaphthalene	0.0000800	U	0.00980	0.006844		mg/L		70	56 - 130	9	20
Acenaphthylene	0.0000600	U	0.00980	0.006868		mg/L		70	58 - 130	8	20
2,6-Dinitrotoluene	0.0000800	U	0.00980	0.007289		mg/L		74	56 - 130	19	20
Acenaphthene	0.0000800	U	0.00980	0.006883		mg/L		70	59 - 130	9	20
4-Nitrophenol	0.000560	U	0.0196	0.004486		mg/L		23	10 - 150	6	20
Dibenzofuran	0.0000800	U	0.00980	0.006758		mg/L		69	56 - 130	12	20
2,4-Dinitrotoluene	0.000130	U	0.00980	0.007572		mg/L		77	54 - 130	16	20
Fluorene	0.0000700	U	0.00980	0.006856		mg/L		70	57 - 130	14	20
4,6-Dinitro-2-methylphenol	0.000830	U	0.0196	0.01475		mg/L		75	10 - 145	15	20
N-Nitrosodiphenylamine	0.000100	U	0.00980	0.006427		mg/L		66	55 - 137	14	20
1,2-Diphenylhydrazine	0.000110	U	0.00980	0.006471		mg/L		66	45 - 130	16	20
Pentachlorophenol	0.000610	U	0.0196	0.01530		mg/L		78	27 - 130	13	20
Phenanthrene	0.0000600	U	0.00980	0.007067		mg/L		72	60 - 130	15	20
Anthracene	0.0000500	U	0.00980	0.007215		mg/L		74	46 - 132	12	20
Di-n-butyl phthalate	0.000110	U	0.00980	0.007185		mg/L		73	61 - 130	15	20
Fluoranthene	0.0000700	U	0.00980	0.007083		mg/L		72	63 - 130	16	20
Pyrene	0.000110	U	0.00980	0.007215		mg/L		74	62 - 130	15	20
Benzo[a]anthracene	0.0000800	U	0.00980	0.007201		mg/L		73	58 - 130	16	20
Bis(2-ethylhexyl) phthalate	0.000536		0.00980	0.007166	N2	mg/L		68	59 - 130	28	20
Chrysene	0.0000800	U	0.00980	0.006921		mg/L		71	60 - 130	14	20
Benzo[a]pyrene	0.0000800	U	0.00980	0.007230		mg/L		74	56 - 130	13	20

Surrogate	MSD %Recovery	MSD Qualifier	Limits
2,4,6-Tribromophenol	79		10 - 147
2-Fluorobiphenyl	72		10 - 150
2-Fluorophenol	37		10 - 130

TestAmerica Houston

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-97854-1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Lab Sample ID: 600-97854-1 MSD

Matrix: Water

Analysis Batch: 143452

Client Sample ID: WG-1620-MW61A-20140828

Prep Type: Total/NA

Prep Batch: 143187

Surrogate	MSD		Limits
	%Recovery	Qualifier	
Nitrobenzene-d5	67		23 - 130
Terphenyl-d14	77		42 - 133
Phenol-d5 (Surr)	23		10 - 130

Lab Sample ID: 600-97854-5 MS

Matrix: Water

Analysis Batch: 143452

Client Sample ID: WG-1620-MW65D-20140828

Prep Type: Total/NA

Prep Batch: 143187

Analyte	Sample	Sample	Spike	MS		Unit	D	%Rec	%Rec.	Limits
	Result	Qualifier		Result	Qualifier					
Phenol	0.0000400	U	0.0100	0.002732		mg/L		27		10 - 144
Nitrobenzene	0.000110	U	0.0100	0.007842		mg/L		78		41 - 130
2,4-Dimethylphenol	0.000310	U	0.0100	0.007239		mg/L		72		45 - 130
Bis(2-chloroethoxy)methane	0.000130	U	0.0100	0.008166		mg/L		82		36 - 134
Naphthalene	0.000710		0.0100	0.008327		mg/L		76		57 - 130
2-Methylnaphthalene	0.0000700	U	0.0100	0.008650		mg/L		86		52 - 130
2-Chloronaphthalene	0.0000800	U	0.0100	0.008404		mg/L		84		56 - 130
Acenaphthylene	0.0000600	U	0.0100	0.008341		mg/L		83		58 - 130
2,6-Dinitrotoluene	0.0000800	U	0.0100	0.009538		mg/L		95		56 - 130
Acenaphthene	0.0000800	U	0.0100	0.008381		mg/L		84		59 - 130
4-Nitrophenol	0.000560	U	0.0200	0.005373		mg/L		27		10 - 150
Dibenzofuran	0.0000800	U	0.0100	0.008313		mg/L		83		56 - 130
2,4-Dinitrotoluene	0.000130	U	0.0100	0.009542		mg/L		95		54 - 130
Fluorene	0.0000700	U	0.0100	0.008416		mg/L		84		57 - 130
4,6-Dinitro-2-methylphenol	0.000830	U	0.0200	0.01778		mg/L		89		10 - 145
N-Nitrosodiphenylamine	0.000100	U	0.0100	0.008267		mg/L		83		55 - 137
1,2-Diphenylhydrazine	0.000110	U	0.0100	0.008002		mg/L		80		45 - 130
Pentachlorophenol	0.000610	U	0.0200	0.01805		mg/L		90		27 - 130
Phenanthrene	0.0000600	U	0.0100	0.008811		mg/L		88		60 - 130
Anthracene	0.0000500	U	0.0100	0.008856		mg/L		89		46 - 132
Di-n-butyl phthalate	0.000110	U	0.0100	0.009071		mg/L		91		61 - 130
Fluoranthene	0.0000700	U	0.0100	0.008993		mg/L		90		63 - 130
Pyrene	0.000110	U	0.0100	0.009235		mg/L		92		62 - 130
Benzo[a]anthracene	0.0000800	U	0.0100	0.009305		mg/L		93		58 - 130
Bis(2-ethylhexyl) phthalate	0.00244		0.0100	0.01266		mg/L		102		59 - 130
Chrysene	0.0000800	U	0.0100	0.008269		mg/L		83		60 - 130
Benzo[a]pyrene	0.0000800	U	0.0100	0.009646		mg/L		96		56 - 130

Surrogate	MS		Limits
	%Recovery	Qualifier	
2,4,6-Tribromophenol	96		10 - 147
2-Fluorobiphenyl	85		10 - 150
2-Fluorophenol	39		10 - 130
Nitrobenzene-d5	79		23 - 130
Terphenyl-d14	95		42 - 133
Phenol-d5 (Surr)	25		10 - 130

TestAmerica Houston

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-97854-1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Lab Sample ID: 600-97854-5 MSD

Client Sample ID: WG-1620-MW65D-20140828

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 143452

Prep Batch: 143187

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.	RPD	Limit
	Result	Qualifier	Added	Result	Qualifier				Limits		
Phenol	0.0000400	U	0.00990	0.003684	N2	mg/L		37	10 - 144	30	20
Nitrobenzene	0.000110	U	0.00990	0.007790		mg/L		79	41 - 130	1	20
2,4-Dimethylphenol	0.000310	U	0.00990	0.007820		mg/L		79	45 - 130	8	20
Bis(2-chloroethoxy)methane	0.000130	U	0.00990	0.007988		mg/L		81	36 - 134	2	20
Naphthalene	0.000710		0.00990	0.008059		mg/L		74	57 - 130	3	20
2-Methylnaphthalene	0.0000700	U	0.00990	0.008255		mg/L		83	52 - 130	5	20
2-Chloronaphthalene	0.0000800	U	0.00990	0.008095		mg/L		82	56 - 130	4	20
Acenaphthylene	0.0000600	U	0.00990	0.007964		mg/L		80	58 - 130	5	20
2,6-Dinitrotoluene	0.0000800	U	0.00990	0.009036		mg/L		91	56 - 130	5	20
Acenaphthene	0.0000800	U	0.00990	0.007941		mg/L		80	59 - 130	5	20
4-Nitrophenol	0.000560	U	0.0198	0.007601	N2	mg/L		38	10 - 150	34	20
Dibenzofuran	0.0000800	U	0.00990	0.007921		mg/L		80	56 - 130	5	20
2,4-Dinitrotoluene	0.000130	U	0.00990	0.009381		mg/L		95	54 - 130	2	20
Fluorene	0.0000700	U	0.00990	0.008135		mg/L		82	57 - 130	3	20
4,6-Dinitro-2-methylphenol	0.000830	U	0.0198	0.01742		mg/L		88	10 - 145	2	20
N-Nitrosodiphenylamine	0.000100	U	0.00990	0.007902		mg/L		80	55 - 137	5	20
1,2-Diphenylhydrazine	0.000110	U	0.00990	0.007606		mg/L		77	45 - 130	5	20
Pentachlorophenol	0.000610	U	0.0198	0.01811		mg/L		91	27 - 130	0	20
Phenanthrene	0.0000600	U	0.00990	0.008523		mg/L		86	60 - 130	3	20
Anthracene	0.0000500	U	0.00990	0.008592		mg/L		87	46 - 132	3	20
Di-n-butyl phthalate	0.000110	U	0.00990	0.008720		mg/L		88	61 - 130	4	20
Fluoranthene	0.0000700	U	0.00990	0.008677		mg/L		88	63 - 130	4	20
Pyrene	0.000110	U	0.00990	0.008934		mg/L		90	62 - 130	3	20
Benzo[a]anthracene	0.0000800	U	0.00990	0.008846		mg/L		89	58 - 130	5	20
Bis(2-ethylhexyl) phthalate	0.00244		0.00990	0.01066		mg/L		83	59 - 130	17	20
Chrysene	0.0000800	U	0.00990	0.007938		mg/L		80	60 - 130	4	20
Benzo[a]pyrene	0.0000800	U	0.00990	0.009087		mg/L		92	56 - 130	6	20

Surrogate	MSD %Recovery	MSD Qualifier	Limits
2,4,6-Tribromophenol	93		10 - 147
2-Fluorobiphenyl	81		10 - 150
2-Fluorophenol	53		10 - 130
Nitrobenzene-d5	77		23 - 130
Terphenyl-d14	91		42 - 133
Phenol-d5 (Surr)	34		10 - 130

Unadjusted Detection Limits

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-97854-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	MQL	MDL	Units	Method
1,2-Dichloroethane	0.00100	0.000140	mg/L	8260B
Benzene	0.00100	0.0000800	mg/L	8260B
Chlorobenzene	0.00100	0.000120	mg/L	8260B
Ethylbenzene	0.00100	0.000110	mg/L	8260B
Methylene Chloride	0.00100	0.000150	mg/L	8260B
Toluene	0.00100	0.000150	mg/L	8260B
Vinyl chloride	0.00200	0.000110	mg/L	8260B
Xylenes, Total	0.00300	0.000260	mg/L	8260B

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	MQL	MDL	Units	Method
1,2-Diphenylhydrazine	0.000500	0.000110	mg/L	8270C LL
2,4-Dimethylphenol	0.000500	0.000310	mg/L	8270C LL
2,4-Dinitrotoluene	0.000500	0.000130	mg/L	8270C LL
2,6-Dinitrotoluene	0.000500	0.0000800	mg/L	8270C LL
2-Chloronaphthalene	0.000500	0.0000800	mg/L	8270C LL
2-Methylnaphthalene	0.000500	0.0000700	mg/L	8270C LL
4,6-Dinitro-2-methylphenol	0.00100	0.000830	mg/L	8270C LL
4-Nitrophenol	0.00100	0.000560	mg/L	8270C LL
Acenaphthene	0.000500	0.0000800	mg/L	8270C LL
Acenaphthylene	0.000500	0.0000600	mg/L	8270C LL
Anthracene	0.000500	0.0000500	mg/L	8270C LL
Benzo[a]anthracene	0.000500	0.0000800	mg/L	8270C LL
Benzo[a]pyrene	0.000500	0.0000800	mg/L	8270C LL
Bis(2-chloroethoxy)methane	0.000500	0.000130	mg/L	8270C LL
Bis(2-ethylhexyl) phthalate	0.000500	0.000370	mg/L	8270C LL
Chrysene	0.000500	0.0000800	mg/L	8270C LL
Dibenzofuran	0.000500	0.0000800	mg/L	8270C LL
Di-n-butyl phthalate	0.000500	0.000110	mg/L	8270C LL
Fluoranthene	0.000500	0.0000700	mg/L	8270C LL
Fluorene	0.000500	0.0000700	mg/L	8270C LL
Naphthalene	0.000500	0.0000800	mg/L	8270C LL
Nitrobenzene	0.000500	0.000110	mg/L	8270C LL
N-Nitrosodiphenylamine	0.000500	0.000100	mg/L	8270C LL
Pentachlorophenol	0.00100	0.000610	mg/L	8270C LL
Phenanthrene	0.000500	0.0000600	mg/L	8270C LL
Phenol	0.000500	0.0000400	mg/L	8270C LL
Pyrene	0.000500	0.000110	mg/L	8270C LL

QC Association Summary

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-97854-1

GC/MS VOA

Analysis Batch: 143176

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-97854-10	WG-1620-MW80B-20140828	Total/NA	Water	8260B	
600-97854-11	WG-1620-MW50A-20140828	Total/NA	Water	8260B	
LCS 600-143176/3	Lab Control Sample	Total/NA	Water	8260B	
LCSD 600-143176/4	Lab Control Sample Dup	Total/NA	Water	8260B	
MB 600-143176/6	Method Blank	Total/NA	Water	8260B	

Analysis Batch: 143272

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-97854-1	WG-1620-MW61A-20140828	Total/NA	Water	8260B	
600-97854-1 MS	WG-1620-MW61A-20140828	Total/NA	Water	8260B	
600-97854-1 MSD	WG-1620-MW61A-20140828	Total/NA	Water	8260B	
600-97854-2	WG-1620-MW44A-20140828	Total/NA	Water	8260B	
600-97854-3	WG-1620-MW33A-20140828	Total/NA	Water	8260B	
600-97854-4	WG-1620-MWDUP A-20140828	Total/NA	Water	8260B	
600-97854-6	WG-1620-MW66D-20140828	Total/NA	Water	8260B	
600-97854-7	WG-1620-MW36D-20140828	Total/NA	Water	8260B	
LCS 600-143272/3	Lab Control Sample	Total/NA	Water	8260B	
MB 600-143272/7	Method Blank	Total/NA	Water	8260B	

Analysis Batch: 143281

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-97854-5	WG-1620-MW65D-20140828	Total/NA	Water	8260B	
600-97854-5 MS	WG-1620-MW65D-20140828	Total/NA	Water	8260B	
600-97854-5 MSD	WG-1620-MW65D-20140828	Total/NA	Water	8260B	
600-97854-8	WG-1620-MW59D-20140828	Total/NA	Water	8260B	
600-97854-9	WG-1620-DUPD-20140828	Total/NA	Water	8260B	
600-97854-14	WG-1620-MW58A-20140828	Total/NA	Water	8260B	
600-97854-15	WG-1620-MW23C-20140828	Total/NA	Water	8260B	
LCS 600-143281/3	Lab Control Sample	Total/NA	Water	8260B	
MB 600-143281/5	Method Blank	Total/NA	Water	8260B	

Analysis Batch: 143386

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-97854-12	WG-1620-MW74B-20140828	Total/NA	Water	8260B	
600-97854-13	WG-1620-MW79A-20140828	Total/NA	Water	8260B	
LCS 600-143386/3	Lab Control Sample	Total/NA	Water	8260B	
LCSD 600-143386/4	Lab Control Sample Dup	Total/NA	Water	8260B	
MB 600-143386/6	Method Blank	Total/NA	Water	8260B	

GC/MS Semi VOA

Prep Batch: 143187

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-97854-1	WG-1620-MW61A-20140828	Total/NA	Water	3510C	
600-97854-1 MS	WG-1620-MW61A-20140828	Total/NA	Water	3510C	
600-97854-1 MSD	WG-1620-MW61A-20140828	Total/NA	Water	3510C	
600-97854-2 - DL	WG-1620-MW44A-20140828	Total/NA	Water	3510C	
600-97854-2	WG-1620-MW44A-20140828	Total/NA	Water	3510C	
600-97854-3	WG-1620-MW33A-20140828	Total/NA	Water	3510C	
600-97854-3 - DL	WG-1620-MW33A-20140828	Total/NA	Water	3510C	

TestAmerica Houston

QC Association Summary

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-97854-1

GC/MS Semi VOA (Continued)

Prep Batch: 143187 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-97854-4 - DL	WG-1620-MWDUP A-20140828	Total/NA	Water	3510C	
600-97854-4 - DL2	WG-1620-MWDUP A-20140828	Total/NA	Water	3510C	
600-97854-4	WG-1620-MWDUP A-20140828	Total/NA	Water	3510C	
600-97854-5	WG-1620-MW65D-20140828	Total/NA	Water	3510C	
600-97854-5 MS	WG-1620-MW65D-20140828	Total/NA	Water	3510C	
600-97854-5 MSD	WG-1620-MW65D-20140828	Total/NA	Water	3510C	
600-97854-6	WG-1620-MW66D-20140828	Total/NA	Water	3510C	
600-97854-7	WG-1620-MW36D-20140828	Total/NA	Water	3510C	
600-97854-8	WG-1620-MW59D-20140828	Total/NA	Water	3510C	
600-97854-9	WG-1620-DUPD-20140828	Total/NA	Water	3510C	
600-97854-10	WG-1620-MW80B-20140828	Total/NA	Water	3510C	
600-97854-11	WG-1620-MW50A-20140828	Total/NA	Water	3510C	
600-97854-12 - DL	WG-1620-MW74B-20140828	Total/NA	Water	3510C	
600-97854-12	WG-1620-MW74B-20140828	Total/NA	Water	3510C	
600-97854-13 - DL	WG-1620-MW79A-20140828	Total/NA	Water	3510C	
600-97854-13	WG-1620-MW79A-20140828	Total/NA	Water	3510C	
600-97854-14 - DL	WG-1620-MW58A-20140828	Total/NA	Water	3510C	
600-97854-14	WG-1620-MW58A-20140828	Total/NA	Water	3510C	
600-97854-15	WG-1620-MW23C-20140828	Total/NA	Water	3510C	
600-97854-15 - DL	WG-1620-MW23C-20140828	Total/NA	Water	3510C	
LCS 600-143187/2-A	Lab Control Sample	Total/NA	Water	3510C	
MB 600-143187/1-A	Method Blank	Total/NA	Water	3510C	

Analysis Batch: 143361

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 600-143187/2-A	Lab Control Sample	Total/NA	Water	8270C LL	143187
MB 600-143187/1-A	Method Blank	Total/NA	Water	8270C LL	143187

Analysis Batch: 143452

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-97854-1	WG-1620-MW61A-20140828	Total/NA	Water	8270C LL	143187
600-97854-1 MS	WG-1620-MW61A-20140828	Total/NA	Water	8270C LL	143187
600-97854-1 MSD	WG-1620-MW61A-20140828	Total/NA	Water	8270C LL	143187
600-97854-2	WG-1620-MW44A-20140828	Total/NA	Water	8270C LL	143187
600-97854-3	WG-1620-MW33A-20140828	Total/NA	Water	8270C LL	143187
600-97854-4	WG-1620-MWDUP A-20140828	Total/NA	Water	8270C LL	143187
600-97854-5	WG-1620-MW65D-20140828	Total/NA	Water	8270C LL	143187
600-97854-5 MS	WG-1620-MW65D-20140828	Total/NA	Water	8270C LL	143187
600-97854-5 MSD	WG-1620-MW65D-20140828	Total/NA	Water	8270C LL	143187
600-97854-6	WG-1620-MW66D-20140828	Total/NA	Water	8270C LL	143187
600-97854-7	WG-1620-MW36D-20140828	Total/NA	Water	8270C LL	143187
600-97854-8	WG-1620-MW59D-20140828	Total/NA	Water	8270C LL	143187
600-97854-9	WG-1620-DUPD-20140828	Total/NA	Water	8270C LL	143187
600-97854-10	WG-1620-MW80B-20140828	Total/NA	Water	8270C LL	143187
600-97854-11	WG-1620-MW50A-20140828	Total/NA	Water	8270C LL	143187
600-97854-15	WG-1620-MW23C-20140828	Total/NA	Water	8270C LL	143187

Analysis Batch: 143567

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-97854-2 - DL	WG-1620-MW44A-20140828	Total/NA	Water	8270C LL	143187
600-97854-3 - DL	WG-1620-MW33A-20140828	Total/NA	Water	8270C LL	143187

TestAmerica Houston

QC Association Summary

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-97854-1

GC/MS Semi VOA (Continued)

Analysis Batch: 143567 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-97854-4 - DL	WG-1620-MWDUP A-20140828	Total/NA	Water	8270C LL	143187
600-97854-4 - DL2	WG-1620-MWDUP A-20140828	Total/NA	Water	8270C LL	143187
600-97854-12	WG-1620-MW74B-20140828	Total/NA	Water	8270C LL	143187
600-97854-12 - DL	WG-1620-MW74B-20140828	Total/NA	Water	8270C LL	143187
600-97854-13	WG-1620-MW79A-20140828	Total/NA	Water	8270C LL	143187
600-97854-13 - DL	WG-1620-MW79A-20140828	Total/NA	Water	8270C LL	143187
600-97854-14	WG-1620-MW58A-20140828	Total/NA	Water	8270C LL	143187
600-97854-14 - DL	WG-1620-MW58A-20140828	Total/NA	Water	8270C LL	143187
600-97854-15 - DL	WG-1620-MW23C-20140828	Total/NA	Water	8270C LL	143187

Lab Chronicle

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-97854-1

Client Sample ID: WG-1620-MW61A-20140828

Lab Sample ID: 600-97854-1

Date Collected: 08/28/14 10:45

Matrix: Water

Date Received: 08/29/14 09:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	143272	09/04/14 13:06	WS1	TAL HOU
Total/NA	Prep	3510C			143187	09/03/14 10:15	MRA	TAL HOU
Total/NA	Analysis	8270C LL		1	143452	09/05/14 21:58	MBB	TAL HOU

Client Sample ID: WG-1620-MW44A-20140828

Lab Sample ID: 600-97854-2

Date Collected: 08/28/14 12:10

Matrix: Water

Date Received: 08/29/14 09:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	143272	09/04/14 16:08	WS1	TAL HOU
Total/NA	Prep	3510C			143187	09/03/14 10:15	MRA	TAL HOU
Total/NA	Analysis	8270C LL		1	143452	09/06/14 00:41	MBB	TAL HOU
Total/NA	Prep	3510C	DL		143187	09/03/14 10:15	MRA	TAL HOU
Total/NA	Analysis	8270C LL	DL	10	143567	09/08/14 14:36	MBB	TAL HOU

Client Sample ID: WG-1620-MW33A-20140828

Lab Sample ID: 600-97854-3

Date Collected: 08/28/14 13:00

Matrix: Water

Date Received: 08/29/14 09:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	143272	09/04/14 14:49	WS1	TAL HOU
Total/NA	Prep	3510C			143187	09/03/14 10:15	MRA	TAL HOU
Total/NA	Analysis	8270C LL		1	143452	09/06/14 01:08	MBB	TAL HOU
Total/NA	Prep	3510C	DL		143187	09/03/14 10:15	MRA	TAL HOU
Total/NA	Analysis	8270C LL	DL	20	143567	09/08/14 15:03	MBB	TAL HOU

Client Sample ID: WG-1620-MWDUP A-20140828

Lab Sample ID: 600-97854-4

Date Collected: 08/28/14 13:10

Matrix: Water

Date Received: 08/29/14 09:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	143272	09/04/14 16:34	WS1	TAL HOU
Total/NA	Prep	3510C			143187	09/03/14 10:15	MRA	TAL HOU
Total/NA	Analysis	8270C LL		1	143452	09/06/14 01:35	MBB	TAL HOU
Total/NA	Prep	3510C	DL		143187	09/03/14 10:15	MRA	TAL HOU
Total/NA	Analysis	8270C LL	DL	10	143567	09/08/14 15:30	MBB	TAL HOU
Total/NA	Prep	3510C	DL2		143187	09/03/14 10:15	MRA	TAL HOU
Total/NA	Analysis	8270C LL	DL2	50	143567	09/08/14 15:58	MBB	TAL HOU

Lab Chronicle

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-97854-1

Client Sample ID: WG-1620-MW65D-20140828

Lab Sample ID: 600-97854-5

Date Collected: 08/28/14 12:17

Matrix: Water

Date Received: 08/29/14 09:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	143281	09/04/14 15:07	DT1	TAL HOU
Total/NA	Prep	3510C			143187	09/03/14 10:15	MRA	TAL HOU
Total/NA	Analysis	8270C LL		1	143452	09/05/14 23:19	MBB	TAL HOU

Client Sample ID: WG-1620-MW66D-20140828

Lab Sample ID: 600-97854-6

Date Collected: 08/28/14 10:53

Matrix: Water

Date Received: 08/29/14 09:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	143272	09/04/14 15:16	WS1	TAL HOU
Total/NA	Prep	3510C			143187	09/03/14 10:15	MRA	TAL HOU
Total/NA	Analysis	8270C LL		1	143452	09/06/14 02:02	MBB	TAL HOU

Client Sample ID: WG-1620-MW36D-20140828

Lab Sample ID: 600-97854-7

Date Collected: 08/28/14 14:12

Matrix: Water

Date Received: 08/29/14 09:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	143272	09/04/14 15:42	WS1	TAL HOU
Total/NA	Prep	3510C			143187	09/03/14 10:15	MRA	TAL HOU
Total/NA	Analysis	8270C LL		1	143452	09/06/14 02:30	MBB	TAL HOU

Client Sample ID: WG-1620-MW59D-20140828

Lab Sample ID: 600-97854-8

Date Collected: 08/28/14 16:43

Matrix: Water

Date Received: 08/29/14 09:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	143281	09/04/14 20:59	DT1	TAL HOU
Total/NA	Prep	3510C			143187	09/03/14 10:15	MRA	TAL HOU
Total/NA	Analysis	8270C LL		1	143452	09/06/14 02:57	MBB	TAL HOU

Client Sample ID: WG-1620-DUPD-20140828

Lab Sample ID: 600-97854-9

Date Collected: 08/28/14 16:48

Matrix: Water

Date Received: 08/29/14 09:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	143281	09/04/14 21:29	DT1	TAL HOU
Total/NA	Prep	3510C			143187	09/03/14 10:15	MRA	TAL HOU
Total/NA	Analysis	8270C LL		1	143452	09/06/14 03:24	MBB	TAL HOU

Lab Chronicle

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-97854-1

Client Sample ID: WG-1620-MW80B-20140828

Lab Sample ID: 600-97854-10

Date Collected: 08/28/14 08:10

Matrix: Water

Date Received: 08/29/14 09:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	143176	09/03/14 20:21	DT1	TAL HOU
Total/NA	Prep	3510C			143187	09/03/14 10:15	MRA	TAL HOU
Total/NA	Analysis	8270C LL		1	143452	09/06/14 03:51	MBB	TAL HOU

Client Sample ID: WG-1620-MW50A-20140828

Lab Sample ID: 600-97854-11

Date Collected: 08/28/14 09:05

Matrix: Water

Date Received: 08/29/14 09:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	143176	09/03/14 20:50	DT1	TAL HOU
Total/NA	Prep	3510C			143187	09/03/14 10:15	MRA	TAL HOU
Total/NA	Analysis	8270C LL		1	143452	09/06/14 04:18	MBB	TAL HOU

Client Sample ID: WG-1620-MW74B-20140828

Lab Sample ID: 600-97854-12

Date Collected: 08/28/14 10:30

Matrix: Water

Date Received: 08/29/14 09:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		20	143386	09/05/14 15:06	DT1	TAL HOU
Total/NA	Prep	3510C			143187	09/03/14 10:15	MRA	TAL HOU
Total/NA	Analysis	8270C LL		1000	143567	09/08/14 16:25	MBB	TAL HOU
Total/NA	Prep	3510C	DL		143187	09/03/14 10:15	MRA	TAL HOU
Total/NA	Analysis	8270C LL	DL	2000	143567	09/08/14 18:41	MBB	TAL HOU

Client Sample ID: WG-1620-MW79A-20140828

Lab Sample ID: 600-97854-13

Date Collected: 08/28/14 11:25

Matrix: Water

Date Received: 08/29/14 09:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		5	143386	09/05/14 15:35	DT1	TAL HOU
Total/NA	Prep	3510C			143187	09/03/14 10:15	MRA	TAL HOU
Total/NA	Analysis	8270C LL		50	143567	09/08/14 16:52	MBB	TAL HOU
Total/NA	Prep	3510C	DL		143187	09/03/14 10:15	MRA	TAL HOU
Total/NA	Analysis	8270C LL	DL	500	143567	09/08/14 19:09	MBB	TAL HOU

Client Sample ID: WG-1620-MW58A-20140828

Lab Sample ID: 600-97854-14

Date Collected: 08/28/14 12:30

Matrix: Water

Date Received: 08/29/14 09:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		10	143281	09/04/14 22:56	DT1	TAL HOU
Total/NA	Prep	3510C			143187	09/03/14 10:15	MRA	TAL HOU

TestAmerica Houston

Lab Chronicle

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-97854-1

Client Sample ID: WG-1620-MW58A-20140828

Lab Sample ID: 600-97854-14

Date Collected: 08/28/14 12:30

Matrix: Water

Date Received: 08/29/14 09:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8270C LL		50	143567	09/08/14 17:20	MBB	TAL HOU
Total/NA	Prep	3510C	DL		143187	09/03/14 10:15	MRA	TAL HOU
Total/NA	Analysis	8270C LL	DL	500	143567	09/08/14 19:36	MBB	TAL HOU

Client Sample ID: WG-1620-MW23C-20140828

Lab Sample ID: 600-97854-15

Date Collected: 08/28/14 13:35

Matrix: Water

Date Received: 08/29/14 09:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		10	143281	09/04/14 23:26	DT1	TAL HOU
Total/NA	Prep	3510C			143187	09/03/14 10:25	MRA	TAL HOU
Total/NA	Analysis	8270C LL		50	143452	09/06/14 06:07	MBB	TAL HOU
Total/NA	Prep	3510C	DL		143187	09/03/14 10:25	MRA	TAL HOU
Total/NA	Analysis	8270C LL	DL	1000	143567	09/08/14 17:47	MBB	TAL HOU

Laboratory References:

TAL HOU = TestAmerica Houston, 6310 Rothway Street, Houston, TX 77040, TEL (713)690-4444



Certification Summary

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-97854-1

Laboratory: TestAmerica Houston

The certifications listed below are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Texas	NELAP	6	T104704223	10-31-14

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15
- 16

TestAmerica Houston
 6310 Rothway Street
 Houston, TX 77040
 Phone (713) 890-4444 Fax (713) 890-5646

Chain of Custody Record



TestAmerica
 THE LABORATORY MADE SIMPLE

Client Information
 Client Contact: Mr. Eric Matzner
 Company: Pastor, Behling & Wheeler-LLC
 Address: 2201 Double Creek Dr Suite 4004
 City: Round Rock
 State, Zip: TX, 78664
 Phone: 512-671-3434 (Tel) 512-671-3446 (Fax)
 Email: eric.matzner@bbwllc.com
 Project #: 60003722
 1620 UPRR HWPW
 Site: *Houston Wood Preserve Works*

Lab Pkt: Kudochadkar, Sachin
 E-Mail: sachin.kudochadkar@testamericainc.com
 Phone: 713-725-1442

COC No: 800-30624-10308.2
 Page 2 of 2 - 1 of 2
 Job #: 1358

Due Date Requested:
 TAT Requested (days):
 PO#: Purchase Order not required
 WC #:
 Project #: 1358
 SOW#: *1358*

Special Instructions/Note:
MS/MSD Volume Provided

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=other)	Field Filtered Sample (Yes or No)	8260B LL - (MOD) 8260B-Volatiles	8270C LL - (MOD) 8270C	8260B LL - Vinyl Chloride	Total Number of Containers	Special Instructions/Note
W6-1620-mw 61A-20140828	8-28-14	1045	G	Water	X	X	X	X	5	MS/MSD Volume Provided
W6-1620-mw 44A-20140828	8-28-14	1210	G	Water	X	X	X	X	5	
W6-1620-mw 33A-20140828	8-28-14	1300	G	Water	X	X	X	X	5	
W6-1620-mw 06A-20140828	8-28-14	1310	G	Water	X	X	X	X	5	
W6-1620-mw 65D-20140828	8-28-14	1217	G	Water	X	X	X	X	5	MS/MSD Volume Provided
W6-1620-mw 66D-20140828	8-28-14	1053	G	Water	X	X	X	X	5	
W6-1620-mw 36D-20140828	8-28-14	1412	G	Water	X	X	X	X	5	
W6-1620-mw 59D-20140828	8-28-14	1643	G	Water	X	X	X	X	5	
W6-1620-mw 36D-20140828	8-28-14	1648	G	Water	X	X	X	X	5	

Possible Hazard Identification
 Non-Hazard Flammable Skin Irritant Poison B Unknown Radiological

Deliverable Requested: I, II, III, IV, Other (specify)

Empty Kit Relinquished by: _____ Date: _____

Relinquished by: *Jay...* Date: *8-28-14 1830* Company: *PBW*

Relinquished by: *...* Date: *8-29-14 0754* Company: *PBW*

Relinquished by: _____ Date: _____ Company: _____

Cooler Temperature(s) °C and Other Remarks:



TestAmerica Houston
 6310 Rothway Street
 Houston, TX 77040
 Phone (713) 690-4444 Fax (713) 690-5646

Chain of Custody Record

TestAmerica
 THE LEADER IN ENVIRONMENTAL TESTING

Client Information Client Contact: Mr. Eric Matzner Company: Pastor, Behling & Wheeler LLC Address: 2201 Double Creek Dr. Suite 4004 City: Round Rock State, Zip: TX, 78664 Phone: 512-671-3434 (Tel) 512-671-3446 (Fax) Email: eric.matzner@pbwllc.com Project Name: 1620 UPRR HWPW Site:		Sample ID: JOHN BRAYTON Phone: 512-671-3434 Lab PM: Kudchadkar, Sachin G E-Mail: sachin.kudchadkar@testamericainc.com Carrier Tracking No(s): COC No: 600-30624-10308.2 Page: Page 2 of 2 Job #: 2012	
Due Date Requested: TAT Requested (days): PO #: Purchase Order not required WO #: Project #: 60003722 SSOW#:		Analysis Requested 826B.LL (MOD) 826B-Volatiles 8270C.LL (MOD) 8270C 826B.LL Vinyl Chloride	
Sample Identification WG-1620-MW908B-20140828 WG-1620-MW509A-20140828 WG-1620-MW748-20140828 WG-1620-MW79A-20140828 WG-1620-MW58A-20140828 WG-1620-MW23C-20140828		Field Filtered Sample (Yes or No) Matrix (W-water, S-sediment, O-oil, G-grab, B-unknown, A-Air) Sample Type (C-comp, G-grab) Sample Time Sample Date Preservation Codes:	
Possible Hazard Identification <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological		Total Number of Containers Special Instructions/Note: Preservation Codes: M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - NaHSO4 S - MeOH T - TSP Dodecalhydrate U - Acetone V - MCAA W - pH 4-5 X - EDTA L - EDA Z - other (specify) Other:	
Deliverable Requested: <input type="checkbox"/> I, II, III, IV, Other (specify) Empty kit Relinquished by: John Brayton Relinquished by: John Brayton Relinquished by:		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months Special Instructions/QC Requirements:	
Date/Time: 8-29-14 0754 Date/Time: 8-29-14 0754 Date/Time:		Date/Time: 8-29-14 0754 Date/Time: Date/Time:	
Custody Seal No.: Δ Yes Δ No		Cooler Temperature(s) °C and Other Remarks:	



Sample Recv Loc: 600 1st
97854

Date/Time Received:

JOB NUMBER: _____

CLIENT:

Pastor 11/4/09 29 7:54

UNPACKED BY: _____

CARRIER/DRIVER:

Chent

Custody Seal Present: YES NO

Number of Coolers Received: _____

Cooler ID	Temp Blank	Trip Blank	Observed Temp (°C)	Therm ID	Therm CF	Corrected Temp (°C)
<u>Blue</u>	Y / N	Y / N	<u>0.8</u>	<u>6006</u>	<u>0.5</u>	<u>1.3</u>
<u>White</u>	Y / N	Y / N	<u>0.3</u>	<u>6006</u>	<u>0.5</u>	<u>0.8</u>
<u>RW</u>	Y / N	Y / N	<u>3.4</u>	<u>6006</u>	<u>0.5</u>	<u>3.9</u>
<u>RW</u>	Y / N	Y / N	<u>0.6</u>	<u>6006</u>	<u>0.5</u>	<u>1.1</u>
	Y / N	Y / N				
	Y / N	Y / N				
	Y / N	Y / N				
	Y / N	Y / N				
	Y / N	Y / N				

CF = correction factor

Samples received on ice? YES NO

LABORATORY PRESERVATION OF SAMPLES REQUIRED: NO YES

Base samples are >pH 12: YES NO Acid preserved are <pH 2: YES NO

pH paper Lot # _____

VOA headspace acceptable (5-6mm): YES NO NA

	YES	NO
Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?		

COMMENTS:

Login Sample Receipt Checklist

Client: Pastor, Behling & Wheeler LLC

Job Number: 600-97854-1

Login Number: 97854

List Source: TestAmerica Houston

List Number: 1

Creator: Crafton, Tommie S

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	N/A	Lab does not accept radioactive samples.
The cooler's custody seal, if present, is intact.	N/A	Not present
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	1.3, 0.8, 3.9, 1.1
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	Check done at department level as required.

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Houston

6310 Rothway Street

Houston, TX 77040

Tel: (713)690-4444

TestAmerica Job ID: 600-97855-1

Client Project/Site: 1620 UPRR HWPW

For:

Pastor, Behling & Wheeler LLC

2201 Double Creek Dr

Suite 4004

Round Rock, Texas 78664

Attn: Mr. Eric Matzner



Authorized for release by:

9/9/2014 11:31:56 AM

Cathy Upton, Project Management Assistant II

(713)690-4444

cathy.upton@testamericainc.com

Designee for

Sachin Kudchadkar, Senior Project Manager

(713)690-4444

sachin.kudchadkar@testamericainc.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.



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1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

16



Table of Contents

Cover Page	1
Table of Contents	2
TRRP Checklists & DCSs	3
Case Narrative	13
Method Summary	14
Sample Summary	15
Client Sample Results	16
Definitions/Glossary	18
Surrogate Summary	19
QC Sample Results	20
Default Detection Limits	28
QC Association Summary	29
Lab Chronicle	30
Certification Summary	31
Chain of Custody	32
Receipt Checklists	33

Appendix A

Laboratory Data Package Cover Page - Page 1 of 4

This data package is for TestAmerica Houston job number 600-97855-1 and consists of:

- R1 - Field chain-of-custody documentation;
- R2 - Sample identification cross-reference;
- R3 - Test reports (analytical data sheets) for each environmental sample that includes:
 - a. Items consistent with NELAC Chapter 5,
 - b. dilution factors,
 - c. preparation methods,
 - d. cleanup methods, and
 - e. if required for the project, tentatively identified compounds (TICs).
- R4 - Surrogate recovery data including:
 - a. Calculated recovery (%R), and
 - b. The laboratory's surrogate QC limits.
- R5 - Test reports/summary forms for blank samples;
- R6 - Test reports/summary forms for laboratory control samples (LCSs) including:
 - a. LCS spiking amounts,
 - b. Calculated %R for each analyte, and
 - c. The laboratory's LCS QC limits.
- R7 - Test reports for project matrix spike/matrix spike duplicates (MS/MSDs) including:
 - a. Samples associated with the MS/MSD clearly identified,
 - b. MS/MSD spiking amounts,
 - c. Concentration of each MS/MSD analyte measured in the parent and spiked samples,
 - d. Calculated %Rs and relative percent differences (RPDs), and
 - e. The laboratory's MS/MSD QC limits
- R8 - Laboratory analytical duplicate (if applicable) recovery and precision:
 - a. The amount of analyte measured in the duplicate,
 - b. The calculated RPD, and
 - c. The laboratory's QC limits for analytical duplicates.
- R9 - List of method quantitation limits (MQLs) and detectability check sample results for each analyte for each method and matrix.
- R10 - Other problems or anomalies.

The Exception Report for each "No" or "Not Reviewed (NR)" item in Laboratory Review Checklist and for each analyte, matrix, and method for which the laboratory does not hold NELAC accreditation under the Texas Laboratory Accreditation Program.

Release Statement: I am responsible for the release of this laboratory data package. This laboratory is NELAC accredited under the Texas Laboratory Accreditation Program for all the methods, analytes, and matrices reported in this data package except as noted in the Exception Reports. The data have been reviewed and are technically compliant with the requirements of the methods used, except where noted by the laboratory in the Exception Reports. By my signature below, I affirm to the best of my knowledge all problems/anomalies observed by the laboratory have been identified in the Laboratory Review Checklist, and no information affecting the quality of the data has been knowingly withheld.

Cathy Upton

Name (printed)



Signature

9/9/2014

Date

Project Management Asst II

Official Title (printed)

Laboratory Review Checklist: Reportable Data - Page 2 of 4

Laboratory Name:	TestAmerica Houston	LRC Date:	9/9/2014
Project Name:	1620 UPRR HWPW	Laboratory Job Number:	600-97855-1
Reviewer Name:	Sachin G Kudchadkar		

# ¹	A ²	Description	Yes	No	NA ³	NR ⁴	ER# ⁵
R1	OI	Chain-of-custody (C-O-C)					
		Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?	X				
		Were all departures from standard conditions described in an exception report?	X				
R2	OI	Sample and quality control (QC) identification					
		Are all field sample ID numbers cross-referenced to the laboratory ID numbers?	X				
		Are all laboratory ID numbers cross-referenced to the corresponding QC data?	X				
R3	OI	Test reports					
		Were all samples prepared and analyzed within holding times?	X				
		Other than those results < MQL, were all other raw values bracketed by calibration standards?	X				
		Were calculations checked by a peer or supervisor?	X				
		Were all analyte identifications checked by a peer or supervisor?	X				
		Were sample detection limits reported for all analytes not detected?	X				
		Were all results for soil and sediment samples reported on a dry weight basis?			X		
		Were % moisture (or solids) reported for all soil and sediment samples?			X		
		Were bulk soils/solids samples for volatile analysis extracted with methanol per SW846 Method 5035?			X		
		If required for the project, are TICs reported?			X		
R4	O	Surrogate recovery data					
		Were surrogates added prior to extraction?	X				
		Were surrogate percent recoveries in all samples within the laboratory QC limits?		X			R04B
R5	OI	Test reports/summary forms for blank samples					
		Were appropriate type(s) of blanks analyzed?	X				
		Were blanks analyzed at the appropriate frequency?	X				
		Were method blanks taken through the entire analytical process, including preparation and, if applicable, cleanup procedures?	X				
		Were blank concentrations < MQL?	X				
R6	OI	Laboratory control samples (LCS):					
		Were all COCs included in the LCS?	X				
		Was each LCS taken through the entire analytical procedure, including prep and cleanup steps?	X				
		Were LCSs analyzed at the required frequency?	X				
		Were LCS (and LCSD, if applicable) %Rs within the laboratory QC limits?	X				
		Does the detectability check sample data document the laboratory's capability to detect the COCs at the MDL used to calculate the SDLs?	X				
		Was the LCSD RPD within QC limits?	X				
R7	OI	Matrix spike (MS) and matrix spike duplicate (MSD) data					
		Were the project/method specified analytes included in the MS and MSD?	X				
		Were MS/MSD analyzed at the appropriate frequency?	X				
		Were MS (and MSD, if applicable) %Rs within the laboratory QC limits?	X				
		Were MS/MSD RPDs within laboratory QC limits?		X			R07D
R8	OI	Analytical duplicate data					
		Were appropriate analytical duplicates analyzed for each matrix?			X		
		Were analytical duplicates analyzed at the appropriate frequency?			X		
		Were RPDs or relative standard deviations within the laboratory QC limits?			X		
R9	OI	Method quantitation limits (MQLs):					
		Are the MQLs for each method analyte included in the laboratory data package?	X				
		Do the MQLs correspond to the concentration of the lowest non-zero calibration standard?	X				
		Are unadjusted MQLs and DCSs included in the laboratory data package?	X				
R10	OI	Other problems/anomalies					
		Are all known problems/anomalies/special conditions noted in this LRC and ER?	X				
		Was applicable and available technology used to lower the SDL to minimize the matrix interference effects on the sample results?		X			R10B
		Is the laboratory NELAC-accredited under the Texas Laboratory Accreditation Program for the analytes, matrices and methods associated with this laboratory data package?	X				

- Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.
- O = organic analyses; I = inorganic analyses (and general chemistry, when applicable);
- NA = Not applicable;
- NR = Not reviewed;
- ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

Laboratory Review checklist: Supporting Data - Page 3 of 4

Laboratory Name:	TestAmerica Houston	LRC Date:	9/9/2014
Project Name:	1620 UPRR HWPW	Laboratory Job Number:	600-97855-1
Reviewer Name:	Sachin G Kudchadkar		

# ¹	A ²	Description	Yes	No	NA ³	NR ⁴	ER# ⁵
S1	OI	Initial calibration (ICAL)					
		Were response factors and/or relative response factors for each analyte within QC limits?	X				
		Were percent RSDs or correlation coefficient criteria met?	X				
		Was the number of standards recommended in the method used for all analytes?	X				
		Were all points generated between the lowest and highest standard used to calculate the curve?	X				
		Are ICAL data available for all instruments used?	X				
		Has the initial calibration curve been verified using an appropriate second source standard?	X				
S2	OI	Initial and continuing calibration verification (ICV and CCV) and continuing calibration blank (CCB):					
		Was the CCV analyzed at the method-required frequency?	X				
		Were percent differences for each analyte within the method-required QC limits?	X				
		Was the ICAL curve verified for each analyte?	X				
		Was the absolute value of the analyte concentration in the inorganic CCB < MDL?			X		
S3	O	Mass spectral tuning					
		Was the appropriate compound for the method used for tuning?	X				
		Were ion abundance data within the method-required QC limits?	X				
S4	O	Internal standards (IS)					
		Were IS area counts and retention times within the method-required QC limits?	X				
S5	OI	Raw data (NELAC Section 5.5.10)					
		Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?	X				
		Were data associated with manual integrations flagged on the raw data?	X				
S6	O	Dual column confirmation					
		Did dual column confirmation results meet the method-required QC?			X		
S7	O	Tentatively identified compounds (TICs)					
		If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?			X		
S8	I	Interference Check Sample (ICS) results					
		Were percent recoveries within method QC limits?			X		
S9	I	Serial dilutions, post digestion spikes, and method of standard additions					
		Were percent differences, recoveries, and the linearity within the QC limits specified in the method?			X		
S10	OI	Method detection limit (MDL) studies					
		Was a MDL study performed for each reported analyte?	X				
		Is the MDL either adjusted or supported by the analysis of DCSS?	X				
S11	OI	Proficiency test reports					
		Was the laboratory's performance acceptable on the applicable proficiency tests or evaluation studies?	X				
S12	OI	Standards documentation					
		Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?	X				
S13	OI	Compound/analyte identification procedures					
		Are the procedures for compound/analyte identification documented?	X				
S14	OI	Demonstration of analyst competency (DOC)					
		Was DOC conducted consistent with NELAC Chapter 5?	X				
		Is documentation of the analyst's competency up-to-date and on file?	X				
S15	OI	Verification/validation documentation for methods (NELAC Chapter 5)					
		Are all the methods used to generate the data documented, verified, and validated, where applicable?	X				
S16	OI	Laboratory standard operating procedures (SOPs)					
		Are laboratory SOPs current and on file for each method performed?	X				
<p>1. Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.</p> <p>2. O = organic analyses; I = inorganic analyses (and general chemistry, when applicable);</p> <p>3. NA = Not applicable;</p> <p>4. NR = Not reviewed;</p> <p>5. ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).</p>							

Laboratory Review Checklist: Exception Reports - Page 4 of 4

Laboratory Name:	TestAmerica Houston	LRC Date:	9/9/2014
Project Name:	1620 UPRR HWPW	Laboratory Job Number:	600-97855-1
Reviewer Name:	Sachin G Kudchadkar		

ER # ¹	Description
R04B	Method 8270C LL: The following sample(s) required a dilution due to the nature of the sample matrix: 600-97855-1. Because of this dilution, the surrogate spike concentration in the sample was reduced to a level where the recovery calculation does not provide useful information.
R07D	Method 8270C LL: 600-97854-C-1-A MSD failed the RPD criteria for the following analyte(s): Bis(2-ethylhexyl) phthalate. Method 8270C LL: 600-97854-C-5-A MSD failed the RPD criteria for the following analyte(s): 4-Nitrophenol, Phenol.
R10B	Method 8270C LL: The following sample(s) was diluted to bring the concentration of target analytes within the calibration range: 600-97855-1. Elevated reporting limits (RLs) are provided.
	<ol style="list-style-type: none"> Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period. O = organic analyses; I = inorganic analyses (and general chemistry, when applicable); NA = Not applicable; NR = Not reviewed; ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).



Matrix: Water
Method: 8260B_LL
Prep Method: 5030B
Date Analyzed: 5/9/2014
Job #: 600-91192
TALS Batch: 134175 137900
Units: ug/L

Analyte	Instrument #	MDL	DCS Spike	Measured Result	MQL
1,1,1,2-Tetrachloroethane	CHVOAMS01	0.180	0.500	0.450	1
1,1,1-Trichloroethane	CHVOAMS01	0.150	0.500	0.465	1
1,1,2,2-Tetrachloroethane	CHVOAMS01	0.220	0.500	0.454	1
1,1,2-Trichloro-1,2,2-trifluoroethane	CHVOAMS01	1.000	1.000	0.940	1
1,1,2-Trichloroethane	CHVOAMS01	0.280	0.500	0.535	1
1,1-Dichloroethane	CHVOAMS01	0.110	0.500	0.486	1
1,1-Dichloroethene	CHVOAMS01	0.190	0.500	0.478	1
1,1-Dichloropropene	CHVOAMS01	0.210	0.500	0.379	1
1,2,3-Trichlorobenzene	CHVOAMS01	0.570	1.000	0.517	1
1,2,3-Trichloropropane	CHVOAMS01	0.290	0.500	0.408	1
1,2,3-Trimethylbenzene	CHVOAMS01	0.130	0.500	0.346	1
1,2,4-Trichlorobenzene	CHVOAMS01	0.310	0.500	0.426	1
1,2,4-Trimethylbenzene	CHVOAMS01	0.140	0.500	0.314	1
1,2-Dibromo-3-Chloropropane	CHVOAMS01	0.810	1.000	0.623	1
1,2-Dichlorobenzene	CHVOAMS01	0.1	0.25	0.202634	1
1,2-Dichloroethane	CHVOAMS01	0.140	0.500	0.516	1
1,2-Dichloroethene, Total	CHVOAMS01	0.300	1.000	1.040	1
1,2-Dichloropropane	CHVOAMS01	0.160	0.500	0.462	1
1,3,5-Trichlorobenzene	CHVOAMS01	1.000	1.000	0.849	1
1,3,5-Trimethylbenzene	CHVOAMS01	0.1	0.25	0.247029	1
1,3-Dichlorobenzene	CHVOAMS01	0.130	0.500	0.452	1
1,3-Dichloropropane	CHVOAMS01	0.220	0.500	0.446	1
1,4-Dichlorobenzene	CHVOAMS01	0.11	0.25	0.292531	1
1,4-Dioxane	CHVOAMS01	30.790	20.000	17.769	50
2,2-Dichloropropane	CHVOAMS01	0.130	0.500	0.442	1
2-Butanone (MEK)	CHVOAMS01	0.760	2.000	0.941	2
2-Chloro-1,3-butadiene	CHVOAMS01	0.330	0.500	0.382	1
2-Chloroethyl vinyl ether	CHVOAMS01	0.500	2.000	1.810	2
2-Chlorotoluene	CHVOAMS01	0.130	0.500	0.378	1
2-Hexanone	CHVOAMS01	0.35	0.25	0.749429	2
2-Methyl-2-propanol	CHVOAMS01	10.47	10	10.31	20
2-Nitropropane	CHVOAMS01	1.210	2.000	1.682	1
3-Chloro-1-propene	CHVOAMS01	0.240	0.500	0.417	2
4-Chlorotoluene	CHVOAMS01	0.140	0.500	0.349	1
4-Isopropyltoluene	CHVOAMS01	0.1	0.25	0.156569	1
4-Methyl-2-pentanone (MIBK)	CHVOAMS01	0.45	2	1.644	2
Acetone	CHVOAMS01	0.990	2.000	0.904	5
Acetonitrile	CHVOAMS01	0.27	2.5	11.62444	2
Acrolein	CHVOAMS01	1.630	5.000	3.119	5
Acrylonitrile	CHVOAMS01	0.52	2.5	2.736698	5
Benzene	CHVOAMS01	0.08	0.25	0.348664	1
Benzyl chloride	CHVOAMS01	0.240	0.500	2.258	1
Bromobenzene	CHVOAMS01	0.190	0.500	0.396	1
Bromoform	CHVOAMS01	0.19	0.25	0.400841	1
Bromomethane	CHVOAMS01	0.250	0.500	0.504	2
Butadiene	CHVOAMS01	0.210	0.500	0.514	1

DCS = Detection Check Standard
 MQL = Method Quantitation Limit

Matrix: Water
Method: 8260B_LL
Prep Method: 5030B
Date Analyzed: 5/9/2014
Job #: 600-91192
TALS Batch: 134175 137900
Units: ug/L

Analyte	Instrument #	MDL	DCS Spike	Measured Result	MQL
Carbon disulfide	CHVOAMS01	0.240	0.500	0.413	2
Carbon tetrachloride	CHVOAMS01	0.150	0.500	0.436	1
Chlorobenzene	CHVOAMS01	0.12	0.5	0.482	1
Chlorobromomethane	CHVOAMS01	0.180	0.500	0.495	1
Chlorodibromomethane	CHVOAMS01	0.150	0.500	0.873	1
Chloroethane	CHVOAMS01	0.08	0.25	0.371661	2
Chloroform	CHVOAMS01	0.130	0.500	0.521	1
Chloromethane	CHVOAMS01	0.180	0.500	0.662	2
cis-1,2-Dichloroethene	CHVOAMS01	0.06	0.25	0.428914	1
cis-1,3-Dichloropropene	CHVOAMS01	0.180	0.500	0.376	1
Cyclohexane	CHVOAMS01	0.160	0.500	0.343	1
Cyclohexanone	CHVOAMS01	8.640	25.000	19.268	50
Dibromomethane	CHVOAMS01	0.520	1.000	1.014	1
Dichlorobromomethane	CHVOAMS01	0.160	0.500	0.417	1
Dichlorodifluoromethane	CHVOAMS01	0.12	0.25	0.541871	1
Dichlorofluoromethane	CHVOAMS01	1.000	1.000	1.065	1
Ethanol	CHVOAMS01	1	5	18.17191	1
Ethyl acetate	CHVOAMS01	0.41	0.5	0.558144	2
Ethyl acrylate	CHVOAMS01	0.340	1.000	0.874	2
Ethyl ether	CHVOAMS01	0.150	0.500	0.414	1
Ethyl methacrylate	CHVOAMS01	0.260	0.500	0.587	2
Ethylbenzene	CHVOAMS01	0.110	0.500	0.387	1
Ethylene Dibromide	CHVOAMS01	0.180	0.500	0.417	1
Hexachlorobutadiene	CHVOAMS01	0.170	0.500	0.485	1
Hexane	CHVOAMS01	0.160	0.500	0.359	1
Iodomethane	CHVOAMS01	0.158	0.500	0.692	2
Isobutyl alcohol	CHVOAMS01	3.320	12.500	12.568	10
Isooctane	CHVOAMS01	0.330	0.500	0.387	1
Isopropyl alcohol	CHVOAMS01	3.720	5.000	2.688	10
Isopropyl ether	CHVOAMS01	0.09	0.5	0.396746293	1
Isopropylbenzene	CHVOAMS01	0.180	0.500	0.322	1
Methacrylonitrile	CHVOAMS01	0.41	2.5	2.794871	2
Methyl acetate	CHVOAMS01	0.55	2.5	2.286	2
Methyl methacrylate	CHVOAMS01	0.330	1.000	0.763	1
Methyl tert-butyl ether	CHVOAMS01	0.12	0.5	0.422	1
Methylcyclohexane	CHVOAMS01	0.01	0.5	0.32596447	1
Methylene Chloride	CHVOAMS01	0.15	0.25	3.247659	5
m-Xylene & p-Xylene	CHVOAMS01	0.170	0.500	0.356	1
Naphthalene	CHVOAMS01	0.320	0.500	1.362	2
n-Butyl acetate	CHVOAMS01	0.190	0.500	1.114	1
n-Butylbenzene	CHVOAMS01	0.160	0.500	0.335	1
n-Heptane	CHVOAMS01	1.000	1.000	0.749	1
N-Propylbenzene	CHVOAMS01	0.150	0.500	0.301	1
o-Xylene	CHVOAMS01	0.12	0.5	0.43	1
Pentachloroethane	CHVOAMS01	1.000	1.000	0.950	1
Propionitrile	CHVOAMS01	0.66	10	8.329	2

DCS = Detection Check Standard
 MQL = Method Quantitation Limit

Matrix: Water
Method: 8260B_LL
Prep Method: 5030B
Date Analyzed: 5/9/2014
Job #: 600-91192
TALS Batch: 134175 137900
Units: ug/L

Analyte	Instrument #	MDL	DCS Spike	Measured Result	MQL
sec-Butylbenzene	CHVOAMS01	0.12	0.5	0.651	1
Styrene	CHVOAMS01	0.07	0.25	0.147965	1
Tert-amyl methyl ether	CHVOAMS01	1.000	1.000	0.800	1
Tert-butyl ethyl ether	CHVOAMS01	1.000	1.000	0.852	1
tert-Butylbenzene	CHVOAMS01	0.08	0.25	0.091902	1
Tetrachloroethene	CHVOAMS01	0.130	0.500	0.470	1
Tetrahydrofuran	CHVOAMS01	1.080	2.000	1.165	5
Toluene	CHVOAMS01	0.150	0.500	0.395	1
trans-1,2-Dichloroethene	CHVOAMS01	0.09	0.5	0.4823	1
trans-1,3-Dichloropropene	CHVOAMS01	0.210	0.500	0.359	1
trans-1,4-Dichloro-2-butene	CHVOAMS01	0.640	1.000	1.345	2
Trichloroethene	CHVOAMS01	0.180	0.500	0.481	1
Trichlorofluoromethane	CHVOAMS01	0.08	0.25	0.24947	1
Trihalomethanes, Total	CHVOAMS01	1.000	2.000	1.810	5
Vinyl acetate	CHVOAMS01	0.21	2	1.459	2
Vinyl chloride	CHVOAMS01	0.110	0.500	0.482	2
Xylenes, Total	CHVOAMS01	0.260	1.000	0.710	1

Matrix: Water
Method: 8270C_LL
Prep Method: 3510C_LVI
Date Analyzed: 5/12/2014
Job #: 600-91570
TALS Batch: 134203 139341
Units: ug/L

Analyte	Instrument #	MDL	DCS Spike	Measured Result	MLQ
1,1'-Biphenyl	CHSVMS08	0.730	0.800	0.367	1.5
1,2,4,5-Tetrachlorobenzene	CHSVMS08	0.860	2.000	0.630	2.0
1,2,4-Trichlorobenzene	CHSVMS08	0.160	0.800	0.342	2.0
1,2-Dichlorobenzene	CHSVMS08	0.210	0.800	0.381	1.8
1,2-Dinitrobenzene	CHSVMS08	0.280	0.800	0.456	2.0
1,2-Diphenylhydrazine	CHSVMS08	0.380	0.800	0.391	2.0
1,3,5-Trinitrobenzene	CHSVMS08	0.610	0.800	1.283	1.0
1,3-Dichlorobenzene	CHSVMS08	0.100	0.800	0.335	1.5
1,3-Dinitrobenzene	CHSVMS08	0.270	0.800	0.490	1.0
1,4-Dichlorobenzene	CHSVMS08	0.160	0.800	0.358	2.0
1,4-Dinitrobenzene	CHSVMS08	0.120	0.800	1.318	1.5
1,4-Naphthoquinone	CHSVMS08	0.450	2.000	0.182	1.5
1-Methylnaphthalene	CHSVMS08	0.190	0.800	0.344	2.0
1-Naphthylamine	CHSVMS08	0.700	0.800	0.250	2.0
2,2'-oxybis[1-chloropropane]	CHSVMS08	0.180	0.800	0.331	1.0
2,3,4,6-Tetrachlorophenol	CHSVMS08	0.220	0.800	0.437	1.0
2,3,5,6-Tetrachlorophenol	CHSVMS08	0.220	0.800	0.454	2.5
2,4,5-Trichlorophenol	CHSVMS08	0.290	0.800	0.337	2.0
2,4,6-Trichlorophenol	CHSVMS08	0.330	0.800	0.305	2.0
2,4-Dichlorophenol	CHSVMS08	0.260	0.800	0.256	2.5
2,4-Dimethylphenol	CHSVMS08	0.180	0.800	0.317	2.5
2,4-Dinitrophenol	CHSVMS08	0.400	1.600	1.332	5.0
2,4-Dinitrotoluene	CHSVMS08	0.320	0.800	0.431	1.5
2,6-Dichlorophenol	CHSVMS08	2.210	0.400	0.181	5.0
2,6-Dinitrotoluene	CHSVMS08	0.290	0.800	0.482	1.0
2-Acetylaminofluorene	CHSVMS08	0.710	0.800	0.839	2.0
2-Chloronaphthalene	CHSVMS08	0.190	0.800	0.325	1.5
2-Chlorophenol	CHSVMS08	0.220	0.800	0.306	2.0
2-Methylnaphthalene	CHSVMS08	0.140	0.800	0.341	1.5
2-Methylphenol	CHSVMS08	0.190	0.800	0.283	1.5
2-Naphthylamine	CHSVMS08	1.390	2.000	0.320	1.0
2-Nitroaniline	CHSVMS08	0.350	0.800	0.449	2.5
2-Nitrophenol	CHSVMS08	0.220	0.800	0.301	1.0
2-Picoline	CHSVMS08	0.910	2.000	0.023	1.5
2-Toluidine	CHSVMS08	1.940	2.000	0.959	5.0
3 & 4 Methylphenol	CHSVMS08	0.160	0.800	0.287	1.0
3,3'-Dichlorobenzidine	CHSVMS08	0.180	0.125	0.064	5.0
3,3'-Dimethylbenzidine	CHSVMS08	0.320	0.125	0.064	2.0
3-Methylcholanthrene	CHSVMS08	0.680	0.800	0.661	2.0
3-Nitroaniline	CHSVMS08	0.130	0.800	0.351	2.0
4,6-Dinitro-2-methylphenol	CHSVMS08	0.160	1.600	0.995	2.0
4-Aminobiphenyl	CHSVMS08	1.530	2.000	0.405	10.0
4-Bromophenyl phenyl ether	CHSVMS08	0.250	0.800	0.370	1.5
4-Chloro-3-methylphenol	CHSVMS08	0.250	0.800	0.329	1.0
4-Chloroaniline	CHSVMS08	0.110	0.125	0.039	1.0
4-Chlorophenyl phenyl ether	CHSVMS08	0.230	0.800	0.309	1.5

DCS = Detection Check Standard
 MLQ = Method Quantitation Limit

Matrix: Water
Method: 8270C_LL
Prep Method: 3510C_LVI
Date Analyzed: 5/12/2014
Job #: 600-91570
TALS Batch: 134203 139341
Units: ug/L

Analyte	Instrument #	MDL	DCS Spike	Measured Result	MLQ
4-Nitroaniline	CHSVMS08	0.230	0.800	0.334	2.5
4-Nitrophenol	CHSVMS08	0.330	1.600	0.804	2.5
6-Methylchrysene	CHSVMS08	1.000	2.000	1.795	2.0
7,12-Dimethylbenz(a)anthracene	CHSVMS08	0.590	0.800	0.273	2.0
Acenaphthene	CHSVMS08	0.160	0.800	0.363	1.0
Acenaphthylene	CHSVMS08	0.160	0.800	0.365	1.0
Acetophenone	CHSVMS08	0.680	0.800	0.355	1.5
Aniline	CHSVMS08	0.120	0.125	0.017	1.5
Anthracene	CHSVMS08	0.440	0.800	0.332	1.5
Atrazine	CHSVMS08	0.750	0.125	0.053	1.5
Azobenzene	CHSVMS08	0.110	0.125	0.062	1.5
Benzaldehyde	CHSVMS08	0.830	2.000	2.145	1.5
Benzo[a]anthracene	CHSVMS08	0.250	0.800	0.372	2.0
Benzo[a]pyrene	CHSVMS08	0.130	0.125	0.064	1.5
Benzo[b]fluoranthene	CHSVMS08	0.180	0.800	0.278	2.0
Benzo[g,h,i]perylene	CHSVMS08	0.350	0.800	0.378	2.5
Benzo[k]fluoranthene	CHSVMS08	0.160	0.800	0.331	2.0
Benzoic acid	CHSVMS08	0.610	1.600	2.163	5.0
Benzyl alcohol	CHSVMS08	0.510	0.800	0.310	2.0
Bis(2-chloroethoxy)methane	CHSVMS08	0.190	0.800	0.271	1.5
Bis(2-chloroethyl)ether	CHSVMS08	0.180	0.800	0.315	1.5
Bis(2-ethylhexyl) phthalate	CHSVMS08	0.590	0.800	0.348	2.5
Butyl benzyl phthalate	CHSVMS08	0.850	2.000	0.754	2.5
Caprolactam	CHSVMS08	0.400	0.800	0.130	1.0
Carbazole	CHSVMS08	0.350	0.800	0.337	5.0
Chlorobenzilate	CHSVMS08	1.130	2.000	1.858	2.5
Chrysene	CHSVMS08	0.240	0.800	0.386	1.5
Dibenz(a,h)anthracene	CHSVMS08	0.290	0.800	0.434	2.5
Dibenz[a,h]acridine	CHSVMS08	2.680	0.400	0.544	5.0
Dibenz[a,j]acridine	CHSVMS08	2.680	0.400	0.473	1.0
Dibenzofuran	CHSVMS08	0.160	0.800	0.352	1.5
Diethyl phthalate	CHSVMS08	4.190	0.800	0.536	5.0
Dimethoate	CHSVMS08	0.640	0.800	0.837	1.5
Dimethyl phthalate	CHSVMS08	0.180	0.800	0.369	2.5
Di-n-butyl phthalate	CHSVMS08	1.870	2.000	0.786	5.0
Di-n-octyl phthalate	CHSVMS08	0.160	0.800	0.491	5.0
Diphenylamine	CHSVMS08	2.010	2.800	1.081	2.0
Disulfoton	CHSVMS08	0.740	0.800	0.681	0.5
Ethyl methanesulfonate	CHSVMS08	0.520	0.800	0.653	1.5
Ethyl Parathion	CHSVMS08	0.660	0.800	0.856	2.0
Fluoranthene	CHSVMS08	0.310	0.800	0.345	2.5
Fluorene	CHSVMS08	0.120	0.125	0.069	1.5
Hexachlorobenzene	CHSVMS08	0.250	0.800	0.361	1.5
Hexachlorobutadiene	CHSVMS08	0.190	0.800	0.323	2.0
Hexachlorocyclopentadiene	CHSVMS08	0.150	0.800	0.427	1.5
Hexachloroethane	CHSVMS08	0.170	0.800	0.341	2.0

DCS = Detection Check Standard
 MLQ = Method Quantitation Limit

Matrix: Water
Method: 8270C_LL
Prep Method: 3510C_LVI
Date Analyzed: 5/12/2014
Job #: 600-91570
TALS Batch: 134203 139341
Units: ug/L

Analyte	Instrument #	MDL	DCS Spike	Measured Result	MLQ
Hexachloropropene	CHSVMS08	0.710	0.800	0.678	10.0
Indene	CHSVMS08	0.500	0.800	0.239	2.0
Indeno[1,2,3-cd]pyrene	CHSVMS08	0.290	0.800	0.447	2.0
Isodrin	CHSVMS08	0.630	0.800	0.676	2.0
Isophorone	CHSVMS08	0.150	0.125	0.059	1.5
Methyl methanesulfonate	CHSVMS08	0.210	0.400	0.219	1.5
Methyl parathion	CHSVMS08	0.750	0.800	0.691	2.0
Methyl Phenols, Total	CHSVMS08	0.500	1.600	0.570	2.0
Naphthalene	CHSVMS08	0.160	0.800	0.385	2.0
Nitrobenzene	CHSVMS08	0.200	0.800	0.317	1.5
N-Nitro-o-toluidine	CHSVMS08	0.450	0.800	0.559	10.0
N-Nitrosodiethylamine	CHSVMS08	0.580	0.800	0.618	1.5
N-Nitrosodimethylamine	CHSVMS08	0.160	0.800	0.296	2.0
N-Nitrosodi-n-butylamine	CHSVMS08	2.150	0.400	0.222	2.0
N-Nitrosodi-n-propylamine	CHSVMS08	0.240	0.800	0.328	2.5
N-Nitrosodiphenylamine	CHSVMS08	0.330	0.800	0.359	1.5
N-Nitrosomethylethylamine	CHSVMS08	0.530	0.800	0.706	1.0
N-Nitrosomorpholine	CHSVMS08	0.530	0.800	0.532	5.0
N-Nitrosopiperidine	CHSVMS08	0.480	0.800	0.660	1.5
N-Nitrosopyrrolidine	CHSVMS08	0.430	0.800	0.601	1.0
o,o',o''-Triethylphosphorothioate	CHSVMS08	0.650	0.800	0.685	5.0
p-Dimethylamino azobenzene	CHSVMS08	2.180	0.400	0.209	5.0
Pentachlorobenzene	CHSVMS08	0.860	2.000	1.666	1.5
Pentachloroethane	CHSVMS08	0.770	0.800	0.702	1.5
Pentachloronitrobenzene	CHSVMS08	0.950	2.000	1.653	2.0
Pentachlorophenol	CHSVMS08	0.960	1.600	0.811	2.5
Phenacetin	CHSVMS08	0.710	0.800	0.688	1.5
Phenanthrene	CHSVMS08	0.290	0.800	0.391	1.5
Phenol	CHSVMS08	0.140	0.125	0.048	1.5
Phorate	CHSVMS08	0.860	2.000	1.641	1.5
Pronamide	CHSVMS08	0.790	0.800	0.658	2.0
Pyrene	CHSVMS08	0.330	0.800	0.345	2.0
Pyridine	CHSVMS08	0.240	2.000	0.045	4.0
Quinoline	CHSVMS08	1.000	2.000	0.867	2.0
Safrole, Total	CHSVMS08	0.800	0.800	0.656	2.0
Thionazin	CHSVMS08	0.550	0.800	0.556	1.5
Total Cresols, TCEQ Definition	CHSVMS08	0.500	3.200	1.62	2.0

Case Narrative

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-97855-1

Job ID: 600-97855-1

Laboratory: TestAmerica Houston

Narrative

Job Narrative
600-97855-1

Comments

No additional comments.

Receipt

The samples were received on 8/29/2014 7:54 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 4.0° C.

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Method Summary

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-97855-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL HOU
8270C LL	Semivolatile Organic Compounds by GCMS - Low Levels	SW846	TAL HOU

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL HOU = TestAmerica Houston, 6310 Rothway Street, Houston, TX 77040, TEL (713)690-4444



Sample Summary

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-97855-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
600-97855-1	WG-1620-MW22B-20140828	Water	08/28/14 15:50	08/29/14 07:54
600-97855-2	WG-1620-MW63C-20140828	Water	08/28/14 16:15	08/29/14 07:54

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Client Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-97855-1

Client Sample ID: WG-1620-MW22B- 20140828

Lab Sample ID: 600-97855-1

Date Collected: 08/28/14 15:50

Matrix: Water

Date Received: 08/29/14 07:54

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	0.000110	U	0.00200	0.000110	mg/L			09/04/14 20:01	1
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			09/04/14 20:01	1
Benzene	0.00238		0.00100	0.0000800	mg/L			09/04/14 20:01	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			09/04/14 20:01	1
Toluene	0.00752		0.00100	0.000150	mg/L			09/04/14 20:01	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			09/04/14 20:01	1
Ethylbenzene	0.0275		0.00100	0.000110	mg/L			09/04/14 20:01	1
Xylenes, Total	0.0383		0.00300	0.000260	mg/L			09/04/14 20:01	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	76		67 - 139		09/04/14 20:01	1
Dibromofluoromethane	82		62 - 130		09/04/14 20:01	1
Toluene-d8 (Surr)	80		70 - 130		09/04/14 20:01	1
1,2-Dichloroethane-d4 (Surr)	80		50 - 134		09/04/14 20:01	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.0000400	U	0.000500	0.0000400	mg/L		09/03/14 10:25	09/05/14 12:23	1
Nitrobenzene	0.000110	U	0.000500	0.000110	mg/L		09/03/14 10:25	09/05/14 12:23	1
2,4-Dimethylphenol	0.000310	U	0.000500	0.000310	mg/L		09/03/14 10:25	09/05/14 12:23	1
Bis(2-chloroethoxy)methane	0.000130	U	0.000500	0.000130	mg/L		09/03/14 10:25	09/05/14 12:23	1
2-Methylnaphthalene	0.00663		0.000500	0.0000700	mg/L		09/03/14 10:25	09/05/14 12:23	1
2-Chloronaphthalene	0.0000800	U	0.000500	0.0000800	mg/L		09/03/14 10:25	09/05/14 12:23	1
Acenaphthylene	0.00132		0.000500	0.0000600	mg/L		09/03/14 10:25	09/05/14 12:23	1
2,6-Dinitrotoluene	0.0000800	U	0.000500	0.0000800	mg/L		09/03/14 10:25	09/05/14 12:23	1
4-Nitrophenol	0.000560	U	0.00100	0.000560	mg/L		09/03/14 10:25	09/05/14 12:23	1
2,4-Dinitrotoluene	0.000130	U	0.000500	0.000130	mg/L		09/03/14 10:25	09/05/14 12:23	1
4,6-Dinitro-2-methylphenol	0.000830	U	0.00100	0.000830	mg/L		09/03/14 10:25	09/05/14 12:23	1
N-Nitrosodiphenylamine	0.000100	U	0.000500	0.000100	mg/L		09/03/14 10:25	09/05/14 12:23	1
1,2-Diphenylhydrazine	0.000110	U	0.000500	0.000110	mg/L		09/03/14 10:25	09/05/14 12:23	1
Pentachlorophenol	0.000610	U	0.00100	0.000610	mg/L		09/03/14 10:25	09/05/14 12:23	1
Phenanthrene	0.0000600	U	0.000500	0.0000600	mg/L		09/03/14 10:25	09/05/14 12:23	1
Anthracene	0.00404		0.000500	0.0000500	mg/L		09/03/14 10:25	09/05/14 12:23	1
Di-n-butyl phthalate	0.000110	U	0.000500	0.000110	mg/L		09/03/14 10:25	09/05/14 12:23	1
Fluoranthene	0.00282		0.000500	0.0000700	mg/L		09/03/14 10:25	09/05/14 12:23	1
Pyrene	0.00230		0.000500	0.000110	mg/L		09/03/14 10:25	09/05/14 12:23	1
Benzo[a]anthracene	0.0000800	U	0.000500	0.0000800	mg/L		09/03/14 10:25	09/05/14 12:23	1
Bis(2-ethylhexyl) phthalate	0.000370	U	0.000500	0.000370	mg/L		09/03/14 10:25	09/05/14 12:23	1
Chrysene	0.0000800	U	0.000500	0.0000800	mg/L		09/03/14 10:25	09/05/14 12:23	1
Benzo[a]pyrene	0.0000800	U	0.000500	0.0000800	mg/L		09/03/14 10:25	09/05/14 12:23	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	118		10 - 147	09/03/14 10:25	09/05/14 12:23	1
2-Fluorobiphenyl	88		10 - 150	09/03/14 10:25	09/05/14 12:23	1
2-Fluorophenol	47		10 - 130	09/03/14 10:25	09/05/14 12:23	1
Nitrobenzene-d5	79		23 - 130	09/03/14 10:25	09/05/14 12:23	1
Terphenyl-d14	118		42 - 133	09/03/14 10:25	09/05/14 12:23	1
Phenol-d5 (Surr)	29		10 - 130	09/03/14 10:25	09/05/14 12:23	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-97855-1

Client Sample ID: WG-1620-MW22B- 20140828

Lab Sample ID: 600-97855-1

Date Collected: 08/28/14 15:50

Matrix: Water

Date Received: 08/29/14 07:54

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels - DL

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	0.123		0.00500	0.000800	mg/L		09/03/14 10:25	09/05/14 17:26	10
Dibenzofuran	0.0409		0.00500	0.000800	mg/L		09/03/14 10:25	09/05/14 17:26	10
Fluorene	0.0355		0.00500	0.000700	mg/L		09/03/14 10:25	09/05/14 17:26	10
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	83		10 - 147				09/03/14 10:25	09/05/14 17:26	10
2-Fluorobiphenyl	74		10 - 150				09/03/14 10:25	09/05/14 17:26	10
2-Fluorophenol	39		10 - 130				09/03/14 10:25	09/05/14 17:26	10
Nitrobenzene-d5	67		23 - 130				09/03/14 10:25	09/05/14 17:26	10
Terphenyl-d14	110		42 - 133				09/03/14 10:25	09/05/14 17:26	10
Phenol-d5 (Surr)	21		10 - 130				09/03/14 10:25	09/05/14 17:26	10

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels - DL2

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	0.977		0.0500	0.00800	mg/L		09/03/14 10:25	09/05/14 17:57	100
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	0	X	10 - 147				09/03/14 10:25	09/05/14 17:57	100
2-Fluorobiphenyl	0	X	10 - 150				09/03/14 10:25	09/05/14 17:57	100
2-Fluorophenol	0	X	10 - 130				09/03/14 10:25	09/05/14 17:57	100
Nitrobenzene-d5	0	X	23 - 130				09/03/14 10:25	09/05/14 17:57	100
Terphenyl-d14	0	X	42 - 133				09/03/14 10:25	09/05/14 17:57	100
Phenol-d5 (Surr)	0	X	10 - 130				09/03/14 10:25	09/05/14 17:57	100

Client Sample ID: WG-1620-MW63C-20140828

Lab Sample ID: 600-97855-2

Date Collected: 08/28/14 16:15

Matrix: Water

Date Received: 08/29/14 07:54

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	0.000110	U	0.00200	0.000110	mg/L			09/03/14 21:20	1
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			09/03/14 21:20	1
Benzene	0.00118		0.00100	0.0000800	mg/L			09/03/14 21:20	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			09/03/14 21:20	1
Toluene	0.000442	J	0.00100	0.000150	mg/L			09/03/14 21:20	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			09/03/14 21:20	1
Ethylbenzene	0.000140	J	0.00100	0.000110	mg/L			09/03/14 21:20	1
Xylenes, Total	0.000260	U	0.00300	0.000260	mg/L			09/03/14 21:20	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	78		67 - 139					09/03/14 21:20	1
Dibromofluoromethane	81		62 - 130					09/03/14 21:20	1
Toluene-d8 (Surr)	85		70 - 130					09/03/14 21:20	1
1,2-Dichloroethane-d4 (Surr)	76		50 - 134					09/03/14 21:20	1

TestAmerica Houston

Definitions/Glossary

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-97855-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
U	Analyte was not detected at or above the SDL.
J	Result is less than the MQL but greater than or equal to the SDL and the concentration is an estimated value.

GC/MS Semi VOA

Qualifier	Qualifier Description
N2	RPD of the MS and MSD exceeds the control limits
X	Surrogate is outside control limits
U	Analyte was not detected at or above the SDL.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Surrogate Summary

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-97855-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		BFB (67-139)	DBFM (62-130)	TOL (70-130)	12DCE (50-134)
600-97854-A-5 MS	Matrix Spike	83	80	84	77
600-97854-A-5 MSD	Matrix Spike Duplicate	83	85	86	80
600-97855-1	WG-1620-MW22B- 20140828	76	82	80	80
600-97855-2	WG-1620-MW63C-20140828	78	81	85	76
LCS 600-143176/3	Lab Control Sample	78	73	80	70
LCS 600-143281/3	Lab Control Sample	80	74	83	71
LCSD 600-143176/4	Lab Control Sample Dup	85	80	87	77
MB 600-143176/6	Method Blank	77	77	84	74
MB 600-143281/5	Method Blank	80	80	86	79

Surrogate Legend

BFB = 4-Bromofluorobenzene
 DBFM = Dibromofluoromethane
 TOL = Toluene-d8 (Surr)
 12DCE = 1,2-Dichloroethane-d4 (Surr)

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)					
		TBP (10-147)	FBP (10-150)	2FP (10-130)	NBZ (23-130)	TPH (42-133)	PHL (10-130)
600-97854-B-1-A MS	Matrix Spike	88	75	34	69	86	21
600-97854-B-5-A MS	Matrix Spike	96	85	39	79	95	25
600-97854-C-1-A MSD	Matrix Spike Duplicate	79	72	37	67	77	23
600-97854-C-5-A MSD	Matrix Spike Duplicate	93	81	53	77	91	34
600-97855-1 - DL	WG-1620-MW22B- 20140828	83	74	39	67	110	21
600-97855-1 - DL2	WG-1620-MW22B- 20140828	0 X	0 X	0 X	0 X	0 X	0 X
600-97855-1	WG-1620-MW22B- 20140828	118	88	47	79	118	29
LCS 600-143187/2-A	Lab Control Sample	78	78	75	75	94	75
MB 600-143187/1-A	Method Blank	50	66	69	70	84	67

Surrogate Legend

TBP = 2,4,6-Tribromophenol
 FBP = 2-Fluorobiphenyl
 2FP = 2-Fluorophenol
 NBZ = Nitrobenzene-d5
 TPH = Terphenyl-d14
 PHL = Phenol-d5 (Surr)

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-97855-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 600-143176/6

Matrix: Water

Analysis Batch: 143176

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	0.000110	U	0.00200	0.000110	mg/L			09/03/14 12:28	1
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			09/03/14 12:28	1
Benzene	0.0000800	U	0.00100	0.0000800	mg/L			09/03/14 12:28	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			09/03/14 12:28	1
Toluene	0.000150	U	0.00100	0.000150	mg/L			09/03/14 12:28	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			09/03/14 12:28	1
Ethylbenzene	0.000110	U	0.00100	0.000110	mg/L			09/03/14 12:28	1
Xylenes, Total	0.000260	U	0.00300	0.000260	mg/L			09/03/14 12:28	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	77		67 - 139		09/03/14 12:28	1
Dibromofluoromethane	77		62 - 130		09/03/14 12:28	1
Toluene-d8 (Surr)	84		70 - 130		09/03/14 12:28	1
1,2-Dichloroethane-d4 (Surr)	74		50 - 134		09/03/14 12:28	1

Lab Sample ID: LCS 600-143176/3

Matrix: Water

Analysis Batch: 143176

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Vinyl chloride	0.0100	0.01131		mg/L		113	33 - 150
Methylene Chloride	0.0100	0.007846		mg/L		78	55 - 147
Benzene	0.0100	0.009564		mg/L		96	70 - 130
1,2-Dichloroethane	0.0100	0.009161		mg/L		92	67 - 134
Toluene	0.0100	0.01042		mg/L		104	70 - 130
Chlorobenzene	0.0100	0.01001		mg/L		100	69 - 130
Ethylbenzene	0.0100	0.01063		mg/L		106	70 - 130
Xylenes, Total	0.0200	0.02104		mg/L		105	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene	78		67 - 139
Dibromofluoromethane	73		62 - 130
Toluene-d8 (Surr)	80		70 - 130
1,2-Dichloroethane-d4 (Surr)	70		50 - 134

Lab Sample ID: LCSD 600-143176/4

Matrix: Water

Analysis Batch: 143176

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Vinyl chloride	0.0100	0.01142		mg/L		114	33 - 150	1	20
Methylene Chloride	0.0100	0.008032		mg/L		80	55 - 147	2	20
Benzene	0.0100	0.009825		mg/L		98	70 - 130	3	20
1,2-Dichloroethane	0.0100	0.009287		mg/L		93	67 - 134	1	20
Toluene	0.0100	0.01076		mg/L		108	70 - 130	3	20
Chlorobenzene	0.0100	0.01024		mg/L		102	69 - 130	2	20
Ethylbenzene	0.0100	0.01087		mg/L		109	70 - 130	2	20

TestAmerica Houston

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-97855-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 600-143176/4

Matrix: Water

Analysis Batch: 143176

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Xylenes, Total	0.0200	0.02170		mg/L		109	70 - 130	3	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene	85		67 - 139
Dibromofluoromethane	80		62 - 130
Toluene-d8 (Surr)	87		70 - 130
1,2-Dichloroethane-d4 (Surr)	77		50 - 134

Lab Sample ID: MB 600-143281/5

Matrix: Water

Analysis Batch: 143281

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	0.000110	U	0.00200	0.000110	mg/L			09/04/14 14:38	1
Methylene Chloride	0.000150	U	0.00100	0.000150	mg/L			09/04/14 14:38	1
Benzene	0.0000800	U	0.00100	0.0000800	mg/L			09/04/14 14:38	1
1,2-Dichloroethane	0.000140	U	0.00100	0.000140	mg/L			09/04/14 14:38	1
Toluene	0.000150	U	0.00100	0.000150	mg/L			09/04/14 14:38	1
Chlorobenzene	0.000120	U	0.00100	0.000120	mg/L			09/04/14 14:38	1
Ethylbenzene	0.000110	U	0.00100	0.000110	mg/L			09/04/14 14:38	1
Xylenes, Total	0.000260	U	0.00300	0.000260	mg/L			09/04/14 14:38	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	80		67 - 139		09/04/14 14:38	1
Dibromofluoromethane	80		62 - 130		09/04/14 14:38	1
Toluene-d8 (Surr)	86		70 - 130		09/04/14 14:38	1
1,2-Dichloroethane-d4 (Surr)	79		50 - 134		09/04/14 14:38	1

Lab Sample ID: LCS 600-143281/3

Matrix: Water

Analysis Batch: 143281

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Vinyl chloride	0.0100	0.01095		mg/L		110	33 - 150
Methylene Chloride	0.0100	0.007647		mg/L		76	55 - 147
Benzene	0.0100	0.009140		mg/L		91	70 - 130
1,2-Dichloroethane	0.0100	0.008626		mg/L		86	67 - 134
Toluene	0.0100	0.009975		mg/L		100	70 - 130
Chlorobenzene	0.0100	0.009597		mg/L		96	69 - 130
Ethylbenzene	0.0100	0.01024		mg/L		102	70 - 130
Xylenes, Total	0.0200	0.02039		mg/L		102	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene	80		67 - 139
Dibromofluoromethane	74		62 - 130
Toluene-d8 (Surr)	83		70 - 130
1,2-Dichloroethane-d4 (Surr)	71		50 - 134

TestAmerica Houston

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-97855-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 600-97854-A-5 MS

Matrix: Water

Analysis Batch: 143281

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec.	Limits
	Result	Qualifier		Result	Qualifier					
Vinyl chloride	0.000110	U	0.0100	0.01099		mg/L		110	33 - 150	
Methylene Chloride	0.000150	U	0.0100	0.007304		mg/L		73	55 - 147	
Benzene	0.0000800	U	0.0100	0.009578		mg/L		96	70 - 130	
1,2-Dichloroethane	0.000140	U	0.0100	0.009509		mg/L		95	67 - 134	
Toluene	0.000150	U	0.0100	0.01014		mg/L		101	70 - 130	
Chlorobenzene	0.000120	U	0.0100	0.009773		mg/L		98	69 - 130	
Ethylbenzene	0.000110	U	0.0100	0.01025		mg/L		102	70 - 130	
Xylenes, Total	0.000260	U	0.0200	0.02059		mg/L		103	70 - 130	
MS MS										
Surrogate	%Recovery	Qualifier	Limits							
4-Bromofluorobenzene	83		67 - 139							
Dibromofluoromethane	80		62 - 130							
Toluene-d8 (Surr)	84		70 - 130							
1,2-Dichloroethane-d4 (Surr)	77		50 - 134							

Lab Sample ID: 600-97854-A-5 MSD

Matrix: Water

Analysis Batch: 143281

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.	Limits	RPD	Limit
	Result	Qualifier		Result	Qualifier							
Vinyl chloride	0.000110	U	0.0100	0.01162		mg/L		116	33 - 150	6	30	
Methylene Chloride	0.000150	U	0.0100	0.007301		mg/L		73	55 - 147	0	30	
Benzene	0.0000800	U	0.0100	0.01006		mg/L		101	70 - 130	5	30	
1,2-Dichloroethane	0.000140	U	0.0100	0.009985		mg/L		100	67 - 134	5	30	
Toluene	0.000150	U	0.0100	0.01019		mg/L		102	70 - 130	0	30	
Chlorobenzene	0.000120	U	0.0100	0.009860		mg/L		99	69 - 130	1	30	
Ethylbenzene	0.000110	U	0.0100	0.01005		mg/L		100	70 - 130	2	30	
Xylenes, Total	0.000260	U	0.0200	0.02075		mg/L		104	70 - 130	1	30	
MSD MSD												
Surrogate	%Recovery	Qualifier	Limits									
4-Bromofluorobenzene	83		67 - 139									
Dibromofluoromethane	85		62 - 130									
Toluene-d8 (Surr)	86		70 - 130									
1,2-Dichloroethane-d4 (Surr)	80		50 - 134									

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Lab Sample ID: MB 600-143187/1-A

Matrix: Water

Analysis Batch: 143361

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 143187

Analyte	MB	MB	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Phenol	0.0000400	U	0.000500	0.0000400	mg/L		09/03/14 10:15	09/05/14 11:22	1
Nitrobenzene	0.000110	U	0.000500	0.000110	mg/L		09/03/14 10:15	09/05/14 11:22	1
2,4-Dimethylphenol	0.000310	U	0.000500	0.000310	mg/L		09/03/14 10:15	09/05/14 11:22	1
Bis(2-chloroethoxy)methane	0.000130	U	0.000500	0.000130	mg/L		09/03/14 10:15	09/05/14 11:22	1
Naphthalene	0.0000800	U	0.000500	0.0000800	mg/L		09/03/14 10:15	09/05/14 11:22	1

TestAmerica Houston

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-97855-1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Lab Sample ID: MB 600-143187/1-A

Matrix: Water

Analysis Batch: 143361

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 143187

Analyte	MB	MB	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
2-Methylnaphthalene	0.0000700	U	0.000500	0.0000700	mg/L		09/03/14 10:15	09/05/14 11:22	1
2-Chloronaphthalene	0.0000800	U	0.000500	0.0000800	mg/L		09/03/14 10:15	09/05/14 11:22	1
Acenaphthylene	0.0000600	U	0.000500	0.0000600	mg/L		09/03/14 10:15	09/05/14 11:22	1
2,6-Dinitrotoluene	0.0000800	U	0.000500	0.0000800	mg/L		09/03/14 10:15	09/05/14 11:22	1
Acenaphthene	0.0000800	U	0.000500	0.0000800	mg/L		09/03/14 10:15	09/05/14 11:22	1
4-Nitrophenol	0.000560	U	0.00100	0.000560	mg/L		09/03/14 10:15	09/05/14 11:22	1
Dibenzofuran	0.0000800	U	0.000500	0.0000800	mg/L		09/03/14 10:15	09/05/14 11:22	1
2,4-Dinitrotoluene	0.000130	U	0.000500	0.000130	mg/L		09/03/14 10:15	09/05/14 11:22	1
Fluorene	0.0000700	U	0.000500	0.0000700	mg/L		09/03/14 10:15	09/05/14 11:22	1
4,6-Dinitro-2-methylphenol	0.000830	U	0.00100	0.000830	mg/L		09/03/14 10:15	09/05/14 11:22	1
N-Nitrosodiphenylamine	0.000100	U	0.000500	0.000100	mg/L		09/03/14 10:15	09/05/14 11:22	1
1,2-Diphenylhydrazine	0.000110	U	0.000500	0.000110	mg/L		09/03/14 10:15	09/05/14 11:22	1
Pentachlorophenol	0.000610	U	0.00100	0.000610	mg/L		09/03/14 10:15	09/05/14 11:22	1
Phenanthrene	0.0000600	U	0.000500	0.0000600	mg/L		09/03/14 10:15	09/05/14 11:22	1
Anthracene	0.0000500	U	0.000500	0.0000500	mg/L		09/03/14 10:15	09/05/14 11:22	1
Di-n-butyl phthalate	0.000110	U	0.000500	0.000110	mg/L		09/03/14 10:15	09/05/14 11:22	1
Fluoranthene	0.0000700	U	0.000500	0.0000700	mg/L		09/03/14 10:15	09/05/14 11:22	1
Pyrene	0.000110	U	0.000500	0.000110	mg/L		09/03/14 10:15	09/05/14 11:22	1
Benzo[a]anthracene	0.0000800	U	0.000500	0.0000800	mg/L		09/03/14 10:15	09/05/14 11:22	1
Bis(2-ethylhexyl) phthalate	0.000370	U	0.000500	0.000370	mg/L		09/03/14 10:15	09/05/14 11:22	1
Chrysene	0.0000800	U	0.000500	0.0000800	mg/L		09/03/14 10:15	09/05/14 11:22	1
Benzo[a]pyrene	0.0000800	U	0.000500	0.0000800	mg/L		09/03/14 10:15	09/05/14 11:22	1

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
2,4,6-Tribromophenol	50		10 - 147	09/03/14 10:15	09/05/14 11:22	1
2-Fluorobiphenyl	66		10 - 150	09/03/14 10:15	09/05/14 11:22	1
2-Fluorophenol	69		10 - 130	09/03/14 10:15	09/05/14 11:22	1
Nitrobenzene-d5	70		23 - 130	09/03/14 10:15	09/05/14 11:22	1
Terphenyl-d14	84		42 - 133	09/03/14 10:15	09/05/14 11:22	1
Phenol-d5 (Surr)	67		10 - 130	09/03/14 10:15	09/05/14 11:22	1

Lab Sample ID: LCS 600-143187/2-A

Matrix: Water

Analysis Batch: 143361

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 143187

Analyte	Spike Added	LCS	LCS	Unit	D	%Rec	%Rec. Limits
		Result	Qualifier				
Phenol	0.0100	0.007094		mg/L		71	10 - 144
Nitrobenzene	0.0100	0.007834		mg/L		78	41 - 130
2,4-Dimethylphenol	0.0100	0.007218		mg/L		72	45 - 130
Bis(2-chloroethoxy)methane	0.0100	0.007291		mg/L		73	36 - 134
Naphthalene	0.0100	0.007326		mg/L		73	57 - 130
2-Methylnaphthalene	0.0100	0.007211		mg/L		72	52 - 130
2-Chloronaphthalene	0.0100	0.007515		mg/L		75	56 - 130
Acenaphthylene	0.0100	0.007020		mg/L		70	58 - 130
2,6-Dinitrotoluene	0.0100	0.007784		mg/L		78	56 - 130
Acenaphthene	0.0100	0.007204		mg/L		72	59 - 130
4-Nitrophenol	0.0200	0.01685		mg/L		84	10 - 150
Dibenzofuran	0.0100	0.007469		mg/L		75	56 - 130

TestAmerica Houston

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-97855-1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Lab Sample ID: LCS 600-143187/2-A

Matrix: Water

Analysis Batch: 143361

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 143187

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
2,4-Dinitrotoluene	0.0100	0.007542		mg/L		75	54 - 130
Fluorene	0.0100	0.007100		mg/L		71	57 - 130
4,6-Dinitro-2-methylphenol	0.0200	0.01734		mg/L		87	10 - 145
N-Nitrosodiphenylamine	0.0100	0.006477		mg/L		65	55 - 137
1,2-Diphenylhydrazine	0.0100	0.006366		mg/L		64	45 - 130
Pentachlorophenol	0.0200	0.01245		mg/L		62	27 - 130
Phenanthrene	0.0100	0.007413		mg/L		74	60 - 130
Anthracene	0.0100	0.007035		mg/L		70	46 - 132
Di-n-butyl phthalate	0.0100	0.007023		mg/L		70	61 - 130
Fluoranthene	0.0100	0.007251		mg/L		73	63 - 130
Pyrene	0.0100	0.008456		mg/L		85	62 - 130
Benzo[a]anthracene	0.0100	0.007967		mg/L		80	58 - 130
Bis(2-ethylhexyl) phthalate	0.0100	0.007428		mg/L		74	59 - 130
Chrysene	0.0100	0.007754		mg/L		78	60 - 130
Benzo[a]pyrene	0.0100	0.008295		mg/L		83	56 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2,4,6-Tribromophenol	78		10 - 147
2-Fluorobiphenyl	78		10 - 150
2-Fluorophenol	75		10 - 130
Nitrobenzene-d5	75		23 - 130
Terphenyl-d14	94		42 - 133
Phenol-d5 (Surr)	75		10 - 130

Lab Sample ID: 600-97854-B-1-A MS

Matrix: Water

Analysis Batch: 143452

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 143187

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Phenol	0.000400	U	0.00990	0.002338		mg/L		24	10 - 144
Nitrobenzene	0.000110	U	0.00990	0.007103		mg/L		72	41 - 130
2,4-Dimethylphenol	0.000310	U	0.00990	0.006011		mg/L		61	45 - 130
Bis(2-chloroethoxy)methane	0.000130	U	0.00990	0.007200		mg/L		73	36 - 134
Naphthalene	0.0000800	U	0.00990	0.007422		mg/L		75	57 - 130
2-Methylnaphthalene	0.0000700	U	0.00990	0.007456		mg/L		75	52 - 130
2-Chloronaphthalene	0.0000800	U	0.00990	0.007504		mg/L		76	56 - 130
Acenaphthylene	0.0000600	U	0.00990	0.007432		mg/L		75	58 - 130
2,6-Dinitrotoluene	0.0000800	U	0.00990	0.008777		mg/L		89	56 - 130
Acenaphthene	0.0000800	U	0.00990	0.007563		mg/L		76	59 - 130
4-Nitrophenol	0.000560	U	0.0198	0.004776		mg/L		24	10 - 150
Dibenzofuran	0.0000800	U	0.00990	0.007650		mg/L		77	56 - 130
2,4-Dinitrotoluene	0.000130	U	0.00990	0.008891		mg/L		90	54 - 130
Fluorene	0.0000700	U	0.00990	0.007874		mg/L		80	57 - 130
4,6-Dinitro-2-methylphenol	0.000830	U	0.0198	0.01717		mg/L		87	10 - 145
N-Nitrosodiphenylamine	0.000100	U	0.00990	0.007416		mg/L		75	55 - 137
1,2-Diphenylhydrazine	0.000110	U	0.00990	0.007580		mg/L		77	45 - 130
Pentachlorophenol	0.000610	U	0.0198	0.01737		mg/L		88	27 - 130
Phenanthrene	0.0000600	U	0.00990	0.008208		mg/L		83	60 - 130

TestAmerica Houston

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-97855-1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Lab Sample ID: 600-97854-B-1-A MS

Matrix: Water

Analysis Batch: 143452

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 143187

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec. Limits
	Result	Qualifier	Added	Result	Qualifier				
Anthracene	0.0000500	U	0.00990	0.008169		mg/L		83	46 - 132
Di-n-butyl phthalate	0.000110	U	0.00990	0.008364		mg/L		84	61 - 130
Fluoranthene	0.0000700	U	0.00990	0.008315		mg/L		84	63 - 130
Pyrene	0.000110	U	0.00990	0.008365		mg/L		84	62 - 130
Benzo[a]anthracene	0.0000800	U	0.00990	0.008432		mg/L		85	58 - 130
Bis(2-ethylhexyl) phthalate	0.000536		0.00990	0.009485		mg/L		90	59 - 130
Chrysene	0.0000800	U	0.00990	0.007993		mg/L		81	60 - 130
Benzo[a]pyrene	0.0000800	U	0.00990	0.008251		mg/L		83	56 - 130

Surrogate	MS	MS	Limits
	%Recovery	Qualifier	
2,4,6-Tribromophenol	88		10 - 147
2-Fluorobiphenyl	75		10 - 150
2-Fluorophenol	34		10 - 130
Nitrobenzene-d5	69		23 - 130
Terphenyl-d14	86		42 - 133
Phenol-d5 (Surr)	21		10 - 130

Lab Sample ID: 600-97854-B-5-A MS

Matrix: Water

Analysis Batch: 143452

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 143187

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec. Limits
	Result	Qualifier	Added	Result	Qualifier				
Phenol	0.0000400	U	0.0100	0.002732		mg/L		27	10 - 144
Nitrobenzene	0.000110	U	0.0100	0.007842		mg/L		78	41 - 130
2,4-Dimethylphenol	0.000310	U	0.0100	0.007239		mg/L		72	45 - 130
Bis(2-chloroethoxy)methane	0.000130	U	0.0100	0.008166		mg/L		82	36 - 134
Naphthalene	0.000710		0.0100	0.008327		mg/L		76	57 - 130
2-Methylnaphthalene	0.0000700	U	0.0100	0.008650		mg/L		86	52 - 130
2-Chloronaphthalene	0.0000800	U	0.0100	0.008404		mg/L		84	56 - 130
Acenaphthylene	0.0000600	U	0.0100	0.008341		mg/L		83	58 - 130
2,6-Dinitrotoluene	0.0000800	U	0.0100	0.009538		mg/L		95	56 - 130
Acenaphthene	0.0000800	U	0.0100	0.008381		mg/L		84	59 - 130
4-Nitrophenol	0.000560	U	0.0200	0.005373		mg/L		27	10 - 150
Dibenzofuran	0.0000800	U	0.0100	0.008313		mg/L		83	56 - 130
2,4-Dinitrotoluene	0.000130	U	0.0100	0.009542		mg/L		95	54 - 130
Fluorene	0.0000700	U	0.0100	0.008416		mg/L		84	57 - 130
4,6-Dinitro-2-methylphenol	0.000830	U	0.0200	0.01778		mg/L		89	10 - 145
N-Nitrosodiphenylamine	0.000100	U	0.0100	0.008267		mg/L		83	55 - 137
1,2-Diphenylhydrazine	0.000110	U	0.0100	0.008002		mg/L		80	45 - 130
Pentachlorophenol	0.000610	U	0.0200	0.01805		mg/L		90	27 - 130
Phenanthrene	0.0000600	U	0.0100	0.008811		mg/L		88	60 - 130
Anthracene	0.0000500	U	0.0100	0.008856		mg/L		89	46 - 132
Di-n-butyl phthalate	0.000110	U	0.0100	0.009071		mg/L		91	61 - 130
Fluoranthene	0.0000700	U	0.0100	0.008993		mg/L		90	63 - 130
Pyrene	0.000110	U	0.0100	0.009235		mg/L		92	62 - 130
Benzo[a]anthracene	0.0000800	U	0.0100	0.009305		mg/L		93	58 - 130
Bis(2-ethylhexyl) phthalate	0.00244		0.0100	0.01266		mg/L		102	59 - 130
Chrysene	0.0000800	U	0.0100	0.008269		mg/L		83	60 - 130

TestAmerica Houston

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-97855-1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Lab Sample ID: 600-97854-B-5-A MS

Matrix: Water

Analysis Batch: 143452

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 143187

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzo[a]pyrene	0.0000800	U	0.0100	0.009646		mg/L		96	56 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
2,4,6-Tribromophenol	96		10 - 147
2-Fluorobiphenyl	85		10 - 150
2-Fluorophenol	39		10 - 130
Nitrobenzene-d5	79		23 - 130
Terphenyl-d14	95		42 - 133
Phenol-d5 (Surr)	25		10 - 130

Lab Sample ID: 600-97854-C-1-A MSD

Matrix: Water

Analysis Batch: 143452

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 143187

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Phenol	0.0000400	U	0.00980	0.002354		mg/L		24	10 - 144	1	20
Nitrobenzene	0.000110	U	0.00980	0.006560		mg/L		67	41 - 130	8	20
2,4-Dimethylphenol	0.000310	U	0.00980	0.006601		mg/L		67	45 - 130	9	20
Bis(2-chloroethoxy)methane	0.000130	U	0.00980	0.006700		mg/L		68	36 - 134	7	20
Naphthalene	0.0000800	U	0.00980	0.006865		mg/L		70	57 - 130	8	20
2-Methylnaphthalene	0.0000700	U	0.00980	0.006989		mg/L		71	52 - 130	6	20
2-Chloronaphthalene	0.0000800	U	0.00980	0.006844		mg/L		70	56 - 130	9	20
Acenaphthylene	0.0000600	U	0.00980	0.006868		mg/L		70	58 - 130	8	20
2,6-Dinitrotoluene	0.0000800	U	0.00980	0.007289		mg/L		74	56 - 130	19	20
Acenaphthene	0.0000800	U	0.00980	0.006883		mg/L		70	59 - 130	9	20
4-Nitrophenol	0.000560	U	0.0196	0.004486		mg/L		23	10 - 150	6	20
Dibenzofuran	0.0000800	U	0.00980	0.006758		mg/L		69	56 - 130	12	20
2,4-Dinitrotoluene	0.000130	U	0.00980	0.007572		mg/L		77	54 - 130	16	20
Fluorene	0.0000700	U	0.00980	0.006856		mg/L		70	57 - 130	14	20
4,6-Dinitro-2-methylphenol	0.000830	U	0.0196	0.01475		mg/L		75	10 - 145	15	20
N-Nitrosodiphenylamine	0.000100	U	0.00980	0.006427		mg/L		66	55 - 137	14	20
1,2-Diphenylhydrazine	0.000110	U	0.00980	0.006471		mg/L		66	45 - 130	16	20
Pentachlorophenol	0.000610	U	0.0196	0.01530		mg/L		78	27 - 130	13	20
Phenanthrene	0.0000600	U	0.00980	0.007067		mg/L		72	60 - 130	15	20
Anthracene	0.0000500	U	0.00980	0.007215		mg/L		74	46 - 132	12	20
Di-n-butyl phthalate	0.000110	U	0.00980	0.007185		mg/L		73	61 - 130	15	20
Fluoranthene	0.0000700	U	0.00980	0.007083		mg/L		72	63 - 130	16	20
Pyrene	0.000110	U	0.00980	0.007215		mg/L		74	62 - 130	15	20
Benzo[a]anthracene	0.0000800	U	0.00980	0.007201		mg/L		73	58 - 130	16	20
Bis(2-ethylhexyl) phthalate	0.000536		0.00980	0.007166	N2	mg/L		68	59 - 130	28	20
Chrysene	0.0000800	U	0.00980	0.006921		mg/L		71	60 - 130	14	20
Benzo[a]pyrene	0.0000800	U	0.00980	0.007230		mg/L		74	56 - 130	13	20

Surrogate	MSD %Recovery	MSD Qualifier	Limits
2,4,6-Tribromophenol	79		10 - 147
2-Fluorobiphenyl	72		10 - 150
2-Fluorophenol	37		10 - 130

TestAmerica Houston

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-97855-1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Lab Sample ID: 600-97854-C-1-A MSD

Matrix: Water

Analysis Batch: 143452

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 143187

Surrogate	MSD		Limits
	%Recovery	Qualifier	
Nitrobenzene-d5	67		23 - 130
Terphenyl-d14	77		42 - 133
Phenol-d5 (Surr)	23		10 - 130

Lab Sample ID: 600-97854-C-5-A MSD

Matrix: Water

Analysis Batch: 143452

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 143187

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD		Unit	D	%Rec	%Rec.		RPD	Limit
				Result	Qualifier				Limits	RPD		
Phenol	0.000400	U	0.00990	0.003684	N2	mg/L		37	10 - 144	30	20	
Nitrobenzene	0.000110	U	0.00990	0.007790		mg/L		79	41 - 130	1	20	
2,4-Dimethylphenol	0.000310	U	0.00990	0.007820		mg/L		79	45 - 130	8	20	
Bis(2-chloroethoxy)methane	0.000130	U	0.00990	0.007988		mg/L		81	36 - 134	2	20	
Naphthalene	0.000710		0.00990	0.008059		mg/L		74	57 - 130	3	20	
2-Methylnaphthalene	0.0000700	U	0.00990	0.008255		mg/L		83	52 - 130	5	20	
2-Chloronaphthalene	0.0000800	U	0.00990	0.008095		mg/L		82	56 - 130	4	20	
Acenaphthylene	0.0000600	U	0.00990	0.007964		mg/L		80	58 - 130	5	20	
2,6-Dinitrotoluene	0.0000800	U	0.00990	0.009036		mg/L		91	56 - 130	5	20	
Acenaphthene	0.0000800	U	0.00990	0.007941		mg/L		80	59 - 130	5	20	
4-Nitrophenol	0.000560	U	0.0198	0.007601	N2	mg/L		38	10 - 150	34	20	
Dibenzofuran	0.0000800	U	0.00990	0.007921		mg/L		80	56 - 130	5	20	
2,4-Dinitrotoluene	0.000130	U	0.00990	0.009381		mg/L		95	54 - 130	2	20	
Fluorene	0.0000700	U	0.00990	0.008135		mg/L		82	57 - 130	3	20	
4,6-Dinitro-2-methylphenol	0.000830	U	0.0198	0.01742		mg/L		88	10 - 145	2	20	
N-Nitrosodiphenylamine	0.000100	U	0.00990	0.007902		mg/L		80	55 - 137	5	20	
1,2-Diphenylhydrazine	0.000110	U	0.00990	0.007606		mg/L		77	45 - 130	5	20	
Pentachlorophenol	0.000610	U	0.0198	0.01811		mg/L		91	27 - 130	0	20	
Phenanthrene	0.0000600	U	0.00990	0.008523		mg/L		86	60 - 130	3	20	
Anthracene	0.0000500	U	0.00990	0.008592		mg/L		87	46 - 132	3	20	
Di-n-butyl phthalate	0.000110	U	0.00990	0.008720		mg/L		88	61 - 130	4	20	
Fluoranthene	0.0000700	U	0.00990	0.008677		mg/L		88	63 - 130	4	20	
Pyrene	0.000110	U	0.00990	0.008934		mg/L		90	62 - 130	3	20	
Benzo[a]anthracene	0.0000800	U	0.00990	0.008846		mg/L		89	58 - 130	5	20	
Bis(2-ethylhexyl) phthalate	0.00244		0.00990	0.01066		mg/L		83	59 - 130	17	20	
Chrysene	0.0000800	U	0.00990	0.007938		mg/L		80	60 - 130	4	20	
Benzo[a]pyrene	0.0000800	U	0.00990	0.009087		mg/L		92	56 - 130	6	20	

Surrogate	MSD		Limits
	%Recovery	Qualifier	
2,4,6-Tribromophenol	93		10 - 147
2-Fluorobiphenyl	81		10 - 150
2-Fluorophenol	53		10 - 130
Nitrobenzene-d5	77		23 - 130
Terphenyl-d14	91		42 - 133
Phenol-d5 (Surr)	34		10 - 130

TestAmerica Houston

Unadjusted Detection Limits

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-97855-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	MQL	MDL	Units	Method
1,2-Dichloroethane	0.00100	0.000140	mg/L	8260B
Benzene	0.00100	0.0000800	mg/L	8260B
Chlorobenzene	0.00100	0.000120	mg/L	8260B
Ethylbenzene	0.00100	0.000110	mg/L	8260B
Methylene Chloride	0.00100	0.000150	mg/L	8260B
Toluene	0.00100	0.000150	mg/L	8260B
Vinyl chloride	0.00200	0.000110	mg/L	8260B
Xylenes, Total	0.00300	0.000260	mg/L	8260B

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	MQL	MDL	Units	Method
1,2-Diphenylhydrazine	0.000500	0.000110	mg/L	8270C LL
2,4-Dimethylphenol	0.000500	0.000310	mg/L	8270C LL
2,4-Dinitrotoluene	0.000500	0.000130	mg/L	8270C LL
2,6-Dinitrotoluene	0.000500	0.0000800	mg/L	8270C LL
2-Chloronaphthalene	0.000500	0.0000800	mg/L	8270C LL
2-Methylnaphthalene	0.000500	0.0000700	mg/L	8270C LL
4,6-Dinitro-2-methylphenol	0.00100	0.000830	mg/L	8270C LL
4-Nitrophenol	0.00100	0.000560	mg/L	8270C LL
Acenaphthene	0.000500	0.0000800	mg/L	8270C LL
Acenaphthylene	0.000500	0.0000600	mg/L	8270C LL
Anthracene	0.000500	0.0000500	mg/L	8270C LL
Benzo[a]anthracene	0.000500	0.0000800	mg/L	8270C LL
Benzo[a]pyrene	0.000500	0.0000800	mg/L	8270C LL
Bis(2-chloroethoxy)methane	0.000500	0.000130	mg/L	8270C LL
Bis(2-ethylhexyl) phthalate	0.000500	0.000370	mg/L	8270C LL
Chrysene	0.000500	0.0000800	mg/L	8270C LL
Dibenzofuran	0.000500	0.0000800	mg/L	8270C LL
Di-n-butyl phthalate	0.000500	0.000110	mg/L	8270C LL
Fluoranthene	0.000500	0.0000700	mg/L	8270C LL
Fluorene	0.000500	0.0000700	mg/L	8270C LL
Naphthalene	0.000500	0.0000800	mg/L	8270C LL
Nitrobenzene	0.000500	0.000110	mg/L	8270C LL
N-Nitrosodiphenylamine	0.000500	0.000100	mg/L	8270C LL
Pentachlorophenol	0.00100	0.000610	mg/L	8270C LL
Phenanthrene	0.000500	0.0000600	mg/L	8270C LL
Phenol	0.000500	0.0000400	mg/L	8270C LL
Pyrene	0.000500	0.000110	mg/L	8270C LL

QC Association Summary

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-97855-1

GC/MS VOA

Analysis Batch: 143176

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-97855-2	WG-1620-MW63C-20140828	Total/NA	Water	8260B	
LCS 600-143176/3	Lab Control Sample	Total/NA	Water	8260B	
LCSD 600-143176/4	Lab Control Sample Dup	Total/NA	Water	8260B	
MB 600-143176/6	Method Blank	Total/NA	Water	8260B	

Analysis Batch: 143281

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-97854-A-5 MS	Matrix Spike	Total/NA	Water	8260B	
600-97854-A-5 MSD	Matrix Spike Duplicate	Total/NA	Water	8260B	
600-97855-1	WG-1620-MW22B- 20140828	Total/NA	Water	8260B	
LCS 600-143281/3	Lab Control Sample	Total/NA	Water	8260B	
MB 600-143281/5	Method Blank	Total/NA	Water	8260B	

GC/MS Semi VOA

Prep Batch: 143187

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-97854-B-1-A MS	Matrix Spike	Total/NA	Water	3510C	
600-97854-B-5-A MS	Matrix Spike	Total/NA	Water	3510C	
600-97854-C-1-A MSD	Matrix Spike Duplicate	Total/NA	Water	3510C	
600-97854-C-5-A MSD	Matrix Spike Duplicate	Total/NA	Water	3510C	
600-97855-1 - DL	WG-1620-MW22B- 20140828	Total/NA	Water	3510C	
600-97855-1 - DL2	WG-1620-MW22B- 20140828	Total/NA	Water	3510C	
600-97855-1	WG-1620-MW22B- 20140828	Total/NA	Water	3510C	
LCS 600-143187/2-A	Lab Control Sample	Total/NA	Water	3510C	
MB 600-143187/1-A	Method Blank	Total/NA	Water	3510C	

Analysis Batch: 143361

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-97855-1	WG-1620-MW22B- 20140828	Total/NA	Water	8270C LL	143187
600-97855-1 - DL	WG-1620-MW22B- 20140828	Total/NA	Water	8270C LL	143187
600-97855-1 - DL2	WG-1620-MW22B- 20140828	Total/NA	Water	8270C LL	143187
LCS 600-143187/2-A	Lab Control Sample	Total/NA	Water	8270C LL	143187
MB 600-143187/1-A	Method Blank	Total/NA	Water	8270C LL	143187

Analysis Batch: 143452

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-97854-B-1-A MS	Matrix Spike	Total/NA	Water	8270C LL	143187
600-97854-B-5-A MS	Matrix Spike	Total/NA	Water	8270C LL	143187
600-97854-C-1-A MSD	Matrix Spike Duplicate	Total/NA	Water	8270C LL	143187
600-97854-C-5-A MSD	Matrix Spike Duplicate	Total/NA	Water	8270C LL	143187

Lab Chronicle

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-97855-1

Client Sample ID: WG-1620-MW22B- 20140828

Lab Sample ID: 600-97855-1

Date Collected: 08/28/14 15:50

Matrix: Water

Date Received: 08/29/14 07:54

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	143281	09/04/14 20:01	DT1	TAL HOU
Total/NA	Prep	3510C			143187	09/03/14 10:25	MRA	TAL HOU
Total/NA	Analysis	8270C LL		1	143361	09/05/14 12:23	MBB	TAL HOU
Total/NA	Prep	3510C	DL		143187	09/03/14 10:25	MRA	TAL HOU
Total/NA	Analysis	8270C LL	DL	10	143361	09/05/14 17:26	MBB	TAL HOU
Total/NA	Prep	3510C	DL2		143187	09/03/14 10:25	MRA	TAL HOU
Total/NA	Analysis	8270C LL	DL2	100	143361	09/05/14 17:57	MBB	TAL HOU

Client Sample ID: WG-1620-MW63C-20140828

Lab Sample ID: 600-97855-2

Date Collected: 08/28/14 16:15

Matrix: Water

Date Received: 08/29/14 07:54

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	143176	09/03/14 21:20	DT1	TAL HOU

Laboratory References:

TAL HOU = TestAmerica Houston, 6310 Rothway Street, Houston, TX 77040, TEL (713)690-4444



Certification Summary

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-97855-1

Laboratory: TestAmerica Houston

The certifications listed below are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Texas	NELAP	6	T104704223	10-31-14

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15
- 16

TestAmerica Houston

6310 R. Sway Street
Houston, TX 77040
Phone (713) 690-4444 Fax (713) 690-5646

Chain of Custody Record



Client Information
 Client Contact: Mr. Eric Matzner
 Company: Pastor, Behling & Wheeler LLC
 Address: 2201 Double Creek Dr Suite 4004
 City: Round Rock
 State, Zip: TX, 78664
 Phone: 512-671-3434(Tel) 512-671-3446(Fax)
 Email: eric.matzner@pbwllc.com
 Project Name: 1620 UPRR HWPW
 Site: Houston West Peering Works
 Project #: 60003722-1358
 SSON#:
 Date Requested:
 TAT Requested (days):
 PO #:
 Purchase Order not required
 Job #:
 Date: 8-28-14 1830
 Company: PSW
 Received by: Eric Matzner
 Date/Time: 8-28-14 1830
 Company: PSW

Sample Identification	Sample Date	Sample Time	Sample Type (G=grab, B=bulk, A=air)	Matrix (Water, Soil, Sediment, etc.)	Field Filtered Sample (Yes or No)	Parent MS/MSD (Yes or No)	Analysis Requested	Job #	Page #	Job #	Page #
WB1620-MW22A-20140828	8-28-14	1550	G	Water	X	X		1358	1041	1041	1041
WB1620-MW22B-20140828	8-28-14	1550	G	Water	X	X		1358	1041	1041	1041
WB1620-MW22C-20140828	8-28-14	1615	G	Water	X	X		1358	1041	1041	1041

Possible Hazard Identification
 Non-Hazard Flammable Skin Irritant Poison B Unknown Radiological
 Deliverable Requested: I, II, III, IV, Other (specify)
 Empty Kit Relinquished by:
 Date:
 Time:
 Method of Shipment:
 Relinquished by: Eric Matzner
 Date/Time: 8-28-14 1830
 Company: PSW
 Received by: Eric Matzner
 Date/Time: 8-28-14 1830
 Company: PSW
 Relinquished by: Eric Matzner
 Date/Time: 8-29-14 0754
 Company: PSW
 Received by: Eric Matzner
 Date/Time: 8-29-14 0754
 Company: PSW
 Custody Seals Intact: Yes No
 Custody Seal No.:
 Cooler Temperature(s) °C and Other Remarks:
 Special Instructions/QC Requirements:
 Return To Client
 Disposal By Lab
 Archive For _____ Months

Login Sample Receipt Checklist

Client: Pastor, Behling & Wheeler LLC

Job Number: 600-97855-1

Login Number: 97855

List Source: TestAmerica Houston

List Number: 1

Creator: Joiner, Ninatchka M

Question	Answer	Comment
Radioactivity wasn't checked or is <=/ background as measured by a survey meter.	N/A	Lab does not accept radioactive samples.
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	4.0
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	Check done at department level as required.



MEMORANDUM

To: Eric Matzner REF. NO.: 085706-1620

FROM: Chris G. Knight/cs/42-NF *CK* DATE: November 6, 2014

CC: Jesse Orth; Julie Lidstone

RE: **Data Usability Summary**
2014 2nd Semi-Annual Site Wide Monitoring Event – Resampling MW-76C/MW-66D
Union Pacific Railroad (UPRR) – 1620 Wood Preserving Works
Houston, Texas
October 2014

1.0 Scope of Data Usability Study

The following document details a Data Usability Summary (DUS) of analytical results for groundwater samples collected in support of the 2nd Semi-Annual Site Wide Monitoring Event – Resampling of MW-76C/MW-66D at the Union Pacific Railroad – 1620 Wood Preserving Works site during October 2014. Samples were submitted to TestAmerica Laboratories, Inc., located in Houston, Texas and are reported in data package 600-99887-1. The intended use of the data is to support the groundwater sampling event at the site by providing current concentrations of chemicals of concern (COCs).

Data were reviewed and validated by Chris G. Knight of Conestoga-Rovers and Associates, in accordance with Title 30 of the Texas Administrative Code Section 350.54 (30 TAC 350.54) as described in the document entitled "Review and Reporting of COC Concentration Data under TRRP", (RG-366/TRRP-13), revised May 2010. Evaluation of the data was based on information obtained from the chain of custody forms, finished report forms, method blank data, duplicate data, recovery data from surrogate spikes, laboratory control samples (LCS), matrix spikes (MS), field quality assurance/quality control (QA/QC) samples, the laboratory review checklist (LRC), and the laboratory exception report (ER).

A sample collection and analysis summary is presented in Table 1. This summary provides a cross-reference of field sample identification numbers and location identification. Each sample is assigned a unique field identification number.

The validated sample results are presented in Table 2. The laboratory's data packages, including the LRC and any associated exception reports, are presented in Attachment A. Each data package includes a cross-reference list of field sample identifications to laboratory sample designations.

A summary of the analytical methodology is presented in Table 3.

2.0 Laboratory Qualifications

The laboratory's quality assurance program is consistent with the quality standards outlined in the National Environmental Laboratory Accreditation Program (NELAP). This laboratory was accredited under Texas Certification number T104704223 at the time the analysis was performed and the certificate is included in Attachment B.

3.0 Project Objectives

The QA/QC program was designed to identify contamination resulting from the sampling, sample transport and analytical process through the analysis method blanks. The QA/QC program was designed to evaluate the quality of the resulting data with respect to bias and precision through analysis of laboratory control samples (LCS) and matrix spike/duplicate (MS/DUP) or matrix spike/matrix spike duplicate (MS/MSD) analyses.

4.0 Data Review/Validation Results

4.1 Sample Holding Time and Preservation

Samples were shipped with chains of custody and the paper work was filled out properly. All samples were properly preserved, delivered on ice, and stored by the laboratory at the required temperature (0-6°C).

Sample chain of custody documents and analytical reports were used to determine sample holding times. All samples were prepared and analyzed within the required holding times.

4.2 Sample Containers

Sample containers used were certified pre-cleaned glass containers provided by the laboratory. These containers meet or exceed analyte specifications established in the United States Environmental Protection Agency (USEPA) *Specifications and Guidance for Contaminant-free Sample Containers*.

4.3 Calibrations

According to the LRC, initial calibration and continuing calibration data met the criteria for the selected methods.

4.4 Laboratory Method Blank

Method blanks are prepared from a purified matrix and analyzed with investigative samples to determine the existence and magnitude of sample contamination introduced during the analytical procedures. As

these were not discrete samples handled in the field, method blanks are not listed on the sample identification cross-reference list found in the data packages.

For this study, laboratory method blanks were analyzed at a minimum frequency of 1 per 20 investigative samples and/or 1 per analytical batch and results are reported in the laboratory data packages.

All method blank results were non-detect or below the method quantitation limit (MQL), indicating that laboratory contamination was not a factor for this investigation.

4.5 Internal Standard and Surrogate Spike Recoveries

Recoveries of internal standards are addressed in the LRC of the data packages. All internal standard recoveries associated with the compounds of interest were acceptable per the LRC.

In accordance with the methods employed, all samples, blanks, and QC samples analyzed for semi-volatile organic compounds (SVOCs) are spiked with surrogate compounds prior to sample extraction and analysis. Surrogate recoveries provide a means to evaluate the effects of laboratory performance on individual sample matrices. Each individual surrogate compound is expected to meet the laboratory control limits. According to the TCEQ Regulatory Guidelines, one outlying surrogate is acceptable for methods with multiple surrogate spike compounds as long as the recovery is at least 10 percent.

Surrogate recoveries were assessed against laboratory control limits and the guidance in TRRP-13. All surrogate recoveries met the above criteria.

4.6 Laboratory Control Sample Analyses

Laboratory control samples/laboratory control sample duplicates (LCS/LCSD) are prepared and analyzed as samples to assess the analytical efficiencies of the methods employed, independent of sample matrix effects. The relative percent difference (RPD) of the LCS/LCSD recoveries is used to evaluate analytical precision.

For this study, LCS/LCSD were analyzed at a minimum frequency of 1 per 20 investigative samples and/or 1 per analytical batch.

The LCS/LCSD contained all compounds of interest. All LCS recoveries and RPDs were within the laboratory control limits, demonstrating acceptable analytical accuracy and precision.

4.7 Matrix Spike/Matrix Spike Duplicate (MS/MSD) Analyses

To evaluate the effects of sample matrices on the extraction or digestion process, measurement procedures, and accuracy of a particular analysis, samples are spiked with a known concentration of the analytes of concern and analyzed as MS/MSD samples. The RPD between the MS and MSD is used to assess analytical precision. If the original sample concentration is significantly greater than the spike concentration, the recovery is not assessed.

The laboratory performed MS/MSD on non-site samples. These cannot be used to assess accuracy and precision for the site samples.

4.9 Field Procedures

Pastor, Behling & Wheeler, LLC (PB&W) collected groundwater samples in accordance with their Standard Operating Procedures (SOP) for sample collection.

5.0 Analyte Reporting

The laboratory reported detected results for each analyte down to the sample detection limit (SDL), which is defined as the MDL with sample-specific adjustments for dilutions, aliquot size, volumes, etc. Positive analyte detections less than the MQL but greater than the SDL were qualified as estimated (J) in Table 3 and the also in the attached copies of the laboratory data packages unless qualified otherwise in this memorandum.

6.0 Conclusion

Based on the assessment detailed in the foregoing, the data summarized in Table 2 are usable for the purpose of supporting the groundwater sampling event at the site by providing current concentrations of chemicals of concern without qualification.

TABLE 1

SAMPLE COLLECTION AND ANALYSIS SUMMARY
2014 2ND SEMI-ANNUAL SITE WIDE MONITORING EVENT - RESAMPLING MW-76C/MW-66D
UNION PACIFIC RAILROAD (UPRR) - 1620 WOOD PRESERVING WORKS
HOUSTON, TEXAS
OCTOBER 2014

<i>Sample Identification</i>	<i>Location</i>	<i>Matrix</i>	<i>Analysis/Parameters</i>		<i>SVOCs</i>
			<i>Collection Date (mm/dd/yyyy)</i>	<i>Collection Time (hr:min)</i>	
WG-1620-MW76C-20141003	MW-76C	water	10/03/14	08:01	X
WG-1620-MW66D-20141003	MW-66D	water	10/03/14	10:20	X

Notes:

SVOCs - Semi-volatile Organic Compounds

TABLE 2

ANALYTICAL RESULTS SUMMARY
2014 2ND SEMI-ANNUAL SITE WIDE MONITORING EVENT - RESAMPLING MW-76C/MW-66D
UNION PACIFIC RAILROAD (UPRR) - 1620 WOOD PRESERVING WORKS
HOUSTON, TEXAS
OCTOBER 2014

<i>Sample Location:</i>	<i>MW-66D</i>	<i>MW-76C</i>
<i>Sample ID:</i>	<i>WG-1620-MW66D-20141003</i>	<i>WG-1620-MW76C-20141003</i>
<i>Sample Date:</i>	<i>10/3/2014</i>	<i>10/3/2014</i>
Parameters	Units	
Semi-volatile Organic Compounds		
1,2-Diphenylhydrazine	mg/L	<0.000107
2,4-Dimethylphenol	mg/L	<0.000301
2,4-Dinitrotoluene	mg/L	<0.000126
2,6-Dinitrotoluene	mg/L	<0.0000777
2-Chloronaphthalene	mg/L	<0.0000777
2-Methylnaphthalene	mg/L	<0.0000680
4,6-Dinitro-2-methylphenol	mg/L	<0.000806
4-Nitrophenol	mg/L	<0.000544
Acenaphthene	mg/L	<0.0000777
Acenaphthylene	mg/L	0.000206 J
Anthracene	mg/L	0.00256
Benzo(a)anthracene	mg/L	0.000245 J
Benzo(a)pyrene	mg/L	0.000439 J
bis(2-Chloroethoxy)methane	mg/L	<0.000126
bis(2-Ethylhexyl)phthalate (DEHP)	mg/L	0.000415 J
Chrysene	mg/L	0.000582
Dibenzofuran	mg/L	<0.0000777
Di-n-butylphthalate (DBP)	mg/L	<0.000107
Fluoranthene	mg/L	0.000346 J
Fluorene	mg/L	<0.0000680
Naphthalene	mg/L	<0.0000777
Nitrobenzene	mg/L	<0.000107
N-Nitrosodiphenylamine	mg/L	<0.0000971
Pentachlorophenol	mg/L	<0.000592
Phenanthrene	mg/L	0.0000729 J
Phenol	mg/L	<0.0000388
Pyrene	mg/L	0.000388 J

Notes:

J - Estimated concentration

TABLE 3

ANALYTICAL METHODS AND HOLDING TIME CRITERIA
2014 2ND SEMI-ANNUAL SITE WIDE MONITORING EVENT - RESAMPLING MW-76C/MW-66D
UNION PACIFIC RAILROAD (UPRR) - 1620 WOOD PRESERVING WORKS
HOUSTON, TEXAS
OCTOBER 2014

<i>Parameter</i>	<i>Method</i>	<i>Matrix</i>	<i>Holding Time</i>	
			<i>Collection to Extraction (Days)</i>	<i>Extraction to Analysis (Days)</i>
SVOCs	SW-846 8270C LL	water	7	40

Notes:

- SW-846 - "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW-846, Third Edition, 1986, with subsequent revisions
SVOCs - Semi-volatile Organic Compounds

ATTACHMENT A
LABORATORY REPORTS

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Houston
6310 Rothway Street
Houston, TX 77040
Tel: (713)690-4444

TestAmerica Job ID: 600-99887-1

Client Project/Site: 1620 UPRR HWPW
Revision: 1

For:

Pastor, Behling & Wheeler LLC
2201 Double Creek Dr
Suite 4004
Round Rock, Texas 78664

Attn: Mr. Eric Matzner

S. Kudchadkar

Authorized for release by:
10/15/2014 3:06:16 PM

Sachin Kudchadkar, Senior Project Manager
(713)690-4444
sachin.kudchadkar@testamericainc.com

LINKS

Review your project
results through
TotalAccess

Have a Question?



Visit us at:
www.testamericainc.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15



Table of Contents

Cover Page	1
Table of Contents	2
Case Narrative	3
Method Summary	10
Sample Summary	11
Client Sample Results	12
Definitions/Glossary	14
Surrogate Summary	15
QC Sample Results	16
Default Detection Limits	18
QC Association Summary	19
Lab Chronicle	20
Certification Summary	21
Chain of Custody	22
Receipt Checklists	24

Case Narrative

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-99887-1

Job ID: 600-99887-1

Laboratory: TestAmerica Houston

Narrative

Job Narrative
600-99887-1

Comments

The report was revised on 10/15/14 to correct the sample ID for 600-99887-2.

Receipt

The samples were received on 10/3/2014 1:55 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 0.6° C.

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Appendix A

Laboratory Data Package Cover Page - Page 1 of 4

This data package is for TestAmerica Houston job number 600-99887-1 and consists of:

- R1 - Field chain-of-custody documentation;
- R2 - Sample identification cross-reference;
- R3 - Test reports (analytical data sheets) for each environmental sample that includes:
 - a. Items consistent with NELAC Chapter 5,
 - b. dilution factors,
 - c. preparation methods,
 - d. cleanup methods, and
 - e. if required for the project, tentatively identified compounds (TICs).
- R4 - Surrogate recovery data including:
 - a. Calculated recovery (%R), and
 - b. The laboratory's surrogate QC limits.
- R5 - Test reports/summary forms for blank samples;
- R6 - Test reports/summary forms for laboratory control samples (LCSs) including:
 - a. LCS spiking amounts,
 - b. Calculated %R for each analyte, and
 - c. The laboratory's LCS QC limits.
- R7 - Test reports for project matrix spike/matrix spike duplicates (MS/MSDs) including:
 - a. Samples associated with the MS/MSD clearly identified,
 - b. MS/MSD spiking amounts,
 - c. Concentration of each MS/MSD analyte measured in the parent and spiked samples,
 - d. Calculated %Rs and relative percent differences (RPDs), and
 - e. The laboratory's MS/MSD QC limits
- R8 - Laboratory analytical duplicate (if applicable) recovery and precision:
 - a. The amount of analyte measured in the duplicate,
 - b. The calculated RPD, and
 - c. The laboratory's QC limits for analytical duplicates.
- R9 - List of method quantitation limits (MQLs) and detectability check sample results for each analyte for each method and matrix.
- R10 - Other problems or anomalies.

The Exception Report for each "No" or "Not Reviewed (NR)" item in Laboratory Review Checklist and for each analyte, matrix, and method for which the laboratory does not hold NELAC accreditation under the Texas Laboratory Accreditation Program.

Release Statement: I am responsible for the release of this laboratory data package. This laboratory is NELAC accredited under the Texas Laboratory Accreditation Program for all the methods, analytes, and matrices reported in this data package except as noted in the Exception Reports. The data have been reviewed and are technically compliant with the requirements of the methods used, except where noted by the laboratory in the Exception Reports. By my signature below, I affirm to the best of my knowledge all problems/anomalies observed by the laboratory have been identified in the Laboratory Review Checklist, and no information affecting the quality of the data has been knowingly withheld.

Sophia Shah
Name (printed)



Signature

10/15/2014
Date

Project Management Assistant
Official Title (printed)

Laboratory Review Checklist: Reportable Data - Page 2 of 4

Laboratory Name:	TestAmerica Houston	LRC Date:	10/15/2014
Project Name:	1620 UPRR HWPW	Laboratory Job Number:	600-99887-1
Reviewer Name:	Sachin G Kudchadkar		

# ¹	A ²	Description	Yes	No	NA ³	NR ⁴	ER# ⁵
R1	OI	Chain-of-custody (C-O-C)					
		Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?	X				
		Were all departures from standard conditions described in an exception report?	X				
R2	OI	Sample and quality control (QC) identification					
		Are all field sample ID numbers cross-referenced to the laboratory ID numbers?	X				
		Are all laboratory ID numbers cross-referenced to the corresponding QC data?	X				
R3	OI	Test reports					
		Were all samples prepared and analyzed within holding times?	X				
		Other than those results < MQL, were all other raw values bracketed by calibration standards?	X				
		Were calculations checked by a peer or supervisor?	X				
		Were all analyte identifications checked by a peer or supervisor?	X				
		Were sample detection limits reported for all analytes not detected?	X				
		Were all results for soil and sediment samples reported on a dry weight basis?			X		
		Were % moisture (or solids) reported for all soil and sediment samples?			X		
		Were bulk soils/solids samples for volatile analysis extracted with methanol per SW846 Method 5035?			X		
		If required for the project, are TICs reported?			X		
R4	O	Surrogate recovery data					
		Were surrogates added prior to extraction?	X				
		Were surrogate percent recoveries in all samples within the laboratory QC limits?	X				
R5	OI	Test reports/summary forms for blank samples					
		Were appropriate type(s) of blanks analyzed?	X				
		Were blanks analyzed at the appropriate frequency?	X				
		Were method blanks taken through the entire analytical process, including preparation and, if applicable, cleanup procedures?	X				
		Were blank concentrations < MQL?	X				
R6	OI	Laboratory control samples (LCS):					
		Were all COCs included in the LCS?	X				
		Was each LCS taken through the entire analytical procedure, including prep and cleanup steps?	X				
		Were LCSs analyzed at the required frequency?	X				
		Were LCS (and LCSD, if applicable) %Rs within the laboratory QC limits?	X				
		Does the detectability check sample data document the laboratory's capability to detect the COCs at the MDL used to calculate the SDLs?	X				
		Was the LCSD RPD within QC limits?			X		
R7	OI	Matrix spike (MS) and matrix spike duplicate (MSD) data					
		Were the project/method specified analytes included in the MS and MSD?			X		
		Were MS/MSD analyzed at the appropriate frequency?		X			R07B
		Were MS (and MSD, if applicable) %Rs within the laboratory QC limits?			X		
		Were MS/MSD RPDs within laboratory QC limits?			X		
R8	OI	Analytical duplicate data					
		Were appropriate analytical duplicates analyzed for each matrix?			X		
		Were analytical duplicates analyzed at the appropriate frequency?			X		
		Were RPDs or relative standard deviations within the laboratory QC limits?			X		
R9	OI	Method quantitation limits (MQLs):					
		Are the MQLs for each method analyte included in the laboratory data package?	X				
		Do the MQLs correspond to the concentration of the lowest non-zero calibration standard?	X				
		Are unadjusted MQLs and DCSs included in the laboratory data package?	X				
R10	OI	Other problems/anomalies					
		Are all known problems/anomalies/special conditions noted in this LRC and ER?	X				
		Was applicable and available technology used to lower the SDL to minimize the matrix interference effects on the sample results?	X				
		Is the laboratory NELAC-accredited under the Texas Laboratory Accreditation Program for the analytes, matrices and methods associated with this laboratory data package?	X				

- Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.
- O = organic analyses; I = inorganic analyses (and general chemistry, when applicable);
- NA = Not applicable;
- NR = Not reviewed;
- ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

Laboratory Review checklist: Supporting Data - Page 3 of 4

Laboratory Name:	TestAmerica Houston	LRC Date:	10/15/2014
Project Name:	1620 UPRR HWPW	Laboratory Job Number:	600-99887-1
Reviewer Name:	Sachin G Kudchadkar		

# ¹	A ²	Description	Yes	No	NA ³	NR ⁴	ER# ⁵
S1	OI	Initial calibration (ICAL)					
		Were response factors and/or relative response factors for each analyte within QC limits?	X				
		Were percent RSDs or correlation coefficient criteria met?	X				
		Was the number of standards recommended in the method used for all analytes?	X				
		Were all points generated between the lowest and highest standard used to calculate the curve?	X				
		Are ICAL data available for all instruments used?	X				
		Has the initial calibration curve been verified using an appropriate second source standard?	X				
S2	OI	Initial and continuing calibration verification (ICV and CCV) and continuing calibration blank (CCB):					
		Was the CCV analyzed at the method-required frequency?	X				
		Were percent differences for each analyte within the method-required QC limits?	X				
		Was the ICAL curve verified for each analyte?			X		
		Was the absolute value of the analyte concentration in the inorganic CCB < MDL?			X		
S3	O	Mass spectral tuning					
		Was the appropriate compound for the method used for tuning?	X				
		Were ion abundance data within the method-required QC limits?	X				
S4	O	Internal standards (IS)					
		Were IS area counts and retention times within the method-required QC limits?	X				
S5	OI	Raw data (NELAC Section 5.5.10)					
		Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?	X				
		Were data associated with manual integrations flagged on the raw data?	X				
S6	O	Dual column confirmation					
		Did dual column confirmation results meet the method-required QC?			X		
S7	O	Tentatively identified compounds (TICs)					
		If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?			X		
S8	I	Interference Check Sample (ICS) results					
		Were percent recoveries within method QC limits?			X		
S9	I	Serial dilutions, post digestion spikes, and method of standard additions					
		Were percent differences, recoveries, and the linearity within the QC limits specified in the method?			X		
S10	OI	Method detection limit (MDL) studies					
		Was a MDL study performed for each reported analyte?	X				
		Is the MDL either adjusted or supported by the analysis of DCSS?	X				
S11	OI	Proficiency test reports					
		Was the laboratory's performance acceptable on the applicable proficiency tests or evaluation studies?	X				
S12	OI	Standards documentation					
		Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?	X				
S13	OI	Compound/analyte identification procedures					
		Are the procedures for compound/analyte identification documented?	X				
S14	OI	Demonstration of analyst competency (DOC)					
		Was DOC conducted consistent with NELAC Chapter 5?	X				
		Is documentation of the analyst's competency up-to-date and on file?	X				
S15	OI	Verification/validation documentation for methods (NELAC Chapter 5)					
		Are all the methods used to generate the data documented, verified, and validated, where applicable?	X				
S16	OI	Laboratory standard operating procedures (SOPs)					
		Are laboratory SOPs current and on file for each method performed?	X				

- Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.
- O = organic analyses; I = inorganic analyses (and general chemistry, when applicable);
- NA = Not applicable;
- NR = Not reviewed;
- ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

Laboratory Review Checklist: Exception Reports - Page 4 of 4

Laboratory Name:	TestAmerica Houston	LRC Date:	10/15/2014
Project Name:	1620 UPRR HWPW	Laboratory Job Number:	600-99887-1
Reviewer Name:	Sachin G Kudchadkar		

ER # ¹	Description
R07B	Method 8270C LL: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate/sample duplicate (MS/MSD/DUP) associated with batch 145857.
	<ol style="list-style-type: none"> 1. Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period. 2. O = organic analyses; I = inorganic analyses (and general chemistry, when applicable); 3. NA = Not applicable; 4. NR = Not reviewed; 5. ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

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Matrix: Water
Method: 8270C
Prep Method: 3510C
Date Analyzed: 6/12/2014
Job #: 600-91570
TALS Batch: 136769
Units: ug/L

Analyte	Instrument #	MDL	DCS Spike	Measured Result	MQL
1,1'-Biphenyl	CHSVMS09	2.309	2.500	1.876	10
1,2,4,5-Tetrachlorobenzene	CHSVMS09	2.242	2.500	1.777	10
1,2,4-Trichlorobenzene	CHSVMS09	2.258	2.500	1.942	10
1,2-Dichlorobenzene	CHSVMS09	1.858	2.500	1.897	10
1,2-Dinitrobenzene	CHSVMS09	3.036	5.000	3.598	10
1,2-Diphenylhydrazine	CHSVMS09	2.512	5.000	4.422	10
1,3-Dichlorobenzene	CHSVMS09	1.915	2.500	1.890	10
1,3-Dinitrobenzene	CHSVMS09	3.470	5.000	3.790	10
1,4-Dichlorobenzene	CHSVMS09	1.779	2.500	1.915	10
1,4-Dinitrobenzene	CHSVMS09	2.770	5.000	3.311	10
1-Methylnaphthalene	CHSVMS09	2.532	5.000	4.014	10
2,2'-oxybis[1-chloropropane]	CHSVMS09	2.563	5.000	4.709	10
2,3,4,6-Tetrachlorophenol	CHSVMS09	2.601	5.000	3.171	10
2,4,5-Trichlorophenol	CHSVMS09	2.714	5.000	4.035	10
2,4,6-Trichlorophenol	CHSVMS09	2.589	5.000	3.660	10
2,4-Dichlorophenol	CHSVMS09	2.597	5.000	4.197	10
2,4-Dimethylphenol	CHSVMS09	2.318	2.500	1.853	10
2,4-Dinitrophenol	CHSVMS09	3.546	5.000	5.979	50
2,4-Dinitrotoluene	CHSVMS09	2.631	5.000	3.755	10
2,6-Dimethylphenol	CHSVMS09	2.745	5.000	2.468	10
2,6-Dinitrotoluene	CHSVMS09	2.503	5.000	3.610	10
2-Chloronaphthalene	CHSVMS09	2.231	2.500	1.937	10
2-Chlorophenol	CHSVMS09	2.243	2.500	1.924	10
2-Methylnaphthalene	CHSVMS09	3.023	5.000	4.354	10
2-Methylphenol	CHSVMS09	1.809	2.500	1.645	10
2-Nitroaniline	CHSVMS09	2.450	2.500	1.821	50
2-Nitrophenol	CHSVMS09	2.647	5.000	3.909	10
3 & 4 Methylphenol	CHSVMS09	1.880	5.000	4.428	20
3,3'-Dichlorobenzidine	CHSVMS09	3.868	5.000	3.946	20
3-Nitroaniline	CHSVMS09	0.947	2.500	1.551	50
4,6-Dinitro-2-methylphenol	CHSVMS09	4.751	5.000	2.968	50
4-Bromophenyl phenyl ether	CHSVMS09	2.742	5.000	3.749	10
4-Chloro-3-methylphenol	CHSVMS09	2.516	5.000	4.249	10
4-Chloroaniline	CHSVMS09	2.801	5.000	4.064	10
4-Chlorophenyl phenyl ether	CHSVMS09	2.509	5.000	3.573	10
4-Nitroaniline	CHSVMS09	2.296	2.500	2.022	50
4-Nitrophenol	CHSVMS09	0.99	2.5	0	50
Acenaphthene	CHSVMS09	2.316	2.500	1.805	10
Acenaphthylene	CHSVMS09	2.397	2.500	1.775	10
Acetophenone	CHSVMS09	2.588	5.000	3.805	10
Aniline	CHSVMS09	2.800	5.000	3.749	10
Anthracene	CHSVMS09	2.533	5.000	3.714	10
Azobenzene	CHSVMS09	10.000	10.000	7.923	10
Benzidine	CHSVMS09	55.420	100.000	167.157	100
Benzo[a]anthracene	CHSVMS09	2.489	2.500	2.171	10
Benzo[a]pyrene	CHSVMS09	2.690	5.000	4.222	10

DCS = Detection Check Standard
MQL = Method Quantitation Limit

Matrix: Water
Method: 8270C
Prep Method: 3510C
Date Analyzed: 6/12/2014
Job #: 600-91570
TALS Batch: 136769
Units: ug/L

Analyte	Instrument #	MDL	DCS Spike	Measured Result	MQL
Benzo[b]fluoranthene	CHSVMS09	2.757	5.000	4.302	10
Benzo[g,h,i]perylene	CHSVMS09	2.863	5.000	5.792	10
Benzo[k]fluoranthene	CHSVMS09	2.932	5.000	4.483	10
Benzoic acid	CHSVMS09	2.510	5.000	8.579	50
Benzyl alcohol	CHSVMS09	1.2	1.25	0.608	10
Bis(2-chloroethoxy)methane	CHSVMS09	2.521	5.000	4.072	10
Bis(2-chloroethyl)ether	CHSVMS09	2.305	2.500	2.082	10
Bis(2-ethylhexyl) phthalate	CHSVMS09	2.507	5.000	4.597	10
Bisphenol-A	CHSVMS09	4	12.5	8.37	10
Butyl benzyl phthalate	CHSVMS09	2.568	5.000	4.439	10
Caprolactam	CHSVMS09	2.320	2.500	1.171	10
Carbazole	CHSVMS09	2.774	5.000	4.565	10
Chrysene	CHSVMS09	2.538	5.000	4.556	10
Dibenz(a,h)anthracene	CHSVMS09	2.854	5.000	4.905	10
Dibenzofuran	CHSVMS09	2.306	2.500	1.792	10
Diethyl phthalate	CHSVMS09	2.582	5.000	4.174	10
Dimethyl phthalate	CHSVMS09	2.542	5.000	3.963	10
Di-n-butyl phthalate	CHSVMS09	2.550	5.000	4.725	10
Di-n-octyl phthalate	CHSVMS09	2.504	5.000	4.728	10
Diphenylamine	CHSVMS09	2.449	2.500	1.517	10
Fluoranthene	CHSVMS09	2.623	5.000	4.346	10
Fluorene	CHSVMS09	2.289	2.500	1.688	10
Hexachlorobenzene	CHSVMS09	2.592	5.000	3.813	10
Hexachlorobutadiene	CHSVMS09	2.116	2.500	1.920	10
Hexachlorocyclopentadiene	CHSVMS09	1.044	2.500	0.198	10
Hexachloroethane	CHSVMS09	2.196	2.500	1.961	10
Indene	CHSVMS09	1.400	2.500	1.913	10
Indeno[1,2,3-cd]pyrene	CHSVMS09	2.572	5.000	5.460	10
Isophorone	CHSVMS09	2.648	5.000	4.137	10
Naphthalene	CHSVMS09	2.850	5.000	3.977	10
Nitrobenzene	CHSVMS09	2.483	2.500	3.112	10
N-Nitrosodimethylamine	CHSVMS09	1.930	2.500	1.504	10
N-Nitrosodi-n-propylamine	CHSVMS09	2.878	5.000	4.387	10
N-Nitrosodiphenylamine	CHSVMS09	2.731	5.000	3.463	10
Pentachlorophenol	CHSVMS09	4.622	5.000	6.495	50
Phenanthrene	CHSVMS09	0.790	2.500	1.856	10
Phenol	CHSVMS09	0.991	2.500	1.778	10
Pyrene	CHSVMS09	2.401	2.500	1.932	10
Pyridine	CHSVMS09	2.163	2.500	0.532	10
Total Cresols	CHSVMS09	3.431	5.000	1.600	50
Total Cresols, TCEQ Definition	CHSVMS09	8.251	10.000	4.800	50

Method Summary

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-99887-1

Method	Method Description	Protocol	Laboratory
8270C LL	Semivolatile Organic Compounds by GCMS - Low Levels	SW846	TAL HOU

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL HOU = TestAmerica Houston, 6310 Rothway Street, Houston, TX 77040, TEL (713)690-4444



Sample Summary

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-99887-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
600-99887-1	WG-1620-MW76C-20141003	Water	10/03/14 08:01	10/03/14 13:55
600-99887-2	WG-1620-MW66D-20141003	Water	10/03/14 10:20	10/03/14 13:55

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Client Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-99887-1

Client Sample ID: WG-1620-MW76C-20141003

Lab Sample ID: 600-99887-1

Date Collected: 10/03/14 08:01

Matrix: Water

Date Received: 10/03/14 13:55

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	0.000506		0.000485	0.0000777	mg/L		10/06/14 11:23	10/07/14 03:11	1
2-Methylnaphthalene	0.0000976	J	0.000485	0.0000680	mg/L		10/06/14 11:23	10/07/14 03:11	1
Acenaphthylene	0.0000583	U	0.000485	0.0000583	mg/L		10/06/14 11:23	10/07/14 03:11	1
Acenaphthene	0.000240	J	0.000485	0.0000777	mg/L		10/06/14 11:23	10/07/14 03:11	1
Dibenzofuran	0.000159	J	0.000485	0.0000777	mg/L		10/06/14 11:23	10/07/14 03:11	1
Fluorene	0.000264	J	0.000485	0.0000680	mg/L		10/06/14 11:23	10/07/14 03:11	1
Phenanthrene	0.000611		0.000485	0.0000583	mg/L		10/06/14 11:23	10/07/14 03:11	1
Anthracene	0.000110	J	0.000485	0.0000485	mg/L		10/06/14 11:23	10/07/14 03:11	1
Fluoranthene	0.000188	J	0.000485	0.0000680	mg/L		10/06/14 11:23	10/07/14 03:11	1
Pyrene	0.000161	J	0.000485	0.000107	mg/L		10/06/14 11:23	10/07/14 03:11	1
Bis(2-ethylhexyl) phthalate	0.000714		0.000485	0.000359	mg/L		10/06/14 11:23	10/07/14 03:11	1
2,4-Dimethylphenol	0.000301	U	0.000485	0.000301	mg/L		10/06/14 11:23	10/07/14 03:11	1
Benzo[a]pyrene	0.000276	J	0.000485	0.0000777	mg/L		10/06/14 11:23	10/07/14 03:11	1
Di-n-butyl phthalate	0.000124	J	0.000485	0.000107	mg/L		10/06/14 11:23	10/07/14 03:11	1
2,4-Dinitrotoluene	0.000126	U	0.000485	0.000126	mg/L		10/06/14 11:23	10/07/14 03:11	1
Nitrobenzene	0.000124	J	0.000485	0.000107	mg/L		10/06/14 11:23	10/07/14 03:11	1
Pentachlorophenol	0.000592	U	0.000971	0.000592	mg/L		10/06/14 11:23	10/07/14 03:11	1
4,6-Dinitro-2-methylphenol	0.000806	U	0.000971	0.000806	mg/L		10/06/14 11:23	10/07/14 03:11	1
N-Nitrosodiphenylamine	0.0000971	U	0.000485	0.0000971	mg/L		10/06/14 11:23	10/07/14 03:11	1
Benzo[a]anthracene	0.0000777	U	0.000485	0.0000777	mg/L		10/06/14 11:23	10/07/14 03:11	1
1,2-Diphenylhydrazine	0.000107	U	0.000485	0.000107	mg/L		10/06/14 11:23	10/07/14 03:11	1
Chrysene	0.0000777	U	0.000485	0.0000777	mg/L		10/06/14 11:23	10/07/14 03:11	1
4-Nitrophenol	0.000544	U	0.000971	0.000544	mg/L		10/06/14 11:23	10/07/14 03:11	1
2,6-Dinitrotoluene	0.0000777	U	0.000485	0.0000777	mg/L		10/06/14 11:23	10/07/14 03:11	1
Phenol	0.00163		0.000485	0.0000388	mg/L		10/06/14 11:23	10/07/14 03:11	1
Bis(2-chloroethoxy)methane	0.000126	U	0.000485	0.000126	mg/L		10/06/14 11:23	10/07/14 03:11	1
2-Chloronaphthalene	0.0000777	U	0.000485	0.0000777	mg/L		10/06/14 11:23	10/07/14 03:11	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	109		10 - 147	10/06/14 11:23	10/07/14 03:11	1
2-Fluorobiphenyl	68		10 - 150	10/06/14 11:23	10/07/14 03:11	1
2-Fluorophenol	26		10 - 130	10/06/14 11:23	10/07/14 03:11	1
Nitrobenzene-d5	70		23 - 130	10/06/14 11:23	10/07/14 03:11	1
Terphenyl-d14	85		42 - 133	10/06/14 11:23	10/07/14 03:11	1
Phenol-d5 (Surr)	16		10 - 130	10/06/14 11:23	10/07/14 03:11	1

Client Sample ID: WG-1620-MW66D-20141003

Lab Sample ID: 600-99887-2

Date Collected: 10/03/14 10:20

Matrix: Water

Date Received: 10/03/14 13:55

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	0.0000777	U	0.000485	0.0000777	mg/L		10/06/14 11:23	10/07/14 03:45	1
2-Methylnaphthalene	0.0000680	U	0.000485	0.0000680	mg/L		10/06/14 11:23	10/07/14 03:45	1
Acenaphthylene	0.000206	J	0.000485	0.0000583	mg/L		10/06/14 11:23	10/07/14 03:45	1
Acenaphthene	0.0000777	U	0.000485	0.0000777	mg/L		10/06/14 11:23	10/07/14 03:45	1
Dibenzofuran	0.0000777	U	0.000485	0.0000777	mg/L		10/06/14 11:23	10/07/14 03:45	1
Fluorene	0.0000680	U	0.000485	0.0000680	mg/L		10/06/14 11:23	10/07/14 03:45	1
Phenanthrene	0.0000729	J	0.000485	0.0000583	mg/L		10/06/14 11:23	10/07/14 03:45	1
Anthracene	0.00256		0.000485	0.0000485	mg/L		10/06/14 11:23	10/07/14 03:45	1

TestAmerica Houston

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-99887-1

Client Sample ID: WG-1620-MW66D-20141003

Lab Sample ID: 600-99887-2

Date Collected: 10/03/14 10:20

Matrix: Water

Date Received: 10/03/14 13:55

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoranthene	0.000346	J	0.000485	0.0000680	mg/L		10/06/14 11:23	10/07/14 03:45	1
Pyrene	0.000388	J	0.000485	0.000107	mg/L		10/06/14 11:23	10/07/14 03:45	1
Bis(2-ethylhexyl) phthalate	0.000415	J	0.000485	0.000359	mg/L		10/06/14 11:23	10/07/14 03:45	1
2,4-Dimethylphenol	0.000301	U	0.000485	0.000301	mg/L		10/06/14 11:23	10/07/14 03:45	1
Benzo[a]pyrene	0.000439	J	0.000485	0.0000777	mg/L		10/06/14 11:23	10/07/14 03:45	1
Di-n-butyl phthalate	0.000107	U	0.000485	0.000107	mg/L		10/06/14 11:23	10/07/14 03:45	1
2,4-Dinitrotoluene	0.000126	U	0.000485	0.000126	mg/L		10/06/14 11:23	10/07/14 03:45	1
Nitrobenzene	0.000107	U	0.000485	0.000107	mg/L		10/06/14 11:23	10/07/14 03:45	1
Pentachlorophenol	0.000592	U	0.000971	0.000592	mg/L		10/06/14 11:23	10/07/14 03:45	1
4,6-Dinitro-2-methylphenol	0.000806	U	0.000971	0.000806	mg/L		10/06/14 11:23	10/07/14 03:45	1
N-Nitrosodiphenylamine	0.0000971	U	0.000485	0.0000971	mg/L		10/06/14 11:23	10/07/14 03:45	1
Benzo[a]anthracene	0.000245	J	0.000485	0.0000777	mg/L		10/06/14 11:23	10/07/14 03:45	1
1,2-Diphenylhydrazine	0.000107	U	0.000485	0.000107	mg/L		10/06/14 11:23	10/07/14 03:45	1
Chrysene	0.000582		0.000485	0.0000777	mg/L		10/06/14 11:23	10/07/14 03:45	1
4-Nitrophenol	0.000544	U	0.000971	0.000544	mg/L		10/06/14 11:23	10/07/14 03:45	1
2,6-Dinitrotoluene	0.0000777	U	0.000485	0.0000777	mg/L		10/06/14 11:23	10/07/14 03:45	1
Phenol	0.0000388	U	0.000485	0.0000388	mg/L		10/06/14 11:23	10/07/14 03:45	1
Bis(2-chloroethoxy)methane	0.000126	U	0.000485	0.000126	mg/L		10/06/14 11:23	10/07/14 03:45	1
2-Chloronaphthalene	0.0000777	U	0.000485	0.0000777	mg/L		10/06/14 11:23	10/07/14 03:45	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	105		10 - 147				10/06/14 11:23	10/07/14 03:45	1
2-Fluorobiphenyl	73		10 - 150				10/06/14 11:23	10/07/14 03:45	1
2-Fluorophenol	27		10 - 130				10/06/14 11:23	10/07/14 03:45	1
Nitrobenzene-d5	79		23 - 130				10/06/14 11:23	10/07/14 03:45	1
Terphenyl-d14	86		42 - 133				10/06/14 11:23	10/07/14 03:45	1
Phenol-d5 (Surr)	15		10 - 130				10/06/14 11:23	10/07/14 03:45	1

Definitions/Glossary

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-99887-1

Qualifiers

GC/MS Semi VOA

Qualifier	Qualifier Description
U	Analyte was not detected at or above the SDL.
J	Result is less than the MQL but greater than or equal to the SDL and the concentration is an estimated value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
⊞	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Surrogate Summary

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-99887-1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	TBP (10-147)	FBP (10-150)	2FP (10-130)	NBZ (23-130)	TPH (42-133)	PHL (10-130)
600-99887-1	WG-1620-MW76C-20141003	109	68	26	70	85	16
600-99887-2	WG-1620-MW66D-20141003	105	73	27	79	86	15
LCS 600-145857/2-A	Lab Control Sample	92	76	79	80	95	77
MB 600-145857/1-A	Method Blank	70	67	78	78	90	74

Surrogate Legend

TBP = 2,4,6-Tribromophenol

FBP = 2-Fluorobiphenyl

2FP = 2-Fluorophenol

NBZ = Nitrobenzene-d5

TPH = Terphenyl-d14

PHL = Phenol-d5 (Surr)

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-99887-1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Lab Sample ID: MB 600-145857/1-A

Matrix: Water

Analysis Batch: 145900

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 145857

Analyte	MB Result	MB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	0.0000800	U	0.000500	0.0000800	mg/L		10/06/14 11:23	10/06/14 19:21	1
2-Methylnaphthalene	0.0000700	U	0.000500	0.0000700	mg/L		10/06/14 11:23	10/06/14 19:21	1
Acenaphthylene	0.0000600	U	0.000500	0.0000600	mg/L		10/06/14 11:23	10/06/14 19:21	1
Acenaphthene	0.0000800	U	0.000500	0.0000800	mg/L		10/06/14 11:23	10/06/14 19:21	1
Dibenzofuran	0.0000800	U	0.000500	0.0000800	mg/L		10/06/14 11:23	10/06/14 19:21	1
Fluorene	0.0000700	U	0.000500	0.0000700	mg/L		10/06/14 11:23	10/06/14 19:21	1
Phenanthrene	0.0000600	U	0.000500	0.0000600	mg/L		10/06/14 11:23	10/06/14 19:21	1
Anthracene	0.0000500	U	0.000500	0.0000500	mg/L		10/06/14 11:23	10/06/14 19:21	1
Fluoranthene	0.0000700	U	0.000500	0.0000700	mg/L		10/06/14 11:23	10/06/14 19:21	1
Pyrene	0.000110	U	0.000500	0.000110	mg/L		10/06/14 11:23	10/06/14 19:21	1
Bis(2-ethylhexyl) phthalate	0.000370	U	0.000500	0.000370	mg/L		10/06/14 11:23	10/06/14 19:21	1
2,4-Dimethylphenol	0.000310	U	0.000500	0.000310	mg/L		10/06/14 11:23	10/06/14 19:21	1
Benzo[a]pyrene	0.0000800	U	0.000500	0.0000800	mg/L		10/06/14 11:23	10/06/14 19:21	1
Di-n-butyl phthalate	0.000110	U	0.000500	0.000110	mg/L		10/06/14 11:23	10/06/14 19:21	1
2,4-Dinitrotoluene	0.000130	U	0.000500	0.000130	mg/L		10/06/14 11:23	10/06/14 19:21	1
Nitrobenzene	0.000110	U	0.000500	0.000110	mg/L		10/06/14 11:23	10/06/14 19:21	1
Pentachlorophenol	0.000610	U	0.00100	0.000610	mg/L		10/06/14 11:23	10/06/14 19:21	1
4,6-Dinitro-2-methylphenol	0.000830	U	0.00100	0.000830	mg/L		10/06/14 11:23	10/06/14 19:21	1
N-Nitrosodiphenylamine	0.000100	U	0.000500	0.000100	mg/L		10/06/14 11:23	10/06/14 19:21	1
Benzo[a]anthracene	0.0000800	U	0.000500	0.0000800	mg/L		10/06/14 11:23	10/06/14 19:21	1
1,2-Diphenylhydrazine	0.000110	U	0.000500	0.000110	mg/L		10/06/14 11:23	10/06/14 19:21	1
Chrysene	0.0000800	U	0.000500	0.0000800	mg/L		10/06/14 11:23	10/06/14 19:21	1
4-Nitrophenol	0.000560	U	0.00100	0.000560	mg/L		10/06/14 11:23	10/06/14 19:21	1
2,6-Dinitrotoluene	0.0000800	U	0.000500	0.0000800	mg/L		10/06/14 11:23	10/06/14 19:21	1
Phenol	0.0000400	U	0.000500	0.0000400	mg/L		10/06/14 11:23	10/06/14 19:21	1
Bis(2-chloroethoxy)methane	0.000130	U	0.000500	0.000130	mg/L		10/06/14 11:23	10/06/14 19:21	1
2-Chloronaphthalene	0.0000800	U	0.000500	0.0000800	mg/L		10/06/14 11:23	10/06/14 19:21	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	70		10 - 147	10/06/14 11:23	10/06/14 19:21	1
2-Fluorobiphenyl	67		10 - 150	10/06/14 11:23	10/06/14 19:21	1
2-Fluorophenol	78		10 - 130	10/06/14 11:23	10/06/14 19:21	1
Nitrobenzene-d5	78		23 - 130	10/06/14 11:23	10/06/14 19:21	1
Terphenyl-d14	90		42 - 133	10/06/14 11:23	10/06/14 19:21	1
Phenol-d5 (Surr)	74		10 - 130	10/06/14 11:23	10/06/14 19:21	1

Lab Sample ID: LCS 600-145857/2-A

Matrix: Water

Analysis Batch: 145900

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 145857

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Naphthalene	0.0100	0.007699		mg/L		77	57 - 130
2-Methylnaphthalene	0.0100	0.007396		mg/L		74	52 - 130
Acenaphthylene	0.0100	0.007690		mg/L		77	58 - 130
Acenaphthene	0.0100	0.007679		mg/L		77	59 - 130
Dibenzofuran	0.0100	0.007872		mg/L		79	56 - 130
Fluorene	0.0100	0.008635		mg/L		86	57 - 130
Phenanthrene	0.0100	0.008231		mg/L		82	60 - 130

TestAmerica Houston

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-99887-1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Lab Sample ID: LCS 600-145857/2-A

Matrix: Water

Analysis Batch: 145900

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 145857

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Anthracene	0.0100	0.008529		mg/L		85	46 - 132
Fluoranthene	0.0100	0.008308		mg/L		83	63 - 130
Pyrene	0.0100	0.009649		mg/L		96	62 - 130
Bis(2-ethylhexyl) phthalate	0.0100	0.009166		mg/L		92	59 - 130
2,4-Dimethylphenol	0.0100	0.008346		mg/L		83	45 - 130
Benzo[a]pyrene	0.0100	0.009043		mg/L		90	56 - 130
Di-n-butyl phthalate	0.0100	0.008459		mg/L		85	61 - 130
2,4-Dinitrotoluene	0.0100	0.009041		mg/L		90	54 - 130
Nitrobenzene	0.0100	0.007786		mg/L		78	41 - 130
Pentachlorophenol	0.0200	0.01448		mg/L		72	27 - 130
4,6-Dinitro-2-methylphenol	0.0200	0.01284		mg/L		64	10 - 145
N-Nitrosodiphenylamine	0.0100	0.007447		mg/L		74	55 - 137
Benzo[a]anthracene	0.0100	0.009003		mg/L		90	58 - 130
1,2-Diphenylhydrazine	0.0100	0.006991		mg/L		70	45 - 130
Chrysene	0.0100	0.008435		mg/L		84	60 - 130
4-Nitrophenol	0.0200	0.01408		mg/L		70	10 - 150
2,6-Dinitrotoluene	0.0100	0.008503		mg/L		85	56 - 130
Phenol	0.0100	0.007442		mg/L		74	10 - 144
Bis(2-chloroethoxy)methane	0.0100	0.007097		mg/L		71	36 - 134
2-Chloronaphthalene	0.0100	0.007407		mg/L		74	56 - 130

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
2,4,6-Tribromophenol	92		10 - 147
2-Fluorobiphenyl	76		10 - 150
2-Fluorophenol	79		10 - 130
Nitrobenzene-d5	80		23 - 130
Terphenyl-d14	95		42 - 133
Phenol-d5 (Surr)	77		10 - 130

Unadjusted Detection Limits

Client: Pastor, Behling & Wheeler LLC
 Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-99887-1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	MQL	MDL	Units	Method
1,2-Diphenylhydrazine	0.000500	0.000110	mg/L	8270C LL
2,4-Dimethylphenol	0.000500	0.000310	mg/L	8270C LL
2,4-Dinitrotoluene	0.000500	0.000130	mg/L	8270C LL
2,6-Dinitrotoluene	0.000500	0.0000800	mg/L	8270C LL
2-Chloronaphthalene	0.000500	0.0000800	mg/L	8270C LL
2-Methylnaphthalene	0.000500	0.0000700	mg/L	8270C LL
4,6-Dinitro-2-methylphenol	0.00100	0.000830	mg/L	8270C LL
4-Nitrophenol	0.00100	0.000560	mg/L	8270C LL
Acenaphthene	0.000500	0.0000800	mg/L	8270C LL
Acenaphthylene	0.000500	0.0000600	mg/L	8270C LL
Anthracene	0.000500	0.0000500	mg/L	8270C LL
Benzo[a]anthracene	0.000500	0.0000800	mg/L	8270C LL
Benzo[a]pyrene	0.000500	0.0000800	mg/L	8270C LL
Bis(2-chloroethoxy)methane	0.000500	0.000130	mg/L	8270C LL
Bis(2-ethylhexyl) phthalate	0.000500	0.000370	mg/L	8270C LL
Chrysene	0.000500	0.0000800	mg/L	8270C LL
Dibenzofuran	0.000500	0.0000800	mg/L	8270C LL
Di-n-butyl phthalate	0.000500	0.000110	mg/L	8270C LL
Fluoranthene	0.000500	0.0000700	mg/L	8270C LL
Fluorene	0.000500	0.0000700	mg/L	8270C LL
Naphthalene	0.000500	0.0000800	mg/L	8270C LL
Nitrobenzene	0.000500	0.000110	mg/L	8270C LL
N-Nitrosodiphenylamine	0.000500	0.000100	mg/L	8270C LL
Pentachlorophenol	0.00100	0.000610	mg/L	8270C LL
Phenanthrene	0.000500	0.0000600	mg/L	8270C LL
Phenol	0.000500	0.0000400	mg/L	8270C LL
Pyrene	0.000500	0.000110	mg/L	8270C LL

QC Association Summary

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-99887-1

GC/MS Semi VOA

Prep Batch: 145857

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-99887-1	WG-1620-MW76C-20141003	Total/NA	Water	3510C	
600-99887-2	WG-1620-MW66D-20141003	Total/NA	Water	3510C	
LCS 600-145857/2-A	Lab Control Sample	Total/NA	Water	3510C	
MB 600-145857/1-A	Method Blank	Total/NA	Water	3510C	

Analysis Batch: 145900

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-99887-1	WG-1620-MW76C-20141003	Total/NA	Water	8270C LL	145857
600-99887-2	WG-1620-MW66D-20141003	Total/NA	Water	8270C LL	145857
LCS 600-145857/2-A	Lab Control Sample	Total/NA	Water	8270C LL	145857
MB 600-145857/1-A	Method Blank	Total/NA	Water	8270C LL	145857

Lab Chronicle

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-99887-1

Client Sample ID: WG-1620-MW76C-20141003

Lab Sample ID: 600-99887-1

Date Collected: 10/03/14 08:01

Matrix: Water

Date Received: 10/03/14 13:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			145857	10/06/14 11:23	SMB	TAL HOU
Total/NA	Analysis	8270C LL		1	145900	10/07/14 03:11	TTD	TAL HOU

Client Sample ID: WG-1620-MW66D-20141003

Lab Sample ID: 600-99887-2

Date Collected: 10/03/14 10:20

Matrix: Water

Date Received: 10/03/14 13:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			145857	10/06/14 11:23	SMB	TAL HOU
Total/NA	Analysis	8270C LL		1	145900	10/07/14 03:45	TTD	TAL HOU

Laboratory References:

TAL HOU = TestAmerica Houston, 6310 Rothway Street, Houston, TX 77040, TEL (713)690-4444

Certification Summary

Client: Pastor, Behling & Wheeler LLC
Project/Site: 1620 UPRR HWPW

TestAmerica Job ID: 600-99887-1

Laboratory: TestAmerica Houston

The certifications listed below are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Texas	NELAP	6	T104704223	10-31-14

1

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Chain of Custody Record



600-99887 Chain of Custody



TAL-4124 (1007)

Client: **PBW** Project Manager: **ERIC MATENER** Date: **10-3-14** Chain of Custody Number: **272884**

Address: **2201 DOUGLIE CREEK DR** Telephone Number (Area Code)/Fax Number: **512-671-3434** Lab Number: **10-3-14** Page: **1** of **1**

City: **ROUND ROCK** State: **TX** Zip Code: **78664** Site Contact: _____ Carrier/Waybill Number: _____

Project Name and Location (State): **VPRR - HWPW** Analysis (Attach list if more space is needed): _____

Contract/Purchase Order/Quote No. _____ Special Instructions/Conditions of Receipt: _____

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix			Containers & Preservatives					Special Instructions/Conditions of Receipt													
			Air	Aqueous	Sed	Soil	Unpres.	H2SO4	HNO3	HCl		NaOH	ZnAc											
WG-1120 - MW7LC-20141003	10-3-14	0810	X							X														
WG-1020 - MW66D-20141003	10-3-14	1020	X							X														

Possible Hazard Identification: Non-Hazard Flammable Skin Irritant Poison B Unknown Return To Client Disposal By Lab Archive For _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required: 24 Hours 48 Hours 7 Days 14 Days 21 Days Other _____

QC Requirements (Specify): _____

1. Relinquished By: *[Signature]* Date: **10-3-14** Time: **10:00**
 2. Relinquished By: *[Signature]* Date: **10/3/14** Time: **12:00**
 3. Relinquished By: _____ Date: _____ Time: _____

Comments: _____

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy



Sample Receipt Checklist

Loc: 600
99887

Received: PBW 14007 3/24/19

JOB NUMBER: _____

UNPACKED BY: _____

CARRIER/DRIVER: client

Custody Seal Present: YES NO

Number of Coolers Received: 1

Cooler ID	Temp Blank	Trip Blank	Observed Temp (°C)	Therm ID	Them CF	Corrected Temp (°C)
<u>white</u>	Y / N	Y / N	<u>0.1</u>	<u>600</u>	<u>0.5</u>	<u>0.6</u>
	Y / N	Y / N				
	Y / N	Y / N				
	Y / N	Y / N				
	Y / N	Y / N				
	Y / N	Y / N				
	Y / N	Y / N				
	Y / N	Y / N				
	Y / N	Y / N				

CF = correction factor

Samples received on ice? YES NO

LABORATORY PRESERVATION OF SAMPLES REQUIRED: NO YES

Base samples are >pH 12: YES NO Acid preserved are <pH 2: YES NO

pH paper Lot # _____

VOA headspace acceptable (5-6mm): YES NO NA

Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?	YES	NO

COMMENTS:

Login Sample Receipt Checklist

Client: Pastor, Behling & Wheeler LLC

Job Number: 600-99887-1

Login Number: 99887

List Source: TestAmerica Houston

List Number: 1

Creator: Crafton, Tommie S

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	N/A	Lab does not accept radioactive samples.
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	0.6
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is $<6\text{mm}$ (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	Check done at department level as required.



ATTACHMENT B

LABORATORY NELAP CERTIFICATE



Texas Commission on Environmental Quality



NELAP - Recognized Laboratory Fields of Accreditation

TestAmerica Laboratories, Inc. - Houston

6310 Rothway Drive
Houston, TX 77040-5056

Certificate: T104704223-13-11
Expiration Date: 10/31/2014
Issue Date: 11/1/2013

These fields of accreditation supercede all previous fields. The Texas Commission on Environmental Quality urges customers to verify the laboratory's current accreditation status for particular methods and analyses.

Matrix: Non-Potable Water

Method EPA 1010			
Analyte Ignitability	AB TX	Analyte ID 1780	Method ID 10116606
Method EPA 110.2			
Analyte Color	AB TX	Analyte ID 1605	Method ID 10005604
Method EPA 120.1			
Analyte Conductivity	AB TX	Analyte ID 1610	Method ID 10006403
Method EPA 130.2			
Analyte Total hardness as CaCO ₃	AB TX	Analyte ID 1755	Method ID 10007202
Method EPA 1311			
Analyte TCLP	AB TX	Analyte ID 849	Method ID 10118806
Method EPA 1312			
Analyte SPLP	AB TX	Analyte ID 850	Method ID 10119003
Method EPA 150.1			
Analyte pH	AB TX	Analyte ID 1900	Method ID 10008409
Method EPA 160.1			
Analyte Residue-filterable (TDS)	AB TX	Analyte ID 1955	Method ID 10009208
Method EPA 160.2			
Analyte Residue-nonfilterable (TSS)	AB TX	Analyte ID 1960	Method ID 10009606
Method EPA 160.3			
Analyte Residue-total (total solids)	AB TX	Analyte ID 1950	Method ID 10010001
Method EPA 1664			
Analyte	AB	Analyte ID	Method ID



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Matrix: *Non-Potable Water*

n-Hexane Extractable Material (HEM) (O&G)	TX	1803	10127807
Silica Gel Treated n-Hexane Extractable Material (SGT-HEM)	TX	10220	10127807

Method EPA 180.1

Analyte	AB	Analyte ID	Method ID
Turbidity	TX	2055	10011606

Method EPA 200.7

Analyte	AB	Analyte ID	Method ID
Aluminum	TX	1000	10013806
Antimony	TX	1005	10013806
Arsenic	TX	1010	10013806
Barium	TX	1015	10013806
Beryllium	TX	1020	10013806
Boron	TX	1025	10013806
Cadmium	TX	1030	10013806
Calcium	TX	1035	10013806
Chromium	TX	1040	10013806
Cobalt	TX	1050	10013806
Copper	TX	1055	10013806
Iron	TX	1070	10013806
Lead	TX	1075	10013806
Magnesium	TX	1085	10013806
Manganese	TX	1090	10013806
Molybdenum	TX	1100	10013806
Nickel	TX	1105	10013806
Potassium	TX	1125	10013806
Selenium	TX	1140	10013806
Silver	TX	1150	10013806
Sodium	TX	1155	10013806
Strontium	TX	1160	10013806
Thallium	TX	1165	10013806
Tin	TX	1175	10013806



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Matrix: Non-Potable Water

Titanium	TX	1180	10013806
Vanadium	TX	1185	10013806
Zinc	TX	1190	10013806
Method EPA 245.1			
Analyte	AB	Analyte ID	Method ID
Mercury	TX	1095	10036609
Method EPA 300.0			
Analyte	AB	Analyte ID	Method ID
Bromide	TX	1540	10053006
Chloride	TX	1575	10053006
Fluoride	TX	1730	10053006
Nitrate as N	TX	1810	10053006
Nitrate-nitrite	TX	1820	10053006
Nitrite as N	TX	1840	10053006
Sulfate	TX	2000	10053006
Method EPA 305.1			
Analyte	AB	Analyte ID	Method ID
Acidity, as CaCO ₃	TX	1500	10054203
Method EPA 310.1			
Analyte	AB	Analyte ID	Method ID
Alkalinity as CaCO ₃	TX	1505	10054805
Method EPA 330.4			
Analyte	AB	Analyte ID	Method ID
Total residual chlorine	TX	1940	10059208
Method EPA 335.1			
Analyte	AB	Analyte ID	Method ID
Amenable cyanide	TX	1510	10060001
Method EPA 335.4			
Analyte	AB	Analyte ID	Method ID
Total cyanide	TX	1645	10061402



Texas Commission on Environmental Quality



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Matrix: *Non-Potable Water*

Method	Analyte	AB	Analyte ID	Method ID
Method EPA 350.1				
	Ammonia as N	TX	1515	10063408
Method EPA 351.2				
	Kjeldahl nitrogen - total (TKN)	TX	1795	10065200
Method EPA 353.2				
	Nitrate as N	TX	1810	10067400
	Nitrate-nitrite	TX	1820	10067400
Method EPA 365.2				
	Orthophosphate as P	TX	1870	10070403
	Phosphorus	TX	1910	10070403
Method EPA 377.1				
	Sulfite	TX	2015	10075000
Method EPA 405.1				
	Biochemical oxygen demand (BOD)	TX	1530	10075602
Method EPA 415.1				
	Total Organic Carbon (TOC)	TX	2040	10078407
Method EPA 420.4				
	Total phenolics	TX	1905	10080203
Method EPA 425.1				
	Surfactants - MBAS	TX	2025	10080601
Method EPA 6010				
	Aluminum	TX	1000	10155609



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Matrix: *Non-Potable Water*

Antimony	TX	1005	10155609
Arsenic	TX	1010	10155609
Barium	TX	1015	10155609
Beryllium	TX	1020	10155609
Boron	TX	1025	10155609
Cadmium	TX	1030	10155609
Calcium	TX	1035	10155609
Chromium	TX	1040	10155609
Cobalt	TX	1050	10155609
Copper	TX	1055	10155609
Iron	TX	1070	10155609
Lead	TX	1075	10155609
Magnesium	TX	1085	10155609
Manganese	TX	1090	10155609
Molybdenum	TX	1100	10155609
Nickel	TX	1105	10155609
Potassium	TX	1125	10155609
Selenium	TX	1140	10155609
Silver	TX	1150	10155609
Sodium	TX	1155	10155609
Strontium	TX	1160	10155609
Thallium	TX	1165	10155609
Tin	TX	1175	10155609
Titanium	TX	1180	10155609
Vanadium	TX	1185	10155609
Zinc	TX	1190	10155609

Method EPA 602

Analyte	AB	Analyte ID	Method ID
Benzene	TX	4375	10102202
Ethylbenzene	TX	4765	10102202



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Matrix: *Non-Potable Water*

m+p-xylene	TX	5240	10102202
o-Xylene	TX	5250	10102202
Toluene	TX	5140	10102202
Xylene (total)	TX	5260	10102202

Method EPA 608

Analyte	AB	Analyte ID	Method ID
4,4'-DDD	TX	7355	10103603
4,4'-DDE	TX	7360	10103603
4,4'-DDT	TX	7365	10103603
Aldrin	TX	7025	10103603
alpha-BHC (alpha-Hexachlorocyclohexane)	TX	7110	10103603
alpha-Chlordane	TX	7240	10103603
Aroclor-1016 (PCB-1016)	TX	8880	10103603
Aroclor-1221 (PCB-1221)	TX	8885	10103603
Aroclor-1232 (PCB-1232)	TX	8890	10103603
Aroclor-1242 (PCB-1242)	TX	8895	10103603
Aroclor-1248 (PCB-1248)	TX	8900	10103603
Aroclor-1254 (PCB-1254)	TX	8905	10103603
Aroclor-1260 (PCB-1260)	TX	8910	10103603
beta-BHC (beta-Hexachlorocyclohexane)	TX	7115	10103603
Chlordane (tech.)	TX	7250	10103603
delta-BHC (delta-Hexachlorocyclohexane)	TX	7105	10103603
Dieldrin	TX	7470	10103603
Endosulfan I	TX	7510	10103603
Endosulfan II	TX	7515	10103603
Endosulfan sulfate	TX	7520	10103603
Endrin	TX	7540	10103603
Endrin aldehyde	TX	7530	10103603
gamma-BHC (Lindane, gamma-Hexachlorocyclohexane)	TX	7120	10103603
gamma-Chlordane	TX	7245	10103603



Texas Commission on Environmental Quality



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Expiration Date: 10/31/2014
Issue Date: 11/1/2013

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Matrix: *Non-Potable Water*

Heptachlor	TX	7685	10103603
Heptachlor epoxide	TX	7690	10103603
Methoxychlor	TX	7810	10103603
Toxaphene (Chlorinated camphene)	TX	8250	10103603

Method EPA 615

Analyte	AB	Analyte ID	Method ID
2,4,5-T	TX	8655	10105609
2,4-D	TX	8545	10105609
2,4-DB	TX	8560	10105609
Dalapon	TX	8555	10105609
Dicamba	TX	8595	10105609
Dichloroprop (Dichloroprop, Weedone)	TX	8605	10105609
Dinoseb (2-sec-butyl-4,6-dinitrophenol, DNBP)	TX	8620	10105609
MCPA	TX	7775	10105609
MCPP	TX	7780	10105609
Silvex (2,4,5-TP)	TX	8650	10105609

Method EPA 624

Analyte	AB	Analyte ID	Method ID
1,1,1-Trichloroethane	TX	5160	10107207
1,1,2,2-Tetrachloroethane	TX	5110	10107207
1,1,2-Trichloroethane	TX	5165	10107207
1,1-Dichloroethane	TX	4630	10107207
1,1-Dichloroethylene	TX	4640	10107207
1,2-Dibromoethane (EDB, Ethylene dibromide)	TX	4585	10107207
1,2-Dichlorobenzene	TX	4610	10107207
1,2-Dichloroethane (Ethylene dichloride)	TX	4635	10107207
1,2-Dichloropropane	TX	4655	10107207
1,3-Dichlorobenzene	TX	4615	10107207
1,4-Dichlorobenzene	TX	4620	10107207
2-Butanone (Methyl ethyl ketone, MEK)	TX	4410	10107207
2-Chloroethyl vinyl ether	TX	4500	10107207



Texas Commission on Environmental Quality



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Expiration Date: 10/31/2014

Issue Date: 11/1/2013

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Matrix: *Non-Potable Water*

Acetone (2-Propanone)	TX	4315	10107207
Acrolein (Propenal)	TX	4325	10107207
Acrylonitrile	TX	4340	10107207
Benzene	TX	4375	10107207
Bromodichloromethane	TX	4395	10107207
Bromoform	TX	4400	10107207
Carbon tetrachloride	TX	4455	10107207
Chlorobenzene	TX	4475	10107207
Chlorodibromomethane	TX	4575	10107207
Chloroethane (Ethyl chloride)	TX	4485	10107207
Chloroform	TX	4505	10107207
cis-1,3-Dichloropropene	TX	4680	10107207
Ethylbenzene	TX	4765	10107207
m+p-xylene	TX	5240	10107207
Methyl chloride (Chloromethane)	TX	4960	10107207
Methyl tert-butyl ether (MTBE)	TX	5000	10107207
Methylene chloride (Dichloromethane)	TX	4975	10107207
o-Xylene	TX	5250	10107207
Tetrachloroethylene (Perchloroethylene)	TX	5115	10107207
Toluene	TX	5140	10107207
trans-1,2-Dichloroethylene	TX	4700	10107207
trans-1,3-Dichloropropylene	TX	4685	10107207
Trichloroethene (Trichloroethylene)	TX	5170	10107207
Trichlorofluoromethane (Fluorotrichloromethane, Freon 11)	TX	5175	10107207
Vinyl chloride	TX	5235	10107207
Xylene (total)	TX	5260	10107207

Method EPA 625

Analyte	AB	Analyte ID	Method ID
1,2,4,5-Tetrachlorobenzene	TX	6715	10107401
1,2,4-Trichlorobenzene	TX	5155	10107401



Texas Commission on Environmental Quality



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Houston, TX 77040-5056

Certificate: T104704223-13-11

Expiration Date: 10/31/2014

Issue Date: 11/1/2013

These fields of accreditation supercede all previous fields. The Texas Commission on Environmental Quality urges customers to verify the laboratory's current accreditation status for particular methods and analyses.

Matrix: *Non-Potable Water*

1,2-Dichlorobenzene	TX	4610	10107401
1,3-Dichlorobenzene	TX	4615	10107401
1,4-Dichlorobenzene	TX	4620	10107401
2,3,4,6-Tetrachlorophenol	TX	6735	10107401
2,4,5-Trichlorophenol	TX	6835	10107401
2,4,6-Trichlorophenol	TX	6840	10107401
2,4-Dichlorophenol	TX	6000	10107401
2,4-Dimethylphenol	TX	6130	10107401
2,4-Dinitrophenol	TX	6175	10107401
2,4-Dinitrotoluene (2,4-DNT)	TX	6185	10107401
2,6-Dinitrotoluene (2,6-DNT)	TX	6190	10107401
2-Chloronaphthalene	TX	5795	10107401
2-Chlorophenol	TX	5800	10107401
2-Methyl-4,6-dinitrophenol (4,6-Dinitro-2-methylphenol)	TX	6360	10107401
2-Methylphenol (o-Cresol)	TX	6400	10107401
2-Nitrophenol	TX	6490	10107401
3,3'-Dichlorobenzidine	TX	5945	10107401
4-Bromophenyl phenyl ether (BDE-3)	TX	5660	10107401
4-Chloro-3-methylphenol	TX	5700	10107401
4-Chlorophenyl phenylether	TX	5825	10107401
4-Methylphenol (p-Cresol)	TX	6410	10107401
4-Nitrophenol	TX	6500	10107401
Acenaphthene	TX	5500	10107401
Acenaphthylene	TX	5505	10107401
Anthracene	TX	5555	10107401
Benzidine	TX	5595	10107401
Benzo(a)anthracene	TX	5575	10107401
Benzo(a)pyrene	TX	5580	10107401
Benzo(b)fluoranthene	TX	5585	10107401
Benzo(g,h,i)perylene	TX	5590	10107401



Texas Commission on Environmental Quality



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Issue Date: 11/1/2013

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Matrix: *Non-Potable Water*

Benzo(k)fluoranthene	TX	5600	10107401
bis(2-Chloroethoxy)methane	TX	5760	10107401
bis(2-Chloroethyl) ether	TX	5765	10107401
bis(2-Chloroisopropyl) ether	TX	5780	10107401
bis(2-Ethylhexyl) phthalate (DEHP)	TX	6255	10107401
Butyl benzyl phthalate	TX	5670	10107401
Chrysene	TX	5855	10107401
Dibenz(a,h) anthracene	TX	5895	10107401
Diethyl phthalate	TX	6070	10107401
Dimethyl phthalate	TX	6135	10107401
Di-n-butyl phthalate	TX	5925	10107401
Di-n-octyl phthalate	TX	6200	10107401
Fluoranthene	TX	6265	10107401
Fluorene	TX	6270	10107401
Hexachlorobenzene	TX	6275	10107401
Hexachlorobutadiene	TX	4835	10107401
Hexachlorocyclopentadiene	TX	6285	10107401
Hexachloroethane	TX	4840	10107401
Indeno(1,2,3-cd) pyrene	TX	6315	10107401
Isophorone	TX	6320	10107401
Naphthalene	TX	5005	10107401
Nitrobenzene	TX	5015	10107401
n-Nitrosodiethylamine	TX	6525	10107401
n-Nitrosodimethylamine	TX	6530	10107401
n-Nitrosodi-n-butylamine	TX	5025	10107401
n-Nitrosodi-n-propylamine	TX	6545	10107401
n-Nitrosodiphenylamine	TX	6535	10107401
Pentachlorophenol	TX	6605	10107401
Phenanthrene	TX	6615	10107401
Phenol	TX	6625	10107401



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Matrix: *Non-Potable Water*

Pyrene	TX	6665	10107401
Pyridine	TX	5095	10107401
Method EPA 7196			
Analyte	AB	Analyte ID	Method ID
Chromium (VI)	TX	1045	10162400
Method EPA 7470			
Analyte	AB	Analyte ID	Method ID
Mercury	TX	1095	10165807
Method EPA 8015			
Analyte	AB	Analyte ID	Method ID
Allyl alcohol	TX	4350	10173601
Diesel range organics (DRO)	TX	9369	10173601
Ethanol	TX	4750	10173601
Ethylene glycol	TX	4785	10173601
Gasoline range organics (GRO)	TX	9408	10173601
Isobutyl alcohol (2-Methyl-1-propanol)	TX	4875	10173601
Isopropanol	TX	4885	10173601
Methanol	TX	4930	10173601
n-Butyl alcohol (1-Butanol, n-Butanol)	TX	4425	10173601
n-Propanol (1-Propanol)	TX	5055	10173601
Method EPA 8021			
Analyte	AB	Analyte ID	Method ID
Benzene	TX	4375	10174808
Ethylbenzene	TX	4765	10174808
m+p-xylene	TX	5240	10174808
Methyl tert-butyl ether (MTBE)	TX	5000	10174808
o-Xylene	TX	5250	10174808
Toluene	TX	5140	10174808
Xylene (total)	TX	5260	10174808
Method EPA 8081			
Analyte	AB	Analyte ID	Method ID



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Matrix: *Non-Potable Water*

4,4'-DDD	TX	7355	10178606
4,4'-DDE	TX	7360	10178606
4,4'-DDT	TX	7365	10178606
Aldrin	TX	7025	10178606
alpha-BHC (alpha-Hexachlorocyclohexane)	TX	7110	10178606
alpha-Chlordane	TX	7240	10178606
beta-BHC (beta-Hexachlorocyclohexane)	TX	7115	10178606
Chlordane (tech.)	TX	7250	10178606
delta-BHC (delta-Hexachlorocyclohexane)	TX	7105	10178606
Dieldrin	TX	7470	10178606
Endosulfan I	TX	7510	10178606
Endosulfan II	TX	7515	10178606
Endosulfan sulfate	TX	7520	10178606
Endrin	TX	7540	10178606
Endrin aldehyde	TX	7530	10178606
Endrin ketone	TX	7535	10178606
gamma-BHC (Lindane, gamma-Hexachlorocyclohexane)	TX	7120	10178606
gamma-Chlordane	TX	7245	10178606
Heptachlor	TX	7685	10178606
Heptachlor epoxide	TX	7690	10178606
Methoxychlor	TX	7810	10178606
Toxaphene (Chlorinated camphene)	TX	8250	10178606

Method EPA 8082

Analyte	AB	Analyte ID	Method ID
Aroclor-1016 (PCB-1016)	TX	8880	10179007
Aroclor-1221 (PCB-1221)	TX	8885	10179007
Aroclor-1232 (PCB-1232)	TX	8890	10179007
Aroclor-1242 (PCB-1242)	TX	8895	10179007
Aroclor-1248 (PCB-1248)	TX	8900	10179007
Aroclor-1254 (PCB-1254)	TX	8905	10179007



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Matrix: *Non-Potable Water*

Aroclor-1260 (PCB-1260)	TX	8910	10179007
PCBs (total)	TX	8870	10179007
Method EPA 8151			
Analyte	AB	Analyte ID	Method ID
2,4,5-T	TX	8655	10183207
2,4-D	TX	8545	10183207
2,4-DB	TX	8560	10183207
Dalapon	TX	8555	10183207
Dicamba	TX	8595	10183207
Dichloroprop (Dichloroprop, Weedone)	TX	8605	10183207
Dinoseb (2-sec-butyl-4,6-dinitrophenol, DNBP)	TX	8620	10183207
MCPA	TX	7775	10183207
MCPP	TX	7780	10183207
Silvex (2,4,5-TP)	TX	8650	10183207
Method EPA 8260			
Analyte	AB	Analyte ID	Method ID
1,1,1,2-Tetrachloroethane	TX	5105	10184802
1,1,1-Trichloroethane	TX	5160	10184802
1,1,2,2-Tetrachloroethane	TX	5110	10184802
1,1,2-Trichloroethane	TX	5165	10184802
1,1-Dichloroethane	TX	4630	10184802
1,1-Dichloroethylene	TX	4640	10184802
1,1-Dichloropropene	TX	4670	10184802
1,2,3-Trichlorobenzene	TX	5150	10184802
1,2,3-Trichloropropane	TX	5180	10184802
1,2,4-Trichlorobenzene	TX	5155	10184802
1,2,4-Trimethylbenzene	TX	5210	10184802
1,2-Dibromoethane (EDB, Ethylene dibromide)	TX	4585	10184802
1,2-Dichlorobenzene	TX	4610	10184802
1,2-Dichloroethane (Ethylene dichloride)	TX	4635	10184802
1,2-Dichloropropane	TX	4655	10184802



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Matrix: *Non-Potable Water*

1,3,5-Trimethylbenzene	TX	5215	10184802
1,3-Dichlorobenzene	TX	4615	10184802
1,3-Dichloropropane	TX	4660	10184802
1,4-Dichlorobenzene	TX	4620	10184802
1,4-Dioxane (1,4-Diethyleneoxide)	TX	4735	10184802
2,2-Dichloropropane	TX	4665	10184802
2-Butanone (Methyl ethyl ketone, MEK)	TX	4410	10184802
2-Chloroethyl vinyl ether	TX	4500	10184802
2-Chlorotoluene	TX	4535	10184802
2-Hexanone (MBK)	TX	4860	10184802
2-Nitropropane	TX	5020	10184802
2-Propanol	TX	5065	10184802
4-Chlorotoluene	TX	4540	10184802
4-Isopropyltoluene (p-Cymene)	TX	4915	10184802
4-Methyl-2-pentanone (MIBK)	TX	4995	10184802
Acetone (2-Propanone)	TX	4315	10184802
Acetonitrile	TX	4320	10184802
Acrolein (Propenal)	TX	4325	10184802
Acrylonitrile	TX	4340	10184802
Allyl chloride (3-Chloropropene)	TX	4355	10184802
Benzene	TX	4375	10184802
Benzyl chloride	TX	5635	10184802
Bromobenzene	TX	4385	10184802
Bromochloromethane	TX	4390	10184802
Bromodichloromethane	TX	4395	10184802
Bromoform	TX	4400	10184802
Carbon disulfide	TX	4450	10184802
Carbon tetrachloride	TX	4455	10184802
Chlorobenzene	TX	4475	10184802
Chlorodibromomethane	TX	4575	10184802



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Matrix: Non-Potable Water

Chloroethane (Ethyl chloride)	TX	4485	10184802
Chloroform	TX	4505	10184802
Chloroprene (2-Chloro-1,3-butadiene)	TX	4525	10184802
cis-1,2-Dichloroethylene	TX	4645	10184802
cis-1,3-Dichloropropene	TX	4680	10184802
Dibromofluoromethane	TX	4590	10184802
Dibromomethane (Methylene bromide)	TX	4595	10184802
Dichlorodifluoromethane (Freon-12)	TX	4625	10184802
Diethyl ether	TX	4725	10184802
Epichlorohydrin (1-Chloro-2,3-epoxypropane)	TX	4745	10184802
Ethyl acetate	TX	4755	10184802
Ethyl methacrylate	TX	4810	10184802
Ethylbenzene	TX	4765	10184802
Ethylene oxide	TX	4795	10184802
Hexachlorobutadiene	TX	4835	10184802
Iodomethane (Methyl iodide)	TX	4870	10184802
Isobutyl alcohol (2-Methyl-1-propanol)	TX	4875	10184802
Isopropylbenzene (Cumene)	TX	4900	10184802
m+p-xylene	TX	5240	10184802
Methacrylonitrile	TX	4925	10184802
Methyl acrylate	TX	4945	10184802
Methyl chloride (Chloromethane)	TX	4960	10184802
Methyl methacrylate	TX	4990	10184802
Methyl tert-butyl ether (MTBE)	TX	5000	10184802
Methylene chloride (Dichloromethane)	TX	4975	10184802
Naphthalene	TX	5005	10184802
n-Butyl alcohol (1-Butanol, n-Butanol)	TX	4425	10184802
n-Butylbenzene	TX	4435	10184802
n-Propylbenzene	TX	5090	10184802
sec-Butylbenzene	TX	4440	10184802



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Matrix: *Non-Potable Water*

Styrene	TX	5100	10184802
tert-Butyl alcohol	TX	4420	10184802
tert-Butylbenzene	TX	4445	10184802
Tetrachloroethylene (Perchloroethylene)	TX	5115	10184802
Toluene	TX	5140	10184802
trans-1,2-Dichloroethylene	TX	4700	10184802
trans-1,3-Dichloropropylene	TX	4685	10184802
trans-1,4-Dichloro-2-butene	TX	4605	10184802
Trichloroethene (Trichloroethylene)	TX	5170	10184802
Trichlorofluoromethane (Fluorotrichloromethane, Freon 11)	TX	5175	10184802
Vinyl acetate	TX	5225	10184802
Vinyl chloride	TX	5235	10184802
Xylene (total)	TX	5260	10184802

Method EPA 8270

Analyte	AB	Analyte ID	Method ID
1,2,4,5-Tetrachlorobenzene	TX	6715	10185805
1,2,4-Trichlorobenzene	TX	5155	10185805
1,2-Dichlorobenzene	TX	4610	10185805
1,2-Dinitrobenzene	TX	6155	10185805
1,2-Diphenylhydrazine	TX	6220	10185805
1,3,5-Trinitrobenzene (1,3,5-TNB)	TX	6885	10185805
1,3-Dichlorobenzene	TX	4615	10185805
1,3-Dinitrobenzene (1,3-DNB)	TX	6160	10185805
1,4-Dichlorobenzene	TX	4620	10185805
1,4-Dinitrobenzene	TX	6165	10185805
1,4-Naphthoquinone	TX	6420	10185805
1,4-Phenylenediamine	TX	6630	10185805
1-Chloronaphthalene	TX	5790	10185805
1-Naphthylamine	TX	6425	10185805
2,3,4,6-Tetrachlorophenol	TX	6735	10185805



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Matrix: *Non-Potable Water*

2,4,5-Trichlorophenol	TX	6835	10185805
2,4,6-Trichlorophenol	TX	6840	10185805
2,4-Diaminotoluene	TX	5880	10185805
2,4-Dichlorophenol	TX	6000	10185805
2,4-Dimethylphenol	TX	6130	10185805
2,4-Dinitrophenol	TX	6175	10185805
2,4-Dinitrotoluene (2,4-DNT)	TX	6185	10185805
2,6-Dichlorophenol	TX	6005	10185805
2,6-Dinitrotoluene (2,6-DNT)	TX	6190	10185805
2-Acetylaminofluorene	TX	5515	10185805
2-Chloronaphthalene	TX	5795	10185805
2-Chlorophenol	TX	5800	10185805
2-Methyl-4,6-dinitrophenol (4,6-Dinitro-2-methylphenol)	TX	6360	10185805
2-Methylaniline (o-Toluidine)	TX	5145	10185805
2-Methylnaphthalene	TX	6385	10185805
2-Methylphenol (o-Cresol)	TX	6400	10185805
2-Naphthylamine	TX	6430	10185805
2-Nitroaniline	TX	6460	10185805
2-Nitrophenol	TX	6490	10185805
2-Picoline (2-Methylpyridine)	TX	5050	10185805
3,3'-Dichlorobenzidine	TX	5945	10185805
3,3'-Dimethoxybenzidine	TX	6100	10185805
3,3'-Dimethylbenzidine	TX	6120	10185805
3-Methylcholanthrene	TX	6355	10185805
3-Methylphenol (m-Cresol)	TX	6405	10185805
3-Nitroaniline	TX	6465	10185805
4-Aminobiphenyl	TX	5540	10185805
4-Bromophenyl phenyl ether (BDE-3)	TX	5660	10185805
4-Chloro-3-methylphenol	TX	5700	10185805
4-Chloroaniline	TX	5745	10185805



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Matrix: *Non-Potable Water*

4-Chlorophenyl phenylether	TX	5825	10185805
4-Dimethyl aminoazobenzene	TX	6105	10185805
4-Methylphenol (p-Cresol)	TX	6410	10185805
4-Nitroaniline	TX	6470	10185805
4-Nitrophenol	TX	6500	10185805
5-Nitro-o-toluidine	TX	6570	10185805
7,12-Dimethylbenz(a) anthracene	TX	6115	10185805
a-a-Dimethylphenethylamine	TX	6125	10185805
Acenaphthene	TX	5500	10185805
Acenaphthylene	TX	5505	10185805
Acetophenone	TX	5510	10185805
Aniline	TX	5545	10185805
Anthracene	TX	5555	10185805
Azobenzene	TX	5562	10185805
Benzidine	TX	5595	10185805
Benzo(a)anthracene	TX	5575	10185805
Benzo(a)pyrene	TX	5580	10185805
Benzo(b)fluoranthene	TX	5585	10185805
Benzo(g,h,i)perylene	TX	5590	10185805
Benzo(k)fluoranthene	TX	5600	10185805
Benzoic acid	TX	5610	10185805
Benzyl alcohol	TX	5630	10185805
Biphenyl	TX	5640	10185805
bis(2-Chloroethoxy)methane	TX	5760	10185805
bis(2-Chloroethyl) ether	TX	5765	10185805
bis(2-Chloroisopropyl) ether	TX	5780	10185805
bis(2-Ethylhexyl) phthalate (DEHP)	TX	6255	10185805
Butyl benzyl phthalate	TX	5670	10185805
Carbazole	TX	5680	10185805
Chlorobenzilate	TX	7260	10185805



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Matrix: Non-Potable Water

Chrysene	TX	5855	10185805
Diallate	TX	7405	10185805
Dibenz(a,h) anthracene	TX	5895	10185805
Dibenz(a,j) acridine	TX	5900	10185805
Dibenzo(a,e) pyrene	TX	5890	10185805
Dibenzofuran	TX	5905	10185805
Diethyl phthalate	TX	6070	10185805
Dimethoate	TX	7475	10185805
Dimethyl phthalate	TX	6135	10185805
Di-n-butyl phthalate	TX	5925	10185805
Di-n-octyl phthalate	TX	6200	10185805
Diphenylamine	TX	6205	10185805
Disulfoton	TX	8625	10185805
Ethyl methanesulfonate	TX	6260	10185805
Fluoranthene	TX	6265	10185805
Fluorene	TX	6270	10185805
Hexachlorobenzene	TX	6275	10185805
Hexachlorobutadiene	TX	4835	10185805
Hexachlorocyclopentadiene	TX	6285	10185805
Hexachloroethane	TX	4840	10185805
Hexachloropropene	TX	6295	10185805
Indeno(1,2,3-cd) pyrene	TX	6315	10185805
Isodrin	TX	7725	10185805
Isophorone	TX	6320	10185805
Isosafrole	TX	6325	10185805
Methyl methanesulfonate	TX	6375	10185805
Methyl parathion (Parathion, methyl)	TX	7825	10185805
Naphthalene	TX	5005	10185805
Nitrobenzene	TX	5015	10185805
Nitroquinoline-1-oxide	TX	6515	10185805



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Matrix: Non-Potable Water

n-Nitrosodiethylamine	TX	6525	10185805
n-Nitrosodimethylamine	TX	6530	10185805
n-Nitrosodi-n-butylamine	TX	5025	10185805
n-Nitrosodi-n-propylamine	TX	6545	10185805
n-Nitrosodiphenylamine	TX	6535	10185805
n-Nitrosomethylethylamine	TX	6550	10185805
n-Nitrosomorpholine	TX	6555	10185805
n-Nitrosopiperidine	TX	6560	10185805
n-Nitrosopyrrolidine	TX	6565	10185805
o,o,o-Triethyl phosphorothioate	TX	8290	10185805
Parathion, ethyl	TX	7955	10185805
Pentachlorobenzene	TX	6590	10185805
Pentachloronitrobenzene (PCNB)	TX	6600	10185805
Pentachlorophenol	TX	6605	10185805
Phenacetin	TX	6610	10185805
Phenanthrene	TX	6615	10185805
Phenol	TX	6625	10185805
Phorate	TX	7985	10185805
Pronamide (Kerb)	TX	6650	10185805
Pyrene	TX	6665	10185805
Pyridine	TX	5095	10185805
Safrole	TX	6685	10185805
Thionazin (Zinophos)	TX	8235	10185805

Method EPA 8315

Analyte	AB	Analyte ID	Method ID
Formaldehyde	TX	4815	10188008

Method EPA 9012

Analyte	AB	Analyte ID	Method ID
Amenable cyanide	TX	1510	10193405
Total Cyanide	TX	1635	10193405



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Certificate: T104704223-13-11
Expiration Date: 10/31/2014
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Matrix: Non-Potable Water

Method EPA 9034			
Analyte	AB	Analyte ID	Method ID
Sulfide	TX	2005	10196006
Method EPA 9040			
Analyte	AB	Analyte ID	Method ID
pH	TX	1900	10197203
Method EPA 9050			
Analyte	AB	Analyte ID	Method ID
Conductivity	TX	1610	10198808
Method EPA 9056			
Analyte	AB	Analyte ID	Method ID
Bromide	TX	1540	10199209
Chloride	TX	1575	10199209
Fluoride	TX	1730	10199209
Nitrate as N	TX	1810	10199209
Nitrate-nitrite	TX	1820	10199209
Nitrite as N	TX	1840	10199209
Sulfate	TX	2000	10199209
Method EPA 9060			
Analyte	AB	Analyte ID	Method ID
Total Organic Carbon (TOC)	TX	2040	10200201
Method EPA 9066			
Analyte	AB	Analyte ID	Method ID
Total phenolics	TX	1905	10200609
Method EPA RSK 175			
Analyte	AB	Analyte ID	Method ID
Ethane	TX	4747	10212905
Ethene	TX	4752	10212905
Methane	TX	4926	10212905
Method HACH 8000			
Analyte	AB	Analyte ID	Method ID



Texas Commission on Environmental Quality



NELAP - Recognized Laboratory Fields of Accreditation

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Matrix: *Non-Potable Water*

Chemical oxygen demand (COD)	TX	1565	60003001
Method HACH 8507			
Analyte Nitrite as N	AB TX	Analyte ID 1840	Method ID 60004208
Method SM 2120 B			
Analyte Color	AB TX	Analyte ID 1605	Method ID 20223807
Method SM 2130 B			
Analyte Turbidity	AB TX	Analyte ID 2055	Method ID 20042200
Method SM 2310 B (4a)			
Analyte Acidity, as CaCO ₃	AB TX	Analyte ID 1500	Method ID 20002806
Method SM 2320 B			
Analyte Alkalinity as CaCO ₃	AB TX	Analyte ID 1505	Method ID 20045005
Method SM 2340 B			
Analyte Total hardness as CaCO ₃	AB TX	Analyte ID 1755	Method ID 20046008
Method SM 2510 B			
Analyte Conductivity	AB TX	Analyte ID 1610	Method ID 20048004
Method SM 2540 B			
Analyte Residue-total (total solids)	AB TX	Analyte ID 1950	Method ID 20004608
Method SM 2540 C			
Analyte Residue-filterable (TDS)	AB TX	Analyte ID 1955	Method ID 20049803
Method SM 2540 D			
Analyte Residue-nonfilterable (TSS)	AB TX	Analyte ID 1960	Method ID 20004802



Texas Commission on Environmental Quality



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Matrix: *Non-Potable Water*

Method SM 3500-Cr D			
Analyte Chromium (VI)	AB TX	Analyte ID 1045	Method ID 20009001
Method SM 4500-Cl F			
Analyte Total residual chlorine	AB TX	Analyte ID 1940	Method ID 20080482
Method SM 4500-CN ⁻ G			
Analyte Amenable cyanide	AB TX	Analyte ID 1510	Method ID 20021607
Method SM 4500-H+ B			
Analyte pH	AB TX	Analyte ID 1900	Method ID 20104603
Method SM 4500-NH3 G			
Analyte Ammonia as N	AB TX	Analyte ID 1515	Method ID 20023205
Method SM 4500-O G			
Analyte Oxygen, dissolved	AB TX	Analyte ID 1880	Method ID 20025405
Method SM 4500-P E			
Analyte Orthophosphate as P	AB TX	Analyte ID 1870	Method ID 20025803
Phosphorus	AB TX	Analyte ID 1910	Method ID 20025803
Method SM 4500-S ₂ ⁻ D			
Analyte Sulfide	AB TX	Analyte ID 2005	Method ID 20125400
Method SM 4500-S ₂ ⁻ E			
Analyte Sulfide	AB TX	Analyte ID 2005	Method ID 20026408
Method SM 4500-SO ₃ ⁻ B			
Analyte Sulfite	AB TX	Analyte ID 2015	Method ID 20026806



Texas Commission on Environmental Quality



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Issue Date: 11/1/2013

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Matrix: *Non-Potable Water*

Method SM 5210 B

Analyte	AB	Analyte ID	Method ID
Biochemical oxygen demand (BOD)	TX	1530	20027401
Carbonaceous BOD, CBOD	TX	1555	20027401

Method SM 5310 D

Analyte	AB	Analyte ID	Method ID
Total Organic Carbon (TOC)	TX	2040	20139202

Method SM 5540 C

Analyte	AB	Analyte ID	Method ID
Surfactants - MBAS	TX	2025	20144405

Method TCEQ 1005

Analyte	AB	Analyte ID	Method ID
Total Petroleum Hydrocarbons (TPH)	TX	2050	90019208



Texas Commission on Environmental Quality



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Matrix: *Solid & Chemical Materials*

Method EPA 1010			
Analyte	AB	Analyte ID	Method ID
Ignitability	TX	1780	10116606
Method EPA 1311			
Analyte	AB	Analyte ID	Method ID
TCLP	TX	849	10118806
Method EPA 1312			
Analyte	AB	Analyte ID	Method ID
SPLP	TX	850	10119003
Method EPA 300.0			
Analyte	AB	Analyte ID	Method ID
Bromide	TX	1540	10053006
Chloride	TX	1575	10053006
Fluoride	TX	1730	10053006
Nitrate as N	TX	1810	10053006
Nitrate-nitrite	TX	1820	10053006
Nitrite as N	TX	1840	10053006
Orthophosphate as P	TX	1870	10053006
Sulfate	TX	2000	10053006
Method EPA 350.1			
Analyte	AB	Analyte ID	Method ID
Ammonia as N	TX	1515	10063408
Method EPA 353.2			
Analyte	AB	Analyte ID	Method ID
Nitrate-nitrite	TX	1820	10067604
Method EPA 365.2			
Analyte	AB	Analyte ID	Method ID
Phosphorus	TX	1910	10070403
Method EPA 6010			
Analyte	AB	Analyte ID	Method ID
Aluminum	TX	1000	10155609



Texas Commission on Environmental Quality



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Matrix: *Solid & Chemical Materials*

Antimony	TX	1005	10155609
Arsenic	TX	1010	10155609
Barium	TX	1015	10155609
Beryllium	TX	1020	10155609
Boron	TX	1025	10155609
Cadmium	TX	1030	10155609
Calcium	TX	1035	10155609
Chromium	TX	1040	10155609
Cobalt	TX	1050	10155609
Copper	TX	1055	10155609
Iron	TX	1070	10155609
Lead	TX	1075	10155609
Magnesium	TX	1085	10155609
Manganese	TX	1090	10155609
Molybdenum	TX	1100	10155609
Nickel	TX	1105	10155609
Potassium	TX	1125	10155609
Selenium	TX	1140	10155609
Silica as SiO ₂	TX	1990	10155609
Silver	TX	1150	10155609
Sodium	TX	1155	10155609
Strontium	TX	1160	10155609
Thallium	TX	1165	10155609
Tin	TX	1175	10155609
Titanium	TX	1180	10155609
Vanadium	TX	1185	10155609
Zinc	TX	1190	10155609

Method EPA 7471

Analyte	AB	Analyte ID	Method ID
Mercury	TX	1095	10166208



Texas Commission on Environmental Quality



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Matrix: *Solid & Chemical Materials*

Method EPA 8015

Analyte	AB	Analyte ID	Method ID
Allyl alcohol	TX	4350	10173601
Diesel range organics (DRO)	TX	9369	10173601
Ethanol	TX	4750	10173601
Ethylene glycol	TX	4785	10173601
Gasoline range organics (GRO)	TX	9408	10173601
Isobutyl alcohol (2-Methyl-1-propanol)	TX	4875	10173601
Isopropyl alcohol (2-Propanol, Isopropanol)	TX	4895	10173601
Methanol	TX	4930	10173601
n-Butyl alcohol (1-Butanol, n-Butanol)	TX	4425	10173601
n-Propanol (1-Propanol)	TX	5055	10173601

Method EPA 8021

Analyte	AB	Analyte ID	Method ID
Benzene	TX	4375	10174808
m+p-xylene	TX	5240	10174808
Methyl tert-butyl ether (MTBE)	TX	5000	10174808
o-Xylene	TX	5250	10174808
Toluene	TX	5140	10174808
Xylene (total)	TX	5260	10174808

Method EPA 8081

Analyte	AB	Analyte ID	Method ID
4,4'-DDD	TX	7355	10178606
4,4'-DDE	TX	7360	10178606
4,4'-DDT	TX	7365	10178606
Aldrin	TX	7025	10178606
alpha-BHC (alpha-Hexachlorocyclohexane)	TX	7110	10178606
alpha-Chlordane	TX	7240	10178606
beta-BHC (beta-Hexachlorocyclohexane)	TX	7115	10178606
delta-BHC (delta-Hexachlorocyclohexane)	TX	7105	10178606
Dieldrin	TX	7470	10178606



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Matrix: *Solid & Chemical Materials*

Endosulfan I	TX	7510	10178606
Endosulfan II	TX	7515	10178606
Endosulfan sulfate	TX	7520	10178606
Endrin	TX	7540	10178606
Endrin aldehyde	TX	7530	10178606
Endrin ketone	TX	7535	10178606
gamma-BHC (Lindane, gamma-Hexachlorocyclohexane)	TX	7120	10178606
gamma-Chlordane	TX	7245	10178606
Heptachlor	TX	7685	10178606
Heptachlor epoxide	TX	7690	10178606
Methoxychlor	TX	7810	10178606
Toxaphene (Chlorinated camphene)	TX	8250	10178606

Method EPA 8082

Analyte	AB	Analyte ID	Method ID
Aroclor-1016 (PCB-1016)	TX	8880	10179007
Aroclor-1221 (PCB-1221)	TX	8885	10179007
Aroclor-1232 (PCB-1232)	TX	8890	10179007
Aroclor-1242 (PCB-1242)	TX	8895	10179007
Aroclor-1248 (PCB-1248)	TX	8900	10179007
Aroclor-1254 (PCB-1254)	TX	8905	10179007
Aroclor-1260 (PCB-1260)	TX	8910	10179007
PCBs (total)	TX	8870	10179007

Method EPA 8151

Analyte	AB	Analyte ID	Method ID
2,4-D	TX	8545	10183207
2,4-DB	TX	8560	10183207
Dalapon	TX	8555	10183207
Dicamba	TX	8595	10183207
Dichloroprop (Dichloroprop, Weedone)	TX	8605	10183207
Dinoseb (2-sec-butyl-4,6-dinitrophenol, DNBP)	TX	8620	10183207
MCPA	TX	7775	10183207



Texas Commission on Environmental Quality



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Matrix: Solid & Chemical Materials

MCPP	TX	7780	10183207
Silvex (2,4,5-TP)	TX	8650	10183207
Method EPA 8260			
Analyte	AB	Analyte ID	Method ID
1,1,1,2-Tetrachloroethane	TX	5105	10184802
1,1,1-Trichloroethane	TX	5160	10184802
1,1,2,2-Tetrachloroethane	TX	5110	10184802
1,1,2-Trichloroethane	TX	5165	10184802
1,1-Dichloroethane	TX	4630	10184802
1,1-Dichloroethylene	TX	4640	10184802
1,1-Dichloropropene	TX	4670	10184802
1,2,3-Trichlorobenzene	TX	5150	10184802
1,2,3-Trichloropropane	TX	5180	10184802
1,2,4-Trichlorobenzene	TX	5155	10184802
1,2,4-Trimethylbenzene	TX	5210	10184802
1,2-Dibromo-3-chloropropane (DBCP)	TX	4570	10184802
1,2-Dibromoethane (EDB, Ethylene dibromide)	TX	4585	10184802
1,2-Dichlorobenzene	TX	4610	10184802
1,2-Dichloroethane (Ethylene dichloride)	TX	4635	10184802
1,2-Dichloropropane	TX	4655	10184802
1,3,5-Trimethylbenzene	TX	5215	10184802
1,3-Dichlorobenzene	TX	4615	10184802
1,3-Dichloropropane	TX	4660	10184802
1,4-Dichlorobenzene	TX	4620	10184802
1,4-Dioxane (1,4-Diethyleneoxide)	TX	4735	10184802
2,2-Dichloropropane	TX	4665	10184802
2-Butanone (Methyl ethyl ketone, MEK)	TX	4410	10184802
2-Chloroethyl vinyl ether	TX	4500	10184802
2-Chlorotoluene	TX	4535	10184802
2-Hexanone (MBK)	TX	4860	10184802



Texas Commission on Environmental Quality



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Matrix: *Solid & Chemical Materials*

2-Propanol	TX	5065	10184802
4-Chlorotoluene	TX	4540	10184802
4-Isopropyltoluene (p-Cymene)	TX	4915	10184802
4-Methyl-2-pentanone (MIBK)	TX	4995	10184802
Acetone (2-Propanone)	TX	4315	10184802
Acetonitrile	TX	4320	10184802
Acrolein (Propenal)	TX	4325	10184802
Acrylonitrile	TX	4340	10184802
Benzene	TX	4375	10184802
Benzyl chloride	TX	5635	10184802
Bromobenzene	TX	4385	10184802
Bromochloromethane	TX	4390	10184802
Bromodichloromethane	TX	4395	10184802
Bromoform	TX	4400	10184802
Carbon disulfide	TX	4450	10184802
Carbon tetrachloride	TX	4455	10184802
Chlorobenzene	TX	4475	10184802
Chlorodibromomethane	TX	4575	10184802
Chloroethane (Ethyl chloride)	TX	4485	10184802
Chloroform	TX	4505	10184802
Chloroprene (2-Chloro-1,3-butadiene)	TX	4525	10184802
cis-1,2-Dichloroethylene	TX	4645	10184802
cis-1,3-Dichloropropene	TX	4680	10184802
Dibromofluoromethane	TX	4590	10184802
Dibromomethane (Methylene bromide)	TX	4595	10184802
Dichlorodifluoromethane (Freon-12)	TX	4625	10184802
Ethyl acetate	TX	4755	10184802
Ethyl methacrylate	TX	4810	10184802
Ethylbenzene	TX	4765	10184802
Ethylene oxide	TX	4795	10184802



Texas Commission on Environmental Quality



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Matrix: Solid & Chemical Materials

Hexachlorobutadiene	TX	4835	10184802
Iodomethane (Methyl iodide)	TX	4870	10184802
Isobutyl alcohol (2-Methyl-1-propanol)	TX	4875	10184802
Isopropylbenzene (Cumene)	TX	4900	10184802
m+p-xylene	TX	5240	10184802
Methacrylonitrile	TX	4925	10184802
Methyl acrylate	TX	4945	10184802
Methyl bromide (Bromomethane)	TX	4950	10184802
Methyl chloride (Chloromethane)	TX	4960	10184802
Methyl methacrylate	TX	4990	10184802
Methyl tert-butyl ether (MTBE)	TX	5000	10184802
Methylene chloride (Dichloromethane)	TX	4975	10184802
Naphthalene	TX	5005	10184802
n-Butyl alcohol (1-Butanol, n-Butanol)	TX	4425	10184802
n-Butylbenzene	TX	4435	10184802
n-Propylbenzene	TX	5090	10184802
o-Xylene	TX	5250	10184802
sec-Butylbenzene	TX	4440	10184802
Styrene	TX	5100	10184802
tert-Butyl alcohol	TX	4420	10184802
tert-Butylbenzene	TX	4445	10184802
Tetrachloroethylene (Perchloroethylene)	TX	5115	10184802
Toluene	TX	5140	10184802
trans-1,2-Dichloroethylene	TX	4700	10184802
trans-1,3-Dichloropropylene	TX	4685	10184802
trans-1,4-Dichloro-2-butene	TX	4605	10184802
Trichloroethene (Trichloroethylene)	TX	5170	10184802
Trichlorofluoromethane (Fluorotrichloromethane, Freon 11)	TX	5175	10184802
Vinyl acetate	TX	5225	10184802
Vinyl chloride	TX	5235	10184802



Texas Commission on Environmental Quality



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Matrix: *Solid & Chemical Materials*

Method	AB	Analyte ID	Method ID
Xylene (total)	TX	5260	10184802
Method EPA 8270			
Analyte	AB	Analyte ID	Method ID
1,2,4,5-Tetrachlorobenzene	TX	6715	10185805
1,2,4-Trichlorobenzene	TX	5155	10185805
1,2-Dichlorobenzene	TX	4610	10185805
1,2-Dinitrobenzene	TX	6155	10185805
1,2-Diphenylhydrazine	TX	6220	10185805
1,3,5-Trinitrobenzene (1,3,5-TNB)	TX	6885	10185805
1,3-Dichlorobenzene	TX	4615	10185805
1,3-Dinitrobenzene (1,3-DNB)	TX	6160	10185805
1,4-Dichlorobenzene	TX	4620	10185805
1,4-Dinitrobenzene	TX	6165	10185805
1,4-Naphthoquinone	TX	6420	10185805
1,4-Phenylenediamine	TX	6630	10185805
1-Chloronaphthalene	TX	5790	10185805
1-Naphthylamine	TX	6425	10185805
2,3,4,6-Tetrachlorophenol	TX	6735	10185805
2,4,5-Trichlorophenol	TX	6835	10185805
2,4,6-Trichlorophenol	TX	6840	10185805
2,4-Diaminotoluene	TX	5880	10185805
2,4-Dichlorophenol	TX	6000	10185805
2,4-Dimethylphenol	TX	6130	10185805
2,4-Dinitrophenol	TX	6175	10185805
2,4-Dinitrotoluene (2,4-DNT)	TX	6185	10185805
2,6-Dichlorophenol	TX	6005	10185805
2,6-Dinitrotoluene (2,6-DNT)	TX	6190	10185805
2-Acetylaminofluorene	TX	5515	10185805
2-Chloronaphthalene	TX	5795	10185805
2-Chlorophenol	TX	5800	10185805



Texas Commission on Environmental Quality



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Matrix: *Solid & Chemical Materials*

2-Methyl-4,6-dinitrophenol (4,6-Dinitro-2-methylphenol)	TX	6360	10185805
2-Methylaniline (o-Toluidine)	TX	5145	10185805
2-Methylnaphthalene	TX	6385	10185805
2-Methylphenol (o-Cresol)	TX	6400	10185805
2-Naphthylamine	TX	6430	10185805
2-Nitroaniline	TX	6460	10185805
2-Nitrophenol	TX	6490	10185805
2-Picoline (2-Methylpyridine)	TX	5050	10185805
3,3'-Dichlorobenzidine	TX	5945	10185805
3,3'-Dimethoxybenzidine	TX	6100	10185805
3,3'-Dimethylbenzidine	TX	6120	10185805
3-Methylcholanthrene	TX	6355	10185805
3-Methylphenol (m-Cresol)	TX	6405	10185805
3-Nitroaniline	TX	6465	10185805
4-Aminobiphenyl	TX	5540	10185805
4-Bromophenyl phenyl ether (BDE-3)	TX	5660	10185805
4-Chloro-3-methylphenol	TX	5700	10185805
4-Chloroaniline	TX	5745	10185805
4-Chlorophenyl phenylether	TX	5825	10185805
4-Methylphenol (p-Cresol)	TX	6410	10185805
4-Nitroaniline	TX	6470	10185805
4-Nitrophenol	TX	6500	10185805
5-Nitro-o-toluidine	TX	6570	10185805
7,12-Dimethylbenz(a) anthracene	TX	6115	10185805
Acenaphthene	TX	5500	10185805
Acenaphthylene	TX	5505	10185805
Acetophenone	TX	5510	10185805
Aniline	TX	5545	10185805
Anthracene	TX	5555	10185805
Azobenzene	TX	5562	10185805



Texas Commission on Environmental Quality



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Matrix: Solid & Chemical Materials

Benzenethiol (Thiophenol)	TX	6750	10185805
Benzidine	TX	5595	10185805
Benzo(a)anthracene	TX	5575	10185805
Benzo(a)pyrene	TX	5580	10185805
Benzo(b)fluoranthene	TX	5585	10185805
Benzo(g,h,i)perylene	TX	5590	10185805
Benzo(k)fluoranthene	TX	5600	10185805
Benzoic acid	TX	5610	10185805
Benzyl alcohol	TX	5630	10185805
Biphenyl	TX	5640	10185805
bis(2-Chloroethoxy)methane	TX	5760	10185805
bis(2-Chloroethyl) ether	TX	5765	10185805
bis(2-Chloroisopropyl) ether	TX	5780	10185805
bis(2-Ethylhexyl) phthalate (DEHP)	TX	6255	10185805
Butyl benzyl phthalate	TX	5670	10185805
Caprolactam	TX	7180	10185805
Carbazole	TX	5680	10185805
Chlorobenzilate	TX	7260	10185805
Chrysene	TX	5855	10185805
Diallate	TX	7405	10185805
Dibenz(a,h) anthracene	TX	5895	10185805
Dibenzofuran	TX	5905	10185805
Diethyl phthalate	TX	6070	10185805
Dimethoate	TX	7475	10185805
Dimethyl phthalate	TX	6135	10185805
Di-n-butyl phthalate	TX	5925	10185805
Di-n-octyl phthalate	TX	6200	10185805
Diphenylamine	TX	6205	10185805
Disulfoton	TX	8625	10185805
Ethyl methanesulfonate	TX	6260	10185805



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6310 Rothway Drive
Houston, TX 77040-5056

Certificate: T104704223-13-11

Expiration Date: 10/31/2014

Issue Date: 11/1/2013

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Matrix: *Solid & Chemical Materials*

Fluoranthene	TX	6265	10185805
Fluorene	TX	6270	10185805
Hexachlorobenzene	TX	6275	10185805
Hexachlorobutadiene	TX	4835	10185805
Hexachlorocyclopentadiene	TX	6285	10185805
Hexachloroethane	TX	4840	10185805
Hexachlorophene	TX	6290	10185805
Indeno(1,2,3-cd) pyrene	TX	6315	10185805
Isodrin	TX	7725	10185805
Isophorone	TX	6320	10185805
Isosafrole	TX	6325	10185805
Methyl methanesulfonate	TX	6375	10185805
Methyl parathion (Parathion, methyl)	TX	7825	10185805
Methylphenols, total	TX	10313	10185805
Naphthalene	TX	5005	10185805
Nitrobenzene	TX	5015	10185805
Nitroquinoline-1-oxide	TX	6515	10185805
n-Nitrosodiethylamine	TX	6525	10185805
n-Nitrosodimethylamine	TX	6530	10185805
n-Nitrosodi-n-butylamine	TX	5025	10185805
n-Nitrosodi-n-propylamine	TX	6545	10185805
n-Nitrosodiphenylamine	TX	6535	10185805
n-Nitrosomethylethylamine	TX	6550	10185805
n-Nitrosomorpholine	TX	6555	10185805
n-Nitrosopiperidine	TX	6560	10185805
n-Nitrosopyrrolidine	TX	6565	10185805
o,o,o-Triethyl phosphorothioate	TX	8290	10185805
Parathion, ethyl	TX	7955	10185805
Pentachlorobenzene	TX	6590	10185805
Pentachloronitrobenzene (PCNB)	TX	6600	10185805



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Matrix: Solid & Chemical Materials

Pentachlorophenol	TX	6605	10185805
Phenacetin	TX	6610	10185805
Phenanthrene	TX	6615	10185805
Phenol	TX	6625	10185805
Phorate	TX	7985	10185805
Pronamide (Kerb)	TX	6650	10185805
Pyrene	TX	6665	10185805
Pyridine	TX	5095	10185805
Safrole	TX	6685	10185805
Thionazin (Zinophos)	TX	8235	10185805
Toluene diisocyanate	TX	6775	10185805
Method EPA 9012			
Analyte	AB	Analyte ID	Method ID
Amenable cyanide	TX	1510	10193405
Total Cyanide	TX	1635	10193405
Method EPA 9034			
Analyte	AB	Analyte ID	Method ID
Sulfide	TX	2005	10196006
Method EPA 9040			
Analyte	AB	Analyte ID	Method ID
Corrosivity	TX	1615	10197203
pH	TX	1900	10197203
Method EPA 9045			
Analyte	AB	Analyte ID	Method ID
pH	TX	1900	10198400
Method EPA 9050			
Analyte	AB	Analyte ID	Method ID
Conductivity	TX	1610	10198808
Method EPA 9056			
Analyte	AB	Analyte ID	Method ID
Bromide	TX	1540	10199209



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Matrix: *Solid & Chemical Materials*

Chloride	TX	1575	10199209
Fluoride	TX	1730	10199209
Nitrate as N	TX	1810	10199209
Nitrate-nitrite	TX	1820	10199209
Nitrite as N	TX	1840	10199209
Orthophosphate as P	TX	1870	10199209
Sulfate	TX	2000	10199209
Method EPA 9060			
Analyte	AB	Analyte ID	Method ID
Total Organic Carbon (TOC)	TX	2040	10200201
Method EPA 9066			
Analyte	AB	Analyte ID	Method ID
Total phenolics	TX	1905	10200609
Method EPA 9071			
Analyte	AB	Analyte ID	Method ID
Silica Gel Treated n-Hexane Extractable Material (SGT-HEM)	TX	10220	10201806
Method EPA 9095			
Analyte	AB	Analyte ID	Method ID
Paint Filter Liquids Test	TX	10312	10204203
Method SSA/ASA Part 3:34			
Analyte	AB	Analyte ID	Method ID
Carbon, organic (Walkley-Black)	TX	10340	SSA/ASA Pt 3:34
Method TCEQ 1005			
Analyte	AB	Analyte ID	Method ID
Total Petroleum Hydrocarbons (TPH)	TX	2050	90019208